



Bat Survey: Dowlais RFC, Blaendowlais, Merthyr Tydfil



Instructed by: Dowlais RFC

Reported by: Ecological Services Ltd
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Warning! The building is now a confirmed bat roost.

No works can be undertaken that may impact or disturb the roost without the legal owner being in possession of a European Protected Species License. Please refer to section 4 and section 9 of the report for further details.

If there is any doubt of what is permissible please contact the author on: Tel:07866461726 or Email rich@ecologicalservices.wales prior to any works commencing.

Disturbance or destruction of a bat roost is a criminal offence that may result in any granted planning permission being revoked, the legal owner receiving a fine and or a prison sentence.

1.0 Background and Purpose

1.1 Dowlais RFC consists of a detached club house building and a changing room block which are situated in a semi-urban environment in the village of Dowlais, to the north east of the town of Merthyr Tydfil. The club house building is currently in use whereas the changing room block is not currently used. Planning permission is sought to carry out renovations to the changing room block and to build a pitched roofed connecting building between the club house and the changing room block which will cut into the existing roofs of both buildings. The renovation works proposed to the changing room block include the addition of new doors and windows and internal modifications. This report will investigate if there is potential to disturb bats and will be used to assist in the planning process.

1.2 A Preliminary Roost Assessment (PRA) was carried out by East Ecology in November 2023. As a result of the PRA, the club house was classed as having negligible potential for roosting bats whereas the changing room block was classed as having low to moderate potential for roosting bats and was found to “*hold a roost of likely more than one bat.*” A pile of 100s of bat droppings were found during the internal inspection of the changing room block which appeared to be Pipistrelle (*Pipistrellus*) droppings. During the PRA undertaken by Ecological Services Ltd in 2024, areas of missing mortar were noted on the roof of the club house building and as the roofs of both buildings will be cut into to facilitate the new link extension, two emergence surveys have been instructed on both buildings.

1.3 To support the planning application a bat report has been commissioned to investigate if bats use the current property in any capacity during the maternity season, and for any evidence suggesting that bats use the property at other times of the year.

1.4 The report is prepared and undertaken by Mr. Richard Watkins BSc., an experienced Natural Resources Wales licensed bat ecologist with 13 years experience, license number S0931358-1.

1.5 A data search was undertaken with SEWBReC as part of the PRA by East Ecology to provide information on local bat and bird species in the area. The data search did not identify any historic records of bats being present in the buildings. An updated data search has not been undertaken in this instance.

2.0 Site Description

2.1 Dowlais RFC consists of two detached, single storey buildings. The club house building is currently in use whereas the changing room block is not currently in use. The club house building is block rendered with uPVC fasciae and barge boards and a pitched tiled roof. The changing room block is block and brick built with a pitched tiled roof; timber fasciae and barge boards and plastic verge protectors on the gable ends. There is likely to be a cavity wall in both buildings.

2.2 The buildings date back to in excess of 30 years and are situated in a semi-urban environment. There are likely to be some levels of security lighting within the site boundary.

2.3 The nearest significant watercourse is the River Taff, approximately 3.2km to the south west of the site at its nearest point. Additionally, Bottom Pond lies approximately 310m to the north west of the site and Top Pond lies approximately 600m to the north west of the site.

2.4 The site is situated in a semi-urban environment in the village of Dowlais, to the north east of the town of Merthyr Tydfil. There are large expanses of open fields within the areas around the site and there are a number of ponds and reservoirs in the wider area. There is excellent ecological connectivity for bats to the wider environment.

2.5 The National Grid Reference of the site is approximately: **SO 0743 0798**.

3.0 Report Constraints

3.1 Ecological surveys are limited by factors which affect the presence of plants and animals such as the time of year; migration patterns and behaviour. The survey methods employed can provide evidence for the potential presence of bats at the times when the site was visited. Although the methods follow best practice guidance and were carried out in such a way as to maximise the chances of detection, failure to detect the target species cannot be considered as definitive proof of their absence.

3.2 The report is solely concerned with bats in relation to these buildings. Trees and other buildings not mentioned directly have not been included in this report.

3.3 Even though bats are habitual creatures they can still move to new roosts if more suitable. Therefore this report cannot predict the status of the structure in regard to bat occupancy in the future. This report should be acted upon as soon as practical. Natural Resources Wales will only accept survey data up to two years old from date of issue for licence applications, although some Local Planning Authorities will only accept survey data up to eighteen months old. If planning or building works are delayed, it is the responsibility of the client to discuss and gain approval from the *author* before work commences.

4.0 Legal Constraints

4.1 Bats, and any place a bat uses for breeding or shelter, either currently occupied or unoccupied are protected by European and British law, predominantly by **The Conservation of Habitats and Species Regulations 2017**, which are the principal means by which the Habitats Directive is transposed from European directive into law in England and Wales.

4.2 In summary this law states that it is an offence to:

- **Deliberately capture or kill a bat**
- **Deliberately disturb a bat**
- **Damage or destroy a breeding site or resting place of a bat**
- **Keep; transport; sell; exchange or offer for sale or exchange a living or dead bat or any part of a bat**

4.3 ‘Deliberately’ may also be interpreted, as not intending to injure or kill a bat but having done so due to being insufficiently informed and unaware of the consequences of the action.

4.4 For a more comprehensive description and exact wording of the legislation please refer to:

<http://www.legislation.gov.uk/ukxi/2010/490/contents/made>

4.5 Where there is a risk that a bat roost may be present, it is incumbent upon the owner to commission a specialist bat survey to identify bat roosts before any work commences. Maximum penalties for offences relating to disturbance to

bats or their roosts can amount to imprisonment for a term not exceeding six months or fines of up to Level 5 on the standard scale under the Criminal Justice Act 1982/1991 (i.e. £5000 in April 2001) per roost or bat disturbed or killed, or to both.

4.6 If a bat roost is discovered, no work that could affect the roost can be undertaken until Natural Resources Wales grants a licence endorsing the work. A thorough method statement and adequate mitigation proposal will need to be submitted to support any licence application.

4.7 The Environment (Wales) Act 2016 puts an onus onto responsible bodies such as Local Planning Authorities to not only preserve, but also to enhance biodiversity meaning that planning applications must offer an element of ecological gain as well as preserving any aspects of ecological importance.

5.0 General Information

5.1 Bats are unable to build roosts themselves but instead rely on both man made and naturally occurring features to provide suitable accommodation. Bats generally prefer older buildings built with traditional materials, as traditional building methods provide more opportunities for gaps and entrances to buildings. Traditional cut roofs are preferred to a roof with trusses. Bats also prefer to roost where the external roost area has access to sunlight during the day such as south facing roof elevations.

5.2 Bats can utilise the following features on a building; end tiles, barge boards, soffit, gable ends, porches, lead flashing, hanging tiles, ridge tiles, broken tiles, eaves, sash window frames, wood cladding, fascia boards, window sills and internal roof spaces and timbers. Although this list demonstrates the most popular roosting sites it is by no means definitive. Bats can use apertures as small as 10mm in diameter to gain access.

5.3 The U.K bat population is divided into two distinct families, Rhinolophidae and Vespertilionidae. In general, Rhinolophidae (Horseshoe) bats differ in their roosting requirements to Vespertilionidae (the remainder of UK bat species). Horseshoe bats prefer to roost in large areas such as internal attic spaces and hang in the open from the roof of the roost. They tend to roost in visible clusters to maintain the high temperatures that a maternity colony needs. Horseshoe bats also prefer free flight access and egress into the roosting area. Horseshoe bats tend to be more light averting to other UK bat species, and routinely fly around the internal roosting area to warm up before exiting. It is noted that Plecotus (Long Eared) bats share some of these preferences. Vesper bats are, on the whole, crevice dwelling bats who squeeze into small apertures to access the roost. These, like Horseshoe bats, will cluster in maternity colonies, but are normally hidden from view. Vesper bats, with the exception of Long Eared bats, do not require a large internal roost to fly around before exit. Long Eared bats, although part of the vesper family, are very light averting and will, on occasions share the roosting patterns of both Horseshoe and crevice dwelling species.

6.0 External Scoping Survey

6.1 An external scoping survey was undertaken on the **8th May 2024** by Hannah Evans (accredited agent S092780/2), an experienced bat ecologist with 5 years experience, in conditions of good natural light. All external aspects of the buildings were comprehensively evaluated for roost potential. Evidence was also sought for any staining or droppings which could suggest bat occupation.

6.2 The buildings were inspected for overt evidence of bat presence and occupation such as:

- Staining around the entry of roosting point caused by oils secreted by the bat into its fur
- Scratching on surfaces caused by the bat in the acts of take off and landing
- Bat droppings on walls; floors; roof voids; window sills or panes and barge boards
- Urine stains below a possible entrance site, within the entrance to a cavity or on timbers used for roosting
- Bats can produce chatter on warm evenings prior to leaving the roost. A heterodyne bat detector is used to help determine this
- Flies around the entrance or on the floor of possible roosts, which may be attracted to bat guano

6.3 The fasciae and barge boards on the club house building were tightly sealed with no apertures present suitable for use by bats. The roof of the building was in relatively good condition, however, there were a number of areas of missing mortar present between the roofing tiles. A small area of slightly raised lead flashing was also observed on the south eastern elevation and there was an aperture between the length of the uPVC barge board and the roof on the north western elevation of the building. The club house building was classed as having low to moderate potential for roosting use by bats.

6.4 Apertures between the fasciae and the walls were observed on the north eastern and south western elevations of the changing room block along with apertures between the barge boards and the walls on both gable ends (north western and south eastern elevations). There was a small aperture at the apex on the north western elevation of the building; areas of damage to the timber fasciae on the north western and south western elevations of the building and a small number of missing and damaged roofing tiles to the south western elevation. There were also very small apertures between a number of the roofing tiles. The changing room block was classed as having moderate potential for roosting use by bats.

6.5 No droppings or evidence of bats were discovered on any external features.

6.6 No evidence of nesting bird use of the buildings was observed during the scoping survey.

6.7 Examples of apertures allowing access to cavities in the buildings:

Changing Room Block





Club House Building



Areas of Missing Mortar Between Tiles



Areas of Missing Mortar Between Tiles

7.0 Internal Scoping Survey

7.1 An internal scoping survey was undertaken on the **8th May 2024** by **Hannah Evans (accredited agent S092780/2)**, an experienced bat ecologist with 5 years experience.

7.2 There was an accessible attic space within the changing room block. The attic space was large and warm and of a trussed design. The changing room block attic space was approximately 2.5m high, 9m wide and 16m long. The space was lined with ply boarding and there was insulation present all over the floor between joists. No light ingress was noted within the attic space.

7.3 A large accumulation (100s) of bat droppings were observed to the north western end of the attic space, below the apex. The droppings were indicative of a Pipistrelle Species (*Pipistrellus sp.*) of bat and there were a number of fresh droppings present. The odd singular bat dropping was observed around the south eastern end of the attic space also.



Accumulation of Bat Droppings (NW End)



Accumulation of Bat Droppings (NW End)



Single Bat Dropping (SE End)

7.4 There were two accessible attic spaces within the club house building. The attic spaces were of trussed designs and were partially boarded out with some insulation present on the floor. A small amount of light ingress was observed above the porch area.

7.5 No droppings or evidence of bats were discovered on any internal features within the club house.



8.0 Emergence Surveys

8.1 The emergence surveys were carried out during the maternity season and adhered to current best practice guidelines. These surveys were conducted from half an hour before sunset until two hours post sunset. The surveyors used are all experienced bat counters who have undergone sufficient training in basic bat ecology and bat activity. All sound analysis was undertaken by Richard Watkins.

8.2 The emergence surveys gave extra consideration to the features identified during the external scoping survey which could be utilised by bats. **The first emergence survey on the club house building was carried out on a different night to the changing room block as the activity survey work was instructed at a later date.**

8.3 First Emergence Survey on the Changing Room Block: 8th May 2024

- Sunset: 20:50
- Weather: Dry and calm with full cloud cover
- Temperature: 13 degrees celsius
- Surveyors: Hannah Evans; Lloyd James and Tyrone Evans

No bats were observed emerging from the changing room block.

8.4 First Emergence Survey on the Club House Building: 22nd May 2024

- Sunset: 21:11
- Weather: Dry with a slight breeze and full cloud cover. There was a slight drizzle towards the end of the survey, however, bat activity was still observed during this time.
- Temperature: 13 degrees celsius
- Surveyors: Jonathan Daniels; Tyrone Evans; Allen Harvey; Debbie Parry and Kinga Streich

No bats were observed emerging from the club house building.

16 Common Pipistrelles were observed emerging from an aperture underneath the barge boards to the north western gable end of the changing room block. The bat exit point is indicated in the below image.



8.5 Second Emergence Survey on the Changing Room Block and Club House Building: 19th June 2024

- Sunset: 21:36
- Weather: Dry and calm with approximately 70% cloud cover
- Temperature: 14 degrees celsius
- Surveyors: Tyrone Evans; Allen Harvey; Adam Hughes; Debbie Parry; Caitlin Smith; Mason Smith; Keith Watkins and Richard Watkins

No bats were observed emerging from the buildings.

8.6 The weather conditions were dry and calm with little wind and no rain and therefore conducive for bat activity. The temperature was above 10 degrees celsius during the emergence surveys.

8.7 The best viewing conditions were obtained.

8.8 Echo-meter Touch 2 Pro bat detectors were present to acoustically record any bat calls. Nightfox Night Vision Goggles with record features were also used alongside additional infrared spotlights. These were positioned with the surveyors.

8.9 Analysis of sound recording on bat detectors:

Species of Bats Recorded Emerging from the Changing Room Block:

Common Pipistrelle

Pipistrellus pipistrellus

Species of Bats Recorded in the Area:	
Common Pipistrelle	<i>Pipistrellus pipistrellus</i>
Natterer's Bat	<i>Myotis nattereri</i>
Noctule	<i>Nyctalus noctula</i>

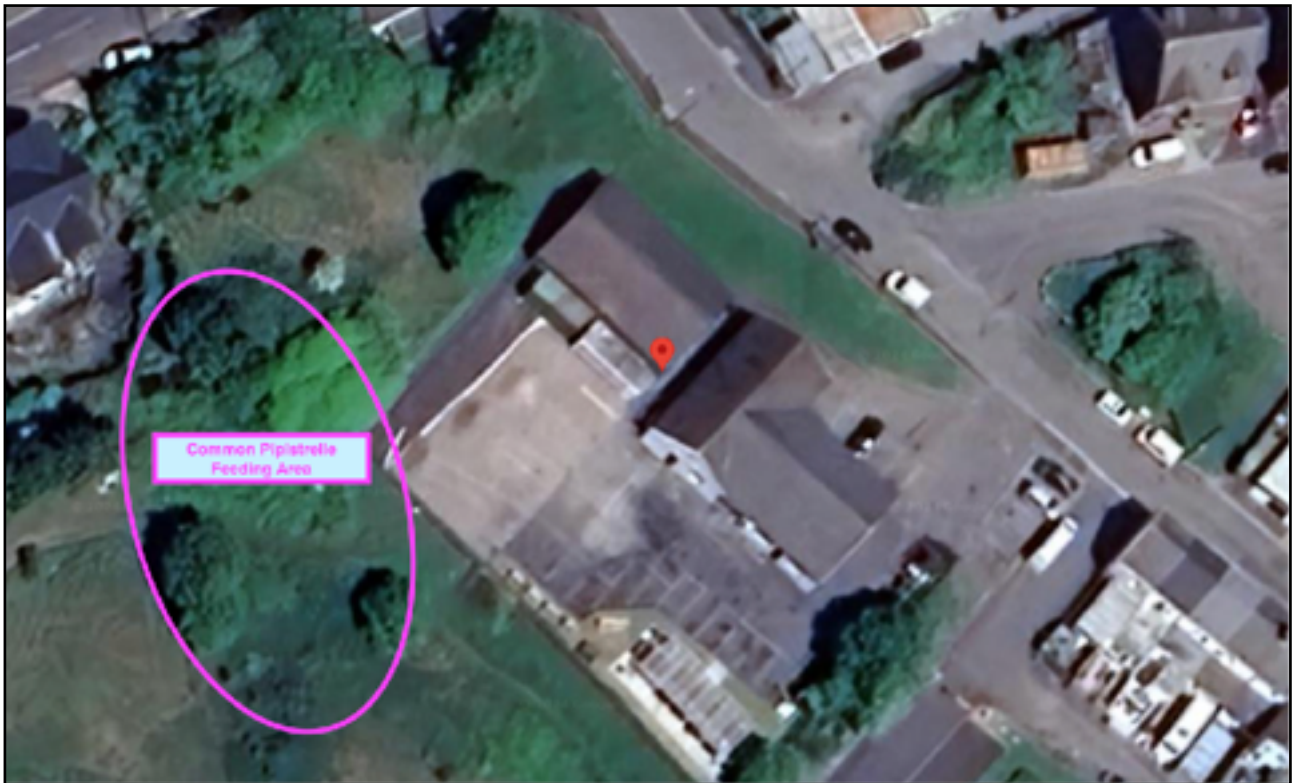
8.10 During the first emergence survey on the changing room block, only a single Natterer's Bat call was recorded late into the survey but the bat was not observed.

8.11 During the first emergence survey on the club house building, a low number of bat calls were recorded. A Noctule was recorded but the bat was not observed. No bats were observed emerging from the club house building, however, 16 Common Pipistrelles were observed emerging from the changing room block.



BAT EXIT POINT - 22ND MAY 2024

8.12 During the second emergence survey on both buildings, a very low number of bat calls were recorded. A small number of Common Pipistrelles were observed foraging to the south west of the site.



BAT FORAGING ACTIVITY - 19TH JUNE 2024

8.13 Examples of NVA Still Shots:





9.0 Static Bat Monitoring

9.1 A five night period of static bat monitoring has been undertaken in both of the buildings during the bat active season to ensure that no resident bats were missed. A static bat detector (Anabat Express) was deployed within the attic space of the changing room block for a period of five consecutive nights on the **8th May 2024** by Hannah Evans (accredited agent S092780/2) and was collected on the **13th May 2024** by Richard Watkins, a Natural Resources Wales licensed bat ecologist, license number S0931358-1. The static bat detector was positioned near where the bat droppings were found to the north western end of the attic space within the changing room block.

9.2 A static bat detector (Anabat Express) was also deployed within the attic space of the club house building for a period of five consecutive nights on the **22nd May 2024** by Hannah Evans (accredited agent S092780/2) and was collected on the **27th May 2024** by Richard Watkins, a Natural Resources Wales licensed bat ecologist, license number S0931358-1. All recorded data was downloaded and assessed using Analook software.

9.3 When the static bat detector was collected from the changing room block on the 13th May 2024, a number of **Pipistrelle** bats (confirmed to be **Common Pipistrelles** during the 22nd May emergence survey) were observed roosting in a small gap between the timbers and the wall to the north western end of the attic space, below the apex.



9.4 Within the changing room block, no bat calls were recorded on the 8th or 9th May, however, background noise was recorded which indicated that the detector was working. A low number of Common Pipistrelle calls were recorded on the 10th - 12th May. This supports the findings of the emergence surveys.

9.5 Within the club house building, no bat calls were recorded during the five night survey period, however, background noise was recorded which indicated that the detector was working. This supports the findings of the emergence surveys.

10.0 Concluding Remarks and Recommendations

10.1 During the emergence surveys, bats were observed using the changing room block as a roost.

10.2 Common Pipistrelles (*Pipistrellus pipistrellus*) were observed emerging from the changing room block during the surveys. Common Pipistrelles are a common species of bats and are often found roosting in buildings. These types of bats are more tolerant to light disturbance than other species of bats.

10.3 Throughout the surveys, a low number of bat calls were recorded and a maximum of 16 bats were observed using the changing room block as a maternity roost. It is considered that this was likely to be a small maternity roost that fragmented early in the season.

10.4 A five night period of static bat monitoring has been undertaken in both of the buildings during the bat active season to ensure that bat species and activity levels were not missed. There were low levels of Common Pipistrelle bat calls recorded within the changing room block and no bat calls were recorded within the club house. This static data supports the findings of the emergence surveys.

10.5 The buildings do not offer significant hibernation potential for bats. The club house building is in constant use and therefore central heating will be on which does not provide a thermally stable environment for hibernating bats. When considering the limited bat access points into the building, the hibernation use of the building is considered to be limited. Hibernation use of the changing room block is considered to be unlikely, there were no visible access points into the walls.

10.6 No evidence of nesting bird use of the buildings was observed during the surveys.

10.7 Based on the 2024 survey work by Ecological Services Ltd, the club house building was classed as having low to moderate potential for roosting bats and the changing room block was classed as having moderate potential for roosting bats. Two activity surveys were completed on each building to provide information on how bats utilise the buildings and site.

10.8 The site is located in an area with excellent ecological connectivity for bats to the wider environment and the surrounding environment does offer potential for bat use.

10.9 There were moderate amounts of security lighting present within the site.

10.10 The Changing Room Block is a confirmed bat roost. No work that could affect the bat roost is permitted by law, without the permission from Natural Resources Wales, including any works to the roof. Direct illumination of the building is also not permitted, as this could constitute disturbance. (Please see Section 5 of this report for further information).

10.11 The proposed development work will not directly affect any known bat roosting location. Bats will be able to utilise the roosting locations in the future. However, as roof works are proposed which require the removal of a small area of roof tiles to tie the new roof structure in, there is the potential for disturbance to occur. Also bats are transitory creatures and can move around a building to make the most of direct conditions more suited to their needs throughout the year. The need for a bat licence and potential pros and cons of the licence process vs a

method statement and site supervision have been discussed with the client. The client would prefer to seek a bat licence to cover the proposed development work as the safest method of work.

10.12 If planning is approved, the legal owner must apply and be in possession of a European Protected Species Licence to destroy the roost, this is issued by Natural Resources Wales. This will take approximately 40 working days to be issued. This licence would have to offer a methodology to ensure that any loss of roosting sites be replaced and preferably enhanced in the new build and the project be undertaken in a way which minimises any risk to bats. An ecological clerk of works will be appointed and retained for the duration of the project.

10.13 A detailed external lighting plan will be required to minimise any external light disturbance to the bats using the building and surrounding area. Any new external lighting must not directly illuminate any roosting location. Any external lighting must be downward angled and activated by passive infrared. The lights will be baffled to avoid any unnecessary lateral or vertical light spill. The lux levels of any external lights will be as low as required for health and safety purposes.

11.0 Proposed Enhancements

11.1 To comply with the Environment (Wales) Act 2016, ecological gain will be included into the scope of works. **All proposed enhancements will need to be added to architectural drawings.** This will consist of:

- *1 Schwegler 1FQ Surface Mounted Bat Box. This can be painted with a water based paint to match the surrounding colour scheme.*
- *Native species tree planting*

If any of the above products are not available, then further advice must be sought from a suitably qualified ecologist regarding a suitable replacement product.

11.2 Around the northern elevation of the changing room block, there is scope to add planting which would benefit the confirmed maternity roost within the building. It is recommended that two native trees are planted within the grassland area around the northern elevation of the changing room block. The trees will be a low growing species such as Rowan (*Sorbus aucuparia*) and ideally a root ball specimen to aid a fast establishment. The trees will be planted in Autumn or Spring (whichever period is closest) of the year that the development work commences. Rowan has been chosen as the berries can also be a food source to local bird species. The provision of trees within the site will create habitat diversity for wildlife. The trees will need to be managed for at least 3 years to ensure establishment. Any failed planting must be replaced during the next planting season.

11.3 The current bat access point into the changing room block on the north western gable end will be retained. The impacts of the scheme are very limited as the roof works are small scale and do not directly affect the confirmed bat roosting location within the changing room block.

11.4 It is proposed that an additional roosting provision for bats be created by fitting one Schwegler 1FQ surface mounted bat box on the southern elevation of the building. **Bat enhancement features will benefit from the southern elevation or an elevation where there is direct access to sunlight as the bats can tolerate and prefer high levels of temperature in their roost.**



11.5 Direct and prolonged illumination of the building, especially near any roost entry points must be avoided as this will cause disturbance. Where practical, all bat features must be located far enough from any windows to avoid any direct light spill, at least a minimum of 2 metres away.

11.6 On occasions the suggested enhancements can be in short supply. Please order the enhancements as soon as practical to avoid supply issues during the building phase. If supply is depleted please seek advice from a suitably qualified ecologist on a suitable replacement prior to the purchase.

11.7 Recommended Locations of Bat Enhancements:

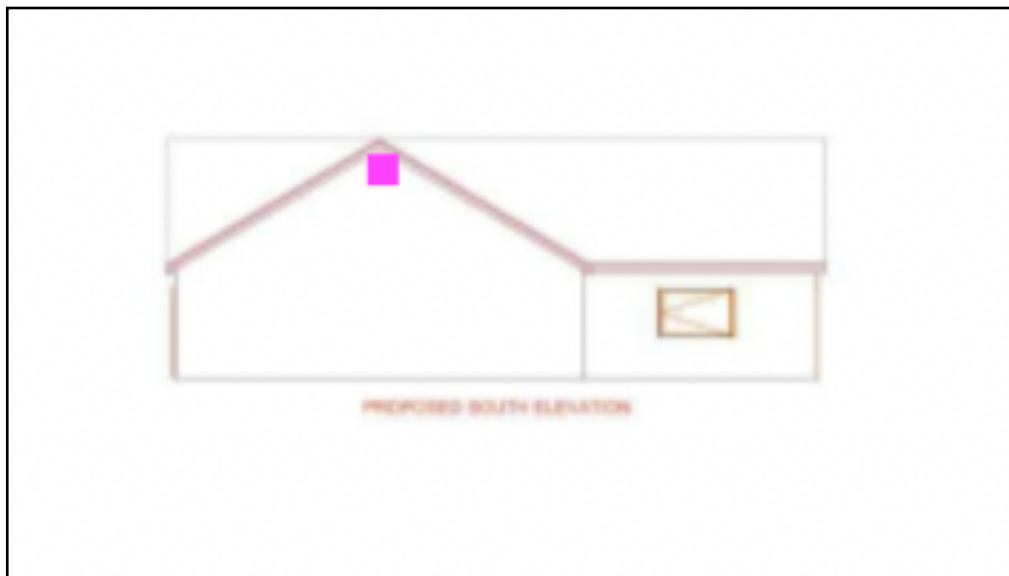


Location of Schwegler 1FQ Bat Box



Approximate Tree Planting Location

Southern Elevation



Signed: *R Watkins* Date: July 2024

12.0 Appendix

Aerial Site Photograph

OS Map

Surveyor & NVA Positions

Appendix 1 Aerial Site Photograph



The site in its wider environment offering excellent ecological connectivity to the surrounding habitat.

Appendix 2 OS Map National Grid Reference SO 0743 0798



Appendix 3 Surveyor & NVA Positions

