

PRELIMINARY ROOST ASSESSMENT

FOR

CALUM MCGOWEN

AT

35 LIVERPOOL ROAD, MANCHESTER, M3 4NQ

EC18099r1

18/05/2021

Prepared For

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QUALITY ASSURANCE

Issue / Revision	Issue	Revision 1	Revision 2
Remarks		Alterations to text	
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Project Number	Q18099	EC18099r1	

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NON-TECHNICAL EXECUTIVE SUMMARY

Calum McGowan is proposing to develop 35 Liverpool Road in Manchester (hereafter referred to as 'the site'). The proposals include a refurbishment of a derelict building, with exact details to be confirmed.

Ensafe Consultants have been appointed to complete a Preliminary Roost Assessment (PRA) of the site. The objectives of the assessment are to determine the suitability for roosting bats that may occur on site and the requirement for further surveys.

Building B1 was assessed as having low bat roosting potential.

1.0 INTRODUCTION

1.1 Background

Calum McGowan is proposing to develop land at 35 Liverpool Road in Manchester (hereafter referred to as 'the site'). The proposals include a refurbishment of a derelict building, with exact details to be confirmed. Following on-site discussions with the client, it is anticipated that some internal and external structures such as walls will require removal due to damp conditions or to accommodate the proposed development. Ensafe Consultants have been appointed to undertake a Preliminary Roost Assessment (PRA) of the site.

1.2 Site Context

The site is located at National Grid Reference SJ 83327 97728 and comprises a total area of approximately 30m² (see Figure 1).

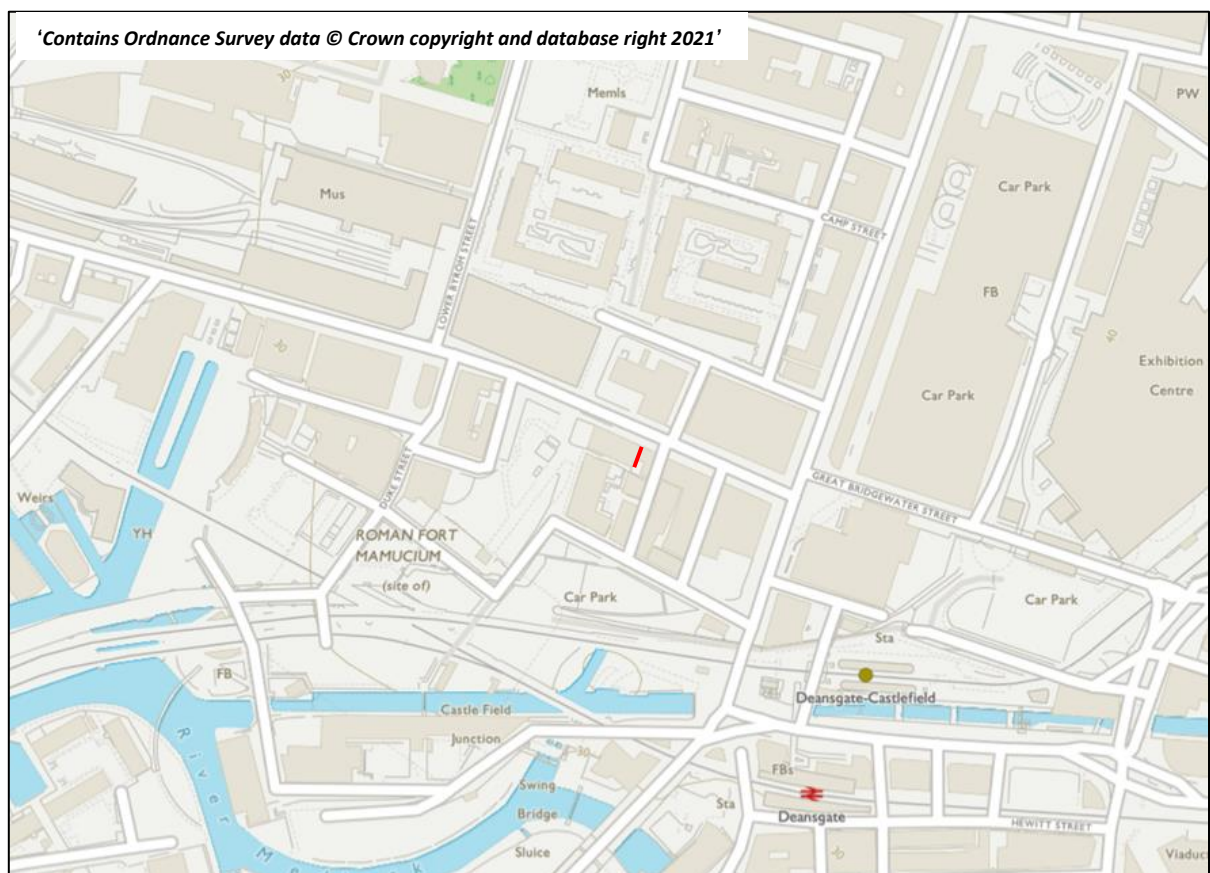


Figure 1: Site Extent

The site is located in an urban area of Castlefield, within the southern extent of Manchester City Centre. Deansgate-Castlefield tram stop is located approximately 200m south-east and the tram line lies approximately 115m south, with Deansgate railway line located approximately 160m south of the site. Bridgewater Canal is located approximately 130m to the south, with Castlefield Urban Heritage Park located approximately 25m to the west of the site. A dual carriageway, Trinity Way (A6042), lies approximately 540m south of the site. Commercial buildings and offices are located on all aspects.

1.3 Purpose of this Report

This report has been produced to document the methods, results, and conclusions of a PRA. The objectives of the assessment include a field survey of the features of interest and assess its suitability for roosting bats, following guidance set out in Collins (2016). The assessment will determine whether further nocturnal bat surveys are required to confirm likely absence or presence of roosting bats. Relevant UK legislation of the protection of all UK bats are detailed in Appendix 1.

2.0 Methods

2.1 Desk Study

Sources of information used in the desk study are presented in Table 1.

Table 1: Desk Study Sources of Information

Source	Data Consulted	Information Sought
Online aerial imagery	15/03/2021	Review of satellite imagery.
MAGIC website (www.magic.gov.uk)	15/03/2021	Locations of granted European Protected Species Licences (EPSLs) within 5km of the site.

2.2 Preliminary Roost Assessment

A PRA was carried out on site on 16th March 2021. It was completed by Celise Taylor, BSc (Hons), Ecologist and Mark Blacker Ecologist, MSc, ACIEEM, Ecologist. The weather conditions were 9°C, overcast cloud (7/8 Oktas), a light breeze (2 Beaufort) with light rain shortly before the survey.

A PRA was carried out on the site building using a high-powered torch, ladders and close-focussing binoculars within the internal and external aspects of the building.

The PRA methodology is based on information contained within the Bat Conservation Trust (BCT) guidelines, 3rd edition (Collins, 2016). The categorisation within this report is based on that set out in Table 2, which is used as a basis for determining the requirement for further surveys.

Table 2: Suitability of Buildings for Roosting Bats (adapted from Collins, 2016)

Category of Suitability	Typical Characteristics	Further Survey Requirements
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 and surrounding habitat.	A minimum of three separate survey visits. At least one dusk emergence and a separate dawn re-entry survey. Surveys can be undertaken between May and September, with at least two surveys between May and August.
Moderate	A structure with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but are unlikely to support a roost of high conservation status.	A minimum of two separate survey visits. One dusk emergence and a separate dawn re-entry survey. Surveys can be undertaken between May and September with at least one survey between May and August.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate condition and/or suitable surrounding habitat to be used on a regular basis by larger numbers of bats.	A minimum of one emergence/re-entry survey between May and August.

Category of Suitability	Typical Characteristics	Further Survey Requirements
Negligible	Negligible habitat features on site likely to be used by roosting bats.	No further work required.

2.3 Constraints to the Survey

Due to health and safety considerations as a result of unstable floorboards, the loft void was not fully accessible. However, assessments were made from a ladder which allowed the majority of the loft to be seen apart from areas behind a chimney.

The conclusions and recommendations detailed in this report are based upon the site redline boundary and the development proposals as outlined by the client at the time of writing. Should there be any changes to the site redline boundary or development proposals at a later stage, this assessment should be reviewed to determine whether any amendments or additional survey work is required.

2.4 Lifespan for Report

In accordance with CIEEM's Advice Note on the Lifespan of Ecological Reports and Surveys (CIEEM, 2019), the details of this report will remain valid for a period of 18 months from the date of the survey (i.e. until 16th September 2022). After this date, this assessment should be reviewed to determine whether any update surveys are required.

3.0 Results

3.1 Desk Study

3.1.1 Review of Satellite Imagery

The site is located within an urban area of Castlefield, within the southern extent of Manchester City Centre, with commercial and residential properties surrounding the site. Bridgewater Canal and its associated riparian habitats lies approximately 130m to the south, with Castlefield Urban Heritage Park located approximately 25m to the west of the site. Such habitats are anticipated to provide suitable habitats for commuting and foraging bats, such as Daubenton's bat (*Myotis daubentonii*) which are associated with aquatic habitats.

3.1.2 Granted EPSLs within 5km

A MAGIC search identified 35 granted EPSLs within 5km of the site, with full details listed in Appendix 3. In summary:

- 28 EPSL bat licences were attributed to common pipistrelle (*Pipistrellus pipistrellus*), with the closest located approximately 315m north of the site between 2012-2013;
 - Three EPSL bat licences were attributed to brown long eared bat (*Plecotus auritus*), with the closest located approximately 315m north of the site between 2012-2015;
 - Three EPSL bat licences were attributed to common pipistrelle and soprano pipistrelle (*Pipistrellus pygmaeus*), with the closest located approximately 1.2km north of the site between 2014-2017; and
- One EPSL bat licence was attributed to common pipistrelle and Nathusius' pipistrelle (*Pipistrellus nathusii*) and was located approximately 2.3km south-west of the site between 2017-2022.

3.2 Site Context

The site comprises a single dwelling within a row of terraced houses. There are no external areas associated with the site, however there is one occurrence of a butterfly bush (*Buddleja davidii*) located on the walls and roof of the southern garden extension. The site and surrounding areas are well lit and are anticipated to be impacted by high levels of disturbance. It is anticipated that these areas provide limited value for commuting and foraging bats for light sensitive bat species. Although it should be noted that some species, such as common pipistrelle, are known to opportunistically benefit from artificial lighting (BCT and Institute of Lighting Professionals, 2018).

The site is surrounded on either side by highly disturbed urban environment. More suitable habitats associated with commuting and foraging bats are situated offsite and will remain unaffected by the development including the parkland and riparian habitats of Castlefield Urban Heritage Park and the Bridgewater Canal, located approximately 25m west and 130m south of the site.

The site provides limited value for foraging bats, with suitable habitats located in the wider area. Species associated with urban areas such as pipistrelle bats are anticipated to be in the area.

3.3 Preliminary Roost Assessment

3.3.1 External

The building was a middle-terraced, multi-storey building of a painted red-brick construction. The brickwork of the building was mainly intact with no obvious crevices present. All windows comprised of single pane glass with a wooden frame, with gaps present, potentially providing internal access. The roof consisted of slate with occasional missing tiles (see Photograph 1).

On the southern aspect of the building, gaps and crevices were noted underneath the barge boards and behind boarded up brickwork, which could lead to a cavity and potentially provide roosting potential for bats (see Photograph 1). No missing brick work or mortar was noted, with brickwork noted with a damp but in-tact condition. In addition, missing roof tiles were noted and exposed missing mortar (see Photograph 3).



Photograph 1: Northern aspect of B1



Photograph 2: Southern aspect of B1 with exposed gaps



Photograph 3: Southern aspect overview

3.3.2 Internal

The internal aspects of the building comprised multiple floors, a basement and loft area with evidence of previous retail use. No droppings or feeding remains identified throughout the internal and external aspects of the building.

All rooms were largely open space, with some partition walls noted on the lower floors. Plasterboard and exposed brickwork were noted throughout, with multiple observations of damp. Gaps and crevices were noted in the top floor window pane and between the storeys of the building, with an open access hatch to the loft (see Photographs 4-7). Disused fireplaces were noted on the three floors, which extended approximately 1.5m high each. Further photographs are located in Appendix 2, displaying the damp nature and further crevices noted within the building.

The loft was isolated from neighbouring buildings, though some areas were not viewable due to the presence of a chimney which may provide connectivity and PRFs behind. Entry to the loft was observed through gaps between the roof slates and structural wooden beams below, as well as the open access

hatch to lower levels of the building. Evidence of potential roosting areas may exist within the joists of wooden beams for species such as brown-long eared bat. No roofing felt/membrane was observed internally, with brickwork intact in viewable areas.

The basement was observed with the highest concentration of damp, with mould also noted throughout. Exposed brickwork with missing mortar and bricks was noted, with degrading plasterboard and wooden joists for support.



Photograph 4: Ground Level



Photograph 5: Southern aspect of B1 with exposed gaps leading to the floor above



Photograph 6: Exposed plasterboard crevice adjacent to loft access



Photograph 7: Top floor gap in window pane

3.3.3 Assessment

Suitable PRFs were identified both internally and externally and had the potential to support low numbers of crevice-roosting bats, only. The PRFs identified are anticipated to only support single/low numbers of bats and is not deemed suitable of size to support a maternity roost.

The loft and basement does not have the potential to support a hibernation roost due to the buildings “drafty” nature, and inconsistent temperatures.

As such, the building was assessed as having **low** to **negligible** bat roosting potential.

4.0 Recommendations

4.1 Proposed Development

The proposals include a refurbishment of a derelict building, with exact details to be confirmed. Following on-site discussions with the client, it is anticipated that some internal and external structures such as walls will require removal due to damp conditions or to accommodate the proposed development.

4.2 Further Species Considerations

Nesting birds such as feral pigeon (*Columba livia domestica*) may utilise the building for breeding purposes. Therefore, any refurbishments should be undertaken outside of the breeding bird season (March to September, inclusive). If this is not possible, a suitably experienced ecologist should check the building internally and externally for breeding bird activity no more than 48 hours before works commence. If nesting activity is found, nests must be left in situ until the young have fledged.

It should be noted that not undertaking refurbishment works outside of the bird nesting season and subsequently relying on a nesting bird check during the bird nesting season frequently leads to delays in schedule. It is therefore strongly recommended to undertake refurbishment works outside of bird nesting season to avoid such delays.

4.3 Further Survey

As stated in Section 3.3.2, B1 was assessed as having low to negligible bat roosting potential. No further bat surveys are recommended.

4.4 Lighting Mitigation

Proposed lighting should follow the guidance outlined in the Institute for Lighting Engineers document "Guidance for the Reduction of Obtrusive Lighting" (2005) and BCT's "Bats and Artificial Lighting in the UK" (2018).

The following recommendations are to be considered within the scheme during its condition, to minimise impacts of lighting. The recommendations are as follows:

- Keep site lighting to minimum levels.
- Luminaries should lack UV elements and preferably LED lighting with a warm white light should be used over cool white light (ideally <2700Kelvin).
- Lighting should feature peak wavelengths greater than 550nm.
- Internal lighting should be positioned away from windows to minimise light spill.
- Light placement should be downward facing to prevent excess horizontal or vertical light spill.
- The use of integrated fittings such as cowls, shields, louvres, and hoods, that effectively contain light spill from unintended areas.
- Use of timed security lights should be set on motion-sensors and using short, 1-minute timers, to minimise light use.

5.0 CONCLUSION

The PRA has met the objectives of the report, by demonstrating the following:

- Identified and assessed B1 with having 'low' bat roosting potential within Section 3.3.
- Lighting recommendations and nesting bird considerations have been included.

6.0 References

Bat Conservation Trust (2016). Bat Surveys for Professional Ecologists: Good Practice Guidelines (Third Edition). The Bat Conservation Trust, London.

Bat Conservation Trust / Institution of Lighting Professionals (2018). Guidance Note 08/18: Bats and artificial lighting in the UK. Bats and the Built Environment series.

CIEEM (2019). Advice Note on the Lifespan of Ecological Reports and Surveys. CIEEM.

Institute of Lighting Engineers (2005). Guidance Notes for the Reduction of Obtrusive Light.

APPENDIX 1 – RELEVANT LEGISLATION

BATS

All species of bat are listed on Schedule 5 of *the Wildlife and Countryside Act 1981* (as amended) and Schedule 2 of *The Conservation of Habitats and Species Regulations 2017*, making them *European Protected Species*. They are afforded full protection under Section 9(4) of the Act and Regulation 41 of the Regulations. These make it an offence to:

- deliberately capture, injure or kill any such animal;
- deliberately disturb any such animal, including in particular any disturbance which is likely to:
 - impair its ability to survive, breed, or rear or nurture their young;
 - impair its ability to hibernate or migrate.
 - affect significantly the local distribution or abundance of that species; or
- damage or destroy a breeding site or resting place of any such animal; or
- intentionally or recklessly disturb any of these animals while it is occupying a structure or place that it uses for shelter or protection; or
- intentionally or recklessly obstruct access to any place that any of these animals uses for shelter or protection

APPENDIX 2 – FURTHER PHOTOGRAPHS



Photograph 8: Open access nature on the top floor



Photograph 9: Observed damp in basement



Photograph 10: Basement fireplace



Photograph 11: Connectivity through crevices to other floors



Photograph 12: Exposed brickwork and plasterboard with damp observed



Photograph 13: Loft (1)



Photograph 14: Partition wall in loft



Photograph 15: Loft (2)



Photograph 16: Basement (1)



Photograph 17: Basement (2)

APPENDIX 3 – GRANTED EPSLS LICENSE DETAILS WITHIN 5KM

A MAGIC search identified 35 granted EPSLs within 5km of the site. The licence details are as follows:

- The closest is located approximately 315m north of the site – Licence reference: EPSM2012-5061 (2012-2015). This allowed the impact and destruction of a breeding site and the destruction of a resting place for brown long-eared bat.
- Within the same location, a second licence was also returned – licence reference: EPSM2012-4767 (2012-2013). This allowed the destruction of a resting place for common pipistrelle.
- EPSM2013-5575 (2013-2016) – it is not specified what this licence allowed for common pipistrelle but is located approximately 485m south-east of the site.
- 2015-16009-EPS-MIT (2016-2021) – this allowed the destruction of a resting place for common pipistrelle and is located approximately 655m west of the site.
- 2014-3569-EPS-MIT (2014) – this allowed the destruction of a resting place for common pipistrelle and is located approximately 1km north-west of the site.
- 2017-31569-EPS-MIT (2017-2019) – this allowed destruction of a resting place for common pipistrelle and is located approximately 1.1km north of the site.
- 2014-4219-EPS-MIT (2014-2020) – this allowed destruction of a resting place for common pipistrelle and is located approximately 1.1km north of the site.
- 2014-490-EPS-MIT (2014-2017) – this allowed destruction of a resting place for common pipistrelle and soprano pipistrelle (*Pipistrellus pygmaeus*) and is located approximately 1.2km north of the site.
- 2014-6380-EPS-MIT (2014-2020) – this allowed the destruction of a resting place for common pipistrelle and is located approximately 1.4km north-east of the site.
- 2014-6380-EPS-MIT-1 (2015-2020) – this allowed the destruction of a resting place for common pipistrelle and is located approximately 1.4km north-east of the site.
- 2014-6380-EPS-MIT-2 (2017-2023) – this allows the destruction of a resting place for common pipistrelle and is located approximately 1.4km north-east of the site.
- EPSM2013-5644 (2013-2015) – this allowed the destruction of a resting place for common pipistrelle and is located approximately 1.8km north-east of the site.
- 2016-24504-EPS-MIT (2016-2018) - this allowed the destruction of a resting place for common pipistrelle and is located approximately 1.8km north-east of the site.
- 2016-24504-EPS-MIT-1 (2016) - this allowed the destruction of a resting place for common pipistrelle and is located approximately 1.8km north-east of the site.
- 2014-3531-EPS-MIT (2014-2019) - this allowed the destruction of a resting place for common pipistrelle and is located approximately 1.9km north-east of the site.
- 2014-3531-EPS-MIT-1 (2015-2020) - this allowed the destruction of a resting place for common pipistrelle and is located approximately 1.9km north-east of the site.
- 2014-3531-EPS-MIT-2 (2016) - this allowed the destruction of a resting place for common pipistrelle and is located approximately 1.9km north-east of the site.
- 2014-4400-EPS-MIT (2014-2015) - this allowed the damage of a resting place for common pipistrelle and is located approximately 1.9km south-east of the site.
- 2014-4400-EPS-MIT-1 (2015) - this allowed the damage of a resting place for common pipistrelle and is located approximately 1.9km south-east of the site.
- 2015-15766-EPS-MIT (2015-2016) - this allowed the destruction of a resting place for common pipistrelle and is located approximately 2.1km south-east of the site.
- 2015-15766-EPS-MIT-1 (2016) - this allowed the destruction of a resting place for common pipistrelle and is located approximately 2.1km south-east of the site.
- 2017-28375-EPS-MIT (2017-2022) - this allows the destruction of a resting place for common pipistrelle and Nathusius' pipistrelle and is located approximately 2.3km south-west of the site.

- 2014-3598-EPS-MIT (2014) - this allowed the destruction of a resting place for common pipistrelle and is located approximately 2.4km south-west of the site.
- 2015-7649-EPS-MIT (2015) - this allowed the destruction of a resting place for common pipistrelle and is located approximately 2.4km south-west of the site.
- 2016-21779-EPS-MIT (2016-2021) - this allows the destruction of a resting place for common pipistrelle and is located approximately 2.9km south-east of the site.
- 2015-17752-EPS-MIT (2016) - this allowed the destruction of a resting place for common pipistrelle and is located approximately 3.3km south-east of the site.
- EPSM2010-1888 (2010-2012) - this allowed the destruction of a resting place for common pipistrelle and soprano pipistrelle and is located approximately 3.2km north-east of the site.
- EPSM2013-6051 (2013-2014) - this allowed the destruction of a resting place for common pipistrelle and soprano pipistrelle and is located approximately 3.2km north-west of the site.
- 2015-17752-EPS-MIT (2016) - this allowed the destruction of a resting place for common pipistrelle and is located approximately 3.3km south-east of the site.
- 2016-22910-EPS-MIT (2016-2021) - this allows the damage and destruction of a resting place for common pipistrelle and is located approximately 4.3km south-east of the site.
- 2016-22910-EPS-MIT-1 (2016-2021) - this allows the damage and destruction of a resting place for common pipistrelle and is located approximately 4.3km south-east of the site.
- 2015-7259-EPS-MIT (2015-2020) - this allowed the destruction of a resting place for common pipistrelle and is located approximately 4.3km north-west of the site.
- EPSM2013-5715 (2013) - this allowed the destruction of a resting place for common pipistrelle and is located approximately 4.4km north-west of the site.
- 2015-15443-EPS-MIT (2015-2016) - this allowed the destruction of a resting place for brown long-eared bat and is located approximately 4.4km south-west of the site.
- 2015-15443-EPS-MIT-1 (2015-2020) - this allowed the destruction of a resting place for brown long-eared bat and is located approximately 4.4km south-west of the site.