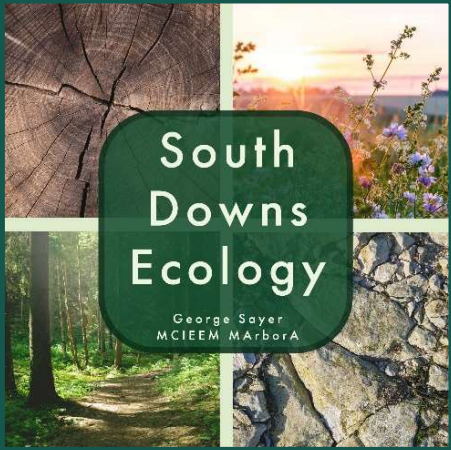


Ecological Impact
Assessment

Rookmore Farm

Hambrook



South
Downs
Ecology

George Sayer
MCIEEM MARBORA

Ecological Impact Assessment

Rookmore Farm, West Ashling Road, Hambrook

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Summary

The applicant has commissioned a Preliminary Bat Roost Assessment, Bat Emergence Survey and Ecological Impact Assessment of proposals for an extension at Rookmore Farm, West Ashling Road, Hambrook (*site centred on SU 795 070, hereafter referred to as 'the site'*). The assessment is an update to work undertaken in 2019 by Lizard Landscape Design and Ecology. An update Preliminary Bat Roost Assessment of the site was carried out on the 21st August 2023. A suite of update bat emergence surveys was undertaken of the dwelling on 27th July and 21st August 2023 and 13th September 2023.

The proposals are for minor alterations to fenestration and a new extension.

The proposals are not anticipated to have any significant impact upon ecology; a small scattering of bat droppings found within a loft space confirmed presence of brown long-eared bats. Bat emergence surveys in 2019 revealed a total of 3no. common pipistrelle and 1no. brown long-eared bats roosting in the building. Update surveys in 2023 only identified the brown long-eared bat still roosting in the dwelling, suggesting the common pipistrelle day roost is occasional only. A mitigation strategy is included within the report, and it is considered that appropriate mitigation will be possible within the proposals. A Natural England mitigation licence will not be necessary before works proceed.

No other ecological constraints have been identified. The proposals would have no impact upon statutory sites and protection measures are proposed to ensure no impacts on local priority habitats.

When mitigation and enhancements have been considered, the proposals are not considered to have a negative impact upon habitats or protected species in accordance with planning policy and once enhancements are considered, could result in a minor net gain. The proposals would therefore accord with the relevant local policies.

1.0 Introduction

- 1.1 The applicant has commissioned a Preliminary Bat Roost Assessment, Bat Emergence Survey and Ecological Impact Assessment of proposals for an extension at Rookmore Farm, West Ashling Road, Hambrook (site centred on SU 795 070, hereafter referred to as 'the site').
- 1.2 The assessment is an update to work undertaken in 2019 by Lizard Landscape Design and Ecology. An update Preliminary Bat Roost Assessment of the site was carried out on the 21st August 2023. A suite of update bat emergence surveys was undertaken of the dwelling on 27th July and 21st August 2023 and 13th September 2023. The following ecological impact assessment report has been completed by George Sayer (*BSc (Hons) Environmental Sciences, PgDip Endangered Species Recovery, MA ArborA, MCIEEM, NE Licence Holder – Bats Level 2 and GCN - Ecologist*).
- 1.3 This appraisal consisted of an assessment of habitats and structures to determine their potential for protected species. Following this an on-site and desktop assessment was undertaken, of the likelihood of National or European Protected Species being present on or near site, and the constraints these may pose on the development proposals.
- 1.4 Based on the results of the appraisal, recommendations for further survey, mitigation and potential ecological enhancements were provided.

Site Description and Surrounding Area

- 1.5 The survey area covers 0.9Ha, however the proposed development area is a small, single storey extension to the southern aspect of the existing property. The site is formed of a detached residential bungalow with set within a large garden plot. The site is enclosed by hedge and treelines and is bordered by a livery yard to the south, east and west and West Ashling Road to the north.
- 1.6 The property is located within Hambrook, within the rural landscape to the west of Chichester. Arable farmland extends for at least 100m to the north, east and west interspersed with mature hedgerows and pockets of woodland. The nearest area of Ancient Woodland is located 0.8 kilometres (km) south-east of the proposed construction zone.
- 1.7 There is 1 no. waterbody located within 500.0m of the site (plus an additional 1 no. pond on site), however none of the ponds in the wider landscape are located within 250m of the proposed construction zone.

Proposals

- 1.8 It is understood that the development proposals include the construction of a single-storey extension to the south-eastern section of the existing property. It is noted that some minor alterations to fenestration and landscaping are proposed.

2.0 Scope of Appraisal

1. *To identify habitats and protected species present, and any other features of ecological value;*
2. *Identify any potential ecological constraints;*
3. *Identify impacts of the proposed development and set out appropriate avoidance, mitigation and compensation measures.*
4. *To provide suggestions for enhancements to be incorporated into the scheme*

- 2.1 This appraisal and assessment is deemed to be relevant for a maximum of 18 months due to the possibility of changes in the habitats on-site. Should the site or proposals alter, the ecologist should be consulted to confirm that the appraisal is still valid.

3.0 Planning Policy and Legislation

National Planning Policy

- 3.1 The National Planning Policy Framework (NPPF) 2021 sets out the government planning policies for England and how they should be applied. 'Chapter 15: Conserving and Enhancing the Natural Environment' states that development should be 'minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures.'
- 3.2 The Government Circular 06/2005, which is referred to by the NPPF, provides further guidance in respect of statutory obligations for biodiversity and geological conservation and their impact within the planning system.

Local Planning Policy

- 3.3 The site is within the Chichester District; the Chichester Local Plan 2021 – 2039 is currently at Regulation 19 and as such, proposals shall be assessed against the currently adopted *Chichester District Local Plan – Key Policies 2014-2029*.
- 3.4 Policy 49 covers Biodiversity; the following criteria must be met for planning applications to be supported:
1. *The biodiversity value of the site is safeguarded;*
 2. *Demonstrable harm to habitats or species which are protected or which are of importance to biodiversity is avoided or mitigated;*
 3. *The proposal has incorporated features that enhance biodiversity as part of good design and sustainable development;*
 4. *The proposal protects, manages and enhances the District's network of ecology, biodiversity and geological sites, including the international, national and local designated sites (statutory and non-statutory), priority habitats, wildlife corridors and stepping stones that connect them;*
 5. *Any individual or cumulative adverse impacts on sites are avoided;*
 6. *The benefits of development outweigh any adverse impact on the biodiversity on the site. Exceptions will only be made where no reasonable alternatives are available; and planning conditions and/or planning obligations may be imposed to mitigate or compensate for the harmful effects of the development.*

- 3.5 Policy 50 covers Development and Disturbance of Birds in Chichester and Langstone Harbours Special Protection Areas. It states that “It is Natural England’s advice that all net increases in residential development within the 5.6km ‘Zone of Influence’ are likely to have a significant effect on the Chichester and Langstone Harbours SPA either alone or in combination with other developments and will need to be subject to the provisions of Regulation 61 of the Conservation of Habitats and Species Regulations 2017. In the absence of appropriate avoidance and/or mitigation measures that will enable the planning authority to ascertain that the development would not adversely affect the integrity of the SPA, planning permission will not be granted because the tests for derogations in Regulation 62 are unlikely to be met. Furthermore, such development would not have the benefit of the presumption in favour of sustainable development in the National Planning Policy Framework.
- 3.6 Net increases in residential development, which incorporates appropriate avoidance/mitigation measures, which would avoid any likelihood of a significant effect on the SPA, will not require an ‘appropriate assessment’. Appropriate avoidance/mitigation measures will comprise:
- a) A contribution in accordance with the joint mitigation strategy outlined in Phase III of the Solent Disturbance and Mitigation Project; or
 - b) A developer provided package of measures associated with the proposed development designed to avoid any significant effect on the SPA; or
 - c) A combination of measures in (a) and (b) above.
- 3.7 Avoidance/mitigation measures will need to be phased with development and shall be maintained in perpetuity. All mitigation measures in (a), (b) and (c) above must be agreed to be appropriate by Natural England. They should also have regard to the Chichester Harbour AONB Management Plan. The provisions of this policy do not exclude the possibility that some residential schemes either within or outside the Zone of Influence might require further assessment under the Habitats Regulations. For example, large schemes, schemes proposing bespoke avoidance/mitigation measures, or schemes proposing an alternative approach to the protection of the SPAs. Such schemes will be assessed on their own merits, and subject to advice from Natural England.”

The emerging Chichester Local Plan 2021-2039: Proposed Submission (Regulation 19) includes the following policies; these should be given appropriate weight.

- *Policy NE4 Strategic Wildlife Corridors*
- *Policy NE5 Biodiversity and Biodiversity Net Gain*
- *Policy NE6 Chichester’s Internationally and Nationally Designated Habitats*
- *Policy NE7 Development and Disturbance of Birds in Chichester and Langstone Harbours, Pagham Harbour, Solent and Dorset Coast Special Protection Areas and Medmerry Compensatory Habitat*
- *Policy NE8 Trees, Hedgerows and Woodlands*

Legislation

- 3.8 Legislation relating to wildlife and biodiversity of particular relevance to this EclA includes:
- The Conservation of Habitats and Species Regulations 2017;
 - The Wildlife and Countryside Act 1981 (as amended);
 - The Natural Environment and Rural Communities (NERC) Act 2006;
 - The Hedgerow Regulations 1997;
 - The Protection of Badgers Act 1992;
 - The Protection of Mammals Act 1996;
 - The Environment Act 2021.
- 3.9 All species of bat and their roosts are protected under The Conservation of Habitats and Species Regulations 2017 and The Wildlife and Countryside Act 1981. It is an offence to intentionally kill, injure or handle a bat, to possess a bat (live or dead), disturb a roosting bat, or sell or offer a bat for sale without a licence. It is also an offence to damage, destroy or obstruct access to any place used by bats for shelter, whether they are present or not.
- 3.10 All UK bird species are protected against disturbance whilst occupying a nest under the Wildlife and Countryside Act 1981. Developments that could predictably disturb, kill or injure nesting birds could result in an offence. Furthermore, a number of bird species are targets of UK and Local Biodiversity Action Plans and listed as Species of Principle Importance under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006. This obligates local authorities to have regard to the purpose of conserving biodiversity with particular emphasis on targeted species.
- 3.11 All other mammals receive general protection against cruelty, inhumane killing or injuring under the Protection of Mammals Act 1996.
- 3.12 All widespread reptiles are protected against killing and injury under the Wildlife and Countryside Act 1981, with rarer reptiles receiving further protection under EU regulation. Reptiles must also be given consideration under the NERC Act 2006 as part of the planning process.
- 3.13 Great crested newts (GCN) are protected under The Conservation of Habitats and Species Regulations 2017. It is an offence for anyone to intentionally kill, injure or disturb a GCN or to damage, destroy or block access to areas of suitable habitat.
- 3.14 Badgers are protected under the Protection of Badgers Act 1992. It is an offence to harm badgers or disturb badgers and their setts.

- 3.15 The Environment Act (2021) has now been given Royal Assent. Schedule 14 makes provision for biodiversity gain to be a condition of planning permission in England. Whilst this is yet to be fully inscribed into Planning Policy, The Act will mandate 10% gains in habitat and linear biodiversity on all developments covered under the Town and Country Planning Act (1990). The requirement is likely to come into force in January 2024 for major sites and April 2024 for small sites.

4.0 Methodology

Desktop Study

- 4.1 A desktop study was conducted using the government 'MAGIC' Map GIS tool; a search was carried out for all international statutory designated sites (Ramsar, SAC, SPA) within 12.0 km of the site; national statutory designated sites (SSSI, NNR, LNR) within 2.0 km of the site; and non-statutory designated sites (SNCI) and priority habitats within 2.0 km of the site. These have been summarized below and their significance considered in the context of the development proposals. A search was also carried out to identify features of ecological interest in the area, such as water bodies and ancient woodland. Given the overall scale and nature of the site and the proposals, and the existing data from 2019, a full data search from SxBRC was not considered appropriate. This is in accordance with CIEEM current guidance for such projects (2020).

Site Visit

- 4.2 A site visit was conducted on 21st August 2023, as an update to the 2019 survey work. Habitats were recorded according to the UK-Habs Classification System as described within the UK Habitats Manual V2.01 (UKHab Ltd 2023). All habitats present on-site were recorded on a UKHab map (Figure No. 01 – Site Habitat Plan).
- 4.3 During the survey any constraints with regard to protected species were considered; the site was considered for their potential for protected species even when signs of these species were not noted at the time of survey.
- 4.4 The site was assessed by an experienced, licenced bat surveyor (George Sayer, MCIEEM, 2018-34434-CLS) for its potential to hold roosting bats; roof voids were assessed where relevant, and access points identified. Any evidence of bats such as grease marks, bat droppings, urine splashes were noted. The bat roost assessment was conducted following the Bat Conservation Trust - Bat Surveys for Professional Ecologists: Good Practice Guidelines (2016).
- 4.5 Due to the site visit being carried out over one day, it is possible that some signs of protected species may not be apparent within this short timeframe. This is a constraint recognised within the Bat Survey Guidelines and all reasonable effort has been made to identify evidence of protected species. Subsequent re-visits were undertaken prior to each bat emergence survey during which fresh bat droppings were found and sent for DNA analysis.

Bat Emergence Survey

- 4.6 Three bat emergence surveys were undertaken in July-September 2023 in accordance with the Bat Conservation Trust - Bat Surveys for Professional Ecologists: Good Practice Guidelines (2016) and the Interim Guidance on the Use of Night Vision Aids (2022).
- 4.7 The dusk emergence surveys began c.15 minutes before sunset and continued until c.1.5 hours after.

Table 1 – Summary of Bat Surveys

Date	Building	Survey Type	Sunset	Start	End	Start Temp.	End Temp.	Weather
27/07/2023	B1 - Dwelling	Dusk	20:59	20:44	22:29	17°C	16°C	WF3, Overcast, Dry
21/08/2023	B1 - Dwelling	Dusk	20:13	19:53	21:43	19°C	17°C	WF2, 4/8 Cloud, Dry
13/09/2023	B1 - Dwelling	Dusk	19:45	19:30	21:15	17.5°C	14.5°C	WF1, 6/8 Cloud, Dry

- 4.8 Three experienced surveyors surveyed the dwelling on each survey, with 4no. external infrared Night Vision Aids (A combination of Canon XA10, XA40, XA50, XA60, Sony AX100 and Nightfox Whisker Cameras, with Infrared Illuminators) to improve coverage, better vision later into the survey and the ability to review potential emergences. The surveyors and cameras thoroughly covered the survey area and the likelihood of bats being missed is very low. All surveys were designed and led by a licenced bat ecologists with multiple years' survey experience (George Sayer BSc (Hons) MCIEEM, 2018-34434).
- 4.9 Bat detection was carried out using Echo Meter Touch 2 Pro and Peersonic RPA3 Full Spectrum Recording Bat Detectors, with analysis of recordings carried out where necessary on Kaleidoscope software. Infrared camera footage was reviewed at between 0.8-1.5x speed on VLC media player where necessary.

Great Crested Newt Habitat Suitability Index Assessment

- 4.10 The Habitat Suitability Index (HSI) was developed by Oldham et al (2000) as a way of providing a numerical index allowing a direct comparison to be made between different water bodies. This index assesses ponds against 10 no. different criteria, each of which have a bearing on the likelihood of great crested newts *Triturus cristatus* being present in the pond under consideration.
- 4.11 The 10 no. attributes against which ponds can be assessed are:
- Geographic Location;
 - Pond Area (at its highest level);
 - Permanence;
 - Water Quality;
 - Perimeter Shading;
 - Numbers of Wildfowl;
 - Numbers of Fish Present;
 - Pond Count (within a 1.0 km radius);
 - Terrestrial Habitat (within 250.0 m);
 - Macrophyte Coverage.
- 4.12 The HSI results in a score between 1 and 0; with 1 being optimal conditions and 0 being unlikely to support a population. However, the index merely gives an indication as to whether a pond has the potential to support great crested newts and is not a substitute for more detailed presence / absence surveys for protected species of amphibian.

Ecological Impact Assessment

- 4.13 The methodology for Ecological Impact Assessment (EclA) follows best practice guidelines set by the Chartered Institute of Ecology & Environmental Management (CIEEM): 'Guidelines for Ecological Impact Assessment' (CIEEM, 2018). This includes identifying the baseline conditions on the site and subsequently rating the potential effects of the development based on the sensitivity and value of the resource affected, combined with the magnitude, duration and scale of the impact (or change). This is initially assessed without mitigation measures, and then assessed again after allowing for the proposed mitigation measures; this provides the residual effects. The assessment is divided into construction effects and longer-term operational effects.
- 4.14 Each ecological feature within the site has been considered within a defined Geographic context such as:
- International and European;
 - National;
 - Regional;
 - County;
 - District;
 - Local;
 - Site Level;
 - Negligible.
- 4.15 Based upon CIEEM guidance, value was determined with reference to the following factors:
- Its inclusion as a Designated Site or other protected area;
 - The presence of habitat types of conservation significance, e.g. Habitats of Principal Importance (NERC 2006);
 - The presence (or potential presence) of species of conservation significance e.g. Species of Principal Importance (NERC 2006);
 - The presence of other protected species e.g. those protected under The Wildlife and Countryside Act 1981;
 - The site's social and economic value.
- 4.16 Specifically in the case of bats, the impact assessment has been conducted in accordance with the recently published Bat Mitigation Guidelines (Reason and Wray 2023).

5.0 Baseline Ecological Conditions and Protected Species Assessment

Designated Sites

Desk Study

- 5.1 The nearest designated site are the Solent Suite of Sites, 1.8 km south. The site is within the Impact Risk Zone but is not increasing the number of units of accommodation and as such does not need to contribute to the Solent Bird Aware Scheme. The site is 10.5 km south-west of the Singleton and Cocking Tunnels SAC and therefore within the 12.0 km Wider Conservation Area of the 'South Downs Bat SACs' (namely Singleton and Cocking Tunnels SAC, Ebernoe Common SAC and The Mens SAC). Within this area, significant impacts upon bats and severance of flightlines must be considered.

Table 2: Statutory Protected Designated Sites

Site Name	Reason for designation	Distance from site
<i>Solent Maritime SAC</i>	<i>The Solent and its inlets are unique in Britain and Europe for their hydrographic regime of four tides each day, and for the complexity of the marine and estuarine habitats present within the area. Sediment habitats within the estuaries include extensive estuarine flats, often with intertidal areas supporting eelgrass (Zostera spp.) and green algae, sand and shingle spits, and natural shoreline transitions.</i>	<i>1.8 km S</i>
<i>Chichester and Langstone Harbours SPA, RAMSAR</i>	<i>The harbour basin contains a wide range of coastal habitats supporting important plant and animal communities. The site is of particular significance for water birds, especially in migration periods and in winter. It also supports important colonies of breeding terns.</i>	<i>1.8 km S</i>
<i>Chichester Harbour SSSI</i>	<i>The site is of particular significance for wintering wildfowl and waders and also breeding birds both within the Harbour and in the surrounding permanent pasture fields and woodlands. There is a wide range of habitats which have important plant communities.</i>	<i>1.8 km S</i>
<i>Solent and Dorset Coast SPA</i>	<i>Solent and Dorset Coast potential Special Protection Area (pSPA) was designated to protect important foraging areas at sea used by qualifying interest features from colonies within adjacent, already classified SPAs. These qualifying interest features are three species of tern: common tern, Sandwich tern and little tern. The site is located on the south coast within the English Channel. The site is approximately 255.2 nm² and extends from the Isle of Purbeck in the West to Bognor Regis in the East, following the coastline on either side to the Isle of Wight and into Southampton Water.</i>	<i>1.8 km S</i>
<i>Kingley Vale SAC/SSSI/ NNR</i>	<i>This site is of interest for its yew woodlands which are considered to be the best in Britain. In yew woodlands elsewhere the stands are either less extensive or mixed in with other taller species. A further important feature of Kingley Vale is the presence of stages in the development from scrub in grassland to mature woodland. In addition to the woodland, four nationally uncommon habitats are represented at the site: chalk grassland, chalk heath, juniper scrub and yew scrub. The site supports a rich community of breeding birds and diverse populations of invertebrates, notably lepidoptera (moths and butterflies).</i>	<i>3.5 km NE</i>

<p>Pagham Harbour SPA, Ramsar</p>	<p>Ramsar criterion 6: Species/populations occurring at levels of international importance. Qualifying Species/populations (as identified at designation): Species with peak counts in winter: Dark-bellied brent goose, <i>Branta bernicla bernicla</i>, Species/populations identified subsequent to designation for possible future consideration under criterion 6. Species with peak counts in winter: Black-tailed godwit, <i>Limosa limosa islandica</i> The site qualifies under article 4(2) as an internationally important wetland supporting an average of 3045 dark-bellied brent geese <i>Branta bernicla bernicla</i> (2% of the European wintering population. The site also supports nationally important wintering populations: 270 pintail <i>Anas acuta</i> (1% of the British wintering population), 781 grey plovers <i>Pluvialis squatarola</i> (3%) and 340 black-tiled godwits <i>Limosa limosa</i> (7%). The site qualifies also under Article 4(1) by supporting an average of 160 wintering ruff <i>Philomachus pugnax</i> (10% of the British wintering population) and breeding populations of little tern <i>Sterna albifrons</i> and common tern <i>Sterna hirundo</i>.</p>	<p>10.4 km SE</p>
<p>Singleton and Cocking Tunnels SAC</p>	<p>Disused railway tunnels providing significant roost and hibernation features, particularly for <i>Barbastelle</i> and <i>Bechstein's Bats</i>.</p>	<p>10.5 km NE</p>
<p>Solent and Isle of Wight Lagoons SAC</p>	<p>The Solent on the south coast of England encompasses a series of Coastal lagoons, including percolation, isolated and sluiced lagoons. The lagoons show a range of salinities and substrates, ranging from soft mud to muddy sand with a high proportion of shingle, which support a diverse fauna including large populations of three notable species: the nationally rare foxtail stonewort <i>Lamprothamnium papulosum</i>, the nationally scarce lagoon sand shrimp <i>Gammarus insensibilis</i>, and the nationally scarce starlet sea anemone <i>Nematostella vectensis</i>.</p>	<p>10.7 km SW</p>
<p>Rook Clift SAC</p>	<p>This site is an ancient woodland which remains in a semi-natural condition. Large-leaved lime <i>Tilia platyphyllos</i> dominates the canopy, together with some ash <i>Fraxinus excelsior</i> and beech <i>Fagus sylvatica</i>. It lies on the deeper soils towards the base of the slope and valley bottom of the small wooded combe, which gives the site its humid microclimate. The soils are rather deeper and there is less exposed rock at this site because the chalk is more readily weathered than the limestones on which many of the other sites lie. Despite this, the vegetation is otherwise typical of the habitat type, with an abundance of ferns such as hart's-tongue <i>Phyllitis scolopendrium</i> and shield-fern <i>Polystichum</i> spp. In addition to species more common in the west of Britain, continental species such as Italian lords-and-ladies <i>Arum italicum</i> also occur.</p>	<p>11.3 km N</p>

5.2 The following non-statutory designated sites are within 2.0 km of the proposal site.

Table 3: Non-statutory Protected Designated Sites

Site Name	Reason for designation	Distance from site
<i>Chichester District Council Bat Movement Network</i>	<i>Areas of vegetation and linear features of importance for foraging and commuting bats.</i>	<i>50.0 m W (Treeline forming western boundary)</i>
<i>Newells Lane Pond and Meadows</i>	<i>Meadows and large pond known for its populations of amphibians, although the habitats are known to be degraded.</i>	<i>500.0 m S</i>

Habitats

Desk Study

5.3 Within 2.0km of the site there are Priority Habitats of Ancient Woodland, Deciduous Woodland, Traditional Orchard, Mudflat and Coastal Saltmarsh.

Site Assessment

5.4 Habitats within and adjacent to the land include:

- u1b5 - Existing Building;
- u1b – Developed Land; Sealed Surface
- g4 829 108 32 - Modified Grassland Vegetated Garden (Frequently Mown) with Scattered Trees;
- u1d 230 847 - Mosaic of Developed/Natural Surface – Garden with Introduced Shrub;
- h2a5 11 - Species-rich Native Hedgerow with Trees;
- h2b - Non-native and Ornamental Hedgerow;
- r1g 46 – Ornamental Pond.

u1b5 - Buildings

5.5 The main building on site is an L-shaped brick-built bungalow with slate roof. The loft void is of trussed construction with bitumen membrane and a height to the ridge of c. 2 meters. Several garages are also present but not affected by proposals. The buildings are in good condition and offer **negligible ecological value** in a broader sense. The potential for the building to support protected species is discussed in the preliminary bat roost assessment and protected species assessment below.

u1b – Developed Land; Sealed Surface

- 5.6 The access driveway and parking areas are formed of tarmac while a large patio area lies adjacent the southern and western aspects of the building. The habitat is of **negligible ecological value**.

g4 829 108 32 - Modified Grassland Vegetated Garden (Frequently Mown).

- 5.7 The grassland surrounding the house is maintained to a height of <10cm with a sward composition typical of amenity grassland. Fescue *Festuca sp.*, perennial rye-grass *Lolium perenne* and bent *Agrostis sp.* grasses dominate the sward with occasional mosses, daisy *Bellis perennis* and dandelion *Taraxacum officinale*. This common and widespread habitat is of **site value** only.
- 5.8 Numerous apple *Malus sp.* trees are growing to the site frontage while mature scattered oak *Quercus robur* trees line the western boundary of the site. Other species noted throughout the site include beech *Fagus sylvatica*, sugar maple *Acer saccharum* and silver birch *Betula pendula*. The apple trees are of **site value** while the mature oak trees are of **local value**.

u1d 230 847 32 Mosaic of Developed/Natural Surface – Garden with Introduced Shrub

- 5.9 Small areas of introduced shrub planting exist in the vicinity of the main house including laurel *Laurus sp.* and cypress *Cupressus sp.* planting. These areas of non-native planting are of **negligible value**.

h2a5 11 – Species-rich Native Hedgerow with Trees

- 5.10 The northern boundary is formed of mature oak trees with field maple *Acer campestre*, goat willow *Salix caprea*, hawthorn *Crataegus monogyna*, bramble *Rubus fruticosus*, holly *Ilex aquifolium* and blackthorn *Prunus spinosa* to the base. This mature boundary feature is a priority habitat of **local value**.

h2b –Non-native and Ornamental Hedgerows

- 5.11 The other boundaries are formed of hedges of cypress *Cupressus sp.* to c.3.0 m height. The hedges offer **negligible ecological value**.

r1g 46 – Ornamental Pond

- 5.12 An ornamental pond is located 50m south-west of the proposed construction zone. Covering an area of 115m², this pond has gently sloping banks formed of introduced shrub and amenity grassland. Water quality was considered to be moderate with no wildfowl noted and a waterfall feature moving water constantly. The presence of fish is possible however no evidence was noted whilst on site.. The pond is likely suitable for small numbers of amphibians and invertebrates but is not considered a priority habitat being an ornamental feature, and is of **site ecological value**.

Protected Species

Amphibians

Desk Study

- 5.13 A number of records of great crested newts (GCN) exist within 2.0km of the site, with the nearest being 1.8km south-east of the proposed development site. No licence returns for GCN are present within 2.0 km. The Newells Pond 500.0 m away was designated for presence of GCN but the pond is known to now be degraded.

Site Assessment

- 5.14 The adjacent tree lines provide suitable terrestrial habitat for GCN, however the construction zone is formed entirely of hard standing; suboptimal terrestrial habitat. The construction zone is isolated from suitable areas of habitat and the on-site pond by large swathes of well-maintained amenity grassland further negating the possibility of GCN or other amphibians being present within the construction zone.
- 5.15 A HSI assessment of the pond was undertaken as follows:

SI Criteria	Score	Explanation
<i>Geographic Location;</i>	<i>1.00</i>	<i>Southern UK</i>
<i>Pond Area (at its highest water level);</i>	<i>0.20</i>	<i>115sqm</i>
<i>Permanence;</i>	<i>0.90</i>	<i>Never Dries</i>
<i>Water Quality;</i>	<i>0.67</i>	<i>Moderate</i>
<i>Perimeter Shading;</i>	<i>0.30</i>	<i>Surrounded by ornamental trees for 90%</i>
<i>Numbers of Wildfowl;</i>	<i>1.00</i>	<i>Assumed None</i>
<i>Numbers of Fish Present;</i>	<i>0.67</i>	<i>Assumed Small Numbers</i>
<i>Pond Count (within a 1.0km radius);</i>	<i>0.55</i>	<i>One other Pond</i>
<i>Terrestrial Habitat (within 250.00m);</i>	<i>0.33</i>	<i>Generally Poor</i>
<i>Macrophyte Coverage.</i>	<i>1.00</i>	<i>C.60% Cover</i>
Score	<i>0.58</i>	<i>Below Average</i>

- 5.16 Given the below average assessment of the pond and lack of connectivity, it is unlikely to be used by GCN. The construction zone and immediate surrounding habitat is of **negligible value** to GCN and other amphibians.

Reptiles

Desk Study

- 5.17 Records of slow worm, grass snake, common lizard and adder exist within 2.0km of the site.

Site Assessment

- 5.18 The construction zone is formed of hard ground surrounded by well maintained amenity grassland; a habitat sub-optimal for reptiles. The site is of **negligible value** to reptiles.

Bats

Desk Study

- 5.19 Common Pipistrelle *Pipistrellus pipistrellus*, Soprano Pipistrelle *Pipistrellus pygmaeus*, Nathusius's Pipistrelle *Pipistrellus nathusii*, Long-eared bat *Plecotus* sp., Noctule *Nyctalus noctula*, Leisler's *Nyctalus leisleri*, Serotine *Eptesicus serotinus*, Brandt's *Myotis brandtii*, Whiskered *Myotis mystacinus*, Natterer's *Myotis nattererii*, Daubenton's *Myotis daubentonii* and Bechstein's *Myotis bechsteinii* bats have been recorded within 2.0km of the site area. Within 2.0 km of site are 4no. EPSML Licences, for common pipistrelle, soprano pipistrelle, brown long-eared bat and serotine. The vegetation on the west of site, c.50.0 m from the dwelling forms part of the Chichester District Council, Bat Movement Network.

Site Assessment

- 5.20 The original internal inspection of the building in 2019 found a scattering of Long-eared sp. bat droppings within the western and northern sections of the loft void with a small accumulation beneath the western hip. A single live BLE was recorded roosting between the wall and rafter to the western gable end. No evidence which would suggest the presence of any other bat species was recorded during the internal inspection. The 2023 inspection found a small number (20-30) of fresh long-eared bat droppings, indicating a single bat is still present.
- 5.21 The external assessment of the building revealed it to be in good condition with very few potential access points noted. Those which were recorded included:
- Lifted roof tiles to the south-western slope of the roof;
 - Small gaps at the eaves;
 - Missing mortar beneath ridge tiles;
 - Bat droppings on the western gable wall beneath the eaves.
- 5.22 A number of mature oak trees to the northern and western boundaries of the site contain potential roost features. All mature trees identified as offering bat roost suitability are to be retained within the scheme therefore, they were discounted from further survey.

Emergence Survey

- 5.23 The first emergence survey identified a single long-eared bat possibly emerging from the western gable at 22:01. No pipistrelle bats were recorded emerging. Bat activity was otherwise relatively low and dominated by common and soprano pipistrelle, noctule and rare long-eared bat calls.
- 5.24 The second emergence survey identified no bats emerging from the building. Activity level was low and consisted of common and soprano pipistrelle, noctule and rare serotine bats.
- 5.25 The third emergence survey identified no bats emerging from the building. Activity level was low to the north, and moderate to the east and south, consisting of common and soprano pipistrelle, noctule and serotine bats, with rare Myotis calls heard.
- 5.26 The number of bats and activity recorded suggests the building is a day roost of 1no. brown long-eared bat. The 3no. common pipistrelle recorded roosting in 2019 were not recorded in 2023, suggesting this is an occasional day roost only. The roost is of site value. The survey did not reveal the garden to be of foraging or commuting significance beyond the site level, with individuals of several common bat species foraging.
- 5.27 The immediate surroundings are of extensive grassed gardens and paddocks, some with large trees and hedges. The western boundary of site forms part of the Bat Movement Network. The surveys suggest the site is only used by low numbers of common and soprano pipistrelle, noctule and serotine, with rare long-eared and Myotis bats. The site itself is considered of **site value** for foraging and commuting bats, with **moderate potential** in the wider surroundings.

Dormouse

Desk Study

- 5.28 One record of a dormouse from 2010 exists within 2.0km of the site.

Site Assessment

- 5.29 The boundary hedge / treeline habitat is of site / local value to dormice, however the habitat found within the construction zone is of **negligible value**.

Badger

Desk Study

- 5.30 Badgers are known to be present within 1.0km of the site.

Site Assessment

- 5.31 No evidence of badger such as tracks, snuffle holes or latrines were recorded anywhere within or immediately adjacent to the site. The area is considered to be of **negligible value** to badgers, however badgers may occasionally commute across the site.

Birds

Desk Study

- 5.32 Numerous bird species are present in the local area, including a number of woodland and farmland species. Birds relevant to the proposals which are present locally include swallow (*Hirundo rustica*) and house sparrow (*Passer domesticus*).

Site Assessment

- 5.33 No Optimal nesting habitat is limited to the surrounding hedge / tree lines. The apple trees may be of some limited value to winter visitors such as redwing and fieldfare however the value is reduced by the relatively high levels of disturbance this area is likely to receive due to its proximity to the house. The area overall is likely to be of site value to breeding / foraging birds, the construction footprint is of **negligible value**.
- 5.34 None of the surroundings are listed on the Solent Waders and Brent Goose Strategy Maps (2020).

Invertebrates

Desk Study

- 5.35 A total of 50 no. notable invertebrate species have been recorded within 2.0km of the site including stag beetle, white admiral butterfly and false mocha moth.

Site Assessment

- 5.36 The suitable habitat for diverse invertebrates is limited to the hedgerows and tree lines which border the site, and the pond. The site in general lacks the floral diversity to support a good range of invertebrates and is likely to be of value within the site area only. The construction footprint is of **negligible value**.

Other

- 5.37 The garden is suitable for hedgehogs.

6.0 Impact Assessment

Designated Sites

Potential Impacts

- 6.1 The site is 1.8 km from the Solent Suite of Sites. The proposals are within 5.6 km of the designated sites and as such are within the Impact Risk Zone for increased recreational disturbance; in the absence of mitigation, new dwellings in this area are likely to result in increased recreational use of harbour habitats with resulting disturbance of wildlife and habitats. The proposals are also in the Nutrient Impact Area - in the absence of mitigation, new dwellings in this area are likely to result in increased nitrate runoff from land use change and sewage into the harbours, degrading habitats and water quality. As the proposals do not increase the number of units, such requirements do not apply. There is no significant risk of impacts to designated sites.
- 6.2 No significant impacts upon bats or severance of flightlines are anticipated, with surveys suggesting a low conservation status roost of species which are not those for which the Singleton and Cocking Tunnels SAC is designated. The site was used generally by common bat species for foraging and commuting, and no major flightlines were recorded. The species for which the South Downs Bat SACs are most significant were not recorded. Impacts to bats would only occur at the site level.

Mitigation and Compensation

- 6.3 Boundary vegetation shall be retained to ensure no severance of flightlines.

Residual Impacts

- 6.4 The overall impact of the scheme will be negligible.

Habitats

Potential Impacts

- 6.5 Development proposals will result in the loss of areas of developed land and modified grassland. These habitats are common and widespread and will be replaced post-development. a low impact at the site level. A pond and mature trees lines lie adjacent the development. In the absence of mitigation, these habitats may be degraded through dust, emissions and pollution events during the construction phase, a moderate impact at the site-local level.

Mitigation and Compensation

- 6.6 Vegetation shall be retained and protected. Trees to be retained shall be protected in accordance with BS5837:2012. All storage of materials should occur outside of tree RPAs and at least 10.0 m from the pond. Standard measures for suppression of noise, dust and vehicle emissions pollution should be undertaken.

Residual Impacts

- 6.7 The overall impact of the scheme will be negligible.

Bats

Potential Impacts

- 6.8 The dwelling is a day roost for 1no. brown long-eared bat, and an occasional day roost for 3no. common pipistrelle bats, roosts of low conservation significance. The proposal is for construction of an extension and fenestration changes. The works would not impact on either the roost spaces nor the access points for bats. As such no significant impacts on bats roosting in the building are anticipated. Minor impacts of disturbance might occur.
- 6.9 There is a low risk of tree roosts being present and impacted – neither tree with bat roost potential is currently proposed for removal.
- 6.10 Given the overall size and nature of the proposals, the potential impacts to foraging and commuting bats is low. No trees are proposed for removal and no tree roosts would be impacted.

Mitigation and Compensation

- 6.11 It is determined that a Natural England Mitigation Licence would be not necessary, but some measures should be adopted to ensure no harm to bats and compliance with legislation. Please refer to Section 8.0 for further information.
- 6.12 A sensitive lighting scheme will be employed in accordance with BCT/ILP Guidance Note 08/23, with lighting kept to the minimum levels and angled down and away from surrounding mature trees, ponds and bat roost assess points

Residual Impacts

- 6.13 The overall impact of the scheme will be negligible.

Reptiles

Potential Impacts

6.14 No impacts predicted.

Mitigation and Compensation

6.15 None required. Grassland to be kept well-maintained during works to prevent reptile habitat establishment.

Residual Impacts

6.16 The overall impact of the scheme will be negligible.

Amphibians

Potential Impacts

6.17 No impacts predicted.

Mitigation and Compensation

6.18 None required. Grassland to be kept well-maintained during works to prevent reptile habitat establishment.

Residual Impacts

6.19 The overall impact of the scheme will be negligible.

Dormice

Potential Impacts

6.20 No impacts predicted.

Mitigation and Compensation

6.21 None required.

Residual Impacts

6.22 The overall impact of the scheme will be negligible.

Badgers

Potential Impacts

6.23 In the absence of mitigation, impacts would include the trapping of badgers in footings/trenches, fragmentation of habitat and disruption of commuting corridors.

Mitigation and Compensation

- 6.24 Trenches deeper than 1.0m will be covered overnight or have a ramp installed to avoid trapping any badgers or other mammals on site. Boundary vegetation around the site will be retained.

Residual Impacts

- 6.25 The overall impact of the scheme will be negligible.

Birds

Potential Impacts

- 6.26 No impacts predicted with regards the buildings, but a low chance of finding nesting birds remains. Removal of trees and shrubs could disturb bird nests.

Mitigation and Compensation

- 6.27 The clearance of any shrubs will be undertaken outside the bird nesting season. Should this not be possible, vegetation will be checked prior to removal by a Suitably Qualified Ecologist to ensure no active nests are present.
- 6.28 New integrated, or wall or tree mounted bird boxes (1no. sparrow terrace or similar, 1no. swift or swallow nest feature) shall result in new nest features and an enhancement for birds.

Residual Impacts

- 6.29 The overall impact of the scheme will be negligible.

Invertebrates

Potential Impacts

- 6.30 No impacts predicted.

Mitigation and Compensation

- 6.31 None required.

Residual Impacts

- 6.32 The overall impact of the scheme will be negligible.

Other Species

Potential Impacts

- 6.33 Inappropriate site clearance storage of materials might result in disturbance of hedgehogs which are known to be resident.

Mitigation and Compensation

- 6.34 As a standard measure, any grassland being used for storage, site compound or other works shall be regularly mown with due care to ensure hedgehogs are not harmed. Clearance of shrubs, log piles and grassland shall be preceded by checks for hedgehogs, with any found relocated to areas protected from development. Any pipes, excavations or other such holes shall be covered or fitted with ramps to allow wildlife to escape and checked daily. Any piles of timber, debris or tiles shall be moved manually and checked for evidence of hedgehogs.
- 6.35 At least 2no. hedgehog boxes shall be installed under hedges to provide a safe refuge for hedgehogs post-development. Any new fences shall have hedgehog gaps of at least 12cm by 12cm cut into them on every aspect to allow hedgehogs access through the site.

Residual Impacts

- 6.36 The overall impact of the scheme will be negligible.

7.0 Bat Mitigation Strategy

- 7.1 The dwelling is an occasional day roost for 3no. common pipistrelle bats and a day roost for 1no. brown long-eared bat. The proposals would not remove roosts or access points, but in the absence of mitigation might cause disturbance. As such the following theoretical mitigation strategy will be employed to ensure no harm to the bats or conservation status of the species in the vicinity:
- All disruptive works will be undertaken between mid-October – late March, when bats will be absent from the property. The construction period is anticipated to last no more than 12 weeks;
 - A pre-works check will be undertaken to ensure no bats are present within the building at the time of works beginning;
 - The extension will have a separate roof void and will not be functionally connected to the existing BLE roost - The new extension joins the existing roof only in the South east corner of the building and will be constructed with minimal impact on the existing roof void;
 - 1F felt must be used in the new works unless buildings can be sealed against bat ingress – no breathable membranes to be used where bats can access;
 - All existing access points and size of the existing roost will remain unaltered;
 - All scaffolding will avoid the area where bats are known to roost and will avoid blocking access points.
 - Construction lighting (if required) will avoid light spill onto the access points of the building;
 - In the highly unlikely scenario that any bats are found during the works, all works within the area will cease while a licence is obtained from Natural England.
- 7.2 The above measures are considered to protect bats against harm or disturbance and to prevent the loss of any bat roost.

8.0 Ecological Enhancements

8.1 Because of the scale and nature of the proposals, ecological enhancement opportunities within the construction zone are limited. The most beneficial enhancements would involve:

- Provision of further new bat roost features in the building, such as integrated bat boxes, access tiles into the existing roof and double-rafters;
- Addition of bird nesting features such as sparrow terraces and swift boxes, both to the buildings and to nearby trees;
- Invertebrate features such as insect boxes or log piles to corners of the garden, especially around the pond;
- Installation of hedgehog boxes under hedges;
- Incorporation of shrub and tree planting of locally-suited native species, such as wayfaring tree and whitebeam;
- Replacing any lawn damaged during works with flowering lawn, and relaxing management of an area of the grassland to allow a meadow to develop.

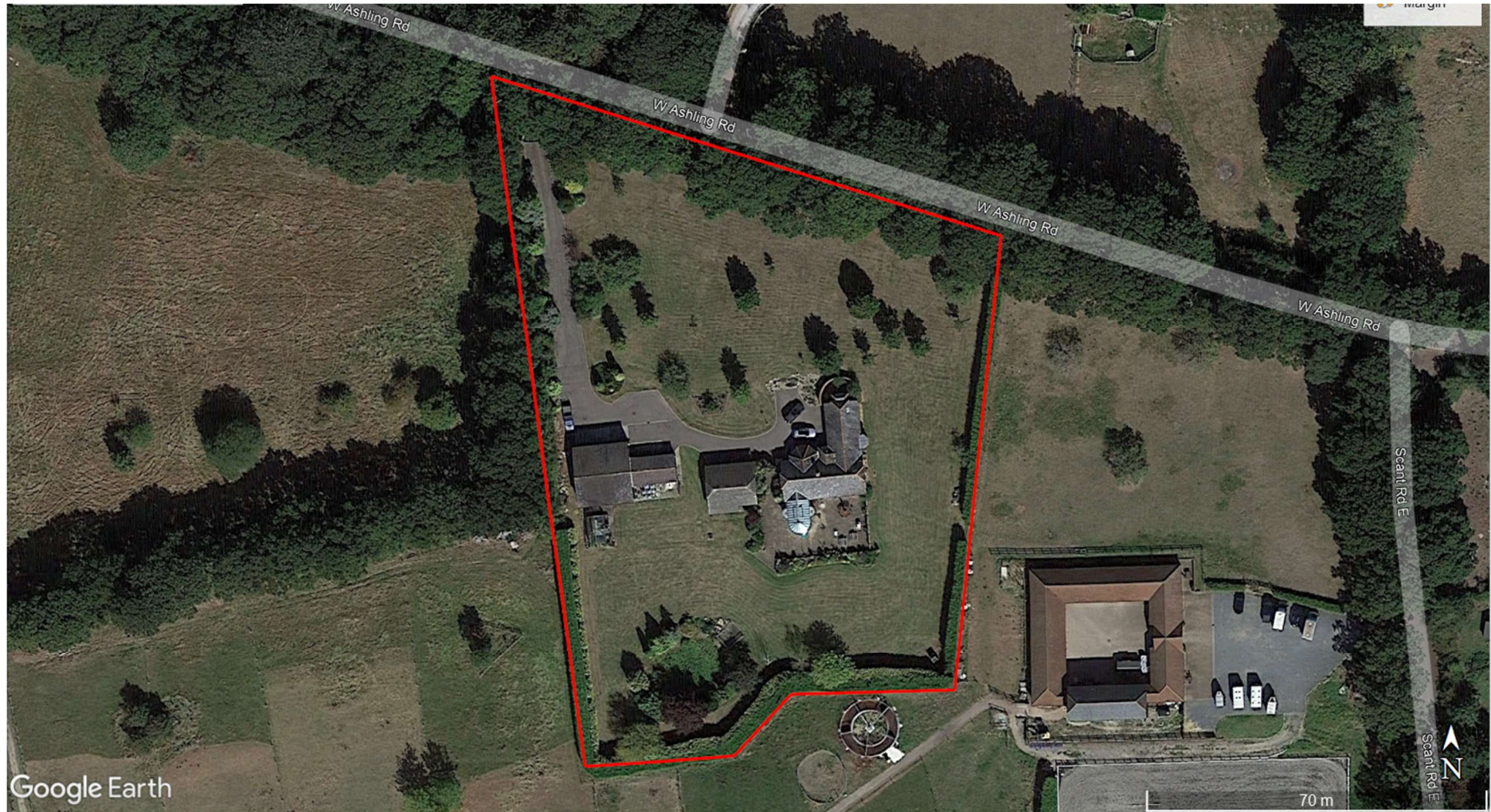
9.0 Conclusions

- 9.1 The proposals are unlikely to have any significant effect on ecology. The dwelling affected by the proposals is an occasional day roost for 3no. common pipistrelles and a day roost 1no. brown long-eared bats. Works would not destroy or alter the roosts and would not require a licence but would need to follow the above mitigation strategy to ensure no offence is committed. Impacts upon foraging and commuting bats would be limited.
- 9.2 No impacts upon designated sites are anticipated, including the Singleton and Cocking Tunnels SAC, with no significant impact on bats or severance of flightlines anticipated. The Local Authority would be able to discharge their responsibility with regards to the Habitats Regulations.
- 9.3 The only other impacts identified would be to nesting birds and hedgehogs; such impacts can easily be avoided.
- 9.4 When mitigation and enhancements have been considered, the proposals are not considered to have a negative impact upon habitats or protected species in accordance with planning policy enhancements could be incorporated to result in a minor net gain. The proposals would therefore accord with the relevant Local Plan Policies.

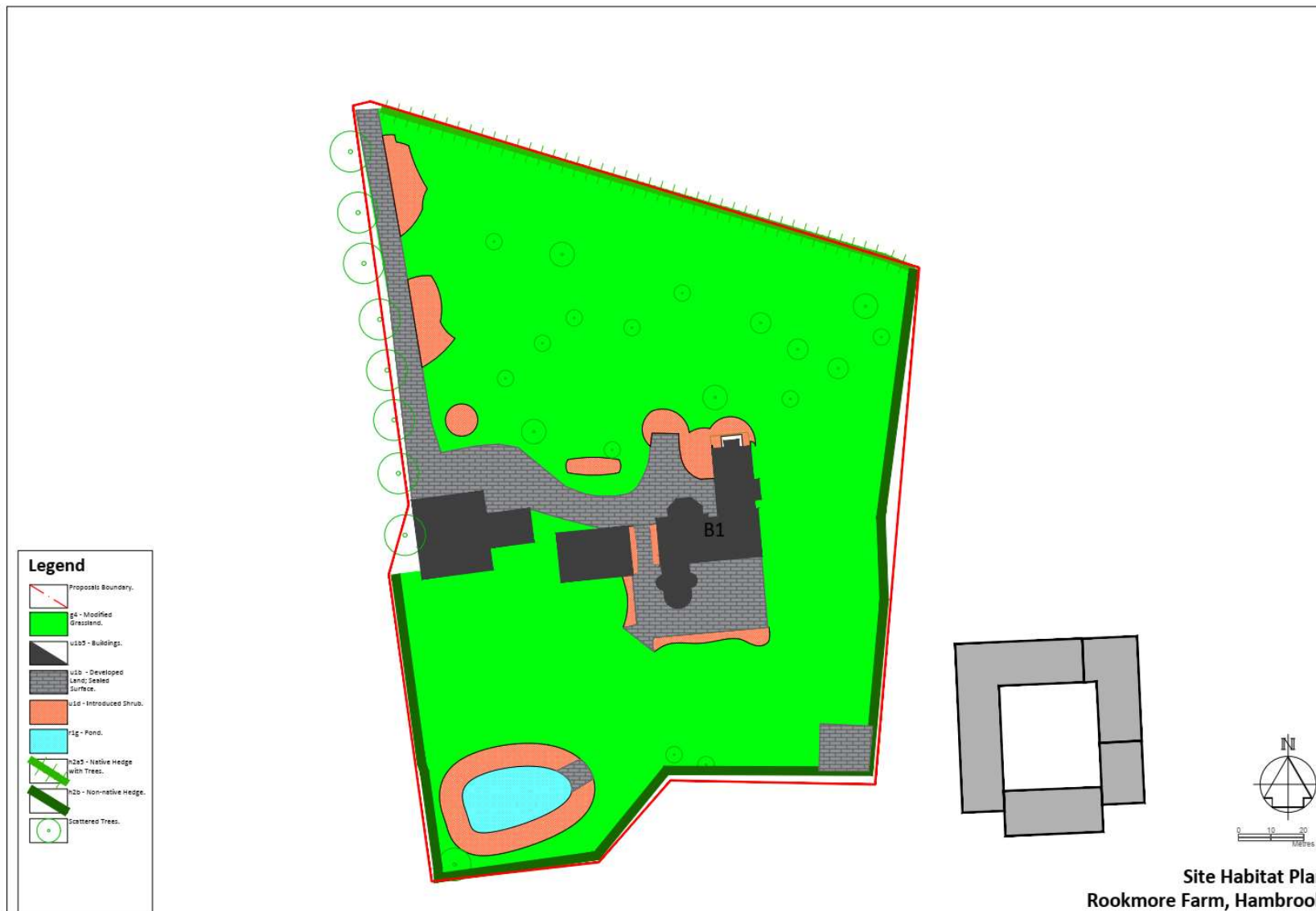
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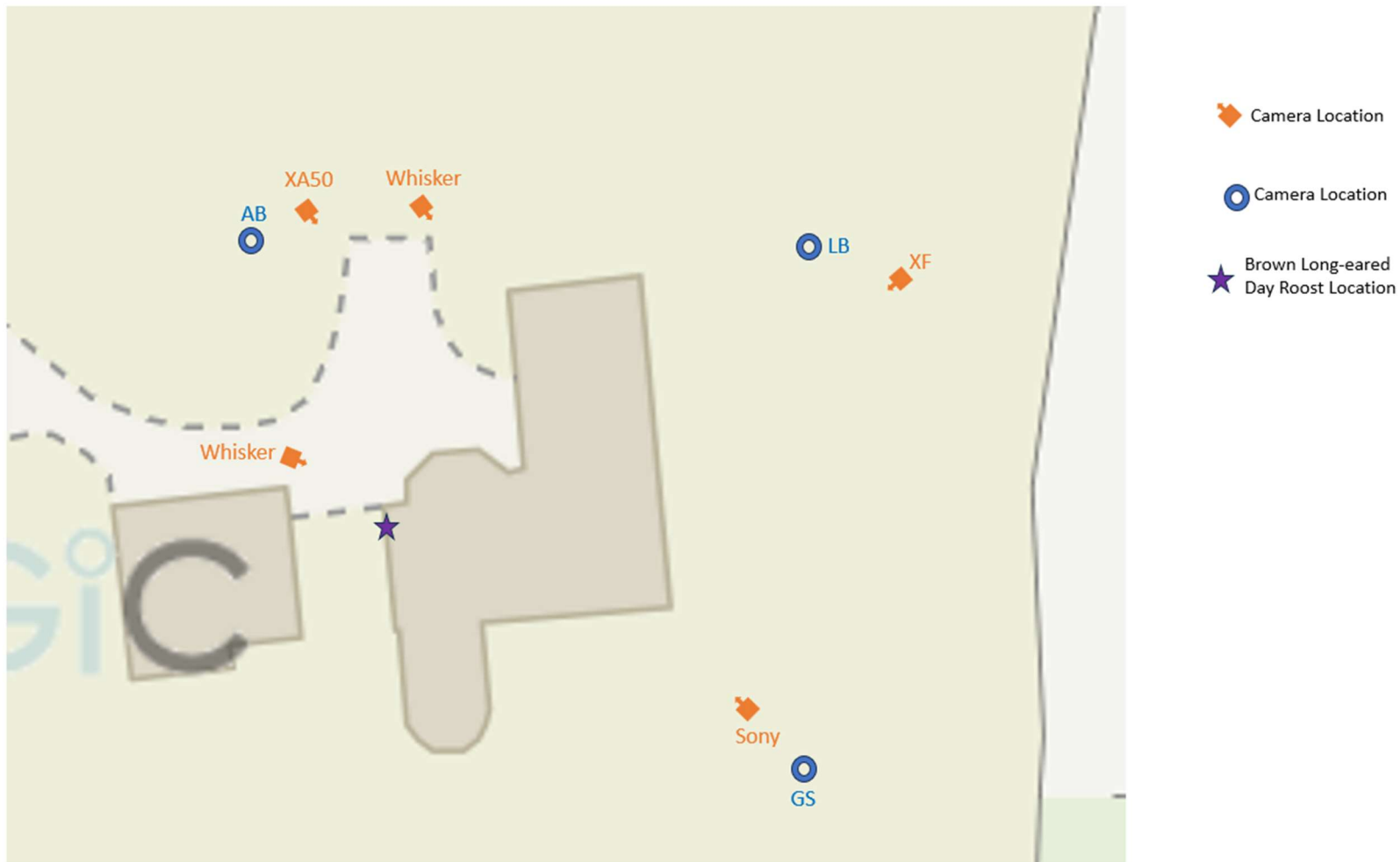
11.0 Figure No. 01 – Site Aerial



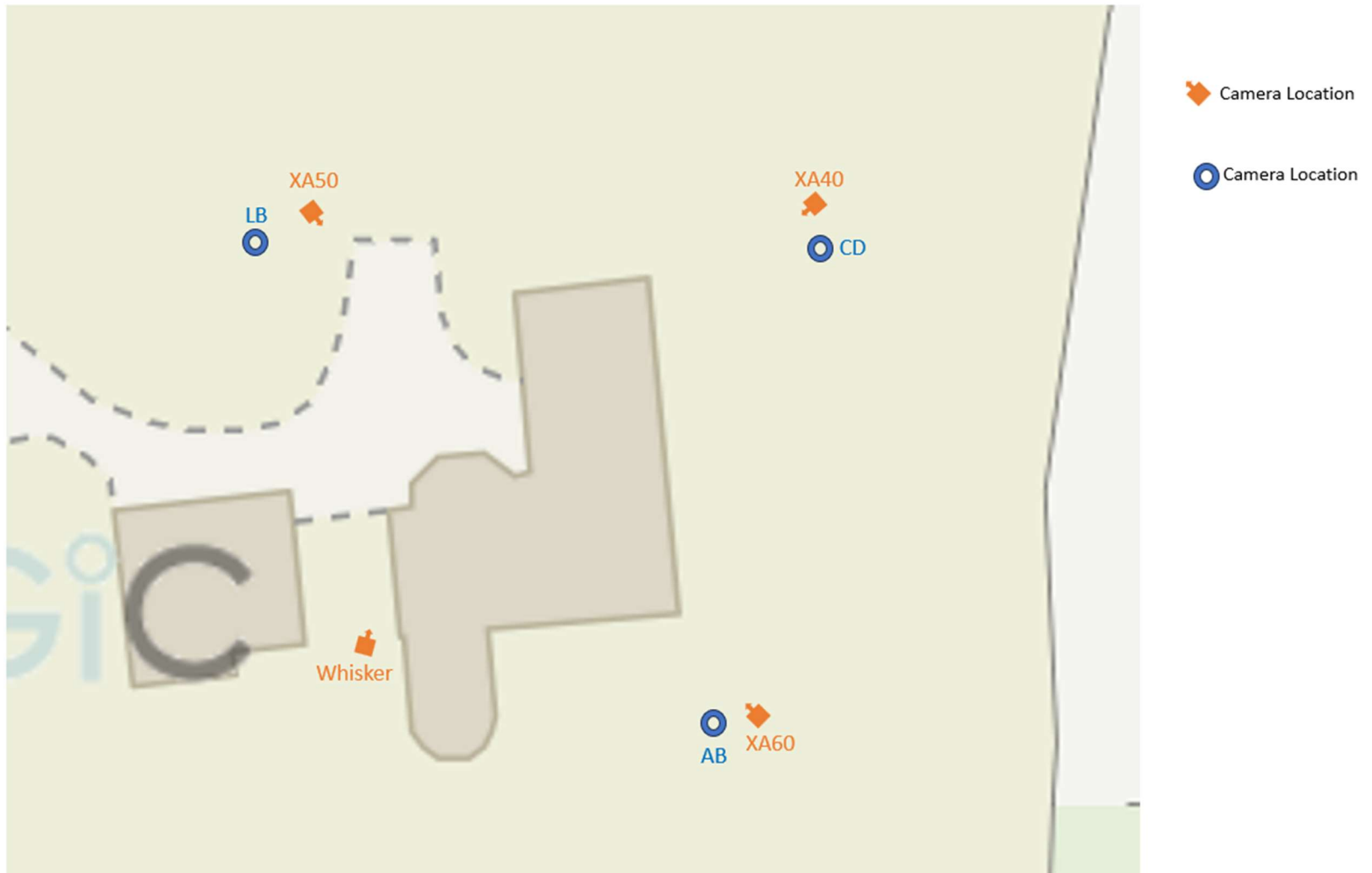
12.0 Figure No. 02 – Site Habitat Plan



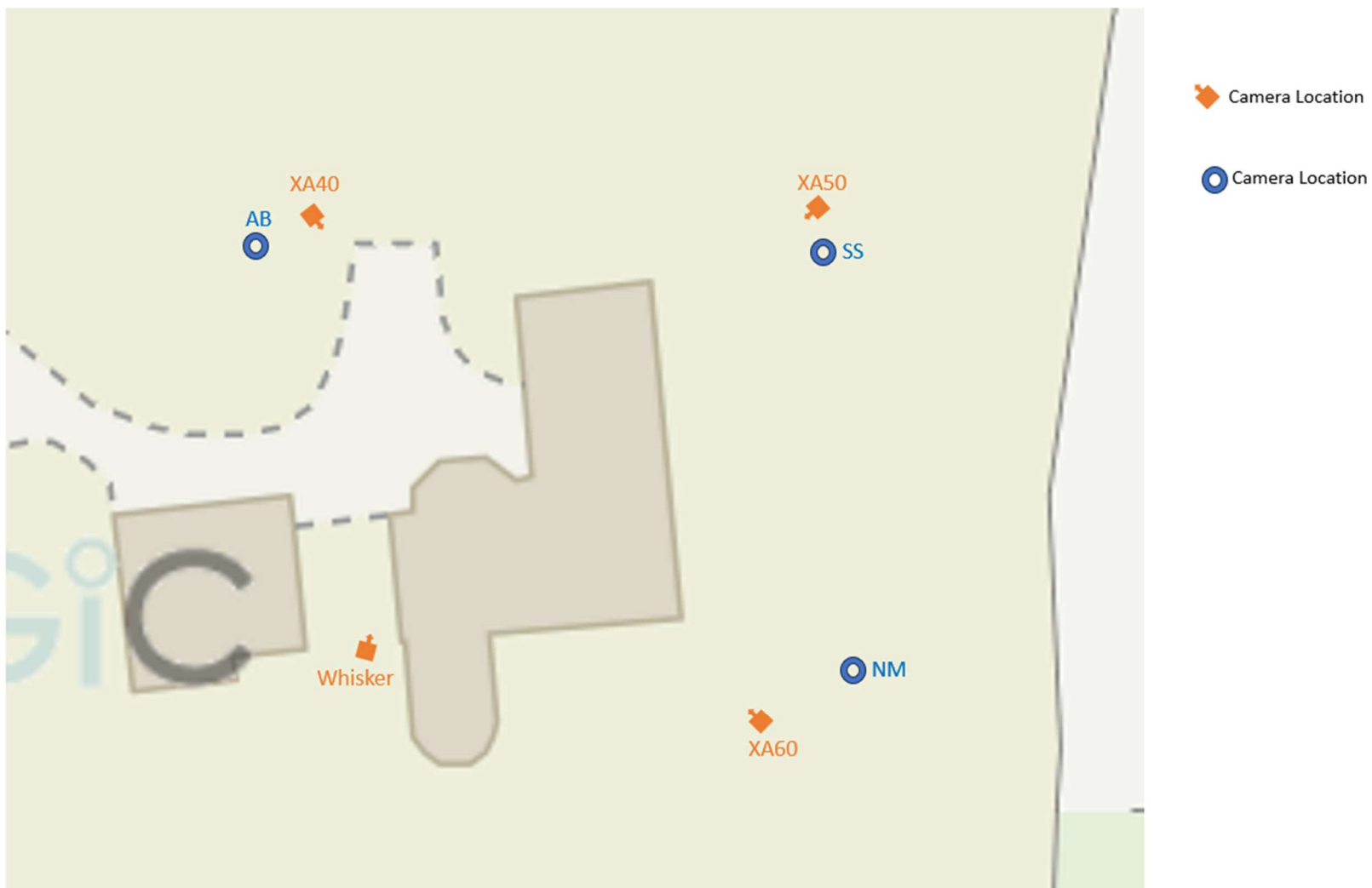
13.0 Figure No. 03 – Bat Survey Plan – Survey 1 (27th July 2023)



14.0 Figure No. 03 – Bat Survey Plan – Survey 2 (21st August 2023)



15.0 Figure No. 03 – Bat Survey Plan – Survey 3 (13th September 2023)



16.0 Appendix 1 – Site Photos

Photo 1 – Example of NVA Footage from the north-west, start of survey.



Photo 2 – Example of NVA Footage from the north-west, end of survey.



Photo 3 – Example of NVA Footage from the north (Whisker), start of survey.



Photo 4 – Example of NVA Footage from the north (Whisker), end of survey.



Photo 5 – Example of NVA Footage from the east, start of survey.



Photo 6 – Example of NVA Footage from the east, end of survey.



Photo 7 – Example of NVA Footage from the south, start of survey.



Photo 8 – Example of NVA Footage from the south, end of survey.



Photo 9 – View inside loft during 2023 update survey.



Photo 10 – Fresh long-eared bat droppings found inside loft during 2023 update survey.



17.0 Appendix 2 – Original Ecological Impact Assessment (Lizard Landscape Design and Ecology, 2019)



LIZARD

Landscape Design and Ecology

ECOLOGICAL IMPACT ASSESSMENT

Rookmore Farm, West Ashling Road, Hambrook

Planning Issue

Prepared by	CO
Checked by	GS
Date	26th September 2019
Project Reference	LLD1780
Revision	00

Contents

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APPENDICES:

Appendix A – Site Photographs

Appendix B – Bat Survey Results



SUMMARY

Lizard Landscape Design and Ecology has been commissioned to complete an Ecological Impact Assessment of the proposed development at Rookmore Farm, West Ashling Road, Hambrook (*Grid Reference: SU 795 070 – hereafter referred to as 'the site'*).

A Preliminary Ecological Appraisal (PEA) was undertaken on 13th August 2019, to appraise the existing ecological resource within the site and the surrounding area. The following Phase 2 Protected species surveys were recommended and subsequently undertaken:

- *Bat Emergence / Re-entry Surveys;*

The development site is formed of common, widespread habitats of low ecological value. Floral diversity in general was low, with the bulk of the site dominated by amenity grassland and rank species-poor semi-improved grassland.

The proposals will not have a derogatory effect upon any surrounding statutory or non-statutory protected site. A series of mitigation measures have been detailed to avoid the proposals impacting upon the surrounding Priority Habitats of Woodland and Ponds.

The site supports low numbers of roosting bats; however these roosts are removed from the proposed construction area therefore impacts shall be negligible.

The site offers suitable nesting habitat for small passerines in the form of dense shrubs. Removal of these (if required) will be undertaken outside the nesting season or following inspection to ensure works do not contravene The Wildlife and Countryside Act 1981 (as amended).

The impacts of the planned development upon biodiversity will be **negligible, non-significant** with proposed ecological enhancements resulting in a net gain and a long-term positive increase in biodiversity in line with national planning policy guidance.

1.0 INTRODUCTION

- 1.1 Lizard Landscape Design and Ecology has been commissioned to complete an Ecological Impact Assessment of the proposed development at Rookmore Farm, West Ashling Road, Hambrook (*Grid Reference: SU 795 070 – hereafter referred to as 'the site'*).
- 1.2 A Preliminary Ecological Appraisal (*PEA*) was undertaken on 13th August 2019, to appraise the existing ecological resource within the site and the surrounding area. The following Phase 2 Protected species surveys were recommended and subsequently undertaken:
- *Bat Emergence / Re-entry Surveys;*
- 1.3 The data from the above surveys were then used to fully assess the impacts of the proposals. The field survey data and analysis contained in this report was undertaken and prepared by Catherine O'Reilly (*MCIEEM, Senior Ecologist; Lizard Landscape Design and Ecology*). The report has been reviewed by George Sayer (*Project Ecologist; Lizard Landscape Design and Ecology*).

Site Information

- 1.4 The survey area covers 0.9Ha, however the proposed development area is a small, single storey extension to the southern aspect of the existing property. The site is formed of a detached residential bungalow with set within a large garden plot. The site is enclosed by hedge and treelines and is bordered by a livery yard to the south, east and west and West Ashling Road to the north.

Surrounding Landscape

- 1.5 The property is located within Hambrook, within the rural landscape to the west of Chichester. Arable farmland extends for at least 900m to the north, east and west interspersed with mature hedgerows and pockets of woodland. The nearest area of Ancient Woodland is located 0.8kilometres (*km*) south-east of the proposed construction zone.
- 1.6 There is 1 no. waterbody located within 500.0m of the site (*plus an additional 1 no. pond on site*), however none of the ponds in the wider landscape are located within 250m of the proposed construction zone.

Development Proposals

- 1.7 It is understood that the development proposals include the construction of a single-storey extension to the south-eastern section of the existing property.

Aims of the Survey

- 1.8 The aim of this ecological appraisal is;
- *To identify habitats and protected species present, and any other features of ecological value;*
 - *Identify any potential ecological constraints;*
 - *Identify impacts of the proposed development and set out appropriate avoidance, mitigation and compensation measures.*
 - *To provide suggestions for enhancements to be incorporated into the scheme.*

2.0 PLANNING POLICY AND LEGISLATION

Legislation

- 2.1 Legislation relating to wildlife and biodiversity of particular relevance to this EclA includes:

- *The Conservation of Habitats and Species Regulations 2017*
- *The Wildlife and Countryside Act 1981 (as amended)*
- *The Natural Environment and Rural Communities (NERC) Act 2006*

- 2.2 This above legislation has been addressed, as appropriate, in the production of this report.

National Policy

- 2.3 The National Planning Policy Framework (NPPF) 2019 sets out the government planning policies for England and how they should be applied. Chapter 15: Conserving and Enhancing the Natural Environment states that development should 'minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures.'

- 2.4 The Government Circular 06/2005, which is referred to by the NPPF, provides further guidance in respect of statutory obligations for biodiversity and geological conservation and their impact within the planning system.

Local Planning Policy

- 2.5 Policy 49 of the Chichester Local Plan: Key Policies 2014-2029 (currently under review) states Planning permission will be granted for development where it can be demonstrated that all the following criteria have been met:
- The biodiversity value of the site is safeguarded;
 - Demonstrable harm to habitats or species which are protected, or which are of importance to biodiversity is avoided or mitigated;
 - The proposal has incorporated features that enhance biodiversity as part of good design and sustainable development;
 - The proposal protects, manages and enhances the District's network of ecology, biodiversity and geological sites, including the international, national and local designated sites (statutory and non-statutory), priority habitats, wildlife corridors and stepping stones that connect them;
 - Any individual or cumulative adverse impacts on sites are avoided;
 - The benefits of development outweigh any adverse impact on the biodiversity on the site. Exceptions will only be made where no reasonable alternatives are available; and planning conditions and/or planning obligations may be imposed to mitigate or compensate for the harmful effects of the development

3.0 METHODOLOGY

3.1 Desk Study

- 3.1.1 The Multi-Agency Geographical Information Centre (*MAGIC*) was consulted for information on surrounding designated sites, priority habitats, protected species and Natural England Licence applications within 2.0 km of the site. The data search was conducted on 13th August 2019.

3.2 Field Survey

- 3.2.1 A preliminary ecological appraisal was undertaken on 13th August 2019, and the site subjected to an ecology survey using guidelines set out in the *Handbook for Phase 1 Habitat Survey – A Technique for Environmental Audit (JNCC, 2003)*.
- 3.2.2 Habitats within the land were classified and the presence, or potential presence, of certain protected and / or notable species of flora and fauna were identified. A summary description of the habitat within the site following the *Phase 1 Habitat Survey Methodology* is presented in Section 4.0. This involved identifying features that may be used by protected species, potential foraging areas and other signs of use. Water bodies were recorded wherever possible, within 500 metres of the proposed development site.
- 3.2.3 The results are summarised and accompanied in large part by photographic evidence. Recommendations for further investigation and survey were made in the subsequent report.

3.3 Preliminary Bat Roost Assessment

- 3.3.1 A Preliminary Bat Roost Assessment of the property on site was undertaken on 13th August 2019 by an experienced, licenced bat surveyor.
- 3.3.2 The bat surveyor assessed the existing building visually and searched for evidence such as;
- *Staining beneath or around a hole caused by natural oils in bat fur;*
 - *Bat droppings beneath a hole, roost or resting area;*
 - *Bat droppings and / or insect remains beneath a feeding area;*
 - *Audible squeaking from within a hole;*
 - *Insects (especially flies) around a hole;*
 - *Dead bats.*
- 3.3.3 An external investigation assessed the fabric of the building to determine whether there were access points readily available for bats to utilise. Gaps / crevices identified within the structure were examined using a Clulite CB2 torch, ladder and endoscope where appropriate.

- 3.3.4 Once features had been assessed the trees and buildings were then categorised in accordance with *Table 4.1 of the Bat Conservation Trust's Good Survey Guidelines (2016) (shown below)*:

Table No. 01 – Bat Roost Suitability Guidelines (BCT, 2016)

Category	Buildings
`Negligible`	<i>No suitable features identified.</i>
`Low`	<i>A structure which could be used opportunistically, however, are not likely to be used on a regular basis / by a large number of bats.</i>
`Moderate`	<i>A building with features which, could be used regularly by a small number of bats.</i>
`High`	<i>A building with features suitable for use by a large number of bats on a regular basis.</i>

3.4 Great Crested Newt Habitat Suitability Index Assessment

- 3.4.1 The *Habitat Suitability Index (HSI)* was developed by *Oldham et al (2000)* as a way of providing a numerical index allowing a direct comparison to be made between different water bodies. This index assesses ponds against 10 no. different criteria, each of which have a bearing on the likelihood of great crested newts (*Triturus cristatus*) being present in the pond under consideration.

- 3.4.2 The 10 no. attributes against which ponds can be assessed are:

- *Geographic Location;*
- *Pond Area (at its highest level);*
- *Permanence;*
- *Water Quality;*
- *Perimeter Shading;*
- *Numbers of Wildfowl;*
- *Numbers of Fish Present;*
- *Pond Count (within a 1.0 km radius);*
- *Terrestrial Habitat (within 250.0 m);*
- *Macrophyte Coverage.*

3.4.3 The *HSI* results in a score between 1 and 0; with 1 being optimal conditions and 0 being unlikely to support a population. However, the index merely gives an indication as to whether a pond has the potential to support great crested newts and is not a substitute for more detailed presence / absence surveys for protected species of amphibian.

3.6 Bat Emergence / Re-entry Survey

3.6.1 Bat emergence / re-entry survey visits were undertaken on 19th August, 29th August and 12th September 2019.

3.6.2 3 no. bat surveyors were assigned a point each to adequately cover all aspects of the building (*Refer to Figure No. 03 – Location of Survey Points*).

3.6.3 Dusk surveys were started 15 minutes before sunset and terminated approximately 1.5 hours after sunset. Dawn re-entry surveys began 1.5 hours before sunrise and continued until 15 minutes after. Data including species, behaviour and general patterns of activity were recorded throughout the survey. Details of the survey visits can be found in *Table No. 02* below:

Table No. 02 – Bat Survey Details

Date	19.08.19	29.08.19	12.09.19
Surveyors	George Sayer Louise Barker Josh Hardwood	Catherine O'Reilly Josh Harwood	George Sayer Catherine O'Reilly Louise Barker
Weather	17°C Dry 10% cloud WF 3	17°C Dry 30% cloud WF3	14°C Dry 10% cloud WF1
Sunset / sunrise	20:16	19:56	06:33
Start	20:00	19:41	05:03
Finish	21:46	21:26	06:48

3.6.4 Bats were identified using Anabat SD2 and Ecometer Touch 2 bat detectors.

Data Analysis

- 3.6.5 Sonogram analysis was undertaken using the AnlookW programme. The data for all visits has been collated and used to calculate bat activity indices.

3.7 Constraints and Limitations

- 3.7.1 The bat emergence surveys were undertaken relatively late in the season with the first 2no. surveys spaced only 10 days apart. The results of the surveys however coincided with the findings of the Preliminary Roost Assessment during which no evidence suggestive of a maternity colony was found. The results are therefore considered to be a fair representation of current bat usage of the building.

4.0 BASELINE ECOLOGICAL CONDITIONS**4.1 Designated Sites*****Statutory Protected Sites***

- 4.1.1 MAGIC was consulted for details of statutory protected sites within 2.0km of the proposed development; these are detailed below.

Table No. 02 – Statutory Protected Sites

Site	Description	Location
<i>South Downs National Park</i>	<i>Large national park incorporating large expanses of chalk down land and woodland.</i>	<i>0.5km NE</i>
<i>Chichester and Langstone Harbour SSSI, SPA, Ramsar (Part of Solent Maritime SAC)</i>	<i>This site supports international important numbers of overwintering wildfowl and waders.</i>	<i>1.8km S</i>

- 4.1.2 The site is located within the *Impact Risk Zone* of *Chichester and Langstone Harbour* however development proposals do not meet the criteria which would require consultation with Natural England.

Non-Statutory Protected Areas

- 4.1.3 *Sites of Nature Conservation Importance (SNCIs)* are designations applied to the most important non-statutory nature conservation sites. They are recognised by the *National Planning Policy Framework (2018)* and as such are material considerations when assessing planning applications. The following SNCIs were identified within 2.0km of the site:

Table No. 04 – Non-Statutory Protected Sites

Site	Location
<i>Newells Lane Pond and Meadows</i>	<i>0.5km S</i>

4.2 Habitats

- 4.2.1 Within 2.0km of the site there are *Priority Habitats of Ancient Woodland, Deciduous Woodland, Traditional Orchard, Mudflat and Coastal Saltmarsh.*

- 4.2.2 Habitats within and adjacent to the land include:

- *Existing Building;*
- *Hard / Bare Ground;*
- *Amenity Grassland;*
- *Scattered Trees;*
- *Introduced Shrub;*
- *Intact Hedge with Trees;*
- *Intact Species-poor Hedge;*
- *Standing Water.*

Existing Building

- 4.2.3 The main building on site is an L-shaped brick-built bungalow with slate roof. The loft void is of trussed construction with bitumen membrane and a height to the ridge of c. 2 meters.

Hard / Bare Ground

- 4.2.4 The access driveway and parking areas are formed of tarmac while a large patio area lies adjacent the southern and western aspects of the building. This habitat is of **negligible value**.

Amenity Grassland

- 4.2.5 The grassland surrounding the house is maintained to a height of <10cm with a sward composition typical of amenity grassland. Fescue (*Festuca* sp.), perennial rye-grass (*Lolium perenne*) and bent (*Agrostis* sp.) grasses dominate the sward with occasional mosses, daisy (*Bellis perennis*) and dandelion (*Taraxacum officinale*). This common and widespread habitat is of **site value only**.

Scattered Trees

- 4.2.6 Numerous apple (*Malus* sp.) trees are growing to the site frontage while mature scattered oak (*Quercus robur*) trees line the western boundary of the site. Other species noted throughout the site include beech (*Fagus sylvatica*), sugar maple (*Acer saccharum*) and silver birch (*Betula pendula*). The apple trees are of **site value** while the mature oak trees are of **local value**.

Introduced Shrub

- 4.2.7 Small areas of introduced shrub planting exist in the vicinity of the main house including laurel (*Laurus* sp.) and cypress (*Cupressus* sp.) planting. These areas of non-native planting are of **negligible value**.

Intact Hedge with Trees

- 4.2.8 The northern boundary is formed of mature oak trees with field maple (*Acer campestre*), goat willow (*Salix caprea*), hawthorn (*Crataegus monogyna*), bramble (*Rubus fruticosus*), holly (*Ilex aquifolium*) and blackthorn (*Prunus spinosa*) to the base. This mature boundary feature is of **local value**.

Intact Species-poor Hedge

- 4.2.9 All other boundaries of the site are formed of dense cypress hedging maintained to c. 3m height. This common and widespread habitat is of **site value only**.

Standing Water

- 4.2.10 1 no. pond is located 50m south-west of the proposed construction zone. Covering an area of 115m², this pond has gently sloping banks formed of introduced shrub and amenity grassland. Water quality was considered to be moderate with no wildfowl noted. The presence of fish is possible however no evidence was noted whilst on site.

4.3 Protected Species Assessment

Amphibians

Desk Study

- 4.3.1 A number of records of GCN exist within 2.0km of the site, with the nearest being 1.8km south-east of the proposed development site.

Site Assessment

- 4.3.2 The adjacent tree lines provide suitable terrestrial habitat for GCN, however the construction zone is formed entirely of hard standing; suboptimal terrestrial habitat. The construction zone is isolated from suitable areas of habitat and the on-site pond by large swathes of well-maintained amenity grassland further negating the possibility of GCN or other amphibians being present within the construction zone.
- 4.3.3 The construction zone and immediate surrounding habitat is of **negligible value** to GCN and other amphibians.

Reptiles

Desk Study

- 4.3.4 Records of slow worm, grass snake, common lizard and adder exist within 2.0km of the site.

Site Assessment

- 4.3.5 The construction zone is formed of hard ground surrounded by well maintained amenity grassland; a habitat sub-optimal for reptiles. The site is of **negligible value** to reptiles.

Bats

Desk Study

- 4.3.6 Common Pipistrelle (*Pipistrellus pipistrellus*), Soprano Pipistrelle (*Pipistrellus pygmaeus*), Nathusius's Pipistrelle (*Pipistrellus nathusii*), Long-eared bat (*Plecotus* sp), Noctule (*Nyctalus noctula*), Leisler's (*Nyctalus leisleri*), Serotine (*Eptesicus serotinus*), Brandt's (*Myotis brandtii*), Whiskered (*Myotis mystacinus*), Natterer's (*Myotis nattererii*), Daubenton's (*Myotis daubentonii*) and Bechstein's (*Myotis bechsteini*) bats have been recorded within 2.0km of the site area.

Preliminary Roost Assessment

- 4.3.7 The internal inspection of the building found a scattering of Long-eared sp. bat droppings within the western and northern sections of the loft void with a small accumulation beneath the western hip. A single live BLE was recorded roosting between the wall and rafter to the western gable end. No evidence which would suggest the presence of any other bat species was recorded during the internal inspection.
- 4.3.8 The external assessment of the building revealed it to be in good condition with very few potential access points noted. Those which were recorded included:
- Lifted roof tiles to the south-western slope of the roof;
 - Small gaps at the eaves;
 - Missing mortar beneath ridge tiles;
 - Bat droppings on the western gable wall beneath the eaves.
- 4.3.9 A number of mature oak trees to the northern and western boundaries of the site contain potential roost features. All mature trees identified as offering bat roost suitability are to be retained within the scheme therefore, they were discounted from further survey.

Emergence / Re-entry Surveys

- 4.3.10 The dusk emergence survey undertaken on 19th August 2019 revealed 3no. common pipistrelle bats emerging from beneath flashing to the eastern dormer window. Bats were noted emerging at 20:32, 20:35 and 20:36.

- 4.3.11 1no. brown long-eared bat was recorded emerging from the western gable at 20:48 during the emergence survey on the 29th August 2019, while a single common pipistrelle was noted emerging from the eastern dormer window. The same BLE was recorded re-entering the property at 05:36 on the 12th September 2019. The site supports **a low conservation status day roost** of small numbers of BLE and common pipistrelle.
- 4.3.12 Bat activity in the vicinity of the site was low during the surveys, with low numbers of passes by common pipistrelle, noctule, serotine and brown long-eared bats. The construction zone is of **site value** to foraging / commuting bats.

Dormouse

Desk Study

- 4.3.13 One record of a dormouse from 2010 exists within 2.0km of the site.

Site Assessment

- 4.3.14 The boundary hedge / treeline habitat is of site / local value to dormice, however the habitat found within the construction zone is of **negligible value**.

Badger

Desk Study

- 4.3.15 Badgers are known to be present within 1.0km of the site.

Site Assessment

- 4.3.16 No evidence of badger such as tracks, snuffle holes or latrines were recorded anywhere within or immediately adjacent to the site. The area is considered to be of **negligible value** to badgers, however badgers may occasionally commute across the site.

Birds

Desk Study

- 4.3.17 Breeding birds of conservation concern with 2.0km of the site include skylark, song thrush, yellowhammer and house sparrow.

Site Assessment

- 4.3.18 Optimal nesting habitat is limited to the surrounding hedge / tree lines. The apple trees may be of some limited value to winter visitors such as redwing and fieldfare however the value is reduced by the relatively high levels of disturbance this area is likely to receive due to its proximity to the house. The area overall is likely to be of site value to breeding / foraging birds, the construction footprint is of **negligible value**.

Invertebrates

Desk Study

- 4.3.19 A total of 50 no. notable invertebrate species have been recorded within 2.0km of the site including stag beetle, white admiral butterfly and false mocha moth.

Site Assessment

- 4.3.20 Suitable habitat for invertebrates is limited to the hedgerows and tree lines which border the site. The site in general lacks the floral diversity to support a good range of invertebrates and is likely to be of value within the site area only. The construction footprint is of **negligible value**.

Others

- 4.3.21 No suitable habitat for any other protected species was recorded on site.

5.0 ASSESSMENT OF EFFECTS AND MITIGATION MEASURES

5.1 Designated Sites

Potential Impacts

- 5.1.1 No impacts upon surrounding protected sites are predicted due to the intervening distances. The site will remain in the same ownership post development with no net gain in residential units therefore there will be no increase in recreation disturbance upon the near-by SAC.

Mitigation and Compensation

- 5.1.2 None requires, impacts are predicted to be negligible.

Residual Impacts

- 5.1.3 **No likely significant effects** upon Chichester and Langstone Harbours SAC or any other protected site are predicted as a result of this development.

5.2 Habitats

Potential Impacts

- 5.2.1 Development proposals will result in the loss of areas of hard standing and amenity grassland. These habitats are common and widespread and will be replaced post-development. A pond and mature trees lines lie adjacent the development. In the absence of mitigation, these habitats may be degraded through dust, emissions and pollution events during the construction phase.

Mitigation and Compensation

- 5.2.2 Post-development, a landscape scheme would replace habitats lost with further areas of grassland, hardstanding and introduced shrub. Works during the construction phase will be undertaken in accordance with guidance provided within *The Control of Dust and Emissions During Construction and Demolition SPG (July 2014)* to control any excess dust creation which may impact adjacent ponds and mature tree lines. All adjacent mature trees will be retained and protected in accordance with BS5837:2012. Storage of all fuel and hazardous materials will be located a minimum of 10m from the adjacent ponds and outside the RPA's of retained trees.

Residual Impacts

- 5.2.3 No priority or other important habitats or plant species will be affected by this development, the impact of which is **not significant**.

5.3 Bats*Potential Impacts*

- 5.3.1 In the absence of mitigation impacts may include killing or injuring of individual bats, habitat fragmentation, loss of foraging areas and increased predation. Existing roosts and access points will be unaltered by the proposed works therefore impacts would be of minor impact magnitude.

Mitigation and Compensation

- 5.3.2 The roost on site is a summer day roost of pipistrelle and brown long-eared bats; a low conservation status roost. The following mitigation will be implemented to ensure development proceeds lawfully:
- All works will be undertaken between mid October – late March when bats will be absent from the property. The construction period will last no more than 12 weeks;
 - A pre-works check will be undertaken to ensure no bats are present within the building at the time of works beginning;
 - The extension will have a separate roof void and will not be functionally connected to the existing BLE roost;

- The new extension joins the existing roof only in the South east corner of the building and will be constructed with minimal impact on the existing roof void.
- All existing access points and size of the existing roost will remain unaltered;
- All scaffolding will avoid the area where bats are known to roost and will avoid blocking access points.
- Construction lighting (if required) will avoid light spill onto the access points of the building.

5.3.3 As the existing roosts will be retained unaltered in-situ and works will be undertaken at a time when no bats will be present, a licence is not required from Natural England prior to works beginning. In the highly unlikely scenario that any bats are found during the works, all works within the area will cease while a licence is obtained from Natural England.

5.3.4 A sensitive lighting scheme will be employed with lighting kept to the minimum levels and angled down and away from surrounding mature trees, ponds and bat roost assess points.

Residual Impacts

5.3.5 The overall impact of the scheme will be **non-significant**.

5.4 Reptiles

Potential Impacts

5.4.1 None predicted.

Mitigation and Compensation

5.4.2 None required.

Residual Impacts

5.4.3 The impact of the scheme will be **non-significant**.

5.5 Amphibians

Potential Impacts

5.5.1 None predicted.

Mitigation and Compensation

5.5.2 None required. In the unlikely event any GCN is found on site during the works all activities will cease until a suitably qualified ecologist and Natural England have been contacted for advice.

Residual Impacts

5.5.3 The overall impact of the scheme will be **non-significant**.

5.6 Dormouse

Potential Impacts

5.6.1 None predicted.

Mitigation and Compensation

5.6.2 None required.

Residual Impacts

5.6.3 The overall impact of the scheme will be **non-significant**.

5.7 Badgers

Potential Impacts

5.7.1 In the absence of mitigation, impacts would include the trapping of badgers in footings/trenches, fragmentation of habitat and disruption of commuting corridors.

Mitigation and Compensation

5.7.2 Trenches deeper than 1.0m will be covered overnight or have a ramp installed to avoid trapping any badgers or other mammals on site. Boundary vegetation around the site will be retained.

Residual Impacts

- 5.7.3 The overall impact of the scheme will be **non-significant**.

5.8 Nesting Birds*Potential Impacts*

- 5.8.1 In the absence of avoidance / mitigation, the development could result in the damage / destruction of a bird nest.

Mitigation and Compensation

- 5.8.2 The clearance of any shrubs will be undertaken outside the bird nesting season. Should this not be possible, vegetation will be checked prior to removal by a Suitably Qualified Ecologist to ensure no active nests are present.

Residual Impacts

- 5.8.3 The overall impact of the scheme will be **non-significant**.

5.9 Invertebrates*Potential Impacts*

- 5.9.1 None predicted; the construction zone is of negligible value to invertebrates.

Mitigation and Compensation

- 5.9.2 None required.

Residual Impacts

- 5.9.3 The overall impact of the scheme will be **non-significant**.

6.0 ENHANCEMENTS

6.1 The design of any proposed development should consider ecological enhancements for the benefit of wildlife in line with the *National Planning Policy Framework* and *Local Planning Policy*. Ecological enhancements which will be included as part of development proposals include:

- The use of flowering plants as listed within the RHS 'Plants for Pollinators' plant list to provide year-round interest for invertebrates;
- The provision of nesting boxes for a variety of bird species within trees;
- Integrated bat boxes to the southern aspect of the building;
- Over-seeding areas of bare ground resulting from construction with a suitable flowering lawn mix;

7.0 CONCLUSIONS

- 7.1 The development site is formed of common, widespread habitats of low ecological value. Floral diversity in general was low, with the bulk of the site dominated by amenity grassland and hard / bare ground.
- 7.2 The proposals will not have a derogatory effect upon any surrounding statutory or non-statutory protected site. A series of mitigation measures have been detailed to avoid the proposals impacting upon the surrounding habitats of tree lines and ponds.
- 7.3 The site supports low numbers of roosting bats; however, these roosts are removed from the proposed construction area therefore impacts shall be negligible.
- 7.4 The site offers suitable nesting habitat for small passerines in the form of dense shrubs. Removal of these will be undertaken outside the nesting season or following inspection to ensure works do not contravene The Wildlife and Countryside Act 1981 (as amended).
- 7.5 The impacts of the planned development upon biodiversity will be **negligible, non-significant** with proposed ecological enhancements resulting in a net gain and a long-term positive increase in biodiversity in line with national planning policy guidance.

8.0 REFERENCES

JNCC: Handbook for Phase 1 Habitat Survey – A Technique for Environmental Audit; (2003);

Collins J (ed): Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd ed.) The Bat Conservation Trust (2016);

Mitchell-Jones and McLeish: Bat Workers Manual; JNCC, 3rd Edition (2004);

Streeter, D.: The Most Complete Guide to the Flowers of Britain and Ireland; Harper Collins, London (2010);

www.magic.gov.uk.

Appendix A – Site Photographs

APPENDIX A - SITE PHOTOGRAPHS



Photograph No. 1 - Northern aspect of building B1.



Photograph No. 2 - Southern aspect of building B1. The proposed extension footprint will lie solely within the existing hard ground.

APPENDIX A - SITE PHOTOGRAPHS



Photograph No. 3 - Internal view of the loft space.



Photograph No. 4 - Small accumulation of droppings beneath the western hip.

APPENDIX A - SITE PHOTOGRAPHS



Photograph No. 5 - Single brown long-eared bat found during the preliminary roost assessment.



Photograph No. 6 - Overview of the formal gardens which surround the property.

APPENDIX A - SITE PHOTOGRAPHS



Photograph No. 7 - on-site pond located c. 50m south-west of the location of the proposed extension.



Photograph No. 8 - Formal lawn and scattered fruit trees which lie between the property and West Ashling Road.

Appendix B – Bat Survey Results

Visit 1:

Date	19.08.2019
Survey Type	Dusk
Sunrise / Sunset	20:16
Start Time	20:00
End Time	21:46
Temperature	17 °C
Wind	3
Weather	clear and sunny

Surveyor	George Sayer		
Point	SP01		
Time	Species	Behaviour	Notes
20:32	Cpip	Emergence	Likely from NE corner flew past low
20:35	Cpip	Emergence	Second bat seen flying from building
20:36		Emergence	From bay window
20:41		Commuting	Calls heard
20:43-20:57	cpip	foraging	in garden to e of building
21:04	Cpip	Commuting	2 bats flew s along e of building
21:08	Cpip	Foraging	East of building
21:15	Cpip	Foraging	Faint calls
21:16	Possible	Commuting	Heard
21:19	Cpip	Foraging and social	Flying e of building

Surveyor	Louise Barker		
Point	SP02		
Time	Species	Behaviour	Notes
20:25	Noctule	Commuting	Not seen
20:43	C-Pip	Commuting	
20:48:00 - 21:15	C-Pip	Foraging	Garden
21:25 - 21:40	C-Pip	Foraging	Garden
21:43	Myotis	Commuting	Not seen

Surveyor	Josh Harwood		
Point	SP03		
Time	Species	Behaviour	Notes
20:25	Noctule	Commuting	Flying north
20:29	Noctule	Commuting	Flying south
20:29	S.Pip	Foraging	Over garden
20:50	C.Pip	Commuting	Flying east
21:03	S.Pip	Foraging	Over trees
21:34	Noctule	Foraging	High over garden

Visit 2:

Date	29.08.19
Survey Type	Dusk
Sunrise / Sunset	19:56
Start Time	19:40
End Time	21:26
Temperature	17 °C
Wind	WF3
Weather	Light Cloud

Surveyor	Josh Harwood		
Point	SP01		
Time	Species	Behaviour	Notes
20:12	C.Pip	Commuting	Flying north
20:18	C.Pip	Foraging	Over garden
21:01	BLE	Commuting	Flying north

Surveyor	Catherine O'Reilly		
Point	SP03		
Time	Species	Behaviour	Notes
20:48	BLE	Commuting	Flying east over the building
20:50	BLE	Emergence	From western gable end
21:14	C.Pip	Commuting	Flying south over garden

Visit 3:

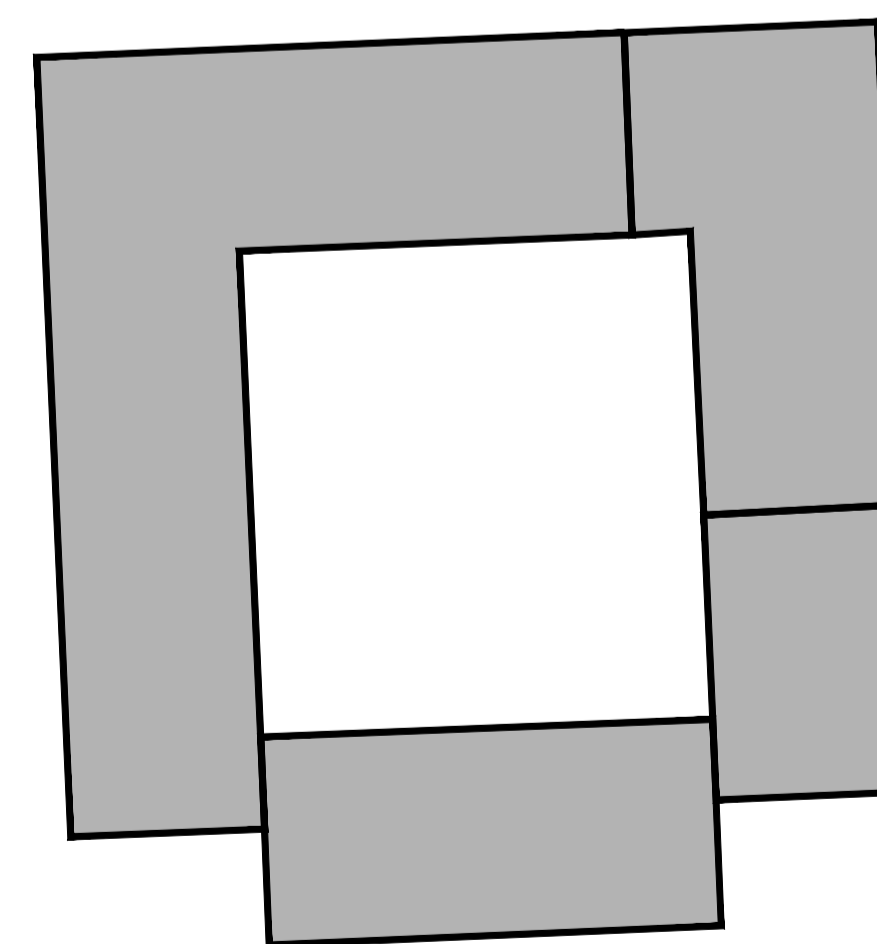
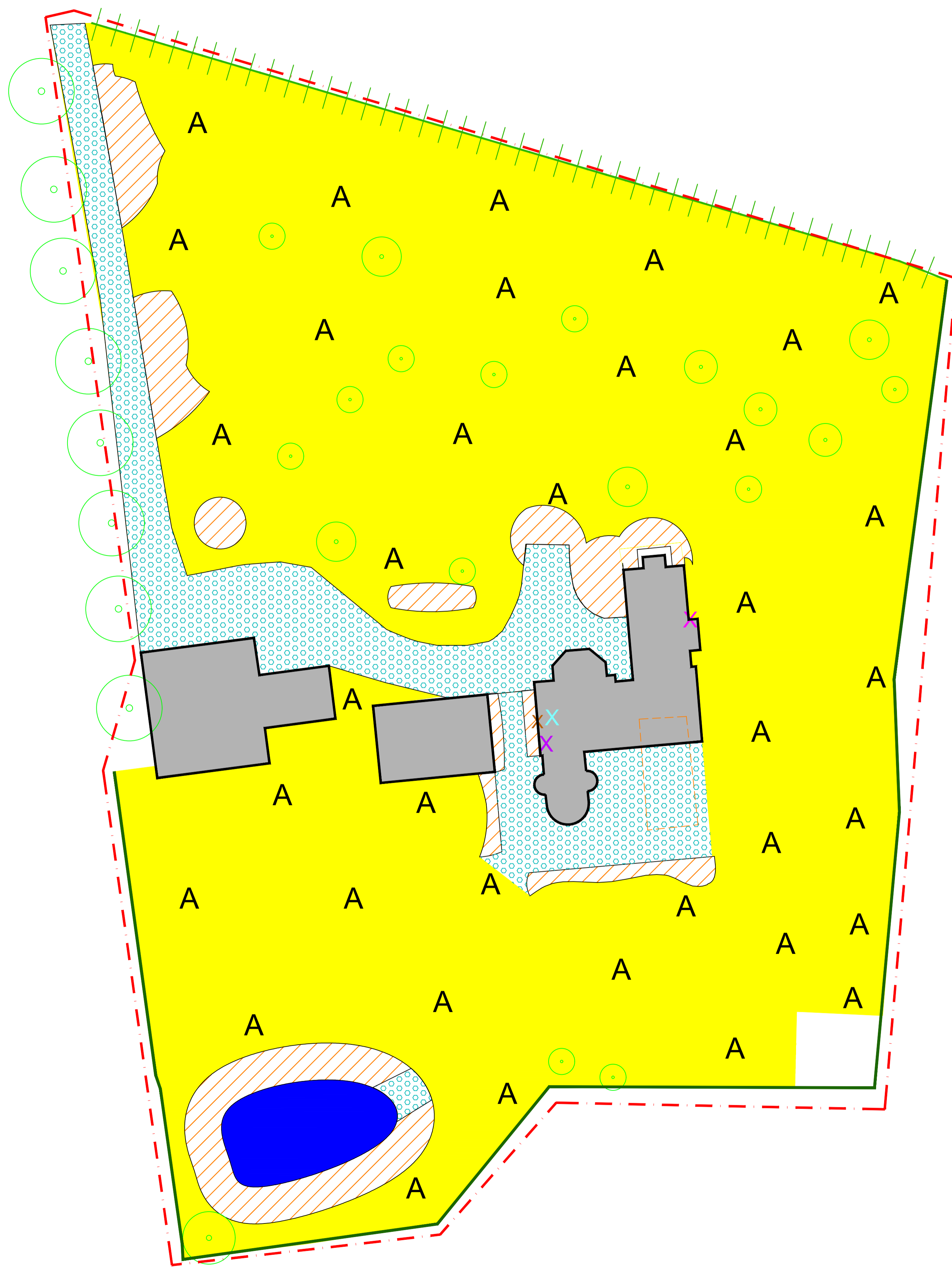
Date	12.09.2019
Survey Type	Dawn
Sunrise / Sunset	6:33
Start Time	5:03
End Time	6:48
Temperature	14 °C
Wind	1
Weather	Light Cloud

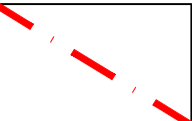
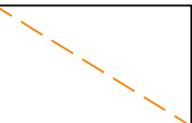
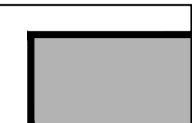

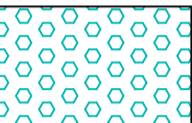
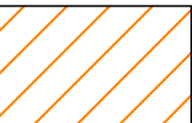

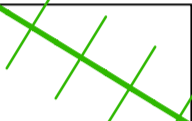
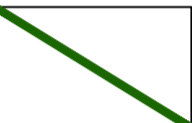
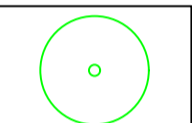




Surveyor	George Sayer		
Point	SP01		
Time	Species	Behaviour	Notes
05:17	noctule	Commuting	heard
05:34	cpip	Commuting	heard
537	noctule	commuting	Heard
05:55	noctule	Commuting	Heard

Surveyor	Louise Barker		
Point	SP02		
Time	Species	Behaviour	Notes
No recordings			

Surveyor	Catherine O'Reilly		
Point	SP03		
Time	Species	Behaviour	Notes
05:36	BLE	Re-entry	Into western gable end
05:49	CPip	Commuting	Flying west to south
06:25	Noctule	n/a	Heard not seen

FIGURES:**Figure No. 01 – Site Habitat Plan****Figure No. 02 – Location of Bat Survey Points**



-  Site Boundary
-  Proposed Construction Zone
-  Existing Buildings
-  Amenity Grassland
-  Bare/ Hard Ground
-  Introduced Shrub
-  Pond
-  Intact Hedge with Trees
-  Intact Species Poor Hedge
-  Scattered Trees
-  Accumulation of BLE Droppings
-  Location of BLE Access Points
-  Location of Pipistrelle Roost
-  Location of BLE During PEA

PLANNING ISSUE

Rev	Description	Date	Initials
00	Planning Issue	27.09.19	JH



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Client
 Mr & Mrs Shrubbs
 Project Title and Location
Rookmere Farm
 West Ashling Road, Hambrook

Drawing Title
Site Habitat Plan

Scale
 1:250@A1

Drawn
 JH

Approved
 CO

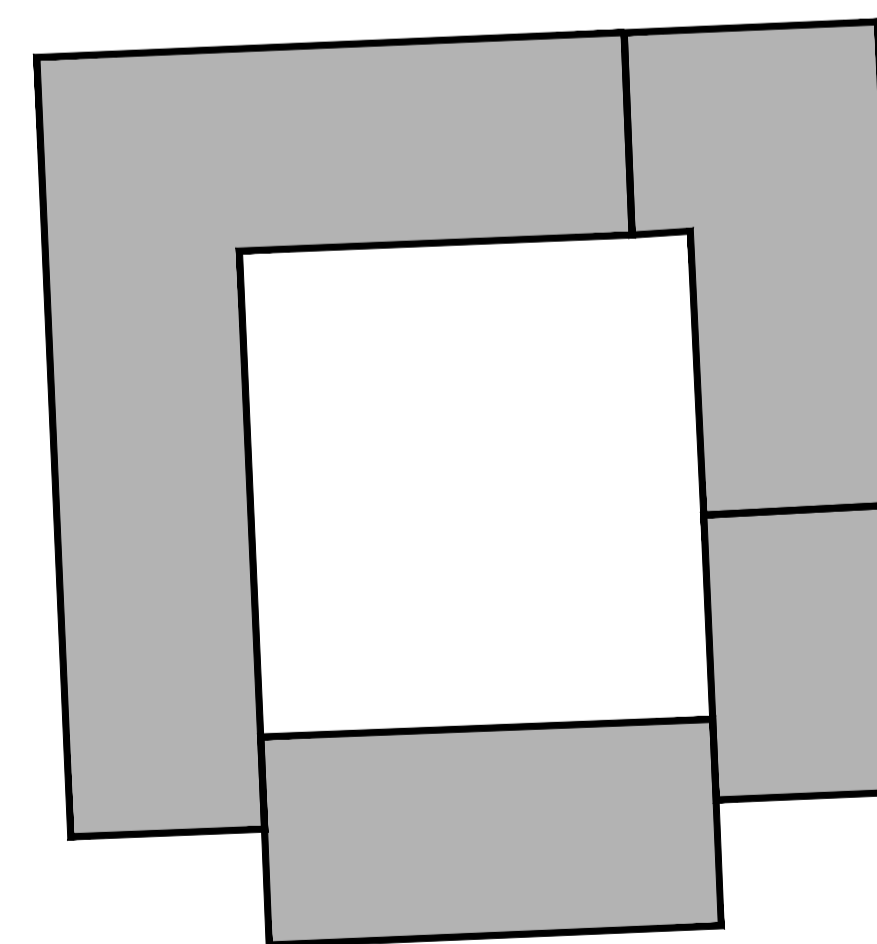
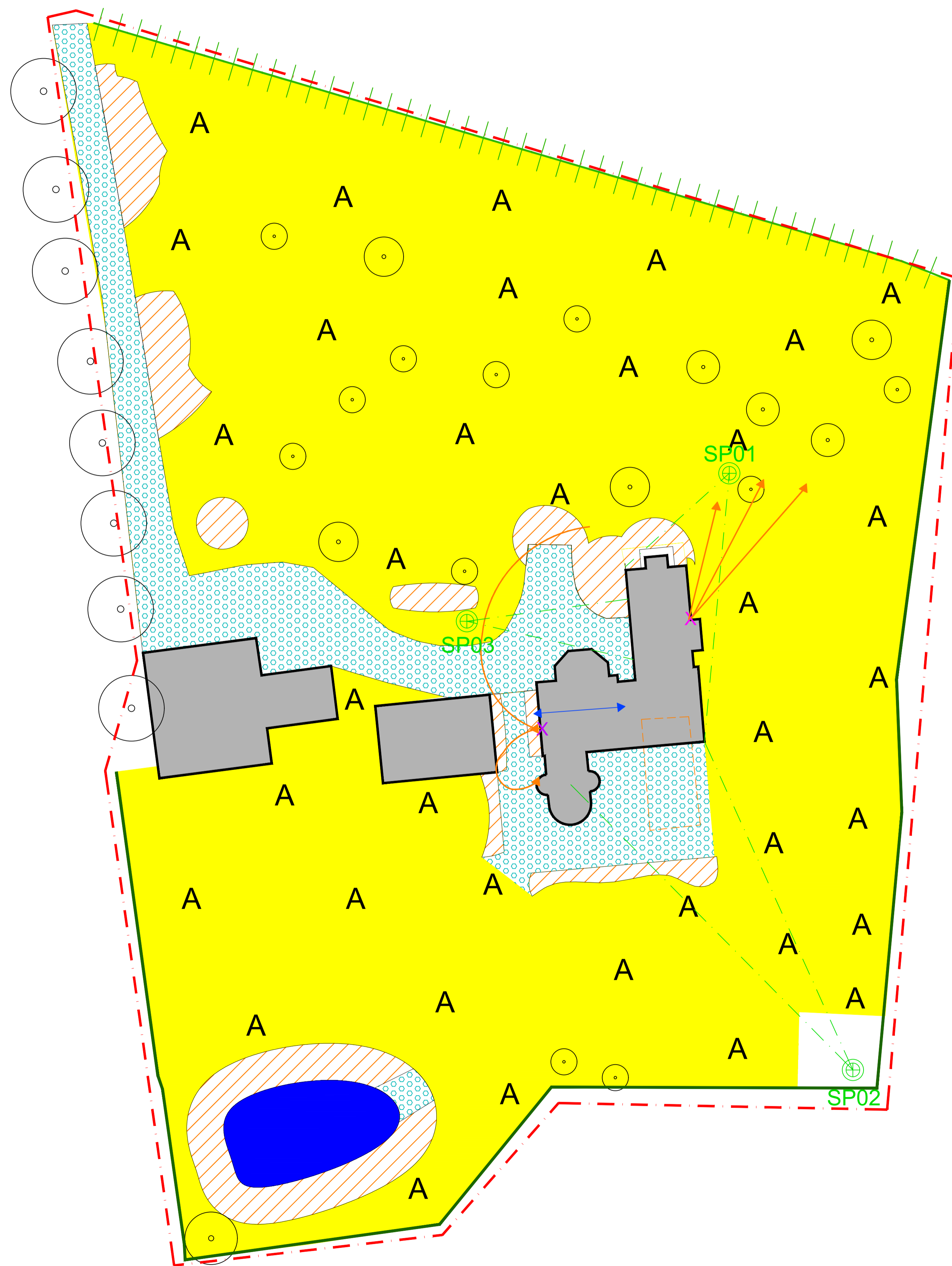
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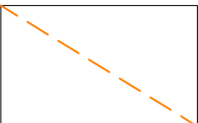





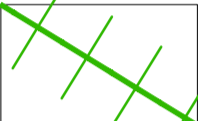
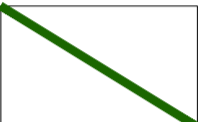
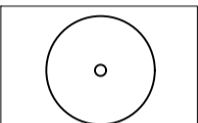
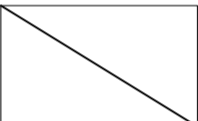
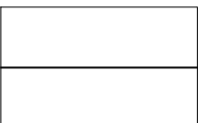



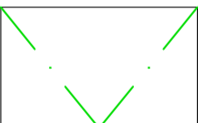
Drawing No
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Revision



Figure No.01 - Site Habitat Plan
Rookmere Farm, West Ashling Road, Hambrook



-  Site Boundary
-  Proposed Construction Zone
-  Existing Buildings
-  Amenity Grassland
-  Bare/ Hard Ground
-  Introduced Shrub
-  Pond
-  Intact Hedge with Trees
-  Intact Species Poor Hedge
-  Scattered Trees
-  Flight Lines
-  Location of BLE Roost
-  BLE Access Point
-  Location of C.Pip Roost
-  Survey Points
-  Field of View

PLANNING ISSUE

Rev	Description	Date	Initials
00	Planning Issue	27.09.19	JH



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Client
Mr & Mrs Shrubbs
Project Title and Location
Rookmere Farm
West Ashling Road, Hambrook

Drawing Title
Location of Survey Points

Scale
1:250@A1

Drawn
JH

Approved
CO

Date
27.09.19

Drawing No
LLD1780-ECO-FIG-002-00

Revision



**Figure No.02 - Location of Survey Points
Rookmere Farm, West Ashling Road, Hambrook**