



Bat Emergence Surveys
Land at North Choller Farm

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LIABILITIES:

Whilst every effort has been made to guarantee the accuracy of this report, it should be noted that living animals and plants are capable of migration/establishing and whilst such species may not have been located during the survey duration, their presence may be found on a site at a later date.

This report provides a snap shot of the species that were present at the time of the survey only and does not consider seasonal variation. Furthermore, where access is limited or the site supports habitats which are densely vegetated only dominant species maybe recorded.

The recommendations contained within this document are based on a reasonable timeframe between the completion of the survey and the commencement of any works. If there is any delay between the commencement of works that may conflict with timeframes laid out within this document, or have the potential to allow the ingress of protected species, a suitably qualified ecologist should be consulted.

It is the duty of care of the landowner/developer to act responsibly and comply with current environmental legislation if protected species are suspected or found prior to or during works.

1.0 Introduction

Background

- 1.1 The Ecology Partnership was commissioned by Cordial Investments to undertake bat emergence surveys at North Choller Farm – Holding 1, Choller Estate, Barnham Lane, Walberton, Arundel, hereafter referred to as ‘site’.
- 1.2 This follows a preliminary ecological appraisal (PEA) completed in March 2026 identifying three buildings with ‘low’ potential, two buildings with ‘moderate’ potential, and one building with ‘high’ bat roost potential.
- 1.3 This report presents the results of The Ecology Partnership’s surveys in and around the site, which aims specifically to assess how bats are using the site.

Site Context and Status

- 1.4 The site is located to the south-west of Walberton (Central grid reference: SU 95836 05602). The site totalling c. 0.94ha, comprises a series of farm buildings, hardstanding, sections of modified grassland and tall forbs. To the east of site was also areas of mixed scrub and a small section of other broadleaved woodland to the south-east. The site is bordered by the wider North Choller Farm site with arable fields in use by cattle to the south and farm buildings to the north, Barnham Lane runs to the east.
- 1.5 The red line boundary of the site and immediate surroundings are displayed in Figure 1.



Figure 1: The approximate red line boundary for site, and the immediate surroundings

Proposed development

- 1.6 The current proposals for the site involve the creation of a small housing development, including conversions of existing barns, with associated access, and landscaping.

Legislation

- 1.7 Under the Natural Environment and Rural Communities (NERC) Act 2006, it is now the duty of every Government department in carrying out its functions *“to have regard, so far as it is consistent with the proper exercise of those functions, to the purpose of conserving biological diversity in accordance with the Convention”*. Seven species of bat (Barbastelle, Bechstein’s, Noctule, Soprano pipistrelle, Brown long-eared, Greater horseshoe and Lesser horseshoe) are listed as Species of Principal Importance in England under Section 41 of the NERC Act.
- 1.8 All bats are covered by the following relevant legislation: the Wildlife and Countryside Act (WCA) 1981 (as amended); the Countryside and Rights of Way Act 2000; the Natural Environment and Rural Communities Act 2006; and by the Conservation of Habitats and Species Regulations (CHSR) 2010.

Under the WCA 1981 it is an offence to:

- intentionally, recklessly or deliberately disturb a roosting or hibernating bat i.e. disturbing it whilst it is occupying a structure or place used for shelter or protection)
- intentionally or recklessly obstruct access to a roost (i.e. a structure or place used for shelter or protection).

Under the CHSR 2010 it is an offence to:

- deliberately capture (or take), injure or kill a bat
- intentionally, recklessly or deliberately disturb a bat, in particular (i) any disturbance which is likely to impair their ability to survive, to breed or reproduce, or to rear or nurture their young; (ii) any disturbance which is likely to impair their ability in the case of hibernating or migratory species, to hibernate or migrate; or (iii) any disturbance which is likely to affect significantly the local distribution or abundance of the species to which they belong
- damage or destroy a breeding site or resting place (roost) of a bat.

2.0 Methodology

- 2.1 During the PEA conducted on 17th March 2026, ten of the buildings onsite were assessed for their roosting bat potential, the locations of the buildings are displayed within Figure 2. Three buildings were considered to have 'low' bat roost potential, these are B1, B3, and B8. Two buildings were considered to have 'moderate' bat roost potential these are B2 and B6. One building, B5, was considered to have 'high' bat roost potential.

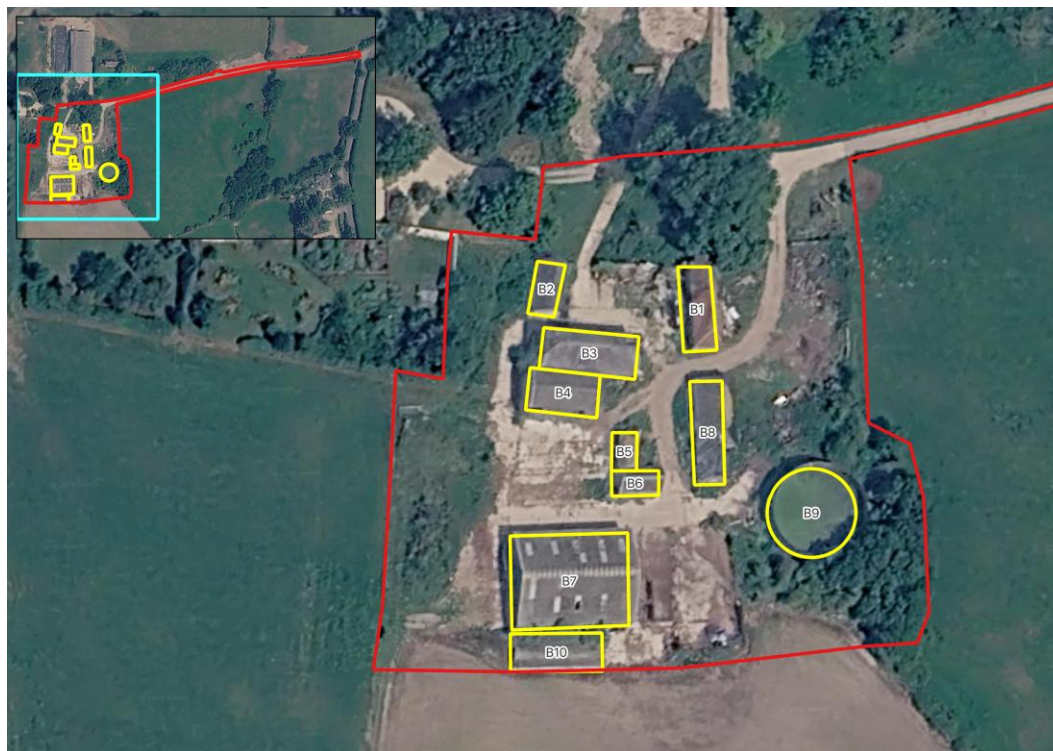


Figure 2: The ten buildings present on site

- 2.2 Following the Bat Conservation Trust guidelines (Collins 2023) three dusk emergence surveys were carried out for the 'high' potential building, two for the 'moderate' potential buildings and one for the 'low' potential buildings. These surveys were conducted by Alice Bailey BSc (Hons) ACIEEM, Natasha Wilson BSc (Hons), Cameron Allaway BSc (Hons), Sophie Baker BSc (Hons) MSc, Ewan Rolph BSc (Hons) MSc, and Millie Thatcher BSc (Hons) MSc. Surveyors were supported by infrared cameras and accompanying infrared lamps. Additional thermal cameras, in combination with an Echometer Touch 2 Pro bat detector, were used in place of a surveyor.

- 2.3 The surveys commenced at least 15 minutes before sunset until up to 1.5 hours after sunset, during which time, bats were identified and recorded. Bat surveys were undertaken during suitable weather conditions, when conditions were relatively dry and mild with little/no wind, the dates and weather conditions of each survey are displayed in Table 1. The locations of the surveyors and cameras are displayed in Figure 3.

Table 1. Dates and weather conditions of the surveys conducted onsite

Date	Building	Surveyors	Start time	Sunset	Temperature	Weather
12/05/2026	B5, B6	CA, SB	20:26	20:41	14°C - 13°C	0% cloud cover, 2 Beauforts
14/05/2026	B1, B2	CA, NW	20:30	20:45	7°C - 6°C	10% cloud cover, 0 Beaufort
20/05/2026	B3, B8	SB, ER	20:37	20:52	14°C - 13°C	0% cloud cover, 2 Beauforts
02/06/2026	B5, B6	SB, ER	20:52	21:07	16°C - 15°C	0% cloud cover, 1 Beaufort
08/06/2026	B2	CA, MT	20:58	21:13	13°C - 12°C	0% cloud cover, 1 Beaufort
23/06/2026	B5	AB, SB	21:05	21:20	28°C - 24°C	0% cloud cover, 0 Beaufort

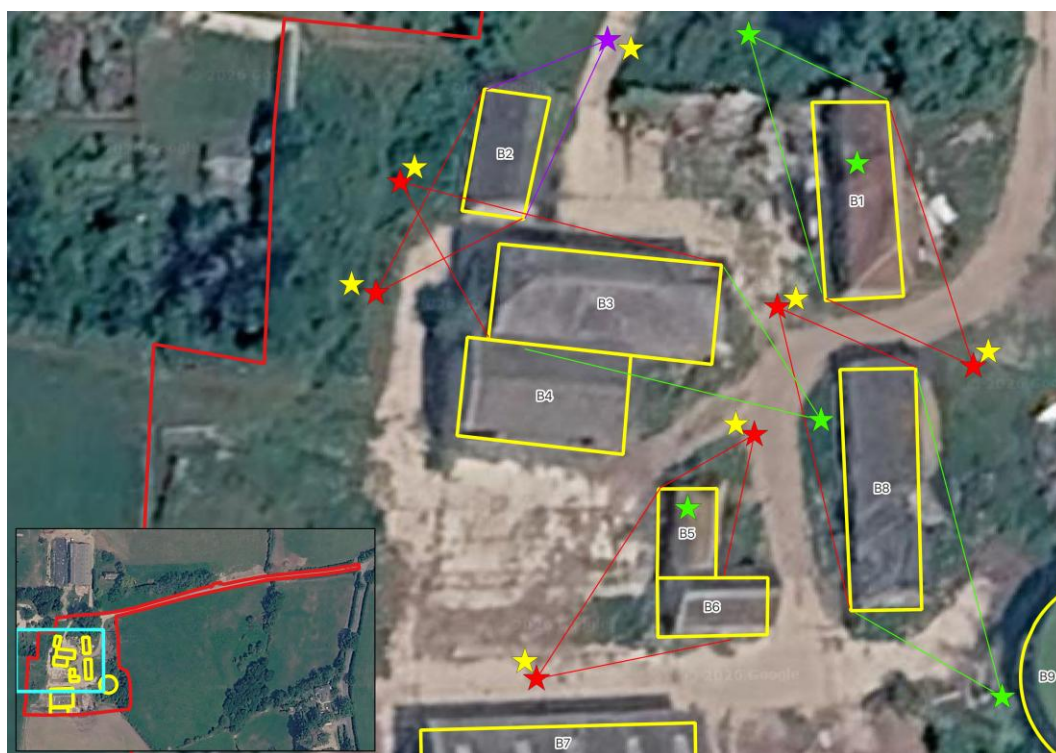


Figure 3: Positions of surveyors (yellow stars), IR cameras (red stars) and Thermal cameras (green stars), purple star represents a thermal camera on 14/05/26 and surveyor with IR camera on 08/06/26

Limitations

- 2.4 It should be noted that whilst every effort has been made to provide a comprehensive description of the site, no single investigation could ensure the complete characterisation and prediction of the natural environment.

3.0 Results12th May 2026 – B5/B6

- 3.1 This survey focused on buildings B5 and B6, with two surveyors positioned to the north-east and south-west of the buildings. The first bat recorded was a common pipistrelle recorded at 20:50 observed by the south-western surveyor flying north to south. Most activity recorded consisted of common pipistrelle foraging and commuting in and around site noted by both surveyors sporadically throughout the survey.
- 3.2 One Nathusius' pipistrelle was recorded by the south-western surveyor at 21:36 heard but not seen. The last bat recorded was a soprano pipistrelle recorded by the north-eastern surveyor also heard but not seen.
- 3.3 Overall, activity was low, consisting of majority common pipistrelle activity. No bats were seen to emerge from buildings B5 or B6 during the survey.

14th May 2026 – B1/B2

- 3.4 This survey focused on buildings B1 and B2, with two surveyors and two thermal cameras positioned at areas of interest. The first bat recorded was a common pipistrelle at 21:01 observed foraging around the trees to the north of site, foraging continued until 21:15 with a second common pipistrelle also foraging from 21:02 to 21:05; this activity was observed by the surveyor positioned to the south-east of B1.
- 3.5 The only other bat recorded during this survey was a common pipistrelle heard but not seen at 21:23 by the surveyor positioned to the south-east of B1. The surveyor positioned at building B2 did not note any bats throughout the entirety of the survey.

- 3.6 Overall, activity was very low, consisted wholly of common pipistrelle activity by the surveyor positioned at building B1. No bats were seen to emerge from building B1 or B2 during the survey, thermal footage was analysed and no notable bat activity was recorded.

20th May 2026 – B3/B8

- 3.7 This survey focused on buildings B3 and B8, with two surveyors and two thermal cameras positioned at areas of interest.
- 3.8 The first bat recorded by the surveyor positioned to the north-west of B3 was a common pipistrelle heard but not seen at 21:14. Two common pipistrelle were recorded flying into the open-ended barn from the north and flying out through the open-ended southern entrance at 21:16 and 21:17, this was noted by both surveyors. Remaining activity throughout the survey consisted of common pipistrelle activity foraging within the courtyard and commuting around site.
- 3.9 The first bat recorded by the surveyor positioned to the north-west of B8 was a common pipistrelle observed commuting between B1 and B8 at 21:08. The surveyor continued to observe majority common pipistrelle activity throughout the survey commuting and foraging in and around site. Sporadic passes of soprano pipistrelle were also noted at 21:41 and 21:57.
- 3.10 The last bat recorded was a common pipistrelle recorded by the surveyor positioned to the north-west of B3 at 22:15 and recorded by the second surveyor at 21:17. Overall, activity was considered to be low dominated by common pipistrelle. No bats were observed to be emerging from buildings B3 or B8; thermal footage was analysed and no notable bat activity was recorded.

2nd June 2026 – B5/B6

- 3.11 This survey focused on building B5 and B6, with two surveyors positioned to the north-east and south-west of the buildings. The first bat recorded was a common pipistrelle heard but not seen by the north-eastern surveyor at 21:34.
- 3.12 The most activity recorded was foraging common pipistrelle activity recorded by both surveyors from 21:49 to 21:56. This was a small number of common pipistrelles foraging

around the courtyard of site. One soprano pipistrelle was heard but not seen by both surveyors at 22:09.

- 3.13 The last bat recorded was a common pipistrelle heard but not seen by the south-western surveyor at 22:27. Overall, activity was considered to be low, dominated by common pipistrelle activity. No bats were observed to be emerging from building B5 or B6 during the survey. One thermal was placed within B5 during this survey, the footage was analysed and no bats were recorded within the building.

8th June 2026 – B2

- 3.14 This survey focused on building B2, with two surveyors positioned to the north-east and south-west of the building. The first bat recorded was a common pipistrelle heard but not seen by the north-eastern surveyor.
- 3.15 The most activity recorded was foraging common pipistrelle activity noted by the north-eastern surveyor, common pipistrelle were noted foraging within the yard at 21:38 and along the access track at 21:44. Activity recorded by the south-western surveyor was sporadic common pipistrelle activity throughout the survey, most noted to be commuting in and around site.
- 3.16 The last bat recorded was a common pipistrelle heard but not seen by the south-western surveyor at 22:14. Overall, activity was considered to be low, dominated by common pipistrelle activity. No bats were observed to be emerging from building B2.

23rd June 2026 – B5

- 3.17 This survey focused on building B5, with two surveyors positioned to the north-east and south-west of the building. The first bat recorded was a noctule heard but not seen by both surveyors at 21:37.
- 3.18 The most activity recorded was common pipistrelle foraging activity recorded by both surveyors intermittently from 22:28 to 22:43. This was mainly around the courtyard and barns.

- 3.19 The last bat recorded was a common pipistrelle heard but not seen by the south-western surveyor at 22:50. Overall, activity was considered to be low, dominated by common pipistrelle activity. No bats were observed to be emerging from building B5.

4.0 Discussion

- 4.1 The ten buildings onsite were surveyed for their roosting bat potential during the PEA conducted by The Ecology Partnership, of which three buildings (B1, B3, and B8) were considered to have 'low' bat roost potential, two buildings (B2 and B6) were considered to have 'moderate' bat roost potential, and one building (B5) was considered to have 'high' bat roost potential.
- 4.2 Six surveys were conducted onsite between 12th May 2026 to 23rd June 2026. The majority of activity recorded during these surveys consisted of common pipistrelle; the most common and widespread bat species in Britain, and infrequent noctule and soprano pipistrelle passes recorded.
- 4.3 The emergence surveys conducted did not find any buildings onsite to be in use by roosting bats. Furthermore, bat activity recorded during the emergence were considered to be low. As such, a roost is confirmed likely absent from all buildings and no further surveys are required.

Recommendations and Enhancements

- 4.4 The site was generally considered to have limited habitat suitability for foraging and commuting bats, aside from the woodland located to the south-east of site. This is to be retained within works however, it is recommended that a suitable lighting scheme be enacted to ensure the favourable habitat to bats.
- 4.5 All bat species are nocturnal, resting in dark conditions in the day and emerging at night to feed. Many species of bats are known to sample light levels before emerging from their roost; only emerging for their night's hunting when the light intensity outside reaches a critical level after sunset. Artificial lighting can restrict and shorten the time bats spend foraging at night or completely discourage bats from using an area at all. This needs to be

considered, with a sympathetic lighting scheme for the development. Recommendations include:

- Installing lighting only if there is a significant need;
- Using LED luminaires due to their lower intensity, sharp cut-off and good colour rendition – any lights with UV elements or metal halide lights should not be used;
- Lights with peak wavelengths higher than 550nm to avoid the component of light most disturbing to bats (Stone 2012);
- Lights with an upward light ratio of 0% and good optical control;
- Careful consideration of column height to avoid light spill;
- Avoid putting lighting near hedgerows or other boundary features and angling light away from these linear features which are used by commuting and foraging bats;
- Planting a barrier or using man-made features required within the scheme to form a barrier

4.6 Provided that a suitable sensitive lighting scheme is enacted, it is considered that the proposed development does not impact the favourable conservation status of any bat species in the local area.

4.7 Integrated bat tubes may be incorporated into the structure of a range of new buildings on site, to provide new roosting opportunities for crevice-dwelling species. They should be installed into buildings close to known commuting and foraging routes along important linear features on development boundaries with dark corridors. An example of a recommended tube might include Schwegler 2FR Bat Tubes and Habibat 001 bat boxes unfaced for render (Figure 4). Both require no maintenance as droppings fall out of the entrance ramp. The added benefit of the Schwegler 2FR tubes is that connecting holes allow several tubes to be placed next to each other to create a larger roost space. These should be placed where they will receive sunlight for most of the day, on south and west-facing aspects, as temperature is an important factor in the success of artificial bat roosts. They should also be placed as close to the eaves or gable apex as possible and not above windows to reduce the risk of cat predation. They should not be placed closed to artificial light sources. A booklet should be created for future homeowners informing them of what the tubes are for and the legal protection surrounding bat roosting sites.

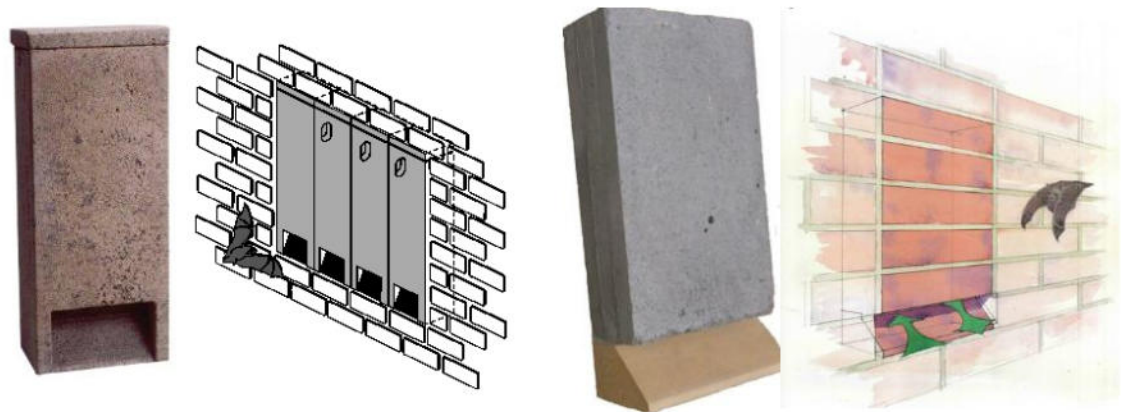


Figure 4: Schwegler 2FR tube (left) and Habibat 001 bat box (right)

- 4.8 Another type of roost which can be incorporated into certain buildings is a soffit bat box (Figure 5). This caters for crevice-dwelling species such as pipistrelles and certain *Myotis* species such as Natterer's and Whiskered bat. This type of box makes use of an underutilised area of a building and would require no maintenance as droppings would drop through the entrance hole. These should be located on buildings close to linear features and dark corridors and if installed on private buildings, the owners should be made aware of their purpose and legal protection.



Figure 5: Soffit bat box (Wildcare)

- 4.9 Tree-mounted bat boxes can also be installed in suitable retained trees onsite to create additional roosting provision. Recommended boxes include:
- Vivara Pro WoodStone Bat Box – A general purpose bat box that supports a range of species (Figure 6). These can be hung on trees in a variety of heights and aspects in order to provide a variety of micro-climates.

- Large Multi Chamber WoodStone Bat Box – This is a multipurpose box designed for larger colonies and a range of bat species including pipistrelles, noctules and brown long-eared bats. These should be hung on mature trees around the site (Figure 6).



Figure 6: Vivara Pro WoodStone Bat Box (left) and Large Multi Chamber WoodStone Bat Box (right)

5.0 Conclusions

- 5.1 Bat emergence surveys were conducted on six of the ten buildings located onsite from May to June 2026. No bats were observed emerging from any of the surveyed buildings onsite and as such, a bat roost was confirmed likely absent from the buildings and no further surveys are required.
- 5.2 The onsite habitats were generally considered to be of limited suitability for foraging and commuting bats; however, a sensitive lighting scheme has been outlined within this report to protect foraging and commuting bat species in the local area.
- 5.2 The only bat species recorded on or around site during the emergence survey were common pipistrelle, soprano pipistrelle, and noctule. The most activity included common pipistrelle foraging within site and commuting across site.
- 5.3 Recommendations and enhancements have been outlined within this report, aimed at maintaining, protecting, and enhancing the most ecological valuable features of the site post-development.
- 5.4 If the above recommendations are adhered to, it is considered that the development would not impact upon the favourable conservation status of bats in the local area.

6.0 References

Bat Conservation Trust & Institution of Lighting Professionals (2023) *Guidance Note GN08/23 Bats and Artificial Lighting At Night*. Institution of Lighting Professionals, Regent House, Warwickshire.

CIRIA C567 (2005) *Working with wildlife – site guide*. CIRIA, London.

Collins, J. (ed.) (2023), *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (4th edition). The Bat Conservation Trust, London. ISBN-978-1-7395126-0-6.

English Nature (1994) *Species Conservation Handbook*. English Nature, Peterborough.

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

Internet resources:

Magic Interactive Map: www.magic.gov.uk

Google Maps: www.google.co.uk/maps

Appendix 1 – Photos

Figure 1: Screenshot of IR footage to the north-east of B1 on 12/05/26	 A black and white infrared (IR) photograph of a small, single-story building at night. The building has a gabled roof and a large, light-colored door on the left side. To the right of the door is a window with multiple panes. The building appears to be made of brick or stone. The ground in front of the building is dark and uneven. The background is completely black.
Figure 2: Screenshot of Thermal footage to the south-west of B1 on 12/05/26	 A black and white thermal image of a building at night. The building has a gabled roof and a large, light-colored door on the left side. To the right of the door is a window with multiple panes. The building appears to be made of brick or stone. The ground in front of the building is dark and uneven. The background is completely black. In the top left corner, there is a timestamp "01:46:07" and a small icon. In the bottom left corner, there is a logo "PIXEL" and some text. In the bottom right corner, there is a timestamp "2026-05-12 22:11".

Figure 3:
Screenshot of
IR footage to
the south-east
of B1 on
14/05/26



Figure 4:
Screenshot of
Thermal
footage to the
north-west of
B1 on 14/05/26



Figure 5: Screenshot of Thermal footage within B1 on 14/05/26	 01:25:45 Pixfra 2026-05-14 22:02
Figure 6: Screenshot of IR footage to the south-west of B2 on 14/05/26	 14. May. 2026 10:03 PM

Figure 7:
Screenshot of
Thermal
footage to the
north-east of
B2 on 14/05/26



Figure 8:
Screenshot of
IR footage to
the north-west
of B3 on
20/05/26



Figure 9:
Screenshot of
Thermal
footage to the
south-east of
B3 on 20/05/26



Figure 10:
Screenshot of
IR footage to
the north-west
of B8 on
20/05/26



Figure 11:
Screenshot of
Thermal
footage to the
south-east of
B8 on 20/05/26



Figure 12:
Screenshot of
IR footage to
the south-west
of B5 on
02/06/26



Figure 13:
Screenshot of
IR footage to
the north-east
of B5 on
02/06/26



Figure 14:
Screenshot of
Thermal
footage within
B5 on 02/06/26



Figure 15:
Screenshot of
IR footage to
the south-west
of B2 on
08/06/26



Figure 16:
Screenshot of
IR footage to
the north-east
of B2 on
08/06/26



Figure 17:
Screenshot of
IR footage to
the north-east
of B5 on
23/06/26



Figure 18:
Screenshot of
Thermal
footage to the
south-west of
B5 on 23/06/26



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