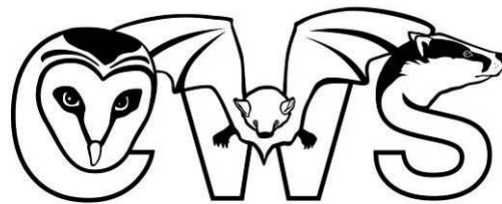


**Bat Survey Report for
253-255 London Road,
Headington, Oxford, OX3 9EH**



Cotswold Wildlife Surveys

11th February 2022

QUALITY CONTROL

Date	Version	Name
11.02.22	Daytime inspection	Neil Musgrave – BEng (Hons) Associate
03.03.22	Report prepared	Neil Musgrave – BEng (Hons) Associate
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The information in this report has been prepared in accordance with the Chartered Institute of Ecology and Environmental Management's (CIEEM) Code of Professional Conduct. The conclusions and recommendations expressed are reasoned judgements based on the evidence.

Every reasonable attempt has been made to comply with BS42020:2013 *Biodiversity – Code of practice for planning and development*, *CIEEM Guidelines for Ecological Report Writing* (CIEEM, 2017) and Bat Conservation Trust's *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (3rd edition, Collins, 2016). If there has been deviation from recognised practice, justification/explanation has been given.

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SUMMARY

At 253-255 London Road in Headington, Oxford, planning permission is being sought to demolish the existing buildings and replace them with a new build scheme.

As this could impact on features typically used by bats as roosting places, a diurnal inspection was undertaken on 11th February 2022 to assess the buildings for signs of bat occupation.

All the external and internal structures, especially those associated with the roofs and walls of the buildings were examined.

The suitability for roosting pipistrelles *Pipistrellus sp* was considered to be negligible as no suitable crevices or gaps were found.

Although there was no internal access into the roof void of number 253, the ridge and roof tiles were fully intact and tightly overlapping, whilst the eaves were sealed all round. As such the roof void was considered inaccessible to bats.

The garage to the rear had gaps around the doors, these providing potential bat access to the interior. The inside was heavily cobwebbed and no evidence of bat occupation was found.

At the time of the survey, the existing buildings were not identified as a bat roost or hibernation site, and no further survey or mitigation measures are required.

*

No birds' nests were observed in or on any of the buildings.

1. INTRODUCTION

In early February 2022, Cotswold Wildlife Surveys was instructed by Savvy Construction, to undertake a bat survey of 253-255 London Road in Headington, Oxford. On 11th February 2022, a visit was made to the property to carry out a diurnal inspection of the buildings to check for signs of bat occupation.

The result of the survey is contained in this report.

In England, Scotland and Wales, all bat species are fully protected under the Wildlife and Countryside Act 1981 (WCA) (as amended), through inclusion in Schedule 5. In England and Wales this Act has been amended by the Countryside and Rights of Way Act 2000 (CRoW), which adds an extra offence, makes species offences arrestable, increases the time limits for some prosecutions, and increases penalties.

All bats are also included in Schedule 2 of the Conservation (Natural Habitats, & c.) Regulations 1994, (or Northern Ireland 1995) (the Habitats Regulations), which defines 'European protected species of animals'.

The above legislation can be summarised thus (Mitchell-Jones and McLeish, 2004):

- ❑ *Intentionally or deliberately kill, injure or capture (or take) bats*
- ❑ *Deliberately disturb bats (whether in a roost or not)*
- ❑ *Recklessly disturb roosting bats or obstruct access to their roosts*
- ❑ *Damage or destroy roosts*
- ❑ *Possess or transport a bat or any part of a part of a bat, unless acquired legally*
- ❑ *Sell (or offer for sale) or exchange bats, or parts of bats*

The word 'roost' is not used in the legislation but is used here for simplicity. The actual wording is 'any structure or place which any wild animal...uses for shelter or protection' (WCA), or 'breeding site or resting place' (Habitats Regulations).

As bats generally have both a winter and a summer roost, the legislation is clear that all roosts are protected whether bats are in residence at the time or not.

2. METHODOLOGY

In order to fully assess bat occupation of a particular site, the Bat Conservation Trust (2016) recommends that information gathered from a desk study of known bat records, and a daytime site walkover, is used to inform the type and extent of future bat survey work, potentially including nocturnal surveys.

The diurnal walkover provides an opportunity to check for signs of occupancy, such as droppings, scratch marks, feeding remains, carcasses, or even animals in residence, whilst nocturnal surveys (if required) allow numbers and species of bats to be confirmed. The latter are also used to determine the presence or absence of bats, where signs of bat activity are indeterminate or absent, but suitability of roosting is considered to be medium to high.

Roosting places vary depending on the species. Pipistrelles usually inhabit narrow cracks or cavities around the outside of buildings, but they will roost in similar niches inside larger barns. Typical sites include soffit spaces, gaps behind fascia boards and end rafters, crevices around the ends of projecting purlins, under warped or lifted roof and ridge tiles, or in gaps in stone and brickwork where mortar has dropped out.

Larger species such as Brown Long-eared Bats *Plecotus auritus*, Myotis bats (Natterer's *Myotis nattereri* and Whiskered/Brandt's *M. mystacinus/M. brandtii*), and Lesser Horseshoe Bats *Rhinolophus hipposideros*, like to roost in the roof voids of buildings, and can often be found hanging singly or in small groups from ridge boards or roof timbers, especially where they butt up against gable walls or chimney breasts. They especially favour older structures with timber frames. Here they squeeze into tight crevices making them difficult to observe.

Diurnal walkovers can be carried out at any time of the year, but nocturnal surveys should only be undertaken when bats are out of hibernation and in their summer roosts. The recommended period is from May to September inclusive, with May to August optimum and September sub-optimum. The season can be extended into October, although particularly cold weather will render this inadvisable. Indeed, the air temperature at the start of each survey must be at least 10°C or above.

Visits will be a minimum of two weeks apart, and the number of surveys is dependent on the evidence found or the suitability of the site to bats.

Where bats are found, or there is evidence of bat occupation or activity, i.e. that bat use is confirmed, the number and timing of visits will be decided by the ecologist and will be appropriate for the type of roost. In general, at least two nocturnal surveys will be carried out, both of which can be emergence surveys, or one emergence and one dawn re-entry.

Where there is no evidence of bat presence, and no suitability for roosting, no nocturnal surveys will be needed.

For a site with no evidence but low suitability, just one nocturnal emergence survey is required, this to be in the optimum period.

For medium suitability a minimum of two visits are needed, of which one must be in the optimum period, and one must be a dawn re-entry survey. With high suitability, three visits will be necessary, of which two must be in the optimum period. At least one of these must be a dawn re-entry survey, with the third visit either an emergence or a dawn re-entry.

For sites < 5 ha in size, and/or regularly shaped structures, at least two surveyors must be present, with more surveyors at larger sites and more complex buildings, e.g. those with multiple elevations and/or roof structures.

On 11th February 2022 a thorough inspection of the 253-255 London Road was made by Neil Musgrave (Natural England bat licence No. 2020-44602-CLS-CLS), including the exterior and interior walls, roof coverings, roof void, eaves, gables, window casements and door frames.

8x42 binoculars and a Fenix TK75 torch were used for the inaccessible/unreachable areas. On this occasion an endoscope was not used, as there were no crevices and cavities that could not be inspected with a torch or by use of binoculars from a ladder.

The result of the inspection is detailed in Section 3.

3. RESULTS

3.1 Desk Study

In view of the proposed works, the likely low impact on bats, and in line with current guidance on accessing and using biodiversity data (CIEEM, 2016), a detailed background data search was not carried out in this case.

However, within 3.0 km of 253-255 London Road, the following European Protected Species licences for bats were issued by Natural England:

- 2011 2.75 km south for Common Pipistrelle *Pipistrellus pipistrellus*;
- 2015 2.00 km south for Brown Long-eared Bat and Common Pipistrelle;
- 2016 1.25 km northwest for Common Pipistrelle and Soprano Pipistrelle *Pipistrellus pygmaeus*.

3.2 Location

Headington is located to the northeast of Oxford. London Road is the A420 running southwest to northeast from the city centre. Numbers 253 and 255 lie 375 m southwest of the junction with the A4142 Oxford bypass on the north side of London Road on the northeast corner of London Road and Barton Road. The Ordnance Survey Grid Reference of the centre of the site is SP 55137 07376 (Appendix 1).

3.3 Site Description

The survey site comprised a pair of semi-detached, pitched tile roofed houses, with flat roofed extensions to their rear (Figs. 1 and 2), and a detached, pitched tile roofed garage (Fig. 3).



Figs. 1 & 2 Front and rear aspects of number 253-255



Fig. 3 Detached garage

The site opened straight onto London Road with mature trees observed to the east and west (Figs. 4 and 5).



Figs. 4 & 5 Views to the front looking east (L) and west (R)

Mature trees were observed in the distance on Barton Road, and trees were observed in rear gardens to the northeast (Figs. 6 and 7).



Figs. 6 & 7 Barton Road looking northwest (L) and view looking northeast (R)

The layout of the site is shown in the aerial photograph in Appendix 2.

3.4 Buildings Survey

3.4.1 Bats

The daytime inspection was carried out on 11th February 2022 commencing at 13:45. The weather conditions during the time of the survey were recorded and are presented in Table 1 below.

Parameter	Value
Temperature (°C)	1.0
Cloud cover (%)	60
Precipitation	None
Wind speed (Beaufort scale)	0

Table 1 Weather conditions during the diurnal survey

255 London Road

The ridges were intact and sealed, whilst all the roof tiles were tightly overlapping, with none raised, broken, dislodged or missing (Figs. 8 and 9).



Figs. 8 &9 Ridges and roof tiles to the front and side

The flat roof to the rear was finished with tarred felt in good condition with no holes or tears (Fig. 10).



Fig. 10 Tarred felt flat roof to the rear

The roof verges at the gables were sealed to the timber barge boards, with the roof tightly fitting against the gable wall plates (Figs. 11 and 12).



Figs. 11& 12 Sealed gables

The roof ends at eaves level were tightly fitting against timber fascia boards (Fig. 13).



Fig. 13 Sealed eaves

The rendered walls were sound throughout and the window casements and door frames were all tightly fitting.

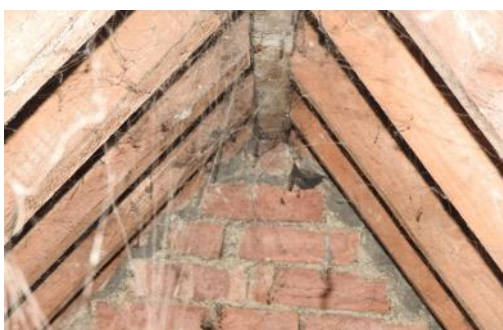
No signs of bat activity were found around the outside of 255 London Road.

Internally the house had a single roof void, this measuring approximately 1.0 m high, by 1.5 m wide and running the length of the dwelling. The void included half of the perpendicular pitched roof space adjoining number 253.

The ridge, gable ends, and plumb cut were all very heavily cobwebbed (Figs. 14-17).



Fig. 14 Cobwebbed plumb cut



Figs. 15 & 16 Cobwebbed gable ends



Fig. 17 Cobwebbed ridge and gable end of the perpendicular void

The roof was lined with timber sarking and there was no light penetration. Unsurprisingly no evidence of bat occupation was discovered inside number 255.

253 London Road

The ridges were again intact and sealed, whilst all the roof tiles were tightly overlapping with none raised, broken, dislodged or missing (Figs. 18 and 19).



Figs. 18 &19 Ridges and roof tiles to the front and side

The flat roofs to the rear and side were finished with tarred felt in good condition with no holes or tears (Fig. 20).



Fig. 20 Tarred felt flat roof to the rear

The roof verges were sealed to the timber barge boards with the roof tightly fitting against the gable wall plates (Figs. 21 and 22).



Figs. 21 & 22 Sealed gables

The eaves were finished with boxed soffits tightly fitting against the walls (Fig. 23). The flat roofs were finished with the felt tightly fitting against fascia boards, these tight to the walls (Fig. 24).



Figs. 23 & 24 Sealed eaves – house (L) and flat roofs (R)

The rendered and brick walls were sound throughout and the window casements and door frames were tightly fitting.

No signs of bat activity were found around the outside of 253 London Road.

Internally there was no access into the roof void, but it was assumed to be of the same construction as number 255.

Garage

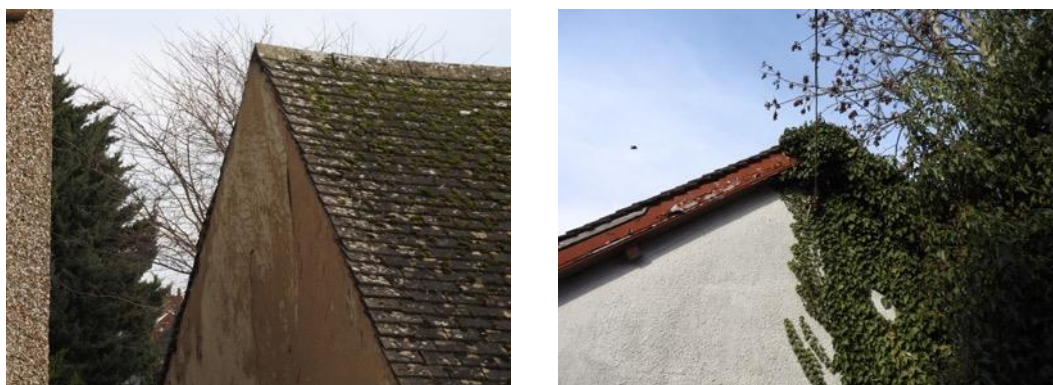
The ridge was intact and sealed, whilst the roof tiles on the west facing slope were tightly overlapping (Fig. 25).

The east facing roof slope was partially overgrown with Ivy *Hedera helix*, but again the tiles were tightly overlapping.



Fig. 25 Ridge and roof tiles on the west side

The gables were finished with the roof verges cement sealed to the gable wall plate at the north end and barge board at the south (Figs. 26 and 27).



Figs. 26 & 27 Sealed gables north (L) and south (R)

The clipped eaves were sealed, with the roof ends tightly fitting against the timber finished wall plates (Fig. 28).



Fig. 28 Door with gaps

The rendered walls were sound throughout, whilst the door frames were tightly fitting. However, there were gaps around the doors providing potential bat access to the interior (Ref. Fig. 28).

No signs of bat activity were found around the outside of the garage.

Internally the garage was an open construction to the ridge line. The roof was lined with tarred felt, this intact and un-torn, with no light penetration. The whole void was heavily cobwebbed with no signs of bat use. (Figs. 29 and 30)



Figs. 29 & 30 Garage interior

3.4.2 Other species

No birds' nests observed in or on any of the buildings.

4. CONCLUSIONS AND RECOMMENDATIONS

Bats tend to be seasonal visitors to properties and are not usually in occupation all year round. The females normally form maternity colonies during May or June and then leave for adjacent trees and/or woodland during July or August once the young bats are able to fly and become independent. Here they will spend the winter months in hibernation before returning to the building or barn the following spring.

Male bats generally live alone and have a number of favoured roosts. During the summer they visit each of these for a few days at a time, before moving to their chosen hibernation site in mid-late October. Different species have different habits, but this seasonal movement is common to all.

Bats choose their roosts carefully. During the summer they look for sites which are warmed by the sun, and as a result are most often found on the south and western side of buildings.

Pipistrelles, our smallest and commonest bats, prefer to roost in very confined spaces around the outside of buildings, typical places being behind hanging tiles, weather boarding, soffit, barge and eave boarding, between roof felt and roof tiles or in cavity walls. As such they can be difficult to find, so the suitability for roosting was also assessed.

This was considered to be negligible as no suitable crevices or gaps were observed.

Another bat frequently encountered in buildings is the Brown Long-eared. This is also a common species, but unlike pipistrelles, they prefer the dry, warm space of the loft or roof void, and can often be found hanging from roof timbers, especially rafters and the ridge board next to chimney breasts.

No signs of Brown Long-eared Bat activity were found in number 255 or the garage, nor evidence of other bat species which are commonly found inside buildings.

Although there was no internal access into the roof void of number 253, the ridge and roof tiles were fully intact and tightly overlapping, whilst the eaves were sealed all round. As such the roof void was considered inaccessible to bats.

At the time of the survey, the existing buildings were not identified as a bat roost or hibernation site, and no further survey or mitigation measures are required.

5. REFERENCES

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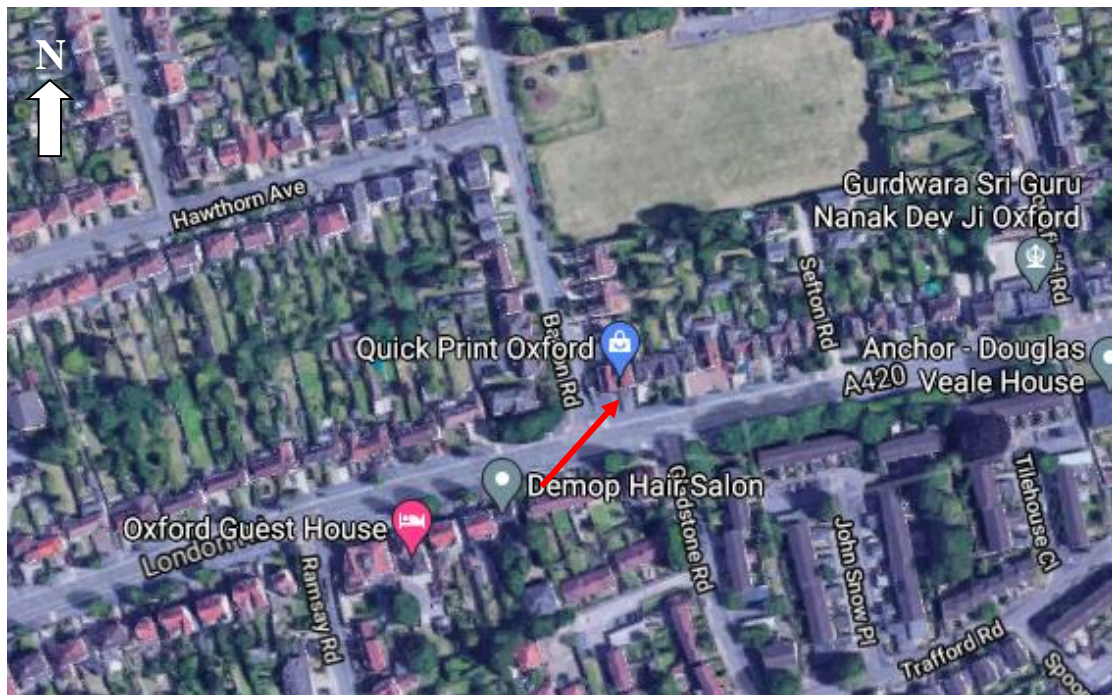
The Vincent Wildlife Trust, 2003. *The Bats of Britain and Ireland.* The Vincent Wildlife Trust, Ledbury.

APPENDICES

Appendix 1: Location plan

Appendix 2: Site layout

Appendix 1: Location plan



253-255 London Road, Headington, Oxford

Appendix 2: Site layout



253-255 London Road

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