

Protected Species Survey

Barn A, Pylemoor Farm, Washfield

Client: Mr D. Lewis

Date: August 2022



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BS 42020:2013 Biodiversity - Code of practice for planning and development states, 'ecological information should be sufficiently up to date (e.g., not normally more than two/three years old, or as stipulated in good practice guidance)'.

Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd Edt.) states, 'Ideally, (bat) survey data should be from the last survey season before a planning or licence application is submitted, although often data older than this can have considerable value'.

Therefore, this report may not be considered valid more than three years after survey was undertaken, and advice should be taken on validity after one year.

This report has been produced using all reasonable skill and care. Opinions are provided in good faith.

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Executive summary

It is proposed to convert a barn (Barn A) into a residential dwelling at Pylemoor Farm, Washfield, Tiverton, Devon, EX16 9RF, NGR SS 9272 1720.

A daytime visual inspection of the barn was carried out by Western Ecology in March 2021. Western Ecology observed 30 small sized bat droppings indicative of pipistrelle or myotis species and classified the building as having high suitability to support crevice roosting bats.

An updated preliminary ecological appraisal, consisting of a daytime visual inspection for bats and nesting birds was undertaken in July 2021, and two bat emergence surveys were carried out in July and August 2021, along with a static bat activity survey undertaken in July 2021 by Richard Green Ecology Ltd.

The barn is confirmed as a day roost for the following bat species: common pipistrelle, soprano pipistrelle, brown long-eared, serotine, whiskered, and Natterer's bat. The conversion of the barn would result in the loss of these roosts. The works could also potentially result in bats being disturbed, injured or killed during works. The proposed works would therefore require a European protected species licence (EPLS) from Natural England. The licence can only be applied for once planning permission has been obtained.

Mitigation measures are proposed to provide alternative roosting provision for bats, minimise any potential disturbance to acceptable levels and maintain the favourable conservation status of the bat species present. Recommended mitigation measures include: carrying out works under an ecological watching brief, excluding crevices to bats, and provision of an alternative roost for all bat species in the form of a garage or car port with a pitched roof, tiled with natural slate lined with bituminous type 1f felt, and situated within the grounds of the property.

In accordance with Bat Mitigation Guidelines (Mitchell-Jones, A.J. 2004), the roof void should be unobstructed by constructional timbers, i.e., not trussed rafters, and have an apex height of at least of 2.8 m and a length and width of 5 m. It should feature internal roosting locations for crevice dwelling bats e.g., squeeze box and bat boxes, bat slates to provide access for crevice dwelling bats, as well as allowing free flight access for lesser horseshoe bats (recorded on the site).

Under no circumstances shall the bat loft be lined with a breathable roofing membrane (BRM). The ridges of the bat loft should also be bedded with mortar and mechanically fixed. A dry-fixed ridge is not suitable for use above a bat loft as they use a strip of BRM and provide a draughty environment for bats.

Other ecological mitigation and enhancement measures include provision of sensitive lighting, a bat box on a tree, two bat tubes on the converted barn and bird nesting provision.

Wildlife checklist

Protected and priority species (Grid reference of the site: NGR SS 9272 1720)

Species - terrestrial, intertidal, marine	Walkover shows that suitable habitat present and reasonably likely that the species will be found? <u>Yes or No</u>	Detailed survey needed to clarify impacts and mitigation requirements ?	Detailed survey carried out and included?	Species Present or Assumed to be present on the site Indicate with P or A and name the species	Impact on species?	Detailed Conservation Action Statement included? Sets out actions needed in relation to avoidance / mitigation / compensation / enhancement	EPS licence required?
Bats (roost)	Yes - Building	V	V	P – Common pipistrelle, soprano pipistrelle, brown long-eared, serotine, whiskered, and Natterer's bats	Loss of roosts	V	~
Bats (flight line / foraging habitat)	✓	×		P – Lesser horseshoe bat	Not if recommendations followed	~	×
Dormice	×						
Otters	×						
Great crested newts (*check consultation zone)	×						
Cirl buntings (*check consultation zone)	×						
Barn owls	×						
Other Schedule 1 birds Breeding birds	×	~	✓	P – Pigeon	Not if recommendations	√	×
					followed		
Reptiles	×						
Native crayfish	×						
Water voles	×						
Badgers	×						
Other protected species	×						
UK BAP priority species	×						
Local BAP key species (other than those included above)	×						
Invasive species	×						

Designations / important habitats

Designation Terrestrial, intertidal, marine	Within site or potential impact. <u>Yes or No</u>	Name of site / habitat	Detailed Conservation Action Statement included in report?	Relevant organisation consulted & response included in the application?
Statutory designations				
European designations - Special Area of Conservation (SAC), Special Protection Area (SPA) and RAMSAR site or within Greater Horseshoe consultation zone	×			
Site of Special Scientific Interest (SSSIs)	×			
Marine Conservation Zone (MCZ) (not before 2012)	×			
Local Nature Reserve (LNR)	×			
Non statutory wildlife designations				
County Wildlife Site/Local Wildlife Site (CWS/LWS)	×			
Ancient woodland	×			
Special verge	×			
Habitat of Principal Importance/BAP habitat	×			
Local Biodiversity Network	×			

1 Introduction

1.1 Introduction

It is proposed to convert a barn (Barn A) into a residential dwelling at Pylemoor Farm, Washfield, Tiverton, Devon, EX16 9RF, NGR SS 9272 1720.

A daytime visual inspection of the barn was carried out by Western Ecology in March 2021. Western Ecology observed 30 small sized bat droppings indicative of pipistrelle or myotis species and classified the building as having high suitability to support crevice roosting bats.

An updated preliminary ecological appraisal, consisting of a daytime visual inspection for bats and nesting birds, was undertaken in July 2021, and two bat emergence surveys were carried out in July and August 2021, along with a static bat activity survey undertaken in July 2021 by Richard Green Ecology Ltd

This report includes the findings of the surveys and makes recommendations for ecological mitigation and enhancement, in accordance with national and local planning policy and BS 42020:2013 Biodiversity - Code of practice for planning and development.

1.2 Planning considerations

1.2.1 National Planning Policy Framework (NPPF), July 2021

The National Planning Policy Framework outlines the Government's commitment to protect and enhance sites of biodiversity value, and minimise impacts on and provide net gains for biodiversity, including the principle of refusing planning permission if significant harm to biodiversity resulting from a development cannot be avoided, adequately mitigated, or, as a last resort, compensated for.

1.2.2 Mid Devon Local Plan 2013-2033

The Mid Devon Local Plan 2013-2033 (adopted in July 2020) contains the following relevant policies:

Policy S1 Sustainable development priorities

The following strategic priorities outline what will need to be achieved to deliver the Vision and address the key issues that have been identified in Mid Devon. All development will be expected to support the creation of sustainable communities by:

I) Minimising impacts on biodiversity and geodiversity by recognising the wider benefits of ecosystems, delivering natural environment objectives, providing a net gain in biodiversity and by the protection of international, European, national and local designated wildlife sites



Policy S9 Environment

Development will sustain the distinctive quality, character and diversity of Mid Devon's environmental assets and minimise the impact of development on climate change through:

 f) The protection and enhancement of designated sites of international, national and local biodiversity and geodiversity importance. On both designated and undesignated sites, development will support opportunities for protecting and enhancing species populations and linking habitats. If significant harm resulting from development cannot be avoided impacts should be adequately mitigated.
Compensation measures will only be considered where appropriate as a last resort.

Policy DM9 Conversion of rural buildings

The conversion of redundant or disused rural buildings of substantial and permanent construction which positively contribute to an area's rural character for residential, tourism or employment uses will be permitted where:

d) The development will retain any nature conservation interest associated with the site or building, and provide net gains in biodiversity where possible.

2 Methods

2.1 Desk study

2.1.1 Sites of importance for nature conservation

A search for sites designated for nature conservation and any notable habitats was undertaken on the DEFRA Magic website (<u>http://magic.defra.gov.uk</u>). This resource includes statutory designated sites (e.g. Sites of Special Scientific Interest, SSSIs) and Biodiversity Action Plan (BAP) habitats. As impacts outside of the site are limited, only sites within 500 m of the site are noted.

2.1.2 Protected species

Given the small extent and limited effects of the proposal, it is considered that any protected species outside the site would be unaffected. As a detailed survey has been undertaken and any protected species present or potentially present on the site would have been identified, it was not considered necessary to obtain any species records from a local records centre.

2.2 Field survey

2.2.1 Bat and bird survey - visual inspection

The survey involved a thorough visual inspection of the barn for any signs of protected species. A search for characteristic signs of bats was made, such as droppings, feeding remains, staining, and any bats present. A search was also made for any signs of bird nesting activity.



Equipment used and at hand included: Nikon 10x close-focusing binoculars, Lightway BMFL1265 720 lumen torch, Lightway 160 lumen torch, Ridgid Micro CA-300 inspection camera and a 3.8 m extendable ladder.

The survey was undertaken by Tom Rickman on 07 July 2021, during the daytime. The weather was dry, with cloud and light wind. The temperature was approximately 15°C.

2.2.2 Bat emergence surveys

Bat emergence surveys were undertaken from 15 minutes before sunset and continued until it was too dark to see any bats emerging. Three surveyors were used to provide adequate coverage of the building. The surveys were undertaken in suitable weather conditions.

Refer to Appendix B for survey dates, details of weather conditions, equipment used, surveyors and surveyor locations.

2.2.3 Static bat activity survey

In accordance with Bat Survey Guidelines (Collins 2016), a static bat activity survey of the site was undertaken. One Anabat Swift full spectrum bat detector was deployed for a minimum of five consecutive nights during the optimal bat survey season. Recordings were subsequently analysed using Analook Insight software to assist species identification.

2.2.4 Personnel

Tom Rickman holds Natural England scientific licences to disturb bats [2017-32749-CLS-CLS] and barn owls [CL29-00338]. He is a full member of the Chartered Institute of Ecology and Environmental Management (CIEEM).

Other surveyors are experienced in undertaking bat emergence surveys.

3 Survey Results

3.1 Desk study

The site is not within any statutory designated sites of nature conservation importance and there are no statutory designated sites of nature conservation importance within 500 m of the site.

3.2 Field survey

3.2.1 Habitats

The site was located in a rural location, three miles to the north-west of Tiverton. The barn was immediately surrounded by gardens, low-density dwellings and industrial sites, and agricultural fields. The wider landscape consisted of agricultural fields bounded by mature hedgerows with trees and areas of deciduous woodland.



Hatherland Wood (an area of ancient and semi-natural woodland) lies approximately 500 m to the east of the site.



Aerial photograph showing site and surrounding landscape

Aerial photograph showing the building surveyed





3.2.2 Building



The barn was of stone construction with an unlined slate tile roof. There was one blocked-up window on the south-western elevation, a large, boarded window on the north-western elevation, and wooden double doors on the eastern elevation.

There were numerous potential access locations for bats in the form of slipped and broken roof slates, missing ridge tiles and openings at wall tops.

3.3 Protected species

3.3.1 Bats

(a) Visual inspection

In July 2021, no bats were observed within the barn. However, circa. 50 bat droppings were observed throughout the building, with an accumulation of droppings on the windowsill on the north-eastern elevation. A deep crevice was present in the lintel above the same window.

DNA analysis of the droppings confirmed the presence of the following bat species: Common pipistrelle bat *Pipistrellus pipistrellus*, brown long-eared bat *Plecotus auritus*, serotine bat *Eptesicus serotinus*, whiskered bat *Myotis mystacinus*, and Natterer's bat *Myotis nattereri* – refer to Appendix D.

(b) Static bat detector

Results from the static bat detector returned occasional calls from lesser horseshoe bat and long-eared bats¹. Given that long-eared bat calls are often quiet, it is likely that these calls were detected at close range i.e., from inside the barn. Other bat calls detected included common pipistrelle, soprano pipistrelle, and myotis bats². It is possible that some of these calls were detected from bats passing outside of the

² It is not possible to discern between myotis bat species using echolocation calls. However, both whiskered and Natterer's bat droppings have been identified inside the barn.



¹ Assumed to be brown long-eared bats based on DNA evidence.

barn. However, given the number of calls recorded, and from the DNA evidence, these species were assumed to be present inside of the barn.

Given that lesser horseshoe bats have directional echolocation calls, it is likely the calls recorded were from a bat inside of the barn. However, there is no obvious free-flight access into the barn for horseshoe bats, so may have been a bat exploring the barn if a door was left open. The doors are usually kept closed (client pers. comm.).

Species	No. of calls	% total
Myotis spec.	55	20.52
Pipistrellus pipistrellus	147	54.85
Pipistrellus pygmaeus	52	19.40
Plecotus sp.	12	4.48
Rhinolophus hipposideros	2	0.75
Total	268	

Table 1 – Bat call recordings from 08/07/2021 to 12/07/2021

(c) Emergence surveys

On 8 July 2021, three common pipistrelle bats emerged from the barn (two from the ridge, and one from above the window on the north-western elevation), and one long-eared bat emerged from under the fascia on the eastern elevation of the building.

On 2 August 2021, 7 common pipistrelle bats emerged from various locations on the barn. One long-eared bat emerged from above the window on the north-western elevation, and another long-eared bat emerged from under the fascia on the eastern elevation of the building.

3.3.2 Nesting birds

Nesting pigeons were observed on the north-western elevation of the barn during the emergence survey on 2 August 2021.

No evidence of nesting birds was observed inside the barn. However, potential nest sites for small passerine birds are provided by cracks, crevices, and wall tops.

4 Assessment, recommendations and mitigation

4.1 Bats

4.1.1 Overview of legislation protecting bats

British bat species are protected under the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019. This makes it an offence to kill or injure bats or damage or destroy a place of shelter or protection (see Appendix C for more details).



4.1.2 Impact

The conversion of the barn would result in the loss of roosting locations for the following bat species: common pipistrelle bat, soprano pipistrelle bat, brown longeared bat, serotine bat, whiskered bat, and Natterer's bat. The works could also potentially result in bats being disturbed, injured or killed during works. The proposed works would therefore require a European protected species licence (EPLS) from Natural England. The licence can only be applied for once planning permission has been obtained.

The conversion of the barn could result in increased lighting levels on and around the site, from additional external lighting and light spill from the proposed full height windows (refer to Appendix A). Brown long-eared bat and lesser horseshoe bat species are light averse species. The increase in lighting on the site could deter these bats from commuting and foraging in the area and roosting within the newly provided dedicated bat loft (refer to 4.1.3 below).

4.1.3 Mitigation and ecological enhancement

Mitigation measures are proposed to provide alternative roosting provision for bats, minimise any potential disturbance to acceptable levels and maintain the favourable conservation status of the bat species present. Recommended mitigation measures include:

- Carrying out works, e.g., roof removal, under an ecological watching brief to ensure no bats are killed or injured.
- Excluding crevices to bats, using one way exclusion devices.
- Provision of an alternative roost for all bat species in the form of a garage or car port with a pitched roof, tiled with natural slate, and situated within the grounds of the property (ideally with a similar orientation, to the south of the existing barn). In accordance with Bat Mitigation Guidelines (Mitchell-Jones, A.J. 2004), the roof void should be unobstructed by constructional timbers, i.e., not a trussed roof, and have an apex height in excess of at least of 2.8 m and a length and width of 5 m.
- Any bat loft must be lined with bituminous type 1f roofing felt.
- As the new roof of the converted barn would use a breathable roofing membrane (BRM), the new roof must be tightly sealed to stop bat access, as the long fibres that make up BRMs have a tendency to be pulled out by roosting bats and pose an entanglement threat to them.
- Under no circumstances shall the bat loft be lined with a BRM. The ridges of the bat loft should also be bedded with mortar and mechanically fixed. A dry-fixed ridge is not suitable for use above a bat loft as they use a strip of BRM and provide a draughty environment for bats.
- Any bat loft should feature internal roosting locations for crevice dwelling bats e.g., squeeze box and bat boxes, bat slates to provide access for crevice dwelling bats. It is also recommended that free-flight access for lesser horseshoe bats e.g., a hopper entrance (refer to Appendix E), be provided.



 External and internal lighting should follow guidance set out in the Bat Conservation Trust and Institute of Lighting Professionals guidance Note 08/18 (ILP 2018) to avoid potential impacts on foraging, roosting and commuting bats. For example, the use of recessed ceiling lights rather than pendant lights in front of windows would reduce light spill. Particular care should be given as to not deter bats from roosing in the garage/car port. No lighting should be placed around or inside any designated bat roost or roosting provision, and external lighting on the southern elevation of the barn should be avoided.

4.1.4 Ecological enhancement

To provide an ecological enhancement it is recommended that a wooden bat box be installed on a mature tree during re-roofing works, to relocate any bats found. The box would then be retained for its natural life, providing ecological enhancement.

It is also recommended that provision of alternative bat roosting locations, in the form of two Cambrian Conservation BT10 bat tubes (or similar) be provided on the converted dwelling, to be integrated into the brickwork of the building at eaves level, ideally on the southern elevation, avoiding potential light spill from windows.

4.2 Nesting birds

4.2.1 Overview of legislation regarding birds

The Wildlife and Countryside Act 1981 (as amended) states that it is illegal to take, damage or destroy the nests of wild birds whilst being built or in use. However, it is not an offence to carry out work in areas that they use, outside of the nesting period (see Appendix C for more details).

4.2.2 Impacts

The conversion of the barn has the potential to disturb nesting birds, if present.

4.2.3 Mitigation

A check of the building should be made for any nesting birds (if works are undertaken between March and September). If nesting birds are found the work must be delayed until the birds have fledged.

4.2.4 Ecological enhancement

It is recommended to install two swift boxes (such as FSC wooden swift boxes, or No. 16 Schwegler swift boxes), which are also suitable for use by small passerine birds such as house sparrows, in elevated positions on the converted barn, or for boxes suitable for hole nesting birds to be installed on mature trees in surrounding gardens.



5 Conclusion

Conversion of the barn would result in the loss of roosting locations for the following bat species: common pipistrelle, soprano pipistrelle, brown long-eared, serotine, whiskered, and Natterer's bat. The works could also potentially result in bats being disturbed, injured or killed during works. However, with mitigation and compensation measures provided, the proposed works are not considered to adversely affect the conservation status of the bats using the building.

6 References

Bat Conservation Trust and Institute of Lighting Professionals (2018). Guidance Note 08/18 Bats and artificial lighting in the UK.

Collins, J. (ed.) (2016). Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd Edt.). The Bat Conservation Trust, London.

GOV.UK (2020). Bats: surveys and mitigation for development projects;

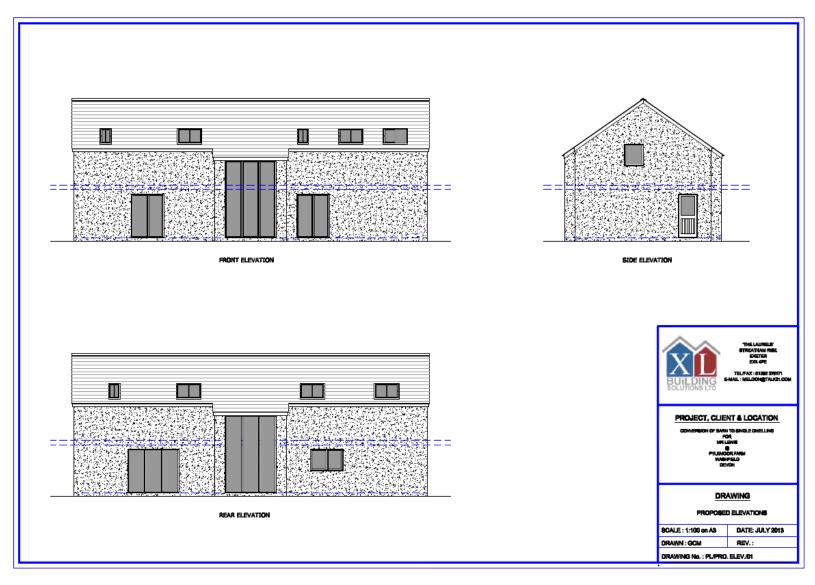
Mitchell-Jones, A.J. (2004). Bat Mitigation Guidelines. English Nature.

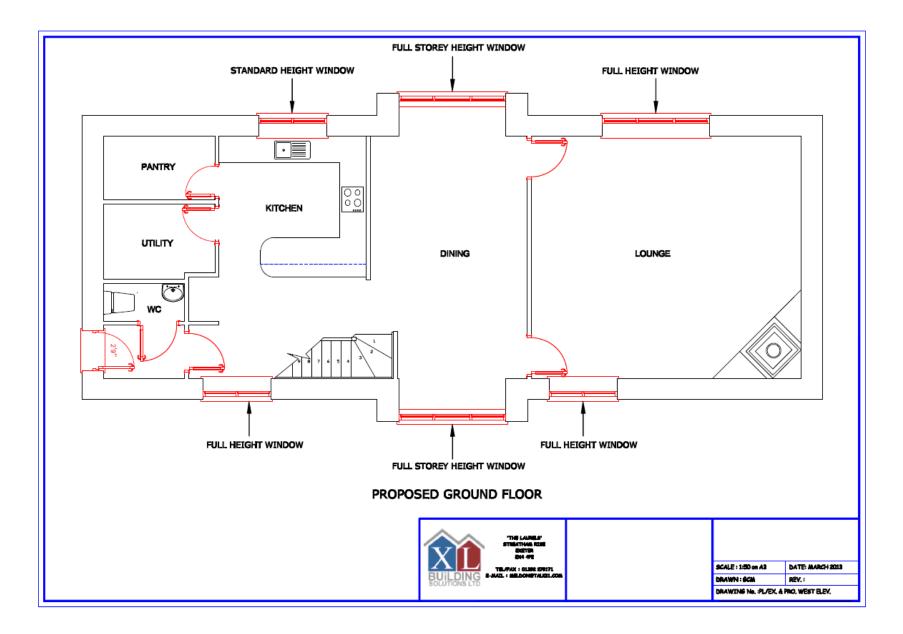
Mitchell-Jones, A.J. & McLeish, A.P. (2004). Bat Workers' Manual – Third Edition. Joint Nature Conservation Committee.

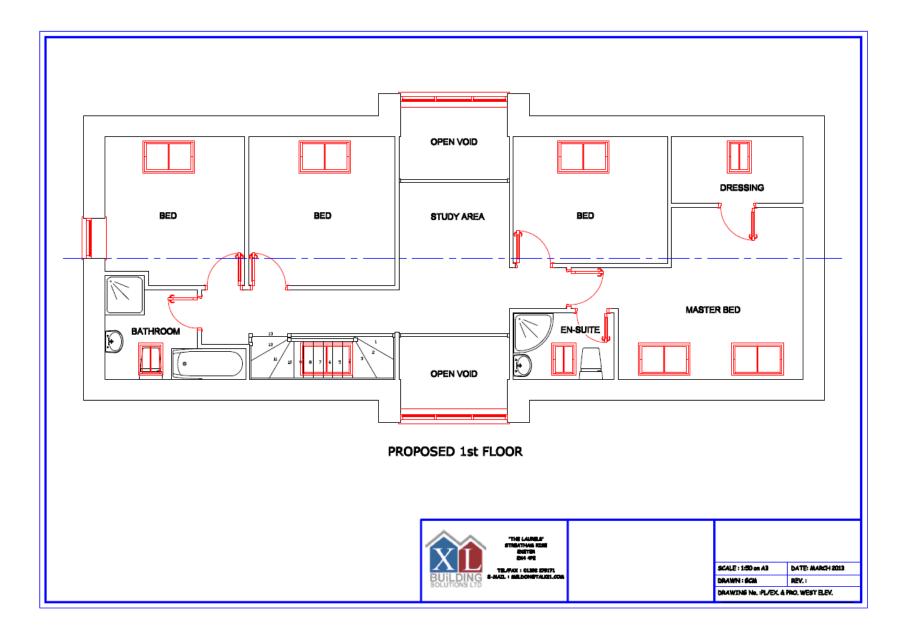


7 Appendices

A Proposed plans



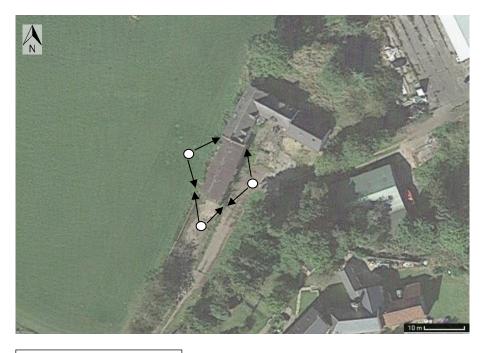




B Emergence survey results

Date	Start time, end time and time of sunset	Structure reference	Equipment used	Weather		
08/07/2021	21:14h – 22:44h Sunset: 21:29h	Pylemoor Barns (Barn A)	PeerSonic Bat Recorder X3	Cloud cover: 8/8 oktas Temp: 16°C Wind: Calm Precipitation: Dry		
Surveyors, including licence no. (if applicable): Tom Rickman (2017-32749-CLS-CLS) Louie Landesmann Luke Edkins						

Emergence surveyor positions and lines of sight for both surveys



Surveyor position ○ Lines of sight ——►

Survey results:

Approximately 50-100 bat droppings were found scattered throughout the barn, with accumulations on the windowsill on the north-western elevation.

One common pipistrelle bat emerged from the ridge on the western elevation of the building at 21:15h (red)

One common pipistrelle bat emerged from the doorway on the western elevation of the building at 22:04h (red)

One common pipistrelle bat emerged from the ridge at 21:28h (red)

One long-eared bat emerged from under the fascia on the eastern elevation of the building at 22:12h (blue)

Summary:					
Species Number Roost type					
Common pipistrelle	3	Day			
Long-eared	1	Day			

Photographs

Locations of emerging common pipistrelle bats at 21:15h and 22:04h



Location of emerging common pipistrelle bat at 21:28h (red) and long-eared bat at 22:12h (blue)



Scattered bat droppings on the windowsill



Date	Start time, end time and time of sunset	Structure reference	Equipment used	Weather
02/08/2021	20:43h –	Pylemoor	Elekon Batlogger	Cloud cover: 2/8
	22:15h	Barns	PeerSonic Bat Recorder x2	oktas
	Sunset:	(Barn A)		Temp: 14°C
	20:58h			Wind: Light
				Precipitation: Dry

Emma Wantoch Louie Landesmann Luke Edkins

Survey results:

One common pipistrelle bat emerged from below the fascia on the southern elevation at 20:52h (red).

Two common pipistrelle bats emerged from the apex of the gable on the southern elevation at 21:16h (red).

Two common pipistrelle bats emerged from below the fascia on the southern elevation at 21:25h (red).

One common pipistrelle bat emerged from beside the chimney on the western elevation at 21:29h (red).

One common pipistrelle bat emerged from above the door on the eastern elevation at 21:15h (red).

One long-eared bat emerged from behind the under the fascia on the eastern elevation at 22:03h (blue).

One long-eared bat emerged from the eave above the wooden door on the western elevation at 22:04h (blue).

Summary:				
Species Number Roost type				
Common pipistrelle	7	Day		
Long-eared	2	Day		

Photographs

Locations of emerging common pipistrelle bat at 21:29h (red) and long-eared bat at 22:04h (blue)



Locations of emerging common pipistrelle bat at 21:15h (red) and long-eared bat at 22:03h (blue)



Locations of emerging common pipistrelle bat at 20:52h and two common pipistrelle bats at 21:16h, and another two emerging common pipistrelles bats at 21:25h



C Legislation

This is a summary of relevant legislation, however it is recommended that proper legal advice be sought as necessary.

C.1 Bats

All bat species and their roosts are protected in the UK under the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019, which implement the EC Directive 92/43/EEC, also known as the Habitats Regulations.

They are also protected under the Wildlife and Countryside Act 1981 (as amended), through inclusion in Schedule 5, and under the Countryside and Rights of Way Act 2000.

Taken together, these acts and regulations make it illegal to:

- intentionally or deliberately kill, injure or capture bats;
- deliberately or recklessly disturb bats *;
- damage, destroy or obstruct access to places of shelter, breeding sites or resting places used by bats;
- have in one's possession or control, any live or dead bat; and
- sell, barter or exchange bats, or parts of bats.

*Under the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 it is illegal to deliberately disturb bats. In particular, any disturbance which is likely (a) to impair their ability to survive, to breed or reproduce, to rear or nurture their young, or to hibernate or migrate, or (b) to affect significantly the local distribution or abundance of the species to which they belong.

*Under the Wildlife and Countryside Act 1981 (as amended) (Section 9(4)(b)) it is illegal to intentionally or recklessly disturb bats whilst in a place of shelter, although there is a defence under Sections 10(2), 10(3)(c) and 10(5) that allows this otherwise prohibited act. In summary, there is a defence if the disturbance was an incidental result of a lawful operation and could not have reasonably been avoided. The defence applies provided that the appropriate Statutory Nature Conservation Organisation (Natural England) has been notified and allowed a reasonable time to advise on whether the proposed action should be carried out and, if so, the method to be used.

Developments that compromise the protection afforded to bats under the provisions of the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 will almost invariably require a licence to do so lawfully from Natural England. Three tests must be satisfied before Natural England can issue a licence to permit otherwise prohibited acts:

- Regulation 55(2)(e) states that licences may be granted to "preserve public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment."
- 2. Regulation 55(9)(a) states that a licence may not be granted unless "there is no satisfactory alternative".
- Regulation 55(9)(b) states that a licence cannot be issued unless the action proposed "will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range".

C.2 Nesting birds

All birds, their nests and eggs are protected by the Wildlife and Countryside Act 1981 (as amended) and it is thus an offence, with certain exceptions, intentionally to:

- Kill, injure or take any wild bird.
- Take, damage or destroy the nest of any wild bird while it is in use or being built.
- Take or destroy the egg of any wild bird.
- Have in one's possession or control any wild bird (dead or alive) or any part of a wild bird which has been taken in contravention of the Act or the Protection of Birds Act 1954.
- Have in one's possession or control any egg or part of an egg which has been taken in contravention to the Act. This includes items taken or killed before the passing of the Act.
- Have in one's possession or control any bird of a species occurring on Schedule 4 of the Act unless registered (and in some cases ringed) in accordance with the Secretary of State's regulations.
- Disturb any wild bird listed on Schedule 1, which includes the barn owl, while it is nest building, or at a nest containing eggs or young, or disturb the dependent young of such a bird.

D DNA results

Ecotype Genetics

Sample Results Form

oumpit	- Results i							
Date 27/8/21		Order Number EG-RG-0052						
Sample No.	Analysis Type	Sample Type	Suspected species	Site location (Postcode/Grid reference)	DNA extraction code	Species Identified	ID method	Ct value/ % match
1								
2	Mixed	Faecal	Plec/Pip/Ser	Lewis, Pylemoor Barns (A) EX16 9RF	RG-DNA-0069	Pipistrellus pipistrellus (Common pipistrelle bat) Plecotus auritus (Brown long-eared bat) Eptesicus serotinus (Serotine bat) Myotis mystacinus (Whiskered bat) Myotis nattereri (Nattereri sbat)	qPCR	18 20 17 21 21
3								
4								
5								
6								
7								
8								
9								
10								

What do my results mean?

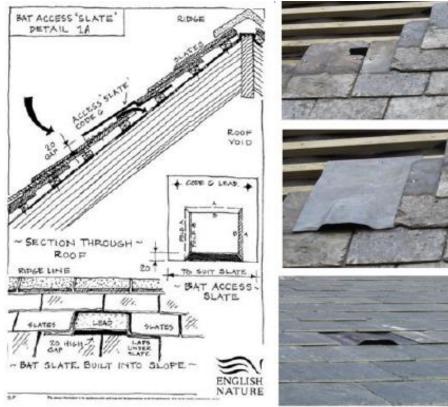
DNA extraction code - this identifies the DNA extraction sample within our laboratory so that it can be revisited if necessary. We keep these extractions for a minimum of 3 months.

E Bat mitigation examples

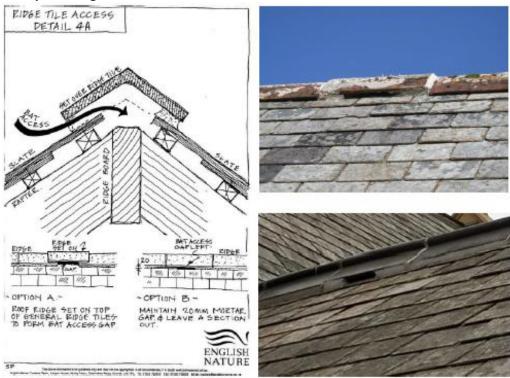
Baffle with squeeze box providing roosting opportunities for crevice dwelling bats



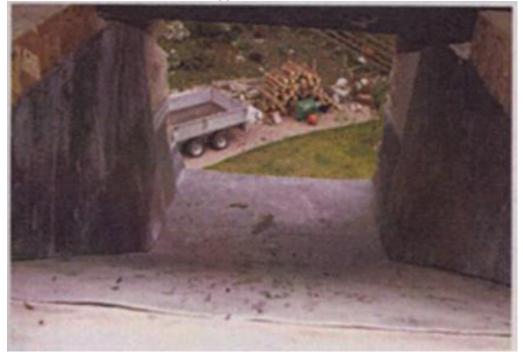
Example of lead bat access slates



Example of ridge tile access



External and internal views of a hopper entrance (for horseshoe bats)



View from inside the roost abowing the sloping hopper entrance, lined with lead to avoid bird access



F Conservation action statement and summary balance sheet

Address:	Barn A, Pylemoor Farm, Washfield, Tiverton, Devon, EX16 9RF
OS grid reference:	SS 9272 1720
Planning application reference:	Not known

Summary E	Summary Balance Sheet (this net gain/loss table assumes all recommendations made in this report are implemented in full)							
Ecological receptor	Potential impact	Avoidance measure	Mitigation measure	Compensation measure	Enhancement measure	Net gain / loss for receptor		
Bats	Loss of common pipistrelle, soprano pipistrelle, brown long- eared, serotine, whiskered, and Natterer's bats roosts	Carry out works under European protected species licence (EPSL) and ecological supervision.		Provide alternative roosting provision i.e., a bat loft above a garage/car port with various bat access points and internal roosting locations	Provision of a wooden bat box on a tree and two integrated bat tubes in the converted building.	Neutral		
Nesting birds	Loss of potential nesting sites	Check for nesting birds prior to works commencing (if carried out during the nesting bird season).		Provision of two swift boxes to be installed on the converted building at eaves level, to provide nesting opportunities for a variety of birds.		Neutral		

NB: It is not possible to undertake a biodiversity offsetting calculation using the Biodiversity Metric 3.0 for species. Biodiversity Metric 3.0 does not include species explicitly.