

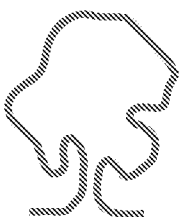
MR & MRS P VOLLER



TARS FARM, CHURCH LANE, BARNHAM, BOGNOR REGIS PO22 0DB

Bat Daylight and Evening Emergence Survey

July 2013



eas ltd
Environmental Assessment Services Ltd

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Bat Survey

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Bat Survey

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MR & MRS P VOLLER

TARS FARM, CHURCH LANE, BARNHAM, BOGNOR REGIS PO22 0DB

Bat Survey

July 2013

NON-TECHNICAL SUMMARY

1. BACKGROUND

- 1.1 Environmental Assessment Services Limited has been instructed to undertake a bat daylight and evening emergence survey at Tars Farm, Church Lane, Barnham by Mr & Mrs Paul Voller.
- 1.2 The site comprises a small cluster of redundant agricultural buildings with a central, unsurfaced yard and access track extending northeast from the buildings before heading southeast where it joins Church Lane. The Ordnance Survey map reference for the centre of the site is SU 9565 0420.
- 1.3 The proposed application is for the redevelopment of existing redundant agricultural buildings and yard area to residential use with stables, garaging and stores access via the existing track.
- 1.4 Bat records have been obtained from the Sussex Biodiversity Records Centre for the site and a 1 km radius surrounding the site. There are records of serotine (*Eptesicus serotinus*), pipistrelle (*Pipistrellus sp*) and long-eared (*Plecotus*) bats within the local area.
- 1.5 Three experienced bat surveyors were appointed from Batbox Limited to undertake a bat daylight and emergence survey. A detailed survey report prepared by Batbox Ltd is provided in Appendix A.

2.0 BAT SURVEY METHOD

- 2.1 The site was surveyed on 15 July 2013. The site work comprised one daylight survey and an evening emergence survey.
- 2.2 The daylight survey comprised:
 - Search of buildings both internally and externally for bats and evidence of bats such as droppings, staining from urine or oil from bats fur, feeding waste and corpses.
 - Identifying potential bat roosting places and access points.
 - Assessing the surrounding habitat for probable bat use.

2.3 The evening emergence survey comprised:

- Surveying after dusk during good weather conditions for bat activity. Three surveyors watched the building for emerging bats. Surveyor 1 located to the southeast of the site and checking inside buildings 1 and 2, surveyor 2 located to the northwest of the site, and surveyor 3 located in the central yard and checking inside buildings 3 and 4.
- Batbox Griffins, Batbox Duet and recording equipment for later analysis with batScan software were used to listen for bat' social chattering and echolocation calls and to identify any bats heard to species level.

3.0 BAT SURVEY RESULTS

- 3.1 The farm buildings are fairly isolated and exposed, surrounded by agricultural land with few hedgerows or tree lines linking the site to other roosting or foraging habitat. The building complex may provide a sheltered foraging area for bats within the open farmland.
- 3.2 The site layout, building description, potential for bat use and evidence of bat use identified during the daylight survey and evening emergence survey are presented in Figure 1 and Table 1 below.
- 3.3 During the evening emergence survey very little bat activity was heard within the area. This included two distant passes and an overhead pass from a noctule bat (not from this site) and the arrival of a common pipistrelle, which arrived from the north and remained foraging around the barns. No bats emerged from any of the buildings on the site.

FIGURE 1: Site Layout

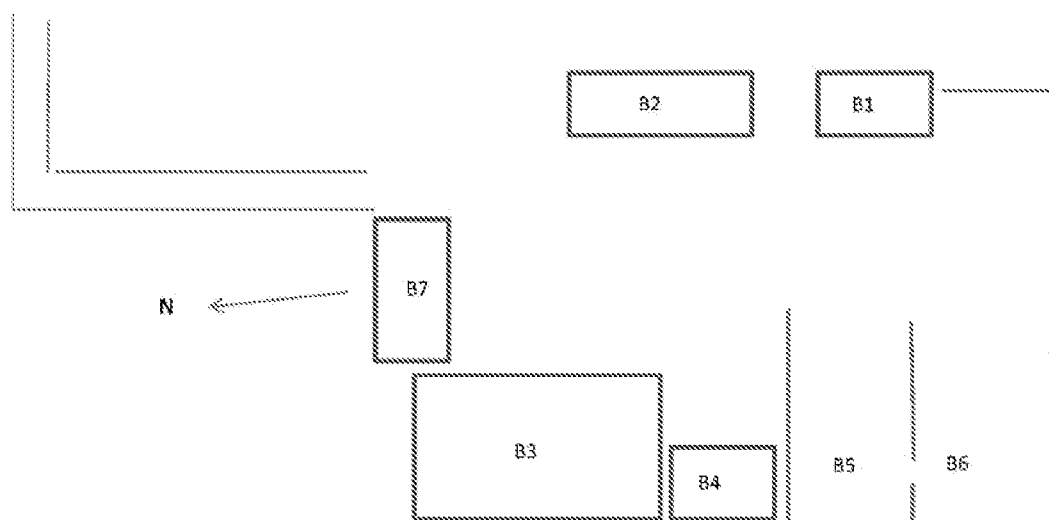


TABLE 1: Survey Results

Building No.	Building description	Bat potential	Evidence of bat use
B1	Single storey brick and flint barn/lodge with unlined, slate tiled pitched roof.	Medium: Some potential for bats to roost in wall crevices and above roof timbers.	Daylight: None found Emergence: No bats emerged from the building.
B2	Modern concrete block barn with felt lined, pitched, concrete tiled roof over timber frame.	Medium: Access and roosting potential in the form of missing roof tiles, holes in the roofing felt and wall cavities.	Daylight: None found Evening: No bats emerged from the building.
B3	Modern concrete block barn with pitched, fibre-cement roof over metal frame.	Low: although some limited potential for roosting behind barge boards or overlapping roofing materials.	Daylight: None found Emergence: No bats emerged from the building.
B4	Lean-to type 'building' with corrugated metal roof over timber frame.	Low	Daylight: None found Emergence: No bats emerged from the building.
B5	Three walls (in part) of an old brick a flint barn with arrow slots.	Low	Daylight: None found Emergence: No bats emerged from the building.
B6	Concrete block walls (in part) from a former building (cow shed?).	Low	Daylight: None found Emergence: No bats emerged from the building.
B7	Low concrete block building without a roof.	Low	Daylight: None found Emergence: No bats emerged from the building.

4.0 CONCLUSIONS

- 4.1 The brick and flint barn and the adjacent modern barn to the east of the yard were found to have medium potential for bats. The other buildings are considered to have low bat potential. No evidence of bat use was identified within or around any of the buildings during the daylight survey and no bats emerged from any of the buildings during the evening emergence survey.
- 4.2 The site, although isolated, is used by a small number of bats (thought to be roosting north or east of the site) for foraging.

- 4.3 In this case, a Natural England Bat Mitigation Licence will not be required before the proposed development works commence. However, it is considered possible that bats may move into the site in the future. If bats are found within the site prior to or during development works, work should stop and advice must be sought from a suitably qualified person. If bats are found at that stage, a licence may be required.

5.0 RECOMMENDATIONS

- 5.1 Due to the presence of bats within the local area it is recommended that some roosting features are incorporated into the redevelopment of the site in order to increase the biodiversity potential of the site and to compensate for the loss of potential roosting sites within the existing buildings (principally building 1 and 2).

- 5.2 Roosting provisions for bats in this case may include:

- Bat ‘tubes’, or other purpose made roosting units, on the walls at high level.
- Creation of roosting features by partially enclosing some of the arrow slots on the exterior of the old flint walls.

See attached examples at the end of the report in Appendix A.

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APPENDIX A
Batbox Limited - Bat Survey Report

Batbox Ltd

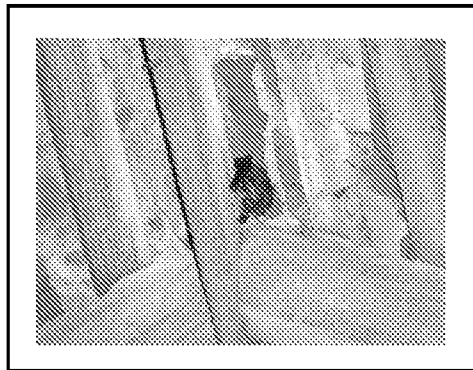
Unit 2A Chanctonfold

Horsham Road

Steyping

West Sussex BN44 3AA

Tel. 01903 816298



BAT SURVEY REPORT

Site: Tars Farm Barns
Church Lane
Barnham
Bognor Regis
West Sussex

Client Environmental Assessment Services Ltd
Unit 3, Westside
London Road
Hickstead
Haywards Heath
West Sussex RH17 5LZ

Surveyors: D P King (NE Sc. Bat Lic. No.20123676
S L Wright (NE Sc. Bat Lic. No. 20123675)
W Boswell-Wright

Date: 15th July 2013

Executive Summary

On 15th July 2013, three surveyors from Batbox Ltd undertook a daytime bat survey followed by an evening emergence check/bat detector survey of a group of largely redundant farm buildings known as Tars Farm Barns in Barnham, West Sussex. The survey was undertaken on behalf of Environmental Assessments Ltd, acting for the owners of the site. It is understood that planning permission is being sought to convert the existing buildings for use as residential accommodation with stabling and a holiday let.

At this time of the year female bats are in their summer maternity roosts and young bats will have been born. During this survey weather conditions were ideal for bat activity and all bats, apart from any dependent young, will have emerged to feed on their insect prey.

The farm buildings are in a fairly isolated and exposed situation, surrounded by agricultural land with few hedgerows or tree-lines linking the site to other roosting or foraging habitat.

During the daytime survey no evidence of bat use was found in the buildings although some potential for bats to roost was noted, particularly in the relatively modern barn, Building 2, where there are missing roof tiles and gaps in the roofing felt below.

During the evening survey, the surveyors were positioned around the site to watch for any emerging bats. Bat detectors were used to listen to bats' echolocation calls and recordings were made for later computer analysis, to identify any bats heard to species level. No bats emerged from roosts in the buildings during this survey and apart from a small number of passes from bats flying high overhead, no bats were recorded on the site until late in the evening. It is presumed that these bats visited the site to forage and were roosting in buildings or trees to the north or east.

As no bats are roosting on the site at the present time, or appear to have roosted there in recent years, a Natural England Bat Mitigation Licence will not be required before the proposed works can go ahead. However, bats are active in the area and as there is some potential for bats to gain access to gaps in the buildings, it is possible that bats might move into the barns in the future. If bats or evidence of bats is found before or during works, work should stop and further advice must be sought.

As an aid to local biodiversity and in case potential roosting places are lost, it is recommended that purpose made bat roosting units are incorporated into the redeveloped buildings. This could be achieved by fitting bat 'tubes' or other purpose made roosting units into walls at a high level. Further advice on this is available on request.

A currently disused barn swallow nest was noted in Building 2. Provisions for nesting barn swallows should be incorporated into the redeveloped site. Nesting birds are protected by law and must not be disturbed. A little owl was heard on the site at the start and at the end of the survey period.

1. Introduction

- 1.1 Three surveyors from Batbox Ltd undertook a daytime search and an evening emergence check/bat detector survey of the group of largely redundant farm buildings known as Tars Farm Barns, Church Lane, Barnham, West Sussex, on the evening of 15th July 2013. Two surveyors hold Natural England Scientific Bat Licences and one is a trainee.
- 1.2 By mid July female bats and their young are present in their summer maternity roosts. Males will be roosting singly or in small groups. All bats, apart from any dependent young, will emerge to feed on their insect prey during mild and dry evenings. The weather was ideal for bat activity during this survey.
- 1.3 Recommendations from the Bat Conservation Trust's Bat Surveys: Good Practice Guidelines 2nd Edition* were followed for the course of this survey.

2. Background

- 2.1 This bat survey was undertaken on behalf of Environmental Assessment Services acting for the owners of the site. It is understood that planning permission is being sought by the owners to redevelop the site to provide residential accommodation with stabling and a holiday let cottage.
- 2.2 The farm buildings are in a fairly isolated and exposed situation, surrounded by agricultural land with few hedgerows or tree-lines linking the site to other roosting or foraging habitat. Bats generally prefer good connectivity in order to commute between feeding and roosting areas and this site is rather too exposed to be ideal for bat use. A busy railway line runs close to the site.
- 2.3 The site comprises seven buildings of varying ages and condition. See plan attached. Only one relatively modern barn appears to be in use at the present time; this is used for the storage of hay. The other buildings consist of a second more modern barn, an old flint built, slate roofed single storey building, a partially collapsed lean-to, a collapsed pig-sty/sheep-shed, a ruinous old flint barn and attached roofless cow-byre.

3. Daytime Survey - Methodology

- 3.1 Exterior
Where accessible, an inspection was made of features suitable for bats to use for access or roosting on the exterior of the buildings. The surveyors searched for evidence of bat use, such as bat droppings on walls and on the ground below possible roost entrances. Binoculars were used to check features at higher levels. Potential bat roosting places and access points were noted.
- 3.2 Interior
The surveyors used torches to search the interiors of the buildings, checking for bats and evidence of bat use, such as bat droppings, urine stains, insect remains dropped from feeding 'perches' and staining, from the oil on bats' fur, around well used roosting and access points. The surveyors also assessed the potential of the buildings for bat use.
- 3.3 Photographs were taken of all potentially relevant features and detailed notes were taken.

4. Daytime Survey – Results

- 4.1 The buildings have been numbered on the attached plan to aid identification of the locations discussed in this report.

4.2 Building 1

A single storey building with flint walls, an unlined slate roof, an open doorway and bricked up windows. There is a large hole in the roof. No bats or evidence of bats was found within the building but there is considered to be some potential for bats to roost in crevices in the walls and above roof timbers.

4.3 Building 2

This more modern building is constructed of blocks with a pitched concrete tiled roof, lined internally with roofing felt. The roof is constructed with trussed timber rafters. The floor of the barn is covered with dried manure, hampering a search for bat droppings. There are a number of missing roof tiles and also holes in the roofing felt, which offer potential access points and roosting places for bats. A small number of holes were noted where bats could gain entry to cavities within the block walls. The large doorway is open offering good access for bats into the interior. No bats or evidence of bat use was found but the potential of this barn, for bat use, is considered to be medium.

A currently disused barn swallow nest was noted in Building 2.

4.4 Building 3

This relatively modern building is currently being used as a hay store. The walls are constructed of block and it has a pitched corrugated asbestos type roof over a metal frame. The large sliding doors are kept shut. The floor had been swept in readiness for the storage of hay at the time of this survey. No bats or evidence of bats was seen and the potential of this building for bat use is considered to be low, although there is a possibility that bats might find a roosting place behind barge boards or any overlaps in roofing materials.

4.5 Building 4

This open-fronted building has a sloping, corrugated iron roof with a timber frame and some roof supports made from old telegraph poles. The roof is in danger of collapse. Building 4 is joined to one of the old walls from the now ruinous flint barn. No bats or evidence of bats was seen and the potential of this building, for bat use, is considered to be low.

4.6 Building 5

Only ruined walls, with a few remaining 'arrow' slots, remain of this large old flint barn. A search of interior walls was hampered by nettles and other thick vegetation. The old barn is considered to offer a low potential for bat use.

4.7 Building 6

This ruined building appears to have been a cow shed, once attached to the old flint barn. Little remains of this building, which is considered to have a low potential for bat use.

4.8 Building 7

This low, block building is in a state of collapse but appears to have once housed pigs or sheep. The potential for bat use is considered to be low.

- 4.9 The barns offer a sheltered foraging area for bats within an area of open farmland. However,

the relative lack of hedgerows, tree-lines or other linear features leaves the site rather exposed and isolated to be ideal for regular use by bats.

5. Evening Emergence Check/Bat Detector Survey – Methodology

- 5.1 At dusk, when bats emerge from their roosting sites to feed, the surveyors were positioned so as to get the best possible view of any bats exiting the buildings or arriving at the site.

Surveyor 1: At the south east of the site and checking the interior of buildings 1 + 2 (SLW)

Surveyor 2: At the north west of the site (DPK)

Surveyor 3: In the centre of the site and checking the interiors of buildings 3 + 4 (WBW)

DPK – David King, SLW – Sheila Wright, WBW – Willow Boswell-Wright

- 5.2 The surveyors used Batbox Griffins (time-expansion recorders) and a Batbox Duet (frequency division bat detector) to listen for bats' echolocation calls and to identify any bats heard to species level, where possible. Recordings were made for later computer analysis with BatScan software. Prior to bats' emergence time, the surveyors used bat detectors to listen for pre-emergence 'chatter', sometimes heard from bat colonies before they leave their roost.
- 5.3 This survey was undertaken on a very warm evening, ideal for bat activity. It was dry and calm with a temperature of 20°C at the start of the survey period. The evening emergence check/bat detector survey started at 20:45. Sunset was at 21:11.

6. Evening Emergence Check and Bat Detector Survey – Results

- 6.1 No 'roost chatter' was heard and no bats were seen emerging from the buildings.

Bats heard were as follows:

Time	Species	Activity
21:25	noctule (<i>Nyctalus noctula</i>)	distant pass - flying high overhead. not from this site.
22:00	as above	as above
22.10 -22:26	45kHz pipistrelle (<i>Pipistrellus pipistrellus</i>)	arrived at site from north, remained foraging around barns
22:15	noctule	pass overhead

7. Conclusions and Recommendations

- 7.1 No bats emerged from roosts in the buildings during this survey and apart from a small number of passes from bats flying overhead, no bats were recorded on the site until late in the evening.

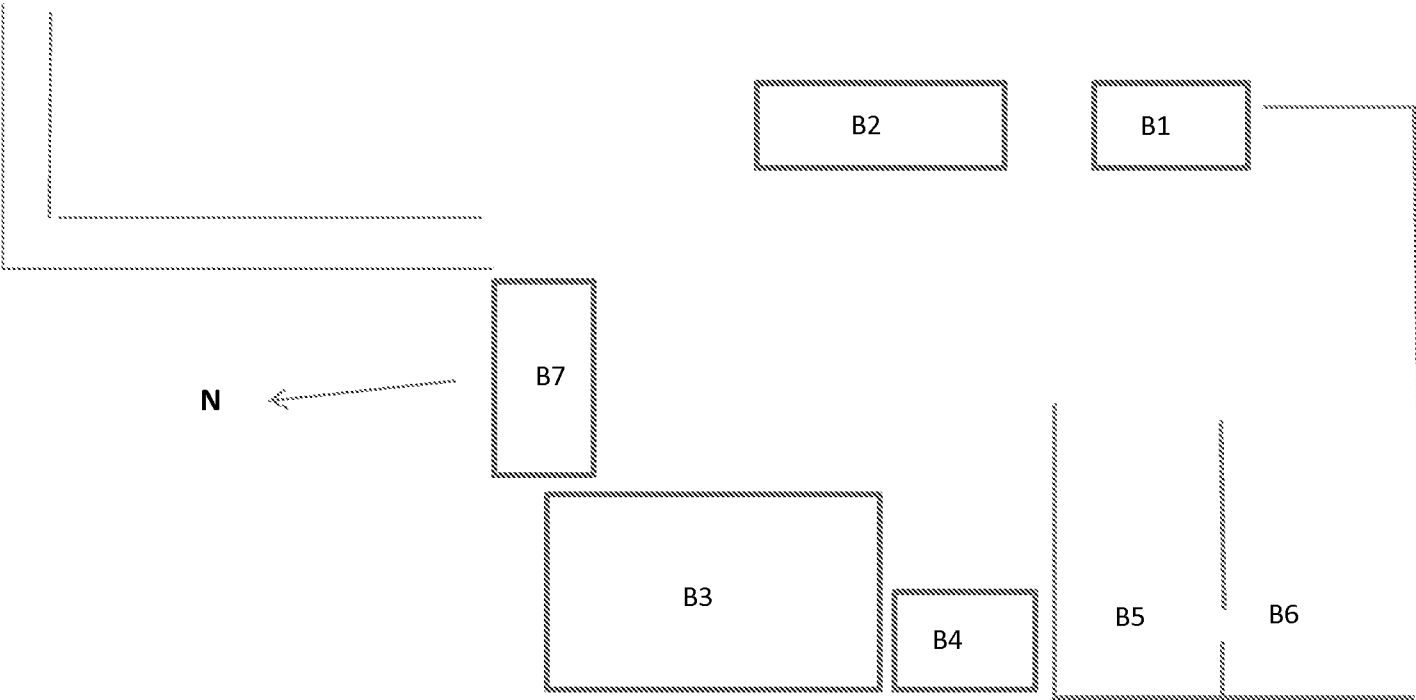
It is presumed that these bats visited the site to forage and were roosting in buildings or trees to the north or east. Therefore, a Natural England Bat Mitigation Licence will not be required before the proposed works can go ahead. However, bats are active in the area and as there is some potential for bats to gain access to gaps in the buildings, it is possible that bats might move into the barns in the future. If bats or evidence of bats is found before or during works, work should stop and further advice must be sought. If significant evidence of bat activity is found a Natural England Bat Licence may then be required.

- 7.2 As an aid to local biodiversity and as a precaution in case potential roosting places are lost, it is recommended that purpose made bat roosting units are incorporated into the redeveloped buildings. This could be achieved by fitting bat ‘tubes’ or other purpose made roosting units into walls at a high level. Another option would be to partially enclose some of the ‘arrow slots’ on the exterior of the old flint barn, when walls are restored, to provide potential roosting sites. Further information on these measures is included with this report.

A currently disused barn swallow nest was noted in Building 2. Provisions for nesting barn swallows should be incorporated into the redeveloped site. Nesting birds are protected by law and must not be disturbed. A little owl was heard on the site at the start and at the end of the survey period.

* The Bat Conservation Trust – Bat Surveys: Good Practice Guidelines 2nd Edition - ISBN-13: 9781872745985

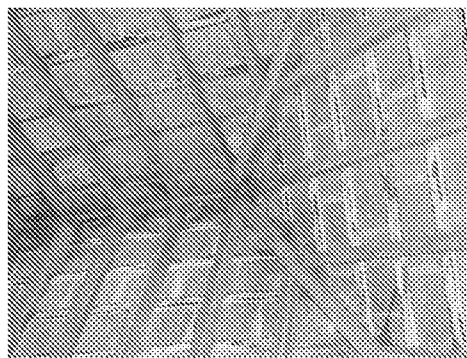
Tars Farm Barns



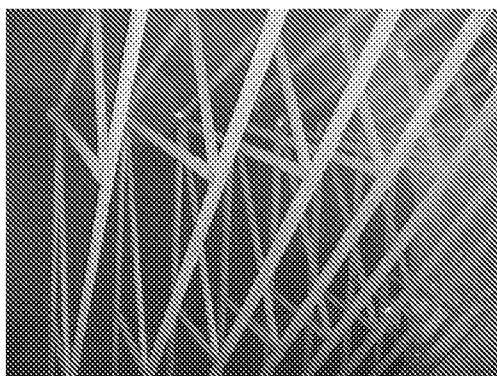
Tars Farm Barns



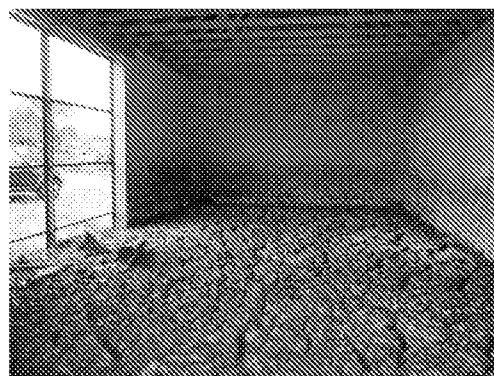
Building 1



Interior of Roof, Building 1



Interior of Roof, Building 2



Interior, Building 2



Building 3



Interior, Building 4

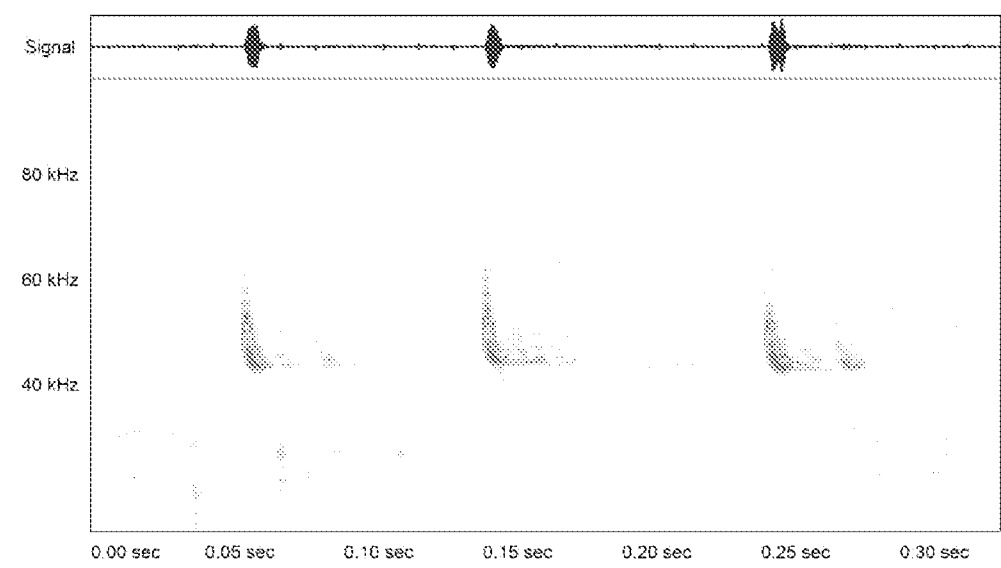


Remains of Building 7 through to Building 2

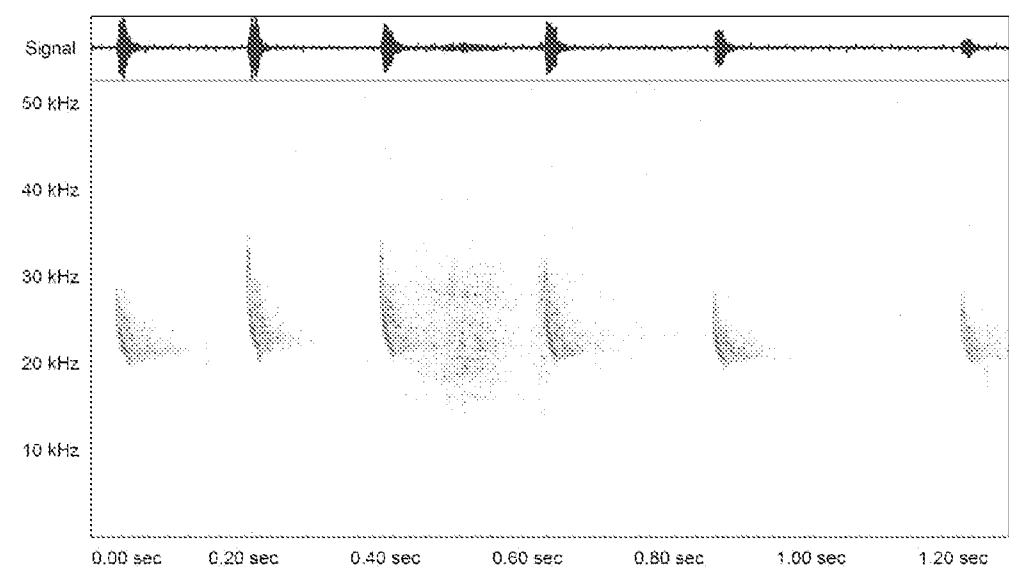


Building 4 and remains of Buildings 5 & 6

Tars Farm - Bat Sonagrams



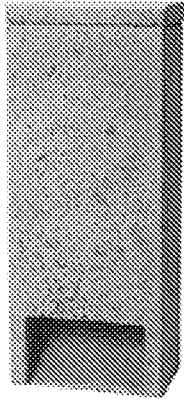
45kHz pipistrelle (*Pipistrellus pipistrellus*)



Noctule (*Nyctalus noctula*)

1FR Bat Tube

| [Schwegler Bat Boxes for Building](#) | 1FR Bat Tube



Schwegler 1FR Bat Tube

Code: 002057D

Formerly the No 750/6 Bat Tube.

Brick boxes are designed for buildings, or underneath bridges, arches or tunnels, where conditions are relatively humid. They are particularly useful for new buildings or bridges to attract bats, or to provide new roost sites where existing buildings with bats are being renovated.

This long box can be installed within brick masonry, beneath plasterwork or wood panelling, or incorporated into concrete structures such as factory buildings or bridges. Inside it contains a woodcrete surface, a roughened wood board, and a metal mesh, providing a choice of roosting areas depending on the weather conditions and the bats' habits. This box is maintenance-free as the entrance slit is at the bottom.

No painting required, but if painting is necessary a natural breathable paint should be used.

Positioning: can be installed on external walls either flush or beneath a rendered surface.

Material: Woodcrete (75% wood sawdust, concrete and clay mixture)

Width: 20cm

Height: 47.5cm

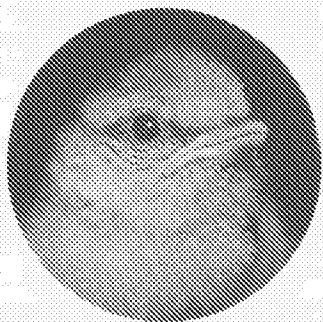
Depth: 12.5cm

Entrance Width: 15cm

Entrance Depth: 2cm

Weight: 9.5kg

What's in it for us?



The Bird Brick House is a new and innovative way to provide permanent nesting holes and roosting sites as an integral part of the fabric of a building. It is the simplest, most cost-effective means of reversing the trend of traditional nesting habitat loss.

Planners and Conservation Officers are looking ever more closely at ways to reduce the impact of building development on the environment, especially on the birds, animals and insects that are displaced. Building plans which show a sympathetic approach to this stand a better chance of gaining planning permission. Increasingly, the inclusion of nesting sites in planning applications is becoming mandatory.

For developers and house builders this provides a simple, inexpensive and assured way to help in successfully discharging planning conditions.

For householders it brings excitement and interest and the pleasure of helping biodiversity.

The Bird Brick House Story

Duncan and Jenny McCutcheon have combined their experience of 25 years in the building trade and years of installing and monitoring their own nest boxes in East Sussex. During that time they have seen building styles offer fewer and fewer opportunities for wildlife so they wanted to find a way to reverse this trend – hence Bird Brick Houses.

Duncan started to build nest sites in stone and flint walls in 2001. There have had excellent results, becoming homes for birds like wrens, nuthatches and house sparrows and two groups of masonry bees. Sadly, they are not able to be cleared out, so have become full of material and unable to be used after a time. In contrast, Bird Brick Houses are permanent and the front is removable so they can be easily cleaned out and will be used for decades to come.

Production

We cut and fit brick slabs to the bird box front plate using your exact brick specification.

If you would like more information, sample or to discuss how Bird Brick Houses could work for you, please contact Jenny or Duncan on the number or email address below.

Please refer to our website for pricing. Discounts are available for large orders.



Bird Brick Houses



Bird Brick Houses Ltd,
Willow Cottages, Homebearing Lane,
Hailtham, East Sussex BN27 1EP
Tel: 01323 849322 Mob: 07415 067051
www.birdbrickhouses.co.uk
enquiries@birdbrickhouses.co.uk

For Funding see No. 10061903

Registration Charitable Design No:
01017936-0001/0015/0065/0012/0013/0065/0003
Company Registration No. 0826460



Support for Swifts



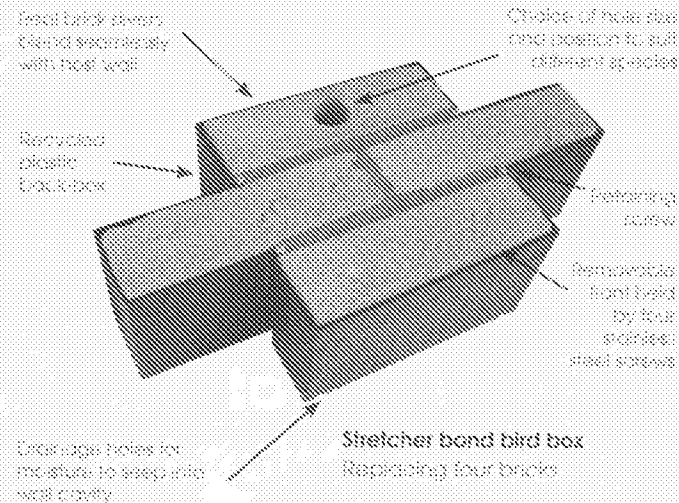
Habitat construction for hole-nesting birds and bats

Cleverly designed
nest boxes
with the removable
brick front

Bird Brick Houses
www.birdbrickhouses.co.uk

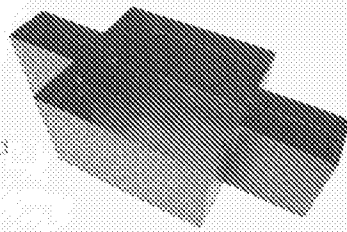
This is how it works

Permanent nest sites for hole-nesting birds and most British bat species.



Applications

- New builds
- Extensions
- Commercial buildings
- Village halls, hospices and hospitals, schools etc
- Garden and park walls
- Retrospective
- Brick or rendered properties
- Retail parks

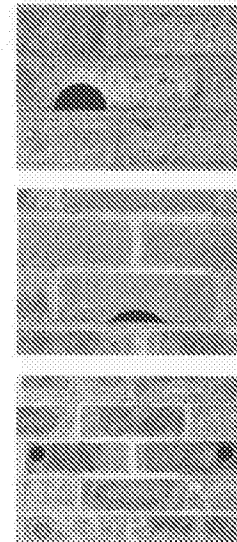


Main housing of box with front removed

Specification and features

The box is designed to fit into the brick bond of the host wall. It will fit into a 75mm half bond and some Imperial 3 inch half bond brickwork. It can be fitted in new walls during construction or retrospectively in existing walls.

Brick slivers are cut off the face of bricks matching the host wall and bonded to the box front plate. One sliver will have a bird access hole cut into it - 25, 28, 32 or 50mm, dependent on target bird species, or a slot for bats. Four stainless steel screws hold the removable brick-faced front plate to the box. This means the box blends in seamlessly with the host wall. All that is visible is the access hole.

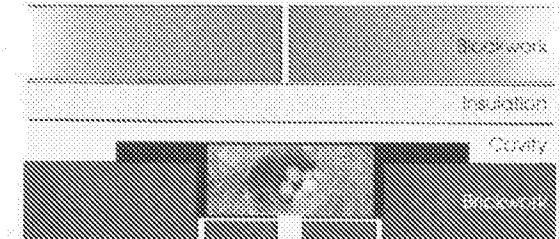


From top, wall, bat and sparrow access. Bat access built in situ.

- Removable front enables cleaning and monitoring
- More predator-proof, weather resistant and wind resistant than a conventional wooden box
- More suitable environment due to less fluctuations in temperature
- Lasts the lifespan of the building so better value
- Can be fitted with a camera at a later date

Installation

Your bricklayer mortars the boxes at your specified positions. Completed boxes take only a matter of a few minutes to install. We do offer a full fitting service for installers in existing structures.



Plan view illustration of box in cavity wall

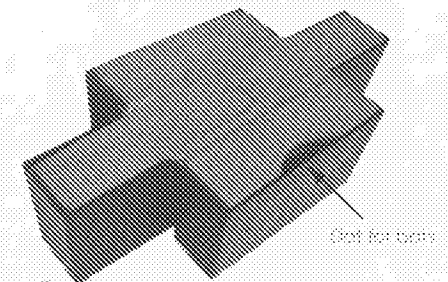
The entrance hole size depends on the species you hope to attract:

- 25 mm for blue, coal and marsh tit
- 28 mm for great tit, tree sparrow and pied flycatchers
- 32 mm for house sparrow and nuthatches
- 50 mm for starlings
- 80 mm crescent hole for swifts
- Slot for bats

A bespoke home for bats

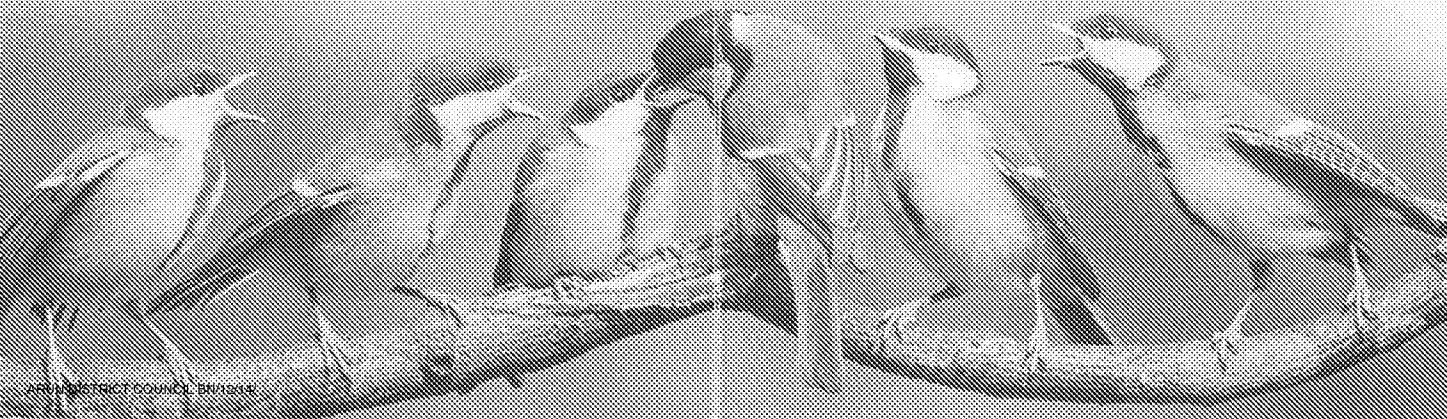
This bat box suits most bat species and is self-cleaning due to its angled base.

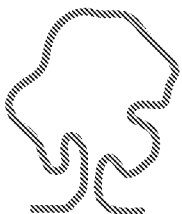
Baffle fixed to box to allow to removable for monitoring



Stretcher Bond Bat Box Exterior and Interior

Angled wooden base enables self-cleaning





eas ltd

Environmental Assessment Services Ltd

London Road, Hickstead, Haywards Heath, West Sussex RH17 5LZ UK

