



**1 Efail Shingrig,
Treharris**

Preliminary Roost Assessment

November 2023

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DOCUMENT CONTROL

1 Efail Shingrig, Treharris Preliminary Bat Roost and Nesting Bird Assessment				
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Summary

Brief and Site Location	This report presents the findings of a preliminary bat roost assessment and nesting bird survey of a workshop at 1 Efail Shingrig, Treharris, CF46 6DP (Ordnance Survey Grid Reference: ST 1093 9650).
Proposed Works	Proposed works comprise the conversion of the workshop into a convenience store (A1 use) and to include a rear extension.
Survey Methodology	The preliminary bat roost assessment comprised a daytime internal and external inspection of the workshop, searching for signs of bats and nesting birds. The inspection provides a preliminary assessment of the potential of the site to support roosting bats.
Results of Preliminary Bat Roost Inspection	No signs of bats were found during the internal and external inspection of the workshop. The workshop is within a moderate-quality area for foraging and commuting bats.
Suitability of the Workshop to Support Roosting Bats	The workshop has moderate suitability to support roosting bats. Details of the features that led to this assessment are set out in Section 3.2 of this report and are shown in the corresponding photographs. Justification for this assessment is provided within Section 4.2.
Evidence of Nesting Birds	No evidence of past or current nesting by birds was noted either within or on the building's exterior.
Requirements for Additional Survey	Further surveys are required to determine if any bats are roosting within the workshop. As the workshop has moderate roost suitability, current best practice guidelines (Collins, 2023) suggest that it should be subject to two additional dusk emergence surveys, undertaken at least three weeks apart between May and September. At least one of the surveys should be undertaken before the end of August. Three surveyors will be required for both surveys (see Plan 4: Proposed Surveyor Positions).
Predicted Impacts of Development on Bats and Nesting Birds	Full impacts on bats and birds will be considered after the further surveys have been undertaken.
Mitigation and Compensation of Proposed Impacts	Mitigation and compensation measures for bats and birds will be determined after the further surveys have been undertaken.
Licensing Requirements for Bats	It has not been possible to determine if a bat development licence will be required from Natural Resources Wales prior to works to the workshop. This will be established after the dusk emergence surveys have been completed.
Required Actions	Further surveys are required.

1. Introduction

1.1. Brief and Site Location

This report presents the findings of a preliminary bat roost assessment and nesting bird survey of a workshop at 1 Efail Shingrig, Treharris, CF46 6DP (Ordnance Survey Grid Reference: ST 1093 9650)¹.

The workshop is within the boundary of Merthyr Tydfil County Borough Council.

1.2. Site Description

The workshop is located in the town of Treharris, 11.8km south of Merthyr Tydfil. The workshop is surrounded by residential dwellings on all elevations, with the B4255 running directly west to the site. Expansive tree-lined fields are located south of the workshop with areas of broadleaved woodland 0.2km west of the fields.

The site's location is shown on Plan 1: Location Plan.

1.3. Proposed Works

The development proposals involve the conversion of the workshop into a convenience store (A1 use) and include a rear extension. A planning application has been submitted under reference P/23/0238².

Existing and proposed plans can be found in Drawing 1: Existing and Proposed Development (Planning Reference number: P/23/0238).

1.4. Legislation and Planning Policy

1.4.1. Bats

All UK bats are protected species. Their breeding sites or resting places³ (roosts) are fully protected under the Wildlife and Countryside Act 1981⁴ (as amended) and the Conservation of Habitats and Species Regulations 2017⁵ which continues to apply in UK law through the Conservation of Habitats and Species (Amendment) (EU Exit) [CHSAEU] Regulations 2019⁶. Works affecting bats are subject to licensing procedures by Natural Resources Wales (NRW). The legal protection and licensing procedures are summarised in Appendix 1.

¹ Latitude and Longitude: 51.660199 , -3.2890985 / what3words: sleeps.ironic.womanly

² <https://publicaccess.merthyr.gov.uk/online-applications/applicationDetails.do?activeTab=externalDocuments&keyVal=S20D2VKQM4T00>

³ Resting places are defined as '*areas that are essential to sustain an animal or group of animals when they are not active*' (European Commission, Directorate-General for Environment, 2022). Resting places that are used regularly, either within or between years, must be protected even when not occupied.

⁴ <https://www.legislation.gov.uk/ukpga/1981/69>

⁵ <https://www.legislation.gov.uk/uksi/2017/1012/contents/made>

⁶ <https://www.legislation.gov.uk/ukdsi/2019/9780111179512>

1.4.2. Nesting Birds

All wild British birds (whilst building nests, nesting and sitting on eggs) and their nests and eggs (with certain limited exceptions⁷) are protected by law under Section 1 of the Wildlife and Countryside Act 1981⁸ (as amended) and the Countryside and Rights of Way Act 2000⁹. Some species, such as barn owls (*Tyto alba*), are listed in Schedule 1 and have additional protection from disturbance during the breeding season, as do their nests, eggs and dependent young.

1.5. Survey Scope

The preliminary roost assessment (PRA) is a detailed inspection of the exterior and interior of a structure to look for features that bats could use for entry/exit and roosting and to search for signs of bats. A search for past and current evidence of nesting birds is also undertaken.

1.6. Reporting

This report aims to:

- Outline the survey methodology used;
- Present the results of the survey including determining the actual or potential presence of bats and nesting birds;
- Determine the need for further targeted surveys; and
- Provide suitable recommendations in line with planning policy and wildlife law, including potential licensing requirements, mitigation, compensation and enhancement measures.

⁷ Details of the exceptions are available at <https://naturalresources.wales/permits-and-permissions/species-licensing/list-of-protected-species/bird-licensing/bird-licences/?lang=en>

⁸ <https://www.legislation.gov.uk/ukpga/1981/69>

⁹ <https://www.legislation.gov.uk/ukpga/2000/37>

2. Methods

2.1. Desk Study

Maps and aerial photographs of the site and surrounding area, including existing habitats, were assessed. A search for statutory and non-statutory conservation designated sites for bats within 10km was undertaken using NRW Geographic Information System (GIS) data. A 2km search was undertaken for all other statutory and non-statutory conservation designated sites.

A local planning portal search was undertaken. This involved looking for other sites, within the same postcode area, which have previously had bat surveys submitted as a part of their planning applications.

2.2. Field Study

2.2.1. Daytime Internal and External Inspection

A systematic search of the exterior and interior of the workshop was undertaken following the methodology detailed in Section 5.2 of the Bat Survey Guidelines (Collins, 2023). The survey looked for features that bats could use as access points and roosts¹⁰. In addition, a search was made for the presence of bats or evidence of bat use, such as droppings, feeding remains, urine staining, scratch marks, live or the remains of dead bats and/or squeaking noises. A high-powered torch (Clulite), binoculars and a ladder were available for use as appropriate during the survey.

The survey was undertaken on 9th November 2023 by Rebecca Corley¹¹ with the assistance of Charlotte Ingram¹².

2.2.2. Assessment of Bat Roosting Suitability

The value of the site for bats (and any potential roost sites therein) was assessed, in accordance with Table 4.1 of the Bat Surveys for Professional Ecologists (Collins, 2023) (see Appendix 2). The assessment was based on the relative abundance and quality of potential roost sites, and the habitat features within both the site and the surrounding landscape suitable for roosting, foraging and commuting bats.

2.2.3. Survey for Nesting Birds

Searches were carried out for old nests, as well as any signs which might indicate previous nesting activities, such as piles of discarded nesting materials or large aggregations of guano.

¹⁰ Bats can utilise gaps approximately 8mmx17mm in size (The Bat Conservation Trust, Cluster-flies leaflet mentions 8mm by 20mm whilst the Bats and Buildings leaflet states 9mm by 17mm).

¹¹ Rebecca graduated with a degree in Biological Science from the University of Birmingham and an MSc in Global Ecology and Conservation from Cardiff University. Rebecca is currently in her first season of bat surveying, working as an Assistant Ecologist and receiving training from Acer Ecology. She is listed as an accredited agent on Paul Hudson's bat licence (S091671-1). Further details of her qualifications and experience can be found at <https://www.linkedin.com/in/rebecca-corley-b33b61138>.

¹² Charlotte Ingram accompanied Rebecca Corley and helped with the external building inspection. She did not enter the loft space during the survey.

2.2.4. Constraints

Temporal Constraints

An ecological survey can only identify what is present on site at the time the survey is conducted. However, habitat usage by species can change over time.

Timing

The time of year when the preliminary roost assessment was carried out coincides with the time when bats are spending longer amounts of time in torpor and some bats begin hibernation.

However, signs of roosting activity from previous summers may still be identified inside loft spaces and the potential of a building can be assessed outside the active season. Therefore, the timing of the inspection is unlikely to have significantly constrained the survey.

Evidence of Bats

Often bats leave no visible signs of their presence even on the inside of a building, particularly where there are hidden cracks, crevices and voids. In many situations it is not possible to inspect all locations where bats may be present and therefore an absence of bat evidence does not equate to evidence of bat absence.

3. Baseline Ecological Conditions

3.1. Desk Study

3.1.1. Bat Roosts Reported in Planning Applications Within the Same Postcode

The planning portal search¹³ returned no bat roost records from a search of sites with the same postcode area as the proposed development.

3.1.2. Protected Sites

The location of protected sites is shown in Plan 3: Protected Sites.

Statutory Sites Notified for Bats (Special Areas of Conservation (SACs)) or Sites of Special Scientific Interest (SSSIs) Within 10km

No SACs or SSSIs that have been specially designated for bats lie within 10km of the workshop.

Other Protected Sites Within 2km

There are two additional SSSIs and Country Parks within 2km of the workshop:

Table 1: Statutory Sites Within 2km

Site Name	Description	Distance and Direction from Development Site
Nelson Bog SSSI ¹⁴	Valley mire with a range of habitats from marshy grassland through to swamp and open water communities. The site also supports a diverse bird fauna – 90 species recorded so far. Poor fen, alder (<i>Alnus glutinosa</i>) carr and upland hazel (<i>Corylus avellana</i>)/sessile oak (<i>Quercus petraea</i>) woodland.	0.7km to the south-east.
Parc Penallta Country Park ¹⁵	Mix of woodlands, ponds and grasslands. Several species of orchids in early summer, many types of dragonflies and damselflies and explore our acres of flowering meadows which are alive with butterflies, bees, and other insects throughout the summer. Flocks of goldfinch (<i>Carduelis carduelis</i>) can be seen feeding on alder (<i>Alnus sp.</i>) cones and seed heads throughout the autumn and there is a good chance of seeing both green woodpecker (<i>Picus viridis</i>) and bullfinch (<i>Pyrrhula pyrrhula</i>) at any time of year.	1.6km to the south-east.

There is no mention of bats in either of the citations, however, the sites are likely to be used by several bat species for foraging, commuting, and roosting.

¹³ <https://publicaccess.merthyr.gov.uk/online-applications/simpleSearchResults.do?action=firstPage>

¹⁴ https://naturalresources.wales/media/644125/SSSI_0471_Citation_EN001a083.pdf

¹⁵ <https://greenspacescaerphilly.co.uk/parc-penallta>

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Non-statutory Protected Sites

Ancient Woodland Sites

The following table shows the ancient woodland sites within 2km of the site:

Table 2: Ancient Woodland Sites Within 2km

Ancient Woodland Site	Number within 2km of Site
Ancient Semi-Natural Woodland (ASNW) ¹⁶	68
Restored Ancient Woodland Sites (RAWS) ¹⁷	Two
Ancient Woodland Sites of Unknown Category ¹⁸	Five
Nearest Area of Ancient Woodland	An unnamed area of ASNW located 0.3km to the south-east of the site

Protected Sites Summary

Given the small scale and localised nature of the proposed development and the distance between the proposed development and any designated or non-designated sites, as well as the limited scope for impacts outside of the footprint of the proposed works, no adverse impacts to the protected sites are likely to occur. These sites are not mentioned further in this report.

3.2. Field Study

3.2.1. Lighting and Ecological Context

Lighting

The site is within an E3: Suburban lighting zone, with medium district brightness (Institute of Lighting Professionals, 2012). Several streetlights are present on Efail Shingrig, the road the workshop is situated on, which generate extensive artificial lighting, decreasing the quality of foraging and commuting bat habitat¹⁹.

Ecological Context

The habitats surrounding the workshop comprise linked back gardens and tree-lined fields. The adjacent fields are connected to areas of broad-leaved woodland which provide foraging and roosting opportunities for bats. These habitats form corridors that can be utilised by foraging and commuting bats and provide excellent connectivity between the workshop and the wider landscape. The site is ecologically well connected and provides moderate quality bat foraging, commuting and roosting habitat.

¹⁶ Ancient Semi-Natural Woodland (ASNW) – broadleaf woodlands comprising mainly native tree and shrub species which are believed to have been in existence for over 400 years.

¹⁷ Restored Ancient Woodland Sites (RAWS) – woodlands which are predominately broadleaved now and are believed to have been continually wooded for over 400 years. These woodlands will have gone through a phase when canopy cover was more than 50% non-native conifer tree species and now have a canopy cover of more than 50 percent broadleaf.

¹⁸ Ancient Woodland Site of Unknown Category (AWSU) – woodlands which may be ASNW, RAWS or PAWS. These areas are predominantly in transition and existing tree cover is described as 'shrubs', 'young trees', 'felled' or 'ground prepared for planting'.

¹⁹ Lighting can impact on bats' roosting sites, commuting routes and foraging areas.

3.2.2. Building Description from the Perspective of Bat Habitat

The table below summarises the key features of the workshop.

Table 5: Key Features of the Workshop

Building Type	The workshop is a single-storey breeze block structure (Photos 1-4) and is currently used for storage purposes.
Roof	The roof is pitched running on a north to south axis and is constructed from slate with clay ridge tiles. There are two lifted ridge tiles and gaps under a small number of the slates on both the eastern and western roof pitches (Photos 7 and 8). These features provide roosting opportunities for bats. The end tiles are uncapped creating gaps beneath the end tiles which could allow access by bats underneath the tiles (Photo 7). Guttering is present and in good condition on the eastern and western elevations.
Soffits, Fascias and Bargeboards	The wooden soffit is well sealed in places, however, there are gaps between the soffits and the external walls on all elevations (Photo 9). The wooden barge boards are generally in good condition, however, there are gaps between the bargeboard and the roof tiles on the northern elevation (Photo 10).
External Walls	The external walls appear to be in good condition with only minor cracks in the render (Photo 11). However, this can be seen as suboptimal for roosting bats.
Windows	The windows on the northern elevation and doors on the eastern elevation have uPVC frames. These are well sealed and in good condition (Photo 3). The windows on the western elevation have timber frames and have metal guards fitted on the exterior; however, the guards are not tightly fitted to the external wall creating gaps which could be used by bats to gain access into the interior of the workshop (Photo 11). One of the three windows on the western elevation has been boarded up internally with timber and the additional two windows are broken (Photos 13-14). The two metal roller shutter doors on the southern elevation have gaps between the shutters and the external walls (Photo 15). These features could be used by bats to gain access to the workshop.
Roof Void and Lining	There is no roof void within the main section of the workshop with the ground floor open to the roof in its entirety; however, there is a small roof void within the northern portion of the workshop. The roof void and main section of the workshop are lined with bitumen felt (Photo 6). There are small tears in the roofing felt in the main section of the workshop (Photo 12). No light ingress was noted within the void.
Roof Construction	The roof is supported on traditional, rough sawn timbers with associated rafters and purlins (Photos 5, 6 and 12).
Interior	There is access from the interior of the main section into the cavity wall via holes in the concrete breeze blocks (Photo 16). These holes could potentially be used by crevice-dwelling species of bats to gain access into the cavity wall to roost. There is a timber structure in the interior of the main section of the workshop that creates a ceiling-like feature in the southern portion (Photo 17).
Security Lighting	Security lighting is present above the roller shutter doors on the southern elevation of the workshop (Photo 15).

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Photos Showing the Workshop and its Features

Photo 1: Southern Elevation



Photo 2: Western Elevation



Photo 3: Northern Elevation



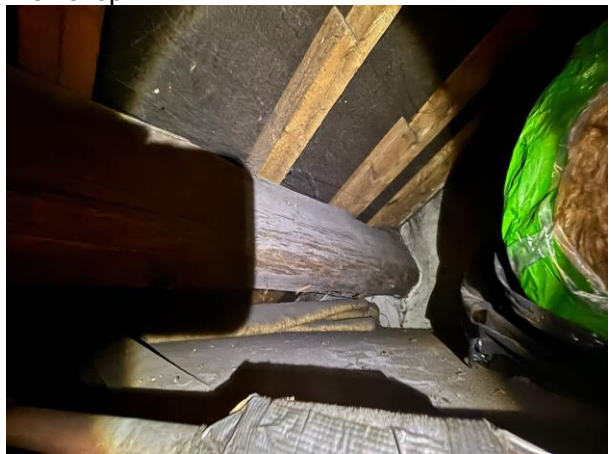
Photo 4: Eastern Elevation



Photo 5: Interior View of Main Section



Photo 6: Roof Void Within Northern Portion of Workshop



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Photos Showing Potential Access Points and Roost Sites for Bats

Photo 7: Raised Roof and Ridge Tiles on Western Roof Pitch (Circled)



Photo 8: Raised Roof and Ridge Tiles on Eastern Roof Pitch (Circled)



Photo 9: Example of Gaps Between Soffits and External Wall on All Elevations (Circled)



Photo 10: Example of Gaps Between Bargeboard and Roof Tiles on the Northern Elevation (Circled)



Photo 11: Example of Gaps Between Metal Window Guard and Exterior Wall (Circled)



Photo 12: Tear in Roofing Felt of Main Section (Circled)



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Photo 13: Broken Window on Western Elevation



Photo 14: Boarded Window on Western Elevation



Photo 15: Gap Between the Metal Shutter Door and the External Wall on the Southern Elevation (Circled)



Photo 16: Hole in the Internal Breeze Block Walls Providing Access into the Wall Cavity (Circled)



Photo 17: Timber Structure in Main Section of Workshop



3.2.3. Potential Bat Access Points and Bat Roosting Locations

Potential Access Points for Bats in the Workshop

There are numerous potential access points for bats to gain entry into the interior. Bats could gain entry beneath raised slates on both roof pitches, gaps beneath the metal window covers leading to the broken windows on the western elevation, gaps between the soffits and fascias and the external walls on all elevations, and gaps around the metal roller shutter doors on the southern elevation.

Potential Roosting Features for Bats

The following potential roost features were recorded:

- PRF 1 – Gaps under clay ridge tiles (see Photos 7 and 8);
- PRF 2 – Gaps under lifted slates (see Photos 7 and 8);
- PRF 3 – Gaps between soffits and external wall on all elevations (Photo 9);
- PRF 4 – Gaps beneath end tiles (see Photo 10); and
- PRF 5 – Within the cavity wall in the interior of the building (see Photo 16).

3.2.4. Nesting Bird Survey

No signs of recent nests were found within or on the exterior of the workshop.

4. Evaluation

4.1. Summary of Preliminary Roost Assessment

The preliminary roost assessment found no evidence of bats roosting within or on the external parts of the workshop.

4.2. Suitability of Summer Roosts

The workshop was assessed as having;

- Moderate suitability for use by crevice-dwelling (*Pipistrellus* species and smaller *Myotis* species such as Brandt's and whiskered bats), due to the gaps under clay ridge tiles, gaps under lifted slates, gaps between the soffits and external walls on all elevations, gaps between the end tiles and the cavity wall.
- Low suitability for use by void-dwelling bats (long-eared species and large *Myotis* bats, such as Natterer's bat (*Myotis nattereri*) and serotine bats (*Eptesicus serotinus*)) due to a lack of visible potential access points allowing access for bats into the roof void and high levels of light in the main structure. However, evidence of roof-dwelling bats is usually readily apparent and no such evidence was found during the survey.
- Negligible suitability for use by direct access species requiring a large access point and large roost space (lesser horseshoe (*Rhinolophus hipposideros*) and greater horseshoe bats)) as there were no suitable access points for these species.

The workshop has an overall moderate roosting suitability due to the reasons stated above. This assessment can be used to determine the level of further survey effort required (See Appendix 2).

4.3. Hibernation Potential

The construction of the workshop is such that it would not typically be regarded as providing classic over-wintering (i.e hibernation) roosts for bats due to the thermal instability it is likely to experience, the lack of deep penetrating crevices, and the lack of evidence of use by bats found during the preliminary roost assessment²⁰.

4.4. Birds – Interpretation of Nesting Bird Survey

No evidence of past or current nesting by birds was observed during the survey.

Further surveys for nesting birds will be undertaken at the same time as the dusk emergence surveys, and the assessment of its importance subsequently updated.

²⁰ There is limited research on where pipistrelle bats hibernate, but current evidence suggests that they may hibernate adjacent to their breeding roosts in secure locations such as wall cavities that have relatively stable temperatures. Other individuals disperse to roost in small numbers in more exposed locations such as around window frames. In exposed locations pipistrelle bats typically hibernate as one or two individuals. Often there are often no obvious external signs of their presence (JNCC, 2004). Because of the highly exposed location of hibernation sites used by some individuals, it is therefore very difficult to completely rule out hibernation use by this species in almost any building that has some very shallow crevices, openings or gaps.

5. Required Actions

5.1. Licensing Requirements for Bats

It has not been possible to determine whether a NRW bat development licence will be required. This will be determined after the dusk emergence surveys have been completed.

5.2. Further Work

Works should not commence until further surveys have been carried out. This will enable the likely impacts of the proposals on bats to be assessed, determine if a NRW bat development licence will be required, inform the avoidance measures (timing of works), and determine the requirement for mitigation (retention of roosts and access points) and/or compensation measures (creation of new replacement/additional bat roosts). Current best practice guidelines (Collins, 2023) state that two separate dusk emergence surveys should be undertaken on a building with moderate roost suitability.

The surveys should be undertaken from May to September, with at least one of the surveys between May and August. The survey will be supplemented by use of night vision aids. To ensure that all potential bat access/roosting features are covered, both surveys will require three surveyors or night vision aids to be present (see Plan 4: Proposed Surveyor Positions). Surveys should be timed to sample as much of the survey period as possible²¹, undertaken at intervals of at least three weeks apart or preferably more (Collins, 2023). This increases the possibility of encountering bats that may only use the building for short periods throughout the summer. Ideally, at least one survey should be undertaken in the core maternity period of mid-June to mid-July.

The following work could have an impact on bats: extension to rear of workshop, replacement of shutter doors on the southern elevation, and internal works to the main area of the workshop. These works should not take place until the surveys recommended above have been completed and/or an ecologist has been consulted.

5.3. Local Record Centre Search

A barb+ data search is required from SEWBRcC. This includes a search buffer of 2km around the site boundary to determine if there are any roosts nearby and which species of bats have been recorded.

5.4. Avoidance, Mitigation, Compensation and Enhancement Measures for Bats

These measures will be formulated after the completion of dusk emergence surveys.

²¹ Collins (2023) states that multiple survey visits should be spread out to sample as much of the recommended survey period as possible; it is recommended that surveys are spaced at **least three weeks apart**, preferably more. Survey timings **should consider the prevailing conditions in the year of survey, which will vary geographically**. In years with a cold spring, the surveys should not be started in early May, or all completed in May. The surveys should maximise the possibility of detecting maternity roosts, which can switch roosts between pregnancy and lactation, and the **optimum coverage includes the pre-parturition, post-parturition and mating periods**.

5.5. Avoidance, Mitigation, Compensation and Enhancement Measures for Birds

These measures will be formulated after the completion of dusk emergence surveys.

5.6. Longevity of Report

If development works do not begin within twelve to eighteen months of the date of this report, an updated survey may be required to determine if conditions and bat usage have changed since the survey described in the current report.

Bat Surveys for Professional Ecologists (Collins, 2023) states that survey data should ideally be from the most recent optimal survey season before a planning or licence application is submitted. This is because bats are highly mobile and so the numbers of bats present may have increased or decreased since the survey was undertaken.

CIEEM have issued an Advice Note on the Lifespan of Ecological Reports and Surveys (CIEEM, 2019), which states that a survey report that is less than 12 months old is likely to be valid in most cases; reports 12-18 months old are likely to be valid with some exceptions; reports 18 months to 3 years old require a site visit plus consideration of repeating the surveys (depending on the circumstances) and reports older than this are likely to require most of the surveys to be repeated.

The NRW EPS mitigation licence application asks, *'is the survey data less than two active seasons old?'* and if not, to *'please provide sound ecological reasoning for why this is acceptable.'*

6. References

Bat Conservation Trust (2022) *Interim Guidance Note: Use of Night Vision Aids for Bat Emergence Surveys and Further Comment on Dawn Surveys*. Available online at <https://cdn.bats.org.uk/uploads/pdf/Interim-guidance-note-on-NVAs-May-2022-FINAL.pdf?v=1653399882>

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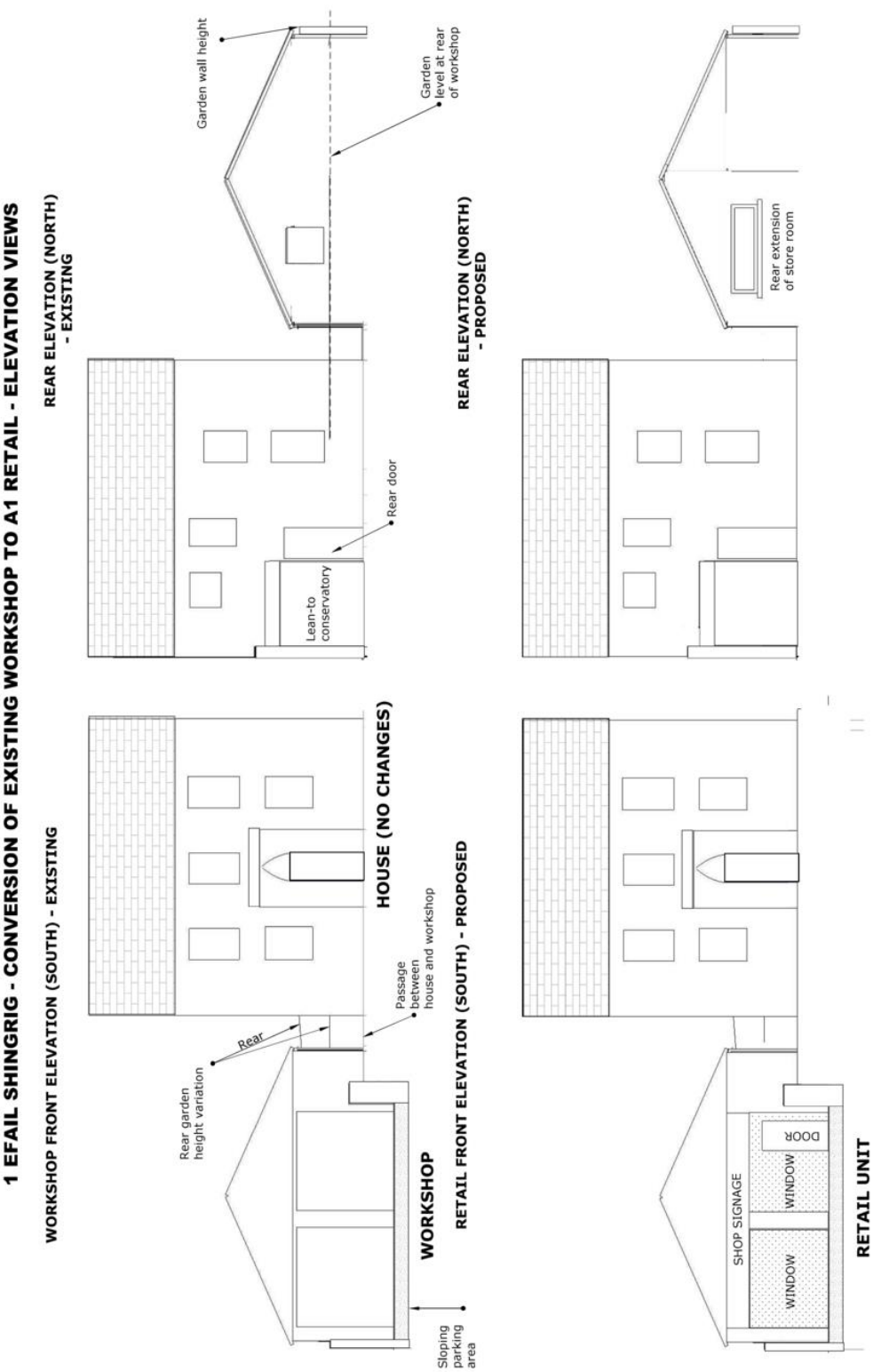
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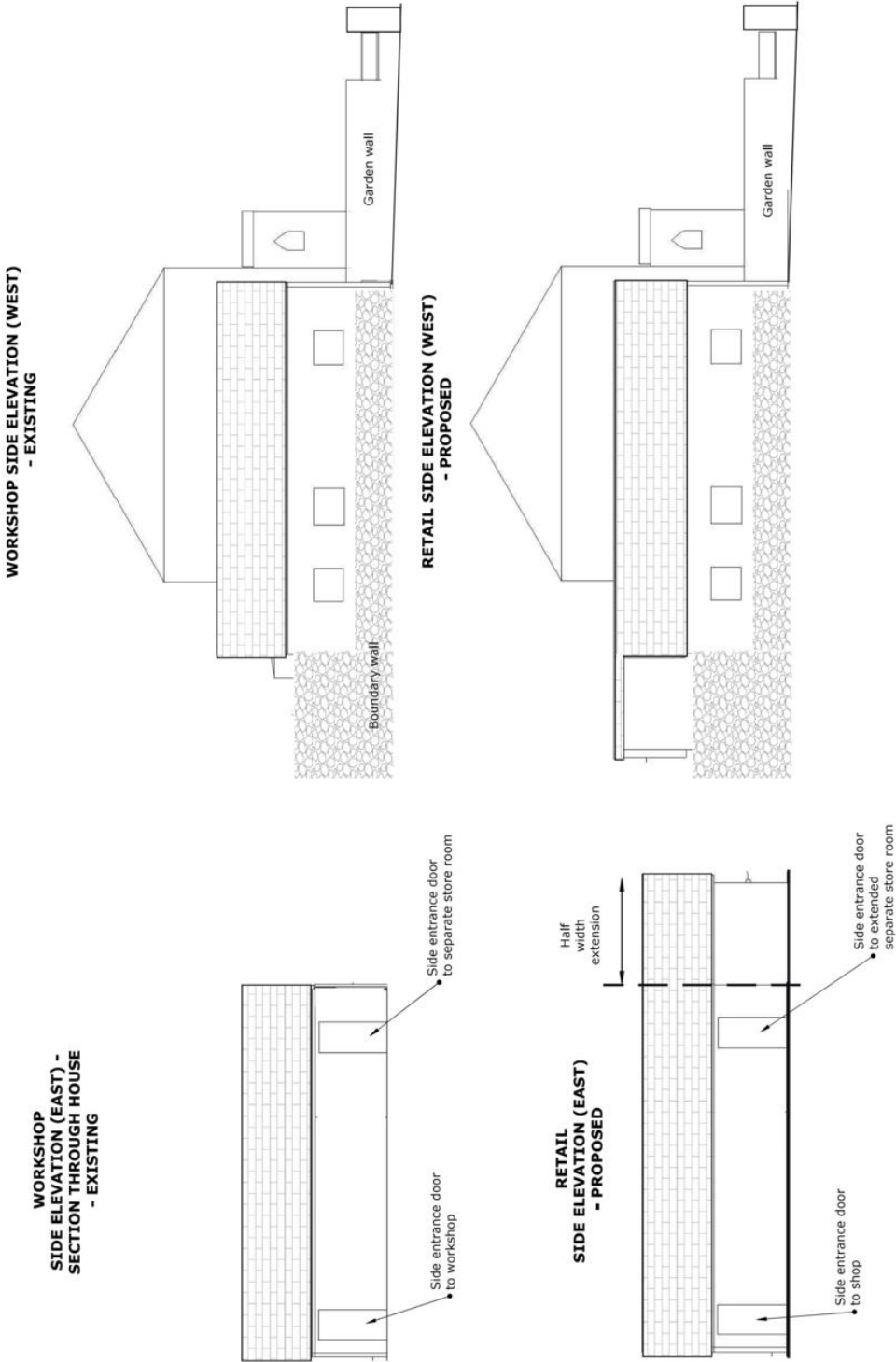
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Drawing 1: Existing and Proposed Development



SCALE 1:100 AT A3. DRAWINGS FOR PLANNING PURPOSES ONLY. CONSTRUCTION MUST RELY ON OWN ON-SITE MEASUREMENTS. Version 031023 PAGE 1 OF 3.

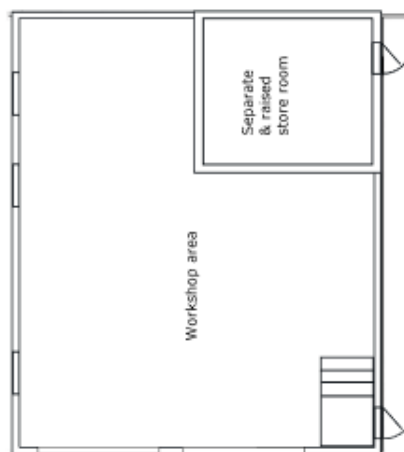
1 EFAIL SHINGRIG - CONVERSION OF EXISTING WORKSHOP TO A1 RETAIL - ELEVATION VIEWS



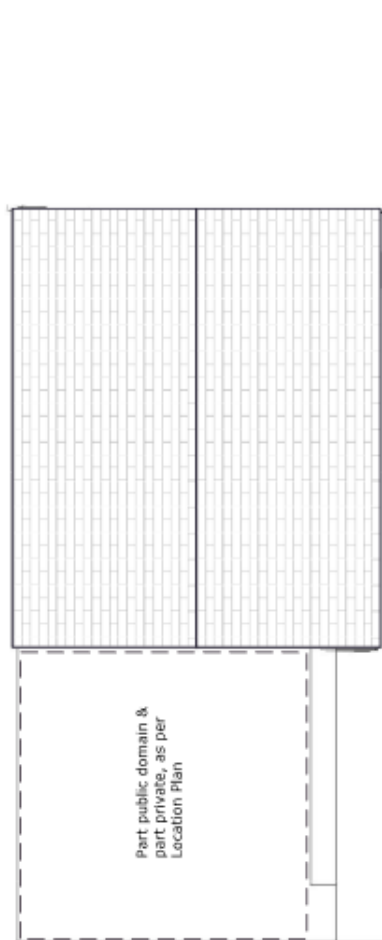
SCALE 1:100 AT A3. DRAWINGS FOR PLANNING PURPOSES ONLY. CONSTRUCTION MUST RELY ON OWN ON-SITE MEASUREMENTS. Version 031023 PAGE 2 OF 3.

1 EFAIL SHINGRIG - CONVERSION OF EXISTING WORKSHOP TO A1 RETAIL - PLAN VIEWS

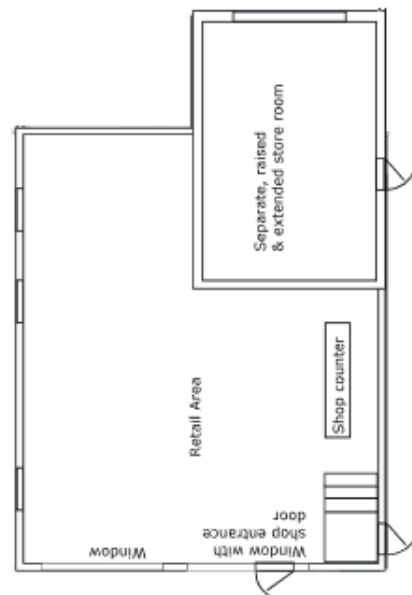
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- EXISTING



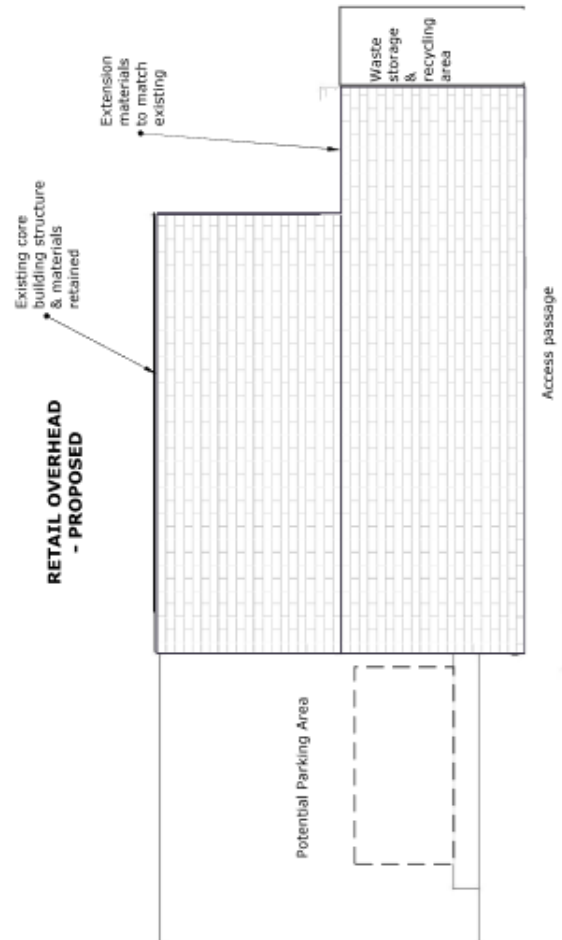
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RETAIL FLOOR SECTION
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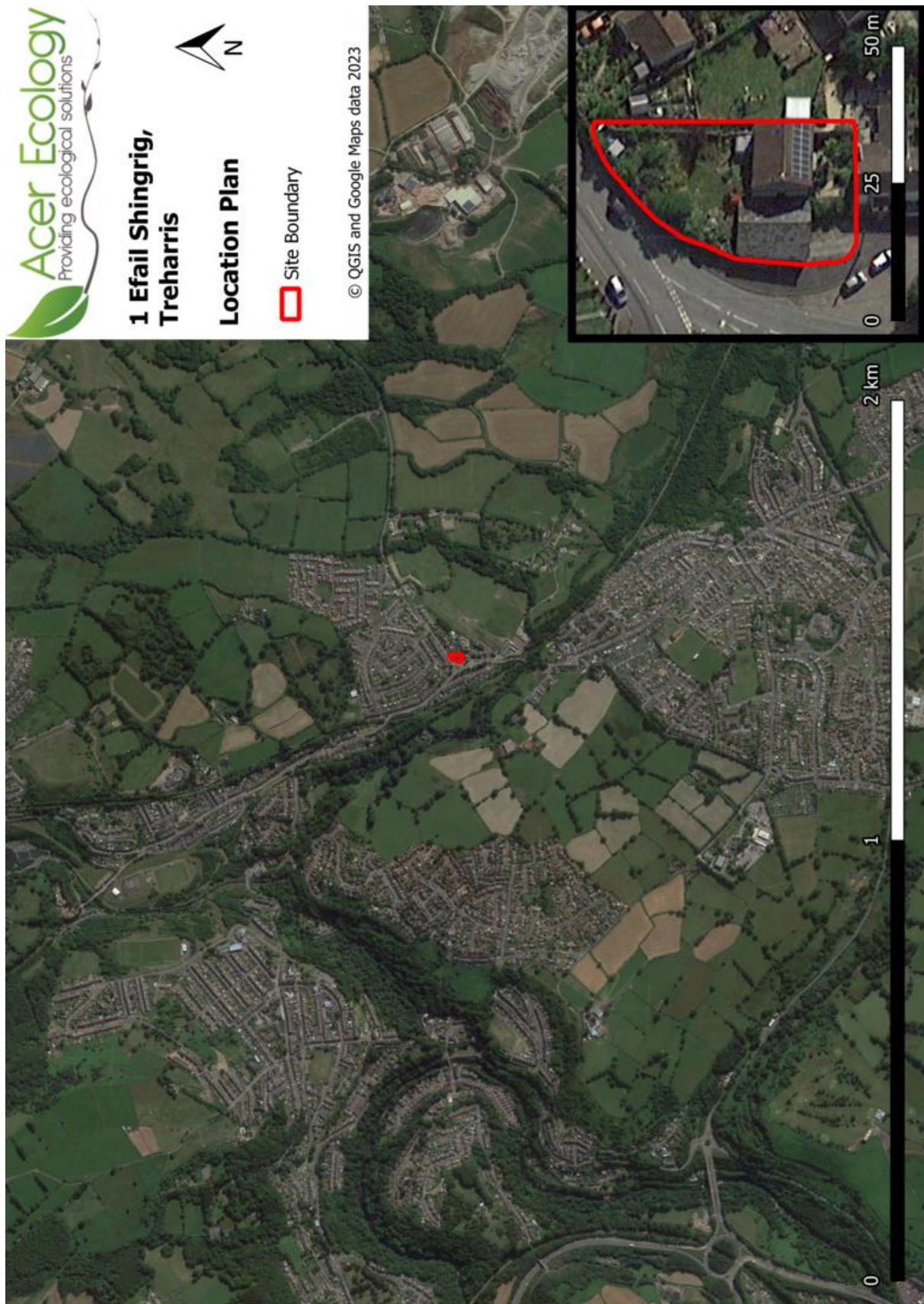


RETAIL OVERHEAD
- PROPOSED



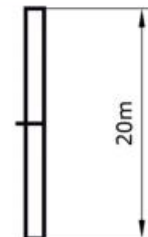
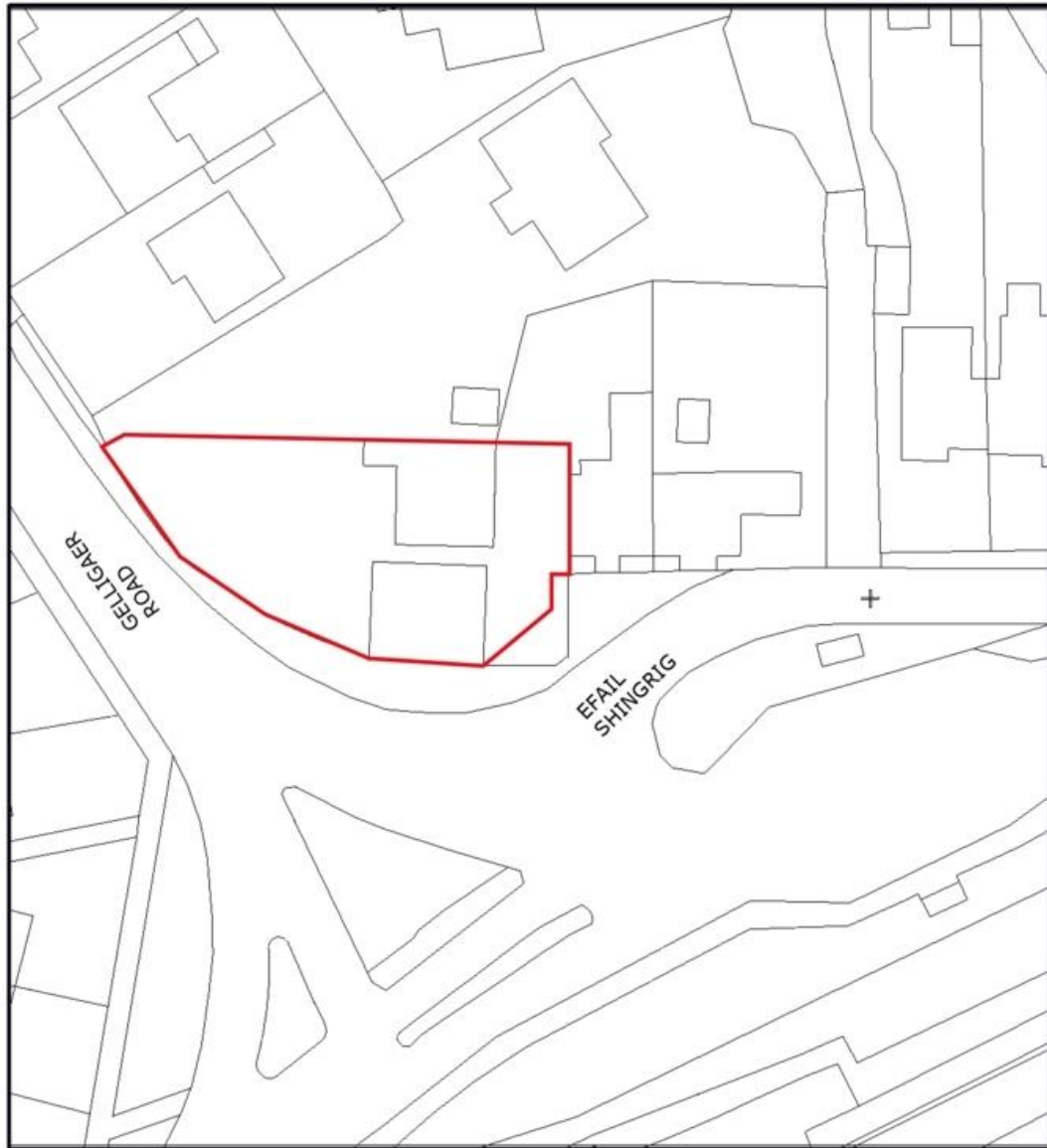
SCALE 1:100 AT A3. DRAWINGS FOR PLANNING PURPOSES ONLY. CONSTRUCTION MUST RELY ON OWN ON-SITE MEASUREMENTS. Version 031023 PAGE 3 OF 3.

Plan 1: Location Plan



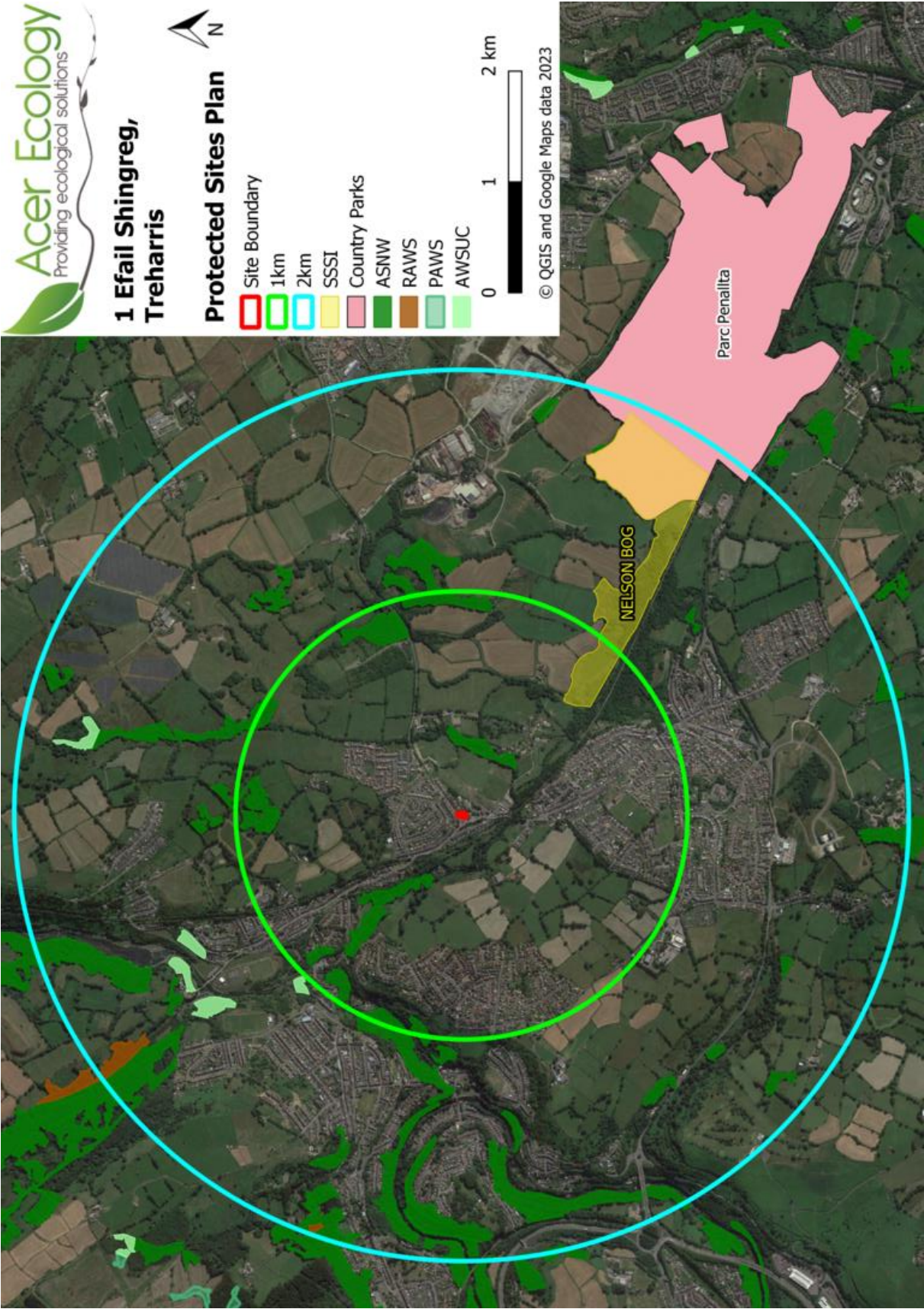
Plan 2: Location/Block Plan

1 EFAIL SHINGRIG, TRELEWIS - LOCATION PLAN



Scale 1:500 at A4

Plan 3: Protected Sites Within 2km



Plan 4: Proposed Surveyor Positions for Dusk Emergence Surveys



Appendix 1: Bat Ecology and Legislation Protecting Bats and Their Roosts

Bat Ecology

There are 17 known breeding species of bat found in the UK, with additional species recorded as migrants or vagrants. They are all small, nocturnal, flying, insectivorous mammals that are under conservation threat with many having undergone massive population declines over the last century. Some species, such as common pipistrelle (*Pipistrellus pipistrellus*) and soprano pipistrelle (*Pipistrellus pygmaeus*) are relatively common and widespread in the UK, while others, such as greater horseshoe (*Rhinolophus ferrumequinum*) bats, have an extremely restricted distribution.

Most bats will use a variety of roosts of different types throughout the year. The winter hibernation sites typically have cool, humid conditions with a stable microclimate and low levels of disturbance. Most British bats hibernate in caves or artificial structures that fulfil these requirements, such as mines, tunnels and cellars. Bats emerge from hibernation around late March or early April and move into transition or intermediary roosts. Around early May, female bats gather in colonies to form summer or maternity roosts, and it is here where they will give birth between late May and early July. A colony may consist of many individuals (sometimes hundreds of bats) of mixed age and sex. Roosts occur in a variety of habitat types, including tree-holes, caves, buildings and other secure crevices or internal spaces with appropriate stable temperatures and humidity. Bats may change roost locations many times during a year, and colonies may split up and reform during this period. Males occupy solitary roosts in autumn, to which they attract females for mating.

Legislation

All British bat species and any place used for shelter or protection, or as a breeding site or resting place (their roosts) are fully protected under the Wildlife and Countryside Act 1981 (as amended) and Conservation of Habitats and Species (Amendment) (EU Exit) [‘CHSAEU’] Regulations 2019. The roosts are protected irrespective of whether bats are present at the time. The aforementioned legislation make it illegal to deliberately or recklessly:

- kill, injure or capture bats;
- disturb bats;
- damage, destroy, or obstruct access to bat roosts (including sites that are currently unoccupied);
- possess or transport a bat or any part of a bat unless acquired legally; or
- sell, barter or exchange bats or parts of bats.

Disturbance is defined as that which is likely to impair bats ability:

- to survive, to breed or reproduce, or to rear or nurture their young;
- to hibernate or migrate; or
- to significantly affect the local distribution or abundance of the species to which they belong.

Habitats Regulations Licensing

If a European Protected Species will be affected by a development, Natural Resources Wales (NRW) can issue licences under the Habitats Regulations to permit otherwise prohibited acts. Licences for certain activities can be granted providing “three tests” are satisfied, that is:

1. the purposes of “preserving public health or safety, or for reasons of overriding public interest, including those of a social or economic nature and beneficial consequences of primary importance for the environment”;
2. there must be “no satisfactory alternative”; and,
3. the action is “not detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range”.

Where Planning regulations apply, NRW will only issue a licence after planning consent has been granted. The licence application will require the production of a detailed method statement, which sets out the activities to be carried out under the licence to minimise the risk of bats being harmed during construction works and ensure that bats will be conserved during the development of the site. This will need to detail the mitigation proposed (such as the replacement or compensation roost); the timescale and schedule of works, the number, size and locations of bat access points to be provided; the type of materials to be used (roofing material, roof lining, fascias, soffits, and bargeboards etc.); lighting proposals; action to be taken in the event bats are found during works; and a post-development monitoring programme. The method statement will need to be accompanied by scaled plans and maps detailing the bat mitigation features. A cross-section of the access points and roost space is often required. The method statement must ensure that provision is made for new or continued roosting opportunities after the completion of development works. In some instances, a method statement is requested by the Local Planning Authority or Natural Resources Wales before the planning application is determined.

Planning Policy Wales

Section 6.4 Paragraph 6.4.5 of Planning Policy Wales Edition 11 (2021) that focuses on Biodiversity and Ecological Networks, Section 6 of The Environment (Wales) Act 2016²² that details the requirement for enhanced biodiversity and resilience of ecosystems, TAN 5 and Section 40(1) of the Natural Environment and Rural Communities Act (NERC) 2006 all encourage developments in Wales to provide a net benefit for biodiversity conservation with no significant loss of habitats or populations of species, locally or nationally.

Part 1, Section 7 of the Environment (Wales) Act 2016 provides a list of the ‘*living organisms of principal importance for maintaining and enhancing biodiversity in relation to Wales*’. This includes seven bat species (soprano pipistrelle, barbastelle (*Barbastella barbastellus*), Bechstein’s (*Myotis bechsteini*), noctule (*Nyctalus noctula*), brown long-eared (*Plecotus auritus*), lesser horseshoe (*Rhinolophus hipposideros*) and greater horseshoe bats (*Rhinolophus ferrumequinum*)).

²² <http://www.legislation.gov.uk/anaw/2016/3/contents>

Appendix 2: Guidelines for Assessing Potential Bat Roosting Suitability

Protentional Suitability	Roosting Habitats in Structures
None	No habitat features on site likely to be used by any roosting bats at any time of the year (i.e. a complete absence of crevices/suitable shelter at all ground/underground levels).
Negligible ²³	No obvious habitat features on site likely to be used by roosting bats; however, a small element of uncertainty remains as bats can use small and apparently unsuitable features on occasion.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically at any time of the year. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions ²⁴ and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity and not a classic cool/stable hibernation site, but could be used by individual hibernating bats ²⁵).
Moderate	A structure with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions (see footnote from low suitability) and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only, such as maternity and hibernation – the categorisation described in this table is made irrespective of species conservation status, which is established after presence is confirmed).
High	A structure with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions (see footnote from low suitability) and surrounding habitat. These structures have the potential to support high conservation status roosts, e.g. maternity or classic cool/stable hibernation site.
Confirmed Roost	Evidence of bats or use of bats found.

²³ Negligible is defined as 'so small or unimportant as to be not worth considering, insignificant'. This category may be used where there are places that a bat could roost or forage (due to one attribute) but it is unlikely that they actually would (due to another attribute).

²⁴ For example, in terms of temperature, humidity, height above ground levels, light levels or levels of disturbance.

²⁵ Evidence from the Netherlands shows mass swarming events of common pipistrelle bats in the autumn followed by mass hibernation in a diverse range of building types in urban environments (Korsten *et al.*, 2016 and Jansen *et al.*, 2022). Common pipistrelle swarming has been observed in the UK (Bell, 2022 and Tomlinson, 2020) and winter hibernation of numbers of this species has been detected at Seaton Delaval Hall in Northumberland (National Trust, 2018). This phenomenon requires some research in the UK, but ecologists should be aware of the potential for larger numbers of this species to be present during the autumn and winter in prominent buildings in the landscape, urban or otherwise.

Appendix 3: Guidelines for Determining Required Number of Dusk Surveys

Suitability	Minimum Number of Dusk Surveys Required ²⁶
Negligible	None.
Low	One survey visit comprising of a dusk emergence survey ²⁷ between May and August for structures. No further surveys are required for trees assessed as low suitability.
Moderate	Two separate dusk emergence survey visits ²⁸ . Surveys must occur between May and September ²⁹ , with at least one survey between May and August ³⁰ .
High	Three separate dusk emergence survey visits. Surveys must occur between May to September, with at least two surveys between May and August.

²⁶ Adapted from Tables 7.1 and 7.2 of the Bat Surveys for Professional Ecologists: Good Practice Guidelines (Collins, 2023).

²⁷ Structures that have been categorised as low potential can be problematic and the number of surveys required should be judged on a case-by-case basis (see para 5.2.44). In some cases, more than one survey may be needed, particularly where there are several buildings in this category.

²⁸ Multiple survey visits should be spread out to sample as much of the recommended survey period (see Table 7.1) as possible; it is recommended that surveys are spaced at least three weeks apart, preferably more.

²⁹ September surveys are both weather- and location-dependant. Conditions may become more unsuitable in these months, particularly in more northerly latitudes, which may reduce the length of the survey season. September surveys are likely to miss maternity roosts due to dispersal before this time, but may still pick up mating roosts.

³⁰ Multiple survey visits should be spread out to sample as much of the recommended survey period as possible; it is recommended that surveys are spaced at least three weeks apart, preferably more. Survey timings should consider the prevailing conditions in the year of survey, which will vary geographically. In years with a cold spring, the surveys should not be started in early May or all be completed in May. The surveys should maximise the possibility of detecting maternity roosts, which can switch roosts between pregnancy and lactation, and the optimum coverage includes the pre-parturition, post-parturition, and mating periods.

Acer Ecology

Appendix 4: Guidelines for Assessing Bat Habitat Suitability

Suitability	Commuting and Foraging Habitat
Negligible	Negligible habitat features on-site likely to be used by commuting and foraging bats.
Low	<u>Commuting Habitat</u> Habitat that could be used by small numbers of commuting bats such as a gappy hedgerow or un-vegetated stream, but isolated, i.e. not very well connected to the surrounding landscape. <u>Foraging Habitat</u> Suitable but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.
Moderate	<u>Commuting Habitat</u> Continuous habitat connected to the wider landscape that could be used by bats for commuting, such as lines of trees and scrub or linked back gardens. <u>Foraging Habitat</u> Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.
High	<u>Commuting Habitat</u> Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats such as river valleys, streams, hedgerows, lines of trees and woodland edge. <u>Foraging Habitat</u> High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree-lined watercourses and grazed parkland. <u>Proximity to Known Bat Roosts</u> The site is close to and connected to known roosts.