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Tyrer Ecological Consultants Ltd, Roselands, 3 Cross Green, Formby L37 4BH

Dusk Survey Results

August 2023

Clyde Court

22-24 Lapwing Lane

Manchester

M20 2NS

National Grid Ref: SJ84199223



Clyde Court, 22-24 Lapwing Lane, Manchester, M20 2NS
Dusk Survey Results

Document Title	Dusk Survey Results
Prepared for	Wilmslow Road Investments Ltd
Prepared by	Tyrer Ecological Consultants Ltd

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Survey Dates	Dusk 1:	19/06/2023	Dusk 2: 03/07/2023
Reviewed by	Mr. J. Pescod Qualifying CIEEM		
Review date	16/08/2023		
Approved by	Mrs. K. Wilding CEnv MIEMA ACIEEM		
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1.0 Background and Introduction

- 1.1 As part of a proposed planning application regarding 22-24 Lapwing Lane, Manchester, Tyrer Ecological Consultants Ltd conducted a daytime preliminary roost assessment in relation to bats with an inclusive inspection for breeding birds in May 2019, which concluded the following:

“Bats: Based upon the findings of the survey Clyde Court 22-24 Lapwing Lane holds ‘Moderate’ bat roost suitability in accordance with the Bat Conservation Trust - Bat Surveys for Professional Ecologists: Good Practice Guidelines, 3rd ed. (2016).”

- 1.2 Proposals are understood to involve the conversion and extension of the building to form a terrace of five three-storey dwellinghouses and erection of a detached three-storey dwellinghouse fronting Clyde Road, with associated landscaping and car parking.
- 1.3 Tyrer Ecological Consultants Ltd were therefore commissioned by Wilmslow Road Investments Ltd on behalf of their client, to undertake the recommended further bat surveys as recommended in the preliminary survey report; the surveys (two dusk emergence) were carried out in July 2019 in accordance with Bat Conservation Trust (BCT) Guidelines during the active season of bats (see **Figure 1.1**).

Table 7.3 Recommended minimum number of survey visits for presence/absence surveys to give confidence in a negative result for structures (also recommended for trees but unlikely to give confidence in a negative result).		
Low roost suitability	Moderate roost suitability	High roost suitability
One survey visit. One dusk emergence or dawn re-entry survey ^a (structures). No further surveys required (trees).	Two separate survey visits. One dusk emergence and a separate dawn re-entry survey. ^b	Three separate survey visits. At least one dusk emergence and a separate dawn re-entry survey. The third visit could be either dusk or dawn. ^b

Figure 1.1 - Extract from Bat Conservation Trust – Bat Surveys for Professional Ecologists: Good Practice Guidelines, 3rd ed. (2016)

- 1.4 During the 2019 surveys, a maximum total of four common pipistrelle (*Pipistrellus pipistrellus*) were recorded emerging from two separate roost entrances on the eastern elevation; beneath the open eaves and from beneath the timber fascia. The building was duly categorised as a ‘Day roost’ for low numbers of common pipistrelle bats.
- 1.5 Following a significant delay in completion of the original suite of surveys and commencement of the development proposals, Tyrer Ecological Consultants were re-commissioned to undertake update dusk emergence surveys in 2023; the two surveys were completed in June and July 2023, in line with current BCT guidance.
- 1.6 The results, conclusions and recommendations following the surveys, including any indicative mitigation to inform an application to Natural England for a European protected species mitigation licence (EPSML), where necessary, will be supplied within this report.
- 1.7 This report should be read, understood, and presented to the local authority as an additional document to **Appendix I** and **Appendix II** (see contents page).
- 1.8 In accordance with *Biodiversity Net Gain: Good practice principles for development* (CIEEM et al, 2019), measures have been recommended proportionate to anticipated impacts to ensure that the proposed development results in a biodiversity net gain.

2.0 Bats - Legislation & Policy

2.1 All British bats and their ****roosts**¹ are afforded protection under Schedule 5 of the Wildlife & Countryside Act (1981) (as amended) and are listed in Schedule 2 of The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 (SI 2019/579). When dealing with cases where a European Protected Species (EPS) (all UK bats) may be affected, a planning authority is a competent authority within the meaning of the Regulation 7 of the Regulations, that has a statutory duty as the local authority to have due regard to the provisions of the Regulations in the exercise of its functions.

2.2 Use of Buildings by Bats

- a) Summer breeding roost (May-August)
- b) Hibernation roost (October-March)
- c) Transitional or temporary roost (Mainly spring/summer months)

Roost selection is often closely correlated to suitable foraging habitat within a reasonable commuting distance from the roost and different sites are used depending upon insect densities and abundance, climatic conditions can also affect their ability to successfully forage. All British bats are insectivorous.

Policy

2.3 Paragraph 180 of the National Policy Planning Framework (as revised in July 2021) states:

180. When determining planning applications, local planning authorities should apply the following principles:

a) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;

b) development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;

c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists; and,

d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be

¹ ******The term roost is generically referred to as a place that bat/s use for the any of the above reasons, however it should be noted that under the Conservation of Habitats and Species Regulations (2019) (EU Exit) (Regulation 43 (d) the term roost is not used but refers to “a *breeding site or resting place of such an animal*” and is afforded legal protection. The roost, breeding site or resting place of bats, which ever terminology is used is legally protected whether or not bats are in occupation.

integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.

- 2.4 Policy EN15 of the Manchester Core Strategy 2012 to 2027, titled Biodiversity & Geological Conservation, echoes this national focus on ecological conservation, and states:

“Developers will be expected to identify and implement reasonable opportunities to enhance, restore or create new biodiversity, either on-site or adjacent to the site, contributing to linkages between valuable or potentially valuable habitat areas where appropriate...”

and:

“Where adverse impacts are unavoidable, developers will be required to provide appropriate mitigation and/or compensation”, “It is important to recognise that brownfield sites often contain diverse and valuable biodiversity.”

3.0 Protected Species in Greater Manchester

- 3.1 Up to ten species have been recorded in Greater Manchester, most of which use built structures notably occupied residential properties for roosting - also trees. Bats (*Chiroptera*) feature on the Greater Manchester BAP and all are fully protected by UK legislation. The most frequently encountered bat species is the common pipistrelle (*Pipistrellus pipistrellus*) and its abundant status in Greater Manchester is reflected throughout the UK.

4.0 Survey Methods

- 4.1 Bat Conservation Trust - Bat Surveys for Professional Ecologists: Good Practice Guidelines, 3rd ed. (2016) edition states: -

“The guidelines do not aim to either override or replace knowledge and experience. It is accepted that departures from the guidelines (e.g. either decreasing or increasing the number of surveys carried out or using alternative methods) are often appropriate. The guidance should be interpreted and adapted on a case-by-case basis according to site-specific factors and the professional judgement of an experienced ecologist. Where examples are used in the guidelines, they are descriptive rather than prescriptive.”

- 4.2 Relative to the above the survey protocol has been determined using the collective and long standing experience of Tyrer Ecological Consultants Ltd and knowledge of the specific nature of the site.

Survey Protocol

- 4.3 The timing of the surveys took place in June and July, thus within the main active period of bats, at a time when bats have entered their active season and a period of the year when maternity colonies are forming at established bat roosts, following on from winter hibernation. The active season of bats is generally accepted as May – August across the industry.
- 4.4 In accordance with Bat Conservation Trust - Bat Surveys for Professional Ecologists: Good Practice Guidelines, 3rd ed. (2016), it is specified that: *“The bat active period is generally considered to be between April and October inclusive”*, though the period of May - August is the optimal most productive period that Natural England accept bat surveys and grant European Protected Species Mitigation licences (EPSML).
- 4.5 Where bats are roosting, they are likely to be detected by the ecologists who are trained in the use of bat detector hardware and call analysis software (Analook / Kaleidoscope), and specifically how to detect bats and to correctly identify/disseminate bat calls.
- 4.6 Furthermore, at dawn, temperatures are usually lower than at dusk; as a result, bat activity can, in some locations, be less frequent. Additionally, where singular/small numbers of bats are present and there are no survey constraints then dawn surveys are of no more value than dusk surveys; singular bats can and do return to a roost before dawn and as a result a dawn survey would not record them anyway.

BCT issued an Interim Guidance Note in May 2022 in advance of a 4th edition of bat survey guidelines to be published in Summer 2022, which supersedes existing guidelines and states in relation to dawn surveys that:

“Whilst dawn surveys can reward surveyors with displays of dawn swarming behaviour, there is a concern that bats that have returned earlier will be missed...”

The 4th edition of the survey guidelines will therefore transition away from the standard use of dawn surveys, particularly as a method for presence/absence surveys in favour of dusk surveys supported by NVAs. The use of NVAs has the potential to improve the quality of dusk surveys, providing clarity on exact emergence points and bat counts that might not otherwise be available because of the limitations of the human eye.”

- 4.7 Survey protocol should not be determined by parties who are 1) not familiar with the site, and 2) do not have a sufficient level of experience in relation to the undertaking of dusk/dawn bat surveys.
- 4.8 The number of surveys and surveyors was adequate relative to the roost potential that was identified during the daytime appraisal – i.e. '**Moderate**' potential. Four surveyors were required to accurately monitor potential roost features (PRF's) on the building at any one time; the locations and positions of the surveyors was in correspondence with the features that were identified during the daytime survey.
- 4.9 Surveyors were strategically positioned so that all elevations with bat roost potential, as described in the daytime report, could be observed without limitations. The surveyors were aided with Anabat, Batlogger, Echometer EM2, Peersonic, or equivalent electronic bat detectors that enable the locating and recording of the high frequency calls that are emitted by bats; echolocation calls were analysed the next day using Analook or equivalent computer software to verify field observations; where deemed appropriate by the attending ecologists, elevations were also surveyed via the use of a Night Visual Aid (NVA) Camera (Panasonic HC-VXF990) – recordings would be subject to review the following day.

Survey Limitations

- 4.10 In the time between completion of the original 2019 surveys and updated 2023 survey work, all single- and two-storey sections of the structure, located on the south-western aspect and outside of the provided red line boundary (see **Figure 5.1**), have been demolished. This has been taken into account when drawing conclusions from the combined survey results.
- 4.11 Following the completion of the further survey, having carefully considered the results and conclusions, no significant constraints were experienced that might hinder the gathering of ecological data on which to base sound conclusions and recommendations.

5.0 Results

5.1 A dusk emergence survey was undertaken on 19th June and 3rd July 2023 by a combination of seven surveyors; the credentials of which have been given within **Table 5.1**. **Tables 5.2-5.3** and **Figures 5.1-5.2** document the results of the dusk surveys.

Table 5.1 – Surveyor Credentials

Surveyor(s)	Experience	Surveyor Credentials
Mr. B. Richards Qualifying CIEEM	1 year	Junior Ecologist with a range of training and experience. MBiolSci in Biological Sciences, Accredited agent on the Class 2 Natural England bat licence of Mrs. K. Wilding (CLS-14227)
Mr. H. Mulligan Qualifying CIEEM	1 year	Junior Ecologist with a range of training and experience. MBiolSci in Biological Sciences (Zoology), Accredited agent on the Class 2 Natural England bat licence of Mrs. K. Wilding (CLS-14227)
Mr. H. Green	30+ years	Highly experienced Bat Specialist and carer whom has professional surveying experience over decades with Tyrer Ecological Consultants Ltd - Class 2 Natural England Bat Licence (CLS-03290)
Mr. M. Smith	7 years	A seasonal ecological consultant with experience of undertaking professional bat surveys
Mrs. H. Taylor-Boyd	8 years	A highly experienced bat surveyor with several years' experience with Tyrer Ecological Consultants Ltd
Mr. D. Boyd	8 years	A highly experienced bat surveyor with several years' experience with Tyrer Ecological Consultants Ltd
Miss. C. Rimmer	1 year	Trainee Ecologist with one year training and experience, currently undergoing extensive survey training - BSc Hons in Wildlife and Conservation

Table 5.2 – Survey dates, times and weather conditions

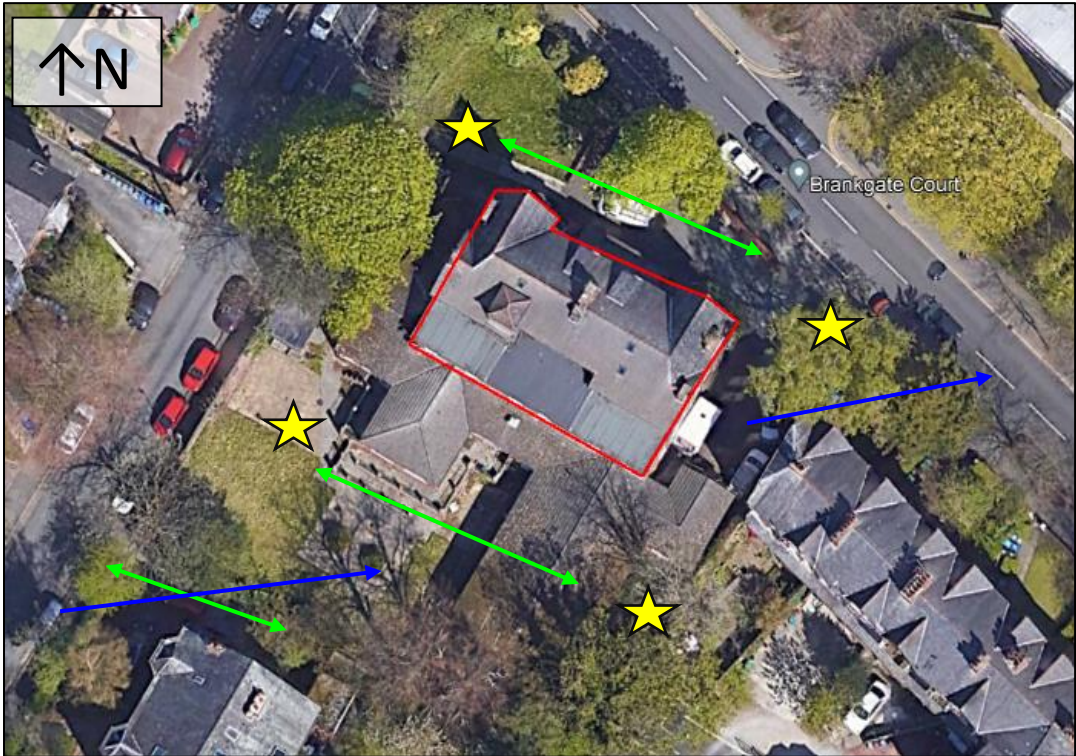
Time	Date	Weather Conditions
Dusk Survey 1 2123 - 2315	19 th June 2023	Sunset: 2143: Clear then rain, Light breeze, 10% cloud cover Start temp: 22 °C Start temp: 18 °C
Dusk Survey 2 2122 – 2315	3 rd July 2023	Sunset: 2142: Dry, Light breeze, 10% cloud cover Start temp: 15 °C End temp: 13 °C

Table 5.3 – Dusk Survey Results

Time	Dusk Survey	Activity
2123 - 2315	19 th June 2023	Summary: No bat emergence for the duration of the survey 2150 hrs: Soprano pipistrelle (SP) passed over neighbouring building 2152 hrs: SP feeding in trees to south of garden 2153 hrs: SP feeding to rear of building 2153 hrs: Common pipistrelle (CP) passing over fence along road to front 2208 hrs: SP feeding in trees to south of garden 2208 hrs: Regular foraging by CP along front of building 2210 hrs: CP foraging within trees to south of Site 2211 hrs: CP foraging in rear garden 2226 hrs: SP foraging in rear garden 2232 hrs: a Noctule was recorded but not observed 2229-2141 hrs: Two SP foraging for remainder of survey General activity consisted of frequent foraging and commuting by no more than two SP and one CP at a time, with a noctule recorded but not observed.

Clyde Court, 22-24 Lapwing Lane, Manchester, M20 2NS
Dusk Survey Results

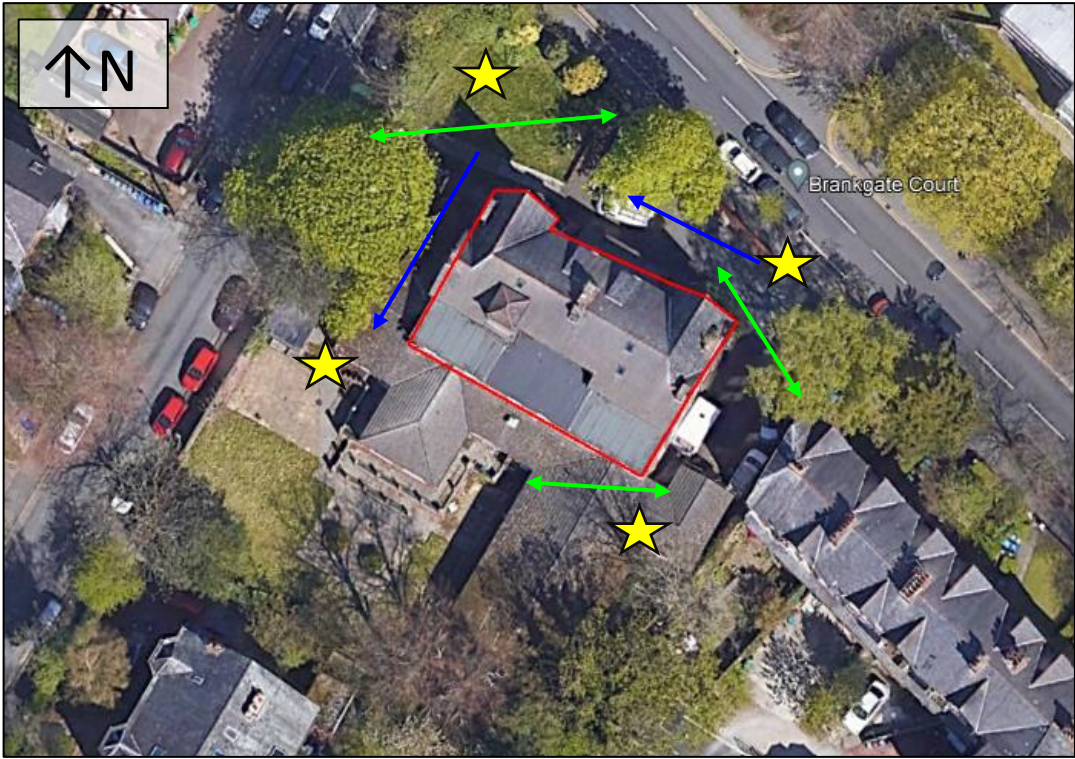
2122 - 2315	3 rd July 2023	Summary: No bat emergence for the duration of the survey 2201 hrs: SP commuting northeast along building 2205 hrs: Two SP foraging over garden to north 2207 hrs: SP commuting north to south along western elevation 2214 - 2216 hrs: SP foraging to northwest of Site 2219 hrs: SP foraging over garden from west 2222 hrs: SP foraging over garden to north 2228 hrs: SP commuting along northeast of building 2229 hrs: SP commuting at west of building 2231 hrs: CP foraging along east of Site 2232 hrs: Noctule recorded but not observed 2233 hrs: SP commuting east to west along northeast of Site General activity consisted of constant foraging and commuting by no more than two SP at a time, also a noctule was heard passing.
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19/06/2023

Key			
	Site Boundary		Foraging activity
	Surveyor Positions		Commuting activity
	Directional compass		

Figure 5.1 – Visual Aid – Dusk Survey Results with Key



03/07/2023

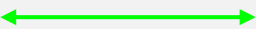
Key			
	Site Boundary		Foraging activity
	Surveyor Positions		Commuting activity
	Directional compass		

Figure 5.2 – Visual Aid – Dusk Survey Results with Key

6.0 Survey Conclusions & Recommendations

- 6.1 The updated survey results gathered by Tyrer Ecological Consultants Ltd conclude that Clyde Court is not being utilised by any bats of any species for roosting purposes, with foraging activity in the rear garden and commuting across the site by a maximum of two soprano pipistrelle (*Pipistrellus pygmaeus*) bats and one common pipistrelle bat at a time. Based upon the evidence gathered during the updated dusk surveys in 2021, it is concluded that the previously identified bat roost, observed beneath the open eaves and timber fascia on the eastern elevation of the building, is an abandoned common pipistrelle day roost no longer used by bats for roosting purposes based upon the robust survey techniques as described. Bats can abandon roosts for numerous reasons, including decline of the roost features or high levels of disturbance. Whilst the demolition of single- and two-storey sections of the building would not have resulted in destruction of the identified roosts, it is feasible that the works may have caused some disturbance to the roost and encouraged abandonment, though this cannot be confirmed.

Consideration has been given to the requirement for an application for European Protected Species Mitigation Licence (EPSML). *However, a license is not always necessary if the work can be undertaken when bats are less likely to be present or will not be disturbed, or roosts/access points can be retained / re-instated during the process* (English Nature Bat Mitigation Guidelines, 2004). On the basis of the updated results no bats will be disturbed through the proposed works, and furthermore, via implementation of mitigation suggested below, new roost provision will be incorporated to allow future use of the proposed development for roosting bats. Natural England issued the following statement in their licencing guidelines:-

Key Message: Avoidance - *A license is not always necessary. Natural England advocates the use of good practice and avoidance measures to minimise the impact of a proposed activity on wildlife and in particular EPS. Licensing should be seen as the last resort where all other alternative ways of avoiding impacts on the species have been discounted. Ecological consultants are expected to advise their clients on whether works can proceed in the absence of a license. It is not Natural England's role to do this.*

Notwithstanding this, it is recommended that prior to work being undertaken a bat licenced ecologist should be provided access to inspect the previously identified roost locations on the eastern elevation, along with any other areas of the building containing potential roost features at the ecologist's discretion; this inspection should be undertaken with the aid of torch light and endoscope. If current evidence/bat presence is absent these areas will be either effectively sealed prior to work being undertaken or demolished immediately; however, should recent evidence or bat/s be observed during this time the area will be retained and a EPSML applied for to legally allow the work to commence.

- 6.2 As bats are highly transient species and can use buildings that offer potential roost features at any time of the year, it should be stated that if bats, or evidence of bats (see **Figure 6.1**), is found at any stage during the works then as a legal requirement the work at the site should immediately cease and a bat ecologist contacted for further advice.



Figure 6.1 – Bat droppings (left) and pipistrelle bat (right)

- 6.3 Installation of new lighting as part of a development scheme that exceeds current levels may have a negative impact upon foraging/commuting bats confirmed as present in the vicinity, particularly if increased light spillage occurs in areas currently free from illumination such as illumination of boundary features. There are several measures that can be used to offset impacts upon bats, where lighting is unavoidable; these include, however are not limited to, the light source used and luminaire design, and accessories to direct light at its intended target. Numerous software programmes are currently available which can be used inform lighting plans, demonstrating how lighting decisions will illuminate a site. Refer to the Bat Conservation Lighting Guidelines for further strategic information if applicable.

7.0 Indicative Mitigation

- 7.1 The conversion and extension of the existing building and erection of an additional detached dwelling is the key component of the applicant's plans for the site; however, it is recommended that roost provision is incorporated into the conversion of the existing dwelling.

Assigned Ecological Clerk of Works - EcOW

- 7.2 Prior to any work being undertaken the presence/absence bats as far as is possible will be established by undertaking detailed investigation of the areas at which bats have historically been observed using the building; typically, beneath the eaves and timber fascia on the eastern elevation. The ecologist will supervise careful dismantling of all places that will be removed as part of the proposed work which have been identified as offering roost potential at the ecologist discretion. In addition wherever opportunities for bats exist in other parts of the building the supervised dismantling will extend to these areas, with the understanding that should current evidence/bats are observed, works will cease immediately.

All dismantling of roost features will be undertaken during favourable weather conditions.

No increase in external lighting is expected during the conversion; should additional lighting be installed it must be directed away from any bat roost access points, flight paths and foraging areas.

7.3 Work undertaken by the Contractor

New roost provision will be incorporated into the southernmost new dwelling:

- One integrated bat box will be included within the western elevation; this will recreate crevice roost potential to be lost during the conversion and provide new opportunities for bat species such as those of the Pipistrelle (*Pipistrellus spp.*) genus.

The Ibstock Enclosed Bat Box is designed for integration into the wall of new buildings and provides summer roosting opportunities for Pipistrelle bats. It contains several roosting chambers which provide zones of differing temperatures and has a sloped bottom to allow droppings to fall out, removing the need for maintenance. The box is available in three colours to match the construction of the new dwelling.



See: <https://www.nhbs.com/ibstock-enclosed-bat-box-b>

Additional, indicative enhancement measures which could be incorporated into the exited converted building or newly erected dwelling are provided overleaf.

Enhancing a development site for Bats

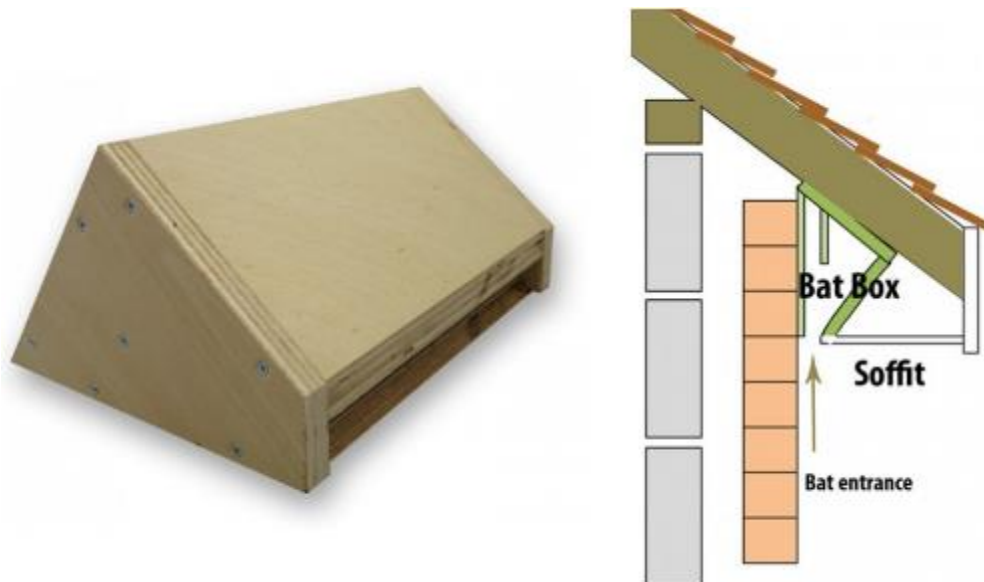
Integrated bat box

The Habibat Bat Box is a solid box made of insulating concrete with internal roosting space. The box blends seamlessly into brick-built properties and may be incorporated into the fabric of buildings, being best placed on gable elevations.



Soffit access

Where soffits are instated at gable elevations, roost provision may be instated in the form of a soffit bat box with internal roosting space.



Externally fitted boxes

A large number of externally fitted box models for bats exist for buildings and trees. Suitable models for both buildings and trees may include the Eco Kent Bat Box.

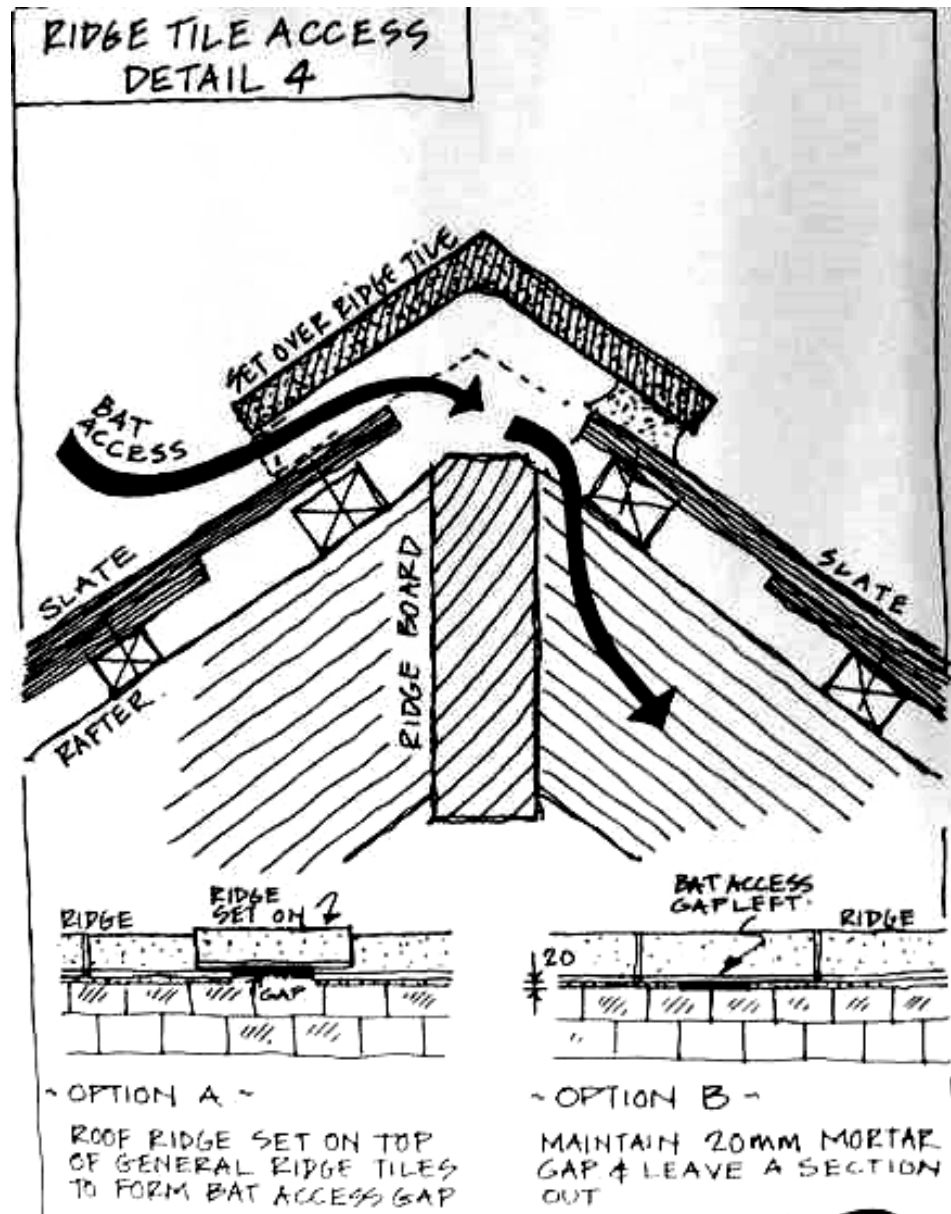


Ridge access

Where appropriated, ridge tile access should be made with the incorporation of traditional Bitumen 1F underfelt immediately beneath ridge tiles. Breathable BRM membrane can cause significant problems where bats are in contact with it, whereby their fine claws become entangled within the fibres of the membrane, entrapping and killing bats.

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8.0 References

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