

PRELIMINARY ROOST ASSESSMENT

June 2022

17-47 Eastford Square,
Manchester,
M40 7QT

U R B A N
G R E E N



QUALITY MANAGEMENT

Project No.:	UG1595			
Project:	17-47 Eastford Square			
Location:	17-47 Eastford Square, Manchester M40 7QT			
Title:	Preliminary Roost Assessment			
Document Type:	PRA	Issue No.:	01	
Date:	07/06/2022			
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Revision Status:				
Rev:	Date:	Issue/Purpose/Comment:	Prepared:	Checked:

NON-TECHNICAL EXECUTIVE SUMMARY

Manchester City Council are proposing to develop land at 17-47 Eastford Square in Manchester (hereafter referred to as 'the site'). The proposals include the complete demolition of the building currently on site.

Urban Green have been appointed to complete a Preliminary Roost Assessment (PRA) of the building at 17-47 Eastford Square in Manchester. The assessment found that there are multiple potential roosting features (PRFs) present on all aspects of the building which could be utilised by a number of crevice dwelling bat species. The building was also noted as being located adjacent to optimal foraging and commuting habitats for bats, in the form of an urban park with linear aquatic features present. These habitats are scarce in the wider area surrounding the site and as such it is likely that this park is a valuable foraging and commuting resource for local bats populations.

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1 Introduction

1.1 Background to the Scheme

Manchester City Council are proposing to develop land at 17-47 Eastford Square in Manchester (hereafter referred to as 'the site'). The proposals include the complete demolition of the building currently on site.

Urban Green have been appointed to undertake a Preliminary Roost Assessment (PRA) of the site.

The author of the report is Jake Healy, Assistant Ecologist at Urban Green. Jake has experience providing ecological consulting services for a range of development schemes across the UK, including residential, commercial mineral extraction and road infrastructure schemes.

1.2 Site Context

The site is located at National Grid Reference SJ 85105 99738 and comprises a total area of approximately 0.1ha (see Figure 1).



Figure 1 – Site Extent

The site is located in a predominantly urban area of Manchester, approximately 2km from the City Centre. The site is bordered by residential and commercial properties to the south and east of the site and an urban park is present immediately adjacent the north and west of the site. The River Irk is present approximately 190m west of the site and Moss Brook approximately 210m north. A tram line passes by the site with the closest point in an underground tunnel approximately 10m east of the building. Rochdale Road (the A664), a main road, is present approximately 75m east of the site.

1.3 Purpose of this Report

This report has been produced to document the methods, results, and conclusions of a Preliminary Roost Assessment. The objectives of the assessment include carrying out a field survey of the features of interest and assessing 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 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	Date Consulted	Information Sought
Online aerial imagery	30/05/2022	Review of satellite imagery.
MAGIC website (www.magic.gov.uk)	30/05/2022	Locations of granted EPSL within 5km of the site.

2.2 Preliminary Roost Assessment

A PRA was carried out on site on the 30th June 2022. The survey was conducted by Mark Blacker, Senior Ecologist, ACIEEM and Jake Healy, Assistant Ecologist, Qualifying CIEEM. Mark holds a level 1 class licence for bats (2022-10353-CL17-BAT) and has over 5 years' experience conducting roost assessments. Jake has one years' experience conducting roost assessments.

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.

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

2.3 Constraints to the Survey

Internal access to the building was not possible during the survey as the building was locked and in poor condition. This is not anticipated to impact the assessment as the building was inspected thoroughly externally and the condition of the building internally was considered throughout the report.

Where a lack of records is found during the desk search for a defined geographical area, it does not necessarily mean that there is a lack of ecological interest; the area may be simply under-recorded.

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 30th November 2023). After this date, this assessment should be reviewed to determine whether any update surveys are required.

3 Results

3.1 Site Context

The site lies in a predominantly urban area of Manchester, approximately 2km north of the City Centre. An urban park is present immediately west of the site which provides optimal foraging habitat for bats with areas of scrub, grassland and trees present on site. The River Irk is present approximately 190m to the west of the site and Moss Brook approximately 210m to the north. These linear aquatic habitats provide suitable foraging and commuting habitat for local bat populations. Much of the wider area to the east, south, and west comprises densely built-up areas of residential, industrial, and commercial units, while the north of the site also has built up areas, although these are relatively sparse, with more green space present. The park to the west of the site is likely of high value to bats in the local area as the habitats found here are not widespread and common locally.

3.2 Field Survey

3.2.1 Overview

The building that formed the site was an abandoned, disused three storey building, with a pitched, tiled roof. The ground floor comprised a total of 8 commercial dwellings, while the 2nd and 3rd floors were made up of 8 residential flats. The building was comprised of brick with rendered panels and a fascia board that ran around the entirety of the building.

3.2.2 Northern aspect

The northern aspect of the building was a gable end, with exposed brickwork. An air extractor vent and multiple tv antenna were present attached to the roof and the wall. A stairwell was present on this aspect which allowed access to the second floor and the residential flats. The stairwell showed signs of arson and vandalism on the exterior and interior walls, however, did not offer any PRF's.



Photograph 1 – Northern Aspect



Photograph 2 – Associated stairwell (exterior)



Photograph 3 – Associated stairwell (interior)

The majority of the brickwork on this aspect was in good condition and well sealed, offering no opportunities to support a possible bat roost. However, an air vent in the brickwork had its cap missing and the opening was exposed. This cavity extended into the building and an inspection with a torch revealed that the cavity extended upwards towards the roof.



Photograph 4 – Air vent



Photograph 5 – Air vent

The fascia along the northern gable end appeared to be in good condition and was tight to the brickwork, offering no cavities or potential access points that could be utilised as a bat roost.

3.2.3 Eastern Aspect

The eastern aspect of the building formed the shop fronts on the ground floor and the private residential balconies on the first floor. The second floor appeared to be residential bedrooms.

The roof was observed to be in good condition, with no slipped roof tiles or defects present. The chimney stack at the northern extent was coated in lead flashing that had lifted, offering a suitable PRF for crevice dwelling species.



Photograph 6 – Lifted lead flashing around chimney stack

The fascia on this aspect had also begun to lift in places, providing a suitable PRF between the fascia boarding and the building.



Photograph 7 – Lifting fascia board

The brick work on this aspect was in good condition and was well sealed. Brick work pillars were present dividing each compartment. These pillars had a void present between them that was once filled with insulation and covered by a wood panel. These panels had become damaged in places or had been removed all together and formed access into the void between the pillars. The insulation appeared to have been lost in some places and the void appeared to extend the further into the building and up to the upper floors. Access to each void was available via gaps and defects within the wooden panels that covered the front of each void. An inspection with a torch revealed that the insulation did not fully fill each void and also contained wooden support structures that would provide suitable features to support crevice dwelling species.



Photograph 8 – Brickwork pillar covered by wooden panel



Photograph 9 – Brickwork pillar covered by wooden panel

The shops on the ground floor were secured by metal shutters which were well sealed and didn't provide any PRFs.

3.2.4 Southern aspect

The southern aspect of the building formed another gable end with an associated stairwell. The stairwell is inaccessible and there were no features present that could provide PRF's



Photograph 10 – Southern aspect

The fascia boarding that meets with the corner of the eastern aspect fascia, and the corner of the western aspect fascia were damaged and provided access into a cavity between the fascia and the wall, again providing suitable roosting opportunities for crevice dwelling species.



Photograph 11 – Damaged fascia (south-eastern corner)



Photograph 12 – Damaged fascia (south-western corner)

The fascia on the roof ridge had begun to lift also forming another PRF.



Photograph 13 – Lifted fascia

3.2.5 Western Aspect

The western aspect of the building comprised the back end of the shops present on the ground floor and the front doors of the residential properties on the first floor. A balcony was present on the first floor which formed access to the properties. The majority of this aspect was exposed brickwork with rendered panels separating the upper and lower floors of the residential apartments.



Photograph 14 – Eastern aspect

This aspect was in poor condition throughout, with multiple features forming PRFs or access points to possible PRFs. Some of the windows present and windows around the front doors to the apartments were smashed and would allow access internally for bats. Many of the windows were also boarded over which form suitable PRFs for crevice dwelling species. A blue tit (*Cyanistes caeruleus*) was also observed nesting behind boarded window at the southern extent.



Photograph 15 – Broken window around door



Photograph 16 – Boarded up windows

The entrance ways to each individual property were also in poor condition with major defects in metal sheeting above the doorway that provided access into a cavity that appeared to run the length of each apartment. It's likely that this cavity is highly exposed and will not retain its temperature limiting the potential of a PRF but more suitable PRFs maybe present further within the cavity.



Photograph 17 – Metal sheeting peeling

Wooden boards were present around the window cases of the residential apartments, these were damaged in places that provided access into a cavity that could provide a potential PRF. The brick pillars described in Section 3.2.3 were also present on this aspect that were also damaged in places providing suitable PRFs.



Photograph 18 – Damaged window casing



Photograph 19 – Damaged wooden board over brick pillar

3.3 Summary

Overall, the building has multiple suitable PRFs present on every aspect. The building is also located adjacent to suitable habitat that is scarce in the local area. As such, the building has been assessed as providing **HIGH** bat roosting potential.

4 Recommendations

4.1 Proposed Development

Manchester City Council are proposing to develop land at 17-47 Eastford Square in Manchester. The proposals include the complete demolition of the building currently on site.

4.2 Further Survey

As stated in Section 3.3, Building 1 was assessed as providing high bat roosting potential. Further bat surveys are recommended to confirm presence or likely absence of roosting bats within Building 1.

As the building was assessed as providing high potential the building requires a minimum of three nocturnal emergence bat surveys.

The surveys would involve situating six suitably qualified surveyors around the building to monitor for bats emerging from potential roost locations (dusk emergence survey) or entering potential roost locations (dawn re-entry survey) for a specified amount of time. The surveys should be completed between May – September, with at least two surveys between May and August.

If bats are identified roosting within the building, a minimum of three surveys will be required to inform a Natural England EPSL. The surveys will identify the type of bat roost present which will in turn inform what mitigation will be required as part of the EPSL. Roost provision, lighting and timescales will be considered as part of the licence.

An EPSL can only be submitted once full planning permission has been granted and all wildlife conditions have been discharged.

4.3 Lighting Mitigation

This report has highlighted that the habitats present surrounding the site are likely of high commuting and foraging value for local bat populations and as such should be considered throughout the construction process.

Artificial lighting can negatively impact all bat species within the UK and therefore lighting mitigation should be implemented throughout the construction phase.

Lighting mitigation 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).

Construction lighting should not be directed towards retained and surrounding habitats including the trees and grassland associated with the urban park to the north and west of the site. The construction lighting may impact bats which are sensitive to light. Directional lighting will be achieved by angle and orientation of beam, use of a cowl, louvre or other light shield, or a combination of these.

An External Lighting Scheme had not been produced on the writing of this report. As such, 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, where appropriate.
- 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, where appropriate.
- The use of hard landscaping features to block light and create dark corridors.
- Avoid illuminating any suitable retained bat habitats, particularly the trees and grassland associated with the urban park to the north and west of the site, that are potential commuting and foraging habitat for bats.
- Use of timed security lights should be set on motion-sensors and using short, 1-minute timers, to minimise light use, where appropriate.
- Column heights of lighting can be considered to minimise light spill.

4.4 Other considerations

Building 1 was identified as being utilised by nesting blue tit, whilst other species may use the building for nesting purposes. It is recommended that the building is demolished outside of the nesting bird season (March – September, inclusive). If this is not possible, it is recommended that 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.

5 Conclusion

This PRA has met the objectives of the report by demonstrating the following:

- Building 1 was assessed as having high bat roosting potential as detailed in Section 3.
- Further bat emergence/re-entry survey of B1 is recommended, following the guidance (Collins, 2016).
- Nesting bird checks should be completed prior to the demolition of the building if being undertaken outside of the nesting bird season (March – September, inclusive).

6 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 o8/18: 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.

English Nature (2004). Bat Mitigation Guidelines. English Nature, Peterborough.

Hutson A. M. (1993). Action Plan for Conservation of Bats in the United Kingdom. The Bat Conservation Trust, London.

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

Joint Nature Conservation Committee (2004). Bat Workers Manual. JNCC, Peterborough.

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

In addition, five British bat species are listed on Annex II of the Habitats Directive. These are:

- Greater horseshoe bat (*Rhinolophus ferrumequinum*)
- Lesser horseshoe bat (*Rhinolophus hipposideros*)
- Bechstein's bat (*Myotis bechsteinii*)
- Barbastelle (*Barbastella barbastellus*)
- Greater mouse-eared bat (*Myotis myotis*)