# Preliminary Ecological Appraisal, Garden House, Elton, Herefordshire, SY8 2HQ

Prepared on behalf of Mr & Mrs Davis

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# Non technical summary

This report has been prepared by Sharpe Ecology, on behalf of Mr and Mrs Davis. The report has been prepared to inform proposals for a householder application at Garden House, Elton, Herefordshire, SY8 2HQ. The proposals include the construction of a new dormer window on the east elevation of the house, the demolition of a small lean-to extension on the north elevation, the construction of a new linking single-storey extension between the house and single storey garage, and the conversion of the garage into residential use.

A detailed site walkover survey and building inspection was undertaken by Sharpe Ecology in December 2021. The building inspection found evidence of bats in both the house and garage, and swallow nest cups inside the garage.

The surrounding habitat comprised typical garden planting (lawn, scattered trees, boundary hedgerows, shrubs, patio, gravel driveway, boundary stream and ornamental fishpond).

There is potential for the building remodeling works to impact bats and their roosts, therefore further surveys will be required to characterise the roost and to fully assess any potential impacts, and inform detailed mitigation and the need for a mitigation licence. Bat emergence/re-entry surveys can be carried out between May and September, with the optimal period for survey being between May and August.

Given the presence of swallow nest cups within the garage, there is potential for impacting breeding birds during renovation works. The change of use of the garage into residential use will also result in the permanent loss of swallow nesting opportunities. Therefore the following mitigation is recommended:

- Timings of works to avoid the peak bird nesting season (March to August inclusive) or check by an ecologist immediately prior to commencement of clearance works (and nests, if found, adequately protected until breeding has finished and the nest is no longer in use).

- To compensate for the loss of swallow nesting opportunities, the design of the new storage to the rear of the existing garage should allow for two replacement swallow nest cups to be located internally, and sufficient access for birds into the building.

Mitigation measures recommended to avoid indirect construction-related impacts on the nearby stream (pollution events from contaminated surface-water run-off, as a consequence of storage of materials on site and groundworks) include:

- All materials with potential to cause harm to the watercourse (e.g. oils, chemicals, fuel, cleaning materials, paint) will either not be stored on site, or will be stored within the existing hardstanding on an impervious base

- To prevent surface-water run-off into the adjacent watercourse, a temporary bund (e.g. sandbags) will be placed along the edge of the construction zone closest to the watercourse, thereby diverting any surface-water run-off onto adjacent semi-natural habitats away from the stream.

No direct impacts on any other protected or notable species or habitats are anticipated.

# 1. Introduction

## 1.1. Purpose of report

1.1.1. This report has been prepared by Sharpe Ecology, on behalf of Mr and Mrs Davis. The report has been prepared to inform proposals for a householder application at Garden House, Elton, Herefordshire, SY8 2HQ. The proposals include the construction of a new dormer window on the east elevation of the house, the demolition of a small lean-to extension on the north elevation, the construction of a new linking single-storey extension between the house and single storey garage, and the conversion of the garage into residential use.

1.1.2. A detailed site walkover survey and internal and external inspection of the buildings for bats was carried out in December 2021 by a licensed ecologist.

1.1.3. The survey work and report have been completed in line with best practice guidelines including the Chartered Institute for Ecology and Environmental Management's best practice guidelines for preliminary ecological appraisal (CIEEM 2017), the Bat Mitigation Guidelines (Mitchell-Jones, A.J. 2004) and The Bat Conservation Trusts' Bat Surveys Good Practice Guidelines (Collins, J. 2016). The survey and report have been completed by professional ecologists, who are all full members of the Chartered Institute for Ecology and Environmental Management.

1.1.4. This report presents the results of the survey and sets out suitable mitigation measures to avoid any potential impacts on any protected/notable habitats and species, including bats, and to provide opportunities for net enhancement.

# 2. Legislation and Planning Policy

## 2.1. Local Planning Policy

2.1.1. Policy LD2 (Biodiversity and geodiversity) within the Herefordshire Local Plan (formally adopted in October 2015) states:

Development proposals should conserve, restore and enhance the biodiversity and geodiversity assets of Herefordshire, through the:

1. retention and protection of nature conservation sites and habitats, and important species in accordance with their status as follows :

a) Development that is likely to harm sites and species of European Importance will not be permitted;

b) Development that would be liable to harm Sites of Special Scientific Interest or nationally protected species will only be permitted if the conservation status of their habitat or important physical features can be protected by conditions or other material considerations are sufficient to outweigh nature conservation considerations;

c) Development that would be liable to harm the nature conservation value of a site or species of local nature conservation interest will only be permitted if the importance of the development outweighs the local value of the site, habitat or physical feature that supports important species.

d) Development that will potentially reduce the coherence and effectiveness of the ecological network of sites will only be permitted where adequate compensatory measures are brought forward.

2. restoration and enhancement of existing biodiversity and geodiversity features on site and connectivity to wider ecological networks; and

3. creation of new biodiversity features and wildlife habitats.

Where appropriate the council will work with developers to agree a management strategy to ensure the protection of, and prevention of adverse impacts on, biodiversity and geodiversity features.

## 2.2. National Planning Policy

2.2.1. In accordance with the National Planning Policy Framework 2021, the planning system should contribute to and enhance the natural and local environment by minimising impacts on biodiversity and providing net gains in biodiversity where possible, and promote the protection and recovery of priority species populations and ecological networks.

2.2.2. When determining planning applications, local planning authorities should aim to conserve and enhance biodiversity by applying the following principles:

- If significant harm resulting from a development cannot be avoided, adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;
- Encouraging opportunities to incorporate biodiversity in and around developments;
- By encouraging good design, planning policies and decisions should limit the impact of light pollution from artificial light on local amenity, intrinsically dark landscapes and nature conservation.

## 2.3. Legislation

2.3.1. Certain habitats and species are subject to protection as laid out in the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2017 (as amended). The following are of particular relevance to this assessment:

- In England all species of bat and their breeding or resting places (roosts) are fully protected under the Conservation of Habitats and Species Regulations 2017 (as amended) and Section 9 of the Wildlife and Countryside Act 1981 (as amended). This legislation makes it an offence to deliberately, intentionally or recklessly:
  - Kill, injure or capture a bat;
  - Obstruct access to any structure or place used for shelter or protection by bat;
  - Disturb a bat while it is occupying a structure or place which is uses for that purpose;
  - Disturb bats in such a way it would affect the ability of any significant group of bat to survive, breed, rear or nurture or affect a local distribution or abundance;

- Damage or destroy a breeding or resting place of a bat.

- In England all birds, their nests and eggs are afforded protection under the Wildlife and Countryside Act 1981 (as amended) making it an offence to:
  - Intentionally kill, injure or take any wild bird;
  - Intentionally take, damage or destroy the nest of any wild bird while it is in use or being built;
  - Intentionally take or destroy the egg of any wild bird;
  - Certain birds are subject to further protection under Schedule 1 of the Wildlife and Countryside Act 1981 (as amended), making it an offence to intentionally, or recklessly, disturb any wild bird listed on this Schedule while it is nest building, or is at, or near, a nest with eggs or young, or disturb the dependant young of such a bird.

2.3.2. In addition, the Natural Environment and Rural Communities (NERC) Act 2006 places a duty on public bodies to consider enhancement of biodiversity within all their actions, and this Act also includes measures to protect species and habitat considered to be of Principal Importance that are highlighted as requiring particular conservation action by the UK Biodiversity Action Plan (UK BAP) and relevant Local Biodiversity Action Plans (LBAPs).

### 2.4. UK and Local Biodiversity Action Plans

2.4.1. The UK BAP and Herefordshire Biodiversity Action Plan identify a number of habitats and species as priorities for conservation. Those of particular relevance to this site are:

- Bats
- Rivers and streams

# 3. Methods

### 3.1. Desk-based study

3.1.1. Aerial photographs were reviewed prior to undertaking any field surveys.

3.1.2. The MAGIC website (http://www.natureonthemap.naturalengland.org.uk/MagicMap.aspx) which provides information covering rural, urban, coastal and marine environments across Great Britain was accessed for information on UK and European protected and important sites, habitats and species. The following features were searched for:

- Nature reserves and country parks;
- Sites of Special Scientific Interest (SSSI's);
- Internationally protected sites (e.g Ramsar, Special Protection Areas [SPA], Special Areas of Conservation [SAC])
- Biodiversity Action Plan (BAP) Priority Habitats and Species.

3.1.3. The following sources were also reviewed:

- The Herefordshire Biodiversity Action Plan (https://herefordshirewildlifelink.wordpress.com/biodiversity-action-plan/).

- A data search for protected or notable species records within a 2km radius of the site (obtained from Herefordshire Biological Records Centre (HBRC) on 14th December 2021).

### 3.2. Walkover survey

3.2.1. A walkover survey of the site was carried out on 10th December 2021 and involved a visual assessment of the site and observations of, or the potential for, any protected or notable habitats or species.

3.2.2. Photographs have been included to provide an indication of the nature conservation value of the site and to give a clearer picture of existing conditions.

3.2.3. Aerial photographs and Ordnance Survey maps were used to identify the location of any ponds within a 500m radius of the proposed development site.

### 3.3. Building inspection

3.3.1. A detailed daytime building inspection (internal and external for house and garage) for bats was carried out on 10th December 2021. The inspection covered all accessible internal areas and all external walls and roof tiles, using 8x42 binoculars and high / low powered torches, and a walkover survey of the surrounding area.

3.3.2. The buildings were surveyed for signs of bats, including bat droppings, urine staining, oil marks from fur, feeding remains and bats, as well as features that could provide potential access points or roosting opportunities for bats, such as lifted, broken or missing tiles, gaps in mortar between brickwork and ridge tiles, broken or rotten fascias, gaps behind barge boarding, hanging tiles etc.

### 3.4. Surveyors

3.4.1. The walkover survey and building inspection was carried out by Dr Fiona Sharpe MCIEEM and the report written also by Dr Fiona Sharpe MCIEEM.

3.4.2. Fiona holds a current Natural England Survey Licence (WML-A34-Level 2 Class Licence; registration number 2018-37892-CLS-CLS) and has over 15 years ecological survey and assessment experience, including over five years of specialist bat survey, mitigation and licensing experience.

### 3.5. Assumptions and Limitations

3.5.1. The baseline conditions presented in this report represent those at the time of survey and reporting. Variations in these conditions will take place as a result of seasonal factors, and over time.

## 4. Results

### 4.1. Desk-based study

4.1.1. There are three statutory designated sites within 2km of the proposed development site: Elton Lane Cutting SSSI (located 940m to the southeast and designated for geological features), Burrington Meadow SSSI (located 1.1km to the northwest and designated for damp, marshy, permanent pasture, scrub and drier neutral grassland)

and Burrington Farm Stream Section SSSI (located 1.9km to the northwest and designated for geological features). Although the site does fall within the SSSI Impact Risk Zone for Burrington Meadows SSSIs, given the nature of the proposals for the site, the designated features of this SSSI and the distance between the site and the SSSI, the proposals will not impact on the notified features of this SSSI or any other statutory designated site and as such does not require any further impact assessment.

4.1.2. Five ponds were identified using maps and aerial images within 500m of the site: a pond within the site, a pond just over 30m to the north, set within a neighbouring garden, a third pond located within the neighbouring garden 40m to the south and two ponds located 475m west set within farmland.

4.1.3. No other priority habitats (habitats of principal importance) were located within or directly adjacent to the site.

4.1.4. The data search from HRBC returned records (from within the past 20 years) of a number of protected and notable species. Records of species for which there exists suitable habitat within and close to the site, and which could potentially be impacted by the proposals, include common pipistrelle *Pipistrellus pipistrellus* (more than 1.9km from the site), brown long-eared bat *Plecotus auritus* (within 500m of site), great crested newt *Triturus cristatus* (records 2km to northeast), house martin *Delichon urbicum* and house sparrow *Passer domesticus*.

## 4.2. Walkover survey

### Habitats

4.2.1. The site consists of well-maintained lawns, with scattered trees within the west, east and northern extents of the site, a narrow strip of mixed woodland planting lining the long access driveway to the northeast, boundary hedgerows (predominately conifer), an ornamental fish pond located within the lawn to the east of the property, a narrow stream running along the northern site boundary, hardstanding to the south and north of the property (patios and gravel driveway) and buildings (the two-storey house and single storey detached garage).

4.2.2. The site is bordered by residential dwellings and gardens to the south, east and north, and a pasture field to the west.

4.2.3. The pond within the garden comprised an ornamental pond stocked with fish, and with no aquatic vegetation.

4.2.4. The stream is considered to be a LBAP habitat, with a gravel substrate suitable for supporting a range of macro-invertebrate species. The stream was shallow but fasting flowing. There was no in-channel vegetation and but the low banks were vegetated with a range of native and non-native plants species including common grasses, pendulous sedge *Carex pendula*, hart's-tongue fern *Asplenium scolopendrium*, nettle *Urtica dioica*, wood-avens *Geum urbanum* and dock sp. *Rumex sp*.

4.2.5. No other protected or notable habitats were located within or immediately adjacent to the proposed construction zone.

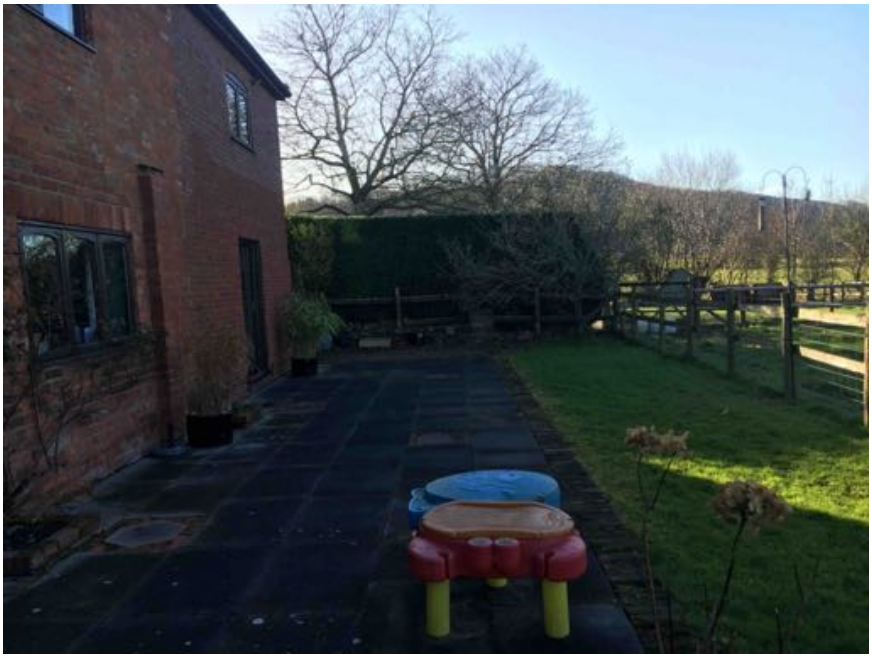

*Image 1. Garden to west of house.*

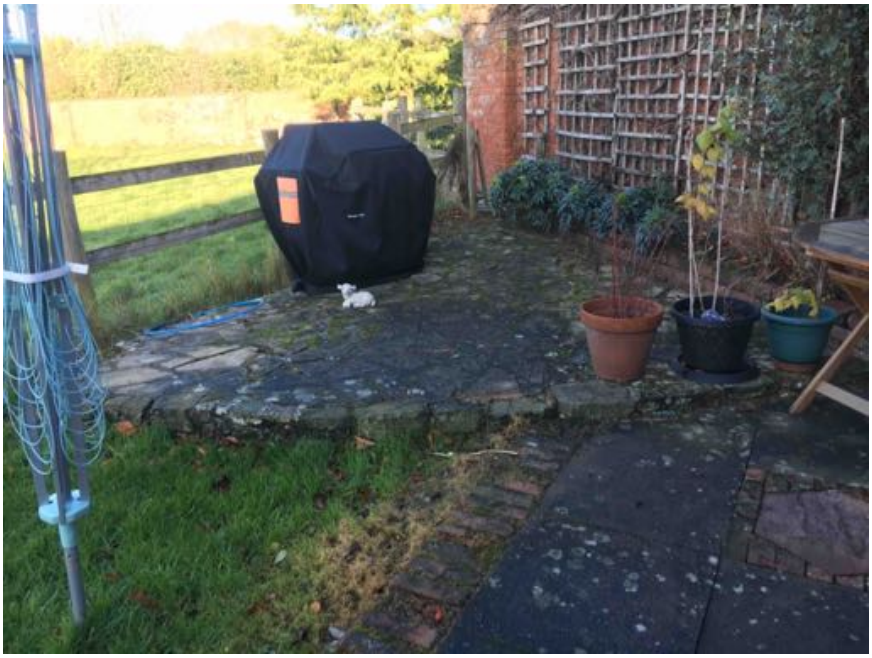

*Image 2. Garden behind garage.*

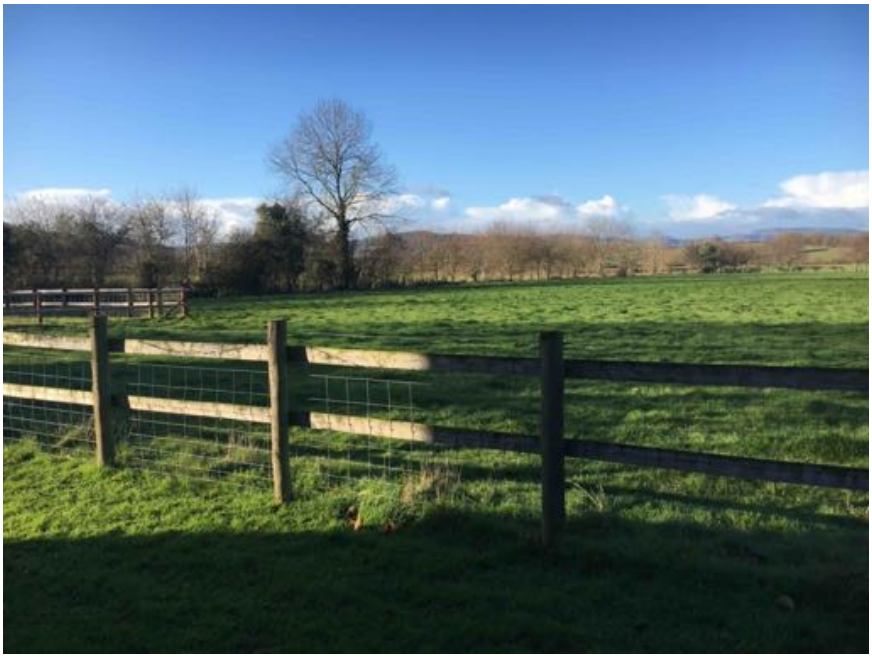

*Image 3. Field to west of property.*

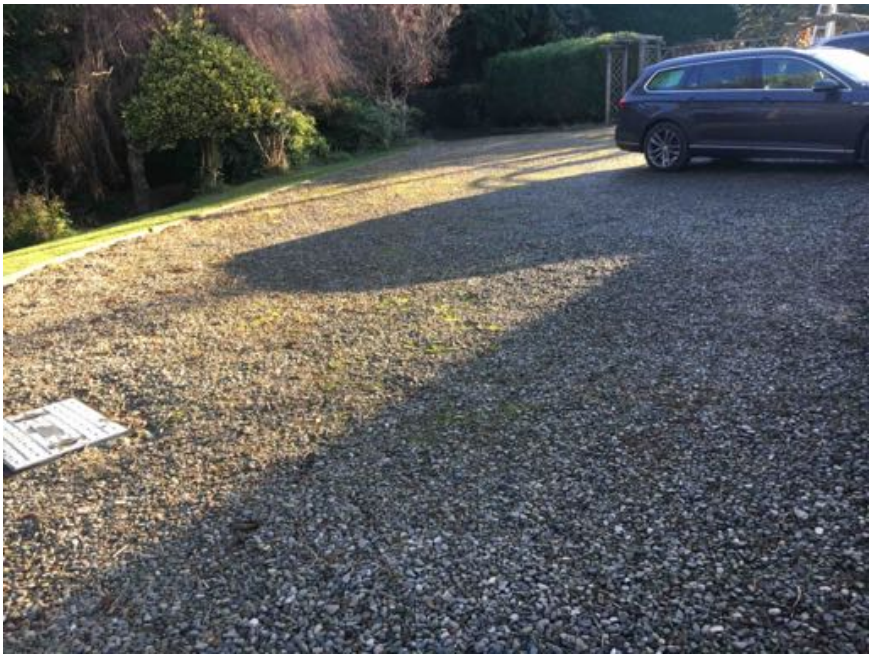

*Image 4. Gravel drive and garden to north of house and east of garage*

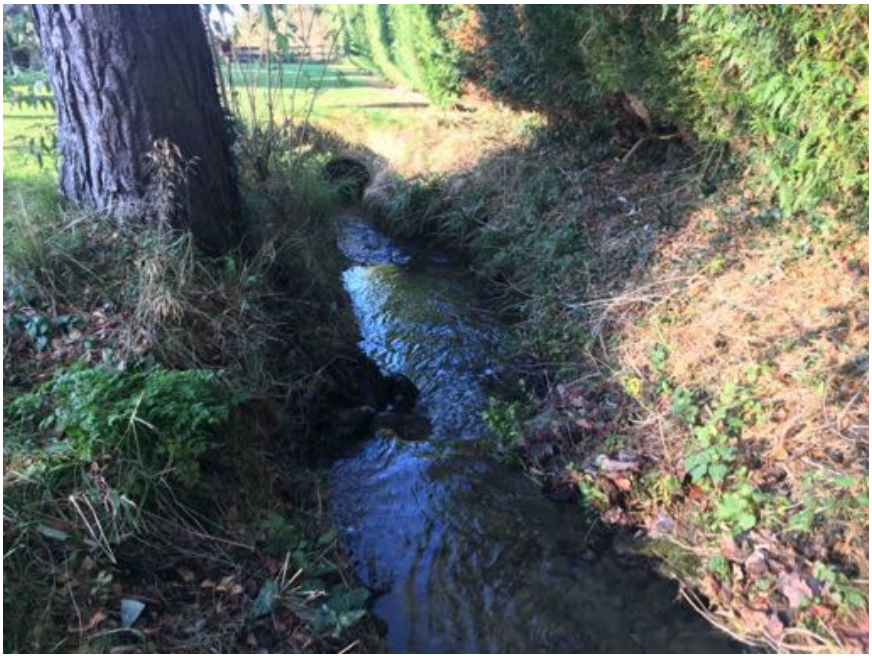

*Image 5. Stream along northern boundary*

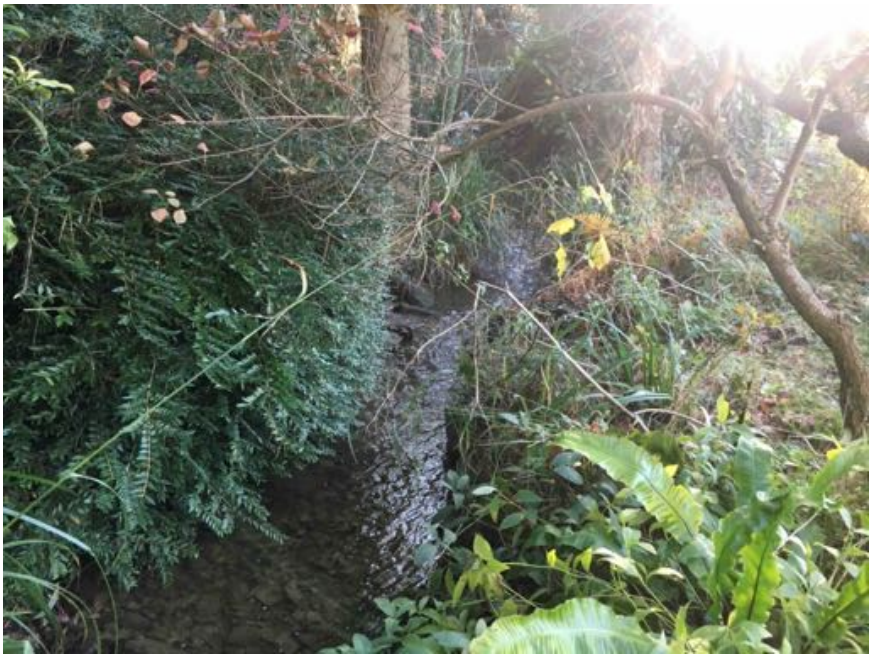

*Image 6. Stream along northern boundary*

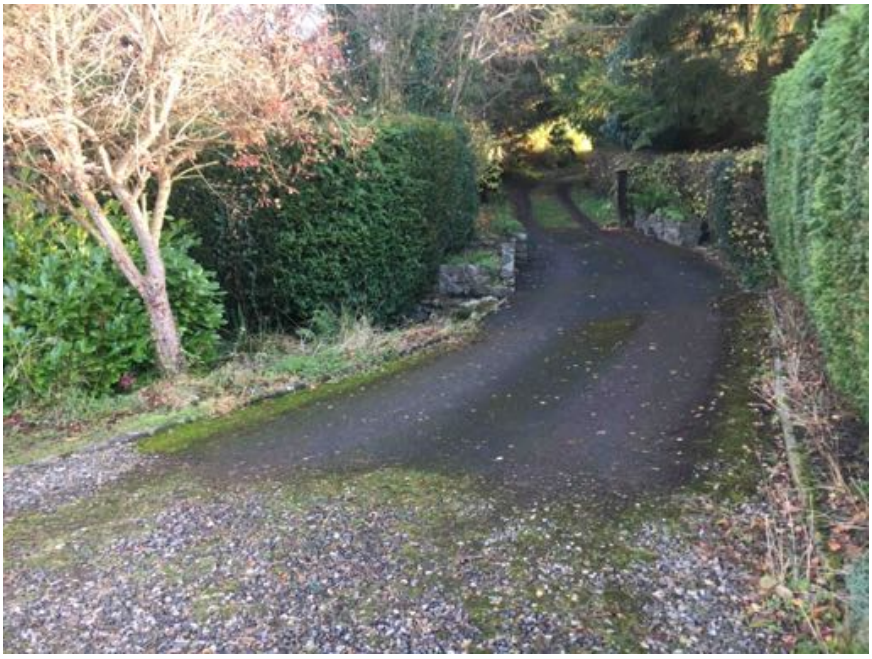

*Image 7. Driveway to northeast of house*

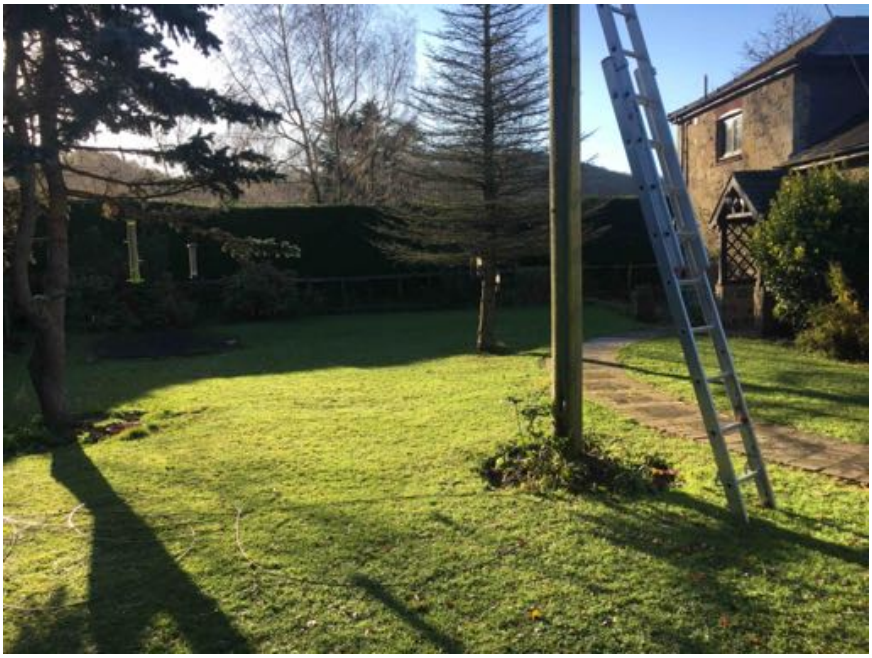

*Image 8. Garden to east of house*

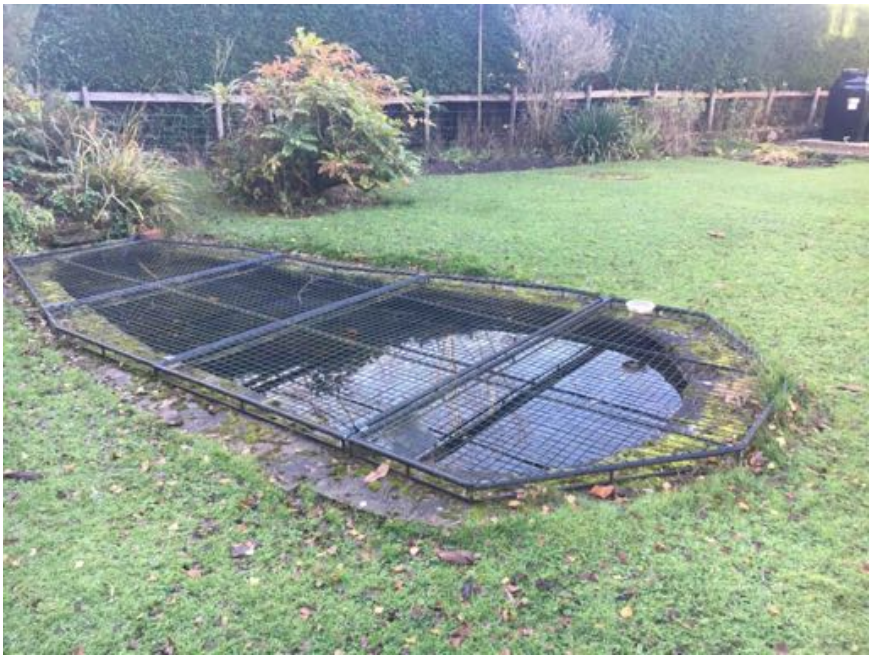

*Image 9. Fishpond to east of house*

### Protected or notable species

4.2.6. The stream, with the gravel substrate, with larger stones, shallow overhanging banks, provided suitable habitat for supporting white-clawed crayfish *Austropotamobius pallipes*. The stream also provided habitat deemed suitable for supporting water vole *Arvicola amphibious*. However, no field signs of these species were noted during the walkover survey and no historical records for these species, from within 2km of the site, were returned as part of the HBRC data search.

4.2.7. A house martin nest was located under the eaves on the south elevation of the house. Two swallow nests were located within the single storey garage, with one nest having been used by another species (nesting material evident).

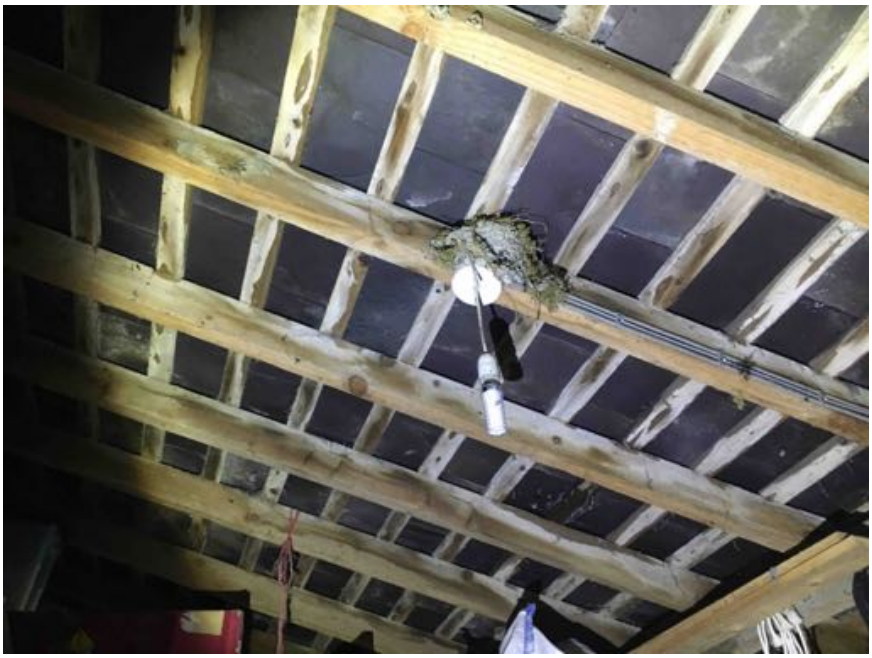

*Image 10. Swallow nest cup inside garage*

4.2.8. The ornamental fishpond, stocked with fish and with no aquatic vegetation was deemed not suitable for supporting amphibians and the habitats within and immediately adjacent to the proposed construction footprint did not provide any potential refuges or suitable terrestrial foraging habitat for amphibians, including great crested newts.

## 4.3. Bat daytime building inspection

4.3.1. Garden House is a detached, two-storey house constructed of stone (north, east and south elevations) and red brick (west elevation) with a pitched slate-tiled roof (main ridgeline orientated north to south), tiled with slate tiles. There is a single storey, stone, single-pitched roof extension attached to the north elevation.

4.3.2. The external stonework/brickwork was in excellent condition, with no gaps, cracks or crevices. The timber soffits and fascias were all tight against the stonework/brickwork with no gaps or crevices visual. The mortared verge on the north elevation was in relatively good condition and any gaps had been filled with expanding foam. Two bat droppings were located on the stone wall directly beneath the join of the east sloping roof to the main roof (top of verge). Although no gaps in the verge were visible, there might have been a gap into the end of the main house soffit close to where the two roofs joined.

4.3.3. The slate roof tiles and ridge tiles (slate) were largely intact and well-sealed with no missing, slipped or broken tiles. On the east elevation there was a gap between the ridge tile and the northernmost chimney (on the south side of the chimney), and another ridge tile (seven tiles south of the northernmost chimney) was also slightly lifted. On the west elevation there were gaps between the ridge tiles (both sides) and the northernmost chimney, and the ridge tile at the southern end of the ridge (where the main ridge joined the hipped ridge) was also slightly lifted. No gaps on the north-facing roof were noted and it was not possible to visually inspect the external parts of the south-facing roof.

4.3.4. The roof of the single storey lean-to was in excellent condition, with no visual gaps, cracks or crevices under the tiles. There was a small hole near the east-facing verge, leading into the small roof void, created for telephone and internet wires.

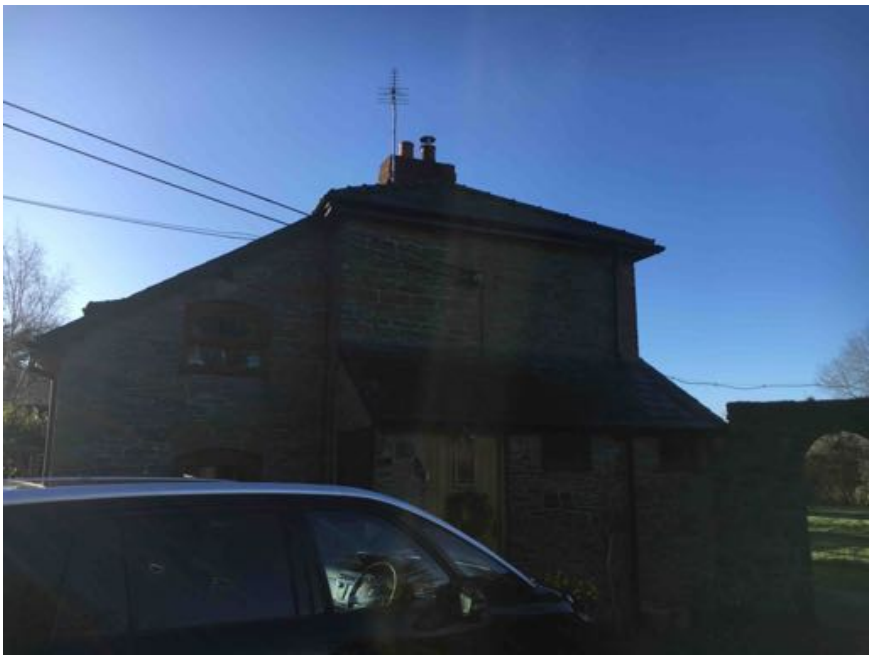

*Image 11. North elevation of house*

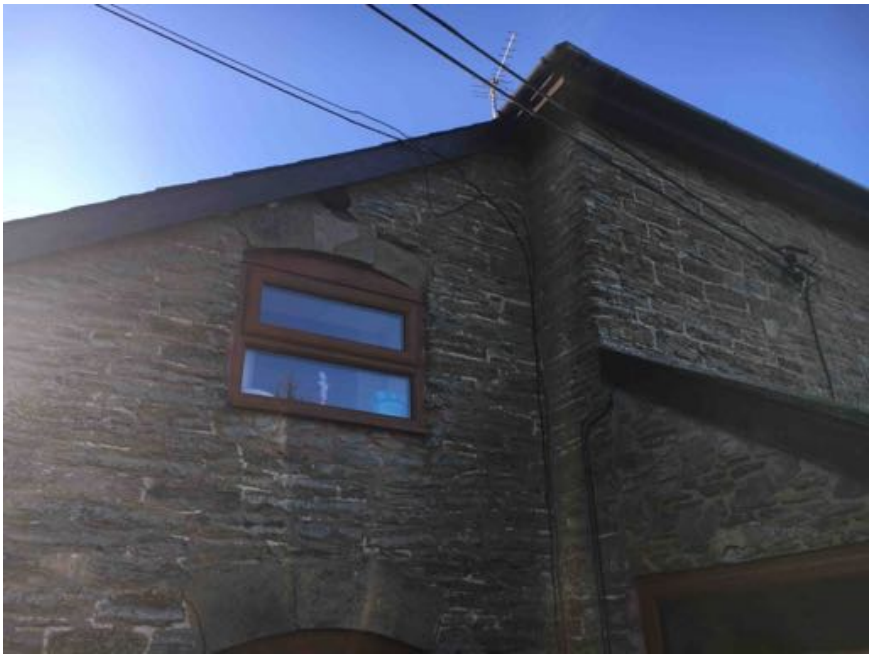

*Image 12. North elevation of house where east sloping roof joins main roof*

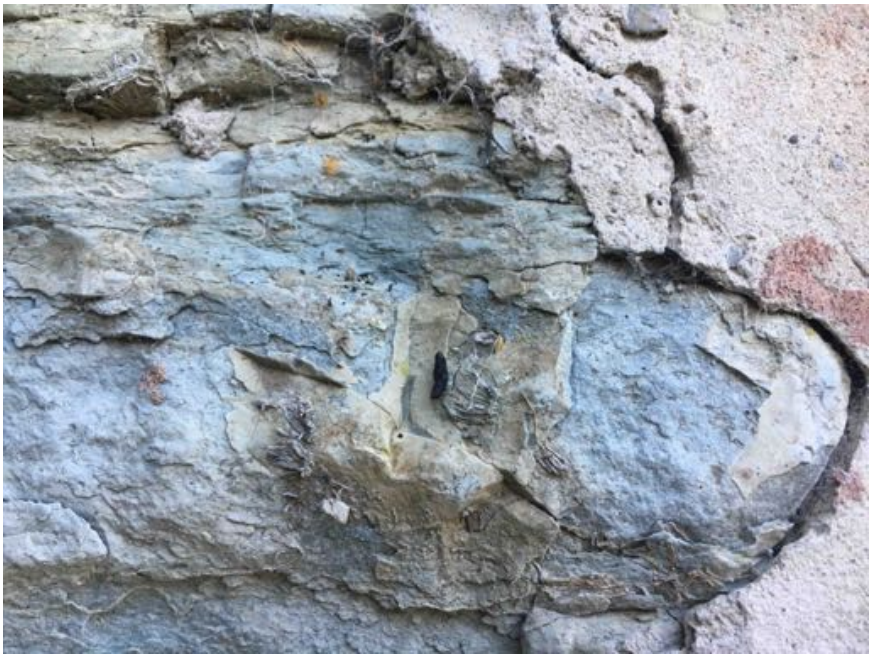

*Image 13. Bat dropping on north elevation wall*

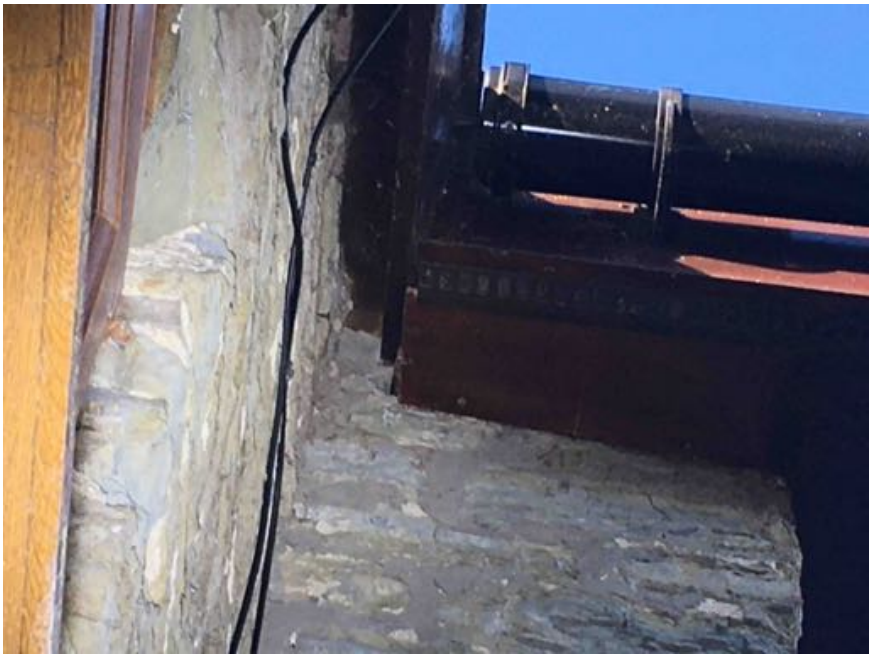

*Image 14. Potential gap into soffit box on north elevation*

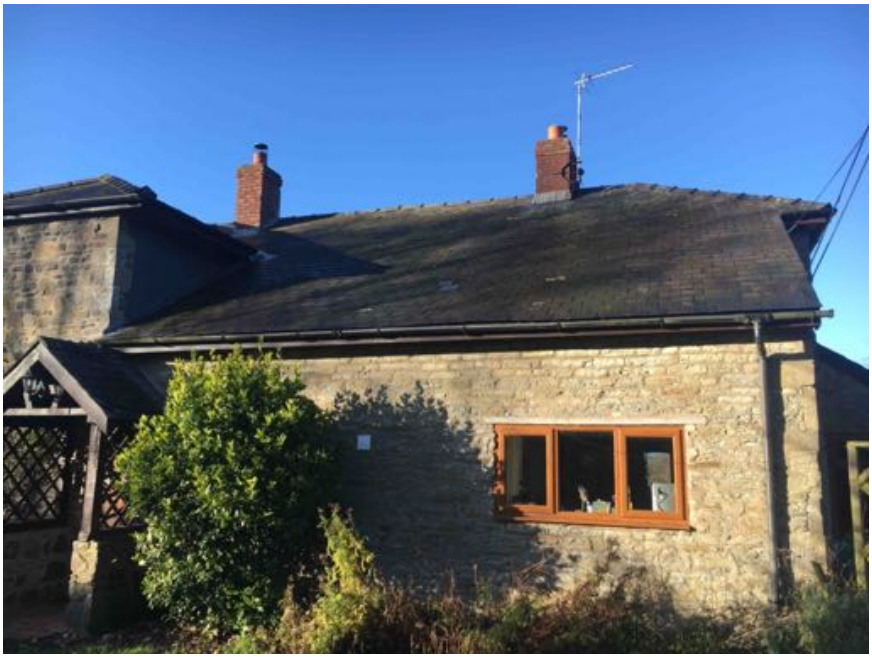

*Image 15. East elevation of house*

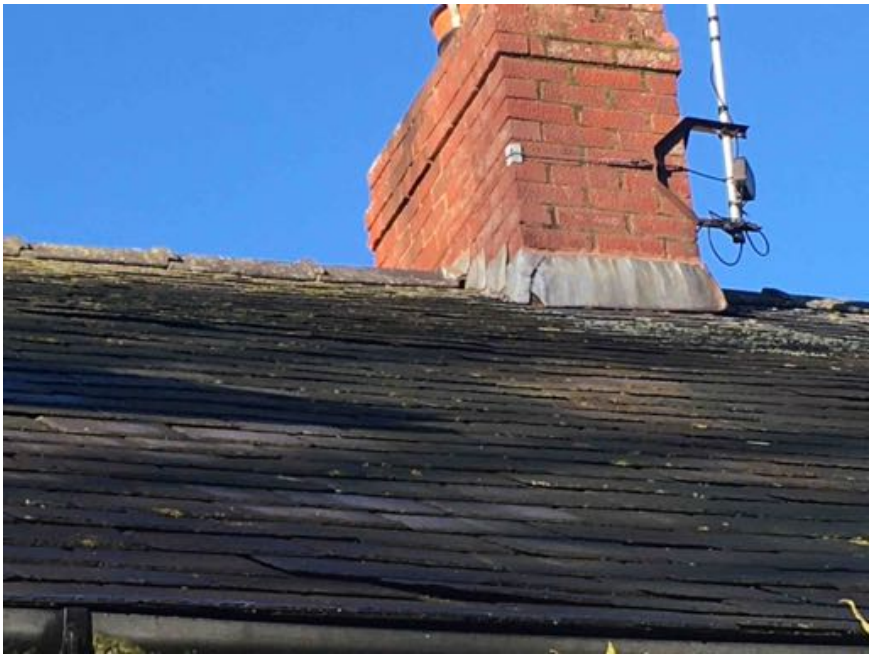

*Image 16. Gap between ridge tile and chimney*

*Image 17. South elevation of house, with house martin nest under eaves*

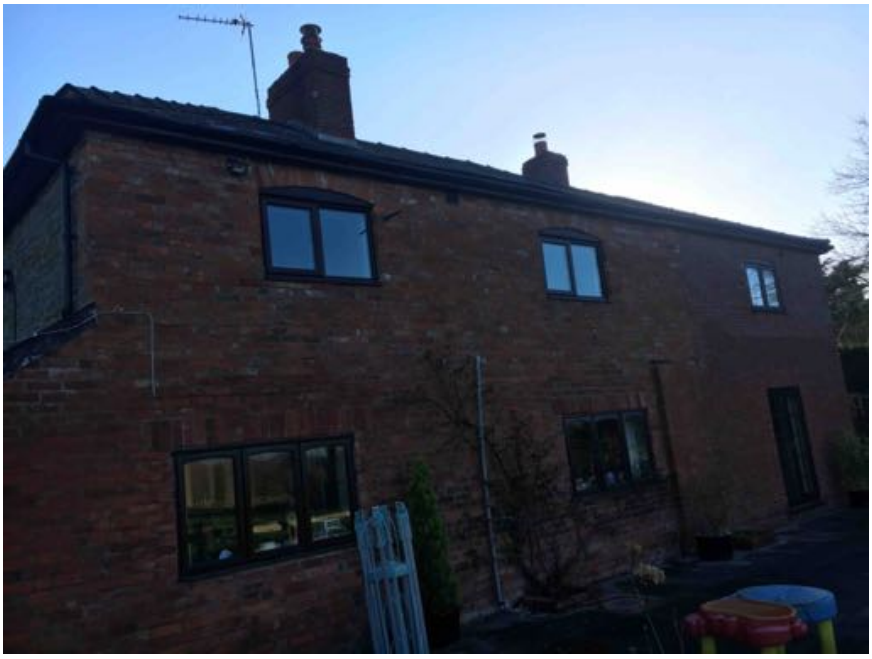

*Image 18. West elevation of house*

4.3.5. The roof void of the main house extended the full length of the property but was divided internally into roughly two halves. The roof (both roof voids) was lined with bitumastic felt and both roof voids were insulated with glasswool insulation on the floor. In the older section of the house (the northern part), the bitumastic felt liner did not quite reach right up to the ridgeline, so the overlying slates were visible. The gaps between the ridge tiles and chimney were noticeable and the ridgeboard was clear of cobwebs at this point and between the adjacent 2-3 rafters. Bat droppings (a mix of fresh and old droppings) were scattered throughout the roof void, but also formed loose clusters directly beneath the ridge, particularly underneath the sections clear of cobwebs. The roof void in the newer section of the house (the southern extent) also contained scattered bat droppings (fresh and older). There was a loose cluster of bat droppings on an angled board where the two roof voids joined, and there was a narrow gap at the top of the internal roof structures that separated two voids, providing potential access for bats between the two roof spaces.

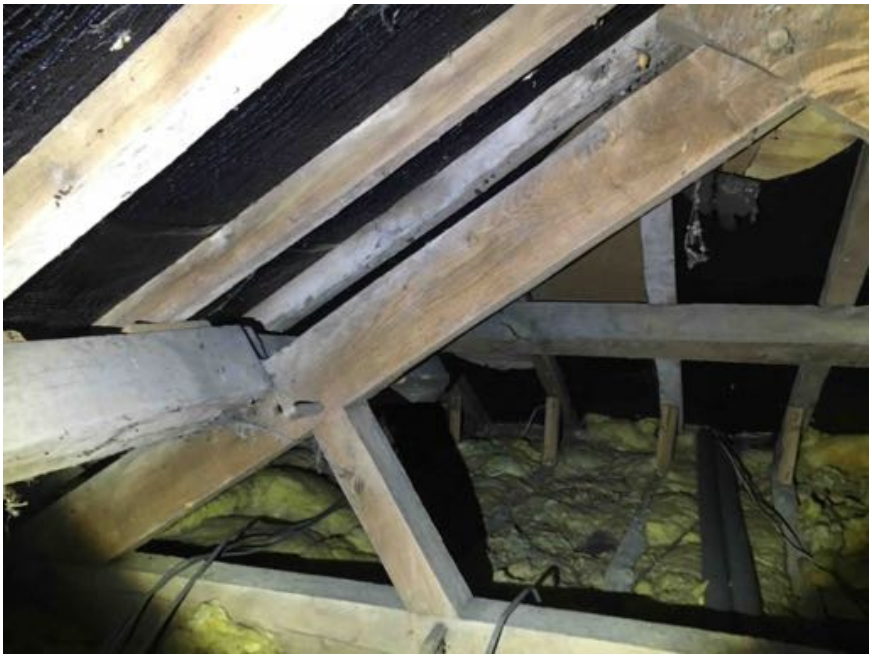

*Image 19. House roof void, north end*

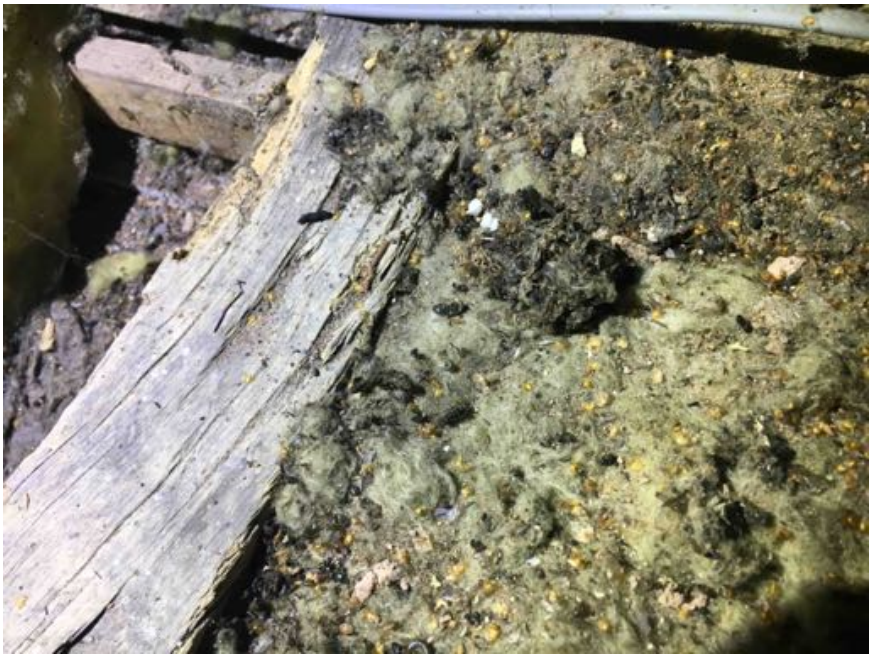

*Image 20. Bat droppings in north end roof void*

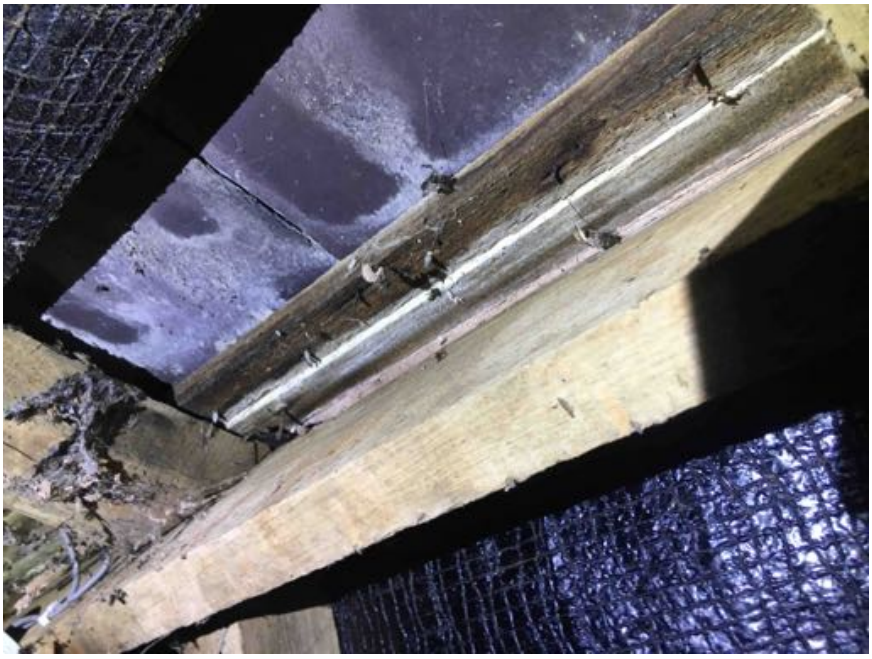

*Image 21. Ridgeboard clear of cobwebs, north end roof void*

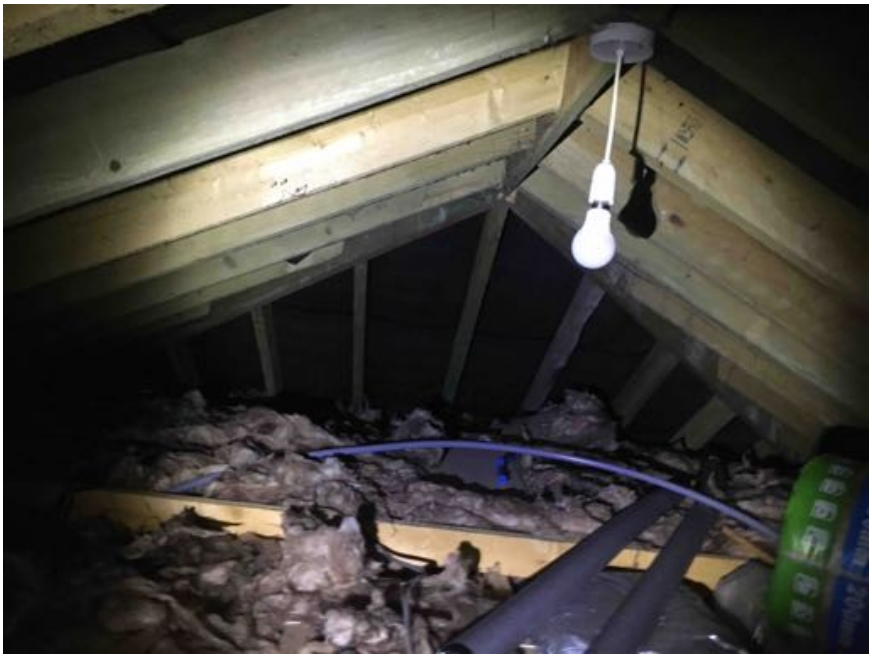

*Image 22. House roof void, south end*

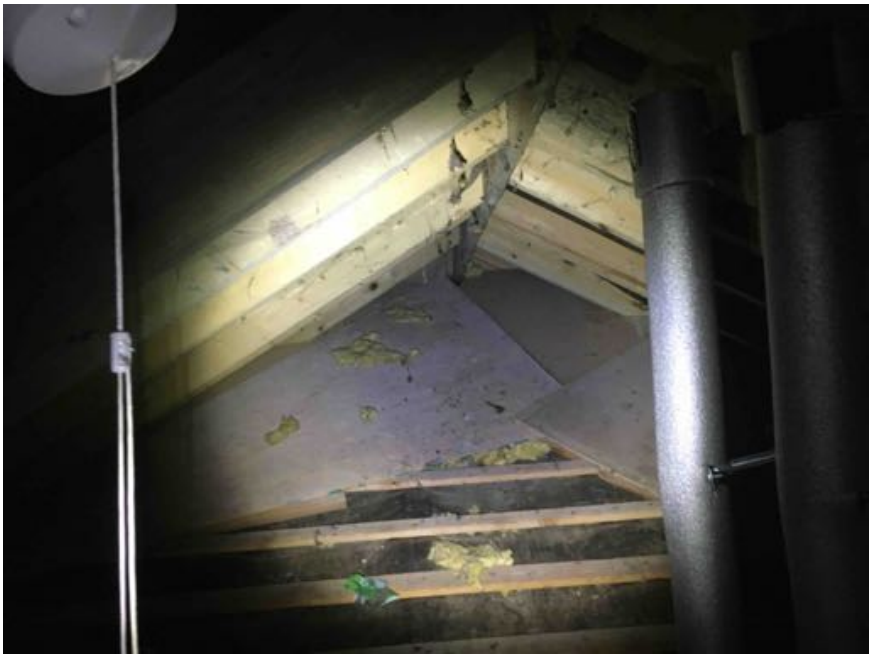

*Image 23. Scattered bat droppings on board near internal roof void join*

4.3.6. The roof void within the single storey lean-to was shallow, lined with bitumastic felt (intact and in good condition) but un-insulated. No evidence of bats was noted.

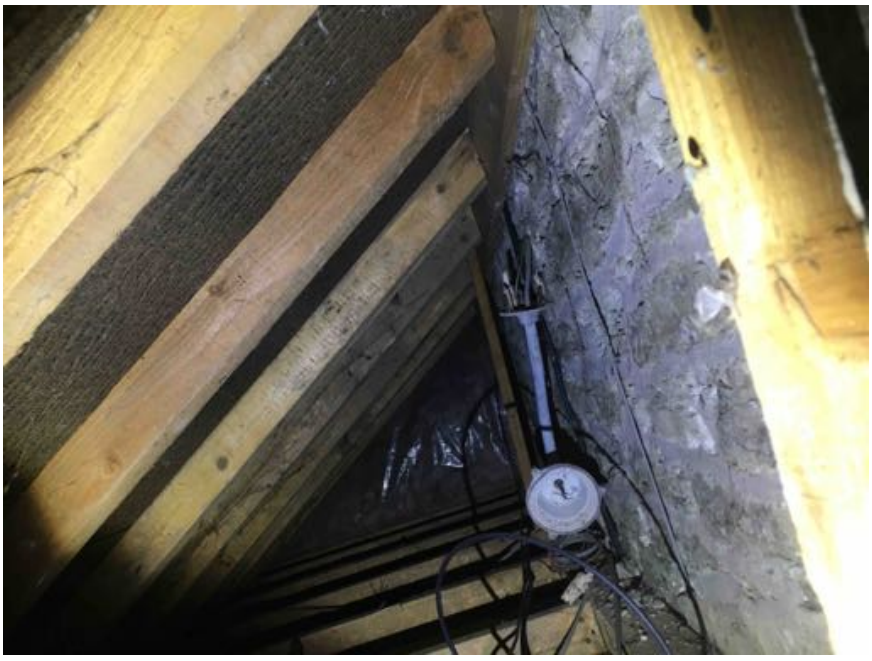

*Image 24. Lean-to roof void*

4.3.7. The single storey garage, located less than 5m to the northwest of the house was constructed of red brick with a single-pitched slate tiled roof. The roof tiles were in poor condition, with a number of slipped and broken tiles, and a creeper (possible Virginia creeper) had grown underneath the uppermost rows of tiles. Although most of the brickwork was intact there were some missing mortar and gaps between the wall top and roof on the west elevation. There were also gaps between the narrow timber

fascias and walls, and gaps between the single-skin timber cladding above the timber door on the southern elevation.

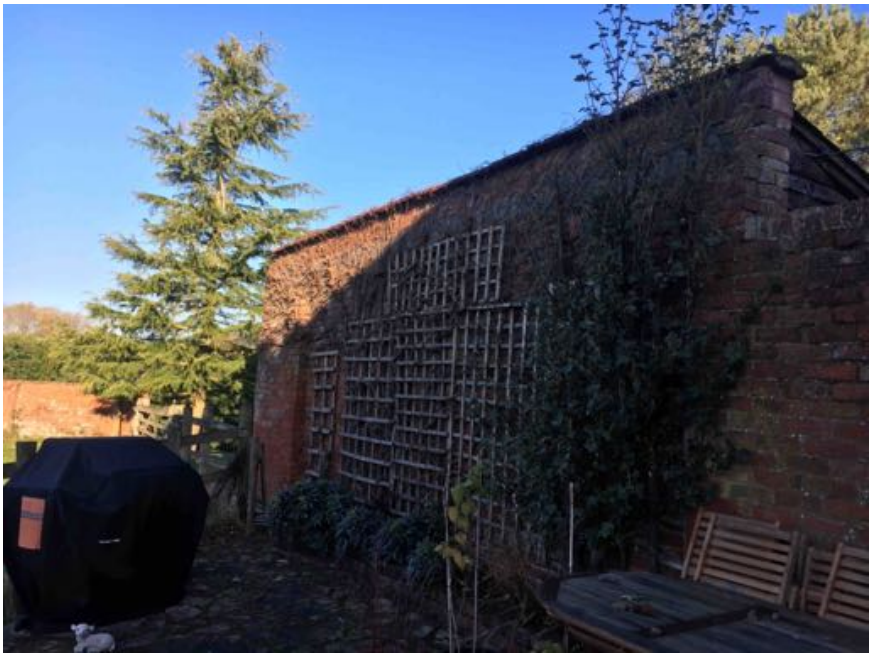

*Image 25. Garage, west elevation*

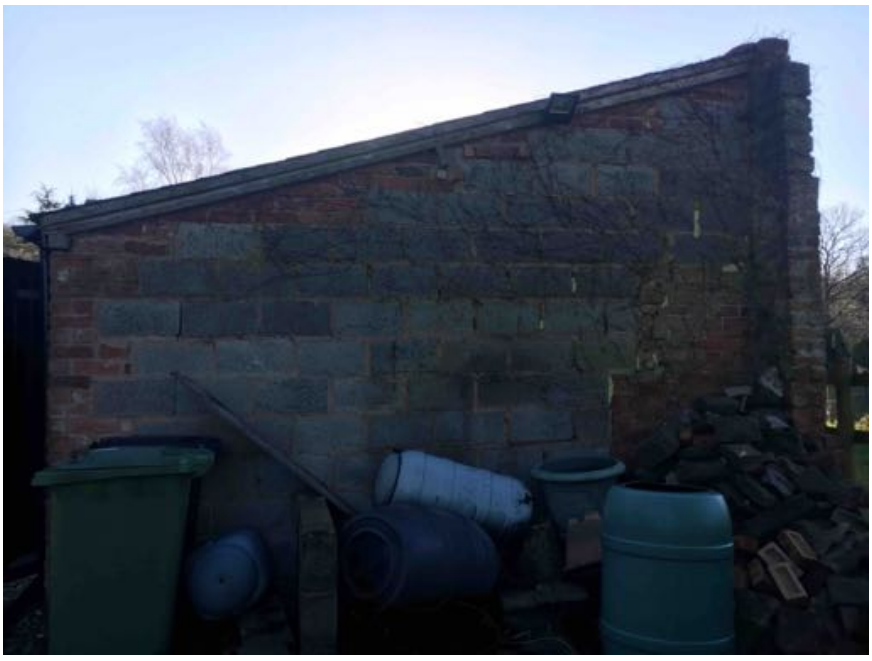

*Image 26. Garage, north elevation*

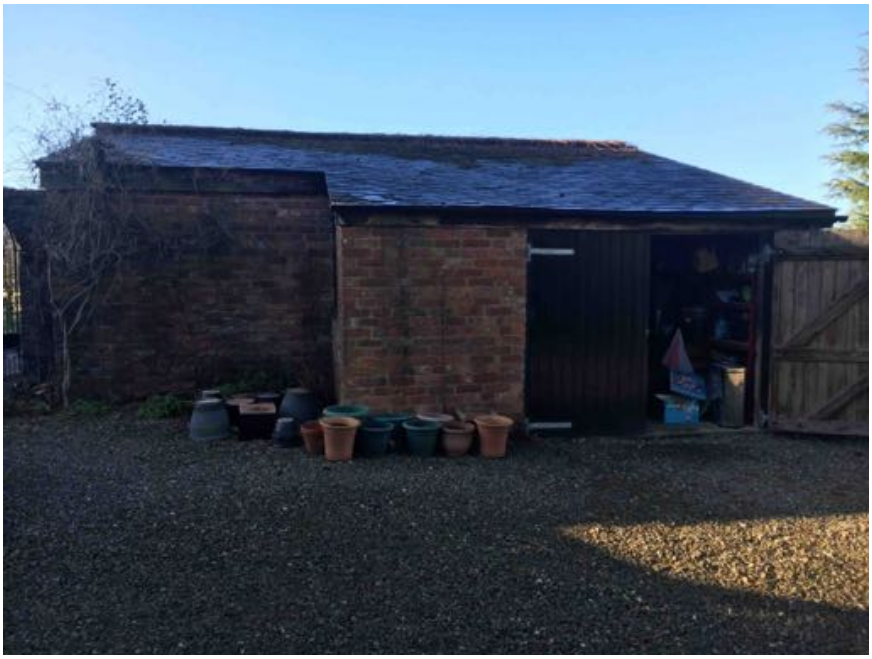

*Image 27. Garage, east elevation*

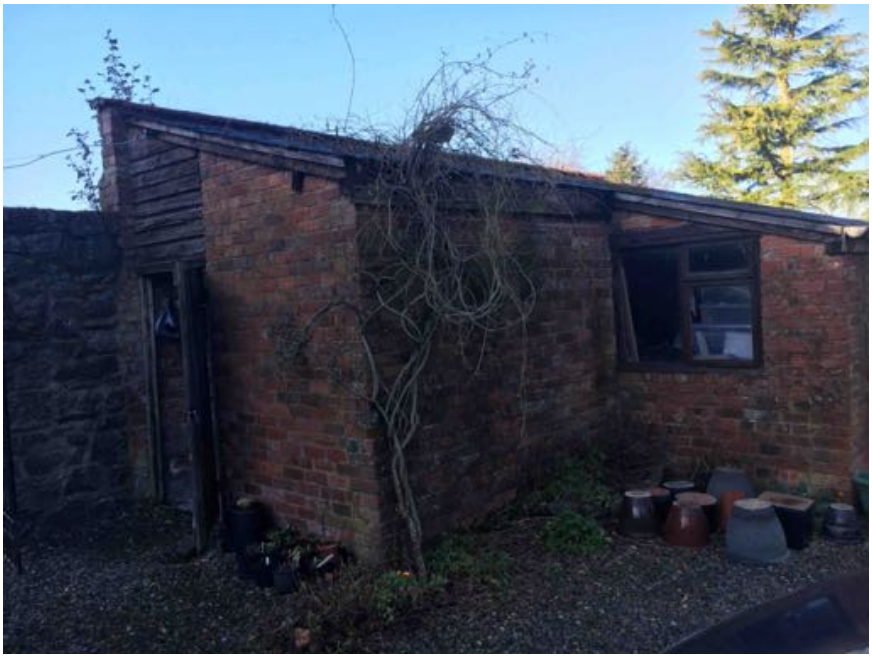

*Image 28. Garage, south elevation*

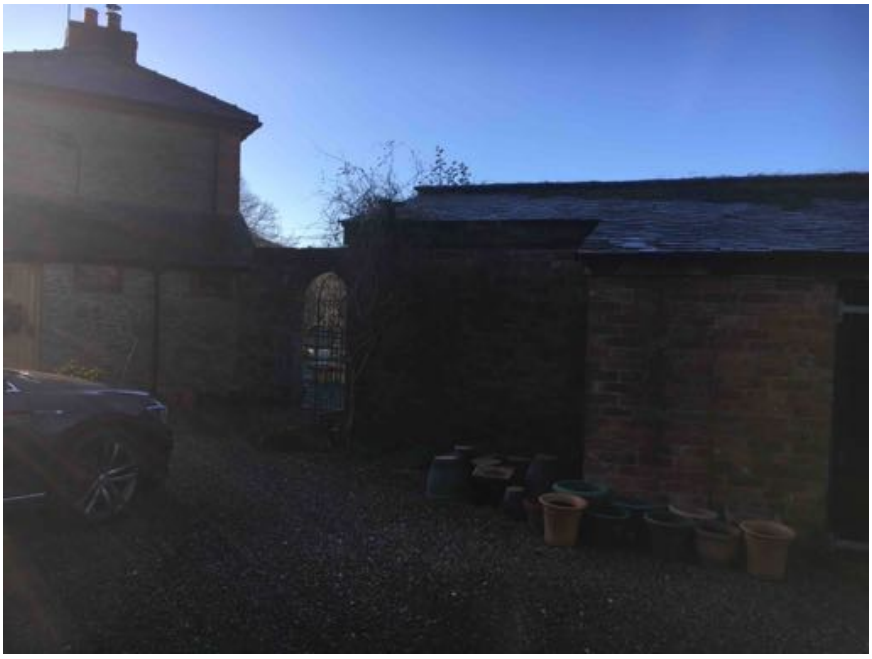

*Image 29. Between house and garage*

4.3.8. Internally the roof was unlined and space was draughty, with natural light visible through numerous gaps around the timber doors and roof structures. Two scattered bat droppings were located on the floor immediately inside the door on the south elevation, and a further 3-4 droppings were caught above in cobwebs on the internal brickwork.

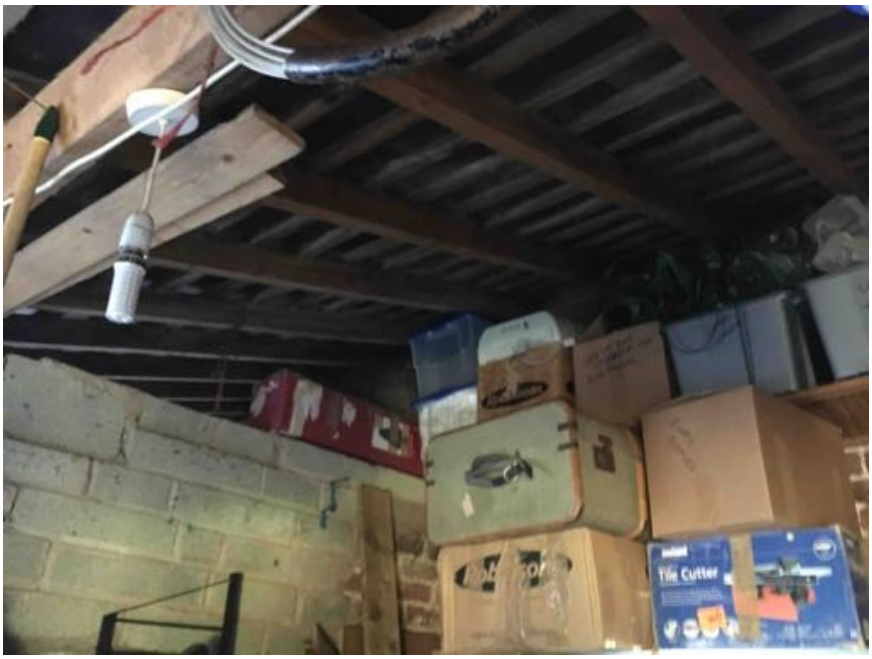


*Image 30. Inside garage, north end*

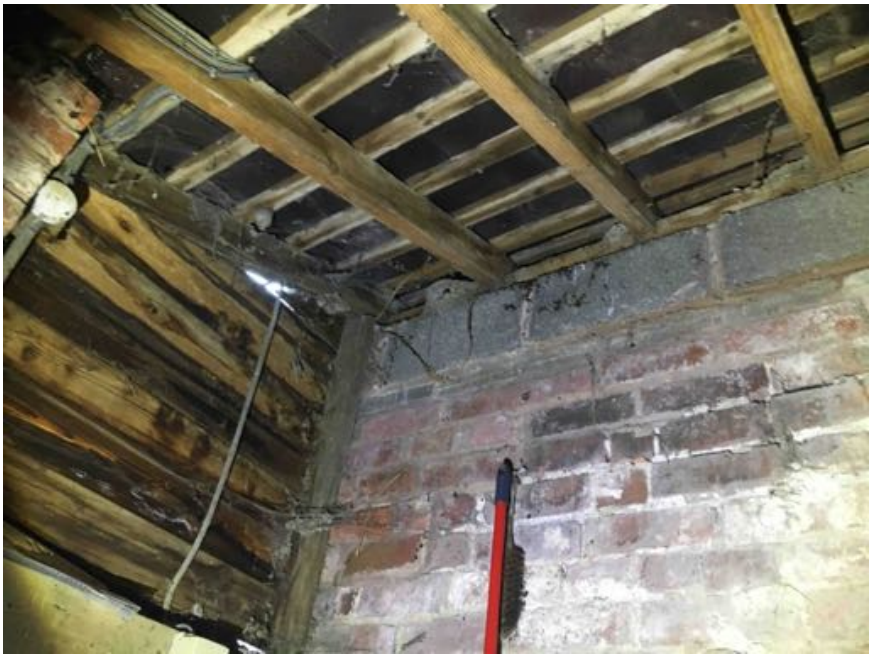

*Image 31. Inside garage, south end*

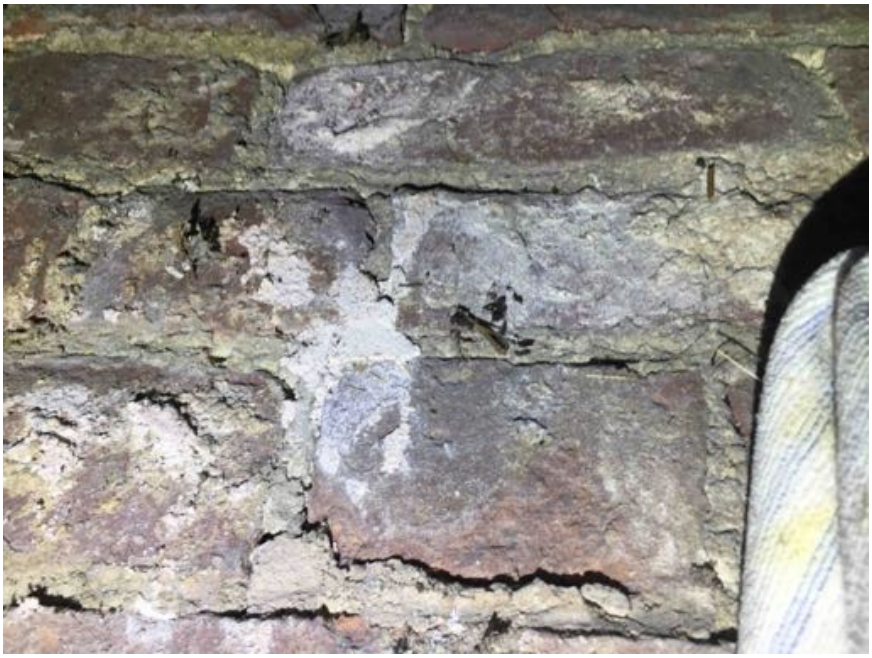

*Image 32. Bat dropping son wall inside garage, south end near door*

# 5. Ecological Evaluation and Mitigation

# 6. Ecological Evaluation and Mitigation

## 6.1. Statutory protected sites and other features

6.1.1. Given the size and nature of the proposed development, no designated sites are considered likely to be significantly affected by the proposed development; therefore no further survey or assessment is required.

## 6.2. Plants and habitats

6.2.1. The proposed development will not result in the loss of or direct impacts on of any semi-natural habitats. There is potential for the construction works to result in a temporary, indirect impact on the nearby stream. As such the following mitigation measures are recommended, and should be adhered to at all times through the construction period:

- All materials with potential to cause harm to the watercourse (e.g. oils, chemicals, fuel, cleaning materials, paint) will either not be stored on site, or will be stored within the existing hardstanding on an impervious base.

- To prevent surface-water run-off into the adjacent stream, a temporary bund (e.g. sandbags) will be placed along the construction site boundary closest to the stream (northern boundary), thereby diverting any surface-water run-off onto adjacent semi-natural habitats away from the stream.

6.2.2. No further survey or additional specific mitigation in relation to protected or notable habitats are required.

## 6.3. Birds

6.3.1. Given the presence of swallow nest cups within the garage, there is potential for impacting breeding birds during renovation works. The change of use of the garage into residential use will also result in the permanent loss of swallow nesting opportunities. Therefore the following mitigation is recommended:

- To avoid the risk of disturbance to nesting birds, the clearance of vegetation, internal materials and the key destructive works to the garage should be undertaken outside of the peak bird nesting season (March to August inclusive) to avoid potential conflict with the legislation concerning breeding birds. If building works cannot be scheduled to avoid the bird nesting season then a check by an ecologist immediately prior to commencement of clearance works will be required, and if nests are found to be present, they should be adequately protected until breeding has finished and the nest is no longer in use. Measures to prevent birds establishing nests within the buildings, such as netting, can be put in place prior to the nesting season. However, a detailed method statement for the use of any preventive nesting measures must be prepared by an experienced ecologist and any measures used must not result in the obstruction, damage or destruction of a bat roost.

- To compensate for the loss of swallow nesting opportunities, the design of the new storage to the rear of the existing garage should allow for two replacement swallow nest cups to be located internally, and sufficient access for birds into the building.

## 6.4. Bats

6.4.1. The proposals have the potential to impact bats and their roosts, therefore detailed bat emergence/re-entry surveys will be required to fully characterize the bat roost(s) within the building(s) and to inform detailed mitigation and the need for a mitigation licence. Activity surveys can be carried out between May and September, although the optimal surveys period (for planning application and licence applications) is May to August. Up to three separate survey visits may be required to gather sufficient information to inform any planning application.

## 6.5. Other protected or notable species

6.5.1. Based on the lack of historical records, field signs and the proposed footprint of the proposals (impacting existing hardstanding only), no impacts on any other protected or notable species are anticipated and no further survey is required.

## 6.6. Summary of mitigation / compensation measures

6.6.1. Table 1 summaries the need for further survey and general mitigation / compensation measures required to ensure compliance with relevant wildlife legislation and to ensure no significant effects on species or biodiversity.

Table 1 – Summary of further survey and general mitigation / compensation measures

| Ecological receptor | Further survey and/or mitigation measures | Mechanism for securing delivery |
|---|---|---|
| Stream | Appropriate storage of materials and use of sandbags to protect stream from pollution/surface-water run-off | Planning |
| Birds | Vegetation building works (garage) outside bird nesting season, or prior check for nesting birds.<br><br>Provision of swallow nest cups within new storage building to rear of garage | Planning condition |
| Bats | Further surveys to characterise roost and inform detailed mitigation | Prior to planning |

# References

CIEEM (2017). Guidelines for Preliminary Ecological Appraisal, 2nd edition. Chartered Institute of Ecology and Environmental Management, Winchester.

Collins, J. (2016). Bat Surveys for Professional Ecologists: Good Practice Guidelines, (3rd edn). The Bat Conservation Trust, London. ISBN-13 978-1-872745-96-1

Mitchell-Jones, A. J. (2004). Bat Mitigation Guidelines, English Nature ISBN 1 85716 781 3.