

Dusk Survey Results

June 2021

22 Archway Road
Huyton
Liverpool
L36 9XB

National Grid Reference: SJ44099092



22 Archway Road, Huyton, Liverpool, L36 9XB
Dusk Survey Results

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This report aims to provide general advice on ecological constraints associated with any development of the site and includes recommendations for further survey; it is not intended that this report should be submitted with a planning application for development of the site, unless supported by the results of further surveys and a detailed assessment of the effects of the proposed development

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1.0 Background and Introduction

- 1.1 As part of a planning application at 22 Archway Road, Huyton, Liverpool, L36 9XB, The Tyrer Partnership was commissioned to undertake a daytime assessment in relation to bats and breeding birds in 2018, during which the building was identified as pertaining to “moderate” bat potential in line with current Bat Conservation Trust (BCT) guidance (See Figure 1.1). The two recommended dusk surveys were undertaken in July 2019 by Tyrer Ecological Consultants Ltd (formerly The Tyrer Partnership), along with an updated loft inspection, during which no emergence or evidence of bats was identified.

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
^a Structures that have been categorised as low potential can be problematic and the number of surveys required should be judged on a case-by-case basis (see Section 5.2.9). If there is a possibility that quiet calling, late-emerging species are present then a dawn survey may be more appropriate, providing weather conditions are suitable. In some cases, more than one survey may be needed, particularly where there are several buildings in this category. ^b Multiple survey visits should be spread out to sample as much of the recommended survey period (see Table 7.1) as possible; it is recommended that surveys are spaced at least two weeks apart, preferably more. A dawn survey immediately after a dusk one is considered only one visit.		

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

- 1.2 Proposals are understood to involve the conversion and extension of the existing property which will provide a number of new residential apartments (Figure 1.2).

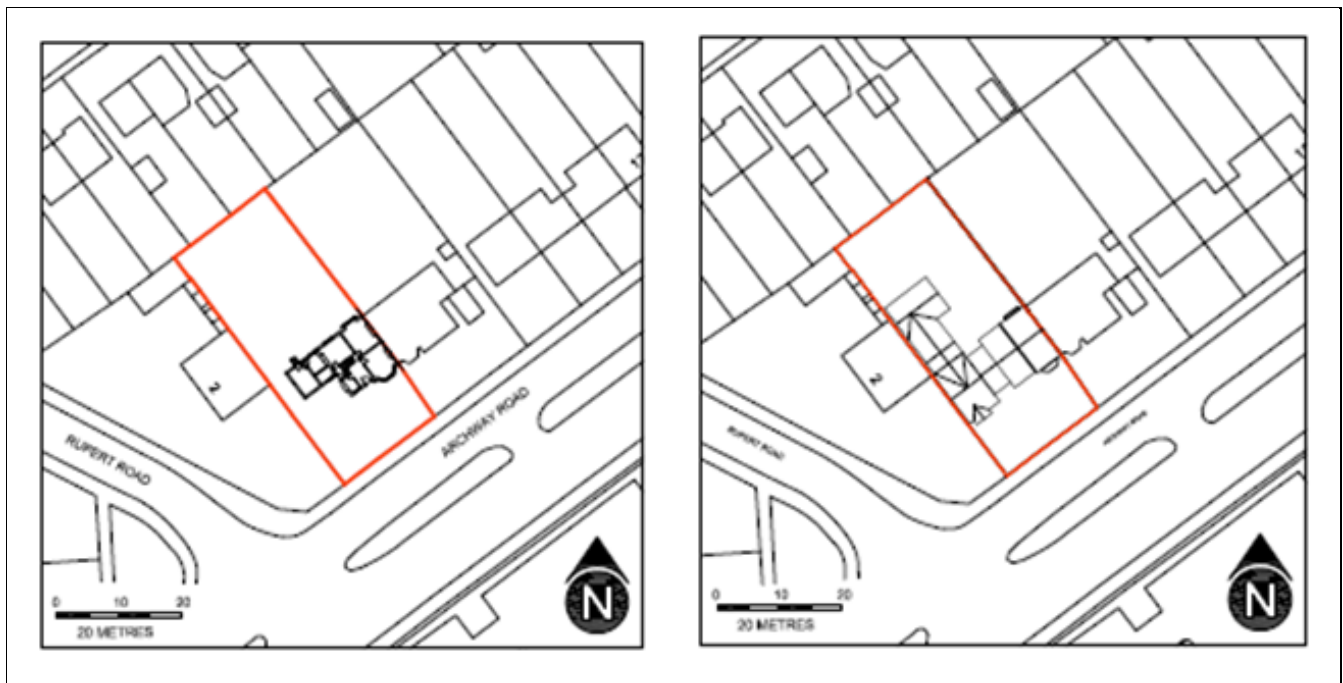


Figure 1.2: Proposed site Plan at 22 Archway Road (extracted from Appendix I)

- 1.3 Following a significant time delay between completion of the surveys and commencement of the proposed works, Tyrer Ecological Consultants Ltd were recommissioned to update the data gathered during the original dusk emergence surveys. The surveys (two dusk surveys) were carried out in May in accordance with the Bat Conservation Trust - Bat Surveys for Professional Ecologists: Good Practice Guidelines, 3rd ed. (2016) edition.
- 1.4 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.
- 1.5 The report should be read, understood and presented to the local authority in accordance with the recommendations provided in the previous report.
- 1.6 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 The National Planning Policy Framework (NPPF) has replaced the Planning Policy Guidelines (PPG's). In relation to wildlife, PPG 9 was one of the documents to which Planning Authorities referred to, particularly where a specially protected species is or may be present and will be affected by a development for which a Planning application seeks consent. The aims of the NPPF, in relation to species and habitats, are that it places a clear responsibility on Local Planning Authorities to conserve and enhance biodiversity and to encourage on the consideration that should be given to Protected Species where they may be affected by development.

2.4 Paragraph 175 of the National Policy Planning Framework (as revised in 2019) stipulates:

"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".

... whilst Paragraph 174 states:

"To protect and enhance biodiversity and geodiversity, plans should... promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity."

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.

- 2.5 The Office of the Deputy Prime Minister (ODPM) Circular 06/2005 provides administrative guidance on the application of the law in relation to planning and nature conservation:

“It is essential that the presence or otherwise of protected species, and the extent that they may be affected by the proposed development, is established before planning permission is granted, otherwise all relevant material considerations may not have been addressed in making the decision.”

- 2.6 This is supported by a guide to good practice entitled ‘Planning for Biodiversity and Geological Conservation: Building in Biodiversity’ in which paragraphs 5.34 and 5.35 identify that species such as bats are highly dependent upon built structures for survival and that roosts can be easily incorporated into existing and new developments to benefit these species.

- 2.7 The Knowsley Borough Council supports this in Policy CS8: Green Infrastructure of their adopted local plan core strategy, which states:

“Approach to Green Infrastructure and New Development

6) New development must be served by Green Infrastructure to meet the needs of residents and the local environment, in a manner which will:

- a) Contribute to the creation of a high quality residential environment;*
- b) Provide access to high quality open space for leisure and recreational purposes;*
- c) Seek to protect, maintain and where possible enhance biodiversity within and around new developments according to their designation and significance to provide space for nature; and*
- d) Provide adequate mitigation and/or, as a last resort, compensation for Green Infrastructure or biodiversity loss, in circumstances where harm resulting from the development is otherwise unavoidable.”*

3.0 Bats in Merseyside

Up to nine bat species have been recorded in Merseyside most of which use built structures, notably occupied residential properties, for roosting. The most frequently encountered species is the Pipistrelle bat (*Pipistrellus pipistrellus*) and its abundant status in Merseyside 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.”

Relative to the above the survey methods and protocol adopted were determined using the collective and long standing experience of Tyrer Ecological Consultants Ltd and knowledge of the specific nature of the site.

Survey Protocol

- 4.2 The timing of the surveys took place in May, 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.

Where bats are roosting they are likely to be detected by the ecologists, trained in the use of bat detector hardware and call analysis software (Analook / Kaleidoscope) in how to detect bats and how to correctly identify/disseminate bat calls.

When considering survey protocol the decisions about whether dusk or dawn surveys are selected are based on the extensive experience of the Tyrer Ecological Consultants Ltd, the nature of the building and species that can be anticipated as being present either at the property or in the locality and how complex a building is relative to observations.

In this case the bat roost potential that exists 22 Archway Street presents no problems for dusk observations; if a building is complex, or observations were restricted, or species that are difficult to detect at dusk are suspected then dawn surveys would be conducted. At 22 Archway Street there are no visual constraints and to date there is no evidence to suggest the presence of such species.

It should also be noted that 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. Dawn surveys are more productive when “back tracking” bat to a roost from foraging grounds.

Survey protocol should not be determined by parties who are 1) not familiar with the site, and 2) do not have a sufficient level or experience in relation to the undertaking of dusk/dawn bat surveys.

- 4.3 The number of surveys and surveyors was adequate relative to the roost potential that was identified i.e. ‘Moderate’ and requiring two surveyors to accurately monitor potential roost features (PRF’s) across the survey building at any one time.

- 4.4 Surveyors were strategically positioned so that all elevations with bat roost potential could be observed without limitations. The surveys were aided with Anabat electronic bat detectors that enable the locating and recording of the high frequency calls that are emitted by bats, along with Bat logger and Peersonic RPA3 detectors; echolocation calls were analysed the next day using Analook and Kaleidoscope computer software to verify field observations.

Survey limitations

- 4.5 Following the completion of the surveys having carefully considered the results and conclusions derived, no significant constraints were experienced that might hinder the gathering of ecological data on which to base sound conclusions and recommendations.

5.0 Survey Results

- 5.1 Two dusk emergence surveys were respectively undertaken on the 13th May and 27th May 2021 by a combination of two surveyors, with two operating at any one time, as per Table 5.1 below. See Table 5.2 - 5.3 for survey results, with a visual aid provided in Figure 5.1 and 5.2.
- 5.2 See associated imagery for visual aid in respect of survey results.

Table 5.1 - Surveyor Credentials

Name	Experience	Details
Dusk survey		
Mrs. K. Wilding	14 years	Principal level Ecologist and Director of Tyrer Ecological Consultants Ltd who holds a Natural England Class 2 License (CLS-14227). Has a large portfolio of successful granted mitigation licences in England and Wales.
Ms. I. Spall	4 years	A seasonal ecological consultant with experience of undertaking professional bat surveys.
Dusk survey		
Mr. D. Ney	4 years	A seasonal ecological consultant with experience of undertaking professional bat surveys; Chair of Merseyside West Lancashire Bat Group (MWLBG).
Ms. I. Spall	4 years	A seasonal ecological consultant with experience of undertaking professional bat surveys.

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Table 5.2 – Survey dates, times and weather conditions

Times of Survey	Date	Weather Conditions
Dusk survey 2042 - 2220	13/05/2021	Sunset: 2102: Dry and calm, 20% cloud Start temp: 11 ° C End temp: 11 ° C
Dusk survey 2103 - 2245	27/05/2021	Sunset: 2123: Dry and mild, 20% cloud Start temp: 15 ° C End temp: 14 ° C

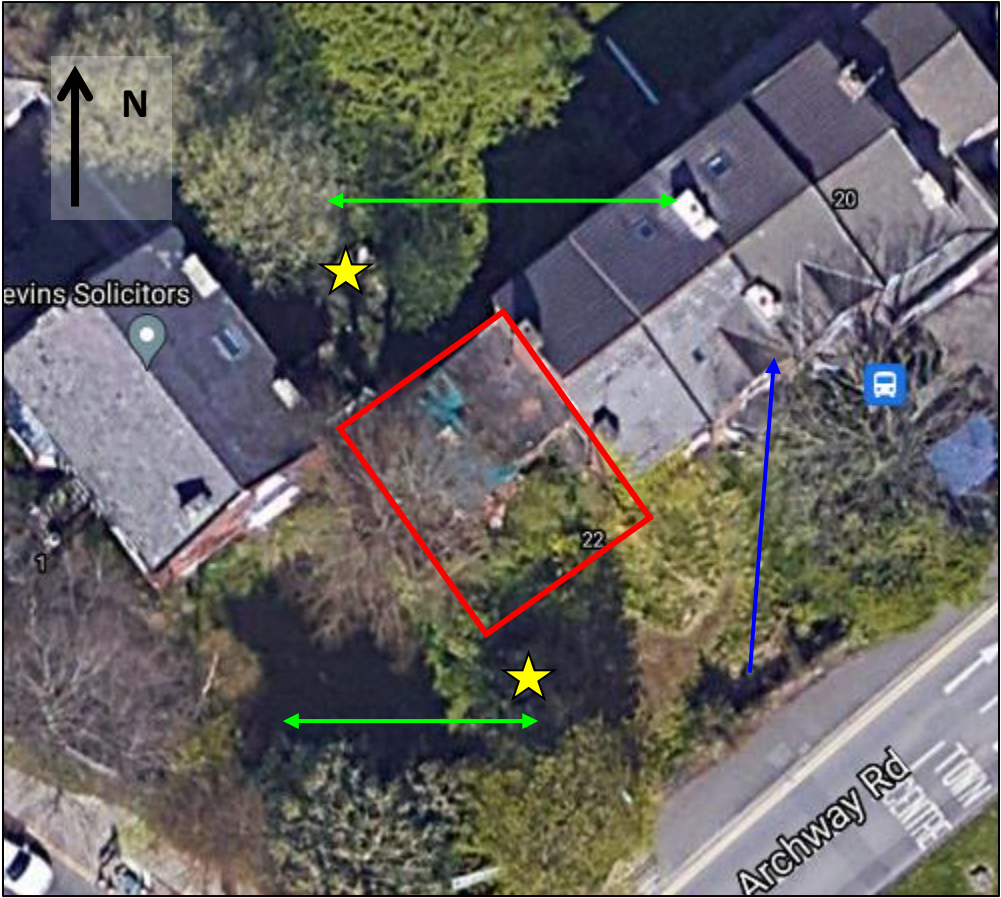
Table 5.3 – Dusk Survey Results

Dusk Survey	Time	Activity
13/05/2021	2042 - 2220	Summary: No bat emergence for the duration of survey. 2123 hrs: Common Pipistrelle foraging in the back garden at the north of the property. 2124 hrs: Common Pipistrelle foraging round the north of the building. 2133 hrs: Common Pipistrelle commuting round the north of the building. 2150 hrs: Common Pipistrelle commuting round the north of the building and limited foraging. General activity comprised of regular foraging by Common Pipistrelle bats and minimal passes.
27/05/2021	2103 - 2245	Summary: No bat emergence for the duration of survey. 2151 hrs: Common Pipistrelle foraging in surrounding environment. 2155 hrs: Common Pipistrelle commuting in surrounding environment. 2206 hrs: Common Pipistrelle foraging around the property with no visual. 2216 hrs: Common Pipistrelle foraging around the property with no visual. General activity comprised of regular foraging by Common Pipistrelle bats and minimal passes.



Key			
	Site Boundary		Foraging activity
	Surveyor Positions		Commuting activity

Figure 5.1: Dusk Survey Results 13/05/2021 (adapted Google 2021)



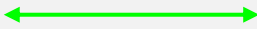
Key			
	Site Boundary		Foraging activity
	Surveyor Positions		Commuting activity

Figure 5.2: Dusk Survey Results 27/05/2021 (adapted Google 2021)

6.0 Dusk Survey Conclusions & Recommendations

- 6.1 From the two dusk survey results, it can be concluded that whilst using best practice survey methodology, emergence of bats was absent at 22 Archway Street over the survey effort; activity was limited to occasional foraging and commuting activity by a maximum of one Common Pipistrelle (*Pipistrellus pipistrellus*) bat at a time during the combined survey effort.
- 6.2 Bats are a highly transient species with multiple roosts in an area, and can use buildings that offer potential roost features at any time of the year, therefore despite no roost behaviour being observed it should be stated that if bats, or evidence of bats (see Figure 6.1), is found at any stage during work schedule, then as a legal requirement the work at the site should immediately cease and a Bat licenced ecologist should be contacted for further advice.



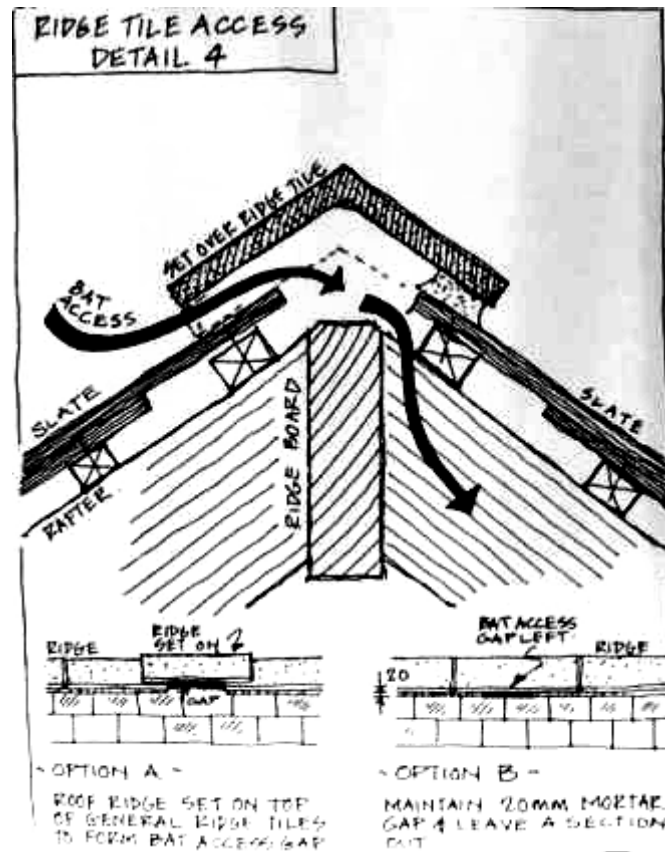
Figure 6.1 - Bat droppings (left) and pipistrelle bat (right)

- 6.3 If bat(s) or their roost will be affected then a Natural England Mitigation licence will be required to legally continue with the work. Notwithstanding the granting of a licence works that would affect a roost cannot take place if a maternity colony is in occupation.
- 6.4 Notwithstanding the results of the survey which evidence no bat roosts at the site the proposed development scheme may consider enhancement for bats, in accordance with Biodiversity Net-gain principles, local planning policy and national planning policy. See Figures overleaf for indicative ideas which could be integrated into the conversion and extension of the building.

Enhancing a development site for Bats

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.

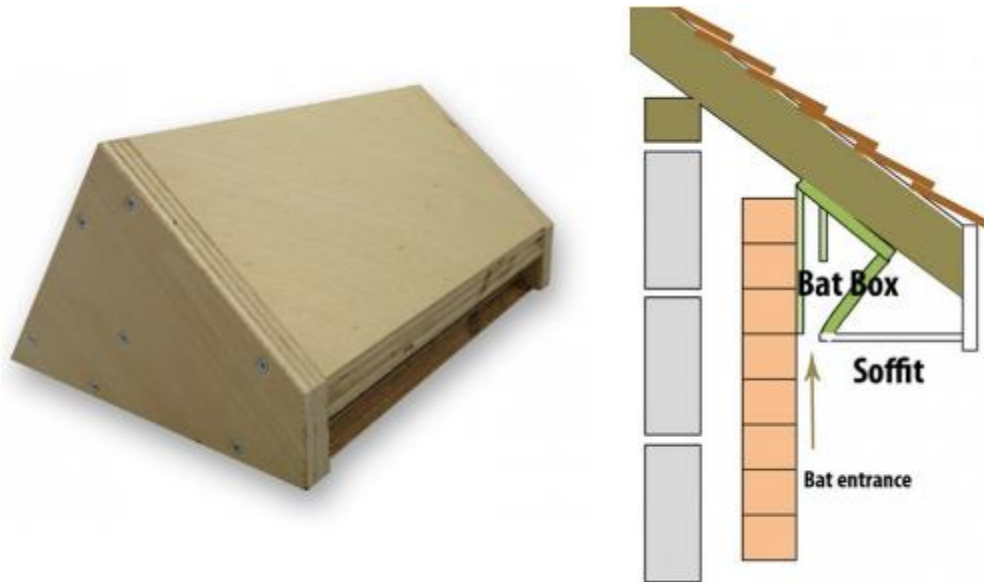


Ridge tile access should be made with the incorporation of traditional Bitumen 1F underfelt immediately beneath ridge tiles. Breathable BRM membrane can cause significant problems where bats are in contact with it, whereby their fine claws become entangled within the fibres of the membrane, entrapping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



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.



7.0 References

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Appendix I: Bats and Breeding Survey: 22 Archway Road, Huyton, Liverpool, L36 9XB (Tyrer Ecological Consultants, 2018).

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Appendix II: Dusk Results Update from 2018: 22 Archway Road, Huyton, Liverpool, L36 9XB
(Tyrer Ecological Consultants, 2019).