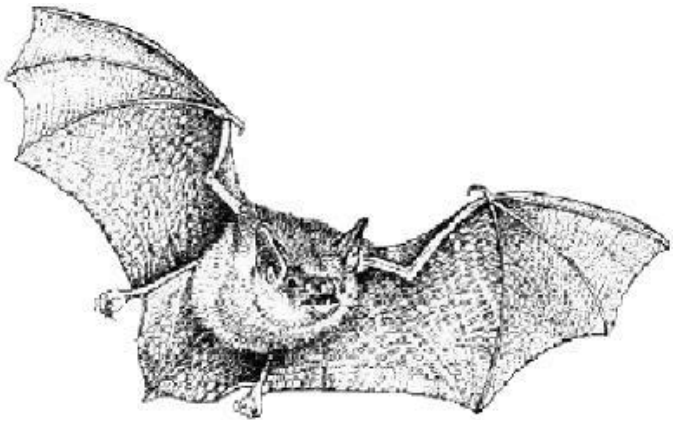
67 Hillcrest Road, Langho, Blackburn, Lancashire BB6 8EN

Survey & Assessment in Respect of Bat Species, and Nesting Birds.

Surveyor- Mike Fisher

(Bat Survey Licence Level 2 Class Survey Licence WML CL18)
(Bat Roost Visitor Level 1 Class Survey Licence WML CL15)



Echo Calls Bat Surveys

10h July 2020

1. Introduction.

1.1 Reason for Survey.

As part of the process to obtain planning permission to develop the site, by modernising and extending a bungalow, a daytime evidence and opportunity bat survey, a separate evening bat emergence survey, and a nesting bird survey were requested, on all parts of the targeted building, and any trees, shrubs, and hedgerows within the site boundaries. The purpose of these surveys was to provide evidence on habitats and protected species within the site boundaries, as part of the Local Development Framework (UDP Policy EN9).

1.2 Aims

The aims of this ecological assessment were to:

- To provide clear advice to the client and the Local Planning Authority on the nature conservation value of the site and surrounding area.
- To assess the site for the presence or potential of protected species, within the proposed development site.
- To enable the client to comply with legislation afforded to protected sites and species.
- To highlight the presence of any habitats or species of ecological importance, including Habitats and Species of Principal Importance (NERC Act, 2006).
- To identify any ecological constraints on future development.
- To establish the need for any further surveys and assessments.
- To make nature conservation recommendations.

1.2 The Site.

The site was a plot of land situated along the north-western edge of Hillcrest Road, in the Langho area of Blackburn, in Lancashire, and consisted of a semi-detached bungalow, and its surrounding land. The land and targeted building from now on are referred to as the “site” at OS grid reference SD 70407 33824, (refer to **Fig 1** - **The Site Location**).

1.3 The Buildings.

There was a single semi-detached bungalow, with an integral garage located centrally within a plot of land. The adjoining half of the bungalow and the numerous other buildings positioned around the site perimeter, were not included in the current application, and therefore, they were not surveyed.

1.4 Surrounding Land.

The bungalow was located centrally within the site, with a mixture of shrubbery and flowerbeds in its gardens to the north, south and east of the building, and a small section of hedgerow along the north-eastern border.

Surrounding the site is a large housing estate, containing other similar buildings and their own gardens, some bordered by low hedgerows, fences or walls, and containing mostly low shrubs and a few semi-mature trees, particularly in gardens to the west of the site.

Beyond the housing estate to the south-east was an area of mature woodland with a large area of open pasture to its west, containing a few lines of fragmented hedgerow and the odd tree. Whilst to the west, north and east were large conurbations of housing, again with gardens containing a few trees and shrubs, (refer to **Fig 1 -The Site Location, Fig 2** – **Google Map, Fig 3 – Main Plan of Area, Fig 4 - Plan of Photographs** and **Fig 5 - Plan of Survey Results**).

2. Methods.

2.1 Risk Assessment, Possible Hazards.

The required access to the site was easy, and the perimeter of all external parts of the building could be easily searched. The building was in an excellent state of repair, and the inside could also be safely searched, carefully and responsibly, and there were no more hazards other than those normally associated with surveying both the inside and outside of these types of buildings.

2.2 Methodology of Bat Surveys

A number of factors are used for the survey methodology, which include:

- Knowledge of bat species relevant to the site location, and geographical range.
- Nature of the immediate, and surrounding habitat, in relation to foraging opportunity.
- Condition of trees, shrubs, and any water bodies.
- Presence/absence of roost potential.
- Value of roost potential – if present.

2.3 Daylight Evidence and Opportunity Survey.

The current daylight evidence and opportunity bat survey took place on 30th June 2020, and was carried out in order to assess the site, and search for evidence of bat occupation, (including recent and historic use). Also, to determine how bats use the site, in what numbers, and if possible, what species of bat are present.

The current survey was undertaken in accordance with the standard methods described in the 'Bat Worker's Manual' (JNCC 2004) and 'Bat Surveys – Good Practice Guidelines' (BCT 2012). It comprised a search for bats, bat droppings, remains of invertebrate prey, grease marks or fur staining, from repeated contact, or passage through narrow roost accesses, or against surfaces, and any other signs of bat occupation, and at the same time looking for evidence of recent nesting birds, any active nests, splash and feathers**.**

Areas within the targeted buildings searched were:

- Outside; the eaves, soffits, and walls for signs of potential bat access holes, the ground, window sills, around the soffits, and any other surfaces, such as low roofs, walls, or refuse bins, which may occur underneath the eaves, and around the perimeter of the building, which may catch bat droppings.

- Inside the buildings, on floors, door lintels, window ledges, or on pieces of furniture, also in spider's webs and other places where droppings or prey remains may collect. Also, noting any noises such as scratching and squeaking which may be made by roosting bats.

The optimum time to investigate buildings for evidence of a bat roost, is between May and August, but this can sometimes be earlier or later in the year and is weather and temperature dependant. However, evidence and opportunity inspections and assessments, may be conducted outside of this time, and can often provide conclusive results, which can save expense and time for Planning Applicants.

All possible roosting areas within the trees or shrubs both around the site perimeter, or within the site itself, were searched for bats, bat droppings, urine staining, any remains of invertebrate prey, grease marks from repeated contact, or passage through, narrow roost accesses, or against surfaces, and any other signs of bat occupation.

The habitats around the site and surrounding any trees within it, were assessed for their suitability for use by foraging and commuting bats.

All evidence of bird species that have previously nested on the site, or were currently nesting within it, were recorded, and all habitats were assessed for their value for use by nesting birds.

Equipment used consisted of close-focus binoculars, camera, endoscope, ladders and powerful hand-held torches.

2.4 Evening Bat Emergence Survey

An evening bat emergence survey was carried out to further assess the site, by observing how bats utilise the site, and observe if any bats emerged from possible roosts within the bungalow, or from any of the targeted trees or shrubs around the perimeter of the site. This survey also took place on 30th June 2020, and it was carried out by two surveyors, strategically positioned to ensure maximum observation of the whole site.

2.5 Equipment

The equipment used consisted of close-focus binoculars, powerful hand-held torches, and heterodyne bat detectors with earphones (a Bat Box 3D and an Echo Meter Touch 2 detector for Android).

3. Results.

3.1 Daylight Survey.

3.1.1 Weather.

The weather conditions at the start of the survey (30th June 2020) were acceptable, with a temperature at the time of the survey of 13°C, with a light breeze, (Beaufort Scale 1/2) and heavy cloud cover, and although there had been some showers during the previous 24 hours, conditions were still suitable for a survey of this type.

3.2 Possible Roost Sites.

3.2.1 The Buildings.

The Bungalow.

The targeted bungalow was the eastern half of a semi-detached block, with a pitched roof covered in underlined concrete tiles and with an insulated roof void. The western half of the block was not included in the application, and therefore was not surveyed.

There was a small entrance porch located at its south-eastern corner, with a flat roof covered in plastic tongue and groove planking, and no roof void. Also, positioned at the south-western corner of the building was an integral garage with a flat concrete roof.

The bungalow had been built from brick, with both the northern and southern elevations covered in render. The building was currently occupied and was heated, insulated, and in a good state of overall repair, with well-sealed soffits and roof, and the render covering was also sound, and well kept. Thus overall, the bungalow was assessed to offer very little bat roosting opportunity, (refer to **figs 3** and **4**, and **photos 1** to **8**).

There were potential bat access points however, and these were:

- A small piece of the mortar parging, had been lost from beneath the corner tile at the bungalow's south-eastern corner of the roof, leaving a hole large enough to offer bats some roosting potential. However close inspection using an endoscope, found the gap to be heavily cobwebbed, and therefore was deemed to offer negligible bat roosting potential, (refer to **figs 3** and **4**, and **photo 9**).

- Positioned centrally in the eastern wall was a ventilation pipe from the bungalow's central heating system, which protruded a short distance with an open end, however it was observed that the pipe contained an internal mesh, and therefore the pipe was concluded to offer no bat roosting potential, (refer to **figs 3** and **4**, and **photo 10**).

- A small area of lead flashing had lifted from the south-eastern corner of the chimney, positioned in the southern part of the roof, but again inspection using close-focus binoculars found there to be neither bat droppings, urine or fur staining, nor prey remains, and therefore the gap was deemed to have not been used by roosting bats, (refer to **figs 3** and **4**, and **photo 11**).

It was thought possible that some of the site, could be used by nesting birds, but at the time of the daylight survey, although there was bird activity in and around the site, none were observed showing any signs of nesting behavior, nor were any nests found within the building itself.

3.2.2 Trees and Shrubs.

There were a few small shrubs but no trees within the overall site, particularly in the southern and eastern gardens, and a small section of low hedgerow, along the north-eastern boundary of the site, all of which were closely inspected for potential bat roosting opportunities; however, none was found, and all were judged to be Category 3 (negligible value) in accordance with **Appendix 2.**

It was thought likely that some of these trees and shrubs would be used by nesting birds, but at the time of the survey, although there was some bird activity in and around the site, no active or historic nests were found.

3.2.3 Foraging Potential and Alternative Roost Potential.

The site is within a suburban area, and the nearby habitat consisted mainly of dwellings with their own gardens containing areas of lawn, numerous small shrubs and hedgerow, and a few semi-mature trees, as mentioned above, (paragraph 1.5), and all of these together with other nearby lines of housing, offered linear features suitable for foraging bats, such as common pipistrelle *(Pipistrellus pipistrellus)*, and possibly other bat species, to hunt along for their insect prey.

Other than the above-mentioned features, and the large stretches of open pasture to the south-west of the site, and the area of mature woodland to the south-east, (paragraph 1.5), there were no other large areas of woodlands, watercourses, or reservoirs in the nearby vicinity, and thus, the area overall, was assessed to offer only low to moderate potential value for foraging bats, primarily pipistrelle species, but it was thought that small numbers of other species could be present.

It was considered that other buildings, especially dwellings, in the surrounding area could offer greater potential as bat roosts. Bats favour heated building whilst breeding.

3.3 The Evening Bat Emergence Survey.

An evening bat emergence survey was carried out in order to further assess the site, and observe if any bats emerged from roosts within any part of the bungalow, the shrubs around the perimeter, or from any vegetation nearby. This survey also took place on 30th June 2020.

3.3.1 Weather

The weather conditions at the start of the survey (30th June 2020) were acceptable, with a temperature at the time of the survey of 11°C, with a light breeze, (Beaufort Scale 1/2) and heavy cloud cover, and conditions were still suitable for a survey of this type.

3.3.2 The Survey

The sunset on the 30th June 2020, was 21.41 hrs, and the survey started 17 minutes before the sunset at 21.24 hrs, and ended when it was too dark to observe the bats well.

The first bat recorded was a common pipistrelle (*Pipistrellus pipistrellus),* and this was heard but not seen at 21.57 hrs, to the north-east of the site, somewhere over the houses across Hillcrest Road, (refer to **fig 5** and **pink arrow 1**).

At 22.07 hrs another pipistrelle was heard but not seen amongst the trees some distance away to the west of the bungalow, (refer to **fig 5** and **pink arrow 2**).

A short time later, a bat was observed foraging in a loop over the trees and gardens to the west of the site, and this behaviour continued until the survey ended, and during which time numerous feeding buzzes were heard. It was though that this could be the same bat heard but not seen a few minutes earlier in the survey, (refer to **fig 5** and **pink arrow 3**).

No other bat activity was observed around the site, and at no time were bats seen to have emerged from any part of the bungalow, nor from any of the or shrubs anywhere within the site, or the neighbouring gardens.

During the survey, although a few birds were observed around the site, none were seen showing any roosting or nesting behaviour, and therefore, it was concluded that the bungalow was currently not being used by nesting birds.

4. Conclusions

4.1 In summary, during the current surveys 30th June 2020, was any current, or historic evidence of roosting bats found, anywhere in the bungalow, or elsewhere in the site. Nor were any bats seen to emerge from potential roosts within the building or shelterbelts of trees.

4.2 All parts of the bungalow offered little roosting potential, and as the building was currently occupied, heated, insulated, and was well-sealed and well maintained, it was assessed to have negligible potential to support daytime roosting bats, and assessed to have very low potential for other use, (refer to **Appendix 2**).

4.3 None of the nearby shrubs offered any suitable roosting opportunities for bats of any species, and therefore, all of the shrubbery around the site was concluded to offer negligible potential as possible bat roosts, (refer to **Appendix 2** and **3**).

4.4 Since bats, particularly Pipistrelles, are opportunistic, an absence of roost evidence at present, does not preclude the low possibility of small numbers of bats, using the site boundaries occasionally in the future and/or at other times of year. It is considered that the likelihood of a significant roost (such as a maternity roost) being established as very unlikely, with lone and/or transient roosting likelihood being negligible.

4.5 It was concluded, that since there is currently *no evidence* of the presence of roosting bats within either the dwelling or shed, that any proposed re-development that necessitates demolition and/or extending of the buildings, will not have significant implications on the population status of local bat species. There will not be requirement for an EPS mitigation licence (as issued by Natural

England) but as a measure of best-practice, precautionary measures should be applied as described in section 5 below.

4.6 It was also concluded that since no evidence of roosting bats, or evidence of bat occupation, either current or historic, had been found during the current surveys on 30 June 2020, then a single daylight evidence and opportunity bat survey, and a single evening bat emergence survey, were considered sufficient to assess the site, (refer to the 'Bat Worker's Manual' (JNCC 2004) and 'Bat Surveys – Good Practice Guidelines' (BCT 2012), paragraph 8.3.4).

4.7 It was understood that other than modification of the bungalow, there may be some site clearance work carried out during the planned development, as mentioned above (paragraph 3.2.2). However, the overall footprint of the proposed, work will not affect the overall biodiversity of the area. Also, as bats use linear features such as lines of trees or walls, as foraging and commuting routes, it was concluded that any future development works on the site, would not affect the overall foraging or commuting potential for bats in the area.

4.2 All wild birds are protected under the *Wildlife and Countryside Act 1981* (as amended) while they are breeding. There was potential for the trees, hedgerow, shrubs and other vegetation around the site perimeter, to be used by birds for both roosting and nesting purposes, however, no active nests were found during the survey, (Refer to **Appendix 1**).

5. Recommendations.

5.1 The proposed changes to the site as laid out in the planning application, can commence if the following mitigation measures are adhered to.

5.2 The aim of any mitigation is to ensure that any work is carried out in a manner that avoids harm, or significant disturbance to bats, also, to create new enhanced roosting opportunities for bats, both during and after the development.

5.3 Ideally, all parts of the bungalow, (not considered suitable for hibernation), especially the roof, should be worked on in winter to avoid the possibility of bats moving in, and using the building as spring, summer and/or autumn roosts after the survey. The safest period will be from the first hard frosts, normally mid-December, until mid-March, although this could be earlier in a really warm spring, or later in a cold spring. However, as it is likely that the bungalow will be worked on at other times, it will be very unlikely that roosting bats will be disturbed, but it is recommended that work starts as soon as possible after this survey, and that any ridge tiles, slates or sheeting over walls, are carefully removed by hand, (the ridge and edge tiles and copingstones are the features most likely to harbour potential for the support of roosting bats). Once the roofs have been removed the building should be left for two nights before renovation continues. This will permit any bats present in cracks in the brickwork at the top of a wall time to move off.

5.4 If more than 12 months elapses between this survey, and any demolition work or roof tile removal is intended, then surveys of the site must be repeated. The evidence and emergence survey needs to be carried out under weather conditions suitable for normal bat activity, or when bats are fully active (May to September but is weather dependent), and this will also be accompanied by a suitable number of evening bat emergence surveys.

5.5 As a measure of best practice and in accord with a key principle of National Planning Policy Framework (2012), it is recommended that the re-development scheme for this site, incorporates biodiversity enhancement measures, and an appropriate measure will be the installation of bat boxes, or bat bricks. The latter can be incorporated within building walls at the gable ends, and the former can be attached to the new building, or to any surrounding suitable trees. In connection with the development proposals it is recommended that these measures are implemented to maximise the opportunities for wildlife at the site, (refer to **Appendix 6** for details).

5.6 There was potential for both roosting and nesting birds in the shrubs and hedging around the site perimeter, and although there was some bird activity noticed, there were no current signs of nesting behaviour observed during the surveys. It is therefore recommended that where possible, the perimeter hedgerow and shrubs be left untouched where possible to encourage future nesting.

5.7 It must be remembered however, that it is an offence to disturb active birds' nests. It is recommended therefore, that before any commencement of building or demolition work, that a careful survey looking for any evidence of nesting birds, is carried out. If evidence of an active bird's nest is detected, then the nest must be left undisturbed, until it is appropriately confirmed that the young birds have fledged. It is recommended therefore, to reduce any nest disturbance, that no activity involving people or their equipment, it is to be carried out within a 3m radius of active nests. If there is any doubt, please refer to the consultant. This guidance is applicable during the bird breeding season which typically extends from March to August inclusive.

5.8 Any future vegetation clearance, including the trees and shrubs targeted for felling mentioned above (paragraph 3.2.2), should only be carried out between September and February inclusive, (i.e. outside the bird nesting season) unless it is confirmed by a suitably experienced ecologist that no active nests are present.

5.9 It is also recommended that before any vegetation around the site is to be removed, pruned or disturbed during building works, that the clearance work should be undertaken outside the hedgehog hibernating months, November to mid-March. If this is not possible, then a suitably experienced ecologist must be present to oversee all vegetation removal, to ensure that no hedgehogs are disturbed whilst hibernating (Hedgehogs are a UK BAP Priority species).

5.10 No hole or pit should be left uncovered over-night, to ensure that wildlife such as amphibians or hedgehogs are not trapped, and unable to escape. Alternatively, a broad wooden plank or similar can be placed in the excavation to allow animals to escape. A scaffolding board pitched at a maximum 45° angle would be ideal.

5.11 During the development, all excavations should be checked first thing each morning, prior to the start of works that day. Any animals found within excavations should be allowed to escape and move off, or carefully removed and placed within suitable habitat cover before site works commence for the day.

5.12 Close boarded fences with concrete bases are barriers to animal movement, and It is recommended, that any new perimeter fences installed along the boundaries are not to be sealed at their bases. Where possible, hedgerows are to be used instead, with timber post and wire fencing also serving to enforce boundary lines, without prohibiting wildlife movements. If any boarded fences are required, it is recommended that there is a 3 – 5cm gap between the wood and the ground (greater in some locations and less in others is not a problem) so that wildlife such as hedgehog and amphibians can pass into and out of the garden.

5.13 Outdoor lighting is typically a deterrent to wildlife, especially bats and nesting birds, it is therefore recommended, that any future outdoor lighting, installed during the proposed development, be screened, hooded, or positioned low at bollard level, so that it does not illuminate the roof or eaves, or nearby trees and shrubs.

5.14 It should be remembered that bats are occasionally found in the most unexpected places. If any bats are found during unsupervised work, work must be stopped immediately, and either the consultant (01204 527300, 077450268815), the local bat group (South Lancashire, 0161 764 8850), the Bat Conservation Trust (0345 1300 228), or Natural England (01270 754 00, should be notified, (refer to **Appendix 5** for details).
Failure to do so would be a criminal offence.

6. Survey Constraints.

Surveying for bats at a specific season of the year, does not provide information of use of the site by bats at other times of the year. The current survey was undertaken in early summer, and reflects past bat activity, and whilst consideration may be given to roosting at other times, there may be no evidence for activities outside the survey period.

As bats can utilise very small cracks and crevices, it is not possible to completely discount their use of some of the buildings around the site, although the survey did not identify any evidence of use. Assessments can however be made of potential use from the survey findings collected, but it may not provide a full picture of site usage.

Small bat roosts and single roosting bats can easily be overlooked. They can be difficult to detect during inspection, as they leave few field signs which can easily be missed during surveys. External signs e.g. droppings, prey remains etc., are also subject to weather and rain, which can often remove the signs prior to an actual survey. This is particularly valid when inspecting trees and shrubs.

7. References.

Department for Communities and Local Government (March 2012). National Planning Policy Framework. London

Hundt (2012). Bat Surveys - good practice guidelines 2nd Edition. Bat Conservation Trust. London.

Mitchell-Jones A.J. and McLeish A.P. (Eds). (2004). Bat Workers' Manual. 3rd Edition. Joint Nature Conservancy Committee. Peterborough.

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

Wildlife and Countryside Act (1981). H.M.S.O., London.

Entwistle, Abigail C. et al. Habitat Management for Bats. (2001) JNCC.

Bat Conservation Trust (2012) Landscape and urban design for bats and biodiversity.

Hamlyn (1993) Bats of Britain and Europe - Schober and Grimmberger

Anon. (2007) The Population Status of Birds in the UK: Birds of conservation concern: 2002-2007

8. Surveyors Qualification.

The surveyor Mike Fisher is a holder of Natural England Class Licence Registration Number: 2015-10595-CLS-CLS, this is the Bat Survey Level 2 Class Survey Licence WML CL18, and Natural England Class Licence Registration Number: 2015-10592-CLS-CLS which is the Volunteer Bat Roost Visitor Level 1 Class Survey Licence WML CL15.

The surveyor also has a licence to disturb and take bats for scientific, educational or conservational purposes by Countryside Council for Wales (Licence Number S085859/1)

He was assisted on the emergence survey by Louise Fisher who is experienced in the use of heterodyne bat detectors

9. Plans & Photographs.

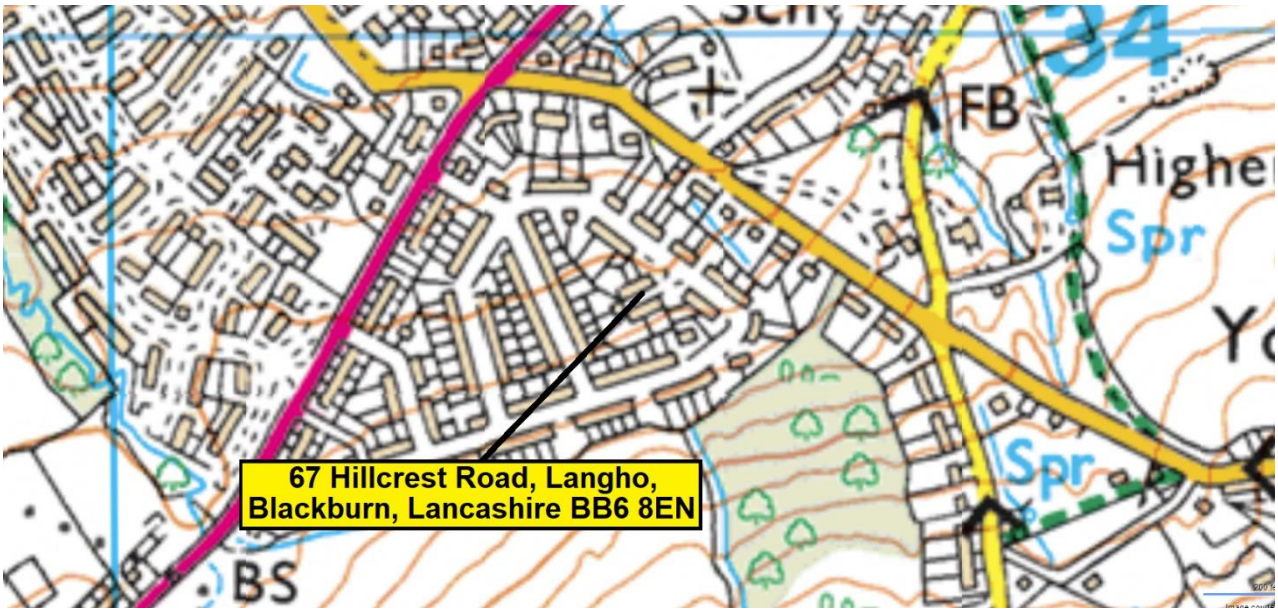


Fig 1 - The Site Location

Fig 2 – Google Map of Area

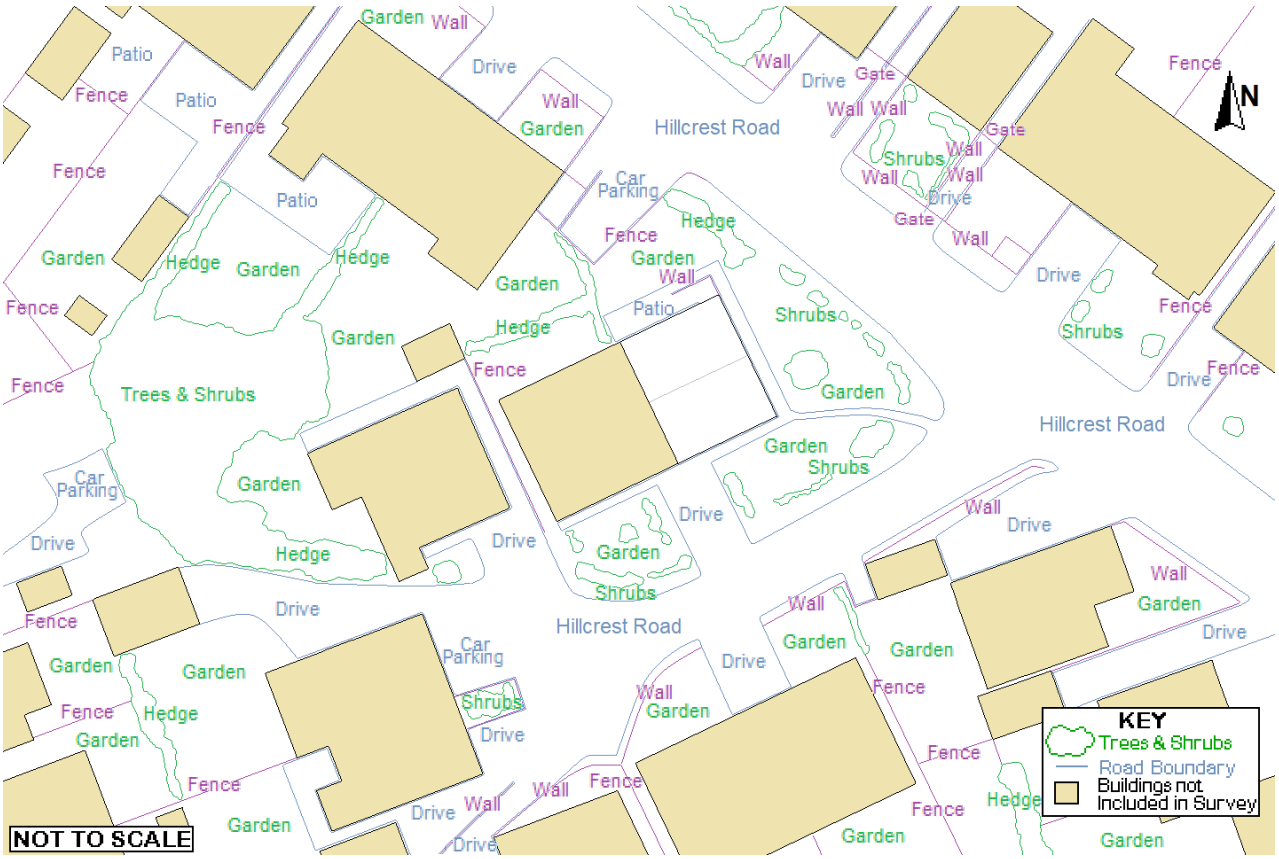


Fig 3 – Main Plan of Area

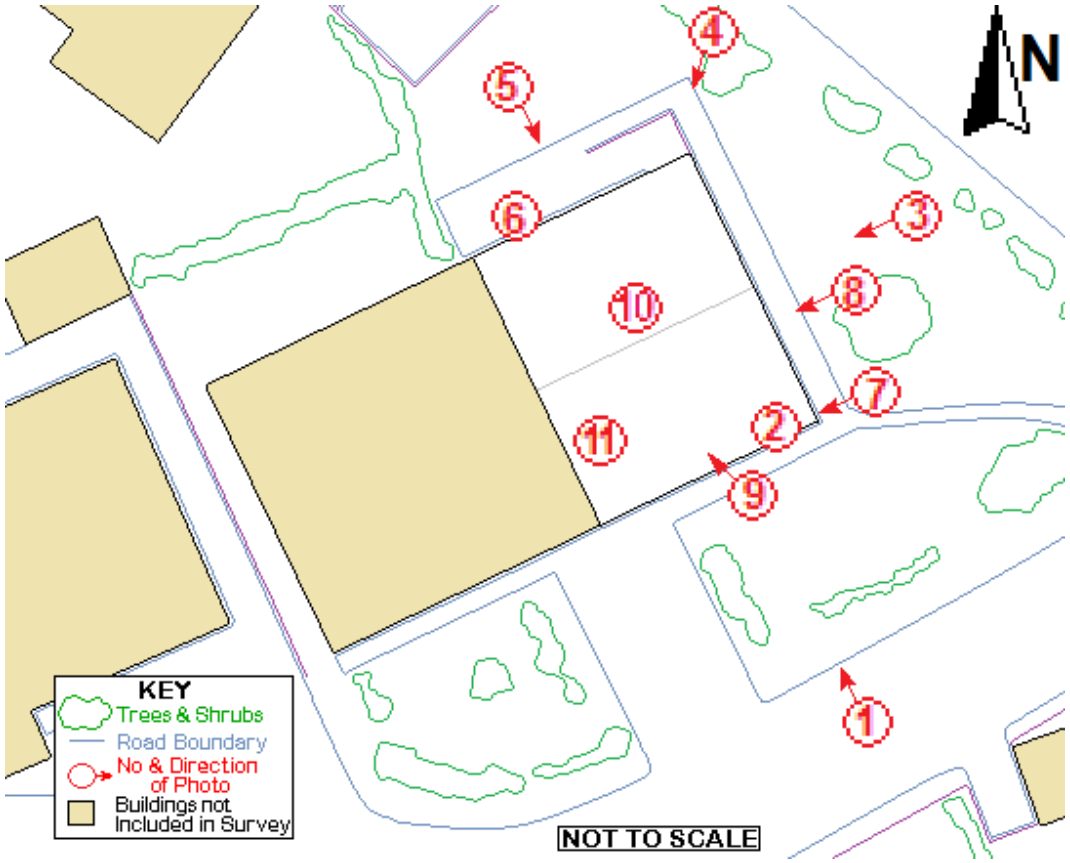


Fig 4 – Plan of Photographs

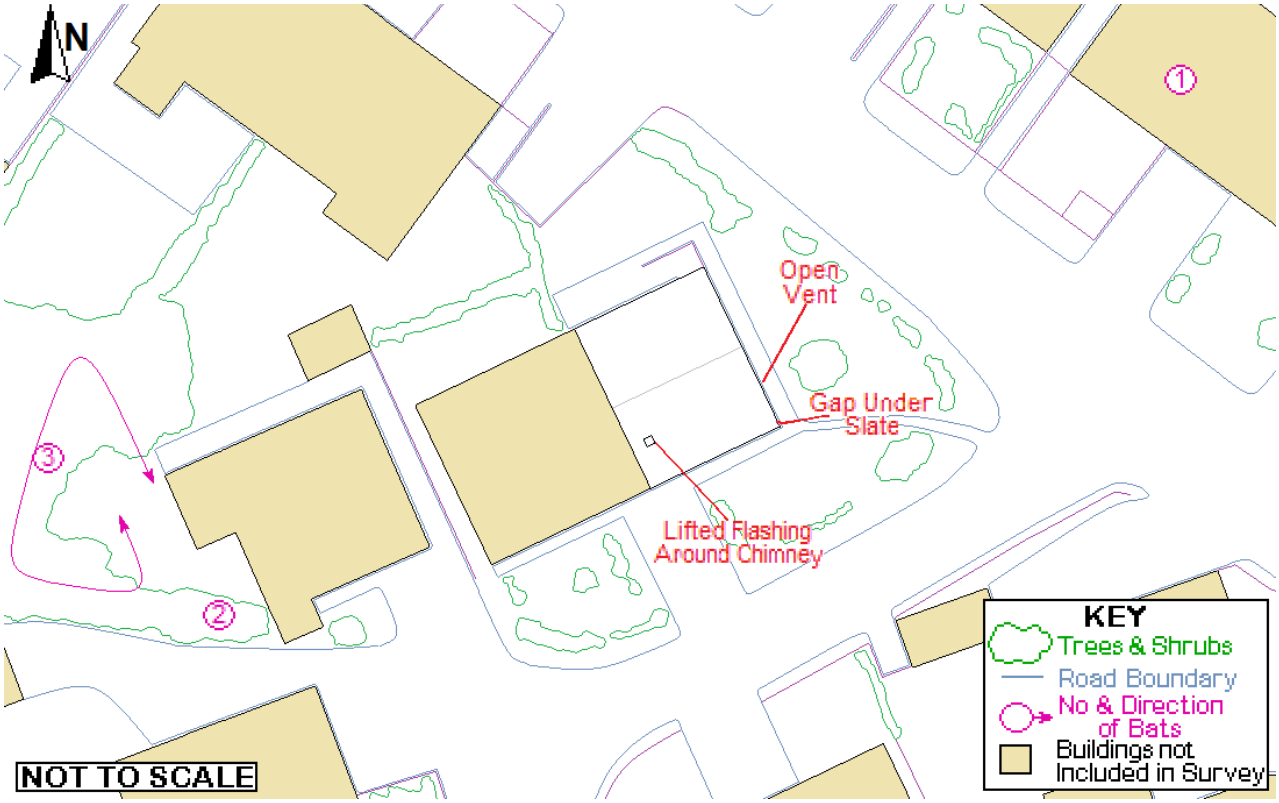


Fig 5 – Plan of Survey Results

PHOTO 1
Southern Elevation

PHOTO 2
Underside of Porch Roof

PHOTO 3
Eastern Elevation

PHOTO 4
North-eastern Corner

PHOTO 5
Northern Elevation

PHOTO 6
Underside of Soffit Box

PHOTO 7
Underside of Main Roof

PHOTO 8
Underside of Integral Garage Roof

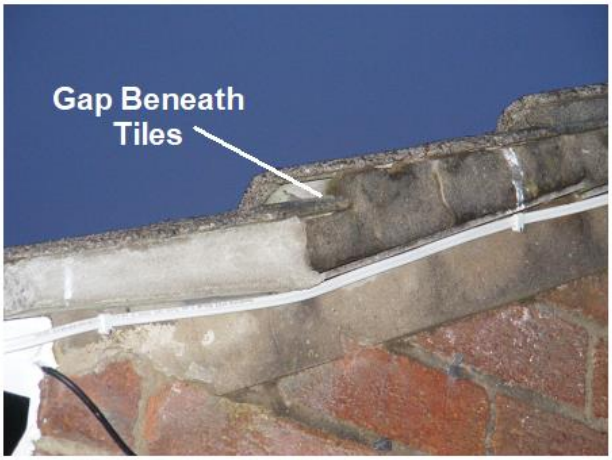


PHOTO 9
South-eastern Corner of Roof

PHOTO 10
Vent in Eastern Elevation

PHOTO 11
Lifted Lead Flashing around Chimney

10th July 2020
Mike Fisher, Bat Worker
Holder of Natural England Bat Roost Licence

Disclaimer.

All reasonable effort has been taken to ensure an accurate assessment of the birds and bats at this site. The absence of recorded presence or sign should not be taken as an absolute guarantee that a site is not being used by a particular protected species. There is also no guarantee that any particular protected species will not use the site at any time in the future. Survey results for both bird and bat activity may be weather or seasonally dependent. Any interpretation of legislation is based on our understanding and experience of the law. The relevant statutory authority can provide a more definitive interpretation.

This report has been prepared by Echo Calls Bat Surveys with all reasonable skill, care and diligence, within the terms of the Contract with the Client.

APPENDIX 1: Synopsis of Relevant Legislation

Bats and the Law
In Britain, all bat species and their roosts are legally protected, by both domestic and international legislation.

This means you will be committing a criminal offence if you:
Deliberately capture, injure or kill a bat
Intentionally or recklessly disturb a bat in its roost or deliberately disturb a group of bats
Damage or destroy a bat roosting place (even if bats are not occupying the roost at the time)
Possess or advertise/sell/exchange a bat (dead or alive) or any part of a bat
Intentionally or recklessly obstruct access to a bat roost.

Licensing
Licenses to permit illegal activities relating to bats and their roost sites can be issued for specific purposes and by specific licensing authorities in each country. These are sometimes called 'derogation licenses' or 'European Protected Species' licenses, and are issued under the Habitats Regulations. It is an offence not to comply with the terms and conditions of a derogation Licence. If you carry out work affecting bats or roosts without a Licence, you will be breaking the law.

Who needs to take particular note of the legislation?
Property owners/householders who have a bat roost in their property.
Woodland owners, arboriculturalists and foresters.
Pest controllers.
Planning officers & building surveyors
Architects, property developers, demolition companies, builders and roofers.

Which legislation is relevant for bats and roosts?
In England and Wales, the relevant legislation is the Wildlife and Countryside Act (1981) (as amended); the Countryside and Rights of Way Act, 2000; the Natural Environment and Rural Communities Act (NERC, 2006); and by the Conservation of Habitats and Species Regulations (2010).

In Scotland, the key legislation that applies is the Conservation (Natural Habitats &c.) Regulations 1994 (as amended).

In Northern Ireland bats are listed under Schedule 2 of the Conservation (Natural Habitats etc) Regulations (Northern Ireland) 1995 and in the Republic of Ireland, under Schedule 5 of the Wildlife Act 1976 and Schedule 1 of the European Communities (Natural Habitats) Regulations 1997.

Defenses include:
Tending/caring for a bat solely for the purpose of restoring it to health and subsequent release.
Mercy killing where there is no reasonable hope of recovery, (provided that person did not cause the injury in the first place - in which case the illegal act has already taken place).

Penalties on conviction –
People committing bat crimes can face six months' imprisonment and/or unlimited fines. Additionally, any profits made as a consequence of not following lawful process can be confiscated and items used to commit the offences such as vehicles, plant or machinery can be forfeited.

Under National Planning Policy Framework (2012), it is recommended that the re-development scheme for any site, protected species, such as bats should be a material consideration in planning applications. This has implications for bat foraging areas as well as their roosts.
The National Planning Policy Framework (NPPF) places a clear responsibility on Local Planning Authorities to conserve and enhance biodiversity and to encourage on the consideration that should be given to Protected Species where development may affect them.

The Office of the Deputy Prime Minister (ODPM) Circular 06/2005 provides administrative guidance on the application of the law in relation to planning and nature conservation. This is supported by a guide to good practice entitled ‘Planning for Biodiversity and Geological Conservation: Building in Biodiversity’ in which paragraphs 5.34 and 5.35 identify that species such as bats are highly dependent upon built structures for survival and that roosts can be easily incorporated into existing and new developments/conversions to benefit these species.

Breeding Birds

All wild birds are protected under the *Wildlife and Countryside Act 1981* (as amended), whilst they are actively nesting or roosting. Section 1 of this Act, makes it an offence to kill, injure or take any wild bird, and to intentionally take, damage or destroy the nest of any wild bird while that nest is in use or being built. It is also an offence to take or destroy any wild bird eggs.

APPENDIX 2: Bat Roost Potential

Guide to bat roost assessment categories in built structures based on Table 4.2 in the BCT Bat Survey good practice guidelines (Hundt, 2012).

Category Description	Indicators
Confirmed Roost	• Sighting/hearing of bats (including emergence). • Fresh or old droppings.
High potential to support bat roost(s)	• Numerous or high potential roosting features that are not exposed to the elements: crevices deeper than 100mm, width 15-70mm: • Un-obstructed flyways. • Low disturbance levels. • Situated within or near to woodland, parkland or next to water bodies, buildings (i.e. potential foraging and roosting habitat). • Well connected to wider landscape through presence of continuous linear features such as hedgerows, watercourses, farm-tracks etc.
Moderate potential to support bat roost(s)	Some of the above features but considered to be less suitable on account of age, location and disturbance levels.
Low potential to support bat roost(s)	• Limited suitable roosting features. • Exposed roosting features e.g. open to wind/rain. • High levels of regular disturbance e.g. from lighting. • Isolated from suitable foraging habitat & commuting features.
Negligible potential	No features with bat roost potential recorded

APPENDIX 3: Bat Tree Assessment Criteria

Criteria for Assessment of Trees in accordance with Category 1 to 3 as defined in Table 8.4 of *Bat Surveys: Good Practice Guidelines 2nd Edition* (Hundt, L. 2012).

CATEGORY	DESCRIPTION	CRITERIA
Known or Confirmed	Confirmed roost	Confirmed roost Evidence found that indicates tree/tree features are being used by bats. Droppings found at the base of the tree, below a cavity. Bats heard 'chattering' inside a feature on a warm day or at dusk Bat(s) observed flying from or to a feature.
1*	Very high value	Trees with multiple, highly suitable features capable of supporting larger roosts. Features of particular significance, suitable for high priority roosts such as maternity roosts, used by large numbers of bats, offering conditions that are uncommon or rare in the local area. Features such as large cavities, extensive branch or trunk splits, also including multiple features in the same tree that offer a diversity of opportunities. Features may also include dense ivy.
1	High value	Trees with definite bat potential supporting fewer suitable features than category 1* trees or with potential for use by single bats. Features which provide a more secure form of roost for small groups of bats and individuals, but may still be quite common types of feature, such as small cavities, minor splits or sparse ivy cover.
2	Moderate value	Trees with no obvious potential, although the tree is of a size and age that elevated surveys may result in cracks or crevices being found; or the tree supports some features which may have limited potential to support bats. A tree which on close inspection the potential roost positions are in some way not ideal. They could be upward facing or holes very low down or cluttered by adjacent branches.
3	Low/Negligible value	Trees that have no features which could be used by bats for roosting (Usually young trees).

APPENDIX 4: Planning Considerations

When considering each planning application, the presence of protected species, such as those listed above, is a material consideration which must be fully considered by the Local Authority when granting planning permission. If a licence from Natural England is required, then prior to issuing any planning consent, the local planning authority will need to be satisfied that there is no reason why such a licence would not be issued. Therefore, in reaching the planning decision the local planning authority will need to have regard to the requirements of the Conservation of habitats and Species Regulations 2010.

The three licensing tests given in the Regulations must be considered. In summary, these are that:

1. The development is required for the purpose of:

- preserving public health or public safety,
- for other imperative reasons of over-riding public interest, including those of a social or economic nature and beneficial consequences of primary importance for the environment.
- for preventing serious damage to property.

2. There is no satisfactory alternative.

3. The proposal will not be detrimental to the maintenance of the population of the species at a favourable conservation status.

All necessary information would need to be provided to the planning authority as part of the planning application in order to address the above tests.

The Natural Environment and Communities Act (NERC Act) 2006 extended the biodiversity duty set out in the Countryside and Rights of Way (CROW) Act to public bodies and statutory undertakers to ensure due regard to the conservation of biodiversity. The Duty is set out in Section 40 of the Act, and states that:

"Every public authority must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity"

The Duty applies to all local authorities, community, parish and town councils, police, fire and health authorities and utility companies. Section 41 (S41) of this Act (the 'England Biodiversity List') also requires the Secretary of State to publish a list of habitats and species that are of principal importance for the conservation of biodiversity in England. This list is used to guide decision-makers such as public bodies, including local and regional authorities, in implementing their duty under section 40(1) of the Act.

Also, Local Authorities must follow the National Planning Policy Framework (NPPF) which provides guidance on the interpretation of the law in relation to wildlife issues and development. For each development proposal considered by the Local Planning Authority the NPPF states that the authority must aim to conserve and enhance biodiversity. If significant harm resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused.

APPENDIX 5: Bats: What to do should bats be found during construction or renovation.

All of the UK's bats and their roosts, are protected by law, (see Appendix 1), so it is important to understand these laws**,** if you are planning any building or remedial work that may affect or disturb a bat roost. The relevant statutory authority should be initially contacted for advice**.**

Having bats roosting within a building, does not necessarily mean that work cannot be carried out. What it does mean is that the work will need careful consideration, especially in terms of time and materials, so that the area can continue to be used by both bats and people. Therefore, the earlier in the process the bats are taken into account, the less disruption to building plans there will be.

If at any point during either new building work, renovation work, or demolition, one or more bats are found, then all work being undertaken by contractors should stop immediately. All working machinery and contractors should be removed from the area where the bats have been found, and advice sought immediately from one of the following, on how to proceed while causing minimal disturbance to bats.

Advice can either be provided by a professional licensed ecological consultant - Echo Calls Bat Surveys on 07745 268815, the Bat Conservation Trust on 0345 1300 228, or from your Statutory Nature Conservation Organisation (SNCO), or from Natural England on 01270 754 000.

Depending on the advice given, a licensed bat worker, or suitably qualified Natural England approved representative, will then be sent to site to liase with the site manager, and Natural England itself. Depending on the advice given, actions will be recommended that may include the safe removal of the bat by the nominated person, only where written or verbal permission has been gained by Natural England.

Works will recommence when Natural England are satisfied that the risk to bats has been removed. If, however, it is determined that the proposed work on site contains more risk to bats than was originally thought, then it is probable that further work will only proceed, under a Natural England Development Licence.

If a bat is found under a tile, slate, flashing or any other covering material, work must stop immediately. If the bat does not fly out immediately, then the area around the roost must be carefully covered over, to protect the bat from the elements and further disturbance, leaving a small gap for bats to escape voluntarily. At this point, advice must be sought as mentioned above. The materials used to cover the occupied bat roost, must be free from liquid, oil, grease and other contaminants.

It is recommended that the handling of bats be avoided wherever possible, but if it absolutely necessary, then to avoid a bat being harmed, gloves must be worn whilst handling the bat. It should be carefully caught, placed in a cardboard box with air holes in the lid, and a small container containing water. The box should then be kept in a very quiet, dark area, away from further disturbance, whilst awaiting the arrival of the licenced bat worker, or Natural England approved representative.

Failure to do any part of this could result in a criminal offence.

APPENDIX 6: Bats: Types of Bat Box and Bat Bricks.

The aim of any mitigation is to ensure that any work is carried out in a manner that avoids harm or significant disturbance to bats, and also to create new roosting opportunities for bats both during and after the development.

Schwegler 1FD boxes are to be erected to larger trees located along the edges of the site. This type of bat box is a “general all-rounder” and is suitable for all types of bats.

These boxes are to be erected as recommended by the Bat Conservation Trust guidelines which state that:

- Ideally, erect the boxes facing so they face in different directions, to provide a range of temperature conditions. For example, boxes facing from south-east to south-west allow the sun to fall on each box for part of the day. During very hot days a south-facing box may overheat, but the other boxes should have some shade during the day.
- Bat boxes should be located close to a linear vegetation feature such as a tree line or hedgerow or to lines of buildings. Some bat species use these features for navigation between their roosting site and feeding ground and to avoid flying in open and exposed areas.
- Ensure that tree branches or other items will not impede the bats’ approach to the box – clear away underneath the box so the bats can land easily before crawling into the box.
- Boxes should be erected at a height of approximately 4m above ground level

Schwegler 1FD Bat Box
This Schwegler 1FD bat box has been developed specifically for smaller bats. The interior and the type and size of the entrance hole match the requirements of smaller species. It features a special layout inside the domed roof, an increased interior height, and two grooved internal wooden front panels with precise spacing between them.

This model has proved highly effective as a nursing area.

Occupants: Small bats such as the Common Pipistrelle (*Pipistrellus pipistrellus*), Soprano Pipistrelle (*Pipistrellus pygmaeus*), Daubenton`s Bat (Myotis daubentonii) and Common Long-eared bat (Plecotus auritus).

Standard bricks to provide access for bats into roof or wall spaces.

With the increase in development of new building sites and redevelopment of older buildings, especially in rural areas, availability of roost sites for bat species is becoming more limited. However, bats can be encouraged to remain at old sites or colonise new sites by incorporating artificial roost spaces into the building during the build or renovation process.

The bat brick is a standard sized brick, shaped especially to allow bats to access the cavity of a house. They can be incorporated during both new build or renovation projects. (A cavity chamber may need to be constructed to maintain an area free of insulating material where bats can roost).

The bricks are available in three standard colours - Red, Golden and Brown.

Please note: If you are interested in a specific brick type to match your building, you will need to send your own brick(s) to the manufacturer. Please contact us by email or telephone for more information.

Specification

Brick dimensions:
* Height: 60 mm
* Width: 215 mm
* Depth: 100 mm
* Entrance dimensions: approx. 110 x 25 mm

Brick codes:
* Red - Ibstock A0610A (cheddar red)
* Golden - Ibstock A0611A (cheddar golden)
* Brown - Ibstock A0612A (cheddar brown)