

Bat and Nesting Bird Survey Report
96 Gnoll Park Road, Neath, SA11 3DD.
Surveys conducted May and June 2022



Lee Gwyther - Grounded Trees Ltd
4 Spionkop Road, Ynystawe, Swansea, SA6 5AN
Web Site: <http://www.groundedtrees.uk/>
E-mail: info@groundedtrees.uk
Telephone: 01792 843 471
Mobile: 07970 274 758
Natural Resources Wales Bat Licence no: S089870/1

1. INTRODUCTION

1.1. Brief

This report presents the findings of dusk emergence and dawn re-entry bat surveys of 96 Gnoll Park Road, Neath, SA11 3DD, (Ordnance Survey Grid Reference: SS 75744 97751). The main building and rear outbuilding are situated within the boundary of Neath Port Talbot County Borough Council.

1.1 Site Description

The main building is a semidetached stone-built town house with a small one storey flat roofed side porch extension, a rear two storey extension and a rear one storey lean-to extension. The rear extensions have rendered and painted walls. The front main roof is made of interlocking concrete tiles, while the rear main roof areas and all rear extension roof areas are made of slates. There is also a one storey brick-built outbuilding with a slate roof located in the rear courtyard to the west of the main building.

See Appendix 1 for Existing and Proposed Site Maps

1.2 Background Information

A Preliminary Roost Assessment (PRA) bat survey was carried out of the two buildings by another ecological consultancy during the 4th October 2021 with the aim to look for evidence of bats roosting and for structures within the building that may hold bat roosting potential. An inspection for nesting birds was also carried out.

No bat droppings or other evidence of bats was found during the PRA survey. Bat roosting potential was identified, and further surveys were therefore recommended. The two buildings were deemed to have moderate bat roosting potential and two dusk emergence or dawn surveys were recommended to be carried out during the months of May-September. Four defunct nests were recorded within the two loft spaces.

1.3 Proposed works

The building has formerly been used as offices of the adjacent residential care home (No: 90, 92-94 Gnoll Park Road) and the planning application sought is for change of use to residential and conversion into multiple flats, including conversion of the detached rear outbuilding into a two-storey semi-detached dwelling house.

The existing rear two storey extension and rear one storey lean-to extension will be converted into one two storey flat roofed extension with timber clad external walls. The pitched and lean-to slate roof areas will be permanently removed. While there are no plans to re-roof the main roof areas there may be patch roof repairs carried out. The existing one storey side porch will be demolished to allow for better access for cars into rear courtyard parking spaces. The existing slate roof areas of the rear outbuilding will be removed as an additional storey will be added to the building.

See Appendix 2A-F for Existing and Proposed Elevations and Sections

1.3 Aims of the survey

Dusk emergence and dawn re-entry surveys were carried out with the aim to establish presence or absence of roosting bats. If bats roosts are discovered during the surveys the aim is then to determine numbers and species of bats present and to identify bat access points and roosting areas that are used by the bats. An assessment will be made of the impact of the proposed works on these areas of the buildings and a bat mitigation plan will be designed from the survey results.

1.4 General information about bats and buildings

Loft spaces can potentially be utilised by bat species such as e.g. Brown Long-eared bats or Serotine bats, which are known to commonly roost inside loft spaces. This can generally be discovered via droppings inside the loft as the droppings will stay protected from weather elements. External features of the building can potentially be used as roosting sites by e.g. Pipistrelle bat species (*Pipistrellus* spp.). Pipistrelle bats are the most common bats out of the British species, and they are known to almost exclusively roost inside buildings utilising areas such as cavity walls, soffits and fascia boards, and between tiles/slates and roofing felt. It is not practical to carry out a full physical examination of such building features, which is why activity surveys have to be done during summer months (May-September) when the bats are fully active. Access points of 1-2 centimetres only are used by bats to enter and exit their roosting sites. Most buildings will have gaps of such size in roof areas as ventilation of the building would otherwise not be possible.

1.5 Legislation informing planning policy

All UK species of bat are designated as 'European Protected Species'. Their breeding sites or resting places (roosts) are fully protected under the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species and Planning (various amendments) (England and Wales) Regulations 2018, until and unless superseded by The Conservation of Habitats and Species (Amendment) (EU Exit) [‘CHSAEU’] Regulations 2019.

2. METHODOLOGY

The survey was carried out in accordance with the methods described in the Bat Conservation Trust (BCT) Bat Surveys for Professional Ecologists: Good Practice Guidelines (Collins, 2016).

2.1 External physical inspection

An updated external inspection of the two buildings was carried out by Lee Gwyther (NRW bat licence number S089870/1) 05 May 2022. An internal inspection was previously carried out on 04 October 2021 by another ecological consultancy.

The exteriors of the buildings were surveyed for bat roosting potential and for droppings on walls and window ledges. An endoscope (Ridgid Seesnake2) was used for spot checks of external gaps. The buildings were examined externally using zoom photography to identify structural features that hold bat roosting potential.

2.1 Emergence survey methodology

A two-hour long emergence surveys of the building was conducted by Lee Gwyther, Erika Dahlberg and Greg Owens 05 May 2022.

The surveys started half an hour before the official sunset and were completed 1½ hour after sunset. The roof areas were observed, and bat passes were recorded with Pettersson D1000X time expansion bat detectors. A combination of patrolling and stationary surveying was used to be able to view the roof areas from different angles and to get as close as possible to all potential access points around the building. Brown long-eared bat calls can only be recorded from a distance of approximately 3-5 meters. The buildings were observed to overview roof areas early in the evening while the surveyors move closer to the walls as it gets darker.

2.4 Dawn survey methodology

A two hour and 15 minutes long dawn survey of the buildings was conducted by Lee Gwyther, Greg Owens and Erika Dahlberg 07 June 2022.

The survey started 2 hours before the official sunrise and was completed 15 minutes after at the official sunrise time. The roof areas were observed, and bat passes were recorded with Pettersson D1000X time expansion bat detectors. Dawn surveys, in general, provide a better overview of the building as the morning light increases the visibility of any bats flying around to enter their roost, and the bats tend to spend longer time on re-entry than they will on emergence. The bats may do a “swarming behaviour” in the morning just outside of their roost access point.

2.5 Night vision equipment

Night vision equipment in the form of one Canon XA10 Professional Camcorder with an Nightfox XB10 IR infrared illuminator directed at the walls and roof areas was used at the rear of the main building (south and west facing sides only). During the dawn survey an additional Nightfox XB5 IR infrared illuminator was added for additional illumination of the building. One of the surveyors (at the front for the dusk and at the rear for the dawn) used a handheld Nightfox Corsac night vision goggles with a zoom function and continuous video recording for spot checks of observations made.

2.6 Weather conditions

This information was taken from the BBC Weather online forecast for Neath, to illustrate that the survey was conducted during suitable weather conditions. Bats are generally fully active in the months of May - September at temperatures above 10°C, if there are favourable weather conditions such as no strong winds (less than 15 mph) and no overnight rain.

Table 1 Survey weather conditions

Survey date	Sunset/ Sunrise	Weather	Start temp	End temp	Wind speed
05 May 2022	20:45	White Cloud	11°C	11°C	10 mph
07 June 2022	05:00	White Cloud	11°C	11°C	3 mph

2.7 Sound Analysis

The bat sound recordings made during the surveys were analysed using BatSound 4 software (Pettersson Elektronik) and BatExplorer 2.1.7.0. software (Elekon). All bat call recordings were compared to published reference material such as British Bat Calls Jon Russ (2012) and to a private reference library of previous recordings made from known bat species.

2.8 Survey for Nesting Birds

A visual external search was undertaken during the updated external inspection for active bird nests, as well as any signs which might indicate either past or current nesting, such as inactive nests, bird skeletons, guano, birds carrying nesting material, food items, egg shells and calling chicks. An additional internal inspection was not carried out at the time.

3. RESULTS

3.1 Protected sites

No Statutory Sites Notified for Bats (Special Areas of Conservation (SACs)), Sites of Special Scientific Interest (SSSIs) or areas of Outstanding Natural Beauty (AONBs) were found within 2km.

Statutory Protected Ancient Woodland Sites are present within 2km:

- Restored Ancient Woodland 0.5km to the south-east.
- Plantation of Ancient Woodland 1-2 km to the east.

See Appendix 3 for protected sites within 2 km

3.2 Foraging and commuting potential

Overall, the area surrounding the buildings consists of adjacent dwelling houses and urban gardens are assessed as providing moderate-quality foraging and commuting habitat for bats. However, the river habitat adjacent to the site is likely to offer good quality foraging and commuting areas. The river Neath is located about 500m to the north of the site. Rugby and cricket fields are located 150m to the south with the adjacent Gnoll Park about 1km from the site.

3.3 Artificial lighting levels

The site is assessed as being within Zone E3 (Institute of Lighting Professionals, 2012) as the building is situated in an urban area, and several streetlights are present which generate extensive artificial lighting, somewhat decreasing the quality of foraging and commuting bat habitat.

3.2 Updated external inspection results

Bat roosting potential: Potential bat access points and roosting areas at the two building were identified in form of the two loft spaces of the main building and internal areas of the outbuilding (although an internal inspection was not included in the surveys), gaps in between interlocking concrete tiles and slates and the black bitumen roofing felt, gaps under ridge tiles, gaps under soffits/fascia/barge boards and cavities inside flat roof areas.

The bat roosting suitability of the two buildings was assessed according to the scale negligible, low, moderate or high and the buildings were deemed to have moderate bat roosting suitability. The site was deemed to be located in an area with moderate bat foraging and commuting suitability.

See Appendix 4 for photographs of the buildings

Evidence of bats: No bat droppings or other evidence of bats was found during the updated external physical inspection of the building.

3.3 Dusk emergence survey results

05 May 2022: One common pipistrelle bat (*Pipistrellus pipistrellus*) was observed and recorded to emerge from the roof areas of the rear two storey extension during the dusk emergence survey (21:03), using one access point likely to be a gap under the ridge tile. The bat was noted to fly north from the ridge area.

Three common pipistrelle bats were noted to emerge from the roof areas of the rear neighbouring dwelling house to the south (21:06, 21:08 and 21:10).

Common pipistrelle bats were noted to commute along the northern side of the building and to commute and forage in the rear courtyard and adjacent rear gardens to the west.

See Appendix 5A for dusk survey results and bat flight paths

3.4 Dawn re-entry survey results:

07 June 2022: One common pipistrelle bat (*Pipistrellus pipistrellus*) was observed and recorded to swarm and enter roof areas of the rear two storey extension during the dusk emergence survey (03:10), using one access point likely to be a gap under the ridge tile. The bat was noted to fly towards the same roof area from the south. The bat was captured on the infrared video camera, which was directed towards the south side of the rear extension.

Two common pipistrelle bats were noted to swarm and enter from the roof areas of the rear neighbouring dwelling house to the south (03:20 and 03:54).

Common pipistrelle bats were noted to commute and forage in the rear courtyard and adjacent rear gardens to the west.

See Appendix 5B for dawn survey results and bat flight paths

3.5 Identified bat access points and roosting areas

Access point A: The access point is likely to be a gap under a ridge tile in the slate roof areas of the rear two storey extension, with roosting areas in the cavity under the ridge.

Access point B: The access point is an unknown gap of the roof areas of the adjacent rear neighbouring dwelling house to the south.

Access point C: Is an unknown gap in the front porch roof area of the adjacent semi-detached front neighbouring building to the south.

See Appendix 6 for location of identified bat access points

3.6 Birds – Interpretation of Nesting Bird Survey

Four defunct nests were recorded within the main two loft spaces during the PRA bat survey carried out by another ecological consultancy 04 October 2021. No further evidence of nesting birds was found during this survey.

4. Evaluation

4.1 Discussion of Results

Bat roosting potential was identified, and the areas with bat roosting potential are deemed to be likely to be affected by the proposed works. Two further dusk emergence and dawn re-entry surveys were therefore carried out.

A maximum count of one common pipistrelle bat was observed and recorded to be emerging from and entering the building during the dusk and dawn surveys, using the same access point (Access A). The access point is likely to be a gap under a ridge tile in the slate roof areas of the rear two storey extension, with roosting areas in the cavity under the ridge.

4.2 Potential impacts on bat foraging and commuting habitat.

The building will not increase significantly in size to have a negative effect and no trees will be taken down as part of the development.

No external lighting is currently planned to be installed in the rear car parking areas or movement triggered lights by the doors. However, light spill is likely to occur from the increase of windows and addition of glazing of garden door openings at the converted rear outbuilding. As the site is already lit up on all sides this is unlikely to have a negative impact on the surrounding landscape.

4.3 Constraints on study information

A Local Records Centre (LRC) data search was not undertaken due to the low impact and small-scale nature of the development. The overall impact on biodiversity is likely to be localised and of low significance. It is very unlikely that the development will have any impact outside the footprint of the works. The data search results are considered unlikely to impact on the decision-making process, and there is limited potential for key information to have been missed. This approach is consistent with CIEEM's Guidelines for Accessing and Using Biodiversity Data (2020) which states that in low impact/small-scale scenarios an LRC search may not be required.

5. Recommendations

5.1 Survey Effort

The building was deemed to have moderate bat roosting suitability and to be in an area with moderate bat foraging and commuting suitability. Two activity surveys were therefore carried out in accordance with the Bat Conservation Trust Bat Survey Guidelines 2016. These guidelines are used by Local Planning Authority ecology team during the planning application process to determine the level of survey effort that is needed.

Two activity emergence and dawn surveys, spaced apart by about two weeks, were conducted during optimal weather conditions to illustrate the use of the buildings as a bat roost over a period of time. The surveys were conducted during a time of the year when bats are generally fully active.

5.2 Requirement for a Habitats Regulations (EPS) licence

The proposed works will cause permanent destruction of a bat roost identified (and may cause disturbance to nesting birds) as the pitched slate roof areas (and loft space) of the rear two storey extension will be permanently lost when these will be changed into a flat roof area. It will be necessary to apply for a European Protected Species (EPS) licence for bats with Natural Resources Wales (NRW) prior to the start of works.

5.3 Longevity of Report

Bat Surveys for Professional Ecologists (Collins, 2016) states that the survey data should ideally be from the last survey season before a planning or licence application is submitted, although the length that survey data remains valid should be decided on a case-by-case basis and is dependent upon several factors. It is considered that if development works do not begin within eighteen months (CIEEM, 2019) to two years of the date of this report, an update survey may be required in accordance with guidance in BS 42020:2013 and CIEEM (2019), to determine if conditions and evidence of bat use has changed since described in the current report.

6. Bat Mitigation Plan

Timing Restrictions for Works

Exclusion works of bats in the rear extension slate roof areas will be restricted to the months of Mar-Apr or Oct-Nov to minimise disturbance during the active summer months May-Sep and the core hibernation season Dec-Feb when bats may hibernate inside wall cavities.

See Appendix 13 for preliminary time schedule of works

Temporary Mitigation Bat Box

In advance of the works, one Beaumaris Woodstone Midi bat box will be positioned on the north facing external wall of the main building. No trees are available on this site to position the bat box.

See Appendix 7 and 8 for position and specification of temporary mitigation bat box

On-site Supervision During Works

A licensed bat ecologist will hold a “tool box talk” to the building contractors prior to works commencing. The licensed bat ecologist will be on-site during the removal of roof areas and other external features with bat roosting potential in case any bats or evidence of bats are found and will be on standby during further works. Evidence found during works may be used to tweak and improve the mitigation plan if possible.

Precautions if Bats are Found During Works

Actions taken to protect bats that may be found during works will depend on stage of works and weather conditions. A health check will be conducted prior to release. Bats will be captured by hand (wearing gloves, face mask and using hand spirit sanitiser) and temporarily transferred to a pet container. The bat will then be transferred into a bat box before works commenced. The access point of the bat box will be blocked with a cloth until the working day has been completed. This will allow the bat to settle in a safe place for the remainder of the day, and to emerge safely in the evening. The bat will then be able to move to a safe nearby roosting area of its own choice. Bats are known to move around between several roosting areas to avoid predators and build-up of parasites.

In-wall Bat Boxes

Two in-wall bat boxes will be positioned under the external wall timber cladding of the rear flat roofed extension. Corresponding gaps measuring 20mm (height) x 100mm (width) will be created to allow for access into the in-wall bat boxes.

See Appendix 9 and 10 for position and specification of in-wall bat boxes

Bat Access Slates

Two bat access slates will be positioned in the rear slate roof areas of the main building from scaffolding during the works. A full re-roofing is not planned to be carried out, but patch roof repairs may be carried out.

See Appendix 10 and 12 for position and specification of bat access slates

Using 'Bat Friendly' Roofing Materials

If necessary to replace roofing felt at the rear slate roof areas by the new bat access slates 1F black bitumen roofing felt only will be used. Breathable membranes will not be used as they may due to wear and tear by the little bat claws can give rise to dislodged fibres which can cause bats to become tangled and strangled.

Limited External Lighting on Site

Extra care will be taken to ensure that external lights are kept to a minimum and will not illuminate the bat access points or flight paths to nearby trees. The light will be aimed to illuminate only the immediate area required by using as sharp a downward angle as possible. A shield or hood will be used to control or restrict the area to be lit and limit "light spillage" on the site. Common pipistrelle bats are known to be amongst the least "light sensitive" bat species in the UK but may abandon their roosts if their access points are illuminated.

Nesting Bird Check and Mitigation Plan

An inspection for nesting birds of the two loft spaces where defunct bird's nests were found will be carried out by a qualified ecologist if any works are carried during the months of April-August. Bird nesting areas for sparrow will be provided in the form of a house sparrow terrace bird nest box to be positioned on an external wall.

See Appendix 9 and 12 for position and specification of sparrow terrace nest box

Bat Mitigation Check

The new in-wall bat boxes and bat access slates will be inspected by a licenced bat ecologist on completion or during works if deemed as easier. This will be carried out before the end of the month of April to allow for the bats to return to their roosting areas before the next active bat season of May-September.

Post Project Monitoring Surveys

Post project monitoring surveys will not be necessary for this particular scenario as it involves small numbers of common species only.

7. REFERENCES

Anonymous (2007) *Guidance document on the strict protection of animal species of Community interest under the Habitats Directive 92/43/EEC*. Final version, February 2007.

CIEEM (2020) *Guidelines for Accessing, Using and Sharing Biodiversity data in the UK*. <https://cieem.net/wp-content/uploads/2016/03/Guidelines-for-Accessing-and-Using-Biodiversity-Data-March-2020.pdf>

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

Hundt, L, 2012 *Bat Surveys: Good Practice Guidelines, 2nd Edition*, Bat Conservation Trust, London, United Kingdom.

Mitchell-Jones A J & McLeish A P (Ed.), 2004. *The Bat Ecologists' Manual*. JNCC, Peterborough, United Kingdom.

Mitchell-Jones A J. 2004. *Bat Mitigation Guidelines*, English Nature. Peterborough, United Kingdom.

Natural England and Countryside Council for Wales, 2007. *Disturbance and protected species: understanding and applying the law in England and Wales. - A view from Natural England and the Countryside Council for Wales*. United Kingdom.

Institute of Lighting Professionals (2012) *Guidance for The Reduction of Obtrusive Light*.

Parsons, K *et al* (Ed.) 2007. *Bat Surveys - Good Practise Guidelines*. Bat Conservation Trust, London, United Kingdom.

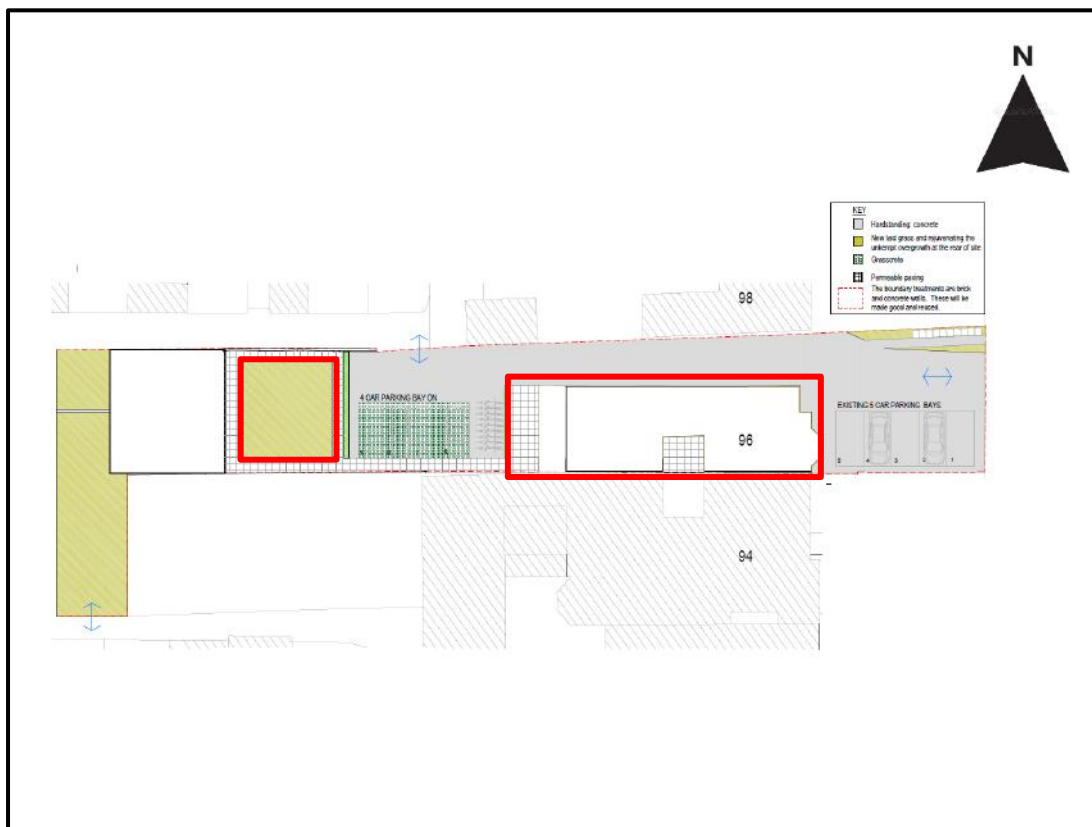
Richardson, P. 2000. *Distribution Atlas of Bats in Britain and Ireland 1980-1999*. Bat Conservation Trust, London, United Kingdom.

Russ, J. 1999. *The Bats of Britain and Ireland*. Alana Books, Alana Ecology Ltd. United Kingdom.

Appendix 1: Existing and Proposed Site Maps

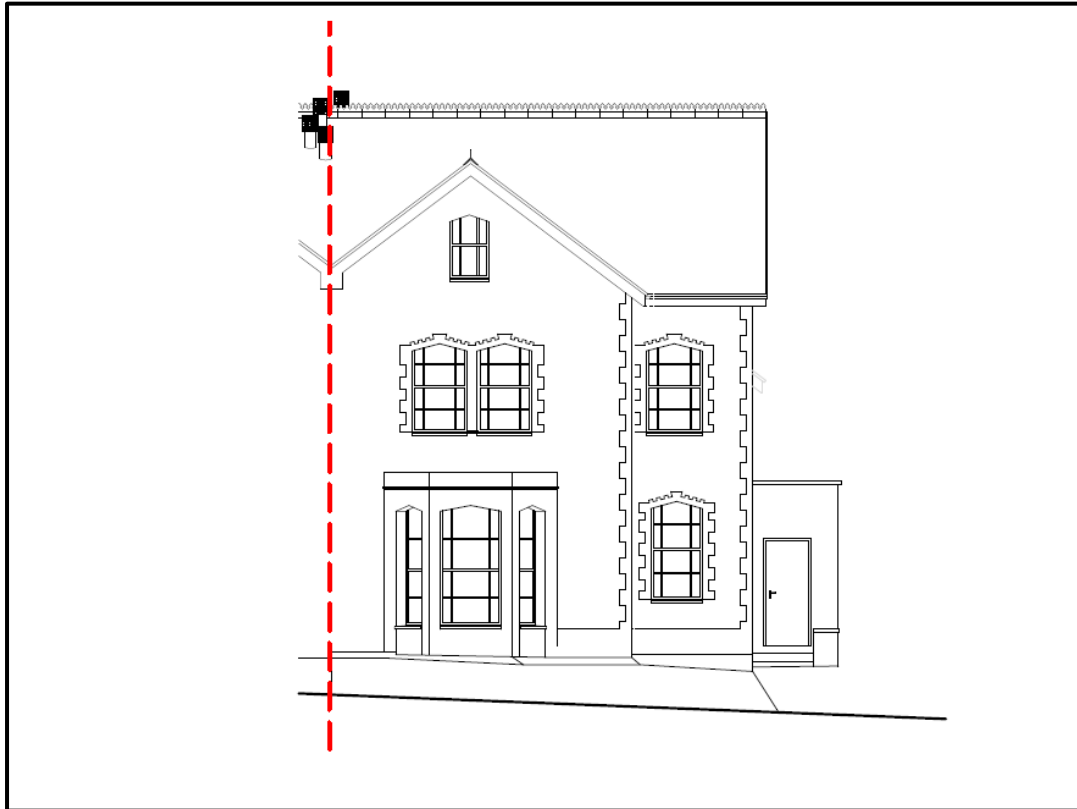


Existing site map of 96 Gnoll Park Rd. Red shape - outline of buildings

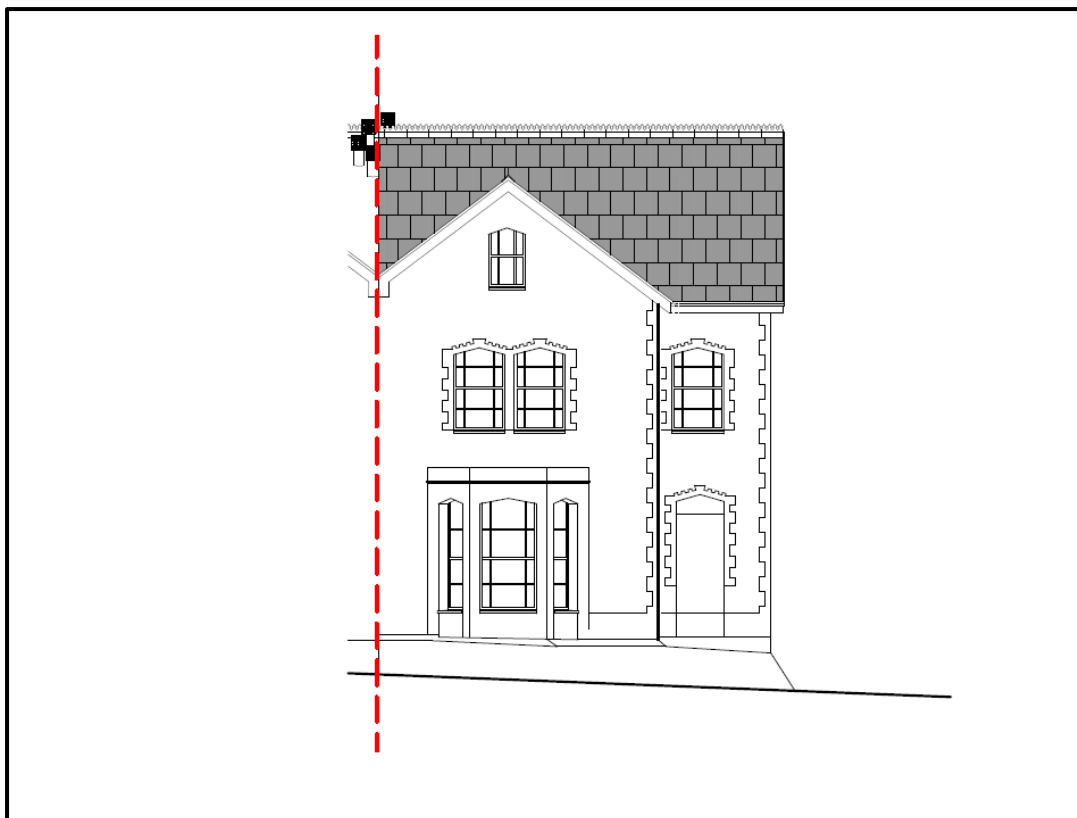


Proposed site map of 96 Gnoll Park Rd. Red shape - outline of buildings

Appendix 2A: Existing and Proposed Elevations

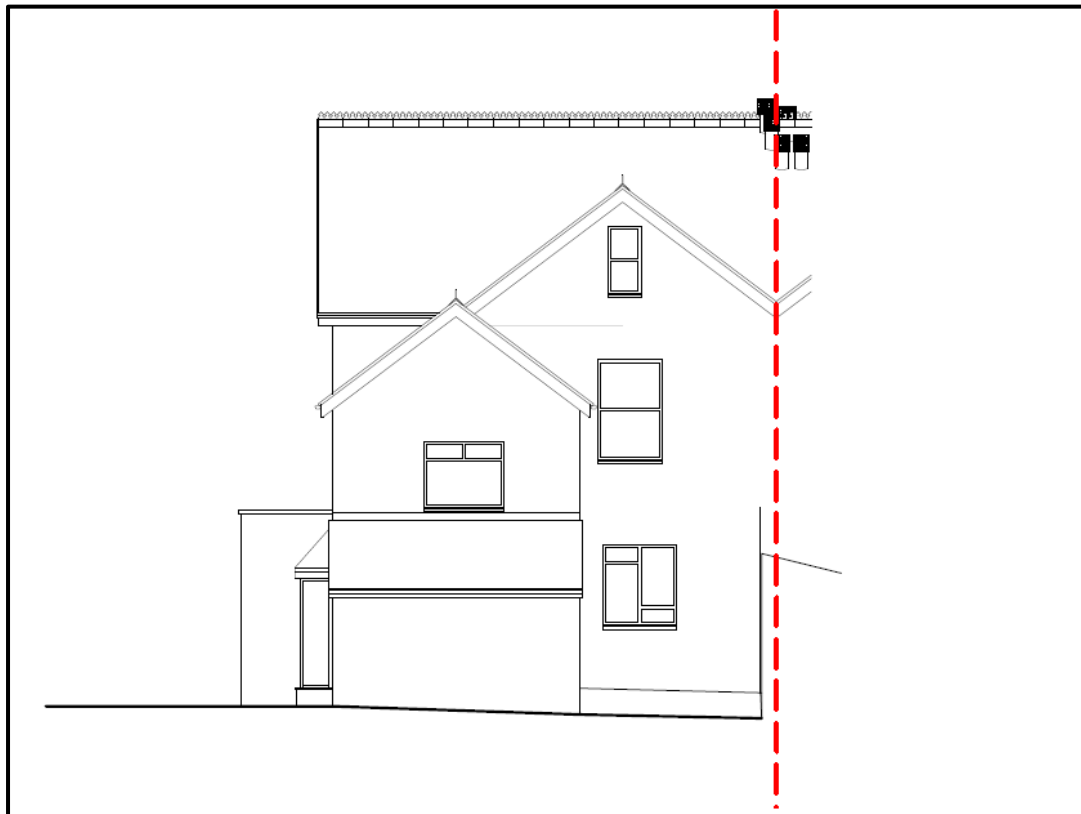


Existing East facing front elevation

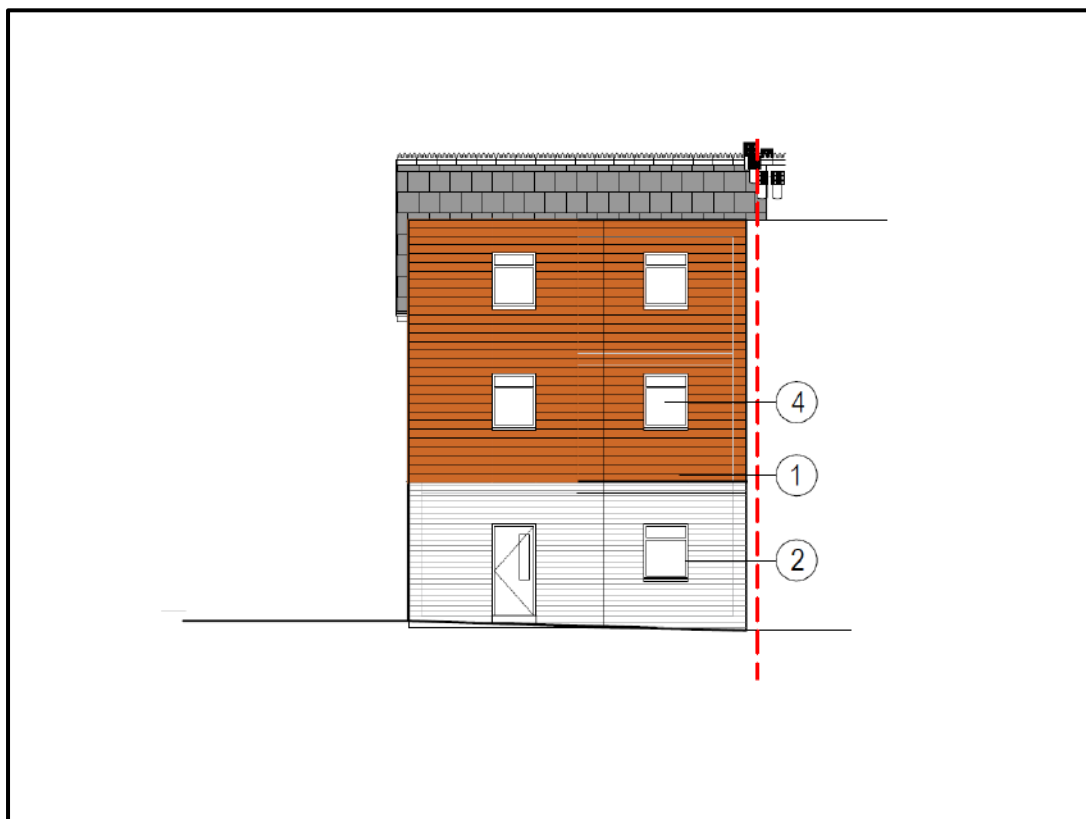


Proposed East facing front elevation

Appendix 2B: Existing and Proposed Elevations



Existing West facing rear elevation

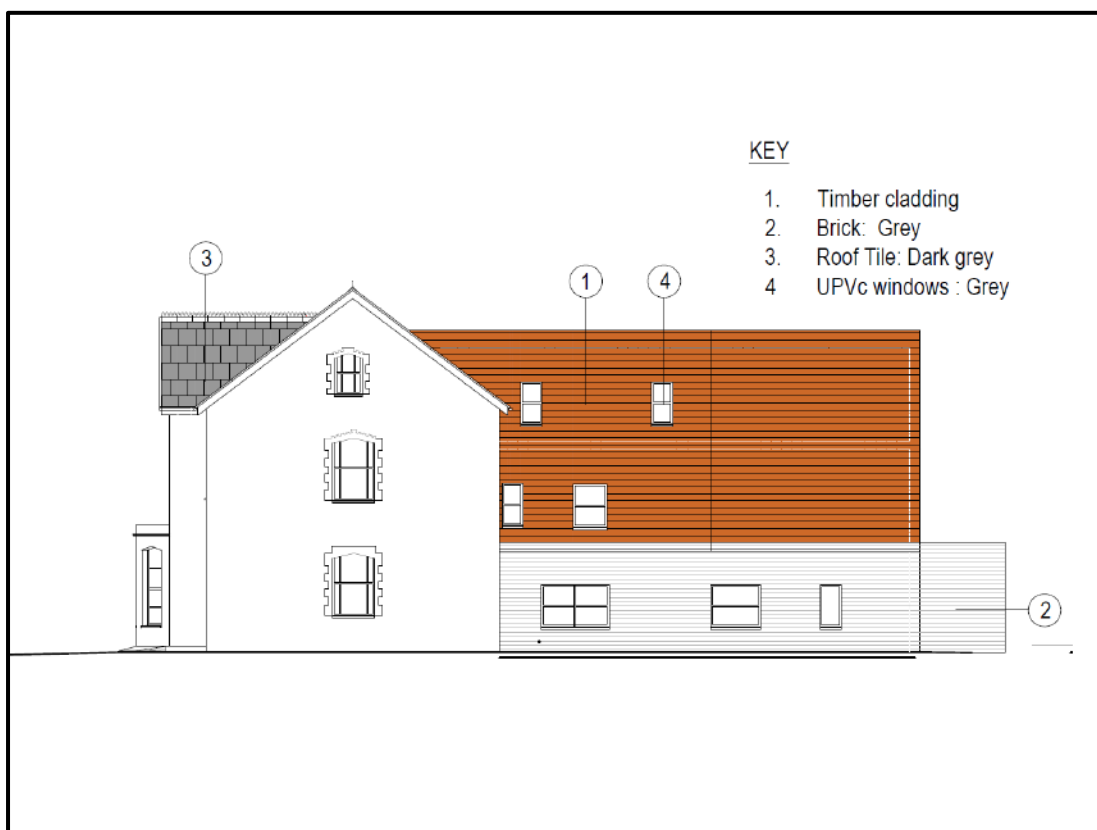


Proposed West facing rear elevation

Appendix 2C: Existing and Proposed Elevations

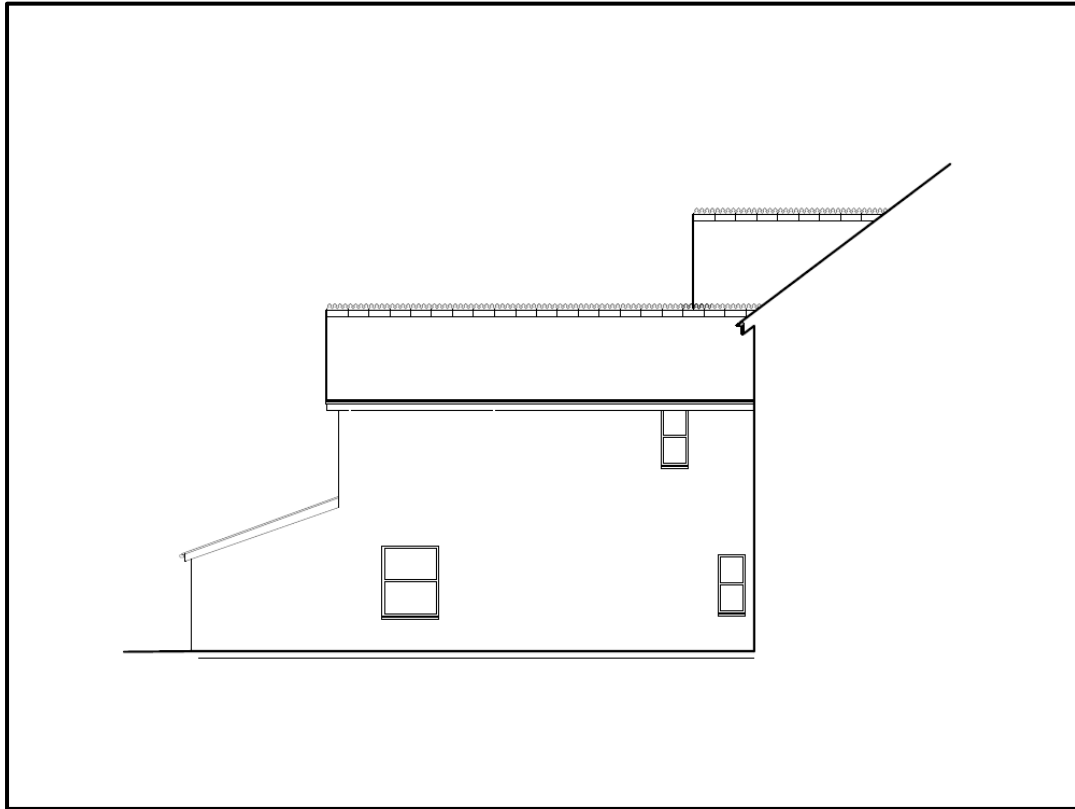


Existing North facing side elevation

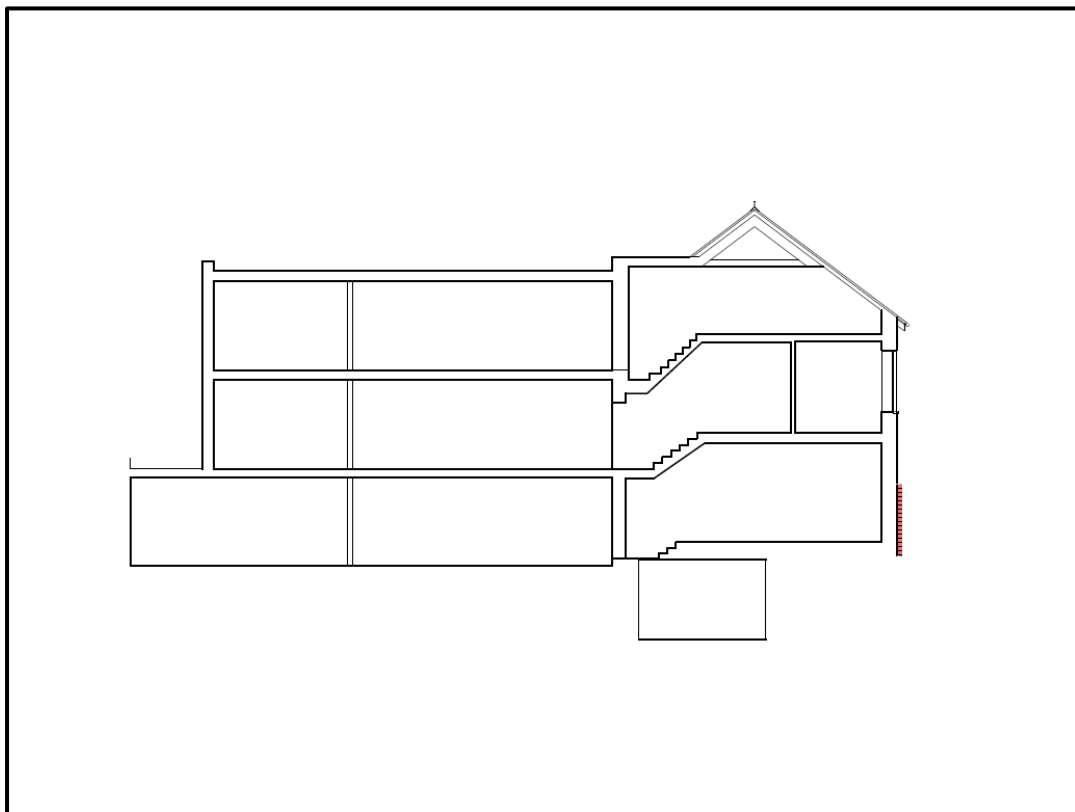


Proposed North facing side elevation

Appendix 2D: Existing and Proposed Elevations



Existing South facing side elevation

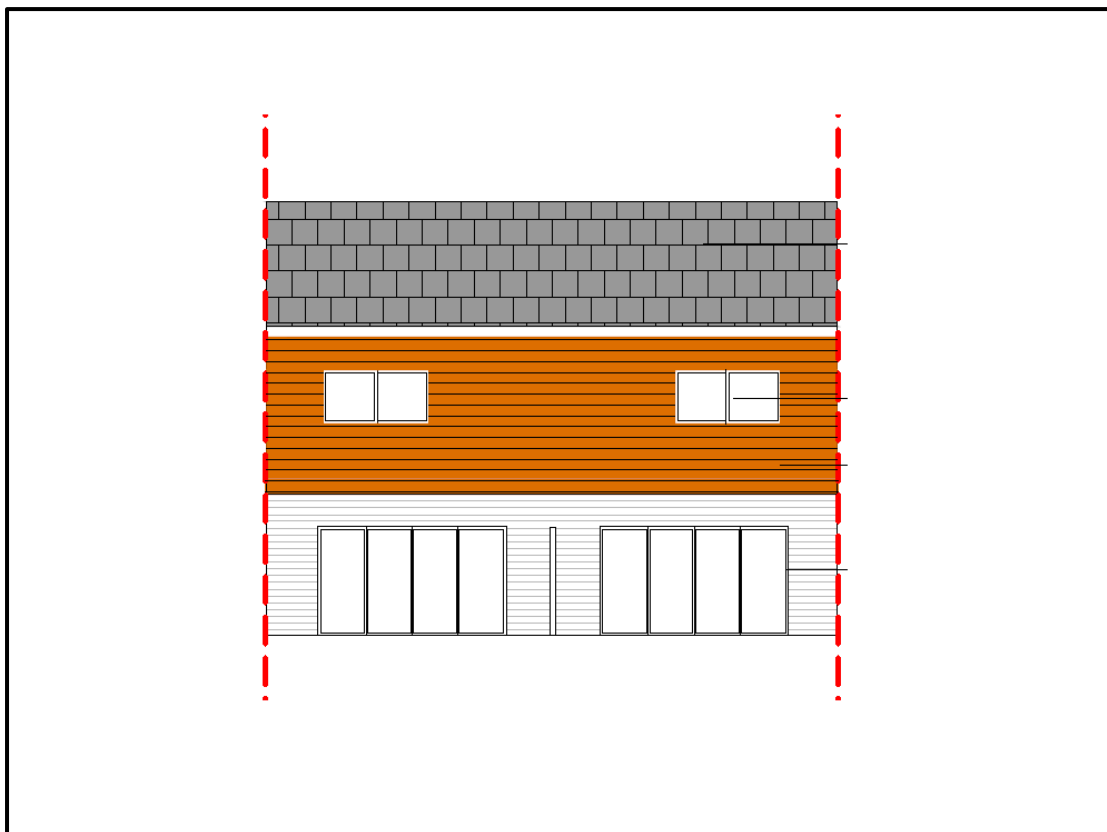


Proposed South facing section

Appendix 2E: Proposed Elevations – Semi-detached houses



Proposed East facing front elevation

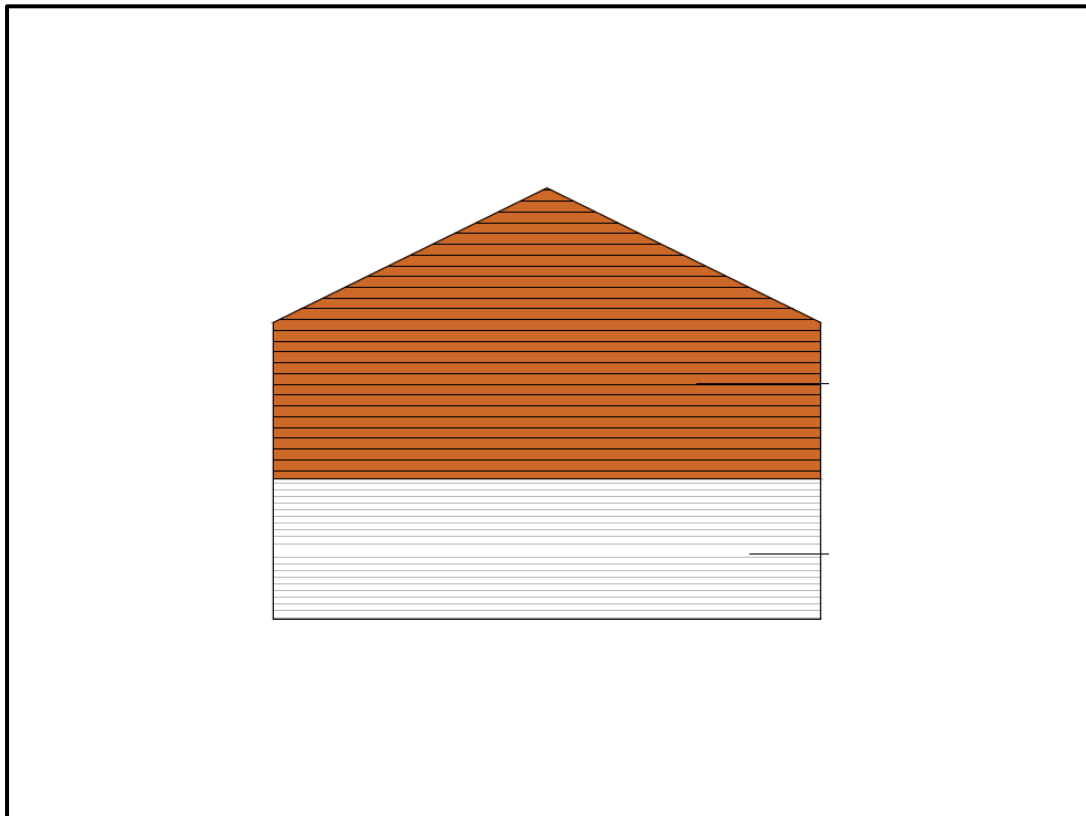


Proposed West facing rear elevation

Appendix 2F: Existing and Proposed Elevations

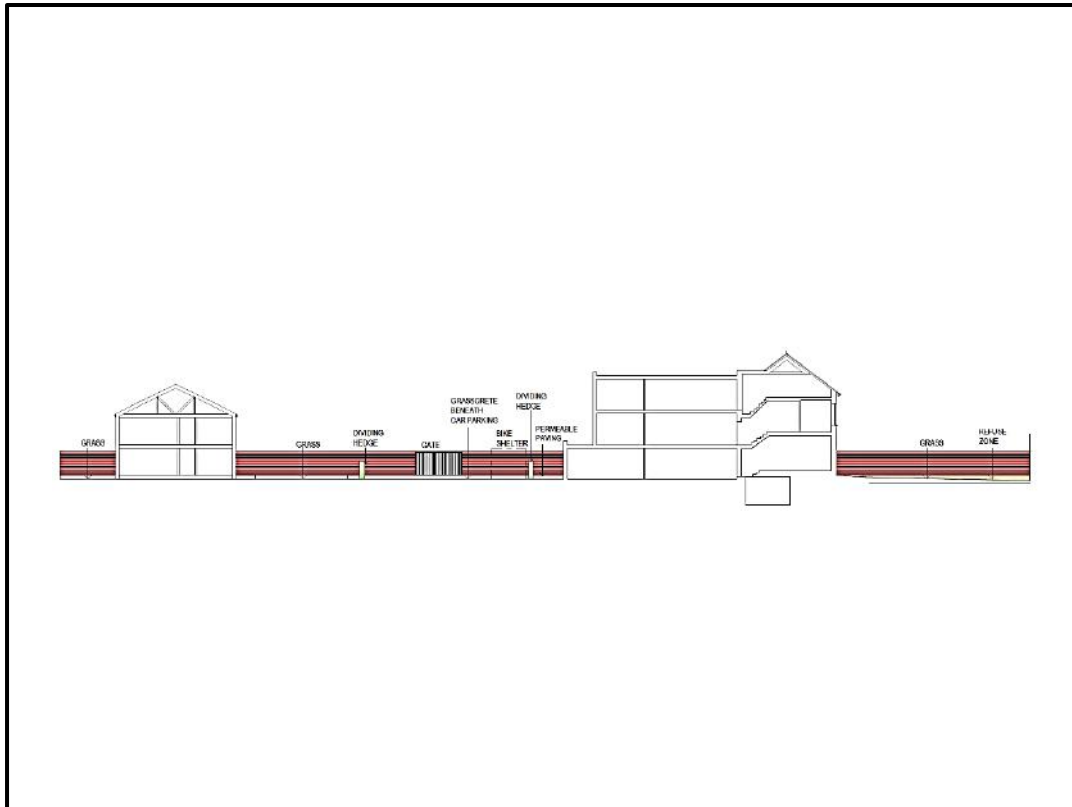


Proposed North facing side elevation



Proposed South facing side elevation

Appendix 2G: Proposed Sections



Proposed section view of both buildings.

Appendix 3: Protected Sites Within 2km



Within 1km Restored Ancient Woodland (brown)

Within 2km Plantation of Ancient Woodland (green hashed)

Appendix 4: Photos Showing the Buildings 05 May 2022

	
Photo 1: East facing front – note one-storey side porch to be demolished.	Photo 2: Interlocking concrete tile front roof
	
Photo 3: North facing gable end	Photo 4: Rear slate roof areas
	
Photo 5: North facing side	Photo 6: West facing gable end



Photo 7: Side view of South facing side



Photo 8: East facing front of Rear Extension

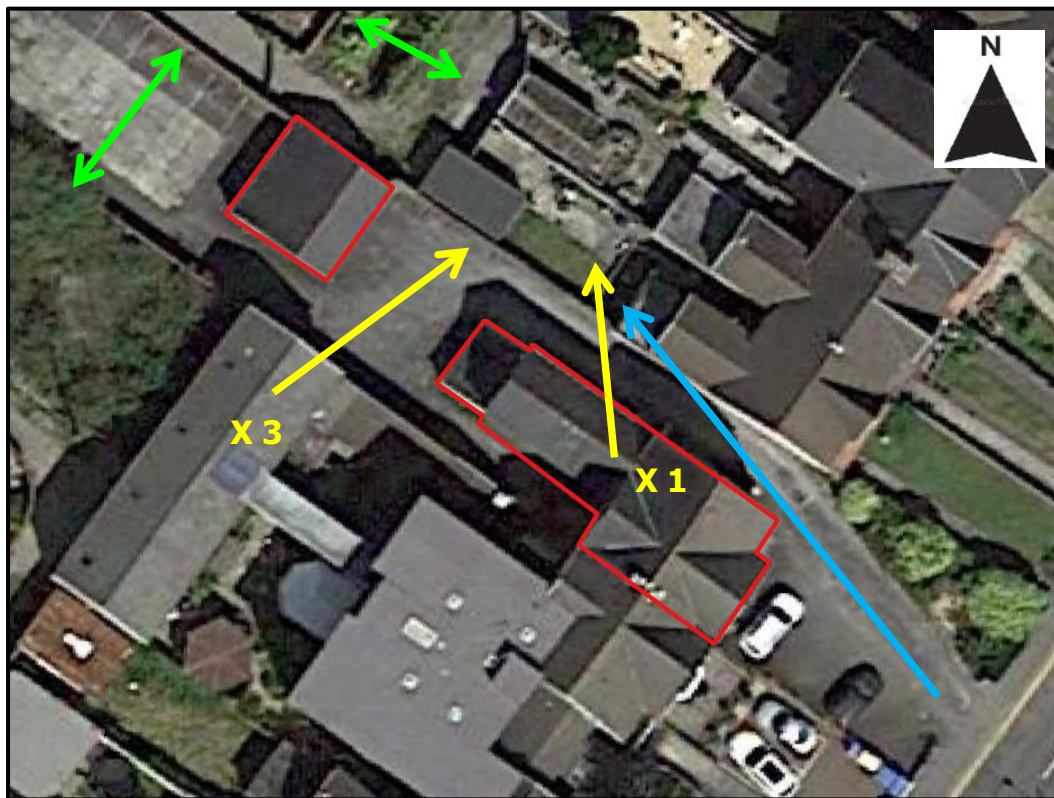


Photo 9: South facing side of Rear Extension

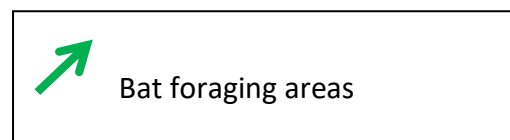
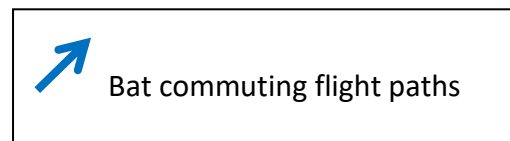
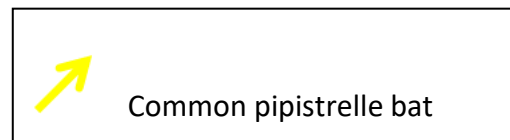


Photo 10: West facing rear of Rear Extension

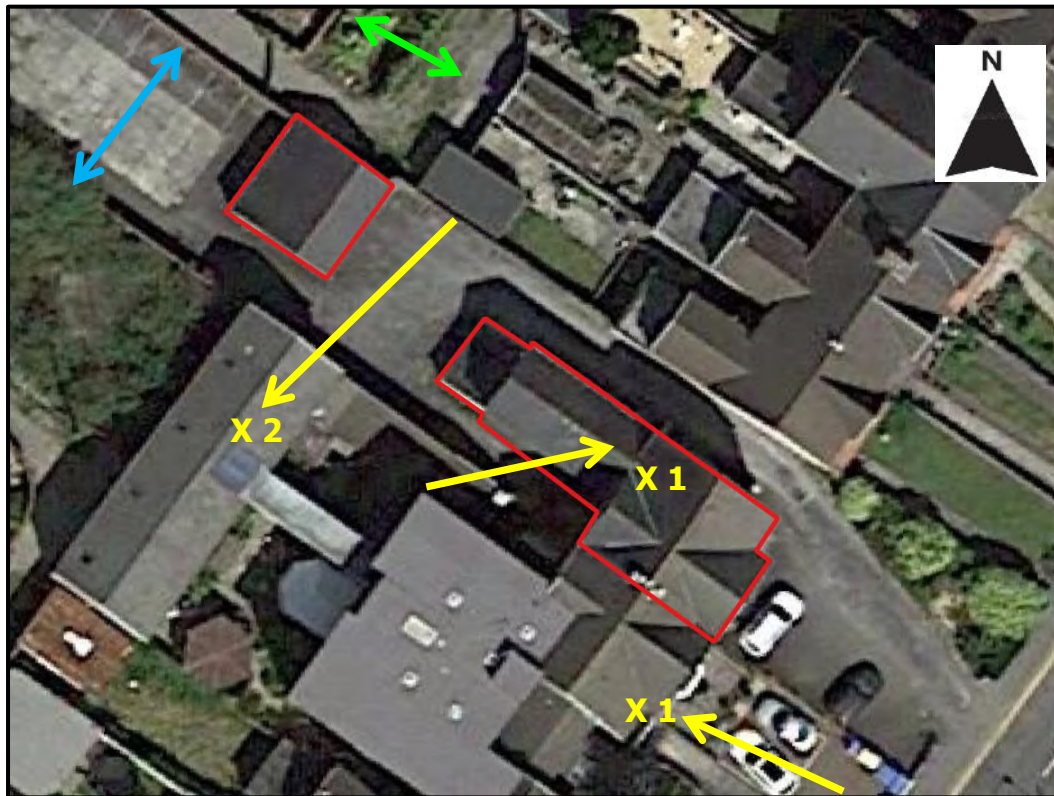
Appendix 5A: Dusk Emergence Survey Results 05 May 2022



Satellite view of 96 Gnoll Park Rd and Rear Outbuilding. Red shapes - outlines of buildings.



Appendix 5B: Dawn Re-entry Survey Results 07 June 2022



Satellite view of 96 Gnoll Park Rd and Rear Outbuilding. Red shapes - outlines of buildings.



Common pipistrelle bat

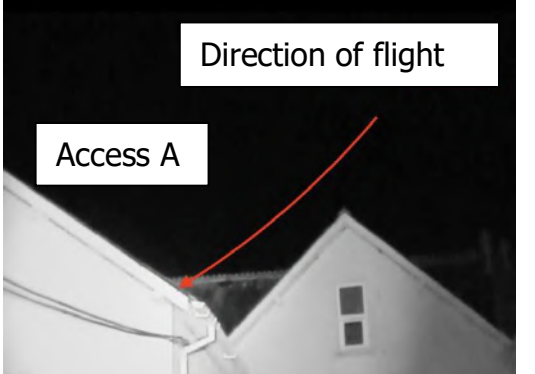


Bat commuting flight paths



Bat foraging areas

Appendix 6: Position of Bat Access Points

	
Photo 11: Access point by ridge of rear extension at dusk	Photo 12: Same access point by ridge of rear extension at dawn – bat entry at other side
	
Photo 13: Same access point by ridge of rear extension at dawn – bat entry at other side	Photo 14: Same access point by ridge of rear extension at dawn – bat entry at other side
	
Photo 15: Access point at West neighbour to the rear	Photo 16: Access point at adjacent neighbour to the front

Appendix 7: Position of Temporary Mitigation Bat Box – External Wall



Existing North facing side elevation



 = Position of temporary mitigation bat box on external wall

Appendix 8: Specification of External Wall Bat Box



Beaumaris Woodstone Midi Bat Box

About this product

This bat box is made entirely from Woodstone, a robust material comprising concrete and wood fibres. This means that, not only does the box have excellent insulating properties maintaining a more consistent temperature throughout the year, it also provides excellent protection from predators. The Beaumaris box has a single narrow cavity which makes it suitable for crevice roosting bats such as the common pipistrelle, soprano pipistrelle, Nathusius' pipistrelle, Brandt's bat and whiskered bat. The interior of the box has a rough surface for bats to cling to and the front of the box features a subtle but attractive imprint of a bat in flight. Suitable for attaching to external walls.

Specification

Midi:

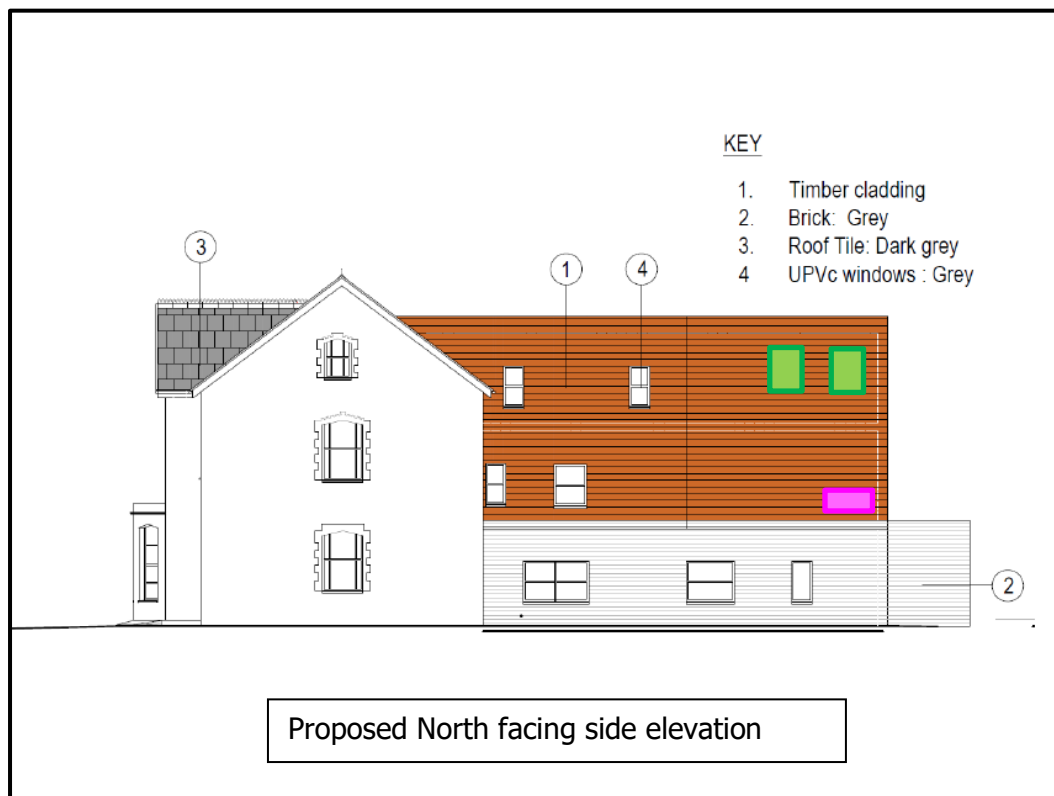
- * Height: 65cm
- * Width: 40cm
- * Depth: 6.5cm
- * Weight: 4.4kg

Available from: <https://www.nhbs.com/>

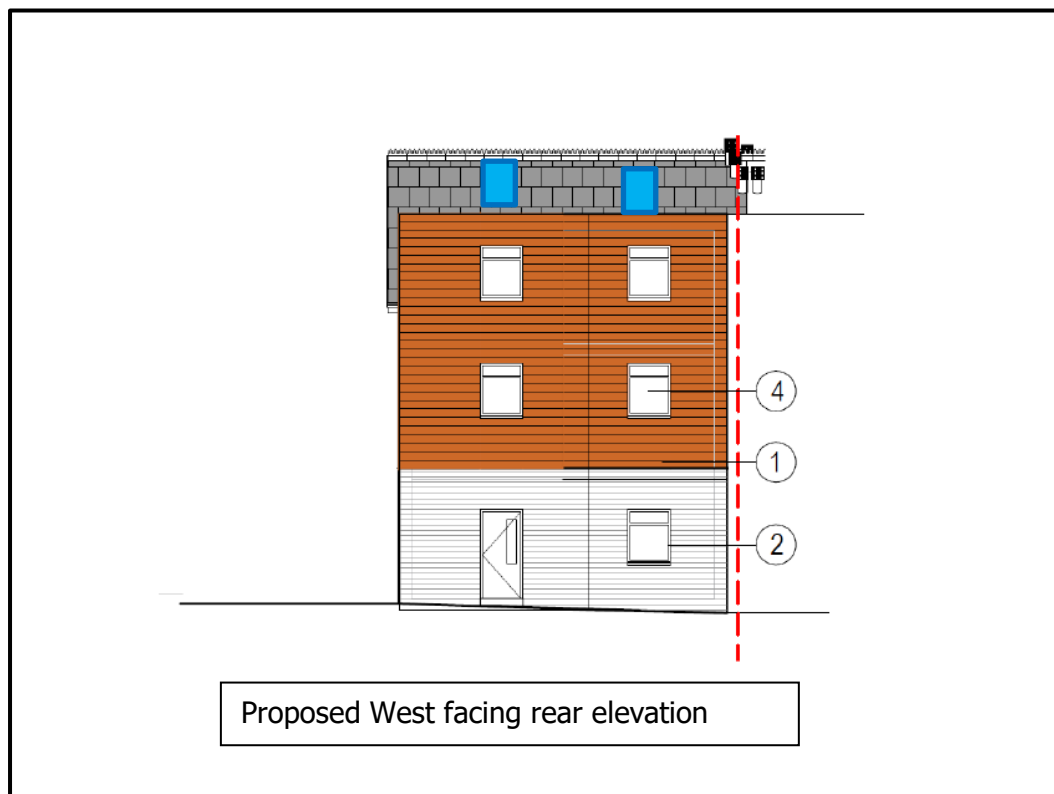
NHBS Price Including VAT £31.45

 = Position of temporary mitigation bat box on external wall

Appendix 9: Proposed New Bat Access Points and Roosting Areas

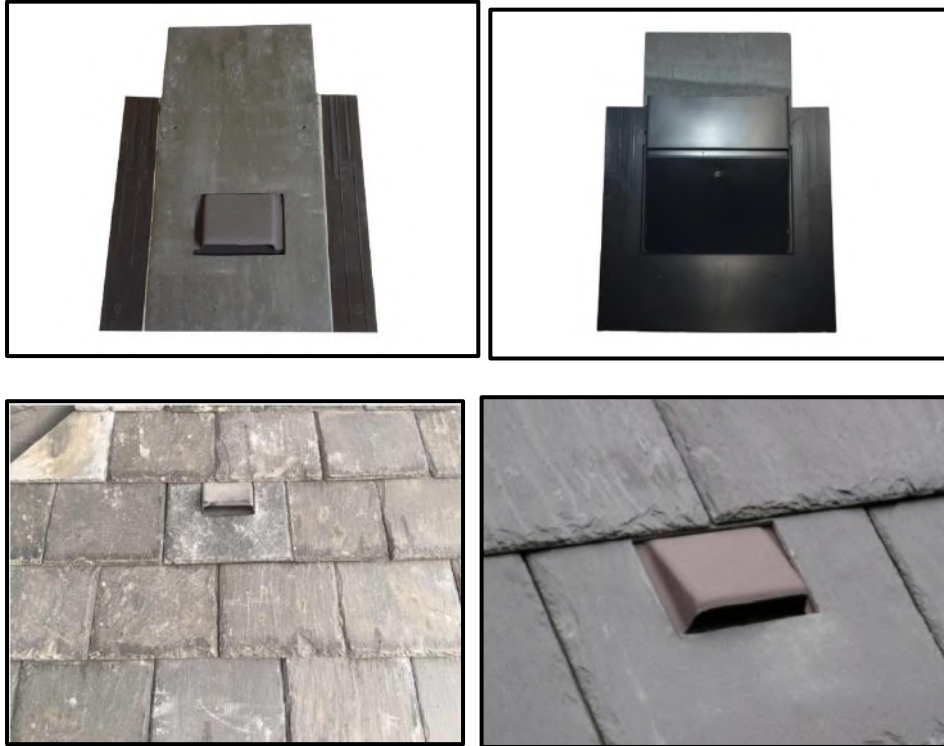


Green shapes = position of two in-wall bat boxes under timber cladding with gaps measuring 20mm (height) x 100mm (width). Pink shape = sparrow nest terrace bird box



Blue shapes = position of two bat access slates in rear slate roof areas for access in-between slates and 1F black bitumen roofing felt

Appendix 10: Specification of Bat Access Slates



 = position of bat access slate – in-between slates and 1F black bitumen roofing felt

The Beddoes Products bat access slate allows access for bats into the roof space or batten cavity as advised by ecological consultants. The product includes a discreet weathering cowl and non-slip surface for easy access for protected bat species.

Colour Natural -grey slate. For special colour requests, please leave a note with your order.

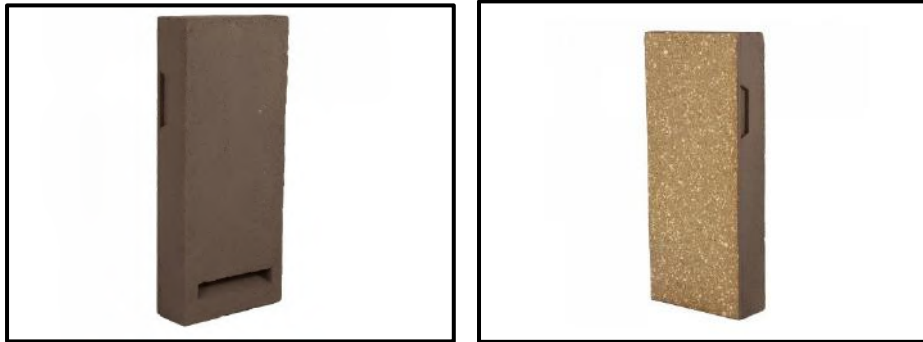
Size Options - The product comes in the 2 most popular slate sizes (600 x 300 mm and 500 x 250 mm)

Production Time - 5 working days. Premium Protective Packaging.

Price: **£89.99** including VAT Available from Beddoes Products online:

<https://beddoesproducts.com/>

Appendix 11: Specification of In-Wall Bat Boxes



About this product

Designed to be built in to the masonry of external walls or beneath a rendered surface, the Vivara Pro Woodstone Bat Tube provides an unintrusive, tailored habitat for a variety of bat species. It is designed to provide the maximum internal space across two cavities, allowing space for larger groups. The cavities can be reached via the crawl-in entry slot in the front facing. It is manufactured from hard-wearing WoodStone and plywood with removable side panels so that several boxes can be placed side by side. Position the box at least 2m above ground level away from artificial light sources. WoodStone is a mixture of sawdust from FSC wood sources and concrete, and it is designed to last for years. It is breathable so there will be no problems with condensation and WoodStone maintains a consistent temperature inside, providing excellent insulation for roosting bats.

This tube requires no maintenance as droppings fall out of the entrance ramp.

Specification

- * External dimensions: 21cm (W) x 50cm (H) x 7.7cm (D)
- * Internal dimensions: 16cm (W) x 40cm (H) x 2.2cm (D) (x2 cavities)
- * Weight: 6kg
- * Material: WoodStone

Available from: <https://www.nhbs.com>

NHBS Price: **£39.95** incl. VAT



= position of in-wall bat boxes under timber cladding with gaps measuring 20mm (height) x 100mm (width).

Appendix 12: House Sparrow Nest Terrace

Schwegler 1SP Sparrow Terrace



Proposed West Facing Side Elevation

Sparrows are gregarious and this triple-nest box provides room for three families under one roof. It's made from long-lasting, breathable woodcrete to provide the optimum environment for sparrows to nest and rear their chicks.

Positioning: On buildings of all kinds in typical habitats including industrial buildings and units at a height of at least 2m (e.g. under eaves).

Suitable for: House and tree sparrows and individual redstarts

Material: Woodcrete PLUS

Height: 240mm

Width: 430mm

Depth: 220mm

Weight: 15kg

Brood chamber dimensions: Height: 16cm, Width: 10.5cm, Depth: 15cm,

External dimensions: Height: 24.5cm, Width: 43cm, Depth: 20cm, Weight: 15kg

 = position of sparrow nest terrace bird box

Appendix 13: Timetable of Works

Start of works March 2022

Works to be carried out	Oct-Nov 2023	Dec 2022- Mar 2022	Apr 2023
Positioning of temporary bat box on external wall - by licensed bat ecologist			
Toolbox talk to building contractors - by licensed bat ecologist			
Supervised removal of rear slate roof areas at rear extensions. - by licensed bat ecologist			
Supervised Insertion of bat access slates in rear slate roof areas - by licensed bat ecologist			
Building of new rear flat roofed timber clad extension -by builders			
Insertion of in-wall bat boxes behind timber cladding, with corresponding gaps. -by builders			
Bat mitigation check Inspection of in-wall bat boxes. - by licensed bat ecologist			