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Report prepared for: Amar Bhatti

For the Site of: 7 Blagrave Street, Reading, RG1 1PJ

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Cherryfield Ecology has prepared this report for the named clients use only.

Ecological reports are limited in shelf life, Natural England usually expect reports for licenses to be from the most recent or current season. Therefore, should the project not proceed within 12 months of this report an updated survey should be undertaken in order to check for changes that may have occurred on site. Information is believed to be accurate at the time of survey; recommendations are made without bias based on good practice guidelines within the industry. However, species presence and ecological parameters can change over time.

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Preliminary Roost Assessment (PRA)

0.0 Non-Technical Summary

0.1 Background

The survey undertaken follows national guidelines Collins (2016) allowing for a day-time inspection and recommends for further surveys if considered necessary. If a deviation from the guidelines has been made this will be detailed in the Method Section.

The following report details the findings and recommendations for the site of 7 Blagrove Street, Reading, RG1 1PJ.

The client commissioned Cherryfield Ecology to undertake a PRA as the proposals include for the construction of additional floors to the existing building. Plans have been provided (Appendix I)

0.2 Results and Findings

The site consists of an attached two storey Georgian style building (B1) with a living space on the first floor and a store on the ground floor with a small associated courtyard to the rear. No bats or evidence of bats were found on site.

B1 provides Moderate potential for roosting bats due to the multiple gaps beneath hung tile to the rear of the property and gaps beneath the molded lead capping on the bay window to the front as well as the proximity of both bat records and granted protected species licenses for bats.

0.3 Impact Assessment and Recommendations

B1 - A bat roost may be lost in the development

Presence/Likely Absence surveys will be required (two surveys, a minimum of two weeks apart). *Please see Section 4.3 for further details.*

The findings outlined in this report are valid for one year, after which updated surveys will be required.

Enhancements and mitigation are recommended (please see Section 4.4 for further details).

1.0 Introduction

1.1 Aim of the Survey

This report aims to inform the client of any bat issues that may be present on site and that could affect the development. It recommends for further survey when considered necessary and provides possible mitigation and enhancement should this become required.

1.2 Background Information

The client, Amar Bhatti, has commissioned Cherryfield Ecology to undertake a PRA for the site of 7 Blagrove Street, Reading, RG1 1PJ. Planning permission is being sought to construct additional floors to the existing building.

This survey has checked all buildings, trees (from ground level only) or structures due to be affected by the proposals for bats, signs of bats or features known to be used by bats e.g. crevices, gaps or holes that cannot be checked for a variety of reasons.

The inspection was conducted on the 22/05/2023.

The survey can only ever provide a 'snapshot' of the site at the time of the survey and circumstances may change following this report. Health and Safety restrictions or obstructions may limit the ability to find evidence.

Biological records have been requested to give the report context and allow a study of the surrounds. The information is often sensitive and, therefore, a synopsis is provided.

The survey can be conducted year-round, however it can be limited due to bad weather and in the winter, when bats are not active, thus evidence and bats are often not found. During these periods, habitat value (likely presence) becomes more important to the assessment of the site.

All 18 species of bat common in the UK (17 known to be breeding) are fully protected under the Wildlife and Countryside Act (as amended) 1981 through inclusion in Schedule V of the Act. All bat species in the UK are also included in Schedule II of The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019, which

transpose Annex II of the Directive 92/43/EEC 1992 on the Conservation of Natural Habitats and of Wild Fauna and Flora (“Habitats Directive”) which defines United Kingdom protected species of animals.

Bats species are afforded further protection by the Countryside and Rights of Way Act 2000; and the Natural Environment and Rural Communities Act 2006.

This combined legislation makes it an offence to:

- Intentionally or deliberately kill, injure or capture bats.
- Deliberately disturb bats, whether at roost or not.
- Damage, destroy or obstruct access to bat roosts.
- Possess or transport bats, unless acquired legally.
- Sell, barter or exchange bats.

A bat roost is well-defined by the legislation as the ‘resting place’ of a bat. However, the word roost is used to describe this resting place and is generally accepted as the word describing where a bat or bats rest, feed or sleep.

2.0 Methods

The survey follows the national guidelines Collins (2016), and the following equipment is available for the inspection (it may or may not all be used):

- Torches (e.g. LED Lensar type).
- Ladders (Standard 4m telescopic surveying ladder).
- Endoscope where holes, cracks and crevices are accessible.
- Mirrors as above (extendable and movable mirror face).
- Binoculars (Pentax close focus).
- Thermometer/hygrometer.
- Camera.
- Sample bags for collecting dropping and feeding evidence (should this be found).

The assessment allows for a detailed inspection of the site looking for bats, evidence of use by bats e.g. droppings/feeding remains, and features known to be used by bats for roosting e.g. gaps, crevices and holes. Trees and buildings are assessed from ground level only and may require climbed surveys of holes, cracks and crevices.

Biological records data is ordered from the local records centre to provide context and background information. As the data is often sensitive, a synopsis is provided.

If a deviation from the guidelines has been made, the reason and justification will be explained below:

No deviation from the standard guidelines has been made for this survey.

2.1 Limitations

This survey provides a snapshot of the site at the time of the survey only. Bats are highly mobile and can turn up from time to time, unexpectedly. All care has been taken to ensure the results and recommendations are suitable to the context of the development and the information gathered on surveys.

Table 1: Roosting features (likelihood) of bat presence assessed against Collins (2016) guidelines *Source: Adapted from Collins (2016) pp 35, Table 4.1.*

Likelihood of bat presence (Habitat Value)	Features that bats can use, regardless of evidence being present.
Confirmed Bat Presence	Bats are found to be present during the survey. Evidence of bats is found to be present during the survey.
Higher likelihood of bat presence.	Pre-20th century or early 20th century construction. Agricultural buildings of traditional brick, stone or timber construction. Large and complicated roof void with unobstructed flying spaces. Large (>20 cm) roof timbers with mortice joints, cracks and holes. Entrances for bats to fly through. Poorly maintained fabric providing ready access points for bats into roofs, walls, bridges, but at the same time not too draughty and cool. Roof warmed by the sun, in particular south facing roofs. Weatherboarding and/or hanging tiles with gaps. Low level of disturbance by humans. Bridge structures, follies, aqueducts and viaducts over water and/or wet ground.
Moderate and Lower likelihood of bat presence.	Modern, well-maintained buildings or built structures that provide few opportunities for access by bats. Small, cluttered roof space. Buildings and built structures comprised primarily of prefabricated steel and sheet materials. Cool, shaded, light or draughty roof voids. Roof voids with a dense cover of cobwebs and no sections of clean ridge board. High level of regular disturbance. Highly urbanised location with few or no mature trees, parkland, woodland or wetland. High levels of external lighting.
Negligible likelihood of bat presence.	No features suitable for roosting, minor foraging or commuting.

Notes on using this table

- 1 The features listed here may not be indicative of use of the site by bats during winter or spring.
- 2 Pre-1914 buildings may present the greatest likelihood of providing roost space for bats due to their design, materials used and age. Pre-1990 buildings, especially when close to good foraging habitat, and with favoured features such as cavity walls and soffits, also have a high likelihood of providing roost sites for some bat species.
- 3 Post-1990 buildings are generally less likely than older buildings to house roosts; however, some modern designs provide access to suitable roosting spaces for bats. Pipistrelles, in particular, occupy modern buildings and built structures providing that there are suitable access gaps (>8mm) and provided the structure has appropriate characteristics for roosting.

3.0 Results

The following section details the results of the desk study, inspection and survey; it includes MAGIC information, biological records data and map/aerial photo information. The results detail the building, structure or tree (numbered for reference) description of any evidence found and habitat value if no evidence has been located.

3.1 Desk Study

The desk study is centred on Grid Reference - SU716736 and Postcode - RG1 1PJ.

Table 2: Weather Records

Parameter	Unit/Value
Temperature	18°C
Cloud cover	100%
Precipitation	None
Wind	2/12

3.2 MAGIC

The following statutory sites and Natural England Protected Species (NEPS) have been located within the 1km search area (Figure 1).

Table 3: Magic search results

Receptor	Distance and Direction (m/Km)	Description
Statutory sites	n/a	n/a
Granted protected species licenses (bats)	Closest ~300m northeast	Common Pipistrelle <i>Pipistrellus pipistrellus</i> (Licence 2013-6155, 2016-22301, 2011-3175, 2017-32379)
	Closest ~425m southeast	Soprano Pipistrelle <i>Pipistrellus pygmaeus</i> and Common Pipistrelle (Licence 2019-44194, 2014-3941)
	~350m northeast	Daubenton's <i>Myotis daubentonii</i> (Licence 2017-28045)
	~1700m northwest	Brown Long-Eared <i>Plecotus auritus</i> and Common Pipistrelle (Licence 2016-27061)
	~1300m northwest	Soprano Pipistrelle (Licence 2014-1343)

Priority habitat	~1600m southwest	Coastal and floodplain grazing marsh
	~675m northeast	Good quality semi improved grassland
	~415m northeast	Deciduous woodland

MAGiC

Magic Map

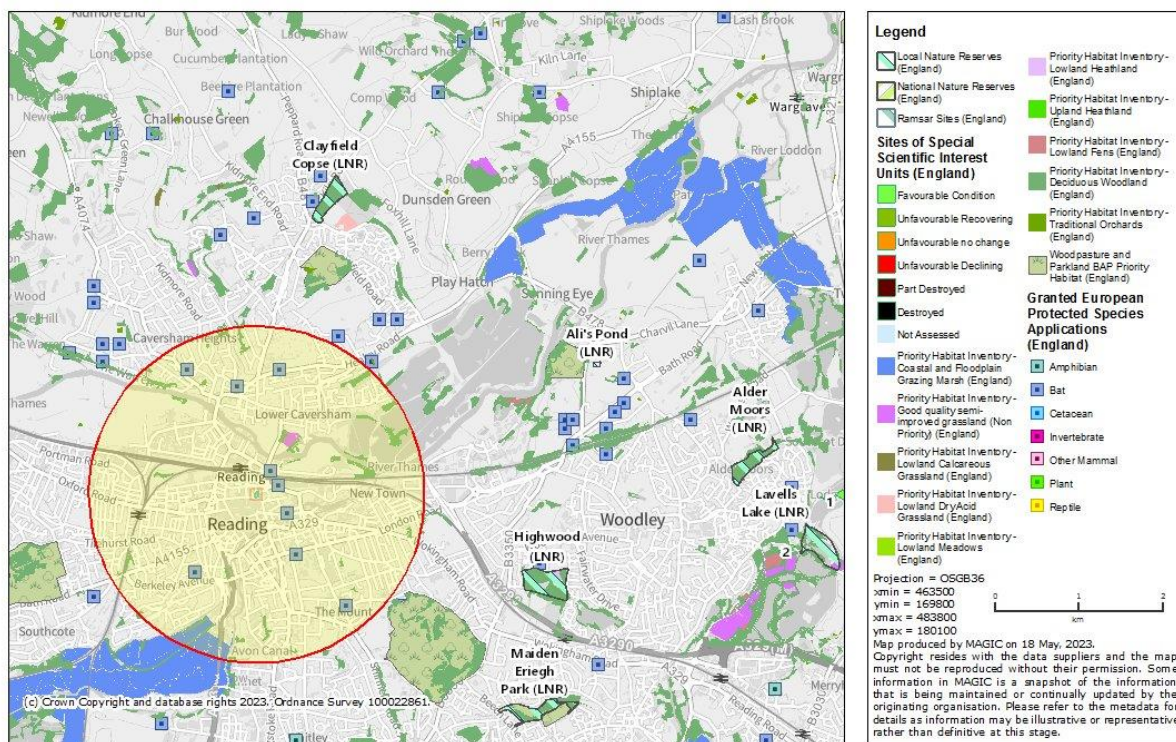


Figure 1: Magic Map Search

3.3 Biological Records Data

A 1km data search of existing records for protected species and nature reserves has been commissioned, below details the results and site context.

Biological records were obtained from Thames Valley Environmental Records Centre (2023).

Table 4: Biological Records

Species	Number of Records	Closest record (accuracy)	Most recent record (year)
Barbastelle <i>Barbastella barbastellus</i>	0	-	-
Brown Long-Eared <i>Plecotus auritus</i>	0	-	-
Common Pipistrelle <i>Pipistrellus pipistrellus</i>	64	179m (1km)	2020
Daubenton's <i>Myotis daubentonii</i>	83	179m (1km)	2019
Leisler's <i>Nyctalus leisleri</i>	0	-	-
Nathusius' Pipistrelle <i>Pipistrellus nathusii</i>	17	443m (100m)	2019
Natterer's <i>Myotis nattererii</i>	0	-	-
Noctule <i>Nyctalus noctula</i>	36	448m (10m)	2020
Serotine <i>Eptesicus serotinus</i>	1	448m (10m)	2018
Soprano Pipistrelle <i>Pipistrellus pygmaeus</i>	50	93m (10m)	2020
Unidentified Bat <i>Chiroptera</i>	9	179m (1km)	2020
Unidentified Long-Eared <i>Plecotus sp.</i>	2	448m (10m)	2018
Unidentified <i>Myotis Myotis sp.</i>	16	448m (10m)	2019
Unidentified Pipistrelle <i>Pipistrellus sp.</i>	34	234m (10m)	2020
Unidentified Vesper <i>Vespertilionidae</i>	0	-	-
Whiskered <i>Myotis mystacinus</i>	0	-	-
Whiskered/Brandt's <i>Myotis mystacinus/brandtii</i>	0	-	-

3.4 Site Location and Surrounds

The site is located in Reading, Berkshire and is surrounded by high density housing in the immediate local. Table 5 details the commuting, feeding and habitat features in a 1km radius of the site.

Table 5: Habitat features suitable for bat use in the general area.

Feature	Description
Water course	River Kennet is located approx. 338.89m southeast. River Thames is located approx. 451.54m northeast.
Water bodies	Christchurch Meadow Paddling Pool is located approx. 603.04m northeast.
Woodland	A small woodland forming part of Hills Meadow is located approx. 697.84m northeast.
Linear e.g. hedgerows	A train track is located approx. 185.78m north. Garden hedgerows dominate the search area.
Pasture/arable/grassland	Forbury Gardens Public Park is located approx. 168.09m east. Christchurch Meadows is located approx. 545.97m northeast. Hills Meadow is located approx. 682.28m northeast. Victoria Park is located approx. 881.35m northwest.
Other	St. Laurence Church Cemetery is located approx. 86.98m southeast.

3.5 Building, Tree or Other Structure

This section details the structures reference and description (see Figure 6 for Site Plan).

Building structure reference - B1 (Main Building)

3.5.1 Description

3.5.2 General

The site consists of an attached two storey Georgian style building (B1) with a living space on the first floor and a store on the ground floor with a small associated courtyard to the rear. The site is surrounded by a mix of residential housing and commercial spaces. **(site situation and immediate surrounds).**

Table 6: Building/Tree/Structure description(s)

Building/Tree/Structure Number	Description
B1	External Two storey building with a Georgian style façade to the front consisting of rendered plaster with a lead capped bay window to the front. The rear of the building consists of stretcher bonded brick with a single  Figure 2: front elevation



Figure 3: Rear elevation

Internal

The building is flat roofed with a small section of sloped roof to the rear of the property

3.6 Bats, Evidence or Likelihood of Bat Presence

The following table details the results of the survey.

Table 7: Bats, evidence or likelihood of bats being present.

Bats found	No bats were found at the time of the survey.
Evidence of bat use	No evidence of bats was found at the time of the survey.
Potential for bat use	Level of likelihood of presence - B1 - Moderate B1 provides Moderate potential for roosting bats due to the multiple gaps beneath hung tile to the rear of the property and gaps beneath the molded lead capping on the bay window to the front.



Figure 4: Example of lifted, broken and missing hanging tile with bat roost ptoential



3.7 Supplementary Observations

There were no other protected species found at the time of the survey.

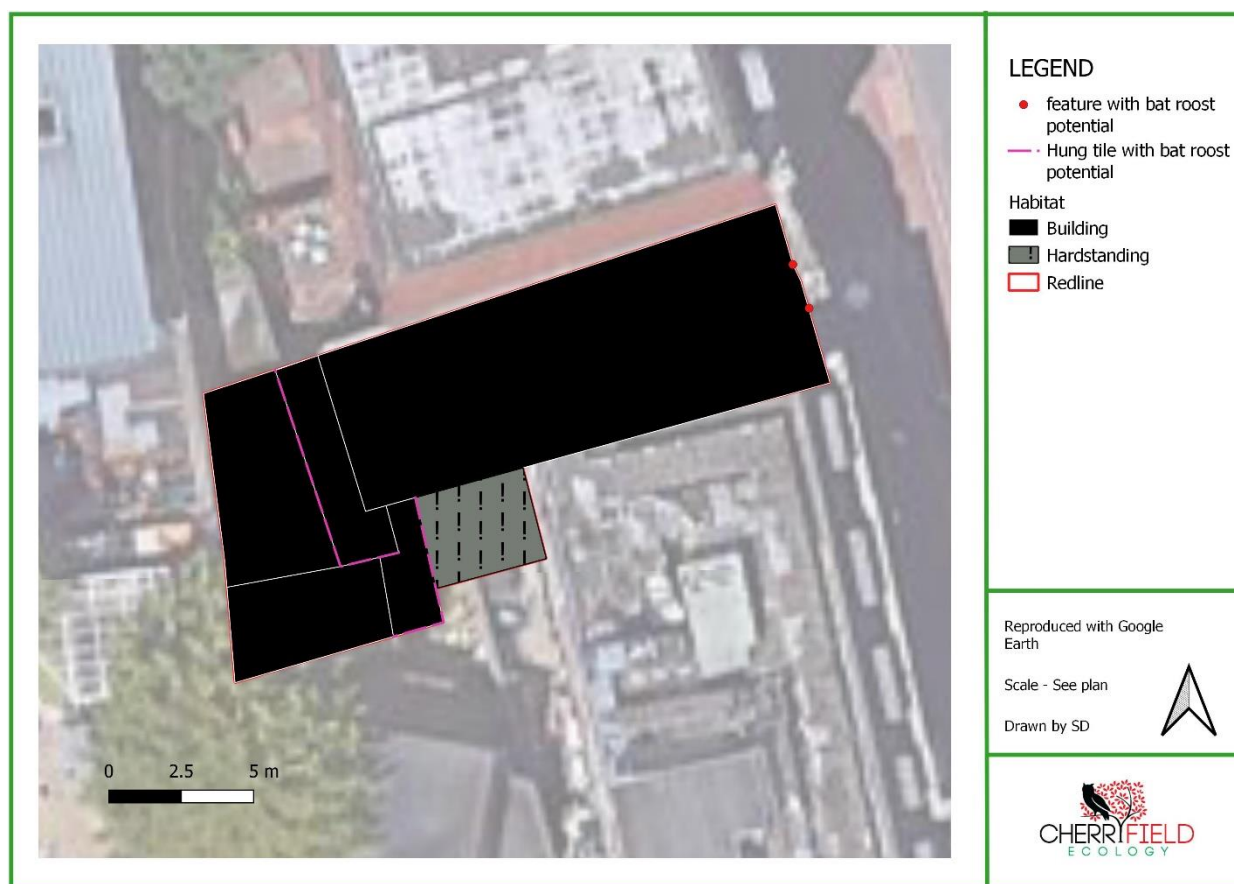


Figure 6: Site Plan

4.0 Conclusions, Discussion and Recommendations

The following section details the conclusions, discussion, potential impacts and recommendations in the context of the proposed works.

Building structure reference - B1 (Main Building)

Suitable roosting features for bats were identified beneath the hanging tile present on the single storey extensions to the rear of the building and beneath the lead capping on the bay window to present on the front façade of the building. There are records for bats and granted protected species licenses for bats within 179m and 300m respectively.

4.1 Conclusion and Discussion

The proposals include for the construction of additional floors to the building.

The site consists of building and hard standing.

No bats or evidence of bats were found at the time of the survey.

B1 provides Moderate potential for roosting bats due to the presence of, lifted, broken and missing hanging tile and gaps in the lead capping on the bay window present on the building. There are also bat records and granted protected species licenses within close proximity to the site.

4.2 Potential Impact

Impact assessments must be proportionate to the scale of the development (CIEEM, 2018) and the following details a proportionate impact assessment based on current information.

Table 8: Impact Assessment.

Impact	A bat roost may be lost in the development.
Characterisation of unmitigated impact on the feature	A bat roost could be destroyed when the buildings are demolished resulting in a low-level loss/impact at a local level.
Effect without mitigation	Without mitigation individual bats could be killed, injured or trapped during the works.
Mitigation or/and Enhancement	See Table 9 and 10
Significance of effects of residual impacts (after mitigation)	If lost roosts are replaced by bat boxes, the effects would be negligible.

4.3 Recommendations

B1 - Presence/Likely Absence surveys will be required (two surveys, a minimum of two weeks apart).

A total of three surveyors to cover B1 will be required. These surveys will need to be undertaken during the optimal timeframe of mid-May to August (with September considered sub-optimal).

The findings outlined in this report are valid for one year, after which updated surveys will be required.

Enhancements and mitigation are recommended (please see Section 4.4 for further details).

4.4 Recommended Mitigation and Enhancements

The following table details the recommended mitigation if bats are found following further surveys (Table 9).

Table 9: Proposed mitigation and compensation if bats are found following further survey.

Work	Specification
General Information	No development will occur until bat surveys consistent with the Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edition) (Collins et al. 2016) have been undertaken in the appropriate survey season, May to September (Mid-May to August optimal). The Three Tests to be answered before planning can be granted (NE, 2017): <i>Test 1:</i> Regulation 53(2)(e) states: a licence can be granted for the purposes of “preserving public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment”. Test 1 can be achieved via the ‘imperative reasons of overriding public interest’. Although not for the ecologist to determine the planning officer will on grant of consent. <i>Test 2:</i> Regulation 53(9)(a) states: the appropriate authority shall not grant a licence unless they are satisfied “that there is no satisfactory alternative” Test 2 would be achieved on the grant of consent as no other sites have been considered for the development. <i>Test 3:</i> Regulation 53(9) (b) states: the appropriate authority shall not grant a licence unless they are satisfied “that the action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range.” Test 3 will be achieved once full emergence/re-entry surveys are conducted and full mitigation appropriate to species and population has been designed and implemented via an NEPS licence issued from the statutory authority (Natural England), if this becomes necessary following a dusk and pre-dawn survey.
Mitigation	Based on Mitchell - Jones, (2004), <u>subject to change following surveys.</u> Under license demolition of suitable bat roosting features e.g. hung tile etc. will require the supervision of a bat licensed ecologist.

The suitable bat roosting features e.g. lead flashing. will be stripped by hand only. All areas across the roof/wall tops/weatherboarding etc. will be checked for bats i.e. endoscope (where possible) and via destructive search. If bats are found, these will be removed by hand (Ecologist only) and placed in bat boxes that will be in place before works begin.

Bat boxes will be installed. These will be no less than 3m above ground level and away from any neighbouring ledge to prevent local cats predating on bats using the boxes.

A minimum of three Chillon Woodstone bat box(es) or similar boxes (Figure 7) will be hung on the building at a minimum of 3m from ground level and face south/southwesterly. These boxes are known to be used by crevice and void dwelling species.



Figure 7: Chillon Woodstone Bat Box (British-made)

Alternatively, bat tubes can be built into the building (Figure 8). These require no maintenance, can be installed on a gable end/under an eave, no less than 3m above ground level, face south or north and can be faced in any material to provide an aesthetic matching the reminding building.



Figure 8: Example of bat tube

	Commuting bats maybe using the grounds and surrounds - therefore, any tree, hedges or linear feature should be retained were possible.
Roof and Tile Linings	Bitumen Felt - When a bat roost is present and being mitigated/compensated we only recommend this type of linear for the tiles/roof covering. There is no reason that building regulations will not allow a traditional 'cold roof' and, therefore, we recommend this as the best design for bats in any project where bats are able to access the roof/loft or hung tile/weather boarding etc. The reasoning for this is twofold; firstly, bats can damage the Modern Roofing Membrane (MRM) meaning that the MRM will become useless allowing water to pass through from above and, secondly, bats will become trapped in the fibres and die from dehydration and starvation. However, Natural England will accept an MRM being used in a bat roost under the following circumstances - The MRM must have passed the testing regime set out in Essah <i>et al</i> (2020) and a certificate must be provided as proof of this. Assuming the certificate is provided with the license application, NE will issue/register the site. It is for the client to provide the certificate to the Ecologist applying for the license.
Lighting	Any lighting near or shining onto any trees, especially those with bat boxes in or commuting routes shown to be present at further survey stage, will be designed to minimise the impact it has on potential bat roosting and commuting. Lighting will be in line with the BCT lighting guidelines (Bats and Lighting in the UK (Bat Conservation Trust, 2018) https://www.theilp.org.uk/documents/guidance-note-8-bats-and-artificial-lighting/ This lighting were possible will be of low level, be on downward deflectors and be on PIR sensors. Using LED directional lighting can also be a way of minimising the light spill affecting the habitat. No up-lighting should be used. Light spill must be minimized to as low a lux as possible. This is because moonlight is 0.3lux, any lighting currently present on site will exceed this, thus making it impossible to achieve a lux on site of less than 1lux. This will ensure that the roosting and commuting resources that the bats are likely to be using is maintained.

Timing	Once the NEPS licence is obtained, works can occur during the designated timeframe; it is best to avoid the maternity (mid-May to August) and hibernation (December to March) seasons. It is not always necessary if the roost can be shown to be a day roost of common species. Works will be timed in order to take advantage of mild weather conditions. Several consecutive nights with temperatures no lower than 7°C to avoid disturbing potentially hibernating bats. Ideally, the demolition will occur when bats are active and can be moved to alternative roosts in the area e.g. Autumn when bats are moving away from summer roosts to mating roosts.
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The local planning authority have a duty to impose enhancements. The following table details the affordable and simple enhancements suitable for the site (Table 10).

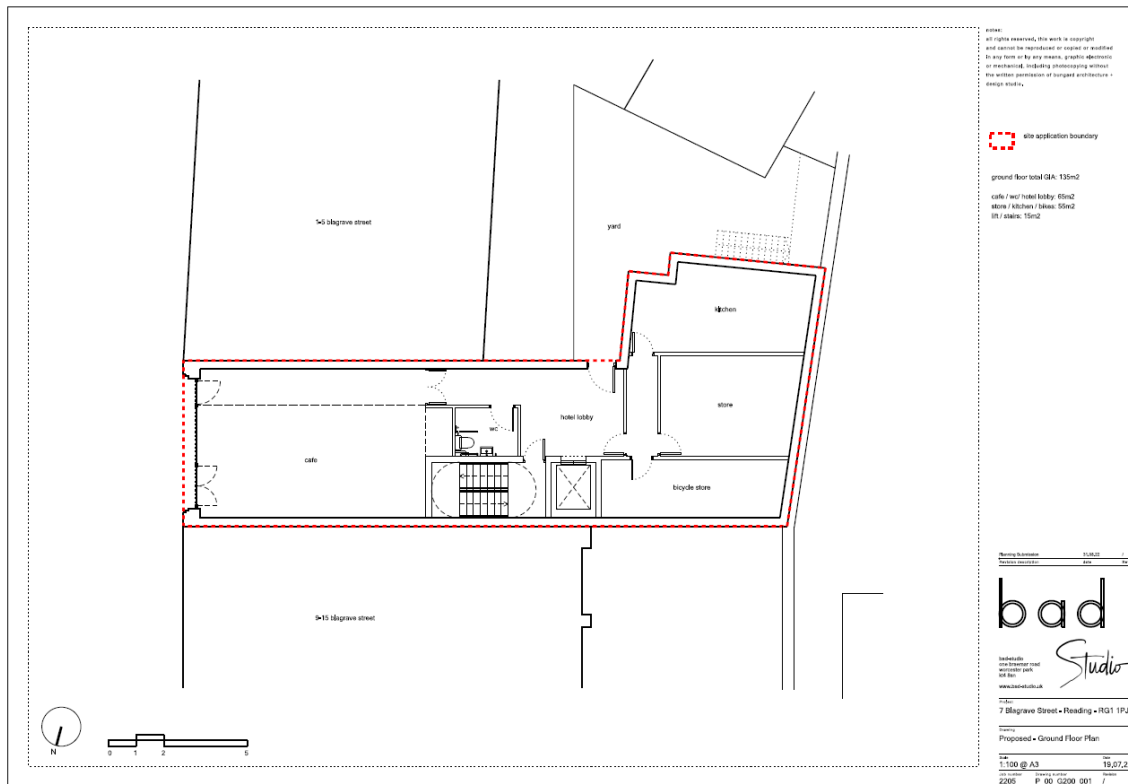
Table 10: Enhancements to allow a net gain for protected species.

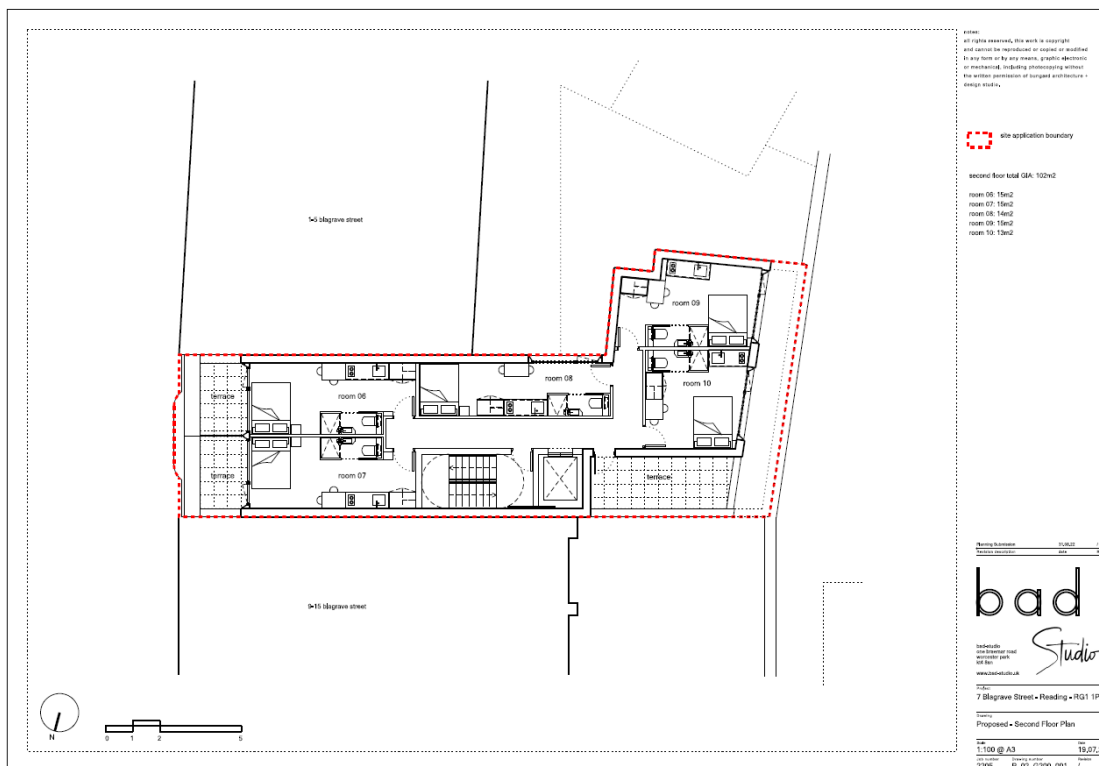
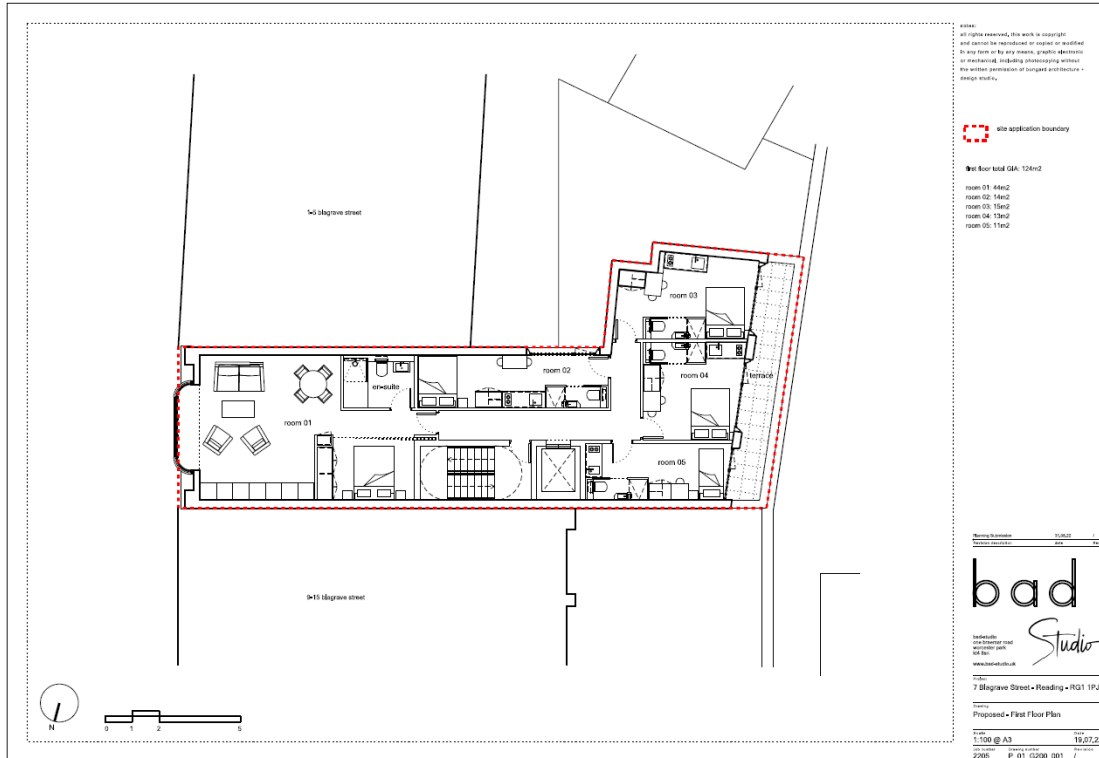
Work	Specification
Enhancements to provide a net gain as per the LPA's duty.	A minimum of two bat tubes can also be built into the building (Figure 8); these require no maintenance and can be hidden by facing the tube with the cladding/brick etc. for aesthetics.

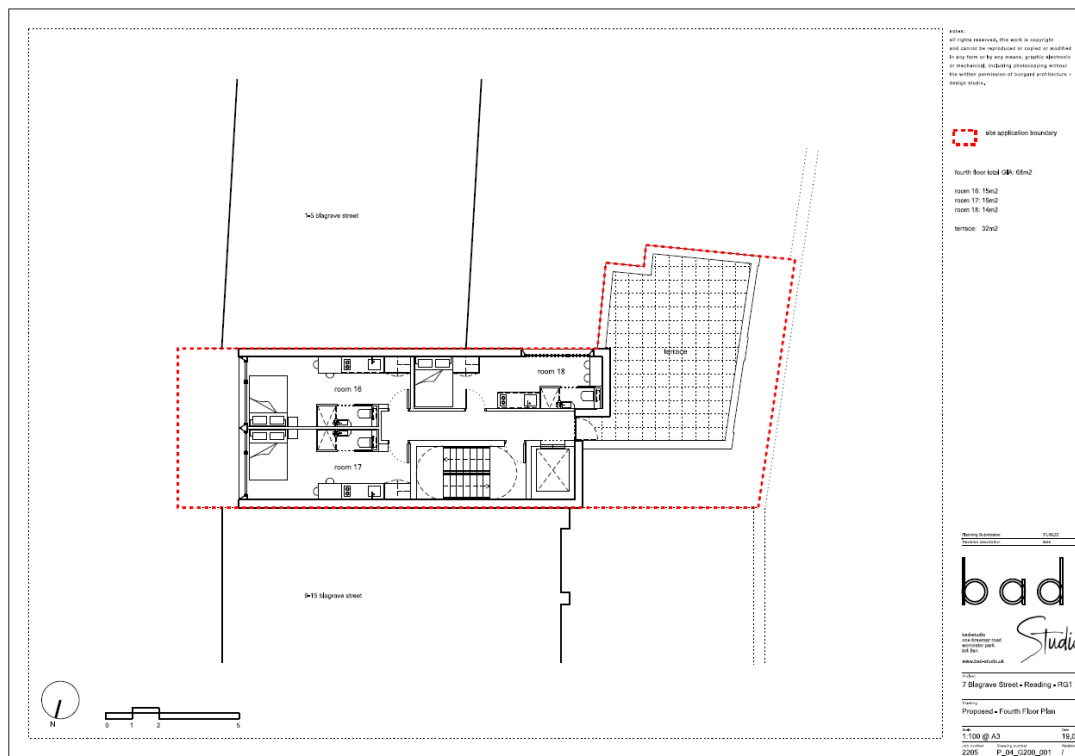
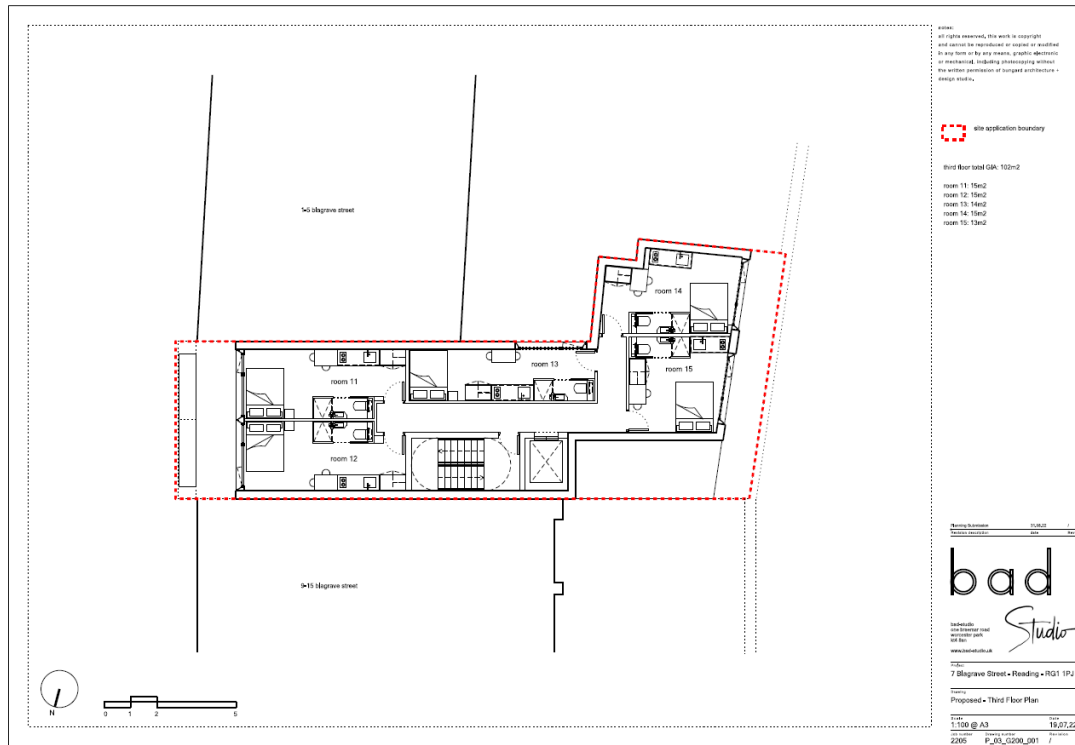
5.0 References

- CIEEM (2018) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater and Coastal, September 2018. Chartered Institute of Ecology and Environmental Management, Winchester, online at <https://www.cieem.net/data/files/ECIA%20Guidelines.pdf>
- Collins, J. (ed), (2016), Bat Surveys for Professional Ecologists: Good Practice Guidelines 3rd Edition, BCT, London
- Google Earth, (2017), Located on site postcode, online
- MAGIC, (2017): Magic maps, NEPS licences and designated sites, online <http://www.magic.gov.uk/Login.aspx?ReturnUrl=%2fMagicMap.aspx>, accessed as report date.
- Mitchell-Jones, A.J. (2004), Bat Mitigation Guidelines, English Nature, Peterborough
- Records: Thames Valley Environmental Records Centre (2023)

Appendix I - Site Plans







Proposed Site Plan (Bad Studio, 2022)