



ARBOR VITAE

ECOLOGY • FORESTRY • LAND USE

Night-time Bat Walkover Survey

Date prepared:	08/07/2025
Site name:	Overton-on-Dee
Site address:	Land off St. Mary's Avenue, Overton-on-Dee, Wrexham
Grid reference:	SJ37624184
Local authority:	Wrexham County Borough Council
Client:	Pickstock Homes
Survey dates:	25/06/2025
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1 INTRODUCTION

1.1 BACKGROUND TO DEVELOPMENT

Planning permission will be sought for the construction of 44 new residential properties on a piece of land at Overton-on-Dee, Wrexham.

Arbor Vitae Environment were commissioned by Pickstock Homes to undertake one night-time bat walkover survey to confirm presence or absence of bats around the hedges and trees at the edges of the development.

1.2 SCOPE OF SURVEY

Arbor Vitae were commissioned to undertake one night-time bat walkover survey to determine if the site is in use by roosting bats.

- Bats and their roosting sites are legally protected under The Conservation of Habitats and Species Regulations 2017 and The Wildlife and Countryside Act 1981.

The survey was also designed to assess the presence of any breeding birds using the building.

- All wild nesting birds, their nests and eggs are legally protected under The Wildlife and Countryside Act 1981.

1.3 KEY PRINCIPLES

All ecological surveys conducted by Arbor Vitae Environment Ltd are underpinned by the following key principles, as outlined by CIEEM (2018):

Avoidance - Seek options that avoid harm to ecological features (for example, by locating on an alternative site).

Mitigation - Adverse effects should be avoided or minimized through mitigation measures, either through the design of the project or subsequent measures that can be guaranteed – for example, through a condition or planning obligation.

Compensation - Where there are significant residual adverse ecological effects despite the mitigation proposed, these should be offset by appropriate compensatory measures.

Enhancements - Seek to provide net benefits for biodiversity over and above requirements for avoidance, mitigation or compensation.



2 SITE DESCRIPTION

2.1 LOCATION, LANDSCAPE, AND BACKGROUND

The village of Overton is located between Ellesmere and Wrexham, just over the north Shropshire border. The land surrounding the village is a mixture of agricultural arable, permanent pasture and semi-natural broadleaved woodland. The development site currently sits adjacent to existing residential properties at the west boundary.

The proposals will include 44 dwellings, detached and semi-detached, some with garages, public open space and all associated infrastructure.

3 SURVEY METHODOLOGY

3.1 VISUAL INSPECTION

One visit was made to carry out a preliminary visual assessment in October 2022. This assessed the potential of the site to provide a roost site for bats. Any Potential Roosting Features were noted and evidence was sought for bat activity including droppings and feeding signs.

The objective of the survey was to find and record any signs of use by bats, for example:

- Droppings, sometimes in concentrations below roost sites,
- Feeding signs such as butterfly and moth wings,
- Staining of timber, brickwork around access points.

The general structure of the building was assessed for its potential to provide bats with roosting opportunities.

3.2 ACTIVITY SURVEYS

One night-time bat walkover survey was carried out on 26/06/2025 using two observers equipped with bat recorders.

DATE	SURVEY TIME	SUNSET	WEATHER	OBSERVERS	STATIC RECORDERS
25/06/25	21:15– 23:45	21:41	Cloud: 20% Rain: No	Susan Worsfold	Peersonic RPA3

			Wind: 0 (BFT) Temp: 18°C	and survey assistant.	
Bat activity was registered and recorded externally using Echometer 2 Pro microphone with iPad Air/Android tablets and the Nightfox infrared HD binoculars.					

3.3 BREEDING BIRDS

The land was assessed for its potential to provide birds with nest sites, and to record any existing evidence of previous nesting.

3.4 PERSONNEL

The survey was carried out by Susan Worsfold, Natural England bat licence number: 2015-12556-CLS-CLS and a survey assistant.

3.5 CONSTRAINTS

There were no constraints to the survey according to the Bat Conservation Trust good practice guidance.

4 SURVEY RESULTS

4.1 VISUAL INSPECTION

No physical evidence of the presence of bats was found during the preliminary assessment, especially around individual trees with potential for roosting.

There is one mature oak tree at the northeast corner of the site within hedge 3 which provides moderate potential as a bat roost. Features suitable for use by bats include cracks in the limbs, rot holes and loose bark. The tree will be retained and protected throughout all work on site.

4.2 ACTIVITY SURVEYS

Night-time walkover survey, 26th June 2025

Two species of bat were recorded during the survey: noctule and common pipistrelle.

The first observation was at 22:11. A noctule commuted above hedge 3 and headed towards the south of the field.

At 23:09, a common pipistrelle was recorded flying over hedge 3. At 23:12, the same species was observed foraging in the middle of the field.

The final recordings of the evening were between 23:28– 23:39, where 1 common pipistrelle was commuting over hedges 1, 3 and 4.

Bat activity at the site was limited and only a small number of recordings were made. The survey work did not indicate that the mature oak tree is in use by bats in the landscape.

4.3 BREEDING BIRDS

No breeding birds were observed on site.

5 EVALUATION OF RESULTS AND IMPACT

5.1 BATS

The preliminary inspection of the site revealed some suitability for foraging, in particular one mature oak tree at the northeast corner of the site within hedge 3. The features suitable for use by bats include cracks in the limbs, rot holes and loose bark.

Overall, two species of bats were observed during the night-time walkover survey: noctule and common pipistrelle.

No bats were seen emerging from or re-entering the hedges and trees at the edges of the development. Foraging/commuting activity was recorded in brief intervals from 22:11 – 23:39.

There does not appear to be a current roosting site within the site's boundary. The proposal will have no impact on bats or their roosting sites, and therefore a European Protected Species Development Licence will not be required for the development to continue.

Furthermore, the site does not seem to provide a significant or important commuting/foraging site for bats locally. Activity on site was limited to just two species, one of which was not using any hedges or trees but merely passing overhead.

Wildlife Sensitive Lighting will be required but no further mitigation is required.

5.2 BREEDING BIRDS

No breeding birds were observed on site, so no further survey work or mitigation measures will be required.

6 MITIGATION & ENHANCEMENT

6.1 BATS

The survey results revealed that the site to be developed is not currently in use as a roosting site by bats. However, as two bat species were recorded commuting and foraging around the site, plans should attempt to reduce the amount of light spill that they produce.

A Wildlife Sensitive Lighting plan with the following recommendations will be included when designing external lighting:

Wildlife sensitive Lighting plan

- Hedgerows and key habitat features including mature trees on the site will not be illuminated in order to retain dark movement corridors for nocturnal wildlife.
- Security or decorative lights to be installed on the site will be less than 3m from the ground and fitted with hoods to direct the light below the horizontal plane, at an angle of less than 70° from vertical, and shall not be fixed to, or directed at, bat boxes, gables or eaves.
- Security lighting will be set on motion sensors with short timers less than 1 minute and will be LED.
- External lighting will be hooded and directed toward the ground to reduce upward light spill.
- A warm white spectrum will be adopted throughout the scheme to reduce blue light component (<2700Kelvin).
- Internal luminaires will be recessed where installed in proximity to windows to reduce glare and light spill. LED luminaires will be used internally where possible due to their sharp cut-off, lower intensity and dimming capability. The luminaires will always be mounted horizontally with an upward light ratio of 0%.

6.2 BREEDING BIRDS

No breeding birds were observed on site, so no further survey work or mitigation measures will be required.

6.3 ENHANCEMENT

A nest box scheme will be adopted throughout the site. All detached garages will be built with 2 build-in wildlife boxes to be retained as permanent features throughout the lifetime of the buildings. There are 22 detached garages on site and therefore 44 new permanent wildlife features will be created. Each garage will include two of the following options with the final positioning to be agreed with the project ecologist:

- 1SP Schwegler (or similar approved Woodcrete) house sparrow terrace with a double or triple brood chamber.
- 2FR Schwegler (or similar approved Woodcrete) bat tube with an open entrance for 'self-cleaning'. These boxes need to be 2m above ground level.
- Clay bee brick for solitary bee species including red mason and leafcutter bees, both of which are non-aggressive and therefore suitable for living in close proximity to humans. These bricks will be at least 1m from the ground on a south facing wall.
- Three large Woodcrete insect shelters will be positioned along the east boundary of the site, near to existing hedgerow.

7 SUMMARY

Planning permission will be sought for the construction of 44 new residential properties on a piece of land at Overton-on-Dee, Wrexham. Arbor Vitae Environment were commissioned by Pickstock Homes to undertake an Ecological Impact Assessment in order to assess the impact of the development on habitats and protected species.

Overall, two species of bats were observed during the night-time walkover survey: noctule and common pipistrelle.

No bats were seen emerging from or re-entering the hedges and trees at the edges of the development.

During the preliminary assessment, the hedges and mature oak tree at the northeast corner were identified as having potential roosting features. There is one mature oak tree at the northeast corner of the site within hedge 3 which provides moderate high potential as a bat roost.

Given the results of the night-time walkover survey, there does not appear to be a current roosting site within the proposed area of development. As two bat species were recorded commuting and foraging, a Wildlife Sensitive Lighting Plan will be required.

No breeding birds were observed on site, so no further survey work or mitigation measures will be required.

A nest box scheme will be adopted throughout the site. All detached garages will be built with 2 build-in wildlife boxes to be retained as permanent features throughout the lifetime of the buildings.

8 REFERENCES

Bat Conservation Trust (2018) Bats and artificial lighting in the UK. *Bats and the Built Environment series*, Guidance Note 08/18. Institution of Lighting Professionals.

Collins, J (2023) Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edn). The Bat Conservation Trust, London.

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

Mitchell-Jones, A.J. (2024) Bat mitigation guidelines. English Nature.

Reason, P.F. and Wray, S. (2023). UK Bat Mitigation Guidelines: a guide to impact assessment, mitigation and compensation for developments affecting bats. Chartered Institute of Ecology and Environmental Management, Ampfield.

FIGURE 1 LOCATION: 1:50,000

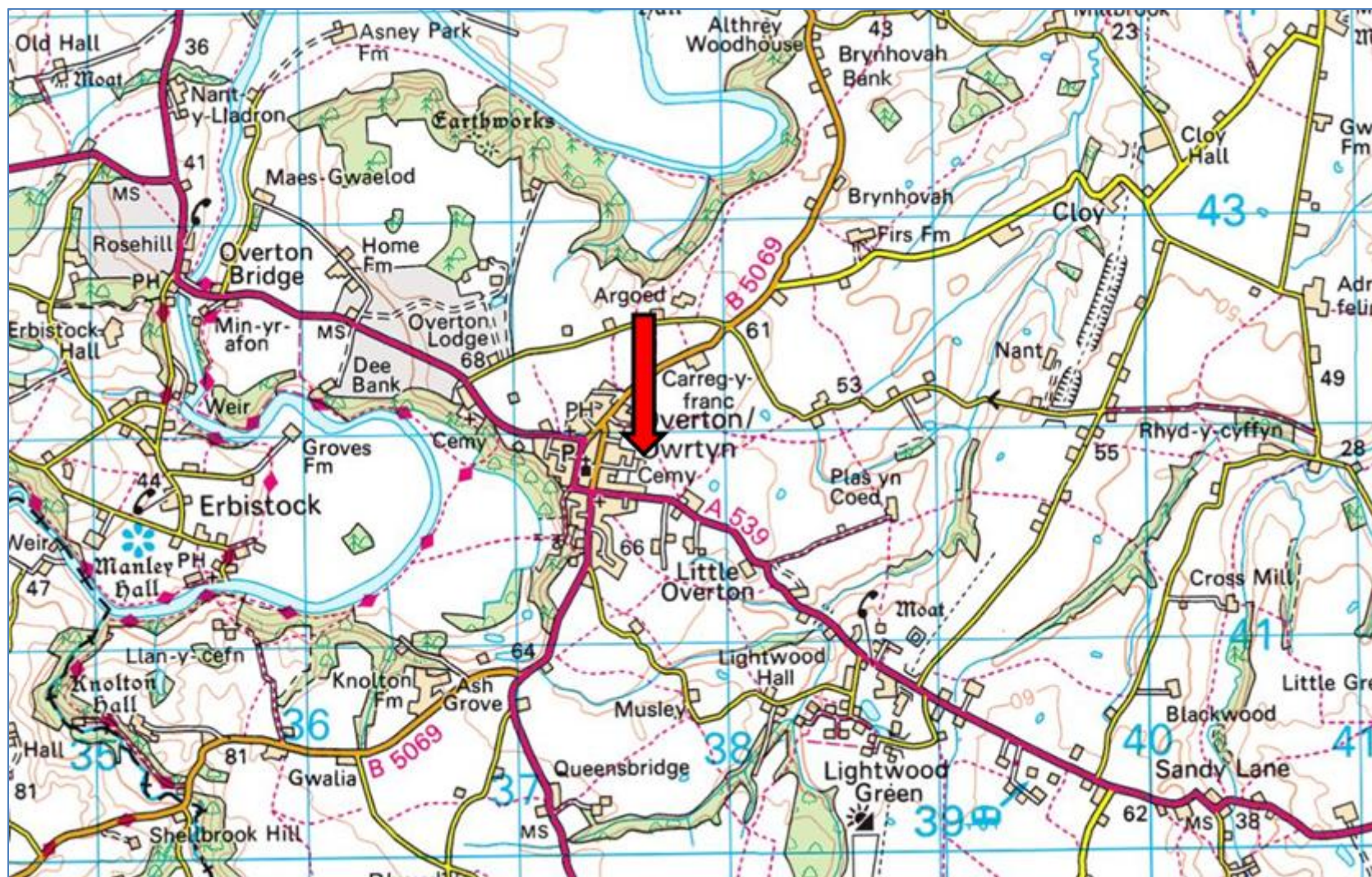


FIGURE 2 AERIAL PHOTOGRAPH:



FIGURE 3 TREES AND HEDGING, ROUTE OF TRANSECT WALKED IN RED



APPENDIX 1 PHOTOGRAPHS



Improved grassland.



Hedge 1.



Hedge 2.



Hedge 3.



Hedge 4 and planted woodland.



Adjacent housing.

