

Ecological Impact Assessment and Bat Survey

THE DALE, ALLENDALE NORTHUMBERLAND

Summer 2022

Ruth Hadden, BSc. MCIEEM
Ryal Soil and Ecology
Ryal
Northumberland

Tel: 01661 886562

Document Title: The Dale, Allendale Northumberland Ecological Impact Assessment and Bat Survey		
Principal Author	Ruth Hadden	
Client/Agent		
Date and version	October 2022	
Author Contact Details	01661 886562	
	Author	Date
Originated	R Hadden	October 2022
Reviewed		
Approved for issue	R Hadden	20 October 2022

Disclaimer:

Ecology surveys are carried out in good faith, to the relevant professional guidelines. Where variation from these guidelines is necessary, this is outlined in the report. Any comments regarding condition of buildings or trees are in relation to the use of the building/tree by bats and birds and should not be considered as a building survey or arboricultural opinion on the condition of those features.

The client should be aware that the mitigation recommendations in ecology reports are often translated directly into planning conditions, and as such these should be studied closely and agreed with any contractors in advance of site works commencing.

Mitigation recommendations should be clearly marked on the Architect's Plans submitted with any planning or other consent.

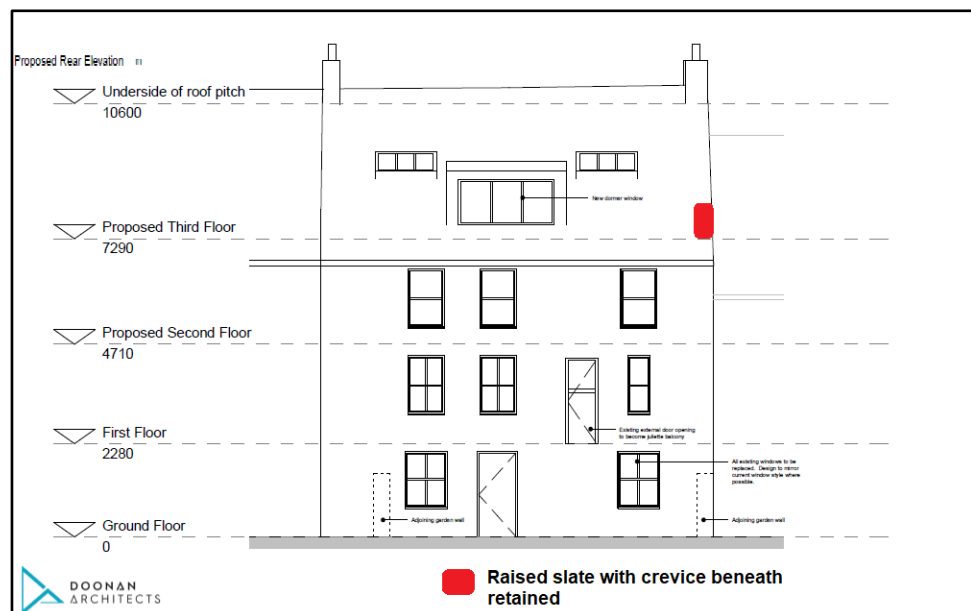
Contents	
Summary	4
1. Introduction.	5
2. Relevant Policies and Legislation.	6
3. Methodology	6
3.1 Scope of the Assessment	6
3.2 Desktop Survey.	7
3.3 Site Survey	7
3.4 Assessment.	8
4. Baseline Ecological Conditions	8
4.1 General	8
4.2 Designated Sites	9
4.3 Habitats	9
4.4 Species and Species Groups	10
4.4.1 Desktop Search	10
4.4.2 Habitat description	10
4.4.3 Bats	10
4.4.4 Bird Assessment	11
4.4.5 Invasive Species	11
5. Photographs of the Site	12
6. Description of Proposed Development.	13
7. Assessment of Impacts	13
7.1 Constraints	13
7.2 Site Based Impacts.	14
7.3 Impacts on the SSSI.	14
8. Mitigation and Enhancement.	14
8.1 Pollution Prevention	14
8.2 On Site Mitigation	14
8.3 Mitigation Summary	15
8.4 Enhancement	16
8.5 Monitoring	16
8.6 Conclusions	16
9. References	16
APPENDIX 1. LEGISLATION RELATING TO PROTECTED SPECIES	17
APPENDIX 2. SURVEY DATA	18
APPENDIX 3. BAT METHOD STATEMENT FOR CONTRACTORS	19
Identifying roosts	19

Ecological Impact Assessment for The Dale, Allendale, Northumberland

Summary

- An ecological survey was requested primarily for bats and birds for The Dale, Allendale, Northumberland by Doonan Architects on behalf of the owner.
- The building surveyed is a stone walled building with a pitched, slate roof and is presently undergoing renovation.
- The Dale is located in the marketplace of Allendale. The River East Allen runs 150m to the north and west of the property and is well-wooded providing excellent feeding areas for bats. To the south are the residential areas of the village. The village itself is immediately surrounded by farmland, consisting of mainly improved grassland with boundary walls and some tree-lined boundaries.
- Renovations have been ongoing for some time and this section is the last section to be completed. Pointing is generally good (south aspect recently re-pointed) with the occasional crevice present at the eaves ridge and west gable wall top. Due to the low roost potential and the bat activity, two emergence/dawn surveys were carried out.
- Surveys carried out in 2011 only identified two Pipistrelle 45kHz and a whiskered/Brandt's bats foraging. Known bat activity in the area within 2km of the site includes a small roost of Pipistrelle 45kHz bats within 100m, a maternity roost of species not known, within 1km to the northeast, a small Daubenton's roost 1.2km to the northwest, an occasional roost of Pipistrelle 45kHz 500m to the southeast and Brown long-eared 2+km to the northwest with downed bats found 400m to the northwest. A maternity roost of Whiskered is known 2km to the southeast. Foraging Noctule bats, Myotis species (Natterer's and Whiskered/Brandt's), as well as Pipistrelle 45kHz and Pipistrelle 55kHz bats have also been recorded in the area.
- The emergence survey confirmed bat emergence from the west gable wall with a single Brown long-eared seen emerging. Foraging or commuting Pipistrelle 45kHz bats, Noctule and a whiskered/Brandt's bat were heard or seen. No bats were heard or seen from the Market Place side, possibly due to the that area being well illuminated. The dawn survey did not identify any bats entering the building with Pipistrelle 45kHz bats, whiskered/Brandt's and a Daubenton's bat heard.
- Mitigation will be put in place, to maintain the present bat crevice.
- Timing of the roof works to avoid the hibernation period (November to March inclusive) will ensure that the works have as little negative affect as possible on bats.
- Any nesting bird species will be allowed access to the nest until the young have fledged.

Figure 1.
Ecological
Mitigation Plan



1. Introduction.

The inspection was carried out and reported by Ruth Hadden BSc an experienced Ecologist and Licensed Bat Surveyor.

Figure 2. Survey area - within the redline

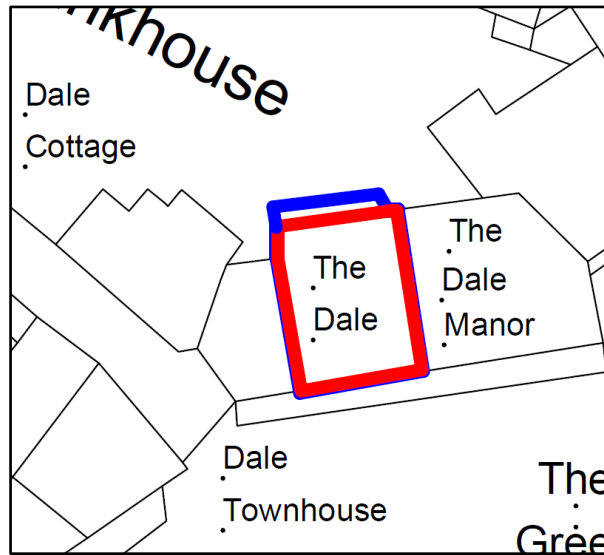
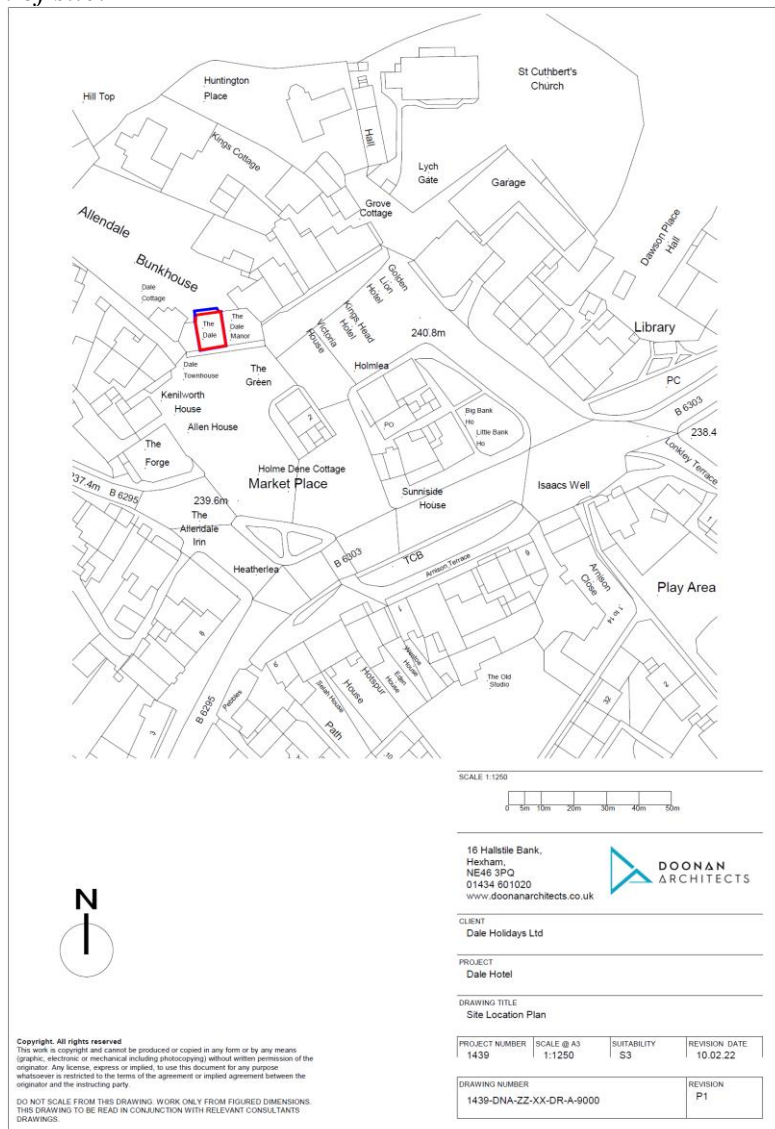


Figure 3. Location of site.



2. Relevant Policies and Legislation.

Under Section 25 (1) of the Wildlife & Countryside Act (1981) local authorities have a duty to take such steps as they consider expedient to bring to the attention of the public the provisions of Part I of the Wildlife & Countryside Act, which includes measures to conserve protected species.

The Natural Environment and Rural Communities Act (2006) places a Statutory Biodiversity Duty on public authorities to take such measures as they consider expedient for the purposes of conserving biodiversity, including restoring or enhancing a population or habitat.

The National Planning Policy Framework (NPPF) states “*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;” (paragraph 175).

ODPM Circular 06/2005/Defra Circular 01/2005 states that the presence of a protected species is a material consideration when considering a development proposal that could harm the species or its habitat. Appendix 1 details legislation relating to applicable species.

Section 41 of The Natural Environment and Rural Communities (NERC) Act (2006) requires the Secretary of State to publish a list of habitats and species which are of principal importance for the conservation of biodiversity in England. The S41 list is used to guide decision-makers such as public bodies, including local and regional authorities, in implementing their duty under Section 40 of the Natural Environment and Rural Communities Act 2006, to have regard to the conservation of biodiversity in England, when carrying out their normal functions. This includes planning decisions.

2.1 Designated Sites

Site of Special Scientific Interest (SSSI) citations are for special features of importance to nature conservation. Sites of Special Scientific Interest (SSSIs) are nationally important sites protected under laws including The Wildlife and Countryside Act 1981, Countryside and Rights of Way Act 2000. LPAs must consult Natural England on planning applications that might affect SSSIs. Operations that could damage special interests require consent by Natural England. It is an offence for any person to intentionally or recklessly damage or destroy any of the features of special interest of an SSSI, or to disturb wildlife for which the site was notified.

3. Methodology.

3.1 Scope of the Assessment.

The zone of influence of this development is defined as being the site itself and habitats to the immediate boundaries within 2km.

The assessment has included consideration of:

- designated sites

- habitats and species of principal importance for conservation of biodiversity
- protected species, namely bats.

3.2 Desktop Survey.

Natural England's Magic on the Map website was accessed for details of any designated wildlife sites within 2km.

The Environmental Records Information Centre North East (ERIC) data search has been restricted to bats, as this is the major constraint to any destructive building works.

Natural England's Magic on the Map and OS Explorer 1:12500 maps were used to assess the distance to habitat features close to the site.

3.3 Site Survey

The survey area covered the building only within the red line boundary as shown within Figure 2 and included searching for signs of any wildlife using the site with the key aspects listed below.

The survey included an assessment of habitats on site for use by bats following the Bat Conservation Trust (BCT) *Bat Surveys for Professional Ecologists, Good Practice Guidelines* (3rd edition, 2016) and Natural England's definitions except where indicated. The survey effort at the site has taken account of the recommendations of the BCT Good Practice Survey Guidelines, taking proportionality into account and the proposals.

Field Survey for Bats and Birds

Visual Inspection

A close inspection of the building was made in good light, and by torch where required. The exterior and interior of the building were examined as far as was feasible for signs of bats: droppings, urine streaks, clean cobweb-free areas on the ridge boards or crevices and potential roost exit holes. All external and internal crevices were checked using a torch and possible roosting sites were noted. Crevice loving bats can be difficult to find especially when bats are present between the roofing felt and slate/tiles. Emergence surveys were therefore used to check for the presence of bats missed during the visual inspections. Beneath ledges the ground was examined for feathers, pellets and birdlime that could indicate occupation by barn owls.

Emergence Survey

As dusk fell 2 surveyors, each using visual observations and bat detectors (Echo Meter Touch), and two-way radios, carried out the evening emergence surveys, covering all aspects of the buildings. Bat detectors convert bat echo-location signals into audible sounds, enabling the identification of some species, and aid the monitoring of the number of bats present. Two-way radios help to determine the emergence and flight paths of a bat seen by surveyors around the site and allow the bat activity of the whole site to be understood, whilst at the site.

Surveyors are on site for at least quarter of an hour before sunset and up to 1½ hours after sunset or until darkness falls as reduced visibility does not allow bats to be seen emerging from the building being surveyed. After this time any bats picked up by detector, cannot be guaranteed to have emerged from the building in question, but confirms if additional

species are present in the area or not. If bats or a maternity colony is present the bats are counted until no bats have left the roost for 10 minutes for as long as it takes.

Re-entry Survey

A dawn survey was also carried out. For a dawn survey surveyors are on site one and a half hours before sunrise until a quarter of an hour after sunrise.

Timing and Weather Conditions

Survey	Date	Timings	Weather
Inspection	8 May 2021	Externally and Internally (40 mins)	Fine and dry
Emergence	29 August 2022	7.50 pm – 9.35pm (Sunset 8.06pm)	Fine, cloudy and still. 14-11°C
Re-entry	21 Sept 2022	5.20am – 7.05am (sunrise 6.52am)	Fine, clear and still 10°C

Personnel

Ruth Hadden – Bat Consultant since 1996, Class Survey Licence CL20 2015-13665-CLS-CLS (Bat Survey Level 4). Licensed to handle bats and enter known roosts since 1986. Qualifications BSc Joint Honours Zoology & Plant Biology, Newcastle upon Tyne. MCIEEM

Lesley Rymer and Ben Whittle with 16-12 years of experience.

3.4 Assessment.

The assessment has been conducted according to the *Guidelines for Ecological Impact Assessment in the UK and Ireland Terrestrial, Freshwater, Coastal and Marine*, CIEEM, September 2018. Impacts are considered for during construction and occupation.

Preliminary Ecological Appraisal Reports (PEAR) which CIEEM guidelines¹ states can be used to support a planning application where it can be determined that the project would have no significant ecological effects, no mitigation is required, and no further surveys are necessary. PEARs though can also provide;

- the results of initial ecological surveys associated with a proposed development
- identify further ecological surveys necessary to inform an EcIA
- identify ecological constraints to a project
- make recommendations for design changes
- highlight opportunities for ecological enhancement.

4. Baseline Ecological Conditions

4.1 General

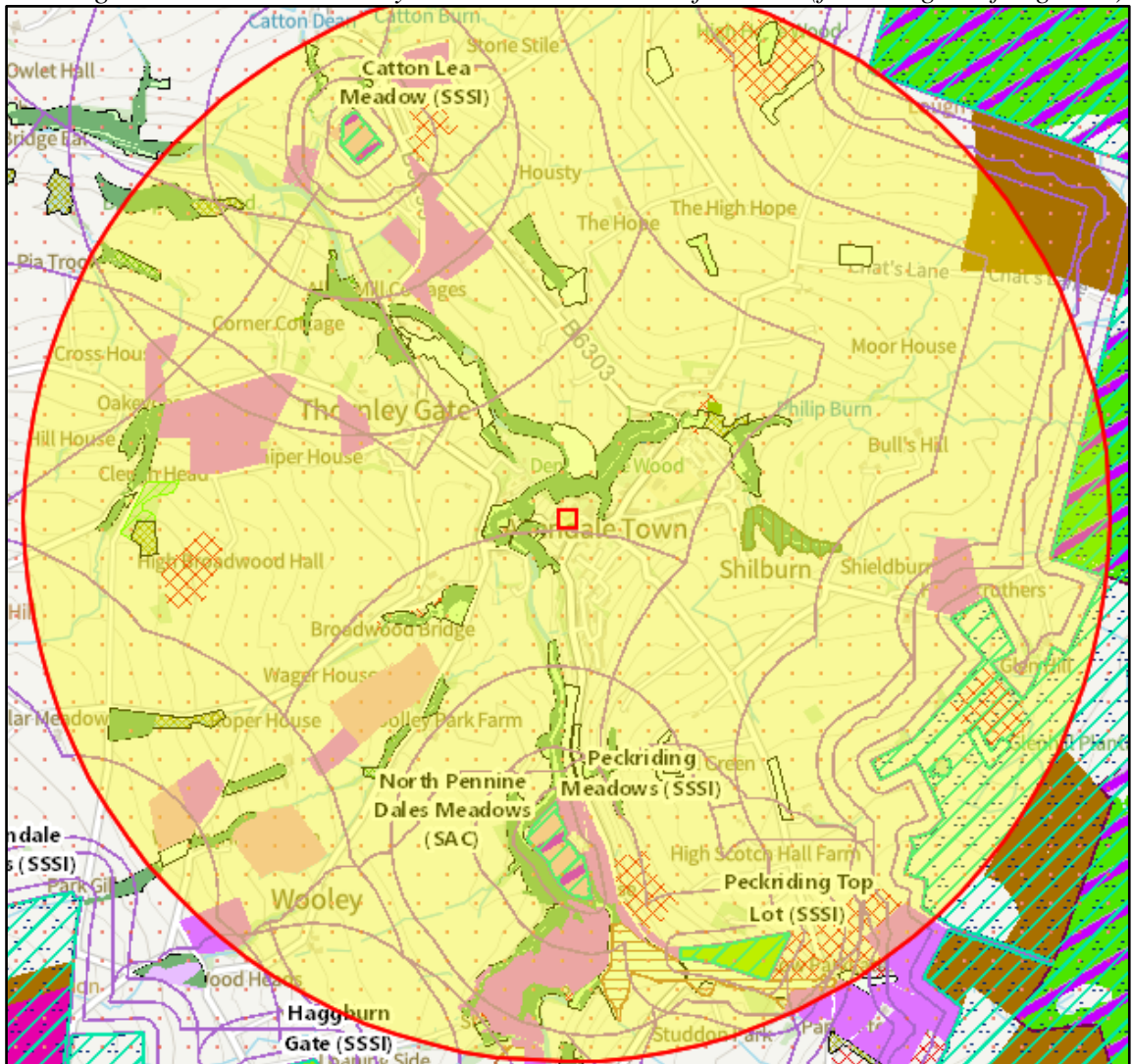
The building surveyed is located at NY837559 as shown below.

¹ *Guidelines for Ecological Report Writing Second Edition* December 2017

4.2 Designated Sites

There are several statutory designated sites within 2km of the site. These are Peckriding Meadows SSSI, Pecking Top Lot SSSI, Catton Lea Meadow SSSI. North Pennine Moors Special Protection Area (SAC & SPA) and North Pennine Dales Meadows Special Area of Conservation (SAC) are also present within 2km. Allendale Moors SSSI and Haggburn Gate SSSI lie just over 2km from the site. The development site falls within the impact risk zones for the SSSI's in the wider area.

Figure 4. Designated Sites and Priority Habitats within 2km of the site (from magic.defra.gov.uk)



4.3 Habitats

Figure 4 shows BAP Priority Habitats, within 2km (listed under Section 41 of the Natural Environment and Rural Communities Act 2006). These habitats are deciduous woodland, lowland meadows, upland heathland, upland hay meadow, traditional orchards, grass moorland, ancient and semi-natural woodland and good quality semi-improved grassland all within 2km of the site.

4.4 Species and Species Groups

4.4.1 Desktop Search

Records from the Environmental Records Information Centre North East (ERIC) show results from within 2km of the site for bats. There are no ponds within 500m, one granted European Protected Species licence for bats and none for great crested newts within 2km.

4.4.2 Habitat description

The Dale is located in the marketplace of Allendale. The River East Allen runs 150m to the north and west of the property and is well-wooded providing excellent feeding areas for bats. To the south is the Market Place and the residential areas of the village. The village itself is immediately surrounded by farmland, consisting of mainly improved grassland with boundary walls and some tree-lined boundaries.

The area has some excellent sheltered feeding and protection present within 500m. Bat roost potential will be present in the village, scattered local residences and any suitable mature trees present in the area.

4.4.3 Bats

Pre-existing information on the species at the site.

Surveys carried out in 2011 identified two Pipistrelle 45kHz and a whiskered/Brandt's bat that foraged beneath a large tree close to the building which has subsequently been removed. (R Hadden) A small roost of Pipistrelle 45kHz bats is known within 100m (2004) (ERIC North East)

Status of species in the local/regional area.

Known bat activity in the area within 2km of the site is a maternity roost of species not known, within 1km to the northeast (1994), a small Daubenton's roost 1.2km to the northwest (2010), an occasional roost of Pipistrelle 45kHz (2014) 500m to the southeast and Brown long-eared 2+km to the northwest (2005) with downed bats found 400m to the northwest (2013). A maternity roost of Whiskered is known 2km to the southeast (2020). Foraging Noctule bats, Myotis species (Natterer's and Whiskered/Brandt's), as well as Pipistrelle 45kHz and Pipistrelle 55kHz bats have also been recorded in the area (ERIC North East. A full data set available upon request).

There is one granted European Protected Species licence for bats, Pipistrelle 45kHz and Pipistrelle 55kHz and Brown long-eared nonbreeding roosts 1km to the northeast (2010).

Locally and regionally, the Common Pipistrelle is the most common bat. Both Pipistrelle 45kHz and 55kHz bats are frequent in northern England, although Pipistrelle bats are the most abundant species, they are thought to have declined by 70% between 1978 and 1993 (National Bat Colony Survey). Since 1997 monitoring by the National Bat Monitoring Programme (NBMP) has shown that bat numbers seem to be steady with small fluctuations up or down depending on the species and survey type carried out. The Brown long-eared bat is occasional with colonies much smaller in numbers than the Pipistrelle. Daubenton's, Natterer's and Whiskered/Brandt's bats are also occasional but widespread in Northumberland with an average colony size being about 35 adult bats. The Nathusius' Pipistrelle is a rare bat, has migratory habits and has been proved to fly across the North Sea from Bristol to Holland and has occasionally been recorded in Northumberland throughout the season.

Bats – Daytime Risk Assessment

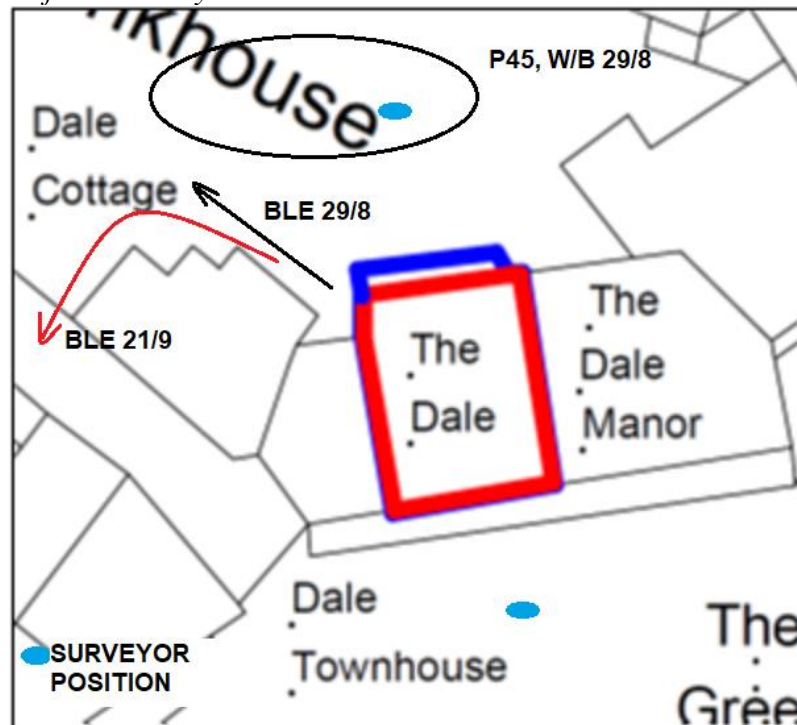
The building is stone with a slate roof that has a wood sarking. Renovations have been ongoing for some time and this section is the last section to be completed. The building has not been in use since 2002 but is in a reasonable state of repair. Pointing is generally good with the occasional crevice present at the eaves and west gable wall top. Crevices may be present beneath the ridge tiles and any raised slate. The lofts in 2011 had no evidence of bats and were all cobwebby and dusty however were inaccessible during these surveys. Due to the low roost potential and bat activity, two emergence/dawn surveys were carried out.

No potential bat hibernation sites were identified in the building; however, bats may be present in any suitable crevice, in the pointing crevices or on the wall top.

Bats – Activity Surveys

The emergence surveys confirmed bat emergence from the building gable wall with a single Brown long-eared seen emerging. Foraging or commuting Pipistrelle 45kHz bats, Noctule and a whiskered/Brandt's bat were heard or seen. No bats were heard or seen from the Market Place side, possibly due to the that area being well illuminated. The dawn survey did not identify any bats entering the building with Pipistrelle 45kHz bats heard social calling intermittently plus whiskered/Brandt's and a Daubenton's bat was also heard. Please see Appendix 2 for detail.

Figure 5. Plan of Bat activity



4.4.4 Bird Assessment

No nesting birds or evidence of nests were identified.

4.4.5 Invasive Species

These are non-native invasive species included in Schedule 9 of the Wildlife & Countryside Act 1981 (as amended), which makes it illegal to release or allow to escape into the wild.

No invasive species (as listed in Schedule 9) were noted on site.

5. Photographs of the Site



From the north, note open access windows

The former Dale Hotel from the south



Access to ground floor only



Possible crevices below the ridge tiles



Roof of the north aspect



West gable showing raised slate – to be retained as at present



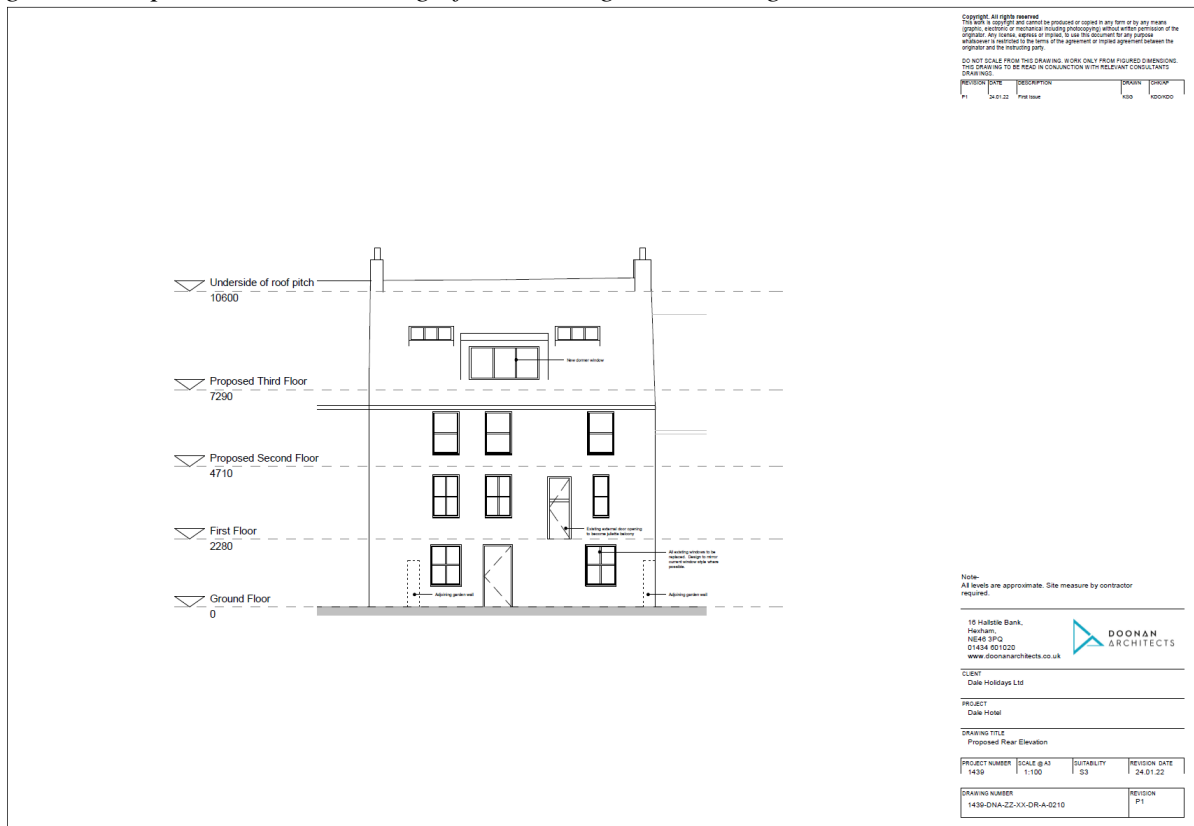


Photograph of the loft area showing wooden sarking (from 2011 report R Hadden)

6. Description of Proposed Development.

The proposals are to create a doorway to the rear and include a dormer window (currently built) Remove the external stair on the rear elevation leading to the first floor and replace with a Juliette balcony. The roof will not be re-laid.

Figure 6. Proposed Works – No significant changes to existing



7. Assessment of Impacts

7.1 Constraints

The loft space was not accessible. The surveys were commissioned late in the season, however the survey results were consistent with past surveys.

7.2 Site Based Impacts.

The building due to be renovated has low conservation significance for bats as a roost site at present. This assessment takes into account the location of the building and the good feeding habitat and shelter within 300m, the results of the inspection and survey, the crevices within the building and the potential of the building as a maternity bat roost site.

Pre-activity impacts are negligible with no changes being made to the use of the buildings.

Mid-activity impacts will be moderate for bats. The works may cause disturbance, injury and death to bats or birds, if no mitigation is carried out in the eventuality of an animal being located during any destructive works.

Site Assessment

The site is considered to have low conservation significance for amphibians and nesting birds and low conservation significance for bats.

7.3 Impacts on the SSSI.

The development site falls within the risk impact zones for nearby SSSI's in the area, however the works are unlikely to greatly impact any designated area.

8. Mitigation and Enhancement.

The National Planning Policy Framework (NPPF) requires that the planning system minimizes impacts on biodiversity and provides net gains. The following recommendations will likely be translated into conditions placed on any planning consent. They are intended to reduce the risk of this development to protected species and habitats.

Natural England guidelines on mitigation states timing constraints and like-for-like replacement is a minimum requirement.

8.1 Pollution Prevention

To protect any nearby waterways and drains, measures to be made to ensure that there is no runoff (herbicides, wheel washing, cement washings etc.) either during construction to prevent pollution or sediment issues, or after development. (See Environment Agency's Pollution Prevention Guidelines (PPG5) for guidance.

8.2 On Site Mitigation

One day roost will be retained as at present on the west gable wall top as at present. This will be in the form of an external crevice which will be created to provide a roosting site for crevice-loving bats. This will be in the form of an access gap measuring 20mm by at least 20mm created between the slates and the gable wall top through the mortar fillet into a larger crevice on the wall top below the watertable, resembling a 'flattened bottle' measuring at least 100 x c.200 x 20mm. This provides a small space that acts as a suitable bat roost for the occasional bat. Please see Appendix 3 for detail and plan at Fig. 7 for location. No bat access to the breathable membrane to be allowed.

Wooden beams and timbers will be treated only with ‘bat friendly’ products, permethrin or cypermethrin as insecticides for example. Further information is available if the contractor requires it.

A traditional bitumen felt (F1) or wood sarking that would give bats some grip will be used in the region of any bat roost potential and not a more modern smooth or breathable roofing membrane (BRM) that may fray and entrap bats. **No BRM (Breathable Roofing Membrane) to be used in any areas where bats could gain access to roof as a result of new roost provisions.**

Any external lights will be set on a motion detector and short timer and be positioned in such a way that they do not shine on any of the bat access positions or the buildings, as this can deter bats. Please see references Bat Conservation Trust/Institute of Lighting Engineers’ Guidance 2018.

8.3 Mitigation Summary

To maintain bat and bird populations in the area the following will be carried out:-

- A crevice for bats to be retained on the west gable wall top as at present. Please see plan at Fig. 7 for locations. No BRM to be used where bats can access.
- Any external lighting will be on a relatively short timer, directed away from bat roost access points and flight paths and motion-sensitive only to large objects.
- Any nesting bird species that may be present will be allowed access to the nest until the young have fledged between April and October.
- A Method Statement will be followed for bats and birds, please see the Appendix 3.

Figure 7. Mitigation Locations

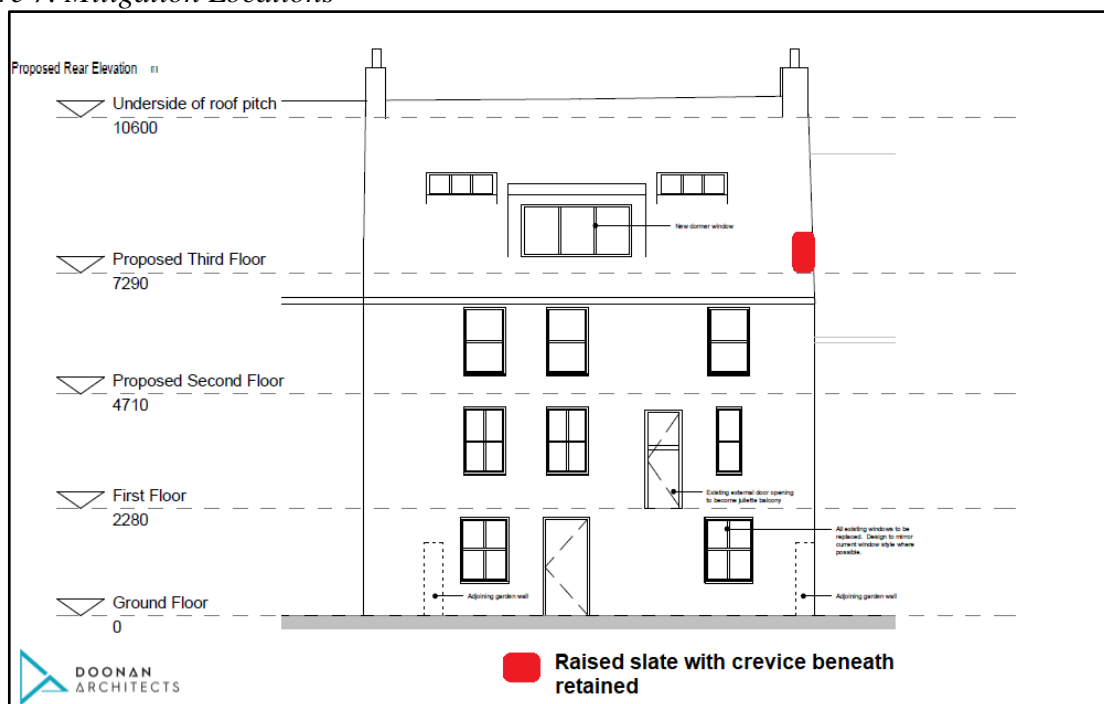


Table 1 Mitigation Summary

Location	Mitigation Type
West Gable of Building	Bat crevice to be retained as at present.

8.4 Enhancement

Not applicable.

8.5 Monitoring

Due to low impact on bat activity on site, by the proposals monitoring after the development is completed will not be required to assess the success of mitigation. (Bat Mitigation Guidelines 2004, Section 7.2). Ruth Hadden available to liaise with the owners as required regarding the mitigation.

8.6 Conclusions

- Without any mitigation the proposed works will result in low impact on any bat population present.
- The provision of mitigation in the form of retention of crevices will maintain net biodiversity for this site.

9. References

Barn Owl Trust (2002), Barn Owls on Site. English Nature
Chartered Institute and Ecology and Environmental Management (CIEEM) (2017). Guidelines for Ecological Report Writing 2nd Ed.
Collins J (ed.) (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn). Bat Conservation Trust, London.
Corbet and Harris (1991). The Handbook of British Mammals. Blackwell.
Durkin J L (2016) Amphibian Atlas of North East England.
English Nature (2004) Bat Mitigation Guidelines. EN
Environment Agency's (2007) Pollution Prevention Guidelines: Works and maintenance in or near water: PPG5 <https://www.sepa.org.uk/media/100531/ppg-5-works-and-maintenance-in-or-near-water.pdf>
Institution of Lighting Professionals/Bat Conservation Trust (2018) Bats and artificial lighting in the UK, Guidance Note 08/18.
Joint Nature Conservancy Council (2004) The Bat Workers Manual. JNCC.

Bat boxes: <https://www.nhbs.com/low-profile-woodstone-bat-box>
<https://gardenature.co.uk/product/large-multi-chamber-woodstone-bat-box-build-in>

WoodStone Bat Box <https://www.nhbs.com/build-in-woodstone-bat-box>

Barn Owl Box : <http://www.barnowltrust.org.uk/infopage.html?Id=41>

Sparrow Terrace: www.nhbs.com/1sp-schwegler-sparrow-terrace

Swift boxes: <https://www.nhbs.com/vivara-pro-cambridge-swift-nest-box>

<https://www.nhbs.com/woodstone-build-in-swift-nest-box-a>

Bird box : <https://www.nhbs.com/1b-schwegler-nest-box>

APPENDIX 1. LEGISLATION RELATING TO PROTECTED SPECIES

Bats

All bats are protected under the Wildlife and Countryside Act (Schedule 5). They are also included in Schedule 2 of the Conservation Regulations 2017. The Act and Regulations make it illegal to:

Intentionally or deliberately kill, injure or capture (take) bats

Deliberately disturb bats (whether in a roost or not)

Damage, destroy or obstruct access to bat roosts

The Countryside and Rights of Way Act 2000 extended the protection given to bats to cover *reckless* damage or disturbance.

A bat roost is interpreted as 'any structure or place which is used for shelter or protection', whether or not bats are present at the time.

Barn Owls

Similarly, the Barn Owl is protected under Part 1 of the Countryside Act 1981 and is listed on Schedule 1, which gives them special protection. It is an offence, with certain exceptions to:

- Intentionally or deliberately kill, injure or capture (take) any wild barn owl.
- Intentionally take, damage or destroy any wild barn owl nest whilst in use or being 'built'.
- Intentionally take or destroy a wild barn owl egg.
- Intentionally or recklessly disturb any wild barn owl whilst 'building' a nest or whilst in, on, or near a nest containing young.
- Intentionally or recklessly disturb any dependant young or wild barn owls.

Biodiversity

The National Planning Policy Framework (NPPF) 2012 requires Local Planning Authorities (LPA's) to seek to deliver biodiversity enhancement through the planning system, see paragraphs 9, 109 and 118. In particular Paragraph 109 includes a statement:

The planning system should contribute to and enhance the natural and local environment by:

- 'minimising impacts on biodiversity and providing net gains in biodiversity.'

APPENDIX 2. SURVEY DATA

Table 2 Emergence survey results.

Date	Bat Activity
29 August 2022 8.06pm 8.26-8.30pm 8.30pm 8.35pm 8.36pm 8.37pm 8.49-9.18pm 8.38pm 9.20pm 9.35pm	Sunset. Pipistrelle 45kHz bat foraging above the trees to the northwest of the site. Bat seen flying in the loft area. Whiskered/Brandt's bat heard not seen to the north. Pipistrelle 45kHz bat heard not seen. Brown long-eared bat flew from the northwest corner across the site to the southwest. Noctule bats heard intermittently (5 passes). Pipistrelle 45kHz bat heard not seen Pipistrelle 45kHz bat heard not seen. Survey concluded.
21 Sept 2022 5.55-56am 6.01am 6.02am 6.25am 6.29am 6.52am 7.05am	Whiskered/Brandt's bat heard not seen intermittently to the northwest. Daubenton's bat heard not seen Pipistrelle 45kHz bat heard social calling. Brown long-eared seen fling around the building to off site to the south Pipistrelle 45kHz bat heard social calling. Sunrise Survey concluded

APPENDIX 3. BAT METHOD STATEMENT FOR CONTRACTORS

This statement should be copied to the site owner, architect, clerk of works and to those contractors whose work may affect bat roosts including those involved in conversion, wood treatment, roofing and building works.

Bats are fully protected by law. To avoid breaking the law by damaging or disturbing bat roosts, resulting in possible imprisonment, fines or confiscation of equipment, certain procedures have to be followed.

Legislation

All bats are protected under the Wildlife and Countryside Act (Schedule 5). They are also included in Schedule 2 of the Conservation Regulations 2017. The Act and Regulations make it illegal to:

Intentionally or deliberately kill, injure or capture (take) bats

Deliberately disturb bats (whether in a roost or not)

Damage, destroy or obstruct access to bat roosts

The Countryside and Rights of Way Act 2000 extended the protection given to bats to cover *reckless* damage or disturbance.

A bat roost is interpreted as 'any structure or place which is used for shelter or protection', whether or not bats are present at the time.

Similarly the Barn Owl is protected under Part 1 of the Countryside Act 1981 and is listed on Schedule 1, which gives them special protection. It is an offence, with certain exceptions to:

- Intentionally or deliberately kill, injure or capture (take) any wild barn owl.
- Intentionally take, damage or destroy any wild barn owl nest whilst in use or being 'built'.
- Intentionally take or destroy a wild barn owl egg.
- Intentionally or recklessly disturb any wild barn owl whilst 'building' a nest or whilst in, on, or near a nest containing young.
- Intentionally or recklessly disturb any dependant young or wild barn owls.

Identifying roosts

Pipistrelle the most common bat, favours small crevices and spaces between brickwork, stone and roofing felt. Bats are small mammals and when at rest the bodies are only 4-6 cm long, their fur colour can range from brown to pale and dark grey. When disturbed the bat is likely to be torpid and unable to fly effectively for some minutes, because of this they are vulnerable to injury as they are not fast moving and may fall to the ground, breaking bones or be accidentally crushed. Basically, when material from the roof and tops of the walls is removed any crevices underneath should be checked to ensure that no bat has been disturbed.

Other traces that can indicate a past presence of bats are their droppings. These resemble mouse droppings but unlike mouse droppings can be crumbled to dust between finger and thumb. Droppings may be found on wall tops and beneath slates and tiles on top of any sarking.



Photo showing disintegrated bat droppings beneath coping stones. If examined carefully, in the black dust exoskeletons of insects can be seen shining.

Timing

Any development work involving the removal of the existing roof materials (not planned) or stonework will be carried out avoiding the hibernation period (November to March inclusive). Periods of cold weather (below 5°C including night temperatures) will also be avoided if possible as any bats present will be in hibernation torpor and be extremely vulnerable. If torpid bats are encountered and disturbance is unavoidable the bat will be taken into care and fed until suitable conditions for release at the site is possible.

Contractors

All contractors will be aware that bats may be present in the area and could be present within the loft space and may be found torpid in crevices if any. Table 1 below highlights where bats may be found and the recommendations. Any bats found during operations will have the cavity re-covered for its safety and any work in the vicinity will cease. Ruth Hadden to be informed for advice immediately (01661 886562). As only licensed bat handlers can move bats and the contractors are not permitted to handle bats, the bat will be allowed to disperse of its own accord overnight.

Table 1 General Methodology for Renovation Works

STRUCTURE	METHOD	INSPECT
Roofs	Remove any ridge tiles, tiles/slates or roof coverings including loose felt by hand, lifting vertically to prevent any bats from being crushed. Removal of any timbers/beams.	Check any crevices underneath the roofing materials including the underside, as it is removed. Check any crevices around the beams as work proceeds.
Walls/Eaves	Expose the wall tops. Remove any gutters. Dismantle any walls required, by hand.	Examine for bat droppings and any wall cavities for bats.
Walls - Pointing	Only point crevices where the full depth can be seen otherwise leave as at present.	Check deep crevices for the presence of bats using a torch.
Windows/doors	Remove windows, doors and frames by hand, where gaps exist around the frames.	Examine any wall cavities exposed. Avoid blocking any external pre-existing gaps.

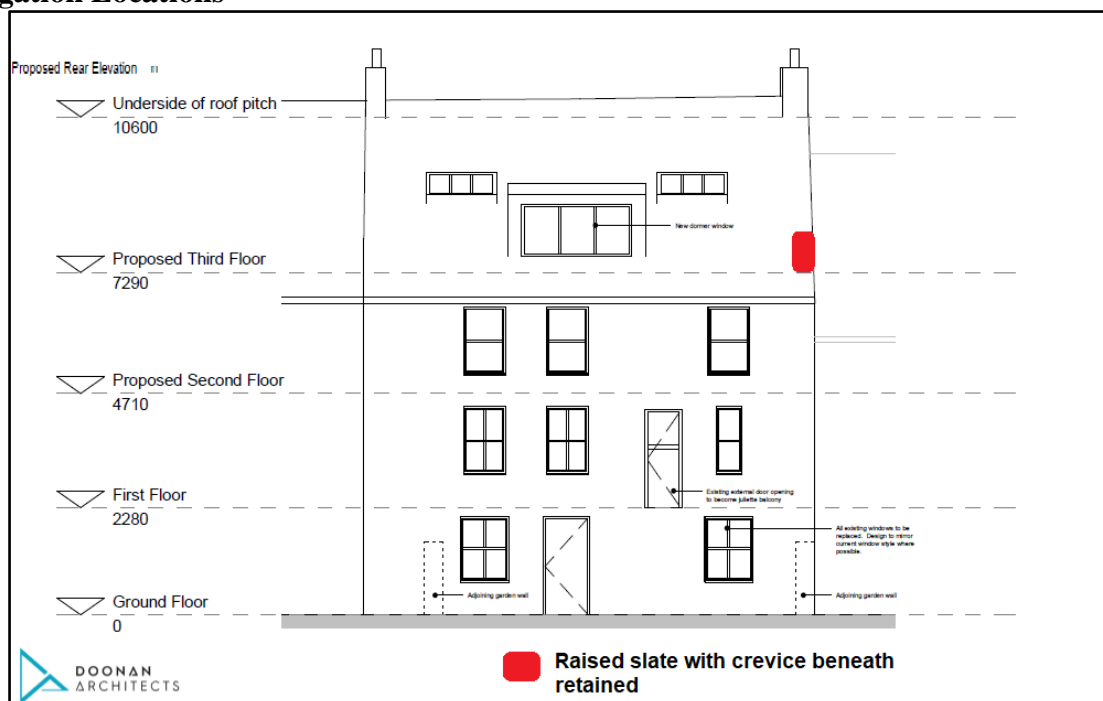
If a barn owl is found unexpectedly during operations the cavity will be re-covered or protected and work will cease in that area. Ruth Hadden to be informed (01661 886562) immediately for assistance. Any nesting bird species will be allowed access to the nest until the young have fledged between April and October.

Mitigation Summary

To maintain bat and bird populations in the area the following will be carried out:-

- One day roost will be retained as at present on the west gable. This will be in the form of an external crevice will be created to provide a roosting site for crevice-loving bats. This will be in the form of an access gap measuring 20mm by at least 20mm created between the slates and the gable wall top through the mortar fillet into a larger crevice on the wall top below the watertable, resembling a ‘flattened bottle’ measuring at least 100 x c.200 x 20mm. This provides a small space that acts as a suitable bat roost for the occasional bat. Please see plan below for location.
- Wooden beams and timbers will be treated only with ‘bat friendly’ products, permethrin or cypermethrin as insecticides for example. Further information is available if the contractor requires it.
- A traditional bitumen felt (F1) or wood sarking that would give bats some grip will be used in the region of any bat roost potential and not a more modern smooth or breathable roofing membrane (BRM) that may fray and entrap bats. No BRM (Breathable Roofing Membrane) to be used in any areas where bats could gain access to roof as a result of new roost provisions.
- Any external lights will be set on a motion detector and short timer and be positioned in such a way that they do not shine on any of the bat access positions or the buildings, as this can deter bats. Please see references Bat Conservation Trust/Institute of Lighting Engineers’ Guidance 2018.
- To protect any nearby waterways and drains, measures to be made to ensure that there is no runoff (herbicides, wheel washing, cement washings etc.) either during construction to prevent pollution or sediment issues, or after development. (See Environment Agency’s Pollution Prevention Guidelines (PPG5) for guidance.
- Any nesting bird species will be allowed access to the nest until the young have fledged.
- If a barn owl is found unexpectedly during operations the cavity will be re-covered or protected and work will cease in that area. Ruth Hadden to be informed (01661 886562) immediately for assistance.

Mitigation Locations



Gable wall crevice

