



Bat Emergence and Re-entry Surveys

26 Netherhall Garden, London, NW3 5TL

Laubenjas Investments Ltd

Status	Issue	Name	Date
Draft	1	Michelle Huang, BS, MRes DIC, Graduate Ecologist	22/06/2023
Reviewed	1.1	Lizi Pimlott BSc (Hons) MSc MCIEEM MRSB, Principal Ecologist Natural England Class 2 Bat Licence 2016-22843-CLS-CLS	22/06/2023
Final	2	Michelle Huang, BS, MRes DIC, Graduate Ecologist	23/06/2023

Arbtech Consultant's Contact Details:

Michelle Huang
Graduate Ecologist



Laubenjas Investments Ltd

26 Netherhall Garden, NW3 5TL

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Industry Guidelines and Standards

This report has been written with due consideration to:

- Chartered Institute of Ecology and Environmental Management (2017). Guidelines for Preliminary Ecological Appraisal. 2nd edition. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management (2018). Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine. Version 1.1. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management (2017). Guidelines on Ecological Report Writing. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management (2020). Guidelines for Accessing, Using and Sharing Biodiversity Data in the UK. 2nd Edition. Chartered Institute of Ecology and Environmental Management, Winchester.
- British Standard 42020 (2013). Biodiversity – Code of Practice for Planning and Development.
- British Standard 8683:2021 (2021). Process for Designing and Implementing Biodiversity Net Gain.

Proportionality

The work involved in preparing and implementing all ecological surveys, impact assessments and measures for avoidance, mitigation, compensation and enhancement should be proportionate to the predicted degree of risk to biodiversity and to the nature and scale of the proposed development. Consequently, the decision-maker should only request supporting information and conservation measures that are relevant, necessary and material to the application in question. Similarly, the decision-maker and their consultees should ensure that any comments and advice made over an application are also proportionate.

The desk studies and field surveys undertaken to provide a Preliminary Ecological Appraisal (PEA) might in some cases be all that is necessary.

(BS 42020, 2013)

Executive Summary

Arbtech Consulting Ltd was instructed by Laubenjas Investments Ltd to undertake Bat Emergence and Re-entry Surveys (BERS) at 26 Netherhall Garden, London, NW3 5TL (hereafter referred to as "the site"). The survey was required to inform two planning applications for the site: 1) changes to the façade of the main building (B1a) with replacement windows and doors, installation of new conservation roof lights, and alterations to the front and rear garden; 2) demolition of the existing extension (B1b and B1c) and subsequent erection of a three-storey extension adjoining the main building (B1a) at the southern gable end (hereafter referred to as "the proposed development").

The following is work you will need to commission to comply with planning policy and legislation. Further information, along with opportunities for biodiversity enhancement, are outlined in Table 4 of this report.

Feature	Survey Results Summary	Impact Assessment	Recommendations
B1	<p>One low conservation-value roost (per the Bat Mitigation Guidelines; English Nature, 2004) was identified in B1 during the third BERS:</p> <ul style="list-style-type: none"> • Roost type: day roost • Species: common pipistrelle • Peak count: 1no. • Roost location: roof structure, presumably under a roof or ridge tile, west of the south-eastern most chimney on the eastern elevation <p>B1 was previously identified to contain one low conservation value roost (per the Bat Mitigation Guidelines; English Nature, 2004) during previous surveys in 2017 and 2019 (Greengage 2017, 2019):</p> <ul style="list-style-type: none"> • Roost type: day roost • Species: common pipistrelle • Peak count: 3no. • Roost location: lifted lead flashing of the south-eastern most chimney on the eastern elevation 	<p>The proposed works on B1 will include the installation of new conservation roof lights on the roof structure, which will involve the removal of roof tiles and modifications to the timber sarking internally.</p> <ul style="list-style-type: none"> • Damage/modification: yes – the removal of a portion of the roof tiles is anticipated to result in the damage and modification of the functionally-linked roost within the roof structure. • Disturbance: yes – the closest new skylight to the 2023 day roost is ~2.75m away, while the closest skylight to the 2017/2019 day roost is ~1.5m away; if bats are present during works, removal of roof tiles and modifications to timber sarking will generate noise and vibrations and disturb bats. <p>The proposed development will include the use of lighting which could spill on to bat roosting, foraging or commuting habitat and deter bats from using these areas.</p>	<p>Due to the number of roosts and species present, the site is eligible for a Bat Mitigation Class Licence (BMCL). A BMCL application to Natural England will be required to legally permit the proposed works. See Table 4 for more details.</p> <p>A low-impact lighting strategy will be adopted for the site during and post-development. See Table 4 for full specifications.</p>

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1.0 Introduction and Context

1.1 Background

Arbtech Consulting Limited was instructed by Laubenjas Investments Ltd to undertake Bat Emergence and Re-entry Surveys (BERS) at 26 Netherhall Garden, London, NW3 5TL (hereafter referred to as "the site"). The survey was required to inform two planning applications for the site: 1) changes to the façade of the main building (B1a) with replacement windows and doors, installation of new conservation roof lights, and alterations to the front and rear garden; 2) demolition of the existing extension (B1b and B1c) and subsequent erection of a three-storey extension adjoining the main building (B1a) at the southern gable end (hereafter referred to as "the proposed development"). A plan showing the proposed development is provided in Appendix 1.

The aim of the BERS was to determine the presence or likely absence of roosting bats and to characterise any roosts present. This has been undertaken with due consideration to the "Bat Surveys for Professional Ecologists—Good Practice Guidelines" publication (Collins, 2016).

The BERS have been informed by a Preliminary Roost Assessment (PRA) and BERS which were completed by Greengage in 2017 and 2019 (Greengage, 2019) and an updated PRA which was completed by Arbtech Consulting Ltd. on 23rd November 2022 (Arbtech Consulting Ltd., 2022). In 2017, Greengage classified the building (B1) as having low habitat value for roosting bats and identified a day roost (peak count 3no. common pipistrelles) underneath the lifted lead flashing of the southern chimney during the BERS. In 2019, B1 was classed as a confirmed roost with high value for roosting bats and the same day roost was in use by 1no. common pipistrelle.

1.2 Site Location and Landscape Context

The site is located at National Grid Reference TQ 26363 85081 and has an area of approximately 0.08ha. There is one building on the site, which was subject to survey. It is surrounded by urban built-up areas with Hampstead Heath to the northwest. A site location plan is provided in Appendix 2.

1.3 Scope of the Report

This report provides a description of the bat activity observed and recorded during BERS. The aim of the surveys was to determine the presence or likely absence of bats and to characterise any roosts present including species, number of individuals, number and location of roost access points, and to gain an understanding of how bats use the site. The report provides information on possible constraints to the proposed development as a result of bats and summarises the requirements for any mitigation proposals, including a European Protected Species Licence (EPSL), where appropriate, to achieve planning or other statutory consent and to comply with wildlife legislation. To achieve this, the following steps have been taken:

- BERS of the built structure has been undertaken to determine the presence or likely absence of bat roosts.
- An outline of potential impacts on any confirmed or unidentified roosts has been provided, based on the proposed development.
- Recommendations for mitigation have been made, along with advice on the requirements for a European Protected Species Licence (EPSL) application if appropriate.
- Opportunities for the enhancement of the site for roosting, foraging and commuting bats have been set out.

2.0 Methodology

2.1 BERS

Three BERS, comprising three dusk emergence surveys, were undertaken of B1, as per the recommendations from the Preliminary Roost Assessment. The surveys involved surveyors positioned around the building ensuring that all elevations and roof sections with suitable roosting features could be clearly observed. Particular attention was paid to the areas of the building identified as providing suitable access points to bat roosts. Each surveyor was assigned an area of the building to observe for the duration of the survey.

Surveyors used heterodyne and frequency division bat detectors, and Echo Meter Touch detectors connected to iPads or Android tablets. Bat echolocation calls recorded during the surveys were analysed using Wildlife Acoustics sound analysis software Kaleidoscope V3.1.7 when required. The Echo Meter Touch includes an auto ID function for bat species, however this is not 100% accurate and further post-survey sound analysis is often required to confirm species that could not be identified by the auto ID software during the survey. Surveyors also used head torches, survey record sheets and pens/pencils for recording all activity observed during the surveys. Each surveyor was also provided with a handheld radio for communication between surveyors to assist with confirming ambiguous bat activity e.g. a bat emergence or a bat passing over the building.

One thermal/infrared recording kit was set up to monitor the building during the BERS. For the first and third surveys, this comprised a CS-1 thermal camera set up on a tripod; for the second survey, this comprised Nightfox Red Goggles set up on a tripod with a separate infrared lamp on a second tripod to provide additional illumination. Analysis of the footage was subsequently undertaken to detect roosting activity.

Dusk emergence surveys commenced 15 minutes before sunset and continued for 1½ - 2 hours after sunset – depending upon bat activity and surveyor visibility. Surveys were a minimum of two weeks apart.

Surveys were completed during optimal weather conditions i.e., when temperatures were above 10°C, with no rain or strong winds (greater than 5m/s), as these adverse weather conditions can impact upon bat emergence and foraging behaviour. Periods of high moon illuminance (>80%) were also avoided insofar as possible as this can reduce bat activity.

2.2 Surveyors

A total of two surveyors were used to cover B1. The name, bat licence details or level of bat survey experience and the designated position of each surveyor during each survey is detailed in the tables in Section 3.1 below and shown on the plan in Appendix 3.

2.3 Bat Roost Characterisation

When bat roosts are present, the bat surveys undertaken at a site facilitate the characterisation of the roost type. This allows for appropriate mitigation and compensation to be designed to inform a European Protected Species Licence (EPSL) application to Natural England.

Bat Emergence and Re-entry Surveys

The definitions of bat roost types are provided below, taken from the *Bat Mitigation Guidelines* (English Nature, 2004) and the Bat Conservation Trust (BCT) publication *Bat Surveys for Professional Ecologists – Good Practice Guidelines* (Collins, 2016).

Day roost: a place where individual bats, or small groups of males, rest or shelter in the day but are rarely found by night in the summer.

Night roost: a place where bats rest or shelter in the night but are rarely found in the day. May be used by a single individual on occasion or it could be used regularly by the whole colony.

Feeding roost: a place where individual bats or a few individuals rest or feed during the night but are rarely present by day.

Transitional / occasional roost: used by a few individuals or occasionally small groups for generally short periods of time on waking from hibernation or in the period prior to hibernation.

Swarming site: where large numbers of males and females gather during late summer to autumn. Appear to be important mating sites

Mating sites: sites where mating takes place from later summer and can continue through winter.

Maternity roost: where female bats give birth and raise their young to independence.

Hibernation roost: where bats may be found individually or together during winter. They have a constant cool temperature and high humidity. Sites where hibernating bats have been confirmed by appropriate survey effort should be classed as 'hibernation confirmed'.

Satellite roost: an alternative roost found in close proximity to the main nursery colony used by a few individual breeding females to small groups of breeding females throughout the breeding season.

Other: roost types are interchangeable and not always easy to classify according to the nuances of certain species.

2.4 Limitations

These surveys follow best practice guidance to confirm presence or likely absence of roosting bats and where present, characterise the roost. However, this information is collected at finite dates and times, and provides an indication of the conditions on site only. The use of the building, and the site as a whole by bats, at all times cannot be established based on this information. Bats are highly mobile creatures that switch roosts regularly and therefore the usage of a site by bats can change over a short period of time.

An updated internal inspection for material changes could not be undertaken due to health and safety concerns as internal works had begun and all floorboards had been removed, rendering the loft space inaccessible.

Due to the layout of the site, the exact location of the roost identified during the third survey could not be determined, but the general location has been confirmed to be on the roof structure west of the south-eastern most chimney on the eastern elevation.

3.0 Results and Evaluation

3.1 Survey Results

The results of each survey are provided in the tables below and shown on the plan in Appendix 3.

Roost identified during previous survey efforts (Greengage 2017, 2019):

- A day roost (under the lifted lead flashing of the south-eastern most chimney on the eastern elevation) with a peak count of 3no. common pipistrelles in 2017 and a peak count of 1no. common pipistrelle in 2019.

Roost identified during this survey:

- A day roost (on the roof structure, presumably under a roof or ridge tile, directly west of the south-eastern most chimney on the eastern elevation) with a peak count of 1no. common pipistrelle.

Table 1: Survey results (first visit)

Date	22/05/2023	
Start and end times	20:40 – 22:00 Sunset: 20:55	
Weather conditions	Start: Temp: 17.4°C Relative Humidity: 40% Cloud Cover: 30% Wind: BF1 Rain: None	End: Temp: 12.1°C Relative Humidity: 52% Cloud Cover: 60% Wind: BF1 Rain: None
Surveyor (position) As shown in Appendix 3	David Lionel – 2 years bat survey experience: Position 1 – observing the northern and western elevations and roof structures of B1 Michelle Huang (Lead Surveyor) – Accredited Agent under Natural England Bat Licence Number: 2022-10404-CL18-BAT: Position 2 – observing the eastern and southern elevations and roof structures of B1	
IR position As shown in Appendix 3	Position 1 - observing the previous roost location (lifted flashing on the south-eastern chimney)	
Building reference	Surveyor position	Notes/observations:
B1	1	No bat roosting activity was identified. The first bat activity detected was a common pipistrelle which was heard on the detector but not seen at 21:21. Between 21:22 and 21:35, common pipistrelles were heard distantly on the detector but not seen. The final bat activity detected was a common pipistrelle which was heard on the detector but not seen at 21:50.
B1	2	No bat roosting activity was identified. The first bat activity detected was a common pipistrelle which was seen passing from the north along the eastern elevation of B1 towards the southwest at 21:17. Between 21:19 and 21:34, common pipistrelles were seen passing in the same trajectory, and also from the southwest towards the north. Between 21:34 and 21:40, common pipistrelles were heard on the detector but not seen. At 21:44, two common pipistrelles were observed passing from the west towards the east. Between 21:50 and 22:08, common pipistrelles were heard distantly on the detector but not seen, with the final bat activity being a common pipistrelle which was heard on the detector but not seen at 22:08.


Building reference	IR position	Notes/observations:
B1	1	<p data-bbox="432 819 1190 842">No bats were observed emerging from the historic day roost location, and no roost activity was captured on camera.</p> <div data-bbox="440 846 1331 1200">  <p data-bbox="730 1205 1038 1227"><i>Figure 1. Snapshot of thermal camera footage.</i></p> </div>
Other observations		No bird activity associated with B1 throughout the survey.

Table 2: Survey results (second visit)

Date	05/06/2023	
Building inspection prior to survey	The external roost features identified during the PRA were subject to an inspection prior to the BERS to check for evidence of roosting bats. Externally, the building did not undergo significant material changes. An internal inspection of the loft void was not completed due to the lack of floorboards internally (see Limitations section).	
Start and end times	21:57 – 22:30 Sunset: 21:12	
Weather conditions	Start: Temp: 13.6°C Relative Humidity: 63% Cloud Cover: 100% Wind: BF1 Rain: None	End: Temp: 12.7°C Relative Humidity: 63% Cloud Cover: 100% Wind: BF1 Rain: None
Surveyor (position) As shown in Appendix 3	David Lionel – 2 years bat survey experience: Position 1 – observing the northern and western elevations and roof structures of B1 Michelle Huang (Lead Surveyor) – Accredited Agent under Natural England Bat Licence Number: 2022-10404-CL18-BAT: Position 2 – observing the eastern and southern elevations and roof structures of B1	
IR position As shown in Appendix 3	Position 1 - observing the southern and eastern elevations and roof structures of B1	
Building reference	Surveyor position	Notes/observations:
B1	1	No bat activity detected throughout the survey. No bat roosting activity was identified.
B1	2	No bat roosting activity was identified. The first bat activity detected was a common pipistrelle which passed from the south towards the north at 21:36. Between 21:41 and 21:44, common pipistrelles were seen passing along the eastern elevation of B1 from the north towards the southwest. At 21:51 a common pipistrelle was heard on the detector but not seen. Between 22:00 and 22:10, common pipistrelles were seen passing towards the southwest from the north and east. Common pipistrelles were heard on the detector but not seen from 22:12 until 22:25, when the last bat activity was detected.



Building reference	IR position	Notes/observations:
B1	1	<p data-bbox="432 819 1193 842">No bats were observed emerging from the historic day roost location, and no emergences were captured on camera.</p>  <p data-bbox="730 1200 1038 1223"><i>Figure 2. Snapshot of infrared camera footage.</i></p>
Other observations		No bird activity associated with B1 throughout the survey.

Table 3: Survey results (third visit)

Date	19/06/2023	
Start and end times	21:04 – 22:40 Sunset: 21:20	
Weather conditions	Start: Temp: 21.9°C Relative Humidity: 55% Cloud Cover: 40% Wind: BFO Rain: None	End: Temp: 18.7°C Relative Humidity: 70% Cloud Cover: 40% Wind: BFO Rain: None
Surveyor (position) As shown in Appendix 3	David Lionel – 2 years bat survey experience: Position 1 – observing the northern and western elevations and roof structures of B1 Michelle Huang (Lead Surveyor) – Accredited Agent under Natural England Bat Licence Number: 2022-10404-CL18-BAT: Position 2 – observing the eastern and southern elevations and roof structures of B1	
IR position As shown in Appendix 3	Position 1 - observing the previous roost location (lifted flashing on the south-eastern chimney)	
Building reference	Surveyor position	Notes/observations:
B1	1	No bat roosting activity was identified. The first bat activity detected was a common pipistrelle which was heard on the detector but not seen at 22:19. The final bat activity detected was a common pipistrelle which was heard on the detector but not seen at 22:23.
B1	2	The first bat activity detected was a common pipistrelle which was seen emerging from the roof structure, presumably from under a roof or ridge tile, directly west of the south-eastern most chimney of the eastern elevation of B1 at 21:41; the bat flew south after emerging. Between 21:44 and 22:00, two common pipistrelles were observed foraging in the rear garden and briefly along the flat-roof portions (B1b and B1c) before eventually flying west. At 22:02, a common pipistrelle was observed passing from the north towards the west. Between 22:15 and 22:24, common pipistrelles were heard on the detector but not seen. The final bat activity detected was a common pipistrelle which was heard on the detector but not seen at 22:31.

Building reference	IR position	Notes/observations:
B1	1	<p>No bats were observed emerging from the historic day roost location, and due to the positioning of the camera during this survey, the emergence which occurred at 21:41 was not captured on camera.</p>  <p style="text-align: center;"><i>Figure 3. Snapshot of thermal camera footage.</i></p>
Other observations		No bird activity associated with B1 throughout the survey.

4.0 Conclusions, Impacts and Recommendations

Taking the field survey results into account, Table 4 presents an evaluation of the value of the building for roosting bats in relation to the proposed development which will comprise: 1) changes to the façade of the main building (B1a) with replacement windows and doors, installation of new conservation roof lights, and alterations to the front and rear garden; 2) demolition of the existing extension (B1b and B1c) and subsequent erection of a three-storey extension adjoining the main building (B1a) at the southern gable end.

Table 4: Evaluation of the building on site for roosting bats

Building	Survey Results Summary	Impact Assessment	Recommendations	Biodiversity Enhancement Opportunities ¹
B1	<p>One low conservation-value roost (per the Bat Mitigation Guidelines; English Nature, 2004) was identified in B1 during the third BERS:</p> <ul style="list-style-type: none"> • Roost type: day roost • Species: common pipistrelle • Peak count: 1no. • Roost location: roof structure, presumably under a roof or ridge tile, west of the south-eastern most chimney on the eastern elevation <p>B1 was previously identified to contain one low conservation value</p>	<p>The proposed works on B1 will include the installation of new conservation roof lights on the roof structure, which will involve the removal of roof tiles and modifications to the timber sarking internally.</p> <ul style="list-style-type: none"> • Damage/modification: yes – the removal of a portion of the roof tiles is anticipated to result in the damage and modification of the functionally-linked roost within the roof structure. • Disturbance: yes – the closest skylight to the 2023 day roost is ~2.75m away, while the closest skylight to the 2017/2019 day roost is ~1.5m away; if bats are present during works, removal of roof tiles and modifications to timber sarking will generate noise and vibrations and disturb bats. 	<p style="text-align: center;">Licencing</p> <p>Due to the number of roosts and species present, the site is eligible for a Bat Mitigation Class Licence (BMCL). A BMCL application to Natural England will be required to legally permit the proposed works. The BMCL application requires that surveys have been undertaken within the most recent active bat season (optimal May to August, suboptimal September). Planning permission must have been granted and all relevant bat-related conditions have been discharged prior to submission, where possible to do so.</p> <p>A Material Changes Check will be required within three months of the BMCL submission, if no survey work has been undertaken within that period.</p> <p>The BMCL will include the following measures:</p> <ul style="list-style-type: none"> • The installation of one bat box, known as a receptor bat box, at the site (one bat box per species) prior to works commencing to form a receptor site for any bats found during the works. These boxes may be installed on buildings or trees but must be in an undisturbed location and will need to be maintained in this location post-development. Bat boxes should be positioned 3- 	<p>The installation of one bat box (in addition to the receptor bat box from the BMCL) at the site will provide additional roosting habitat for bats. The bat boxes will be installed on one of the retained trees in the rear garden. Bat boxes should be positioned 3-5m above ground level facing in a south or south-westerly direction with a clear flight path to and from the entrance, away from artificial light.</p>

¹ The Local Planning Authority has a duty to ask for enhancements under the NPPF (2021).
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	<p>roost (per the Bat Mitigation Guidelines; English Nature, 2004) during previous surveys in 2017 and 2019 (Greengage 2017, 2019):</p> <ul style="list-style-type: none"> • Roost type: day roost • Species: common pipistrelle • Peak count: 3no. • Roost location: lifted lead flashing of the south-eastern most chimney on the eastern elevation <p>The building does not contain roost features which would typically support hibernation roosts.</p>	<p>The proposed development will include the use of lighting which could spill on to bat roosting, foraging or commuting habitat and deter bats from using these areas.</p>	<p>5m above ground level facing in a south or south-westerly direction with a clear flight path to and from the entrance, away from artificial light. A suitable location is in the northeastern corner of the site as shown in Appendix 4.</p> <ul style="list-style-type: none"> • The provision of a toolbox talk to contractors, by the Registered Consultant or an Accredited Agent, to inform them of the presence of bat roosts. • A pre-commencement inspection of any roost features by the Registered Consultant or an Accredited Agent using a torch and an endoscope (this may be via ladders, scaffolding or a mobile elevated platform). • The removal of bat roost features by hand under the supervision of the Registered Consultant or an Accredited Agent (where it is not possible conclude absence of bats during the pre-commencement inspection). • Avoiding the use of unnecessary lighting, particularly at night, or implementing a low impact lighting strategy to avoid illumination of retained or newly created roosts or roost features. • Avoiding excessive noise or vibration disturbance e.g. from power tools or radios, within close proximity of retained or newly created roosts or roost features. • All new windows should utilize a form of conservation glazing which will minimize light spill and in turn minimize disturbance to bats and their roosts. <p>You must include a certificate that proves the roofing membrane has passed a 'snagging propensity test' if you're using a non-bitumen coated roofing membrane. A snagging propensity test checks that the membrane can stand the repeated snagging actions of roosting bats. To pass, a membrane must show no change in the average number of loops per cm² as rotations are increased from 0 to 1000. You do not need a certificate for bitumen 1F felt that has a non-woven, short fibre construction.</p>	<p>The bat boxes will be a specification suitable for crevice-dwelling species such as the Eco Bat Box or a similar alternative brand.</p>
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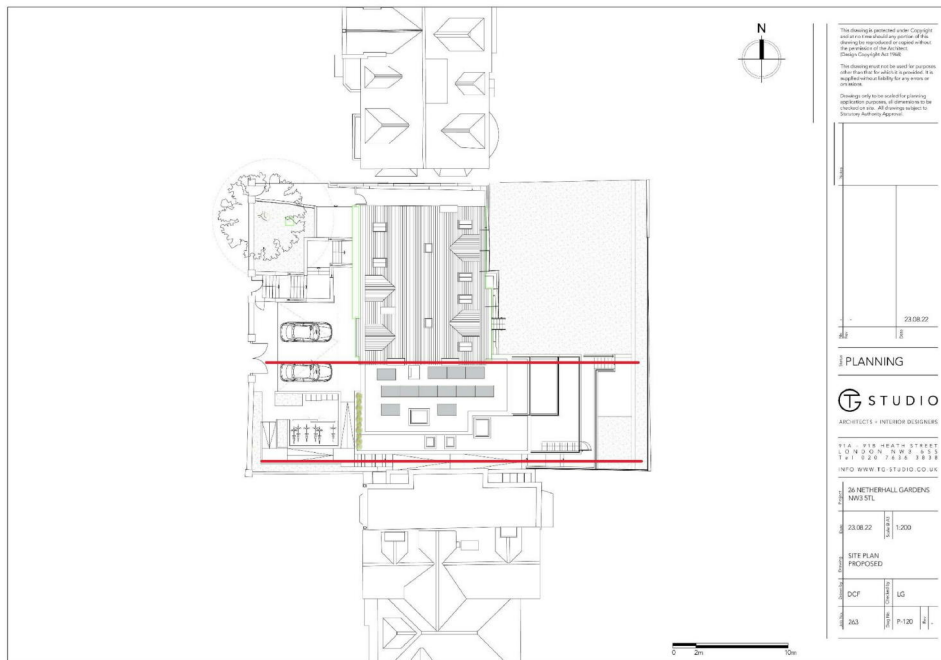
			<p>Should timber treatment be required this should follow guidance set out at the below link: https://www.gov.uk/government/publications/bat-roosts-insecticides-and-timber-treatments/timber-treatment-products-suitable-for-use-in-or-near-bat-roosts</p> <p>The BMCL will only include the bat species, numbers and roost types listed above. If bats are found during periods of adverse weather conditions, these must be left undisturbed until weather conditions become more favourable to move bats to the receptor bat box.</p> <p>BMCLs do not allow for the disturbance of hibernating bats. Therefore, if any bats are found during the hibernation period November to March or if any unexpected bat species or roost types are identified works must cease and advice must be sought from the Registered Consultant regarding the possible requirement for further bat surveys and whether a BMCL is still appropriate.</p> <p style="text-align: center;">Lighting</p> <p>A low impact lighting strategy will be adopted for the site during and post-development, which will include the following measures:</p> <ul style="list-style-type: none"> • Light spill on to B1 and the rear garden should be avoided. • Use narrow spectrum light sources to lower the range of species affected by lighting. • Use light sources that emit minimal ultra-violet light. • Avoid white and blue wavelengths of the light spectrum to reduce insect attraction and where white light sources are required in order to manage the blue shortwave length content they should be of a warm / neutral colour temperature <4,200 kelvin. • Not use bare bulbs and any light pointing upwards. The spread of light will be kept in line with or below the horizontal. • Light spill will be reduced via the use of low-level lighting used in conjunction with hoods, cowls, louvers 	
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			<p>and shields. Lights will also be directional to ensure that light is directed to the intended areas only.</p> <ul style="list-style-type: none">• External lighting will be on PIR sensors that are sensitive to large objects only (so that they are not triggered by passing bats) and will be set to the shortest time duration to reduce the amount of time the lights are on.• Wall lights and security lights will be 'dimnable' and set to the lowest light intensity settings. There are several products on the market that allow the control of the light intensity and the duration that the lights are on. All lighting on the developed site will make use of the most up to date technology available.	
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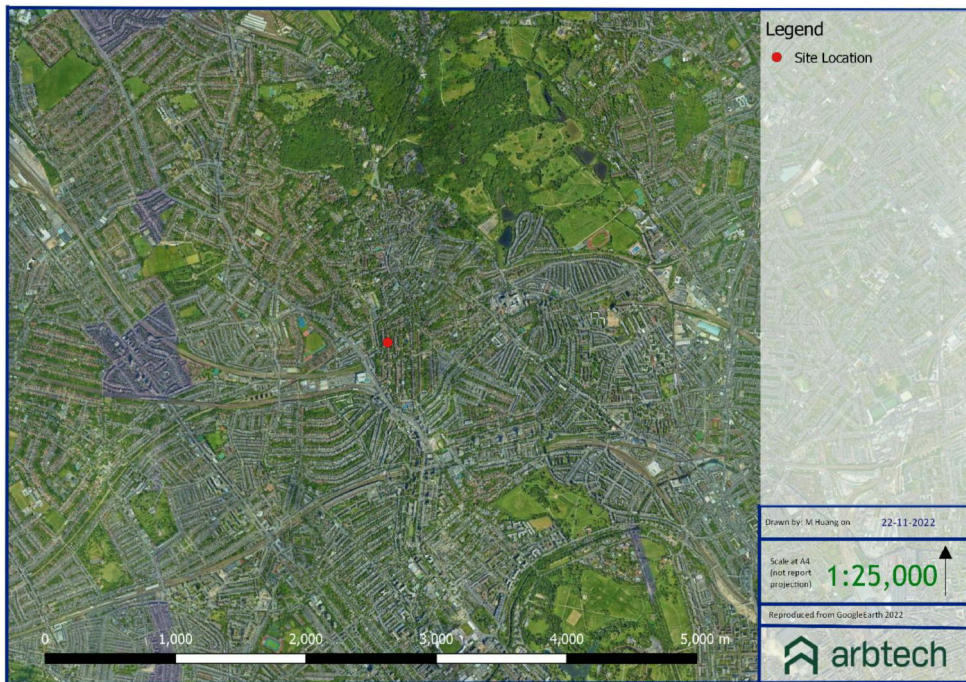
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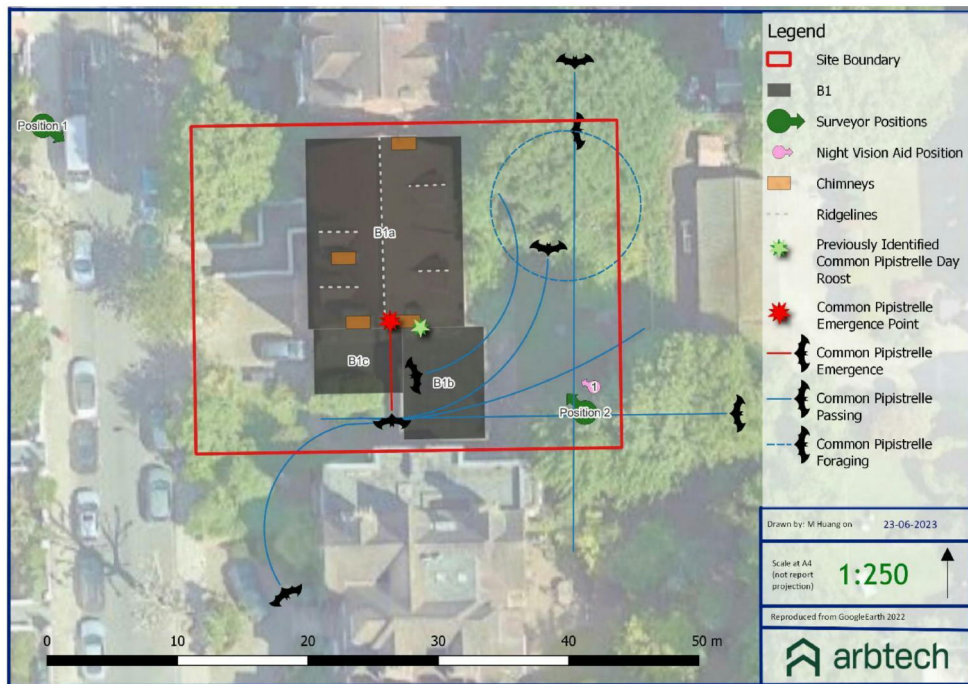
Appendix 1: Proposed Development Plan



Appendix 2: Site Location Plan



Appendix 3: BERS Plan



Appendix 4: Bat Mitigation and Enhancement Plan



Appendix 5: Legislation and Planning Policy Related to Bats

LEGAL PROTECTION

All species of bat are fully protected under *The Conservation of Habitats and Species Regulations 2017* (as amended) through their inclusion on Schedule 2.

Regulation 43: Protection of certain wild animals - offences

(1) A person is guilty of an offence if they:

- (a) Deliberately captures, injures or kills any wild animal of a European protected species,
- (b) Deliberately disturbs wild animals of any such species,
- (c) Deliberately takes or destroys the eggs of such an animal, or
- (d) Damages or destroys a breeding site or resting place of such an animal,

(2) For the purposes of paragraph (1) (b), disturbance of animals includes in particular any disturbance which is likely—

- (a) To impair their ability:
 - (i) To survive, to breed or reproduce, or to rear or nurture their young; or
 - (ii) In the case of animals of a hibernating or migratory species, to hibernate or migrate; or
- (b) To affect significantly the local distribution or abundance of the species to which they belong.

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

NATIONAL PLANNING POLICY

National Planning Policy Framework 2021

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 species of principal importance under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006) is also listed as a requirement of planning policy.

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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; measurable gains in biodiversity in and around developments are incorporated; 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 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.

LOCAL PLANNING POLICY

Camden Local Plan (Adopted July 2017)

The Camden Local Plan can be viewed here: <https://www.camden.gov.uk/documents/20142/4820180/Local+Plan.pdf/ce6e992a-91f9-3a60-720c-70290fab78a6>.

The following planning policies have implications for developers in relation to bats:

- A3: Biodiversity - The Council will protect and enhance sites of nature conservation and biodiversity. We will:
 - designate and protect nature conservation sites and safeguard protected and priority habitats and species;
 - grant permission for development unless it would directly or indirectly result in the loss or harm to a designated nature conservation site or adversely affect the status or population of priority habitats and species;
 - seek the protection of other features with nature conservation value, including gardens, wherever possible;
 - assess developments against their ability to realise benefits for biodiversity through the layout, design and materials used in the built structure and landscaping elements of a proposed development, proportionate to the scale of development proposed;
 - secure improvements to green corridors, particularly where a development scheme is adjacent to an existing corridor;
 - seek to improve opportunities to experience nature, in particular where such opportunities are lacking;
 - require the demolition and construction phase of development, including the movement of works vehicles, to be planned to avoid disturbance to habitats and species and ecologically sensitive areas, and the spread of invasive species;
 - secure management plans, where appropriate, to ensure that nature conservation objectives are met; and

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- o work with The Royal Parks, The City of London Corporation, the London Wildlife Trust, friends of park groups and local nature conservation groups to protect and improve open spaces and nature conservation in Camden.

Camden Biodiversity Action Plan

The Camden Biodiversity Action Plan can be viewed here: <https://www.camden.gov.uk/documents/20142/2205931/Camden+Biodiversity+action+plan.pdf/ab6c69bc-3769-3719-5481-a7fbc22555ce>.

The following bat species are included in the plan:

- Soprano pipistrelle
- Common pipistrelle
- Daubenton's bat
- Brown long-eared bat
- Natterer's bat
- Lesser noctule
- Nathusius' pipistrelle
- Serotine

EFFECT OF LEGISLATION AND POLICY ON DEVELOPMENT WORKS

A European Protected Species Licence (EPSL) issued by 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).

There are 17 species of bat breeding in England and Natural England issues licences under Regulation 55 of the Habitats Regulations to allow you to work within the law.

Licences are issued for specific purposes stated in the Regulations, if the following three tests are met:

- The purpose of the work meets one of those listed in the Habitats Regulations (see below);
- That there is no satisfactory alternative;
- That the action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status (FCS) in their natural range

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The Habitats Regulations permits licences to be issued for a specific set of purposes including:

- include preserving public health or public safety or other imperative reasons of over-riding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment;
- scientific and educational purposes;
- ringing or marking; and,
- conserving wild animals.

Development works fall under the first purpose and Natural England issues bat mitigation licences for developments.

EUROPEAN PROTECTED SPECIES POLICIES

In December 2016 Natural England officially introduced the four licensing policies throughout England. The four policies seek to achieve better outcomes for European Protected Species (EPS) and reduce unnecessary costs, delays and uncertainty that can be inherent in the current standard EPS licensing system. The policies are summarised as follows:

- Policy 1; provides greater flexibility in exclusion and relocation activities, where there is investment in habitat provision;
- Policy 2; provides greater flexibility in the location of compensatory habitat;
- Policy 3; provides greater flexibility on exclusion measures where this will allow EPS to use temporary habitat; and,
- Policy 4; provides a reduced survey effort in circumstances where the impacts of development can be confidently predicted.

The four policies have been designed to have a net benefit for EPS by improving populations overall and not just protecting individuals within development sites. Most notably Natural England now recognises that the Habitats Regulations legal framework now applies to 'local populations' of EPS and not individuals/site populations.