
From: Steven George <steven@georgeandco.studio>
Sent: 15 May 2023 12:47
To: Ferreira, Marlene
Cc: ross.perriman@rosperltd.com
Subject: RE: P/23/0079 - Standard Upholstery [NOT PROTECTIVELY MARKED]
Attachments: Bat Report LT074-PRA - Standard Upholstery - April 2023.pdf; FCA.pdf

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Good afternoon Mel,

Please find attached our bat report, along with our FCA

Warmest regards Steve

Steven George

on behalf of George and Co ltd.

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A Preliminary Roost Assessment
On behalf of

Ross Perriman
for
Standard Upholstery
Pontmorlais
Merthyr Tydfil
CF47 8UT



April 2023

Produced by: **Little Wing Ecology CYF** (A Not-for-profit Company Limited by Guarantee)
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Version: 01

Executive Summary

Summary	Little Wing Ecology (CYF) was commissioned to undertake a Preliminary Roost Assessment of a structure known as, 'Standard Upholstery, Pontmorlais, Merthyr Tydfil, CF47 8UT.' The survey was undertaken to inform the client of any constraints, and associated planning requirements with regards to protected species, and to inform a planning application. For the purposes of this report, this structure will be referred to as, 'Building A.'
Proposed Development	Planning permission is sought for the conversion of a former industrial building. Building A is unoccupied. New solar panels are planned for the roof, the proposed development will impact all elevations (Figure 3).
About the Site	Building A is a Victorian Warehouse, previously utilized as an upholstery factory. The structure occupies an urban plot of approximately $\approx 12\text{m} \times \approx 24\text{m}$ and the structure is a traditionally built three-storey stone building with a cement render to the front (north-east) elevation. Materials include a breathable roofing membrane, timber bargeboards, pressed steel guttering and lead flashing. Building A is located to the rear of properties which line the near-by service roads of Pontmorlais West and High Street, and so artificial lighting is limited. Habitat in the immediate vicinity of the structure is mixed, comprising other buildings, and made surfaces, such as roads and pavements. The structure is located directly adjacent to Nant Morlais (Morlais Brook) which bisects Merthyr Tydfil town centre before joining the Tâf Fawr ($\approx 450\text{m}$ south-west).
Results	Based on the results of this survey report it is considered that Building A offers a moderate risk of supporting roosting bats and bats are likely present. Building A has several potential roosting locations that could be used by bats due to their size shape, shelter, protection, conditions and surrounding habitat, but is unlikely to support a roost of a high conservation significance due to recent alterations. Locations of note include behind the barge board on all elevations, internally between the floor joists and the exterior wall (particularly along the eastern elevation), within cavities, above the secure store room, behind timber cladding and along the ridge board. The recent alteration to the interior of Building A and the presence of a breathable membrane to the roof has reduced the potential of this structure in supporting roost of high conservation significance. Evidence recorded for this report includes: • low numbers of bat droppings within Building A (of a pipistrelle type). • proximity to locally recorded roosting sites for <i>Pipistrellus pipistrellus</i>, <i>Plecotus auritus</i> and <i>Rhinolophus hipposideros</i> ($<90\text{m}$), • potential evidence of a feeding roost, consummate with species recorded locally, i.e., <i>Plecotus auritus</i> and <i>Rhinolophus hipposideros</i> ($<46\text{m}$), • an understanding of the local habitat features and the suitability of these features for foraging and commuting.
Recommendations	<u>Recommendation 1 (Presence/Possible Absence Surveys for Bats):</u> Building A has been categorised as being of moderate risk, requiring a dusk survey for bats on a minimum of two occasions, no less than 14 days apart. A dusk survey is required to determine the presence/likely absence of roosting bats, species identification, population size, roost type, and the requirement for any associated mitigation. In accordance with best practice, two nocturnal surveys will be required with sufficient surveyors to adequately cover all features identified on the building(s) during the PRA. Nocturnal bat surveys can be undertaken May – mid September, inclusive. Direct observation of the ridge-board (interior) during each subsequent visit to the site. A 15-night static survey of the interior spaces (Building A and B): A static detector to be set up on the first storey and within Building B. Subject to the findings of the above surveys and taking a precautionary approach, a method statement may be required for any work which impact the structure of Building A, specifically the wall plate and roof. To adequately mitigate any risks identified in this report and any subsequent surveys, the stripping/demolition phase of works to be undertaken at a time of year that maximises the reduction of risk to the potential use of Building A by the local bat

population. The details of this mitigation are subject to the result of subsequent surveys.

Recommendation 2 (Hibernation and Pipistrelles)

As Pipistrelle species are known to hibernate in buildings a precautionary approach will be followed. This will be provided by following either of the following options (dependent on the time of year at which works are undertaken and subject to the findings of subsequent survey work):

Option A: All work with regards to the striping of roofing materials or exposing the wall plate, to be undertaking in the summer months (May-September – inclusive) when bats are likely absent from hibernation roosts; or,

Option B: Any works with regards to the striping of roofing materials or exposing the wall plate during the winter months (October-April – inclusive) to be supervised by a suitably qualified and experienced bat ecologist.

Recommendation 3 (Lighting During Development)

As a European Protected Species, disturbance of bats during foraging/commuting, even if accidental, is to be avoided. It is therefore recommended that the use of artificial lighting during the development of the site is avoided. External lighting should be restricted during the development period to that which is necessary for safety and security. This should be kept to a minimum.

Recommendation 4 (Post Development Lighting Scheme)

To prevent any adverse impact upon the potential roosting, commuting and foraging habitats for bats adjacent to Building A (Nant Morlais), the lighting plan must be functional and directional only and kept to a minimum servicing the public areas of the proposed development (as required for safety and security). It should be achieved using baffles and screens, if necessary, to ensure no light spill on any retained or planted vegetated (including off-site vegetation - e.g., there is a potential to impact animals using the nearby habitat features).

Recommendation 5 (Nesting Birds)

All nesting birds, their chicks' eggs and active nests are protected under the Wildlife and Countryside Act 1981 (as amended). If a nest is discovered during works and is active, it must be left undisturbed until all the chicks have fledged. If any features associated with nesting birds are required to be altered during the bird breeding season, then a further inspection by a suitably qualified ecologist is required no more than 24 hours before this process commences. If an active nest is found by a site inspection, an exclusion zone around the nest will be necessary to preserve this feature until the chicks have fledged the nest.

Recommendation 6 (Post Development Enhancements)

The inclusion of features suitable for roosting bats to be included in the plans on the roof. In order to encourage bat roosting activity and increase roosting opportunities on-site post-development, it is recommended that an addition of four new roosting opportunities are provided as part of the development.

This Executive Summary is intended to provide an overview of the assessment of the site based on information received by Little Wing Ecology (CYF) at the time of production. This Executive Summary should be read in conjunction with the full report.

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SECTION ONE: INTRODUCTION

1.1 Background

- 1.1.1 Little Wing Ecology (CYF) was commissioned to undertake a Preliminary Roost Assessment of a structure known as, 'Standard Upholstery, Pontmorlais, Merthyr Tydfil, CF47 8UT.' The survey was undertaken to inform the client of any constraints, and associated planning requirements with regards to protected species, and to inform a planning application. For the purposes of this report, this structure will be referred to as, 'Building A.'
- 1.1.2 This report contains the results from an examination of the interior and exterior of the structure and its associated habitat. Following this examination, an assessment of the likely impact that the proposed works will have on bat interest at the site was carried out. This report has been prepared with recommendations such as additional survey work and enhancement features, to improve opportunities for local species post-development.
- 1.1.3 Building A is positioned at grid reference **SO 05007 06543** (Figure 1).

1.2 Proposed Works

- 1.2.1 Planning permission is sought for the conversion of a former industrial building.
- 1.2.2 Building A is unoccupied.
- 1.2.3 New solar panels are planned for the roof, the proposed development will impact all elevations (Figure 3).

1.2 Site Description

- 1.2.1 Building A is a Victorian Warehouse, previously utilized as an upholstery factory. The structure occupies an urban plot of approximately $\approx 12\text{m} \times \approx 24\text{m}$ and the structure is a traditionally built three-storey stone building with a cement render to the front (north-east) elevation. Materials include a breathable roofing membrane, timber bargeboards, pressed steel guttering and lead flashing.
- 1.2.2 Building A is located to the rear of properties which line the near-by service roads of Pontmorlais West and High Street, and so artificial lighting is limited. Habitat in the immediate vicinity of the structure is mixed, comprising other buildings, and made surfaces, such as roads and pavements. The structure is located directly adjacent to Nant Morlais (Morlais Brook) which bisects Merthyr Tydfil town centre before joining the Tâf Fawr ($\approx 450\text{m}$ south-west).
- 1.2.3 Building A is access via a small single-track lane from a main service road (Pontmorlais West - A4102), $\approx 300\text{m}$ north of Merthyr Tydfil Town Centre and $\approx 1\text{km}$ east of the A470. The settlement of Merthyr Tydfil extends continuously $>1\text{km}$ around Building A.
- 1.2.4 The Bannau Brycheiniog National Park is located $\approx 2.1\text{km}$ north of Building A and dominates the landscape to the north.

1.3 Policy and Legislation

- 1.3.1 In Wales, all bat species and their roosts are legally protected, by both domestic and international legislation. This means you may be committing a criminal offence if you:
- Deliberately take, injure, or kill a wild bat.
 - Intentionally or recklessly disturb a bat in its roost or deliberately disturb a group of bats.
 - Damage or destroy a place used by bats for breeding or resting (roosts) (even if bats are not

occupying the roost at the time).

- Possess, advertise, sell, exchange a bat of a species found in the wild in the EU (dead or alive) or any part of a bat.
 - Intentionally or recklessly obstruct access to a bat roost.
- 1.4.2 Nesting and nest-building birds are protected under the Wildlife and Countryside Act WCA 1981 (as amended). Some species (listed in Schedule 1 of the WCA) are protected by special penalties.
- 1.4.3 Subject to the provisions of the Act if any person intentionally:
- Kills, injures or takes any wild bird.
 - Takes, damages or destroys the nest of any wild bird while that nest is in use or being built.
 - Takes or destroys an egg of any wild bird.
- 1.4.4 The Natural Environment and Rural Communities (NERC) Act 2006 places a duty on Government Departments to have regard for the conservation of biodiversity and maintains lists of species and habitats which are of principal importance for the purposes of conserving biodiversity in England and Wales. These lists include a number of bird species.
- 1.4.5 In addition to this, some rarer species, such as barn owls are afforded extra protection. Please refer to the original legislation for the definitive interpretation.
- 1.4.6 The framework for this protection is provided within three pieces of legislation from the Government of Wales and the UK Government.
- 1.4.7 These are:
- The Conservation of Habitats and Species Regulations (2017) - as amended.
 - The Environment (Wales) Act 2016.
 - The Wildlife and Countryside Act (1981) - as amended.
- 1.4.8 Additional information on the legal scope of these acts can be found in Table 1.2 (below) and a link to the full documentation can be found in, 'References and Bibliography.'

1.5 Survey Aims & Objectives

- 1.5.1 Considering this legal framework and local planning requirements, the objectives of this survey were to:
- Determine if bat roosts are present or likely to be present in Building A.
 - Consider if nesting birds are present - which might be affected by the development proposals.
 - Gather sufficient information to be able to make appropriate recommendations, inform any constraints, and associated planning requirements.

Figure 1: Site Location



Key

● Site Location

Date: April 2023

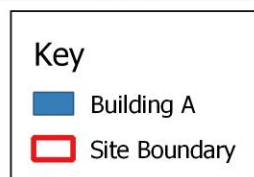
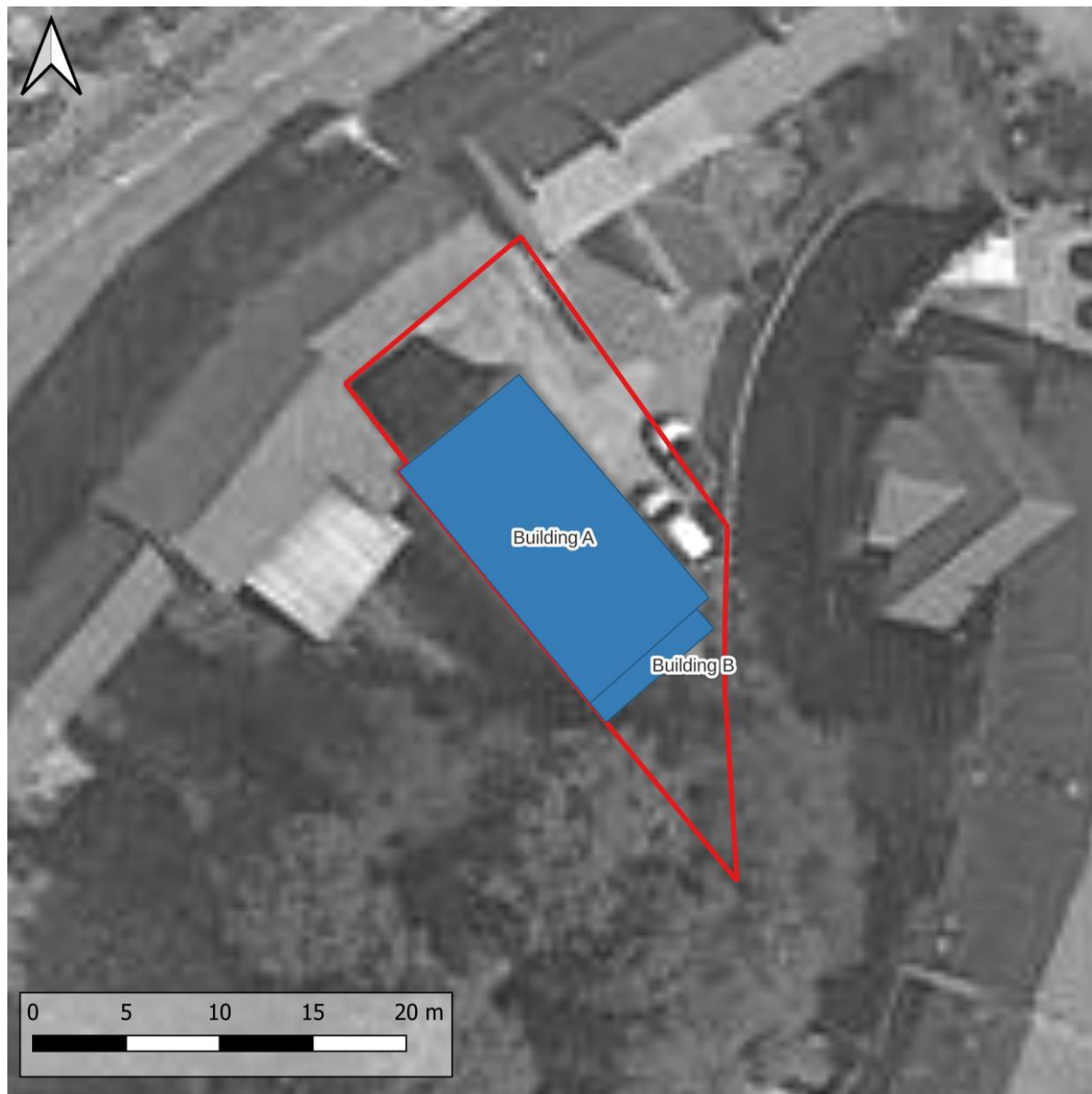
Produced by: Little Wing Ecology

Job Reference: LT074-PRA

Author: N S Aldridge

QGIS Development Team, <2022>. QGIS Geographic Information System. Open-Source Geospatial Foundation Project.
<http://qgis.osgeo.org>.

Figure 2: A Site Plan



Date: April 2023

Produced by: Little Wing Ecology

Job Reference: LT074-PRA

Author: N S Aldridge

QGIS Development Team, <2022>. QGIS Geographic Information System. Open-Source Geospatial Foundation Project.
<http://qgis.osgeo.org>.

Figure 3: Proposed Development



© Provided by George and Co. (2023)

Photographs	Description
	Photograph 1: North-eastern Elevation: Building A – The frontage of the structure facing a small, enclosed courtyard next to the Nant Morlais. Taken from the north-east looking south-west.

Table 1.1: Site Photograph(s)

Policy	Description
Conservation of Habitats and Species Regulations 2017 (as amended)	Bats are specifically protected by the Conservation of Habitats and Species Regulations 2017 (as amended) (The Habitat Regulations). The Habitat Regulations are the way in which EU legislation is transposed into UK law. All species protected via this legislation are defined as 'European Protected Species.' The Habitat Regulations make it an offence to deliberately capture, kill, disturb, or trade in European Protected Species (i.e. those listed on Schedule 2), of which all UK bats are included. However, these actions can be made lawful through the granting of a license by Natural Resources Wales (NRW). Licenses may be granted for a number of purposes but only after the LPA and NRW is satisfied that there are no satisfactory alternatives and that such actions will have no detrimental effect on the wild populations of bats.
The Environment (Wales) Act 2016	Section 7 of the Environment (Wales) Act 2016 requires all statutory authorities including Local Planning Authorities (LPA) to have due regard for living organisms and types of habitats that are of key significance to sustain and improve biodiversity in relation to Wales. Furthermore, the LPA have a duty under the Act to take all reasonable steps to maintain and enhance the living organisms and types of habitats included on any list published under Section 7 and to encourage others to take such steps.
Wildlife and Countryside Act 1981 (as amended)	The Wildlife and Countryside Act 1981 (as amended) (The WCA 1981) is the principal legislation by which most species are protected in Wales. Bats are protected under Schedule 5 of the WCA 1981, which makes it an offence to damage or destroy a bat roost; intentionally or recklessly disturb a bat or a roost, or intentionally or recklessly obstruct access to a roost. The interpretation of a bat roost is "any structure or place which any wild [bat]...uses for shelter or protection". Because bats tend to reuse the same roosts, the legal opinion is that the roost is protected whether or not the bats are present at the time. In relation to birds, the WCA 1981 makes it an offence to intentionally kill, injure or take any wild bird; take, damage or destroy the nest of any wild bird while that nest is in use or being built. Schedule 1 of the WCA Act 1981 includes bird species for which addition the additional offence of disturbing these species at their nests or their dependent young.

Table 1.2: Bats and The Law: Legislation in Wales

SECTION TWO: THE SURVEY METHOD**2.1 Desktop Survey: Bats**

- 2.1.1 Available records for bats (2km) and nesting birds (150m) were collated from the local biological records centre, the along with any statutory sites known to support bat species, within a 10 km radius of the site.
- 2.1.2 **Local Environmental Records Centre:** South East Wales Biodiversity Records Centre (SEWBRc).

2.2 Desktop Survey: Habitat

- 2.2.1 A review of aerial photography was undertaken to assess the provision of suitable foraging and commuting habitat within proximity to Building A. This information was used in combination with a review of statutory designated sites, via the MAGIC website, including Special Areas of Conservation (SAC) and Sites of Special Scientific Interest (SSSI) to help in confirming the presence of bat species locally.
- 2.2.2 **Satellite Image:** Figure 4.
- 2.2.3 Bats are considered cryptic species and therefore it can be difficult to confirm whether they are present or not. Although the provision of a Local Environmental Records Centre data search would provide a range of information, such records can only be relied upon as relative where they are reasonably recent and when supplied by an experienced bat surveyor. It was therefore considered necessary to undertake a detailed survey regardless of the data search results, as this is most likely to be beyond the acceptability of current data as defined in BS 42020:2013 Biodiversity: Code of practice for planning and development and will not be as effective as spending time examining and or monitoring the buildings for the presence of bats.

2.3 Survey Details

Survey Date(s): Saturday 15th April 2023

Surveyor(s): N. S. Aldridge (a Natural Resources Wales [NRW] licenced bat worker)

Surveyor(s) Details: Table 2.1

Weather conditions: Table 3.6

- 2.3.1 During the field survey, an assessment of the habitats on-site and beyond the site boundary was undertaken. The aim of this was to identify potential commuting and foraging corridors, and suitable foraging sites. This enabled the suitability of the location for bats to be determined.
- 2.3.2 A potential nest and roost assessment survey was carried out on the interior and exterior of Building A by an suitably experienced ecologist and Natural Resources Wales (NRW) licenced bat worker (Table 2.1).
- 2.3.3 The external fabric of the structure was methodically inspected using close-focusing binoculars and a high-powered torch for potential access points such as gaps in the fabric of the building, beneath lifted roof materials or other gaps in the roof. Loose flashing, smudge marks and droppings on walls directly below eaves and gables etc were also searched for. A description of the building, including construction material and current condition was recorded.
- 2.3.4 Internally, the building was searched using a high-powered torch to identify possible links to exterior roost entrances and clear signs of presence via urine staining, feeding remains, odour, piles of droppings, live bats and bat carcasses. The space was also examined in the dark to identify areas where the presence of light would identify potential entry points for birds and bats. The aim of this survey was to determine the actual or potential presence of bats and the need for further survey and/or mitigation.

- 2.3.5 Weather conditions at the time of survey were assessed including the use of the Beaufort wind force scale and the Okta scale of cloud cover (see Table 3.6 for details, timings, and weather conditions at the time of the survey).

2.4 Nesting Birds

- 2.4.1 Nesting birds were also considered at the time of the survey, with the surveyor looking for signs of bird activity, nests, nest building, feeding at nest sites, and evidence of collections of bird droppings, feathers, or any other indications of use by birds.

2.5 Additional Ecological Considerations

- 2.5.1 Whilst a full ecological appraisal was not undertaken at the site, a note was made of any additional ecological considerations identified during the survey. For ease of reference these have been included within this report (Section 3).

2.6 Limitations of the Survey Method

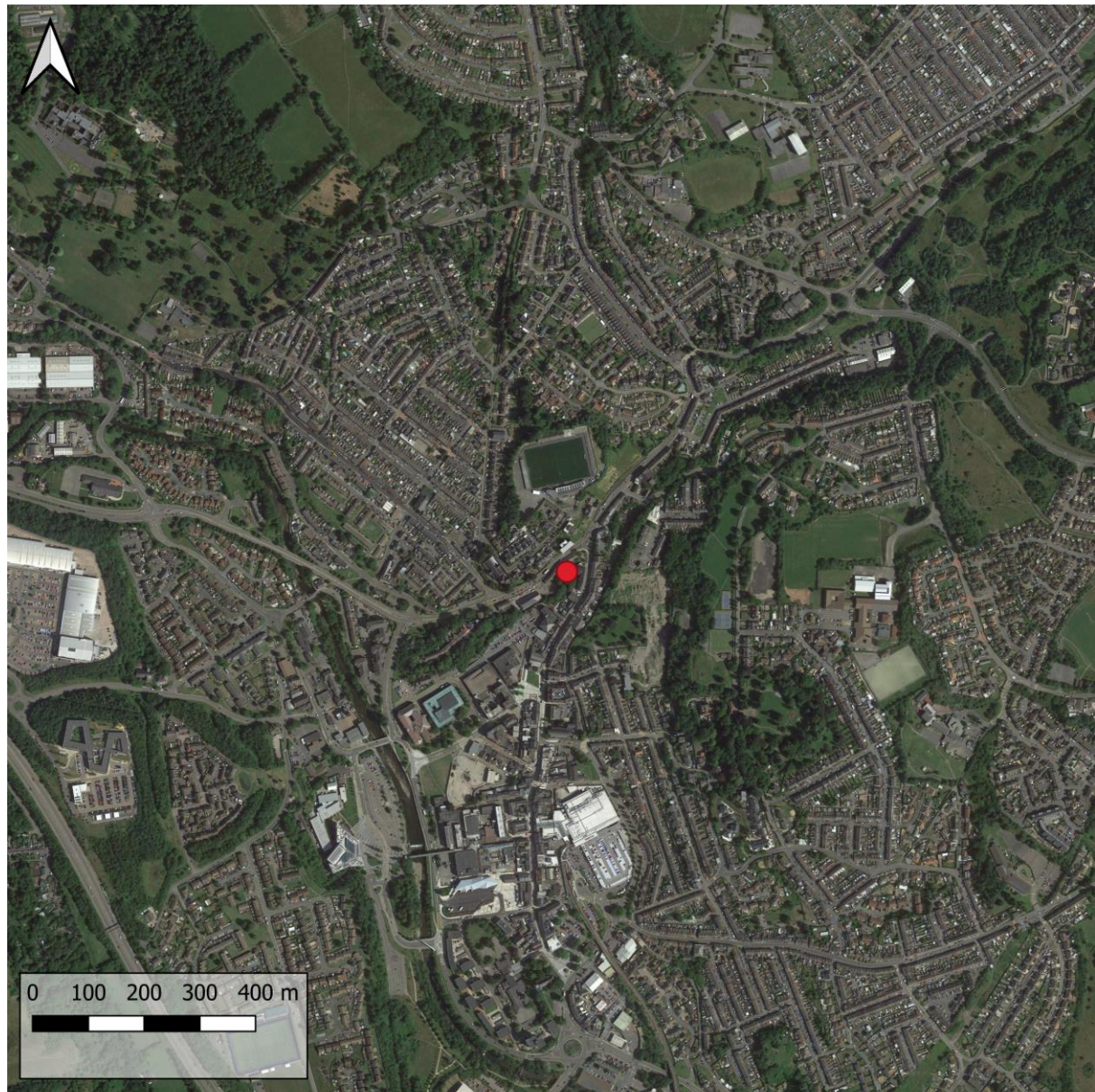
- 2.6.1 A record was made of any constraints that limited the results of this survey report (Section 3.10).

2.7 Meet Our Survey Team

Name / Licence	Experience
Nicholas Aldridge (BSc (Hons), MSc., & PGCE) Ecologist with Little Wing Ecology NRW Bat Licence: S091427/1 (22 nd July 2022 - 21 st July 2024).	Nic Aldridge is the lead ecologist with Little Wing Ecology and the author of this report. He is a licensed bat worker with over 20 years' experience in education and conservation and over six years' experience surveying built-structures, open habitats, and woodlands for bats. Following a degree in Botany and Zoology, Nic completed an MSc in Wildlife Management, Conservation and Control, at the University of Reading. He has practical experience in field-based research with a focus on invertebrate and vegetation diversity and producing phase 1 habitat surveys and habitat management plans. He has carried out the ringing of Daubenton's bats as part of a multi-year project on the species and has undertaken monitoring work on several important lesser horseshoe bat roosts. He has attended courses with the Bat Conservation Trust to improve his knowledge and skills and has led voluntary projects to develop habitats and collect species data. Nic founded Little Wing Ecology in 2021 as a social enterprise, to use the skills and expertise of an ecological consultancy to work with the local community, support local conservation projects and provide training and education for the next generation of ecologists.

Table 2.1: The Survey Team

Figure 4: Satellite Image Showing the Site Location in Relation to the Local Environment



Key

● Site Location

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QGIS Development Team, <2022>. QGIS Geographic Information System. Open-Source Geospatial Foundation Project.
<http://qgis.osgeo.org>.

SECTION THREE: RESULTS**3.1 Desktop Survey Results**

3.1.1 No part of the site contains, or is within, any statutory sites of nature conservation interest designated for bats, such as a Site of Special Scientific Interest (SSSI) or Special Area of Conservation (SAC), etc. No statutory sites designated for bats were identified within a 10km radius.

3.1.2 LERC Reference: 0234-033

3.1.3 Due to the nature and proximity of this site to local habitat features, care was taken to identify foraging and commuting potential and identify connectivity with the surrounding habitat.

Designation	Number of Records			Nearest Distance from Site (m)	Connectivity
	On-site	<500 m	0.5-1km		
Site of Importance for Nature Conservation (SINC) – Non-statutory	0	0	0	-	-
Site of Special Scientific Interest (Bats) -International Statutory	0	0	0	-	-
Special Area of Conservation (Bats) – National Statutory	0	0	0	-	-
Site of Special Scientific Interest (Bats) – National Statutory	0	0	0	-	-
Site of Special Scientific Interest – National Statutory	0	0	0	-	-

Table 3.1: Statutory and Non-statutory Sites (Designated for Bats within 10km)

3.1.4 There are no Sites of Species Scientific Interest (SSSIs) on or adjacent to Building A. The nearest SSSIs are, 'Cwm glo a Glyndyrys,' which is located ≈1.1km west of Building A and the, 'Cwm Tâf Fechan,' ≈1.7km to the north-west.

3.1.5 There are no non-statutory sites, such as Site important for Nature Conservation (SINC), on the proposed development site, however, an adjacent stream is a tributary of the nearby SINC, 'Afon Tâf,' which is located ≈430m west of Building A. This tributary is fragmented but locally supports some high-quality habitat to support bats including roosting and foraging sites. Collectively these waterways form a significant feature in the landscape providing connectivity east to west and north to south.

3.2 Species Records

3.2.1 The local biodiversity records provided by SEWBReC returned 253 species records including 223 records for bat species and 30 records for bird species locally. Some of these were too old to be considered viable. The closest (<1km) and most significant records are summarised below. There are 32 records for bat species within 500m of Building A.

Species Group	Species / Notes	Number of Records			Nearest Distance from Site (m)	Connectivity
		On-site	<500 m	0.5-1km		
Bats	Chiroptera (Bat - unidentified) CAT1	0	3	4	143	High
	Myotis (Myotis Bat species) CAT1	0	0	4	821	Low
	Nyctalus noctula (Noctule Bat) CAT1	0	2	2	246	High
	Pipistrellus (Pipistrelle Species) CAT1	0	3	6	240	High
	Pipistrellus pipistrellus (Common Pipistrelle) CAT1	0	18	18	46	High
	Pipistrellus pygmaeus (Soprano Pipistrelle) CAT1	0	6	2	46	High
	Plecotus auritus (Brown Long-eared Bat) CAT1	0	3	4	46	High
	Rhinolophus hipposideros (Lesser Horseshoe Bat) CAT1	0	1	4	46	High
Birds	CAT1	0	8	2	456	Moderate
	CAT2	0	3	3	456	Moderate
	CAT3	0	9	4	121	High

Table 3.2: Local Records for Bat and Bird Species within 1km of the Site

3.3 Local Roost Records

Species	Roost Type	Nearest Distance to Site (m)	Connectivity
Pipistrellus pipistrellus (Common Pipistrelle) CAT1	Day roost	46	High
Plecotus auritus (Brown Long-eared Bat) CAT1	Roosting in building	46	High
Rhinolophus hipposideros (Lesser Horseshoe Bat) CAT1	Small day roost	46	High
Pipistrellus pipistrellus (Common Pipistrelle) CAT1	Day roost	85	High
Plecotus auritus (Brown Long-eared Bat) CAT1	Night roost	85	High

Table 3.3: Local Roost Records (Bats)

3.4 Habitat and Satellite Imagery

Description	Notes	Nearest Distance to Site (m)	Connectivity
Broadleaved Woodland	Banks of the Nant Morlais	Adjacent	High
Nant Morlais - Running Water	Wildlife Site	Adjacent	High
Broadleaved Woodland	Thomastown Park	≈180	High
Afon Tâf - Running Water	Local SINC - Wildlife Site	≈480	High

Table 3.4: Local Habitat Features within 1km of the Site

- 3.4.1 Several scattered and fragmented broadleaved woodlands are located within the settlement of Merthyr Tydfil. The most significant of which in relation to Building A are the adjacent woodland that follows the Nant Morlais south-west where this joins the Afon Tâf (≈430m distant). The Afon Tâf forms a significant feature in the landscape providing connectivity north and south.
- 3.4.2 In addition, a larger broadleaved woodland is located ≈180m east of the Building A. Collectively these features provide significant roosting and foraging opportunities for bats.

3.5 Preliminary Roost Assessment

Structure	Potential Nest and Roost Assessment	Evidence	Assessment	
Building A Standard Upholstery An unoccupied Structure A three-storey stone and slate, traditionally built Victorian warehouse with a cement render to the front elevation, slated roof, and a breathable roofing membrane.	Exterior Elevations Several gaps were recorded between the bargeboard and wall plate. The roof is relatively new and materials are in good order. No areas of flashing were recorded around the chimney, but all elevations of the chimney were not visible from a ground observation (i.e., the western elevation). Gaps were recorded around exterior doors and around windows. Some windows were broken providing access to the interior space. 	No evidence recorded of roosting bats. Two jackdaws (<i>Corvus monedula</i>) were observed nest building at the chimney entrance.	Moderate (Bats) High (birds)	
Building A Standard Upholstery An unoccupied Structure A three-storey stone and slate, traditionally built Victorian warehouse with a cement render to the front elevation, slated roof, and a breathable roofing membrane.	Exterior - Roof Structure (Slates/Tiles) No damaged or slipped roof tiles were observed. All observed materials were in good condition and well fitted. Not all the roof was visible from a ground level examination, the western elevation was largely obscured from view. The roof was later found to be lined with a breathable membrane and the client confirmed that the building had been re-roofed at some point in its recent history.	No evidence recorded of nesting birds or roosting bats.	Low (Bats) Negligible (birds)	

<u>Building A</u> <u>Standard Upholstery</u> An unoccupied Structure A three-storey stone and slate, traditionally built Victorian warehouse with a cement render to the front elevation, slated roof, and a breathable roofing membrane.	<u>Exterior - Roof Structure (Ridge Tiles)</u> No significant gaps were recorded along the ridge tiles. The materials were in good conditional and well fitted. A good record was made of the condition of the ridge from the eastern elevation, but direct observation was not possible from the west.	No evidence recorded of nesting birds or roosting bats.	Negligible (Bats) Negligible (birds)	
<u>Building A</u> <u>Standard Upholstery</u> An unoccupied Structure A three-storey stone and slate, traditionally built Victorian warehouse with a cement render to the front elevation, slated roof, and a breathable roofing membrane.	<u>Exterior - Chimneys/Flue</u> Where observation was possible, both the flashing and tiles around the chimney were well fitted and in good condition. A good record was made of the condition of the chimney from the eastern elevation, but direct observation was not possible from the west. Two jackdaws (<i>Corvus monedula</i>) were observed nest building at the chimney entrance.	No evidence recorded of nesting birds or roosting bats.	Negligible/low (Bats) High (birds)	
<u>Building A</u> <u>Standard Upholstery</u> An unoccupied Structure A three-storey stone and slate, traditionally built Victorian warehouse with a cement render to the front elevation, slated roof, and a breathable roofing membrane.	<u>Exterior - Bargeboards</u> Several gaps of various sizes were recorded between the timber bargeboard and the wall plate. Large gaps were recorded on the northern elevation.  	No evidence recorded of nesting birds or roosting bats.	High (Bats) Moderate (birds)	

	 		 
<u>Building A</u> <u>Standard Upholstery</u> An unoccupied Structure A three-storey stone and slate, traditionally built Victorian warehouse with a cement render to the front elevation, slated roof, and a breathable roofing membrane.	<u>Interior – Ground Floor</u> The interior of Building A has recently been stripped out and no ceilings are present. This is a dark space with access to the upper two storeys. Several gaps were recorded between the floor joist (in the ceiling) and the exterior stone wall. On the eastern elevation these form dark spaces which offer potential for crevice dwelling bat species. Along the western elevation there is light penetration between the floor joists and the exterior stone wall, and the 1st storey is visible in several places. These spaces offer much less potential. Within the exterior stone walls there are several gaps in the mortar providing access to small cavities. A small corner of the ground floor has been boarded off to provide a secure store room. The ceiling boards are still in place above this feature and the gap between the ceiling board and the floorboards is open to the interior of the main room (photo left – below). This offers opportunities for roosting and a dark space.  	No evidence recorded of nesting birds or roosting bats.	Moderate (Bats) Negligible (birds)  

<u>Building A</u> <u>Standard Upholstery</u> An unoccupied Structure A three-storey stone and slate, traditionally built Victorian warehouse with a cement render to the front elevation, slated roof, and a breathable roofing membrane.	<u>Interior – 1st Floor</u> The interior of the first storey has recently been stripped out and no ceilings are present. This is a relatively light space with widows to all elevations. Several gaps were recorded between the floor joist (in the ceiling) and the exterior stone wall. On the eastern elevation these form dark spaces which offer some potential for crevice dwelling bat species. Along the western elevation there is light penetration between the floor joists and the exterior stone wall, and the 1st storey is visible in several places. These spaces offer much less potential. A single bat dropping of a pipistrelle type was recorded at the south eastern windowsill and feeding remains (small tortoiseshell - <i>Agla urticae</i>) at the north western windowsill; characteristic of brown long eared bat (<i>Plecotus auritus</i>) or lesser horseshoe (<i>Rhinolophus hipposideros</i>), both of which are recorded roosting locally (<50m). A smashed window provides access to the exterior. The light levels at these locations suggest that both represent a night roost/feeding roost. Disused jackdaw nesting material had been swept up into one corner. 	Bat droppings (s) and feeding debris. Remains of a jackdaw nest. 	High (Bats) High (birds) 	 
<u>Building A</u> <u>Standard Upholstery</u> An unoccupied Structure A three-storey stone and slate, traditionally built Victorian warehouse with a cement render to the front elevation, slated roof, and a breathable roofing membrane.	<u>Interior – 2nd Floor (Including Roof Space)</u> The interior of the second storey has recently been stripped out and no ceilings are present. The roof space is exposed to the roofing felt. No light penetration was recorded at roof level. Remains of original timber cladding remain in situ along the interior southern gable. Each of these provided a internal cavity of unknown proportions and a potential roosting site for crevice dwelling species.	No evidence recorded roosting bats. An inactive jackdaw nest (<i>Corvus Monedula</i>) was recorded in the roof space at the north west corner.	Moderate (Bats) High (birds)	

				
<u>Building B</u> A single storey, block built outhouse adjoining the southern gable of Building A.	<u>Exterior – Building B</u> A small structure (Building B) adjoins the southern gable of Building A. This was locked and inaccessible. Much of this structure was covered in vegetation and only a partial exterior examination was possible. 	No evidence recorded of nesting birds or roosting bats.	Cautionary (Bats) Low (birds)	

<u>Roofless Corrugated Lean-to</u>	<u>Exterior – Remains of a Lean to - Building B</u> Previously a smaller structure had been attached to the southern elevation of Building B and while access to the interior was not available it was recorded that the roof of this structure was no longer in place and this structure represents the remains of the exterior walls (mostly corrugated sheet metal).	No evidence recorded of nesting birds or roosting bats.	Negligible (Bats) Low (birds)	
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Table 3.5: Preliminary Roost Assessment

3.6 Field Survey Details & Weather Conditions

- 3.6.1 The field survey was conducted outside of the breeding season. An active bat population prefers temperatures exceeding 10°C with low wind speeds.

Date	Survey Type	Surveyor	Variable	Start	End
15.04.2023	Site inspection Preliminary roost assessment Interior and exterior	N S Aldridge	Survey Times (BST)	09.45	12.00
			Temperature (°C)	9.9	11.4
			Cloud Cover (Oktas)	1	3
			Wind (Beaufort scale)	F3	F2
			Humidity	64	53
			Precipitation (%)	Light	Light

Table 3.6: Field Survey Details – Weather, Time & Temperature

3.7 Impact Assessment: Summer Roosting Bats

- 3.7.1 A Preliminary Roost Assessment (PRA) confirmed several gaps in the external fabric of Building A, and two records were made for roosting bats having previously used the structure.
- 3.7.2 Building A offers potential roosting locations behind the barge board on all elevations, internally between the floor joists and the exterior wall (particularly along the eastern elevation), within cavities, above the secure store room, behind timber cladding and along the ridge board.
- 3.7.3 A local records search revealed five bat roosts representing three different bat species within 90m of Building A (*Pipistrellus pipistrellus*, *Plecotus auritus* and *Rhinolophus hipposideros*). The evidence recorded in this report is commensurate with these species.
- 3.7.4 Taking this evidence into account, along with an understanding of local habitat features and known roosting locations, it is considered that this structure offers a high risk for supporting a night and/or feeding bat roost and moderate risk of supporting a summer roost.

3.8 Impact Assessment: Suitability for Hibernating Bats

- 3.8.1 Using a degree of academic supposition, the features identified within the PRA are considered to offer a low risk at providing the hibernating conditions that bats prefer – small gaps being present at the top of the wall plate (eaves).
- 3.8.2 Pipistrelle species are known to hibernate in buildings, and this will need to be taken into consideration.

3.9 Impact Assessment: Nesting Birds

- 3.9.1 Two jackdaws (*Corvus Monedula*) were recorded at the entrance to the chimney actively building a nest. Evidence of inactive jackdaw nest was recorded within the roof space and on the second storey. Gaps behind the timber barge boards proffer potential for some birds species such as house sparrow (*Passer domesticus*).
- 3.9.2 Due to the features identified in the Preliminary Roost Assessment, a cautionary approach is recommended.

3.10 Additional Ecological Constraints

- 3.10.1 The interior of Building A was accessible. The roof space was exposed to the second storey.
- 3.10.2 Building A is located in a built-up area and sits adjacent to a fast-flowing stream (Nant Morlais). Consequently, observation from a distance was restricted. While there was a clear view of the exterior elevations to gutter level, direct observation of the western side of the roof and chimney

was not possible.

- 3.10.3 The interior of Building B was inaccessible, and observation of the exterior was limited. Additional work will be required but direct observation is difficult due to building debris and vegetative growth.
- 3.10.4 The use of the structure as a commercial storage space and the presence of debris, dust and dirt hindered the search for bat droppings.
- 3.10.5 The field survey was conducted outside of the bat breeding season, but this being said, it is possible to assess the suitability of structures for roosting bats throughout the year and identify many species in some circumstances.
- 3.10.6 Due to the quality of the adjacent habitat (Nant Morlais), it is considered that the proposed works would benefit from the inclusion of enhancement features (see section 5).
- 3.10.7 No additional limitations were recorded during the field survey.

SECTION FOUR: DISCUSSION & CONCLUSIONS

- 4.1.1 Based on the results of this survey report it is considered that Building A offers a moderate risk of supporting roosting bats and bats are likely present.
- 4.1.2 Building A has several potential roosting locations that could be used by bats due to their size, shape, shelter, protection, conditions and surrounding habitat, but is unlikely to support a roost of a high conservation significance due to recent alterations.
- 4.1.3 Locations of note include behind the barge board on all elevations, internally between the floor joists and the exterior wall (particularly along the eastern elevation), within cavities, above the secure store room, behind timber cladding and along the ridge board.
- 4.1.4 The recent alteration to the interior of Building A and the presence of a breathable membrane to the roof has reduced the potential of this structure in supporting roost of high conservation significance.
- 4.1.5 Evidence recorded for this report includes:
- low numbers of bat droppings within Building A (of a pipistrelle type).
 - proximity to locally recorded roosting sites for *Pipistrellus pipistrellus*, *Plecotus auritus* and *Rhinolophus hipposideros* (<90m),
 - potential evidence of a feeding roost, commensal with species recorded locally, i.e., *Plecotus auritus* and *Rhinolophus hipposideros* (<46m),
 - an understanding of the local habitat features and the suitability of these features for foraging and commuting.
- 4.1.6 Additional survey work will be required in the form of dusk surveys and static surveys, with the aim of identifying the:
- presence/absence of bats,
 - roost type,
 - identification of species; and,
 - population size.

SECTION FIVE: RECOMMENDATIONS & ENHANCEMENTS

Based on the results of this survey report the following recommendations have been made.

5.1 Recommendation 1 (Presence/Possible Absence Surveys for Bats):

- Building A has been categorised as being of moderate risk, requiring a dusk survey for bats on a minimum of two occasions, no less than 14 days apart. A dusk survey is required to determine the presence/likely absence of roosting bats, species identification, population size, roost type, and the requirement for any associated mitigation. In accordance with best practice, two nocturnal surveys will be required with sufficient surveyors to adequately cover all features identified on the building(s) during the PRA. Nocturnal bat surveys can be undertaken May – mid September, inclusive.
- Direct observation of the ridge-board (interior) during each subsequent visit to the site.
- A 15-night static survey of the interior spaces (Building A and B): A static detector to be set up on the first storey and within Building B.
- Subject to the findings of the above surveys and taking a precautionary approach, a method statement may be required for any work which impact the structure of Building A, specifically the wall plate and roof. To adequately mitigate any risks identified in this report and any subsequent surveys, the stripping/demolition phase of works to be undertaken at a time of year that maximises the reduction of risk to the potential use of Building A by the local bat population. The details of this mitigation are subject to the result of subsequent surveys.

5.2 Recommendation 2 (Hibernation and Pipistrelles)

As Pipistrelle species are known to hibernate in buildings a precautionary approach will be followed. This will be provided by following either of the following options (dependent on the time of year at which works are undertaken and subject to the findings of subsequent survey work):

Option A: All work with regards to the striping of roofing materials or exposing the wall plate, to be undertaken in the summer months (May-September – inclusive) when bats are likely absent from hibernation roosts; or,

Option B: Any works with regards to the striping of roofing materials or exposing the wall plate during the winter months (October-April – inclusive) to be supervised by a suitably qualified and experienced bat ecologist.

5.3 Recommendation 3 (Lighting During Development)

As a European Protected Species, disturbance of bats during foraging/commuting, even if accidental, is to be avoided. It is therefore recommended that the use of artificial lighting during the development of the site is avoided. External lighting should be restricted during the development period to that which is necessary for safety and security. This should be kept to a minimum.

5.4 Recommendation 4 (Post Development Lighting Scheme)

To prevent any adverse impact upon the potential roosting, commuting and foraging habitats for bats adjacent to Building A (Nant Morlais), the lighting plan must be functional and directional only and kept to a minimum servicing the public areas of the proposed development (as required for safety and security). It should be achieved using baffles and screens, if necessary, to ensure no light spill on any retained or planted vegetated (including off-site vegetation - e.g., there is a potential to impact animals using the nearby habitat features).

- A sensitive lighting scheme is recommended and must be created. The sensitive lighting scheme must follow advice details in 'Bats and Artificial Lighting in the UK: Technical Guidance Note 08/18' (2018) and comprise of:
- Light fixtures, filaments, light spill and artificial light must be directed away from bat roost entrances, both existing and those to be created as part of the mitigation.
- Luminaries are to be LED only, due to their sharp cut-off, lower intensity, good colour rendition and dimming capability. Luminaires should have a warm white spectrum (ideally <2700 Kelvins), reducing the blue light component and increasing the red-light component.
- Luminaries should feature peak wavelengths high the 550nm to avoid the component of light most disturbing to bats.
- Heights of fixtures should be carefully considered to minimise light spill. Only luminaries with an upward light ratio of 0% and with good optical control should be used.
- Luminaries must always be mounted on the horizontal, i.e., no upward tilt.
- Any external security lighting should be set on motion sensors and short (1 min) timers.
- As a last resort, accessories such as baffles, hoods or louvres must also be used, and directed away from any natural features and must not encroach outside the Site boundaries, particularly the surrounding trees, hedgerows, and other vegetation in the landscape.

5.5 Recommendation 5 (Nesting Birds)

All nesting birds, their chicks' eggs and active nests are protected under the Wildlife and Countryside Act 1981 (as amended). If a nest is discovered during works and is active, it must be left undisturbed until all the chicks have fledged. If any features associated with nesting birds are required to be altered during the bird breeding season, then a further inspection by a suitably qualified ecologist is required no more than 24 hours before this process commences. If an active nest is found by a site inspection, an exclusion zone around the nest will be necessary to preserve this feature until the chicks have fledged the nest.

These measures will allow the development to conform to current protective legislation as laid out in the Wildlife and Countryside Act 1981 (plus amendments).

5.6 Recommendation 6 (Post Development Enhancements)

Under the Environment (Wales) Act 2016, public authorities (including local councils and the National Parks), 'must seek to maintain and enhance biodiversity in the exercise of functions in relation to Wales, and in so doing promote the resilience of ecosystems, so far as consistent with the proper exercise of those functions.' This replaces the section 40 duty in the Natural Environment and Rural Communities Act 2006 (NERC Act 2006), in relation to Wales, which states that; 'All public authorities have a statutory duty to conserve biodiversity in all of their functions.'

Local authorities are legally required to make efforts to protect and enhance wildlife and its habitat and this is executed, in part, through the requirement of an ecological assessment for planned development sites and, therefore, we recommend the following principles of design should be followed:

- The inclusion of features suitable for roosting bats to be included in the plans on the roof. In order to encourage bat roosting activity and increase roosting opportunities on-site post-development, it is recommended that an addition of four new roosting opportunities are provided as part of the development.

The incorporation of two bat access tiles on the western elevation and two bat access tiles on the eastern elevation (Figure 5). These to be located on the roof, near the ridge, in a position that avoids conflict with the proposed solar panels (Table 5.1).

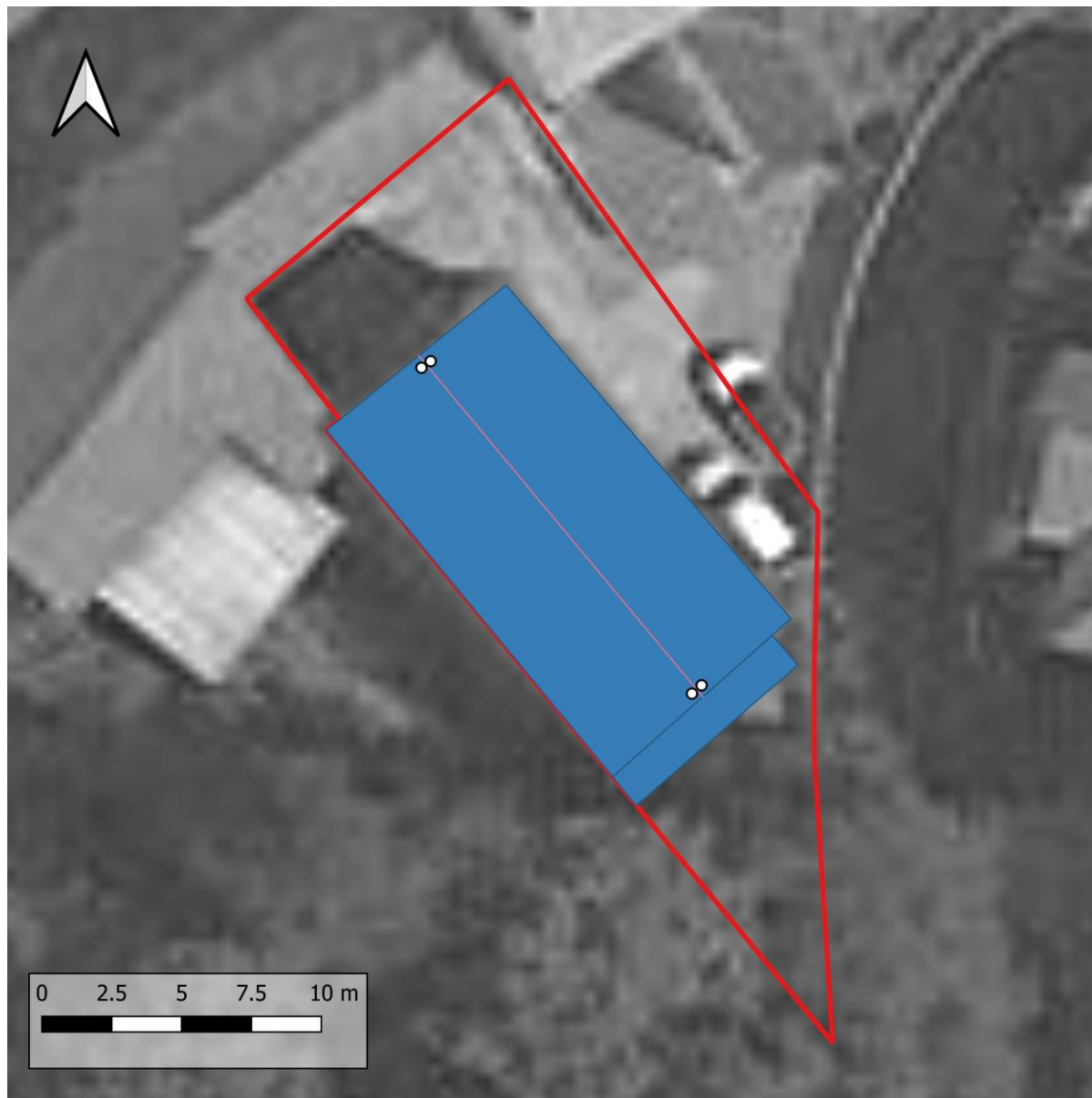
If it is deemed that 1F sanded bitumen is inappropriate for the whole structure then it is recommended that 2m x 2m sections of 1F sanded bitumen is used at the proposed new roost locations, with appropriate battening fitted, to restrict the movement of bats beyond this space.

The gaps described as bat access points (above) must enable bats to access the space created by the battens, between the slates and the bitumen lining membrane.

Enhancement Feature(s)	Information
	<u>Bat Access Tiles</u> Beddoes Products Accessed 01/03/2023. Available at: https://beddoesproducts.com/ N.B. this is given as an example only. Many other suitable products are available.

Figure 5.1: Enhancement Features for Net Gain Biodiversity

Figure 5: Proposed Habitat Enhancement



Key

- Bat Access Tiles
- Ridgeline
- Building A
- Site Boundary

Date: April 2023

Produced by: Little Wing Ecology

Job Reference: LT074-PRA

Author: N S Aldridge

QGIS Development Team, <2022>. QGIS Geographic Information System. Open-Source Geospatial Foundation Project.
<http://qgis.osgeo.org>.

SECTION SIX: ADDITIONAL INFORMATION

6.1 LIMITATIONS

- 6.1.1 Little Wing Ecology (CYF) has prepared this Report for the sole use of the above-named Client or his Agents in accordance with our terms of business, under which our services were performed. No other warranty, expressed or implied, is made as to the professional advice included in this Report or any other services provided by us. This Report may not be relied upon by any other party without the prior and express written agreement of Little Wing Ecology (CYF).
- 6.1.2 The assessments made assume that the site(s) and facilities will continue to be used for their current purpose without significant change. The conclusions and recommendations contained in this Report are based upon information provided by others and upon the assumption that all relevant information has been provided by those parties from whom it has been requested. Information obtained from third parties has not been independently verified by Little Wing Ecology (CYF).

6.2 ENCOUNTERING A PROTECTED SPECIES DURING WORKS

- 6.2.1 If at any point during works a protected species is encountered on-site, it is essential that all work is to cease and that a suitably experienced ecologist is contacted for advice.

6.2 EXPIRATION OF THIS REPORT

- 6.2.1 Should works not start within two years (i.e., April 2025) further survey and assessment will be necessary to qualify the results of this report and its recommendations.
- 6.2.2 This report is valid for two years (i.e., April 2025).

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About Us

Little Wing Ecology is a not-for-profit ecological consultancy based in the South Wales Valleys. Specializing in bat surveys for housing developments, but providing a wide range of ecological services, it provides appropriate expertise on behalf of a range of clients.

We are a small ecological consultancy dedicated to providing an easy-to-use and jargon-free service. We produce the following products:

- Preliminary Ecological Appraisal
- Preliminary Roost Assessment
- Bat Surveys
- Mitigation Planning
- European Protected Species License Applications
- On-site Services to Support Planning Applications and Development

As a Consultancy, we use our experience, expertise, and love of wildlife to provide an easy to access and pragmatic service, that upholds the highest standards of conservation.

As a Not-for-Profit Social Enterprise, we reinvest our profits. We work with valleys communities, conservation groups, local authorities, and other groups to support these three key areas:

A. Helping Nature

Developing and supporting habitat gain in the valleys through:

- Habitat improvement.
- Developing the built environment for the benefit of wildlife.
- Long-term monitoring projects for wildlife populations in the valleys.

B. Working with People

- Providing employment, training and voluntary opportunities for the local community and young people to help them build their skills, develop a stronger relationship with nature and build confidence in themselves.

C. Supporting Communities

- Reinvesting in nature and people, locally.
- Supporting education within communities to promote a positive relationship between people and wildlife.
- Providing pro-bono surveys for worthwhile causes.

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Flood Consequences Assessment

Methyr Upholstery Building, Pontmorlais.

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1 Introduction

Background

This Flood Consequences Assessment has been produced to support a Planning Application for a development at: Methyr Upholstery Building, Pontmorlais.

The Planning Application is for the refurbishment of the existing building with offices and store on the ground floor and residential/ air b'n'b type units above on the first floor and above again.

The Flood Consequences Assessment has been based on guidance within Planning Policy Wales Technical Advice Note 15; (TAN 15 Development and Flood Risk). It also follows the guidance in the PPS25 Practice Guide referring to suggested the content of a Flood Consequences Assessment

2 Flood Consequences Assessment

2.1 Proposed Development

Planning Application is for the refurbishment of the existing building with offices and store on the ground floor and residential/ air b'n'b type units above on the first floor and above again.

Current use: Store

Proposed use: Offices and units The existing rear yard is made from impermeable tarmac that discharge into the existing storm drainage system. A copy of the site location plan and existing and proposed floor plans form part of the planning package.

2.2 TAN 15 Zonation

The welsh Assembly Government provides Flood Zone advice in Technical Advice Note 15. Development and Flood Risk (TAN15) (July 2004)

2.3 Development Advice Map

The Welsh Assembly Government Produces Development Advice Maps (DAM) to accompany TAN15. These maps show the degree of flood risk which is to be applied to development sites for the planning process and thus establish the suitability of the site for development. Examination of the TAN 15 Development Advice Maps (DAM) indicates that the development site is situated in Zone C2. TAN15 indicates that areas classified as C2 are areas of floodplain without significant flood defense infrastructure. A copy of the Development Advice Map is attached (Appendix B).

2.4 Development within DAM zone C2

TAN15 indicates that only less vulnerable development should be considered in zone C2 subject to the application of the justification test, including acceptability of consequences.

2.5 Development Category

TAN15 indicates that less vulnerable developments are defined as:

General Industrial, Employment, Commercial and Retail development, Transport and Utilities Infrastructure, Car Parks, Mineral extraction site and associated processing facilities (excluding waste disposal sites).

The proposed development falls within the less vulnerable category.

3. Flood Risk

3.1 Natural Resources Wales Flood Data

A data request was submitted to Natural Resources Wales asking for details of their most recent modelled flood levels for the site.

Unfortunately they do not have any detailed Flood Modelling in this area, the following information regarding flood risk was provided:

The proposed application site lies entirely within Zone C2 as defined by the Development Advice Map (DAM) referred to under Technical Advice Note 15: Development and Flood Risk (TAN15) (July 2004). Our Flood Map information, which is updated on a quarterly basis, confirms the site to be within the 1% (1 in 100 year) and 0.1% (1 in 1000 year) annual probability fluvial flood outlines of the River Taff, a designated main river.

3.2 Flood Event

1 in 100 Year/1 in 200 year event

TAN15 (A1.14) requires that industrial developments remain flood free for the following flood events,

The 1% AEP/1 in 100 year event (Fluvial Flood)

The 0.5% AEP/1 in 200 year event (Tidal/Costal Flood)

Examination of the data obtained from the DAM and Natural Resources Wales indicates that the development site would be liable to flooding in the following events, 1% 1 in 100 year and the 0.1% AEP/1 in 1000 year event.

The Owners/Developers are aware of the possibility and consequences of flooding in the extreme event and will ensure mitigation measures are in place to deal with any flooding issues.

3.3 Surface Water Run-Off

The development proposal is for the refurbishment of an existing building. The proposed development will not alter the site drainage characteristics. The stormwater from the existing building flows to existing adopted drains, there will be no alteration to the existing stormwater drains at the site. The existing yard drains into the existing system.

3.4 Adverse Effects of Development

The proposed development is will not change the drainable area of the existing building plus the tarmac yard of the existing industrial unit. There is no

increase in the buildings external and internal area combined. There is no increase in the surface water run-off from the property. The development will have no adverse effect as regards flooding on the neighbouring properties or the surrounding area.

4 Justification Test

4.1 Justifying the location of the development TAN15 (sec 6)

TAN15 states that new developments should be directed away from zone C and towards suitable land in zone A or otherwise zone B. Developments within zones C1 and C2 will only be permitted if determined by the Planning Authority to be justified in that location.

Development will only be justified if it can demonstrate that:

- i. Its location in zone C is necessary to assist, or be part of, a local authority regeneration initiative or a local authority strategy to sustain an existing settlement; or
- ii. its location in zone C is necessary to contribute to key employment objectives supported by the local authority and other key partners, to sustain an existing development or region.

and,

- i. it concurs with the aims of PPW and meets the definition of previously developed land (PPW fig 2.1) and,
- ii. The potential consequences of a flooding event for the particular type of development have been considered and found to be acceptable.

Proposed Development

- i. The proposed development is located on an existing industrial park within a primary growth area as defined in the adopted LDP.
- ii. The development is for the change of use of an industrial unit from use class B2 to use Class Sui-Generis. The change of use will help to sustain an existing development.
- iii. The development meets the definition of previously developed land
- iv. The potential sources of flooding have been considered and found to be acceptable

4.2 Assessing Flooding Consequences TAN15 (sec 7)

If a development proposal located in zone C2 is defined as being of low vulnerability the Justification will be in the knowledge that the development will

flood and will be planned accordingly. The development should be planned to ensure that is as safe as possible and there is:

- i. Minimal risk to life
- ii. Minimal disruption to people living and working in the area
- iii. Minimal potential damage to property
- iv. Minimal impact on flood risk general
- v. Minimal disruption to natural heritage

The development is contained within an existing industrial unit and will have no adverse consequences on flood risk for the surrounding area.

4.3 Mitigation Measures

Having regard to the information within NRW response it is recommended that the developers undertake the following measures to mitigate the consequences of flooding.

- a) Where practical consideration should be given to the incorporation of flood resistance/resilience measures within the fabric of the building.
- a) The Owner/Developer should ensure that a safe and accessible evacuation route is designed and maintained from the unit to a point which is higher than the 1 in 1000 flood level as indicated in the Development Advice Map. The Owner/Developer is to produce an evacuation route from the building to the nearest point which is higher than the predicted 1 in 1000 flood level. A copy of this Evacuation Route is to be displayed at the development. A copy of the evacuation route leading to land higher than the 1 in 1000 flood level event is attached (Appendix C)
- b) Sign up to the NRW flood warning service (0345 988 1188) <http://naturalresourceswales.gov.uk/flooding-and-water/floodline-warnings>

Further advice and information on protection from flooding is available in the ODPM publication 'Preparing for Floods: Interim Guidance for Improving the Flood Resistance of Domestic and Small Business Properties', which is available from the Planning Portal website: www.planningportal.gov.uk

5. Summary

This flood Consequences Assessment is provided as support for the planning application for an extension for storage having regard to all available data the FCA demonstrates that:

- i. The development site is located within the 1% (1 in 100 year) and the 0.1% (1 in a 1000 year) annual probability fluvial flood outlines of the River Taff, a designated main river.
- ii. The development is classed as a less vulnerable development
- iii. There is no increase in the surface water run-off from the development site as the rear yard area is solid tarmac.
- iv. The development will have no adverse effects on the neighbouring properties, surrounding area or natural heritage
- v. The proposed development meets the requirements of the TAN15 Justification test
- vi. The Developer is aware of the consequences of flooding at the development site and the development will be planned accordingly

