



QA

28 Redington Road – Bat Emergence/Re-entry Survey and Bird Scoping Report

Issue/Revision:	Draft	Final
	July 2016	July 2016
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File Reference:	550786mtJul16DV01_Bats	550786mtJul16FV01_Bats

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1.0 EXECUTIVE SUMMARY

- 1.1 Greengage Environmental Ltd was commissioned by the Linton Group to undertake a Bat Emergence and Re-entry survey and a Breeding Bird Scoping Survey at 28 Redington Road, Hampstead, in order to determine the presence or likely absence of roosting bat, to observe any bat foraging or commuting activity across the wider site, and to identify the potential for breeding birds to be present.
- 1.2 The surveys were undertaken to support an application for planning permission which seeks for demolition of the existing building and redevelopment to provide a number of flats and communal garden.
- 1.3 The emergence/re-entry and activity survey therefore aimed to confirm the presence/likely-absence of roosting bats within the structures, concentrating on features of potential value identified during the scoping assessment.
- 1.4 A detailed systematic daytime external and internal inspection observed no evidence of use by bat. However, several features present across the site were noted as providing low/moderate potential for roosting bats. These features include gaps in soffits and fascia, gaps beneath roof tiles, and potential access points to vaulted ceilings.

BATS

- 1.5 Low levels of commuting and foraging behaviour by common bat species were recorded at the site during the surveys. Almost all activity observed was by common pipistrelle (*Pipistrellus pipistrellus*), with only one or two passes attributed to soprano pipistrelle (*P. Pygmaeus*), and noctule (*Nyctalus noctula*).
- 1.6 No bat roosting activity was observed. As such, no formal mitigation measures are recommended.
- 1.7 However, in accordance with planning policy and good practice, a number of recommendations are made including:
 - Bat-sensitive lighting incorporated into the scheme to minimise any potential impacts of increased lighting levels on foraging and commuting bats observed as present;
 - Retention of trees, vegetation and habitats of value to local bat and bird populations, where possible;
 - Wildlife-friendly landscaping to enhance the site as a foraging and commuting resource; and
 - Inclusion of bat boxes, bricks or 'habibats' within the mature trees and/or newly constructed building to provide bat roosting opportunities at the site.

BIRDS

- 1.8 The breeding bird scoping survey aimed to identify the potential for nesting birds to be using features within the building or vegetation onsite, and to look for evidence of such use.
- 1.9 Again, a detailed systematic daytime external and internal inspection identified no evidence of use by nesting birds within the structures. However, several features such as loose and missing tiles and overhanging eaves have potential to provide opportunities for crevice-dwelling species such as house sparrow (*Passer domesticus*), starling (*Sturnus vulgaris*) and common swift (*Apus apus*), for which there are local records.
- 1.10 The mature trees and dense vegetation across the site also provide potential nesting locations for small passerine species. For these reasons, it is recommended that demolition works and clearance of dense vegetation is undertaken outside the breeding bird season (March-September) or following confirmation of absence by a suitably qualified ecologist.
- 1.11 The inclusion of bird nest boxes targeting locally important species within the mature trees and/or newly constructed building to provide compensatory nesting opportunities is recommended.
- 1.12 Enhancement measures for bats and nesting birds have been recommended to increase the biodiversity value of the site. Should these enhancement recommendations be followed, the development stands to result in net gains for biodiversity.

2.0 INTRODUCTION

- 2.1 Greengage was commissioned to undertake a bat emergence and re-entry survey and breeding bird scoping survey by the Linton Group of the property at 28 Redington Road, Hampstead in order to assess the relative importance of the site for bats, to confirm the presence/ likely-absence of roosting bats in the building, and to assess the potential for breeding birds to be present. The surveys aimed to identify the impact of the proposals on bats and breeding birds.

AIMS OF SURVEY

Bat Emergence/Re-entry and Activity Survey

- 2.2 The purpose of the survey was to further determine if there are any features or habitats on site that could potentially support bats, and to determine whether any bats are roosting in the buildings and trees at the site. The surveys therefore aim to:
- Determine the presence/absence of bat species;
 - Determine the intensity of bat activity both spatially and temporally to help estimate bat populations;
 - Find roosts by tracking back bat flight paths or observing dawn flight activity at roosts.
 - Determine the type of activity, most usually
 - Roosting;
 - foraging (by feeding buzzes); or
 - commuting (by high directional pass rates); and
- 2.3 By using a collation of existing data for the area to support the survey, it is possible to determine the presence/likely-absence of bats across the site and in the wider area. This information can then be used to determine the form and extent of any mitigation, compensation or enhancement that may be appropriate.

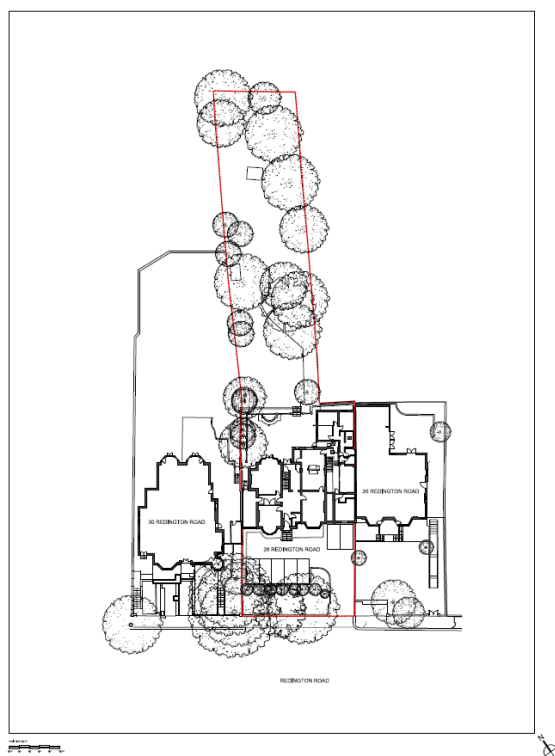
Breeding Bird Scoping Survey

- 2.4 The purpose of the bird scoping survey was to make an assessment of the suitability of the vegetation, habitats and existing buildings onsite for breeding birds. In addition, any field signs and activity was noted. Site observations were used to inform an overall impact assessment, and recommendations for mitigation and enhancement, where appropriate.

SITE DESCRIPTION

- 2.5 The site is approximately 0.2 hectares and is approximately centred on National Grid Reference TQ257858 and OS Co-ordinates 525798, 185861.
- 2.6 The site supports a three storey residential property with associated driveway and garden space. The building is a brick built structure with a pitched and tiled roof which links to a small annex block. The garden, that extends some distance to the rear of the property, supports a number of mature trees and includes a patchwork of overgrown improved grassland and shrub beds.

Figure 2.1 Site red line boundary



- 2.7 The site is set in the urbanised area of Hampstead Village. A very green part of north London, Hampstead is characterised by an abundance of large residential properties with gardens and tree lined streets, as well as the network of parks including Hampstead Heath (located just 350m from the site at its closest point); accordingly, there is an abundance of green space in the area, with well-defined green links to and from the site.

DEVELOPMENT PROPOSALS

- 2.8 Proposals include demolition of the existing building and redevelopment to provide a new residential building comprising a number of flats with private terraces and a communal garden.

3.0 METHODOLOGY

PRELIMINARY ASSESSMENT & BAT SCOPING SURVEY

Desk Based Assessment

- 3.1 Biological records were analysed to determine the records of bat species in the local area. Records were obtained from the London Bat Group on 12th July 2016.
- 3.2 An assessment of the local area using aerial photography and available maps and biological data was also undertaken.

Site Assessment

- 3.3 Full access to the internal and external areas of the site was granted to Morgan Taylor and Naomi Foot who completed the survey on 5th July 2016. The weather was clear, dry and warm (ambient air temperature of 19°C, with a wind speed of 12mph from NNE direction).
- 3.4 Information recorded followed recommended survey methodologies from the *Bat Conservation Trust (2015) Bat Surveys for Professional Ecologists: Good Practice Guidelines*¹ and the *Bat Workers Manual (2004)*².

Buildings

- 3.5 There is a single building at the site (if including the linking annex block as part of the main house) assessed during the scoping survey.
- 3.6 Field signs reviewed for were as follows:
- Droppings;
 - Feeding remains (such as moth and butterfly wings);
 - Clean cobweb-free timbers, crevices and holes;
 - Staining from urine and grease marks;
 - Bats seen roosting or observed flying from the roost or within the habitat;
 - Bats heard chattering; and
 - Smell of bats.
- 3.7 Features of the built structure were also noted for the buildings inspected. The below information was noted:
- Type of building;
 - Age of building;
 - Aspect of building;

- Wall construction (in particular the type of brick or stone used to build the wall);
- Form of the roof;
- Presence of hanging tiles, weatherboarding or other types of cladding;
- Nature of the eaves;
- Presence and condition of lead flashing;
- Gaps under eaves, around windows etc.;
- Structure of roof, including truss type, age and nature of timber work; and
- Information or evidence of work having been undertaken that could affect use of the structure by bats.

Trees

3.8 Any tree on-site or immediately adjacent to the site that has potential to be impacted by the proposals was inspected for bat potential with reference to the BCT guidelines and Natural England's '*Bat habitat assessment prior to arboricultural operations*'. The following features were considered indicative of trees commonly used by bats for roosting and shelter:

- Natural holes;
- Woodpecker holes;
- Cracks/splits in major limbs;
- Loose bark;
- Hollows/cavities;
- Dense epicormic growth; and
- Bird and bat boxes.

3.9 During the Bat Scoping Survey, a number of features of potential value for bats were noted. These included the following;

- Low/moderate potential for bat roosting in a small number of gaps and crevices in the building;
- Potential bat foraging and commuting habitat associated with the vegetation on site and throughout the surrounding area;
- Potential commuting corridors from several areas known to support bat populations; and
- Several bat records within a 4km search area of the application site.

3.10 In accordance with the '*Bat Conservation Trust: Bat Surveys Good Practice Guidelines 3rd Edition*', for the reasons listed above, and given the legal protection afforded to bats,

the requirement for two emergence/ re-entry surveys was confirmed, in order to establish the relative levels and type of bat activity at the site.

EMERGENCE AND RE-ENTRY SURVEY

3.11 The scoping survey identified three locations across the site that would enable all aspects of the building to be surveyed. This included a location in the front driveway along the Redington Road frontage; a location in the rear garden where on one occasion features of low value would be assessed and on another features of value within trees would be assessed; and finally, a location on a small section of flat rooftop amongst the pitched roofs. Two surveyors located in these locations over three surveys allowed for all features of moderate value to be assessed twice, and all features of low value to be assessed at least once.

3.12 Table 3.1 provides detail on locations for each surveyor and conditions for each survey.

Table 3.1 Surveyor locations and conditions for each survey (initials indicate surveyors as described in section below)

Survey type	Date	Surveyor 1	Surveyor 2	Sunset/ Sunrise	Conditions
Bat Scoping	5/7/16	MT	NF	NA	19°C, 12 mph NNE wind
Emergence and Bird Scoping Survey	22/6/16	Redington Road frontage (NF)	Rear garden (JB)	21:22	20°C, sunny day followed by thunder
Emergence	5/7/16	Redington Road frontage (MT)	Central flat rooftop (NF)	21:19	17°C, 10mph NW wind, 1/8 clouds
Re-entry	21/7/16	Central flat rooftop (LT)	Rear garden (NF)	05:05	15°C, mild with light breeze

3.13 The emergence and re-entry surveys were undertaken during clear and warm conditions, with temperatures ranging from 20°C - 15°C.

3.14 The emergence survey commenced 30 minutes before sunset and continued for 2 hours after sunset. The re-entry survey commenced 1 hour 30 minutes before sunrise and was completed at sunrise.

3.15 Each surveyor was equipped with BatBox Duet Heterodyne detectors and an Echo Meter Touch bat detector to detect, visualise and record the calls of any bats present in the area.

BIRD SCOPING SURVEY

Desk Based Assessment

- 3.16 Readily available biological records were analysed to determine the presence of rare, notable or protected bird species in the local area.
- 3.17 An assessment of the local area using aerial photography and available maps was also undertaken.

Site Assessment

- 3.18 Full access to the internal and external areas of the site was granted to Naomi Foot who completed the bird scoping survey prior to the first at emergence survey, on 22nd June 2016.

Buildings and Trees

- 3.19 An internal and external inspection of the buildings was undertaken with the aid of binoculars and a powerful torch. Potentially suitable features of the building for nesting birds were recorded, including loose/cracked tiles, overhanging eaves, access/egress points into roof void or wall cavities, ledges, flat roofs and flues/chimneys.
- 3.20 An inspection of all trees, shrubs and dense vegetation was undertaken to determine the presence of or potential for nesting birds.
- 3.21 The surveyor observed the building and surrounding vegetation and habitats at the front and back for 20 minute periods each. The aim of this watching brief was to determine if there were any breeding birds present at the time of the survey which would be identified by birds being observed in suitable habitat, singing males, territories being defended, agitated behaviour or nest building, recently fledged young observed and adult birds carrying food for young.
- 3.22 Evidence of bird nesting could potentially include live birds exhibiting nesting behaviour described above, active nests, old nests, droppings on and below perch points and feathers.

SURVEYORS

- 3.23 Mitch Cooke, who reviewed this report, has a degree in Ecology (Hons), an MSc in Environmental Assessment and Management, and is a full member of CIEEM with over 20 years' experience in ecological survey and assessment. Mitch has set up and developed ecological and environmental teams for over 10 years and has undertaken and managed numerous ecological surveys and assessments. He is the Partner at Greengage and manages the team.

- 3.24 Morgan Taylor, who was lead surveyor and prepared this report, has an integrated Bachelors and Master's degree in Marine Biology (MSci Hons), a Natural England CL17 Bat Survey Level 2 Class Licence (2015-14178-CLS-CLS) and is an Associate member of CIEEM. Morgan has over 5 years' experience in ecological surveying and has undertaken assessments of numerous development sites of this type.
- 3.25 Naomi Foot, who surveyed the site, has an undergraduate degree in Ecology and Conservation (BSc Hons), a Master's degree in Applied Ecology and is a Graduate member of CIEEM. Naomi has extensive experience in surveying bats throughout her degree and her experience in the commercial sector.
- 3.26 James Bumphrey, who also surveyed the site has a bachelor's degree in Environmental Sciences (BSc Hons) and a Master's degree in Environmental Consultancy, and is a Graduate member of CIEEM. James has 4 years of experience surveying bats on sites like this.
- 3.27 Laura Thomas, who also surveyed the site, has an undergraduate degree in Biology (BSc Hons) and a Master's degree in Evolutionary and Behavioural Ecology. Laura has experience in surveying bats in the commercial sector and extensive experience analysing bat echolocation calls as part of her MSc thesis.
- 3.28 This report was reviewed and verified by Mitch Cooke who confirms in writing (see the QA sheet at the front of this report) that the report is in line with the following:
- Represents sound industry practice;
 - Reports and recommends correctly, truthfully and objectively;
 - Is appropriate given the local site conditions and scope of works proposed; and
 - Avoids invalid, biased and exaggerated statements.

LIMITATIONS

- 3.29 The survey was undertaken at a suitable time of year and weather conditions. Sufficient periods (minimum 2 weeks) between each bat survey was allowed, in accordance with best practice.
- 3.30 It was not possible to access all internal space within the buildings with some areas and roof void inaccessible. Potential access routes into these locations by bats were considered to be limited and they appeared to be unsuitable for roosting.
- 3.31 Given the height of the building and close proximity of neighbouring properties it was not possible to directly observe all elevations. Close attention was therefore paid to potentially suspicious bat activity around these sections of roof that may have indicated emergence or re-entry behaviour.
- 3.32 As discussed in chapter 4 of this report no bat activity was observed near these sections of roof and this limitation is not considered to form a major constraint over the assessment or conclusions made within this report.

4.0 RESULTS

BAT SURVEY

Assessment of the Site

- 4.1 A number of records for bats were identified within the 2km search area around the assessment site including known roosts and field records for live bats and casualties.
- 4.2 Records of roosts and/or hibernation sites for the following species were identified:
- Common pipistrelle (*Pipistrellus pipistrellus*)
 - Soprano pipistrelle (*Pipistrellus pygmaeus*)
 - Brown long-eared (*Plecotus auritus*)
 - Natterer's (*Myotis nattereri*); and
 - Daubenton's (*Myotis daubentonii*).
- 4.3 In addition, field records of the following species were identified:
- Nathusius's pipistrelle (*Pipistrellus nathusii*)
 - Leisler's (*Nyctalus leisleri*);
 - Noctule (*Nyctalus noctula*); and
 - Serotine (*Eptesicus serotinus*).
- 4.4 According to Defra's Magic website there have been three recent European Protected Species Mitigation Licences granted for disturbance to bat roosts in the local area (within 2km), all for common and soprano pipistrelle roosts.
- 4.5 There is a single statutory designation within 2km, Hampstead Heath Woods Site of Special Scientific Importance (SSSI), and two Local Nature Reserves (LNRs) Belsize Wood and Westbere Copse.
- 4.6 The habitats directly present on site provide moderate bat foraging potential, with overgrown garden areas supporting rough grassland, dense shrub planting and mature trees.
- 4.7 The surrounding area supports an abundance of green linkages, including direct links to the nearby Hampstead Heath.
- 4.8 No direct field signs were observed externally or internally during the inspection, with no droppings, stains, scratch marks or other evidence that may suggest presence of roosting bats.
- 4.9 Internal roof spaces were in a good condition with no noticeable access points.

Figure 4.1 typical attic space roof void – wooden boards and intact roofing membranes were observed throughout preventing access into the voids themselves



- 4.10 Features that may provide roosting opportunities for bats were however observed including gaps beneath the fascias and soffits, and gaps beneath roof tiles.

Figure 4.2 View from flat roof of one of the pitched sections of roof showing small number of broken tiles



- 4.11 Several mature/veteran trees within the rear garden feature cavities and crevices which were noted as having the potential to provide roosting opportunities.

Figure 4.3 Veteran English Oak in rear garden with several large cavities



Emergence/Re-entry and Activity Survey

- 4.12 There was no evidence of roosting observed during the emergence and re-entry survey. Roosting bats can therefore be confirmed as likely absent from the buildings and trees.
- 4.13 Low levels of bat foraging and commuting activity were observed during the emergence/re-entry and activity survey. Three species were recorded; common pipistrelle (*Pipistrellus pipistrellus*), soprano pipistrelle (*P. pygmaeus*) and noctule (*Nyctalus noctula*) bats.
- 4.14 Locations of passes and foraging activity, in addition to the surveyor locations, are shown in the bat activity plan at Figure 1.

BREEDING BIRD SCOPING SURVEY

- 4.15 The desktop review identified a number of records for rare, notable and/or protected bird species in the local area. These included records within the 2km search area for the following species often associated with nesting in buildings:
- Swift (*Apus apus*)
 - House sparrow (*Passer domesticus*); and
 - Starling (*Sturnus vulgaris*).
- 4.16 There was no evidence of historic or current usage of the building or trees onsite by nesting birds identified during the scoping survey.

- 4.17 However, all mature trees, shrubs and dense vegetation within the front and rear gardens have potential for nesting birds and there were several features within the building that could potentially be used by birds. Features within the building structure include overhanging eaves (swift, house martin, swallow), loose/cracked tiles (house sparrow, starling) and chimney space (swallow, jackdaw).

Figure 4.4 28 Redington Road frontage with overhanging eaves



- 4.18 Observations were made of several bird species including swift, robin (*Erithacus rubecula*), green woodpecker (*Picus viridis*), and (aurally recorded) tawny owl (*Strix aluco*), on or in the vicinity of the site. The surrounding landscape and green linkages between the site and more extensive areas of green space provide opportunities for a number of species to be present.
- 4.19 Due to the potential for nesting birds to utilise the vegetation and structures onsite, it is recommended that demolition and site clearance is undertaken outside of the breeding bird season (March-September).

5.0 RECOMMENDATIONS & MITIGATION

BATS

- 5.1 The survey results confirmed the likely-absence of roosting bats within the building at the site. There is therefore no requirement for mitigation with regards to roosting bats.
- 5.2 While roosting bats were confirmed as likely absent from the mature trees during the re-entry survey, there is potential for these features to be used occasionally as summer day roosts by individual bats or small groups of males, or intermittently as night roosts. It is therefore recommended that, if required, any mature or veteran trees are removed through soft-felling, retaining branches with cavities on the ground overnight to allow any bats that might be present an opportunity to exit.
- 5.3 Low levels of bat foraging and commuting activity were observed during the emergence and activity survey. Three species were recorded; common pipistrelle, soprano pipistrelle and noctule bats.
- 5.4 Whilst foraging and commuting resources for bats are not formally protected by law, their protection is a material consideration within the planning process. Suitable best practice and mitigation recommendations are therefore outlined below:
- Any lighting associated with the proposed development should, where possible, be designed following appropriate guidance³. This will include directional lighting, appropriate luminescence and protection from light spill. No uncontrolled lighting will occur and light spill will be minimised; this will enable the continued use of the site as a commuting corridor and foraging resource.
 - Any loss of vegetation will be mitigated by new wildlife-friendly planting incorporating native species or those of known wildlife value. This will compensate for the loss of existing habitats and enhance the site for local bat populations.
- 5.5 Further to the above recommendations it is considered unlikely that there will be a significant adverse impact on bats in the local surrounding area, and the overall impact from the proposed development is predicted to be negligible.
- 5.6 In addition to the above best practice mitigation, the following enhancement measures are also recommended due to the potential value for bats at the site:
- Most species of bats will use bat boxes at various times of year but in particular they are favoured by pipistrelles, Leisler's, noctule and *Myotis* species. Pipistrelles and *Myotis* were identified during the survey and are known to be in the wider area, therefore, we would propose that bat boxes, bricks or 'habibats' should be incorporated, where appropriate, into the buildings or trees onsite; the use of these bat boxes will increase roosting opportunities for bats in the area. Bat boxes or bricks should be positioned in sunny locations mainly to the south or west façade of the building or trees. However, a variety of different locations would provide a range

of climatic conditions and attract several different species. The optimal height for a bat box is 3 to 6 metres with an entrance free from obstruction and obstacles. The behaviour of bats varies from species to species but generally they will use a number of different roosts so it is best to erect several boxes in different locations across the site and include a range of aspects;

- Areas of wildlife-friendly landscaping to include fruit and berry producing shrubs and trees, wildflower meadow and trees to encourage a richer invertebrate community and provide foraging resources for bats.

NESTING BIRDS

- 5.7 The survey results confirmed the potential for nesting birds to be using the building and vegetation onsite, though none were present at the time of the scoping survey.
- 5.8 This is a seasonal constraint to the development, with impacts upon nesting birds possible to be avoided through sensitive timing of site works.
- 5.9 It is recommended that demolition of the existing building and any programmed clearance of trees, shrubs or dense vegetation is undertaken outside of the bird breeding season, taken to run from March to September inclusive.
- 5.10 Alternatively, if the above works must go ahead during these months, a nesting bird survey by a suitably qualified ecologist is required to confirm absence of nesting birds. As all bird species, their eggs and nests are protected, this is a legislative requirement.
- 5.11 If this recommendation is adhered to, there will be a negligible impact upon nesting birds.
- 5.12 In addition to the above recommendations, the following enhancement measures are also recommended due to the existing value of the site as a nesting resource for birds:
- Bird nest boxes targeting locally important species such as swift and house sparrow should be incorporated into the newly constructed building or affixed to suitable mature trees. Nest boxes often have specific requirements for positioning, but in general, boxes should be located out of direct sunlight (north/east facing), at least 3 metres clearance above ground level and with a clear flight path to enter.

ADDITIONAL ECOLOGICAL CONSIDERATIONS

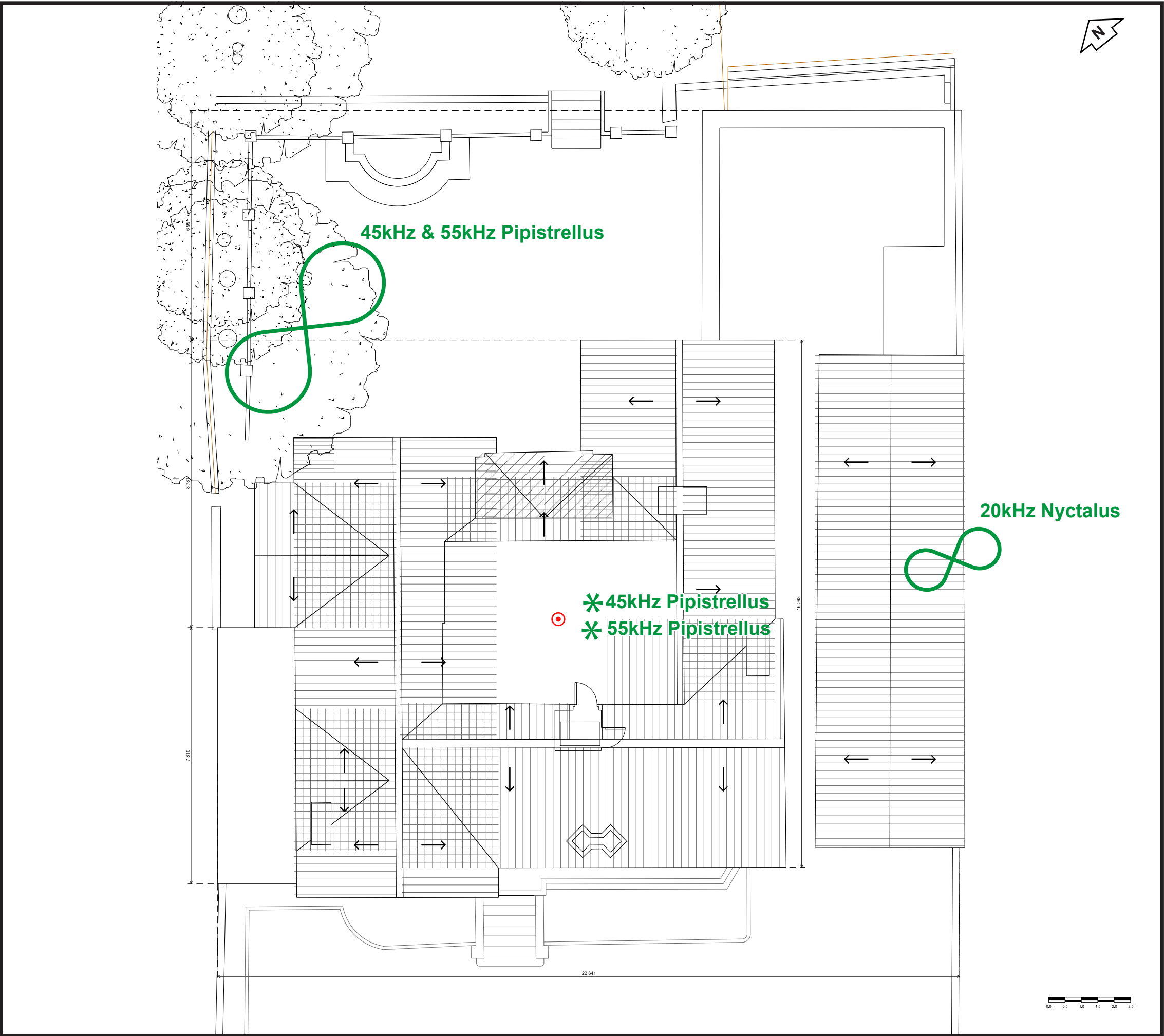
- 5.13 During the bird and bat scoping survey, potentially suitable habitat for reptiles was identified in the back garden. The rough grass, scattered scrub, shrubs and planted beds have the potential to support a number of reptile species including slow worm, common lizard, grass snake, and adder.
- 5.14 If landscape proposals for the site include clearance of the rough grassland or overgrown vegetation within the garden, it is recommended that a reptile presence/likely-absence survey is completed at the site. This would comprise seven survey visits to be completed

on non-consecutive days between March and October. If reptiles are confirmed as likely-absent, the development can go ahead with no mitigatory actions. However, if any reptile species are recorded, mitigation may involve a trapping and relocation exercise or habitat manipulation, to be informed by the survey results and proposals.

6.0 CONCLUSIONS

- 6.1 Greengage was commissioned to undertake a bat emergence and re-entry survey and breeding bird scoping survey by The Linton Group of a property at 28 Redington Road, Hampstead, in order to determine the presence or likely absence of roosting bats, to observe any bat foraging or commuting activity across the wider site, and to determine the potential for nesting birds to be present within the structures or trees.
- 6.2 An internal and external inspection identified low/moderate value for roosting bats at the site. A detailed systematic inspection found no evidence of use by bats.
- 6.3 No roosting activity was observed and formal mitigation is therefore not required to for impacts upon bat roosts. However, in accordance with best practice, mature/veteran trees are recommended to be soft-felled, if this is required to facilitate the development.
- 6.4 Low levels of bat foraging and commuting activity were observed during the emergence and activity survey. Three species were recorded; common and soprano pipistrelle and noctule bats.
- 6.5 No evidence of current usage by nesting birds was identified. However, the trees, shrubs and dense vegetation and a number of features within the building were noted as presenting potential nesting opportunities.
- 6.6 It is therefore recommended that the building demolition and any clearance of dense vegetation is undertaken outside of the breeding bird season or following confirmation of absence by a suitably qualified ecologist.
- 6.7 Any lighting associated with the proposed development is recommended to be sensitively designed in accordance with best practice to avoid impacting the foraging and commuting resources provided at the site. It is also recommended that existing habitats and vegetation are retained, where possible, or compensated for through wildlife-friendly planting if lost. It is understood that the majority of mature trees on site are proposed to be retained, however, it is recommended that any identified for removal are compensated for.
- 6.8 Assuming recommendations are followed, the impact of the proposed development upon both local bat populations and nesting birds is expected to be negligible.
- 6.9 Enhancement measures for bats and nesting birds have been recommended to increase the biodiversity value of any proposed redevelopment. These enhancements include the provision of bat boxes, bird boxes and wildlife-friendly landscaping to provide roosting/nesting opportunities and further foraging resources. Assuming these enhancements are followed, the development will result in net gains for biodiversity.

FIGURES 1-3: BAT ACTIVITY PLANS



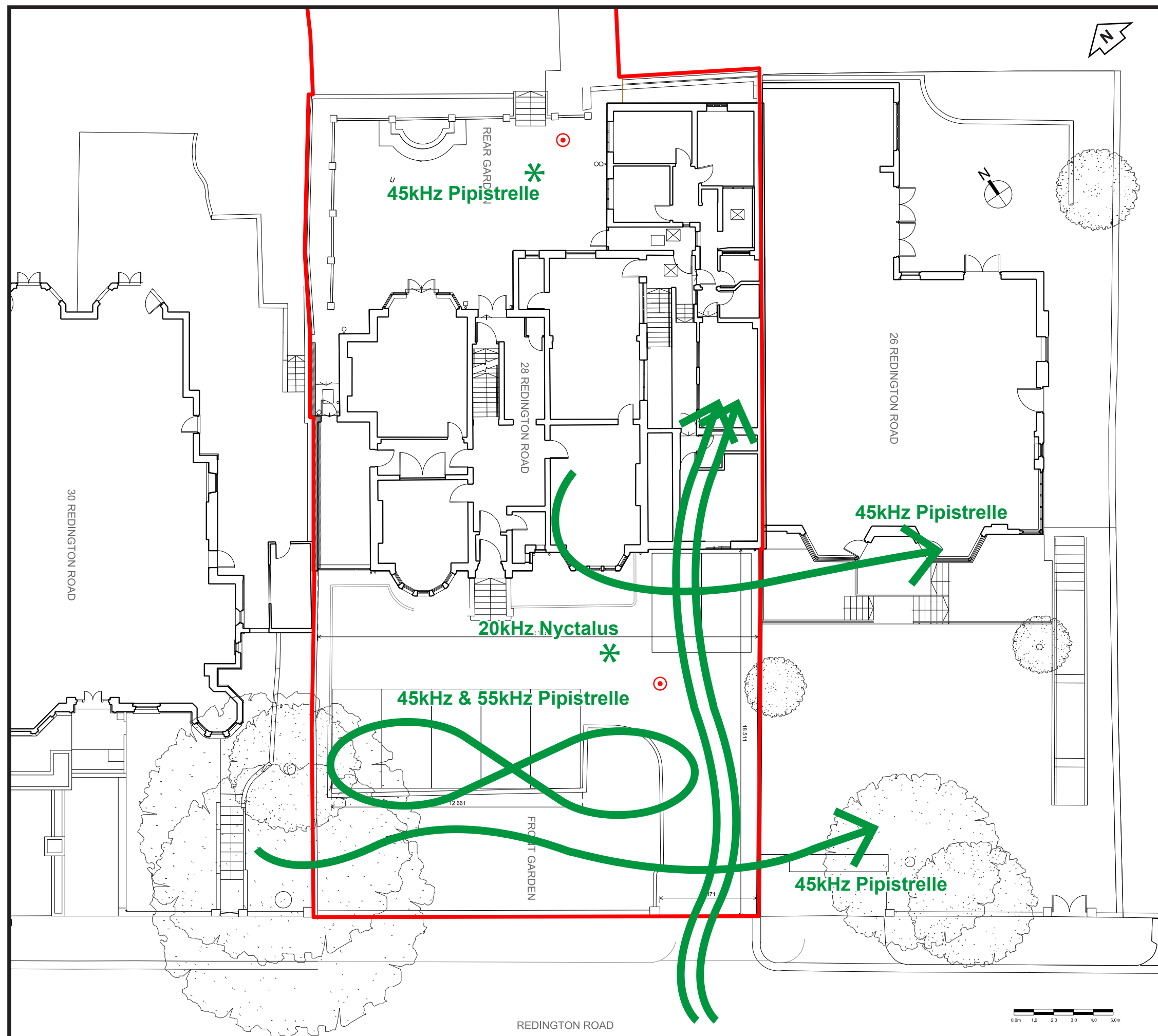
REDINGTON ROAD

- Surveyor Location
- Bat Pass (Point Count)
- Bat Foraging



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FIGURE 1.0
Bat Activity Plan - Roof



REDINGTON ROAD

-  Assessment Site
-  Surveyor Location
-  Bat Pass (Point Count)
-  Bat Pass (Directional)
-  Bat Foraging



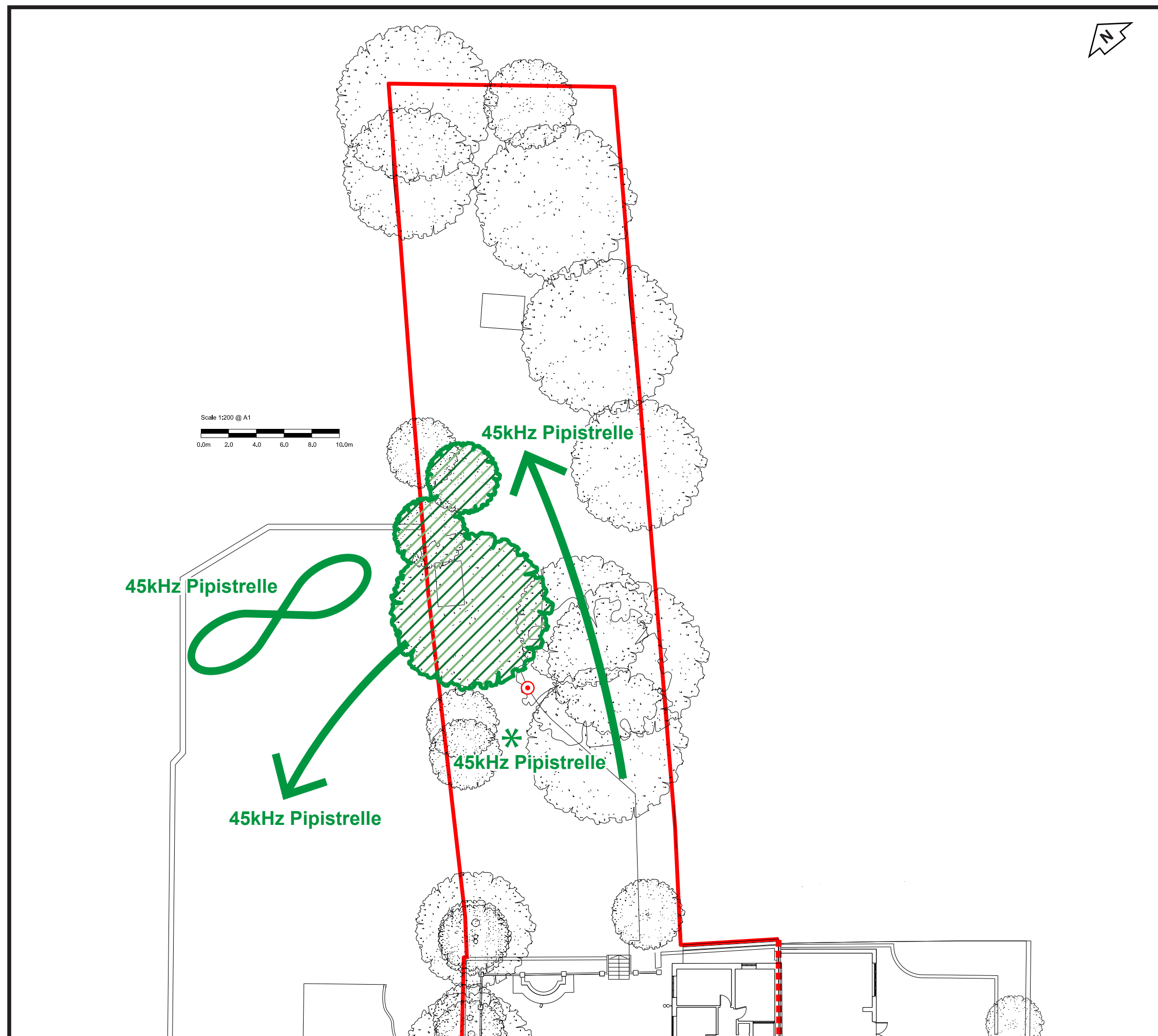
Greengage Environmental
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FIGURE 2.0

Bat Activity Plan - Front and Rear of Building

Job No. 2471 - Not to scale - July 2016
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REDINGTON ROAD

- Assessment Site
- Surveyor Location
- Trees with Roosting Potential
- ✱ Bat Pass (Point Count)
- ➔ Bat Pass (Directional)
- ∞ Bat Foraging



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FIGURE 3.0

Bat Activity Plan - Garden

APPENDIX 1: LEGISLATION AND POLICY

LEGISLATION RELATING TO BATS

All UK bats and their roosts are protected by law. Since the first legislation was introduced in 1981, which gave strong legal protection to all bat species and their roosts in England, Scotland and Wales, additional legislation and amendments have been implemented throughout the UK.

Six of the 18 British species of bat have Biodiversity Action Plans (BAPs) assigned to them, which highlights the importance of specific habitats to species, details of the threats they face and proposes measures to aid in the reduction of population declines.

The Wildlife & Countryside Act 1981 (WCA)⁴ was the first legislation to provide protection for all bats and their roosts in England, Scotland and Wales (earlier legislation gave protection to horseshoe bats only.)

All eighteen British bat species are listed in Schedule 5 of the Wildlife and Countryside Act, 1981 and under Annexe IV of the Habitats Directive⁵, 1992 as a European protected species. They are therefore fully protected under Section 9 of the 1981 Act and under Regulation 39 of the Conservation of Habitats and Species Regulations 2010⁶, which transposes the Habitats Directive into UK law. Consequently, it is an offence to:

- Deliberately capture, injure or kill a bat;
- Intentionally or recklessly disturb a bat in its roost or deliberately disturb a group of bats;
- Damage or destroy a bat roosting place (even if bats are not occupying the roost at the time);
- Possess or advertise/sell/exchange a bat (dead or alive) or any part of a bat; and
- Intentionally or recklessly obstruct access to a bat roost.

This legislation applies to all bat life stages.

The implications of the above in relation to the proposals are that where it is necessary during construction to remove trees, buildings or structures in which bats roost, it must first be determined that work is compulsory and if so, appropriate licenses must be obtained from Natural England. Additionally, although habitats that are important for bats are not legally protected, care should be taken when dealing with the modification or development of an area if aspects of it are deemed important to bats such as flight corridors and foraging areas. Guidance on nature conservation within planning is issued by the Government within the National Planning Policy Framework. This Framework document acts as guidance for local planning authorities on the content of their Local Plans, but is also a material consideration in determining planning applications. As a result of the NPPF any species or habitats of principal importance found on the application site, in addition to statutorily protected species, are of material consideration.

LEGISLATION RELATING TO NESTING BIRDS

Nesting birds, with certain exceptions, are protected from disturbance under the Wildlife and Countryside Act 1981 (as amended) and the CRoW Act. Any clearance of dense vegetation should therefore be undertaken outside of the nesting bird season, taken to run conservatively from March to September, unless an ecologist confirms the absence of active nests prior to clearance. Under this legislation it is an offence to:

- Kill, injure or take any wild bird;
- Take, damage or destroy the nest of any wild bird while it is in use or being built; and
- Take or destroy the egg of any wild bird.

PLANNING POLICY

Regional Planning Policy: The London Plan Spatial Development Strategy for Greater London⁷

The London Plan is comprised of separate chapters relating to a number of areas, including London's Places, People, Economy and Transport. The following policies have been identified within the London Plan, which relate specifically to ecology and this development.

Policy 2.18 Green Infrastructure

'Policy 2.18 aims to protect, promote, expand and manage the extent and quality of, and access to, London's network of open and green spaces'.

Policy 5.10 Urban Greening

This policy encourages the 'greening of London's buildings and spaces and specifically those in central London by including a target for increasing the area of green space (including green roofs etc.) within the Central Activities Zone'.

Policy 5.11 Green Roofs and Development Site Environs

Policy 5.11 specifically supports the inclusion of planting within developments and encourages boroughs to support the inclusion of green roofs.

Policy 5.13 Sustainable Drainage

'Policy 5.13 promotes the inclusion of sustainable urban drainage systems in developments and sets out a drainage hierarchy that developers should follow when designing their schemes'.

Policy 7.19 Biodiversity and Access to Nature

'The Mayor will work with all the relevant partners to ensure a proactive approach to the protection, enhancement, creation, promotion and management of biodiversity in support of the Mayors Biodiversity Strategy.'

Supplementary Planning Guidance (SPG): Sustainable Design and Construction 2014⁸

As part of the London Plan 2011 implementation framework, the SPG, relating to sustainable design and construction, was released in April 2014 for consultation which includes the following sections detailing Mayoral priorities in relation to biodiversity of relevance to this development.

Nature conservation and biodiversity

The Mayor's priorities include ensuring 'developers make a contribution to biodiversity on their development site'.

Overheating

Where priorities include the inclusions of 'measures, in the design of schemes, in line with the cooling hierarchy set out in London Plan policy 5.9 to prevent overheating over the scheme's lifetime'

Urban greening

A Priority is for developers to 'integrate green infrastructure into development schemes, including by creating links with wider green infrastructure network'.

Use less energy

'The design of developments should prioritise passive measures' which can include 'green roofs, green walls and other green infrastructure which can keep buildings warm or cool and improve biodiversity and contribute to sustainable urban drainage'.

Local Planning Policy: Camden Core Strategy

CS15 – Protecting and improving our parks and open spaces and encouraging biodiversity

Extracts from Core Policy provided below.

The Council will protect and improve Camden's parks and open spaces. We will:

- a) Protect open spaces designated in the open space schedule as shown on the Proposals Map, including our Metropolitan Open

Land, and other suitable land of 400sqm or more on large estates with the potential to be used as open space.

- b) Tackle deficiencies and under-provision and meet increased demand for open space.
- c) Secure from developments that create an additional demand for open space, where opportunities arise, improvements to open spaces.

The Council will protect and improve sites of nature conservation and biodiversity, in particular habitats and biodiversity identified in the Camden and London Biodiversity Plans in the borough by:

- d) Designating existing nature conservation sites;
- e) Protecting other green areas with nature conservation value, including gardens, where possible;
- f) Seeking to improve opportunities to experience nature;
- g) Expecting the provision of new or enhanced habitat, where possible, including through biodiverse green or brown roofs or green walls;
- h) Identifying habitat corridors and securing biodiversity improvements along gaps;
- i) Working with the Royal Parks, the London Wildlife Trust, friends of parks groups and local nature conservation groups;
- j) Protecting trees and promoting the provision of new trees and vegetation, including additional street trees.

REFERENCES

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- ² Mitchell-Jones, A.J. & McLeish, A.P. (2004) Bat Works Manual, 3rd Edition
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- ⁴ HM Government, (1981); Part I and Part II of Wildlife and Countryside Act (as amended). HMSO
- ⁵ CEC (Council of the European Communities), (1992); Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora
- ⁶ HM Government, (2010); The Conservation of Habitats and Species Regulations 2010. Statutory Instrument 2010 no. 490 Wildlife Countryside. OPSI
- ⁷ Greater London Authority, (2011), The London Plan: Spatial Development Strategy for Greater London, GLA
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