

Our Ref: 5071,EC/Ltr001/KL,RF/20-07-20/V1  
Your Ref: 5071,EC

Rose Builders Limited  
Riverside House  
Riverside Avenue East  
Lawford  
Essex  
CO11 1US

Date: 20 July 2020

**For the attention of Will Vote**

By Email:  
- [Wvote@rosebuilders.co.uk](mailto:Wvote@rosebuilders.co.uk)

Dear Mr Vote,

**5071,EC - UNIT 1, STANSTED COURTYARD, PARSONAGE ROAD, TAKELEY, CM22 6PU,  
BAT ROOST SURVEY**

## 1. Introduction

Geosphere Environmental Ltd was commissioned by Rose Builders Ltd to undertake a Bat Activity Survey of the existing building located at Unit 1, Stansted Courtyard, Parsonage Road, Takeley, CM22 6PU. The site is located at National Grid Reference (NGR) TL 55854 22169.

This report relates to the proposed commercial development of the site.

Geosphere Environmental (GEL) undertook a Preliminary Ecological Appraisal (PEA) in 2020 (ref. **R.1**). The initial survey confirmed that the building onsite (B1) is a timber cladded office with clay pitched roof tiles and a car port area with storage above to the west of the building. Areas of timber cladding had become loose on the southern aspect of the western extension of the building creating potential roosting spaces for bats as shown in figure 1 below.



Figure 1: Warped timber cladding on Build B1

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The scattered trees and introduced shrubs provide foraging opportunities for bats, albeit limited given its location within a commercial area and plentiful foraging habitat in the wider area.

The PEA considered the building to have low potential to support roosting bats. As such, a single Bat Roost Survey was recommended to be undertaken.

## 2. Aims

The purpose of the survey is to assess the presence/likely absence of roosting bats within the building.

This letter report details the results of a single Dusk Survey, undertaken on 17 July 2020.

### 2.1 Current Legislation

#### 2.1.1 Bats

The main legislation that applies to ecological issues within England and Wales is as follows:

The Wildlife and Countryside Act 1981 (WCA) which was amended by the Wildlife and Countryside (Amendment) Act 1985, and the Countryside and Rights of Way Act 2000 (CRoW). It is a criminal offence to "recklessly disturb" Schedule 1, nesting birds, and all species in Schedule 5 are protected under Section 9, (animals which are protected). This does not apply to species protected under Section 9(5), only.

The Conservation of Habitats and Species Regulations 2010, consolidating all amendments to the Conservation (Natural Habitats etc.) Regulations 1994. This legislation implements the EU Habitats Directive and also contains new provisions designed to implement aspects of the Marine and Coastal Access Act 2009 for England and Wales. These regulations place a duty on the UK to designate sites of European Community importance as Special Areas of Conservation (SACs) and to protect European species of conservation concern.

There are seventeen resident bat species in Britain, their roost sites and the individual animals themselves are afforded full legal protection under the above key legislation, which makes it illegal to; possess or control any live or dead specimens, to damage, destroy or prevent access to any structure or place used for shelter, protection or breeding, and to intentionally disturb bats while occupying said structure.

As a result of which, Bat Surveys should only be carried out or supervised by persons holding a Natural England bat licence (Natural England is the governing body for England with respect to protected species).

The following species of bat are listed as species of principle importance under Section 41 of the NERC Act:

- Barbastelle, (*Barbastella barbastellus*);
- Bechstein's bat, (*Myotis bechsteinii*);
- Greater Horseshoe, (*Rhinolophus ferrumequinum*);
- Lesser Horseshoe, (*Rhinolophus hipposideros*);
- Soprano Pipistrelle, (*Pipistrellus pygmaeus*);
- Noctule, (*Nylactus noctula*);
- Brown Long-eared, (*Plecotus auritus*).

A roost is defined as 'any structure or place which a bat uses for shelter or protection'. As bats tend to reuse the same roosts, legal opinion is that a roost is protected whether or not bats are present at the time of survey.

The reader is referred to the original legislation for definitive interpretation.

### **3. Methodology**

The Bat Emergence Survey was carried out in accordance with the Bat Conservation Trust, (BCT), JNCC and Natural England guidelines, (refs. **R.1**, **R.3** and **R.4** respectively). Works are undertaken following the principles of the Ministry of Housing, Communities and Local Government (MHCLG) (July 2018) National Planning Policy Framework (NPPF) (ref. **R.5**).

#### **3.1 Personnel**

Surveyors included Katie Linehan MSc PIEMA MCIEEM (Technical Director) and Tom Powling (Director).

#### **3.2 Roost Survey**

To ensure all aspects that were highlighted as having roost potential were observed during the survey, two surveyors observed the structure from a fixed point. The locations of the surveyors during building Emergence Surveys are shown on Drawing ref. 5071,EC/001/Rev0 in Appendix 2.

The Dusk Emergence Survey commenced 20 minutes before sunset and concluded 120 minutes after sunset.

#### **3.3 Equipment**

Bat surveillance equipment included Wildlife Acoustics Echo Meter Touch (EMT) Pro with Amazon Fire 8 HD tablet. Recordings were analysed using Kaleidoscope and AnalookW software, where necessary, to aid accurate species identification.

#### **3.4 Timings and Weather Conditions**

The Bat Survey was undertaken on 17 July 2020. The survey commenced at 20.55 (sunset was at 21.09) and concluded at 23.09. The weather conditions at the time of the survey were partial cloud (30% cloud cover), light air (Beaufort Scale 1) and an approximate dusk temperature of 20°C.

### **4. Survey Constraints**

During the survey it was noted that there is an existing level of light overspill from security lighting.

### **5. Field Results and Discussion**

No bats were confirmed emerging from the building during the survey.

Insects were noted around the security light however, no bats were noted foraging within the courtyard during the survey.

Very low numbers of Common Pipistrelle (*Pipistrellus pipistrellus*) were recorded adjacent to the site from 22.21 to 22.34. A noctule was heard from 22.34 with a maximum of two passes noted before the end of the survey. No visual contact associated with these calls was noted.

Given the time that the bats were first recorded, it is highly likely that the roosts for these bats are located offsite.

## **6. Recommendations for Mitigation and Enhancement**

### **6.1 Lighting during Construction**

Although there is existing overspill of light from security lighting, it would be best practice to avoid any work outside daylight hours, to avoid any additional light and noise disturbance to foraging and commuting bats adjacent to site.

### **6.2 Lighting within Final Development**

Excess lighting can act as a barrier to bats, potentially restricting their access to foraging areas. Any public lighting to be included within the proposed development should ideally comprise of low-pressure sodium lights or, alternatively, high-pressure sodium lights with UV filters and louvers.

Any public lighting should be designed with luminaires as low above ground level as possible, aimed to illuminate only the immediate area required, by using as sharp a downward angle as possible. A shield or hood can be used to control or restrict the area to be lit. Avoid illuminating at a wider angle as this will be more disturbing to foraging and commuting bats. Ref. **R.6** provides detailed information regarding lighting in relation to bats.

### **6.3 Biodiversity Enhancement Options**

The following general enhancements have been recommended to be included within the final development scheme:

- Any planting within the final development should ideally be native, incorporating plants that are beneficial to invertebrates and therefore other wildlife including bats. A recommended plant list is included within Appendix 3.
- The Final Development Plan should incorporate Bat Bricks or boxes into the scheme to provide roosting opportunities for Common pipistrelle post-development. Examples are included within Appendix 4.

## **7. Conclusions**

No bats were noted exiting or entering existing features. During the survey, although insects were noted around the security lighting, even the more light-tolerant species of bat were not noted within the courtyard area. It is likely the security light is a barrier to the area being used more frequently by bats to forage and subsequently makes it less likely for the existing features to be used as a roost.

While the Roost Survey was undertaken in accordance to Best Practice Guidelines, they provide a snapshot of bat activity at the site. In the unlikely event that bats are found during the removal of the existing timber cladding, all works should cease and a licenced ecologist contacted immediately.

The scheme should incorporate native planting (beneficial to bats), as well as Bat Bricks or boxes within final building designs, to provide a biodiversity enhancement to protected species.

Should you have any queries with regards to the above, please do not hesitate to contact the undersigned.

Yours sincerely



Katie Linehan  
Technical Director of Ecology  
**Geosphere Environmental Ltd**

Checked By:



Richard Fenna  
Senior Ecologist  
**Geosphere Environmental Ltd**

**References:**

- R.1.** Geosphere Environmental (2020), Preliminary Ecological Appraisal referenced 5051,EC/PEA/GG,KL/14-07-20/V2
- R.2.** BCT (2016). 'Bat Surveys – Good Practice Guidelines' Bat Conservation Trust, London, 3<sup>rd</sup> edition.
- R.3.** JNCC (2004). 'Bat Workers Manual' 3rd edition. Joint Nature Conservation Committee, Peterborough.
- R.4.** English Nature (2004) Bat mitigation guidelines.
- R.5.** Ministry of Housing, Communities and Local Government (MHCLG) (July 2019) National Planning Policy Framework (NPPF).
- R.6.** Institution of Lighting Professionals (2018) Bats and artificial lighting in the UK, Bats and the Built Environment series – Guidance Note 08/18

**Enclosures:**

- Appendix 1 – Report Limitations and Conditions
- Appendix 2 – Drawings
- Appendix 3 – Recommended Plant List
- Appendix 4 – Bat Bricks and Boxes



# APPENDICES

## **Appendix 1 – Report Limitations and Conditions**

This report refers, within the limitations stated, to the condition of the site at the time of the inspections. No warranty is given as to the possibility of future changes in the condition of the site.

This report has been prepared for the sole use of the Client for the purposes described and no extended duty of care to any third party is implied or offered. Third parties using any information contained within this report do so at their own risk.

This report is prepared and written for the use stated herein; it should not be used for any other purposes without reference to Geosphere Environmental Limited. The report has been prepared in relation to the proposed end-use should another end-use be intended a further re-assessment may be required. It is likely that over time practises will improve and the relevant guidance and legislation be amended or superseded, which may necessitate a re-assessment of the site.

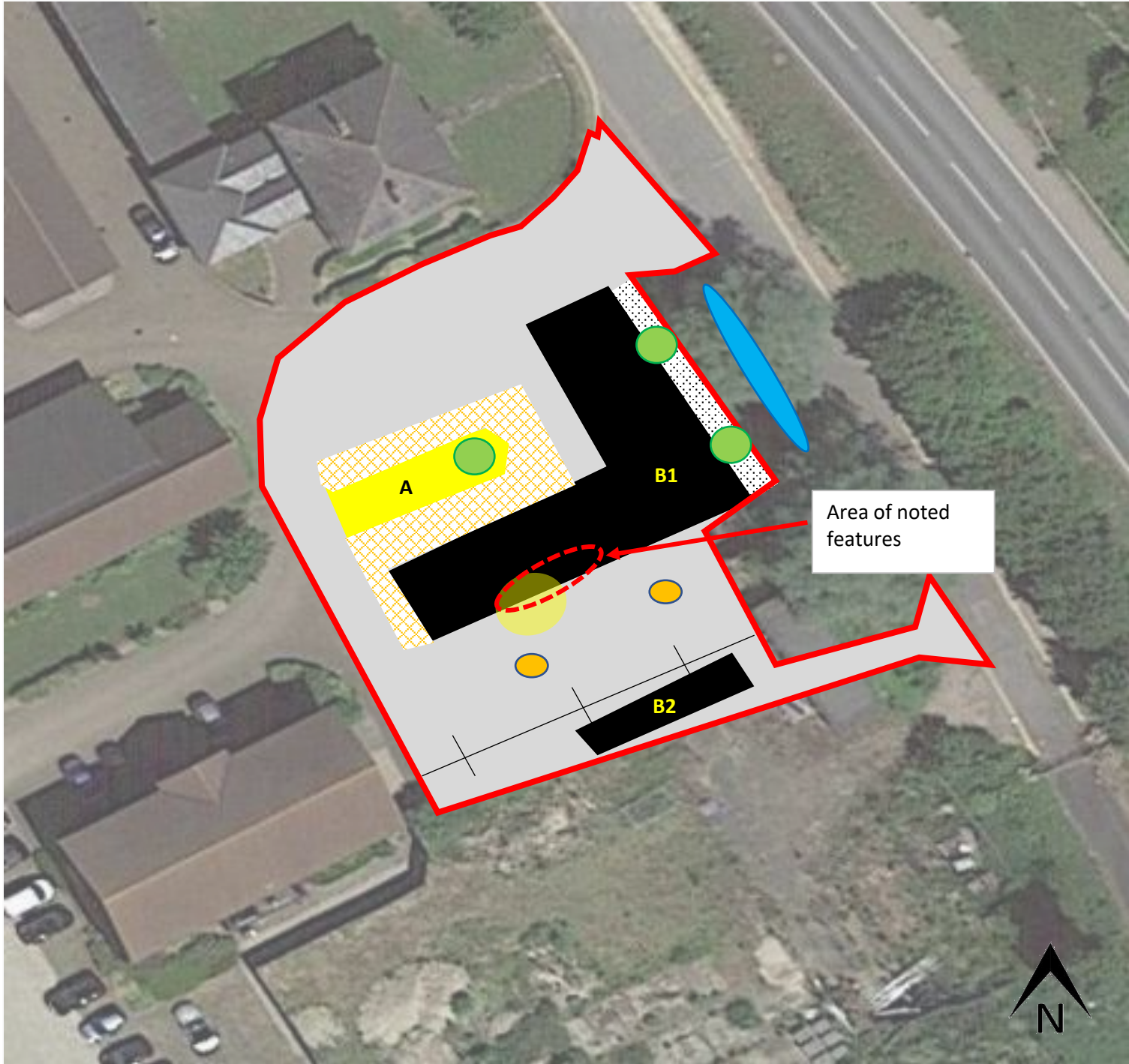
The accuracy of any map extracts cannot be guaranteed. It is possible that different conditions existed onsite, between and subsequent to the various map surveys appended.



## Appendix 2 – Drawings

Surveyor Location Plan – Drawing ref. 5071,EC/001/Rev0





GEOSPHERE ENVIRONMENTAL

**LEGEND**

- Site Boundary
- B1 Building
- Hardstanding
- Introduced Shrubs
- A Amenity Grassland
- Bare Ground
- Open Water (Pond 1)
- Scattered Trees
- Fencing
- Security Light Overspill
- Surveyor Locations

**SOURCE**

[© GoogleMaps](#)

**PROJECT**

Unit 1, Stansted Courtyard, Parsonage Road, Takeley, CM22 6PU

**TITLE**

Bat Survey 17-07-20 - Dusk

**DRAWING NUMBER**

**5071,EC/001/Rev0**

**SCALE**

Not to Scale

**DATE**

07/07/2020

**DRAWN BY**

KL

**CHECKED BY**

RF

## **Appendix 3 – Recommended Plant List**

## GENERAL PLANTS CONSIDERED BENEFICIAL TO WILDLIFE

The lists of plants below are taken from current Natural England guidance (ref. **1**), a web-based data based managed on behalf of the RHS and the Wildlife Trusts (ref. **2**) and professional judgement. When buying native plants, ensure they are from a reputable source, as many wildflowers are illegally taken from the wild.

### Large Trees

Common Name	Latin Name	Common Name	Latin Name
Beech	<i>Fagus sylvatica</i>	Pedunculate Oak	<i>Quercus robur</i>
Wild Cherry	<i>Prunus avium</i>	White Willow	<i>Salix alba</i>
Bird Cherry	<i>Prunus padus</i>	Small-leaved Lime	<i>Tilia cordata</i>
Sessile Oak	<i>Quercus petraea</i>		

### Medium/Small Trees

Common Name	Latin Name	Common Name	Latin Name
Field Maple	<i>Acer campestre</i>	Apples	<i>Malus spp.</i>
Alder	<i>Alnus glutinosa</i>	Pears	<i>Pyrus spp.</i>
Silver Birch	<i>Betula pendula</i>	Rowan	<i>Sorbus aucuparia</i>
Holly	<i>Ilex aquifolium</i>		

### Other Shrubs for Nectar, Pollen or Fruits

Common Name	Latin Name	Common Name	Latin Name
Serviceberry	<i>Amelanchier canadensis</i>	Himalayan Honeysuckle	<i>Leycesteria formosa</i>
June Berry	<i>Amelanchier lamarckii</i>	Mahonia	<i>Mohonia spp.</i>
Californian lilac	<i>Ceanothus spp.</i>	Mock Orange	<i>Philadelphus spp.</i>
Japanese quince	<i>Chaenomeles japonica</i>	Firethorn	<i>Pyracantha spp.</i>
Creeping Cotoneaster	<i>Cotoneaster frigidus</i>	Lilac	<i>Syringa vulgaris</i>
Daphne	<i>Daphne mezereum</i>	Laurustinus	<i>Viburnum tinus</i>
Hebes	<i>Hebe spp.</i>	Bodant Viburnum	<i>Viburnum x bodnantense</i>
Lavenders	<i>Lavandula spp.</i>		

### Native Wildflowers for Borders

Common Name	Latin Name	Common Name	Latin Name
Yarrow	<i>Achillea millefolium</i>	Toadflax	<i>Linaria vulgaris</i>
Agrimony	<i>Agrimonia eupatoria</i>	Yellow loosestrife	<i>Lysimachia vulgaris</i>
Corncockle	<i>Agrostemma githago</i>	Common mallow	<i>Malva sylvestris</i>
Chives	<i>Allium schoenoprasum</i>	Marjoram	<i>Origanum vulgare</i>
Harebell	<i>Campanula rotundifolia</i>	Common poppy	<i>Papaver rhoeas</i>
Cornflower	<i>Centaurea cyanus</i>	Cowslip	<i>Primula veris</i>
Greater knapweed	<i>Centaurea scabiosa</i>	Primrose	<i>Primula vulgaris</i>
Chicory	<i>Chichorium intybus</i>	White campion	<i>Silene alba</i>
Foxglove	<i>Digitalis purpurea</i>	Red campion	<i>Silene dioica</i>
Teasel	<i>Dipsacus fullonum</i>	Goldenrod	<i>Solidago virgaurea</i>

### REFERENCE

1. Natural England (2007). Plants for Wildlife-friendly Gardens: NE29.
2. RHS and the Wildlife Trusts (2015). Gardening with Wildlife in Mind. <http://www.joyofplants.com/wildlife/>.

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Sea hollies	<i>Eryngium</i> spp.	Devil's-bit scabious	<i>Succisa pratensis</i>
Lady's bedstraw	<i>Galium verum</i>	Tansy	<i>Tanacetum vulgare</i>
Meadow crane's-bill	<i>Geranium pratense</i>	Dandelion	<i>Taraxacum officinale</i>
Herb-robert	<i>Geranium robertianum</i>	Wild thyme	<i>Thymus drucei</i>
Dame's-violet	<i>Hesperis matronalis</i>	Great mullein	<i>Verbascum thapsus</i>
Field Scabious	<i>Knautia arvensis</i>	Germander speedwell	<i>Veronica chamaedrys</i>
Oxeye daisy	<i>Leucanthemum vulgare</i>	Spiked speedwell	<i>Veronica spicata</i>

## Cultivated Plants for Borders

Common Name	Latin Name	Common Name	Latin Name
Alliums	<i>Allium</i> spp.	California poppy	<i>Eschscholzia californica</i>
Hollyhock	<i>Althaea rosea</i>	Snowdrop	<i>Galanthus nivalis</i>
Yellow alyssum	<i>Alyssum saxatile</i>	Sunflowers	<i>Helianthus</i> spp.
Grecian windflower	<i>Anemone blanda</i>	Christmas rose	<i>Helleborus niger</i>
Angelica	<i>Angelica archangelica</i>	Lenten rose	<i>Helleborus orientalis</i>
Snapdragon	<i>Antirrhinum majus</i>	Candytuft	<i>Iberis sempervirens</i>
Alpine rock-cress	<i>Arabis alpina</i>	Poached-egg plant	<i>Limnanthes douglasii</i>
Michaelmas daisies	<i>Aster</i> spp.	Hybrids sweet alyssum	<i>Lobularia maritime</i>
Lilac bush	<i>Aubrieta deltoidea</i>	Honesty	<i>Lunaria rediviva</i> or <i>annua</i>
Borage	<i>Borago officinalis</i>	Sweet bergamot	<i>Monarda didyma</i>
Pot marigold	<i>Calendula officinalis</i>	Grape hyacinth	<i>Muscari botryoides</i>
Red valerian	<i>Centranthus ruber</i>	Forget-me-not	<i>Myosotis</i> spp.
Wallflower	<i>Cheiranthus cheiri</i>	Tobacco plant	<i>Nicotiana sylvestris</i>
Corn marigold	<i>Chrysanthemum segetum</i>	Evening primrose	<i>Oenothera biennis</i>
Cosmos	<i>Cosmos bipinnatus</i>	Phlox	<i>Phlox paniculata</i>
Spring crocus	<i>Crocus chrysanthus</i>	Black-eyed Susan	<i>Rudbeckia fulgida</i>
Sweet William	<i>Dianthus barbatus</i>	Scabious	<i>Scabiosa</i> spp.
Purple coneflower	<i>Echinacea purpurea</i>	Ice plant	<i>Sedum spectabile</i>
Globe thistle	<i>Echinops ritro</i>	French marigold	<i>Tagetes</i> spp.
Winter aconite	<i>Eranthis hyemalis</i>	Mulleins	<i>Verbascum</i> spp.
Fleabane	<i>Erigeron</i> spp.		

## Plants for Shady Areas

Common Name	Latin Name	Common Name	Latin Name
Bugle	<i>Ajuga reptans</i>	Bluebell	<i>Hyacinthoides non-scripta</i>
Lords and Ladies/ Cuckoopint	<i>Arum maculatum</i>	Yellow archangel	<i>Lamium galeobdolon</i>
Lilly of the Valley	<i>Convallaria majalis</i>	Daffodils	<i>Narcissus pseudonarcissus</i>
Foxglove	<i>Digitalis purpurea</i>	Primrose	<i>Primula vulgaris</i>
Wood avens	<i>Geum urbanum</i>	Sweet Violet	<i>Viola odorata</i>

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## PLANTS CONSIDERED BENEFICIAL TO BATS

The lists of plants below are considered suitable species for foraging bats. When buying native plants, ensure they are from a reputable source, as many wildflowers are illegally taken from the wild.

### Trees

Common Name	Latin Name	Common Name	Latin Name
Apple	<i>Malus domestica</i>	Plum	<i>Prunus domestica</i>
Bird Cherry	<i>Prunus padus</i>	Rowan	<i>Sorbus aucuparia</i>
Crab Apple	<i>Malus baccata</i>	Sugar Maple	<i>Acer saccharum</i>
Medlar	<i>Mespilus germanica</i>	Sycamore	<i>Acer pseudoplatanus</i>
Norway Maple	<i>Acer platanoides</i>	Whitebeam	<i>Sorbus aria</i>
Pear	<i>Pyrus communis</i>	Wild Cherry	<i>Prunus avium</i>

### shrubs

Common Name	Latin Name	Common Name	Latin Name
Field Maple	<i>Acer campestre</i>	Butterfly Bush	<i>Buddleja davidii</i>
Hazel	<i>Corylus avellana</i>	Golden Ball Buddleia	<i>Buddleja globose</i>
Hawthorn	<i>Crataegus monogyna</i>	Hebe	<i>Hebe spp.</i>
Heather	<i>Erica vagans</i>	Privet	<i>Ligustrum ovalifolium</i>
Cherry Laurel	<i>Prunus laurocerasus</i>	Wayfaring	<i>Viburnum lantana</i>

### Climbers

Common Name	Latin Name	Common Name	Latin Name
Dog Rose	<i>Rosa canina</i>	Ivy	<i>Hedera helix</i>
Guelder Rose	<i>Viburnum opulus</i>	Jasmine (night scented)	<i>Cestrum nocturnum</i>
Honeysuckle	<i>Lonicera periclymenum</i>		

### Herbaceous Plants

Common Name	Latin Name	Common Name	Latin Name
Angelica	<i>Angelica sylvestris</i>	Lemon Balm	<i>Melissa officinalis</i>
Aubretia	<i>Aubretia deltoidea</i>	Marjoram	<i>Origanum majorana</i>
Candytuft	<i>Iberis sempervirens</i>	Knapweed	<i>Centaurea nigra</i>
Corn Cockle	<i>Agrostemma githago</i>	Mallow	<i>Malva sylvestris</i>
Cornflower	<i>Centaurea cyanus</i>	Ox-eye Daisy	<i>Leucanthemum vulgare</i>
Corn Marigold	<i>Glebionis segetum</i>	Primrose	<i>Primula vulgaris</i>
Borage	<i>Borago officinalis</i>	Yarrow	<i>Achillea millefolium</i>
English Marigolds	<i>Calendula officinalis</i>	Rosemary	<i>Rosmarinus officinalis</i>
Lavender	<i>Lavandula spp.</i>	Sweet Cicely	<i>Myrrhis odorata</i>
Musk Mallow	<i>Malva moschata</i>		

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## **Appendix 4 – Bat Bricks**

## EXAMPLE BAT BRICKS AND BOXES

### Integrated Bat Box: Istock Enclosed Bat Box 'B'



Large 215 x 290mm



Large Bespoke  
215 x 290 mm



Small Red  
215 x 215 mm

The Istock Enclosed Bat Box 'B' is designed for integration into the wall of new buildings or conservation projects and is intended to provide summer roosting space for pipistrelles specifically. It provides a discrete home for bats, with several roosting chambers to provide zones of differing temperatures within the box. The bats are contained within the box itself and the entrance at the bottom allows droppings to fall out, meaning that the box is maintenance free.

### Integrated Bat Box: Standard bat Box



Bat boxes can be supplied in brick fronted, half bond and quarter bond brickwork or alternatively with a stainless-steel mesh fitted to the front. The mesh is designed for optimum adhesion in render and stonework applications. A basic version can be fitted directly behind weatherboarding or into studwork.

These bat boxes are best positioned in sunlit clusters, at a height of 3-6 metres and ideally facing a variety of aspects as bats will move around a building as the seasons change.

This product makes an ideal bat house for most of the UK's bat species, including Pipistrelles, who will use it for roosting, hibernating and (in maternity roosts) bringing up their young. The entrance hole and internal design can be tailored to suit different species of bat e.g. Bechstein's and Serotine.

The box is self-cleaning. The bat boxes are supplied with a non-removable front as standard.

#### SOURCE

<http://www.nhbs.com/title/16055>  
1

#### SOURCE

<http://www.birdbrickhouses.co.uk/brick-nesting-boxes/bat-box/>

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**External Bat Box: Schwegler 1FQ bat box**



The structure of the 1FQ has been designed with bat behaviour in mind. For example, the outside of the front panel has been roughened to enable the animals to land and hang onto it securely. Access is via a step-like recess which enables even young and inexperienced bats, to safely access the box. The inside of the box has rough pieces of wood incorporated which provide good insulation and are also used by the bats as perches. The internal layout provides three different areas from which bats can hang and which offer different levels of light and temperature. There are also non-slip areas, gaps ranging from 1.5 to 3.5cm in width and various places for individuals to hide.

Installation of the 1FQ is achieved using the four screws and plugs provided. The back panel is initially screwed onto the wall (using four screws) and then the front panel is attached to this. It can easily be attached to most types of external brick, timber or concrete and can also be placed inside a roof space. (If fixing to timber then the gaps between the wall and the box should be sealed with silicone to prevent moisture being trapped here). The box should be positioned a minimum of three metres above the ground and where there is a clear flight path for bats entering and leaving. If desired, the front panel can be painted to match your building using an air-permeable paint.

**SOURCE**  
<http://www.nhbs.com/title/16055>  
1

**External Bat Box: 1FF Schwegler Bat Box with Built-in Wooden Rear Panel**



The Schwegler 1FF bat box is spacious enough for bats to use as a summer roost or nursery site and is open at the bottom, allowing droppings to fall out so it does not need cleaning. The 1FF is, therefore, especially suitable for hanging in inaccessible places such as high in trees, or on steep slopes and house walls.

The 1FF is manufactured from long-lasting Woodcrete, which is a blend of wood, concrete and clay which will not rot, leak, crack or warp, and will last for at least 20 - 25 years, making it suitable for long-term mitigation projects.

The inner dimensions of the 1FF have a reducing width making it ideal for bat species which inhabit crevices such as pipistrelle and noctule bats. For conservation projects and studies, the entire front of the box can be easily swung open for inspection purposes.

The 1FF bat box can be sited in trees or on buildings and is best positioned at a height of between 4 to 6 metres.

**SOURCE**  
<https://www.nhbs.com/1ff-schwegler-bat-box-with-built-in-wooden-rear-panel>

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**Example Bat Bricks & Boxes**

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### External Bat Box: 2F Schwegler Bat Box with Double Front Panel



This box has a front panel and a second inner wooden panel fitted to it to create a cavity wall. This provides ideal quarters for bats that inhabit crevices, such as Nathusius' Pipistrelle (*Pipistrellus nathusii*), Daubenton's Bat (*Myotis daubetonii*) and the Common Pipistrelle (*Pipistrellus pipistrellus*).

It has been designed as a summer roosting space for bats and has a simple entrance hole at the front. The Schwegler 2F double front panel is removable and can be converted in to a bird nest box using a replacement 1B front panel if there is no evidence of bat activity after a couple of years. The 2F Double Front Panel is manufactured from long-lasting Woodcrete, which is a blend of wood, concrete and clay which will not rot, leak, crack or warp, and will last for at least 20 - 25 years, making it suitable for long-term mitigation projects. Woodcrete is breathable and maintains a stable temperature inside the box and the 2F is painted black to absorb warmth. It also provides a good rough surface for bats to cling on to and climb.

The 2F Double Front Panel bat box can be sited in trees or on buildings and is best positioned at a height of between 3 to 6 metres.

**SOURCE**

<https://www.nhbs.com/vincent-pro-bat-box>

### External Bat Box: Vincent Pro Bat Box



This attractive bat box has been designed by leading bat researcher, Collin Morris, based on a tried and tested design from the Vincent Wildlife Trust.

The box features three vertical chambers of different sizes, providing ideal roosting space for a variety of species. Beneath the crevice entrances is a ladder which provides a rough surface for bats to land.

Proven with seven UK species: Barbastelle, Leisler's, common pipistrelle, soprano pipistrelle, brown long-eared, Natterer's and whiskered bat.

**TITLE**

**Example Bat Bricks and Boxes**

**DATE**

20/07/2020

**Please note that once bats have inhabited a roost (integrated or external box) they may only be disturbed by licensed bat workers.**

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