



173-175 Friar Street & 27-32
Market Place, Reading

Bat Emergence/Re-entry Survey Report

Prepared by
CSA Environmental

on behalf of
Savills

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CONTENTS	Page
Executive Summary	2
1.0 Introduction	3
2.0 Legislation, Planning Policy & Standing Advice	4
Licensing	4
3.0 Methodology	6
Field Survey	6
Assessment	7
4.0 Results	8
Field Survey	8
Dusk Emergence (21/05/2018)	8
Pre-dawn Re-entry Survey (12/06/2018)	8
Dusk Emergence (03/07/2018)	8
5.0 Discussion Mitigation & Licensing	9
Importance	9
Impact Assessment	9
Mitigation Strategy	10
Enhancement	11
6.0 Conclusions	12
7.0 References	13

Appendices

Appendix A: Bat Survey Plan

Appendix B: Results Tables

EXECUTIVE SUMMARY

Change of use is proposed at 173-175 Friar Street and 27-32 Market Place for which detailed planning permission is sought. The proposals comprise partial demolition, renovation and redevelopment of the Site.

CSA Environmental was instructed by Savills to undertake an initial inspection of the buildings (173-175 Friar Street and 27-32 Market Place) at the site in order to assess their potential to support roosting bats and identify any bat roosts or evidence thereof. This inspection found a small number of features suitable for individual crevice dwelling bats within 27-32 Market Place which was found to have 'low' potential to support roosting bats. 173-175 Friar Road was identified as having 'negligible' potential to support roosting bats and therefore works to this building can be carried out without further consideration of bats.

A dusk emergence survey of 27-32 Market Place was conducted to confirm the presence/likely absence of roosting bats in association with this building. Upon confirmation of the presence of roosting bats a further two dusk emergence/pre-dawn re-entry surveys were subsequently carried out. These surveys were undertaken between May and July 2018 and confirmed the presence of a minimum of seven individual common pipistrelle roosts within 27-32 Market Place. No roosts of greater importance (e.g. maternity) were identified.

The proposed works would result in the loss of a single individual common pipistrelle roost and potential disturbance of a further six common pipistrelle roosts within the roof of 27-32 Market Place. As such, a mitigation strategy is set out herein, which would be implemented under the auspices of a suitable licencing regime administered by Natural England once the necessary permissions are obtained.

Recommendations have also been provided for ecological enhancement with respect to bats that would be delivered as part of the proposed development.

1.0 INTRODUCTION

- 1.1 This report has been prepared by CSA Environmental on behalf of Savills. It sets out the findings of bat survey work undertaken at 173-175 Friar Street and 27-32 Market Place, Reading (hereafter referred to as 'the Site').
- 1.2 The Site is located around central grid reference SU 71670 73504, in the centre of Reading. The Site comprises a complex of buildings previously used as retail and office units.
- 1.3 Development proposals at the Site include demolition of the vacant former Bristol & West Arcade (173-175 Friar Street) and redevelopment of the Site to provide an eight storey mixed-use building plus one level of basement comprising 35 residential units, 4,212 sqm of B1 office floor space, and 5 retail units (A1/A2/A3), together with the change of use of 27-28 Market Place at first, second and third floors and basement to provide 2 residential units, change of use of 29-31 Market Place at first, second and third floors to provide 3 residential units, change of use of 32 Market Place from A2 use to provide part basement and ground floor flexible retail use (A1/A2/A3) and 3 residential uses at first, second and third floors, retention of 260.4 sqm of A4 use at ground and basement floors at 29-31 Market Place and change of use at ground and basement of 27-28 Market Place to flexible retail use (A1/A2/A3) and demolition of rear parts of 29-31 Market Place and 32 Market Place, associated internal and external works to the Listed Buildings, landscaping, refuse, plant, cycle stores and substation at basement level.
- 1.4 The following bat survey work was carried out:
 - Preliminary Roost Assessment (PRA) of 173-175 Friar Street and 27-32 Market Place (01 and 14 November 2017)
 - Dusk emergence and pre-dawn re-entry surveys of 27-32 Market Place (May - July 2018)
- 1.5 The purpose of these surveys was to assess the potential for the buildings to support roosting bats and, based on the outcome of that assessment, to confirm the presence/likely absence of roosting bats in association with these structures.
- 1.6 The content of this report has been determined with due consideration for best-practice guidance provided by the Chartered Institute of Ecology and Environmental Management (CIEEM, 2015; 2016).

2.0 LEGISLATION, PLANNING POLICY & STANDING ADVICE

2.1 All species of British bats are legally protected under part 3 (section 41) of the Conservation of Habitats and Species Regulations 2010. These Regulations make it an offence to:

- Deliberately capture, injure, kill or capture a bat;
- Deliberately disturb bats, impairing their ability to survive, breed, reproduce or rear/nurture their young;
- Damage or destroy a breeding site or resting place used by bats; or
- Be in possession of, transport, sell, exchange or offer to sell/exchange a bat (dead or alive) or any part of a bat.

2.2 All bats and their roosts in England, Scotland and Wales were originally protected under the Wildlife & Countryside Act 1981. Subsequent amendments to the legislation for England and Wales has removed bats from most of the provisions of the Act, however it remains an offence to:

- Intentionally or recklessly disturb a bat while it is occupying a structure or place which it uses for shelter or protection; or
- Intentionally or recklessly obstruct access to any structure or place that a bat uses for shelter or protection.

2.3 Disturbance of bats is covered by both the 2010 Regulations and the 1981 Act, with the magnitude of disturbance critical. Disturbance that impairs survival or successful reproduction would be covered by the Regulations with no legal defence existing. Less significant acts of disturbance may only be covered by the Wildlife & Countryside Act 1981, which includes some legal defences that may be applied in certain circumstances.

2.4 It is important to note that bat roosts are protected throughout the year, regardless of whether or not bats are present at the time. Under the Conservation of Habitats and Species Regulations the offence of damaging or destroying a breeding site or resting place of bats is not subject to any legal defence, i.e. an offence will have been committed even if the damage or destruction occurs accidentally.

Licensing

2.5 Where development is proposed that would result in an offence under the Habitats and Species Regulations a European Protected Species (EPS) licence needs to be granted by Natural England to permit an act that would otherwise be unlawful. This provides for a specific derogation from the legislation, to prevent a legal infringement occurring. To obtain an EPS licence for development it must be demonstrated that the purpose of the act to be licensed is for:

- *“preserving public health or public safety or other imperative reasons of overriding public interest including those of social or economic nature and beneficial consequences of primary importance for the environment” (Regulation 53(2)(e)).*

2.6 In addition Natural England will not grant an EPS licence unless they are satisfied that:

- *“There is no satisfactory alternative” (Regulation 53(9)(a)); and*
- *“The action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range” (Regulation 53(9)(b)).*

3.0 METHODOLOGY

Field Survey

Building Inspection

- 3.1 A Preliminary Roost Assessment (PRA) was undertaken on 01 and 14 November 2017 by Alexandra Cole ACIEEM and 2016-25563-CLS-CLS and Tom Clemence ACIEEM 2017-28795-CLS-CLS. 173-175 Friar Street was determined to have 'Negligible' potential to support roosting bats and 27-32 Market Place as 'Low' given the presence of features suitable for individual crevice dwelling bats, such as slipped/missing tiles and weatherboarding.
- 3.2 Full details of the building inspection can be found in the Bat Survey Report (CSA/3517/01/B).

Dusk Emergence/Pre-dawn Re-entry Survey

- 3.3 Two dusk emergence (21 May and 03 July 2018) and a single pre-dawn re-entry (12 June 2018) surveys were undertaken to confirm the presence/likely absence of roosting bats in association with 29-32 Market Place.
- 3.4 The positions of the surveyors during the survey are illustrated on the Bat Emergence Re-entry Survey Plan in Appendix A.
- 3.5 The dusk emergence/pre-dawn re-entry surveys were undertaken for approximately 1.5 hours following British Summer Time (BST) sunset and 1.5 hours prior to BST sunrise respectively, with due consideration for the BCT good practice guidelines. The surveys were carried out by Alexandra Cole GradCIEEM 2016-25563-CLS-CLS, Tom Clemence 2017-28795-CLS-CLS and Jamie Woollam 2015-10908-CLS-CLS in suitable weather conditions, as summarised in the table in Appendix B.
- 3.6 During the survey, the surveyors watched for any bats entering parts of the building or using key flight lines, equipped with Elekon Batlogger M bat detectors. A note was made of all bat passes, along with the time, species and any information regarding behaviour, including direction of flight, and activity e.g. foraging/commuting.

Limitations

- 3.7 Due to the location of the building and its complex roof structure, visibility of the roof and associated potential roosting locations was limited from Market Street. However, the rear of the building was surveyed from an adjacent rooftop which gave a comprehensive view of the roof structure including that of adjacent buildings. It is therefore considered that despite the limited view from Market Street, bat activity,

and in particular emergence/re-entry behaviour will have been adequately observed during the survey.

Assessment

- 3.8 Any bat roosts identified during the surveys have been evaluated in line with Wray *et al.* (2010), which provides guidance on assessing the conservation value of bat roosts according to type and species. This guidance is summarised in the following tables.

Table 3.1 Categorising Bats by Distribution and Rarity

Rarity within range	Species
Rarest (under 10,000)	Greater mouse-eared Greater horseshoe Grey long-eared Bechstein's Barbastelle
Rarer (10,000 – 100,000)	Lesser horseshoe Whiskered/Brandt's Nathusius' pipistrelle Serotine Leisler's
Common (over 100,000)	Common pipistrelle Soprano pipistrelle Brown long-eared Noctule Natterer's Daubenton's

Table 3.2 Valuation of Roosts

Geographic frame of reference	Roost types
International	Sites which meet SAC selection criteria (i.e. important roost for Annex IV species)
National	Sites meeting SSSI selection criteria Maternity sites of rarest species
Regional	Large swarming sites Mating sites for rarer/rarest species Maternity sites of rarer species Significant hibernation sites for rarer/rarest species ,or all species assemblages
County	Feeding perches of rarer/rarest species Small numbers of rarer/rarest species (not maternity sites) Hibernation sites for small numbers of common/rarer species Maternity sites of common species Sites meeting Local/County Wildlife Sites selection criteria
Local (Parish or District)	Feeding perches Individual bats of common species Small numbers of common species (not maternity sites) Mating site of common species

4.0 RESULTS

Field Survey

Dusk Emergence (21/05/2018)

- 4.1 A total of three common pipistrelle bats were identified emerging from the roof of 29-32 Market Place during the dusk emergence survey. The first was observed by the surveyor in location A and emerged from the apex of the roof at 21:00. The second and third bats to emerge were located under tiles on a dormer to the rear of the roof. A fourth bat flew from the direction of the roof of 29-32 Market Place but emergence was not confirmed. Moderate levels of foraging activity were recorded by both surveyors throughout the survey, indicating bats are present within the surrounding area.
- 4.2 Constant, low levels of foraging common pipistrelle bats were observed during the survey associated with sheltered courtyards to the north and around street lights.

Pre-dawn Re-entry Survey (12/06/2018)

- 4.3 Two common pipistrelle bats were seen to re-enter roosts underneath tiles on the roof of 29-32 Market Place during the dawn re-entry survey. Both bats were observed by the surveyor in location B to re-enter at 04:13 and 04:15.
- 4.4 Low levels of foraging and commuting activity were observed.

Dusk Emergence (03/07/2018)

- 4.5 The first bat activity recorded was of common pipistrelle bats foraging above the courtyard and roof structure to the rear of 27-32 Market Place from 21:48 in surveyor location B. Following this the surveyor at location B observed two common pipistrelle bats emerging from underneath roof tiles on the rear of Market Place in two locations at 21:51 and 21:52.
- 4.6 Constant common pipistrelle foraging activity was recorded from surveyor location B, with up to two bats observed at a time up until 22:54. However, only very low levels of foraging were recorded from surveyor location A.
- 4.7 Full results tables presenting all of the observations made by the surveyors are provided in Appendix B.

5.0 DISCUSSION MITIGATION & LICENSING

Importance

- 5.1 The survey work undertaken to date has confirmed the presence of up to seven minor common pipistrelle day roosts within the roof structure of 27-32 Market Place. In line with the methodology set out in Wray *et al* (2010), these roosts are all considered to be of '**Local**' importance.
- 5.2 It is acknowledged that whilst a low number of bats was identified ("small number of common species"), given the urban location with fewer opportunities for roosting bats, this roost could be considered of elevated importance in the local context. However, it is still considered that this roost falls within the bounds of 'Local' importance as defined by Wray *et al* (2010).
- 5.3 Foraging activity was higher closer to sunset and recognised emergence times for common pipistrelles. Little foraging activity was identified during the re-entry survey, suggesting that bats may be utilising the building to roost but commuting to higher quality feeding ground to foraging during the evening.
- 5.4 A search of the of the Multi-Agency Geographic Information for the Countryside (MAGIC) online database undertaken in June 2018 identified a single nearby EPS mitigation licence (Ref: EPSM2013-6155) allowing destruction of a resting place utilised by common pipistrelle.

Impact Assessment

- 5.5 Works are proposed for a new dormer to be installed on the rear of the roof of 27-32 Market Place, in addition to four rooflights. The majority of the roof and its structure will remain intact with only a limited number of tiles having to be removed to allow for the new structures.
- 5.6 The Preliminary Roost Assessment identified 173-175 Friar Road as having 'negligible' potential to support roosting bats. Works to these buildings can be carried out without further consideration of bats.
- 5.7 In the absence of any mitigation, the removal of tiles for the installation of a new dormer and rooflights would result in the illegal destruction of a single individual pipistrelle bat roost and damage/disturbance of up to a further six roosts of common pipistrelle bat (non-maternity). As such a European Protected Species (EPS) licence from Natural England is required to enable the works to proceed. No final licensing decisions can be made, or any licence issued, until the development has obtained all necessary consents in order to proceed, with any conditions relevant to wildlife discharged.

Mitigation Strategy

5.8 The following measures will be incorporated into the method statement of the EPS licence application, in order to mitigate the impact on bats as a result of the proposed works and provide adequate replacement roosting opportunities:

- In the absence of any trees on-site two Schwegler 1FF bat boxes will be installed externally on unaffected sections of the building in appropriate locations prior to commencement of works (to provide a safe location for any bats found during works to be relocated to by the licenced ecologist);
- A licensed bat ecologist will provide an induction for contractors and other site workers prior to the commencement of works on-site to make them aware of the possible presence of bats, their legal protection and of working practices to avoid harming bats;
- Any features on 27-32 Market Place with potential to support bats which will be damaged by the works (e.g. roof tiles, ridge tiles, soffits, gutter fascia boards) will be searched and dismantled under supervision and direction from a licensed bat worker. These works would ideally be done when bats are most active (April-September i.e. prior to bat hibernation), but outside of the summer period (May to August). However, it is anticipated that Natural England will not impose a constraint on timings of works, other than outside of inclement weather and after minimum 5°C temperature overnight;
- An endoscope and other such equipment will be used to investigate crevices (e.g. under tiles) where appropriate and possible;
- In the event that any bats are found during supervised works the licensed bat worker will catch them by hand, or a hand net, and place them in a breathable holding bag for immediate relocation to one of the Schwegler 1FF bat boxes nearby. Care will be taken to move the bat quickly and with minimal handling. Injured bats will be immediately taken into care (as directed by the Bat Worker's Manual, 2004). Details of a local bat carer/hospital will be carried by the licensed bat worker throughout the works;
- Once potential roost areas have been stripped under supervision, further work will then proceed swiftly without the supervision of an ecologist. In the unlikely event that a bat is found during any of the building works when the named ecologist is not present, contractors will be instructed to stop work immediately and contact the named ecologist for advice. Other contractors are explicitly forbidden from handling bats.

5.9 To compensate for the loss of one common pipistrelle roost a minimum of two bat access tiles will be provided within the new roof, once works are complete. This access tile will continue to allow pipistrelle bats to make use of the crevice formed between the tiles and roofing felt. No breathable roofing membranes will be used within any of the roof voids,

with traditional bitumastic felt to be used, allowing bats to use crevice roosting features safely.

- 5.10 There is a risk of temporary disturbance to six common pipistrelle roosts during the works to the rear of the building. These works would be covered under the licence obtained from Natural England and the above safeguards would ensure any impacts are minimised. In addition, further bat access tiles would be provided, primarily as an 'enhancement' (as set out below) but which 'mitigate' for potential disturbance impact to the additional common pipistrelle bats, which is inherently difficult to quantify,
- 5.11 Any new lighting scheme for the Site will be designed to avoid illuminating any of the bat roosting boxes/integrated units that are to be installed as part of mitigation, as well as minimising illumination of the rear of the building, which has been identified as being used by bats as a commuting corridor/foraging area.

Enhancement

- 5.12 In addition to the access tile provided for mitigation for the loss of the single minor pipistrelle roost, it is proposed that a minimum of three additional bat access tiles will be installed within the new/existing roof structure of 27-32 Market Place to provide additional roosting opportunities for bats.

Monitoring

- 5.13 It is anticipated that Natural England will not impose monitoring of mitigation provided for loss of roosts of low conservation status, in line with the Natural England Bat Mitigation Guidelines, although a final site visit will be undertaken by the consultant ecologist following completion of all mitigation works. However, to ensure the efficacy of the proposed mitigation and enhancement measures, it is recommended that a monitoring visit be undertaken to the property two years following completion of mitigation works to confirm the presence or absence of roosting bats within the building.

6.0 CONCLUSIONS

- 6.1 Up to seven minor common pipistrelle day roosts, have been identified within the roof structure of 27-32 Market Place.
- 6.2 The proposed works would result in the loss of one of these individual common pipistrelle bat roosts and damage/disturbance to a further six common pipistrelle roosts (non-maternity). As such a European Protected Species (EPS) licence from Natural England is required to enable the works to proceed.
- 6.3 A mitigation strategy has been outlined above which will be implemented as part of the Natural England EPS licence application.
- 6.4 Recommendations for ecological enhancement measures with respect to bats that could be delivered as part of development at the Site have been provided above.

7.0 REFERENCES

Chartered Institute of Ecology and Environmental Management, 2015. *Guidelines for Ecological Report Writing*. Winchester: CIEEM.

Chartered Institute of Ecology and Environmental Management, 2016. *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater and Coastal*. 2nd ed. Winchester: CIEEM

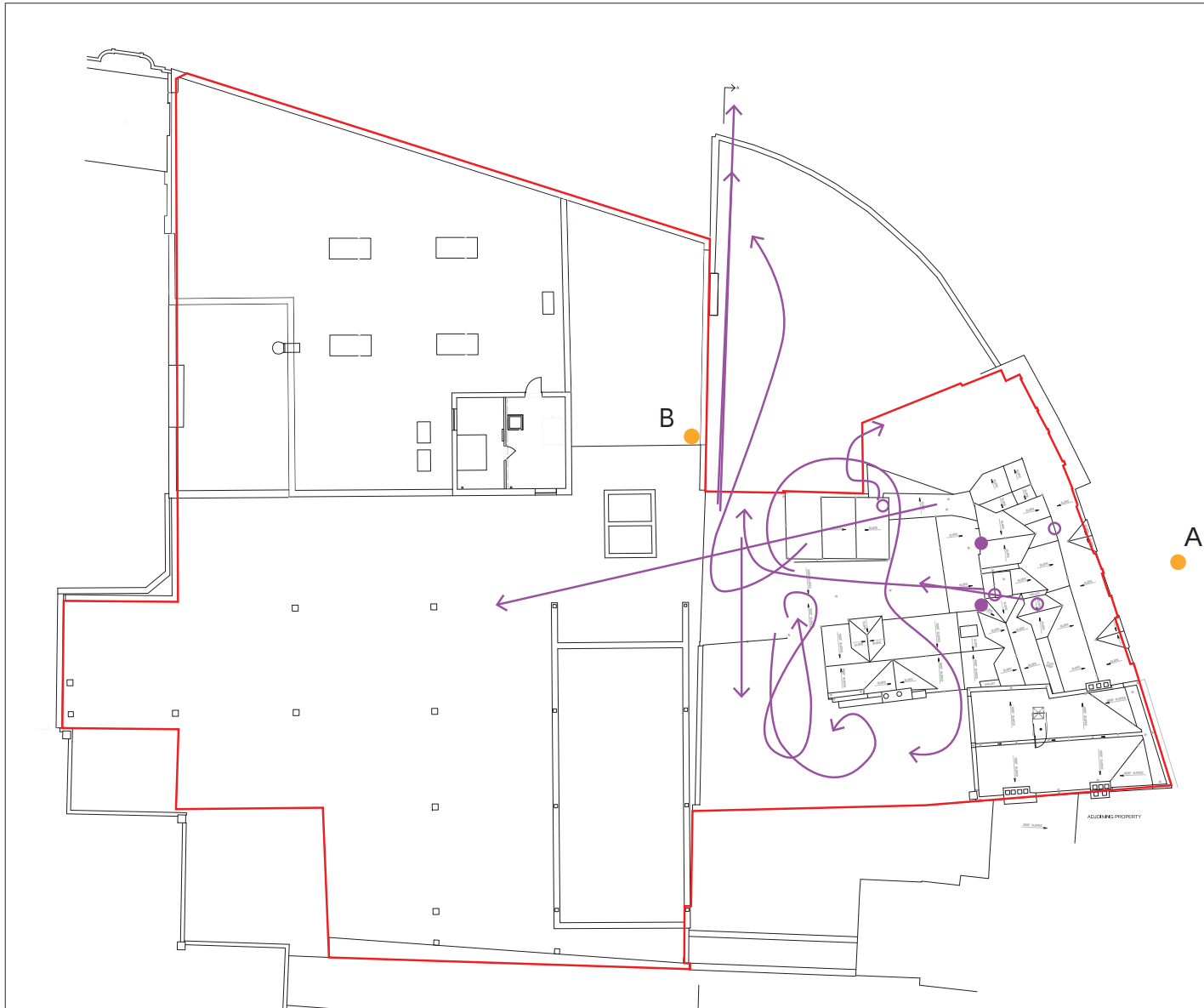
Collins, J., ed., 2016. *Bat Surveys for Professional Ecologists: Good Practice Guidelines*. 3rd ed. London: The Bat Conservation Trust.

Mitchell-Jones, A.J. and McLeish, A.P., ed., 2004. *Bat Workers' Manual*. 3rd ed. Peterborough: Joint Nature Conservation Committee

Wray et al., 2010. Valuing bats in ecological impact assessment. *In Practice - Bulletin of the Chartered Institute of Ecology and Environmental Management*, 70, pp.23-25.

Appendix A

Bat Survey Plan



-  Redline boundary
-  Surveyor location
-  Location of bat emergence (common pipistrelle)
-  Location of bat re-entry (common pipistrelle)
-  Approximate route of bat



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Project 173-175 Friar St & 27-32 Market Place, Reading

Drawing Title Bat Emergence/Re-entry Survey Plan

Client Savills

Date July 2018

Scale Not to scale

Drawn AC

Drawing No. CSA/3517/101

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Appendix B

Results Tables

Weather Conditions

Survey Date (2018)	Sunset/Sunrise	Survey Duration	Temp (°C)	Rain	Cloud Cover (oktas; n/8)	Wind (Beaufort Scale)
			Start/End		Start/End	Start/End
21 May	20:57	20:42 – 22:27	22/22	No rain	1/6	1/1
12 June	04:47	03:17 – 05:02	13/13	No rain	0/0	0/0
03 July	21:24	21:09 – 22:54	23/22	No rain	3/0	1/1

Dusk Emergence Survey (21 May 2018)

Time Activity Recorded		Sunset	20:27
Start	End	Species	Bat Behaviour (and surveyor position)
20:42	20:59	-	-
21:00	21:10	Common pip.	A Common pipistrelle emerged from apex of 29-31 Market Place (21:00).
21:11	21:20	Common pip.	A HNS (21:18) B Continuous foraging by individual bats (21:19-21:20)
21:21	21:30	Common pip.	B 2 No. common pipistrelle emergence from roof of 29-31 Market Place (21:21) B Bat flew from direction of building (21:26) B Potential albino bat observed (21:29)
21:31	21:40	Common pip.	B Foraging for approx. 2 minutes (21:31) A Bat flew across road (21:40) B Continuous foraging by individual bats (21:39-21:40)
21:41	21:50	Common pip.	B Continuous foraging by individual bats (21:41-21:43 & 21:46 - 21:50)
21:51	22:00	Common pip.	B Continuous foraging by individual bats (21:51-21:54) A Foraging around lights above surveyor (21:54) B HNS (21:57) B HNS (21:58)
22:01	22:10	Common pip.	B Continuous foraging by individual bats (22:04-22:10) A Brief pass (22:08)
22:11	22:20	Common pip.	B Continuous foraging by individual bats (22:11-22:20) A HNS, no activity after 22:12
22:21	22:27	Common pip.	B Continuous foraging by individual bats (22:21-22:27)

Abbreviations: pip. = pipistrelle, HNS = heard, not seen.

Dawn Re-entry Survey (12 June 2018)

Time Activity Recorded		Sunrise	04:47
Start	End	Species	Bat Behaviour (and surveyor position)
03:17	03:26	Common pip.	B Common pipistrelle HNS (03:19-03:21) A Common pipistrelle HNS (03:24)
03:27	03:36	Common pip.	A Common pipistrelle HNS (03:33) B Common pipistrelle foraging (03:33-03:34) B Common pipistrelle flew NE towards church, over church and towards park (03:34)
03:37	03:46	Common pip.	B Common pipistrelle HNS (03:43) A Common pipistrelle HNS (03:46) B Common pipistrelle HNS (03:46)
03:47	03:56	Common pip.	B Intermittent common pipistrelle activity inc. foraging (03:50-03:55)
03:57	04:06	Common pip.	A Common pipistrelle HNS (04:01) B Common pipistrelle flying N (04:01)
04:07	04:16	Common pip.	B Common pipistrelle foraging (04:07-04:15) B 1 No. common pipistrelle re-entry under tile on roof of 29-31 Market Place (04:13) B 1 No. common pipistrelle re-entry under tile on roof of 29-31 Market Place (04:15)
04:17	05:02	-	No activity after 04:15

Abbreviations: pip. = pipistrelle, HNS = heard, not seen.

Dusk Emergence Survey (03 July 2018)

Time Activity Recorded		Sunset	21:24
Start	End	Species	Bat Behaviour (and surveyor position)
21:09	21:47	-	-
21:48	21:57	Common pip.	B Common pipistrelle foraging (21:48-21:56) B Common pipistrelle emerged from tile on roof of 29-31 Market Place (21:51) B Common pipistrelle emerged from edge of dormer on flat roof section of 29-31 Market Place (21:52)
21:58	22:07	Common pip.	B Common pipistrelle foraging (21:58-22:54)
22:08	22:17	Common pip.	B Common pipistrelle foraging (21:08-22:17)
22:18	22:27	Common pip.	B Common pipistrelle foraging (21:18-22:27) A Common pipistrelle HNS (22:20)
22:28	22:54	Common pip.	B Common pipistrelle foraging (21:28-22:54) A Common pipistrelle HNS (22:30) A Common pipistrelle HNS (22:49)

Abbreviations: pip. = pipistrelle, HNS = heard, not seen.



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