

Unit 19, Bolney Grange Business Park

Mr Robin Gamble

Preliminary Ecological Appraisal

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Executive Summary

A Preliminary Ecological Appraisal of the proposed development area at Unit 19 was completed by JWK Wildlife Surveys Ltd in November 2024 on behalf of Mr Robin Gamble. This Ecology Report forms part of the environmental support to accompany the planning application for proposed works at the site, which involves the extension of the existing commercial unit.

This Ecology Report includes the results of a desk study, protected and notable habitat and species assessments. The survey was completed to establish the ecological baseline conditions within the site and to identify any potential ecological constraints to the proposed development.

The survey area is located approximately 2.5km southeast of Bolney village within Mid-Sussex district of West Sussex. The settlements of Hickstead and Goddards Green lie 700m west and 950m southeast, respectively. Burgess Hill town centre is located 3.4km southeast. The site is accessed via Stairbridge Lane and the wider Bolney Grange Business Park which bounds the proposed development site to the south, west and east. Wooded and scrub habitats bound to the north forming an extensive disused agricultural site. The proposed development site is formed of a single semi-detached commercial unit and hardstanding which form the majority of the site, with only the northern extent having any natural features.

The site is not subject to any statutory designations with no sites present within 1km, however the site falls within the SSSI IRZ for two designated sites located between 5.7km and 6.4km from the proposed development boundary. The proposed development is discrete in nature and dominated by habitats considered to be of limited value for biodiversity with no hydrological connection or any functionally linked land and is therefore not considered likely to have any negative impacts on any designated site.

Habitats within the survey site were assessed as being of local importance. The habitats supported are widespread throughout the landscape, however the site supports features with potential for use by widespread reptiles, amphibians, foraging bats and badger. The sites boundaries also contributes to the wider ecological value providing wildlife corridors for more mobile species including bats and badgers to move through the landscape.

Based on the current proposals, it is considered that precautionary approaches in relation to reptiles, amphibians, foraging bats and badgers will be sufficient in order to safeguard these species groups and to avoid any legal infringement relating to them.

Details regarding mitigation, including precautionary working practices together with recommendations for ecological enhancement to help contribute towards achieving biodiversity gains are provided below.

1. Introduction

1.1 Background

JWK Wildlife Surveys Ltd was commissioned by Mr Robin Gamble to undertake a Preliminary Ecological Appraisal relating to the proposed development of land at Unit 19, Bolney Grange Business Park, Bolney, West Sussex (hereafter referred to as “the site”).

Planning permission is being sought to extend the existing commercial unit on its northern aspect. The existing ditch will be culverted with the extension being formed on screw piles throughout. Beyond scrub areas that have already been managed no further vegetation removal will be required.

The land subject to survey at Unit 19 is the proposed development boundary which is presented in Figure 1 (Appendix A) with photographs of habitats present provided in Appendix B.

1.2 Study Area Context

The survey area is located approximately 2.5km southeast of Bolney village within Mid-Sussex district of West Sussex. The settlements of Hickstead and Goddards Green lie 700m west and 950m southeast, respectively. Burgess Hill town centre is located 3.4km southeast. The site is accessed via Stairbridge Lane and the wider Bolney Grange Business Park which bounds the proposed development site to the south, west and east. Wooded and scrub habitats bound to the north forming an extensive disused agricultural site. The proposed development site is formed of a single semi-detached commercial unit and hardstanding which form the majority of the site, with only the northern extent having any natural features.

In the wider landscape extensive agricultural land dominates with interspersed woodland blocks, associated hedgerow and tree line networks and commercial and agricultural properties also noted. The A23 lies 720m west with the A2300 450m south. The site has an approximate area of 0.05ha, with a proposed development footprint of <0.01ha and a central grid reference of TQ275 207.

1.3 Scope of Survey and Aims

The primary aim of the Preliminary Ecological Appraisal and bat roost assessment is to provide an assessment of the baseline ecological conditions present within the survey area, in order to identify any ecological constraints present on site. Specifically, the key objectives of this report are to:

a) Preliminary Ecological Appraisal

- Identify all statutory and non-statutory designated sites of nature conservation concern within the survey area and its surroundings;
- Record and categorise habitat types within the survey area in accordance with the UK Habitat Classification user manual (UK Habitat Classification Working Group, 2023);
- Identify the potential for and presence of protected species or other species of conservation interest within the survey area including: Protected Species (PS), Species of Principal Importance, (NERC Act, 2006) and Sussex Local Biodiversity Action Plan (Sussex LBAP) species.
- Provide recommendations to mitigate any development related impacts where possible and highlight requirements for any further ecological surveys; and
- Provide recommendations for ecological enhancements and net gain.

1.4 Legislative and Regulatory Context

1.4.1 Legislation

Many UK wildlife species and their habitats are protected by legislation. The key articles of relevance to this site include:

- Conservation of Habitats and Species Regulations 2017 (Habs Regs 2017);
- Wildlife and Countryside Act 1981 (as amended) (WCA 1981);
- Countryside and Rights of Way (CROW) Act 2000;
- Natural Environment and Rural Communities (NERC) Act 2006;
- Protection of Badgers Act 1992;
- The Hedgerows Regulations 1997;
- Wild Mammals Protection Act (1996); and
- The Environment Act 2021.

A summary of pertinent legislation in respect of ecology and biodiversity is provided within Appendix C.

1.4.2 National Planning Policy

The National Planning Policy Framework (NPPF, 2023) set out the Government's planning policies for England and how these should be applied. Paragraph 180 of the NPPF states that the planning system should contribute to and enhance the natural and local environment by:

- protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);
- recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland; and
- minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures.

This will contribute to the Government's commitment to halt the overall decline in biodiversity, including the establishment of coherent ecological networks that are more resilient to current and future issues.

1.4.3 Local Planning Policy

It is considered that the Mid-Sussex District Plan (2014 - 2031) contains nature conservation policies relevant to the site. The full text of the relevant policies is contained in the Legislation section in Appendix C.

1.4.4 Biodiversity Framework

a) Habitats and Species of Principle Importance

Section 41 (S41) of the NERC Act 2006 requires the Secretary of State to publish a list of habitats and species which are of principal importance for the conservation of biodiversity in England.

b) Local Biodiversity Action Plan

The Sussex Biodiversity Action Plan (Local BAP) was devised as the means by which national biodiversity targets for species of principal importance under the UK Biodiversity Action Plan (UKBAP) would be met locally. The document also includes locally important habitats and species that are characteristic of Sussex but not covered by the national targets. Although the UKBAP has been superseded by the Post-2010 Biodiversity Framework, local BAPs are still widely used as the species of principal importance remain the same.

2. Methodology

2.1 Desk Study

A desk study was undertaken for the site to obtain background ecological information for the site in November 2024. The desk study included the identification of statutory and non-statutory designated sites as well as protected and notable species.

2.1.1 Statutory Designated Sites

A search was carried out using the Multi-Agency Geographic Information for the Countryside (MAGIC) website to identify the presence of the following statutory designated sites for nature conservation:

- Statutory sites of European and international designation within 1km of the site including: Special Areas of Conservation (SAC); Special Protection Areas (SPAs); and Ramsar sites.
- Statutory sites of national or regional designation within 1km of the site, including Sites of Special Scientific Interest (SSSIs); National Nature Reserves (NNRs); and Local Nature Reserves (LNRs).

The MAGIC website was also used to identify if the site falls within any of Natural England's Impact Risk Zones for SSSIs.

2.1.2 Non-statutory Designated Sites

Sussex Biological Records Centre (SxBRC) provided records of non-statutory designated sites within 1km of the site.

2.1.3 Protected and Notable Species and Habitats

Records of legally protected species and other species and habitats of notable conservation interest within 1km of the site were obtained from SxBRC (data received November 2024). These records included Protected Species, species listed under Schedule 1 of the Wildlife and Countryside Act (WCA) (1981) (as amended) ('Schedule 1 species'), Section 41 of the NERC Act (2006) Species of Principal Importance, Birds of Conservation Concern Red and Amber List (Eaton et al, 2015), Sussex BAP species, ancient woodland and invasive non-native species (Schedule 9).

Records received that were over 10 years old were considered historical and were not included within this assessment. Although the data provided by SxBRC is one of the most complete data sets of species available, the absence of records does not necessarily relate to an absence of species.

The following online resources were also used to identify ecological data of relevance to the scheme including habitats of principal importance:

MAGIC website – accessed November 2024. This website was used to identify recorded habitats of principal importance within the survey area. MAGIC was also used to search for Protected Species Mitigation Licences (PSML) which have been granted within 1km of the site. Typically, PSML are granted for development works affecting protected species such as bats (Chiroptera), great crested newt (*Triturus cristatus*) and hazel dormouse (*Muscardinus avellanarius*).

Additionally, online details provided by NatureSpace Partnership were assessed to provide the District Level Licensing Impact Risk Zone (DLL IRZ) in relation to great crested newt for the entire site.

2.2 Survey Area

The survey area for the information detailed within this report was defined as all land within the site boundary for the Preliminary Ecological Appraisal and single onsite building for the bat survey. Professional judgement was used to determine a proportionate and pragmatic survey area appropriate to this project during the survey. This was determined through consideration of the Zone of Influence, the potential impacts of the scheme, geographical area, desk study results, habitat quality and likely

species present in accordance with good practice guidance and was considered appropriate to meet the objectives of the survey (Refer to Section 1.3 Scope of Survey and Aims).

2.3 Field Survey Methodology

2.3.1 Preliminary Ecological Appraisal

a) UK Habitat Classification Survey

The UK Habitat Classification survey was undertaken by Jack Kellett on 06th November 2024, following good practice guidance in the Guidelines for Preliminary Ecological Appraisal (CIEEM, 2017). The survey was limited to the boundaries of the site.

Habitats were classified following the methodology of the UK Habitat Classification system found in The UK Habitat Classification User Manual (The UK Habitat Classification Working Group, 2023). This involved mapping and describing the broad habitats and compiling a general plant species list to reflect the floristic assemblage of each habitat type. All botanical names follow the nomenclature of Stace (2019).

b) Protected Species Assessment

The protected species assessment was undertaken in accordance with the Guidance for Baseline Ecological Assessment (Institute of Environmental Assessment, 1995), which strengthens the standard methodology by looking for evidence of or habitats which may support legally protected and notable species. This includes:

- Waterbodies with suitable habitat to support great crested newt and other amphibians including common toad (*Bufo bufo*);
- Watercourses (eg. ditches, rivers, ponds) with suitable habitat for white-clawed crayfish (*Austropotamobius pallipes*), water vole (*Arvicola amphibius*) and otter (*Lutra lutra*);
- Presence of features within trees and structures suitable for bat roosts. These were then categorised based on their suitability to support a bat roost, following good practice guidance in Collins (2016);
- Signs of badger (*Meles meles*) activity, for example setts, latrines, runs, guard hairs and footprints;
- Suitable habitat for breeding and wintering birds;
- Evidence of and habitats suitable for birds listed on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended);
- Habitats suitable for reptiles;
- Habitats likely to support protected / notable invertebrates; and
- Presence of non-native invasive plant species.

Specific points of notable conservation interest within each survey area were identified as numbered “Target Notes” (TN).

2.4 Limitations

The findings of this report represent the professional opinion of qualified ecologists and do not constitute professional legal advice. The client may wish to seek professional legal interpretation of the relevant wildlife legislation cited in this document. Should there be a delay in the proposed timeline, it is considered prudent that the survey findings be reviewed and updated as required for subsequent planning applications so that the assessment of ecological impacts is undertaken against an accurate baseline.

2.4.1 Data Search

It is important to note that, even where data is held, a lack of records for a defined geographical area does not necessarily mean that there is a lack of ecological interest; the area may be simply under-recorded.

2.4.2 Habitat Assessment

It should be noted that the habitat survey does not constitute an invasive species survey. Any invasive species noted onsite will be identified and their extent mapped but a detailed search for this species group will not be undertaken and a specialist survey will need to be carried out by a suitably qualified person to ascertain for definite the presence or absence of any invasive species.

3. Results

3.1 Desk Study Results

3.1.1 Statutory Designated Sites

The site is not subject to any statutory designations with no sites falling within 1km of the proposed development boundary.

The closest statutory designated site is the High Weald National Landscape, located 1.7km north and designated for landscape value characteristic of the chalk downland with interspersed woodland blocks and scattered farmsteads.

3.1.2 SSSI Impact Risk Zone

The site falls within the SSSI IRZs for Ditchling Common SSSI located 5.7km southeast and , Wolstonbury Hill SSSI located 6.4km south. All sites are noted for species rich habitats with associated floral assemblages.

3.1.3 Non-statutory Designated Sites

No non-statutory designated sites of nature conservation importance were present within 2km of the site.

3.1.4 Habitats

A search of MAGIC identified four habitats of principle importance (NERC Act, 2006) present within 1km of the site and are listed below in Table 1.

Table 1 Habitats of Principle Importance Located within 1km Search Area of the Site.

Habitat	Details and closest location in relation to the site
NERC Act (2006) Habitat of Principal Importance: Lowland Mixed Deciduous Woodland	Twelve discrete blocks of woodland were present within 1km, including five ancient stands. The closest ancient area located 380m northeast.
NERC Act (2006) Habitat of Principal Importance: Traditional Orchard	A single discrete area located 990m southwest.
NERC Act (2006) Habitat of Principal Importance: Hedgerow	Extensive network across surrounding landscape. The
NERC Act (2006) Habitat of Principal Importance: Open Water	Over 10 ponds were present within 1km, the closest 130m south, 140m southeast and 210m northeast. In addition, multiple watercourses were present within 1km, the most significant being the River Adur 140m north.

The proposed works are limited to the site boundary and therefore no significant impacts are expected to the habitats listed above.

3.1.5 Protected and Notable Species

Table 2 Protected and Notable Species Records (post 2014) within 1km of the Site.

Species		Record details	Protection / Conservation status
Amphibians	Great crested newt	SxBRC returned a single recent record within 1km of the survey area, located 460m southwest from 2018.	Schedule 2 of the Conservation of Habitats and Species Regulations 2010 and under Schedule 5 of the Wildlife

	Other	SxBRC returned recent records for common toad (<i>Bufo bufo</i>) and common frog (<i>Rana temporaria</i>). The closest record related to common toad 745m east from 2015.	and Countryside Act 1981 (as amended).
Reptiles		SxBRC returned a single recent record for common lizard (<i>Zootoca vivipara</i>) located 470m southwest from 2014.	Schedule 2 of the Conservation of Habitats and Species Regulations 2010 and under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended).
Birds (excluding barn owl)		SxBRC returned recent records for multiple bird species. Including house sparrow (<i>Passer domesticus</i>), starling (<i>Sturnus vulgaris</i>), dunnock (<i>Prunella modularis</i>), bullfinch (<i>Pyrrhula pyrrhula</i>) and song thrush (<i>Turdus philomelos</i>).	NERC Act (2006), Birds Directive A1, Schedule 1 Wildlife and Countryside Act 1981 (as amended), Red List, Amber List, UK BAP Priority, Sussex Notable Bird.
Barn Owl (<i>Tyto alba</i>)		SxBRC returned 10 recent records for barn owl within 1km. The closest record was from 2015, 550m southeast and the most recent, 745m southeast from 2023.	Schedule 1 Wildlife and Countryside Act 1981 (as amended)
Bats		SxBRC returned records for at least one bat species including bat species (<i>Chiroptera sp</i>) and Bechstein's bat (<i>Myotis bechsteinii</i>). The closest record related to an unidentified species 360m northwest from 2016. The most recent, 710m south from 2017.	Schedule 2 of the Conservation of Habitats and Species Regulations 2010, NERC Act (2006), Schedule 5 of the Wildlife and Countryside Act 1981 (as amended).
Hazel Dormouse (<i>Muscardinus avellanarius</i>)		SxBRC returned no recent records for hazel dormice within 1km of the site.	Conservation of Habitats and Species Regulations 2010, Schedule 5 of the Wildlife and Countryside Act 1981 (as amended).
Water Voles (<i>Arvicola amphibius</i>)		SxBRC returned no recent records of water vole within 1km of the site.	Schedule 5 of the Wildlife and Countryside Act 1981 (as amended), NERC Act (2006), UK BAP Priority,
Badger (<i>Meles meles</i>)		Due to the confidential nature of badger records none were returned by the data search or present through online data sources.	Protection of Badgers Act (1992) and Schedule 6 of the Wildlife and Countryside Act 1981 (as amended).
West European Hedgehog (<i>Erinaceus europaeus</i>)		SXBRC returned recent records of hedgehog within 1km of the site.	UK BAP Priority, Red List.
Invertebrates		SXBRC returned recent records for multiple invertebrate species. The majority of records were associated with woodland and grassland habitats.	Schedule 5 of the Wildlife and Countryside Act 1981 (as amended), NERC Act (2006), UK BAP Priority, Nationally Rare,
Invasive Non-Native Species (INNS)		SXBRC returned recent records for approximately seven species within 2km of the site.	Wildlife and Countryside Act 1981 (as amended) Schedule 9.

No recent records for any other protected or notable species that could utilise onsite habitats were returned from the data search.

3.1.6 Protected Species Mitigation Licences

No granted protected species mitigation licence were present within 1km of the proposed development site.

3.1.7 District Level Licencing Impact Risk Zone

From information provided by online sources from NatureSpace Partnership the site is assessed as falling within the Red IRZ for great crested newt.

3.2 Field Survey

3.2.1 UK Habitat Classification Survey

Table 3 below describes the habitats identified during the field survey. Figure 1 (Appendix A) provides a habitat plan of the site, with corresponding target notes and photographs provided in Appendix B.

Table 3: Habitat Assessment

Habitat	Description / Species Composition
Building (u1b5)	A single onsite structure was present at the time of the survey which dominated the central northern survey area. The structure formed the eastern half of a semi-detached block of steel-framed industrial units. The structure had a shallow double pitched roof of corrugated metal sheeting. All outer walls were of similar corrugated sheeting throughout with the main access point to internal areas on the southern elevation. Internally the structure was open plan with no loft space.
Other Developed Land (u1b6)	The entire southern and central site extents were formed of concrete hardstanding. Evidence of previous development within the northern extents was noted at the time of the survey including brick and concrete sections.
Mixed Scrub (h3h)	The northern extent of the site located between the onsite structure and northern boundary was formed of recently felled scrub habitat. An assessment of retained, offsite habitats to the east and west were used to determine species assemblage along with identification of felled material. Hawthorn, blackthorn (<i>Prunus spinosa</i>) and bramble (<i>Rubus fruticosus agg.</i>) dominated, however it is considered the majority of the feature was formed of over-mature plants with limited groundflora.
Other Standing Water (r1g) (50)	A dry ditch intersects the northern extents and connects offsite to the east to a culverted section and wetted stretch. No evidence of any water retention within the onsite section was noted with scattered tall herb features across bank face and ditch bed. The onsite section of the feature measured approximately 12m in length, 3.75m between bank tops and <1m depth.
Tree (u1d) (200)	No trees were present within the site; however, two immature specimens were located immediately adjacent to the northern extents of both eastern and western boundaries. Species comprised hawthorn (<i>Crataegus monogyna</i>) and pedunculate oak (<i>Quercus robur</i>).

3.2.2 Protected Species Assessment

Table 4: Protected and Notable Species Assessment

Species		Suitable Onsite Habitat/Features	Overall Potential of Onsite Presence
Amphibians	Great Crested Newt	The onsite habitats are dominated by building and hardstanding which provide no habitat for this species group. However, discrete areas of natural habitats, limited to cleared scrub and a section of dry ditch within the northern extent were noted to provide some foraging habitat that could be used by this species group during their terrestrial phase (Refer to Target Note 1 in Appendix B). The onsite section of ditch lacked any standing water at the time of the survey and the lack of any floral species indicative of aquatic or marginal aquatic habitats and complete encroachment from ruderal vegetation indicates very limited, if any water retention throughout the year.	low
	Other	Three ponds were present within 250m, located 130m south, 140m southwest and 210m northeast. The site was connected to offsite areas of hedgerows, grassland and scrub features, however the River Adur, 140m north, was considered to create a significant barrier to movement in this direction. Overall, the limited extent of onsite natural habitat was considered to reduce the potential for great crested newt from utilising onsite features. However, due to their known presence in the wider landscape and known pond network their presence during the terrestrial phase, in low numbers, and a transient nature cannot be ruled out.	low
Reptiles		The site was dominated by built features which provide suboptimal habitat for this species group. Marginal scrub and dry ditch habitats contribute towards creating a varied habitat structure preferred by this species group to use for foraging and sheltering (Refer to Target Note 2 in Appendix B). The proposed development area was connected to suitable offsite areas to the north, however, was also subject to extensive shade from adjacent buildings and trees. Within the wider landscape, the onsite features were common and widespread and of discrete size which is considered to limit the potential for large populations to be present onsite, however the known presence of this species group in the wider surrounds means this species' presence onsite cannot be ruled out.	low
Breeding Birds (excluding Barn Owl)		No onsite habitat was present that was considered to provide suitable nesting habitat for birds and the small size further limits potential usage.	negligible
Barn Owl	Foraging / Commuting	No potential for foraging barn owl.	negligible
	Roosting / Nesting	No onsite buildings or trees were noted to have any potential roosting or nesting features. No suitable features present.	negligible
Bats	Foraging / Commuting	Shrub margins and boundary tree lines provide some foraging habitat for a range of bat species. However, the limited size is unlikely to contribute to a significant foraging resource (Refer to Target Note 3 in Appendix B).	low

	Roosting	No building or adjacent trees were noted to have any features present for use by roosting bats.	negligible
Hazel Dormouse		Scrub habitats present prior to clearance lacked a diverse species assemblage with no hazel (<i>Corylus avellana</i>) or honeysuckle (<i>Lonicera sp</i>) present and the discrete size further reduces the likely usage by this species group.	negligible
Water Vole		The onsite ditch was entirely dry with no recent records within the surrounding landscape of this species.	negligible
Badger	Foraging / Commuting	Scrub areas were considered to provide some foraging habitat for this species; however, these were of limited size with more optimal offsite habitats in close proximity which is likely to limited regular usage or usage by large numbers of badger (Refer to Target Note 4 in Appendix B).	low
	Sett Building	The topography of the site was considered to provide suitable features for sett building, however more optimal offsite areas were present that would be subject to reduced levels of disturbance and management.	low
Invertebrates		Scrub and dry ditch features provide potential invertebrate habitats; however, these are of limited size compared to offsite areas. Onsite habitats are common and widespread within the surrounding landscape with more optimal and extensive areas. The small size of the site is likely to limit the usage of any features by significant populations of notable invertebrate species.	low
Other Protected and Notable Species		Scrub areas provide suitable foraging habitat for western hedgehog and their presence onsite cannot be ruled out.	low
Invasive Non-Native Species		No invasive species were present onsite and the lack of activity or proximity to any garden areas is considered to limit the chances of species becoming established.	negligible

4. Discussion and Recommendations

4.1 Designated Sites

4.1.1 Statutory Designated Sites

The site is not subject to any statutory designations with no sites located within 1km.

4.1.2 SSSI IRZ

The site falls within the SSSI IRZs for two designated sites located between 5.7km and 6.4km from the proposed development boundary. The site is of limited size and dominated by habitats common and widespread within the landscape with no hydrological connection or any functionally linked land to any designated site. It is therefore not expected that the proposed works for this site will lead to a negative impact on the SSSIs.

Recommendations

If the nature of the proposed works were to change, it is recommended that the client contact Natural England for advice before proceeding with works.

4.2 Species

4.2.1 Amphibians and Reptiles

It is considered that the likelihood of amphibians and reptiles utilising onsite habitats in significant numbers is limited, in particular due to the limited extent of the site, managed nature and lack of any waterbodies. However, the potential for these species groups to be present in low numbers and a transient nature cannot be ruled out.

Recommendations

Due to the limited potential for large populations of amphibians and reptiles to utilise onsite habitats, the discrete nature of the proposals and connectivity to offsite areas it is considered that a precautionary approach involving a two phased vegetation clearance for all areas of natural habitat that are to be impacted by works. This approach is considered sufficient to safeguard these species groups throughout the proposed works under current proposals. Full details are provided below.

- In the first phase of habitat management, all standing vegetation within the central grassland areas will be reduced in height to approximately 200mm above ground level. Vegetation will be cleared using hand tools, such as chainsaws and strimmers. All cut vegetation will be removed from the site.
- The second phase of habitat management will involve the remaining vegetation being cut to ground level using hand tools, this will take place at least 48 hours (longer if bad weather) after the first phase to ensure any animals have time to move out of the area. All vegetation should be cut in an outwardly direction, pushing any animals present to offsite, retained areas. The vegetation should then be maintained at this level for the entirety of the works to prevent any amphibians or reptiles recolonising during works. This work can only take place between the active period for these species which is taken to be March to October, inclusive.
- All retained areas should be fenced during works to prevent any encroaching machinery during the construction phase.

4.2.2 Breeding Birds (excluding barn owl)

Suitable bird nesting habitat was limited within the site, however marginal, retained scrub and tree features could be utilised by low numbers of breeding pairs. All wild birds in the UK are protected under the Wildlife

and Countryside Act 1981 (as amended) which makes it an offence to intentionally kill, injure or take any wild bird or take, damage or destroy the nest (whilst being built or in use) or its eggs.

Recommendations

Development activities that may impact upon vegetation and known nesting habitats must consider the potential for nesting birds. Therefore, such works should avoid the bird nesting season which typically runs from March to August inclusive. If works during the bird nesting season cannot be avoided, a precautionary nesting bird check will be required no more than 24hrs in advance of works. This would involve ecologists monitoring potential nesting habitat to determine whether they are used by nesting birds. If nesting birds are discovered, the nest must be left in situ until no longer in use with a suitable buffer zone setup to protect the nest.

Prior to vegetation clearance, continued nesting provision should be installed within the site to ensure nesting habitats are present and accessible throughout the construction process. Nesting provision should be sited within areas that are to be retained with minimal disturbance levels and comprise at least two nest boxes suitable for common and widespread species.

4.2.3 Bats

No bats or secondary evidence of bats were present within the site at the time of the survey and no features were present within the onsite structure, or adjacent trees that could be utilised by roosting bats.

Onsite scrub areas were noted to provide some suitable foraging and commuting habitat for bats, however limited due to size.

Recommendations

Due to the assumed presence of bats within the immediate offsite areas the proposals should aim to incorporate a sensitive lighting design to minimise light spill on surrounding linear features that could be used by foraging and commuting bats.

Bats and Lighting

Different species of bat have been found to react differently to night-time lighting, however research has found that generally, all species of bats are sensitive to artificial lighting and that excessive lighting can delay bats from emerging, thus shortening the time available for foraging, as well as causing individuals to move away from suitable foraging grounds or roost sites to alternative dark areas (Jones, 2000). Bats can also become isolated from their foraging grounds if the linear features they use for commuting are suddenly illuminated, creating a light barrier (Fure, 2006).

New development should aim to minimise indirect impacts from lighting associated with the proposals. This can be achieved by following accepted best practice (Institute of Ecology and Environmental Management 2006, Institute of Lighting Engineers 2009, Bat Conservation Trust, 2014):

- low pressure sodium lights are a preferred option to high pressure sodium or mercury lamps, and lights should be directed low with minimal light spillage;
- ideally, some parts of the site (boundary habitats) should be kept dark, preferably at bat emergence (0-1 hour after sunset) and during peak bat activity periods (e.g. 1.5 hours after sunset and 1.5 hours before sunrise); and
- artificial lighting should not directly illuminate any potential bat commuting areas such as tree lines or vegetative linear habitats.

4.2.4 Badger (and other notable mammals)

The onsite scrub habitats were considered to provide some suitable foraging habitat for badgers and hedgehogs with connections to offsite habitats.

Recommendations

The potential for badgers and hedgehog to pass through the site must be taken into account during works. Materials must be stored safely at night with lids securely fitted. If trenches are required as part of the works these must be closed over night or ramps installed to enable badgers, and other mammals, to escape. The ramps must be substantial enough for badgers to use therefore these should comprise planks of wood or similar.

Development provides the opportunity to enhance a site for biodiversity in accordance with local and national planning policy, therefore recommendations for site enhancement measures are provided in the section below.

5. Ecological Enhancements

Government planning policy (National Planning Policy Framework) now explicitly requires local authorities to seek wildlife gains through the planning process and not to just offset losses. Therefore, development projects should aim to create ecological enhancements and improve the biodiversity value of sites above and beyond mitigation / compensation requirements. A range of enhancement measures have been recommended below to contribute towards meeting these aims.

5.1 Native Species-Rich Planting

Any landscaping schemes should include a significant proportion of native species-rich planting of local provenance including a range of native trees, hedges, shrubs and wildflowers in order to increase the ecological value of the site for wildlife. The use of nectar rich and fruit bearing trees and shrubs is also advised where possible.

5.2 Connectivity

Any planting proposals for the scheme should serve to enhance the habitats on site for biodiversity and improve connectivity with the wider environment through the creation and maintenance of green corridors. This could be achieved through minimising light spill on boundary features, supplementary planting of vegetated boundaries and woodland areas to ensure species can pass the site freely.

5.3 Bats

The proposed development presents an opportunity to enhance the site for bats. It is recommended that one bat box should be erected on adjacent semi-mature/mature trees or incorporated within the structure. These could include Schwegler 2F boxes or the Schwegler 1 FQ, which is maintenance free. Bat Boxes should be orientated southwest to southeast and located at least 3m above ground level on trees and ideally directly below the eaves if located on a building. The bat boxes must be located outside external light spill and close to suitable vegetation. They should be sheltered from strong winds and be exposed to the sun for part of the day. More details are provided in Appendix D.

5.4 Birds

It is recommended that an additional box, specific to Sussex notable bird species, beyond those required for mitigation should be incorporated within the design of the scheme. The box should be installed on or within the onsite structure and should be of specific design for house sparrow and starling, such as integrated boxes including Schwegler Sparrow Terrace 1SP or Habibat Starling Box. More details are provided in Appendix E. The exact location of the boxes should be discussed and agreed with an ecologist prior to construction.

Due to the limited regular usage of artificial nesting provision by song thrush, supplementary planting of suitable evergreen features, such as yew (*Taxus bacatta*) or holly across two areas within existing hedgerows should be undertaken.

5.5 Additional Enhancements

A range of insect nesting boxes¹ could be attached to offsite trees/shrubs within the wider site to encourage insect biodiversity at the site. Several long-lasting products are available that can be attached to trees, including boxes designed to attract pollinating insects, and ladybirds and lacewings that are a natural form of pest control for aphids and greenfly.

¹ Available at <https://www.nhbs.com/browse/search?q=insect+boxes>

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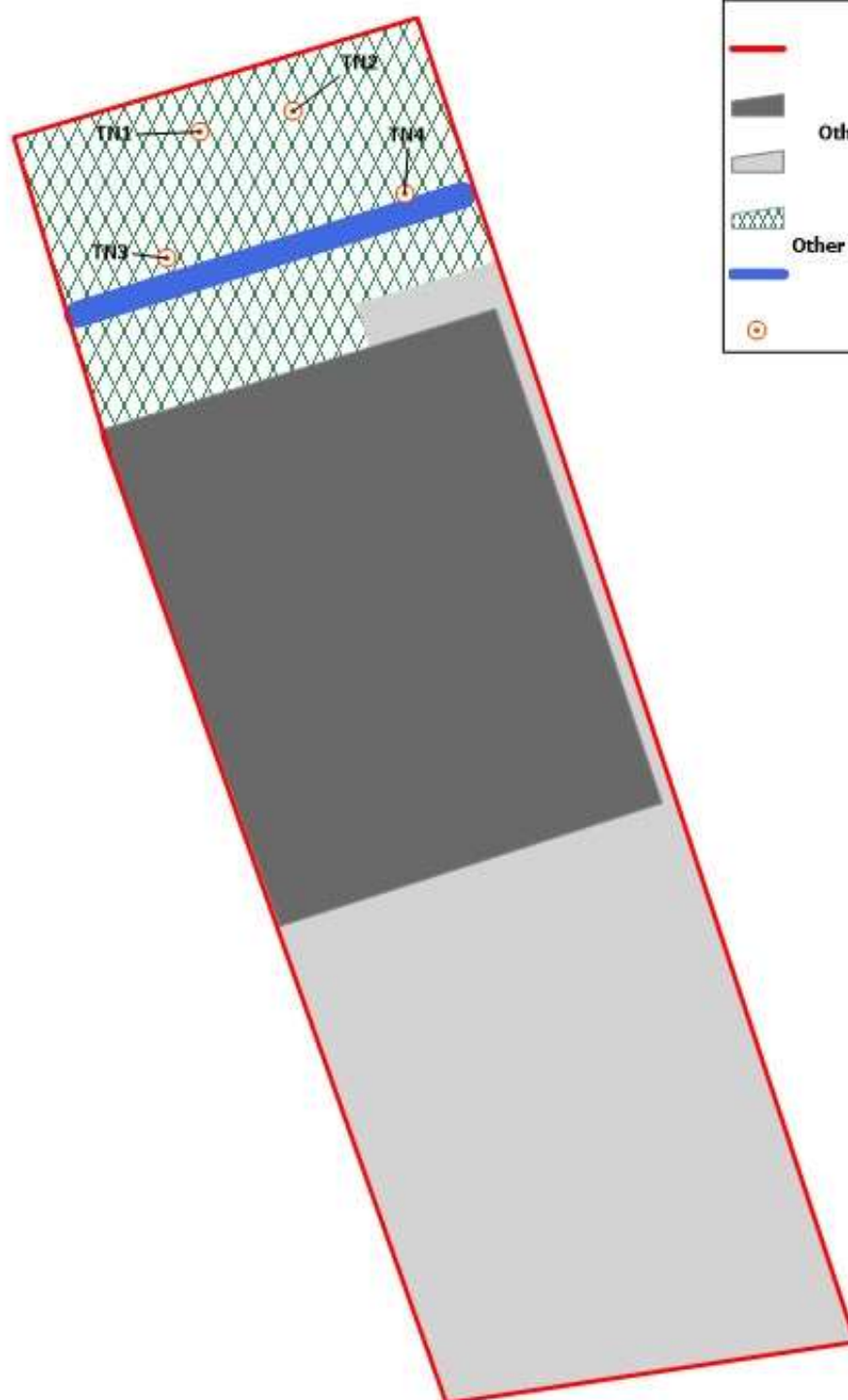
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Appendix A. Figure



Legend	
	Survey Boundary
	Lines
	Building (u1b5)
	Areas
	Other Developed Land (u1b6)
	Areas
	Mixed Scrub (h3h)
	Areas
	Other Standing Water (r1g) (50)
	Lines
	Target Note
	Points

Figure 1: Unit 19 Habitat Plan

Drawn by: JK
Date: 04/12/2024



JWK Wildlife Surveys
Conservation and Ecological Consultants

Appendix B. Target Notes

Target note number	Comments	Photo
N/A	Photograph 1: A view across the proposed working area showing dry ditch.	 A photograph showing a dry, overgrown ditch or path. The ground is covered with dry leaves, twigs, and some green weeds. In the background, there is a green corrugated metal building with a black staircase leading up to it. The area is surrounded by trees and foliage.
N/A	Photograph 2: Showing the onsite structure subject to extension.	 A photograph of a large, green corrugated metal building. The building has a brick foundation and a black staircase leading up to it. The building is situated on a grassy area with some trees in the background.

1/2	Photograph 3: Onsite northern extents providing some habitat for amphibians and reptiles.	 A photograph showing a wooded area with a wire fence. The ground is covered in fallen leaves and a large, mossy log lies in the foreground. The background is filled with trees and foliage.
3/4	Photograph 4: Potential bat and badger foraging habitat.	 A photograph showing a wooded area with a wire fence. The ground is covered in fallen leaves and a large, mossy log lies in the foreground. The background is filled with trees and foliage.

Appendix C. Legislation

Legislation relating to European Protected Species of potential relevance to Unit 19 Development Proposals

European Protected Species and their resting places (e.g. bat roosts) are protected under Schedules 5 & 6 of the Wildlife and Countryside Act 1981 (as amended), the Countryside and Rights of Way (CROW) Act 2000, and the Conservation of Habitats and Species Regulations 2017.

The Conservation of Habitats and Species Regulations 2017 transpose the European Union's 'Habitats Directive' (Council Directive 92/43/EEC) on the Conservation of Natural Habitats and of Wild Fauna and Flora (EC Habitats Directive) into UK law. The Regulations provide for the designation and protection of 'European Sites', the protection of 'European Protected Species' (EPS), and the adaptation of planning and other controls for the protection of European Sites. EPS are listed on Schedule 2 of the Conservation of Habitats and Species Regulations 2017.

Under the Wildlife and Countryside Act 1981 (as amended) it is an offence to:

- Intentionally kill, injure or take certain animals listed in Schedule 5;
- Intentionally or recklessly damage or destroy any structure or place which any wild animal specified in Schedule 5 uses for shelter or protection;
- Intentionally or recklessly disturb any such animal while it is occupying a structure or place which it uses for shelter or protection; or
- Intentionally or recklessly obstruct access to any structure or place which any such animal uses for shelter or protection.

In addition, under this legislation there are offences relating to sale, possession and control of wild animals listed in Schedule 5.

Under the Conservation of Habitats and Species Regulations 2017 it is an offence to:

- Deliberately capture, injure or kill any wild animal listed as a European Protected Species;
- Deliberately disturb wild animals of any such species in such a way as to be likely:
 - to impair their ability:
 - i) to survive, to breed or reproduce, or to rear or nurture their young, or;
 - ii) in the case of animals of a hibernating or migratory species, to hibernate or migrate, or;
 - to significantly affect the local distribution or abundance of the species to which they belong.
- Deliberately take or destroy the eggs of such an animal, or;
- Damage or destroy a breeding site or resting place of such an animal.

In addition, under this legislation there are offences relating to possession, control sale and exchange of an EPS.

Great crested newt, otter and several species of bat are listed as a Species of Principal Importance (SoPI) under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006.

Legislation relating to breeding birds.

All birds, their nests and eggs are protected by the Wildlife and Countryside Act 1981 (as amended) and it is an offence, with certain exceptions, to:

- intentionally kill, injure or take any wild bird;

- intentionally take, damage or destroy the nest of any wild bird while it is in use or being built;
- intentionally take or destroy the egg of any wild bird; and

Schedule 1 of the Wildlife and Countryside Act 1981 provides further protection for selected species (including peregrine falcon (*Falco peregrinus*), barn owl (*Tyto alba*), little ringed plover (*Charadrius dubius*) and black redstart (*Phoenicurus ochruros*) during the breeding season. If any person intentionally or recklessly disturbs any wild bird included in Schedule 1 while it is building a nest or is in, on or near a nest containing eggs or young; or disturb dependent young of such a bird. That person shall be guilty of an offence. For the purpose of this offence 'Any wild bird' means any bird included in Schedule 1.

A number of bird species are species of principal importance under Section 41 of the NERC Act (2006).

Conservation status - Birds of Conservation Concern (Eaton et al. 2015)

The UK's leading bird conservation organisations have worked together on the third quantitative review of the status of the birds that occur regularly in the UK, updating the last review in 2011. The status of birds within the UK have been regularly monitored through a series of surveys, including the national Breeding Bird Survey, Common Bird Census, sea bird monitoring programs and wetland monitoring programs. The result of this review and continued monitoring is The Population Status of Birds in the UK, Birds of Conservation Concern 4: 2015.

Birds are assessed against criteria to place each species on one of three alert lists, red, amber or green. Red list species are considered to be of high conservation concern, being either globally threatened, having historical UK population declines, having a rapid population decline or breeding range contraction of 50% or more in the last 25 years.

Amber list species are considered to be of medium conservation concern as they meet one or more of the following criteria (but none of the red list criteria): Red listed for historical decline in a previous review but with substantial recent recovery (more than doubled in the last 25 years), a UK breeding range contraction of between 25% and 49%, a reduction of breeding or non-breeding population of 25-49% in the last 25 years, a 5-year mean of 1-300 breeding pairs in the UK, an unfavourable European conservation status, at least 50% of the UK breeding population found in 10 or fewer sites, or where the breeding population in the UK represents 20% or more of the European breeding populations.

Green list species are considered to be of low conservation concern. They include all regularly occurring species that do not qualify under any of the red or amber criteria are green listed. The green list also includes those species listed as recovering from Historical Decline in the last review that have continued to recover and do not qualify under any of the other criteria.

Legislation relating to bats.

Bats are protected under Schedule 5 of the Wildlife & Countryside Act 1981 (as amended). This act protects individuals from:

- intentional or reckless disturbance (at any level);
- intentional or reckless obstruction of access to any place of shelter or protection; and
- selling, offering or exposing for sale, possession or transporting for purpose of sale

In addition, all species of bat are fully protected under The Conservation of Habitats and Species Regulations 2010 (as amended) through their inclusion on Schedule 2. Regulation 41 prohibits:

- deliberate killing, injuring or capturing of Schedule 2 species (all bats);
- deliberate disturbance of bat species as to impair their ability:
 - (i) to survive, breed, or reproduce, or to rear or nurture young; and
 - (ii) to hibernate or migrate.
- deliberate disturbance of bat species as to affect significantly the local distribution or abundance of the species;
- damage or destruction of a breeding site or resting place; and
- keeping, transporting, selling, exchanging or offering for sale whether live or dead or of any part thereof.

A European Protected Species Mitigation (EPSM) Licence issued by Natural England will be required for works liable to affect a bat roost or for operations likely to result in a level of disturbance which might impair their ability to undertake activities listed above. A licence is required to allow derogation from the relevant legislation but also to enable appropriate mitigation measures to be put in place and monitored.

Legislation relating to badger.

Badgers and their setts are afforded protection under the Protection of Badgers Act (1992). Under this Act it is an offence to wilfully kill, injure, ill-treat, take or possess a badger, or attempt to do so. It is also an offence to damage, destroy or obstruct access to a sett; or to interfere with a sett whilst it is occupied thus causing disturbance to a badger. These provisions have implications for construction or preparation works undertaken in the vicinity of an active sett and may be confounded by distance from the sett entrance. Any works resulting in ground penetration, vibration or noise near an identified badger sett entrance/s have the potential to disturb badgers and advice should be sought from a suitably experienced ecologist under such circumstances. If disturbance to an active sett is probable, then a licence may need to be obtained from Natural England before any works commence.

A sett is defined as any structure or place which displays signs indicating current use by a badger. If monitoring indicates a sett is not displaying signs of recent use, then it is not protected by the law. However, field signs that can suggest current occupation (such as hairs, fresh spoil, faeces, and prints) can remain for a period of several weeks and therefore do not prove current occupation.

Disturbance around known occupied setts is not considered to require a licence if there is no reason to believe that the 'disturbance' is greater than that commonly tolerated by badgers e.g. felling of small trees/shrubs, clearing out of ditches etc. However, for more significant works in the vicinity of a badger sett, a licence issued by Natural England will be required. Recently issued guidance by Natural England (Natural England, 2009a, 2009b) provides further guidance on how the legislation should be interpreted.

Natural Environment & Rural Communities Act 2006

The Natural Environment & Rural Communities Act 2006 (NERC) is designed to help achieve a rich and diverse natural environment and thriving rural communities through modernised and simplified arrangements for delivering Government policy.

It was created to make provision in connection with wildlife, Sites of Special Scientific Interest, National Parks and the Broads; to amend the law relating to rights of way; to make provision as to the Inland Waterways Amenity Advisory Council; to provide for flexible administrative

arrangements in connection with functions relating to the environment and rural affairs and certain other functions; and for connected purposes.

Section 40 of NERC carries an extension of the earlier CRow Act biodiversity duty to public bodies and statutory undertakers to ensure due regard to the conservation of biodiversity. Section 41 requires the Secretary of State, as respects England, to publish a list of the living organisms and types of habitat which in the Secretary of State's opinion are of principal importance for the purpose of conserving biodiversity. The updated list was published in May 2008.

Regional and Local Planning Policy

The Mid-Sussex District Plan (2014 - 2031) includes the following Nature Conservation Policies that are relevant to the site.

- **Policy DP37: Trees Woodland and Hedgerows**

Trees, woodland and hedgerows will be protected and enhanced by ensuring development:

- i. incorporates existing important trees, woodland and hedgerows into the design of new development and its landscape scheme; and*
- ii. prevents damage to root systems and takes account of expected future growth; and*
- iii. where possible, incorporates retained trees, woodland and hedgerows within public open space rather than private space to safeguard their long-term management; and*
- iv. has appropriate protection measures throughout the development process; and*
- v. takes opportunities to plant new trees, woodland and hedgerows within the new development to enhance on-site green infrastructure and increase resilience to the effects of climate change; and*
- vi. does not sever ecological corridors created by these assets. Proposals for works to trees will be considered taking into account:*
- vii. the condition and health of the trees; and*
- viii. the contribution of the trees to the character and visual amenity of the local area; and • the amenity and nature conservation value of the trees; and*
- ix. the extent and impact of the works; and*
- x. any replanting proposals.*

- **Policy DP37: Biodiversity**

Biodiversity will be protected and enhanced by ensuring development:

- xi. Contributes and takes opportunities to improve, enhance, manage and restore biodiversity and green infrastructure, so that there is a net gain in biodiversity, including through creating new designated sites and locally relevant habitats, and incorporating biodiversity features within developments; and*
- xii. Protects existing biodiversity, so that there is no net loss of biodiversity. Appropriate measures should be taken to avoid and reduce disturbance to sensitive habitats and species. Unavoidable damage to biodiversity must be offset through ecological enhancements and mitigation measures (or compensation measures in exceptional circumstances); and*
- xiii. Minimises habitat and species fragmentation and maximises opportunities to enhance and restore ecological corridors to connect natural habitats and increase coherence and resilience; and*
- xiv. Promotes the restoration, management and expansion of priority habitats in the District; and*

- xv. *Avoids damage to, protects and enhances the special characteristics of internationally designated Special Protection Areas, Special Areas of Conservation; nationally designated Sites of Special Scientific Interest, Areas of Outstanding Natural Beauty; and locally designated Sites of Nature Conservation Importance, Local Nature Reserves and Ancient Woodland or to other areas identified as being of nature conservation or geological interest, including wildlife corridors, aged or veteran trees, Biodiversity Opportunity Areas, and Nature Improvement Areas.*

Appendix D. Bat Box Design

Example	Type	Dimension D x W x H (cm)	Target species	Location
	2F Schwegler Bat Box (General Purpose) with or without Double Front Panel	16 x 16 x 33	Without panel: Particularly successful with brown long-eared bat. Also used by noctule. With panel: Ideal for crevice-dwelling species: pipistrelles, <i>Myotis</i> species (particularly Daubenton's), Leisler's and serotine.	On trees or buildings and at a height of 3 to 6m. In open sunny positions and in groups of 3 to 5 facing different directions. Please note that once bats have inhabited a roost site they may only be disturbed by licensed bat workers.
	1FQ Schwegler Bat Roost (For External Walls)	9 x 35 x 60	Species known to use buildings e.g. pipistrelles, long-eared bats, Natterer's, whiskered, Brandt's, Alcaethoe (assumed based on current evidence), Daubenton's (occasionally), Bechstein's (very rarely), noctule (very rarely), Leisler's, serotine and barbastelle (rarely).	On external or internal walls (e.g. within a loft space). A minimum of 3m above the ground and where there is a clear flight path for bats entering and leaving. Please note that once bats have inhabited a roost site they may only be disturbed by licensed bat workers.

Example	Type	Dimension D x W x H (cm)	Target species	Location
	2FR Schwegler Bat Tube	12.5 x 20 x 47.5	Species known to use buildings e.g. pipistrelles, brown long-eared, Natterer's, whiskered, Brandt's, Alcahoë (assumed based on current evidence), Daubenton's (occasionally), Bechstein's (very rarely), noctule (very rarely), Leisler's, serotine and barbastelle (rarely).	Into the masonry of an external wall. It can either be built flush with the wall or beneath a rendered surface. A minimum of 3m above the ground and where there is a clear flight path for bats entering and leaving. Transverse connecting holes (optional) allow several tubes to be placed next to each other in modular form. It is recommended that at least three units are connected together. An optional passage through the rear panel also enables existing cavities in the walls to be accessed via the tube. This provides an excellent solution to the problem of providing access to existing roosts when converting or renovating older buildings. Please note that once bats have inhabited a roost site they may only be disturbed by licensed bat workers.
	Bat Brick House Entrance hole: 20mm (high crescent at base)	Custom.	Designed to provide roosting opportunities for most of the UK bat species, including pipistrelles. The entrance hole can be tailored to different species.	Fitted into the walls of brick built buildings, either retrospectively post construction or during construction. Best at a height of 3-6m and ideally in sunny positions in clusters, facing different aspects. http://www.birdbrickhouses.co.uk/index.html Please note that once bats have inhabited a roost site they may only be disturbed by licensed bat workers.

Example	Type	Dimension D x W x H (cm)	Target species	Location
	Bat Brick	10 x 21.5 x 6	Species known to use buildings e.g. pipistrelles, brown long-eared, Natterer's, whiskered, Brandt's, Alcahoë (assumed based on current evidence), Daubenton's (occasionally), Bechstein's (very rarely), noctule (very rarely), Leisler's, serotine and barbastelle (rarely).	Shaped specially to allow bats to access the cavity of a house. They can be incorporated during both new build or renovation projects. (A cavity chamber may need to be constructed to maintain an area free of insulating material where bats can roost). Best at a height of 3-6m and ideally in sunny positions in clusters, facing different aspects. Please note that once bats have inhabited a roost site they may only be disturbed by licensed bat workers.
	Schwegler Brick Box Type 27	24 x 18 x 26.5	Species known to use buildings e.g. pipistrelles, brown long-eared, Natterer's, whiskered, Brandt's, Alcahoë (assumed based on current evidence), Daubenton's (occasionally), Bechstein's (very rarely), noctule (very rarely), Leisler's, serotine and barbastelle (rarely).	Flush with the outside wall of a building or underneath structures like arches, bridges and tunnels, where conditions are correct. It can be rendered or covered so that only the entrance hole is visible. Best at a height of 3-6m and ideally in sunny positions in clusters, facing different aspects. Please note that once bats have inhabited a roost site they may only be disturbed by licensed bat workers.

Appendix E. Bird Box Designs

Example	Type	Dimension D x W x H (cm)	Target species	Location
	2M Schwegler Nest Box Hole-fronted 32mm entrance hole	17 x 16 x 35	Multi-purpose , including: great-, blue-, marsh-, coal- and crested tit, redstart, nuthatch, collared and pied flycatcher, wryneck, tree and house sparrows, and occasionally bats.	It can be freely suspended and has a conical roof. These features protect against cats and deter martens. It is very popular in private gardens and especially around fruit trees, mainly in areas where the trees are short and have many branches. Please note that once bats have inhabited a roost site they may only be disturbed by licensed bat workers.
	Schwegler Nest Box 1B Hole-fronted 32mm entrance hole	16 x 16 x 23	Multi-purpose , including: great-, blue-, marsh-, coal and crested tit, redstart, nuthatch, collared and pied flycatcher, wryneck, tree and house sparrows, bats.	Suitable walls or semi-mature/mature trees and shrubs; attached to a tree trunk or hung from branches. Ideal points include discrete areas away from predators, such as against walls, plant and metal supports.

Example	Type	Dimension D x W x H (cm)	Target species	Location
	Vivara Pro WoodStone Oval Open Nest Box	15 x 23 x 25.5	Robin, wren (if well hidden), spotted flycatcher, pied and grey wagtail, song thrush and black redstart.	Robin and spotted flycatcher: hidden high on a wall or tree amongst climbing vegetation such as ivy. Wren and song thrush: low in dense vegetation. Ensure that it is well concealed and sited higher if your area has a particularly high cat population.