



Preliminary Roost Assessment

68A Cressingham Road, Reading, RG2 7JR

Mr Mansoor

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Executive Summary

Arbtech Consulting Ltd. undertook a Preliminary Roost Assessment at 68A Cressingham Road, Reading, RG2 7JR on 6th October 2021. The aim of the assessment was to consider the value and suitability of the structures for roosting bats.

The development proposals are for the double extension to the north elevation and single extension to the south elevation. A planning application is being prepared for submission to Reading Borough Council.

Recommendations - This is work you will need to commission (if any) to obtain planning permission or comply with legislation for other consent.

Ref	Survey assessment conclusions (with justification)	Recommendations
B1 Bats	B1 has a low likelihood of supporting roosting bats. The missing and dislodged tiles and holes in the soffit boards create suitable roosting features for crevice dwelling bats.	One bat emergence or re-entry survey is required during the active bat season (May – September) to characterise the roosts present. At least two of the surveys should be completed during the optimal survey period mid-May to August inclusive. Sub-optimal: early May and September. One of these surveys should be a dawn re-entry survey. Three surveyors are required to provide full coverage of the building.

For full justification of these recommendations, please go straight to section [4.0 Conclusions, Impacts and Recommendations](#). Otherwise, the full report starts below.

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1.0 Introduction and Context

1.1 Background

Arbtech Consulting Ltd were commissioned by Mr Mansoor to undertake a Preliminary Roost Assessment (PRA) at 68A Cressingham Road, Reading, RG2 7JR. The survey was completed on 6th October 202.

No previous reports have been produced for this site by Arbtech Consulting Ltd or are known by others.

1.2 Project Description

The development proposals are for the double extension to the north elevation and single extension to the south elevation. A planning application is being prepared for submission to Reading Borough Council.

The proposed site plan is included in Appendix 2 (where available).

1.3 Site Context

The site is located at National Grid Reference SU 72687 70971 and comprises an area of approximately 0.1ha. There is one building, designated as B1, within the site boundary. This building was surveyed as these will be affected by the proposed development.

1.4 Scope of the Report

This report provides a description of all features suitable for roosting bats and evaluates those features in the context of the site and wider environment. It further documents any physical evidence collected or recorded during the site survey that establishes the presence of roosting bats. It provides information on constraints to the proposals as a result of roosting bats, and summarises the requirements for any further surveys, to inform subsequent mitigation proposals, achieve Planning or other statutory consent, and to comply with wildlife legislation.

The aim of the assessment was to determine the presence or evaluate the likelihood of the presence of roosting bats, and to gain an understanding of how they could use the site. To achieve this, the following steps have been taken:

- A desk study has been carried out.
- A field survey has been undertaken, including an external survey and internal inspection where possible.
- An outline of likely impacts on any known roosts has been provided, based on current development proposals.
- Recommendations for further survey and assessment have been made, along with advice on European Protected Species Mitigation Licensing (EPSML) if appropriate.

A survey plan is presented in Appendix 1, the proposed Project Plan is included in Appendix 2 (where available), desk study results are provided in the Appendix 3 and a summary of relevant legislation can be found in Appendix 4.

2.0 Methodology

2.1 Desk Study

A review of the following information sources has also been undertaken to inform the assessment:

- Landscape structure using aerial images from Google Earth and OS maps.
- Designated sites and granted EPSML records for bats held on Magic.gov.uk.

2.2 Site Survey

The survey was undertaken by Megan Knapp BSc (Hons) Ecological Surveyor [accredited agent to Natural England bat licence number 2018-33540-CLS-CLS] on 6th October 2021.

All features that will be impacted by the project proposals were assessed for their bat roosting, foraging, and commuting habitat. The surveyor systematically surveyed all features suitable for bats and signs of bat activity.

For any surveyed buildings:

A non-intrusive visual appraisal was undertaken from the ground using binoculars, inspecting the external features of the buildings for potential access or egress points and for signs of bat use. An internal inspection of the buildings was also completed, including any accessible roof spaces of all buildings, using an endoscope, torch and ladders. The surveyor paid particular attention to the floor and flat surfaces, window shutters and frames, lintels above doors and windows, and carried out a detailed search within the roof space.

2.3 Breeding Birds and Other Incidental Observations

The surveyor also made note of any other ecological constraints observed during the survey, notably the likelihood of presence or signs of breeding birds, and the suitability of the site for barn owls *Tyto alba*.

2.4 Suitability Assessment

All affected survey features on site were categorised according to the likelihood of bats being present, in line with best practice guidelines (Collins, J. (ed) 2016). The features that dictate the likelihood of roosting bats are summarised in Table 1 below. Roost suitability is classified as high, moderate, low and negligible and dictates any further surveys required before works can proceed.

Table 1: Features of a building that are correlated with use by bats

Likelihood of bats being present	Feature of building and its context
Higher	Buildings/structures with features of particular significance for roosting bats e.g. mines, caves, tunnels, icehouses and cellars. Habitat on site and surrounding landscape of high quality for foraging bats e.g. broadleaved woodland, tree-lined watercourses and grazed parkland. Site is connected with the wider landscape by strong linear features that would be used by commuting bats e.g. river and or stream valleys and hedgerows. Site is proximate to known or likely roosts (based on historical data).
Lower	A small number of possible roost sites/features, used sporadically by more widespread species. Habitat suitable for foraging in close proximity, but isolated in the landscape. Or an isolated site not connected by prominent linear features. Few features suitable for roosting, minor foraging or commuting.

2.5 Limitations

It should be noted that whilst every effort has been made to describe the features on site in the context of their suitability for roosting bats, this does not provide a complete characterisation of the site. This survey provides a preliminary view of the likelihood of bats being present. This is based on suitability of the habitats on the site and in the local area, the ecology and biology of bats as currently understood, and the known distribution of bats as recovered during the desk study. Limitations include:

- A biological records data search was not commissioned by the client, therefore historical records of protected species have not been factored into this report. The recommendations in this report aim to compensate for the lack of biological records.
- The majority of the loft space was inaccessible due to no safe flooring or access into the loft space. The loft space has been separated into two sections.

These limitations have been taken into account during the evaluation of the site and requirement for further surveys.

3.0 Results and Evaluation

3.1 Desk Study Results

A summary of desk study results is provided below; full details are included in Appendix 3.

3.2 Designated Sites

There are no statutory designated sites with bat qualifying interests within 2km of the site.

3.3 Landscape

A review of aerial photographs (Figure 1), the Magic database and OS maps has been undertaken. Collated together, the site's local bat habitat is described below:

The site is in an urban area of mid Berkshire. The landscape is dominated by hard standing areas of dwellings and roads, with the town of Whitley extending adjacent to the south-west. There are small, scattered woodland areas and tree lines around the area, which could be used by bats for roosting, foraging and commuting. One area of ancient woodland is located ~1km to the east that could be an important local habitat for bats. Scattered irrigation ditches around the area will provide abundant insect foraging for bats.



Figure 1: Aerial photo of site, showing landscape structure

3.4 Historical Records

A search of the magic database for granted EPSMLs for bats within a 2km radius found eight licensed site and details are provided in Table 2 below. These roosts involve common pipistrelle *Pipistrellus pipistrellus*, soprano pipistrelle *Pipistrellus pygmaeus* and brown long-eared bats *Plecotus auritus*. Displaced bats from these roosts could find suitable roosting habitat on site.

Table 2: Granted EPSMLs (bats) within 2km of the site

Case reference of granted application	Approx. distance from site	Bat species affected	Licence start date:	Licence end date:	Impacts allowed by licence
2014-3941-EPS-MIT	1040m north-east	Common pipistrelle and soprano pipistrelle	21/10/2014	30/11/2019	Destruction of a resting site
2014-3941-EPS-MIT-1	1040m north-east	Common pipistrelle and soprano pipistrelle	17/12/2014	30/09/2019	Destruction of a resting site
2014-3941-EPS-MIT-2	1040m north-east	Common pipistrelle and soprano pipistrelle	26/01/2015	30/09/2019	Destruction of a resting site
2014-500-EPS-MIT	1270m north	Common pipistrelle and soprano pipistrelle	29/04/2014	30/09/2016	Unknown
2015-15933-EPS-BDX	1445m north	Common pipistrelle	28/09/2015	31/10/2015	Destruction of a breeding and resting site
2016-22301-EPS-MIT	1615m north-east	Common pipistrelle	21/04/2016	20/04/2021	Destruction of a resting site
EPSM2010-2126	1650m south	Common pipistrelle	02/09/2010	31/08/2012	Destruction of a resting site
EPSM2012-4478	1915m south-west	Common pipistrelle and soprano pipistrelle	03/09/2012	30/09/2016	Destruction of a resting site
EPSM2010-2266	1960m north	Common pipistrelle and brown long eared bat	01/09/2010	28/02/2011	Destruction of a breeding and resting site
EPSM2009-1119	No icon on map	Common pipistrelle	06/10/2009	31/08/2011	Destruction of a resting site

3.5 Field Survey Results

There is one building, designated as B1, within the site boundary and as illustrated on the map in Appendix 1. The environmental variables recorded at the time of the survey are shown in Table 3.

Table 3: Environmental variables during the survey

Date: 06/10/2021	
Temperature	13°C
Humidity	66%
Cloud Cover	10%
Wind	6mph
Rain	None

3.6 Site Feature Descriptions and Photos

Building B1 Description

B1 is a two-storey brick built detached house with hanging tiles on the second storey of the north and south elevations. There is a single storey porch on the south elevation (Photo 1) and a conservatory on the north elevation (Photo 3). The roof comprises of clay tiles with the pitch running from north to south. The windows and door are UPVC and tight fitting. The majority of the hanging tiles on the northern and southern elevation appear to be in good condition. There are some gaps and a couple of dislodged or missing tiles where the hanging tiles meet the roof and fascia (Photo 4 & 8). The porch tiles appear to be in good condition. The roof ridge has a plastic casing which has broken off one side of the northern elevation creating access to crevices (Photo 7). The wooden soffits appear to be in a good condition, apart from one section with a hole on the northern elevation (Photo 7). There is also a hole in the soffit on the south east corner of the building (Photo 5 & 6). The UPVC conservatory appears to be in a good condition with no gaps or holes present. All of the gaps referred to above are known to be utilised by crevice dwelling bat species such as pipistrelles and myotis species.



Photo 1: The southern elevation of B1.



Photo 2: The eastern elevation of B1.



Photo 3: The northern elevation of B1.



Photo 4: Examples of missing and dislodged tiles on the southern elevation of B1.

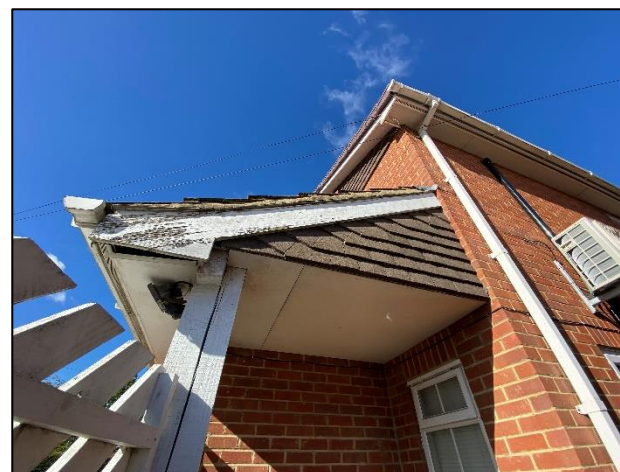


Photo 5: The hole in the soffit on the eastern elevation of B1.



Photo 6: The hole in the soffit on the eastern elevation of B1.



Photo 7: Broken roof protector and damaged soffit board.

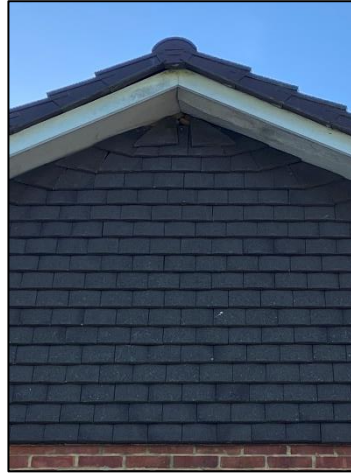


Photo 8: Dislodged tiles on the northern elevation.



Photo 9: Inaccessible area of the loft.

Interior

Internally there is one loft space which has been separated by plastic sheeting (Photo 10 & 11), creating a used loft space for storage and a playroom and another section of the main loft space (Photo 9 & 12). The roof is lined with bitumen felt that appears to be tight fitting and no tears visible. Wooden beams are present with some cobwebs. Daylight is visible at the eaves in this loft space, which is from vented soffit boards.



Photo 10: Loft space lined with plastic sheeting.

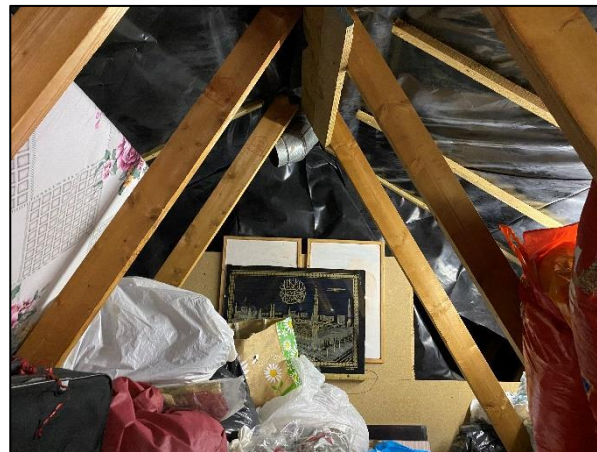


Photo 11: Loft space lined with plastic sheeting.



Photo 12: Inaccessible crawl space in Loft 1.

Evidence of Bats

No evidence of bats was located internally or externally during the survey.

Breeding Birds and Other Incidental Observations

No evidence of birds was located internally or externally during the survey.

4.0 Conclusions, Impacts and Recommendations

4.1 Informative Guidelines

Bats are protected under the Wildlife and Countryside Act and Conservation Regulations; see Appendix 3 for a summary of legislation protecting bats in the UK. Legislation protects all wild birds whilst they are breeding, and prohibits the killing, injuring or taking of any wild bird or their nests and eggs. Certain species of bird, including the barn owl, are subject to special provisions; it is an offence to disturb any bird or their young during the breeding season.

There are three possible outcomes of this survey, each with specific recommendations. These are outlined below:

Confirmed bat roost

Best practice survey guidelines (Collins, 2016) recommend additional surveys for confirmed roosts. Three further surveys are required to characterise the bat roost present including species, roost type and access points to inform a European Protected Species Mitigation Licence (EPSML) application with Natural England. Surveys must be completed during the active bat season (May – September). At least two of the surveys should be completed during the optimal survey period mid-May to August, and at least on the surveys should be a dawn re-entry survey (Collins, J. 2016).

Low, moderate or high likelihood of a bat roost present

Best practice survey guidelines (Collins, 2016) recommend additional surveys for features assessed as having low to high suitability for roosting bats. One, two or three further surveys are required to confirm presence or likely absence of a bat roost, based on a low, medium or high roost likelihood evaluation. Surveys must be completed during the active bat season (May – September). If more than one survey is recommended, at least one of them should be completed during the optimal survey period mid-May to August, and at least one the surveys should be a dawn re-entry survey (Collins, J. 2016). The survey effort recommended at this stage is iterative and if bats are recorded emerging from the buildings, a further survey will be required to provide sufficient information to inform an EPSML application to Natural England.

Negligible likelihood of a bat roost present

Buildings assessed as comprising negligible suitability for roosting bats do not normally require further surveys. However, if bats are found during any stage of the development, work should stop immediately, and a suitably qualified ecologist should be contacted to seek further advice.

Appropriate justification for this assessment is provided in Section 3 and Tables 1 and 2 of this report.

4.2 Evaluation

Taking the deskbased assessment and site survey results into account, the following value for roosting bats has been placed on each site survey feature.

Table 4: Evaluation of buildings on site

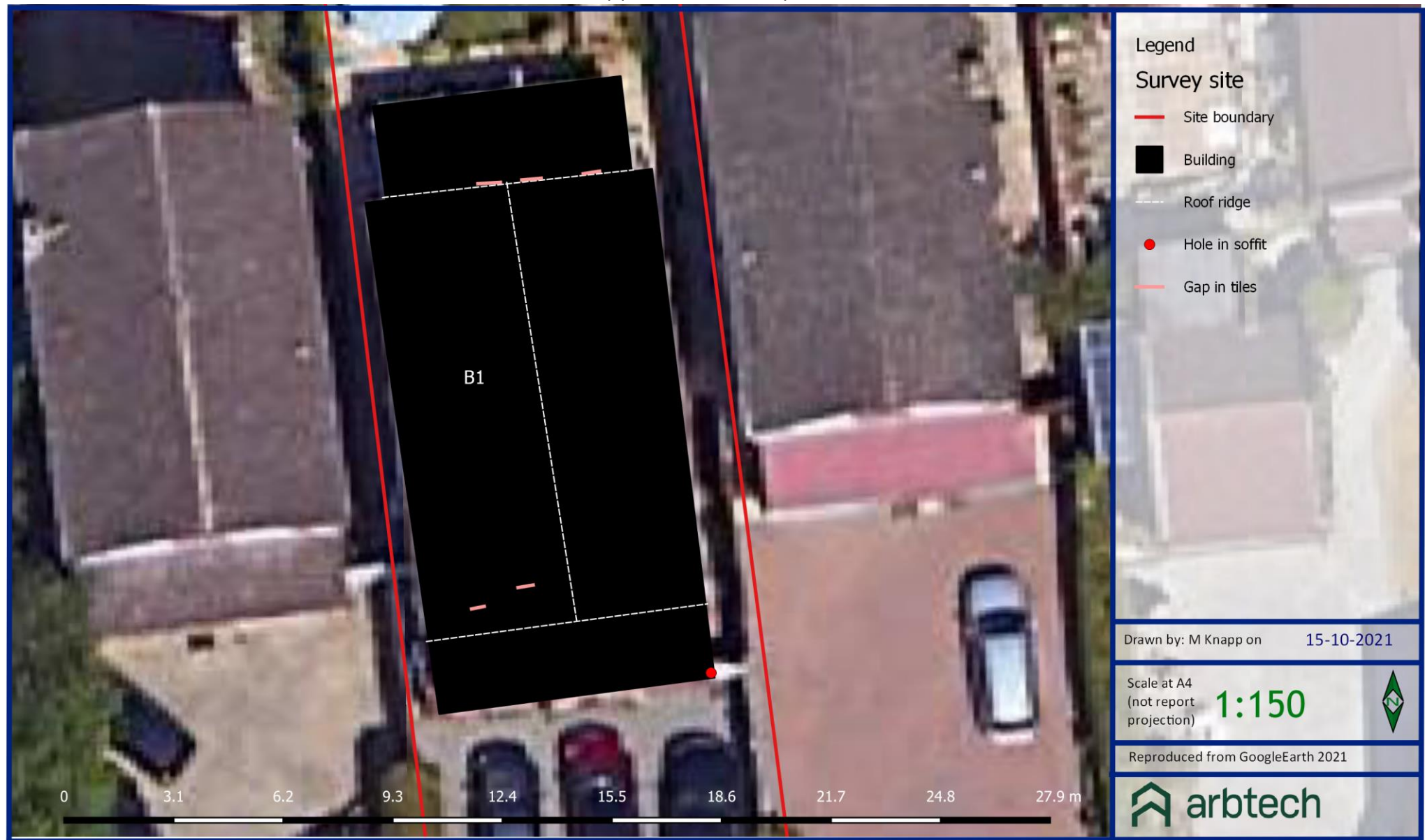
Ref	Survey assessment conclusions (with justification)	Foreseen impacts	Recommendations	Enhancements The Local Planning Authority has a duty to ask for enhancements under the NPPF 2021
B1 Bats	B1 has a low likelihood of supporting roosting bats. The missing and dislodged tiles and holes in the soffit boards on the north and east elevations create suitable roosting features for individual crevice dwelling bats. There are treelines and woodland areas near by which create good commuting and foraging opportunities.	As the proposals include the extension of this building on the northern and south-eastern elevation, any bat roosts present would be destroyed. This could result in death or injury of bats.	One bat emergence or re-entry survey is required during the active bat season (May – September) to characterise the roosts present. At least two of the surveys should be completed during the optimal survey period mid-May to August inclusive. Sub-optimal: early May and September. One of these surveys should be a dawn re-entry survey. Three surveyors are required to provide full coverage of the building.	To be confirmed following further surveys.

B1 Birds	The site provides negligible habitat for breeding birds.	The extension of B1 will have no impacts on nesting birds.	None.	Install woodcrete bird boxes on B1, once renovated e.g. ○ 1x 25mm bird box ○ 2x 32mm bird box ○ Swallow nest cups ○ Swift bricks ○ Sparrow terraces Nest boxes should be positioned approximately 3m above ground level where they will be sheltered from prevailing wind, rain and strong sunlight. Small-hole boxes are best placed approximately 1-3m above ground where nothing will obscure the entrance hole. Swift bricks and sparrow terraces should be positioned at the eaves of the new building and can be incorporated into the fabric of the building during construction.
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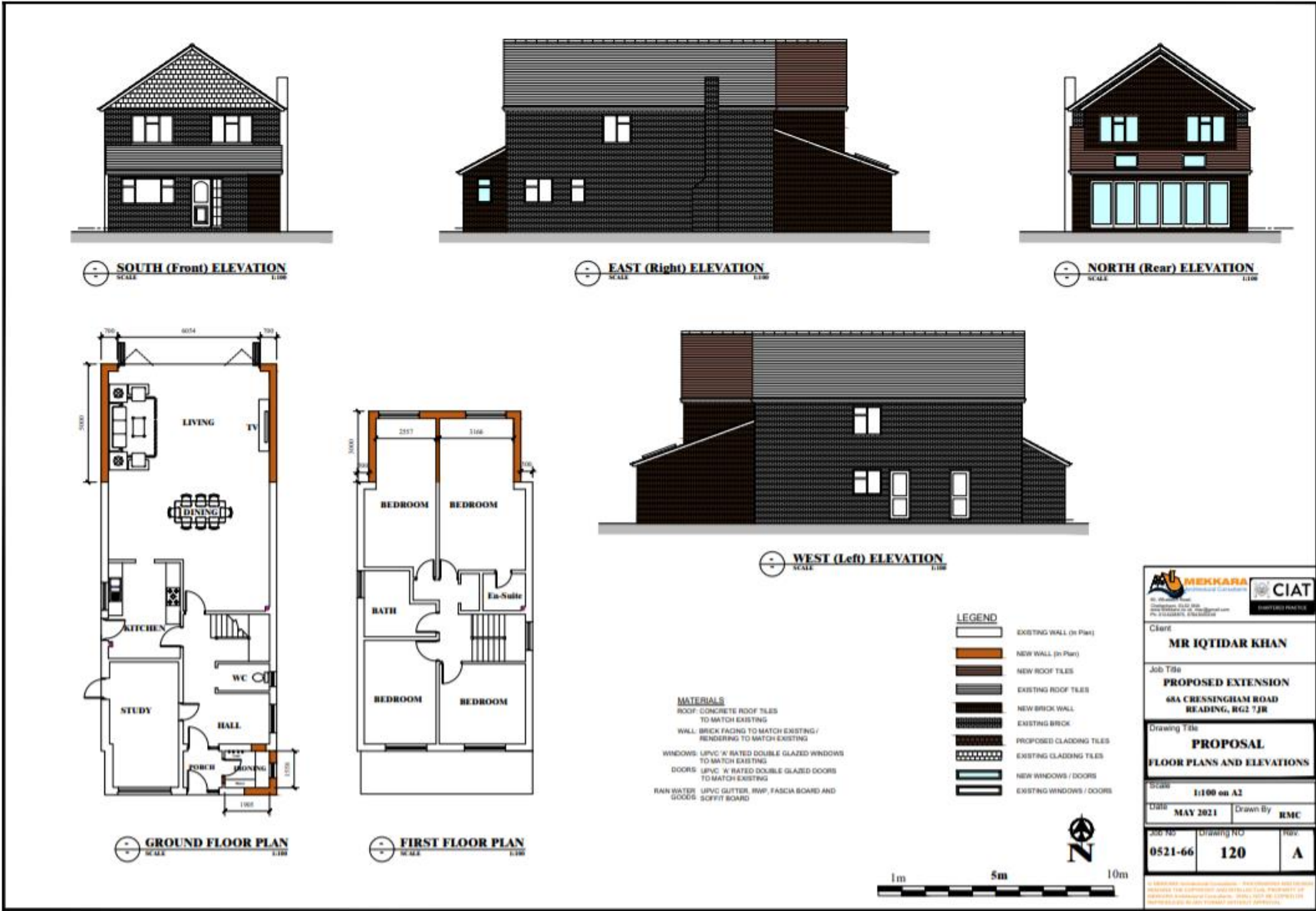
5.0 Bibliography

- Collins, J. (ed.) (2012). Bat Surveys for Professional Ecologists —Good Practice Guidelines, 3rd edition, Bat Conservation Trust, London.
- Garland, L. & Markham, S. (2008). Is important bat foraging and commuting habitat legally protected?<http://biodiversitybydesign.co.uk/cmsAdmin/uploads/protection-for-bat-habitat-sep-2007.pdf>
- Google Earth (2021) [accessed on 15/10/2021].
- Magic database (2021) <http://www.magic.gov.uk/MagicMap.aspx> accessed on [accessed on 15/10/2021].
- Mitchell-Jones, A.J. (2004). Bat Mitigation Guidelines. English Nature, Peterborough.

Appendix 1: Survey Plan



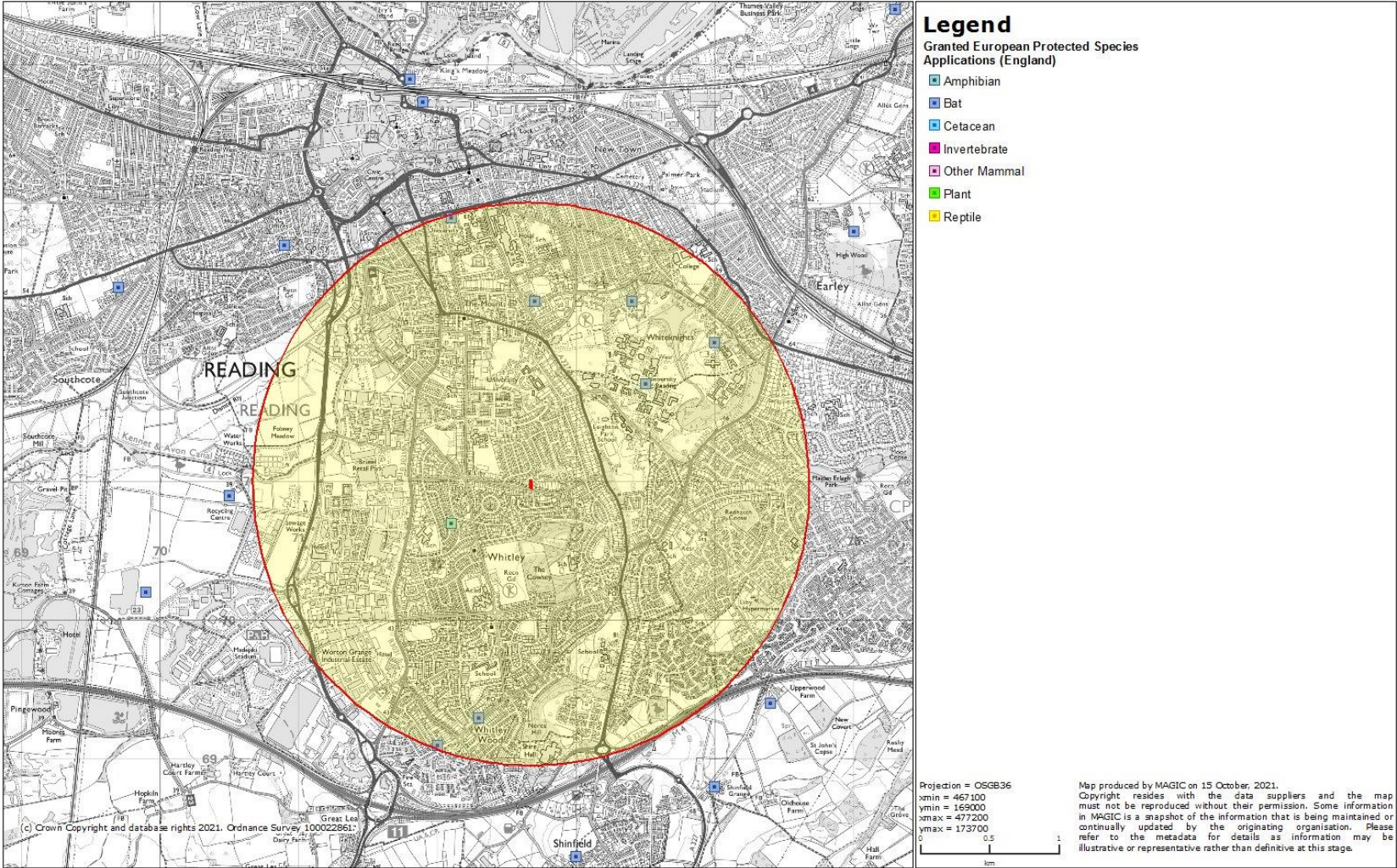
Appendix 2: Proposed Site Plan



Appendix 3: Desk Study Information

MAGIC

EPSLs



Appendix 4: Legislation and Planning Policy Related to Bats

LEGAL PROTECTION

All species of bat are fully protected under The Conservation of Habitats and Species Regulations 2010 (as amended) through their inclusion on Schedule 2.

Regulation 41 prohibits:

- Deliberate killing, injuring or capturing of Schedule 2 species (e.g. all bats)
- Deliberate disturbance of bat species as:
 - a) to impair their ability:
 - (i) to survive, breed, or reproduce, or to rear or nurture young
 - (ii) to hibernate or migrate
 - b) to affect significantly the local distribution or abundance of the species
- Damage or destruction of a breeding site or resting place

Bats are also protected under the Wildlife and Countryside Act 1981 (as amended) through their inclusion on Schedule 5. Under this Act, they are additionally protected from:

- Intentional or reckless disturbance (at any level)
- Intentional or reckless obstruction of access to any place of shelter or protection
- Selling, offering or exposing for sale, possession or transporting for purpose of sale

Effect on development works:

A European Protected Species Mitigation (EPSM) Licence issued by the relevant statutory authority (e.g. Natural England) will be required for works likely to affect a bat roost or for operations likely to result in a level of disturbance which might impair their ability to undertake those activities mentioned above (e.g. survive, breed, rear young and hibernate). The licence is to allow derogation from the relevant legislation but also to enable appropriate mitigation measures to be put in place and their efficiency/success to be monitored.

The legislation may also be interpreted such that, in certain circumstances, important foraging areas and/or commuting routes can be regarded as being afforded *de facto* protection, for example, where it can be proven that the continued usage of such areas is crucial to maintaining the integrity and long-term viability of a bat roost (Garland & Markham, 2008).

NATIONAL PLANNING POLICY (ENGLAND)

National Planning Policy Framework

The National Planning Policy Framework promotes sustainable development. The Framework specifies the need for protection of designated sites and priority habitats and species. An emphasis is also made on the need for ecological infrastructure through protection, restoration and re-creation. The protection and recovery of priority species (considered likely to be those listed as UK Biodiversity Action Plan priority species) is also listed as a requirement of planning policy.

In determining a planning application, planning authorities should aim to conserve and enhance biodiversity by ensuring that: designated sites are protected from harm; there is appropriate mitigation or compensation where significant harm cannot be avoided; opportunities to incorporate biodiversity in and around developments are encouraged; and planning permission is refused for development resulting in the loss or deterioration of irreplaceable habitats including aged or veteran trees and also ancient woodland.

The Natural Environment and Rural Communities Act 2006 and the Biodiversity Duty

Section 40 of the Natural Environment and Rural Communities (NERC) Act, 2006, requires all public bodies to have regard to biodiversity conservation when carrying out their functions. This is commonly referred to as the 'biodiversity duty'.

Section 41 of the Act (Section 42 in Wales) requires the Secretary of State to publish a list of habitats and species which are of 'principal importance for the conservation of biodiversity.' This list is intended to assist decision makers such as public bodies in implementing their duty under Section 40 of the Act. Under the Act these habitats and species are regarded as a material consideration in determining planning applications. A developer must show that their protection has been adequately addressed within a development proposal.