BAT SURVEYS REPORT

OF

THE OLD CIDER MILL, BROCKLEY

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Site Address	The Old Cider Mill, Main Road, Brockley, BS48 3AH
Report type	Bat Survey Report
Client	Mr and Mrs Bainbridge
Project number	001BAIN100

The material and data in this report were prepared under the supervision and direction of the undersigned.

	Name	**Position**
Prepared by	Lara Moore	Assistant Ecologist
Checked and Approved by	Jana Prapotnikova	Principal Ecologist

Revision History		
Version	**Issue Date**	**Revision**
1.0	08th August 2022	ISSUE

VALIDITY
Due to the dynamic nature of ecological conditions the results of the survey(s) and related conclusions and recommendations as contained within this report should only be considered valid for up to 1 year from the date the last survey was undertaken.

Any alterations to the site proposals may invalidate the recommendations contained within this report

Contents

Non-Technical Summary

Abricon was commissioned by Mr and Mrs Bainbridge to undertake a building inspection in respect of bats at The Old Cider Mill, Main Road, Brockley, BS48 3AH.

It is understood that the proposed plans for the site comprise the construction of a single-storey extension at the rear of the property and the implementation of dormer windows. This will involve the removal of tiles on the northern elevation roof.

Initial building inspection found no evidence of bats but the building was assessed as having 'moderate' suitability for roosting bats based on the number and type of roosting features, the building's location and the surrounding environment and further surveys were recommended and carried out. A small common pipistrelle day roost was identified present within the property during the emergence/re-entry surveys.

Due to the presence of a bat roost on site and the planned works deemed to affect the roost, a Natural England Bat Mitigation License (NE BML) or a Low Impact Bat Class Licence will be required to allow for the proposed development on site to continue. An outline mitigation plan that will form the basis for the method statement which will be put forward to Natural England in the BML application can be found within Appendix D of this report.

No other protected species or habitats were considered to be a constraint to the proposed development.

1 Introduction

Building Inspection

1.1.1 Abricon was commissioned by Mr and Mrs Bainbridge to undertake a building inspection in respect of bats at The Old Cider Mill, Main Road, Brockley, BS48 3AH.

1.1.2 The aim of the survey was to identify whether the site has evidence of, or potential for, bats and/or nesting birds to be present. The survey results will inform recommendations for mitigation, and/or further survey work, as appropriate.

Bat Emergence Surveys

1.1.3 Abricon was then commissioned by Mr and Mrs Bainbridge to undertake one emergence and one re-entry survey in respect of bats at The Old Cider Mill, Main Road, Brockley, BS48 3AH.

1.1.4 The aim of the emergence/re-entry survey was to identify whether bats are using the building, for what purpose, and in what numbers. This allows for an accurate assessment of the likely impacts of the proposed development on bats and to make recommendations for mitigation and/or licensing as appropriate.

1.2 Site Location & Description

1.2.1 The site is located 300m to the north of the A370 main road in the village of Brockley and is located within Consultation Zone A of the North Somerset and Mendip Bats Special Area of Conservation (SAC) (Burrows, 2017).

1.2.2 The site consists of a two-storey dwelling with a hipped roof with double Roman clay tiles built with pennant stone and surrounded by a residential garden.

1.2.3 Within the wider landscape, the site is surrounded by residential properties and open fields (agricultural or grazing). Goblin Combe (SSSI) is located to the south of the site and Chelvey Wood is located 1.4km to the east of the site and 0.4km to the south of the site is Brockley Wood. Yorkhouse Cave is located 1.1km to the south-east of the site within Goblin Combe.

Figure 1.1 – Site Location (highlighted) – accessed on 19/07/2022 from www.map.google.co.uk.

1.3 Proposed Development

1.3.1 It is understood that the proposed plans for the site comprise the construction of a single-storey extension at the rear of the property and the implementation of dormer windows. This will involve the removal of tiles on the northern elevation roof.

2 Methodology

Building Inspection

2.1.1 The building on the site was inspected externally on 30th May 2022 by Daniel Flew MSc (NE Bat Licenced Surveyor – Level 2) and Lara Moore QualCIEEM in order to identify any evidence of use by bats and nesting birds.

2.1.2 To assist in a thorough search for bats the following equipment was used;

- Binoculars;
- Million candle power spotlight (Clulight CB2);
- Head torch;
- Digital camera.

Bats

2.1.3 Signs of bats looked for include;

- Bats (alive or dead);
- Droppings;
- Staining;
- Feeding signs;
- Smell; and
- Social calling.

2.1.4 The building was also assessed with regard to its suitability to be used by roosting bats, with any potential features which could be used by roosting bats being recorded.

2.2 Bats – Emergence Surveys

2.2.1 Emergence surveys can aid a building inspection by positive confirmation of access and egress points into and out of a structure. This method also allows recordings of bat echolocation calls for species identification to help determine the use and importance of a roost. Activity surveys may also identify new roost areas where no evidence of bats was found during inspection.

2.2.2 One dusk (emergence) and one dawn (re-entry) survey were undertaken by surveyors observing bats and their activity around the site using non-invasive and non-disturbing techniques. Activity surveys are based on the Bat Conservation Trust's (BCT) 'Bat Survey for Professional Ecologists - Good Practice Guidelines' (Collins, 2016).

2.2.3 Total of two surveyors were present during each emergence/re-entry survey. The surveyors were situated at key locations to ensure that all aspects of the building deemed affected by the planned works were observed at all times (see Appendix C for surveyor locations). The dusk activity survey commenced approximately 15 minutes prior to sunset and continued at least 1.5 hours after sunset. The dawn activity survey commenced at least 1.5 hours before sunrise and stopped at approximately 15 minutes after sunrise.

2.2.4 Any bats observed were recorded. Information included;

- Time;
- Emergence or entry points;
- Direction of flight;
- Use of landscape;
- Flight characteristics;
- Size;

- Height above ground and;
- Behaviour.

2.2.5 The bat detectors used were Anabat Walkabout, Echo Meter Touch 2, Anabat Express paired with Elecon Batscanner. All three types of detectors automatically record time-stamped data suitable for later analysis. Analysis of calls was undertaken using AnalookW and Anabat Insight software along with Kaleidoscope.

Table 2.2 – Weather Conditions for Activity Surveys

Date	Sunset/Sunrise	Survey Time		Weather
04/07/2022	21:30	**Start**	20:15	15°C, Rain:0/5, Cloud Cover: 3/8, Wind 1/12
		Finish	23:00	13°C, Rain: 0/5 Cloud Cover: 2/8, Wind: 1/12
19/07/2022	05:16	**Start**	03:46	25°C, Rain: 0/5, Cloud Cover: 0/8, Wind 0/12
		Finish	05:31	23°C, Rain: 0/5, Cloud Cover: 1/8, Wind: 2/12

Figure 2.2 – Bat Activity Surveyor Location Plan

2.3 Personnel

2.3.1 Jana Prapotnikova has worked in consultancy sector since 2006 with a focus on mammalian ecology, particularly bats and badgers. Jana runs Abricon's Ecology Department as well as being involved in project delivery. She has managed various ecological projects and has expertise in a range of ecological survey techniques including Phase 1 habitat assessments and a variety of protected species surveys (e.g. the aforementioned mammal species as well as reptiles and great crested newts). Jana also devises ecological mitigation schemes for a variety of protected species. She is well versed in producing preliminary ecological appraisals, BREEAM/CSH Ecology Assessments, protected species licences, Ecological Impact Assessments (EcIA), Construction Environmental Management plans, Biodiversity Enhancement Schemes and Ecological Design Strategies. Jana holds Natural England and Natural Resources Wales Class 2 licence for bats as well as Natural England and Natural Resources Wales Class 1 licence for great crested newts. She is also a Registered Consultant of the Bat Low Impact Class Licence (BLIC) and holds a CSCS card. Jana is a full member of Chartered Institute of Ecology and Environmental Management (MCIEEM).

2.3.2 Dan Flew has worked in the consultancy sector since 2011 with a focus on protected species, particularly bats. Dan holds Natural England and Natural Resources Wales Class 2 licence for bats as well as a NE Class 1 licence for great crested newts and a NE barn owl survey licence, and he holds an MSc in related subjects.

2.3.3 Lara Moore BSc QualCIEEM has been working in environmental consultancy since 2019. Her primary experience comprises technical report writing, the completion of bat emergence/re-entry surveys and analysis of bat sound files.

2.3.4 Summer Keeble-Carter, Connor Hennecke and Georgia Vincent work as a Field Surveyors for Abricon Ltd with primary experience comprising of the completion of bat emergence surveys.

2.4 Limitations

General ecological constraints

2.4.1 This survey only offers a "snapshot" of the site conditions and takes no account of seasonal differences, or of any species which may take up residence subsequently.

Site specific constraints

2.4.2 No site-specific constraints were encountered during the survey.

3 Results

3.1 Building Description

3.1.1 Site photographs are provided in Appendix C.

3.1.2 The following section describes the building on site. Please refer to Appendix B for Site Photographs.

3.1.3 The house is a two-storey pennant stone building with a hipped clay tile roof. During the external inspection, several tiles were lifted, and gaps are present. Wooden fascia boarding spans the perimeter of the building and displays several gaps.

3.1.4 The building has a single-storey lean-to extension with the same tile and stone composition on the northern elevation (rear) of the property. Two windows and a door are present on this elevation.

3.1.5 A small roof void is located on the north-western end of the property and features an air extractor, timber beams and Thermawrap insulation.

3.2 Bats

3.2.1 No evidence of bats was identified during the external inspection of the building.

3.2.2 Features were present on the exterior of the building that were considered to be suitable for use by bats for roosting. These included:

- Gaps under/between lifted tiles
- Gaps under lead flashing
- Gap between brickwork and facia board

3.2.3 Access points to these features included:

- Gaps under lifting tiles
- Gaps under lifted lead flashing
- Gap between brickwork and facia board

3.2.4 No evidence of roosting bats was found during the internal roof void inspection in the house.

3.3 Nesting Birds

3.3.1 No evidence of nesting birds was found during the survey.

3.3.2 Ample habitat suitable for nesting birds is found nearby (residential gardens, trees, hedgerows, farmland) and is readily available.

3.4 Bats – Emergence Surveys

3.4.1 The following section describes the results of the dusk emergence and dawn re-entry surveys carried out. See the following Appendices for additional information:

- Appendix A – Legislation
- Appendix B – Site Photographs
- Appendix C – Bat Surveys Results Plan and Surveyor Locations
- Appendix D – Mitigation Plan

Summary

3.4.2 A total of two activity surveys were undertaken on the building during July 2022.

3.4.3 Over the course of the surveys a minimum of seven bat species were identified commuting over or near to the site; common pipistrelle *Pipistrellus pipistrellus*, soprano pipistrelle *Pipistrellus pygmaeus*, long-eared *Plecotus sp.,* noctule *Nyctalus noctula*, serotine

Eptesicus serotinus, lesser horseshoe *Rhinolophus hipposideros* and unidentified Myotis species *Myotis sp*.

3.4.4 Peak count of 75 serotine bat passes were recorded on site over the course of the surveys.

3.4.5 One common pipistrelle bat was seen emerging during the first survey from the eastern elevation from underneath the hip tile/bottom tile near hip.

Dusk emergence survey – 04th July 2022

3.4.6 Please see Appendix C for details of location and times of emergences.

3.4.7 One common pipistrelle emerged from the eastern elevation from underneath the hip tile/bottom tile near hip at 22:26.

3.4.8 At 22:46 one lesser horseshoe pass was recorded and seen commuting east to west in close proximity to the house.

3.4.9 During the survey, predominantly serotine bats were seen to be commuting and foraging over the garden on the rear of the property.

Dawn Re-entry survey – 19th July 2022

3.4.10 No bats were recorded returning to roost.

3.4.11 A minimum of seven species were recorded during this survey. Common pipistrelle was recorded the most during the survey, with a total of 46 passes, most of the passes were heard and not seen.

3.4.12 One long-eared bat was recorded, commuting/foraging in the garden.

3.5 Other Protected Species

3.5.1 No other protected species were recorded during the survey.

4 Evaluation and Impacts

4.1 Bats

4.1.1 All bat species in the UK are protected by national and international legislation.

4.1.2 A minimum of seven species of bat were recorded commuting through or foraging on/near the site during the surveys.

4.1.3 The surveys have identified that the building at the Old Cider Mill is used by a single common pipistrelle, it is believed the tiles on the eastern gable end is an access point for a day roost for this species.

4.1.4 Taking into account the species present, types of roosts, and proximity to Consultation Zone A of the North Somerset and Mendip Bats Special Area of Conservation (SAC) (Burrows, 2017), it is considered that the property at the Old Cider Mill, Brockley is generally of **low conservation importance** for bats (Mitchell-Jones, 2004).

4.1.5 In the absence of mitigation, it is considered that proposed works will likely result in the loss of a bat roost, and potentially the disturbance and accidental killing and/or injury of bats during the construction phase. This would be considered as an **adverse impact** at a site/local level.

4.1.6 With mitigation, it is considered that after an initial short-term adverse impact, a long-term positive impact could be achieved by enhancing and securing the number of bat roosting features and spaces available on the site following development.

Site

4.1.7 Based on the survey data, the site is utilized by a variety of bats for both foraging and commuting. This includes regular activity by common pipistrelle (also roosting in the building). The site is also used for commuting by soprano pipistrelle, serotine, myotis sp., long eared, lesser horseshoe and noctules. Overall, the site is considered to be of **local** value for bats.

4.1.8 The amenity grassland on site will continue to be available for bats after development and all boundary features are proposed to be retained, therefore the proposed development will have **no direct impact** on those features.

4.1.9 Predominantly light tolerant species were recorded foraging/commuting across the amenity areas of the site, but less light tolerant species such as lesser horseshoe were also recorded foraging/commuting across the site (single commuting registration during the dusk survey).

4.1.10 The new larger northern extension is likely to cause increased light levels on site. However, the amount of glazing proposed for the northern extension is considered to be marginal as similar amount is already present on the northern elevation of the main house. The glazing will only affect the hardstanding or well-managed amenity area of the garden in the vicinity of the main house. No new glazing is proposed for eastern or western elevations (and therefore affecting any of the neighbouring gardens), and therefore it is considered that there will be no impact on horseshoe bats using the SAC.

4.1.11 External lighting plans were not drafted at the time of writing this report. Any new lighting plans (if applicable) should ensure that exterior lighting is kept to a minimum.

5 Recommendations

5.1 Further Actions

5.1.1 Table 5.1 below provides a summary of the any further actions required, whilst details are provided in the following paragraphs.

Table 5.1 – Table of Further Actions

Species/Groups	Phase	Action(s) Required
Bats	Prior to clearance/construction	A BML or Low Impact Bat Class Licence will be required from NE, in order to allow works which would otherwise be illegal.
Ecological Enhancements	Construction and Design Stage	Recommended enhancements are outlined in 5.3.

5.2 Bats

5.2.1 The surveys identified that the property at The Old Cider Mill is being used as a common pipistrelle day roost.

5.2.2 A Bat Mitigation Licence (BML) or Low Impact Class Licence will be required from Natural England, in order to allow works which would otherwise be illegal. The licence must be in place prior to any works being undertaken which could impact on bat roosts.

5.2.3 Mitigation will be required and an outline mitigation strategy for bats is included in Appendix D of this report.

6 References

Abricon (2021) *Preliminary Roost Assessment of Old Cider Mill, Brockley*

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

Hundt L. (2012). *Bat Surveys: Good Practice Guidelines 2nd Edition*. Bat Conservation Trust, London.

Mitchell-Jones A. J. & McLeish, (2004) *Bat Worker's Manual* Joint Nature Conservation Committee, Peterborough.

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

Appendix A – Wildlife Legislation & Policy

Bats

6.1.1 In the UK, all bat species are fully protected under The Conservation of Habitats and Species Regulations 2010 and the Wildlife and Countryside Act 1981 (as amended). It is illegal to kill, injure, disturb, capture, possess or trade bats (or parts thereof); disturb bats whilst in a place of shelter or rest; or damage, destroy or obstruct access to a breeding site or resting place whether bats are present or not.

6.1.2 Operations which may affect bats may require a development licence from Natural England, which provides derogation for an otherwise unlawful activity.

The Natural Environment and Rural Communities Act (2006)

6.1.3 Section 41 of the Natural Environment and Rural Communities (NERC) Act (2006) sets out a list of habitats and species that are of principal importance for the conservation of biodiversity in England. The list (including 56 habitats and 943 species) drawn up in consultation with Natural England, provides a guide to local and regional authorities when implementing their duty as defined in Section 40 of the NERC Act 2006;

- “Every public authority must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity.” - Section 40(1).
- “Conserving biodiversity includes, in relation to a living organism or type of habitat, restoring or enhancing a population or habitat”. - Section 40(3).

National Planning Policy Framework (2021)

6.1.4 National Planning Policy Framework (NPPF) (2021) sets out Government Policy on Biodiversity and Nature Conservation and places a duty on planners to make material consideration to the effect of a development on legally protected species when considering planning applications. NPPF also promotes sustainable development by ensuring that developments take account of the role and value of biodiversity and that it is conserved and enhanced within the development.

Appendix B – Site Photographs

Photograph 1: View of northern elevation (rear) of house.

Photograph 2: Location of common pipistrelle emergence on eastern elevation.

Photograph 3: Western elevation of house, roof void highlighted.

Photograph 4: Gaps under lead flashing.

Photograph 5: Example of roosting feature under fascia boarding.

Photograph 6: Interior of house showing no roof void on extension.

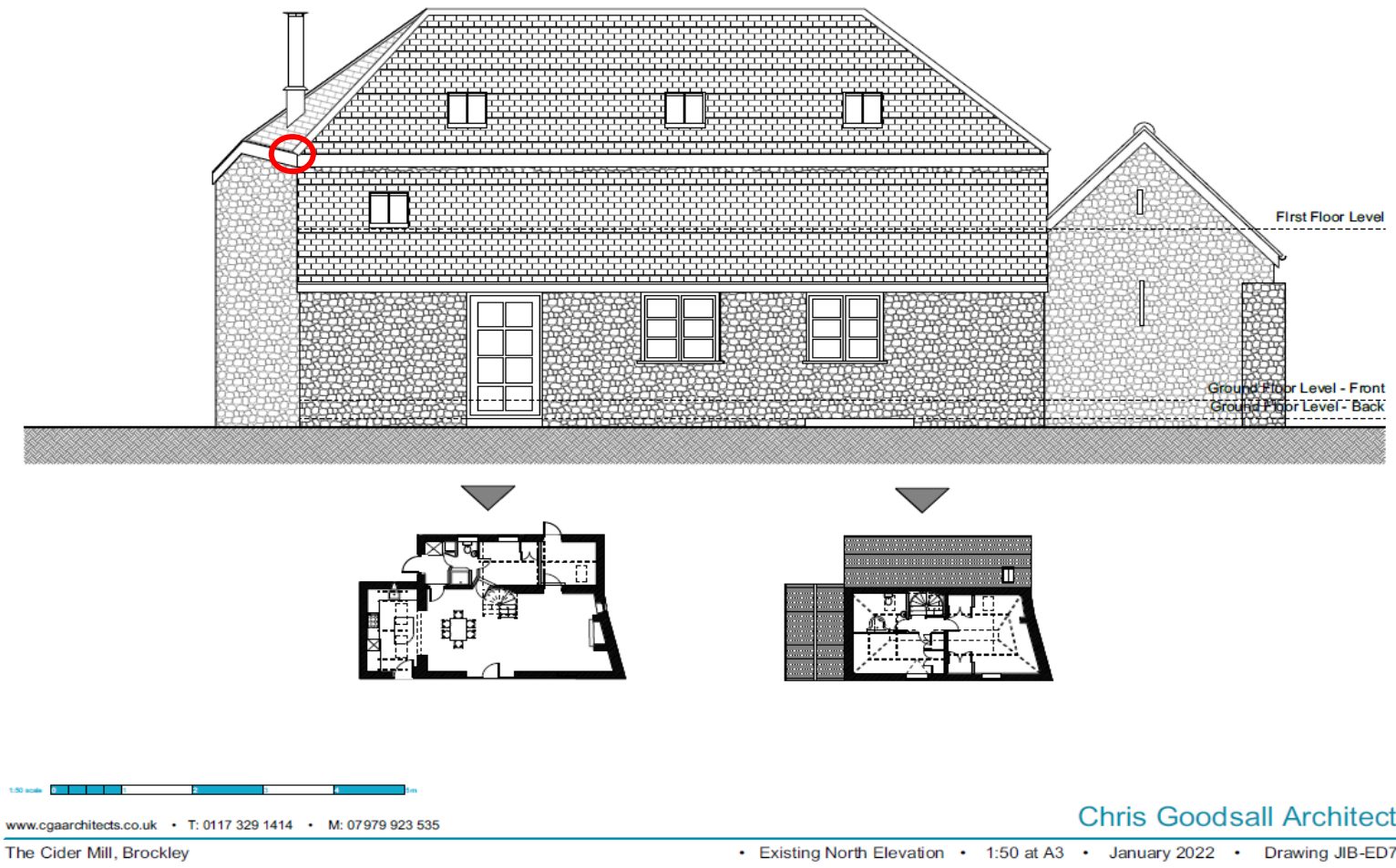
Photograph 7: Inside roof void on western end of the property with view of insulation.

Photograph 8: View of roof void.

Photograph 9: Trees and bushes in garden on the north of site.

Photograph 10: View of trees and wider landscape facing north.

Appendix C – Bat Survey Results Plan



○	Common Pipistrelle Emergence point at 22:26

Existing North and Eastern Elevation

July 2022	Bat Survey Result – 04/07/2022	Not to scale

Appendix D – Mitigation Plan

Introduction

6.1.5 Below is a mitigation plan that will form the basis for the method statement which will be put forward to Natural England in the Bat Mitigation Licence (BML) application.

6.1.6 Please note that this Method Statement is subject to approval by Natural England.

Order of mitigation works

6.1.7 Installation of mitigation on the site prior to start of works;

- BML/BMCL must be in place before any works start on the northern elevation:
- Works can begin under supervision (i.e. check of crevices under roof tiles followed by supervised removal of roof tiles);
- Unsupervised works can continue once signed off by supervising ecologist.;
- Permanent mitigation installed;
- Compliance check.

Timings of works

6.1.8 No timing constraints are considered necessary for works affecting northern section, however no disturbance to hibernating bats will be allowed therefore winter works should be avoided. Works to the roofs planned to avoid maternity season (February - April 2023).

Mitigation

6.1.9 One Beaumaris Woodstone Bat Boxes - Midi (or similar woodcrete bat box) will be placed on southern elevation of the building within the site positioned away from works. This will be used should bats be found during the roof strip/works, however this bat box will remain in place even after development works have been completed as a permanent feature. Please see Figure 11.1 below.

Supervised works

6.1.10 Certain aspects of the works will be supervised by a suitably licensed and experienced ecologist, to ensure that no harm comes to any bats that may be present.

6.1.11 A tool-box talk will be given to contractors at the start of the works on how to recognise a bat, where they might be found and what to do in the event of finding one. Immediately prior to the roof strip, any potential bat roosting features will be inspected (i.e. with the aid of endoscope where appropriate) for presence of bats by supervising ecologist.

6.1.12 Removal of the roof tiles, hanging tiles, lead flashing, cladding, weather boards and any walls/supports for the roof will be supervised by a licensed bat ecologist. Roof tiles will be removed individually by hand and will be checked underneath before discarding.

6.1.13 If bats are found under the roof tiles, weatherboards or crevices of walls, they will be captured by the licensed bat ecologist supervising the works and assessed for their potential for release. It is possible (although unlikely) that torpid bats may be encountered during the works. If found bats are in torpor, they will be assessed by the supervising ecologist and if considered suitable for release, they will be placed immediately (great care will be taken not to arouse bats by minimal handling) in woodstone bat box on site.

6.1.14 If during stripping works, the weather is mild and the found bats are active (not in torpor) and suitable for release, they will also be placed in woodstone bat box.

6.1.15 If bats (active) are considered unsuitable for release (i.e. injured), they will receive veterinary care as required and be kept in care until they are suitable for release at an appropriate time of year.

6.1.16 If any crevices are discovered in the walls during the works, they will be inspected by a licensed ecologist with the use of an endoscope prior to removal of the feature to establish whether bat(s) are roosting in any of the crevices. The crevice check will take place the same day as the removal works.

6.1.17 If bats are discovered to be roosting in any of the walls or timber cracks or crevices, a decision on how to deal with them will be made on site by the supervising ecologist in light of the conditions on site at the time and the state of the animals themselves. There are a number of options for dealing with them:

- One-way gates will be installed on the opening/s by the ecologist, left in place for a minimum of two weeks and then rechecked to see if bats have left;
- The bat/s will be removed and placed in a bat box on site or in care;
- The gap/crevice will be left undisturbed until a later date and removal re-scheduled.

Monitoring

6.1.18 A compliance check will be completed by a licensed bat ecologist following completion of all the mitigation works. As the site is used by low number of common species of bat, no monitoring is considered necessary.

Figure 11.1 – Mitigation Plan

Existing Southern Elevation