BEWLEY HOMES PLC

ECOLOGYSOLUTIONS

Part of the ES Group

LAND WEST OF LYMINGTON BOTTOM ROAD, SOUTH MEDSTEAD

Ecological Assessment

March.2024
8631.EcoAss.vf1

ecology solutions for planners and developers

BEWLEY HOMES PLC

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PROTECTED SPECIES

This report contains sensitive
Information relating to protected
species. The information
contained herein should not be
disseminated without the prior consent
of Ecology Solutions.

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1. INTRODUCTION

1.1. Background & Proposals

1.1.1. Ecology Solutions was commissioned by Bewley Homes Plc in April 2023 to undertake an Ecological Assessment of the land off Lymington Bottom Road, South Medstead, East Hampshire, hereafter referred to as the 'site' (see Plan ECO1).

1.1.2. The proposals include the erection of 53 dwellings with vehicular access from Lymington Bottom Road, associated infrastructure and landscaping (see Appendix 1).

1.2. Site Characteristics

1.2.1. The site is located toward the south of Medstead village, Hampshire. It is bordered to the north and west by agricultural land and scattered residential buildings, while the south is bordered by existing residential development. The east is bordered by Lymington Bottom Road and additional residential properties with adjacent deciduous woodland.

1.2.2. The site itself is made up of semi-improved grassland, amenity grassland, amenity planting, ruderal vegetation, hedgerows, scattered trees, buildings and areas of hardstanding.

1.3. Ecological Assessment

1.3.1. This document assesses the ecological interest of the site. The importance of the habitats within the site is evaluated with due consideration given to the guidance published by the Chartered Institute of Ecology and Environmental Management (CIEEM)[1].

1.3.2. Where necessary mitigation measures are recommended so as to safeguard any significant existing ecological interest within the site. Specific enhancement opportunities that are available for habitats and wildlife within the site are detailed where appropriate, with reference to the 'UK Post-2010 Biodiversity Framework'[2]. Finally, conclusions are drawn.

[1]CIEEM (2018) *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine version 1.1.* Chartered Institute of Ecology and Environmental Management, Winchester

[2] JNCC and Defra (on behalf of the Four Countries' Biodiversity Group) (2012) *UK Post-2010 Biodiversity Framework. July 2012.*

2. SURVEY METHODOLOGY

2.1. The methodology utilised for the survey work can be split into three areas, namely desk study, habitat survey and faunal survey. These are discussed in more detail below.

2.2. Desk Study

2.2.1. In order to compile background information on the site and the surrounding area, Ecology Solutions contacted the Hampshire Biodiversity Information Centre (HBIC) in May 2023. Where appropriate, this information is included within this report, although much of it is cited as confidential and can only be made available upon request under the records centres' terms and conditions.

2.2.2. Ecology Solutions acquired further information on designated sites from a wider search area was obtained from the online Multi-Agency Geographic Information for the Countryside (MAGIC)[3] database. This information is reproduced at Appendix 2 and where appropriate on Plan ECO1.

2.3. Habitat Survey Methodology

2.3.1. A habitat survey was carried out in May 2023 in order to ascertain the general ecological value of the site and to identify the main habitats and associated plant species.

2.3.2. The site was surveyed based around extended Phase 1 survey methodology[4], as recommended by Natural England whereby the habitat types present are identified and mapped, together with an assessment of the species composition of each habitat. This technique provides an inventory of the basic habitat types present and allows identification of areas of greater potential which require further survey. Any such areas identified can then be examined in more detail.

2.3.3. Using the above method, the site was classified into areas of similar botanical community types, with a representative species list compiled for each habitat identified.

2.3.4. All the species that occur in each habitat would not necessarily be detectable during survey work carried out at any given time of the year, since different species are apparent at different seasons. Although the habitat surveys were carried out in May, given the intensive management of the fields, it is considered an accurate and robust assessment has been made of the botanical interest.

2.4. Faunal Survey

2.4.1. Obvious faunal activity, such as birds or mammals observed visually or by call during the course of the surveys, was recorded. Specific attention was paid to any potential use of the site and by protected species, species of principal importance (Priority Species), or other notable species.

[3] magic.defra.gov.uk

[4] Joint Nature Conservation Committee (2010). *Handbook for Phase 1 Habitat Survey – a Technique for Environmental Audit*. England Field Unit, Nature Conservancy Council, reprinted JNCC, Peterborough.

2.4.2. In addition, specific surveys were undertaken for bats and Badgers *Meles meles*.

2.4.3. Experienced ecologists undertook the faunal surveys with regard to established best practice and guidance issued by Natural England. Details of the methodologies employed are given below.

Bats

2.4.4. Field surveys were undertaken with regard to best practice guidelines issued by the Joint Nature Conservation Committee (2004[5]) and the Bat Conservation Trust (2016[6]). A fourth edition of the Bat Conservation Trust guidelines (2023[7]) was published in September 2023 after surveys had commenced, however the updated guidelines have been given due regard within this report.

Tree Assessment

2.4.5. All trees within the site were assessed for their potential to support roosting bats. Features typically favoured by bats were searched for, including:

Obvious holes, e.g. rot holes and old Woodpecker holes;
Dark staining on the tree, below the hole;
Tiny scratch marks around a hole from bat claws;
Cavities, splits and or loose bark from broken or fallen branches, lightning strikes etc; and
Very dense covering of mature Ivy over trunk.

Internal / External Building Assessments

2.4.6. The buildings within the site were assessed for their potential to support roosting bats and were subject to internal and external surveys. Surveyors made use of equipment such as ladders, torches, mirrors, binoculars and endoscopes where necessary.

2.4.7. Evidence of the presence of bats was searched for, with particular attention paid to any roof areas and gaps between rafters and beams. Specific searches were made for bat droppings, which can indicate present or past use and extent of use, as well as other signs to indicate the possible presence of bats e.g. presence of stained areas, or areas that are conspicuously cobweb-free.

2.4.8. The probability of a building being used by bats as a summer roost site increases if it:

is largely undisturbed;
dates from pre-20th Century;

[5] Mitchell-Jones, A.J. & McLeish, A.P. (Eds.) (2004). *Bat Workers' Manual*. 3rd edition. Joint Nature Conservation Committee, Peterborough.
[6] Bat Conservation Trust (2016). *Bat Surveys for Professional Ecologists – Good Practice Guidelines (3rd Edition)*. Bat Conservation Trust.
[7] Collins, J. (ed.) (2023) *Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edition). T*he Bat Conservation Trust, London.

has a large roof void with unobstructed flying spaces;
has access points for bats (though not too draughty);
has wooden cladding or hanging tiles; and/or
is in a rural setting and close to woodland or water.

2.4.9. Conversely, the probability decreases if a building is of a modern or pre-fabricated design/construction, is in an urban setting, has small or cluttered roof voids, has few gaps at the eaves or is a heavily disturbed premises.

2.4.10. The main requirements for a winter/hibernation roost site are that it maintains a stable (cool) temperature and humidity. Sites commonly utilised by bats as winter roosts include cavities/holes in trees, underground sites and parts of buildings. Whilst different species may show a preference for one of these types of roost site, none are solely dependent on a single type.

Activity and Automated Surveys

2.4.11. Bat activity transect surveys were undertaken by two surveyors across the site in May, July and September 2023 using Echo Meter Touch 2 (EMT2) bat detectors to record the data. This data was subsequently analysed using Kaleidoscope Pro bat sound analysis software. This survey method, aimed to identify the level of foraging, and the species present foraging and commuting within the site and any areas of potentially high importance for foraging / commuting bats. The evening activity surveys commenced 15 minutes prior to sunset and were terminated at least 2 hours after sunset.

2.4.12. During the surveys, multiple SongMeter4 FS (SM4) bat detectors were left to record for a minimum of five consecutive nights at strategic locations within the site in late May, June, July and late September/early October 2023. This data was also subsequently analysed using Kaleidoscope Pro bat sound analysis software. The locations of these detectors are shown on Plans ECO4-ECO6.

Emergence & Re-entry Surveys

2.4.13. Following the results of the internal and external building assessments carried out in May 2023, building B1 was subject to emergence surveys on 12th July, 8th August and 27th September 2023 and re-entry surveys on 13th July, 9th August and 28th September 2023. The re-entry surveys began two hours prior to dawn and were terminated at sunrise, while the emergence survey began a quarter of an hour prior to dusk and were terminated two hours after dusk.

2.4.14. These surveys utilised Echo Meter Touch 2 Pro bat detectors to record the data which was subsequently analysed using Kaleidoscope Pro bat sound analysis software. The surveys involved surveyors watching potential entrance/exit points for bats, and the surveys detailed above were undertaken during suitable weather conditions.

<u>Badgers</u>

2.4.15. A specific survey was undertaken within and adjacent to the site, to search for evidence of Badgers in May 2023. Such surveys comprise two main elements. The first of these is a thorough search for evidence of Badger

setts. For any setts that were encountered, standard survey practice would record the location of each sett entrance, even if the entrance appeared disused. The following specific information was recorded where appropriate:

i) The number and location of well used or very active entrances; these are clear of any debris or vegetation and are obviously in regular use and may, or may not, have been excavated recently.

ii) The number and location of inactive entrances; these are not in regular use and have debris such as leaves and twigs in the entrance, or have plants growing in or around the edge of the entrance.

iii) The number of disused entrances; these have not been in use for some time, are partly or completely blocked and cannot be used without considerable clearance. If the entrance has been disused for some time all that may be visible is a depression in the ground where the hole used to be together with the remains of the spoil heap.

2.4.16. Secondly, any evidence of Badger activity such as well-worn paths, run-throughs, snagged hair, footprints, latrines and foraging signs were recorded so as to build up a picture of the use of the site, if any, by Badgers.

3. ECOLOGICAL FEATURES

3.1. Habitat surveys were undertaken within the site in May 2023. The following main habitat/vegetation types were identified within the site:

Amenity Grassland;
Semi-improved Grassland;
Amenity Planting;
Ruderal Vegetation;
Scattered Trees;
Hedgerows;
Buildings and Hardstanding.

3.2. The locations of these habitats are shown on Plan ECO2.

Amenity Grassland

3.3. The amenity grassland located around the residential dwellings comprise predominately of frequently cut grassland with a short sward, with species such as Perennial Rye-grass *Lolium perenne,* Cock's-foot *Dactylis glomerata,* Common Bent *Agrostis capillaris,* Yorkshire Fog *Holcus lanatus*, Annual Meadow-grass *Poa annua,* with herbaceous species including White Clover *Trifolium repens,* Common Mouse-ear *Cerastium fontanum,* Field Wood-rush *Luzula campestris*, Yarrow *Achillea millefolium,* Daisy *Bellis perennis,* Dandelion *Taraxacum officinale agg.,* Common Milkwort *Polygala vulgaris,* Sweet Vernal-grass *Anthoxanthum odoratum* and Bulbous Buttercup *Ranunculus bulbosus.*

3.4. Semi-improved Grassland

The semi-improved grasslands present in **F1** and **F2** have a species composition similar to the amenity grassland (detailed above) and are also mown frequently, with additional species present including Field Speedwell *Veronica agrestis*, Greater Plantain *Plantago major*, Ribwort Plantain *Plantago lanceolata* and occasionally found Thyme-leaved Speedwell *Veronica serpyllifolia*, Common Sorrel *Rumex acetosa*, Common Bird's-foot-trefoil *Lotus corniculatus* and Common Dog-violet *Viola riviniana*.

Amenity Planting

3.5. Areas of amenity planting are present around the site including an area on the margin of **F1** and **F2** where an *Acer sp*., Bird Cherry *Prunus padus* and Copper Beech *Fagus sylvatica* f. *purpurea* are present. Additional amenity planting within the site includes Columbine *Aquilegia vulgaris,* Primrose *Primula vulgaris, Allium sp.,* Bay Laurel *Laurus nobilis, Viburnum sp*., Daffodil *Narcissus pseudonarcissus pseudonarcissus, Berberis sp.,* Wayfaring-tree *Viburnum lantana* and Apple *Malus pumila.*

Ruderal Vegetation

3.6. Ruderal vegetation is present in the southwest corner of **F2** and uncut margins of **F1**. Species present include Common Nettle *Urtica dioica*, Bramble *Rubus fruticosus agg.,* Common Poppy *Papaver rhoeas,* Red Dead-nettle *Lamium purpureum,* Comfrey *Symphytum officinale,* Ribwort Plantain, Creeping Thistle

Cirsium arvense, Red Fescue *Festuca rubra,* Creeping Buttercup *Ranunculus repens* and Cock's-foot.

Scattered Trees

3.7. A number of trees are scattered throughout the site, including Cypress *Cupressus x leylandii,* mature Hawthorn *Crataegus monogyna,* Beech *Fagus sylvatica,* Pear *Pyrus communis* and Sessile Oak *Quercus petraea,* Weeping Willow *Salix sepulcralis* and a Silver Birch *Betula pendula.*

Hedgerows

3.8. There are six hedgerows present within the site (**H1**-**H6**), each of which are described individually below.

3.9. Hedgerow **H1** lies to the north of building **B1**, is 1m high, boxcut and comprised of Cherry Laurel *Prunus laurocerasus*.

3.10. Hedgerow **H2** is an ornamental hedgerow that is box cut that runs adjacent to buildings **B2 – B4**. It is comprised of Yew *Taxus baccata,* Willow *Salix sp.,* Elder *Sambucus nigra,* Hawthorn and Cypress. Bramble is also present throughout the hedgerow with additional ground flora including Garlic Mustard *Alliaria petiolate,* Common Nettle and Broad-leaved Dock *Rumex obtusifolius.*

3.11. Hedgerow **H3** borders **F2** to the east and has a height of approximately 2.5m with a box cut. The hedgerow is comprised of Cypress, with Bramble, Common Nettle and Cleavers also present.

3.12. Hedgerow **H4** is an ornamental hedgerow that lies along the southeast boundary and runs adjacent to building **B1**. It is comprised of Cypress and Bay Laurel with a 2m high intensive box cut.

3.13. Hedgerow **H5** is a native hedgerow located near to the eastern boundary, running adjacent to **B1** and Lymington Bottom Road. This hedgerow is heavily box cut as an amenity-style hedgerow, with a height of 2m and approximately 1m width. The hedgerow is comprised of Hazel *Corylus avellana,* Blackthorn, Hawthorn, Dogwood and Dog-rose while the ground flora is comprised of Ground Elder *Aegopodium podagraria* and Spanish Blubell *Hyacinthoides hispanica.*

3.14. Hedgerow **H6** forms part of the south and southwestern boundary of **F2** and is comprised of a mix of native and ornamental species with a face cut and reaching a height of approximately 3.5m. Species include Blackthorn *Prunus spinosa,* Hawthorn, *Berberis sp*., Firethorn *Pyracantha coccinea,* Ash *Fraxinus excelsior,* Dogwood *Cornus sanguinea,* Holly *Ilex aquifolium*, Yew, mature Sycamore *Acer pseudoplatanus,* Hollyberry Cotoneaster *Cotoneaster bullatus* and Wild Privet *Ligustrum vulgare.* Bramble, Honeysuckle *Lonicera periclymenum,* Box-leaved Honeysuckle *Lonicera pileate, Ivy* Hedera helix and Dog-rose *Rosa canina* are also trailing through the hedgerow. The associated ground flora includes Bracken *Pteridium aquilinum,* Cleavers *Galium aparine, Common* Nettle, Ground-ivy *Glechoma hederacea,* Garlic Mustard, Dandelion, Daffodil*,* Lords-and-Ladies *Arum maculatum,* Cow Parsley *Anthriscus sylvestris.*

Buildings and Hardstanding

3.15. There are five buildings (**B1**-**B5**) present within the site, each of which are detailed below.

3.16. Building **B1** is an inhabited dormer-style bungalow with associated surrounding hardstanding.

3.17. Building **B2** is a garage with a 2m high truss roof and associated hardstanding driveway.

3.18. Building **B3** is a greenhouse, whilst building **B4** is a wooden shed with a felt roof.

3.19. Building **B5** is a wooden cladded building with a corrugated metal roof functioning as a tractor shed.

Background Records

3.20. The HBIC returned one historical record of the Priority Species Corn Buttercup *Ranunculus arvensis* from within a 1km grid square encompassing the site in 1981. Other historical records also returned include the rarely found (in North Hampshire) Spear-leaved Willowherb *Epilobium lanceolatum* in 2002, approximately 0.13km east of the site and the Priority species and rare (county-wide) Thorow-wax *Bupleurum rotundifolium* from a 1km grid square 190m south of the site in 1991.

3.21. None of the above species were recorded within the site during surveys.

4. WILDLIFE USE OF THE SITE

4.1. General observations were made during the surveys of any faunal use of the site, with specific attention paid to the potential presence of protected species. Specific surveys have been undertaken with regard to Badgers and bats.

Badgers

4.1. No evidence of Badger was recorded within the site during the survey conducted in May 2023.

Bats

Tree Surveys

4.3. A mature Hawthorn *Crataegus monogyna* (**T1**), located within **F2** within the southwestern corner of **F2** was identified as having cracks along the trunk and was deemed to have low potential to support roosting bats.

Internal / External Building Assessments

4.4. Building **B1** was observed to have some external potential roosting opportunities, albeit the the roof and general structure of **B1** was observed to be in generally good condition, with the occasional raised tile observed and potential access points around the chimney. Internally, **B1** has four voids (see Plan ECO3), each of which were individually inspected for any evidence of roosting bats and described below. The voids all have built-in lights and are separated by a built-out, full-height corridor which has attic windows present on the roof. The locations of voids are shown on Plan ECO3.

4.5. **Void B1.1** is located in the eaves of the eastern-facing roof, is boarded, lined and insulated. Low access potential was recorded along the base of the eaves. The void had cobswebs present throughout the open space. No evidence of bats recorded.

4.6. **Void B1.2** is located along the eaves of the western-facing roof and is in the same structure and condition as void B1.1. No evidence of bats recorded.

4.7. **Void B1.3** is completed boarded with no access points observed and no evidence of bats recorded.

4.8. **Void B1.4** surrounds the chimney area, with potential access points observed internally around the chimney structure. A small scattering of old droppings was observed to the south of the chimney, which were sent off for DNA analysis and confirmed as Brown Long-eared *Plecotus auritus* species.

4.9. Building **B2** has a single void present (**B2.1**) which was observed to be boarded completely, lit, insulated and used as storage. No access points observed internally. The external structure of **B2** is in good condition, with no obvious

access points observed. This building was observed to have negligible roosting potential. Buildings **B3, B4** and **B5** were also deemed to have negligible potential for roosting bats.

Emergence and Re-entry Surveys

4.10. Building **B1** was subject to three emergence/re-entry surveys in July, August and September 2023. A summary of weather conditions can be seen in Table 1 below and the surveyor positions can be seen on Plan ECO3.

Table 1. Weather conditions during emergence and re-entry surveys in 2023.

Survey	Date	Temp (°C)	Cloud cover (%)	Wind Speed (mph)	Precipitation
Emergence	12.07.23	15	30	9	None
Re-entry	13.07.23	12	20	8	None
Emergence	08.08.23	17	100	9	Light rain
Re-entry	09.08.23	14	100	4	Light rain & fog
Emergence	27.09.23	18	90	15	Light drizzle
Re-entry	28.09.23	14	100	9	None

4.11. In July 2023, no emergences or re-entries were recorded. General bat activity recorded during these surveys included a peak count of 31 registrations of Pipistrelle sp. was recorded during the evening emergence survey, followed by a peak count of 14 registrations of the same species. Singular registrations was recorded from Barbastelle, *Myotis* sp., Serotine and Leisler. During the re-entry survey, a singular registration was recorded from Brown Long-eared.

4.12. In August 2023, no emergences or re-entries were recorded. General bat activity recorded during these surveys included only nine registrations of Common Pipistrelle was recorded and a single registration of Barbastelle throughout the emergence survey. The re-entry survey had no bat registrations recorded.

4.13. In September 2023, no emergences or re-entries were recorded. General bat activity during these surveys included five registrations of Common Pipistrelle during the evening emergence survey, and a single registration of Common Pipistrelle during the re-entry survey.

4.14. During the emergence surveys carried out in 2023, no emergence or re-entry of bats was recorded during any of the surveys. Generally low activity was observed, indicating infrequent foraging/commuting near to building **B1**, and predominately from the typically commonly found Pipistrelle species.

Activity Surveys

4.15. Bat activity surveys were undertaken within the site in May, July and September 2023. Weather conditions for the surveys are shown on Table 2, results are detailed below and shown on Plans ECO4-ECO6.

Table 2. Weather conditions during evening activity surveys in 2023.

Date	Temp (°C)	Cloud cover (%)	Wind Speed (mph)	Precipitation
31.05.23	13	5	14	none
13.07.23	15	20	7	none
27.09.23	12	20	8	none

4.16. During the May 2023 survey, bat activity was generally low with a total of 18 registrations of Common Pipistrelle *Pipistrellus pipistrellus,* with no other species recorded. Registrations of Common Pipistrelle were associated with **H2**, **H3** and **H4** however the majority of activity was recorded in the northwest corner of the site in **F1**. The results of this survey can be seen on Plan ECO4.

4.17. During the July 2023 survey, bat activity was low to moderate with a total of 68 registrations from Common Pipistrelle. Generally low activity was recorded of other species during July, including 19 registrations of Nathusius' Pipistrelle *Pipistrellus nathusii,* 10 registrations of Leisler's *Nyclatus leisleri,* 8 registrations of Soprano Pipistrelle *Pipistrellus pygmaeus* and a single registration of *Myotis sp.* A GPS equipment failure resulted in the inability to map all registrations onto a detailed plan however Plan ECO5 shows some registrations recorded based on visual observations of bats and timings of when species were recorded during the survey.

4.18. During the September 2023 survey, bat activity was low with a total of 21 Common Pipistrelle registrations. No other species of bat were recorded during survey. The majority of Common Pipistrelle registrations were recorded in the southwest corner of the site along **H3** with an individual registration recorded along the northern boundary of **F1**. The results of this survey can be seen on Plan ECO6.

4.19. In summary, bat activity recorded during the surveys were generally low, with the majority of registrations recorded from Common Pipistrelle and very low activity recorded from Soprano Pipistrelle, Nathusius' Pipistrelle, Leisler's, with only a single *Myotis sp.* registration recorded in July 2023.

Automated Surveys

4.20. Automated bat detectors were left to record for a minimum of seven consecutive nights in late May/early June, July and late September/early October 2023 at strategic locations within the site. The locations of these detectors can be seen on Plan ECO4-ECO6. Weather conditions for the survey are included at Table 3, while the results of the automated surveys are detailed on Tables 4-10 below. Equipment failure of an automated detector in September 2023 resulted in only one set of data being collected from this survey.

Table 3. Weather conditions during automated surveys in 2023.

Date	Weather Conditions	Sunset Temp (°C)	Minimum Night Temp (°C)	Sunset Wind Speed (mph)
May - June 2023				
31.05.23	Passing clouds	13	9	9
01.06.23	Passing clouds	13	10	12
02.06.23	Cool	14	8	10
03.06.23	Cool	17	8	7
04.06.23	Passing clouds	17	9	9
05.06.23	Passing clouds	14	10	9
06.06.23	Clear/Passing clouds	13	9	9
07.06.23	Clear	18	9	10
July 2023				
12.07.23	Clear/slight fog	20	14	3
13.07.23	Clear	21	10	5
14.07.23	Clear	21	12	2
15.07.23	Passing clouds	20	11	2
16.07.23	Passing clouds	19	13	1
17.07.23	Overcast/Passing clouds	20	16	5
18.07.23	Fog	16	12	7
19.07.23	Overcast	15	12	8
September – October 2023				
27.09.23	Overcast/Light rain	18	12	18
28.09.23	Overcast/Light rain	14	14	10
29.09.23	Overcast	14	10	5
30.09.23	Overcast	16	16	13
01.10.23	Cloudy	18	15	9
02.10.23	Cloudy/Fog	18	10	3
03.10.23	Passing clouds	14	9	10
04.10.23	Overcast	14	8	8

Table 4. 31st May – 7th June 2023. Location 1 results and average number of registrations per night.

Species	Number of registrations - Location 1.								Avg. no. registrations
	31.05.23	01.06.23	02.06.23	03.06.23	04.06.23	05.06.23	06.06.23	07.06.23	
Barbastelle	0	1	1	0	0	0	0	0	0.25
Leisler's	0	0	0	0	0	1	0	0	0.125
Nathusius' Pipistrelle	0	1	0	1	0	5	3	0	1.25
Common Pipistrelle	7	12	10	31	38	40	14	1	19.125
Soprano Pipistrelle	0	0	0	0	1	0	3	1	0.625
Brown Long-eared	2	0	0	0	1	0	0	0	0.375

Table 5. 31st May – 7th June 2023. Location 2 results and average number of registrations per night.

Species	Number of registrations - Location 2.								Avg. no. registrations
	31.05.23	01.06.23	02.06.23	03.06.23	04.06.23	05.06.23	06.06.23	07.06.23	
Serotine	0	0	1	0	1	0	0	0	0.25
Leisler's	1	0	0	0	0	0	0	0	0.125
Nathusius' Pipistrelle	0	0	1	2	1	1	0	0	0.625
Soprano Pipistrelle	8	18	37	24	31	49	31	13	26.375

Table 6. 12th– 18th July 2023. Location 1 results and average number of registrations per night.

Species	Number of registrations - Location 1.							Avg. no. registrations
	12.07.23	13.07.23	14.07.23	15.07.23	16.07.23	17.07.23	18.07.23	
Serotine	0	0	0	0	0	1	0	0.14
Myotis sp.	0	2	0	0	0	0	0	0.29
Leisler's	0	0	0	1	1	0	1	0.43
Nathusius'	4	0	0	3	9	3	1	2.86
Common Pipistrelle	111	209	8	81	447	454	227	219.57
Soprano Pipistrelle	40	69	0	19	16	19	7	24.29
Brown Long-eared	0	0	0	0	3	0	0	0.43

Table 7. 12th– 18th July 2023. Location 2 results and average number of registrations per night.

Species	Number of registrations – Location 2							Avg. no. registrations
	12.07.23	13.07.23	14.07.23	15.07.23	16.07.23	17.07.23	18.07.23	
Barbastelle	0	0	0	0	0	1	0	0.14
Myotis sp.	1	2	0	0	0	0	0	0.43
Leisler's	0	0	0	0	0	0	1	0.14
Nathusius' Pipistrelle	3	0	0	9	7	3	7	4.14
Common Pipistrelle	46	16	3	62	86	108	36	51
Soprano Pipistrelle	0	1	0	0	0	1	0	0.29
Brown Long-eared	0	0	0	0	2	0	0	0.29

Table 8. 12th– 18th July 2023. Location 3 results and average number of registrations per night.

Species	Number of registrations - Location 3.							Avg. no. registrations
	12.07.23	13.07.23	14.07.23	15.07.23	16.07.23	17.07.23	18.07.23	
Barbastelle	0	0	0	0	0	1	0	0.14
Leisler's	7	0	0	0	1	0	1	1.29
Noctule	0	0	0	0	2	0	0	0.29
Nathusius	0	0	1	6	1	3	0	1.57
Common Pipistrelle	3	2	1	7	41	27	7	12.57
Soprano Pipistrells	0	0	0	2	0	0	0	0.29
Brown Long-eared	0	0	0	0	1	1	2	0.57

Table 9. 12th– 18th July 2023. Location 4 results and average number of registrations per night.

Species	Number of registrations - Location 4							Avg. no. registrations
	12.07.23	13.07.23	14.07.23	15.07.23	16.07.23	17.07.23	18.07.23	
Barbastelle	0	0	0	0	0	0	1	0.14
Serotine	0	0	0	0	1	0	0	0.14
Myotis sp.	0	0	0	0	0	1	0	0.14
Leisler's	0	0	0	0	2	1	2	0.71
Noctule	0	1	0	1	1	0	0	0.43
Nathusius' Pipstrelle	1	0	1	6	3	4	1	2.29
Common Pipistrelle	20	98	11	61	81	221	34	75.14
Soprano Pipistrelle	1	0	0	1	0	0	0	0.29
Brown Long-eared	0	1	0	0	1	0	0	0.29

Table 10. 27th September –3rd October 2023.Location 1 results and average number of registrations per night.

Species	Number of registrations – Location 1							Avg. no. registrations
	27.09.23	28.09.23	29.09.23	30.09.23	01.10.23	02.10.23	03.10.23	
Barbastelle	0	0	0	0	1	1	0	0.29
Serotine	1	0	0	1	3	0	0	0.71
Myotis sp.	0	1	0	0	0	0	0	0.14
Leisler's	0	1	0	3	0	0	0	0.57
Noctule	0	3	2	3	3	0	2	1.86
Nathusius' Pipistrelle	0	3	1	0	0	0	0	0.57
Common Pipistrelle	10	112	40	86	279	137	162	118
Soprano Pipistrelle	2	17	12	3	11	1	12	8.29

4.21. In summary, it is considered that the site has relatively low to moderate usage by bats with Common Pipistrelle being the most commonly recorded species, which had a peak average of 213 registrations per night in July 2023 along hedgerow **H6**. There is lesser usage by Soprano Pipistrelle, and generally infrequent usage by Nathusius' Pipistrelle, Leisler's, Noctule, Serotine, *Myotis sp*., Brown Long-eared and Barbastelle. It is understood that these species are more likely to be commuting to other foraging grounds and are not reliant on the habitats present within the site.

4.22. From the results of the activity and automated survey results, it can be seen that generally low bat activity was present throughout the site with the exception of consistently moderate activity recorded from Common Pipistrelle; a common and light-tolerant species. Bat activity was typically associated with boundary features (hedgerows) and largely focused in the southern and western areas of the site (locations 1 and 4) associated with **H6**.

4.23. **Background Information.** The nearest records of bat roosts returned by the HBIC was of Serotine *Eptesicus serotinus* and a Long-eared bat species *Plecotus sp.* from approximately 27m east of the site in 2015. These roosts are associated with one of the existing residential dwellings on the adjacent side of Lymington Bottom Road, toward the east of the site boundary, and their presence was ascertained via droppings present.

4.24. The HBIC returned one record from within the site of Common Pipistrelle in 2020. The next nearest record returned was Noctule from approximately 0.42km east of the site in 2018. Additionally, records for Barbastelle *Barbastella barbastellus* and a Myotis species *Myotis sp.* were recorded approximately 0.54km northwest of the site in 2016. These species have been recorded on site. From the static detector surveys conducted, it is considered unlikely that these species are frequenting the site for foraging, however likely to be very occasionally utilising boundary features for commuting. In any event, the existing boundary features will remain post-development, providing continued navigational opportunities for these species.

Other Mammals

4.25. No evidence of any other notable or protected mammals was recorded during the surveys undertaken, although it is considered that the hedgerows offer suitable habitat for a range of small mammals.

4.26. **Background Information.** The nearest record returned by the HBIC was for European Hedgehog *Erinaceus europaeus* from approximately 0.18km south of the site in 2018. The next closest record returned was a historic record of Hazel Dormouse *Muscardinus avellanarius* from approximately 0.40km south of the site in 2001.

4.27. It is considered that the hedgerows, trees and grassland margins may provide suitable habitat for a range of common mammals. The amenity and semi-improved grasslands and hedgerows could offer some foraging and navigational opportunities for Hedgehog, albeit considering the wider landscape, it is not considered that this species would not be reliant on the habitats present within the site. In any event, suitable habitat for this species will be present post-development.

4.28. Some suitable habitat for Dormice is present along the boundary hedgerows which will largely be retained and safeguarded from the proposed development, with only a loss of hedgerow **H5** proposed to facilitate access to the proposed development. This hedgerow is not deemed suitable for Dormice due to the heavy-intensive management regime and it being adjacent to a main road. As such, impacts are not anticipated on Dormice.

Birds

4.29. During the surveys, the Red Listed Species Greenfinch *Chloris chloris* and House Martin *Delichon urbicum* were recorded within the site boundary.

4.30. It is considered that the hedgerows and scattered trees within the site offer suitable nesting and foraging habitat for a number of common birds, while the areas of semi-improved grassland and offer some foraging opportunities.

4.31. **Background Information.** The HBIC returned two records of notable birds from within a 1km grid quare overlapping the site, Red Kite *Milvus milvus* in 2019 and Red List Species Greenfinch *Pyrrhula pyrrhula* in 2020. Records for Nightingale *Luscinia megarhynchos* and Redwing *Turdus iliacus* were returned from a 1km grid square located approximately 34m west of the site in 2019, and a record of Song Thrush *Turdus philomelos* was returned for the same grid square in 2007. An additional record for Cuckoo *Cuculus canorus* was returned from a 1km grid quare located approximately 0.19km southeast of the site in 2010.

4.32. It is considered that the trees and hedgerows within the site offer some suitable opportunities for Red Kite, Greenfinch, Song Thrush, and, to a very limited extent, Redwing and Nightingale, although it is not considered any of these species would be reliant on the habitats present within the site.

Reptiles

4.33. The majority of the site consists of amenity and semi-improved grassland cut to a short sward that is unsuitable for reptiles.

4.34. **Background Information.** The nearest records of reptile returned by the HBIC were for Slow Worm *Anguis fragilis* and Adder *Vipera berus,* both recorded within a 1km grid square located approximately 0.21km southwest of the site in 2008.

4.35. Due to the lack of suitable habitat present within the site, no further regard is given to this faunal group within the remainder of this report.

Great Crested Newt

4.36. The habitats on site, such as the hedgerows and ruderal habitats, offer some potential terrestrial habitat for amphibians / Great Crested Newts. There are no ponds within the site itself, however a total of four ponds (**P1-P4**) were identified to be present on Ordnance Survey maps located within 250m of the site boundary.

4.37. Ponds **P1** and **P2** were observed to be dry during the habitat survey conducted in May 2023, whereas **P3** and **P4** are located within private residential gardens where access was not permitted.

4.38. **Background Information.** HBIC returned no records of Great Crested Newt *Triturus cristatus* from within the site. The nearest and only record returned of Great Crested Newt was from approximately 1.73km southeast of the site in 2020.

4.39. Although it is known that Great Crested Newts can disperse up to 500 metres through suitable terrestrial habitat from their breeding pond, it is widely accepted that they tend to utilise suitable terrestrial habitat within a much closer distance. Activity is usually concentrated within 100 metres of breeding ponds and key habitat is located within 50 metres (termed by Natural England as core habitat).

4.40. Indeed, English Nature Research Report Number 576 (An assessment of the efficiency of capture techniques and the value of different habitats for the Great Crested Newt *Triturus cristatus* by Warren Cresswell and Rhiannon Whitworth) states:

"*The most comprehensive mitigation, in relation to avoiding disturbance, killing or injury is appropriate within 50m of a breeding pond. It will also almost always be necessary to actively capture newts 50-100m away. However, at distances greater than 100m, there should be careful consideration as to whether attempts to capture newts are necessary or the most effective option to avoid incidental mortality. At distances greater than 200-250m, capture operations will hardly ever be appropriate*."

4.41. In 2018, Ecology Solutions conducted an eDNA on a pond ('Five Ash Pond') located approximately 400m north of the site located on the adjacent side of Lymington Bottom Road (within the southeast corner of the junction connecting Lymington Bottom Road and Five Ash Road) for an ecological assessment for a nearby planning application. The results came back negative for the presence of Great Crested Newt.

4.42. Indeed, the majority of the site comprises grassland that is managed to a short sward on a regular basis, which is unsuitable terrestrial habitat for Great Crested Newts in any event. As such, given the negative results from within a pond approximately 400m north of the site, and also given the distance of the closest record and the record being well-separated from the site (and being the only record in the search radius), and moreso the lack of suitable terrestrial habitat within the site itself, it is considered highly unlikely that Great Crested Newts would be present within the development site. However, given that access was not permitted for two ponds located within 250m, a precautionary approach with regard to Great Crested Newts is recommended during construction.

Invertebrates

4.43. Given the habitats present on site, it is likely an assemblage of common invertebrate species would be present within the site.

4.44. **Background Information.** The HBIC returned no records of any notable invertebrates from within this the site boundary. The closest record returned was for Stag Beetle *Lucanus cervus* from approximately 16m north of the site in 2015. Additional records returned included the Priority moth species Knot Grass *Acronicta rumicis* and Ear Moth *Amphipoea oculea* from with a 1km grid square located approximately 0.19km southeast of the site in 2006.

Other Species

4.45. Given the habitats present and records from the local area, there is no evidence from site surveys or desk studies to suggest that any other protected or notable species would be present within the site or affected by the proposed development.

5. ECOLOGICAL EVALUATION

5.1. The Principles of Ecological Evaluation

5.1.1. The latest guidelines for ecological evaluation produced by CIEEM[8] propose an approach that involves professional judgement, but makes use of available guidance and information, such as the distribution and status of the species or features within the locality of the project.

5.1.2. The methods and standards for site evaluation within the British Isles have remained those defined by Ratcliffe[9]. These are broadly used across the United Kingdom to rank sites, so priorities for nature conservation can be attained. For example, current Site of Special Scientific Interest (SSSI) designation maintains a system of data analysis that is roughly tested against Ratcliffe's criteria.

5.1.3. In general terms, these criteria are size, diversity, naturalness, rarity and fragility, while additional secondary criteria of typicalness, potential value, intrinsic appeal, recorded history and the position within the ecological / geographical units are also incorporated into the ranking procedure.

5.1.4. Any assessment should not judge sites in isolation from others, since several habitats may combine to make it worthy of importance to nature conservation.

5.1.5. Furthermore, relying on the national criteria would undoubtedly distort the local variation in assessment and therefore additional factors need to be taken into account, e.g. a woodland type with comparatively poor species diversity, common in the south of England may be of importance at its northern limits, say in the border country.

5.1.6. In addition, habitats of local importance are often highlighted within a local Biodiversity Action Plan (BAP). The Hampshire Biodiversity Partnership highlights a number of habitats and species. This is referred to below where relevant.

5.1.7. Levels of importance can be determined within a defined geographical context from the immediate site or locality through to the International level.

5.1.8. The legislative and planning policy context are also important considerations and have been given due regard throughout this assessment.

[8]CIEEM (2018) *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine version 1.1*. Chartered Institute of Ecology and Environmental Management, Winchester.
[9] Ratcliffe, D A (1977). *A Nature Conservation Review: the Selection of sites of Biological National Importance to Nature Conservation in Britain*. Two Volumes. Cambridge University Press, Cambridge.

5.2. Habitat Evaluation

Designated Sites

5.2.1. **Statutory Sites:** There are no statutory designated sites of nature conservation value within or immediately adjacent to the site. The nearest statutory designated site is River Itchen Site of Special Scientific Interest (SSSI), located approximately 6.7km southwest of the site.

5.2.2. The River Itchen SSSI is designated for it's classic chalk stream and river, fen meadow, flood pasture and swamp habitats. The site is also notified for significant populations of the nationally-rare southern damselfly *Coenagrion mercuriale* and assemblages of nationally-rare and scarce freshwater and riparian invertebrates. In addition, this sites' designations include Otter *Lutra lutra*, Water Vole *Arvicola terrestris*, freshwater fishes and an assemblage of breeding birds.

5.2.3. The River Itchen SSSI is well-separated from the site by existing urban developments, major and minor roads and open countryside. As such, it is not considered there will be any adverse direct or indirect effects on this statutory designated site as a result of the proposals. Indeed, the SSSI Impact Risk Zones (IRZ) overlapping the site do not identify any impacts arising from the development proposals.

5.2.4. **Non-statutory Sites:** There are no non-statutory designated sites within or immediately adjacent to the site. The nearest non-statutory designated site is Meadow at Four Marks Site of Importance for Nature Conservation (SINC), located approximately 0.52km south of the site. This site is known for the presence of Hazel Dormouse. This site is separated from the site by a railway, major and minor roads and an existing residential development. As such, it is not considered likely there would be any adverse direct or indirect effects on this non-statutory designated site as result of the development proposals.

5.2.5. Four Marks Scrub SINC is located approximately 0.74km southwest of the site and is also known for it's population of Hazel Dormouse. This site is separated by a railway line and also lies beyond the core habitat range of Dormice present within the SINC. In any event, no impacts are anticipated on habitats which Dormice may utilise within the site (i.e. hedgerows). As such, it is not considered likely there would be any adverse direct or indirect effects on this non-statutory designated site (or Hazel Dormouse) as result of the development proposals.

5.2.6. A number of other statutory and non-statutory sites are located in the wider area, but no significant effects are anticipated.

Habitats

5.2.7. The majority of habitats within the site are considered to be of low ecological importance being dominated by species-poor, semi-improved grassland and amenity grassland. The hedgerows and trees are of relatively greater ecological value in the context of the site.

Semi-improved Grassland, Amenity Grassland and Amenity Planting

5.2.8. The semi-improved grassland and amenity grassland within the site are of relatively low ecological value, comprising mainly common and widespread species and subject to frequent mowing. The amenity planting within the site, which largely comprises ornamental species, is considered to be of very limited ecological value.

5.2.9. The semi-improved grassland, amenity grassland and amenity planting will be lost as part of the proposals.

5.2.10. **Mitigation and Enhancements.** It is recommended that losses to these habitats could be offset through the creation of new species-rich grassland, sown with a native, species-rich seed mixture (such as Emorsgate's Standard General Purpose Meadow Mixture EM2) and subject to a suitable management regime in order to increase the floristic diversity of the site.

5.2.11. It is recommended that new landscape planting should comprise native species or those of benefit to wildlife. If possible, the new planting should include fruit-bearing trees / shrubs which will provide seasonal foraging opportunities for a range of wildlife including birds and other small mammals.

Hedgerows and Trees

5.2.12. The hedgerows and trees within the site are of relatively greater ecological value in the context of the site. These areas offer suitable foraging and nesting opportunities for birds and foraging and dispersal/navigational opportunities for wildlife, e.g. bats.

5.2.13. The hedgerow network around the site boundary will largely be retained, with a small loss proposed to **H6** to facilitate access, and some losses to trees located centrally to the site.

5.2.14. **Mitigation and Enhancements.** It is recommended that losses to hedgerows and trees is offset by additional hedgerow and tree planting greater than what is lost as part of the proposed development. It is recommended that the proposals utilise native species of local provenance, or those of benefit to wildlife, wherever possible.

5.2.15. It is recommended that all retained hedgerows and trees within the site be fenced at canopy width (as required) according to the current British Standards before construction work commences, to protect roots from compaction. Fences should remain in place until construction work is complete within the vicinity of hedgerows and trees.

Ruderal Vegetation

5.2.16. Losses to this habitat, considered to be of low ecological value, is proposed to facilitate the proposed development.

5.2.17. **Mitigation and Enhancements.** As detailed above, it is recommended that areas of native, species-rich grassland are sown within the proposed landscaping, which will more than offset losses to this habitat.

Buildings and Hardstanding

5.2.18. Losses to built form (i.e. buildings and hardstanding), considered to be of negligible ecological value, is proposed to facilitate the proposed development.

5.2.19. **Mitigation and Enhancements.** See 'Bats' mitigation and enhancements detailed below, in regard to the loss of building **B1**. No other mitigation required in regard to built form.

5.3. Faunal Evaluation

Badgers

5.3.1. **Legislation**. The Protection of Badgers Act 1992 consolidates the previous Badgers Acts of 1973 and 1991. The legislation aims to protect the species from persecution, rather than being a response to an unfavourable conservation status, as the species is in fact common over most of Britain, with particularly high populations in the southwest.

5.3.2. As well as protecting the animal itself, the 1992 Act also makes the intentional or reckless destruction, damage or obstruction of a Badger sett an offence. A sett is defined as "any structure or place which displays signs indicating current use by a Badger"[10]. "Current use" of a Badger sett is defined by Natural England as "how long it takes the signs to disappear", or more precisely, to appear so old as to not indicate "current use".

5.3.3. In addition, the intentional elimination of sufficient foraging area to support a known social group of Badgers may, in certain circumstances, be construed as an offence by constituting 'cruel ill treatment' of a Badger.

5.3.4. 'Interim guidance' issued by Natural England in September 2007 specifically states "it is not illegal, and therefore a licence is not required, to carry out disturbing activities in the vicinity of a sett if no badger is disturbed and the sett is not damaged or obstructed."

5.3.5. Further guidance produced by Natural England in 2009 states that Badgers are relatively tolerant of moderate levels of disturbance and that low levels of disturbance at or near to Badger setts do not necessarily disturb the Badgers occupying those setts. However, Natural England's guidance continues by stating that any activity that will, or is likely to cause one of the interferences defined in Section 3 (such as damaging a sett tunnel or chamber or obstructing access to a sett entrance) will continue to be licensed.

5.3.6. In addition, this guidance no longer makes reference to any 30m/20m/10m radius as a threshold for whether a licence would be required. Nonetheless, it is stated that tunnels may extend for 20m so care needs to be taken when implementing excavating operations within the vicinity of a sett and to take

[10] Protection of Badgers Act 1992 (as amended). Guidance on 'Current Use' in the definition of a Badger Sett http://programmeofficers.co.uk/Preston/CoreDocuments/LCC332.pdf

appropriate precautions with vibrations and noise, etc. Fires / chemicals within 20m of a sett should specifically be avoided[11].

5.3.7. The guidance allows greater professional judgement as to whether an offence is likely to be committed by a particular development activity and therefore whether a licence is required or not. For example, if a sett clearly orientates southwards into an embankment it may be somewhat redundant to have a 30m-exclusion zone to the north.

5.3.8. It should be noted that a licence cannot be issued until the site is in receipt of a full and valid planning permission and that generally licences are not granted for work between December and June inclusive to avoid disruption to the Badger breeding cycle.

5.3.9. Local authorities are obliged to consult Natural England over any work which is considered likely to adversely affect Badgers.

5.3.10. **Site usage**. No evidence of Badgers was found within the site. However, given that badgers are known from the local area, it is recommended that a precautionary approach is undertaken with regard to Badgers during construction.

5.3.11. **Mitigation and Enhancements**. During the construction phase of development, it is often necessary to undertake a number of measures to safeguard any Badgers that may be present on a site, particularly in regard to disturbance, loss of foraging and other related issues.

5.3.12. All contractors working on site will be briefed regarding the presence of Badgers and of the types of activities that would not be permissible on site. Any licensing requirements would be particularly highlighted.

5.3.13. Any trenches or deep pits that are to be left open overnight will be provided with a means of escape should a Badger enter. This could simply be in the form of a roughened plank of wood placed in the trench as a ramp to the surface. This is particularly important if the trench fills with water.

5.3.14. Any trenches/pits will be inspected each morning to ensure no Badgers have become trapped overnight. Should a Badger get stuck in a trench it will likely attempt to dig itself into the side of the trench, by forming a temporary sett. Should a trapped Badger be encountered, the project ecologists should be contacted immediately for further advice.

5.3.15. The storage of topsoil or other ‘soft’ building materials within the assessment site will be given careful consideration. Badgers will readily adopt such mounds as setts, which would then be afforded the same protection as established setts. So as to avoid the adoption of any mounds, they would be subject to appropriate inspections or consideration given to fencing them with Badger proof fencing.

5.3.16. During the development, the storage of any chemicals required for the building construction will be well away from any Badger activity and

[11] https://www.gov.uk/guidance/badgers-surveys-and-mitigation-for-development-projects

contained in such a way that they cannot be accessed or knocked over by any roaming Badgers.

5.3.17. Given the mobile/dynamic nature of this species, subject to the period of time that has elapsed prior to the commencement of development and the surveys conducted by Ecology Solutions (e.g. over 12 months) then a pre-commencement survey is recommended to ensure no setts have been excavated during the interim. Should any setts be identified then appropriate mitigation and licensing requirements may apply if the setts lies within or close proximity to any groundworks.

Bats

5.3.18. **Legislation.** All bats are protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and included on Schedule 2 of the Conservation of Habitats and Species Regulations 2017 ("the Habitats Regulations")[12]. These include provisions making it an offence to:

Deliberately kill, injure or take (capture) bats;
Deliberately disturb bats in such a way as to be likely to significantly affect:-
(i) the ability of any significant group of bats to survive, breed or rear or nurture their young; or to hibernate; or
(ii) to affect significantly the local distribution or abundance of the species concerned;
Damage or destroy any breeding or resting place used by bats;
Intentionally or recklessly obstruct access to any place used by bats for shelter or protection (even if bats are not in residence).

5.3.19. While the legislation is deemed to apply even when bats are not in residence, Natural England guidance suggests that certain activities such as re-roofing can be completed outside sensitive periods when bats are not in residence provided these do not damage or destroy the roost.

5.3.20. The words 'deliberately' and 'intentionally' include actions where a court can infer that the defendant knew 'the action taken would almost inevitably result in an offence, even if that was not the primary purpose of the act.

5.3.21. The offence of damaging (making it worse for the bat) or destroying a breeding site or resting place is an absolute offence. Such actions do not have to be deliberate for an offence to be committed.

5.3.22. Licences can be granted for development purposes by an 'appropriate authority' under Regulation 55 (e) of the Habitats Regulations. In England, the 'appropriate authority' is Natural England (the government's statutory advisors on nature conservation). European Protected Species licences permit activities that would otherwise be considered an offence.

[12] On 1st January 2021 The Habitats Regulations were replaced by the Conservation of Habitats and Species Amendment (EU Exit) Regulations 2019, however this does not materially alter the provisions of the Regulations and this assessment. Most of these changes involved transferring functions from the European Commission to the appropriate authorities in England and Wales. All other processes or terms in the 2017 Regulations remain unchanged and existing guidance is still relevant.

5.3.23. In accordance with the Habitats Regulations the licensing authority (Natural England) must apply the three derogation tests as part of the process of considering a licence application. These tests are that:

1. The activity to be licensed must be for imperative reasons of overriding public interest or for public health and safety;
2. There must be no satisfactory alternative; and
3. The favourable conservation status of the species concerned must be maintained.

5.3.24. Licences can usually only be granted if the development is in receipt of full planning permission (and relevant conditions, if any, discharged).

5.3.25. Seven species of bat are Priority Species, these are Barbastelle, Bechstein's *Myotis bechsteinii*, Noctule, Soprano Pipistrelle, Brown Long-eared, Greater Horseshoe *Rhinolophus ferrumequinum* and Lesser Horseshoe *Rhinolophus hipposideros*.

5.3.26. **Site Usage.** The hedgerows and trees within the site offer suitable foraging and dispersal/navigational opportunities for bats. The hedgerow network around the site boundary will largely be retained, with a small loss proposed to **H6** to facilitate access, and some losses to trees located centrally to the site.

5.3.27. A tree (**T1**) located within the southwest corner of the site is considered to offer low potential for roosting bats. This tree will be retained as part of the proposed development.

5.3.28. Building **B1** was found to have old bat droppings within the loft void in 2023 and DNA analysis confirmed these to have derived from Brown Long-eared species. However, emergence and re-entry surveys conducted in 2023 found no bats emerging or re-entering the building. It is therefore considered that the building does not currently represent an active roost.

5.3.29. **Mitigation and Enhancements.** As detailed above, existing features of relatively higher value for foraging and commuting bats, such as the hedgerows, will largely be retained. It is recommended that the proposals include planting of new native trees and hedgerows, and the creation of species-rich grassland, as to provide retained and enhanced foraging and navigational opportunities for bats.

5.3.30. A sympathetic lighting regime associated with the new proposals could be used, if deemed necessary, to minimise light spillage into key areas, such as the boundary features in order to retain suitable foraging and navigation habitat for bats. A sympathetic lighting regime could be achieved through the use of LED lights, which produce less light spillage than other types of lighting, and have no low / no UV content, or UV-filtered lights. In addition, the spillage of the light can be reduced further through use of low-level lights and the employment of lighting 'hoods' which will direct light below the horizontal plane, preferably at an angle less than 70 degrees.

5.3.31. An updated walkover survey will be required prior to the demolition of **B1**. If any bats or new evidence of bats is recorded, further surveys and a Natural England European Protected Species licence may be required prior to any works commencing and appropriate mitigation would need to be provided.

5.3.32. It is recommended that the tree which has low potential to support bats be safeguarded within the development proposals and buffered from any built form.

5.3.33. As an enhancement, it is recommended that bat boxes (see Appendix 3 for suitable examples), are erected on suitable retained trees or new buildings and positioned out of reach of opportunistic predators such as cats. These models of bat box are known to be attractive to a number of the smaller bat species, including Pipistrelle (known to frequent the site). This measure will provide enhanced roosting opportunities within the site.

Other Mammals

5.3.34. **Site Usage.** The hedgerows and trees provide suitable habitat for a range of common mammals. The hedgerow network around the site boundary will largely be retained, with a small loss proposed to **H6** to facilitate access, and some losses to trees located centrally to the site.

5.3.35. **Mitigation and Enhancements.** The retention of the hedgerows together with the recommended creation of new areas for biodiversity enhancement within the site and the planting of new trees would provide new and enhanced opportunities for small mammals, such as Hazel Dormouse and the Priority Species Hedgehog.

Birds

5.3.36. **Legislation.** Section 1 of the Wildlife and Countryside Act is concerned with the protection of wild birds, whilst Schedule 1 lists species which are protected by special penalties. All species of birds receive general protection whilst nesting.

5.3.37. **Site usage**. The Red Listed species Greenfinch and House Martin were recorded within the site boundary during surveys conducted in 2023.

5.3.38. The hedgerows and trees offer suitable foraging and nesting opportunities for birds, while the semi-improved grassland offer limited foraging opportunities for birds.

5.3.39. **Mitigation and Enhancements**. The recommended planting of new native trees, along with other new landscape planting such as creation of open areas for biodiversity enhancement could provide new foraging and nesting opportunities for a range of bird species. The recommended provision of berry/fruit-bearing species would also provide further seasonal foraging resources for birds.

5.3.40. In order to safeguard any nesting bird species within the site, it is recommended that the clearance of any vegetation be undertaken outside of the bird breeding season (March-August inclusive). Should this not be possible it is recommended that potential nesting habitat be subject to a check survey immediately prior to its removal by an experienced ecologist. Should any nesting birds be identified then the nest will be fully safeguarded in situ and subject to a disturbance buffer of at least 5 metres and only removed once it has been confirmed any fledglings have left the nest.

5.3.41. As an enhancement, new bird nest boxes will be provided on suitable retained trees / new buildings within the site. These will provide new nesting opportunities for a range of birds. Using nest boxes of varying designs would maximise the species complement attracted to the site and, where possible, could be tailored to provide opportunities for the Red Listed / Priority Species that are known from the local area (see Appendix 4 for suitable examples).

Great Crested Newt

5.3.42. **Legislation.** The legislative protection afforded to Great Crested Newts and the licensing provisions associated are the same as outlined above with regard to bats.

5.3.43. **Site Usage.** No ponds are present within the site itself, of which largely comprises amenity/semi-improved grassland which is considered to be unsuitable habitat for Great Crested Newts.

5.3.44. Access to two of four ponds located within 250m of the site boundary could not be accessed, whereas the other two ponds were recorded as dry in May 2023. Although it is deemed highly unlikely that Great Crested Newts would be present on site, together with the distance between the site and the closest (and only) record of this species being a considerable distance, precautionary measures will be followed in regard to Great Crested Newts to ensure this species is not impacted by the construction works.

5.3.45. **Mitigation and Enhancements.** It is recommended that Reasonable Avoidance Measures (RAMs) are implemented during construction which would avoid any potential impacts to Great Crested Newts.

5.3.46. Removal of grassland, ruderal vegetation and any hedgerows / root systems on site will be carried out under a RAMs method statement to ensure Great Crested Newts are not impacted. If necessary, the habitats to be cleared will be subject to a thorough fingertip search by a suitably qualified ecologist prior to removal, to ensure Great Crested Newts are not present. If a Great Crested Newt is recorded during the search, all works will stop within suitable habitat and a licence will be obtained from Natural England, or district licensing will be obtained by NatureSpace, before works can continue.

5.3.47. It is recommended that areas of wildflower grassland suitable for Great Crested Newts be created and maintained within the ecological open space, providing new and enhanced habitat and green corridors for this species. The planting of new native trees, hedgerows and landscape planting would provide new opportunities for Great Crested Newts.

5.3.48. It is also recommended that log piles are created on site, which would provide new shelter and hibernation opportunities for Great Crested Newts (and other amphibians).

Invertebrates

5.3.49. **Site Usage.** Given the habitats present it is likely an assemblage of common invertebrate species would be present within the site, but there is

no evidence to suggest any notable / protected invertebrates would be present.

5.3.50. **Mitigation and Enhancements.** The majority of suitable habitat for invertebrates will be retained post development. The planting of new native trees and grassland will provide suitable opportunities for a range of invertebrates. It is recommended that log piles are created from cleared vegetation sections as part of the proposals and this would provide suitable opportunities for saproxylic invertebrates.

6. PLANNING POLICY CONTEXT

6.1. The planning policy framework that relates to nature conservation at the site is issued nationally through the National Planning Policy Framework, and locally through the East Hampshire District Council: Joint Core Strategy. The proposed development will be judged in relation to the policies contained within these documents.

6.2. National Policy

National Planning Policy Framework (September 2023)

6.2.1. Guidance on national policy for biodiversity and geological conservation is provided by the National Planning Policy Framework (NPPF), published in March 2012, revised on 24th July 2018, 19th February 2019, 20th July 2021, 5th September and again on 19th December 2023. It is noted that the NPPF continues to refer to further guidance in respect of statutory obligations for biodiversity and geological conservation and their impact within the planning system provided by Circular 06/05 (DEFRA / ODPM, 2005) accompanying the now-defunct Planning Policy Statement 9 (PPS9).

6.2.2. The key element of the NPPF is that there should be “a presumption in favour of sustainable development” (paragraphs 10 to 11). It is important to note that this presumption “does not apply where the plan or project is likely to have a significant effect on a habitats site (either alone or in combination with other plans or projects), unless an appropriate assessment has concluded that the plan or project will not adversely affect the integrity of the habitats site” (paragraph 188). ‘Habitats site’ has the same meaning as the term ‘European site’ as used in the Habitats Regulations 2017.

6.2.3. Hence, the direction of Government policy is clear. That is, the presumption in favour of sustainable development is to apply in circumstances where there is potential for an effect on a European site, if it has been shown that there will be no adverse effect on that designated site as a result of the development in prospect.

6.2.4. A number of policies in the NPPF are comparable to those in PPS9, including reference to minimisation of impacts to biodiversity and provision of net gains to biodiversity where possible (paragraph 180).

6.2.5. The NPPF also considers the strategic approach that Local Authorities should adopt with regard to the protection, maintenance and enhancement of green infrastructure, priority habitats and ecological networks, and the recovery of priority species.

6.2.6. Paragraphs 185 to 187 of the NPPF comprise a number of principles that Local Authorities should apply, including encouraging opportunities to incorporate biodiversity in and around developments; provision for refusal of planning applications if significant harm cannot be avoided, mitigated or compensated for; applying the protection given to European sites to potential Special Protected Areas (SPA), possible Special Areas of Conservation (SAC), listed or proposed Ramsar sites and sites identified (or required) as compensatory measures for adverse effects on European sites; and the provision for the refusal for developments resulting in the loss or deterioration of ‘irreplaceable’ habitats – unless there are ‘wholly

exceptional reasons' (for instance, infrastructure projects where the public benefit would clearly outweigh the loss or deterioration of habitat) and a suitable compensation strategy exists.

6.2.7. National policy therefore implicitly recognises the importance of biodiversity and that with sensitive planning and design, development and conservation of the natural heritage can co-exist and benefits can, in certain circumstances, be obtained.

6.3. Local Policy

Medstead and Four Marks Neighbourhood Plan

6.3.1. The Medstead and Four Marks Neighbourhood Plan was adopted in 2016. This document contains one policy relevant to nature conservation, **policy 10**.

6.3.2. **Policy 10** (Green Infrastructure & Biodiversity) is concerned with the retention of existing green infrastructure, corridors, ponds and other wildlife habitats; and the connection of wildlife habitats in the settlements to those in the countryside.

East Hampshire Local Plan: Joint Core Strategy (JCS)

6.3.3. The East Hampshire Local Plan (JCS) was adopted in June 2014. This document contains four policies of relevance to nature conservation; policies **CP20, CP21, CP22** and **CP28**.

6.3.4. Policy **CP20** is concerned with the conservation and enhancement of the natural environment., while Policy **CP21** is concerned with maintaining, enhancing and protecting the biodiversity and surrounding environment in any development proposals. Policy **CP22** is concerned with internationally designated sites and Policy **CP28** relates to the provision, maintenance, and enhancement of new and existing green infrastructure.

6.4. Discussion

6.4.1. It is considered that the development proposals would not adversely impact upon any statutory or non-statutory designated sites. Through the recommendations set out above, the opportunity exists to provide gains in biodiversity through the creation and enhancement of areas of native wildflower grassland and new native tree and landscape planting, as well as the provision of new bird and bat boxes, which will enhance opportunities for these groups over the existing situation. As such, it is considered the proposals will accord with the four relevant policies within the Joint Core Strategy and Policy 10 of the Neighbourhood Plan.

7. SUMMARY AND CONCLUSIONS

7.1. Ecology Solutions was commissioned by Bewley Homes PLC in April 2023 to undertake an Ecological Assessment of the land west of Lymington Bottom Road, South Medstead, East Hampshire.

7.2. The proposals include the erection of 53 dwellings with vehicular access from Lymington Bottom Road, associated infrastructure and landscaping.

7.3. An extended Phase 1 habitat survey was conducted by Ecology Solutions in May 2023 in order to ascertain the general ecological value of the site and to identify the main habitats and associated plant species and faunal use around the site.

7.4. There are not considered to be any significant adverse effects on any statutory and non-statutory sites of nature conservation interest from the development proposals.

7.5. Bat usage of the site was proven to be low and generally associated with boundary hedgerows, predominately from light-tolerant and commonly found bat species. No emergences or re-entries observed during dedicated surveys in 2023 on the bungalow. An updated walkover is recommended prior to the demolition of building B1 to determine whether the building is being used by roosting bats. One tree on site was observed to have low roosting potential for bats which will be retained and safeguarded from the proposed development.

7.6. The hedgerow network around the site boundary will largely be retained, with a small loss proposed to a hedgerow to facilitate access, and some losses to trees located centrally to the site. It is recommended that planting of new hedgerows, trees and areas of landscape planting are included within the proposed development, as it will provide continued foraging and navigational opportunities for bats. It is recommended that any new planting consists of native species or species of known value to wildlife. The recommended erection of new bat boxes within the site will provide new roosting opportunities for bats.

7.7. A sensitive lighting regime, if necessary, post-development could ensure dark corridors are retained for bats, particularly along retained trees and hedgerows.

7.8. Precautionary RAMs are recommended in regard to Great Crested Newts during the construction phase.

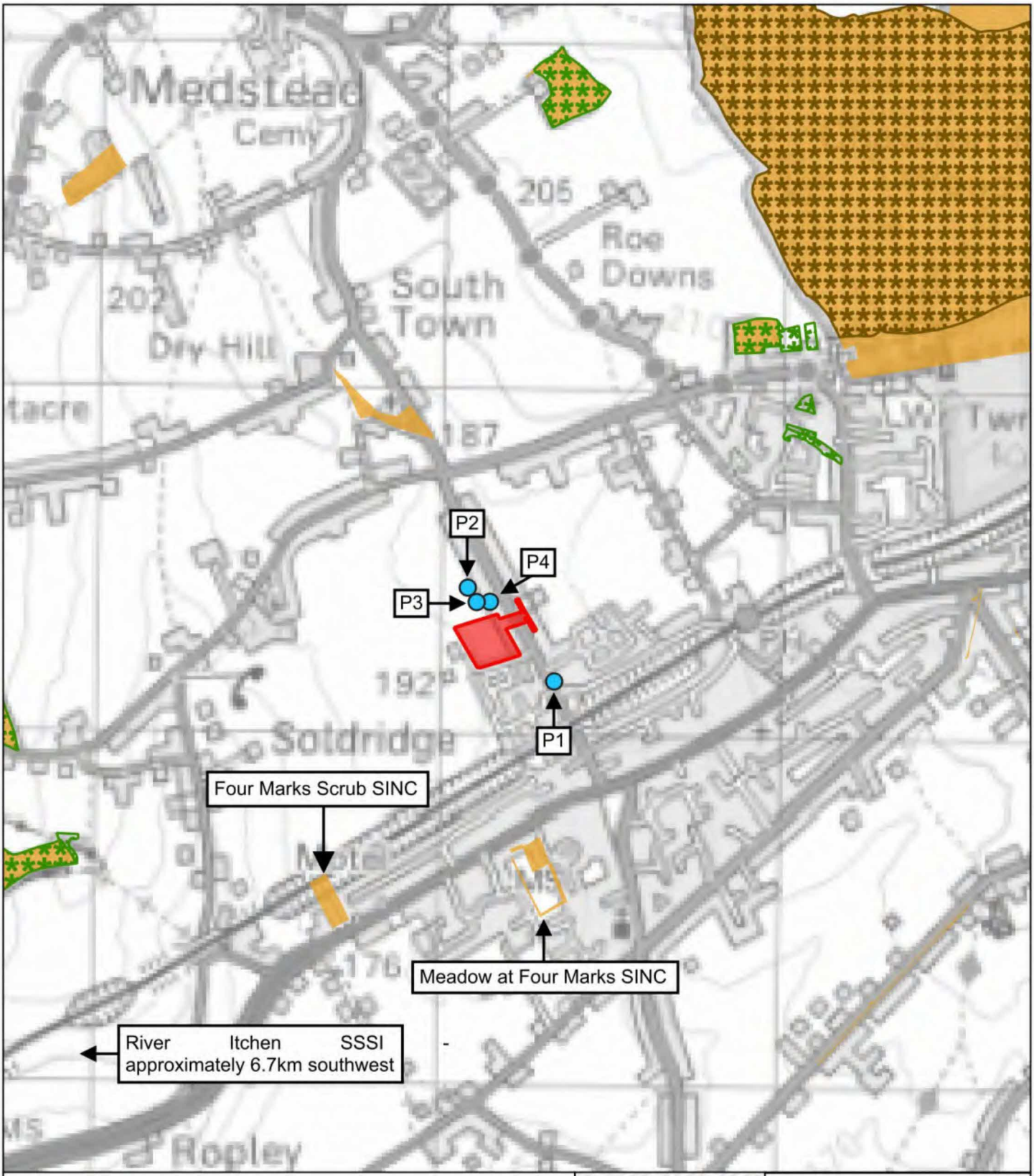
7.9. The retention of the majority of hedgerows as well as the provision of new trees and landscape planting, will maintain opportunities for birds, while the erection of bird boxes within the site will also provide new nesting opportunities. Safeguards for nesting birds during vegetation clearance are recommended.

7.10. In conclusion, with the implementation of the safeguards and recommendations set out within this report, it is considered that the proposals accord with planning policy with regard to nature conservation at all administrative levels.

PLANS

PLAN ECO1

Site Location, Ecological Designations and Offsite Ponds within 250m



KEY:

- SITE LOCATION
- SITE OF IMPORTANCE FOR NATURE CONSERVATION (SINC)
- ANCIENT REPLANTED WOODLAND
- ANCIENT & SEMI-NATURAL WOODLAND
- POND LOCATED WITHIN 250m OF SITE BOUNDARY

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8631: LYMINGTON BOTTOM ROAD, SOUTH MEDSTEAD

PLAN ECO1: SITE LOCATION, ECOLOGICAL DESIGNATIONS & OFFSITE POND LOCATIONS

Rev: A

Dec 2023

PLAN ECO2

Ecological Features and Protected Species

KEY:

- SITE BOUNDARY
- SEMI-IMPROVED GRASSLAND
- AMENITY GRASSLAND
- HARDSTANDING
- BUILDING
- AMENITY PLANTING
- RUDERAL VEGETATION
- SPECIES-RICH HEDGEROW
- NATIVE HEDGEROW
- ORNAMENTAL HEDGEROW
- FENCE
- TREE
- TREE WITH LOW ROOSTING POTENTIAL FOR BATS
- BUILDING WITH EVIDENCE OF ROOSTING BATS

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PLAN ECO2: ECOLOGICAL FEATURES AND PROTECTED SPECIES

Rev: A

Dec 2023

PLAN ECO3

Void Inspection Results and Emergence / Re-entry Surveyor Positions

KEY:

- BUILDING WITH EVIDENCE OF ROOSTING BATS
- BUILDING WITH NEGLIGIBLE ROOSTING POTENTIAL
- BROWN LONG-EARED DROPPINGS RECORDED IN VOID
- NO EVIDENCE OF BATS IN VOID
- (0) EMERGENCE SURVEYOR LOCATION
- (0) RE-ENTRY SURVEYOR LOCATION

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PLAN ECO3: VOID INSPECTION RESULTS AND EMERGENCE / RE-ENTRY SURVEYOR POSITIONS

Rev: A

Dec 2023

PLAN ECO4

May 2023 Bat Survey Results

KEY:

- SITE BOUNDARY
- AUTOMATED DETECTOR
- COMMON PIPISTRELLE REGISTRATION

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8631: LYMINGTON BOTTOM ROAD, SOUTH MEDSTEAD

PLAN ECO4: MAY 2023
BAT SURVEY RESULTS

Rev: A

Dec 2023

PLAN ECO5

July 2023 Bat Survey Results

KEY:

- SITE BOUNDARY
- AUTOMATED DETECTOR
- OBSERVED ACTIVITY FROM COMMON PIPISTRELLE
- OBSERVED ACTIVITY FROM PIPISTRELLE SP.
- OBSERVED ACTIVITY FROM LEISLER'S

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PLAN ECO5: JULY 2023
BAT SURVEY RESULTS

Rev: A

Dec 2023

PLAN ECO6

September 2023 Bat Survey Results

KEY:

- SITE BOUNDARY
- AUTOMATED DETECTOR
- COMMON PIPISTRELLE REGISTRATION

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8631: LYMINGTON BOTTOM ROAD, SOUTH MEDSTEAD

PLAN ECO6: SEPTEMBER 2023
BAT SURVEY RESULTS

Rev: A

Dec 2023

APPENDICES

APPENDIX 1

Site Layout Plan

Notes:
This drawing and the works depicted are the copyright of Boyer.
This drawing is for planning purposes only. It is not intended to be used for construction purposes. Whilst all reasonable efforts are used to ensure drawings are accurate, Boyer accept no responsibility or liability for any reliance placed on, or use made of, this plan by anyone for purposes other than those stated above.

All contractors must visit the site and be responsible for taking and checking Dimensions.

Key:

Application boundary

Rev	Date	Description	Drawn	Chkd
Z	21.12.23	Minor updates	MR	NB
Y	19.12.23	Highway comments incorporated	MR	NB
X	15.12.23	Highway comments incorporated	AW	AW
W	13.12.23	Layout updated to work with the supporting plans	AW	AW
V	12.12.23	Highway comments incorporated	AW	AW

Client
Bewley Homes PLC

Boyer

Project
Land West of Lymington Bottom Rd
South Medstead

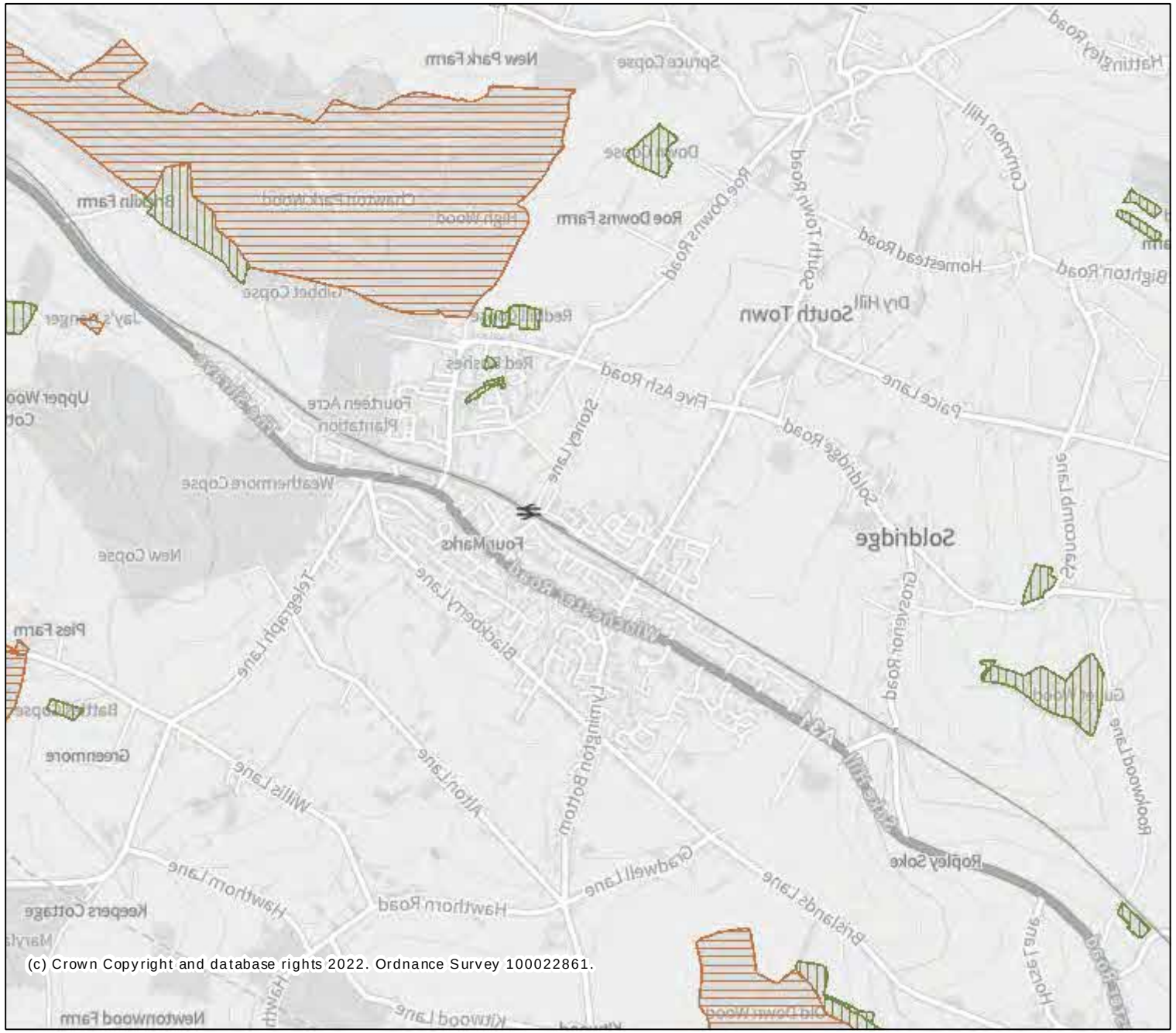
Drawing Title
Proposed Site Layout

Drawing No. SL-01 | Job Ref. 21.2039
Scale @ A1 1:500 | Revision Z
Scale Bar 0 5 10 15 20m

APPENDIX 2

Information obtained from MAGIC

Magic Map



Legend

- Local Nature Reserves (England)
- National Nature Reserves (England)
- Ramsar Sites (England)
- Proposed Ramsar Sites (England)
- Sites of Special Scientific Interest (England)
- Special Areas of Conservation (England)
- Possible Special Areas of Conservation (England)
- Special Protection Areas (England)
- Potential Special Protection Areas (England)

Ancient Woodland (England)

- Ancient and Semi-Natural Woodland
- Ancient Replanted Woodland

Projection = OSGB36
xmin = 458700
ymin = 131400
xmax = 474600
ymax = 139200

0 0.5 1
km

Map produced by MAGIC on 15 December, 2023.

APPENDIX 3

Suitable Examples of Bat Boxes

Bat Boxes

Schwegler bat boxes are made from 'woodcrete' and have the highest rates of occupation of all types of box.
The 75% wood sawdust, clay and concrete mixture is ideal, being durable whilst allowing natural respiration and temperature stability. These boxes are rot and predator proof and extremely long lasting.
Boxes can be hung from a branch near the tree trunk or fixed using 'tree-friendly' aluminum nails.

1FF Bat Box

The rectangular shape makes the 1FF suitable for attaching to the sides of buildings or in sites such as bridges, though it may also be used on trees. It has a narrow crevice-like internal space to attract Pipistrelle and Noctule bats.

Woodcrete (75% wood sawdust, concrete and clay mixture)
Width: 27cm
Height: 43cm
Weight: 8.3kg

2FN Bat Box

A large bat box featuring a wide access slit at the base as well as an access hole on the underside. Particularly successful in attracting Noctule and Bechstein's bats.

Woodcrete construction, 16cm diameter, height 36cm.

2F Bat Box

A standard bat box, attractive to the smaller British bat species. Simple design with a narrow entrance slit on the front.

Woodcrete construction, 16cm diameter, height 33cm.

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Images and text adapted from manufacturer's website: *https://www.schwegler-natur.de/fledermaus/?lang=en*

APPENDIX 4

Suitable Examples of Bird Boxes

Bird Boxes

Schwegler bird boxes have the highest rates of occupation of all types of box.
They are designed to mimic natural nest sites and provide a stable environment with the right thermal properties for chick rearing and winter roosting. Boxes are made from 'Woodcrete'. This 75% wood sawdust, clay and concrete mixture is breathable and very durable making these bird boxes extremely long lasting.

1B Bird Box

This is the most popular box for garden birds and appeals to a wide range of species. The box can be hung from a branch or nailed to the trunk of a tree with a 'tree-friendly' aluminium nail.

Available in four colours and three entrance hole sizes. 26mm for small tits, 32mm standard size and oval, for redstarts.

2H Bird Box

This box is attractive to spotted flycatcher and black redstarts.

Best sited on the walls of buildings with the entrance on one side.

2M Bird Box

A free-hanging box offering greater protection from predators.
Supplied complete with hanger which loops and fastens around a branch.

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Images and text adapted from manufacturer's website: *https://www.schwegler-natur.de/fledermaus/?lang=en*

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