ROAVR | GROUP

Project: 25_PRA_06_69
Site: L'ortolan, Church Lane, Shinfield, Reading, RG2 9BY
Client: Zara Hussain

Project Number:	25_PRA_06_69
Report Type:	Preliminary Roost Assessment Report [PRA] Daytime Bat Walkover (DBW)
Site Address:	L'ortolan, Church Lane, Shinfield, Reading, RG2 9BY

Role:	Name:	Position:	Date:
Surveyor	Max Shaw	Ecologist	14/07/25
Consultant	Gwennan Butler	Ecologist	06/08/25

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Date:	Version number:	Summary of changes:
06/08/25	1.0	First Draft
07/08/25	1.0	First Issue
21/08/25	2.0	Amendments v1

Summary:

ROAVR Group were appointed by Max Shaw to undertake a preliminary roost assessment survey and report at L'ortolan, Church Lane, Shinfield, Reading, RG2 9BY.

The proposed development comprises the construction of a third-storey pitched roof extension to Building B1, along with the architectural integration of the existing pitched roof structures of Building B2. Additionally, plans include the erection of a detached auxiliary garage within the existing hardstanding car parking area to the east of B2.

Before visiting the site, a desk study was undertaken in order to determine records of local designated sites, habitats and bat species within a 2km of the proposed development. Data was sourced via the Department for Environment, Food and Rural Affairs Multi-Agency Geographic Information for the Countryside (DEFRA MAGIC) on the 14th July 2025, at this stage, and due to the size of the proposed development a further Local Environmental Records Centre (LERC) search was not deemed necessary.

A site survey was carried out by Max Shaw on the 14th July 2025 under the guidance provided within Bat Conservation Trust's 'Bat Surveys for Professional Ecologists: Best Practice Guidelines' (Collins, 2023). Max Shaw has continuous experience carrying out preliminary roost assessments and nocturnal bat activity surveys under supervision from a licensed ecologist.

The application site is located at L'Ortolan, Church Lane, Shinfield, and comprises a mixed-use plot containing built form, hardstanding, and established vegetated gardens. The principal structure on site, Building B1, is a Grade II listed building constructed from red brick and mortar, featuring a flat roof with single-storey flat-roofed extensions and an orangery extending from the southern, eastern, and northern elevations. To the east of B1 lies Building B2, which consists of two adjoined pitched-roof buildings of similar red brick construction with slate ridge and roof tiles. The built structures are surrounded by areas of developed land including sealed surfaces, gravel walkways, a pebble-surfaced car park, and formal landscaping.

The remaining site is characterised by a well-established vegetated garden, comprising modified grassland, a mix of ornamental and non-native hedgerows, decorative borders, and scattered urban trees. Notably, several individual trees exhibit features consistent with maturity or early veteran status, including a coast redwood (T1), weeping willow (T2), and a notably large Cyprus cedar (T3). Several trees support potential roosting features (PRFs), including peeling bark, pruning wounds, and trunk cavities. A small ornamental pond is located to the south of B1, although it is heavily vegetated, with limited open water and steep sides, reducing its suitability for amphibians. The site supports moderate potential for foraging and commuting bats due to the presence of linear features, mature trees, and the connective value of adjacent residential gardens and hedgerows.

An internal and external examination discovered no potential roosting features in B2. No known evidence of bats was seen within the void space. An external examination of B2 found several PRFs including slipped and lifted tiles, missing cladding around the eaves and possible gaps at the ridge line. Five trees (T1-t5) were identified as having PRF Type I. Building B2 was assessed as being moderate for roosting bats.

There have been 16 EPSM licences granted within 2km of the site for common pipistrelle (*Pipistrellus pipistrellus*), soprano pipistrelle (*Pipistrellus pygmaeus*) and brown long-eared (*Plecotus auritus*) bats.

Two nocturnal emergence surveys are recommended as per the guidance located within Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th Edition) Collins, J. (Ed.) 2023.

The building has been assessed as having moderate potential for bat roosts, with only limited features of note, such as small gaps in soffits and fascia boards that could offer occasional opportunities for roosting. To uphold the site's ecological value and ensure compliance with relevant planning policy, including NPPF paragraph 180 (d), which requires developments to minimise impacts on and provide net gains for biodiversity, it is recommended that two bat boxes are installed on suitable retained trees or built structures. This measure will provide compensatory roosting opportunities, thereby maintaining the site's overall bat roost potential without the need for further survey work. As no roof works are proposed and all soffit and fascia removal will be undertaken under the supervision of a licensed ecologist holding a valid Natural England EPS licence, the risk of disturbance is minimised. On this basis, the installation of bat boxes constitutes a proportionate and effective mitigation strategy, and further emergence surveys are not considered necessary.

With the assumption that the existing conditions on-site remain unchanged.
The results of this report are likely to remain valid for 12-months in line with the guidance published by CIEEM and the Bat Conservation Trust.

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Acknowledgements:

Data referred to within this report has been sourced from Natural England Department for Environment, Food and Rural Affairs Multi-Agency Geographic Information for the Countryside (DEFRA MAGIC) database and NBN Atlas.

1 Introduction

1.1 ROAVR Group were commissioned to undertake a Preliminary Bat Roost and daytime bat walkover survey at L'ortolan, Church Lane, Shinfield, Reading, RG2 9BY.

1.2 The survey was comprised of a desktop study, which was undertaken before the site visit and a site survey, which was carried out by Max Shaw on 14/07/25.

1.3 The methodology and results are outlined within the report. Where applicable, recommendations for suitable mitigation and ecological enhancements are provided.

1.4 The report is to be submitted to support a planning application to renovate the site. Full details of the proposed development are available in the planning portal.

1.5 The information and recommendations within this report have been prepared and provided in accordance with CIEEM's Code of Professional Conduct.

SITE DESCRIPTION

1.6 The survey site covers an area of approximately 3,813.3 sqm and is centred on grid reference SU 7284 6829.

1.7 The application site is located at L'Ortolan, Church Lane, Shinfield, and comprises a mixed-use plot containing built form, hardstanding, and established vegetated gardens. The principal structure on site, Building B1, is a Grade II listed building constructed from red brick and mortar, featuring a flat roof with single-storey flat-roofed extensions and an orangery extending from the southern, eastern, and northern elevations. To the east of B1 lies Building B2, which consists of two adjoined pitched-roof buildings of similar red brick construction with slate ridge and roof tiles. The built structures are surrounded by areas of developed land including sealed surfaces, gravel walkways, a pebble-surfaced car park, and formal landscaping.

The remaining site is characterised by a well-established vegetated garden , comprising modified grassland, a mix of ornamental and non-native hedgerows, decorative borders, and scattered urban trees. Notably, several individual trees exhibit features consistent with maturity or early veteran status, including a coast redwood (T1), weeping willow (T2), and a notably large Cyprus cedar (T3). Several trees support potential roosting features (PRFs), including peeling bark, pruning wounds, and trunk cavities. A small ornamental pond is located to the south of B1, although it is heavily vegetated, with limited open water and steep sides, reducing its suitability for amphibians. The site supports moderate potential for foraging and commuting bats due to the presence of linear features, mature trees, and

the connective value of adjacent residential gardens and hedgerows.

DEVELOPMENT PROPOSALS

1.9 The proposed development comprises the construction of a third-storey pitched roof extension to Building B1, along with the architectural integration of the existing pitched roof structures of Building B2. Additionally, plans include the erection of a detached auxiliary garage within the existing hardstanding car parking area to the east of B2.

POLICY AND LEGISLATION

1.10 All UK bat species and their roosts are strictly protected under European and UK legislation (Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 (CHSR), and the Wildlife and Countryside Act, (1981) (WCA). Furthermore, Annexe II of the Habitats Directive lists four UK bat species, providing them further protection. Under the National Planning Framework, bats and their roosts must be considered during development.

1.11 Non-licensed bat workers are permitted to carry out preliminary roost assessments providing that they do not enter a known roost site or use invasive survey techniques such as endoscopes or artificial light. Survey constraints are discussed later in this report.

SCOPE OF WORKS

1.12 The aims of this assessment were to:

- Assess the presence/potential for roosting bats within the existing building;
- Identify potential access/egress points for bat species;
- Assess potential habitat usage for foraging/commuting bats on-site;
- Determine whether further Bat Surveys may be necessary;
- Provide recommendations for suitable mitigation and ecological enhancement (if required).

Taken from Google Maps (2025)

Taken from DEFRA MAGIC (2025)

Figure 1 - Site Location Plan and Assessment Boundary.

2 Methodology

DESKTOP STUDY

2.1 Site-specific information in relation to land designations, bat species and protected habitats within a 2km zone of influence (ZoI) was sourced from DEFRA MAGIC.

2.2 In order to ensure that ecological data searches were up to date, species data was screened and all data records pre-2012 were omitted from the results.

2.3 Results of the desktop study should be considered to be indicative only.

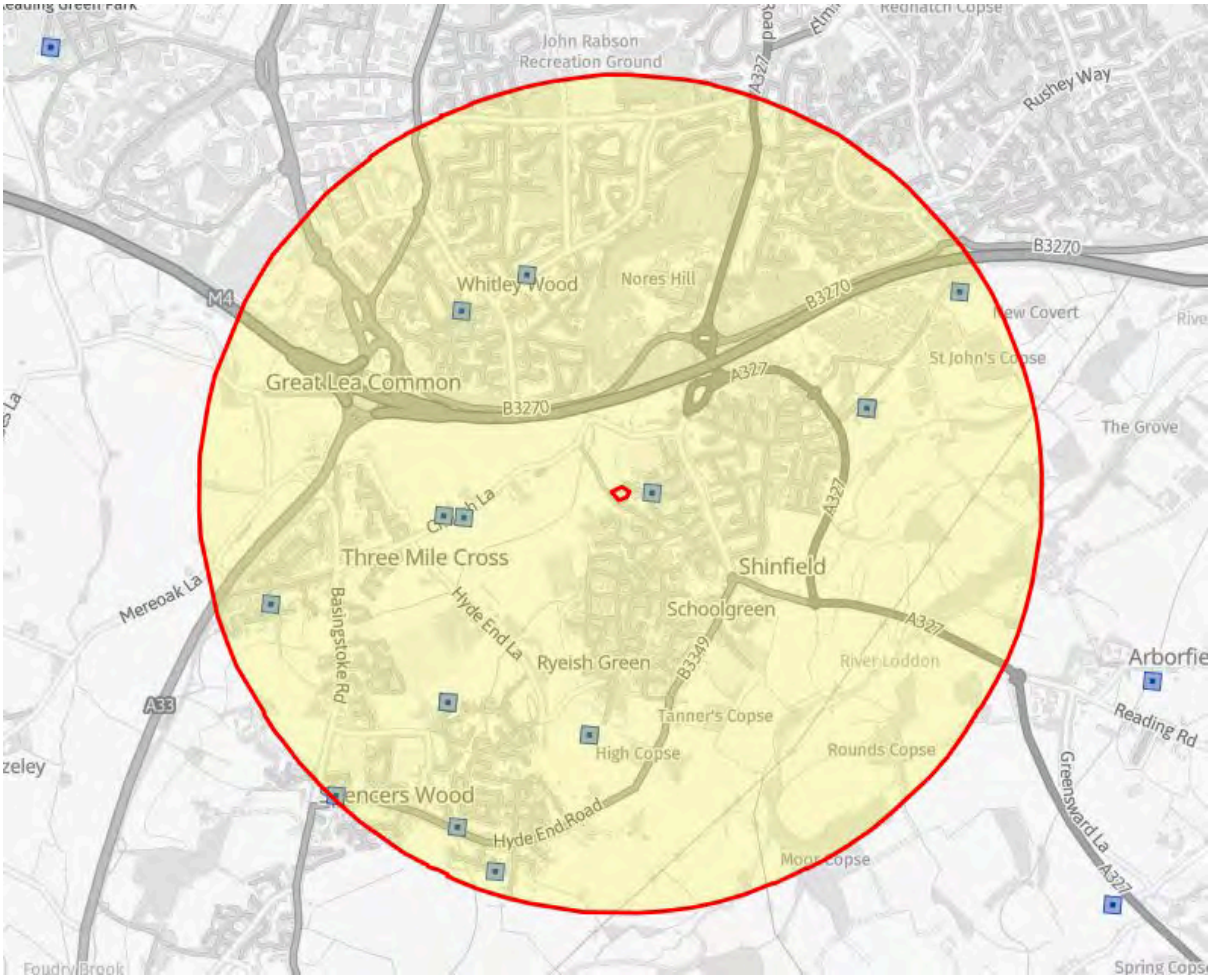

Figure 2 - EPSL licences granted within 2km ZOI.

Licence number	Date of Issue	Species listed on licence
2016-20322-EPS-MIT	24th February 2016 - 0.1km E of the site.	Common pipistrelle (Pipistrellus pipistrellus); Soprano pipistrelle (Pipistrellus pygmaeus)
EPSM2013-6069	14th August 2013 - 1.2km NE of the site.	Common pipistrelle (Pipistrellus pipistrellus); Soprano pipistrelle (Pipistrellus pygmaeus); Brown long-eared bat (Plecotus auritus)
2014-535-EPS-MIT	23rd April 2014 - 1.2km NE of the site.	Common pipistrelle (Pipistrellus pipistrellus); Soprano pipistrelle (Pipistrellus pygmaeus); Brown long-eared bat (Plecotus auritus)
2014-535-EPS-MIT-1	27th January 2015 - 1.2km NE of the site.	Common pipistrelle (Pipistrellus pipistrellus); Soprano pipistrelle (Pipistrellus pygmaeus); Brown long-eared bat (Plecotus auritus)
2014-535-EPS-MIT-2	28th January 2015 - 1.2km NE of the site.	Common pipistrelle (Pipistrellus pipistrellus); Soprano pipistrelle (Pipistrellus pygmaeus); Brown long-eared bat (Plecotus auritus)
2014-535-EPS-MIT-3	6th November 2015 - 1.2km NE of the site.	Common pipistrelle (Pipistrellus pipistrellus); Soprano pipistrelle (Pipistrellus pygmaeus); Brown long-eared bat (Plecotus auritus)
2018-36705-EPS-MIT	5th October 2018 - 1.1km S of the site.	Common pipistrelle (Pipistrellus pipistrellus); Brown long-eared bat (Plecotus auritus)
2018-36705-EPS-MIT-1	23rd July 2019 - 1.1km S of the site.	Common pipistrelle (Pipistrellus pipistrellus); Brown long-eared bat (Plecotus auritus)
2015-15306-EPS-MIT	7th October 2015 - 1.7km SW of the site.	Brown long-eared bat (Plecotus auritus)
2017-31574-EPS-MIT	4th October 2017 - 1.3km SW of the site.	Brown long-eared bat (Plecotus auritus)
2017-32777-EPS-MIT	21st December 2017 - 1.3km SW of the site.	Brown long-eared bat (Plecotus auritus)
2017-32777-EPS-MIT-1	11th May 2018 - 1.3km SW of	Brown long-eared bat

	the site.	*(Plecotus auritus)*
2015-15972-EPS-MIT	*4th November 2015 - 0.7km W of the site.*	*Common pipistrelle (Pipistrellus pipistrellus); Brown long-eared bat (Plecotus auritus)*
EPSM2012-5103	*10th December 2012 - 1.7km SW of the site.*	*Soprano pipistrelle (Pipistrellus pygmaeus); Brown long-eared bat (Plecotus auritus)*
2015-15933-EPS-BDX	*28th September 2015 - 1.1km NW of the site.*	*Common pipistrelle (Pipistrellus pipistrellus)*
EPSM2013-6319	*4th October 2013 - 2.0km SW of the site.*	*Common pipistrelle (Pipistrellus pipistrellus)*

Table 2.3.1 - Details of granted EPSM licences (DEFRA MAGIC, 2023).

PRELIMINARY BAT ROOST ASSESSMENT (PRA)

2.4 A Preliminary Roost (PRA) assessment was undertaken by Max Shaw on the 14th July 2025. The PRA was undertaken in line with the Bat Conservation Trust's Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th Edition) Collins, J. (Ed.) 2023.

2.5 The survey included an active search for evidence of roosting bats such as droppings, feeding remains, oil staining, bat fur and/or scratch marks. The survey also assessed the building for suitable Potential Roosting Features (PRF).

2.6 The survey was conducted from the ground.

SPECIES POTENTIAL

2.7 The potential for roosting bats within building B1 and B2, and foraging/commuting bats within the existing habitats was assigned a rank as per Table 2.7.1. An assessment was carried out using data collected during both the desktop study and site survey.

Table 2.7.1: Criteria used to assess the likelihood of occurrence (site's suitability) for bats, from Bat Conservation Trust's 'Bat Surveys for Professional Ecologists: Best Practice Guidelines' (Collins, 2023) (Table 4.1.)

Potential suitability	Description	
	Roosting bats	Potential flight-paths and foraging habitats
None	No habitat features on site likely to be used by any roosting bats at any time of the year (i.e a complete absence of crevices / suitable shelter at all ground/underground levels).	No habitat features on site likely to be used by any commuting or foraging bats at any time of the year (i.e. no habitats that provide continuous lines of shade/protection for flight-lines, or generate/shelter insect populations available for foraging bats).
Negligible	No obvious habitat features on site likely to be used by roosting bats; however, a small element of uncertainty remains as bats can use small and apparently unsuitable features on occasion.	No obvious habitat features on site likely to be used as flight-paths or by foraging bats; however a small element of uncertainty remains in order to account for non-standard bat behaviour.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation). A tree of sufficient size and age to contain PRFs but with none seen from the ground or features seen with only very limited roosting potential.	Habitat that could be used by small numbers of commuting bats but isolated (i.e. not very well connected to the surrounding landscape by other habitat). Suitable, but isolated habitat that could be used by small numbers of bats for foraging such as a lone tree (not in a parkland situation) or a patch of scrub.
Moderate	A structure with one or more potential roost sites that could be used by bats due to their size, shelter, protection, appropriate conditions and/or suitable surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only - with respect to roost type only).	Continuous habitat connected to the wider landscape that could be used by bats for flight-paths such as lines of trees or linked back gardens. Habitat that is connected to the wider landscape that could be used for bats for foraging such as trees, scrub, grassland or water.
High	A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitats. These structures have the potential to support high conservation status roosts, e.g. maternity or classic cool/stable hibernation sites.	Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats. High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats. Site is close to and connected to known roosts.

Table 2.7.2: Potential roosting features (PRFs) in trees listed in Bat Conservation Trust's 'Bat Surveys for Professional Ecologists: Best Practice Guidelines' (Collins, 2023) Table 6.6.

Table 2.7.2. PRF types that can be exploited by bats and how they form (adapted from Bat Roosts in Trees, BTHK, 2018) reproduced from Table 6.6. (Collins, 2023.)		
PRFs formed by disease and decay	*PRFs formed by damage*	*PRFs formed by association*
• *Woodpecker holes* • *Squirrel holes* • *Knot holes* • *Pruning cuts* • *Tear outs* • *Wounds* • *Cankers* • *Compression forks* • *Butt rots*	• *Lighting strikes* • *Hazard beams* • *Subsidence* • *Cracks* • *Shearing cracks* • *Transverse snaps* • *Welds* • *Lifting bark* • *Desiccation* • *Fissures* • *Frost cracks*	• *Fluting* • *Ivy*

Table 2.7.3. Guidelines for assessing the suitability of trees on proposed development sites for bats, to be applied using professional judgement.reproduced from Table 6.6. (Collins, 2023.)	
Suitability	*Description*
NONE	*Either no PRFs in the tree or highly unlikely to be any*
FAR	*Further assessment required to establish if PRFs are present in the tree*
PRF	*A tree with at least one PRF present*

ECOLOGICAL CONSTRAINTS AND MITIGATION

2.8 An evaluation of the potential impacts to roosting and foraging/commuting bats caused by the proposed development was made with reference to the the 'Bat Mitigation Guidelines' (Mitchell-Jones, 2004) and CIEEM's 'Guidelines for Ecological Impact Assessment in the UK and Ireland (CIEEM, 2018).

LIMITATIONS

2.9 The site surveyor does not currently hold a bat licence. However, this is not seen as a major limitation as no licensable activities were thought to be needed to fully evaluate the building.

2.10 With the assumption that the existing conditions on-site remain unchanged. The results of this report are likely to remain valid for 12-months in line with the guidance published by CIEEM and the Bat Conservation Trust.

3 Desktop Study

BAT ECOLOGY AND LEGISLATION

3.1 Several bat species have been recorded within 2km of the site including common pipistrelle (*Pipistrellus pipistrellus*); Leisler's bat (Nyctalus leisleri); soprano pipistrelle (*Pipistrellus pygmaeus*) and brown long-eared bat (*Plecotus auritus*). In order to obtain this information, a record search was undertaken prior to the site visit.

3.2 All species of bats in the UK are protected under the Wildlife and Countryside Act of 1981, which prohibits the intentional or reckless disturbance, harm, or destruction of bats and their habitats. The Conservation of Habitats and Species Regulations 2017 implements the EU Habitats Directive in the UK, providing even more stringent protections. This means it is an offence to deliberately capture, kill, or disturb bats, or to damage, destroy, or obstruct access to their roosts.

3.3 Specific licences may be granted for certain activities that might otherwise be considered offences under these regulations, such as building developments or research projects, but these are typically accompanied by requirements for mitigation and compensation measures to protect the bat populations. It is essential to maintain compliance with these legislations to conserve the bat populations.

3.4 All bat species are also a Local Biodiversity Action Plan priority species. The Wokingham Borough Local Development Framework provides advice on the design of development proposals and reference should be made to the policy CP7 'Biodiversity'.

https://www.wokingham.gov.uk/planning-policy/adopted-development-plan/local-plans

SITE DESIGNATIONS

3.5 There is one designated site within the 2km of the proposed development (Table 3.5.1).

Table 3.5.1: Statutory and non-statutory designated sites recorded within a 2km radius of the survey site.

Site Name	Grid Reference	Area (ha)	Approx. Closest Distance from Site (km)	Notes.
Pearman's Copse LNR	SU 735 693	6.89	1.0km	Pearmans Copse is a small area of ancient woodland, in Lower Earley. It contains ash, hazel, and oak trees. It contains many classic archaeological features, such as boundary banks and ditches. It is surrounded by community woodland within and it links with Dinton Pastures Country Park.
SSSI Impact Risk Zones	N/A	N/A	0km	This site is situated within an SSSI Impact Risk Zone.

*Data from DEFRA MAGIC.

LOCAL HABITAT

3.6 The site supports a mosaic of habitats that offer moderate to high-quality foraging opportunities for bats, particularly in the vegetated garden areas surrounding the buildings. Hedgerows and lines of ornamental and native shrubs form important linear features across the site, providing navigational aids and connective corridors between potential roosting sites and wider foraging grounds. Species such as cherry laurel (*Prunus laurocerasus*), privet (*Ligustrum ovalifolium*), and box (*Buxus sempervirens*) are dominant in the ornamental hedgerows, offering seasonal nectar sources and shelter for nocturnal invertebrates.

Scattered urban trees enhance the site's structural diversity, creating vertical foraging niches attractive to a range of bat species. Trees present include coast redwood (*Sequoia sempervirens*), black locust (*Robinia pseudoacacia*), weeping willow (*Salix babylonica*), and Cyprus cedar (*Cedrus libani*), all of which support varied bark textures, deadwood, and microhabitats suited to insects that form part of the diet for many bat species.

Modified grassland interspersed throughout the garden provides additional foraging value, particularly where allowed to grow long and unmanaged along the site perimeter, supporting a diversity of moths, beetles, and other invertebrates. The presence of a small ornamental pond to the south of

Building B1 further contributes to habitat diversity, attracting aquatic insect fauna such as midges and mosquitoes that are favoured by species like the common pipistrelle (*Pipistrellus pipistrellus*).

Neighbouring residential gardens, boundary tree lines, and hedgerows function as ecologically significant linear features that extend habitat connectivity into the wider landscape. These features increase the overall foraging potential of the site by linking on-site resources with larger green corridors, which are likely to be used by bats for both commuting and feeding activity.

HISTORICAL SPECIES RECORDS

3.7 Records for bats are present within 2km of the site, including records for common pipistrelle (*Pipistrellus pipistrellus*); Daubenton's bat (*Myotis daubentonii*); Leisler's bat (Nyctalus leisleri); soprano pipistrelle (*Pipistrellus pygmaeus*) and brown long-eared bat (*Plecotus auritus*). These records were obtained through a search of NBN Atlas prior to the site visit.

4 Site Survey

4.1 The site survey was undertaken by Max Shaw on the 14th July 2025. Weather conditions during the survey were recorded as 22°C, overcast, with a moderate breeze.

ON-SITE ROOSTING POTENTIAL

All methodology follows the current guidance from the Bat Conservation Trust (Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th Edition) Collins, J. (Ed.) 2023) unless otherwise specified.

The survey was undertaken via a ground-based daytime inspection with the assistance of close focus binoculars. The surrounding habitats were assessed in relation to their connectivity and foraging resource value.

The survey focused on identifying a range of characteristic signs which can indicate current/recent use of a potential roost site by bats in addition to a detailed focus on potential features which could be utilised by bats as survey effort should not focus on field signs alone.

An internal inspection of the roof void limited to only safely accessible areas was conducted to identify any field signs of bats including: droppings, grease marks, urine stains and feeding remains.

Building B1:

The northern elevation of Building B1 comprises a red brick façade with a flat roof extension at ground level, consistent in architectural style with the rest of the property. The masonry is intact and well-maintained with no visible gaps, crevices, or lifted features that could provide access for roosting bats. Rainwater goods and soffits appeared in good condition, and no signs of staining, droppings or feeding remains indicative of bat activity were observed during the inspection. Ecologically, this elevation presents negligible potential for bat roosting but may still form part of a commuting corridor, particularly where it interfaces with vegetated areas.

The eastern elevation features a continuation of the flat-roofed extension and an attached orangery structure. Brickwork remains tight and unperforated with no visible potential roosting features (PRFs). Fenestration is modern, with no wooden elements, and the joinery is flush-fitting and well sealed. The orangery roof is largely glazed and offers no access points for bats. Ecological value on this elevation is limited; however, the mature trees and garden habitat nearby may support foraging activity. No evidence of bat use was identified.

The southern elevation faces onto the vegetated garden and includes additional single-storey flat-roofed extensions. External walls and flashing remain in good condition with no PRFs observed. While this elevation is closest to the site's small ornamental pond and garden trees, the structure itself is unlikely to support roosting bats due to a lack of entry points or thermal stability typically associated with roosts. Nevertheless, it may contribute to the overall foraging appeal of the wider site, especially at edge habitat interfaces.

The western elevation of B1 forms part of the original red brick building and lacks modern extensions. The elevation is flat-roofed, and inspection revealed no visible crevices, lifted tiles, or evidence of architectural deterioration suitable for bat access. Access to the roof structure is restricted due to its construction type and condition. Overall, this elevation provides negligible bat roosting potential, with limited contribution to ecological connectivity across the site.

The interior of Building B1 comprises a series of well-maintained, domestic rooms with finished ceilings and walls, including plasterboard, painted surfaces, and recessed lighting. No exposed roof voids or open rafters are present, and all junctions between ceilings and walls appear tightly sealed, limiting opportunities for bats to access internal structural features. The majority of rooms are in active daily use, with high levels of disturbance, consistent human presence, and artificial lighting, further reducing the suitability of these spaces for roosting bats.

No evidence of bats was identified during the internal inspection. Specifically, no bat droppings, urine staining, feeding remains, or characteristic odours associated with roosting colonies were observed on floors, sills, or beneath potential entry points such as loft hatches, window frames, or rafters. Finishes and furnishings across the interiors do not suggest any history of bat occupation. Given the lack of

loft spaces, voids, or less frequently accessed areas within B1, the interior presents negligible potential for use by bats and does not provide features commonly associated with roosting behaviour of crevice or void-dwelling species.

Building B2:

The northern elevation of Building B2 is constructed from red brick and contains traditional slate roof tiles forming part of a pitched roof design. The ridge line and roof covering showed signs of weathering, and there are sections where slates appear lifted or slipped, particularly near the eaves, creating small voids that may offer potential access points for roosting bats. Missing cladding beneath the eaves was also noted, further enhancing the suitability of this elevation for crevice-dwelling bat species. Given the proximity of surrounding vegetated gardens and mature trees, this elevation presents moderate bat roost potential with a viable ecological pathway for commuting and foraging bats.

The eastern elevation forms the gable end of both adjoined pitched-roof structures and is similarly brick-built with a continuation of the slate roofing material. Although less structurally complex, small gaps in the verge and under roof tiles were visible, offering suitable PRFs. The elevation receives minimal artificial light and is adjacent to the car park and vegetated boundaries, further increasing its value as a potential edge habitat. Considered in context, this elevation holds moderate roosting suitability and contributes to habitat connectivity at the site level.

The southern elevation presents as a continuation of the main brick structure with fewer observable PRFs. Roofing tiles appeared largely undisturbed, and although slightly weathered, ridge and eaves details were flush and tightly sealed in most areas. No active signs of bat use were documented, and there was limited evidence of decay or access voids. This elevation offers low roosting potential but remains part of the overall structural footprint with ambient foraging suitability due to adjacent open space and vegetation.

The western elevation adjoins B1, creating a semi-sheltered interface between structures. While brickwork is uniform, there are observable gaps at junctions between buildings and under roof tiling. These interfaces can act as thermal refuges and potential entry routes for bats, particularly if internal roof voids are present and undisturbed. Given the structural links with B1, ecological risk associated with this elevation remains moderate, warranting further investigative assessment where development may directly impact roof connectivity or wall interfaces.

The roof of B2 consists of two traditional pitched roofs clad in slate tiles with a central ridge. The surface shows typical ageing, with slipped and lifted tiles observed, creating several areas with potential for crevice-roosting bats. The presence of missing cladding around the eaves and possible gaps at the ridge line further increases the likelihood of bat access. In combination with its proximity to mature trees, linear vegetative features, and limited disturbance levels, the roof of B2 has moderate suitability for roosting bats.

Trees:

The site supports a number of mature and early veteran trees that hold potential roosting features (PRFs) suitable for bats. Five trees within or adjacent to the vegetated garden area were subject to closer assessment due to their structure, age, or visible features consistent with bat use.

T1, a very large coast redwood (*Sequoia sempervirens*), is in good condition and supports PRF type I in the form of peeling bark, providing small sheltered crevices which could be used by crevice-dwelling bats. T2, a large weeping willow (*Salix babylonica*), also in good health, has a prominent pruning wound identified as PRF type I. This wound may extend into the sapwood, offering a stable and sheltered opportunity for bats to roost. T3, a very large Cyprus cedar (*Cedrus libani*), was recorded to be in good overall condition. Although no visible PRFs were noted from the ground, the size, age, and growth form of the tree indicate a high likelihood of concealed roosting features such as deadwood cavities or natural splits within the main trunk or limbs.

T4, a large black locust (*Robinia pseudoacacia*), is in moderate condition and contains a small hole on the underside of an easterly facing lateral branch, recorded as PRF type I. This could support access to a narrow roosting location for solitary bats or small groups. T5, also a black locust (*Robinia pseudoacacia*), is in poor condition with visible trunk decay and several fissures and holes identified as PRFs. The degraded condition of this tree suggests that internal cavities or moisture-retaining voids may be present, which can support a diversity of bat species.

Overall, these trees contribute to the ecological function of the site by offering natural roosting sites that complement the wider network of foraging and commuting habitat. They warrant further assessment prior to any works that may lead to disturbance.

FORAGING & CONNECTIVITY

The site supports a mosaic of habitats that offer moderate to high-quality foraging opportunities for bats, particularly in the vegetated garden areas surrounding the buildings. Hedgerows and lines of ornamental and native shrubs form important linear features across the site, providing navigational aids and connective corridors between potential roosting sites and wider foraging grounds. Species such as cherry laurel (*Prunus laurocerasus*), privet (*Ligustrum ovalifolium*), and box (*Buxus sempervirens*) are dominant in the ornamental hedgerows, offering seasonal nectar sources and shelter for nocturnal invertebrates.

Scattered urban trees enhance the site's structural diversity, creating vertical foraging niches attractive to a range of bat species. Trees present include coast redwood (*Sequoia sempervirens*), black locust (*Robinia pseudoacacia*), weeping willow (*Salix babylonica*), and Cyprus cedar (*Cedrus libani*), all of which support varied bark textures, deadwood, and microhabitats suited to insects that form part of the diet for many bat species.

Modified grassland interspersed throughout the garden provides additional foraging value, particularly where allowed to grow long and unmanaged along the site perimeter, supporting a diversity of moths, beetles, and other invertebrates. The presence of a small ornamental pond to the south of Building B1 further contributes to habitat diversity, attracting aquatic insect fauna such as midges and mosquitoes that are favoured by species like the common pipistrelle (*Pipistrellus pipistrellus*).

Neighbouring residential gardens, boundary tree lines, and hedgerows function as ecologically significant linear features that extend habitat connectivity into the wider landscape. These features increase the overall foraging potential of the site by linking on-site resources with larger green corridors, which are likely to be used by bats for both commuting and feeding activity.

5 Evaluation and Assessment

5.1 Results from the desktop study and site survey were evaluated to assess bat species potential (as per Table 2.7.1). An evaluation of potential ecological constraints (in relation to bats) to the proposed development and recommendations for appropriate mitigation strategies are provided in Table 5.1.1

5.2 No known evidence of bats was observed during the internal inspection ofL'ortolan, Church Lane, Shinfield, Reading, RG2 9BY. The external inspection of B2 noted several potential roosting features including several slipped and lifted tiles, missing cladding around the eaves and possible gaps at the ridge line. The site has good connectivity to good foraging habitat and has a mature garden with several large trees, which also have PRFs.

5.3 The lifted tiles, missing cladding around the eaves and possible gaps at the ridge line provide roosting potential for crevice dwelling bats species such as common pipistrelle which are known to be present in the local area. Therefore, based on this information and the guidance outlined by the Bat Conservation Trust, building B2 has been assessed as having moderate suitability for roosting bats.

5.4 To determine whether roosting bats are using the building, further bat emergence/re-entry surveys should be carried out. This would require 2 separate survey visits by 2 surveyors at dusk supported by night vision aids and thermal cameras. The visit should be carried out between May and August inclusive as the optimal period. September is considered sub-optimal (See paragraph 5.7 for alternative mitigation measures that the client would like to pursue).

5.5 Survey visits can only be carried out when temperature at sunset is 10 C or more and there are no strong winds or heavy rain. Should bats be found to be roosting in the buildings two further survey visits will be required and then a licence applied from Natural England to allow the proposed works of the building to be carried out.

5.6 Construction works should be limited to daylight hours (excl. dawn and dusk) in order to prevent disturbance to nighttime foraging activity. Post-construction, the use of artificial lighting should be limited where possible. Motion sensors on outside lighting will prevent prolonged disturbance. It is recommended that outside lighting be set on short-timers (1 minute) and that the sensitivity is set to large moving objects only.

5.7 The building has been assessed as having moderate potential for bat roosts, with only limited features of note, such as small gaps in soffits and fascia boards that could offer occasional opportunities for roosting. To uphold the site's ecological value and ensure compliance with relevant planning policy, including NPPF paragraph 180 (d), which requires developments to minimise impacts on and provide net gains for biodiversity, it is recommended that

two bat boxes are installed on suitable retained trees or built structures. This measure will provide compensatory roosting opportunities, thereby maintaining the site's overall bat roost potential without the need for further survey work. As no roof works are proposed and all soffit and fascia removal will be undertaken under the supervision of a licensed ecologist holding a valid Natural England EPS licence, the risk of disturbance is minimised. On this basis, the installation of bat boxes constitutes a proportionate and effective mitigation strategy, and further emergence surveys are not considered necessary.

Table 5.1.1: Potential ecological constraints (in relation to bats) to the proposed development and appropriate mitigation strategies.

Bats (Chiroptera)	Presence/Potential	Further Comments	Potential Impacts	Recommendations for Mitigation
Roosting Bats	B1 - Negligible B2 - Moderate T1-T5 - PRF-Is	B1 - Building B1 is a Grade II listed structure comprised of red brick with flat-roofed extensions and an orangery. Internally, no loft voids or exposed roosting features were present. External elevations are well-sealed and maintained with no evidence of access points or potential roosting features (PRFs). Survey photos confirm an absence of bat droppings, staining, or feeding remains. Occupancy and lighting levels further reduce suitability. B2 - Several PRFs were located on B2, including slipped and lifted tiles, missing cladding around the eaves and possible gaps at the ridge line. In combination with its proximity to mature trees, linear vegetative features, and limited disturbance levels, the roof of B2 has moderate suitability for roosting bats.	The proposed development may result in both short-term and long-term disturbance to roosting bats (if present) if appropriate mitigation strategies are not put in place. Tree removal or structural disturbance to PRF-bearing trees may displace or disturb roosting bats.	Two bat presence/absence surveys (NBW) are to be carried out on B2. The surveys should be carried out between May and September (with September considered to be sub-optimal), a minimum of three weeks apart should further surveys be required. Climbing inspections or aerial assessments on the five identified trees are recommended prior to any arboricultural works. If bat evidence is found, a European Protected Species Mitigation (EPSM) licence may be required. No works must proceed until further surveys have been carried out and appropriate mitigation strategies have been identified.

		T1-T5 - Several trees across the site, including coast redwood, weeping willow, and black locust, contain PRFs such as peeling bark, pruning wounds, and cavities. These features, along with mature age and structural complexity, provide potential for crevice and cavity-dwelling bat species.		
Bats (Chiroptera)	Presence/Potential	Further Comments	Potential Impacts	Recommendations for Mitigation
Foraging/Commuting Bats	Moderate/High	The site contains a good range of bat foraging resources including mature trees, managed hedgerows, modified grassland, and a small pond. Adjacent residential gardens and linear features enhance connectivity to the wider landscape. These features are suitable for insect-rich environments that support a variety of bat species, including common pipistrelle (*Pipistrellus pipistrellus*).	The proposed development may result in the loss of suitable foraging/commuting habitats if suitable mitigation strategies are not put in place.	Care must be taken to ensure that flight paths are not obstructed. Construction works should be limited to daylight hours in order to prevent disturbance to nighttime foraging activity. The use of artificial lighting should be limited where possible. Motion sensors on outside lighting will prevent prolonged disturbance. It is recommended that outside lighting be set on short-timers (1 minute) and that the sensitivity is set to large moving objects only.

All activity surveys should be carried out inline with the guidance outlined by the Bat Conservation Trust in Chapter 7 of Collins, J. (ed.) (2023). Bat Surveys for Professional Ecologists: Good Practice Guidelines. (4th Edition) The Bat Conservation Trust, London

7 Conclusions

7.1 The property at L'ortolan, Church Lane, Shinfield, Reading, RG2 9BY is to be redeveloped with the construction of a third-storey pitched roof extension to Building B1, along with the architectural integration of the existing pitched roof structures of Building B2. Additionally, plans include the erection of a detached auxiliary garage within the existing hardstanding car parking area to the east of B2. These alterations will require works to the roof of the buildings and possible disturbance / destruction of PRFs.

7.2 A local record search using NBN Atlas and DEFRA Magic prior to the site visit highlighted that a number of bat species are present within the local landscape.

7.3 The features present at the property are suitable for crevice dwelling bats species which are present in the local area. These features amount to several PRFs including slipped and lifted tiles, missing cladding around the eaves and possible gaps at the ridge line of the property and as such the property has been classified as having moderate suitability for bats.

7.4 It is recommended that two presence/absence surveys be carried out on B2. The surveys should be carried out between May and September (with September considered to be sub-optimal). However, **please refer to paragraph 7.6 for the clients preferred course of mitigation.**

7.5 Should bats be found to be roosting in the building one further survey visits will be required to obtain sufficient information to classify the roost type and then a licence applied from Natural England to allow the proposed works of the building to be carried out.

7.6 Alternatively, due to the fact the building has been assessed as having moderate potential for bat roosts, with only limited features of note, such as small gaps in soffits and fascia boards that could offer occasional opportunities for roosting. To uphold the site's ecological value and ensure compliance with relevant planning policy, including NPPF paragraph 180 (d), which requires developments to minimise impacts on and provide net gains for biodiversity, it is recommended that two bat boxes are installed on suitable retained trees or built structures. This measure will provide compensatory roosting opportunities, thereby maintaining the site's overall bat roost potential without the need for further survey work. As no roof works are proposed and all soffit and fascia removal will be undertaken under the supervision of a licensed ecologist holding a valid Natural England EPS licence, the risk of disturbance is minimised. On this basis, the installation of bat boxes constitutes a proportionate and effective mitigation strategy, and further emergence surveys are not considered necessary.

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9 Report Limitations

9.1 ROAVR Group has prepared this Report for the sole use of the above named Client/Agent in accordance with our terms of business, under which our services were performed. No other warranty, expressed or implied, is made as to the professional advice included in this Report or any other services provided by us.

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Should you require any further information, please do not hesitate to contact us at any time.

Gwennan Butler
Ecologist

Gwennan Butler

ROAVR GROUP

Prepared by: Gwennan Butler BSc MSc
Checked by: Antony Aslam MSci QCIEEM
Surveyor: Max Shaw

Appendix 1: Site Location and Assessment Boundary

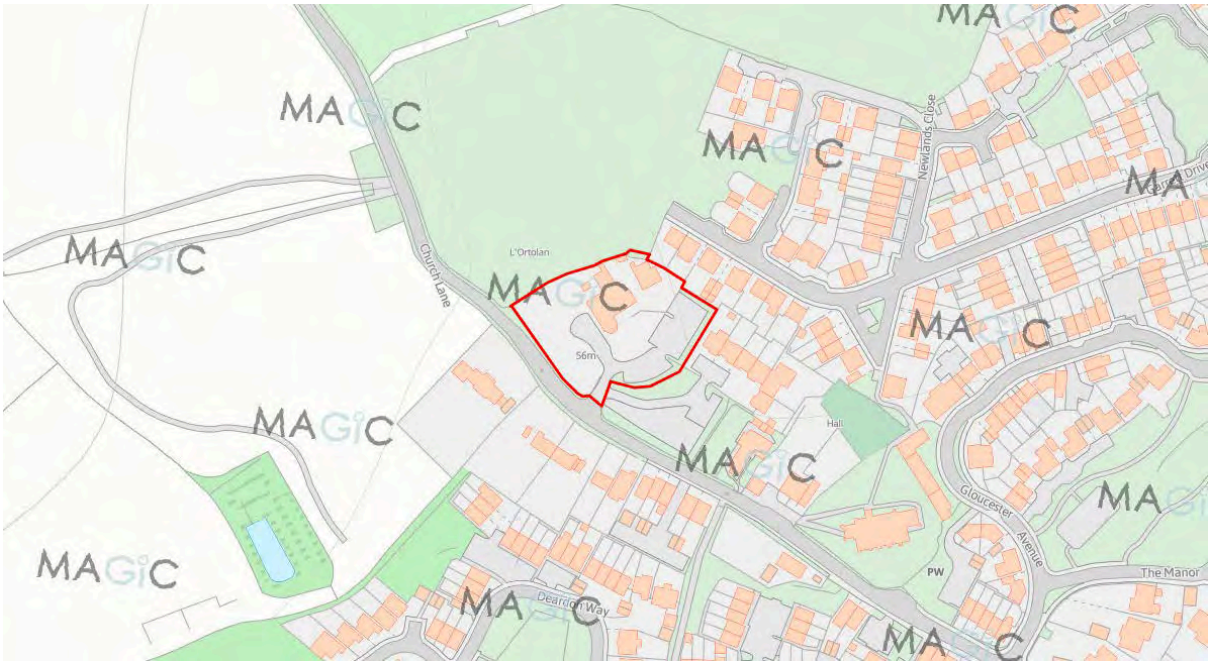


Figure A1.1: An extract from DEFRA showing the site location.

Appendix 2: Additional Site Photographic Plates & Target Notes

Detail	*Photograph*
Plate 1 - Front elevation of B1.	
Plate 2 - Rear elevation of B1.	
Plate 3 - Entrance onto flat roof of B1.	

Plate 4 - View from B1 roof showing front garden and small oriental pond (TN1).	
Plate 5 - Building B2. This was assessed as having moderate potential for roosting bats.	
Plate 6 - PRFs on B2 in the form of lifted and slipped tiles.	

Plate 7 - PRFs on B2 in the form of gaps under tiles due to missing mortar.	
Plate 8 - PRFs on B2 in the form of a significant section of missing mortar at the verge edge.	
Plate 9 - No evidence of bats was found within the void space.	

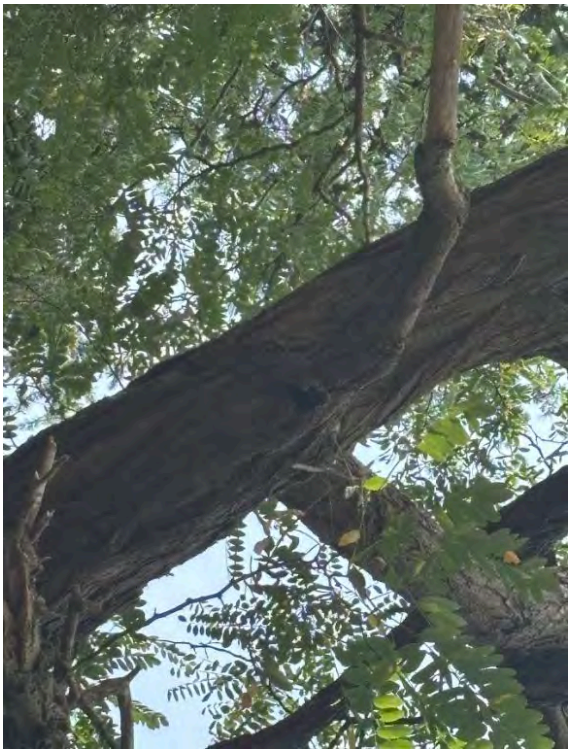
Plate 10 - Five trees were identified as having PRFs on site.	
Plate 11 - PRFs were identified on trees in the form of peeled and lifting bark.	

Plate 12 - A very large coast redwood (Sequoia sempervirens), is in good condition and supports PRF type I in the form of peeling bark, providing small sheltered crevices which could be used by crevice-dwelling bats.	
Plate 13 - Mature tree exhibiting a PRF type I in the form of a significant vertical cavity on the main trunk with signs of structural decay. Multiple limbs show narrow unions with potential included bark.	

Target Notes:

The site supports a number of mature and early veteran trees that hold potential roosting features (PRFs) suitable for bats. Five trees within or adjacent to the vegetated garden area were subject to closer assessment due to their structure, age, or visible features consistent with bat use.

T1, a very large coast redwood (*Sequoia sempervirens*), is in good condition and supports PRF type I in the form of peeling bark, providing small sheltered crevices which could be used by crevice-dwelling bats. T2, a large weeping willow (*Salix babylonica*), also in good health, has a prominent pruning wound identified as PRF type I. This wound may extend into the sapwood, offering a stable and sheltered opportunity for bats to roost. T3, a very large Cyprus cedar (*Cedrus*

libani), was recorded to be in good overall condition. Although no visible PRFs were noted from the ground, the size, age, and growth form of the tree indicate a high likelihood of concealed roosting features such as deadwood cavities or natural splits within the main trunk or limbs.

T4, a large black locust (*Robinia pseudoacacia*), is in moderate condition and contains a small hole on the underside of an easterly facing lateral branch, recorded as PRF type I. This could support access to a narrow roosting location for solitary bats or small groups. T5, also a black locust (*Robinia pseudoacacia*), is in poor condition with visible trunk decay and several fissures and holes identified as PRFs. The degraded condition of this tree suggests that internal cavities or moisture-retaining voids may be present, which can support a diversity of bat species.

Overall, these trees contribute to the ecological function of the site by offering natural roosting sites that complement the wider network of foraging and commuting habitat. They warrant further assessment prior to any works that may lead to disturbance.

TN1: Located to the south of Building B1 within the vegetated garden, this small ornamental pond is heavily shaded and overgrown with marginal vegetation. The waterbody contains minimal open water and appears subject to seasonal drying. The pond has steep, hard edges that limit accessibility for amphibians and lacks surrounding wetland habitat or gradual shelving, both important for breeding suitability. Based on current condition and structural features, the pond is assessed as having negligible suitability for amphibians.

What Are PRFs & What Does It Mean For My Project?

Potential Roosting Features (PRFs) are specific structures or characteristics in buildings, trees, or other parts of the environment that might provide suitable places for bats to roost, or set up home.

These can include things like gaps under roof tiles, holes in walls, hollows in trees, and other sheltered, undisturbed spaces that bats might find attractive.

A **Preliminary Bat Roost Assessment** is a survey conducted by an ecologist to check a property or area for these Potential Roosting Features. The goal is to identify whether there's a likelihood of bats being present, which could impact development plans because bats and their roosts are legally protected.

Now, what does this mean for a client, typically someone planning a development or construction project?

If the assessment finds **no PRFs**, or if the features found are assessed as offering **negligible potential** for bats, the customer can usually proceed with their plans without further steps to mitigate bat impact.

However, if the assessment **finds PRFs** that could potentially house bats, the next step would typically be **a more detailed** bat survey, **carried out at dusk or dawn** when bats are most active.

If bats are indeed found, **this doesn't mean the project can't proceed**, but there might be some requirements to meet first. Usually this involves drawing up mitigation measures which are implemented **after planning** is determined.