CASSEL HOTELS
(CAMBRIDGE) LIMITED

ECOLOGYSOLUTIONS

Part of the ES Group

HOTEL FELIX,
WHITEHOUSE LANE,
CAMBRIDGE

Ecological Assessment

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ecology solutions for
planners and developers

PROTECTED SPECIES

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APPENDIX 1	Information downloaded from the Multi-Agency Geographic Information for the Countryside (MAGIC) website

1. INTRODUCTION

1.1. Background & Proposals

1.1.1. Ecology Solutions was commissioned in June 2020 by Cassel Hotels (Cambridge) Limited to undertake an ecological assessment of the site at Hotel Felix, Whitehouse Lane, Cambridge (see Plan ECO1).

1.1.2. The proposals for the site are for the development of an 80-bed residential care home with associated access, car park and landscaping (including residents' gardens, a formal courtyard and a sensory garden). The proposals require the demolition of the existing buildings.

1.2. Site Characteristics

1.2.1. The site comprises the existing built form of Hotel Felix, alongside associated buildings and significant areas of car parking and access. Areas of established amenity planting and amenity grassland are present across the site alongside scattered trees and amenity hedgerows. Further hedgerows and semi-mature trees are present on the margins of the site (see Plan ECO2).

1.2.2. The site is located in the northwest of the city of Cambridge; Whitehouse Lane separates the site from residential dwellings, which also lie to the west of the site and form the village of Girton. Immediately north and south lie arable fields, and further to the north and west lie the M11 motorway and the A14 trunk road approximately 1.1km west and 0.9km north of the site respectively.

1.3. Ecological Assessment

1.3.1. This document assesses the ecological interest of the site. The importance of the habitats within the site are 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 and, where appropriate, potential enhancement measures are put forward and reference made to both Priority Species and Priority Habitats (formerly National and Local Biodiversity Habitat Plans).

[1] CIEEM (2018). *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine.* Version 1.1 – Updated September 2019. Chartered Institute of Ecology and Environmental Management, Winchester.

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 Cambridgeshire and Peterborough Environmental Records Centre (CPERC). This data is referenced in this report where relevant.

2.2.2. Further information on designated sites from a wider search area was obtained from the online Multi-Agency Geographic Information for the Countryside (MAGIC)[2] database, which uses information held by Natural England and other organisations.

2.2.3. This information is reproduced at Appendix 1 and, where appropriate, illustrated on Plan ECO1.

2.3. Habitat Survey

2.3.1. Habitat surveys were carried out by Ecology Solutions in July 2020 in order to ascertain the general ecological value of the site and to identify the main habitats and associated plant species located within.

2.3.2. The site was surveyed based around extended Phase 1 habitat survey methodology[3], 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 in different seasons.

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 by protected species, priority species (formerly Biodiversity Action Plan (BAP) species), or other notable species.

[2] http://www.magic.gov.uk
[3] 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 to general observations of faunal activity, specific surveys were completed for Badgers *Meles meles* and bats.

Badgers

2.4.3. During the Phase 1 habitat survey, the site was thoroughly searched for evidence of Badger setts. For any setts encountered, each sett entrance would be noted and plotted, even if the entrance appeared disused. The following information would be recorded:

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.

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

Bats

<u>Initial Appraisal</u>

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 *Hedera helix* over trunk.

2.4.6. Field surveys were undertaken with regard to best practice guidelines issued by Natural England (2004[4]), the Joint Nature Conservation Committee (2004[5]) and the Bat Conservation Trust (2016[6]).

[4] Mitchell-Jones, A. J. (2004). *Bat Mitigation Guidelines*. English Nature, Peterborough.
[5] Mitchell-Jones, A.J. & McLeish, A.P. (Eds.) (2004). *Bat Workers' Manual*. 3rd edition. Joint Nature Conservation Committee, Peterborough.
[6] Collins, J. (2016). *Bat Surveys for Professional Ecologists: Good Practice Guidelines*. 3rd Edition. The Bat Conservation Trust, London.

2.4.7. An internal bat survey of Hotel Felix and the loft voids present was undertaken in July 2020.

2.4.8. The survey work was undertaken using (where necessary) a ladder, torch, endoscope, mirrors and binoculars. Internally, evidence of the presence of bats was also sought. Where appropriate, detailed search was made for bat droppings on the floors of the building or the loft voids (droppings can indicate present or past use by bats and extent of use). Other signs sought included dead animals, staining on beams or around crevices, and areas that were conspicuously cobweb-free.

2.4.9. Exterior checks of the buildings were also undertaken in order to search for signs of any use by bats. Binoculars were used to inspect any inaccessible areas more closely.

2.4.10. Survey work was led by a Natural England bat licence holder.

2.4.11. 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;
- 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.

2.4.12. 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.

2.4.13. The main requirement for a winter / hibernation roost site is 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.

<u>Emergence and Re-entry Surveys</u>

2.4.14. In addition to the internal and external surveys, two dusk emergence surveys were undertaken in July and August 2020 and a dawn re-entry survey was undertaken in September 2020. The echolocation calls of bats was recorded using iPads combined with Echo Meter Touch 2 PRO bat detectors to record the data, which together with direct observation was used to identify any roosting bats leaving the buildings in the evening, entering the buildings in the morning or using the surrounding area for foraging. The emergence surveys were undertaken from fifteen minutes prior to sunset until approximately two hours after sunset whilst the re-entry survey was undertaken from approximately two hours prior to sunrise until fifteen minutes after sunrise.

2.4.15. Following completion of the surveys, the recorded data was subsequently analysed using the Kaleidoscope Pro bat sound analysis software.

2.4.16. Surveys were conducted when the night-time temperature was above 10°C. The insectivorous diet of bats means there is little or no food available when temperature falls below this level and consequently levels of activity are low and may not accurately reflect the value of the application site for bats. The weather conditions for the surveys were recorded and any limitations noted.

2.5. Survey Constraints and Limitations

2.5.1. To adhere to Government guidance on Covid-19 and Ecology Solutions' company protocols, buildings that were occupied (or where surveying would overwise cause an unacceptable risk to employees) were only subject to external appraisals. This was applicable to one of the buildings within the site (B2) whilst social distancing measures were put in place when surveying areas of Building B1, as surveyors would not access occupied rooms.

3. ECOLOGICAL FEATURES

3.1. A habitat survey was undertaken within the site by Ecology Solutions in July 2020.

3.2. The following main habitat / vegetation types were identified within the site during the survey undertaken:

- Buildings;
- Hardstanding;
- Amenity Planting;
- Amenity Grassland;
- Amenity Hedgerows;
- Hedgerows; and
- Trees.

3.3. The locations of these habitats are shown on Plan ECO2 and are described individually below.

3.1. Buildings

3.1.1. The site is dominated by the current Hotel Felix, a Victorian structure with modern brick buildings extending to form wings (see Photographs 1 and 2). The building was no longer functioning as hotel at the time of survey, but was occupied by a several property guardians. An additional residential dwelling lies to the northwest of the main building and is of a different design. The buildings are labelled B1 to B2 on Plan ECO2 and are described individually below.

3.1.2. **Building B1** is the principal building on site and is a large Victorian three-storey structure of brick with a slate multi-pitched roof containing several chimneys (see Photograph 1). A recently erected flat-roofed conservatory is attached to the southeast corner of the building. Internally the building is subdivided into a number of rooms and hallways, including the hotel reception, restaurant and bar and several conference rooms. Guest bedrooms and bathrooms are situated above, on the first floor and second floor.

3.1.3. Two additional wings extend northwards from the building, which each comprise a single storey brick-built extension leading to a similarly designed two-storey structure (see Photograph 2). Painted wooden soffit boxes are present on the exterior of the building, in addition to lead flashing. Guest bedrooms and bathrooms lead from a central hallway in both wings. Overall, the building appears to be in good condition. Building B1 supports windows on all sides and was occupied at the time of the survey. Ivy is present upon much of the building's façade.

3.1.4. **Building B2** is a small, two-storey brick-built structure immediately adjacent to the northwestern wing of Building B1 (see Photograph 3). Separate from Building B1, internal access was not possible at the time of the survey. A slate hipped roof is present, alongside painted wooden soffit boxes. Overall, the building appears to be in good condition.

3.1.5. A painted wooden pagoda is present within the grounds of the hotel, close to the southern boundary. With a slate-tiled hipped wooden roof, the structure appeared to be in good condition. In addition, two small wooden sheds are located in the northwestern corner of the site. These structures were locked and also appear to be in good condition.

3.2. **Hardstanding**

3.2.1. Hardstanding is present throughout the site in the form of concrete paving slabs, brick, tarmac and gravel (see Photograph 4). The hardstanding predominantly serves as areas of car parking along with walkways, storage areas, seating areas, bin storage and access points for deliveries. Several opportunistic species were noted growing within areas of patchy gravel or between cracks in tarmac and brickwork and include Bristly Oxtongue *Picris echioides*, Wood Sorrel *Oxalis acetosella*, Willowherb *Epilobium* sp., Groundsel *Senecio vulgaris*, Field Bindweed *Convolvulus arvensis*, Cleavers *Galium aparine*, Ribwort Plantain *Plantago lanceolata*, Creeping Thistle *Cirsium arvense*, Canadian Fleabane *Conyza canadensis* and Prickly Sow-thistle *Sonchus asper*.

3.3. **Amenity Planting**

3.3.1. Areas of amenity planting are present across the site, in particular along the southern boundary which separates the site from the adjacent field and adjacent to the main building (see Photographs 1, 3, 4 and 5). These are generally non-native and ornamental species, and include: Mophead Hydrangea *Hydrangea macrophylla*, Smooth Hydrangea *Hydrangea arborescens*, Japanese Ivy *Parthenocissus tricuspidata*, American Boxwood *Buxus sempervirens*, Red Bark Dogwood *Cornus Alba Sibirica*, Guelder Rose *Viburnum opulus*, Japanese Ashberry *Mahonia japonica*, Snowberry *Symphoricarpos albus*, Bergenia *Bergenia* sp., Ivy, Rose *Rosa* sp., Black Hellebore *Helleborus niger*, Holm Oak *Quercus ilex*, Red Osier Dogwood *Cornus sericea*, Rockspray Cotoneaster *Cotoneaster horizontalis,* Holly *Ilex aquifolium* and Red Robin *Photinia* × *fraseri*.

3.3.2. Several small areas within the site dedicated to edible herbs, and other aromatics, were also observed. Plants noted within include Sage *Salvia officinalis*, Rosemary *Salvia rosmarinus*, Lavender *Lavandula* sp., Fennel *Foeniculum vulgare*, Lemon balm *Melissa officinalis,* Apple Mint *Mentha suaveolens*, Bay *Laurus nobilis*, Marjoram *Origanum majorana*, Salad Burnet *Sanguisorba minor* and Lemon Verbena *Aloysia citrodora*.

3.4. **Amenity Grassland**

3.4.1. Areas of formerly closely-mown and well-maintained amenity grassland are present throughout the site (see Photograph 2, 3 and 6). The sward was long at the time of survey, with the following species noted as being present: Yorkshire Fog *Holcus lanatus*, Perennial Rye Grass *Lolium perenne*, Timothy *Phleum pratense*, Cocksfoot *Dactylis glomerata* and False Oat-grass *Arrhenatherum elatius*.

3.4.2. Other species recorded within the grassland areas include: Ragwort *Senecio jacobaea*, Selfheal *Prunella vulgaris*, Willowherb, Black Medick *Medicago lupulina*, Shepherd's-purse *Capsella bursa-pastoris*, Creeping Buttercup *Ranunculus repens*, Bristly Oxtongue, Wood Sorrel, Daisy *Bellis*

perennis, Greater Plantain *Plantago major*, Creeping Thistle, Canadian Fleabane, Curled Dock *Rumex crispus*, White Clover *Trifolium repens*, Fat-hen *Chenopodium album*, Dandelion *Taraxacum officinale*, Common Chickweed *Stellaria media*, Ribwort Plantain, Dove's-foot Crane's-bill *Geranium molle*, Bulbous Buttercup *Ranunculus bulbosus*, Lesser Hawkbit *Leontodon saxatilis*, Hedge Bindweed *Calystegia sepium*, Garlic Mustard *Alliaria petiolate*, Prickly Sow-thistle, Common Mallow *Malva sylvestris*, Spear Thistle *Cirsium vulgare*, Black Horehound *Ballota nigra*, Scentless Mayweed *Tripleurospermum inodorum*, Yarrow *Achillea millefolium*, Field Bindweed and Herb Robert *Geranium robertianum*.

3.5. **Amenity Hedgerows**

3.5.1. Several amenity hedgerows separate the car park in the eastern part of the site from the adjacent road and amenity grassland areas in addition to separating areas of amenity planting (see Photograph 7). Approximately 1.1 to 1.5m in height, the hedgerows in the east comprised Beech *Fagus sylvatica* whilst Japanese Spindle *Euonymus japonicus* hedgerows were observed in the west of the site.

3.6. **Hedgerows**

3.6.1. Several hedgerows are present across the site, primarily associated with the site boundaries in the north and south of the site. Averaging between 2m and 6m in height, species noted during the course of the survey include: Beech, Holly, Sycamore *Acer pseudoplatanus*, Yew *Taxus baccata*, Field Maple *Acer campestre*, Cherry Plum *Prunus cerasifera*, Elder *Sambucus nigra*, Ash *Fraxinus excelsior*, Snowberry, Hornbeam *Carpinus betulus*, Apple *Malus pumila*, Leyland Cypress *Cupressus x leylandii*, Hawthorn *Crataegus monogyna*, Small-Leaved Lime *Tilia cordata*, Guelder Rose, Hazel *Corylus avellana*, Blackthorn *Prunus spinosa*, Privet *Ligustrum* sp. alongside Bramble *Rubus fruticosus* and Ivy.

3.7. **Trees**

3.7.1. A number of semi-mature trees are present across the site, associated with amenity planting in the main part of the site and within hedgerows along the site boundaries, within the amenity grassland adjacent to the main hotel building, and along the roadside (see Photographs 2, 4 and 6).

3.7.2. Species recorded include Small-Leaved Lime, Walnut *Juglans regia*, Common Lime *Tilia* × *europaea*, Sycamore, Lilac *Syringa vulgaris*, Cherry Plum, Sycamore, White Poplar *Populus alba*, Hornbeam, Silver Birch *Betula pendula*, Pine *Pinus* sp., Elder, Ash, Pear *Pyrus communis*, Leyland Cypress, Field Maple, Black Locust *Robinia pseudoacacia*, Oak *Quercus robur*, Hawthorn *Crataegus monogyna*, Elm *Ulmus procera*, Walnut, Yew, Cherry Laurel *Prunus laurocerasus*, Black Walnut *Juglans nigra*, Beech, Snowberry, Atlantas cedar *Cedrus atlantica*, Hawthorn, Hazel, Horse-chestnut *Aesculus hippocastanum*, Great Redwood *Sequoiadendron giganteum* and Maidenhair-tree *Ginkgo biloba*.

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.

4.2. Badgers

4.2.1. The site was thoroughly checked for evidence of Badgers in July 2020. No evidence, such as a Badger sett or any other field signs that could be attributed to this species, was recorded within the site.

4.2.2. The margins of the site, including the hedgerows and areas of amenity planting, provide some continued but restricted suitable habitat for Badger. Therefore, the site provides some limited opportunities for foraging and dispersal for any social group active in the area.

4.2.3. The data search returned nineteen Badger records within the last decade, the closest of which refers to a location approximately 0.8km north of the site in 2013. The most recent record dates from 2019, relates to road traffic victims found 4km to the west of the parcel.

4.3. Bats

4.3.1. The trees, hedgerows, amenity planting and (to a lesser degree) the unmanaged amenity grassland offer some limited bat foraging potential. Similar adjacent habitats, such as other nearby gardens may also be of some interest for bats.

4.3.2. The adjacent sports and playing fields, in addition to the hedgerow-bound arable fields to the northwest of the site act as a potential commuting and foraging corridor.

4.3.3. Street lighting within areas of car parking and hardstanding will illuminate the western, northern and eastern façades of the buildings, which could potentially deter bats.

4.3.4. Several loft spaces are present and accessible within **Building B1**. Droppings belonging to a Brown Long-eared Bat *Plecotus auritus* were observed within the westernmost void within the main part of Building B1. The void measures approximately 9.5m by 6m, with an apex height of approximately 2.5m (see Photograph 8). The loft void possesses exposed wooden beams and rafters with bitumen roofing felt lining. The floor of the loft void is covered in large quantities of fibreglass insulation and the western-facing dormer window is boarded up. Several pipes are also present. Overall, the loft is in good condition, but several tears in the bitumen lining were noted, alongside several gaps in the roof where the pipes exit the loft void. A plastic, south-facing vent was also observed to be broken, with a significant hole providing a possible entry-point to the loft void.

4.3.5. The exterior of Building B1 offers multiple potential opportunities for roosting bats. From a ground level inspection, several instances of missing, cracked, raised and loose roof slates were noted across the building, encompassing the original Victorian structure and the two modern wings. These all provide potential access to crevices between the

roof slates and inner bitumen roof lining or any further cavities that may be present.

4.3.6. In light of these features, and of the droppings recorded, Building B1 was classed as being of high suitability for roosting bats.

4.3.7. **Building B2** was initially surveyed in July 2020; the exterior of the building offers multiple potential opportunities for roosting bats. From a ground level inspection, several instances of raised slates were noted, providing potential access to crevices and any cavities which may be present beneath. Damage to the soffit boards on the exterior of the building may also offer potential roosting opportunities. This building was considered to have low potential to support roosting bats.

4.3.8. The prevailing weather conditions for each of the bat surveys undertaken at the site are presented in Table 4.1 below.

Date	30.07.20	26.08.20	10.09.20
Survey Type	Emergence	Emergence	Re-entry
Sunset	20:53	19:59	06:27
Time	20:38 to 22:53	19:44 to 21:59	04:27 to 06:42
Cloud Cover	0/8	2/8	0/8
Temperature (°C)	23 to 19	20 to 16	11 to 10
Weather	Clear with a light breeze, dry and warm.	Mostly clear with a light breeze; dry and warm.	Clear, calm, chilly and dry.

Table 4.1. Prevailing weather conditions for bat surveys.

Emergence Survey 30.07.20

4.3.9. A low level of foraging and commuting activity was recorded around the buildings, with the largest number recorded just south of the Building B1, close to the southern boundary of the site. No bats were seen to emerge from either Building B1 or B2 during the emergence survey, the results of which are illustrated on Plan ECO3.

4.3.10. The majority of registrations were attributed to Common Pipistrelles *Pipistrellus pipistrellus*, with Soprano Pipistrelle *Pipistrellus pygmaeus* and Pipistrelle sp. alongside Noctule Bat *Nyctalus noctula* and Leisler's Bat *Nyctalus leisleri*, albeit less frequently (see Table 4.2[7]).

4.3.11. The first registration was recorded 21 minutes after sunset at 21:14 at Position 2 and was attributed to a Soprano Pipistrelle. Activity continued intermittently in the area throughout the survey.

[7] In all cases the following abbreviations are used: Nn/Noctule *Nyctalus noctula*; Nl/Leisler's Bat *Nyctalus leisleri*; Psp/Pipistrelle species; Ppip/Common Pipistrelle; *Pipistrellus pipistrellus;* Ppyg/Soprano Pipistrelle *Pipistrellus pygmaeus* and Pn/Nathusius' Pipistrelle *Pipistrellus nathusii*.

Surveyor Position	Species	No. Registrations	First Registration after sunset
Position 1	Ppip	16	35 mins
	Ppyg	3	36 mins
	Nn	2	53 mins
Total	**3**	**21**	
Position 2	Ppip	17	41 mins
	Ppyg	28	21 mins
	Nn	3	54 mins
Total	**3**	**48**	
Position 3	Ppip	14	41 mins
	Ppyg	4	40 mins
	Psp	1	1 h 58 mins
	Nn	5	54 mins
	Nl	1	53 mins
Total	**5**	**25**	
Position 4	Ppip	9	56 mins
	Ppyg	4	43 mins
	Nn	1	54 mins
	Nl	1	53 mins
Total	**4**	**15**	
Grand Total	**5**	**109**	

Table 4.2. Emergence survey results 30.07.20.

Emergence Survey 26.08.20

4.3.12. A low to moderate level of foraging and commuting activity was recorded around the buildings, with the largest number recorded just north of the main building, along the northern boundary of the site. Once more, no bats were seen to emerge from either Building B1 or B2 during the emergence survey, the results of which are illustrated on Plan ECO4.

4.3.13. The majority of registrations were attributed to Common Pipistrelles, with Soprano Pipistrelles, Nathusius Pipistrelles, Pipistrelle sp., Noctule Bat and Leisler's Bat, also recorded (see Table 4.3).

4.3.14. The first registration was recorded 20 minutes after sunset at 20:19 at several positions and was attributed to a Noctule Bat.

Surveyor Position	Species	No. Registrations	First Registration after sunset
Position 1	Ppip	7	30 mins
	Ppyg	4	27 mins
	Nn	2	20 mins
	Nl	2	1 h 52 mins
Total	**4**	**15**	
Position 2	Ppip	21	31 mins
	Ppyg	7	27 mins
	Pn	1	1 h 39 mins
	Psp	1	1 h 37 mins
	Nn	1	20 mins
	Nl	2	1 h 52 mins
Total	**5**	**33**	
Position 3	Ppip	60	31 minutes
	Ppyg	3	51 minutes
	Pn	1	1 h 37 mins
	Psp	1	1 h 37 mins
	Nn	1	1 h 14 mins
	Nl	1	1 h 52 mins
Total	**5**	**67**	
Position 4	Ppip	168	33 mins
	Nn	3	20 mins
	Nl	1	1 h 52 mins
Total	**3**	**172**	
Grand Total	**5**	**287**	

Table 4.3. Emergence survey results 26.08.20.

Re-entry Survey 10.09.20

4.3.15. A very low level of activity was recorded during the re-entry survey in September 2020, with a single Common Pipistrelle recorded just north of the main building (see Table 4.4), along the northern boundary of the site. No bats were seen to re-enter either Building B1 or B2 during the re-entry survey, the results of which are illustrated on Plan ECO5.

4.3.16. The only registration was recorded 20 minutes prior to sunrise at 20:19.

Surveyor Position	Species	No. Registrations	First Registration after sunset
Position 4	Ppip	1	1 h 18 mins
Total	**1**	**1**	
Grand Total	**1**	**1**	

Table 4.4. Re-entry survey results 10.09.20.

4.3.17. The data search returned records of seven identified bat species within the search area, including Common Pipistrelle, Soprano Pipistrelle, Noctule,

Daubenton's Bat *Myotis daubentonii*, Serotine *Eptesicus serotinus*, Barbastelle *Barbastella barbastellus* and Brown Long-eared Bat *Plecotus auritus*. A single record of an unidentified Long-eared Bat *Plecotus* sp. was also returned, although this record is likely to be a Brown Long-eared Bat.

4.3.18. Sixty-six records were returned for Common Pipistrelle. The closest record was observed in 2016 adjacent to the site (in Howes Close Sports Ground) whilst the most recent record date from 2019 and relates to a location approximately 2.9km south of the site boundary.

4.3.19. Forty-seven records of Soprano Pipistrelle were returned by the data search. The closest record was observed in 2016 adjacent to the site (in Howes Close Sports Ground), whilst the most recent record date from 2019 and relates to a location within a 1km grid quare approximately 3.3km southwest of the site boundary.

4.3.20. Fourteen records were returned for Noctule. The closest, and most recent, record was observed adjacent to the site (in Howes Close Sports Ground) in 2016.

4.3.21. Eight records of Daubenton's Bat were returned by the data search. The closest record was observed in 2014 at a location approximately 2.2km northeast of the site boundary whilst the most recent record relates to a record approximately 2.3km southeast of the site and dates from 2016.

4.3.22. Seven records were returned for Serotine. The closest record relates to a location approximately 1.8km west of the site and dates from 2013 whilst the most recent record date from 2019 and relates to a location approximately 2.8km south of the site boundary.

4.3.23. Two Barbastelle records were returned by the data search. The closer, and more recent, record dates from 2013 and was observed at a location approximately 3.4km northwest of the site boundary.

4.3.24. A total of seven records were returned for Brown Long-eared Bat. The closest record was observed in 2016 adjacent to the site (in Howes Close Sports Ground) whilst the most recent record date from 2019 and relates to a location approximately 1km south of the site boundary.

4.4. **Other Mammals**

4.4.1. A Grey Squirrel *Sciurus carolinensis* was observed within the site during the site visit by Ecology Solutions in July 2020. Given the habitats present it is likely that a small assemblage of small mammal species would make use of the site. The hedgerows, amenity grassland and amenity planting within the site are suitable for Hedgehogs *Erinaceus europaeus* and although no signs were recorded during the survey work, the use of the site by this species cannot be fully discounted.

4.4.2. Twenty-three records of Hedgehog were returned by CPERC; the closest lies approximately 0.9km southeast of the site boundary and was recorded in 2017, whilst the most recent result relates to a residential area approximately 1.7km northwest of the site.

4.4.3. Four records of Brown Hare *Lepus europaeus* were returned by the data search; the closest, and most recent, record was observed at a location approximately 1.1km north of the site boundary. Brown Hare is classed as a Species of Principal Importance for the Conservation of Biodiversity under Section 41 (England) of the NERC Act 2006.

4.5. **Birds**

4.5.1. Very few species of bird were noted on the site during the Phase 1 survey, with Woodpigeon *Columba palumbus*, Blackbird *Turdus merula*, Robin *Erithacus rubecula* and Magpie *Pica pica* observed.

4.5.2. However, a Barn Owl *Tyto alba* was later observed flying northwest along an amenity hedgerow by the surveyor located at Position 3 during the July emergence survey.

4.5.3. The site offers some limited nesting and foraging habitats for common bird species, such as within the trees, hedgerows and areas of amenity planting and unmanaged amenity grassland.

4.5.4. A single Starling *Sturnus vulgaris*, a Priority Species, record was returned by the data search; observed in 2013, the bird was recorded immediately adjacent to the site (in Howes Close Sports Ground).

4.5.5. Records of a number of species protected under Annex I of the Birds Directive or Schedule 1 of the Wildlife and Countryside Act 1981 (as amended) were returned by the data search. These include records for Barn Owl, Bittern *Botaurus stellaris*, Black Redstart *Phoenicurus ochruros*, Brambling *Fringilla montifringilla*, Common Crossbill *Loxia curvirostra*, Fieldfare *Turdus pilaris*, Firecrest *Regulus ignicapillus*, Goldeneye *Bucephala clangula*, Green Sandpiper *Tringa ochropus*, Greylag Goose *Anser answer*, Hobby *Falco Subbuteo*, Honey Buzzard *Pernis apivorus*, Kingfisher *Alcedo atthis*, Little Ringed Plover *Charadrius dubius*, Marsh Harrier *Circus aeruginosus*, Mediterranean Gull *Larus melanocephalus*, Osprey *Pandion haliaetus*, Peregrine *Falco peregrinus*, Red Kite *Milvus milvus* and Redwing *Turdus iliacus*.

4.5.6. The closest record of the above species was a record for a Red Kite, which was observed in 2011 approximately 0.2km and originates from a location approximately 0.2km to the north of the site. A record for Fieldfare was the most recent of the species detailed above and was recorded approximately 2.7km south of the site in 2018.

4.5.7. Additional records of notable species were also returned in the search area, although none of these fell within or immediately adjacent to the site.

4.6. **Reptiles**

4.6.1. No evidence of reptiles was recorded during the survey work and the site does not comprise habitats considered to be suitable for this group. No further regard is considered necessary for reptiles within this assessment.

4.6.2. The data search returned records of three reptile species from the past 10 years, including Slow Worm, Grass Snake *Natrix helvetica* and Common Lizard *Zootoca vivipara*.

4.6.3. A single Slow Worm record was returned by the data search; the Slow Worm was observed approximately 2.8km east of the site boundary in 2011.

4.6.4. Five records of Grass Snake were returned from the past 10 years. The closest record of this species relates to a location approximately 1.8km south of the site and dates from 2018, whilst the most recent record dates from 2019 and relates to a location approximately 1.9km south of the site.

4.6.5. Eighteen records of Common Lizard were returned by CPERC. The closest record of this species relates to a location approximately 0.9km NORTH of the site and dates from 2013; the most recent record dates from 2017 and relates to a location approximately 2.4km northwest of the site.

4.7. **Amphibians**

4.7.1. There is no suitable aquatic breeding habitat either within the site or within 500m of it, and therefore there is no likelihood of the presence of Great Crested Newts *Triturus cristatus.* No amphibians were recorded during survey work.

4.7.2. Thirty-three records of Great Crested Newts recorded in the search area within the last 10 years were returned by the data search exercise. The closest, and most recent, records relate to a location approximately 1.1km southwest of the site and dates from 2019.

4.7.3. Twenty-five records of Common Frog *Rana temporaria* records were returned by CPERC from within the last 10 years. The closest record relates to a location approximately 60m west of the site and dates from 2013, whilst the most recent record date from 2019 and relates to a location approximately 1.9km southeast of the site boundary.

4.7.4. Thirteen Common Toad *Bufo bufo* records were returned by the data search. The closest record relates to a location approximately 0.8km northwest of the site and dates from 2015, whilst the most recent record date from 2018 and relates to a location approximately 1.3km northeast of the site boundary.

4.8. **Invertebrates**

4.8.1. Given the habitats present, it is likely a common assemblage of invertebrate species would be present within the site, although there is no indication that notable species would be present.

4.8.2. During the survey, Cinnabar *Tyria jacobaeae*, Six-spot burnet *Zygaena filipendulae*, Meadow Brown *Maniola jurtina* Large White *Pieris brassicae*, Common red soldier beetle *Rhagonycha fulva* and Seven-spot Ladybird *Coccinella septempunctata* were noted within the site.

4.8.3. A single Cinnabar was recorded in 2011 at a location approximately 2.8km southwest of the site boundary; this species is listed as species of principal importance under Section 41 of the NERC Act 2006 and classed as a UK BAP Priority Species.

4.8.4. Four Small Heath *Coenonympha pamphilus* records were returned by the data search. The closest record was observed at a location approximately 0.6km north west of the site in 2010 whilst the most recent record was observed at a location approximately 3.1km southwest of the site boundary in 2011. This species is listed as species of principal importance under Section 41 of the NERC Act 2006 and classed as a UK BAP Priority Species.

4.8.5. A single White-letter Hairstreak *Satyrium w-album* was observed in 2011 at a location approximately 1.7km southeast of the site boundary. This species is a NERC Priority Species in addition to being listed under the IUCN Red list and classed as a UK BAP Priority Species.

5. ECOLOGICAL EVALUATION

5.1. The Principles of Ecological Evaluation

5.1.1. The guidelines for ecological evaluation produced by CIEEM 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[8]. These are broadly used across the United Kingdom to rank sites so priorities for nature conservation can be attained. For example, current Sites 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. Further, 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 a 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 Cambridgeshire BAP has been considered as part of this assessment and is referenced 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.

5.2. Habitat Evaluation

Designated Sites

5.2.1. **Statutory Sites.** There are no statutory designations of nature conservation value within the site or immediately adjacent to it. The closest statutory designated site for its biodiversity is Madingley Wood Site of Special Scientific Interest (SSSI), which lies approximately 2.9km southwest of the site boundary at its closest point, and is separated from the site by residential dwellings, open countryside and the M11 motorway.

[8] Ratcliffe, D. A. (1977). *A Nature Conservation Review: The Selection of Biological Sites of National Importance to Nature Conservation in Britain*. Two Volumes. Cambridge University Press, Cambridge.

The site is an example of the Ash-Maple woodland type characteristic of the chalky Boulder Clay of eastern England. The western sector of the woodland is also recognised as being of ancient origin.

5.2.2. The closest Local Nature Reserve is Sheep's Green and Coe Fen LNR, which is located approximately 2.9km to the southeast of the site boundary and is also designated as Sheep's Green County Wildlife Site (CWS). The 16.9ha area of lowland fen is dominated by poor semi-improved cattle-grazed flood meadow, with scattered trees and bordered to east and west by mill streams of the River Cam. Some clumps of Bramble and other shrubs and hedges add structural variation, shelter and a food source for birds, small mammals and insects. The LNR also supports a population of Water Whorl-grass *Catabrosa aquatica*, a rare species in Cambridgeshire.

5.2.3. The proposed development of the site would is not likely to have a significant adverse effect on these designated sites due to the distance and intervening land uses.

5.2.4. **Non-statutory Sites.** The nearest non-statutory designation is Ascension Parish Burial Ground City Wildlife Site (CiWS), which lies approximately 0.7km southeast of the site boundary at its closest point. The 0.81ha burial ground supports two or more strong neutral grassland indicator species in frequent numbers.

5.2.5. Coton Path Hedgerow CWS lies approximately 1.8km south of the site boundary and supports populations of two Nationally Scarce vascular plant species.

5.2.6. A number of additional statutory and non-statutory sites are located in the wider area as identified on Plan ECO1, but no significant adverse effects are anticipated.

Habitats

5.2.7. The habitats within the site consist of common and widespread species, in addition to a variety of amenity planting deemed to be of limited intrinsic ecological interest. However, habitats such as the boundary hedgerows and semi-mature to mature trees are of relatively greater interest in the context of the site. The overwhelming majority consists a combination of amenity grassland, hardstanding and buildings, which are of no nature conservation interest.

5.2.8. The loss of some trees to the development is unavoidable due to the nature and scale of the proposals. However, new tree/shrub planting will provide replacement trees in time. Where trees are felled sections of wood will be recovered to provide new habitat diversity at the margins of the site.

5.2.9. The majority of the amenity planting and amenity grassland will be lost due to the nature of the proposed development. However, the proposals include the establishment of landscaping such as areas of new planting based around native species and species of known wildlife value. This will include residents' gardens, formal courtyard and a sensory garden in addition to newly planted trees and species-rich grassland.

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.

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*". 'Current use' is defined by Natural England as any use within the preceding 12 months.

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. Any work which disturbs Badgers is illegal without a licence granted by Natural England.

5.3.5. **Site Usage.** No evidence of Badgers was found within the site. The amenity grassland and hedgerows offer some limited foraging and dispersal opportunities for this species.

5.3.6. **Mitigation and Enhancements.** Owing to the dynamic nature of this species it is recommended that a check survey be carried out prior to the commencement of any works as a precaution, to ensure that no new setts have been excavated since the initial surveys.

5.3.7. In the event that a sett is recorded, the project ecologist would take a view as to whether a Natural England licence will be required to close it. This licence would be obtained from Natural England and appropriate mitigation measures implemented according to the particular requirements of the situation. There is no evidence to suggest that such a licence will be required at the time of writing.

5.3.8. The desk study returned records of a number of setts within the locale of the site so the potential exists for Badgers to roam into areas where construction is underway and become trapped in trenches, excavate new setts in piles of subsoil or disturb chemicals that may be being used for development.

5.3.9. All site personnel will be made aware of the potential presence of this species; this will form part of the site induction.

5.3.10. The following measures will be followed throughout the construction phase of development:

- All site personnel will be made aware of the presence of this species and the appropriate steps required to ensure the safety of the Badgers while on site;

- Inclines and mounds of loose soil present ideal habitats for Badgers seeking to establish new setts; therefore, during the construction process, all dug ground and loose soil will be levelled and compacted wherever possible. This will prevent Badgers from attempting to excavate setts prior to completion of the works and causing potential disruption;

- Any mounds of material will be regularly checked for signs of Badgers, especially before disturbance or movement;

- Planks will be left in any uncovered trenches to provide any Badger that may stray onto the site with an escape route;

- Any open trenches will be checked at the beginning of each day, to ensure that Badgers are not present, and at the end of each day, to ensure that the means of escape remain in place;

- Tools and loose materials will be stored in an appropriate container in order to reduce the risk of Badgers coming onto site and injuring themselves;

- No fires or chemicals should be left unsupervised anywhere on the site;

- Any open pipework greater than 150mm outside diameter will be blanked off at the end of each working day to prevent Badgers from entering the pipework; and

- Driven piling work will be undertaken only following consultation with the project ecologist.

5.3.11. In the event that any suspected Badger activity is observed during construction, work in the area will cease and Ecology Solutions will be contacted for advice.

5.3.12. For the most part, the hedgerows present along the site boundaries will be retained and included within the proposals, ensuring that both potential foraging and dispersal opportunities for Badgers remain post-development. While small loses are expected, any loss will be offset through the provision of new native tree planting.

Bats

5.3.13. **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"). These include provisions making it an offence:

- Deliberately to kill, injure or take (capture) bats;
- Deliberately to disturb bats in such a way as to significantly affect:-
  (i) be likely to impair their ability to survive, to breed or rear or nurture their young; or to hibernate or migrate; or
  (ii) to affect significantly the local distribution or abundance of the species to which they belong;

- To damage or destroy any breeding or resting place used by bats;
- Intentionally or recklessly to obstruct access to any place used by bats for shelter or protection (even if bats are not in residence).

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

5.3.15. 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.

5.3.16. 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.

5.3.17. Licences can usually only be granted if the development is in receipt of full planning permission.

5.3.18. **Site Usage.** The initial examination of the site identified Building B2 as having low suitability to support roosting bats. During the internal inspection of Building B1, evidence of roosting bats was observed in the form of bat droppings which were identified as belonging to Brown Long-eared Bats. It is thought that bats are using the buildings as a potential night roost.

5.3.19. No bats were observed re-entering or emerging from the buildings within the site during the July, August and September 2020, although several bats were recorded foraging within the vicinity of the buildings.

5.3.20. The hedgerows, amenity planting, trees and, to a degree, the amenity grassland area offer good foraging opportunities for bats, and a reasonable complement of species was recorded during survey work, though none of these would be classed as rare.

5.3.21. **Mitigation and Enhancement.** The hedgerows offer good commuting and foraging resources for locally present bat species, and as such it is recommended that the hedgerows on site be retained and enhanced with additional native planting wherever possible.

5.3.22. Owing to the presence of at roosting Brown Long-eared Bats within a loft void of Building B1, the demolition of this buildings will need to be completed under a Natural England European Protected Species (EPS) licence or be registered under the Bat Mitigation Class Licence, once in receipt of planning permission.

5.3.23. Work will be undertaken outside of the main summer roosting period, when bats are less likely to be present. Demolition will be undertaken in a controlled manner under the supervision of a suitably experienced

Ecological Clerk of Works. In the event that any bats are encountered during the process they will be removed and deposited in a nearby bat box installed for the purpose.

5.3.24. Replacement roosting opportunities should be provided in suitable locations throughout the site in the form of a selection of bat boxes, which could be integrated into proposed buildings and installed upon suitable retained trees. Another solution would be to install a bat access tile in the roof of the new structure to facilitate internal access to the loft void. Measures to enhance the boundary vegetation, including additional planting, may also offer new foraging opportunities for bats. It is recommended that any new planting be comprised of native species rather than non-native species, as native species are known to support a greater assemblage of invertebrates.

5.3.25. The lighting scheme for the site should be designed with due regard for bats and be in accordance with the Bat Conservation Trust's *Bats and artificial lighting in the UK Guidance Note 08/18*[9]; consideration will be given to the lighting of woodland belt and edge habitats, which have been shown to be of some value to locally present bat species. Specifically, the lighting design should incorporate lighting types and designs to limit any light spillage, which will allow habitats, such as the boundary hedgerows, to remain dark and not shine directly upon the installed boxes.

Hedgehogs

5.3.26. **Legislation.** Hedgehog is a Species of Principal Importance for the Conservation of Biodiversity under Section 41 (England) of the NERC Act 2006.

5.3.27. The NERC Act 2006 requires the Secretary of State to:

…take such steps as appear… to be reasonably practicable to further the conservation of the living organisms and types of habitat included in any published under this section, or…promote the taking by other of such steps.

5.3.28. **Site Usage.** No evidence of Hedgehogs was recorded during the survey work undertaken. The amenity planting and unmanaged amenity grassland currently present within the site offer suitable opportunities for foraging and dispersing Hedgehogs.

5.3.29. **Mitigation and Enhancements.** It is recommended that ground cover be cleared outside the winter hibernation period (October to April inclusively). The retention and enhancement of the hedgerows and any other boundary features will provide continued opportunities for commuting and foraging Hedgehogs. New planting such as native tree, hedgerow and buffer planting, alongside the establishment of new wildflower grassland, would represent an increase in opportunities for this species post-development.

5.3.30. A series of 'Hedgehog Gateways' will be installed in any current or proposed fencing in order to facilitate movement throughout the new development and ensure continued permeability.

[9] Bat Conservation Trust (2018). *Bats and lighting in the UK - Bats and the Built Environment Series. Guidance Note 08/18.* The Bat Conservation Trust, London.

Birds

5.3.31. **Legislation.** Section 1 of the Wildlife and Countryside Act 1981 (as amended) is concerned with the protection of wild birds, while Schedule 1 lists species that are protected by special penalties. All species of birds receive general protection while nesting.

5.3.32. **Site Usage.** Woodpigeon, Blackbird, Robin, Magpie and Barn Owl were recorded within the site. The hedgerows, scattered trees and amenity planting within the site provide some areas of suitable nesting and foraging habitat for a number of bird species.

5.3.33. **Mitigation and Enhancements.** As a precaution to avoid a possible offence, it is recommended that any suitable bird nesting habitat, vegetation or building, be cleared outside of the nesting season (typically March to July inclusive) to avoid a potential offence under the legislation. Where this cannot be achieved a check survey for nesting birds should be undertaken by an ecologist immediately prior to removal, with any confirmed nests left in situ until the young have fledged.

5.3.34. The majority of habitats of interest to bird species, including the boundary hedgerows and semi-mature and mature trees, are to be retained as part of the proposed development. New planting as part of the landscape proposals will provide additional foraging and nesting habitat over the existing situation. Landscape proposals should comprise species of benefit to wildlife, including native berry-bearing species, to ensure the loss of the amenity planting and amenity grassland is offset, and foraging and nesting opportunities for bird species are enhanced post-development.

5.3.35. As a further enhancement, the proposals for the site could offer a further increase in nesting opportunities for birds with the provision of a variety of bird boxes on retained trees within the boundary vegetation and / or incorporated into the new dwellings on the site. Such measures could be designed to provide new on-site opportunities for Starling alongside other species of conservation concern.

Invertebrates

5.3.36. **Site Usage.** The amenity grassland across the site is not seen to be regularly managed and therefore it is considered likely that the site supports a range of common invertebrate species. However, there is no reason to suspect the site to be of any elevated entomological interest.

5.3.37. **Mitigation and Enhancements.** It is recommended that any new planting be comprised of native species rather than non-native species, as native species are known to support a greater assemblage of invertebrates which should in turn benefit local bat and bird populations. New landscaping should include species of local provenance and value for pollinators, particularly through the new landscaping along the southern boundary, to offer new resources for invertebrates.

5.3.38. Further enhancements, including the proposed residents' garden, courtyard and sensory garden, should increase the foraging resources for

invertebrates and would represent an enhancement over the current situation.

5.3.39. The installation of invertebrate boxes on retained trees and within the proposed native species planting in addition to the establishment of log piles for saproxylic species could also provide further enhancements on site for invertebrates.

6. PLANNING POLICY CONTEXT

6.1. The planning policy framework that relates to nature conservation at the site is issued at two main administrative levels: nationally through the National Planning Policy Framework (NPFF) and locally through the local planning policies of the Cambridge Local Plan.

6.2. Any proposed development will be judged in relation to the policies contained within these documents that concern nature conservation.

6.3. National Policy

National Planning Policy Framework (February 2019)

6.3.1. Guidance on national policy for biodiversity and geological conservation is provided by the NPPF, published in March 2012, revised on 24 July 2018 and updated on 19 February 2019. 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).

6.3.2. 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 177). 'Habitats site' has the same meaning as the term 'European site' as used in the Habitats Regulations 2017.

6.3.3. 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.

6.3.4. 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 170).

6.3.5. 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.

6.3.6. Paragraphs 174 to 176 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 SPAs, possible SACs, 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.

6.3.7. 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

6.4. Local Policy

South Cambridgeshire Local Plan (Adopted 2018)

6.4.1. The South Cambridgeshire Local Plan was adopted on 27 September 2018 and is the principal development plan document guiding development in South Cambridgeshire. It updates and replaces the South Cambridgeshire Local Development Framework which was adopted between January 2007 and January 2010 and covered the period up to 2016. The Local Plan's policies and proposals cover the period 2011 to 2031. Policies relevant to nature conservation in relation to the site are set out below.

6.4.2. **Policy NH/4: Biodiversity** is concerned with permitting developments where the primary objective is to conserve or enhance biodiversity through maintenance, enhancement, restoration or addition to achieve positive gain through the form and design of development.

6.4.3. **Policy NH/5: Sites of Biodiversity or Geological Importance** is concerned with developments which may have an adverse impact on land within or adjoining a Site of Biodiversity or Geological Importance. Exceptions to this may be made only where the benefits of the development clearly outweigh any adverse impacts.

6.4.4. **Policy NH/6: Green Infrastructure** will aim to conserve and enhance green infrastructure within the district. The policy also states that proposals which cause loss or harm to the green infrastructure network will not be permitted unless the needs for and benefits of the development demonstrably and substantially outweigh any adverse impacts. All new developments are also required to contribute towards the enhancement of the green infrastructure network within the district. These contributions will include the establishment, enhancement and the on-going management costs.

6.4.5. **Policy NH/8: Mitigating the Impact of Development In and Adjoining the Green Belt** states that developments within the Green Belt must not have an adverse effect on the openness and rural character of the Green Belt. Where development proposals are permitted, landscaping conditions will be attached to the planning permission to safeguard, and mitigate impacts upon, the Green Belt. The policy also states that "*developments on the edges of settlements which are surrounded by the Green Belt must include careful landscaping and design measures of a high quality*".

6.4.6. **Policy NH/9: Redevelopment of Previously Developed Sites and Infilling in the Green Belt** states that redevelopments within the greenbelt will be considered inappropriate unless the buildings are re-used,

replacements are not proportionally larger than the original, infilling is limited and the redevelopment does not have a greater impact on the openness of the Green Belt than the existing development.

6.5. Discussion

6.5.1. The proposals for the site would be judged against the policies summarised above. It is considered that, following the recommendations in this report, the proposed development has the capacity to accord fully with national and local policy and avoid any significant impacts on nearby designated sites for nature conservation.

6.5.2. The potential for protected species to be present has been identified and surveys undertaken; these have confirmed the presence of some species, and mitigation measures set out in this report will ensure that significant adverse effects are avoided. The site is dominated by buildings, hardstanding and amenity grassland, which are of negligible nature conservation interest, and those habitats of relatively greater interest, such as the trees and hedgerows are to be largely retained. Overall, it is considered that the proposals for development would be in line with the planning policies summarised above.

7. SUMMARY AND CONCLUSIONS

7.1. Ecology Solutions was commissioned in June 2020 by Cassel Hotels (Cambridge) Limited to undertake an ecological assessment of the site at Hotel Felix, Whitehouse Lane, Cambridge.

7.2. The proposals for the site are for the development of an 80-bed residential care home with associated access, gardens, car park and landscaping (including residents' gardens, a formal courtyard and a sensory garden). The proposals require the demolition of the existing buildings.

7.3. The site was subject to an extended Phase 1 habitat survey in July 2020; a desk-based study was also undertaken to inform this assessment. Bat emergence surveys were carried out in July and August 2020 whilst a re-entry survey was undertaken in September 2020.

7.4. **Statutory Sites.** There are no statutory designations of nature conservation value within the site or immediately adjacent to it. The nearest statutory designated site is Madingley Wood Site of Special Scientific Interest (SSSI), which lies approximately 2.9km southwest of the site boundary, at its closest point, and is separated by residential dwellings, open countryside and the M11 motorway. Madingley Wood is an example of the Ash-Maple woodland type characteristic of the chalky Boulder Clay of eastern England. The western sector of the woodland is also recognised as being of ancient origin.

7.5. **Non-statutory Sites.** The nearest non-statutory designation is Ascension Parish Burial Ground City Wildlife Site (CiWS), which lies approximately 0.7km southeast of the site boundary at its closest point. The 0.81ha burial ground supports two or more strong neutral grassland indicator species in frequent numbers.

7.6. There are a number of further non-statutory sites located in the wider area, but no significant adverse effects are anticipated as a result of the proposals for the site.

7.7. **Habitats.** The habitats within the site consist of common and widespread species, in addition to a variety of amenity planting deemed to be of limited intrinsic ecological interest. However, habitats such as the boundary hedgerows and semi-mature to mature trees are of relatively greater interest in the context of the site. The overwhelming majority consists a combination of amenity grassland, hardstanding and buildings, which are of no nature conservation interest.

7.8. The loss of some trees to the development is unavoidable due to the nature and scale of the proposals. However, new planting will provide replacement trees in time. Where trees are felled sections of wood will be recovered to provide new habitat diversity at the margins of the site.

7.9. The majority of the amenity planting and amenity grassland will be lost due to the nature of the proposed development. However, the proposals include the establishment of landscaping such as areas of new planting based around native species and species of known wildlife value. This will include residents' gardens, formal courtyard and a sensory garden in addition to newly planted trees and species-rich grassland planting.

7.10. **Badgers.** No evidence of Badger was found within the site. The amenity grassland and hedgerows offer some limited foraging and dispersal opportunities for this species.

7.11. The site will be checked immediately prior to ground works commencing to ensure no setts have been excavated in the intervening period. Planting native fruit-bearing species will offer replacement foraging opportunities for this species.

7.12. **Bats.** Bat emergence and re-entry surveys were undertaken in July, August and September 2020. All trees within the site were assessed for their potential to support roosting bats.

7.13. No bats were seen to emerge any of the buildings within the site, although Brown Long-eared Bat droppings were recorded within a loft void of Building B1. It is therefore considered that the demolition of the buildings within the site does has the potential to destroy a bat roost, or otherwise adversely affect bats and the demolition cannot proceed without a Natural England licence pertaining to bats.

7.14. Once in receipt of full planning permission and prior to any works being undertaken on Building B1, a Natural England licence would be required. To ensure the favourable conservation status of the bat species present is maintained, proportionate mitigation should be included within the site proposals. Owing to the presence of Brown Long-eared Bats within one of the loft spaces of the building, replacement opportunities will be provided. This would take the form of bat boxes provided on retained trees and / or incorporated into proposed buildings within the site, and / or installing a bat access tile in the roof of the new structure to facilitate internal access to the loft void. .

7.15. Lighting across the site would be designed to ensure that light spill is kept to a minimum in known areas of interest, such as the boundary hedgerows.

7.16. **Hedgehogs.** No Hedgehogs were recorded during the course of the survey work. Nevertheless, the amenity planting and unmanaged amenity grassland present on site provide suitable opportunities for foraging and hibernating Hedgehogs.

7.17. The retention and enhancement of the boundary features will provide continued opportunities for commuting and foraging Hedgehogs whilst a series of ‘Hedgehog Gateways’ will be installed within any new fences to facilitate movement through the new development and ensure continued permeability.

7.18. **Birds.** The different habitats found on the site, principally scattered trees, hedgerows, amenity planting and amenity grassland are suitable habitats for nesting and foraging birds. An assemblage of common species was recorded using the site during survey work, though no species that would be classed as rare. Landscaping of the proposed development will include areas of new planting based around native fruit bearing plant species and species of known wildlife value that are known to benefit bird species to ensure the loss of part of the site is offset and foraging opportunities for bird species are enhanced post-development.

7.19. As a precaution to avoid possible offence under the legislation, it is recommended that the removal of any suitable vegetation and the demolition of

buildings known to provide roosts to birds, be undertaken outside of the bird nesting season (typically March to July inclusive). Where this cannot be achieved, a check survey for nesting bird species should be undertaken by a suitably qualified ecologist prior to the removal of any nesting habitat on site, with any confirmed nests left in situ until the young have fledged.

7.20. A series of bird boxes will be installed within the site, post development, in areas of suitable habitat.

7.21. **Reptiles.** The site does not offer any opportunities for reptile species, and as such no further work for this group is required.

7.22. **Amphibians.** There is no suitable aquatic breeding habitat either within the site or within 500m of it, and therefore there is no likelihood of the presence of Great Crested Newts. No further survey work is required.

7.23. **Invertebrates.** It is likely that an assemblage of common invertebrate species is present within the site. It is recommended that any new planting be comprised of native species rather than non-native species, as native species are known to support a greater assemblage of invertebrates which should in turn benefit local bat and bird populations. Further enhancements should be provided through the installation of invertebrate boxes on retained trees and within the proposed native species planting.

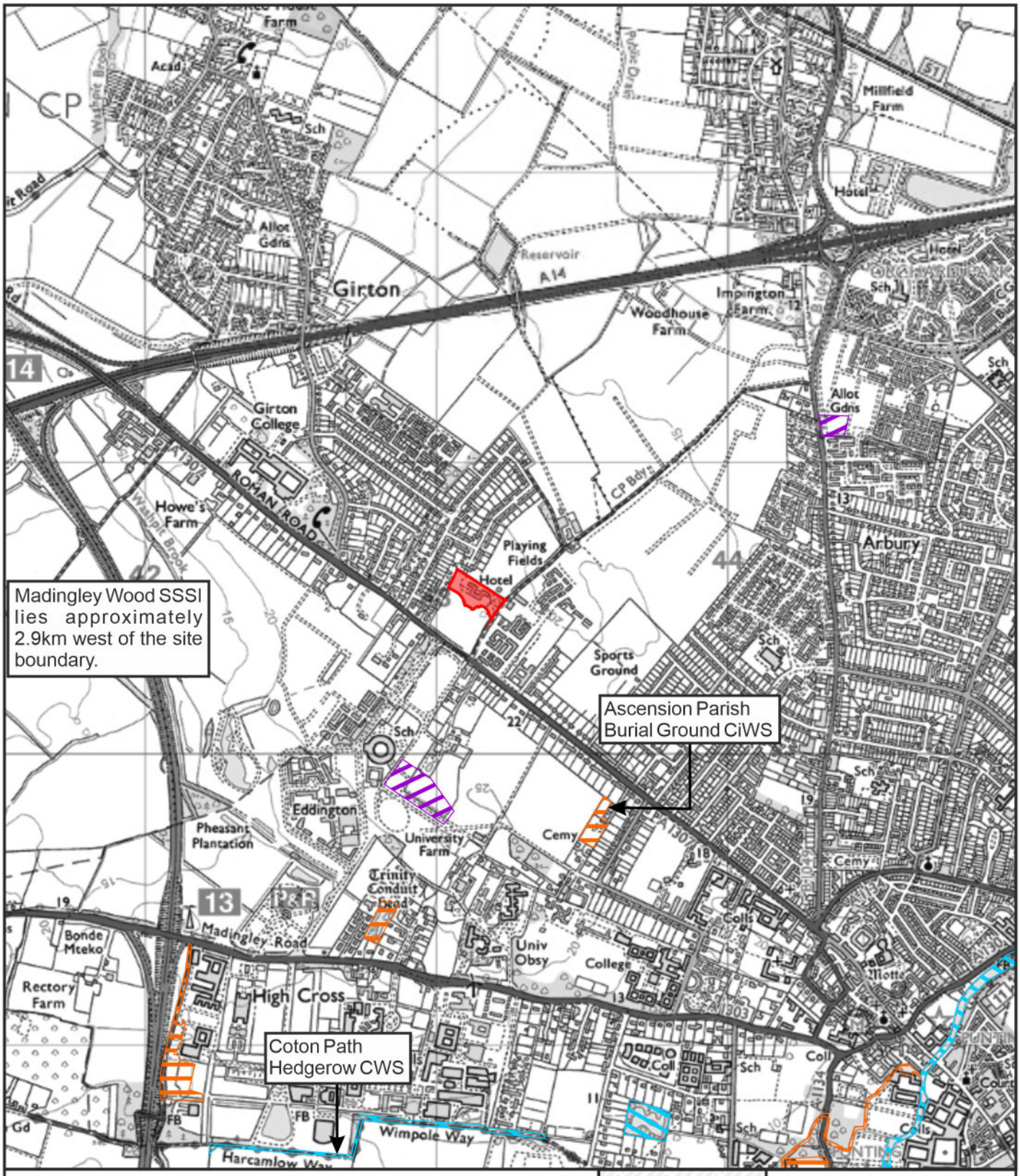
7.24. The mitigation measures proposed in this report will ensure that all significant adverse effects on these species are avoided. It is anticipated that the landscape and ecological enhancement scheme for the site will result in net gains for all species and groups identified.

7.25. In conclusion, on the basis of the current evidence there is no overriding ecological reason why the site could not be developed. The proposals appear to be in line with all relevant national and local planning policy, and the mitigation strategies proposed ensure no significant adverse effect on the notable habitats and protected species identified. There is therefore no ecological justification to refuse planning permission.

PLANS

PLAN ECO1

Site Location and Ecological Designations



KEY:

- SITE LOCATION
- SITE OF SPECIAL SCIENTIFIC INTEREST (SSSI)
- COUNTY WILDLIFE SITE (CWS)
- CITY WILDLIFE SITE (CiWS)

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9513: HOTEL FELIX, WHITEHOUSE LANE, CAMBRIDGE

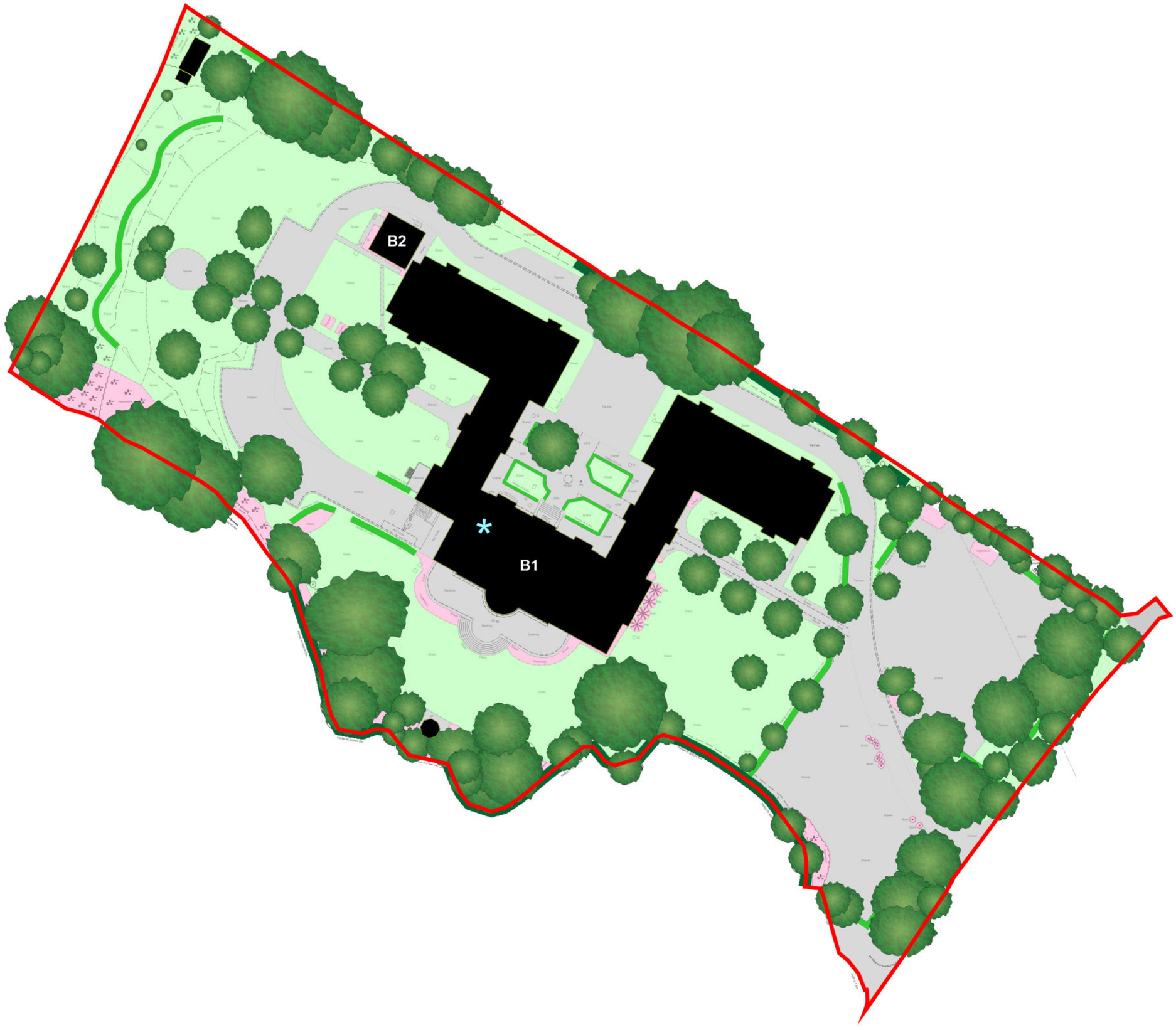
PLAN ECO1: SITE LOCATION AND ECOLOGICAL DESIGNATIONS

Rev: A

Oct 2020

PLAN ECO2

Ecological Features



KEY:

- SITE BOUNDARY
- BUILDING
- HARDSTANDING
- AMENITY PLANTING
- AMENITY GRASSLAND
- AMENITY HEDGEROW
- HEDGEROW
- TREE
- BAT DROPPINGS FOUND

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PLAN ECO2: ECOLOGICAL FEATURES AND BAT ACTIVITY

Rev: A

Nov 2019

PLAN ECO3

Bat Emergence Survey 30.07.20

KEY:

- SITE BOUNDARY
- 1 SURVEYOR POSITION
- COMMON PIPISTRELLE REGISTRATION
- COMMON PIPISTRELLE FLIGHT PATH
- SOPRANO PIPISTRELLE REGISTRATION
- SOPRANO PIPISTRELLE FLIGHT PATH
- *PIPISTRELLUS* SP. REGISTRATION
- NOCTULE REGISTRATION
- NOCTULE FLIGHT PATH
- LEISLER'S REGISTRATION

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PLAN ECO3:
BAT EMERGENCE SURVEY
30.07.20

Rev: A

Oct 2020

PLAN ECO4

Bat Emergence Survey 26.08.20

KEY:

- SITE BOUNDARY
- 1 SURVEYOR POSITION
- COMMON PIPISTRELLE REGISTRATION
- COMMON PIPISTRELLE FLIGHT PATH
- SOPRANO PIPISTRELLE REGISTRATION
- SOPRANO PIPISTRELLE FLIGHT PATH
- NOCTULE FLIGHT PATH
- *PIPISTRELLUS* SP. REGISTRATION
- NOCTULE REGISTRATION
- LEISLER'S REGISTRATION

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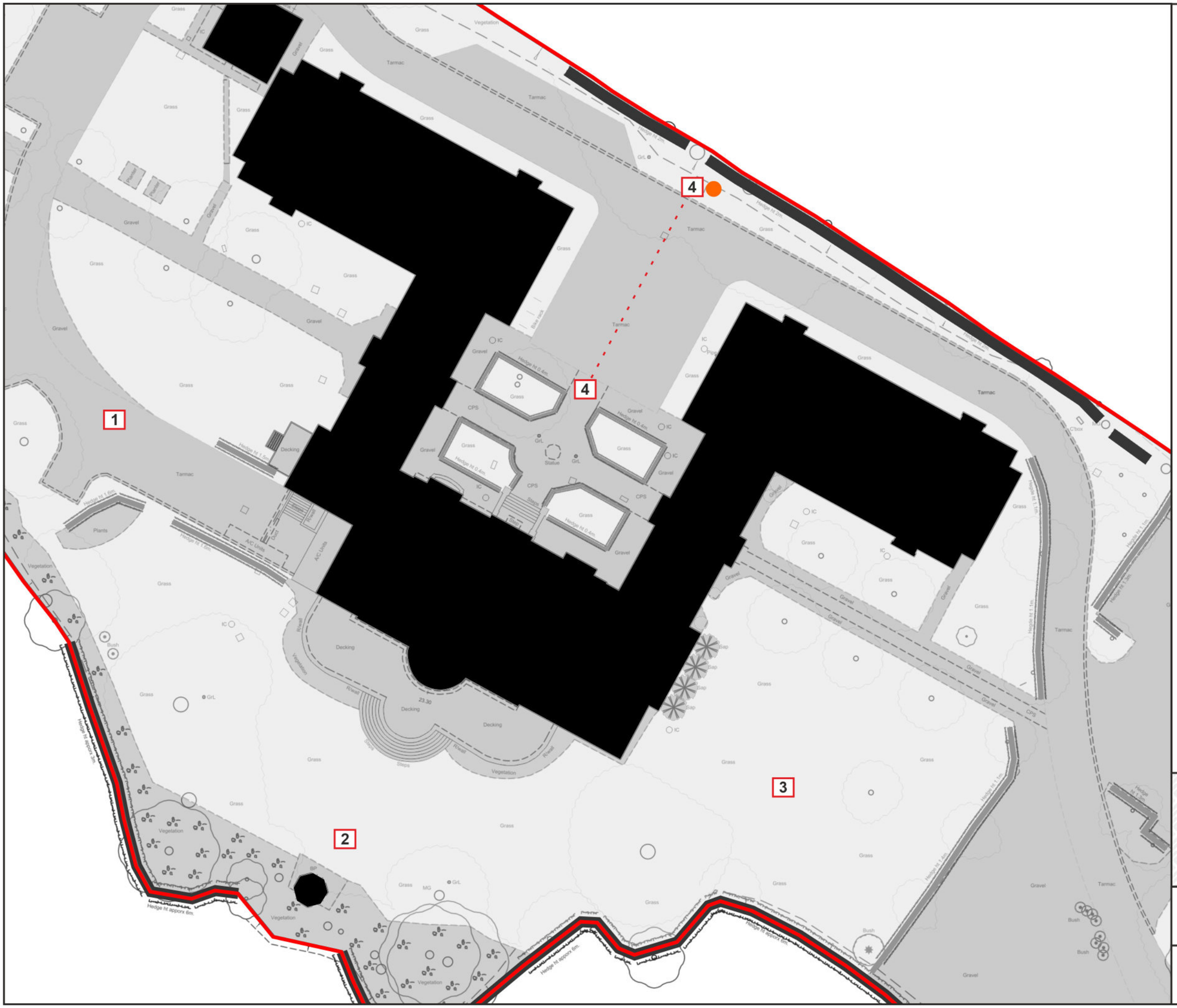
PLAN ECO4:
BAT EMERGENCE SURVEY
26.08.20

Rev: A

Oct 2020

PLAN ECO5

Bat Emergence Survey 10.09.20



KEY:

- SITE BOUNDARY
- 1 SURVEYOR POSITION
- COMMON PIPISTRELLE REGISTRATION

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PLAN ECO5:
BAT RE-ENTRY SURVEY
10.09.20

Rev: A

Oct 2020

PHOTOGRAPHS

PHOTOGRAPH 1: Building B1

PHOTOGRAPH 2: Building B1, modern extension

PHOTOGRAPH 3: Building B2, northwest of Building B1

PHOTOGRAPH 4: Hardstanding

PHOTOGRAPH 5: Amenity planting

PHOTOGRAPH 6: Semi-mature trees and unmanaged amenity grassland

PHOTOGRAPH 7: Amenity hedgerows

PHOTOGRAPH 8: Loft void within Building B1

APPENDICES

APPENDIX 1

Information downloaded from the Multi-Agency Geographic Information for the Countryside (MAGIC) website

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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 = 533500
ymin = 256300
xmax = 552000
ymax = 265400

0 0.7 1.4
km

Map produced by MAGIC on 21 October, 2020.

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