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ECOLOGYSOLUTIONS

Part of the ES Group

KENLEY CAMPUS,
CATERHAM

Ecological Assessment

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1. INTRODUCTION

1.1. Background & Proposals

- 1.1.1. Ecology Solutions Ltd was commissioned by Daniel Watney in June 2021 to produce a detailed Ecological Assessment of Kenley Campus, Caterham (see Plan ECO1).
- 1.1.2. The proposals for the site are for the construction of 87 dwellings with associated infrastructure and landscaping (see Appendix 1).

1.2. Site Characteristics

- 1.2.1. The application site (hereafter referred to as 'the site') is located to the northwest of Caterham and is bordered to the northwest by Kenley Airfield, while to the northeast the site is bordered by woodland and residential gardens. To the southeast the site is bordered by Salmons Lane and Salmons Lane West roads with open green space and residential development beyond, while to the southwest, the site is bordered by existing residential development. The wider study area lies within the centre of the site.
- 1.2.2. The site comprises areas of species-poor semi-improved grassland, recolonising vegetation, with two areas of woodland and a large number of scattered trees throughout the site. Small areas of scrub and ruderal vegetation are present, with areas of hardstanding also present throughout the site, with one building in the south of the site and a dilapidated building in the north.
- 1.2.3. The wider study area comprises an existing school complex, with hardstanding, buildings, amenity grassland and a number of scattered trees.

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.

¹CIEEM (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 Surrey Biodiversity Information Centre (SBIC) and Greenspace Information for Greater London (GiGL).

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)³ database. This information is reproduced at Appendix 2 and where appropriate on Plan ECO1.

2.3. Habitat Survey Methodology

2.3.1. Habitat surveys were carried out in June 2021 and 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 methodology⁴, 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. However, the survey work was undertaken within the optimal period for Phase 1 and grassland surveys, and as such it is considered that an accurate and robust assessment has been made.

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.

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

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.

- 2.4.3. 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 Natural England⁵, the Joint Nature Conservation Committee⁶ and the Bat Conservation Trust⁷.

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.

Activity and Automated Surveys

- 2.4.6. An assessment of the habitats present was undertaken with regard to foraging / navigational opportunities for bats and the site was considered to provide moderate quality habitat for bats.

- 2.4.7. Therefore, monthly bat activity transect surveys were undertaken across the site between July and October 2021 and between April and June 2022 using Echo Meter Touch 2 (EMT2) bat detectors to record the data. The survey in September 2021 comprised both a dusk and a dawn activity survey.

- 2.4.8. During each survey two SongMeter4 FS (SM4) bat detectors were left to record for a minimum of five nights survey at strategic locations within the site between July and October 2021 and between April and June 2022. The locations of these detectors are shown on Plans ECO4 – ECO11.

- 2.4.9. This data was subsequently analysed using Kaleidoscope Pro bat sound analysis software. This survey method aimed to identify the level of foraging, the species present within the site and any areas of potentially high importance for foraging / commuting bats.

Badgers

- 2.4.10. Specific surveys were undertaken within and adjacent to the site, to search for evidence of Badgers. Badger surveys were undertaken between June and October 2021, between April and June 2022 and in May 2023. Such

⁵ Mitchell-Jones, A. J. (2004). *Bat Mitigation Guidelines*. English Nature, Peterborough.

⁶ Mitchell-Jones, A.J. & McLeish, A.P. (2004). *Bat Workers' Manual*. 3rd edition. Joint Nature Conservation Committee, Peterborough.

⁷ Bat Conservation Trust (2016). *Bat Surveys for Professional Ecologist – Good Practice Guidelines 3rd Edition*. Bat Conservation Trust, London.

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.
- 2.4.11. 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.

Reptiles

- 2.4.1. The semi-improved grassland and recolonising hardstanding within the site provides potentially suitable habitat for reptiles.
- 2.4.2. As such, specific surveys for reptiles were carried out in May 2023 within the site. The methodology utilised principally derived from guidance given in the Herpetofauna Workers Manual⁸. Areas of suitable habitat were surveyed for the presence of reptiles using artificial refugia ("tins"). In total 70 0.5m x 0.5m roofing felt tins were placed within suitable habitat within the site.
- 2.4.3. The tins provide shelter and heat up quicker than the surroundings in the morning and can remain warmer than the surroundings in the late afternoon. Being ectothermic (cold-blooded), reptiles use them to bask under and raise their body temperature which allows them to forage earlier and later in the day.
- 2.4.4. To determine presence / absence the tins were checked for reptile activity over seven visits at appropriate times of the day (avoiding the middle of the day when the ambient air temperature is at its highest) in accordance with Natural England guidance. Optimum weather conditions for reptile surveying are temperatures between 10°C and 17°C, intermittent or hazy sunshine and little or no wind.

⁸ Gent, T and Gibson, S. JNCC. (2003). Herpetofauna Workers Manual. Peterborough

3. ECOLOGICAL FEATURES

3.1. Habitat surveys were undertaken within the site and wider study area in June 2021 and May 2023 and the following main habitat/vegetation types were identified within the site:

- Species-poor Semi-improved Grassland;
- Recolonising Vegetation;
- Amenity Grassland;
- Scrub;
- Ruderal Vegetation;
- Broad-leaved Woodland;
- Scattered Trees;
- Japanese Knotweed;
- Buildings; and
- Hardstanding.

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

Species-poor Semi-improved Grassland

3.3. Areas of species-poor semi-improved grassland are present throughout the site and appear to be subject to occasional management. Species present within the sward include Meadow Foxtail *Alopecurus pratensis*, Yorkshire-fog *Holcus lanatus*, Annual Meadow-grass *Poa annua*, Cock's-foot *Dactylis glomerata*, Perennial Rye-grass *Lolium perenne* and False Oat-grass *Arrhenatherum elatius*. Herbaceous species present include Yarrow *Achillea millefolium*, Spear Thistle *Cirsium vulgare*, Cat's-ear *Hypochaeris radicata*, Creeping Buttercup *Ranunculus repens*, Dove's-foot Crane's-bill *Geranium molle*, Meadow Vetchling *Lathyrus pratensis*, Field Bindweed *Convolvulus arvensis*, Germander Speedwell *Veronica chamaedrys*, Common Vetch *Vicia sativa*, Red Clover *Trifolium pratense*, Lady's Bedstraw *Galium verum* and Bird's-foot-trefoil *Lotus corniculatus*. In addition, Pyramidal Orchid *Anacamptis pyramidalis* was recorded within the southernmost area of species-poor semi-improved grassland.

Recolonising Vegetation

3.4. Areas of hardstanding comprising concrete and rubble present within the north of the site are in the process of recolonising into grassland. Species present within the sward include Creeping Bent *Agrostis stolonifera*, False Oat-grass and Cock's-foot, with herbaceous species including Black Medick *Medicago lupulina*, Yarrow, White Stonecrop *Sedum album*, Hare's-foot Clover *Trifolium arvense*, Perforate St John's-wort *Hypericum perforatum*, Rough Hawkbit *Leontodon hispidus*, Spear Thistle, Bird's-foot-trefoil, Goat's-beard *Tragopogon pratensis*, Teasel, Creeping Cinquefoil *Potentilla reptans*, Common Knapweed *Centaurea nigra*, Oxeye Daisy *Leucanthemum vulgare*, Red Clover *Trifolium pratense*, Rose *Rosa* sp. saplings, Common Restharrow *Ononis repens*, Pyramidal Orchid (recorded in 2 locations) and Yellow Rattle *Rhinanthus minor*.

Amenity Grassland

3.5. A large area of amenity grassland is present within the south of the site, while amenity grassland verges are present along the road, as well as small areas

located within the wider study area. The amenity grassland is managed regularly to a short sward and includes Perennial Rye-grass, Annual Meadow-grass and Red Fescue *Festuca rubra* within the sward, with herbaceous species present including Greater Plantain *Plantago major*, Daisy *Bellis perennis*, Selfheal *Prunella vulgaris*, White Clover *Trifolium repens*, Yarrow, Cat's-ear and Black Medick.

Scrub

- 3.6. An area of scrub is present within the centre of an area of recolonising vegetation. This area is dominated by Bramble *Rubus fruticosus* agg., with other species present including Hawthorn *Crataegus monogyna*, Dog-rose *Rosa canina*, Traveller's-joy *Clematis vitalba*, Yellow Loosestrife *Lysimachia vulgaris* and Hedge Bindweed *Calystegia sepium*.
- 3.7. An 'L' shaped area of scrub lies along the northwestern boundary of the site and comprises Goat Willow *Salix caprea* that appears to be subject to limited management.

Ruderal Vegetation

- 3.8. An area of ruderal vegetation is present within the northeast of the site and includes Common Nettle *Urtica dioica*, Hedge Bindweed, Cow Parsley *Anthriscus sylvestris*, Cleavers *Galium aparine* and Teasel *Dipsacus fullonum*.

Broad-leaved Woodland

- 3.9. There are two areas of woodland present within the site, each of which is described individually below.
- 3.10. Woodland W1 lies in the west of the site and includes Pedunculate Oak *Quercus robur*, Lime *Tilia x europaea*, Turkey Oak *Quercus cerris*, Ash *Fraxinus excelsior*, Larch *Larix decidua*, Scots Pine *Pinus sylvestris*, Field Maple *Acer campestre*, Cherry Laurel *Prunus laurocerasus*, Claret Ash *Fraxinus excelsior* and Whitebeam *Sorbus aria* agg.. The ground flora is grassy in places and includes Meadow Buttercup *Ranunculus acris*, Hogweed *Heracleum sphondylium*, Creeping Bent, Meadow Foxtail, Fox-and-cubs *Pilosella aurantiaca*, Pyramidal Orchid, Common Vetch, Common Knapweed, Dove's-foot Crane's-bill, Common Ragwort *Jacobaea vulgaris*, Dandelion *Taraxacum officinale* agg., Cowslip *Primula veris*, False Oat-grass and White Clover. Areas of woodland with woodland ground flora includes Wood Avens *Geum urbanum*, Common Nettle, Greater Stitchwort *Stellaria holostea*, Broad-leaved Helleborine *Epipactis helleborine*, Bluebell *Hyacinthoides non-scripta*, Primrose *Primula vulgaris*, Perforate St-John's-wort, Wild Strawberry *Fragaria vesca* and Enchanter's Nightshade *Circaea lutetiana*.
- 3.11. Woodland W2 lies within the east of the site and includes Pedunculate Oak, Lime, Ash, Sycamore *Acer pseudoplatanus* and Pine *Pinus* sp. The ground flora is dominated by ruderal species including Common Nettle, Broad-leaved Dock *Rumex obtusifolius*, Hogweed, Cow Parsley, Cleavers and the invasive Schedule 9 species Japanese Knotweed *Reynoutria japonica*, with grassland species present including Yorkshire-fog, Cock's-foot, Annual Meadow-grass, Common Vetch, Creeping Buttercup and woodland flora including Ground-ivy *Glechoma hederacea* and Broad-leaved Helleborine.

Scattered Trees

- 3.12. A number of trees are scattered throughout the site and wider study area including Rowan *Sorbus aucuparia*, Claret Ash, Lime, Whitebeam, Horse Chestnut *Aesculus hippocastanum*, Beech *Fagus sylvatica*, Cedar *Cedrus* sp., Leyland Cypress *Cupressus leylandii*, Pedunculate Oak, London Plane *Platanus x hispanica*, Holly *Ilex aquifolium* and Goat Willow.

Japanese Knotweed

- 3.13. A single stand of Japanese Knotweed is present within the eastern woodland block (W2).

Buildings

- 3.14. One building is present within the south of the site that comprises concrete, with a flat roof and is understood to be an electricity substation.
- 3.15. In addition, a dilapidated building is present in the north of the site comprising brick walls and no roof present.

Hardstanding

- 3.16. Areas of hardstanding are present throughout the site and comprises roads constructed of tarmac, as well as areas of concrete.

Background Records

- 3.17. A record was returned by SBIC from within a 100m grid square that also contains the site of the invasive Schedule 9 species Himalayan Cotoneaster *Cotoneaster simonsii* in 2012. This species was not recorded within the site during surveys.
- 3.18. The closest records of notable plants returned as part of the desk study, returned by SBIC, were of the near-threatened species Wild Strawberry and Schedule 8 species (protected against sale only) Bluebell located approximately 10m southeast of the site in 2012. Both these species were recorded within woodland W1 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, bats and reptiles.

Badgers

- 4.2. Surveys by Ecology Solutions between June and October 2021, between April and June 2022 and in May 2023 recorded no evidence of Badgers such as any setts, latrines, snagged hairs, foraging marks or footprints within or immediately adjacent to the site.
- 4.3. A single mammal entrance was recorded in the north of the site (see Plan ECO3), adjacent to the dilapidated building. During the June 2021 survey, a Fox *Vulpes vulpes* was recorded next to the mammal entrance. Given this and the lack of Badger evidence recorded within the site, it is therefore considered highly likely that this mammal entrance is occupied by Fox.
- 4.4. A Fox was also recorded within woodland W2 during the May 2023 survey.
- 4.5. **Background Information.** The only records of Badger returned as part of the desk study were a confidential records returned by GiGL from undisclosed locations, with the most recent record from 2019.
- 4.6. Although no evidence of Badgers was recorded within the site itself, given that this species is known from the local area, it is recommended that a precautionary approach to Badgers is undertaken during construction. Further detail is provided in the following section of this report.

Bats

Tree Surveys

- 4.7. A total of four trees (T1-T3) were identified as having developed features to support roosting bats, each of which is described individually below. The locations of these are shown on Plan ECO3.
- 4.8. Tree **T1** is a large mature Lime tree with no visible features. However, given the size of this tree, it is considered that it has low potential to support roosting bats.
- 4.9. Tree **T2** is a Pine tree with a woodpecker hole present on its eastern aspect and is therefore considered to have moderate potential to support roosting bats.
- 4.10. Tree **T3** is a London Plane with three woodpecker holes on its southeastern aspect and is therefore considered to have moderate potential to support roosting bats.
- 4.11. Tree **T4** is a London Plane with a large rot hole on its western aspect and is considered to have moderate potential to support roosting bats.

Building Surveys

- 4.12. The dilapidated building has no roof and no other features considered suitable to support roosting bats.
- 4.13. The electricity substation in the south of the site is constructed of concrete with a flat roof and is not considered to have any features suitable to support roosting bats externally. This building could not be accessed internally during surveys, however is to be retained post-development, in any event.

Activity Surveys

- 4.14. A total of 7 monthly bat activity surveys were undertaken throughout the site with two surveyors between July and October 2021 and between April and June 2022. The survey in September 2021 comprised both a dusk and a dawn activity survey. Results of each survey are detailed below and illustrated on Plans ECO4 – ECO11.
- 4.15. During the bat activity survey on 12th July 2021, activity was low with a total of 139 registrations from Common Pipistrelle *Pipistrellus pipistrellus*, 3 registrations from Nathusius' Pipistrelle *Pipistrellus nathusii* and single registrations from Noctule *Nyctalus noctula* and *Myotis* bats. Activity during this survey was associated with the woodland and scattered trees throughout the site. The results from this survey can be seen on Plan ECO4.
- 4.16. During the bat activity survey on 19th August 2021, activity was low-moderate, with a total of 202 registrations from Common Pipistrelle, 2 registrations from *Myotis* and single registrations from Nathusius' Pipistrelle and Leisler's *Nyctalus leisleri* bats. The greatest levels of activity during this survey was associated with the eastern woodland, with lower levels associated with the western woodland and the scattered trees within the northwest of the site. The results from this survey can be seen on Plan ECO5.
- 4.17. During the dusk bat activity survey on 22nd September 2021, activity was low, with a total of 46 registrations from Common Pipistrelle and 5 registrations from Leisler's. Activity during this survey was associated with the woodland and scattered trees within the site, with most activity noted along the edge of the eastern woodland. The results from this survey can be seen on Plan ECO6.
- 4.18. During the dawn bat activity survey on 23rd September 2021, bat activity was very low, with a total of 7 registrations from Common Pipistrelle and 2 registrations from Leisler's. Activity during this survey was spread over the site, associated with the eastern and western woodland, the northwestern area of scrub, as well as scattered trees. The results from this survey can be seen on Plan ECO7.
- 4.19. During the bat activity survey on 25th October 2021, bat activity was very low with 24 registrations from Common Pipistrelle only. Activity during this survey was associated with both areas of woodland and with scattered trees in the east of the site. The results from this survey can be seen on Plan ECO8.
- 4.20. During the bat activity survey on 21st April 2022, bat activity was low, with a total of 88 registrations from Common Pipistrelle and a single registration from a *Myotis*. The majority of activity during this survey was associated with the woodland and scattered trees in the east of the site, with just one registration of

a Common Pipistrelle recorded in the western woodland. The results from this survey can be seen on Plan ECO9.

- 4.21. During the bat activity survey on 18th May 2022, bat activity was low, with a total of 87 registrations from Common Pipistrelle and a single registration from *Myotis*. The greatest levels of activity during this survey was associated with the eastern woodland, with lower numbers of registrations associated with the scattered trees and western woodland within the site. The results from this survey can be seen on Plan ECO10.
- 4.22. During the bat activity survey on 28th June 2022, bat activity was low, with a total of 48 registrations from Common Pipistrelle, 8 registrations from *Myotis* and a single registration from Long-eared *Plecotus* sp. The majority of activity was associated with the western woodland, with lower levels associated with the scattered trees and woodland in the east of the site. The results from this survey can be seen on Plan ECO11.

Automated Surveys

- 4.23. Two SM4 automated bat detectors were left to record for a minimum of five consecutive nights each month between July and October 2021 and between April and June 2022. Automated detectors placed at location 1 in September 2021 and at location 2 in June 2022 failed to record due to technical errors. The locations of the detectors are shown on Plans ECO4 – ECO11, with results detailed in Tables 1-11 below.

Table 1. 12th – 19th July 2021. Automated detector results – Location 1.

Species	Number of registrations - Location 1							
	12.07.21	13.07.21	14.07.21	15.07.21	16.07.21	17.07.21	18.07.21	19.07.21
Common Pipistrelle	53	73	36	26	12	28	35	19
Nathusius' Pipistrelle	1	0	0	0	0	1	0	1
Leisler's	1	2	2	2	2	0	0	1
<i>Myotis</i> sp.	0	0	0	0	0	2	2	1
Long-eared sp.	0	0	0	0	0	0	1	1

Table 2. 12th – 19th July 2021. Automated detector results – Location 2.

Species	Number of registrations - Location 2							
	12.07.21	13.07.21	14.07.21	15.07.21	16.07.21	17.07.21	18.07.21	19.07.21
Common Pipistrelle	308	399	768	281	380	167	136	271
Soprano Pipistrelle	0	0	0	4	0	0	0	1
Noctule	0	1	0	0	0	0	0	0
Leisler's	3	3	2	3	4	1	1	0
<i>Myotis</i> sp.	2	1	0	0	0	0	0	0
Long-eared sp.	0	0	0	0	1	0	0	0
Serotine	0	0	0	0	0	0	0	1

Table 3. 19th – 23rd August 2021. Automated detector results – Location 1.

Species	Number of registrations - Location 1				
	19.08.21	20.08.21	21.08.21	22.08.21	23.08.21
Common Pipistrelle	936	535	1250	287	85
<i>Myotis sp.</i>	0	0	0	0	1

Table 4. 19th – 23rd August 2021. Automated detector results – Location 2.

Species	Number of registrations - Location 2				
	19.08.21	20.08.21	21.08.21	22.08.21	23.08.21
Common Pipistrelle	14	16	19	7	5

Table 5. 22nd – 28th September 2021. Automated detector results – Location 2.

Species	Number of registrations - Location 2						
	22.09.21	23.09.21	24.09.21	25.09.21	26.09.21	27.09.21	28.09.21
Common Pipistrelle	11	20	16	8	56	29	16
Soprano Pipistrelle	0	0	0	0	0	0	1
Noctule	2	0	0	1	0	0	0
Leisler's	0	0	0	1	0	0	0
<i>Myotis sp.</i>	2	2	6	16	2	59	1

Table 6. 25th – 31st October 2021. Automated detector results – Location 1.

Species	Number of registrations - Location 1						
	25.10.21	26.10.21	27.10.21	28.10.21	29.10.21	30.10.21	31.10.21
Common Pipistrelle	64	152	54	1	107	171	3

Table 7. 25th – 31st October 2021. Automated detector results – Location 2.

Species	Number of registrations - Location 2						
	25.10.21	26.10.21	27.10.21	28.10.21	29.10.21	30.10.21	31.10.21
Common Pipistrelle	4	625	235	20	3	0	10
Leisler's	18	0	0	0	0	0	0
<i>Myotis sp.</i>	1	4	1	0	0	3	0

Table 8. 21st – 27th April 2022. Automated detector results – Location 1.

Species	Number of registrations - Location 1						
	21.04.22	22.04.22	23.04.22	24.04.22	25.04.22	26.04.22	27.04.22
Common Pipistrelle	2	1	3	5	0	1	0
Leisler's	0	0	1	0	0	3	0
<i>Myotis sp.</i>	1	0	1	0	0	0	0

Table 9. 21st – 27th April 2022. Automated detector results – Location 2.

Species	Number of registrations - Location 2						
	21.04.22	22.04.22	23.04.22	24.04.22	25.04.22	26.04.22	27.04.22
Common Pipistrelle	8	13	5	0	1	7	0
Soprano Pipistrelle	0	0	0	1	0	0	0

Table 10. 18th – 26th May 2022. Automated detector results – Location 1.

Species	Number of registrations - Location 1								
	18.05.22	19.05.22	20.05.22	21.05.22	22.05.22	23.05.22	24.05.22	25.05.22	26.05.22
Common Pipistrelle	0	58	169	140	177	164	234	257	69
Noctule	0	2	0	0	0	0	0	0	0
Leisler's	0	8	0	0	1	0	1	1	0
<i>Myotis sp.</i>	0	0	0	0	0	0	1	0	0

Table 11. 18th – 26th May 2022. Automated detector results – Location 2.

Species	Number of registrations - Location 2								
	18.05.22	19.05.22	20.05.22	21.05.22	22.05.22	23.05.22	24.05.22	25.05.22	26.05.22
Common Pipistrelle	37	30	9	14	10	3	39	7	26
Soprano Pipistrelle	0	1	2	1	0	0	0	0	0
Leisler's	3	2	1	1	1	0	4	0	2
<i>Myotis sp.</i>	1	2	0	0	1	0	0	0	0
Long-eared sp.	0	0	0	0	1	0	0	1	0

Table 11. 28th June – 5th July. Automated detector results – Location 1.

Species	Number of registrations - Location 1							
	28.06.22	29.06.22	30.06.22	01.07.22	02.07.22	03.07.22	04.07.22	05.07.22
Common Pipistrelle	6	24	36	34	17	67	73	33
Leisler's	0	5	3	1	2	0	1	2
Long-eared sp.	0	0	0	0	0	0	0	1

- 4.24. Generally, low-moderate levels of Common Pipistrelle were recorded within the site, with the highest levels noted in August 2021 from the detector located along the western edge of the eastern woodland. The remaining species recorded from the automated surveys were recorded at very low registration numbers and were from Soprano Pipistrelle, Nathusius' Pipistrelle, Noctule, Leisler's, *Myotis* and Long-eared. In addition, a single registration of a Serotine *Eptesicus serotinus* was recorded over the duration of the surveys which was in July 2021 from the detector left within the western area of woodland.
- 4.25. From the results of the activity and automated survey results, it can be seen that bat activity was present throughout the site and generally associated with woodland and scattered trees, mostly deriving from Common Pipistrelle bats, with remaining species recorded at very low occurrences. In light of the above results, it is not considered that the site represents a particularly important foraging or navigational resource to local bat populations.
- 4.26. **Background Information.** No records of bats were returned as part of the desk study from within the site itself. The closest records returned were consultancy records from SBIC of Common Pipistrelle and Noctule, located approximately 0.2km southeast of the site in 2015. The next closest record was also returned by SBIC and was a consultancy submission of a Soprano Pipistrelle located approximately 0.33km southeast of the site in 2015.

Other Mammals

- 4.27. No evidence of any other notable mammals was recorded within the site during surveys.

- 4.28. **Background Information.** No records of other mammals were returned as part of the desk study from within the site itself. A record of the Priority Species Hedgehog *Erinaceus europaeus* was returned by GiGL located approximately 0.4km southwest of the site in 2019.
- 4.29. It is considered that the species-poor semi-improved grassland, recolonising vegetation, scrub, woodland and scattered trees within the site offers suitable habitat for Hedgehog. It is not considered that this species would be reliant on habitats present within the site, given the surrounding habitats. In any event, suitable habitat for this species will be present post-development e.g. gardens, and areas of public open space.

Birds

- 4.30. The Red Listed and Priority Species Linnet *Linaria cannabina* was recorded within the site during surveys, while a number of common species were also recorded including Carrion Crow, Blackcap *Sylvia atricapilla*, Blackbird *Turdus merula*, Wren *Troglodytes troglodytes*, Jay *Garrulus glandarius*, Whitethroat *Sylvia communis*, Jackdaw *Corvus monedula* and Magpie *Pica pica*.
- 4.31. It is considered that the recolonising vegetation and species-poor semi-improved grassland offer suitable foraging opportunities for a range of common bird species, while the scrub, woodland and scattered trees are considered to offer foraging and nesting opportunities for common bird species.
- 4.32. **Background Information.** The closest records of notable birds returned as part of the desk study were returned by SBIC of the Red Listed species Swift *Apus apus*, the Priority Species Dunnock *Prunella modularis* and the Red Listed and Priority Species Song Thrush *Turdus philomelos* located approximately 0.25km southeast of the site in 2015. It is considered that the recolonising vegetation, scrub, woodland, scattered trees and species-poor semi-improved grassland offer suitable foraging opportunities for all of the above species, while the scrub, woodland and scattered trees are also considered to offer nesting opportunities for Dunnock and Song Thrush.

Reptiles

- 4.33. It is considered that the species-poor semi-improved grassland, scrub and recolonising vegetation within the site offer suitable habitat for reptiles, given their limited management. The woodland also likely offers some shelter/hibernation opportunities for this faunal group. Specific surveys for reptiles were conducted in May 2023 within the species-poor semi-improved grassland, scrub and recolonising vegetation of the site.
- 4.34. No reptiles were recorded during these surveys. The weather conditions are included in Table 12 below.

Table 12. Reptile survey weather conditions May 2023.

Survey no.	Date	Cloud cover (%)	Temperature (°C)
1	05.05.23	60	17
2	11.05.23	50	15
3	15.05.23	70	13
4	17.05.23	30	17
5	24.05.23	0	17
6	26.05.23	10	16
7	30.05.23	50	15

- 4.35. **Background Information.** A record of a Slow Worm *Anguis fragilis* was returned by SBIC from within a 100m grid square that includes the site in 2010.
- 4.36. Given the results of the surveys, it is not considered that reptiles are present within the site and as such, no further regard is given to this faunal group within the remainder of this report.

Invertebrates

- 4.37. Given the habitats present, it is likely an assemblage of common invertebrate species would be present within the site.
- 4.38. **Background Information.** No notable records of invertebrates were returned by as part of the desk study from within the site itself. The closest record returned was returned by SBIC of the Priority Species Small Heath *Coenonympha pamphilus* located approximately 0.25km west of the site in 2018.
- 4.39. The larval foodplants of Small Heath comprise fine grasses such as Fescues Meadow-grasses and Bents. As such, it is considered that the species-poor semi-improved grassland and recolonising vegetation offer suitable breeding habitat for this species. However, given habitats present in the local area it is considered unlikely that this species would be reliant upon the site.

Other Species

- 4.40. 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 CIEEM⁹ 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 Ratcliffe¹⁰. 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 Surrey Nature 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.

⁹CIEEM (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.

¹⁰ 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 the South London Downs National Nature Reserve (NNR) located approximately 0.14km west of the site that supports grassland, scrub and woodland habitats.
- 5.2.2. An increased level of dust may arise during construction, therefore measures to mitigate dust emissions will be implemented during the construction phase. Any potential effects would be easily minimised through use of standard mitigation techniques such that residual effects are of negligible significance. Where mitigation measures rely on water, it is expected that only sufficient water will be applied to damp down the material.
- 5.2.3. The closest SSSI is the Farthing Downs and Happy Valley SSSI which is located approximately 1.74km southwest of the site. This SSSI is designated for its species-rich chalk and neutral grasslands and for an area of ancient woodland that support a range of botanical species.
- 5.2.4. This SSSI is well separated from the site by the urban development of Caterham. As such, it is not considered there will be any adverse direct or indirect effects on this statutory designated site (or any other SSSIs in the area) as result of the proposals.
- 5.2.5. The SSSI Impact Risk Zone identifies potential impacts from “*Any discharge of water or liquid waste of more than 5m³/day to ground (ie to seep away) or to surface water, such as a beck or stream.*”
- 5.2.6. Given that the surface water will be discharged to ground via a deep bore soakaway and the domestic sewerage will be discharged to a Thames Water foul sewer, it is not considered that any hydrological impacts will arise to this SSSI or any other statutory site as a result of the proposed development.
- 5.2.7. **Non-statutory Sites:** There are no non-statutory designated sites within the site itself. The closest non-statutory designated sites are Coulsdon Court Wood and Betts Mead Borough Importance Grade I, located approximately 0.14km west of the site and the Kenley Aerodrome Borough Importance Grade II located approximately 0.14km northwest of the site boundary. The extent of Coulsdon Court Wood and Betts Mead Borough Importance Grade I overlaps in part with South London Downs NNR and is designated for its mixed woodland and meadow habitats. Kenley Aerodrome is designated for its neutral and acidic grassland habitats and woodland copse.
- 5.2.8. The closest site of Metropolitan Importance is Kenley Common that lies approximately 0.4km north of the site and is designated for its acid and chalk grassland, as well as ancient woodland habitats.
- 5.2.9. The closest potential Site of Nature Conservation Importance (pSNCI) is Blize Wood & Joysons Hill pSNCI that lies approximately 0.3km east of the

site. The closest Site of Nature Conservation Importance (SNCI) is Manor Park SNCI, located approximately 0.75km southeast of the site at its closest point. Manor Park SNCI is designated for its calcareous and mesotrophic grassland habitats.

- 5.2.10. The measures detailed above in relation to South London Downs NNR, with regard to mitigating impacts of dusk during construction would also mitigate potential impacts to the non-statutory sites during construction.
- 5.2.11. On this basis, it is not considered that any detrimental effects (direct or indirect) will arise as a result of the proposals at the site to any statutory or non-statutory site of nature conservation interest.
- 5.2.12. A number of additional statutory and non-statutory designated sites are located in the wider area, but no significant effects (direct or indirect) are anticipated.

Habitats

- 5.2.13. The species-poor semi-improved grassland, ruderal vegetation, scrub and amenity grassland within the site are considered to be of low ecological. The recolonising vegetation, woodland and scattered trees are of some relatively greater ecological value in the context of the site. The buildings and hardstanding are considered to be of negligible ecological value.

Species-poor Semi-improved Grassland and Recolonising Vegetation

- 5.2.14. The areas of species-poor, semi-improved grassland are of relatively low ecological value comprising mainly common and widespread species, while the recolonising vegetation is considered to be of greater ecological value, comprising a number of indicator species.
- 5.2.15. The recolonising vegetation is to be lost to the proposed development, while areas of the species-poor semi-improved grassland are also to be lost, with some converted into residential gardens and wildflower meadow.
- 5.2.16. **Mitigation and Enhancements.** Losses of species-poor semi-improved grassland and recolonising vegetation will be offset by the creation of new wildflower meadow within areas of open space, which could be 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, to increase the floristic diversity of the site accordingly.
- 5.2.17. The creation of new swales/rain gardens as part of the proposals will also serve to enhance the floristic diversity of the site post development and diversify habitats within the site through the creation of new aquatic habitat.

Amenity Grassland

- 5.2.18. The amenity grassland is of very low ecological value, given its poor species composition and intensive management regime. The majority of the amenity grassland is to be lost to the proposed development, with some areas converted into gardens.

- 5.2.19. **Mitigation and Enhancements.** New areas of species-rich amenity grassland are to be created within the site which will more than offset losses to this habitat. It is recommended that these areas be oversown with a native species-rich seed mixture (such as Emorsgate's Flowering Lawn Mixture EL1) that is tolerant of regular mowing, in order to increase the floristic diversity of the site.

Scrub and Ruderal Vegetation

- 5.2.20. The scrub and ruderal vegetation are of relatively low ecological value, comprising common and widespread species and is to be lost as part of the proposed development.
- 5.2.21. **Mitigation and Enhancements.** The planting of new native hedgerows as part of the Proposed Development will offset losses to these habitats and also serve to enhance the floristic diversity of the site.
- 5.2.22. In addition, areas of new landscape planting will be provided post-development. It is recommended that new 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.

Broad-leaved Woodland and Scattered Trees

- 5.2.23. The broad-leaved woodland and scattered 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.
- 5.2.24. Some losses are proposed to the western area of woodland, as well as scattered trees throughout the site in order to facilitate the proposed development.
- 5.2.25. **Mitigation and Enhancements.** New tree planting based around native species is to be included as part of the proposed development, which is considered will offset losses to these habitats. The retained woodland in the east of the site will be sown with a shade-tolerant wildflower seed mixture, which will represent an enhancement over the ruderal dominated nature of the woodland flora.
- 5.2.26. It is recommended that all retained 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 these trees.

Japanese Knotweed

- 5.2.27. A single stand of Japanese Knotweed is present within the eastern woodland within the site.

- 5.2.28. Japanese Knotweed is a species listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended). Section 14(2) of the Wildlife and Countryside Act 1981 states that:
- "If any person plants or otherwise causes to grow in the wild any plant which is included in Part 2 of Schedule 9, he shall be guilty of an offence."*
- 5.2.29. Subsequent sections of the Wildlife and Countryside Act further elaborate on what may constitute an offence in this regard, setting out the circumstances in which responsible persons (i.e. the landowner) would not be guilty of an offence. For convenience these circumstances are set out below:
- Section 14(3) – ‘... the accused took all reasonable steps and exercised all due diligence to avoid committing the offence.’
 - Section 14(4) – ‘Where the defence ... involves an allegation that the commission of the offence was due to the act or default of another person ...’ and in which information can be provided to identify or assist in the identification of the other person.
- 5.2.30. The wording of Section 14 does not pose an explicit obligation to manage Schedule 9 species not introduced onto your land by your own actions. However, the law is not entirely clear as to the phrase “cause to grow”. It may be argued that a landowner who knowingly allows a Schedule 9 species that he did not introduce to accumulate on his land and create a problem as it spreads to other areas of the wild, and who makes a conscious decision to do nothing about it, is ‘causing to grow’. However, it is our understanding that this interpretation has not been tested and DEFRA does not offer a firm view on this situation.
- 5.2.31. Section 34(1) of the Environmental Protection Act imposes a duty of care on persons who produce, import, dispose of, or treat controlled wastes. Japanese Knotweed is classed as ‘controlled waste’ and as such must be disposed of safely at a licensed landfill site.
- 5.2.32. The ‘duty’ requires such persons to ensure that there is no unauthorised or harmful deposit, treatment or disposal of the waste, to prevent the escape of the waste from their control or that of any other person, and on the transfer of the waste to ensure that the transfer is only to an authorised person or to a person for authorised transport purposes. The movement of Japanese Knotweed off-site of controlled waste must be covered by a waste transfer note.
- 5.2.33. The spread of Japanese Knotweed is facilitated through vegetative means, either by rhizome (root) fragments, or crown and stem segments. Therefore, the risk of spreading Japanese Knotweed is particularly high when associated with the movement of soil. Land management such as the cutting and flailing of vegetation can also increase the risk of contamination spread.
- 5.2.34. **Mitigation and Enhancements.** There are a number of options available for Japanese Knotweed control and removal, which are described below, although depending on the works required in the location of the Japanese Knotweed, a number of methods could be utilised.

- 5.2.35. Japanese Knotweed can be left in situ and treated with Glyphosate based herbicides in order to control it. The herbicide can be applied during the growing season, either through the spraying of the leaves or the injection of the stems (depending on the size of the stands which require treatment).
- 5.2.36. Herbicidal control is generally considered to be the most effective means of managing Japanese Knotweed on a site, both in terms of efficiency and cost, although this methodology may take a number of growing seasons before control is established.
- 5.2.37. An alternative option for controlling Japanese Knotweed within a site involves the mechanical removal of all plants and rhizomes from an affected part of a site, and deep burial of all material in a suitable on-site location. All plant arisings and potentially contaminated spoil would need to be removed from its current location, transported to a suitable location within the Site (where no development is proposed), and then buried at a depth of at least 5 metres. Buried material would then need to be covered with a suitable root barrier membrane layer and capped with topsoil.
- 5.2.38. This can be an effective method of on-site control, provided that complete excavation of the area affected by Japanese Knotweed can be ensured (often requiring a sizable excavation zone). However, it is important to note that there is inherently more risk associated with moving Japanese Knotweed within a site than dealing with it in situ, and the cost of undertaking removal and on-site removal would be significantly greater than herbicide treatment.
- 5.2.39. The third main method of control involves mechanical removal of all plants and contaminated arisings, and disposal off-site as 'controlled waste' at a suitable landfill site. This option is generally considered as the last resort, given the inherent risk of spreading Japanese Knotweed and, from a commercial point of view, the very significant cost implications associated with this method compared to on-site Japanese Knotweed control methods.

Hardstanding and Buildings

- 5.2.40. The hardstanding and buildings are considered to be of negligible ecological value.
- 5.2.41. The building within the south of the site is to be retained as part of the proposals, while the dilapidated building and hardstanding are to be lost.
- 5.2.42. **Mitigation and Enhancements.** None required.

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”¹¹. “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 appropriate precautions with vibrations and noise, etc. Fires / chemicals within 20m of a sett should specifically be avoided¹².
- 5.3.7. This interim 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 Badger was recorded 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.

¹¹ 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>

¹² <https://www.gov.uk/guidance/badgers-surveys-and-mitigation-for-development-projects>

- 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 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"). 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.
- 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 *Plecotus auritus*, Greater Horseshoe *Rhinolophus ferrumequinum* and Lesser Horseshoe *Rhinolophus hipposideros*.
- 5.3.26. **Site Usage.** Four trees (T1-T4) were identified as having potential to support roosting bats. All of these trees are to be retained within the proposed development.
- 5.3.27. The woodland, scrub, scattered trees and recolonising vegetation are considered to offer suitable foraging and dispersal/navigational opportunities for bats. From the results of the activity and automated survey results, it can be seen that bat activity was present throughout the site and generally associated with woodland and scattered trees, mostly deriving from Common Pipistrelle bats. It is not considered that the site represents

a particularly important foraging or navigational resource to local bat populations.

- 5.3.28. **Mitigation and Enhancements.** The retention of large numbers of scattered trees and the eastern woodland block, as well as the creation of areas of wildflower meadow, swales and the planting of new hedgerows and trees within the site will retain foraging/navigational opportunities for bats within the site post-development.
- 5.3.29. If deemed necessary, a sympathetic lighting regime associated with the new proposals could be used to minimise light spillage into key areas, such as the retained woodland and trees, in order to retain suitable foraging and navigation opportunities for bats in the form of 'dark corridors'. A sympathetic lighting regime could be achieved through the use of warm white spectrum 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, the employment of lighting 'hoods' which will direct light below the horizontal plane, preferably with no upward tilt and the use of short-timer motion sensors for any external lighting. Such lighting measures (and other appropriate design measures, e.g. planting of trees either side of roads) can also be applied to points where roads cross existing hedgerows to facilitate the passage of bats and minimise/avoid any fragmentation.
- 5.3.30. 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 from the site). This measure will provide enhanced roosting opportunities within the site.

Other Mammals

- 5.3.31. **Site Usage.** It is considered that the species-poor semi-improved grassland, recolonising vegetation, scrub, woodland and scattered trees within the site offers suitable habitat for Hedgehog.
- 5.3.32. **Mitigation and Enhancements.** The retention of the eastern woodland and majority of scattered trees, together with the creation of new areas of wildflower meadow and landscape planting within the site and the planting of new trees and hedgerows would retain opportunities for small mammals post-development.

Birds

- 5.3.33. **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.
- 5.3.34. **Site usage.** The Red Listed and Priority Species Linnet was recorded within the site during surveys. A small number of other common birds was also recorded within the site.

- 5.3.35. The recolonising vegetation and species-poor semi-improved grassland offer suitable foraging opportunities for a range of common bird species, while the scrub, woodland and scattered trees are considered to offer foraging and nesting opportunities for common bird species.
- 5.3.36. **Mitigation and Enhancements.** The retention of large numbers of scattered trees and the eastern woodland area, as well as the provision of new areas of wildflower meadow, planting of new scattered trees and native hedgerows, along with other new landscape planting, will retain foraging and nesting opportunities for a range of bird species post-development. The provision of any berry/fruit-bearing species as part of the proposals would also provide further seasonal foraging resources for birds.
- 5.3.37. 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.
- 5.3.38. As an enhancement, new bird nest boxes will be provided on suitable retained trees / new buildings within the site (see appendix 4 for suitable examples). 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 Schedule 1 species Barn Owl (e.g. placement in a suitable tree on the eastern boundary bordering adjacent countryside) and Red Listed / Priority Species, e.g. Starling or House Sparrow, that are known from the site.

Invertebrates

- 5.3.39. **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.
- 5.3.40. **Mitigation and Enhancements.** The retention of scattered trees and the eastern woodland block, as well as the creation of areas of wildflower meadow, new trees and native hedgerows will retain suitable opportunities for a range of invertebrates. The creation of swales will create new aquatic habitat within the site, creating new opportunities for aquatic invertebrates within the site. 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 Tandridge District Local Development Scheme (adopted 2022). The proposed development will be judged in relation to the policies contained within these documents.

6.2. National Policy

National Planning Policy Framework (July 2021)

- 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 24 July 2018, 19 February 2019 and again on 20 July 2021. 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 182). ‘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 174).
- 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 179 to 181 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

Tandridge District Core Strategy

- 6.3.1. The Core Strategy was adopted in October 2008, and forms part of the Local Development Scheme (LDS). The core strategy contains one policy (**CSP17**) of relevance to nature conservation.
- 6.3.2. Policy **CSP17** refers to the protection and enhancement of biodiversity and the supporting text makes reference to the protection of statutory and non-statutory designated sites.

Tandridge Local Plan Part 2 – Detailed Policies (LP2)

- 6.3.3. Tandridge council advise that the cores strategy should be read in conjunction with the Tandridge Local Plan Part 2: detailed policies, that was adopted in July 2014.
- 6.3.4. The Tandridge Local Plan Part 2 contains one policy (**DP19**) that is of relevance to nature conservation. This policy is specifically concerned with the protection/enhancement of green infrastructure, the restoration/creation of Priority Habitats/Species and the protection of irreplaceable habitats, as well as the protection of statutory designated sites.

Caterham, Chaldon and Whyteleafe Neighbourhood Plan

- 6.3.5. The Caterham, Chaldon and Whyteleafe Neighbourhood Plan was adopted 24th June 2021 and forms part of the current LDS. While the Neighbourhood Plan makes reference to improving biodiversity and endangered species, there are no specific policies within the plan in relation to nature conservation.

Emerging Local Plan 2033

- 6.3.6. A Regulation 22 version of the emerging Local Plan 2033 was submitted on 18th January 2019 and is currently undergoing examination. This document contains 3 policies of relevance to nature conservation, each of which is described individually below.
- 6.3.7. Policy **TLP35** is concerned with the protection of biodiversity and makes reference to the provision of a net gain in biodiversity. The policy also makes reference to the enhancement of biodiversity opportunity areas, as well as the protection of statutory and non-statutory designated sites.

- 6.3.8. Policy **TLP36** relates to the Ashdown Forest Special Protection Area (SPA) and details the requirement for SAMM/SANG provisions for any residential development located within 7km of the SPA site boundary.
- 6.3.9. Policy **TLP37** refers to the protection of trees, woodland, hedgerows and other vegetation of significant ecological value. Comprehensive replacement planting is advised where any tree losses occur and maximise opportunities for additional tree/hedgerow/ vegetation where possible within the layout of the proposals.

6.4. Discussion

- 6.4.1. Following the recommendations set out above, it is not considered the development proposals will have any adverse effects on any statutory or non-statutory designated sites or loss of any irreplaceable habitats. The proposals have been designed to minimise tree loss where possible and to offset any losses through new tree planting. Losses to the existing recolonising vegetation and grassland habitats are to be offset through the creation of new wildflower meadow habitat. The creation of new native hedgerows within the site will also create new hedgerow habitat, not currently present within the site. The recommended provision of bat and bird boxes would provide enhancements over the existing situation. As such, it is considered that the development proposals would accord with Policy CSP17 of the Tandridge District Core Strategy, Policy **DP9** of the Tandridge Local Plan Part 2 and Policies **TLP35 & 37** of the Emerging Local Plan 2033.
- 6.4.2. The site does not lie within 7km of the Ashdown Forest SPA, therefore Policy TLP36 of the emerging Local Plan 2033 is not relevant to the proposals.
- 6.4.3. In conclusion, the implementation of the measures set out in this report would enable the development of the site to accord with national and local planning policy for ecology and nature conservation.

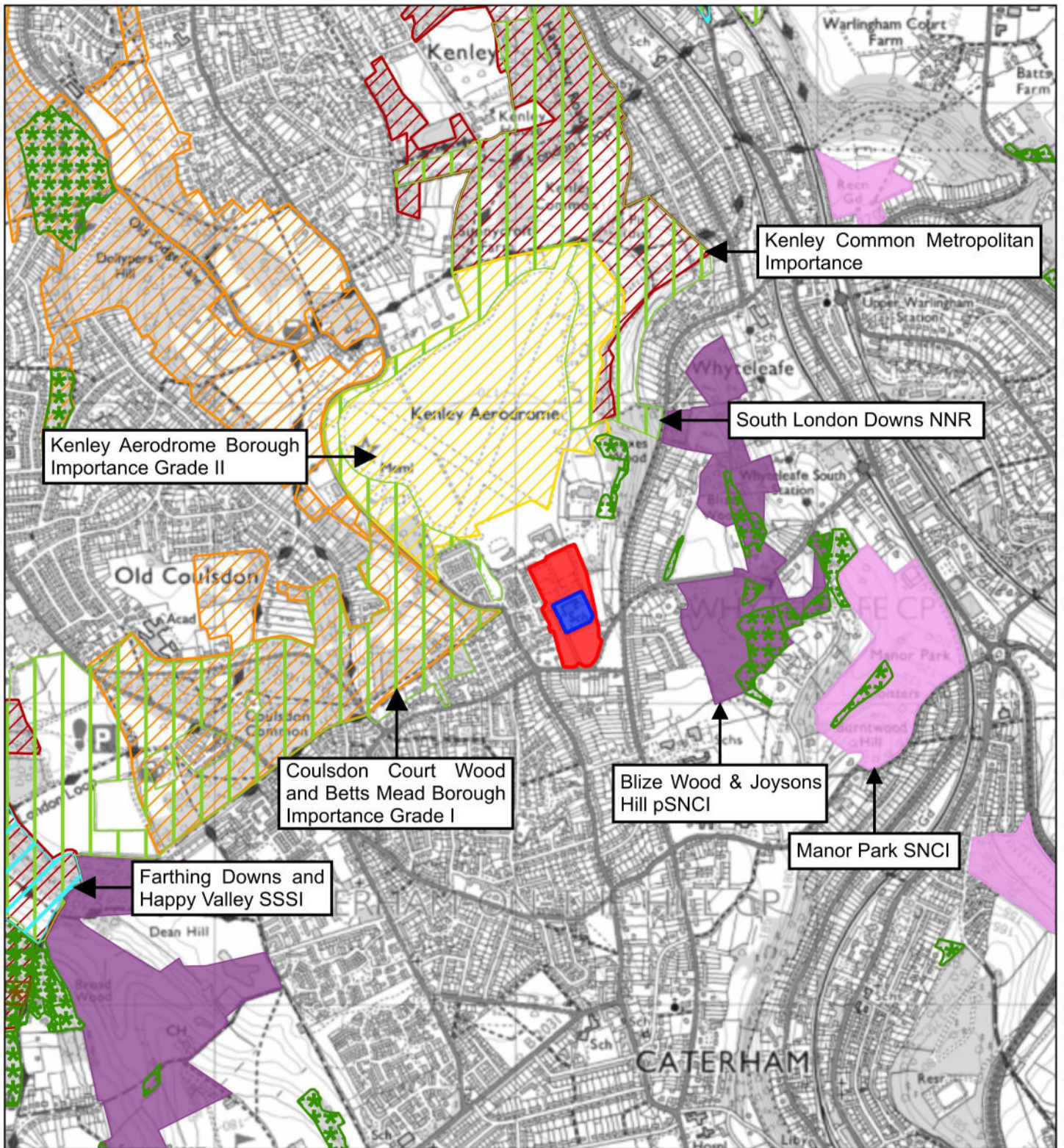
7. SUMMARY AND CONCLUSIONS

- 7.1. Ecology Solutions Ltd was commissioned by Daniel Watney in June 2021 to produce a detailed Ecological Assessment of Kenley Campus, Caterham.
- 7.2. The proposals for the site are for the construction of 87 dwellings with associated infrastructure and landscaping.
- 7.3. Habitat surveys were carried out in June 2021 and May 2023 in order to ascertain the general ecological value of the site and to identify the main habitats and associated plant species.
- 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. The proposals will retain the eastern area of woodland and a large number of scattered trees. New tree and hedgerow planting, creation of wildflower meadow and areas of landscape planting within the development proposals will provide continued foraging and navigational opportunities for bats. The recommended erection of new bat boxes within the site will provide new roosting opportunities for bats.
- 7.6. A sensitive lighting regime, if necessary, post-development could ensure dark corridors are retained for bats, particularly within the retained woodland.
- 7.7. Potentially suitable reptile habitat was subject to specific surveys for reptiles in May 2023 and recorded no reptiles during the surveys.
- 7.8. The retention of the eastern woodland and large numbers of scattered trees, 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.
- 7.9. 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 and Ecological Designations



- KEY:**
- SITE
 - WIDER STUDY AREA
 - SITES OF SPECIAL SCIENTIFIC INTEREST (SSSI)
 - NATIONAL NATURE RESERVES (NNR)
 - SITE OF BOROUGH IMPORTANCE GRADE I
 - SITE OF BOROUGH IMPORTANCE GRADE II
 - SITE OF METROPOLITAN IMPORTANCE
 - POTENTIAL SITE OF NATURE CONSERVATION IMPORTANCE (pSNCI)
 - SITE OF NATURE CONSERVATION IMPORTANCE (SNCI)
 - ANCIENT REPLANTED WOODLAND
 - ANCIENT & SEMI-NATURAL WOODLAND



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PLAN ECO1: SITE LOCATION AND
 ECOLOGICAL DESIGNATIONS

Rev: A
 Jun 2023

PLAN ECO2

Ecological Features



- KEY:**
- SITE BOUNDARY
 - WIDER STUDY AREA
 - SCRUB
 - AMENITY GRASSLAND
 - HARDSTANDING
 - SPECIES-POOR SEMI-IMPROVED GRASSLAND
 - BROAD-LEAVED WOODLAND
 - RUDERAL VEGETATION
 - BUILDING
 - RECOLONISING VEGETATION
 - DILAPIDATED BUILDING
 - ★ PYRAMIDAL ORCHID RECORDED
 - ✱ JAPANESE KNOTWEED RECORDED



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PLAN ECO2: ECOLOGICAL FEATURES	Rev: A Jun 2023
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PLAN ECO3

Protected Species



- KEY:**
- SITE BOUNDARY
 - WIDER STUDY AREA
 - MAMMAL ENTRANCE
 - TREE WITH POTENTIAL TO SUPPORT ROOSTING BATS



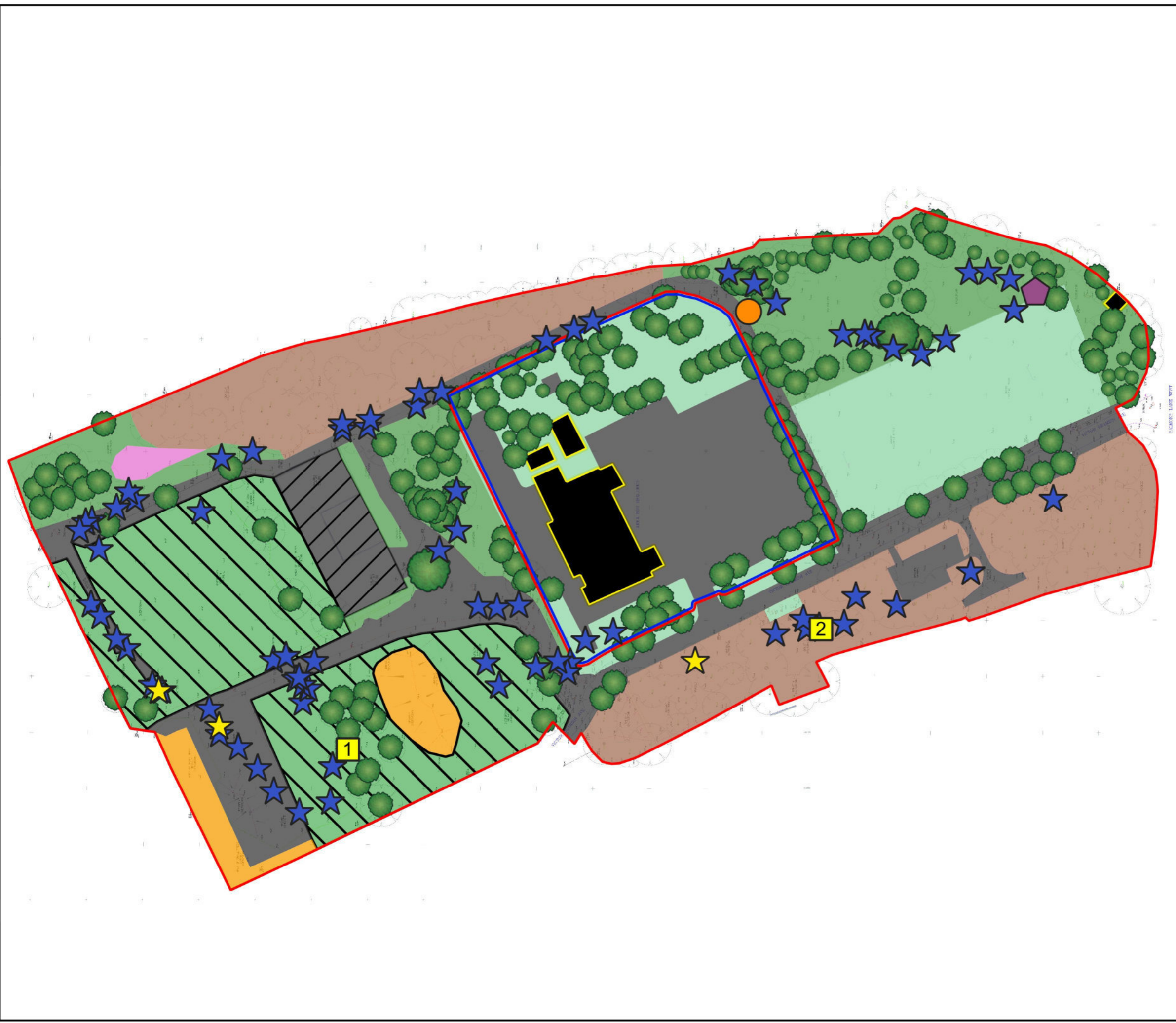
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PLAN ECO3: PROTECTED SPECIES	Rev: A Jun 2023
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PLAN ECO4

July 2021 Bat Activity Survey



- KEY:**
- SITE BOUNDARY
 - WIDER STUDY AREA
 - JULY AUTOMATED DETECTOR
 - ★ COMMON PIPISTRELLE REGISTRATION
 - ★ NATHUSIUS' PIPISTRELLE REGISTRATION
 - NOCTULE REGISTRATION
 - ⬠ MYOTIS SP. REGISTRATION



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PLAN ECO4: BAT ACTIVITY RESULTS JULY 2021	Rev: A Jun 2023
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PLAN ECO5

August 2021 Bat Activity Survey



- KEY:**
- SITE BOUNDARY
 - WIDER STUDY AREA
 - 0 AUGUST AUTOMATED DETECTOR
 - ★ COMMON PIPISTRELLE REGISTRATION
 - ★ NATHUSIUS' PIPISTRELLE REGISTRATION
 - ◆ MYOTIS SP. REGISTRATION
 - LEISLER'S REGISTRATION



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PLAN ECO5: BAT ACTIVITY RESULTS AUGUST 2021	Rev: A Jun 2023
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PLAN ECO6

September 2021 Dusk Bat Activity Survey



KEY:

- SITE BOUNDARY
- WIDER STUDY AREA
- 0 SEPTEMBER AUTOMATED DETECTOR
- ★ COMMON PIPISTRELLE REGISTRATION
- LEISLER'S REGISTRATION



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PLAN ECO6: BAT ACTIVITY RESULTS SEPTEMBER DUSK 2021	Rev: A Jun 2023
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PLAN ECO7

September 2021 Dawn Bat Activity Survey



- KEY:**
- SITE BOUNDARY
 - WIDER STUDY AREA
 - 0 SEPTEMBER AUTOMATED DETECTOR
 - ★ COMMON PIPISTRELLE REGISTRATION
 - LEISLER'S REGISTRATION



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PLAN ECO7: BAT ACTIVITY RESULTS SEPTEMBER DAWN 2021	Rev: A Jun 2023
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PLAN ECO8

October 2021 Bat Activity Survey



KEY:

- SITE BOUNDARY
- WIDER STUDY AREA
- 0 OCTOBER AUTOMATED DETECTOR
- ★ COMMON PIPISTRELLE REGISTRATION



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PLAN ECO8: BAT ACTIVITY RESULTS OCTOBER 2021	Rev: A Jun 2023
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PLAN ECO9

April 2022 Bat Activity Survey



- KEY:**
- SITE BOUNDARY
 - WIDER STUDY AREA
 - 0 APRIL AUTOMATED DETECTOR
 - ★ COMMON PIPISTRELLE REGISTRATION
 - ⬠ MYOTIS SP. REGISTRATION



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PLAN ECO9: BAT ACTIVITY RESULTS APRIL 2022	Rev: A Jun 2023
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PLAN ECO10

May 2022 Bat Activity Survey



- KEY:**
- SITE BOUNDARY
 - WIDER STUDY AREA
 - 0 MAY AUTOMATED DETECTOR
 - ★ COMMON PIPISTRELLE REGISTRATION
 - MYOTIS SP. REGISTRATION



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PLAN ECO10: BAT ACTIVITY RESULTS MAY 2022	Rev: A Jun 2023
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PLAN ECO11

June 2022 Bat Activity Survey



KEY:

- SITE BOUNDARY
- WIDER STUDY AREA
- 0 JUNE AUTOMATED DETECTOR
- ★ COMMON PIPISTRELLE REGISTRATION
- ▲ LONG-EARED SP. REGISTRATION
- ⬠ MYOTIS SP. REGISTRATION



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PLAN ECO11: BAT ACTIVITY RESULTS JUNE 2022	Rev: A Jun 2023
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APPENDICES

APPENDIX 1

Planting Strategy

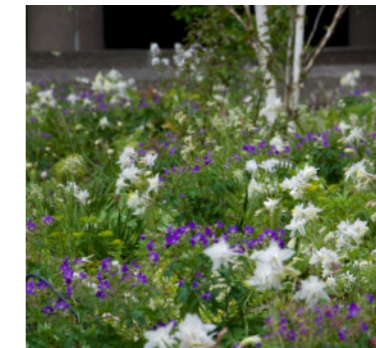
LANDSCAPE STRATEGIES

Planting Strategy

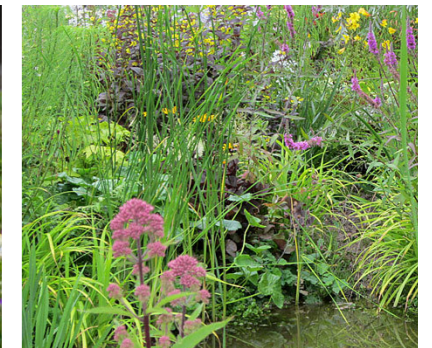
The soft landscape palette has been developed to add a strong, well-vegetated character to the site and will form a rich vegetative backdrop to the proposed development. Species have been chosen from an appropriate palette to match the anticipated micro climate, clearly define spaces, soften the appearance of the development, help create variation in character, enhance ecological diversity, and provide visual interest and colour throughout the seasons.

The following principles have been applied to the design of the soft landscape:

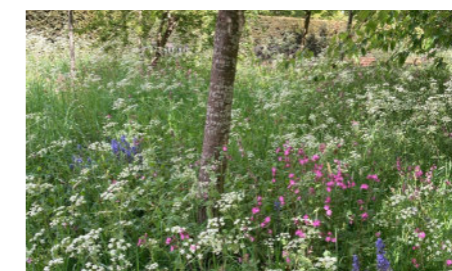
- The selection of plants will consider the form and eventual scale of the species in relation to the spacing and elevation of the buildings. The future maintenance requirements vegetation and their impact on buildings, pedestrian access routes and access points will also be taken into account
- The selection of shrub planting will enhance the design of the buildings. The use of planting which will respond to the articulation of the spaces by framing and terminating views, celebrating entrances and thresholds and defining pedestrian routes and connections
- The selection of plant species will be appropriate to their location in terms of soil type, micro climate, their setting and future maintenance/management requirements
- The use of plant species that will increase biodiversity potential of the site through the use of locally indigenous species and planted to diversify the age range of species for enjoyment for this generation and the next
- The general mix of species of trees and plants includes specimens that blossom, have fruit and flower at different times of the year, creating a long season of feeding and pollinating for invertebrates and birds
- New groundcover planting also creates foraging areas for small mammals and insects. Bird and bat boxes will also be installed on the existing trees to provide homes for protected species of winged beasts



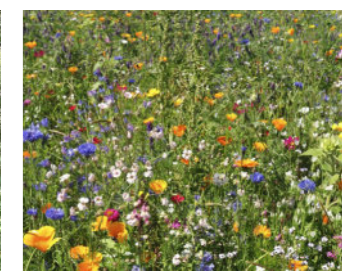
RESIDENTIAL AMENITY



RAIN GARDEN & SWALE



SHADE TOLERANT WILDFLOWER



WILDFLOWER MEADOW



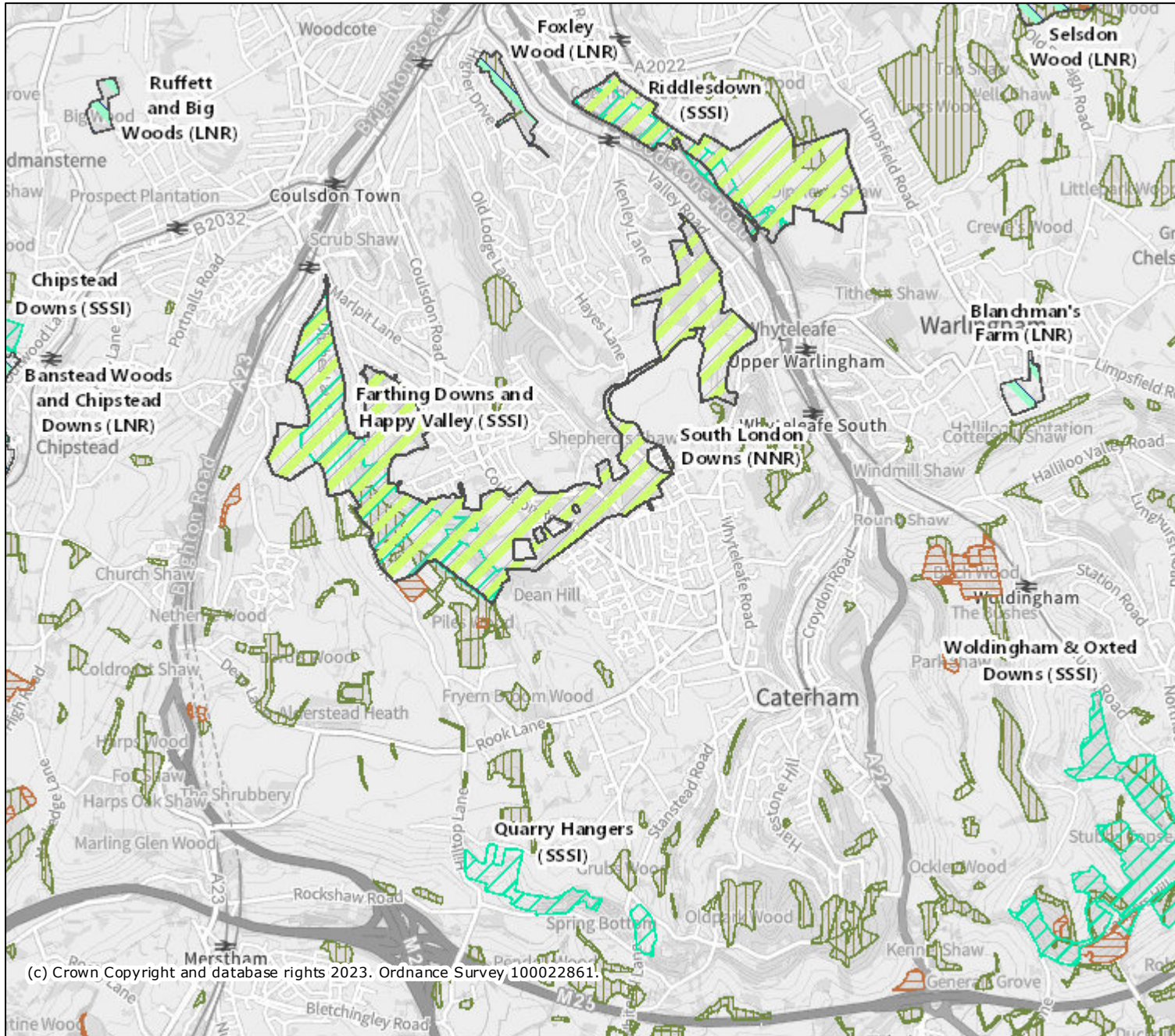
SPECIES RICH LAWN

Proposed Planting Typologies

- Residential Amenity Planting
- Rain Garden and Swale Planting
- Shade Tolerant Wildflower Planting
- Wildflower Meadow
- Species rich Lawn
- Native Hedgerow









APPENDIX 2

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





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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 = 519600

ymin = 150600

xmax = 545000

ymax = 163200



Map produced by MAGiC on 13 June, 2023.

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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.



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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