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Primrose Hill - New Catering Outlet

Ecological Appraisal

Prepared by LUC for The Royal Parks
August 2016

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1 Introduction

Scope

1.1 In March 2016, LUC was appointed by Rider Levett Bucknall Ltd. on behalf of The Royal Parks to undertake an Ecological Appraisal of the public toilet at Primrose Hill (hereafter referred to as the 'Site'). The report informs proposals to renovate the public toilet to make provision for a new catering outlet.

1.2 This report has been prepared for the exclusive use by Rider Levett Bucknall Ltd. and The Royal Parks. No part of this report should be considered as legal advice.

Site Description

1.3 The public toilet is situated on the southern boundary of Primrose Hill, adjacent to Prince Albert Road (TQ279836). The Site comprises of a building currently used as a public toilet, a children's playground and an area with outdoor exercise equipment for adults.

Policy and Legal Considerations

1.4 This appraisal has been prepared in accordance with relevant legislation and policy. Further detail is provided in **Appendix 1**, however the following primary documents are of relevance:

- The Wildlife and Countryside Act 1981 (as amended);
- The Countryside and Rights of Way Act (CRoW Act), 2000 (as amended);
- The Natural Environment and Rural Communities Act (NERC Act), 2006;
- The Conservation of Habitats and Species Regulations 2010 (as amended);
- Camden Biodiversity Action Plan; and
- The Regent's Park and Primrose Hill Conservation Management Plan.

2 Methods

2.1 The methods adopted in the survey and appraisal are outlined below. They accord with the best practice guidance documents for survey and appraisal produced by the Chartered Institute of Ecology and Environmental Management[1] and the British Standards Institute[2].

Baseline Data Collection

Desk Study

2.2 To provide additional background to the appraisal and to highlight likely features or species groups of interest, a study of available biological records was undertaken to identify sites designated for their nature conservation value, and existing records of protected or notable species of relevance to the Site. A search of the following resources was undertaken, within a 1km radius from the Site:

- Greenspace Information for Greater London (GiGL);
- Multi-Agency Geographical Information for the Countryside (MAGIC);
- Ordnance Survey (OS) mapping; and
- Aerial photography.

2.3 The absence of a species from biological records cannot be taken to represent actual absence. Species distribution patterns should be interpreted with caution as they may reflect survey/reporting effort rather than actual distribution.

Extended Phase 1 Habitat Survey

2.4 An Extended Phase 1 Habitat Survey was undertaken within the Site boundary in line with standard methods[3].

2.5 Phase 1 Habitat Survey provides a rapid means of classifying broad habitat types in any given terrestrial site.

2.6 The survey was 'extended' by considering the suitability of the Site to support notable or protected flora or fauna. Species considered included those identified during the desk study, or those considered appropriate by the surveyor during the survey. Detailed surveys were not completed for these species; however, based on an understanding of species ecology, consideration was given to the Site's potential to provide sheltering or foraging habitat and/or connectivity to allow dispersal between populations. Further information is provided in the 'Baseline Data' section below.

2.7 The survey was undertaken on the 30th March 2016 by Rebecca Turner GradCIEEM. Weather conditions during the survey were fine and dry.

Bats

Bat Inspection

2.8 In addition to the above, the building and surrounding trees were specifically considered for their potential to support bats. For ease of reference, the table below sets out the categories of

[1] Survey guidance is available at http://www.cieem.net/sources-of-survey-methods-sosm- and appraisal guidance is available at http://www.cieem.net/guidance-on-preliminary-ecological-appraisal-gpea-.
[2] British Standards Institute (2013). BS42020:2013 Biodiversity – Code of Practice for Planning and Development.
[3] Joint Nature Conservation Committee (1990). Handbook for Phase 1 Habitat Survey. JNCC, Peterborough.

potential value for these species[4]. During the inspection, the external building features and trees were examined using a high powered torch. Typical features with potential to support bats are described in **Table 2.1** below.

Table 2.1 Bat Roost Potential Categories

Suitability	Description	Further survey implications
Confirmed bat roost	Bats or evidence of bats recorded, both of recent and/or historic activity.	Works affecting a roost are licensable. Further survey required to determine the bat species present, nature of roost and level of use before mitigation is can be determined.
High	A structure or tree with one or more potential roost sites that are obviously suitable for use by large numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions[5] and surrounding habitat.	Three separate survey visits. Of which, at least one dusk emergence and a separate dawn re-entry survey.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions[4] and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation).	A single survey visit is required for buildings No further survey is required for trees
Negligible	Negligible habitat features on site likely to be used by roosting bats.	No further survey or mitigation required.

Emergence/Return Surveys

2.9 Following the initial assessment, emergent/re-entry surveys were undertaken of the public toilets situated in the centre of the Site.

2.10 The survey method followed best practice guidance[4]. Dusk emergence surveys commenced at least 15 minutes before sunset and lasted for at least 1.5 hours after sunset. The dawn survey commenced at least 1.5 hours before sunrise and lasted until 15 minutes after sunrise or until bat activity ceased.

2.11 Surveys were conducted using Bat Box Duet and Anabat Express heterodyne and frequency division detectors. Bat calls were recorded for subsequent analysis and species identification using Analook software (if required).

2.12 Bat foraging and commuting activity was also recorded during the surveys, with species, number, time and direction of flight recorded to gain an understanding of how the Site is utilised by foraging or commuting bats.

[4] Collins, J. (Ed.) (2016). Bat Surveys for Professional Ecologists: Good Practice Guidelines, 3rd Edition. Bat Conservation Trust, London.
[5] For example, in terms of temperature, humidity, height above ground level, light levels or levels of disturbance.

2.13 Detailed survey findings including weather conditions during the surveys are provided in **Appendix 6**.

General Limitations and Constraints

Phase 1 Habitat Survey

2.14 The survey was carried out in March, when floral identification is considered sub-optimal. However, this was not considered a constraint to the survey findings due to the types of habitats present, which primarily consisted of hard standing and amenity grassland.

2.15 It is important to note that ecological surveys provide information regarding the ecological baseline of a site for only a 'snapshot' of time. Therefore, if significant time lapses between the surveys and the further development or implementation of proposals updated ecological surveys may be required to identify any change in the baseline, such as natural succession of habitats, or local extinction or colonisation of species. Ecological surveys can generally be considered as up to date for 1 to 3 years dependent on the nature of the Site, ecological baseline and proposals and likely impact. Therefore if a year lapses between the progressions of development proposals, it is recommended that ecological advice is sought regarding the applicability of the survey findings.

Bat Surveys

2.16 Heavy rain was recorded at the end of the second emergence/return survey. However rain only began at the very end of the survey, and bat activity was recorded throughout. Therefore inclement weather at the end of the survey was not considered to represent a constraint to the survey findings.

3 Results

Desk Study

3.1 The findings of the desk study are presented in the tables below. Existing species within 1km of the Site were provided by Greenspace Information for Greater London (GiGL).

Table 3.1 Desk Study – Designated Sites

Site Name	Designation(s)	Description	Orientation/Distance (m) grom centre of Site (approx.)
Non-statutory sites			
Primrose Hill	SINC II	Famous area of Regent's Park with great views of London. This area of Regent's Park consists mostly of mown amenity grassland with scattered groups of mature trees.	Includes the Site
London's Canals	SINC (Metropolitan)	London's canals provide a home for many fish and aquatic plants, and are a great way to enjoy the natural world in some of the city's most built-up areas.	95 South
London Zoo	SINC (Grade I)	One of London's top tourist attractions, the zoo is of enormous educational importance. It also provides food and home for a number of wild birds.	206 South
Regent's Park	SINC (Metropolitan)	This historic Royal Park is probably the best place site for breeding and migrant birds in central London. Its famous heronry is one of London's largest.	275 South

Site Name	Designation(s)	Description	Orientation/Distance (m) grom centre of Site (approx.)
Chalk Farm Embankment and Adelaide Nature Reserve	SINC (Grade I)	Steep-sided railway embankment and nature reserve with good grassland areas.	715 North

Table 3.2 Desk Study Findings – Species Record

Species Name	Status	Orientation/Distance (m) from centre of Site (approx.)
Amphibian		
Common Toad *Bufo bufo*	NERC Act Section 41 BAP Priority London	266 North
Birds		
House Sparrow *Passer domesticus*	NERC Act Section 41 BAP Priority London	415 North
Dunnock *Prunella modularis*	BAP Priority London	497 South-west
Starling *Sturnus vulgaris*	BAP Priority London	497 South-west
Blue-headed Wagtail *Motacilla flava subsp. flava*	BAP Priority London	674 North
Bullfinch *Pyrrhula pyrrhula*	BAP Priority London	674 North
Turtle Dove *Streptopelia turtur*	NERC Act Section 41 BAP Priority London	751 North
Mammals (bats)		
Serotine *Eptesicus serotinus*	Cons Regs 2010 Sch2 Hab&Spp Dir Anx 4 W&CA Sch5 Sec 9 BAP Priority London	154 North
Pipistrelle *Pipistrellus pipistrellus*	As above	314 North

Species Name	Status	Orientation/Distance (m) from centre of Site (approx.)
Soprano Pipistrelle *Pipistrellus pygmaeus*	As above	314 North
Noctule Bat *Nyctalus noctula*	Cons Regs 2010 Sch2 Hab&Spp Dir Anx 4 NERC Act Section 41 W&CA Sch5 Sec 9 BAP Priority London	314 North
Natterer's Bat *Myotis nattereri*	Cons Regs 2010 Sch2 Hab&Spp Dir Anx 4 W&CA Sch5 Sec 9 BAP Priority London	343 South-west
Nathusius's Pipistrelle *Pipistrellus nathusii*	As above	357 North
Leisler *Nyctalus leisleri*	As above	398 South-west
Daubenton's bat *Myotis daubentonii*	Cons Regs 2010 Sch2 Hab&Spp Dir Anx 4 W&CA Sch5 Sec 9 BAP Priority London	965 North
Mammals		
West European Hedgehog *Erinaceus europaeus*	NERC Act Section 41 BAP Priority London	859 North
Plants		
Chamomile *Chamaemelum nobile*	NERC Act Section 41 BAP Priority London	686 North
Wild Gladiolus *Gladiolus illyricus*	W&CA Sch8	686 North
Cornflower *Centaurea cyanus*	NERC Act Section 41	849 North
Invertebrates		
Stag Beetle *Lucanus*	Hab&Spp Dir Anx 2np	217 North

Species Name	Status	Orientation/Distance (m) from centre of Site (approx.)
cervus	NERC Act Section 41 BAP Priority London	

Extended Phase 1 Habitat Survey

Habitats

3.2 Habitat descriptions are set out below. While considering this information, reference should be made to the Phase 1 Habitat Map presented in **Appendix 2**. Target notes are presented in **Appendix 3**.

Building and hard standing

3.3 A single building was present in the centre of the Site, comprising a public toilet with a seating area. Hard standing was present throughout the Site in the form of paths. The children's play area was largely composed of hard standing and woodchip.

Amenity grassland with scattered trees

3.4 Amenity grassland was recorded to the east along the boundary of the children's playground and to the west in the 'Trim Trail' area. The grassland was species-poor, regularly managed, and included species such as perennial rye grass *Lolium perenne*, annual meadow grass *Poa annua* and common daisy *Bellis perennis*.

3.5 Scattered trees within the grassland included dominant sycamore *Acer pseudoplatanus*, occasional young birch *Betula sp* trees and rare cherry tree *Prunus sp*.

Flower beds

3.6 A small bed of spring flowers were planted in the north of the Site, adjacent to the building. Species primarily included daffodils *Narcissus pseudonarcissus* ssp. *pseudonarcissus*, yellow daisy *Asteraceae sp* and hyacinth *Scilloideae hyacinthus*. A less attractive, unmanaged flower bed with ornamental shrubs was also present to the south of the building.

Hedgerow

3.7 A field maple *Acer campestre* hedgerow was recorded around the boundary of the Site.

Bat Surveys

Habitat Assessment

3.8 Trees and areas of ornamental planting within the Site provide potential foraging opportunities. The Site is surrounded by Primrose Hill and Regents Park green spaces which provide suitable habitat for bats to forage and commute, including mature trees and scrub, and open grassland. One building within the Site was assessed for it's potential to support roosting bats, and this is discussed in detail below.

Assessment of Bat Roost Potential

3.9 The public toilet was assessed for potential to support bats and was considered to have **high bat roost potential**. The building was comprised of tightly fitted brickwork and a pitched, slate tiled roof. Features with the potential to support bat roosts included:

- Slipped and missing tiles (particularly on the southern aspect of the building);
- A gap between the wooden beam and brickwork on the eastern aspect, adjacent to seating area. However cobwebs were present within the gap, reducing its suitability for use by bats;

- Holes in soffit boarding on the eastern aspect;
- A gap under a ridge tile on southern roof pitch;
- Lifted tiles around metal piping on the western aspect.

3.10 The features recorded may provide access to a roof void for bats as well as providing crevice features, which could themselves provide shelter for small numbers of individual bats.

3.11 Trees within the Site were found to have no suitable features for bats and are therefore considered to be of **negligible bat roost potential.** Therefore trees are not considered further in this report.

Emergence/Return Surveys

3.12 No bats were recorded emerging from, or returning to the building on any of the surveys.

3.13 Low levels of commuting and foraging activity was recorded within the Site during the surveys. Species recorded included:

- Soprano Pipistrelle *Pipistrellus pygmaeus;*
- Common Pipistrelle *Pipistrellus pipistrellus;* and
- Noctule *Nyctalus noctula*.

Other Species

Birds

3.14 Biological records identified a number of common and widespread bird species, including London BAP priority species within 1km of the Site. This included starling, dunnock, house sparrow, skylark and yellow wag-tail.

3.15 The trees and hedgerow within the Site are considered to provide suitable habitat for common and widespread birds to nest. The building also provided occasional opportunities for nesting birds.

4 Discussion

Designated Site/Habitats

Discussion

4.1 The Site lies within Primrose Hill SINC. However due to the low ecological value of the Site itself it is unlikely that proposals will have an adverse effect on the SINC.

4.2 The Site is largely comprised of hard standing and amenity grassland. All of which, have little to no ecological value. The building, along with stand-alone trees and the species-poor hedgerow are likely to provide some value to wildlife, as they provide potentially suitable habitat for bats and birds (see below).

Mitigation

4.3 Although the Site is of low ecological value, best practice construction should be employed to address potential impacts in particular the protection of the hedgerow and any trees to be retained if in the vicinity of works.

Enhancement

4.4 As the Site is of low ecological value, the proposals present opportunities for ecological enhancement.

Wildlife Friendly Planting

4.5 Planting of native and/or ornamental species with known benefits to wildlife would provide valuable habitat for invertebrates and birds.

Green Roof

4.6 Provision of a green roof subject to the structural conditions of the building, has the potential to enhance biodiversity by offering foraging and sheltering resources to invertebrates and birds, and by increasing the species-richness and cover of plants compared to the current Site.

Wood piles

4.7 Creation of piles wood and loggeries alongside the hedgerow or proposed planting would provide habitat for a range of invertebrates.

Bats

Discussion

4.8 Legal protection afforded to bats and their roosts is summarised in **Appendix 1**. In summary all bats and their roosts are subject to the highest level of protection afforded to species in the UK as European Protected Species (EPS). A Natural England (NE) EPS licence is required for development works to proceed which may affect bats and their roosts.

4.9 The public toilets were identified as having high bat roost potential, with features presenting roosting opportunities for singleton or small numbers of the more common bat species.

4.10 No bats were observed emerging/re-entering the building during any of the surveys. It can therefore be concluded that this building does not support bat roosts.

4.11 Given that the proposals will focus on the existing built footprint, which is already in active use as public toilets, it is considered highly unlikely that the proposals will result in any additional impact on foraging and commuting bats, such as loss of foraging or commuting habitat. Likewise lighting

requirements will remain similar to current lighting levels within the Site, therefore impacts in relation to lighting are considered to be highly unlikely.

Mitigation

4.12 No bat roosts were recorded within the toilets building, therefore renovation of this building can be undertaken without requirement for licensing. However, given the continued low risk of bats roosting within the building, it is recommended that a precautionary approach is implemented. If features on the building which may support roosting bats (in particular, any tiled sections and soffits/barge board/cladding) require removal or replacement as part of works, this should be undertaken carefully by hand. Works must halt and an ecologist be contacted to determine how best to proceed should bats or signs of bats be recorded.

4.13 As discussed above, impacts on bats in relation to lighting are considered unlikely given the existing lighting levels within the Site are unlikely to change. However should this change, and additional lighting be required, this should be sensitively designed to ensure there are no adverse impacts on foraging and commuting bats. Potential design measures which may help to minimise light spill include:

- Avoidance of lighting wherever possible, or the use of the lowest lux possible;
- Use of LED lighting which does not emit UV (less attractive to flying insects);
- Use of motion sensor lighting, or use of timers to restrict lighting to required periods;
- Directional lighting with cowling, shields and/or hoods to minimise light spill.

4.14 Lighting of boundary habitats such as trees and shrubs should also be avoided.

Enhancement

4.15 Given both the nature and small size of the Site and the proposals, which will include renovation of the existing building, opportunities for enhancement are limited. However, there may be opportunity to incorporate bat boxes on trees in the surrounding area, and within the new building, if appropriate. This will provide new opportunities for bats to roost. It should be noted that any additional roosting features provided should remain unlit, as this can reduce their suitability for bats.

Birds

Discussion

4.16 Legislation afforded to birds and their nests is detailed in **Appendix 1**.

4.17 A number of common and widespread species, including London Priority Species; are known to be in the wider area. The standing trees, hedgerow and building within the Site have potential to support nesting common garden birds.

4.18 Current proposals have the potential to have negatively impact nesting birds through demolition of the building, removal of trees/hedgerow and/or damage of nesting sites from construction works.

Further Survey Requirements

4.19 No further survey requirements given the nature of the Site and likely use of the Site by common bird species.

Mitigation

4.20 If any removal of vegetation is required, this should be undertaken between September- February (inclusive) to avoid the nesting season.

4.21 Similarly if building renovation works may affect potential nest sites, these should be excluded outside of the nesting season or once it is confirmed nesting birds are not present.

Enhancement

4.22 The provision of species specific nest boxes has the potential to enhance the Site for species of principal importance. For example, this could include providing sparrow nesting terraces on the building or in the trees.

Appendix 1 Policy and Legal Considerations

Statutory nature conservation sites and protected species are a 'material consideration' in the UK planning process (DCLG 2012). Where planning permission is not required, for example on proposals for external repair to structures, consideration of protected species remains necessary given their protection under UK and EU law.

Natural England Standing Advice aims to support Local Planning Authorities decision making in respect of protected species (Natural England 2012). Standing advice is a material consideration in determining the outcome of applications, in the same way as any individual response received from Natural England following consultation.

The Conservation of Habitats and Species Regulations 2010 transpose the requirements of the European Habitats Directive (Council Directive 92/43/EEC) and Birds Directive (Council Directive 79/409/EEC) into UK law, enabling the designation of protected sites and species at a European level.

The Wildlife and Countryside Act 1981 (as amended) forms the key piece of UK legislation relating to the protection of habitats and species.

The Countryside Rights of Way Act 2000 provides additional support to the Wildlife and Countryside Act 1981; for example, increasing the level of protection for certain species of reptiles.

The Protection of Badger Act 1992 provides specific protection for this species.

The Wild Mammals Protection Act 1996 sets out the welfare framework in respect to wild mammals, prohibiting a range of activities that may cause unnecessary suffering.

Species and Habitats of Principal Importance for Conservation in England and Wales and priority habitats and species listed in the **London Biodiversity Action Plans (BAP)** are species which are targeted for conservation. The government has a duty to ensure that involved parties take reasonable practice steps to further the conservation of such species under Section 41 of the Natural Environment and Rural Communities Bill 2006. In addition, the Act places a biodiversity duty on public authorities who 'must, in exercising their functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity' (Section 40 [1]). Criteria for selection of national priority habitats and species in the UK include international threat and marked national decline.

The National Planning Policy Framework (DCLG 2012) states (Section 11), that the planning system should minimise impacts on biodiversity, providing net gains in biodiversity where possible. It also states that local planning authorities and planning policies should:

- Plan positively for the creation, protection, enhancement and management of networks of biodiversity and green infrastructure.
- Take account of the need to plan for biodiversity at a landscape-scale across local authority boundaries.
- Identify and map components of the local ecological networks, including: international, national and local sites of importance for biodiversity, and areas identified by local partnerships for habitat restoration or creation.
- Promote the preservation, restoration and re-creation of priority habitats, ecological networks and the recovery of priority species populations, linked to national and local targets and identify suitable indicators for monitoring biodiversity in the plan.

The Localism Act 2011 abolished the regional tier of the planning system such that the former Regional Assemblies and Regional Development Agencies no longer exist. However, until central Government has formally revoked the Regional Strategies (consultation was completed in January 2012 on the Environmental Reports on the revocation of the Regional Strategies) they are still a material consideration.

Bats

All British species of bat are listed on the **Wildlife and Countryside Act 1981 (as amended) Schedule 5**. It is an offence to deliberately kill, damage, take (Section 9(1)) a bat; to intentionally or recklessly disturb a bat whilst it occupies a place of shelter or protection (Section 9(4)(b)); or to deliberately or recklessly damage, destroy or obstruct access to a bat roost (Section 9(4)(c)). Given the strict nature of these offences, there is an obligation on the developer and owner of a site to consider the presence of bats.

All British bats are listed on the **Conservation of Habitats and Species Regulations 2010, Schedule 2**. Regulation 41 strengthens the protection of bats under the 1981 Act against deliberate capture or killing (Regulation 41(1) (a)), deliberate disturbance (Regulation 41(1) (b))5 and damage or destruction of a resting place (Regulation 41(1) (d)).

A bat roost is defined as any structure or place which is used for shelter or protection, irrespective of whether or not bats are resident. Buildings and trees may be used by bats for a number of different purposes throughout the year including resting, sleeping, breeding, raising young and hibernating. Use depends on bat age, sex, condition and species as well as the external factors of season and weather conditions. A roost used during one season is therefore protected throughout the year and any proposed works that may result in disturbance to bats, and loss, obstruction of or damage to a roost are licensable.

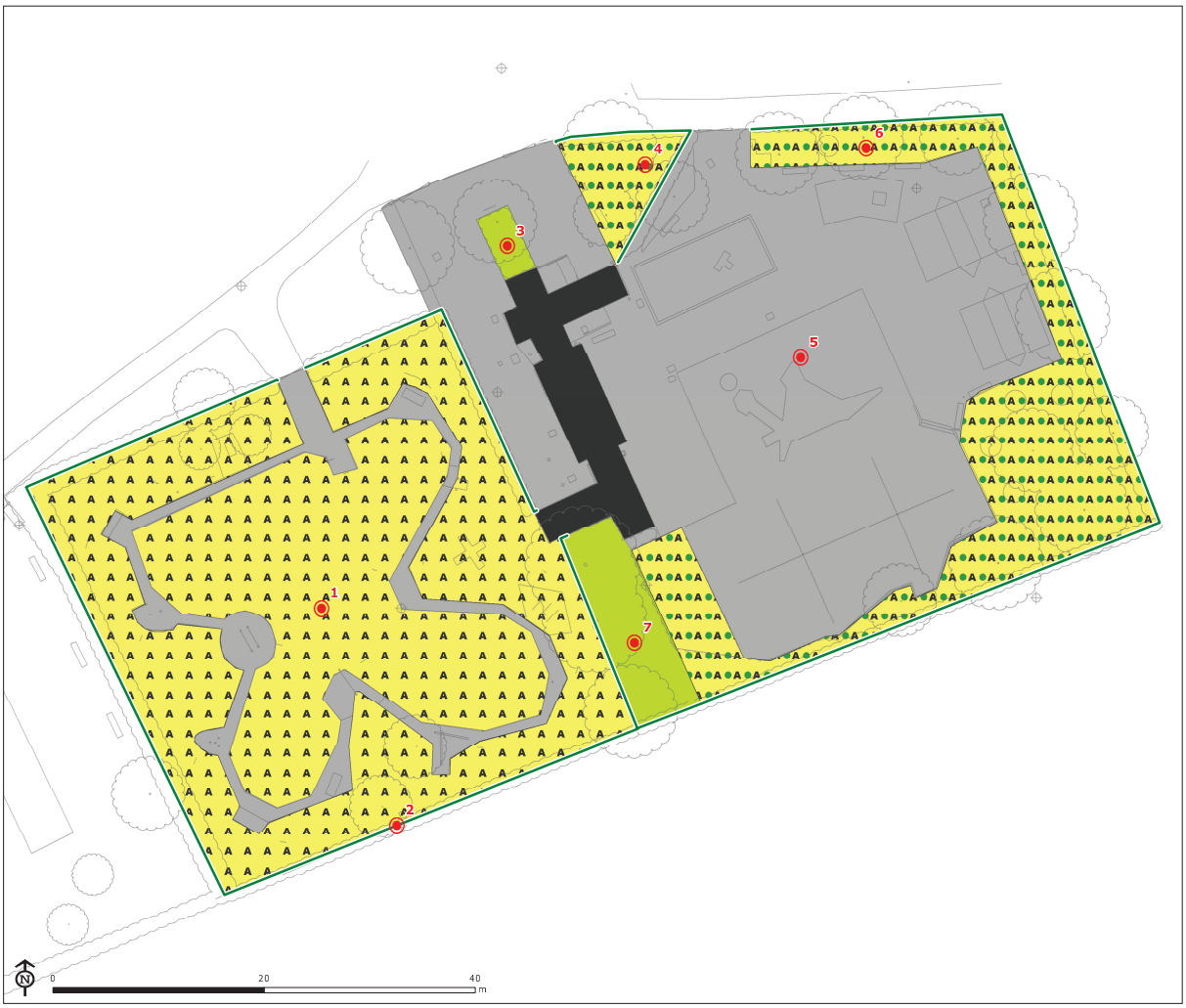
Development works that may cause killing or injury of bats or that would result in the damage, loss or disturbance of a bat roost would require a Natural England (NE) Mitigation Licence. Licensed works require evidence that the works entailing detrimental impacts are unavoidable, as well as appropriate mitigation, which may include seasonal constraints and provision of alternative habitat and/or roosting structures. A NE Mitigation Licence application can only be submitted on completion of surveys and receipt of planning consent. The application typically takes six weeks to process, after which mitigation could commence. A new Low Impact Class licence is also now available with regard to bats. This can be used in case where only low numbers (three or less) of low status bat roosts will be affected and the application process is less onerous.

Under the **NERC Act, 2006** the Government has a duty to ensure that parties take reasonable practicable steps to further the conservation of these species.

Nesting Birds

Birds and their nests are protected by **the Wildlife and Countryside Act 1981 (as amended)**. This Act gives protection to all species of bird with regard to killing and injury, and to their nests and eggs with regard to taking, damaging and destruction. Certain species listed on Schedule 1 of the Act, are afforded additional protection against protection.

Appendix 2 Phase 1 Habitat Map



Primrose Hill - New Catering Outlet

Figure X: Phase 1 Habitat Map

- Target note
- Intact hedge (species-poor)
- Amenity grassland
- Amenity grassland/ Broadleaved scattered trees
- Buildings
- Flower bed
- Hardstanding

Map Scale @ A3: 1:350

LUC

Appendix 3 Target Notes

Target Notes	Description
1.	Area known as the trim tail with species poor amenity grassland dominated by perennial rye grass, abundant annual meadow grass and occasional common daisy. Patches of bare ground near outdoor exercise equipment.
2.	Hedgerow comprised entirely of field maple.
3.	Flower bed with daffodils, yellow daisy and hyacinths.
4.	Amenity grassland with dominant perennial rye grass, abundant annual meadow grass and frequent common daisy. Two sycamore trees with negligible bat roost potential (BRP) were also present.
5.	Children's play area comprising of hard standing and woodchip.
6.	Amenity grassland as per TN 4 with locally abundant common chickweed, frequent white clover, locally frequent ivy under the hedgerow and occasional dandelion. Areas of bare ground were recorded. Hedgerow as per TN 2. Scattered tree predominantly included sycamore and a single cherry tree.
7.	Poorly maintained ornamental planting with a single sycamore tree. The tree was considered to have negligible BRP.

Appendix 4 Bat Inspection Notes

Target Note	Comments
1.	The northern aspect had no features with potential to support bats.
2.	The southern aspect of the building had tightly fitted brickwork with no gaps present; a small number of slipped or missing tiles with potential access to roof void or lining; gap under ridge tile; and gaps under some of the lead flashing.
3.	The eastern aspect had tightly fitted brickwork; a small gap with cobwebs between brickwork and wooden beam above door; gaps in soffit boarding; and no suitable features or access to roof void in seating area.
4.	The western aspect of the building had a missing tile at lower section of roof; lifted tiles around the metal piping; tightly fitted brickwork.
5.	Surrounding trees had not features with potential to support bats are considered to have negligible BRP.

Appendix 5 Bat Survey Results

Survey Date	Survey Start	Survey End	Sunrise	Sunset	Wind[1]	Cloud Cover[2]	Rain[3]	Weather
25/05/2016	20.45	22.31	N/A	21.01	2	7	1	12°C, Cool, very slight drizzle
22/06/2016	21:07	22:52	N/A	21:22	0	4	0	20°C, dry, calm evening after a warm, humid day. There was thunder and lightening towards then end of the survey.
30/06/2016	03:11	05:02	04:47	N/A	2	6	1 to 2	15°, Light drizzle to light rain during survey. A mild morning with a light breeze.

[1] Wind speed (where available) & score of 0-12 against Beaufort scale where 0 = calm, 2 = light breeze, 4 = Moderate breeze, 6 = strong breeze, 7 = High wind, 9 = Strong gale, 12 = Hurricance

[2] Estimated cloud cover of 0-8 where 0 = Sky completely clear, 4 = Sky half cloudy, 8 = Sky completely cloudy.

[3] Estimate precipitation intensity on scale of 0-5 where 0 = Dry, 1 = Light drizzle, 2 = Light rain, 3 = Moderate rain, 4 = Heavy rain, 5 = Torrential rain.

Survey Date	Surveyor	Detector	Location	Time Observed	Species from observation	No. bats	Seen/not seen (S/NS)	Activity Type (E/R/C/F)	Comments
25/05/2016	CB	Duet	East aspect of building	21.22	Noctule	1	NS		Very brief faint pass.
				21.30	Soprano Pipistrelle?	1	NS	F/C	Brief pass above or to RG side

				22.05		1	NS	C	Direction: North to south. Flight path. Bat seen flying past on far side of building (west side) (brief pass)
				22.11	Noctule/Serotine?	1	NS	C	Heard on detector.
				22.23	Soprano Pipistrelle?	1	NS	C	Direction: South to north. Flew along length of building, across roof top and past buildings.
	LR	Ex 09	South aspect of building	21.13	Common Pipistrelle	1	S	C	Direction: East to west. Flew over building.
				21.22	Common Pipistrelle	1	NS	F	Faint foraging passes out of sight of surveyor
				22.11	Common Pipistrelle	1	S	C	Direction: South to north, pass from behind surveyor
				22.21	Common Pipistrelle	1	NS	F	Very faint foragin out of sight of surveyor
	RG	Ex 08	North-west corner of building	21.30		1	S	C	Direction: East to west. Flew along hedge boundary then over the toilets roof. Confirmed pass with CB.

				22.15	Noctule	1	S	C	Direction: South to north. Flew along hedge boundary then down along the building (Southbound) before turning west and flying over the roof.
				22.21	Common Pipistrelle	1	S	C	Direction: East to west.
				22.28	Common Pipistrelle	1	S	C	Direction: South to west. Flew from LR direction
22/06/2016	BN	Ex 03	North-west corner of building	21.44	Common Pipistrelle	1	S	F	Flew towards treeline on Glory Mill Road from LR's position over the building.
				22.06	Soprano Pipistrelle	1	S	F	Foraging along treeline.
				22.17		1	S	F	Flew over the building towards LR.
				22.19	Common Pipistrelle	1	NS	F/C	
				22.22	Common Pipistrelle	1	NS	F	
				22.26	Common Pipistrelle	1	NS	F/C	
				22.29	Common Pipistrelle	1	NS	F/C	
				22:32	Noctule	1	NS	F/C	
				22.35	Noctule	1	NS	F/C	
				22.45	Common Pipistrelle	1	S	F	Foraging east of building.

				22.48	Common Pipistrelle	1	S	F	Foraging along hedgerow east of the building.
	LR	Ex 04	East aspect of building	21.40	Common Pipistrelle	1	S	C/F	Direction: West to east over park. Foraging for 5mins.
				21.47	Common Pipistrelle	1	S	C	Direction: South-west to north-east over park.
				22.00	Common Pipistrelle	1	S	C	Direction: South-west to north-east over park.
				22.08	Common Pipistrelle	1	S	C	Direction: North-west to south-east over building and park.
	RT	Ex 07	South aspect of building	21.4	Common Pipistrelle	1	S	C/F	Circled a number of times near tree behind surveyor. Also, flew along the treeline on the edge of the playground.
				21.42	Common Pipistrelle	1	S	C	Direction: North to south to south-east. Bat flew over building.
				21.48		1	S	C	Direction: South-west to north-east. Flew from behind surveyor over building towards LR.

				21.53	Common Pipistrelle	1	NS	C	
				22	Common Pipistrelle	1	NS	C	
				22.03	Common Pipistrelle	1	S	C	Flew south behind surveyor.
				22.04	Soprano Pipistrelle	1	NS	C	
				22.08	Pipistrelle	2	S	C	1st bat flew over surveyor from the east. 2nd bat flew past LR towards surveyor.
				22.16	Pipistrelle	1	S	C	Direction: South to north. Flew from trees over building towards BN.
30/06/2016	BN	Ex 01	North-west corner of building	03:08	Soprano Pipistrelle	1	S	F	Bat observed foraging by tree on the southern corner of the building.
				03:10	Soprano Pipistrelle	1	S	F	Bat observed foraging by tree on the southern corner of the building.
				03:20	Soprano Pipistrelle	1	NS	C/F	
				03:22 - 03:24	Soprano Pipistrelle	1	S	F	Continuous foraging south-western corner of the building.
				03:30	Soprano Pipistrelle				Observed foraging along the southern edge of the building and along the hedgerow.
				03:33 - 03:35	Soprano Pipistrelle	1	S	F	Foraging by trees at entrance in front of building and along hedgerow.
				03:36 - 03:40	Soprano Pipistrelle	1	S	C/F	Continuous foraging along hedgerow to the west of the building.

				03:45	Soprano Pipistrelle	1	S	F	Continuous foraging along hedgerow to the west of the building.
				03:48	Soprano Pipistrelle	1	S	F	Continuous foraging along hedgerow to the west of the building.
				03:49	Soprano Pipistrelle	1	S	F	Foraging near tree by the entrance and along the footpath.
				03:52	Soprano Pipistrelle	2	S	F	Direction: South to north. Continuous foraging.
				03:55	Common Pipistrelle	1	S	F	Direction: North to south, then south to north. Foraging along western edge of the building.
				03:59	Soprano Pipistrelle	1	NS	F	
				04:05	Soprano Pipistrelle	1	S	C	Direction: South to north.
				04:23	Soprano Pipistrelle	1	S	C	Direction: South to north-east. Flew over building.
				04:28	Soprano Pipistrelle	1	NS	F	Brief pass.
	RT	Ex 08	South-east corner	03:11 - 03:21	Soprano Pipistrelle	1	S	F	Circled near tree south of building.
				03:26	Soprano Pipistrelle	1	S	F	Circled near tree south of building.
				03:38	Pipistrelle	1	S	C	Flew from building towards surveyor and then east.

				03:40	Soprano Pipistrelle	1	S	C	Flew from building towards surveyor and then east.
				03:52	Soprano Pipistrelle	1	S	F	Circled near building.
				04:28	Soprano Pipistrelle	1	S	C	Direction: South to north.