

## Bat Mitigation Plan

2 The Grange, Longstock, Hampshire, SO20 6DP

Hugo Deene

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**Industry Guidelines and Standards**

This report has been written with due consideration to:

- Chartered Institute of Ecology and Environmental Management (2017). Guidelines for Preliminary Ecological Appraisal. 2nd edition. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management (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.
- Chartered Institute of Ecology and Environmental Management (2017). Guidelines on Ecological Report Writing. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management (2020). Guidelines for Accessing, Using and Sharing Biodiversity Data in the UK. 2nd Edition. Chartered Institute of Ecology and Environmental Management, Winchester.
- British Standard 42020 (2013). Biodiversity – Code of Practice for Planning and Development.
- British Standard 8683:2021 (2021). Process for Designing and Implementing Biodiversity Net Gain.

**Proportionality**

The work involved in preparing and implementing all ecological surveys, impact assessments and measures for avoidance, mitigation, compensation and enhancement should be proportionate to the predicted degree of risk to biodiversity and to the nature and scale of the proposed development. Consequently, the decision-maker should only request supporting information and conservation measures that are relevant, necessary and material to the application in question. Similarly, the decision-maker and their consultees should ensure that any comments and advice made over an application are also proportionate.

This approach is enshrined in Government planning guidance, for example, paragraph 174 of the National Planning Policy Framework for England.

The desk studies and field surveys undertaken to provide a Preliminary Ecological Appraisal (PEA) might in some cases be all that is necessary.

(BS 42020, 2013)

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## 1.0 Introduction and Context

### 1.1 Background

Arbtech Consulting Ltd was commissioned by Hugo Deene to produce a Bat Mitigation Plan (BMP) for 2 The Grange, Longstock, Hampshire, SO20 6DP (hereafter referred to as “the site”). The BMP is required to inform a planning application for proposed extension onto the north side of the existing residential house (hereafter referred to as “the proposed development”). A plan showing the proposed development is provided in Appendix 1.

A Preliminary Ecological Appraisal and Preliminary Roost Assessment (PRA) bat survey was undertaken on site by Arbtech Consulting Ltd in September 2023 (Arbtech, 2023). The survey identified the existing building as being a confirmed bat roost with ~100 droppings noted within loft 1 and ~100 found in loft 2 and a number of tiles along the roof suitable for roosting bats. The building was assessed as having high suitability for bats and is considered to be suitable for both void and crevice-dwelling bats.

Under the “Bat Surveys for Professional Ecologists —Good Practice Guidelines” publication (Collins, 2023) such buildings traditionally required three bat emergence or re-entry surveys to characterise any roosts present. However in this case, as the proposed works are located away from the identified roosts within the loft spaces and away from any suitable external roosting features such as lifted or missing tiles therefore it is considered that the implementation of a Bat Mitigation Plan (BMP) will reduce any risk to bats to a suitably low level to allow the development to proceed lawfully.

This approach, and the contents of this BMP, will need to be agreed with the Local Authority (Test Valley borough Council).

### 1.2 Site Context

The site is located at National Grid Reference SU35633670 and has an area of approximately 0.2ha comprising semi-detached residential house and surrounding garden. It is surrounded by large residential dwellings to the north and south with large vegetated gardens. Agricultural landscape is to the west, and the River Test and associated floodplains are to the east. A site location plan is provided in Appendix 2.

## 2.0 Ecological Baseline Conditions

The baseline conditions of the site relevant to this report were determined through the PEA/PRA undertaken in September 2023 (Arbtech, 2023). The results of the PRA undertaken at the site are detailed in Table 1 below. The results of the PRA are illustrated on the plan in Appendix 3.

*Table 1: Summarised results of the PRA.*

Ref	Survey assessment conclusions (with justification)	Foreseen impacts	Recommendations
<p>Roosting bats</p> <p>B1</p>	<p>Building 1 has a confirmed roost, as identified by bat droppings seen within both loft areas of B1, as well as a high volume of tile roosting feature seen on both roof elevations. There is an EPSL for pipistrelle with 30m of the site.</p> <p>The building has value for both crevice-dwelling and void-dwelling bat species</p>	<p>The proposed development will result in extensions to the northern elevation of this building. However no roosting features were noted across this area of the building</p> <p>It is not anticipated that the proposed works will result in the damage, destruction or modification of the existing bat roosts, however, the proposed works may cause disturbance to the bat roosts. It is anticipated that a Bat mitigation plan can bring the level of risk of disturbance to an acceptable low level.</p> <p>If any works are proposed to the existing loft spaces or exiting roof structure then this could result in damage/destruction of any bat roosts present and could cause disturbance, death or injury to bats. If the new extension will be within 2m of the existing wall top on the northern gable-end then this could result in modification of the existing bat roost (i.e. preventing access).</p>	<p>Owing to the nature of the proposed development and the low potential for impacts to bat roosts, further bat surveys are considered to be disproportionate. It is anticipated that any risk to bats can be reduced to an acceptably low level through the implementation of a Bat Mitigation plan during and post-development.</p> <p>If works cannot avoid tampering with the existing roof or encroaches too close to the top of the gable (i.e. within 1.5m of the wall top), or if work involves having to cause alterations to Loft 1, or decisions are made to repair any tiles on the existing roof, then <b>three</b> bat emergence and re-entry surveys are required during the active bat season (optimal May to August, suboptimal September) to characterise the roosts present. At least two of the surveys should be completed during the optimal survey period mid-May to August inclusive.</p> <p>Infra-red cameras should be used as an aid. Surveys should be a minimum of three weeks apart.</p> <p>Two surveyors are required to provide full coverage of the building.</p> <p>An EPSL application to Natural England will be required. The EPSL application requires that surveys have been undertaken within the most recent active bat season and planning permission must have been granted and all relevant wildlife-related conditions have been discharged prior to submission.</p> <p>A Material Changes Check will be required within three months of the EPSL submission, if no survey work has been undertaken within that period. If bat droppings were found during the PRA, a sample will need to be sent off for DNA analysis to confirm the bat species present, to inform the EPSL application.</p>

### 3.0 Bat Mitigation Plan

The existing dwelling is considered to have suitability to support both crevice and void dwelling bats and has been assigned high value for roosting bats. The proposed development will include the extension of the main dwelling along the northern elevation away from the loft voids where bat droppings were identified and will not include works to the existing roof and identified roosting features. Therefore it is anticipated that the proposed works will not cause the damage or destruction of any roosts present however the works may cause disturbance to any bat roosts present via noise and vibrations.

The recommended bat mitigation and compensation prescriptions to be implemented during the works on the site are detailed below in Table 2.

**In the unlikely event that bats, or evidence of bats be found at any stage during the erection of the new extension, works will immediately cease, and advice will be sought from a suitably qualified ecologist with regard to further surveys and the requirement for a European Protected Species Licence (EPSL) application.**

**Should the plans change to include any works undertaken to the existing roof, encroaches into the existing loft spaces or requires the height of the new extension to be closer to the existing roofline then the traditional three bat emergence and re-entry surveys are required during the active bat season (optimal May to August, suboptimal September) to characterise the roosts present.**

Table 2: Mitigation, Methods of Working and Compensation Recommendations

Mitigation and Compensation Prescriptions	Specification
<b>Mitigation</b>	
<b>Timing</b>	Works particularly those impacting the gable wall will commence during the winter months (November to March) when bats are least likely to be present.
<b>Pre-works</b>	<p>A toolbox talk will be provided to contractors to make them aware of the possible presence of bats on the site. This should be undertaken by a bat-licenced ecologist. The ecologist will point out no-go areas on the main house and roosting features which are to be left in situ.</p> <p>This will also include details about possible bat species present and what to do if a bat is discovered during any of the works.</p> <p>Work should only be undertaken at the gable end wall, and nowhere else across the building.</p> <p>There will be no encroachment into either of the loft space of B1, or any activity that can see alterations to the thermal properties of B1. Workers should not enter a bat roost without a licensed ecologist present.</p> <p>No scaffolding, plastic sheeting or netting will be erected on to or obstruct any of the identified roosting features across the whole existing roof.</p> <p>If during toolbox talk with construction personnel the works proposed are of a higher impact than expected and cannot be done without a significant level of disturbance, then the ecologist will halt work and seek advice as to whether the work will require a license to take place</p>
<b>During works</b>	<p>Following completion of the pre-work measures, any work against the existing gable wall, during the initial phase should be undertaken by hand to reduce possible disturbance by noise and vibrations.</p> <p>Work directly to the gable wall will be undertaken outside of the bat active season (march-Sept) which will further reduce disturbance to bats that use the building. In particular, any early use of tools that may cause noise and vibrations to the walls of the existing building. This is regarding any direct attaching of the new extension to the walls of B1.</p> <p>Once this part is completed further work on the new extension would see less disturbance risk to bats, as the rest of the work will involve working away from the existing structure and vibrations here should not disturb any bats residing within the loft spaces or roof structures of B1</p> <p>Use of large power tools against the existing wall should be avoided, to reduce vibration disturbance, in particular to the upper walls of the new extension, within 2m of the roof area.</p>



	<p>No existing roof tiles are to be impacted or altered during the development, this includes ‘general maintenance’ to the roof. <b>All roosting features noted within the PRA across each roof are to be retained.</b> If the works necessitate the removal of any roof tiles, Arbtech will be contacted for further instruction before this occurs and a bat licence will be required.</p> <p>No works are to be undertaken from the existing roof.</p> <p>The roof height of the new extensions will be <b>below the existing roofline (a minimum of 1.5m below)</b> and are not to join into the pre-existing roof line or verge of the building.</p> <p><b>If for any reasons plans have to change, and work cannot take place without altering the existing roof or loft space, then Arbtech will be contacted for further instruction before this occurs and a bat licence will be required.</b></p> <p>If any bats are discovered then work must cease, and a license must be obtained before further work continues. If a bat is discovered and is in immediate danger this should be moved to an installed bat box on the site away from the area of works.</p> <p>The use of external lighting will be avoided insofar as possible.</p> <p>Any proposed external lighting will be installed in accordance with current guidance issued by the Bat Conservation Trust and Institute of Lighting Professionals: <i>Guidance Note 08/18: Bats and Artificial lighting in the UK</i> (BCT &amp; ILP 2018). The below strategy utilises light prescriptions detailed within this guidance to limit impacts of artificial lighting on bats and other light sensitive species potentially utilising retained habitats on and directly adjacent to the site. In particular, the lighting strategy seeks to influence the lighting design so that impacts can be avoided to key habitats of value including:</p> <ul style="list-style-type: none"> <li>• The newly provided bat roosting opportunities; and</li> <li>• Retained trees and shrubs adjacent to the site.</li> </ul> <p>The following lighting design prescriptions are considered suitable for the type and scale of the development to minimise the impacts of artificial lighting on site or within the public realm on bats and other light sensitive species. Lighting design prescriptions recommended for the Site comprise:</p> <ul style="list-style-type: none"> <li>• <b>Reducing the operating time of any installed public realm lighting and levels of illuminance provided via:</b> Part-night operation – turning off lights between certain hours e.g. midnight and 06:00.</li> <li>• <b>Avoiding light spill via:</b> The use of directional lighting by using luminaires with rear shields and an upwards lighting ratio of zero; and Consideration to the height and spacing between lighting columns where practicable. Examples include stud LED or footpath lighting (Stones E., 2013).</li> <li>• <b>Light type:</b> Use of lamps that minimise UV emissions or use UV filters to reduce the attractiveness of the lamp to invertebrates; Use high-pressure sodium or LED lamps, ideally warm white as this has a low relative attractiveness of invertebrates (Eisenbeis, G., 2006). Installing lighting systems that deliver no greater than a 3lux average illuminance, with a maximum horizontal illuminance of 0.6 uniformity (subject to appropriate maintenance factors).</li> </ul>
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**Compensation**

<p><b>Bat Boxes</b></p>	<p>Prior to the commencement of works, one bat box will be installed onto existing mature trees within the site boundaries to compensate for any disturbance caused by the works at the site. Suitable locations are illustrated in Appendix 4. The bat boxes must be of suitable specification for crevice and void dwelling bats and designed for installation on trees, such as a General-Purpose Bat Box (see Figure 1 below) or a similar alternative brand. The bat boxes must be installed at least 3m high and be south or west facing, with the entrances orientated away from any lighting or obstruction in so far as possible. If trees on site are not suitable/mature enough to mount a bat box a dedicated pole will need to be erected in place of the presence of mature trees.</p> <div data-bbox="1160 336 1326 762" data-label="Image"> </div> <p style="text-align: center;"><b>Figure 1:</b> General-Purpose Bat Box</p> <p style="text-align: center;">(Photo credit: <a href="https://www.nhbs.com/convex-wood-concrete-bat-box">https://www.nhbs.com/convex-wood-concrete-bat-box</a>)</p> <p>As the identified roosting features within the existing building are to be retained as part of the development further enhancements on the site are not deemed necessary.</p>
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#### 4.0 Bibliography

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Appendix 1: Proposed Development Plan- Where red dots indicate roof tile features- potential access points

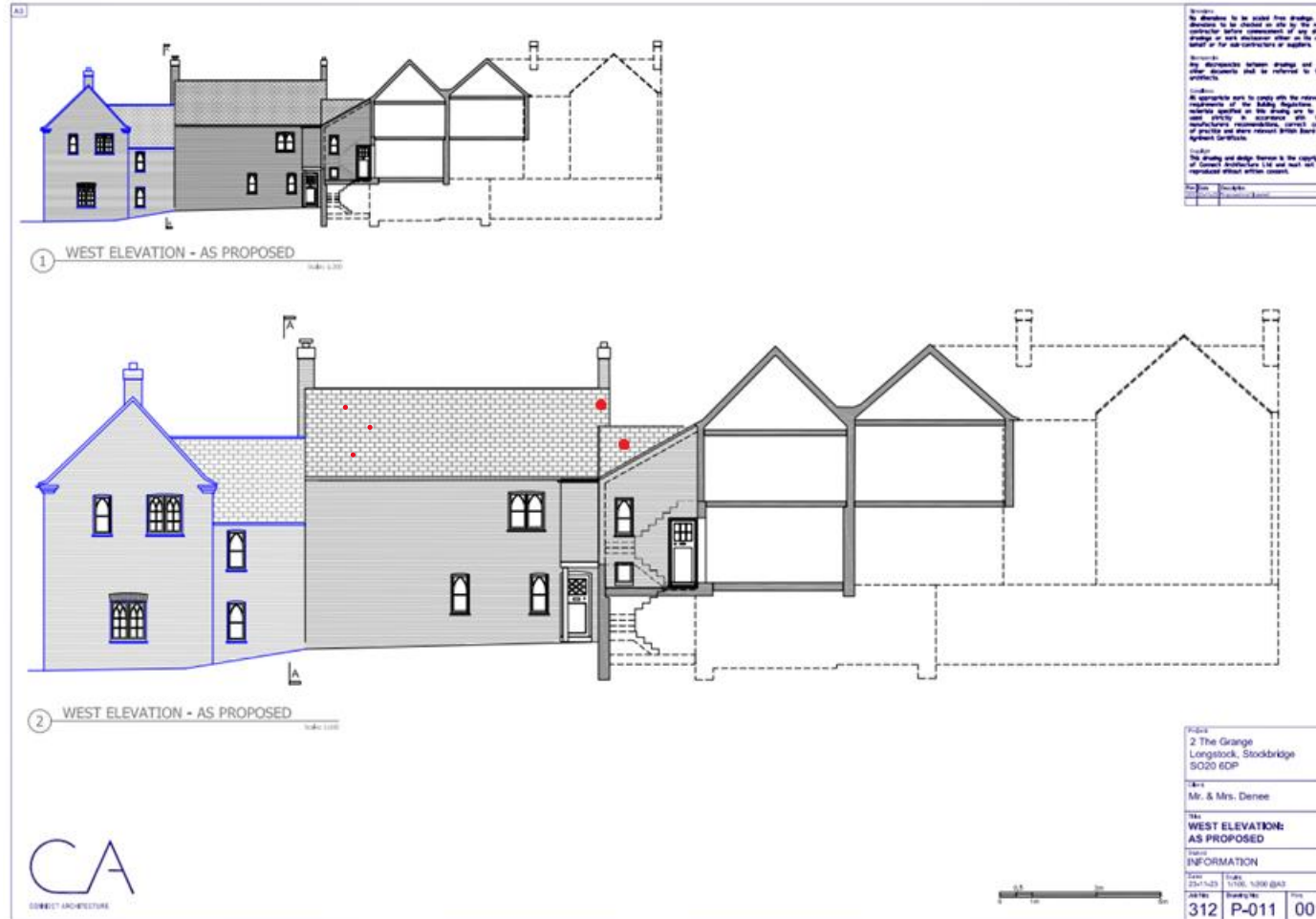
Architectural drawings of the east elevation of a building, showing roof tile features marked with red dots. The drawings include a title block with project information and a scale bar.

1 EAST ELEVATION - AS PROPOSED

2 EAST ELEVATION - AS PROPOSED

CA  
CORRECT ARCHITECTURE

Project		
2 The Grange Longstock, Stockblidge SO20 6DP		
Client		
Mr. & Mrs. Densee		
Title		
EAST ELEVATION AS PROPOSED		
Notes		
INFORMATION		
Date	Scale	
2017-12-18	1:1000, A3-DWG	
DWG No.	Sheet No.	Rev
312	P-010	001





Appendix 2: Site Location Plan

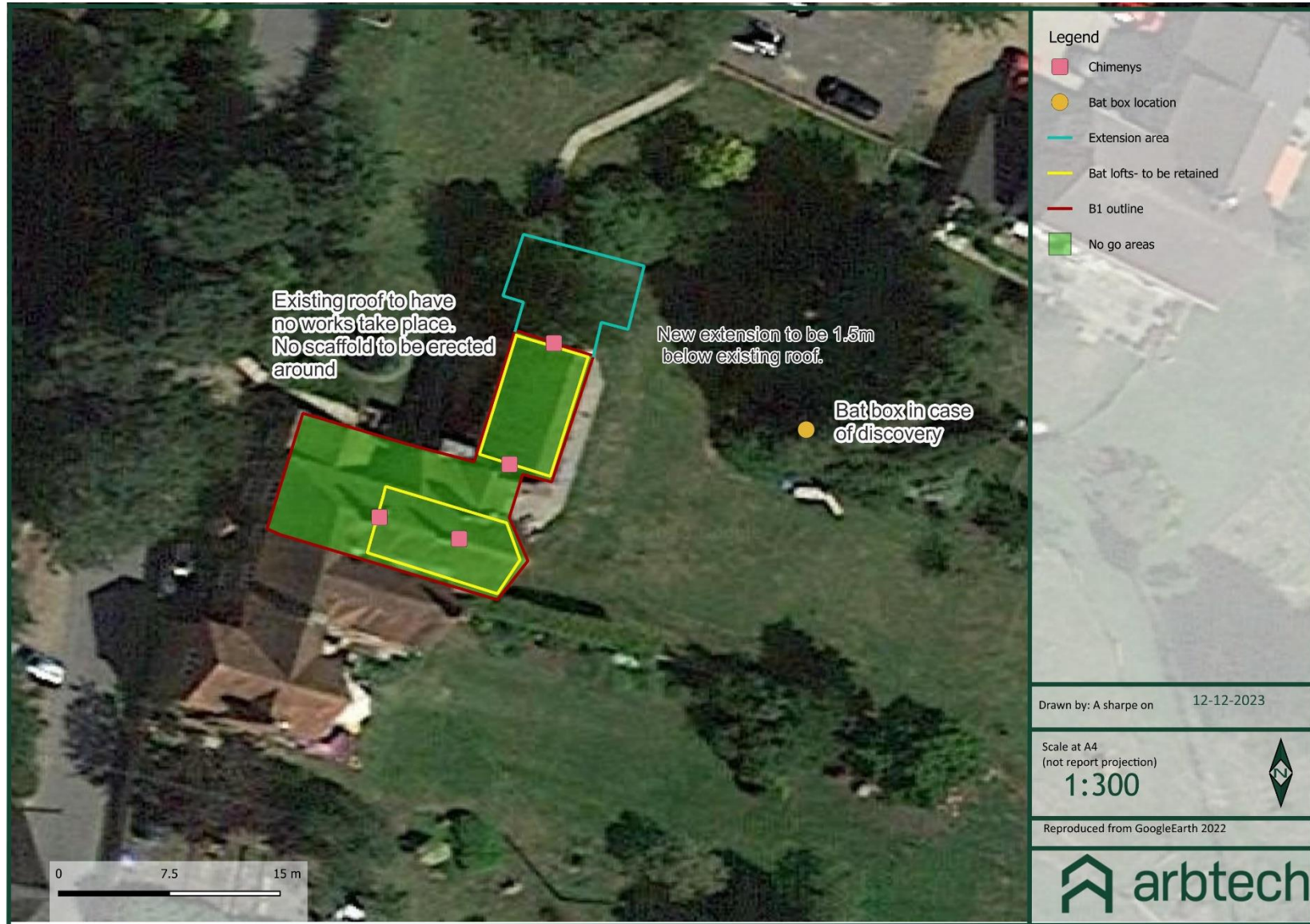


Appendix 3: PRA Survey Plan





Appendix 4: Bat Mitigation Plan



## Appendix 5: Legislation and Planning Policy Related to Bats

### LEGAL PROTECTION

All species of bat are fully protected under *The Conservation of Habitats and Species Regulations 2017* (as amended) through their inclusion on Schedule 2.

#### **Regulation 43: Protection of certain wild animals - offences**

(1) A person is guilty of an offence if they:

- (a) Deliberately captures, injures or kills any wild animal of a European protected species,
- (b) Deliberately disturbs wild animals of any such species,
- (c) Deliberately takes or destroys the eggs of such an animal, or
- (d) Damages or destroys a breeding site or resting place of such an animal,

(2) For the purposes of paragraph (1) (b), disturbance of animals includes in particular any disturbance which is likely—

- (a) 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
- (b) To affect significantly the local distribution or abundance of the species to which they belong.

Bats are also protected under the *Wildlife and Countryside Act 1981* (as amended) through their inclusion on Schedule 5. Under this Act, they are additionally protected from:

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

### NATIONAL PLANNING POLICY (ENGLAND)

#### **National Planning Policy Framework 2021**

The National Planning Policy Framework promotes sustainable development. The Framework specifies the need for protection of designated sites and priority habitats and species. An emphasis is also made on the need for ecological infrastructure through protection, restoration and re-creation. The protection and recovery of priority species (considered likely to be those listed as species of principal importance under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006) is also listed as a requirement of planning policy.

In determining a planning application, planning authorities should aim to conserve and enhance biodiversity by ensuring that: designated sites are protected from harm; there is appropriate mitigation or compensation where significant harm cannot be avoided; measurable gains in biodiversity in and around developments are incorporated; and planning permission is refused for development resulting in the loss or deterioration of irreplaceable habitats including aged or veteran trees and also ancient woodland.

#### ***The Natural Environment and Rural Communities Act 2006 and the Biodiversity Duty***

Section 40 of the Natural Environment and Rural Communities (NERC) Act 2006, requires all public bodies to have regard to biodiversity conservation when carrying out their functions. This is commonly referred to as the 'biodiversity duty'.

Section 41 of the Act requires the Secretary of State to publish a list of habitats and species which are of 'principal importance for the conservation of biodiversity'. This list is intended to assist decision makers such as public bodies in implementing their duty under Section 40 of the Act. Under the Act these habitats and species are regarded as a material consideration in determining planning applications. A developer must show that their protection has been adequately addressed within a development proposal.

#### **EFFECT OF LEGISLATION AND POLICY ON DEVELOPMENT WORKS**

A European Protected Species Licence (EPSL) issued by Natural England will be required for works likely to affect a bat roost or for operations likely to result in a level of disturbance which might impair their ability to undertake those activities mentioned above (e.g. survive, breed, rear young and hibernate). The licence is to allow derogation from the relevant legislation but also to enable appropriate mitigation measures to be put in place and their efficiency/success to be monitored. The legislation may also be interpreted such that, in certain circumstances, important foraging areas and/or commuting routes can be regarded as being afforded *de facto* protection, for example, where it can be proven that the continued usage of such areas is crucial to maintaining the integrity and long-term viability of a bat roost (Garland & Markham, 2008).

There are 17 species of bat breeding in England and Natural England issues licences under Regulation 55 of the Habitats Regulations to allow you to work within the law.

Licences are issued for specific purposes stated in the Regulations, if the following three tests are met:

- The purpose of the work meets one of those listed in the Habitats Regulations (see below);
- That there is no satisfactory alternative;
- That the action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status (FCS) in their natural range

The Habitats Regulations permits licences to be issued for a specific set of purposes including:

1. include preserving public health or public safety or other imperative reasons of over-riding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment;
2. scientific and educational purposes;

3. ringing or marking; and,
4. conserving wild animals.

Development works fall under the first purpose and Natural England issues bat mitigation licences for developments.

#### **EUROPEAN PROTECTED SPECIES POLICIES**

In December 2016 Natural England officially introduced the four licensing policies throughout England. The four policies seek to achieve better outcomes for European Protected Species (EPS) and reduce unnecessary costs, delays and uncertainty that can be inherent in the current standard EPS licensing system. The policies are summarised as follows:

- Policy 1; provides greater flexibility in exclusion and relocation activities, where there is investment in habitat provision;
- Policy 2; provides greater flexibility in the location of compensatory habitat;
- Policy 3; provides greater flexibility on exclusion measures where this will allow EPS to use temporary habitat; and,
- Policy 4; provides a reduced survey effort in circumstances where the impacts of development can be confidently predicted.

The four policies have been designed to have a net benefit for EPS by improving populations overall and not just protecting individuals within development sites. Most notably Natural England now recognises that the Habitats Regulations legal framework now applies to 'local populations' of EPS and not individuals/site populations.