



**55 Kidmore End Rd, Emmer Green,
Reading, Berkshire RG4 8ST**

**Daytime Bat Walkover
& Preliminary Roost Assessment**

June 2026

on behalf of Graeme Taylor

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Client	Graeme Taylor
Job name	55 Kidmore End Rd, Emmer Green, Reading, Berkshire RG4 8ST
Survey date	3 rd June 2026
Report date	4 th June 2026
Report title	Daytime Bat Walkover & Preliminary Roost Assessment
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Contents

1	Executive Summary	1
2	Introduction	1
2.1	Site Description & Context	1
2.2	Proposed Works	1
2.3	Aims of Study	1
2.4	Bat Ecology	1
3	Methodology	2
3.1	Limitations on Survey Data	2
3.2	Daytime Bat Walkover & Preliminary Roost Assessment (PRA)	3
4	Results	5
4.1	Description & Assessment of Building	5
4.2	Evidence of Bats	6
4.3	Other Species	6
5	Discussion	6
5.1	Status of Bats	6
5.2	Legislative Guidance	6
5.2.1	Bats	6
5.2.2	Nesting Birds	7
5.3	Potential Impacts	8
5.3.1	Bats	8
5.3.2	Birds	8
6	Recommendations	8
6.1	Bats	8
6.1.1	Further Surveys	8
6.1.2	Licensing	8
6.1.3	Timing	8
6.1.4	Careful Work Practices	8
6.1.5	Enhancement	8
6.1.6	Lighting	9
6.2	Birds	10
6.2.1	Timing	10
6.2.2	Enhancements	10
7	References	10
8	Appendix 1. Photographs	11
9	Appendix 2. Site Location Plans	12
10	Appendix 3. Existing & Proposal Plans	13

1 Executive Summary

Site Details	55 Kidmore End Road, referred to as the 'property' within this report, is a semi-detached dwelling located on Kidmore End Road within Emmer Green, a suburb of Reading, Berkshire RG4 8ST. The approximate Ordnance Survey grid reference for the centre of the property is SU 716 977.
Proposals	The proposals include a loft conversion and creation of a front porch.
Methodology	A Daytime Bat Walkover and Preliminary Roost Assessment were undertaken on the 3 rd June 2026.
Evaluation	• No bats or evidence of bats were found during the survey. • The dwelling is assessed as having 'negligible' bat roost potential (Collins, 2023). • No evidence of nesting birds was noted in association with the building.
Impact Assessment	• No significant impacts on bats or their habitats are predicted under The Conservation of Habitats & Species Regulations 2017. • A European Protected Species (Bat) Licence is not considered to be necessary for proposals to proceed. • It is not necessary to consider the 'three tests' of The Conservation of Habitats & Species Regulations 2017 in this instance.
Recommendations	Recommendations are made with regard to careful work practices as well as enhancement for bats and birds.

2 Introduction

2.1 Site Description & Context

55 Kidmore End Road, referred to as the 'property' within this report, is a semi-detached dwelling located on Kidmore End Road within Emmer Green, a suburb of Reading, Berkshire RG4 8ST. The approximate Ordnance Survey grid reference for the centre of the property is SU 716 977.

The property appears to date from the late 20th or early 21st century and is a two-storey dwelling with rendered walls and a pitched roof of aggregate tiles. To the rear of the property there is a single-storey extension with a pitched roof of aggregate tiles incorporating several roof lights. The property has a loft space within the main roof which is partially converted and boarded. The eaves, guttering and downpipes are of PVC construction.

The property is surrounded in all directions by residential development comprising semi-detached and detached dwellings with associated gardens. To the west of the wider area, areas of semi-improved grassland and scattered woodland are present, associated with the Highdown/Shooters Hill area.

Please refer to Appendix 1 for photographs of the building. Location plans can be found within Appendix 2.

2.2 Proposed Works

The proposals include a loft conversion and creation of a front porch.

Please see Appendix 3 for existing and proposal plans.

2.3 Aims of Study

The aims of this study are to survey the building (55 Kidmore End Road) for bats and/or evidence of bats, and other protected species including nesting birds. The study assesses the overall potential of the building to support roosting bats and other protected species. The report discusses the potential impacts of the proposed works on bats, protected species and their habitats.

The report makes recommendations for appropriate mitigation, compensation and enhancement measures, and the potential impacts are assessed in accordance with the legal protection afforded to bats under The Conservation of Habitats & Species Regulations 2017. The need for a European Protected Species (Bat) Licence is also discussed in light of the impact assessment.

2.4 Bat Ecology

Bats are the only mammals to have developed the ability of true flight. At present, over 1,100 species of bat are recognised worldwide, making bats the second largest mammal group after rodents. As well as flight, bats have evolved a system of navigation and orientation using echolocation which has allowed many species to become nocturnal. There are 18 species of bat that occur within the British Isles, of which 17 are known to breed here. More species occur in the south and west of the country, with species numbers declining towards the north and into Scotland.

All bat species in the UK are nocturnal and feed exclusively on insects (they are insectivorous) which they catch in flight during their night-time activity, using echolocation to locate and home-in on their prey. Bats will roost during the daytime and seek out dark, enclosed and

undisturbed places in which to do so, often using a variety of roosting sites within their home range. Different roost sites are used for different purposes (such as mating, giving birth and hibernation) and at different periods of a bat's life cycle.

During the summer, female bats will gather together in a maternity or breeding roost. In the UK, this starts to occur towards the end of May and the females will seek out a warm and undisturbed site in which to give birth. Because maternity roosts require a particular set of environmental attributes (such as location, temperature, orientation and size), breeding bats tend to return to roost and breed in the same locations year after year. Given that bats live a relatively long time (anywhere from 10-20 years), and only give birth to one pup a year, maternity colonies are crucial to the reproduction and survival of the local population and can be very sensitive to environmental change.

Relatively little is known about hibernation roosts, as tracking and locating hibernating bats is very difficult. However, many species (particularly those within the genera *Myotis* and *Rhinolophus*) have been found within underground sites such as caves, mines and cellars, where the temperature remains constant and low throughout the winter allowing the bats to remain in a state of torpor. The spring and autumn are periods of transition and bats can use a number of different locations on a temporary basis, often moving between roosts as environmental conditions change and temperatures fluctuate. In the autumn, bats will mate, and it has been shown that male and female bats will gather at particular locations (such as a building, cave or tree) to meet, socialise and copulate.

Bats choose to roost in a number of different locations, depending on the species, their activity pattern and the period of their lifecycle. Certain species, such as the pipistrelles, favour crevices and small cavities for roosting and will use features such as cracks, crevices and small rot holes in the boughs and trunks of trees and within certain features of buildings such as boxed eaves, gaps under roof tiles, hanging tiles and soffit boards. Other species favour large, uncluttered roof spaces and lofts within buildings where they can hang up on the underside of the roof and use the interior space for flying prior to emergence. Hollow trees, cellars, caves, barns, churches and cavity walls can also all be used for roosting, given suitable access. Certain species, such as the noctule, favour roosting sites within trees whilst others tend to favour buildings. Roost sites may be used by only a very small number of bats, such as solitary males, or may offer shelter to tens or hundreds of bats within maternity and hibernation roost sites.

The suitability of roosting sites is also highly influenced by the location or context of a tree, building or cave. Roost sites are most often favoured when they are within close proximity to foraging habitats and where those habitats are connected to one another within the landscape by features such as hedgerows, woodlands, rivers or sunken lanes along which bats disperse and 'commute' from place to place. Suitable foraging habitats are any places where insect prey is diverse and abundant such as woodlands, ponds, lakes, rivers, scrub, hedgerows and unimproved grassland or pasture. Thus, the ecological context of a site is very important for determining if bats may be present within a roost and the potential for a roost to be present tends to be much higher within rural or village locations.

3 Methodology

3.1 Limitations on Survey Data

All areas of the building were accessible during the survey and there are considered to be no limitations on the survey data.

As with any survey undertaken on a certain date, the data presented within this report provide information at a particular point in time and present a 'snap-shot' of the ecological status of the site. Ecosystems and species behaviour/activity are dynamic and can change over time.

Whilst this report presents a characterisation and evaluation of habitat and species status at the time of the study, it should not be taken as an exhaustive representation of the ecological status of the site either at present or into the future.

3.2 Daytime Bat Walkover & Preliminary Roost Assessment (PRA)

A Daytime Bat Walkover and Preliminary Bat Roost Assessment (PRA) were undertaken on the 3rd June 2026 by professional ecologist Reuben Hayden *MSc ACIEEM*. Mr Hayden holds a licence from Natural England to survey for bats within all counties of England (Licence No. Level 2 2025-84936-SCI-CL18) and has over 6 years of experience surveying bats.

A detailed internal and external survey of the building was undertaken using a 1 million candle-power torch and close-focusing binoculars in order to look for bats and/or evidence of bats and to assess the potential of the building to support roosting bats.

The building was inspected for evidence of bats including, bat droppings, urine stains, feeding remains (such as moth wings) and characteristic fur staining around access points.

Notes were made on the relative freshness, shape and size of bat droppings and the location and quantity of any feeding remains. 'Clean' gaps and crevices within the structure of the building were looked for as this can indicate where bats may have gained access to the interior spaces and the fabric of the walls.

The bat survey was undertaken according to best practice guidelines published by the Bat Conservation Trust (Collins, 2023) and the Bat Worker's Manual (Joint Nature Conservation Committee, 2012).

The study also takes into account the structure and ecological context of the building, including the following factors which may increase the likelihood of roosting bats being present:

- Age of the building (pre-20th Century or early 20th Century construction)
- Nature of construction; traditional brick, stone or timber construction
- Large and complicated roof void with unobstructed flying spaces
- Large (>20 cm) roof timbers with mortice/tenon joints, cracks and holes
- Entrances and gaps for bats to fly and crawl through
- Poorly maintained fabric providing ready access points for bats into roofs, walls; but at the same time not being too draughty and cool.
- Roof warmed by the sun, south-facing roofs in particular
- Weatherboarding and/or hanging tiles with gaps
- Undisturbed roof voids
- Buildings and built structures in proximity to each other providing a variety of roosting opportunities throughout the year
- Buildings or built structures close to good foraging habitat, in particular mature trees, parkland, woodland or wetland, especially in a rural setting.

The following criteria are used for as guidelines for assessing the potential suitability of buildings for bats (Collins, 2023), see Table 1.

Table 1. Criteria for the assessment of buildings for roosting bats (Collins, 2023).

Suitability	Description of Roosting 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).
Negligible ^a	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.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically at any time of the year. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions ^b 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 and not a classic cool/stable hibernation site, but could be used by individual hibernating bats ^c).
Moderate	A structure with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only, such as maternity and hibernation – the categorisation described in this table is made irrespective of species conservation status, which is established after the presence is confirmed).
High	A structure 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 site.
^a Negligible is defined as ‘so small or unimportant as to be not worth considering, insignificant’. This category may be used where there are places that a bat could roost or forage (due to one attribute), but it is unlikely that they actually would (due to another attribute). ^b For example, in terms of temperature, humidity, height above ground level, light levels or level of disturbance. ^c Evidence from the Netherlands shows mass swarming events of common pipistrelle bats in the autumn followed by mass hibernation in a diverse range of building types in urban environments (Korsten <i>et al.</i>, 2016 and Jansen <i>et al.</i>, 2022). Common pipistrelle swarming has been observed in the UK (Bell, 2022 and Tomlinson, 2020) and winter hibernation of numbers of this species has been detected as Seaton Delaval Hall in Northumberland (National Trust, 2018). This phenomenon requires some research in the UK, but ecologists should be aware of the potential for larger numbers of this species to be present during the autumn and winter in prominent buildings in the landscape, urban or otherwise.	

Confirmed presence of roosting bats is where evidence indicates that a building or other structure is used by bats, this includes:

- bats seen roosting or observed flying from a roost or freely in the habitat;
- droppings, carcasses, feeding remains etc. found and/or
- bats heard ‘chattering’ inside a roost on a warm day or at dusk.

Where the possibility that bats are present cannot be eliminated or evidence of bats is found during the building inspection survey, then further surveys (such as winter hibernation,

presence/absence and/or roost characterisation) are likely to be necessary if impacts on the roosting habitat (or the bats using it) are predicted.

In addition to the bat survey, the building was checked for evidence of nesting birds including old birds' nests, bird droppings, feathers and eggs. Specific observations were made with regard to species such as the barn owl, swallow and house martin; species that are often associated with buildings.

3.2.1.1 Weather Conditions

The weather on the day was mild (14°C) with light rain and high cloud cover (80%) and a fresh breeze (Beaufort Scale 3).

4 Results

4.1 Description & Assessment of Building

The property appears to date from the late 20th or early 21st century and is a two-storey dwelling with rendered walls and a pitched roof of aggregate tiles. To the rear of the property there is a single-storey extension with a pitched roof of aggregate tiles incorporating several roof lights. The property has a loft space within the main roof which is partially converted and boarded and is illuminated by two skylights on the northern and southern elevations. The eaves, guttering and downpipes are of PVC construction.

The external brick walls are solid, intact and in an excellent state of repair, with no gaps, cracks or crevices being noted. The roof tiles and PVC eaves are also tight-fitting and intact, with the tiles lying flush with one another with no gaps between or under roof tiles. There are no obvious ways that bats could access the fabric or structure of the building. The small roof space is not suitable for bats and there are no potential ways that bats could access the roof space (as it is boarded out). No bats or evidence of bats were found in association to the building, particularly within the loft space.

Bats will choose to roost within different locations within the summer and winter periods (see Figure 1), favouring dark, enclosed, humid and cool locations for hibernation such as caves and cellars. These locations must maintain a constant low temperature (2-8°C), but temperatures must also not go below freezing. In addition, bats favour places that are undisturbed and retain relatively high humidity during the winter period. The building is not considered suitable for hibernation as there are no suitable crevice features for hibernation or access into the loft space, and the building is unlikely to maintain the constant low temperatures, and high humidity, that are required for hibernation.

The property is surrounded in all directions by residential development comprising semi-detached and detached dwellings with associated gardens. To the west of the wider area, areas of semi-improved grassland and scattered woodland are present, associated with the Highdown/Shooters Hill area. Immediate surrounding habitats are considered to be of relatively low value to bats and are likely to support only common and widespread species that are most tolerant of human activities.

Given the above, 55 Kidmore End Road is assessed as having '**negligible**' potential suitability (Collins, 2023) for roosting bats.

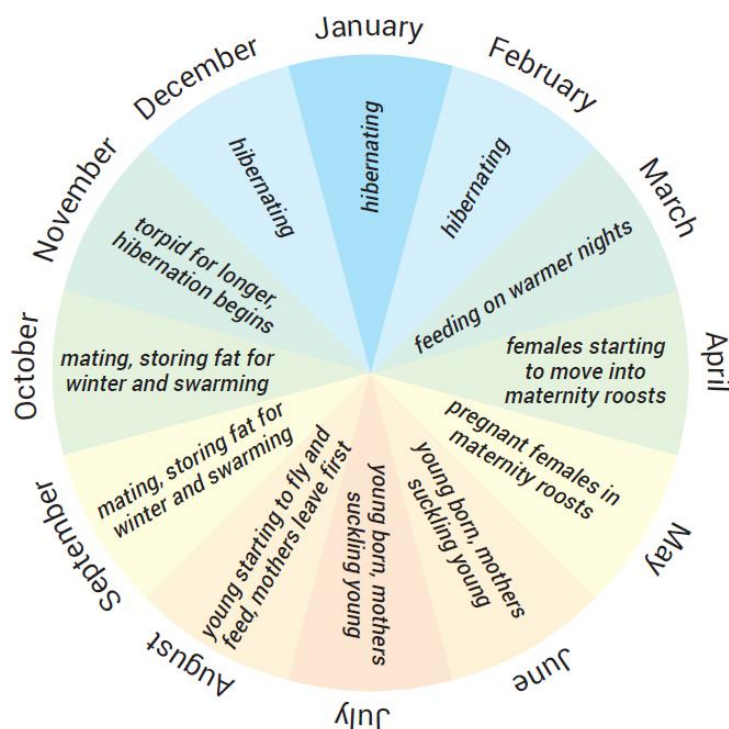


Figure 1. Diagram showing the yearly life cycle of a bat. Taken from the Good Practice Guidelines (4th Edition) by Collins (2023).

4.2 Evidence of Bats

No bats or evidence of bats were found during the survey.

In particular, no bat droppings were found within the loft space or in association with external features.

Bats are considered to be absent from the building.

4.3 Other Species

No evidence of nesting birds was noted in the interior or on the exterior of the building.

In particular, there is no evidence of, starlings, house martins, swifts or house sparrows and the building is unsuitable for barn owls.

5 Discussion

5.1 Status of Bats

It is considered that roosting bats are absent from 55 Kidmore End Road.

5.2 Legislative Guidance

5.2.1 Bats

As with many animal species within the UK, declines in the abundance and distribution of many bat species have been documented through recent decades. The reasons for these declines are various and complex but it is considered that the major factors are changes in land use and agriculture, the loss of woodlands and hedgerows and the loss of suitable roosting sites.

Bats are particularly sensitive to human activity due to the fact that they roost within buildings, trees and underground structures such as mines, and the availability of suitable roost sites is considered to be a key factor in the conservation of bats within the UK. As a consequence, all species of bat and their roost sites are protected under the Wildlife and Countryside Act 1981 (as amended by the Countryside and Rights of Way Act 2000) and under The Conservation of Habitats and Species Regulations 2017. Taken together, these make it an offence to:

- (a) Deliberately capture or intentionally take a bat
- (b) Deliberately or intentionally kill or injure a bat
- (c) To be in possession or control of any live or dead wild bat or any part of, or anything derived from a wild bat
- (d) Damage or destroy a breeding site or resting place of such an animal or intentionally or recklessly damage, destroy or obstruct access to any place that a wild bat uses for shelter or protection
- (e) Intentionally or recklessly disturb any wild bat while it is occupying a structure or place that it uses for shelter or protection
- (f) Deliberately disturb any bat, in particular any disturbance which is likely
 - to impair their ability;
 - (i) to survive, breed, reproduce or to rear or nurture their young; or
 - (ii) in the case of hibernating or migratory species, to hibernate or migrate; or
 - to affect significantly the local distribution or abundance of the species to which they belong

A bat roost may be any structure a bat uses for breeding, resting, shelter or protection. It is important to note that since bats tend to re-use the same roost sites, current legal opinion is that a bat roost is protected whether or not the bats are present at the time.

Although the law provides strict protection to bats, it also allows this protection to be set aside (derogation) under The Conservation of Habitats and Species Regulations 2017 through the issuing of licences. Where a lawful operation is required to be carried out, but which is likely to result in one of the above offences, a licence may be obtained from Natural England (the statutory body in England with responsibility for nature conservation) to allow the operation to proceed. However, in accordance with the requirements of The Conservation of Habitats and Species Regulations 2017, a licence can only be issued where the following requirements are satisfied:

- The proposal is necessary 'to preserve 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';
- 'There is no satisfactory alternative';
- The proposals 'will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range'.

5.2.2 *Nesting Birds*

Nesting birds are protected under the Wildlife and Countryside Act 1981 (as amended), which makes it an offence to intentionally kill, injure or take any wild bird or take, damage or destroy its nest whilst in use or being built, or take or destroy its eggs. The nesting season for most species is between March and August inclusive.

5.3 Potential Impacts

5.3.1 Bats

There is no evidence to indicate that 55 Kidmore End Road is being used as a place of shelter or protection by roosting bats, and roosting bats are considered to be absent.

As a result of this conclusion, the proposed works will not result in any significant impacts on bats or the places that bats use for breeding, shelter and/or protection (roosts) and no specific compensation measures are considered necessary (Reason and Wray, 2023).

Since no significant impacts on bats are predicted under The Conservation of Habitats and Species Regulations 2017, a European Protected Species (bat) licence will not be required for the proposed works to proceed. Since there are no predicted impacts on bats or their habitats, it is not necessary to consider the 'three tests' of The Conservation of Habitats and Species Regulations 2017 in this instance.

5.3.2 Birds

There are no foreseeable impacts on nesting birds.

6 Recommendations

6.1 Bats

6.1.1 Further Surveys

No further surveys are considered necessary.

6.1.2 Licensing

A European Protected Species (Bat) Licence will not be required for the proposed works to proceed.

6.1.3 Timing

There are no constraints with regard to the timing of works.

6.1.4 Careful Work Practices

Works should proceed in a careful and controlled manner. Contractors should be briefed with regard to the fact that individual bats can often exploit very small crevices as roost sites and that bats can move between roost sites on a regular basis.

In the very unlikely event that bats or significant evidence of bats (for example large accumulations of fresh bat droppings) are encountered, works should stop immediately, and advice sought from a qualified ecologist.

6.1.5 Enhancement

The erection of a bat box on a building or on a suitable tree within the landholding is recommended as an enhancement measure, and to provide gain for biodiversity.

It is recommended a conventional bat box be installed; this could be a traditional wooden box, or longer lasting woodcrete box specifically designed for buildings and houses (e.g. the Beaumaris Woodstone Bat Box) or trees (e.g. Vivara Pro WoodStone® Bat Box). If this box is adopted, it is recommended that it is installed as high as possible on the exterior walls, just under the eaves or on a tree trunk. South-facing façades should be favoured.

In this scenario, as there will be a new rendered wall on the south-eastern elevation (to facilitate the loft conversion) an integrated bat tube could be installed on this elevation.

Bat brick (sometimes also referred to as 'bat tubes') features can be obtained pre-fabricated and integrated directly into the fabric of the exterior walls of a building. The bricks/tubes have an external entrance slot which leads to an internal cavity for roosting (e.g. Vivara Pro Build-in Woodstone Bat Tube).

The brick/tube can be concealed behind external cladding, brickwork, stonework or render. For example, bat bricks/ bat tubes can easily be installed into traditional or modern buildings with external wooden weatherboarding; the brick/tube being concealed behind the overlapping wooden boards with access via a gap under a lifted board which leads to the entrance slot of the brick/tube. Bats can fit through very small gaps and so a crevice of 2-2.5cm should be sufficient to allow access to the slot of the bat brick/tube.

6.1.6 Lighting

It is recommended that additional external lighting should be avoided on the building, unless it is necessary for reasons of security and safety. In particular, light spillage around any new bat roosting features, so that a dark corridor is created around the peripheries of the site in order to facilitate the movement of bats, as well as other nocturnal wildlife.

The key in the first instance is to maintain or reduce existing light levels, and reduce blue content to protect the bat species present; this is in line with the mitigation hierarchy where impacts are avoided in the first instance by being planned out (Bat Conservation Trust, 2023).

If lighting is required, it should be kept at low level and at low intensity (Bat Conservation Trust, 2023 and Emery, 2008).

Light sources, lamps, LEDs and their fittings come in a myriad of different specifications which a lighting professional can help to select. However, the following should be considered when choosing luminaires and their potential impact on key habitats and features:

- All luminaires should lack UV elements when manufactured. Metal halide, compact fluorescent sources should not be used
- LED luminaires should be used where possible due to their sharp cut-off, lower intensity, good colour rendition and dimming capability
- A warm white light source (2700 Kelvin or lower) should be adopted to reduce blue light component
- Light sources should feature peak wavelengths higher than 550nm to avoid the component of light most disturbing to bats (Stone, 2012)
- Internal luminaires can be recessed (as opposed to using a pendant fitting) where installed in proximity to windows to reduce glare and light spill
- Waymarking inground markers (low output with cowls or similar to minimise upward light spill) to delineate path edges
- Column heights should be carefully considered to minimise light spill and glare visibility. This should be balanced with the potential for increased numbers of columns and upward light reflectance as with bollards
- Only luminaires with a negligible or zero Upward Light Ratio, and with good optical control, should be considered
- Luminaires should always be mounted horizontally, with no light output above 90° and/or no upward tilt

- Where appropriate, external security lighting should be set on motion sensors and set to as short a timer as the risk assessment will allow. For most general residential purposes, a 1 or 2 minute timer is likely to be appropriate
- Use of a Central Management System (CMS) with additional web-enabled devices to light on demand
- Only if all other options have been explored, accessories such as baffles, hoods or louvres can be used to reduce light spill and direct it only to where it is needed. However, due to the lensing and fine cut-off control of the beam inherent in modern LED luminaires, the effect of cowls and baffles is often far less than anticipated and so should not be relied upon solely.

6.2 Birds

6.2.1 Timing

Given that nesting birds are absent, there are no timing restrictions recommended.

6.2.2 Enhancements

As an enhancement, it is recommended that a bird box is erected on a building or on a suitable tree within the landholding. This would benefit declining urbanised bird species such as swifts and house sparrows. Bird boxes can be either attached to the exterior of a building/tree or more preferably, integrated into the fabric of a building. It is preferable that bird boxes for swifts and sparrows be installed on northern or eastern faces under the eaves of buildings. Swift boxes in particular should be installed 5m above ground level with a clear flight path into the box.

Recommended boxes for buildings:

- Vivara Pro WoodStone House Sparrow Nest Box
- Vivara Pro WoodStone Swift Nest Box

Recommended boxes for trees:

- Vivara Pro Seville 32mm WoodStone® Nest Box

7 References

Altringham, J., 2003. *British Bats*. Harper Collins.

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Emery, M., 2008. *Effect of Street Lighting on Bats*. Urbis Lighting Ltd., Anglia.

Joint Nature Conservation Committee, 2012. *Bat Worker's Manual*. Joint Nature Conservation Committee, Peterborough, UK.

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8 Appendix 1. Photographs



Photograph 1. The north-eastern elevation of the building.



Photograph 2. The south-eastern elevation of the building.



Photograph 3. The south-western elevation of the building and adjacent property.



Photograph 4. Detail of the tight fitting roof tiles and ridge tiles.



Photograph 5. Detail of the tight fitting eaves.

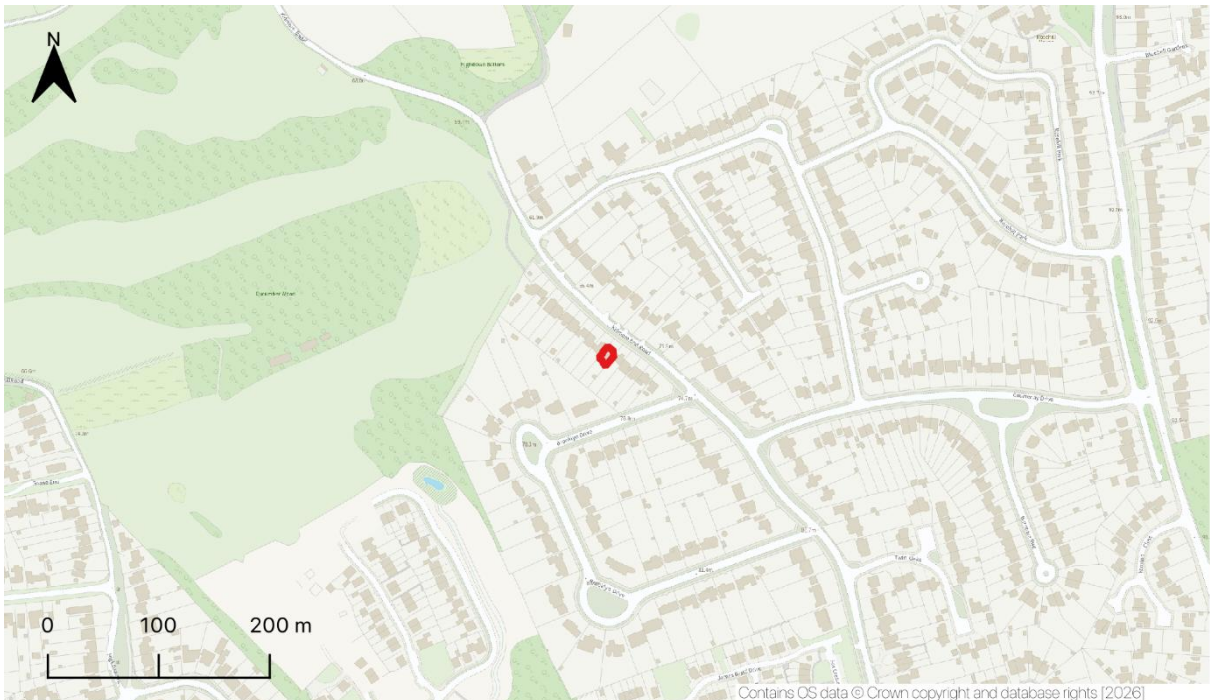


Photograph 6. The loft space within the building.

9 Appendix 2. Site Location Plans



An aerial photograph showing the location of the property (outlined in red). *Source: Google Satellite*

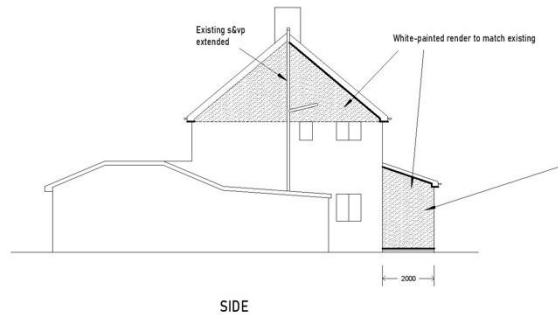
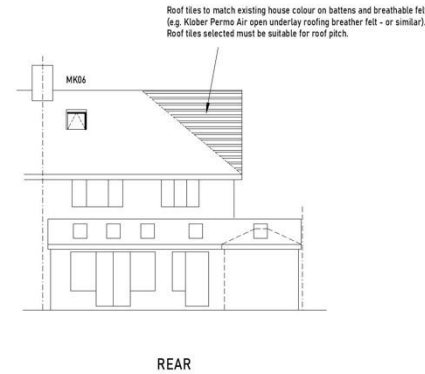
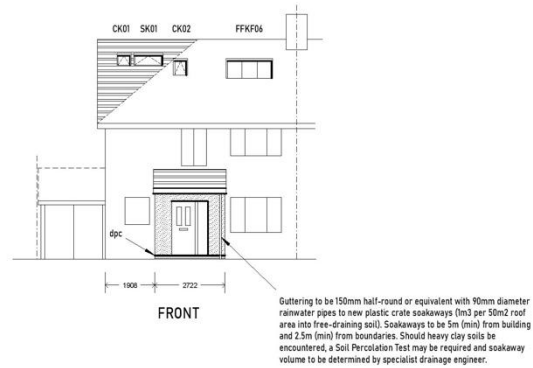


Map showing the location of the property (outlined in red) within the wider local area. *Source: OSM Standard*

10 Appendix 3. Existing & Proposal Plans



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Client:		G. Taylor	
Address:		55 Kidmore End Road, Emmer Green, Reading RG4 8ST	
Drawing No:		TAYLOR-0326-09	
Title:		EXISTING PLANS AND ELEVATIONS	
1:25		1:50 1:75 1:100	

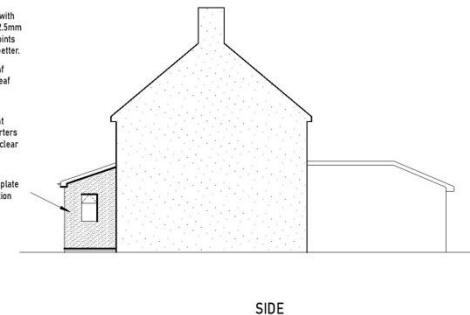


New Porch walls to be rendered block to match existing, 100mm cavity with 10mm Thermacore Cavity Wall 27, 100mm Thermate Shield block, 12.5mm plasterboard via 'dot & dab' and skim finish. Movement and expansion joints to be incorporated as necessary. Providing a U-value of 0.18W/m2K or better.

Walls between foundations and DPC as engineering brickwork outer leaf (to BS 3921:1995 Class FL or FN). Aggregate concrete blockwork inner leaf to BS 4072:1991 (min 100kg/cum or 7N/m2).

Stainless steel wall ties: 750 horizontal, 450 vertical, and double at all reveals. Reveals to have Thermabate Insulated Cavity Closers to prevent cold bridging and provide vertical dpc. Expanet stainless steel wall starters (or similar) to bond new masonry to existing building. All cavities to be clear 225mm below dpc level and closed at roof level. Minimum length of brickwork returns 465mm.

12m galvanised steel straps and lateral straps for roof, floors and wall plate to be provided at not greater than 2000mm centres, having a cross section of 30 x 5mm.



Revision		S BIDDLE Ltd		Sheppards Road, 55 Kidmore End Road, Emmer Green, Reading RG4 6ST	
		Client: G. Taylor		Scale: 1:100	
		Address: 55 Kidmore End Road, Emmer Green, Reading RG4 6ST		Title: PROPOSED ELEVATIONS	
		Drawing No: TAYLOR-0326-04		Date: 2023	
		Drawn by: [Name]		Check by: [Name]	
		Date: [Date]		Scale: 1:100	