

Alexandra Docks, Newport

Preliminary Roost Assessment

Burroughs
61271
July 2025



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This report will be deemed to be accepted by the client as final if no comments are received within two weeks of issue.

S0 – Work in progress

S1 – For coordination

S2 – For information

S3 – For review and comment

S4 – For approval

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List Of Abbreviations

Abbreviation	Full Description
PEA	Preliminary Ecological Appraisal
PRA	Preliminary Roost Assessment
SAC	Special Area of Conservation
SEWBRc	South East Wales Biological Records Centre
SPA	Special Protection Area
SSSI	Site of Special Scientific Interest
TN	Target Note

1 INTRODUCTION

1.1 Background

1.1.1 TACP UK (Ltd) (TACP) was commissioned by Burroughs in March 2025 to carry out a Preliminary Ecological Appraisal (PEA) at Alexandra Docks (hereafter referred to as 'the Site') to support National Grid Electricity Distribution (NGED) securing planning permission for the construction of a 33/11kV electricity substation (hereafter referred to as 'the Project'). The central Ordnance Survey (OS) grid reference is ST 31613 85814 and the boundary for the Site is shown in Appendix A

1.1.2 Following the PEA, recommendations were made for a Preliminary Roost Assessment (PRA) of the buildings present on site. TACP were commissioned in May 2025 to complete the necessary survey work.

1.2 Proposed Works

1.2.1 The Project would be constructed on the Site of an existing electrical substation which along with a number of other buildings, would be demolished.

1.2.2 Construction is anticipated to commence no sooner than 1st May 2026 and would take approximately 18 months to complete.

1.3 Objectives

1.3.1 The aim of a PRA is to identify the potential for bats to occur and to determine the need for further survey work as necessary. This is achieved through a combination of both desk study and a site visit.

1.3.2 During the site visit, the primary aim is to identify potential roost features associated with the structures under assessment, as well as any evidence of bat presence.

1.3.3 The results of the PRA are then used to identify the need for follow up activity surveys in such circumstances where bats are suspected. Between one and three activity surveys can be required dependent on PRA findings.

1.3.4 It may be possible during this initial assessment to identify the species and numbers of bats present and, if possible, how they utilise the site in general. However, this is not the primary aim of a PRA.

1.3.5 The overall objectives of this report are to:

- Document the method and summary findings of the desk study (see (PEA, TACP 2025) for full desk study results)
- Document the method and findings of the Preliminary Roost Assessment.
- Detail any use of the site by bats, both observed and inferred.
- Detail any use of the site by other protected species, both observed and inferred.
- Make recommendations for additional surveys if necessary.

1.4 Personnel

- 1.4.1 The initial survey was conducted by James Bilham BSc (Hons) MSc MRSB MCIEEM, Principal Ecologist for TACP, as an accredited agent on Victoria Nicholls' Natural Resources Wales bat survey licence for disturbance and handling (licence number: S092378/1).
- 1.4.2 James Bilham has 12 years of experience in ecological consultancy with expertise in protected species surveys (particularly bats and great crested newts) and Ecological Impact Assessment.

2 METHOD

2.1 Desk Study

- 2.1.1 Prior to visiting the Site pre-existing information relevant to the site was assessed as part of the desk study (see the Preliminary Ecological Appraisal, TACP 2025 for more detail).
- 2.1.2 A records search request to the South East Wales Biological Records Centre (SEWBRc) website (aderyn.lercwales.org.uk), was made to identify Protected and Priority species records and records of locally designated sites up to 2 km from the Site.

2.2 Preliminary Roost Assessment (PRA)

- 2.2.1 The PRA referenced "Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th Ed)" as the guiding principle, along with following CIEEM's Guidelines for Preliminary Ecological Appraisal (2nd Ed, 2017) (CIEEM, 2017).
- 2.2.2 None of the buildings on site were known to have any roof voids therefore, during the site visit the assessment took into account all potential external features, and an internal check of all the buildings also. This visit identified any potential roost features (PRFs) including, but not limited to:
- Access into buildings
 - Gaps behind fascia or barge boards,
 - Loose, lifted, slipped roofing material,
 - Spaces behind weather boarding or other external cladding,
- 2.2.3 All conclusions drawn on site suitability for bats are based on professional judgement with consideration of Table 4.1 of the Bat Survey Guidelines

2.3 Survey Constraints

- 2.3.1 Five buildings were present at the Site (Refer to Appendix A). Of those, a shipping container forming part of Building B1 could not be fully accessed during the PRA for assessment. However full survey of the exterior did not note any access points. Two adjacent shipping containers of identical construction, were accessible, which made it clear that the containers provided no internal roosting potential while the metal construction of the units further reduced the potential for roosting bats (sub-optimal thermal properties).

3 RESULTS

3.1 Desk Study

3.1.1 A summary of the desk study is provided in this report, for full details of the desk study results, please refer to the Preliminary Ecological Appraisal (TACP, 2025).

3.1.2 There are three statutory sites within 1.5km of the Site, however none are designated for reasons related to bats. These sites are detailed within Table 1 below.

Table 1: Statutory designated sites within 1.5km of the survey Site

DESIGNATION	DISTANCE FROM SITE	DESCRIPTION
Designated Sites	ST 31823 85899 Approximately 20m east.	River Usk SSSI River Usk is of special interest for its importance as a wildlife corridor, acting as an essential migration route and key breeding area for many nationally and internationally important species. Notable species recorded include but are not limited to: common otter (<i>Lutra lutra</i>), Daubenton's bat (<i>Myotis daubentonii</i>), sand martin (<i>Riparia riparia</i>), and several rare crane fly species such as (<i>Limonia omissinervis</i>), (<i>Erioptera limbata</i>) and (<i>Rhabdomastix hilaris</i>). The rare river lamprey (<i>Lampetra fluviatilis</i>) has also been recorded in the river. In addition, the Atlantic stream crayfish (<i>Austropotamobius pallipes</i>) – an endangered species in Europe – is also known to use the River Usk (citation.lercwales.org.uk).
	ST 30408 84939 Approximately 1.35km southwest	Gwent Levels – St Brides SSSI The Gwent Levels are one of a series of six SSSIs which span the Severn Estuary and are designated for their rhyne and ditch habitats, as well as green lanes, hedgerows and flower rich ditch banks. Notable species recorded include but are not limited to: silver colonel soldier fly (<i>Odontomyia argentata</i>), shrill carder bee (<i>Bombus sylvarum</i>), hairy dragonfly (<i>Brachytron pratense</i>) and the rare water beetle (<i>Hydaticus transversalis</i>) (naturalresources.wales).

DESIGNATION	DISTANCE FROM SITE	DESCRIPTION
	ST 31481 83831	Severn Estuary SSSI / SPA / SAC / Ramsar Site
	Approximately 1.6km south	The Severn Estuary has been designated for its range of intertidal habitats, including mudflats, sandflats, rocky platforms and islands – providing key habitats and corridors for migrating fish and wintering birds. Notable species recorded include but are not limited to: Dunlin (<i>Calidris alpina</i>), gadwall (<i>Mareca strepera</i>), shoveler (<i>Spatula clypeata</i>), pochard <i>Aythya farina</i>, Atlantic salmon (<i>Salmo salar</i>) and the critically endangered European eel (<i>Anguilla anguilla</i>) (citation.lercwales.org.uk).

Non-statutory

3.1.3 The following non-statutory sites are present within 2km of the Site:

- Marshall's SINC – 229m east,
- Monkey Island SINC – 1.4km northeast,
- Solutia SINC – 1.8km east
- Gaer Pond SINC – 1.95km west
- Afon Ebbw River SINC – 1km west

Protected Species Records

3.1.4 Local bat records are listed in Table 2. The nearest record is for common pipistrelle bats, 637m from the Site.

Table 2: Bats within 2km of the survey Site (SEWBRec records)

Species	Common name	No. Records	Nearest record
<i>Eptesicus serotinus</i>	Serotine	1	1809m
<i>Myotis daubentonii</i>	Daubenton's Bat	3	1605m
<i>Myotis</i>	Myotis Bat species	1	1720m
<i>Myotis mystacinus</i>	Whiskered Bat	1	482m
<i>Nyctalus noctula</i>	Noctule Bat	4	396m
<i>Pipistrellus nathusii</i>	Nathusius's Pipistrelle	1	1821m
<i>Pipistrellus pipistrellus</i>	Common Pipistrelle	19	396m
<i>Pipistrellus pygmaeus</i>	Soprano Pipistrelle	8	1537m

Species	Common name	No. Records	Nearest record
<i>Plecotus auritus</i>	Brown Long-eared Bat	1	905m

3.2 Site Assessment

3.2.1 The Site assessment was carried out on Friday 6th June 2025. The weather was dry and 13°C. The assessment was started at 08:30 and completed at 10:00.

3.2.2 Five buildings were assessed for the preliminary roost assessment. For this report these have been designated as B1, B2, B3, B4 and B5.

Site Overview (Habitat suitability)

3.2.3 The Site is located within Newport Docks and contains five buildings, with associated tarmac and bare ground. The Alexandra Docks access road lies directly adjacent to the south of the Site, with East Way Road to the east. The main waterbody of Alexandra Dock is situated to the west and south, with the River Usk Site of Special Scientific Interest (SSSI) to the east and predominantly surrounded by industrial buildings. A line of conifer trees is present to the northeast corner boundary of the Site, adjacent to building 4 and 5, however this does not connect to other habitat. An area of scrub vegetation lies to the west of the Site, containing a variety of species, however this is overall poor habitat suitability (refer to PEA).

PRA: Building B1

3.2.4 Building B1 is the main substation building. This is a single storey flat roof structure of brick construction, with multiple air bricks positioned along the top and bottom edges of the building on all sides. The southern and northern ends of the building contain locked metal access doors (double to the rear). The interior of the building is of concrete construction. The building was noted to be generally well sealed with a lack of access points (see images 1 to 3 in Table 3 below for photographs). A small gap was noted under a lifting roof cladding panel on the northeast corner of the building, however this was considered to not lead into the roof and not significant (see image 3).

Table 3: Photographs of Building B1

Building	Description	Photographs
B1	Southern frontage of building B1. Flat roof with guttering attached, appeared well sealed with no potential access points for bats.	 Image 1
B1	Rear of Building B1 (North side) Roof and walls appeared well-sealed with no gaps. Air bricks present at top and bottom of the walls with double access doors present on northern wall.	 Image 2
B1	Small gap under flat roof cladding on north west corner of building (TN1). No evidence of use by bats at time of assessment	 Image 3

PRA: Building B2

- 3.2.5 Building B2 is a single storey metal corrugated barn with pitched roof, and a wooden/metal lean to attached on the eastern side. (See images 4 & 5 in Table 4 below for photographs). The lean to contained three transparent skylight roof panels, with a wooden door to the south and a corrugated metal door to the north. The southern door was open at the time of the survey, and the door to the north had a narrow gap running round the exterior, with a circular hole in the wall adjacent. The eastern wall had a number of tears present, as well as a vertical gap from floor to ceiling at the southern end of the L shaped wall (see images 6 & 7 in Table 4 below for photographs). These features were considered to be of low potential for roosting bats.
- 3.2.6 The main barn contained metal beams across the ceiling, with a transparent skylight panel in the middle of the roof. Numerous cobwebs were seen hanging from the beams within the building. A sliding door was present to the northwest corner of the building, with a large vertical gap between the door and the northern boundary, allowing light, air and wind into the building (see images 8 & 9 in Table 4 below for photographs). These features were considered to be of low potential for roosting bats.

Table 4: Photographs of Building B2

Building	Description	Photographs
B2	Southern frontage of Building B2. Shallow pitched roof.	 Image 4
B2	Wooden/metal lean to on the eastern side of Building B2. Open door allowing light and access into the building (TN2).	 Image 5

Building	Description	Photographs
B2	Internal of B2, showing skylights, concrete floors and metal wall with gaps around door and hole to left hand side of door. (TN3)	 Image 6
B2	L shaped section of lean to, with wood cladding on metal wall. Tears in corrugated metal present, as well as gaps where two walls join. (TN4)	 Image 7
B2	Internal of main warehouse of Building B2, with skylights in roof and sliding door to north east corner.	 Image 8

Building	Description	Photographs
B2	North east corner of building showing gap between end of sliding door and northern wall. (TN5)	 Image 9

PRA: Building B3

3.2.7 Building B3 is a single storey shipping container, of metal construction. No gaps were noted externally. A single sheet of metal was attached to the western side of the container. A gap was noted between the outer wall of the container and the attached metal sheet, however this was considered to be of negligible roosting potential. No other gaps were noted externally. The interior of the container contained a wooden floor with a wooden storage cupboard to the rear. No gaps were noted during an internal view of the container (see photographs in Table 5 below).

Table 5: Photographs of Building B3

Building	Description	Photographs
B3	Shipping container B3, metal construction with no evidence of bats or gaps noted for access.	 Image 10
B3	Wooden floored interior of shipping container, appeared well sealed with no gaps /potential access points for bats.	 Image 11

PRA: Building B4

- 3.2.8 Building B4 is a single storey, flat roof office building, containing multiple internal rooms. A few minor potential access points were noted on the exterior of the building. (see images 12-16 in Table 6 below for photographs). Multiple cobwebs were noted on the outside of the building, while one possible gap was present at the northwest corner, behind the soffit boarding (see image 13). However, on further inspection, there was no obvious access into the roof space, or the building interior from this feature.
- 3.2.9 A broken window was present on the western side of the building allowing access in for birds, as one was seen inside during the survey. A gap potentially into the roof space was present 3-4m south of the northwestern corner (see images 14 & 15). However, all of these features were assessed as low potential.
- 3.2.10 The ceiling appears to be of wooden construction, the building has metal frame windows, with internal slide covers and the building has multiple rooms coming off a central corridor (see image 16). Small gaps are present in the walls and ceiling, however speaking to site staff, this was due to asbestos testing in the building.

Table 6: Photographs of Building B4

Building	Description	Photographs
B4	External view of flat roofed office building from southwestern corner.	 Image 12

Building	Description	Photographs
B4	Potential gap present behind wooden soffit and flat roof cladding on north western corner. (TN6)	 Image 13
B4	Broken window on western side of building B4. (TN7)	 Image 14
B4	Potential gap behind soffit on western side of building, 3-4m south of the northwestern corner. (TN8)	 Image 15

Building	Description	Photographs
B4	Interior of building B4, multiple rooms off a central corridor.	 Image 16

PRA: Building B5

3.2.11 Building B5 is a single storey shipping container, of metal construction. An abandoned site office was noted inside the container at time of survey (see images 12 and 13 in Table 7 below). An open window was noted, however all walls and internals appeared well sealed with no gaps suitable for roosting bats noted. No other gaps were noted externally on the container except for one on the eastern side, where the cover of the air vent was broken. However, on closer inspection, there was a mesh grill on the inside and therefore this offered negligible roosting potential (see image 14).

Table 7: Photographs of Building B5

Building	Description	Photographs
B5	Shipping container B5, metal construction with no evidence of bats or gaps noted for access. An open window was noted at time of survey on the northeast corner of the building.	 Image 17

Building	Description	Photographs
B5	Interior of shipping container containing abandoned office. Roof and walls appeared to be well sealed with no evidence of bats.	 Image 18
B5	A broken vent was noted on the eastern side of the container (TN9), on closer inspection, this did not lead further and provided negligible roosting potential	 Image 19

4 CONCLUSIONS

4.1 Review

- 4.1.1 **Building B1** had several minor potential features identified which offer low to negligible roost potential. The gap between the building frame and sliding door on the western side and the gap in the L shaped lean to, potentially allows access into the building for birds and bats, however the type of structure, materials and internal layout provides low-negligible roosting potential. **No evidence of bat presence was identified** during the survey.
- 4.1.2 **Building B2** had one minor potential feature identified that had negligible roosting potential. **No evidence of bat presence** was recorded.
- 4.1.3 **Building B3** did not have any identified potential roost features, it is therefore classified as having **no roost potential**.
- 4.1.4 **Building B4** had several minor potential features identified which offer low to negligible roost potential. The broken window on the western side of the building provides access in for birds. There are a few minor access points that provide potential access into the roof space on the northwestern corner and western side of building, however given this is a flat roof building and there is limited to no roof space, this is considered of low-negligible value for bats. **No evidence of bat presence was identified** during the survey.
- 4.1.5 **Building B5** had one minor potential feature identified that had negligible roosting potential. **No evidence of bat presence** was recorded.

4.2 Interpretation

- 4.2.1 The surveyed buildings had no roof voids reducing the available roosting opportunities. The exteriors of all buildings were carefully searched, with features reviewed using a torch where required to do so. The interiors of all buildings were also assessed for roosting suitability.
- 4.2.2 The tree lines and scrub vegetation to the south and south-east does provide foraging and commuting opportunities for bats, as well as the docks to the west of the Site. Elsewhere the built-up nature of the surrounding docks reduces overall bat suitability, particularly when considering both street and domestic lighting and how this will impact bat behaviour i.e. all bat species are impacted negatively by lighting (refer to Guidance Note GN08/23 Bats and Artificial Lighting at Night, by the ILP)(ILP,2023), although common and soprano pipistrelles and noctules may be moderately less so.
- 4.2.3 When considering all factors relating to habitat quality and connectivity, the local habitat is considered to have low potential for bats.

4.3 Recommendations

Further Survey

- 4.3.1 No further survey is recommended.
- 4.3.2 **Rationale:** Although the Survey Guidelines recommend a single emergence survey for structures with low roost potential there is scope for flexibility in this approach. With the potential roost features identified across the buildings to be removed/demolished being

negligible to low in suitability and, at best, offering ad-hoc use for individual bats (with low probability based on local connectivity and habitat suitability), the surveyor effort required for a single emergence survey to ensure full coverage is considered disproportionate to the likelihood of a roosting bat being present (refer to p.53 of the Bat Survey Guidelines). A precautionary approach to works is considered to be proportionate and appropriate alternative.

Precautionary Method of Works

- 4.3.3 Prior to the commencement of any internal or external demolition works a toolbox talk should be given to all works contractors by a bat licensed ecologist. This should summarise the ecology and legal protection of bats, biosecurity and what to do in the unlikely event a bat is discovered during works. A printed copy of the toolbox talk should be made available on site to be read and signed by all new contractors that may join works at a later date.
- 4.3.4 Following the toolbox talk and prior to commencement of works, the bat licenced ecologist will carry out a further inspection of the buildings on Site to confirm the continuing absence of bats on Site.
- 4.3.5 In the unlikely event a bat is found, then works will need to halt until advice is sought from the onsite ecologist and/or NRW. In such circumstances it may be likely that a development licence will be required from NRW for works to continue.

5 REFERENCES

CIEEM (2017) Guidelines for Preliminary Ecological Appraisal, 2nd Edition. Chartered Institute of Ecology & Environmental Management, Winchester

Collins, J (ed.) (2023) Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edn). The Bat Conservation Trust, London

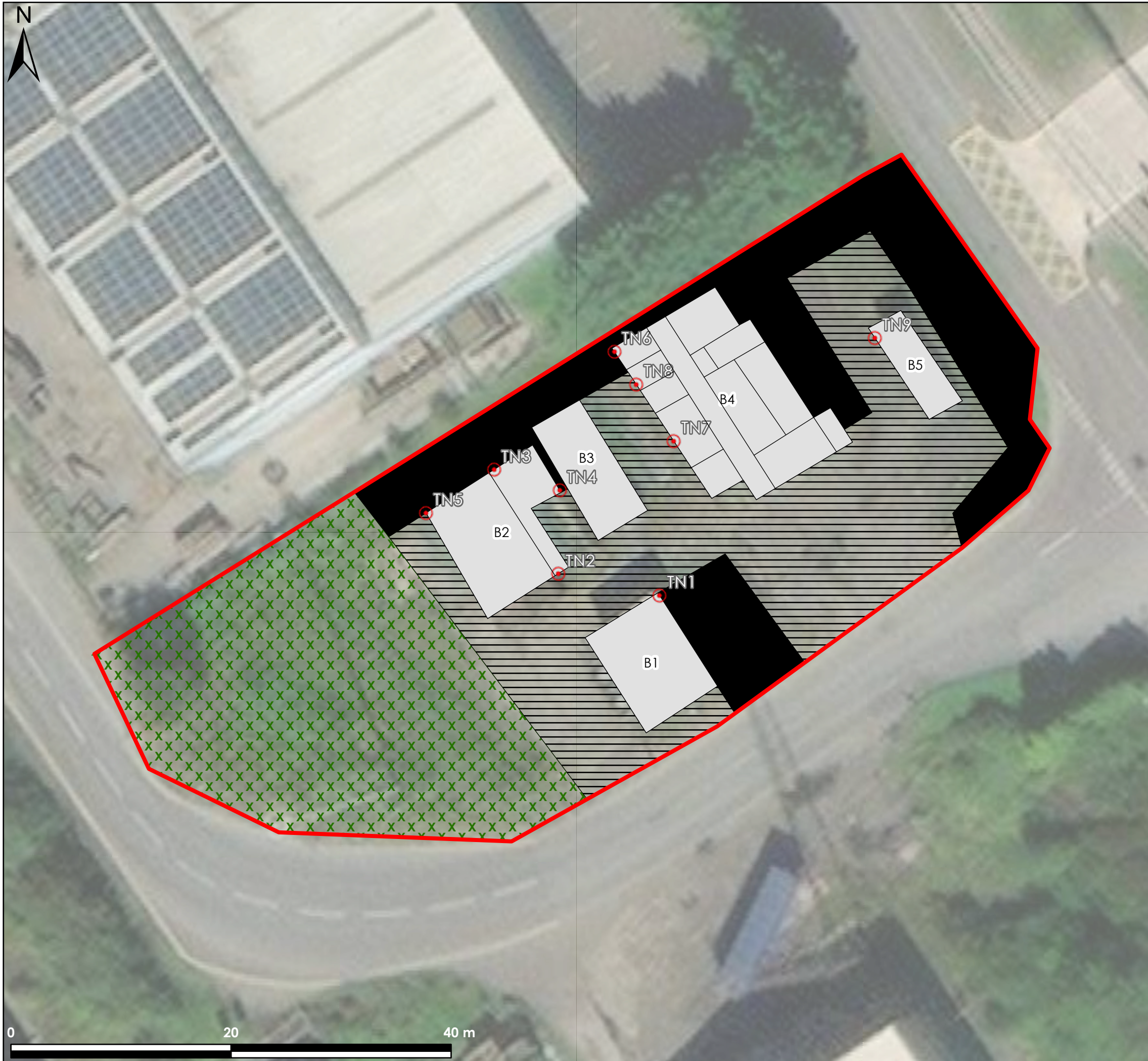
Institute of Lighting Professionals (2023) Guidance Note GN08/23 Bats and Artificial Lighting at Night, ILP, Rugby

TACP (2025) Preliminary Ecological Appraisal: Alexandra Docks Newport. Cardiff.

APPENDICES

Appendix A

Site Plan



Legend

Provisional Site Outline

⊙ PRA Target Notes

Phase 1 Habitats

Miscellaneous

- J.3.6 (Buildings)
- J.4 (Bare ground)
- J.5 (Other habitat)

Woodland and scrub

- A.2.2 (Scattered scrub)

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V.	S.	Date	Description	B.	C.	A.



4th Floor, James William House,
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Burroughs

Port of Newport Substation

Preliminary Roost Assessment

Drawing no.:	61271_DWG_PRA
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Appendix B

Bat Ecology

Bat Ecology

Bats (*Chiroptera*) are a group of mammals that have evolved to be capable of true flight. They are a diverse group and fill a range of ecological niches across the globe.

Within the UK there are 17 species of bats known to be present as breeding residents, with several other species occurring as occasional migrants/vagrants. All bats in the UK are insectivorous and typically hibernate through the winter months when food availability is reduced.

A bat's place of rest is called a roost and their choice of roost is dependent on the time of year, with bats moving between different sites depending on whether it is used for breeding, mating or hibernating. Traditionally bats have utilised natural features such as hollow trees, spaces under peeling bark, and caves for roosting but, as human beings have encroached on their natural environment, most of the UK species have come to utilise human-built structures to some degree. These include (but are not limited to) roof voids of dwellings, farm buildings, cellars, old mines/quarries, bridges and other features.

Some bats roost singly (e.g. some non-breeding males of some species) while others roost in groups, particularly females during the breeding season (forming maternity colonies). These groups can be as small as half a dozen individuals or can number in the hundreds. Bats are typically extremely loyal to their roosts returning time and time again to the same summer or winter site for years, sometimes decades.

During the 20th Century all species of bat suffered population declines through a combination of habitat loss, changes in agricultural practices, use of pesticides, destruction of roost areas and other associated issues. Due to this, bats and their roosts first became legally protected from harm in 1981. The protection extends to the roost even when bats are absent. Further protection has come into being since that time.