

**Tiryns
Forest Road
Wokingham
Berkshire
RG40 5QR**

Preliminary Roost Assessment

Report ref.: R2628_PRA_a

<i>Report Quality Control Information</i>	
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1 EXECUTIVE SUMMARY

- 1.1.1** John Wenman Ecological Consultancy LLP was instructed by Kirsty Vijn of Bowen Evans Consultancy, on behalf of Mr Billy Mead to undertake a Preliminary Roost Assessment (PRA) for bats at Tiryns, Forest Road in Wokingham.
- 1.1.2** The aim of the PRA is to determine the actual or potential presence of bats in the house and outbuildings and whether further survey and/or mitigation would be required for the proposed works to build a new residential dwelling following the demolition of the existing dwelling and garages.
- 1.1.3** Taking into account the surrounding suitable habitats including open grassland and arable farmland, with scattered trees and areas of woodland, they provide foraging habitats for any bat(s) roosting in the property. Potential bat access points were identified on all buildings with multiple lifted roof tiles and lifted hanging tiles above the western single storey extension. These access points potentially lead to crevice roost sites. The house has been assigned moderate potential suitability for bats.
- 1.1.4** The proposed works to demolish the existing residential house and garages will affect the potential roost features identified under lifted roof tiles and hanging tiles, gaps between the soffit and the brickwork and under lifted lead flashing. Therefore the works could result in the damage/destruction of bats roosts and lead to direct/indirect disturbance, injury and/or death of bats. These impacts could potentially result in the permanent loss of a bat roost, which may have the potential to significantly affect the distribution or abundance of local bat species. The detached outbuilding to the eastern side of the house is to be retained and will remain unaffected by the works.
- 1.1.5** Therefore further surveys are recommended to establish the presence or absence of bat roosts in the property, in order to be able to assess fully whether the development proposals will have an adverse effect on bats and design a mitigation strategy if necessary.
- 1.1.6** This report contains information regarding a mobile species so it will likely be valid for less than 12 months (CIEEM 2019b).

2 INTRODUCTION

2.1 Project Background

2.1.1 John Wenman Ecological Consultancy LLP was instructed by Kirsty Vijn of Bowen Evans Consultancy, on behalf of Mr Billy Mead to undertake a Preliminary Roost Assessment (PRA) for bats at Tiryns, Forest Road in Wokingham.

2.1.2 The aim of the PRA is to determine the actual or potential presence of bats in the house and outbuildings and whether further survey and/or mitigation would be required for the proposed works to build a new residential dwelling following the demolition of the existing dwelling and garages.

2.2 Site Location and Context

2.2.1 The property is located south of Forest Road, in a semi-rural area north of Wokingham (central OS grid reference: SU 80628 70943).

2.2.2 The site is surrounded by open grassland and arable farmland, divided by linear hedgerows, with scattered trees and areas of priority deciduous woodland. There are nearby waterbodies approximately 180m and 430m to the east of the property. Dinton Pastures Country Park, containing multiple waterbodies including the River Loddon is approximately 2,500m west of the property.

2.3 Report Objectives

2.3.1 The aim of the PRA is to ascertain if there is evidence of the presence of bats and/or potential for roosting bats to be present, and therefore whether further survey and/or mitigation would be required for future proposed development activities.

3 LEGISLATIVE AND POLICY BACKGROUND

3.1 Relevant Legislation

3.1.1 In England and Wales, all bat species found in the wild are fully protected under the Wildlife & Countryside Act 1981 (as amended) (WCA) and Conservation of Habitats and Species Regulations 2017 (as amended); the regulations are commonly referred to as the Habitat Regulations and hereafter referred to as such. The Habitat Regulations refer to European Protected Species (EPS) and all species of bats in the United Kingdom (UK) are EPS. Although the UK left the European Union on the 31st January 2020 and is therefore no longer tied to European legislation, the Habitat Regulations have been retained in their current format.

3.1.2 The legal framework underpinned by the WCA and Habitat Regulations makes these specific actions an offence as follows:

- Deliberately kill, injure, capture or take a wild bat;
- Deliberately, intentionally or recklessly disturb bats; in particular any disturbance which is likely to impair their ability to survive, to breed or reproduce, to rear or nurture their young, to hibernate or migrate, or to significantly affect local distribution or abundance;
- Damage or destroy a place used by a bat for breeding or resting; and
- Intentionally or recklessly obstruct access to any place used by a bat for shelter or protection.

3.2 Planning Policy

3.2.1 The biodiversity duty imposed through the Environment Act 2021 states that Local Planning Authorities (LPAs) must consider what action they can take to conserve and enhance biodiversity in England. Government planning policy, such as the ODPM Circular 06/2005, requires LPAs to account for the conservation of protected species when considering and determining planning applications.

3.2.2 The ODPM Circular 06/2005 states that *‘the presence of a protected species is a material consideration when a planning authority is considering a development proposal that, if carried out, would be likely to result in harm to the species or its habitat.’* This policy means that in instances where there is a reasonable likelihood of bats being present and affected by a development, surveys must be undertaken to inform a mitigation strategy to be agreed prior to granting planning permission.

3.3 Mitigation Licensing

3.3.1 The government's statutory nature conservation body, Natural England, is responsible for issuing European Protected Species (EPS) mitigation licences that would permit activities that would otherwise lead to an infringement of the Habitat Regulations. An EPS mitigation licence can be issued if the following three tests derived from Regulation 55 have been satisfied:

- (2)(e) – the derogation is for the purposes of *'preserving public health or public safety or other imperative reasons of overriding public interest, including those of a social or economic nature and beneficial consequences of primary importance for the environment.'*
- (9)(a) – there is *'no satisfactory alternative'* to the derogation; and
- (9)(b) – *'the action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range.'*

3.3.2 LPAs have a statutory duty under Regulation 7(3)(e) of the Habitat Regulations to consider and determine whether these three tests are likely to be satisfied by planning proposals affecting EPS before granting planning permission. If an EPS mitigation licence is necessary, a licence can be sought once all the necessary planning consents have been granted. Natural England aims to issue a decision on licence applications within 30 working days of submission.

3.3.3 The Bat Mitigation Class Licence (BMCL) scheme allows ecologists to apply to become Registered Consultants to use this licence for low conservation status roosts, i.e. roosts comprising small numbers of seven commonly occurring species. A site registration form must be completed as a condition of the licence and submitted to Natural England at least three weeks before the licensable activities are due to start; Natural England aims to register sites within two weeks of submission.

3.3.4 Baseline survey information supporting EPS mitigation licence applications or BMCL site registrations must be up-to-date and have been completed within the current or most recent optimal season. A suitably experienced ecologist will be required to undertake a site walkover/check within three months prior to application/registration submission to confirm that conditions have not changed since the most recent survey.

4 SURVEY METHODOLOGY

4.1 Desk Study

4.1.1 A desk-based study for bats was undertaken to collate and review existing information about the site and the surrounding land. The study utilised the following open access resources:

- OS maps and Google Earth – maps and satellite imagery were used to identify potential flight-paths and foraging habitats for bats;
- DEFRA Data Services Platform and MAGIC – maps were used to locate relevant designated sites, habitats and granted European Protected Species licences; and
- existing bat survey reports – any available reports were obtained from the client or relevant planning portal.

4.2 Building Inspection

Survey Details

4.2.1 An inspection of the exterior and interior of the property was undertaken on the 14th February 2024 by Meghan Porter – a qualifying member of the Chartered Institute of Ecology and Environmental Management (CIEEM) registered under Natural England Bat Survey Class Licence CL17 (Registration no 2023-11300-CL17-BAT) and assistant ecologist Verity West (a qualifying member of CIEEM), in accordance with good practice guidance (Collins 2023). The equipment used during the inspection comprised binoculars, a high-power (1 million candlepower) LED torch, a headtorch, ladder and PPE (facemask, gloves etc.). The inspection involved a systematic search of the exterior and interior of the structure during daylight hours to compile information on potential and actual bat access points; potential and actual bat roost sites; and any evidence of bat presence.

External Survey

4.2.2 Frequently used bat access points and/or roost sites include (but are not limited to) spaces:

- behind hanging tiles, weatherboarding, soffit boxes and barge boards;
- under lead flashing (particularly around chimneys) and roof tiles/slates; and
- in existing bat boxes.

4.2.3 It is important to note that the two most abundant and widespread bat species, common pipistrelle (*Pipistrellus pipistrellus*) and soprano pipistrelle (*Pipistrellus pygmaeus*), typically only require gaps measuring 15mm by 20mm to gain access to a roost inside a building.

4.2.4 The external survey involved a systematic search for evidence of bats including:

- live or dead specimens;
- droppings;
- urine marks;
- fur-oil staining; and
- squeaking noises.

4.2.5 It should be noted that bats can be present in a building while leaving no visible signs externally and wet weather has the potential to wash any evidence away. The search for evidence was focused on (but was not limited to) the ground, windowsills, windowpanes and walls (including cladding and hanging tiles); particularly in places near to potential bat access points and/or roost sites.

Internal Survey

4.2.6 The internal survey comprised a systematic search for evidence of bats on the upper floors of the building (i.e. checking the exterior from windows) and inside the roof and eave spaces. Evidence of bats found during an internal inspection can include:

- live or dead specimens;
- droppings;
- urine marks;
- fur-oil staining;
- feeding remains (i.e. moth wings);
- squeaking noises;
- bat-fly (Nycteribiid) pupal cases; and
- odour.

4.2.7 It should be noted that only specimens or droppings can be relied upon in isolation to confirm the presence of a bat roost.

4.2.8 Frequently used roosting locations within the roof include (but are not limited to):

- the apex of the gable end or dividing walls;
- the top of chimney breasts;
- ridge and hip beams;
- mortise and tenon joints;
- behind purlins; and
- between tiles and roof lining.

Survey Limitations and Validity

4.2.9 There were no significant survey limitations because PRAs can be carried out at any time of year under any weather conditions and the building was fully accessible.

4.2.10 It should be noted that it is not always possible to inspect all potential roost sites during a survey, particularly for bat species which typically roost in hidden crevices. Therefore, an absence of bat evidence found during a survey does not necessarily equate to evidence of bat absence in a building.

4.2.11 This report contains information regarding a mobile species so it will likely be valid for less than 12 months (CIEEM 2019b).

5 SURVEY RESULTS

5.1 Desk Study

- 5.1.1** The semi-rural farmland area surrounding the property, with linear hedgerows, scattered trees and parcels of priority habitat deciduous woodland, provide continuous habitat that could be used as a flight-path connecting to high-quality foraging habitats for any bat(s) roosting in the property.
- 5.1.2** There are nearby waterbodies approximately 180m and 430m to the east of the property offer high-quality foraging habitats. Dinton Pastures Country Park, containing multiple waterbodies including the River Loddon is approximately 2,500m west of the property.
- 5.1.3** Bat mitigation licences that have been granted within the last 15 years inside a 2-kilometre radius of the property are detailed in **Table 1** below.

Table 1. Bat mitigation licences granted within a 2km radius of the property (Source: MAGIC).

Case Reference of Granted Licence	Species on the Licence	Licensable Period	Licensable Works	Distance (m)
2016-24486-EPS-MIT	Common pipistrelle	19/07/2016 – 18/07/2021	Destruction of resting place	900m SW
2015-8658-EPS-MIT-1	Brown long-eared bat Common pipistrelle	18/04/2019 - 30/04/2029	Destruction of breeding & resting place	1250m NE
2020-48489-EPS-MIT	Brown long-eared bat Common pipistrelle Soprano pipistrelle	01/09/2020 - 31/12/2027	Destruction of resting place	1260m SE
EPSM2009-1496	Noctule bat	23/03/2010 - 31/07/2011	Destruction of breeding & resting place	1625m S
2016-22176-EPS-MIT	Brown long-eared bat	01/04/2016 - 31/03/2021	Destruction of resting place	1900m SW

- 5.1.4** The client had no existing bat survey reports in their possession and none had been published on the Local Planning Authority's (LPA) online planning portal.

5.2 Building Inspection

Overview

- 5.2.1** An annotated plan showing the locations of potential and actual bat access points, potential and actual bat roost sites and any evidence of bat presence is illustrated in **Appendix 1**. The findings from the external and internal inspections carried out for the house are described with photographs as follows:

External Survey

- 5.2.2** The site consisted of a main brick-built detached residential dwelling, with an attached single storey extension and garage on the western elevation and a detached single storey gable roofed outbuilding to the east. The hipped roof with interlocking gables was covered in clay tiles. Various extensions have been added historically, with a mixture of bitumen felt flat roofs, tiled gables and a tiled lean-to style roof (**Photographs 1 - 5**).



Photograph 1. Front of the house viewed from northwest.



Photograph 2. Rear of the house viewed from south.



Photograph 3. View of single storey extension on the western elevation showing boiler room and garages viewed from north.



Photograph 4. Single storey extension with flat roof and hanging tiles above viewed from the west.



Photograph 5. Single storey detached outbuilding viewed from the west.

- 5.2.3** The roof tiles were lifted in multiple places across the second storey roof of the house, single storey extensions and detached outbuilding (**Photographs 6 - 9; Target note 1**).



Photograph 6. Lifted roof tiles across main roof.



Photograph 7. Lifted verge roof tiles on the northern end of the main roof.



Photograph 8. Multiple lifted tiles on single storey eastern extension.



Photograph 9. Multiple lifted tiles on outbuilding.

- 5.2.4** There were potential bat access points above the brickwork on the outbuildings. There were multiple gaps behind the hanging tiles above the single storey western extension (**Photographs 10 & 11; Target notes 2 & 3**).



Photograph 10. Gap above brickwork on outbuilding.



Photograph 11. Gaps behind lifted hanging tiles.

- 5.2.5** There were multiple gaps behind the timber soffits on the single storey eastern extension (**Photograph 12; Target note 4**). There were slight gaps under the lead flashing on the single storey western extension (**Photograph 13; Target note 5**).



Photograph 12. Gaps behind soffits on the rear elevation of the western extension.



Photograph 13. Gaps under lead flashing on the eastern elevation.

Internal Survey

- 5.2.6** The roof void was accessible via a first floor loft hatch. The void had a floor-to-ridge height of approximately 1.75m and was of cut and pitch rafter construction (**Photograph 14**). The roof was lined with spray foam insulation throughout (**Photograph 15; Target note 6**).



Photograph 13. Roof void.



Photograph 14. Spray foam insulation covering entire roof.

- 5.2.7** The floor was covered with fibreglass insulation and boarded in places. The eaves were filled with insulation (**Photograph 15; Target notes 6 & 7**). Rodent droppings were scattered throughout and old wasps nests were visible (**Photograph 16; Target note 8**).



Photograph 15. Fibreglass insulation of floor throughout, eaves filled.



Photograph 16. Old wasps nest visible.

6 DISCUSSION

6.1 Assessment of Potential Roost Suitability

6.1.1 The semi-rural farmland area surrounding the property, with linear hedgerows, scattered trees and parcels of priority habitat deciduous woodland, provide continuous habitat that could be used as a flight-path connecting to high-quality foraging habitats for any bat(s) roosting in the property. Furthermore, the search of granted bat mitigation licences identified four species known to be roosting within a 2km radius of the house: soprano pipistrelle (*Pipistrellus pygmaeus*), common pipistrelle (*Pipistrellus pipistrellus*), noctule (*Nyctalus noctula*) and brown long-eared bat (*Plecotus auritus*).

6.1.1 The house had the following potential bat access points:

- Gaps under lifted roof tiles on the residential house and outbuilding (**Photographs 6-9; Target note 1**);
- Gaps above the brickwork on the outbuilding (**Photograph 10; Target note 2**);
- Gaps behind the hanging tiles above the garages(**Photograph 11; Target note 3**);
- Gaps behind the timber soffits on the residential house and garages (**Photographs 12 & 13; Target note 4**); and
- Gaps under lead flashing (**Photograph 13; Target note 5**).

6.1.2 These bat access points likely lead to crevice roost sites. The roof void lacked optimal conditions for supporting large numbers of void-dwelling bats, such as the long-eared bat species (*Plecotus* spp.), due to the sealed spray foam insulation covering the roof internally throughout. The potential crevice roost sites are likely to have sufficient space, shelter, protection, conditions and surrounding habitat for regular use by individual bats, or small non-breeding groups. Therefore, the residential house, attached garages and detached outbuilding have been assigned moderate potential suitability for bats.

6.2 Assessment of Potential Roost Status

6.2.1 The potential crevice roost sites in the residential house, garages and outbuilding are considered to be suitable for use by typically crevice-dwelling bat species such as the abundant and widespread soprano pipistrelle (*P. pygmaeus*) and common pipistrelle (*P. pipistrellus*) and the rarer Brandt's / whiskered bats (*Myotis brandtii* / *mystacinus*). The buildings on site are considered capable of supporting individual bats or small numbers of bats.

6.2.2 The common pipistrelle (*P. pipistrellus*) and soprano pipistrelle (*P. pygmaeus*) are the most abundant and widespread bats in Great Britain. These species occur in almost any habitat type and are well adapted to the built environments; they are the species most regularly reported roosting in houses and churches (Mathews *et al.* 2018). Brandt's / whiskered bat (*Myotis brandtii* / *mystacinus*) are small *Myotis* species that are widespread and will roost in the same buildings as the much more abundant pipistrelle species (Mathews *et al.* 2018). Roosts supporting these species hold site to county level conservation importance subject to the roost type, i.e. non-breeding roosts supporting individual bat or small groups through to maternity roosts supporting large numbers of female bats (Reason & Wray 2023).

7 IMPACT ASSESSMENT

7.1 Potential Impacts of Development Proposals

Overview

- 7.1.1** The proposals are due to involve the demolition of the existing house and garages and construction of a new residential dwelling. This will affect the potential roost features identified, such as the lifted roof tiles and hanging tiles, gaps between the soffit and brickwork and under lifted lead flashing across the residential house and garages. This could result in the damage/destruction of bats roosts and lead to direct/indirect disturbance, injury and/or death of bats, and potentially result in the permanent loss of a bat roost, which may have the potential to significantly affect the local distribution or abundance of a bat species. The detached outbuilding to the eastern side of the house is to be retained and will remain unaffected by the works.

7.2 Recommended Actions

- 7.2.1** As the proposals will impact on potential roost features, further surveys are recommended to establish the presence or absence of bat roosts in the property, in order to be able to assess fully whether the development proposals will have an adverse effect on bats and design a mitigation strategy if necessary. The recommended further surveys are detailed in **Section 8.1** below.

8 RECOMMENDATIONS

8.1 Further Surveys

- 8.1.1** Further surveys are recommended to determine the presence or likely absence of bat roost in the residential house and garages, in order to be able to assess fully whether any development proposals will have an adverse effect on bats.
- 8.1.2** A minimum of two dusk emergence survey visits should be undertaken in the period of May to September, with at least one of the surveys between May and August; the survey visits should be spaced at least three weeks apart. These survey visits form part of a potential roost characterisation necessary to inform an impact assessment and mitigation strategy; these surveys may comprise an additional emergence survey visit and other methods, such as DNA analysis of bat droppings.
- 8.1.3** Once the potential roost characterisation is complete, an impact assessment with reference to the mitigation hierarchy will be made. In cases where the adverse effects caused by any development proposals are unavoidable, an application for a European Protected Species (EPS) mitigation licence or the registration of the site under the Bat Mitigation Class Licence (BMCL) may be required to permit works to proceed lawfully. An EPS mitigation licence or BMCL can be issued by Natural England if the three licensing tests (detailed in **Paragraph 3.3.1**) have been satisfied by the proposals.
- 8.1.4** To satisfy one of the licensing tests, it would be necessary to demonstrate that the 'favourable conservation status' of the bat species using the house is maintained during the construction phase and post development. A mitigation strategy setting out avoidance, mitigation, compensation and enhancement measures would be required to achieve this. Indicative and provisional measures are summarised in **Section 8.2** below.

8.2 Indicative Mitigation Strategy

- 8.2.1** If further surveys and the impact assessment have demonstrated that an EPS mitigation licence or BMCL (if applicable) is required to permit lawful development, the commencement of construction activities impacting the bat roost would be timed to avoid the periods when bats are most susceptible to disturbance, i.e. winter hibernation period if there is a reasonable likelihood of hibernating bats (mid-November to mid-March) and peak breeding season (May to August) in the unlikely event that a maternity colony is present.

- 8.2.2** Alternative roost sites would be made available to bats prior to and throughout the construction phase by installing at least one woodcrete bat box (suitable for the type of roost/species present) on a suitable mature tree or a pole mount. The bat box should be positioned at least 4 metres from the ground, away from artificial lighting and sheltered from strong wind while being exposed to sunshine (usually south, south east or south west facing).
- 8.2.3** Before the commencement of construction activities impacting the bat roost(s) (i.e. the licensable works), a licensed ecologist or 'Registered Consultant' under the BMCL would provide a toolbox talk to all contractors working on site detailing how bats use buildings, legal protection, working methods (i.e. soft demolition/roof strip by hand), actual and potential roost sites, actions to be taken if a bat is found and personal safety procedures.
- 8.2.4** A soft demolition/roof strip approach to the works affecting the bat roost(s) would be adopted, i.e. careful removal of roof coverings by gloved hands and handheld tools under the direct supervision of a licensed ecologist or 'Registered Consultant'. In the event that a bat is found during the course of the works, the licensed ecologist or 'Registered Consultant' would capture the bat and transfer it directly to a woodcrete bat box installed in advance.
- 8.2.5** Replacement bat access points and roost sites may need to be created and/or reinstated into the house as part of an EPS mitigation licence or BMCL site registration. This compensation should aim for like-for-like roost sites with access points corresponding as closely as possible to the previous locations.
- 8.2.6** Where access is provided for bats, a bituminous roofing felt that does not contain polypropylene/polyethylene filaments (e.g. bitumen felt type 1F) or a non-bitumen coated 'breathable' membrane that has passed the snagging propensity test (e.g. TLX 'Bat Safe') should be used; other non-bitumen coated membranes are harmful to bats and must be avoided.

9 REFERENCES

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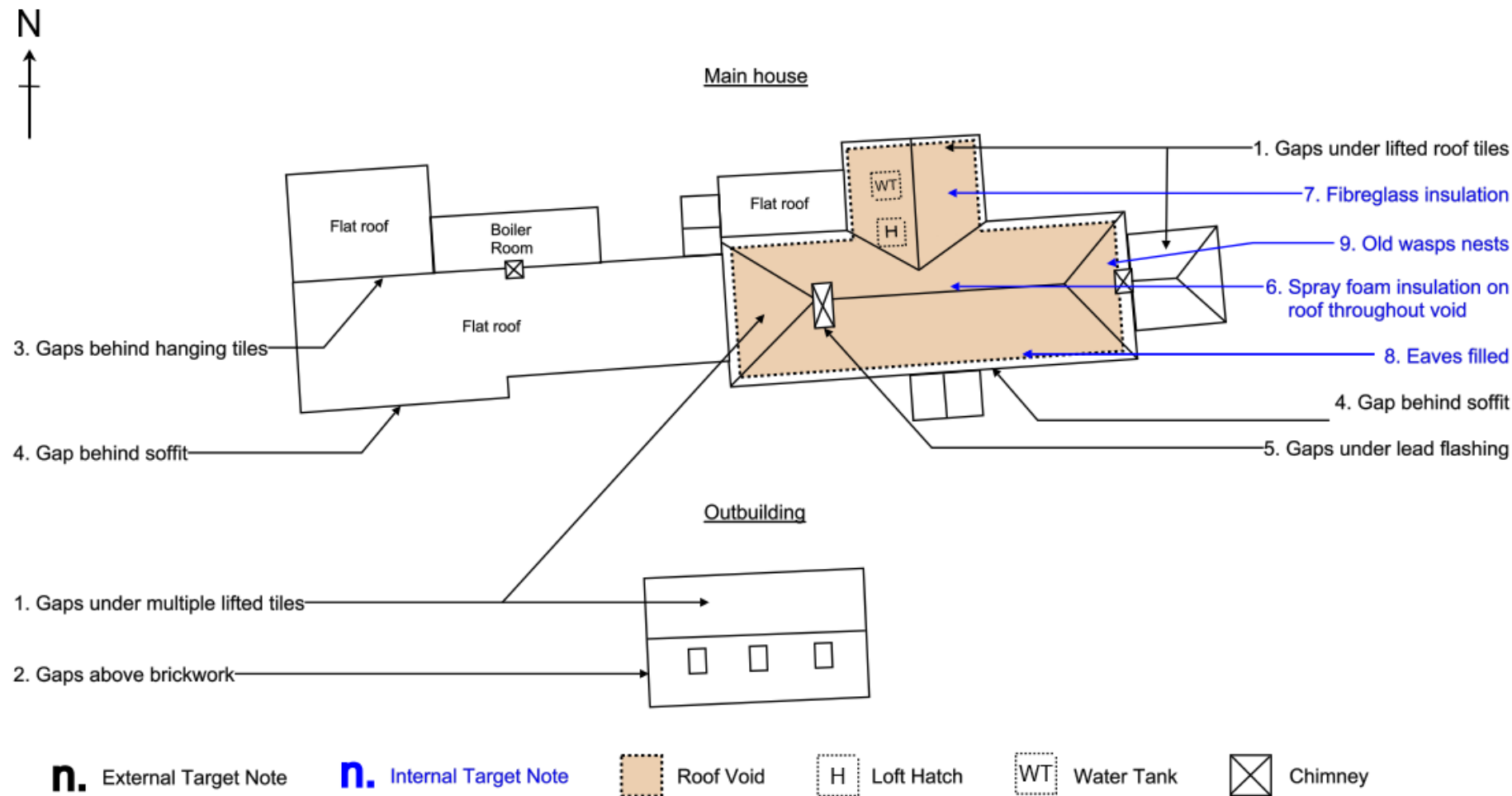
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APPENDIX 1 – PRELIMINARY ROOST ASSESSMENT SURVEY PLAN



Drawn by:	Date:	Scale:	Tiryns, Forest Road	
VW	February 2024	Not to scale Not shown in actual location	Wokingham Preliminary Roost Assessment Plan	