KB Ecology
A Kent Based Ecological Consultancy

7th November 2022
Our reference: 2022/07/09

51-53 Sandwich Road, Ash CT3 2BH Kent

Following a 'Preliminary Ecological Appraisal'[1] which identified the risk of bats being present in three buildings behind 52 New Street, Ash (assessed as having low suitability for roosting bats), KB Ecology Ltd was commissioned to undertake night-time bat surveys.

The Bat Conservation Trust's guidelines provide a table stating the 'minimum number of presence/absence survey visits required to provide confidence in negative preliminary roost assessment from buildings, built structures and trees in summer.

Table 7.3 Recommended minimum number of survey visits for presence/absence surveys to give confidence in a negative result for structures (also recommended for trees but unlikely to give confidence in a negative result).

Low roost suitability	Moderate roost suitability	High roost suitability
One survey visit. One dusk emergence or dawn re-entry survey[a] (structures). No further surveys required (trees).	Two separate survey visits. One dusk emergence and a separate dawn re-entry survey.[b]	Three separate survey visits. At least one dusk emergence and a separate dawn re-entry survey. The third visit could be either dusk or dawn.[b]

[a] Structures that have been categorised as low potential can be problematic and the number of surveys required should be judged on a case-by-case basis (see Section 5.2.9). If there is a possibility that quiet calling, late-emerging species are present then a dawn survey may be more appropriate, providing weather conditions are suitable. In some cases, more than one survey may be needed, particularly where there are several buildings in this category.

[b] Multiple survey visits should be spread out to sample as much of the recommended survey period (see Table 7.1) as possible; it is recommended that surveys are spaced at least two weeks apart, preferably more. A dawn survey immediately after a dusk one is considered only one visit.

Table 7.1 Recommended timings for presence/absence surveys to give confidence in a negative result for structures (also recommended for trees but unlikely to give confidence in a negative result).

Low roost suitability	Moderate roost suitability	High roost suitability
May to August (structures) No further surveys required (trees)	May to September[a] with at least one of surveys between May and August[b]	May to September[a] with at least two of surveys between May and August[b]

Thus one night-time bat survey was undertaken of each building with suitability for roosting bats by two surveyors (S Stanley[2], A Penny[3]) using Echo Meter Touch 2 Pro and Batlogger M2 bat detectors[4].

[1] Report by KB Ecology, dated 5th November 2022 / Ref No 2022/07/09
[2] 12 years' experience in bat surveys
[3] first survey season
[4] All surveyors were able to take recordings of bat species in either frequency division or full spectrum formats and were equipped with a bat detector that could produce audible bat calls during the survey. Also, at least one experienced surveyor was present on all of the surveys.

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No bats were seen emerging from or returning into any of the buildings during any of the surveys. Only a low number of common pipistrelle, soprano pipistrelle, noctule and *Myotis sp* bats were seen and heard commuting and foraging.

The buildings are thus not considered as being used as a bat roost and no mitigation or licence is expected to be needed prior to its demolition. However, as the survey were carried out outside the recommended timing of May to August, updated surveys will be necessary to prove the absence of roosting bat[5].

Lighting can be detrimental to roosting, foraging and commuting bats[6]. Three of the four species detected, the common pipistrelle, soprano pipistrelle and noctule bats, are species which are not negatively impacted by street lights. But *Myotis sp* bats can be adversely affected by lighting (see below[7]).

Table 5.2. Summary of predicted impacts of lighting for each species/group according to bat behaviour. Further research is required to have high confidence in many of these predictions and therefore they should be used as guidance only.

Impact / Behaviour	High	Medium	Low
Maternity roost	All species	-	-
Night roost	*Rhinolophus hipposideros* *Rhinolophus ferrumequinum* *Myotis* spp. *Plecotus* spp.	*Pipistrellus* spp. *Nyctalus* spp. *Eptesicus serotinus* *Barbastella barbastellus*	-
Emergence	All species	-	-
Foraging	*Rhinolophus hipposideros* *Rhinolophus ferrumequinum* *Myotis* spp. *Plecotus* spp.	-	*Pipistrellus* spp. *Nyctalus* spp. *Eptesicus serotinus* *Barbastella barbastellus*
Commuting	*Rhinolophus hipposideros* *Rhinolophus ferrumequinum* *Myotis* spp. *Plecotus* spp.	-	*Pipistrellus* spp. *Nyctalus* spp. *Eptesicus serotinus* *Barbastella barbastellus*
Swarming	All species	-	-
Hibernation	All species	-	-

Thus, the recommendations from the Bat Conservation Trust, titled Bats and Lighting in the UK, should be considered, when designing any lighting scheme for the proposed development. See link for details https://www.theilp.org.uk/documents/guidance-note-8-bats-and-artificial-lighting/

[5] Besides, updated surveys should be carried out every two years, to check that usage hasn't changed, prior to works taking place.
[6] http://www.bats.org.uk/pages/bats_and_lighting.html and http://www.batsandlighting.co.uk/index.html for more information
[7] see Stone, E.L. (2013) Bats and lighting: Overview of current evidence and mitigation http://www.bats.org.uk/data/files/Bats_and_Lighting_-_Overview_of_evidence_and_mitigation_-_2014_UPDATE.pdf

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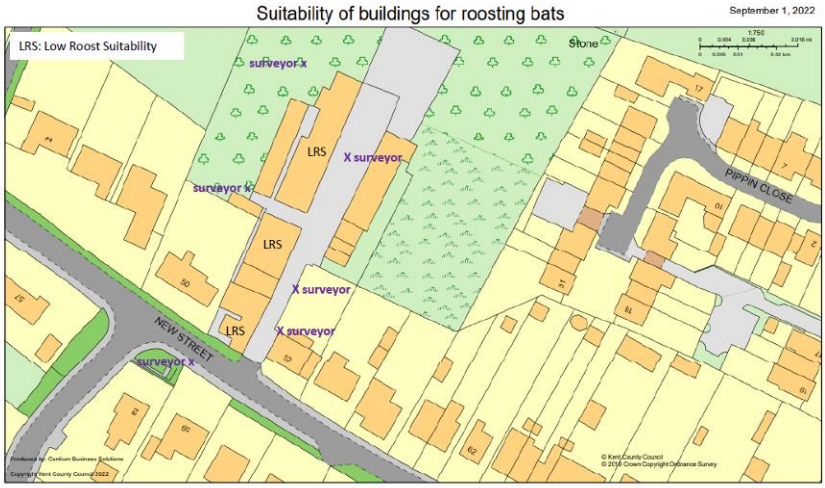
Detailed Results:



Site Name and Building Numbe	South Building, New Street, Ash	**Surveyor Name / Equipment**	Steve Stanley / Batlogger M2
Weather Conditions	Cloud: 50% Wind: 3 Rain: 2	**Date**	8th September 2022
Start Time	19:10	**Finish Time**	20:55
Air Temperature (°C) at Start of Survey	17	**Air Temperature (°C) at End of Survey**	16
Sunset	19:25	**Sunrise**	

Position: SW corner of southern building

Time	Species	Activity*	Comments
19:47	Noctule	C	From south to north, east side of building.
19:54	Pip 45	F	Brief F NW of building, then C west. Seen not heard.
20:18			Light rain begins, lasting until survey end.
20:27			Heavy rain for 12 minutes, then becoming light rain.

Pip 45: common pipistrelle / Pip 55: soprano pipistrelle

*Activity - 'E' = emergence; 'R' = return; 'F' = foraging; 'C' = commuting *'S' = seen; 'NS' = not seen

Site Name and Building Numbe	South Building, New Street, Ash	**Surveyor Name / Equipment**	Alyx Penny / EM Touch 2 Pro
Weather Conditions	Cloud: 50% Wind: 3 Rain: 2	**Date**	8th September 2022
Start Time	19:10	**Finish Time**	20:55
Air Temperature (°C) at Start of Survey	17	**Air Temperature (°C) at End of Survey**	16
Sunset	19:25	**Sunrise**	

Position: NE corner of southern building

Time	Species	Activity*	Comments
19:47	Noctule	C	S - N
19:54	Pip 45	C	E - W past N side

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Site Name and Building Numbe	North Building, New Street, Ash	**Surveyor Name / Equipment**	Steve Stanley / Batlogger M2
Weather Conditions	Cloud: 90% Wind: 1 Rain: 0	**Date**	16th September 2022
Start Time	05:02	**Finish Time**	06:47
Air Temperature (°C) at Start of Survey	11	**Air Temperature (°C) at End of Survey**	12
Sunset		**Sunrise**	06:32

Position: NW corner of north building.

Time	Species	Activity*	Comments
05:24	Pip 55	F	F around NW end of building briefly, then C NE.
05:32	Pip 55	C	Brief pass, not seen.
05:45	Pip 55	C	Brief pass, not seen.

Site Name and Building Numbe	North Building, New Street, Ash	**Surveyor Name / Equipment**	Alyx Penny / EM Touch 2 Pro
Weather Conditions	Cloud: 90% Wind: 1 Rain: 0	**Date**	16th September 2022
Start Time	05:02	**Finish Time**	06:47
Air Temperature (°C) at Start of Survey	11	**Air Temperature (°C) at End of Survey**	12
Sunset		**Sunrise**	06:32

Position: East side of north building.

Time	Species	Activity*	Comments
			No bats seen or heard.

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Site Name and Building Numbe	Central Building, New Street, Ash	**Surveyor Name / Equipment**	Alyx Penny / EM Touch 2 Pro
Weather Conditions	Cloud: 10% Wind: 1 Rain: 0	**Date**	29th September 2022
Start Time	18:23	**Finish Time**	20:08
Air Temperature (°C) at Start of Survey	13	**Air Temperature (°C) at End of Survey**	12
Sunset	18:38	**Sunrise**	

Position: SE of building

Time	Species	Activity*	Comments
19:04	C.Pip	SNH	Seen clearly foraging from NE to SW
19:11	C.Pip	NS	Heard through app, not seen.
19:12	C.Pip	F	Travelling SW to NE and back in a circle.
19:17	C.Pip	F	Foraging around treeline travelling between fence and building, travelling west down the street.
19:21	C.Pip	NS	Heard clearly.
19:28	Noc	NS	Not heard clearly. AutoID.
19:28	C.Pip	F	Travelling north/south along drive between buildings.
20:02	Myotis	NS	Heard clearly.

Site Name and Building Numbe	Central Building, New Street, Ash	**Surveyor Name / Equipment**	Steve Stanley / Batlogger M2
Weather Conditions	Cloud: 10% Wind: 1 Rain: 0	**Date**	29th September 2022
Start Time	18:23	**Finish Time**	20:08
Air Temperature (°C) at Start of Survey	13	**Air Temperature (°C) at End of Survey**	12
Sunset	18:38	**Sunrise**	

Position: NW of central building.

Time	Species	Activity*	Comments
19:27	Noctule	C	Distant pass, not seen.

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