

**68 Shinfield Road
Reading
Berkshire
RG2 7DA**

Preliminary Bat Roost Assessment

Ref: R2508/a

May 2020



1 Diesel House, Honey Hill, Wokingham, Berkshire RG40 3BL
Telephone: 0118 3271810 Mobile: 07979 403099 E-mail: info@wenman-ecology.co.uk
www.wenman-ecology.co.uk

John Wenman Ecological Consultancy LLP is a limited liability partnership registered in England and Wales with registered number OC339057.
Registered office: 100 New Wokingham Road, Crowthorne, RG45 6JP where you may look at a list of members' names.

1	INTRODUCTION	3
1.1	Background.....	3
1.2	Legislative Background.....	3
1.3	Location and Context	5
2	SURVEY METHOD	6
2.1	Bat Survey	6
2.2	Survey Constraints.....	6
3	SURVEY FINDINGS.....	8
3.1	Building Inspection.....	8
3.2	External Survey – House	8
3.3	External Survey - Garage	10
3.4	External Survey - Shed	10
3.5	Internal Survey – House	10
4	DISCUSSION AND RECOMMENDATIONS.....	12
4.1	Assessment of Bat Roost Potential.....	12
4.2	Impact of Proposals and Recommendations	13
4.3	Indicative and Provisional Mitigation Proposals	14
5	REFERENCES	16
	APPENDIX 1 - SITE PHOTOGRAPHS	17
	APPENDIX 2 – PRELIMINARY BAT ROOST ASSESSMENT FINDINGS.....	26
	APPENDIX 3 – EXISTING AND PROPOSED ELEVATION PLANS.....	27

1 INTRODUCTION

1.1 Background

1.1.1 John Wenman Ecological Consultancy LLP was commissioned by Turner Property Limited to undertake a survey for the presence of bats within 68 Shinfield Road – a detached house divided into flats in Reading, Berkshire.

1.1.2 The survey was commissioned in connection with planning proposals to be lodged with Reading Borough Council seeking consent for '*construction of part-one-part-two-storey side extension, single-storey rear extension and dormer extension enabling change of use from 1no. 5-bedroom house and 2no. 1-bedroom flats (C3a dwellinghouse) to become 2no. large Houses in Multiple Occupation (suigeneris) with associated car parking, bin and cycle storage*' (refer to plans in **Appendix 3**).

1.2 Legislative Background

1.2.1 All British bat species are fully protected by the Wildlife & Countryside Act 1981 (as amended) and by the Conservation of Habitats and Species Regulations 2017 ('Habitat Regulations'). In summary, the legislation combined makes it an offence to:

- Damage or destroy a breeding site or resting place or intentionally or recklessly obstruct access to a structure or place used for shelter by a bat;
- Deliberately, intentionally or recklessly disturb bats; in particular any disturbance which is likely to impair the ability of bats to survive, breed or reproduce or nurture their young; or in the case of hibernating or migrating bats, to hibernate or migrate; or to affect significantly the local distribution or abundance of the species;
- Deliberately kill, injure or take any bat.

1.2.2 The government's statutory conservation advisory organisation, Natural England, is responsible for issuing European Protected Species licences that would permit activities that would otherwise lead to an infringement of the Habitat Regulations. A licence can be issued if the following three tests have been met:

- **Regulation 55(9)(a)** - there is "no satisfactory alternative" to the derogation, and;

John Wenman Ecological Consultancy

- **Regulation 55(9)(b)** - the derogation “will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range” and;
- **Regulation 55(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”.

1.2.3 Local authorities have a statutory duty under Regulation 7(3e) of the Habitat Regulations to have regard to requirements of the Habitats Directive in the exercise of their functions. The Council must therefore consider and determine whether these three tests are likely to be satisfied by applications where survey findings show that European Protected Species licensing is necessary before granting planning permission.

1.2.4 European Protected Species mitigation licence applications can be submitted once all necessary planning consents have been granted and Natural England aim to issue a licence decision within 30 working days of a full mitigation licence application.

1.2.5 Licensable projects affecting small numbers of seven commonly occurring bat species may fall under the remit of the Bat Mitigation Class Licence (WML-CL21). The Class Licence permits ‘Registered Consultants’ to carry out licensable operations on site on behalf of clients following the registration of sites with Natural England at least 15 working days before the work is due to start.

1.2.6 Survey data supporting EPS licence applications or the registration of the site under the Bat Mitigation Class Licence (WML-CL21) must be up to date i.e. have been conducted within the current or most recent optimal survey season i.e. May to August. Therefore, if surveys show bats are present and licensable work is delayed until during or after the next survey season, updated surveys will be required to support an application or site registration.

1.3 Location and Context

- 1.3.1** The house, which is estimated to have been constructed in the late 19th or early 20th century, is situated on the western side of Shinfield Road - opposite the entrance to Leighton Park School - in Reading, Berkshire (OS grid reference: SU 73017 155).
- 1.3.2** The property is in a suburban setting amongst neighbouring residential properties with large established gardens. The surrounding landscape comprises further residential buildings, Leighton Park School and University of Reading's Whiteknight campus buildings.
- 1.3.3** Overall, the suburban residential setting with nearby open spaces provides bats with an abundance of high quality commuting and foraging habitat in the vicinity.

2 SURVEY METHOD

2.1 Bat Survey

2.1.1 A survey of the interior and exterior of the house was undertaken on the 21st April 2020 by an ecologist registered under the Natural England Bat Survey Class Licence CL18 and an assistant ecologist.

2.1.2 The survey was undertaken with the aid of binoculars, and a high power (1 million candle power) torch and looked for any signs of occupation by bats, and for features that could offer potential roosting sites following standard survey guidelines (Collins 2016; Mitchell-Jones 2004; Mitchell-Jones & McLeish 2004).

2.1.3 The following may indicate the presence of a bat roost within a building:

- Droppings (these can be found externally, especially in sheltered areas such as window sills, underneath roost entrances or internally within a roof space);
- Piles of insect remains e.g. moth wings (these may be indicative of regular feeding sites used by species such as brown long eared bat);
- Staining at roost entrances or within the roost (urine and oil from fur can leave stains on timbers when bats are gathered for long periods);
- Bats (live or dead).

2.1.4 Residential properties may offer potential roosting sites in a number of locations, favoured locations include:

- Under roof and ridge tiles, especially when loose or missing tiles are present or sections of mortar are missing;
- At the eaves – gaining access via gaps between the soffits and wall;
- At the gable ends – access is typically gained at the roof apex via gaps in the soffits or under roof tiles;
- Within an enclosed roof space – long-eared bats (*Plecotus* sp.) for example, will often cluster at the ridge beam.

2.2 Survey Constraints

2.2.1 The property's shed and garage were inaccessible; however, bat potential could be adequately gauged from the exteriors of these buildings. A small part of the loft at the southern end of the property's roof void was also inaccessible, but signs of bat potential and evidence were gauged with the

John Wenman Ecological Consultancy

use of binoculars and a high-power torch. Thus, there were no significant constraints to the survey.

3 SURVEY FINDINGS

3.1 Building Inspection

3.1.1 Photographs of the property are presented in **Appendix 1** and a plan of the external and internal survey findings with associated target notes is shown in **Appendix 2**. The survey findings from the exterior and interior of the property are described as follows:

3.2 External Survey – House

3.2.1 The house was a large detached building of solid brick wall construction with pebbledash render at first floor level. The main open gable pitched roof had two brick-built chimneys with clay pots and was intersected on the western and eastern sections by double ridged open gable roofs. The western roof section was further complemented by a first floor dormer window, positioned on the left hand side. The wall corner, where the southern and eastern elevations of the property meet, was intersected by a ground floor semi-pentagonal bay window, which had a pitched roof adjoined to the southern and eastern elevations of the property.

3.2.2 The house's walls were of solid brickwork construction. The lower walls of the house had exposed brickwork, whilst the upper sections were covered with pebbledash render. Numerous gaps between windows and brickwork or pebbledash – there was one gap between downpipe fixture and pebbledash (**Photographs 7-11**) - and gaps created by areas of loose lead flashing or roofing felt not flush with windows or walls (**Photographs 11-16**), were observed on the western and eastern elevations, providing potential access and roosting opportunities for bats. Two large cracks in the pebbledash provided bats with potential roosting opportunities in the resulting gaps that remained between pebbledash and exposed brickwork: one crack was noted on the western elevation on the first floor and to the right of the central downpipe between the double ridged open gable roof (**Photograph 17**); another crack was noted on the southern elevation below the window adjacent to the first floor balcony door (**Photograph 18**).

3.2.3 The main pitched roof was covered with rectangular clay tiles, which were lifted or missing in many places, particularly around the chimneys, under ridge tiles and near roof verges or eaves (**Photographs 19-25; Target notes 1-2, 3a and 3b**). Exposed mortar affixing the roof verge tiles had partially crumbled away along the southern gable, creating numerous gaps

John Wenman Ecological Consultancy

at and around the apex which provided potential bat access and roosting opportunities (**Photograph 26; Target note 4**). There was a gap to the northern gable between the soffits and wall (**Photograph 27; Target note 5**). The roof was covered with semi-circular clay ridge tiles, which had intact mortar and were heavily covered with moss - one cracked tile was visible however (**Photograph 28; Target note 6**). The eaves timbers were heavily weathered and paint was cracking on all sides. There was a gap at the gable end apexes but otherwise the mortar beneath the verge tiles was complete (**Photograph 29; Target note 7**). There were narrow gaps between the soffits and pebbledash render (**Photographs 30-31**). The two chimneys on the main roof presented potential access and roosting opportunities for bats via gaps between the lead flashings and roof tiles, and missing mortar between bricks (**Photographs 32-33**).

3.2.4 Roof tiles on the roof's eastern elevation were lifted in many places, offering potential bat access and roosting opportunities (**Photograph 34**). The ridge tiles had no visible potential for bat access and roosting. At the eaves there were two gaps suitable for crevice-roosting bats to the central valley of the double open end gables: one gap between soffits above the black drainpipe; another directly behind the black drainpipe box where it met the pebbledashed wall and soffit above (**Photograph 35; Target note 8**). Furthermore, there was a gap between a gable soffit and tiles and lead flashing (**Photograph 36; Target note 9**).

3.2.5 The roof tiles on the western elevation were lifted in many places (**Photograph 37**). The ridge tiles were in place, with heavy moss coverage but no visible bat access potential

3.2.6 The dormer on the western elevation had a flat felt roof which is attached to the main roof with lead flashing. Both the felt roof and lead flashing were in good order with no visible signs of damage; however, felt was starting to lift from the edges where it met main roof tiles (**Photograph 38**). The soffit was mostly intact but was not flush with main roof flashing, providing bat access and roost potential (**Photograph 38; Target note 10**).

3.2.7 The semi-pentagonal bay window roof had tiles matching the main roof and has lead flashing at the junction. No tiles were missing; however, some were lifted or cracked, particularly around the eaves (**Photographs 39-40**). Small gaps were present where the lead flashing between both sections of the roof

overlapped on the wall corner, providing access and roosting opportunities for crevice-dwelling bats (**Photograph 41**). The corner of the pebbledash wall directly above the area of central flashing was cracked, creating a small gap with potential for use by crevice-dwelling bats (**Photograph 42; Target note 11**). The eaves were in poor order overall, with heavy paint cracking narrow gaps between the soffits and the wall (**Photographs 43-45**).

3.2.8 No evidence of bats or bat activity was found on the exterior of the property.

3.3 External Survey - Garage

3.3.1 The garage had a clay tiled pitched roof and brick walls. The brick walls had three weep holes below the gable apex at either end (**Photograph 46**). The roof tiles were partially obscured by leaf litter from the plane tree behind the garage, but the visible tiles were intact (**Photograph 47**). There was a gap where the mortar had crumbled away beneath the verge along the western elevation, with potential for access by bats (**Photograph 48**). Potential access and roosting for bats was further provided by a gap between the timber fascia board at the top right hand corner where it met the brick at the eastern elevation, and a narrow gap where the soffits met the brickwork along the northern elevation (**Photographs 49-50**). No evidence of bat activity in was found on the garage's exterior.

3.4 External Survey - Shed

3.4.1 The shed had a Dutch gabled roof with clay ridge, hip and roof tiles. The shed had close board and feather board timber clad walls, which are supported by a partially supported by a brick foundation (**Photograph 4**). The adjoining lean-to had a flat roof and walls. The roof had numerous missing, cracked or loose tiles, particularly along the hips and below an end ridge tile (**Photographs 51-53**). The ridge tiles were semi-circular and intact. The verges, fascias and soffits were in good order. The close boarded timbers were tightly fitting and therefore presented limited potential for bat access or roosting, however; gaps between the feather boarded timbers had opportunities for bat access and roosting. Additionally, a feather board by the window was loose (**Photograph 54**). No evidence of bat activity was found on the shed and lean-to.

3.5 Internal Survey – House

3.5.1 The roof void covered the entire footprint of the house and was accessible

via two second floor loft hatches. The void had an approximate floor-to-ridge height of 1.5 metres and the roof was of 'cut and pitch' construction (**Photograph 55**). The roof was lined with horsehair felt and intermittent plastic sheeting covering some gaps, and the ridge was mostly cobwebbed and had signs of damp (**Photographs 56-58**). Gaps were present between bricks and timbers at all gables (**Photograph 59**). Most gaps at the eaves were filled with fibreglass; however, there were gaps at the chimneys between the timbers and bricks, and gaps between bricks and timbers at all gables (**Photograph 61; Target note 13**). The floor was boarded and had fibreglass insulation beneath (**Photograph 55**).

- 3.5.2** There were approximately 100 scattered medium bat droppings throughout the void, which were of a size and shape typical of long-eared bat species (*Plecotus* spp.). These droppings were found on fibreglass, floor boards and hanging from cobwebs on walls - four further medium-sized bat droppings were found toward the northern gable end: two on the loft hatch, one on the gable wall and one on floor boarding (**Photographs 62-68**). A concentration of 50-100 large bat droppings – of a size and shape most typical of serotine (*Eptesicus serotinus*) bats - were found on fibreglass at the south-eastern gable end (**Photograph 69**). No bats were visible in the void at the time of the survey.

4 DISCUSSION AND RECOMMENDATIONS

4.1 Assessment of Bat Roost Potential

- 4.1.1** The observation of scattered medium-sized bat droppings – of a size and shape typical of long-eared bats (*Plecotus* spp.) – inside the roof void suggests the presence of a long-eared bat day and/or transitional/occasional roost used regularly by an individual bat or occasionally by small numbers of adult bats. The number of droppings is not consistent with the roof supporting a long eared bat maternity colony.
- 4.1.2** Two long-eared bat species are found within the UK: brown long-eared bat (*Plecotus auritus*) and grey long-eared bat (*Plecotus austriacus*). Brown long-eared bats are a widespread species found throughout the UK. Day and transitional/occasional roosts occupied by small numbers of non-breeding brown long-eared bats are considered to be of low conservation importance; however, brown long-eared bats are a species of principal importance for conservation (as defined within Section 41 of the NERC Act 2006) and any loss of roosts may have an adverse impact on the status of local populations (Mitchell-Jones 2004). The grey long-eared bat has a restricted distribution and is confined to the south of England (Richardson 2000), therefore it is unlikely that this rarer species may be present.
- 4.1.3** The finding of a group of large bat droppings on fibreglass at the south-eastern gable end of the roof void suggests that the house likely supports roosting serotine bats. The number of droppings suggests that the house most likely supports a day and/or transitional roost for this species; however, further droppings may be trapped out of view and therefore the presence of a breeding roost cannot be discounted at this time. The serotine bat (*Eptesicus serotinus*) typically roosts in buildings with high gables, and serotine droppings are often concentrated at gable ends or around the chimney base (Collins 2016). The recorded distribution of serotine bats in the UK is heavily concentrated in the south of England and scattered throughout Wales, while scattered records are presented in the midlands and scarce records in the north of England (Joint Nature Conservation Committee 2019). Roosts supporting serotine bats are of low-moderate to moderate conservation importance (Mitchell-Jones 2004).

4.1.4 The house shows evidence of use by at least two bat species and has several roosting opportunities suitable for species that occupy crevices such as the widespread and common pipistrelle (*Pipistrellus* spp.) and less commonly occurring small *Myotis* species i.e. whiskered and Brandt's bat. Overall, the house is a confirmed roost and of high bat roost potential.

4.1.5 The garage and shed showed no evidence of use by bats but had features with bat roost potential and were of low and moderate potential respectively.

4.2 Impact of Proposals and Recommendations

4.2.1 The survey findings show that the proposed construction of a two-storey extension and roof reconfiguration of the house and demolition of the garage and store (refer to plans in **Appendix 3**) will have an impact on at least two confirmed bat roosts, and will affect features with bat roost potential and therefore the work may result in the loss of bat roosts and could disturb and/or harm any bats present at the time.

4.2.2 Further survey work would be required to confirm the status of the roosts and to determine if any other roosts are present. Further surveys should comprise three evening emergence and/or dawn re-entry surveys, and the surveys should be undertaken in the period between May and September inclusive, with at least two of the surveys carried out in the peak season for recording maternity roosts i.e. mid-May to August; at least two weeks should separate the surveys (Collins 2016).

4.2.3 The survey findings to date show that the proposed building work to the house could disturb and/or harm any bats present at the time of the works and therefore, subject to findings of further survey, a European Protected Species (EPS) mitigation licence or registration of the site under the Bat Mitigation Class Licence (BMCL) (if applicable) may be required to allow the planned works to go ahead lawfully.

4.2.4 The EPS mitigation licence or confirmation of the site's registration under the BMCL (if applicable) must be obtained before the commencement of the work affecting bat roosting sites, and can be issued by Natural England if the three licensing tests (detailed in 1.2.2) have been met by the proposed work.

4.2.5 To meet one of the licensing tests, it would be necessary to demonstrate that the 'favourable conservation status' of bats using the house would be

maintained throughout and after the completion of the work by employing mitigation measures during the work, providing compensatory roosts in the short-term and ensuring that roosting sites are retained on site in the long-term. Indicative provisional mitigation proposals are summarised in section 4.3 below. **N.B. the preparation of a detailed mitigation strategy necessary for the submission of a licence application should be based on the findings of the further survey.**

4.3 Indicative and Provisional Mitigation Proposals

- 4.3.1** If further survey shows an EPS mitigation licence is required, under the terms of the licence or BMCL (if applicable), the start of the work affecting the bat roost(s) should be timed to avoid the periods when bats are most susceptible to disturbance i.e. winter hibernation season for all roosts (mid-November to February) to avoid disturbing torpid bats, and outside of the peak summer breeding season (May to mid-September) where evidence of a maternity roost is recorded.
- 4.3.2** Replacement roosting opportunities should be provided so that they are available to bats in the short-term i.e. prior to and during the work, by erecting woodcrete bat boxes suitable for the species present on nearby mature trees or poles before the work starts.
- 4.3.3** A 'soft strip' approach to the work should be adopted i.e. the careful removal of hanging tiles and roof tiles around the roosting locations by gloved hands and with hand-held tools under the supervision of a licensed ecologist, or the Registered Consultant if working under the BMCL. In the event that bats are discovered during the course of the work, the licensed ecologist or Registered Consultant would capture the bat(s) and transfer it/them directly to one of the bat boxes erected in advance of the works.
- 4.3.4** In the longer term, as part of the licence, replacement access and/or roosting opportunities may need to be incorporated into the extension. Access and roosting opportunities should be created corresponding to the positioning of bat roosts identified during the emergence and re-entry surveys. Roost features or access points could be recreated by installing integral roosting boxes in external walls or creating small access gaps in the new roof under access tiles. If any roost features are to be incorporated into the property which can be accessed by roosting bats, the roof insulation should **not** be lined with a breathable roofing membrane because they have

John Wenman Ecological Consultancy

been found to be harmful to bats and a bitumen-based Type 1 roofing felt or wooden sarking should be used.

5 REFERENCES

Collins, J. (ed.) (2016). *Bat Surveys for Professional Ecologists – Good Practice Guidelines 3rd Edition*. Bat Conservation Trust, London.

Joint Nature Conservation Committee. (2019). *European Community Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora (92/43/EEC). Fourth Report by the United Kingdom under Article 17 on the implementation of the Directive from January 2013 to December 2018. Conservation status assessment for the species: S1327 – Serotine (Eptesicus serotinus)*. Available at: jncc.gov.uk/jncc-assets/Art17/S1327-UK-Habitats-Directive-Art17-2019.pdf [Accessed on 28/04/2020].

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

Mitchell-Jones, A. J. & McLeish, A. P. (2004). *Bat Workers' Manual (3rd Edition)*. JNCC, Peterborough.

Richardson, P. (2000). *Distribution Atlas of Bats in Britain and Ireland 1980 – 1999*. Bat Conservation Trust, London.

APPENDIX 1 - SITE PHOTOGRAPHS



1. North-eastern elevation of the house.



2. South-eastern elevation of the house.



3. Western elevation of the house.



4. South-western elevation of the shed.



5. Eastern elevation of the garage.



6. Northern elevation of the garage.



7. Gaps below and around windowsill on second-storey window (eastern elevation).



8. Gaps between second-storey windowsill, brickwork and mortar and pebbledash (eastern elevation).

John Wenman Ecological Consultancy



9. Gap between windowsill and pebbledash to second-storey window (eastern elevation).



10. Gaps between downpipe fixture and windowsill and brickwork beneath to second-storey window (eastern elevation).



11. Gap to window edge and where flashing is loose (eastern elevation).



12. Crack in pebbledash creating gap between wall and gable window felt (western elevation).



13. Further gap and cracked pebbledash area where felt for gable window meets wall (eastern elevation).



14. Large gap between gable window felt and wall (northern elevation).



15. Gap between gable window felt and wall (eastern elevation).



16. Gaps between flue, felt and roof to second-storey window (eastern elevation).



17. Large area of pebbledash cracking near second-story window (western elevation).



18. Large area of pebbledash cracking near second-storey window (southern elevation).



19. Lifted and missing tiles near left chimney (western elevation).



20. Further missing tiles near left chimney and ridge tiles (western elevation).



21. Lifted tiles near gable (western elevation).



22. Lifted tiles at end near gable (eastern elevation).



23. Missing tiles (western elevation).



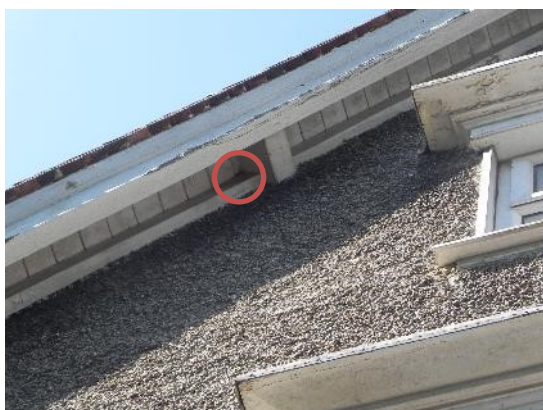
24. Missing tiles above bay window roof (eastern elevation).



25. Missing and lifted tiles (eastern elevation).



26. Gaps at and around gable apex where mortar between tiles has crumbled (southern elevation).



27. Gap to gable between soffits and wall (northern elevation).



28. Cracked ridge tile from western view.



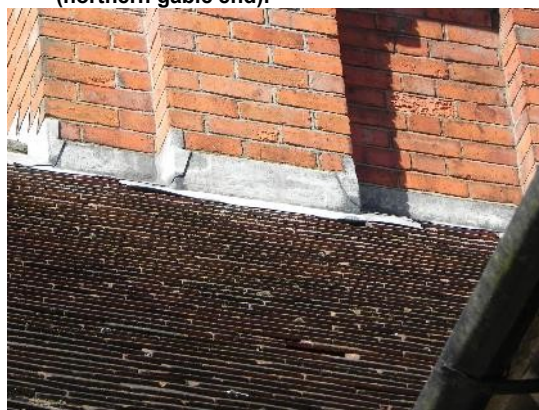
29. Gap to gable apex (northern elevation).



30. Slight gaps between soffits and pebbledash (northern gable end).



31. Slight gaps between soffits and pebbledash render (southern gable end).



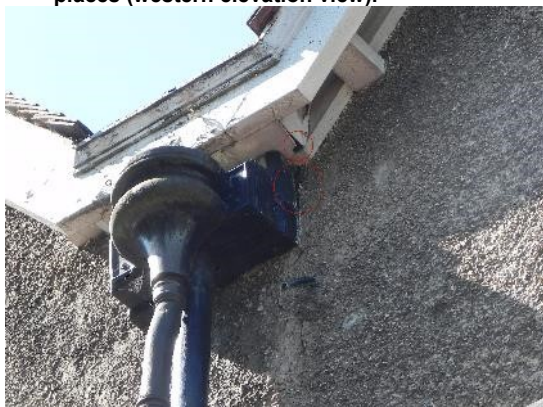
32. Lead flashing on chimney lifted (view from western elevation).



33. Mortar between chimney bricks missing in places (western elevation view).



34. Tiles lifted to gable (south-eastern elevation).



35. Gaps between downpipe fixture and wall and soffits to fascia joining western gable roofs (eastern elevation).



36. Gap between lifted gable soffit and tiles/ flashing (eastern elevation).



37. Lifted tiles (western elevation).



38. Felt starting to lift on dormer roof edges and soffit not flush with flashing.



39. Tiles lifted to edge of bay window roof.



40. Tile cracked to edge of bay window roof.



41. Potential access through loose flashing if tiles beneath present gaps.



42. Crack in wall above bay window roof.



43. Gap between eaves and bay window.



44. Further gap between eaves and bay window.



45. Further gap between eaves and bay window.



46. Weep holes between bricks in garage.



47. Garage roof (northern elevation).



48. Gap in missing mortar to garage where brick wall meets roof (western elevation).



49. Gap between timber and brick to garage front (eastern elevation).



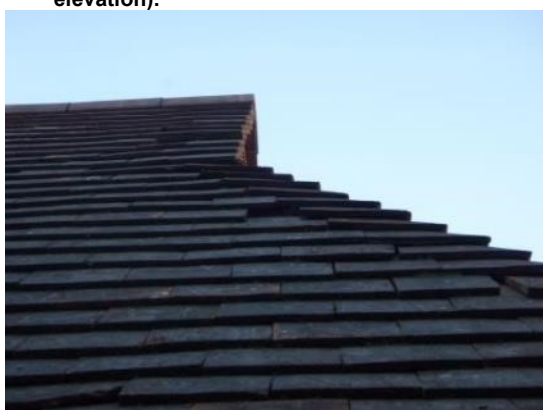
50. Narrow gap between the soffit and the wall (northern elevation).



51. Shed tiles lifted down hip (south-eastern elevation).



52. Shed tiles lifted down hip (south-western elevation).



53. Shed tile missing near lifted hip tiles.



54. Loose feather boards to shed (south-western elevation).



55. Internal roof space cut-and-pitch construction with fibreglass and boarded flooring.



56. Internal roof space felt roof with timber beams.



57. Internal roof space - signs of damp and cobwebs to ridge.



58. Internal roof space - sheeting covering gaps in felt.



59. Gaps between bricks and timbers at all gables.



60. Narrow gaps either side of chimney/water tank.



61. Gaps between bricks and timbers to internal roof space chimney.



62. Medium-sized bat droppings on floor of roof space.



63. Further medium-sized bat droppings on floor of roof space.



64. Further medium-sized bat droppings on floor of roof space.



65. Further medium-sized bat droppings on floor of roof space.



66. Further medium-sized bat droppings on floor of roof space.



67. Medium-sized bat dropping hanging from wall of roof space.

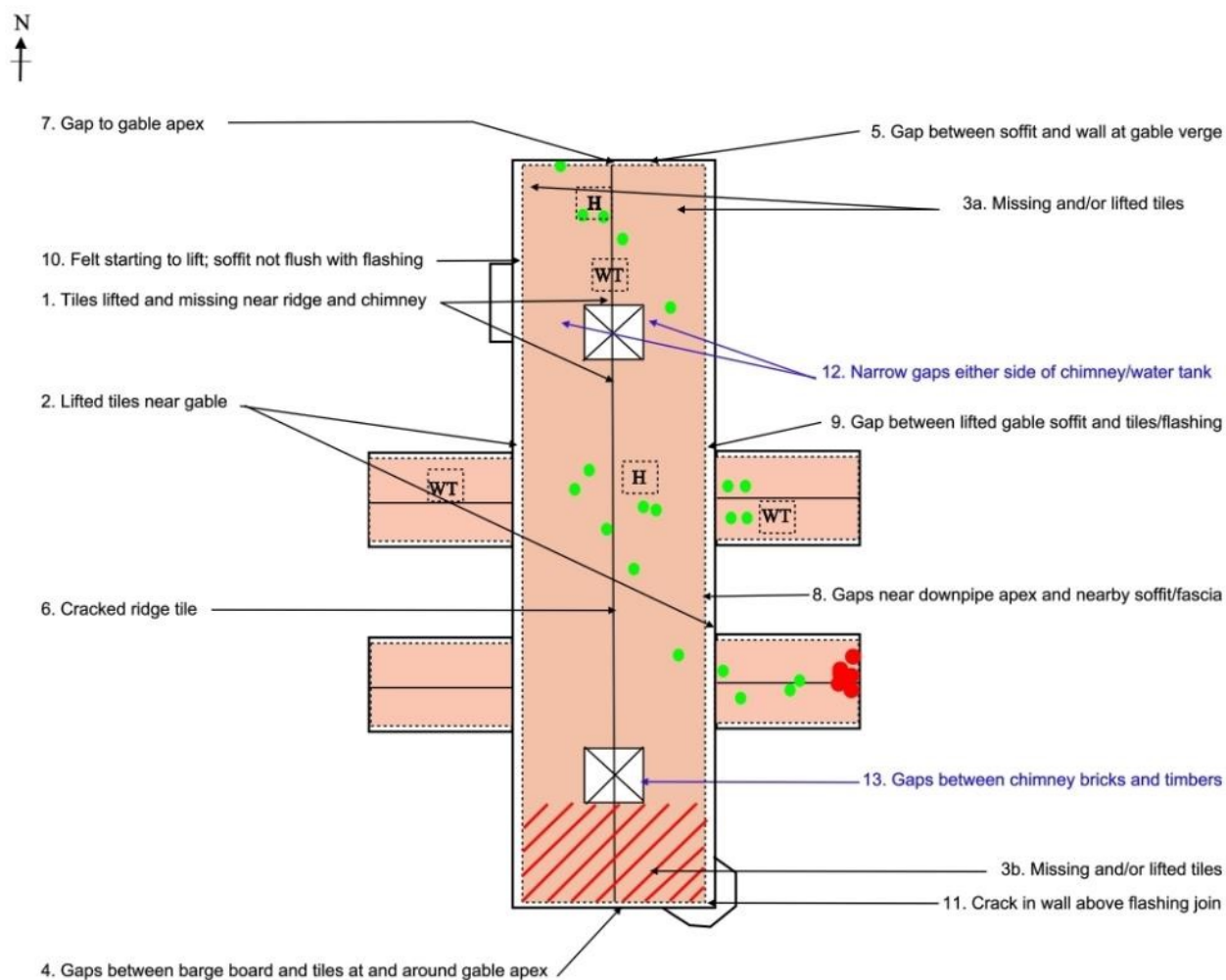


68. Further medium-sized bat droppings hanging from wall of roof space.



69. Concentration of 50-100 large bat droppings on roof space flooring.

APPENDIX 2 – PRELIMINARY BAT ROOST ASSESSMENT FINDINGS



● Large bat droppings
 ● Medium bat droppings
 n. External target note
 n. Internal target note
X Chimney
 Roof void
 Inaccessible void
H Loft hatch
WT Water tank

Drawn by:	Date:	Scale:	68 Shinfield Road Reading, RG2 7DA	
LN	April 2020	Not to scale	Preliminary Bat Roost Assessment Findings	

APPENDIX 3 – EXISTING AND PROPOSED ELEVATION PLANS



EXISTING EAST ELEVATION (FRONT)



EXISTING WEST ELEVATION (REAR)



EXISTING NORTH ELEVATION



EXISTING SOUTH ELEVATION



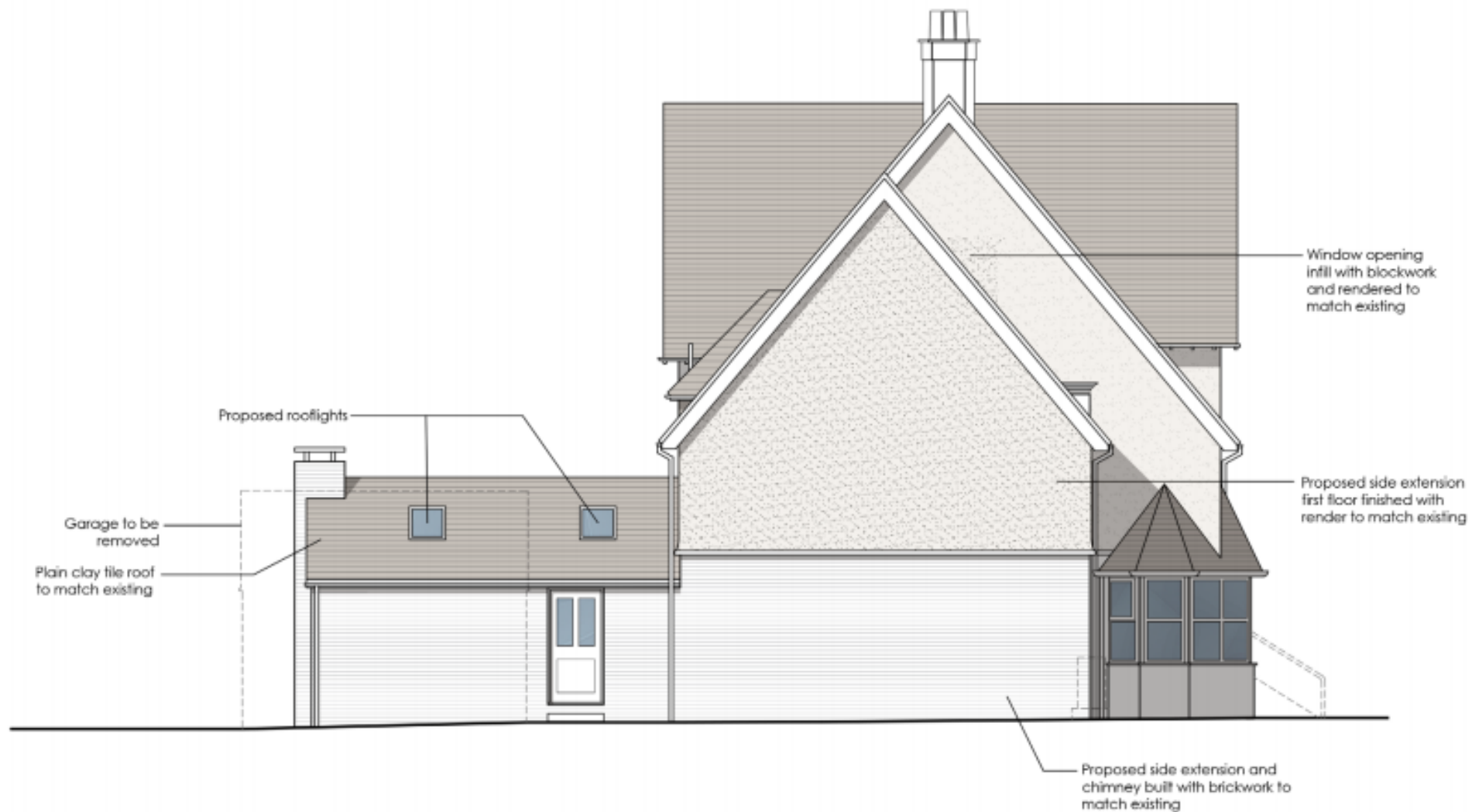
PROPOSED EAST ELEVATION (FRONT)



PROPOSED WEST ELEVATION (REAR)



POPOSED NORTH ELEVATION



PROPOSED SOUTH ELEVATION