

NYMNP

20/10/2022



**Bat, Breeding Bird and barn owl Survey**  
**Holmgarth, Newholm**

October 2022

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**Site:**

Holmgarth,  
Richardsons Row,  
Newholm,  
Whitby,  
YO21 3QS

**Dates:**

Scoping survey: 1<sup>st</sup> December 2021

Emergence survey: 26<sup>th</sup> July 2022

**Client:**

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**Client's agent:**

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12 Willow Close,  
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**Planning Authority:**

North York Moors National Park Authority

**Our ref:**

2021 - 1265

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## **1 Summary**

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**A bat, breeding bird and barn owl survey was carried out on an outbuilding at Holmgarth, Newholm, to accompany a planning application for the conversion of the building into a holiday let.**

**An emergence survey has confirmed a common pipistrelle maternity roost in the building. To minimise impacts, bats will be excluded from the roof prior to works. The exclusion works will need to be carried out under a Natural England Protected Species Licence (NEPSL), and under the supervision of the registered ecologist.**

**Although retention of the pipistrelle maternity roost is preferred, loss is likely due to conversion of the building requiring use of breathable roofing membrane. If loss cannot be avoided, the roost will be mitigated for by the installation of an external bat box suitable for maternity roosts – Schwegler 1FF or equivalent. To mitigate for loss of bird habitat, a single bird box will also be installed.**

**No evidence of breeding bird activity was found. There is, however, potential nesting habitat within the building which will be lost.**

## 2 Introduction

MAB Environment and Ecology Ltd. was commissioned by Spectrum Design to undertake a bat, breeding bird and barn owl survey on an outbuilding at Holmgarth to accompany a planning application for the conversion of the building into a holiday let. Development plans are appended.

The site is located approximately 3km east of Whitby (Central grid reference: NZ86771061). The location of the site is shown on Figure 1 below, and the surveyed building is shown in Figure 2.

The report was written by Ione Bateau MCIEEM of MAB Environment and Ecology Ltd.

The report's primary objective is to provide an impact assessment for the development on bats, define any necessary mitigation proposals, and to assess the requirement for a Protected Species Licence. A secondary objective is to assess potential impact on breeding birds.

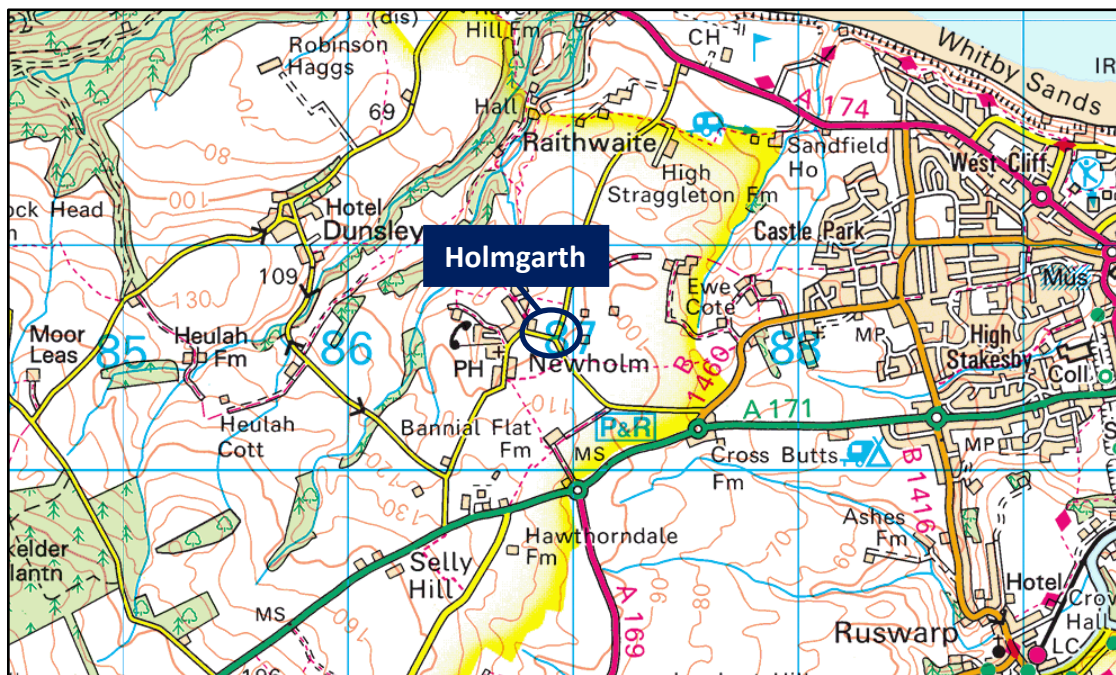


Figure 1: Site location.



Figure 2: Surveyed building.

### 3 Methodology

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#### 3.1 Desktop Study

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3.1.1 Bat roost records for a 2km radius around the site were commissioned from the North Yorkshire Bat Group (NYBG).

3.1.2 Aerial imagery from Google Earth and 'MAGIC' government website were used to assess the location of the site and the surrounding habitat for value to bats. This includes proximity of the site to good bat foraging habitat such as woodland and water bodies and if the site is linked to such habitats by linear features like hedgerows, woodland edges or rivers which bats use to commute around the environment.

#### 3.2 Field Survey

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3.2.1 The site was surveyed by Nina Herbert BSc (Hons) who has a Physical Geography degree and is employed by MAB as an assistant ecologist. She has been carrying out surveys since 2020. The surveys were carried out in accordance with the Bat

Conservation Trust, Bat Surveys for Professional Ecologists: Good Practice Guidelines (3<sup>rd</sup> edn).

3.2.2 The interior and exterior of the building was inspected during the day using halogen torches (500,000 candle power) and binoculars. All normal signs of bat use were looked for, including bats, bat droppings, feeding waste, entry and exit holes, grease marks, dead bats, and the sounds/smells of bat roosts.

3.2.3 All signs of breeding bird activity and barn owl (*Tyto alba*) activity were looked for. Signs looked for included white droppings, often vertical down walls or beams; active nests and nesting materials; (birds flying into and out of barns: generally, summer only); bird feathers, particularly swift (*Apus apus*), swallow (*Hirundo rustica*) and house martin (*Delichon urbica*), bird corpses, feeding waste (including pellets), and the sound/smell of birds.

3.2.4 The building was assessed for its degree of potential to support roosting bats. This includes assessing the building design, materials, and condition. See Table 1 for more information.



Colour code	Suitability.	Roosting habitats	Commuting and foraging habitats
Grey	Negligible risk	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.
Yellow	Low risk	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 habitat to be used on a regular basis or by larger numbers of bats (i.e. Unlikely to be suitable for maternity or hibernation).	Habitat that could be used by small numbers of commuting bats such as gappy hedgerow or unvegetated stream, but isolated, i.e. Not very well connected to the surrounding landscape by other habitat.  Suitable but isolated habitat that could only be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.
Amber	Moderate risk	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 (with respect to roost type only-the assessments in this table are made irrespective of species conservation status, which is established after presence is confirmed).	Continuous habitat connected to the wider landscape that could be used by bats for commuting such as a line of trees and scrub or linked back gardens.  Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.
Red	High risk	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.	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.  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.  Site is close to and connected to known roosts.

**Table 1: Guidelines for assessing the suitability of proposed development sites for bats. Adapted from BCT Bat surveys for Professional Ecologists, Good Practice Guidelines 2016.**

3.2.5 Emergence surveys were carried out using 2 surveyors with ultra-sound detectors (Pettersson D240x). The D240x detector was set to 10x expansion with manual triggering with an Edirol R09 WAV solid state recording device for the time expansion channel, with heterodyne output through the other channel. Time expansion recordings were analysed with BatSound software.

3.2.6 Surveyors used were:

- Matt Cooke (MC) ACIEEM is a fully trained bat surveyor who has undertaken emergence surveys for MAB since 2010. He holds a Natural England bat survey licence (Licence number: 2015-10981-SCI-SCI).
- Martha Graham (MG) is a seasonal ecologist for MAB, she is an undergraduate studying animal science and welfare at Teesside University.

3.2.7 Automated species-identification software was employed to assist with bat identification. Software used was Sonobat© . Manual confirmation of any automated identification was carried out using BatSound software from Pettersson.

## 4 Constraints

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None.

## 5 Site Description

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The surveyed building is a stone and brick-built building with a plywood-lined, slate roof. A full description of the building can be found in section 6.2.



Photo 1: South-east aspect of the building.



Photo 2: South-west aspect aspect of the building.

## 6 Results

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### 6.1 Desktop Study

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The site is situated in an area of high-quality bat foraging habitat. The immediate surroundings are agricultural, but further away woodpasture and parkland dominate. There are large areas of deciduous and broadleaved woodland close to the site, which provide good foraging habitat. Raithwaite plantation, consisting of ancient, replanted woodland is situated 2.8km north-west of site, near Mulgrave Woods. Ancient woodland is particularly good foraging habitat for bats as insect abundance is high. Approximately 450m east of the site, Newholm Beck and Warn Beck merge. These provide good foraging habitat for bats due to established riparian vegetation nearby.

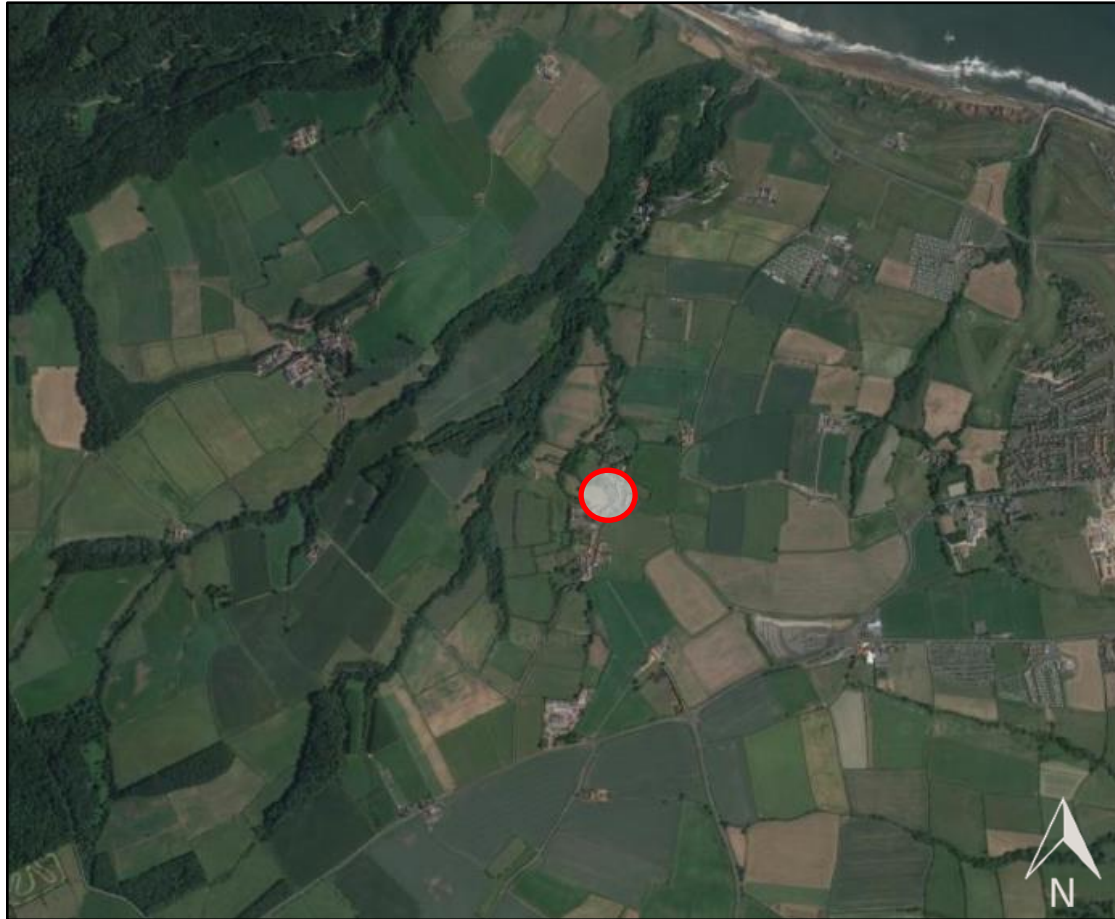


Figure 3. Aerial view of the surrounding landscape.

### 6.1.2 Bat Group Records

A full record search of North Yorkshire Bat Group (NYBG) revealed no roost records relating directly to the site. Many of the records comprise Raithwaite Estate and were recorded in 2016 and 2020. A record of note includes a common pipistrelle maternity roost, consisting of ~45 individuals, approximately 1.2km from the surveyed building. Full records can be found in appendix 3.

Grid ref	Site	Species	Quantity	Date	Status	Comment
NZ86691158	Raithwaite Estate, Whitby	Daubenton's Bat	Present	Aug-20	Not recorded	
NZ871120	Raithwaite Estate, Whitby	Common Pipistrelle	45	18-Aug-16	Summer Roost	
NZ871120	Raithwaite Estate, Whitby	Serotine	Present	22-Sep-16	Not recorded	Confirmed by sonogram

Table 2: NYBG records.

## 6.2 Visual Inspection



Figure 4: Visual inspection results.

Building ref.	Description	Features with potential bat roost habitat (PBRH).
<b>Building 1</b> <b>– Low potential risk of supporting bats</b>	<p>Two-storey stone and brick-built building with a plywood-lined, slate tile roof. There is a thin central ridge board with some gaps near the purlins and trusses (Photos 10 &amp; 11). Several masonry crevices and gaps in brickwork along all four internal walls, some are heavily cobwebbed. Gaps exist near the gable wall tops and above door lintel. No signs of bat use were found e.g. droppings.</p> <p>There are external gaps above and below the windows and doors on the southern aspect of the building (Photos 17 &amp; 18).</p> <p>No evidence was found to suggest breeding birds or barn owl were utilising the building – there is, however, potential nesting habitat available.</p>	<p>Low PBRH in masonry crevices and gaps along wall tops. Some areas are generally heavily cobwebbed, but many crevices observed in brick and stonework.</p> <p>Some gaps above and below door and window lintel.</p> <p>Crevices between central ridge board.</p>



## Site Photographs

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**Photo 3: North-facing wall and roof.**



**Photo 4: South-facing roof.**



**Photo 5: Ground floor interior.**



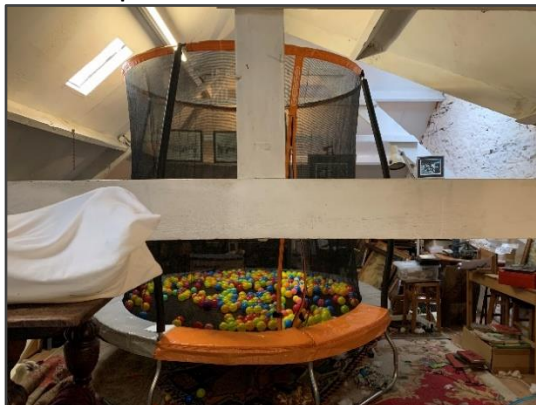
**Photo 6: Ground floor boarded ceiling with timber frames.**



**Photo 7: Gap above the internal door.**



**Photo 8: Wall top gap.**



**Photo 9: Inside first floor room.**



**Photo 10: Internal ridge.**





Photo 11: Gaps along internal ridge beam.



Photo 12: Masonry crevices on eastern gable wall.



Photo 13: Large gap in stonework.



Photo 14: More internal crevices.



Photo 15: Cobwebbed gaps.



Photo 16: Perspex window.



Photo 17: Large masonry crevice on southern outer wall.



Photo 18: Large gap below outer window.

## 6.3 Emergence Surveys

### Emergence Survey 1

#### Holm Garth, Newholm

Date: 26/07/2022

Start time: 21:00 End time: 22:40 Sunset: 21:13

Table 1 – Environmental conditions

	Temp (°C)	Wind (BF)	Humidity (%rh)	Rain	Cloud cover (%)
Start	15	BF0	51	0	0
Finish	12	BF0	62	0	0

**Surveyors:** Matt Cooke (MC) and Martha Graham (MG)

**Equipment used:** 2 x Pettersson D240x time expansion ultrasound detector with Ediol R09 recorder





#### Results summary:



29 common pipistrelles were seen emerging from a crevice between the top of the wall and the roof tiles, the crevice was around 3 foot long and bats were emerging from all along this area. Common pipistrelles were also seen foraging and commuting in the area.

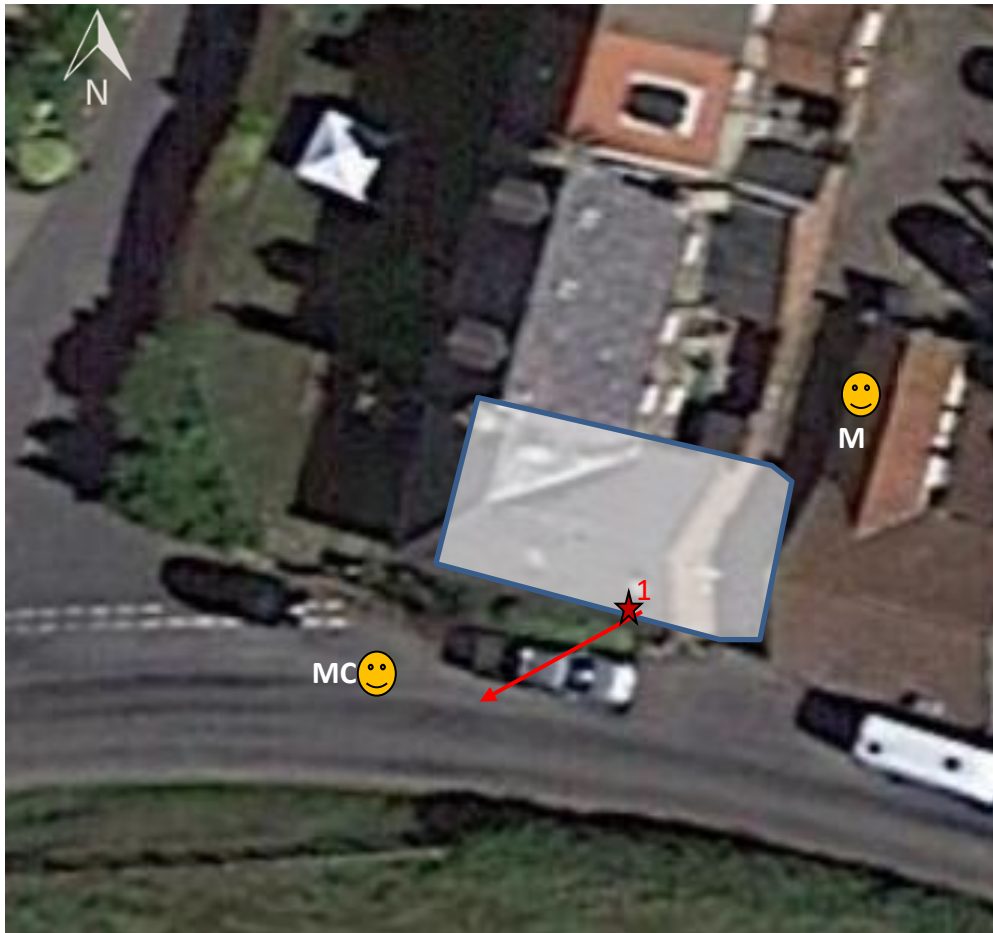
#### Roosts identified:

Building Ref.	Species	Count	Emergence location/access point
1	Common pipistrelle	27	Emergence from crevice between the top of the wall and roof tiles

#### Observations:

Surveyor	Time	Species	Number	Activity	Annotation
MC	21:27	Common pipistrelle	1	Emergence from crevice between the top of the wall and roof tiles	
MC	21:28	Common pipistrelle	1	Foraging	
MC	21:29	Common pipistrelle	1	Emergence from crevice between the top of the wall and roof tiles	
MC	21:30-21:54	Common pipistrelle	27	Emergence from crevice between the top of the wall and roof tiles	

MG	22:02	Common pipistrelle	1	Foraging	
MC	22:38	Common pipistrelle	2	Returned to roost	







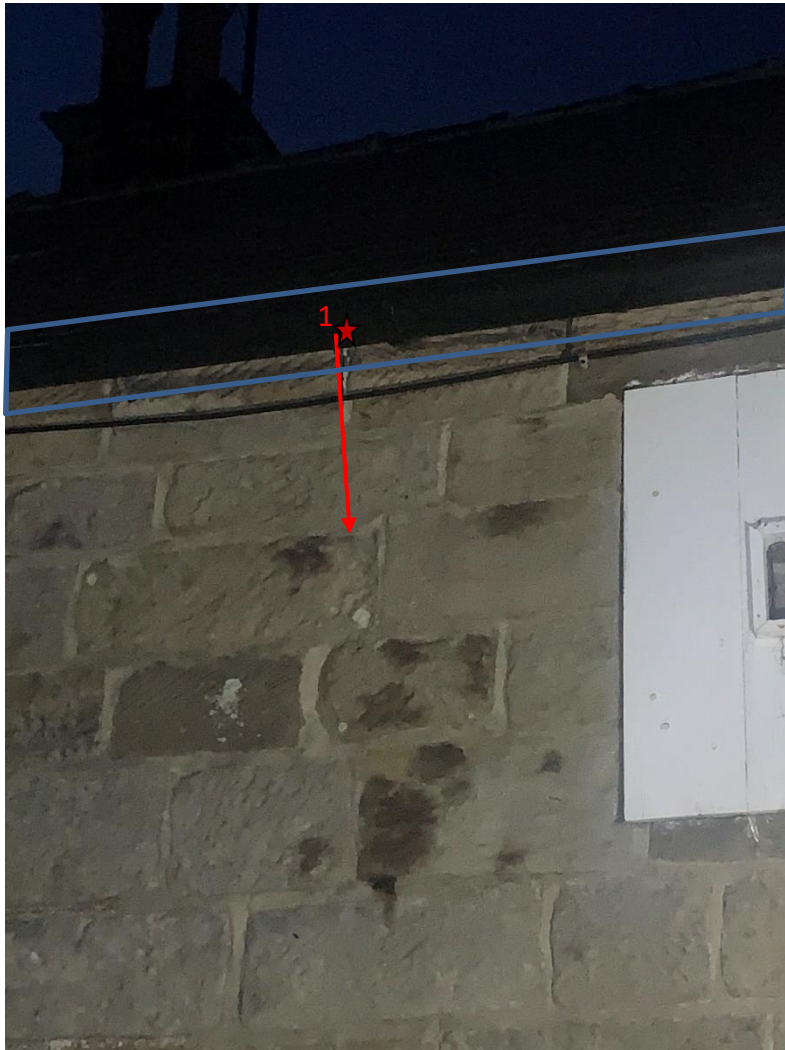
<b>Key:</b>	
 1	Target buildings
 ET	Surveyor location
	Bat activity (emergence)
	Bat activity (foraging/commuting)

Figure 5 – Surveyor locations and bat activity recorded during survey 1 (26/07/2022).



**Emergence locations:**

## 6.4 Results Summary

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Survey	Date	Roost	species	Notes
Desktop	n/a	n/a	n/a	No roost records held.
Visual	1/12/2021	N/a	n/a	
Survey 1 - Emergence	16/07/2022	Maternity	Common pipistrelle	27 counted

## 7 Discussion and Analysis

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An emergence survey in the optimal season identified a maternity roost of common pipistrelles from under the eaves. Works will need to take place under an NEPSL for disturbance and roost loss. Timing of work will also need to avoid the bat breeding season.

Mitigation in the form of one Schwegler 1FF or equivalent long lasting bat box will be installed on the building.

No evidence of breeding bird activity was observed. The building does, however, offer suitable potential nesting habitat for birds.

There was no evidence to suggest the building is being utilised by barn owl.

## 8 Impact Assessment

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Disturbance and temporary exclusion of a maternity roost of common pipistrelle bats is inevitable. Permanent loss of the roost may also result if roost retention is not compatible with roost retention.

There is unlikely to be any impact on nesting breeding birds or barn owl.

Building Ref.	Species	Count	Roost type	Impact/activity
1	Common pipistrelle	27	Maternity	Destruction, Disturbance & modification

Table 3 - Summary of impacts:

Impact on bats	Impact on roosting habitats	Impact on commuting and foraging habitats
<p>Physical disturbance</p> <p>Noise disturbance through, for example increased human presence or use of noise generating equipment.</p> <p>Injury/mortality (e.g. in roost during destruction or through collision with road/rail traffic)</p>	<p>Modification of access point to roost either physically or through, for example lighting or removal of vegetation.</p> <p>Modification of roost either physically, for example by roof removal, or through, for example, changed temperature, humidity, ventilation or lighting regime.</p> <p>Loss of roost.</p>	<p>Modification of commuting or foraging habitats either physically or through disturbance, e.g. light spill/noise.</p> <p>Severance of commuting routes (fragmentation)</p> <p>Loss of foraging habitats.</p>

**Table 4: Impacts on bats that can arise from proposed activities (from BCT survey guidelines 2016).**

## 9 Mitigation & Compensation

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### 9.1 Mitigation Summary

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The maternity roost of common pipistrelles will be excluded under the terms of a NEPSL and under the supervision of a registered and licensed ecologist. This will take place at a time of year which will minimise impact on the species (i.e. spring / autumn).

In order to reduce the risk of detrimental impacts upon bats and to ensure compliance with current wildlife legislation (see Section 12) an outline method statement for future works is included below. A full method statement will be required for the NEPSL, which will be applied for after planning permission has been granted.

If the roost cannot be retained in-situ (due to requirement to use breathable membranes, for example), then it will be replaced with one professional, long-lasting bat maternity roost box.

### 9.2 Method Statement

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#### *Bats*

9.2.1 Work to the roof will take place under an NEPSL. No work to roost areas will take place until a licence has been obtained. The schedule of works to buildings/areas covered by a licence will be specified within the NEL application and is subject to approval

9.2.2 At least one further emergence survey will be required to inform the NEL.

9.2.3 Work affecting bat roosts will be carried out between the periods of Mid-March – end of April or Mid-August – end of October. These time frames are subjective and could be subject to change, depending on weather suitability and levels of bat activity.

9.2.4 Prior to any works commencing on site, workers and contractors will be informed of the protection afforded to bats and understand the method statement and procedure to be followed.

9.2.6. Work to all roost & access locations, including roofing works and re-pointing will be carried out under the supervision of a suitably qualified ecologist (SQE)

9.2.5 Prior to works, one bat box will be installed temporarily on site in a location agreed with the ecologist for the release of any bats uncovered during works.

9.2.6 The roost will be retained if possible, with the access point re-created. If this is not possible, to mitigate for the roost loss one professional, long-lasting bat maternity roost box should be placed externally on the building (Schwegler 1FF or Beaumaris Maxi). The location will be approved by the ecologist.

9.2.7 The maternity roost will be monitored post-development.

### *Breeding birds*

9.2.4 To mitigate for loss of potential nesting habitat available, a single bird box should be affixed to the building.

## **10 Information concerning bat protection and the planning system**

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### **10.1 Relevant Legislation**

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All bat species are protected under the Wildlife and Countryside Act (WCA) 1981 (as amended), the Countryside and Rights of Way Act 2000 and The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019.

Under the WCA it is an offence for any person to intentionally kill, injure or take any wild bat; to intentionally disturb any wild bat while it is occupying a structure or place that it uses for shelter or protection; to intentionally damage, destroy or obstruct access to any place that a wild bat uses for shelter or protection; to be in possession or control of any live or dead wild bat, or any part of, or anything derived from a wild bat; or to sell, offer or expose for sale, or possess or transport for the purpose of sale, any live or dead wild bat, or any part of, or anything derived from a wild bat.

Under The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019, it is an offence to (a) deliberately capture, injure or kills any wild animal of a

European protected species (EPS), (b) deliberately disturb wild animals of any such species, (c) deliberately take or destroy the eggs of such an animal, or (d) damages or destroys a breeding site or resting place of such an animal. Deliberate disturbance of animals of a European protected species (EPS) includes in particular any disturbance which is likely 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 a hibernating or migratory species, to hibernate or migrate; or to affect significantly the local distribution or abundance of the species to which they belong.

*Prosecution could result in imprisonment, fines of £5,000 per animal affected and confiscation of vehicles and equipment used.* In order to minimise the risk of breaking the law it is essential to work with care to avoid harming bats, to be aware of the procedures to be followed if bats are found during works, and to commission surveys and expert advice as required to minimise the risk of reckless harm to bats.

## 10.2 Licences

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Where it is proposed to carry out works which will damage/destroy a bat roost or disturb bats to a significant degree, an EPS licence must first be obtained from the Natural England (even if no bats are expected to be present when the work is carried out). The application for a license normally requires a full knowledge of the use of a site by bats, including species, numbers, and timings. Gathering this information usually involves surveying throughout the bat active season. The licence may require ongoing monitoring of the site following completion of the works.

Licences can only be issued if Natural England are satisfied that there is no satisfactory alternative to the development and that the action authorised will not be detrimental to the maintenance of the population of the species at a favourable conservation status in their natural range.

## 10.3 Planning and Wildlife

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National planning guidance for ecological issues is set out in the updated February 2019 National Planning Policy Framework (NPPF). The requirements are consistent with those specified in the July 2018 NPPF; which advocate biodiversity net gain and improvement where possible, as evidenced below.

Paragraph 174 refers to the requirement of plans to “protect and enhance biodiversity and geodiversity” In order to do this, “plans should:

- a) Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation; and
- b) promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.”

In paragraph 175 the NPPF indicates that “when determining planning applications, local planning authorities should apply the following principles:

- a) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;
- b) development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;
- c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists; and
- d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity.”

The accompanying ODPM/Defra Circular 06/2005 remains pertinent; circular 06/2005 is prescriptive in how planning officers should deal with protected species, see paragraphs 98 and 99:

The presence of a protected species is a material consideration when considering a proposal that, if carried out, would be likely to result in harm to the species or its habitat (see ODPM/Defra Circular, para 98)

LPAs should consider attaching planning conditions/entering into planning obligations to enable protection of species. They should also advise developers that



they must comply with any statutory species protection issues affecting the site (ODPM/Defra Circular, para 98)

The presence and extent to which protected species will be affected must be established before planning permission is granted. If not, a decision will have been made without all the facts (ODPM/Defra Circular, para 99)

Any measures necessary to protect the species should be conditioned/planning obligations used, before the permission is granted. Conditions can also be placed on a permission in order to prevent development proceeding without a Habitats Regulations Licence (ODPM/Defra Circular, para 99).

The need to ensure ecological surveys are carried out should therefore only be left to coverage under planning conditions in exceptional circumstances.

Further to NPPF and OPDM Circular 06/2005, Section 40 of the Natural Environment and Rural Communities Act (2006) states that '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(3) also states that 'conserving biodiversity includes, in relation to a living organism or type of habitat, restoring or enhancing a population or habitat'.

## 11 References

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Circular 06/05: Biodiversity and Geological Conservation - Statutory Obligations and Their Impact Within the Planning System.

<http://www.communities.gov.uk/publications/planningandbuilding/circularbiodiversity>

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

National Planning Policy Framework 2019:

<https://www.gov.uk/government/collections/revised-national-planning-policy-framework#revised-national-planning-policy-framework>

Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019

<https://www.legislation.gov.uk/uksi/2019/579/regulation/1/made>

## Appendix 1: Glossary of bat roost terms

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### *Bat Roost Definitions:*

**Day roost:** a place where individual bats, or small groups of males, rest or shelter in the day but are rarely found by night in the summer.

**Night roost:** a place where bats rest or shelter in the night but are rarely found in the day. May be used by a single individual on occasion or it could be used regularly by the whole colony.

**Feeding roost:** a place where individual bats or a few individuals rest or feed during the night but are rarely present by day.

**Transitional/occasional roost:** used by a few individuals or occasionally small groups for generally short periods of time on waking from hibernation or in the period prior to hibernation.

**Swarming site:** where large numbers of males and females gather during late summer to autumn. Appear to be important mating sites.

**Mating sites:** where mating takes place from later summer and can continue through winter.

**Maternity roost:** where female bats give birth and raise their young to independence.

**Hibernation roost:** where bats may be found individually or together during winter. They have a constant cool temperature and high humidity.

**Satellite roost:** an alternative roost found in close proximity to the main nursery colony used by a few individual breeding females to small groups of breeding females throughout the breeding season.

## **Appendix 2: Standard good working practices in relation to bats**

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Bats are small, mobile animals. Individual bats can fit into gaps 14-20mm wide. They can roost in a number of places including crevices between stonework, under roof and ridge tiles, in cavity walls, behind barge boards, in soffits and fascias and around window frames. Builders should always be aware of the potential for bats to be present in almost any small gap accessible from the outside in a building. The following guidelines are provided in order to reduce the risk of harm to individual bats.

- Roofs to be replaced, or which are parts of a building to be demolished, should be dismantled carefully by hand. Ridge tiles, roof tiles and coping stones should always be lifted upwards and not slid off as this may squash/crush bats.
- Re-pointing of crevices should be done between April and October when bats are active. Crevices should be fully inspected for bats using a torch prior to re-pointing.
- Any existing mortar to be raked should be done so by hand (not with a mechanical device).
- Look out for bats during construction works. Bats are opportunistic and may use gaps overnight that have been created during works carried out in the daytime.
- If any bats are found works should stop and the Bat Conservation Trust (0845 1300 228) or a suitably qualified bat ecologist should be contacted.

If it is necessary to pick a bat up always use gloves. It should be carefully caught in a cardboard box and kept in a quiet, dark place. The Bat Conservation Trust or a suitably qualified bat ecologist should be contacted.

**Appendix 3: NYBG bat roost records**

Grid ref	Site	Species	Quantity	Date	Status	Comment
NZ869086	13 Carr Hill Lane, Briggswath, Whitby	Unknown	1	16-Aug-02	Not recorded	Possible Roost
NZ873088	Cherry Tree House, 5 Ridge Lane, Briggswath	Unknown	1	15-Sep-08	Not recorded	Bat(s) inside building
NZ857112	Fairfax Farm, Dunsley	Common Pipistrelle	1	28-Aug-18	Day Roost	
NZ857112	Fairfax Farm, Dunsley	Myotis bat sp.	1	28-Aug-18	Day Roost	
NZ863124	Meadowfields, Sandsend	Unknown	Present	Jul-08	Not recorded	
NZ86691158	Raithwaite Estate	Daubenton's Bat	Present	Sep-20	Not recorded	
NZ86691158	Raithwaite Estate	Daubenton's Bat	2	May-20	Not recorded	
NZ86691158	Raithwaite Estate	Daubenton's Bat	Present	Jun-20	Not recorded	
NZ86691158	Raithwaite Estate	Daubenton's Bat	Present	Aug-20	Not recorded	
NZ86691158	Raithwaite Estate	Daubenton's Bat	Present	07-Oct-20	Not recorded	
NZ871120	Raithwaite Estate	Daubenton's Bat	Present	22-Sep-16	Not recorded	
NZ871120	Raithwaite Estate	Daubenton's Bat	Present	29-Jun-16	Not recorded	
NZ871120	Raithwaite Estate	Daubenton's Bat	Present	14-Jul-16	Not recorded	
NZ86691158	Raithwaite estate, Sandsend	Soprano Pipistrelle	1	Jul-20	Not recorded	
NZ86691158	Raithwaite estate, Sandsend	Soprano Pipistrelle	1	Aug-20	Not recorded	
NZ86691158	Raithwaite estate, Sandsend	Brown Long-eared Bat	Present	Sep-20	Not recorded	
NZ86691158	Raithwaite estate, Sandsend	Brown Long-eared Bat	Present	Aug-20	Not recorded	
NZ86691158	Raithwaite estate, Sandsend	Soprano Pipistrelle	Present	Sep-20	Not recorded	
NZ86691158	Raithwaite estate, Sandsend	Pipistrelle species	Present	May-20	Not recorded	
NZ86691158	Raithwaite estate, Sandsend	Brown Long-eared Bat	Present	Jun-20	Not recorded	
NZ86691158	Raithwaite estate, Sandsend	Brown Long-eared Bat	2	May-20	Not recorded	
NZ86691158	Raithwaite estate, Sandsend	Common Pipistrelle	2	07-Oct-20	Not recorded	
NZ86691158	Raithwaite estate, Sandsend	Common Pipistrelle	3	Aug-20	Not recorded	
NZ86691158	Raithwaite estate, Sandsend	Natterer's Bat	Present	Sep-20	Not recorded	
NZ86691158	Raithwaite estate, Sandsend	Pipistrelle species	Present	Jun-20	Not recorded	

NZ86691158	Raithwaite estate, Sandsend	Pipistrelle species	Present	Aug-20	Not recorded	
NZ86691158	Raithwaite estate, Sandsend	Pipistrelle species	Present	Sep-20	Not recorded	
NZ86691158	Raithwaite estate, Sandsend	Pipistrelle species	Present	07-Oct-20	Not recorded	
NZ86691158	Raithwaite estate, Sandsend	Common Pipistrelle	5	May-20	Not recorded	
NZ86691158	Raithwaite estate, Sandsend	Common Pipistrelle	2	Jun-20	Not recorded	
NZ86691158	Raithwaite estate, Sandsend	Common Pipistrelle	3	Jul-20	Not recorded	
NZ86691158	Raithwaite estate, Sandsend	Common Pipistrelle	3	Sep-20	Not recorded	
NZ86691158	Raithwaite estate, Sandsend	Natterer's Bat	Present	07-Oct-20	Not recorded	
NZ86691158	Raithwaite estate, Sandsend	Leisler's Bat / Lesser Noctule Bat	Present	Aug-20	Not recorded	
NZ86691158	Raithwaite estate, Sandsend	Noctule Bat	1	Jul-20	Not recorded	
NZ86691158	Raithwaite estate, Sandsend	Noctule Bat	1	07-Oct-20	Not recorded	
NZ86691158	Raithwaite estate, Sandsend	Leisler's Bat / Lesser Noctule Bat	Present	Jun-20	Not recorded	
NZ86691158	Raithwaite estate, Sandsend	Natterer's Bat	1	May-20	Not recorded	
NZ86691158	Raithwaite estate, Sandsend	Leisler's Bat / Lesser Noctule Bat	1	Jul-20	Not recorded	
NZ86691158	Raithwaite estate, Sandsend	Noctule Bat	2	May-20	Not recorded	
NZ86691158	Raithwaite estate, Sandsend	Noctule Bat	Present	Jun-20	Not recorded	
NZ86691158	Raithwaite estate, Sandsend	Noctule Bat	1	Sep-20	Not recorded	
NZ86691158	Raithwaite estate, Sandsend	Natterer's Bat	Present	Aug-20	Not recorded	
NZ86691158	Raithwaite estate, Sandsend	Myotis bat sp.	1	07-Oct-20	Not recorded	
NZ86691158	Raithwaite estate, Sandsend	Soprano Pipistrelle	Present	Jun-20	Not recorded	
NZ86691158	Raithwaite estate, Sandsend	Soprano Pipistrelle	1	May-20	Not recorded	
NZ86691158	Raithwaite estate, Sandsend	Noctule Bat	2	Aug-20	Not recorded	
NZ86691158	Raithwaite estate, Sandsend	Natterer's Bat	Present	Jun-20	Not recorded	
NZ86691158	Raithwaite estate, Sandsend	Myotis bat sp.	1	Sep-20	Not recorded	
NZ86691158	Raithwaite estate, Sandsend	Natterer's Bat	Present	Jul-20	Not recorded	
NZ8668111434	Raithwaite Estate, Whitby	Common Pipistrelle	6	29-Sep-16	Summer Roost	
NZ8668111434	Raithwaite Estate, Whitby	Noctule Bat	Present	29-Sep-16	Not recorded	

NZ8668111434	Raithwaite Estate, Whitby	Myotis bat sp.	Present	29-Sep-16	Not recorded	
NZ8703512003	Raithwaite Estate, Whitby	Myotis bat sp.	Present	23-Sep-16	Not recorded	
NZ8703512003	Raithwaite Estate, Whitby	Common Pipistrelle	2	23-Sep-16	Summer Roost	
NZ871120	Raithwaite Estate, Whitby	Noctule Bat	Present	01-Sep-16	Not recorded	
NZ871120	Raithwaite Estate, Whitby	Noctule Bat	Present	02-Aug-16	Not recorded	
NZ871120	Raithwaite Estate, Whitby	Common Pipistrelle	22	01-Sep-16	Summer Roost	
NZ871120	Raithwaite Estate, Whitby	Common Pipistrelle	45	18-Aug-16	Summer Roost	
NZ871120	Raithwaite Estate, Whitby	Common Pipistrelle	5	16-Sep-16	Summer Roost	
NZ871120	Raithwaite Estate, Whitby	Brown Long-eared Bat	Present	14-Jul-16	Not recorded	
NZ871120	Raithwaite Estate, Whitby	Brown Long-eared Bat	Present	22-Sep-16	Not recorded	
NZ871120	Raithwaite Estate, Whitby	Noctule Bat	Present	29-Jun-16	Not recorded	
NZ871120	Raithwaite Estate, Whitby	Noctule Bat	Present	14-Jul-16	Not recorded	
NZ871120	Raithwaite Estate, Whitby	Common Pipistrelle	40	11-Aug-16	Summer Roost	
NZ871120	Raithwaite Estate, Whitby	Common Pipistrelle	Present	14-Oct-16	Not recorded	
NZ871120	Raithwaite Estate, Whitby	Myotis bat sp.	Present	02-Aug-16	Not recorded	
NZ871120	Raithwaite Estate, Whitby	Myotis bat sp.	Present	14-Oct-16	Not recorded	
NZ871120	Raithwaite Estate, Whitby	Myotis bat sp.	Present	01-Sep-16	Not recorded	
NZ871120	Raithwaite Estate, Whitby	Common Pipistrelle	Present	29-Jun-16	Not recorded	
NZ871120	Raithwaite Estate, Whitby	Common Pipistrelle	Present	14-Jul-16	Not recorded	
NZ871120	Raithwaite Estate, Whitby	Serotine	Present	22-Sep-16	Not recorded	Confirmed by sonogram
NZ871120	Raithwaite Estate, Whitby	Common Pipistrelle	Present	22-Sep-16	Not recorded	
NZ871120	Raithwaite Estate, Whitby	Noctule Bat	Present	22-Sep-16	Not recorded	
NZ871120	Raithwaite Estate, Whitby	Noctule Bat	Present	18-Aug-16	Not recorded	
NZ871120	Raithwaite Estate, Whitby	Noctule Bat	Present	11-Aug-16	Not recorded	
NZ871120	Raithwaite Estate, Whitby	Brown Long-eared Bat	Present	14-Oct-16	Not recorded	
NZ8715112014	Raithwaite Estate, Whitby	Common Pipistrelle	20	02-Aug-16	Summer Roost	
NZ868101	The Granary, Bannial Flat Farm	Common Pipistrelle	2	12-Jun-12	Summer Roost	Stone wall crevices
NZ858109	The Old Smithy, Dunsley	Noctule Bat	1	21-Sep-07	Not recorded	

NZ858109	The Old Smithy, Dunsley	Myotis bat sp.	1	21-Sep-07	Feeding	
NZ858109	The Old Smithy, Dunsley	Common Pipistrelle	1	21-Sep-07	Feeding	
NZ863089	Toft House, Aislaby	Unknown	Present	12-May- 05	Summer Roost	
NZ8811	Whitby	Pipistrelle species	Present	05-Jul-85	Summer Roost	



### Appendix 4: Site plans

