




Talbot Street, Chipping

Bat Survey Report

October 2020

Control sheet

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1. Introduction

- 1.1 Bowland Ecology Ltd was commissioned by JYM partnership to complete a daytime building inspection survey of two buildings and an outside barn, located within the village of Chipping, Preston (NGR: SD 62315 43329). Proposed works comprise the replacement of an asbestos roof and slate repair work to the main building, along with minor ridge and window repairs to a barn outbuilding.
- 1.2 Buildings 20-22 are two dwellings merged together into a residential property and a café with a modern extension to the rear, both are situated on a row of three buildings, which front directly onto Talbot Street (Figure 1). The barn is located to the rear of the property, within a large established garden extending south east of the property (Plate 1). To the east of the property is Chipping Brook, mature broadleaved trees line the banks, which adjoin to the eastern property boundary (Plate 2). Immediately surrounding the property are traditional buildings of similar construction in the village of Chipping, including three churches in close proximity. The wider landscape is largely arable with patches of woodland.
- 1.3 The purpose of the surveys was to 1) make an assessment of the value of the site for bats, with particular reference to legal requirements (Appendix A) and 2) identify potential impacts and provide recommendations pertaining to the proposed works. This report includes a description of survey methods, results and outlines recommendations to provide protection and enhancements for bats.



Figure 1: Site Location



Plate 1 and 2: Property gardens and Chipping Brook

2. Methodology

- 2.1 The desk study, bat surveys and ecological assessment follow the *Guidelines for Preliminary Ecological Appraisal* (CIEEM, 2017) and are in line with the British Standard BS42020:2013 '*Biodiversity – Code of practice for planning and development*'.

Desk Study

- 2.2 Ordnance Survey (OS) maps and aerial photographs (<http://maps.google.co.uk/maps>) were reviewed to identify potential bat foraging and roosting areas, potential flight lines and important commuting corridors.

Building Inspection Survey

- 2.3 A daytime internal and external inspection of the building was undertaken on the 12th October 2020 by Lucy Pocock BSc (Hons) and Sophie King MSc, BSc (Hons). The survey followed the Bat Conservation Trust (BCT) 'Good Practice Guidelines' (Collins, 2016). The weather during the inspection was wet with heavy rain, a light breeze (Beaufort wind scale: 1) and an air temperature of approximately 10°C.
- 2.4 The external inspection involved checking for field signs of bats on external features of the building with particular attention being paid to ledges, walls, doors and the surrounding ground. An assessment of the potential of the building to support bats was also made during the survey i.e. searching for suitable roosting crevices.
- 2.5 The internal inspection involved a search of available loft voids for field signs such as: bats, bat droppings, urine stains, bat feeding remains (moth wings, insect cases), bat staining, a distinctive smell of bats, scratch marks and smoothing of surfaces, which would indicate a roosting site. Ladders, binoculars and high-power torches (LED Lenser 7.2) were used to aid the survey.
- 2.6 Natural England's Bat Mitigation Guidelines (2004) states that a significant bat roost can normally be determined on a single visit at any time of the year, provided that the entire structure is accessible and that signs of bats have not been removed by others.
- 2.7 Using the information collected during the external and internal assessment, a 'roost potential' score was given to the building according to the criteria shown in Appendix B (Collins, 2016).

Survey Limitations

- 2.8 The internal building inspection was slightly constrained as the loft space of building 20 was partially inaccessible due to health and safety reasons. However, as the loft space was partially assessed and there was full accessibility to an underdrawn loft in adjoining building 22, it is considered not to present a significant constraint to the survey.
- 2.9 The north east gable end of the barn was inaccessible externally due to dense shrubs and trees, along with the weather inducing a fast flow and high-water level within the adjacent brook. As dense shrubs and trees prevent a clear access point for bats by disrupting flight lines, along with a full internal assessment and complete assessment of other external features, this is not considered a significant constraint.

3. Results

Desk Study

- 3.1 Based on a review of aerial photographs and OS maps, suitable bat foraging habitat is abundant in the area. Directly east of the site, Chipping Brook runs parallel to the property boundary, creating a tree line that adjoins the property garden. The banks of the brook are lined with mature broadleaved trees and shrubs throughout the length, with some areas developing into dense woodland cover. Edging several areas of the woodland, are examples of good quality semi-improved grassland. In addition, there is a pond 0.4 km south west of the site, along with hedgerows within field margins, providing connectivity to a wide range of suitable bat foraging habitats in the landscape.
- 3.2 The above features provide suitable foraging habitat for a variety of species including; common pipistrelle (*Pipistrellus pipistrellus*) a species favouring 'edge habitats', soprano pipistrelle (*Pipistrellus pygmaeus*) and *Myotis* sp., preferring to forage over water, noctule (*Nyctalus noctule*) selecting relatively open foraging grounds, and brown long eared bat (*Plecotus auritus*), a species favouring a woodland setting.
- 3.3 The tree line and garden area to the rear of the property provide good foraging habitat for bats. The large brook with tree-lined banks adjacent to the site, acts as a potential commuting corridor and provides connectivity to broadleaved woodland and semi-improved grassland in the surrounding area. Hedgerows connect the site to further habitats such as ponds. Furthermore, the surrounding area is rural and lacks urban activity, therefore artificial lighting is likely to be minimal, presenting ideal conditions for bat foraging. Overall, in accordance with Collins (2016), the surrounding area is considered to have **high** suitability for foraging and commuting bats.

Building description

Building 20-22

- 3.4 Buildings 20-22 form two of three terrace style buildings. The original structure is constructed of sandstone with internally exposed beams and joists, a slate roof and timber framed, single-glazed sash windows. The property exhibits multiple extensions to the rear, and is currently in active use as both a café and residential property.
- 3.5 The original main section of the building comprises two storeys with a pitched slate roof and a gable end to the north east (Plate 3). The south-west elevation also exhibits a partial gable end, but is connected to an adjacent pub via a small, sloping slate roof of new construction beginning approximately 1 m downward from the main roof ridge (can be seen in plate 4). The pub forms the end of the terrace and is composed of similar construction though approximately 2 m taller than the property at 20-22. Two chimney stacks are present, constructed from sandstone with clay pots.
- 3.6 The south east elevation (rear) exhibits evidence of approximately four single-storey extensions to the property (Plates 4 and 5). The first (extension 1), has residential use and is constructed of sandstone with a pitched slate roof and timber framed windows, in keeping with the original property. Attached to this is the second (extension 2) extension comprising a small (2x1 m) red brick, rendered building with a timber-framed flat felt lined roof, currently used as a WC. The third (extension 3) extension forms part of the shop and café, comprising a single storey red brick building with a gently sloping corrugated asbestos roof. This has large French doors to the south-east elevation. The final (extension 4) and most recent extension is constructed of sandstone with a flat roof. The rear of the extension is predominantly glass fronted with large windows overlooking the garden.



Plate 3: Front of 20-22 Talbot Street and north east gable end.



Plate 4 and 5: Multiple extensions to the rear of the property.

- 3.7 The barn outbuilding is approximately 7 m at its highest point, comprising two storeys where the first floor is within the loft void (Plate 6). The building is constructed of sandstone, with a pitched, corrugated roof and concrete ridge tiles, along with a chimney stack to the south east elevation. The roofing material could not be determined though it is considered not to be metal. There are three sash, single glazed windows to the front and rear elevation, all are timber framed and embedded into the stonework. In the centre of the north west elevation is a large timber barn door, along with a smaller access door. Access to the north east gable end was restricted due to large trees and shrubs (see plate 6), the south west gable end presents evidence of restoration works.



Plate 6: Front of the barn, with shrubs and trees at the north east gable end.

External Inspection

Building 20-22

- 3.8 No evidence of roosting bats was found during the external inspection of the building. Across all elevations, timber sash windows were found to be in good condition, all well-sealed with no gaps or crevices available to bats. External stonework and brickwork were in generally good condition, with only minor areas of degraded mortar noted to the

stonework on the south east elevation of the property, particularly on extension 1. Whether these gaps extended into suitable sheltered crevices could not be determined.

- 3.9 The front of the building is in excellent condition with a well-sealed roof. However, a narrow gap of approximately 1 inch is present between the building and the black timber fascia board, extending the length of the roof (Plate 7). This feature is present to the front and rear of the property, including extension 1. Both gable ends exhibit small gaps under the slates throughout the length of the roof verge (Plate 8). These gaps, present under external features, may be used by individual or small numbers of crevice dwelling bats, such as pipistrelles.



Plate 7 and 8: Gaps behind fascia board and along the roof verge.

- 3.10 The roof of the original building to the rear elevation is in poor condition. Several slipped, cracked and missing tiles provide multiple entry points and potential roosting features for bats. In addition, lead flashing surrounding the rear of the chimney stacks is degraded and lifting in places (Plate 9). Extension 1 presents well sealed roof tiles, with a gap behind the fascia as mentioned above. Lifted sections of felt provide gaps on the flat roof of extension 2 (Plate 10), along with a gap along the ridge providing a possible roosting feature for individual or small numbers of bats. The corrugated asbestos sheeting on extension 3 provides multiple entry points for bats. However, this type of roofing material is not optimal for roosting bats, due to the poor insulation and temperature inconsistencies. The flat roof of extension 4 is well sealed presenting no PRFs or entry points.



Plate 9: Broken roof tiles and lifted lead flashing to the rear of the property.



Plate 10: Extension 2 with lifting roof felt.

Barn

- 3.11 No evidence of roosting bats was found during the external inspection of the building. Across all elevations, timber sash windows were found to be in good condition, all well-sealed with no gaps or crevices available to bats. A small wooden door to the front of the building is not flush with the door frame, leaving a narrow gap at the top providing a possible entry point for bats. External stonework is in moderate condition with several gaps present, particularly on the south east gable end where previous restoration attempts are evident (Plate 11). These gaps may lead to suitably sheltered crevices for roosting bats.



Plate 11: Gaps in stonework and mortar.

- 3.12 The corrugated sheeting provides multiple entry points for bats. However, this provides sub-optimal conditions for bats, and dense moss carpets on top suggest damp conditions, furthering its unsuitability as a roosting feature. Along the roof ridge, concrete blocks are in poor condition presenting several gaps which may provide entry points for bats. In addition, the chimney stack has missing mortar and lifted lead flashing at the base (Plate 11 above). Along the south east and north west elevation is a gap between the fascia board and the wall which extends the length of the roof. This feature may provide suitable shelter for roosting bats.
- 3.13 On the north west elevation, there are two bat boxes present approximately 3 m high, along with two bird boxes at 7 m and 3 m (Plate 12). These have recently been painted, and showed no obvious signs of bat use. In addition, there is a flood light present above the bat boxes, which is set on a timer to switch on in the evenings. The north east gable end was inaccessible during the survey due to the brook, dense shrubs and trees also block this elevation which may disrupt the flight path of potential bats entering and exiting the building. However, the potential for bats to utilise this elevation cannot be ruled out.



Plate 12: Bird and bat boxes of the front of the barn.

Internal Inspection

Building 20-22

- 3.14 Two loft spaces were accessed during the internal inspection survey, the cavities encompass the entire roof space of the original building and are divided by a stone partition wall.
- 3.15 The loft cavity of number 22 is accessible via a wooden staircase from the first-floor landing of the property. It is situated above a bedroom and currently used for storage; it is warm with no draughts. The roof is pitched to the north west and south east, with an exposed timber ridge board and purlins. Between the purlins is thin sheets of insulated board, lined with lining paper. The lining paper is lifted and ripped in places and exhibits repair work with brown parcel tape (Plate 13 and 14). Where the roof meets the wall, there is approximately 0.5 m of roughly rendered stone wall to the floor. The floor comprises a patchwork of timbers covered in areas with carpet. There is a small window with a timber frame and lintel on the south west gable end (Plate 12), along with an exposed chimney breast on the north east internal wall (Plate 13). A light present in the centre of the room has been installed through a hole cut out from the insulation boards.



Plate 13 and 14: Gable end with window and partition wall with stone chimney breast.

- 3.16 The insulation boarded roof does not obviously expose and potential roosting features (PRFs) for bats, however it sounds hollow suggesting there may be a hidden cavity underneath. This type of well insulated cavity feature would present an ideal roosting location for bats. Where the pitch meets the wall on the north western elevation, there is a large gap present that leads to a cavity (Plate 15). On the floor below this was one deceased bat (Plate 16). The presence of mice was evident within the loft, with localised mice droppings present. No bat droppings were found, however numerous moth and

butterfly wings were scattered across the floor (Plate 17). Several live butterflies were also noted during the survey, suggesting there is abundant prey within the building. It should be noted that there was also an abundance of spiders within the loft, a taxon known to 'clip' the wings from prey such as butterflies and moths. Therefore, an abundance of insect wings may not be indicative of a large bat roost.



Plate 15 and 16: Large gap between wall and ceiling, deceased bat beneath the gap.



Plate 17: Butterfly wings.

- 3.17 The window has a large gap behind the timber lintel that extends upwards, in addition the timber lintel exhibits small cracks. There are butterfly and moth wings on the windowsill, though this area is heavily cobwebbed. This window was difficult to assess from the outside due to its height, though it seems to be well sealed to the wall. Both the gap and the cracks present PRFs for bats. The chimney breast present on the internal wall is in good condition with no missing mortar or gaps present within the stone. Remaining PRFs comprise a large crack along the length of the ridge beam, and several other smaller cracks along the purlins. There was no evidence of light intrusion from outside.
- 3.18 The loft cavity of number 20 was accessed via a ladder through a small hatch located within the bathroom. The space was largely inaccessible due to health and safety reasons, features were assessed from a small ledge adjacent to the hatch. The cavity is approximately 30x15 m, with a north west gable end comprising exposed stone, along with a partition stone wall containing a chimney breast to the south west, separating the space from number 22 (Plate 18 and 19). The roof is pitched to the north west and south east, with exposed truss including rafters, purlins and ridge beam (See Plates 18 and 19). Roof lining is present under the tiles and is overall in good condition, with only minor lifting in areas. Dense fibre glass insulation lines the floor, the space was warm with no draughts. There was no evidence of light intrusion from outside.



Plates 18 and 19: Gable end and partition wall.

- 3.19 Stonework on the partition wall was in good condition with no obvious gaps or missing mortar, though a full evaluation could not be made of the gable end. A large white board lies against the north western pitch, there is a small gap between the roof and the board providing a PRF (Plate 20).



Plate 20: White wooden board over a small section of the roof.

- 3.20 The full extent of the loft void was not inspected during the survey (due to lack of boarding and safety concerns), features were assessed from a small ledge adjacent to the hatch. However, no evidence of roosting bats was found in the vicinity of the loft hatch. Opportunistic pipistrelle bats and void dwelling bats, such as brown long-eared, may find suitable roosting sites against rough timbers within the loft space.

- 3.21 Following the results of the building inspection, the building was assessed as having **moderate** suitability for roosting bats, in line with Collins (2016) (Appendix B).

Barn

- 3.22 The internal barn structure has a ground floor, with wooden staircases at either gable end enabling open access the first floor (Plate 21), which is within the loft cavity. The ground floor is used at storage, and has exposed beams and joists throughout, the ceiling comprises floorboards from the first floor. The walls comprise a mixture of stonework, brickwork and plaster rendering, a rendered partition wall divides the room. To the northwest of the building, a large barn style door and small wooden door is present, the

smaller is not flush to the frame, presenting a gap which creates a draught. The building was cold, draughty, and damp throughout. The first-floor roof is pitched, and has been converted into a living space, the partition wall here is constructed of exposed red brick. The ceiling in the smaller room to the south west comprises exposed purlins with insulation boarding and lining paper, a boarded fireplace is present on the gable end. The larger room has an exposed roof truss and purlins with artex plaster in between, the gable end and walls are also roughly rendered. Two sky lights are present on the north western pitch. The sash windows throughout are embedded into the stone, with timber lintels.



Plate 21: Ground floor with staircase.



Plate 22: First floor large room.

- 3.23 On the ground floor, there are multiple gaps where the timber joists meet the wall (Plate 23). The gaps provide PRFs for bats, particularly against the partition wall. There are moderately sized gaps between most of the windows and timber lintels, providing PRFs and possible entry points for bats (plate 24). In addition, stonework the timber lintels are in poor condition and have large cracks along the length, along with the surrounding stone presenting gaps and crevices (Plate 24). Gaps surrounding the small door may also provide potentially suitable entry points for bats.



Plate 23: gaps between joists and wall.



Plate 24: cracks and gaps in stone and lintel.

- 3.24 Within the first floor, there is missing mortar between bricks on the partition wall (plate 25). However, these gaps do not lead to a suitable crevice and therefore are unsuitable for bats. There are gaps present between the ceiling and the gable wall in the small room to the south west elevation, above the fireplace (Plate 26). Furthermore, there are small gaps between the partially exposed ridge board and the insulation boarding, which may potentially lead to a small cavity (Plate 27). The windows and sky lights here are well sealed.



Plate 25 and 26: Red brick partition wall and gaps between ceiling and gable wall.



Plate 27: Gap between ridge board and insulation boarding.

- 3.25 It is considered that a full assessment of the barn for roosting bats was undertaken. No evidence of roosting bats was observed within the barn though there is potential for crevice and void dwelling bats.
- 3.26 Following the results of the building inspection, the building was assessed as having **low** suitability for roosting bats, in line with Collins (2016) (Appendix B).

4. Evaluation and Assessment of Potential Impacts

- 4.1 Proposals works at the site involve roof and window repairs. An assessment of the impacts on bats has been made using the available design, survey information and the professional judgement of the ecologist. This includes a consideration of the relevant legislation (see Appendix A).

Evaluation

- 4.2 The surrounding habitat is considered to have **high** suitability for foraging and commuting bats. The site is located within the Ribble Valley, which provides ample good quality, well-connected habitat for foraging and commuting bats. Furthermore, the property has an established garden with trees and shrubs, along with a wooded water course running parallel to the boundary providing an excellent example of foraging habitat in the immediate vicinity.

Building 20-22

- 4.3 During the external and internal building inspection, evidence of use of the building by roosting bats was found within building 22, including one deceased bat and several lepidoptera wings. The following potential bat roosting features and access points were identified during the inspection:

- Damaged, missing, and lifted slates and gaps under ridge tiles across original roof;
- Gap behind fascia board on original building and extension 1;
- Lifted lead flashing on both chimney stacks;
- Lifted felt and ridge gaps on extension 2;
- Multiple entry points on asbestos corrugate sheeting;
- Gaps between ceiling and wall leading to cavity, gaps between window and lintel;
- Cracks along exposed roof timber; and
- A crevice behind large wooden board in loft 20.

- 4.4 Overall, the building was assessed as having **moderate** potential to support roosting bats. Small gaps and crevices, such as those under slates and ridge tiles, behind timber fascia boarding and gaps created by lifted lead flashing, may be used by opportunistic crevice dwelling bats for summer roosting, such as common pipistrelle. Shifted slates and lifted ridge tiles may also be used by void-dwelling species, such as brown long-eared bats, to access the loft space. The building has moderate potential to support hibernating bats, particularly as the space is warm and likely has a consistent temperature, is quiet and has no draughts or light pollution.

Barn

- 4.5 There was no evidence of use of the building by roosting bats found during the internal and external building inspection. The following potential bat roosting features and access points were identified during the inspection:

- Gaps within stonework (including missing mortar) and concrete blocks on the ridge, gap between fascia and wall;
- Multiple entry points provided by corrugate sheeting;
- Lifted lead flashing;
- Gap above door;
- Bat boxes on the building;
- Internal gaps between joists and the wall, windows and lintels, ceiling and gable end, and the ridge board and insulation boarding; and
- Gaps and crevices in stonework and timber lintels.

- 4.6 Overall, the building was assessed as having **low** potential to support roosting bats. Small gaps and crevices, such as underneath lead flashing, behind timber fascia boarding and within degraded stonework, may be used by opportunistic crevice dwelling bats for summer roosting, such as common pipistrelle. Due to the roofing material creating damp sub-optimal conditions for bats, along with draughts within the building, it is unlikely to support void dwelling or hibernating bats.

Impact Assessment

- 4.7 The proposed works comprise minor roof repairs to cracked, slipped and missing tiles on the original building; the replacement of an asbestos cement roof to an extension; and minor repairs to windows and concrete ridge blocks on the barn.
- 4.8 The inspection indicates that building 22 provides confirmed roosting features for bats, along with building 20 and the barn providing further potential roosting opportunities most suitable for small numbers or individual summer roosting bats, such as common pipistrelle.
- 4.9 Several of the potential roosting sites associated with the buildings may be impacted by the proposed works, particularly the roof tile and ridge repairs. In the absence of appropriate mitigation, there is a risk of repair works resulting in the disturbance or harm of individual bats (Appendix A).
- 4.10 Asbestos cement sheeting on an extension to the rear of the property, provides sub-optimal conditions for roosting bats due to inconsistent environmental conditions such as temperature and moisture levels. The risk to roosting bats by replacing the asbestos sheeting is considered low – negligible.
- 4.11 Overall, the proposed works are minor and localised therefore the risk of disturbance or harm to roosting bats is considered low. Furthermore, this risk is further reduced if the works are scheduled to occur between November and April (inclusive), when bats are unlikely to be present within the building. Unmitigated, repair works are also anticipated to result in a minor loss of bat roosting opportunities in the local area.

5. Recommendations

Bats

- 5.1 In order to reduce the risk of impacting bats to a negligible level, the following Reasonable Avoidance Measures (RAMs) will be adhered to during the repair works. If the scope of the works deviates from the information provided, the project ecologist should be contacted for further advice:
- Before any works proceed all contractors should be made aware of the possible presence of bats, bat field signs to look for and procedure if bats are found or discovered (Appendix C);
 - Works should be scheduled to occur between November and April (inclusive), when bats are highly unlikely to be present within the building;
 - All roof removal works are to be undertaken by hand. Stripping prior to should be carried out with a suitably licenced ecologist on call during the works;
 - If works must be completed outside of this period, all repair works should be supervised by a suitably licenced and experienced ecologist;
 - If bats are encountered within the working area, all works must **cease immediately** and the on-call ecologist notified, who will attend site;
 - The ecologist will remove the bat, check the health of the bat and then place it in a suitable bat box; and
 - If a bat is discovered in imminent danger, carefully move the bat wearing gloves, and place within a suitable container (a covered box such as a shoe box) with air holes and place in a safe, dark and quiet location. Contact the project ecologist for further instruction.
- 5.2 It is recommended that appropriate compensation is provided for the loss of potential roosting opportunities. This can be achieved by the retention and/or creation of gaps in the mortar along gable ends and the ridgeline to allow access into the roof void, or between the roof covering and liner. In addition, raising and moulding lead flashing around chimneys can provide a suitable entry point for bats.
- 5.3 Alternatively bat roosting sites can be provided by the installation of two Schwegler 2F bat boxes on larger trees located within the grounds, or a single 1FQ Schwegler bat roost for external walls on the building.

Other considerations

- 5.4 Dense shrubbery and trees present adjacent to the north east gable end of the barn provides suitable nesting habitats for birds. If the ridge and window repairs require removal of such vegetation, it recommended to be undertaken outside the breeding bird season (March to August, inclusive), in order to prevent any impacts upon breeding birds.
- 5.5 Any removal or disturbance of vegetation that must be carried out within the bird breeding season will be subject to a pre-clearance bird survey carried out by a suitably experienced ecologist. No works will be carried out within 5 m of an identified nest until the young have fledged and are no longer returning to the nest site. Works will only proceed in this area once a scheme ecologist has declared the nest to be no longer in use.

Re-survey of the site

- 5.6 If no works are undertaken on site within 12 months of this survey or if any changes to the proposals are made, a further ecological survey may be necessary (because of the mobility of animals and the potential for colonisation of the site).

References

British Standards Institution (2013) *BS 42020:2013 Biodiversity – Code of practice for planning and development*. British Standards Institution, London.

CIEEM (2017) *Guidelines for Preliminary Ecological Appraisal*. Chartered Institute of Ecology and Environmental Management, Winchester.

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

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

Appendix A – Legal Information

This report provides guidance of potential offences as part of the impact assessment. This report does not provide detailed legal advice and for full details of potential offences against protected species the relevant acts should be consulted in their original forms i.e. The Wildlife and Countryside Act, 1981, as amended, The Countryside and Rights of Way Act 2000, The Natural Environment and Rural Communities Act, 2006 and The Conservation of Habitats and Species Regulations 2017.

Species	Legislation	Offences	Notes on licensing procedures and further advice
Bats	Conservation of Habitats and Species Regulations 2017 Reg 41	Deliberately ¹ capture, injure or kill a bat; Deliberate disturbance ² of bats; Damage or destroy a breeding site or resting place used by a bat. The protection of bat roosts is considered to apply regardless of whether bats are present.	An NE licence in respect of development is required in England. https://www.gov.uk/bats-protection-surveys-and-licences <i>European Protected Species: Mitigation Licensing- How to get a licence</i> (NE 2010) <i>Bat Mitigation Guidelines</i> (English Nature 2004) <i>Bat Workers Manual</i> (JNCC 2004) <i>BS8596:2015 Surveying for bats in trees and woodland</i> (BSI, 2015)
Birds	Wildlife and Countryside Act 1981 (as amended) ⁴ S.9 Conservation of Habitats and Species (Amendment) Regulations 2017	Intentionally or recklessly ³ obstruct access to any structure or place used for shelter or protection or disturb a bat in such a place. N/A	Licence from NE is required for surveys (scientific purposes) that would involve disturbance of bats or entering a known or suspected roost site. Authorities are required to take steps to ensure the preservation, maintenance and re-establishment of a sufficient diversity and area of habitat for wild birds in the United Kingdom, including by means of the upkeep, management and creation of such habitat. This includes activities in relation to town and country planning functions.
	Wildlife and Countryside Act 1981 (as amended) ⁴ S.1	Intentionally kill, injure or take any wild bird; Intentionally take, damage or destroy the nest of any wild bird while that nest is in use or being built; Intentionally take or destroy the nest or eggs of any wild bird. Schedule 1 species Special penalties are liable for these offences involving birds on Schedule 1 (e.g. most birds of prey, kingfisher, barn owl, black redstart, little ringed plover). Intentionally or recklessly ³ disturb a Schedule 1 species while it is building a nest or is in, on or near a nest containing eggs or young; intentionally or recklessly disturb dependent young of such a species.	No licences are available to disturb any birds in regard to development. Licences are available in certain circumstances to damage or destroy nests, but these only apply to the list of licensable activities in the Act and do not cover development. General licences are available in respect of 'pest species' but only for certain very specific purposes e.g. public health, public safety, air safety.

¹Deliberate capture or killing is taken to include "accepting the possibility" of such capture or killing ²Deliberate disturbance of animals includes in particular any disturbance which is likely a) to impair their ability (i) to survive, to breed or reproduce, or to rear or nurture their young, or (ii) in the case of animals of hibernating or migratory species, to hibernate or migrate; or b) to affect significantly the local distribution or abundance of the species to which they belong. Lower levels of disturbance not covered by the Conservation of Habitats and Species Regulations 2010 remain an offence under the Wildlife and Countryside Act 1981 although a defence is available where such actions are the incidental result of a lawful activity that could not reasonably be avoided. Thus, deliberate disturbance that does not result in either (a) or (b) above would be classed as a lower level of disturbance. ³The term 'reckless' is defined by the case of Regina versus Caldwell 1982. The prosecution has to show that a person deliberately took an unacceptable risk, or failed to notice or consider an obvious risk. ⁴ The Wildlife and Countryside Act (1981) has been updated by various amendments, including the Countryside and Rights of Way Act 2000 and the Natural Environment and Rural Communities Act 2006. A full list of amendments can be found at <http://jncc.defra.gov.uk/page-1377>.

Appendix B – Bat Roost Potential and Habitat Suitability Categories

Guidelines for assessing the potential suitability of proposed development sites for bats, based on the presence of habitat features within the landscape (Collins, 2016).

Suitability	Description of Roosting Habitat	Commuting & Foraging Habitats
Negligible	Negligible habitat features on site likely to be used by roosting bats	Negligible habitat features on site likely to be used by commuting or foraging bats.
Low	<p>A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitats to be used on a regular basis or by a larger number of bats (i.e. unlikely to be suitable maternity or hibernation).</p> <p>A tree of sufficient size and age to contain potential roosting features but with none seen from the ground, or feature seen with only very limited roosting potential.</p>	<p>Habitat that could be used by small numbers of commuting bats such as a gappy hedgerow or unvegetated stream, but isolated i.e. not very well connected to the surrounding landscape by other habitat.</p> <p>Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.</p>
Moderate	A structure or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions, and surrounding habitat but unlikely to support a roost of high conservation status.	<p>Continuous habitat connected to the wider landscape that could be used by bats for commuting, such as lines of trees and scrub or linked back gardens.</p> <p>Habitat that is connected to the wider landscape that could be used by bats for foraging, such as trees, scrub, grassland or water.</p>
High	A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis, and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.	<p>Continuous high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats such as river valleys, streams, hedgerows, lines of trees and woodland edge.</p> <p>High quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats, such as broadleaved woodland, tree-lined watercourses and grazed parkland.</p> <p>Site is close and connected to known roosts.</p>

Appendix C – Information Sheet for Contractors on Bats

BATS



Information, legal responsibilities and best practice for the construction industry

Legal Protection

All UK Bat species are protected by European and UK law, in practical terms this means it is an offence to:

- Deliberately capture, injure or kill a bat;
- Deliberately disturb bats;
- Damage or destroy a breeding site or resting place (even if bats are not occupying the roost at the time);
- Intentionally or recklessly obstruct access to any structure or place used for shelter or protection or disturb a bat in such a place;
- Possess or advertise/self/exchange a bat (dead or alive) or any part of a bat.

Penalties on conviction: the maximum fine is £5,000 per incident or per bat (some roosts contain several hundred bats), up to six months in prison, and forfeiture of items used to commit the offence, e.g. vehicles, plant, machinery.

Defences include:

- Tending/caring for a bat solely for the purpose of restoring it to health and subsequent release.
- Mercy killing where there is no reasonable hope of recovery (provided that person did not cause the injury in the first place -- in which case the illegal act has already taken place).

Found a bat during unsupervised works?

Is the bat in immediate danger of injury?

YES

Using gloves or other protection place bat carefully in a rigid ventilated box with a piece of clean cloth and a moist chamois. Contact your contractor or worker.

Call scheme ecologist
Bowland Ecology: 01200 446 777
Keep bat in a safe, quiet location until scheme ecologist arrives.

NO

Stop work immediately and inform Site Manager.
Contact scheme ecologist - Bowland Ecology: 01200 446 777.
Do not expose bat or cause it to fly away.

The scheme ecologist will assess the situation and advise what needs to happen next. Works may need to stop until a licence has been obtained. A written record should be kept and made available to Natural England or any police officer on request.

Field signs of bat presence:

- Live or dead bats: the smallest UK bat species, the pipistrelle is only 3.5-4.5cm long.
- Droppings: bat droppings look like mouse droppings but will crumble between your fingers (they are dry and made entirely of insects).
- Feeding remains: piles of butterfly/moth wings are often left below bat feeding perches.

Bats can roost in the following places:

- The top of gable end or dividing wall;
- The top of chimney breasts;
- Ridge and hip beams and other roof beams;
- Mortise and tension joints;
- All beams/ceilings/pipework (free hanging bats);
- The junction of roof timbers, especially where ridge and hip beams meet;
- Behind purlins;
- Between tiles and the roof lining;
- Under flat tile roofs;
- Under barge boards;
- In cavity walls;
- In cracks in stone or concrete;
- Behind peeling paint/wall coverings;
- Gaps behind window and door frames;
- Between window panes and timber boarding;
- In trees (cracks/noises/way cladding).

Places that bats use in buildings:

Schematic from www.bats.org.uk

Why wear gloves?

There is a small risk that some bats carry a rabies virus – European Bat Lyssavirus. The purpose of wearing gloves is to reduce the chance of being bitten, as the virus is transmitted via bat saliva. Thick leather gloves are appropriate for removing a bat from imminent danger but these should be clean.

In the event that you are bitten, wash the wound, gently but thoroughly, with soap and water. Speak to a health professional immediately, advising them that you have been bitten by a bat.

References:
Bat Conservation Trust: August 2016. Why wear gloves when handling bats?
BCT Bat Surveys for Professional Ecologists, Good Practice Guidelines, 3rd Edition, 2016

version 1, August 2017

