

www.arbtech.co.uk

Initial Assessment Bat Survey

Summary of Recommendations

If bats, evidence of their activity and suitable locations for roosting bats, are all absent from the site, then no further visits are normally required. Otherwise, a single, daytime initial assessment, in which no bats were found, is not normally considered sufficient (Hundt 2012).

Taking into consideration the desk study and site survey findings, this report concludes that it is not possible to adequately manage or exclude the risk of harm to bats without the need for further survey effort.

Therefore, in order to provide adequate support for this planning application, bat emergence surveys should be undertaken, compliant to industry best practice, such as are set out in the Bat Conservation Trust publication, Bat Surveys—Good Practice Guidelines (Hundt 2012).

A full specification for bat emergence surveys that is appropriate to the scale and scope of the proposed development can be found in the ‘Conclusions’ and ‘Recommendations’ sections of this report.

The Company and Contact Information

Established in 2005, Arbtech Consulting Limited provides arboricultural and ecological consultancy services in respect to planning and development, throughout the UK.

Tel 0800 072 5596

@ email@arbtech.co.uk

Web www.arbtech.co.uk

The Surveyor

The surveyor and principal author of this report is Jo Gregory BA (Hons), MSc GradIEM.

Bat Licence Number

England: 20122461.

Wales: 39248.

Scotland: 13660.

The Client

The client is Mr. Gordon Beever.

The Site of Proposed Development

The client is preparing a planning application to convert the outbuildings at Little Royd Farm, Halifax Road, Hoylandswaine, Sheffield S36 7EY.

The Survey Brief

The client has commissioned Arbtech to undertake a scoping bat survey; referring to a method of ecological assessment outlined in the Bat Conservation Trust publication Bat Surveys—Good Practice Guidelines authored by L. Hundt, 2012.

These guidelines state that the aim of the initial assessment bat survey is to observe and catalogue *“informing and identifying the type and extent of further bat survey work needed (if any)”* (Hundt 2012).

Data Searches

The author's preparation of this report has been assisted by a search of the National Biodiversity Network Gateway.

No other data searches or desk study has been undertaken.

Date of the Survey

14 March 2013.

Seasonality

This type of assessment can be conducted at any time of year.

Informative

Table 1: Summary of Pertinent Legislation and Planning Policy Relevant to the Protection of Bats in the UK

This table is adapted from Table 2.1 and Section 2.5 of the Bat Surveys—Good Practice Guidelines (Hundt, 2012).

Location of Roost	Transposing EC Habitats Directive	Other Relevant Legislation	Planning Policy
England	Conservation of Habitats and Species Regulations 2010.	Wildlife and Countryside Act 1981 as amended. Countrywide and Rights of Way Act 2000. Natural Environment and Rural Communities Act 2006.	National Planning Policy Framework ("NPPF").
Wales	Conservation of Habitats and Species Regulations 2010.	Wildlife and Countryside Act 1981 as amended. Countrywide and Rights of Way Act 2000. Natural Environment and Rural Communities Act 2006.	Technical Advice Note ("TAN") 5.
Scotland	Conservation (Natural Habitat & c.) Regulations 1994 as amended.	Wildlife and Countryside Act 1981 as amended. The Nature conservation (Scotland) Act 2004.	National Planning Policy Guidance ("NPPG") 14 and Planning Advice Note ("PAN") 60.

Cumulatively, this legislation makes it illegal to:

- Intentionally or deliberately kill, injure or capture bats.
- Deliberately disturb bats, whether at roost or not.

- Damage, destroy or obstruct access to bat roosts.
- Possess or transport a bat or any part of a bat, unless acquired legally.
- Sell, barter or exchange bats, or any part of a bat.

A bat roost is defined by Hundt (2012) as “the resting place of a bat”. Generally however, the word roost is interpreted to mean “any structure or place, which any wild bat uses for shelter or protection.”

The Survey Methodology

In order to fully assess the potential value of bat habitat at the site, the surveyor has observed the widely accepted industry best practice standard; set out in the Bat Conservation Trust publication *Bat Surveys—Good Practice Guidelines* (Hundt 2012).

The survey includes for a thorough internal and external inspection of all buildings (and trees) referred to in the Survey Results section of this report for cracks, holes, cavities and voids in buildings and cracks, fissures and voids in trees.

Inspections are both internal and external, making use of torches, ladders, endoscopes, mirrors, binoculars and cameras where appropriate to do so.

An initial assessment bat survey is performed during daylight hours and provides an opportunity to exclude the need for further survey work, if the following triggers can be confirmed absent from the site of proposed development:

- Bats.
- Evidence of recent bat activity e.g. droppings, prey remains, urine staining.
- Features suitable for roosting.

If bats, evidence of their recent activity and or features suitable for roosting cannot be confirmed absent from the site of proposed development, this report will make recommendations for further survey work and or design mitigation, where this is consistent with the Hundt (2012) and considered appropriate by the surveyor in the context of the proposed development.

Recommendations for further survey work may include “emergence surveys” (Hundt 2012) which enable e.g. apertures through which roosts are accessed, population numbers and species to be identified and quantified. Essentially, the survey is designed so that with confidence, the surveyor can confirm bats to be present, indeterminate or absent.

Bat Potential and Habitat Value

Table 2: Bat roost habitat value assessment criteria, adapted from the Bat Surveys—Good Practice Guidelines (Hundt 2012).

Bat Habitat Value	Trigger or Description
Confirmed Bat Presence	Bats are found to be present during the survey. Evidence of bats is found to be present during the survey. Bats heard ‘chattering’ inside a roost on a warm day or at dusk.
Significant Habitat Value	Buildings, trees or other structures with features of particular significance for roosting bats e.g. mines, caves, tunnels, icehouses and cellars. Habitat of high quality for foraging bats e.g. broadleaved woodland, tree-lined watercourses and grazed parkland. Site is connected with the wider landscape by strong linear features that would be used by commuting bats e.g. river and or stream valleys and hedgerows. Site is proximate to known roosts.
Moderate Habitat Value	Several potential roosts in buildings, trees or other structures. Habitat could be used by foraging bats e.g. trees, shrub, grassland or water. Site is connected with the wider landscape by linear features that could be used by commuting bats e.g. lines of trees and scrub or linked back gardens.
Low Habitat Value	A small number of potential roosts, most likely less significant roosts. Isolated habitat for foraging e.g. a lone tree or patch of scrub but not parkland. An isolated site not connected by prominent linear features.
Negligible Habitat Value	No features suitable for roosting, minor foraging or commuting.

Table 2 (above) presents a scale continuum adapted from Hundt (2012) against which the significance of habitat value and roosting opportunities at the site can be graded. By referring to this continuum and using their expert judgment, surveyors classify features of buildings or trees as representing low, medium or high value as habitat for bats.

Survey Results

Table 3: The Desk Study Results

Desk Study Records	A study of data from the National Biodiversity Network Gateway for the grid square (SE20) SE254047 has informed the preparation of this report. No other data set has been consulted.
Notes on the Local Environment	The site is surrounded by arable fields and scattered farms in the immediate vicinity, with a large residential area (Hoylandswaine) located approx. 326m to the northeast of the site. Woodland is located approx. 427m and approx. 557m away to the northwest, approx. 826m to the northeast, approx. 1260m to the east, approx. 615m and approx. 1538m to the southeast (Cliff Plantation and Royd Wood), approx. 790m to the south (Shrogg Wood), and approx. 1161m to the southwest of the site. Open water cannot be located within 1km of the site however Scout Bridge and Scout Dyke Reservoir are located approx. 1155m and 1200m to the southwest of the site. The site is surrounded by fields which are located within 50m of the proposed development area. Hedgerows and tree-lined roads are located immediately adjacent to the site offering commuting routes to and from the woodland and other foraging areas. Weather conditions at time of survey: Temperature: 4°C. Cloud Cover: 10%. Precipitation: None. Wind: 3/8.

Table 4: The Site Survey Results

Buildings and trees are referred to by number, in accordance with the sketch plan at Appendix I.

Reference Number	Habitat Value Table 2 Refers	Description of Roosting Features Access to Roosting Features	Confirmation of Bat Presence
B1	Confirmed Bat Roost	A single storey stone built former stable block with a pitched concrete tile roof. The roof is of a trussed rafter construction with felt lining and large exposed beams. A store room is located at the far northwestern end of the building which is partially covered by a former animal shed which is open sided on the northeast elevation and has a roof constructed of a combination of corrugated asbestos, metal, and plastic sheets. A large wooden soffit box is located on the southwest elevation and this is in a poor state of disrepair with several large holes in the plywood underside, and significant gaps at each end providing access to the roof structure and roofing felt was visible. A ridge tile is missing and there are several sections of raised tiles within the roof. Overhanging tiles are present on all elevations providing access to the roof structure. Missing mortar is also present within the overhanging tiles at each gable end providing access to the stone wall tops. A smaller wooden soffit box is located on the northeast elevation. There are missing boards on the underside on the northwestern end providing access to the exposed wall tops and roof structure with roofing felt visible. The windows are boarded on the northeast elevation with the exception of the central window which is blocked by a wooden board internally with gaps present providing access to the building interior. Internally the building is subdivided into three individual stables with a separate store room located at the northwestern side. Each stable is accessed via a wooden door (two composite stable doors and one solid wood door) located on the southwest elevation. The doorframes and window frames are wooden and tight fitting however a hole is present within each of the doors providing access to the	Significant amounts of feeding remains in the form of Tortoiseshell butterfly wings and moth wings (>20) were located inside the central stable (stable 2). There were three distinct areas where significant amounts of prey remains were found: on the floor below the gaps in the wall tops on the far northwestern wall; on and around some venetian blinds stored on the floor located in close proximity to the internally boarded window; and stuck in the cobwebs on the wall below the window. The significant amounts of prey remains inside stable 2, would suggest that this building is being used as a feeding perch by brown long-eared bats (<i>Plecotus auritus</i>). The presence of large support beams within the roof structure also provides an ideal feeding perch/roosting area for brown long-eared bats.

		building interior. Each stable also has a window on the southwest elevation, and the central window is broken (stable 2). Within stable 1 (southeastern side of building) there is a significant tear in the felt lining on the northeastern side with exposed concrete tiles showing. A further tear is visible along the central beam. Stable 2 (central stable) correlates with the internally boarded window on the northeast elevation and gaps are visible. Tears are visible within the felt lining of the roof on the southwest and northeastern side. Exposed wall tops are visible on the northwestern internal wall. Stable 3 (northwestern side of building) has been boarded internally including a ceiling. The boarding is tight fitting with the exception of the far southwestern corner where a water tank/boiler is located - above which there is a large un-boarded section leading to the roof structure. Store room - located on the far southwestern end of the building. This room has been boarded internally and the boarding is tight fitting with no gaps visible.	
B2	Negligible Habitat Value	A former cattle shed constructed of breezeblock walls with the upper sections comprising of wooden planks on the southwest side, large plywood boards on the northeast side, and plastic sheeting on the northwest side. The roof is constructed from asbestos sheets with plastic 'skylight' sheets. The building is open sided on the southeast elevation. Gaps are present within the wooden planks on the southwest side providing access to the adjoining building (B3). The plastic sheeting on the northwest side is falling down and a large opening is present.	No evidence of the presence of bats could be located internally or externally. This building is considered to be unsuitable for use by bats providing no obvious roosting locations. The only possible use could be for foraging during inclement weather conditions.
B3	Negligible Habitat Value	A large open plan former cattle shed constructed of breezeblocks with the upper sections comprising of wooden planks and plastic corrugated sheeting on the southeast, northwest and southwest sides. The northeast side joins B2. Several broken wooden planks are visible on the northwest side providing access to the building interior. The roof is constructed of a combination of corrugated metal sheets with plastic corrugated 'skylight' sheets supported on a metal frame and girders. The building is accessed via a large opening on the southwest elevation with no door, providing access to the building interior.	No evidence of the presence of bats could be located internally or externally. This building is considered to be unsuitable for use by bats providing no obvious roosting locations. The only possible use could be for foraging during inclement weather conditions.

B4	Negligible Habitat Value	A small Dutch barn constructed entirely from corrugated metal sheets set upon a metal frame. The southeast elevation is partially open with only some of the elevation blocked by hanging corrugated metal sheets.	No evidence of the presence of bats could be located internally or externally. This building is considered to be unsuitable for use by bats providing no obvious roosting locations. The only possible use could be for foraging during inclement weather conditions.
B5	Significant Habitat Value	A large two storey stone built building with a corrugated sheet metal roof. The southeast elevation is rendered from ground level to the roof. The roof is in poor condition and evidence of water damage is visible internally. Several gaps in the stonework were visible on the northwest elevation providing roosting opportunities for small crevice dwelling bats. An unglazed window is present on the upper storey of the southwest elevation providing access to the building interior.	No evidence of the presence of bats could be located internally or externally however the building provides several potential roosting areas for bats and is located in close proximity to B1.
B6	Negligible Habitat Value	An open sided storage area constructed of breezeblocks with corrugated plastic sheets providing a cover/roof. Currently used as a storage area for caravans.	No evidence of the presence of bats could be located internally or externally. This building is considered to be unsuitable for use by bats providing no obvious roosting locations. The only possible use could be for foraging during inclement weather conditions.

Any additional notes:

Left Blank.

Conclusions

Table 5: Summary of Conclusions

Reference	Habitat Value [Table 2 refers]	Are emergence survey works necessary? ¹	Best Estimate of Roost Type
B1	Confirmed ☒ Significant ☐ Moderate ☐ Low ☐ Negligible ☐	Yes. The evidence gathered during this initial assessment implies that <u>there is an unacceptable probability</u> (risk) of harm to bats if the development is allowed to progress without further surveys.	Transitional ☒ Maternity ☐ Hibernation ☐ Check boxes are left blank if Habitat Value is 'negligible'.
B2	Confirmed ☐ Significant ☐ Moderate ☐ Low ☐ Negligible ☒	No. The evidence gathered during this initial assessment implies that <u>there is an acceptably low probability</u> (risk) of harm to bats if the development is allowed to progress without further surveys. In the highly unlikely event bats are found during the development, work should stop and further advice sought from an experienced, licensed bat ecologist.	Transitional ☐ Maternity ☐ Hibernation ☐ Check boxes are left blank if Habitat Value is 'negligible'.
B3	Confirmed ☐ Significant ☐ Moderate ☐ Low ☐ Negligible ☒	No. The evidence gathered during this initial assessment implies that <u>there is an acceptably low probability</u> (risk) of harm to bats if the development is allowed to progress without further surveys. In the highly unlikely event bats are found during the development, work should stop and further advice sought from an experienced, licensed bat ecologist.	Transitional ☐ Maternity ☐ Hibernation ☐ Check boxes are left blank if Habitat Value is 'negligible'.
B4	Confirmed ☐ Significant ☐ Moderate ☐ Low ☐ Negligible ☒	No. The evidence gathered during this initial assessment implies that <u>there is an acceptably low probability</u> (risk) of harm to bats if the development is allowed to progress without further surveys. In the highly unlikely event bats are found during the development, work should stop and further advice sought from an experienced, licensed bat ecologist.	Transitional ☐ Maternity ☐ Hibernation ☐ Check boxes are left blank if Habitat Value is 'negligible'.
B5	Confirmed ☐ Significant ☒ Moderate ☐ Low ☐ Negligible ☐	Yes. The evidence gathered during this initial assessment implies that <u>there is an unacceptable probability</u> (risk) of harm to bats if the development is allowed to progress without further surveys.	Transitional ☒ Maternity ☐ Hibernation ☐ Check boxes are left blank if Habitat Value is 'negligible'.

¹ Hundt (2012) states that “If a building or built structure is considered to have a moderate or high likelihood of use by bats, the preliminary roost assessment, even if negative for bats, should be followed by several presence/absence surveys.”

B6	Confirmed ☐ Significant ☐ Moderate ☐ Low ☐ Negligible ☒	No. The evidence gathered during this initial assessment implies that there is an acceptably low probability (risk) of harm to bats if the development is allowed to progress without further surveys. In the highly unlikely event bats are found during the development, work should stop and further advice sought from an experienced, licensed bat ecologist.	Transitional ☐ Maternity ☐ Hibernation ☐ Check boxes are left blank if Habitat Value is 'negligible'.
----	---	--	---

Recommendations

The surveyor has used the industry best practice publication Bat Surveys—Good Practice Guidelines (Hundt 2012) to guide the following conclusions and recommendations of this report.

Table 6: Specification for Further Surveys

Reference	Specification for Surveys ²	Seasonality for Emergence Surveys
B1	This is a confirmed transitional roost. 3 further dusk emergence surveys should be undertaken. 3 surveyors are required to provide full coverage of the building.	Optimal: Mid May to August inclusive. Sub-optimal: May to September inclusive - will require a greater survey effort and justification.
B2	No further surveys.	Optimal: Mid May to August inclusive. Sub-optimal: May to September inclusive - will require a greater survey effort and justification.
B3	No further surveys.	Optimal: Mid May to August inclusive. Sub-optimal: May to September inclusive - will require a greater survey effort and justification.
B4	No further surveys.	Optimal: Mid May to August inclusive. Sub-optimal: May to September inclusive - will require a greater survey effort and justification.

² If bats are discovered emerging from any of the buildings during surveys, the survey effort may need to be appropriately increased pursuant to table 8.5, Bat Surveys—Good Practice Guidelines (Hundt 2012).

B5	This is a suspected transitional roost. 2 further dusk emergence surveys should be undertaken. 1 surveyor is required to provide full coverage of the building.	Optimal: Mid May to August inclusive. Sub-optimal: May to September inclusive - will require a greater survey effort and justification.
B6	No further surveys.	Optimal: Mid May to August inclusive. Sub-optimal: May to September inclusive - will require a greater survey effort and justification.

The purpose of further surveys is to determine the species of bats, their population and the type of roost - or to confirm a negative result beyond doubt.

If the further surveys positively identify bats roosting at the site, the results will enable the client to design appropriate mitigation and if necessary, apply for a European protected species licence.

Bibliography

Hundt, L. (2012). Bat Surveys—Good Practice Guidelines, 2nd edition, Bat Conservation Trust, London.

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

Document Production and Approval

Status	Issue	Surveyor	Date
Draft	1	J Gregory	15/03/2013
Final	2	J Gregory	19/03/2013

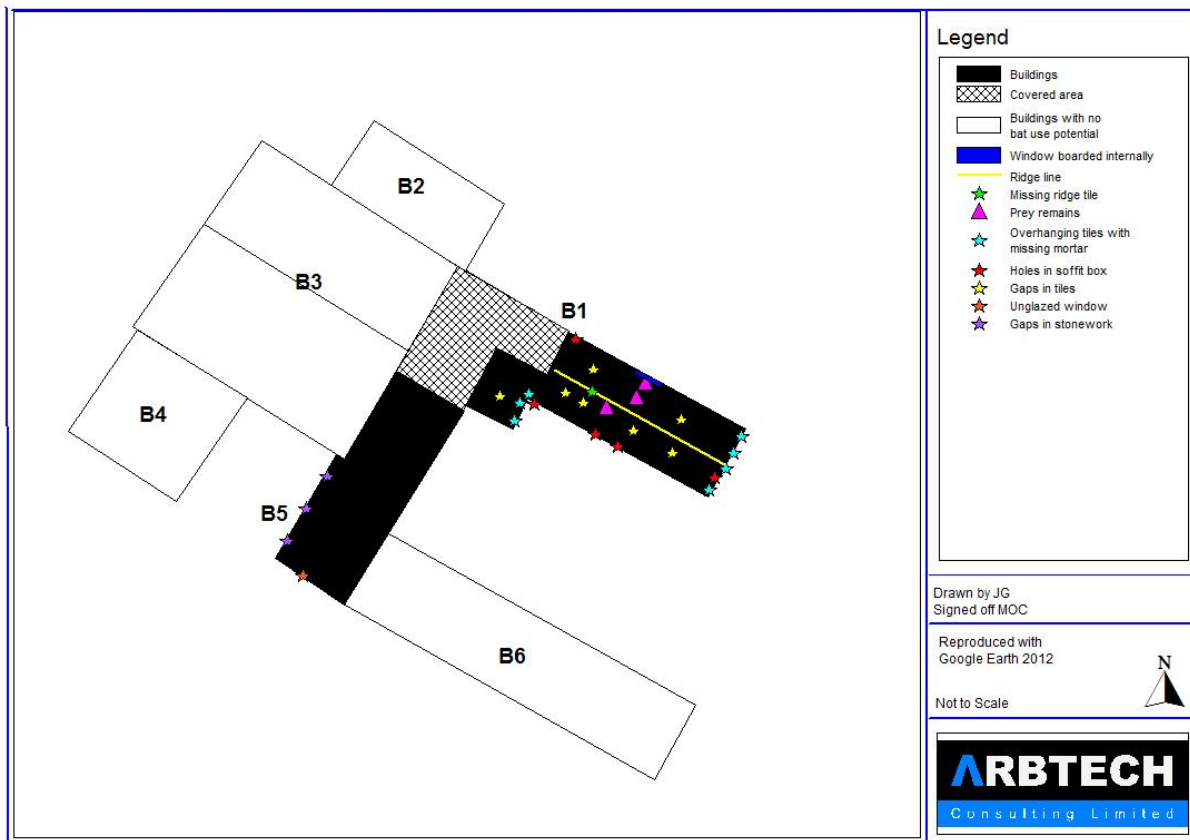
Limitations

Arbtech Consulting Ltd has prepared this report for the sole use of the above named Client or his agents in accordance with our General Terms and Conditions, under which our services are performed. It is expressly stated that no other warranty, expressed or implied, is made as to the professional advice included in this Report or any other services provided by us. This report may not be relied upon by any other party without the prior and express written agreement of Arbtech Consulting Limited. The assessments made assume that the sites and facilities will continue to be used for their current purpose without significant change. The conclusions and recommendations contained in this report are based upon information provided by third parties. Information obtained from third parties has not been independently verified by Arbtech Consulting Limited.

Copyright

© This report is the copyright of Arbtech Consulting Limited. Any unauthorised reproduction or usage by any person other than the addressee is strictly prohibited.

Appendix 1 Plan



Appendix 2 Photos

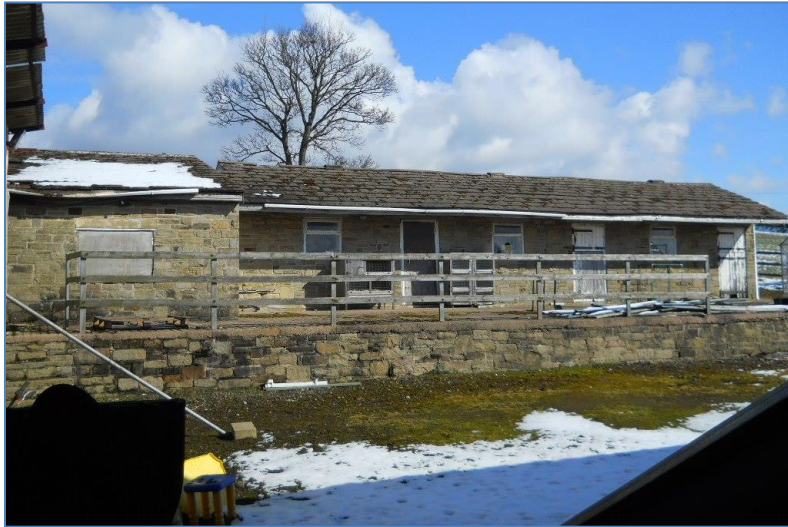


Figure 1: Building 1 (B1) southwest elevation.



Figure 2: B1 holes in large wooden soffit box southwest elevation.



Figure 3: B1 Gap in soffit box, overhanging tiles, and missing mortar southeast corner.



Figure 4: B1 northeast elevation missing boards on underside of wooden soffit box with exposed wall tops and roofing felt visible.



Figure 5: B1 window on northeast elevation boarded internally with gaps visible.



Figure 6: B1 prey remains located below gaps in wall tops on northwestern internal wall.



Figure 7: B1 Prey remains on and around venetian blinds on floor.



Figure 8: Prey remains stuck in cobwebs below internally boarded window.



Figure 9: Building 2 (B2) exterior.



Figure 10: Building 2 (B2) interior.



Figure 11: Building 3 (B3) interior.



Figure 12: Building 3 (B3) interior – missing wooden planks on northwest elevation.



Figure 13: Building 4 (B4) Dutch barn.



Figure 14: Building 5 (B5) northwest elevation.

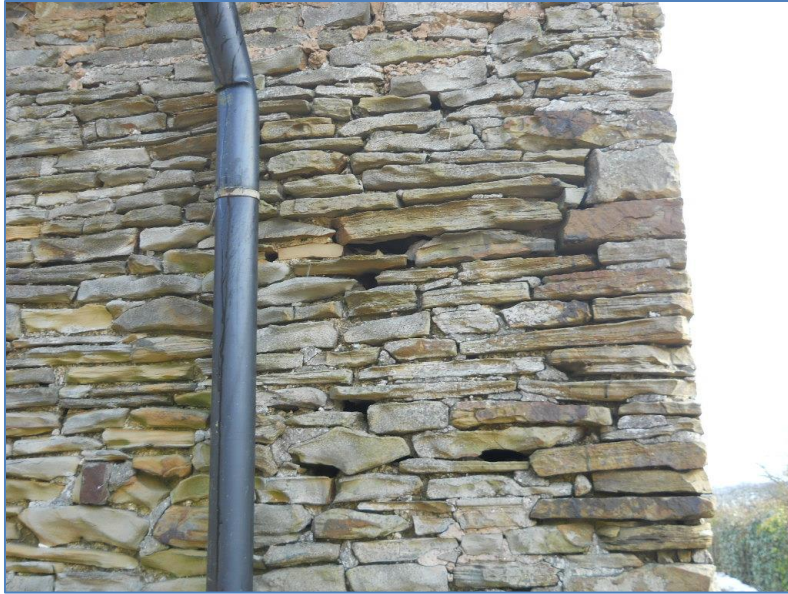


Figure 15: Building 5 (B5) gaps in stonework providing potential roosting opportunities for small crevice dwelling bats.

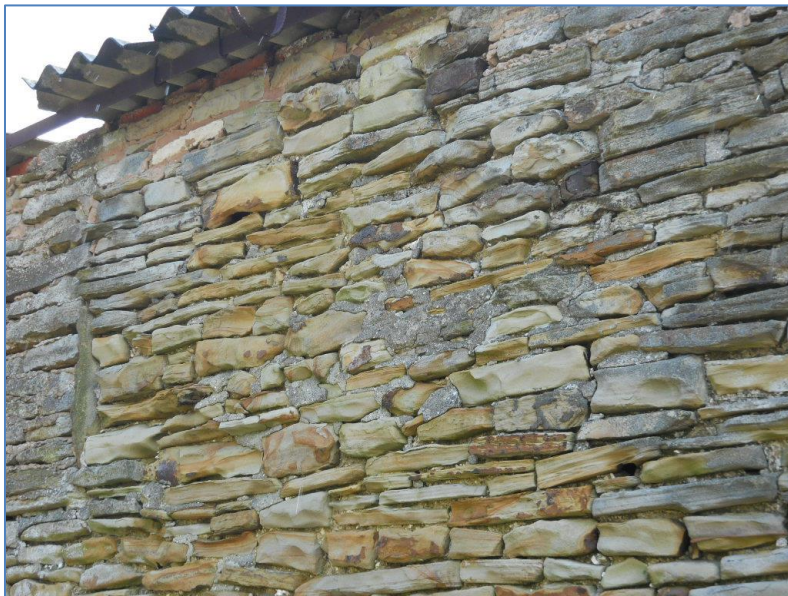


Figure 16: Building 5 (B5) further gaps in stonework.



Figure 17: Building 5 (B5) unglazed window on southwest elevation.



Figure 18: Building 6 (B6) southwest and southeast elevations.



Figure 19: Building 6 (B6) northeast elevation.