



# The Ecology Co-op

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13<sup>th</sup> February 2024

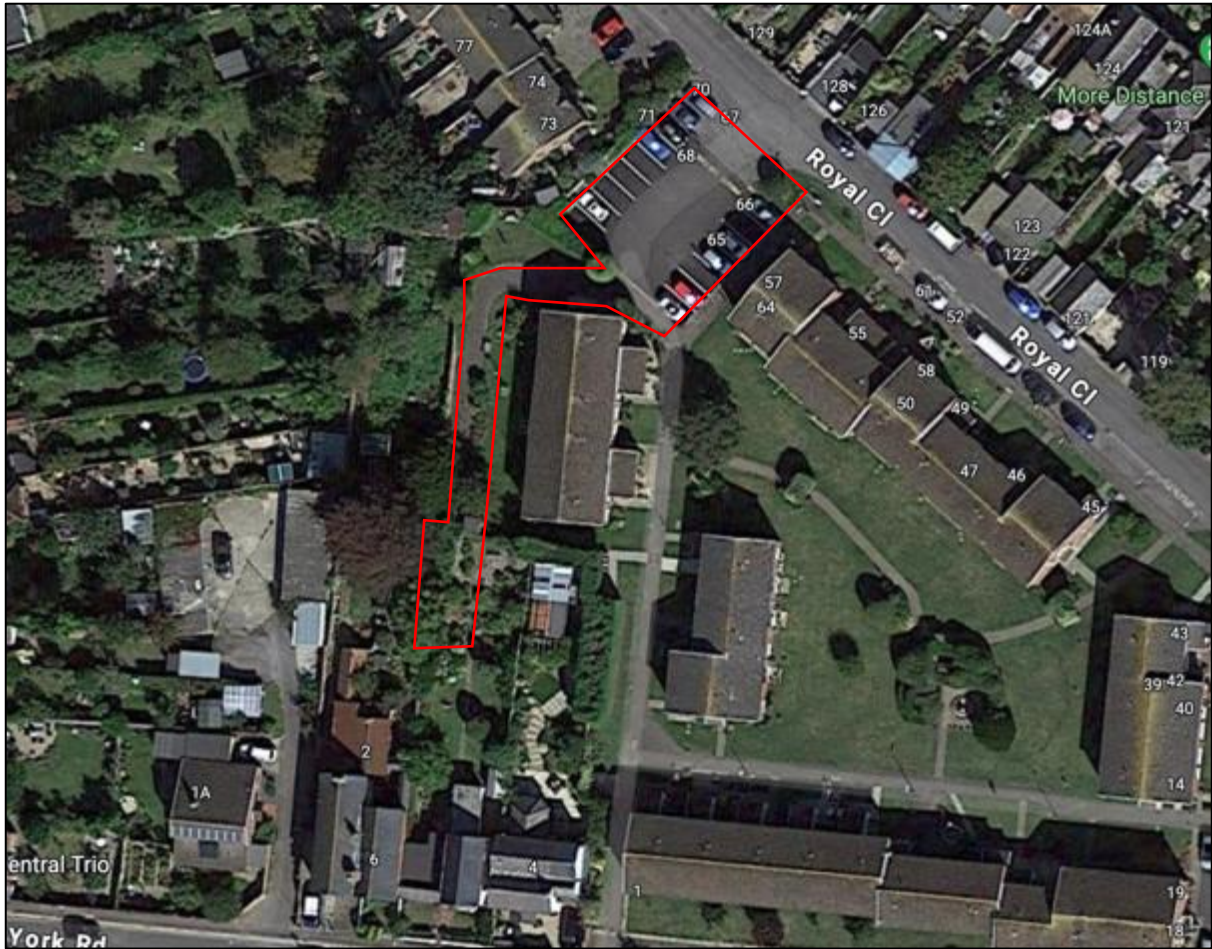
**Ref: Preliminary Ecological Appraisal (PEA) – Land to the rear of 3 York Road.**

To whom it may concern,

The Ecology Co-op has been commissioned to undertake a PEA of land to the rear of 3 York Road. by Julie Potter. This letter report presents a summary of a survey undertaken by Owen Crawshaw, MCIEEM, and Charlotte Hammond, BSc (Hons), MRes, on 5<sup>th</sup> February 2024.

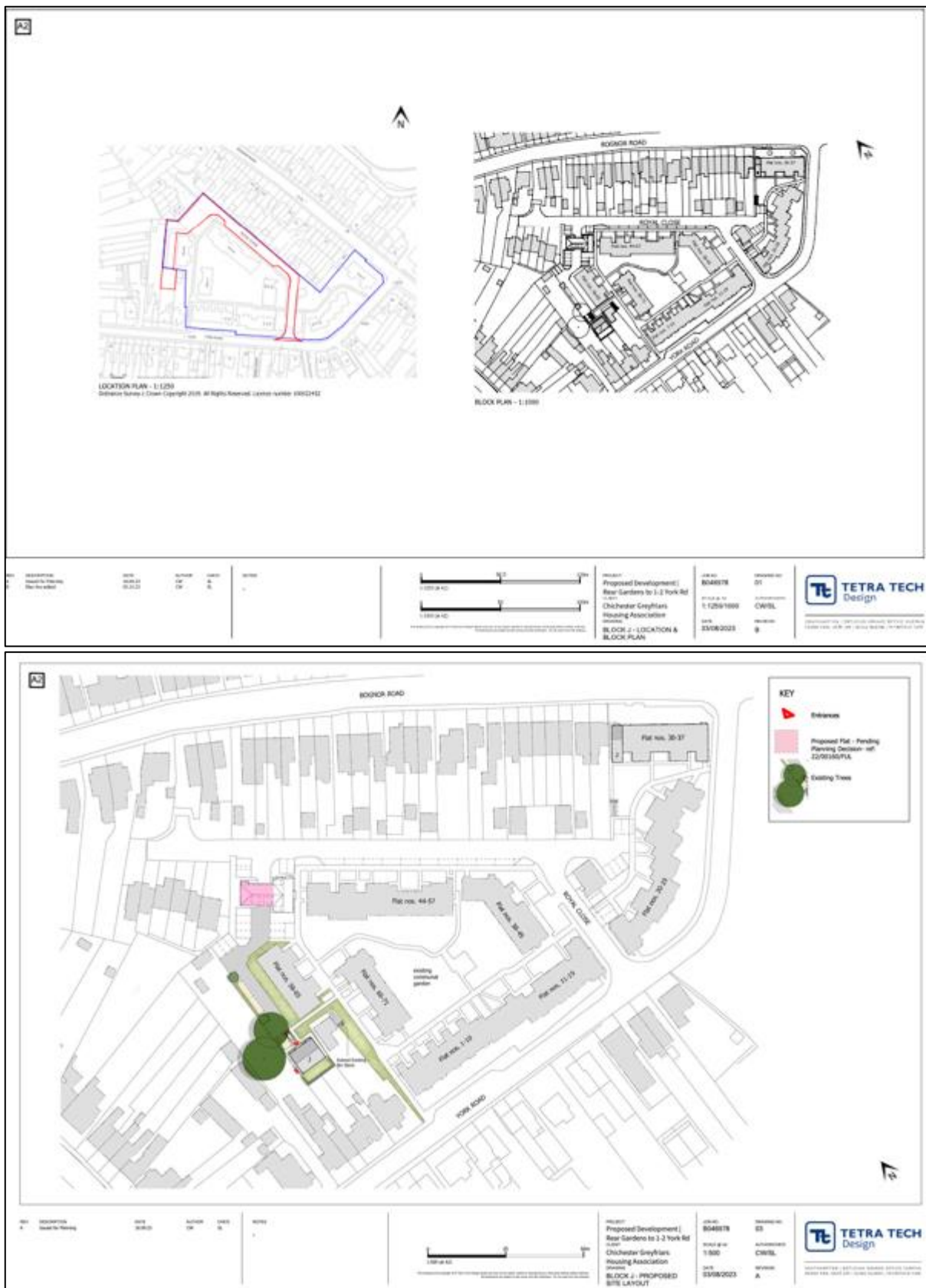
The site is located in an urban edge area of Chichester, approximately 0.8km south-east of Chichester City centre. The site currently forms part of the rear garden to no. 3 York Road, the east and west boundaries are formed by rear gardens to residential properties. The northern boundary consists of flats.

The central grid reference for the site is SU 87099 04483. The site comprises of built areas and gardens including an access road (further detail is provided in Table 1 below). Figure 1 shows an aerial view of the site, with the approximate boundary outlined.



**Figure 1:** An aerial image showing the site boundary (outlined in red) at the land rear of 3 York Road.

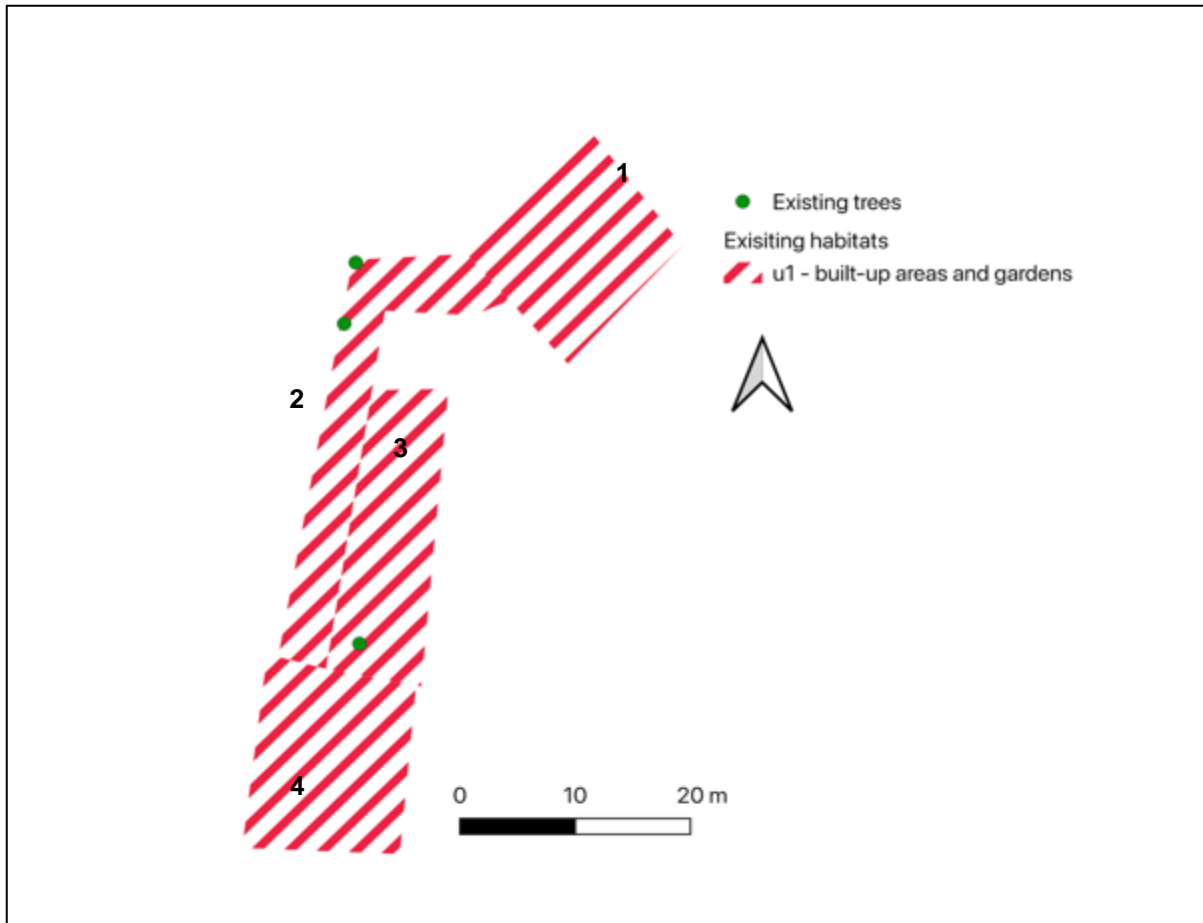
The proposed project comprises the creation of 2 one-bedroom apartments. Additional soft landscaping is proposed to allow for vehicle access (Figure 2).



**Figure 2:** A proposed plan showing the location and soft landscaping of the proposed flats. Provided by Tetra Techs. Dated 3/08/2023.

A summary of habitats contained within the site is provided in Table 1 below. A UKHab map is presented in Figure 3.

UKHab Code	Habitat	Polygon ID (Figure 3)	Description
u1 – built up areas and gardens		1	The northern boundary consists of a car park, currently used by the surrounding flats, and will be used as the rear access for the proposed plans.
u1 – built up areas and gardens		2	<p>There is a paved path leading to the land at the rear of 3 York Road. The east side of the path meets a brick wall of the neighbouring property.</p> <p>The north-western corner of the site has a blackthorn <i>Prunus spinosa</i>, cherry laurel <i>Prunus laurocerasus</i> and bay <i>Laurus nobilis</i> present.</p>
u1 – built up areas and gardens		3	The eastern boundary forms part of the shared communal gardens to the neighbouring flats. Species identified include snowdrop <i>Galanthus nivalis</i> , daffodil <i>Narcissus pseudonarcissus</i> , common dog-violet <i>Viola riviniana</i> , sowbread <i>Cyclamen herderifilium</i> , mock-orange <i>Philadelphus coronarius</i> , evergreen spindle <i>Euonymus japonicus</i> , Spanish bluebell <i>Hyacinthoides hispanica</i> , bay <i>Laurus nobilis</i> , and cabbage-palm <i>Cordyline australis</i> . There is a single cherry laurel located within the communal garden.
u1 – built up areas and gardens		4	The southern portion of the site, which used to be part of the garden belonging to 3 York Road, consists of planted shrubs and ornamental plants. Species identified include evergreen spindle <i>Euonymus japonicus</i> , garden privet <i>Ligustrum ovalifolium</i> , Portugal lorrel <i>Prunus lusitanica</i> , spring crocus <i>Crocus vernus</i> , noble fir <i>Abies privera</i> , green hellebore <i>Helleborus viridis</i> , green alkanet <i>Pentaglottis sempervirens</i> , colombine <i>Aquilegia vulgaris</i> , spotted-laurel <i>Acubua japonica</i> and gold-of-pleasure <i>Camerlina sativa</i> .



**Figure 3.** A UKHab map of land to the rear of 3 York Road. Produced using QGIS software (version 3.16 Hannover).

A 1km records search for statutory/non-statutory designated sites and protected/notable species was undertaken through the Sussex Biological Records Centre (SxBRC), the result are provided in Table 2.

**Table 2.** A summary of ecological features, constraints & opportunities, further surveys and necessary avoidance/mitigation/compensation measures at land to the rear of 3 York Road.

Ecological Feature	Ecological Constraints	Timing of Surveys	Ecological Opportunities
<b>Habitats</b>			
Priority Habitat	<p>There are no priority habitats within the site or directly adjacent to the site.</p> <p>Within 1km south of the site there are two small patches of deciduous woodland and a single patch of traditional orchard.</p>	N/A	The proposed development is unlikely to have a significant impact on the nearby priority habitat as the closest patch of deciduous woodland is 830m from the site's boundary.
On-site Habitats	The proposed plans will result in small-scale loss of built-up area and garden space. This habitat is of low ecological value and the loss will not impact significantly on the overall ecology of the site or wider surroundings.	No further surveys	It is recommended that the proposed gardens be planted with wildflower seed mix to enhance the areas for pollinators. It is also recommended that native trees and shrubs be planted within the proposed gardens.
<b>Protected Species</b>			
Badgers	No signs of badgers were found within or around the site, it is unlikely the site will support badgers. SxBRC does not provide records for badgers.	No further surveys.	N/A
Roosting Bats	<p>The site holds a 'negligible' potential to support roosting bats and no further surveys are considered necessary. There are no buildings or suitable roosting features within the site.</p> <p>The SxBRC records returned 147 bat records within 1km the site. The records returned by SxBRC include:</p> <ul style="list-style-type: none"> <li>• 20 common pipistrelle <i>Pipistrellus pipistrellus</i></li> <li>• 2 brown long-eared <i>Plecotus auritus</i></li> <li>• 1 Myotis <i>Sp</i></li> </ul>	No further surveys.	The developer is also encouraged to consider including integral bat roosting opportunities into the fabric of new buildings such as bat tiles and internal voids/access points for bats. For example, three Schwegler 2FR bat tubes could be built into the south, west and east facing elevations and 3no. purpose designed bat tiles onto the south-facing pitched roofs. Alternatively, 2FE Schwegler Wall-Mounted bat shelters could be installed upon the external faces of the building close to the

Ecological Feature	Ecological Constraints	Timing of Surveys	Ecological Opportunities
	<ul style="list-style-type: none"> <li>• 17 noctule <i>Nyctalus noctule</i></li> <li>• 3 serotine <i>Eptesicus serotinus</i></li> <li>• 86 soprano pipistrelle <i>Pipistrellus pygmaeus</i></li> <li>• 1 western barbastelle <i>Barbastella barbastellus</i></li> </ul>		eaves of the building on the south or eastern face.
Commuting and Foraging Bats	The site has low potential to support foraging bats. The area may still be used by commuting bats as the surrounding habitat provides suitability.	No further surveys.	<p>Planting of hedgerows, treelines, scrub and orchards or improvement of grassland, and increased connectivity to other suitable habitat within the wider area.</p> <p>The detailed design should include a lighting scheme that minimises adverse impacts by following the Bat Conservation Trust's guidance on lighting, reproduced in Appendix 2 of this report.</p>
Breeding Birds	<p>The shrubs to be removed in the garden are likely to support breeding birds.</p> <p>To prevent significant effects to breeding birds and a breach of the Wildlife and Countryside Act 1981, vegetation removal should be timed outside of the nesting bird season (typically 1<sup>st</sup> March to 31<sup>st</sup> August), unless features are first searched by a suitably qualified ecologist and no active nests are found.</p> <p>SxBRC returned records for 45 notable bird species listed on the WCA Schedule 1 list. This includes skylark <i>Alauda arvensis</i>, house sparrow <i>Passer domesticus</i>, and song</p>	No further surveys.	<p>Planting of hedgerows, treelines, scattered trees and scrub. Inclusion of bird nesting features and boxes into the development.</p> <p>A total of four bird nesting boxes should be installed around the site, placed on the building itself and semi-mature trees. Two of these nest boxes should be general-purpose boxes, designed for a wide range of species. Examples of suitable models include the Schwegler 1B bird box and the Vivara Pro Seville WoodStone nest box. These nest boxes should be placed at least 1.5m above the ground, away from prevailing wind</p>

Ecological Feature	Ecological Constraints	Timing of Surveys	Ecological Opportunities
	thrush <i>Turdus philomelos</i> .		(usually of a south-westerly direction in the UK), making sure that there is a clear flight path to the box.
Dormice	<p>There is no suitable habitat for dormouse within the site or the surrounding the site.</p> <p>The SxBRC did not return any records of dormice from within the search area.</p>	No further surveys.	The site is not connected to suitable habitat that is likely to support dormice.
Great Crested Newts	<p>There are no ponds within 250m of the site boundary. The site has a small patch of grassland but is not connected to wider supporting habitat. Therefore, it is highly unlikely the grass will support great crested newts.</p> <p>The SxBRC did not return any records of great crested newts from within the search area.</p>	No further surveys.	The site is not connected to suitable habitat that is likely to support Great Crested Newts.
Reptiles	<p>The shared communal gardens to the neighbouring flats are managed and not connected to suitable habitat. The site is unlikely to support reptiles.</p> <p>The SxBRC returned multiple records for common lizards <i>Zootoca vivipara</i>, slow worm <i>Angius fragilis</i> and grass snake <i>Natrix helvetica</i>.</p>	No further surveys.	The site is not connected to suitable habitat that is likely to support reptiles.
Hedgehogs	The site is unlikely to support hedgehogs due to limited connecting habitats and lack of habitats providing suitable shelters for hedgehogs.	No further surveys.	The proposed gardens and any boundaries should include 'hedgerow highways' within the fence lines to allow hedgehogs to safely forage and commute between gardens and the wider landscape.



Ecological Feature	Ecological Constraints	Timing of Surveys	Ecological Opportunities
	SxBRC returned 17 records of the Western European Hedgehog <i>Erinaceus europaeus</i> .		Hedgehog highways are easy to incorporate, consisting of holes approximately 13cm by 13cm at the base of the fence. Plaques can be installed adjacent to the hole to easily identify the features so that they are maintained in perpetuity.
Notable Invertebrates	<p>The site has the potential to support common invertebrates.</p> <p>SxBRC returned five records of invertebrates designated on the Section 41 list for conservation biodiversity. The species listed include stag beetle <i>Lucanus cervus</i>, small heath <i>Coenonympha pamphilus</i>, deep-brown dart <i>Aporphyla lutulenta</i>, buff ermine <i>Spilosoma lutea</i> and cinnabar <i>Tyria jacobaeae</i>.</p>	No further surveys.	The proposed plans can provide enhancements for invertebrates by including wildflower planting and enhancing the retained communal gardens. The following tree species are recommended: wild cherry <i>Prunus avium</i> , wayfaring tree <i>Viburnum lantana</i> , hawthorn <i>Crataegus monogyna</i> , elder <i>Sambucus nigra</i> and field maple <i>Acer campestre</i> .
Designated statutory sites			
Chichester Gravel Pits and Leythorne Meadow (Local Wildlife Site).	<p>The disused gravel pits form the largest collection of inland water habitats in West Sussex and are of County-wide importance for their wintering wildfowl. The breeding birds are also of note, as are the massive populations of several species of damselfly.</p> <p>A small meadow, east of Runcton Lake, is of outstanding botanical importance, being floristically one of the richest meadows in the County.</p>	N/A	The incorporation of a light-sensitive scheme into the proposals will help illustrate a reduced impact upon the local wildlife site. The increase in two residential flats will not have a significant impact on the site.

The proposed development represents an opportunity for habitat enhancements that will benefit biodiversity at the site. The limited amount of habitat to be lost under these proposals will not significantly impact upon the ecology of the site or the wider surroundings, therefore no further surveys are considered necessary. There is limited connectivity to suitable habitats that would support protected species.

If you have any queries about the findings of this assessment, then please do not hesitate to contact me.

Kind regards,

Charlotte Hammond

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***Appendix 1. Photographs***



**Photograph 1.** The northern boundary car park, leading to the site's entrance.



**Photograph 2.** A cherry tree within the communal garden on the western half of the site.



**Photograph 3.** The view of the access road to the land at the rear of 3 York Road.



**Photograph 4.** Previous garden space of land to the rear of 3 York Road.



**Photograph 5.** A view of the bay and cherry laurel in the north-west corner.

## **Appendix 2. Reducing impacts of Artificial Light**

Bright external lighting can have a detrimental impact upon foraging and commuting bat flight paths, but more importantly can also cause bats to remain in their roosts for longer. Artificial lighting can also cause significant impacts to other nocturnal species, most notably moths and other nocturnal insects. It can also result in disruption of the circadian rhythms of birds, reducing their fitness.

Guidelines issued by the Bat Conservation Trust should be referred to when designing the lighting scheme. Note that lighting designs in very sensitive areas should be created with consultation from an ecologist and using up-to-date bat activity data where possible. The guidance contains techniques that can be used on all sites, whether a small domestic project or larger mixed-use, commercial or infrastructure development. This includes the following measures:

### **Avoid lighting key habitats and features altogether**

There is no legal duty requiring any place to be lit. British Standards and other policy documents allow for deviation from their own guidance where there are significant ecological/environmental reasons for doing so. It is acknowledged that in certain situations lighting is critical in maintaining safety, such as some industrial sites with 24-hour operation; however, in the public realm, while lighting can increase the perception of safety and security, measurable benefits can be subjective. Consequently, lighting design should be flexible and be able to fully consider the presence of protected species.

### **Apply mitigation methods to reduce lighting to agreed limits in other sensitive locations – lighting design considerations**

Where bat habitats and features are considered to be of lower importance or sensitivity to illumination, the need to provide lighting may outweigh the needs of bats. Consequently, a balance between a reduced lighting level appropriate to the ecological importance of each feature and species, and the lighting objectives for that area will need to be achieved. The following are techniques which have been successfully used on projects and are often used in combination for best results:

- dark buffers, illuminance limits and zonation;
- sensitive site configuration, whereby the location, orientation and height of newly built structures and hard standing can have a considerable impact on light spill;
- consideration of the design of the light and fittings, whereby the spread of light is minimised ensuring that only the task area is lit. Flat cut-off lanterns or accessories should be used to shield or direct light to where it is required. Consideration should be given to the height of lighting columns. It should be noted that a lower mounting height is not always better. A lower mounting height can create more light-spill or require more columns. Column height should be carefully considered to balance task and mitigation measures. Consider no lighting solutions where possible such as white lining, good signage, and LED cats eyes. For example, light only high-risk stretches of roads, such as crossings and junctions, allowing headlights to provide any necessary illumination at other times;
- screening, whereby light spill can be successfully screened through soft landscaping and the installation of walls, fences and bunding;
- glazing treatments, whereby glazing should be restricted or redesigned wherever the ecologist and lighting professional determine there is a likely significant effect upon key bat habitat and features;
- creation of alternative valuable bat habitat on site, whereby additional or alternative bat flightpaths, commuting habitat or foraging habitat could result in appropriate compensation for any such habitat being lost to the development;
- dimming and part-night lighting. Depending on the pattern of bat activity across the key features identified on site it may be appropriate for an element of on-site lighting to be controlled either diurnally, seasonally or according to human activity. A control management system can be used to dim (typically to 25% or less) or turn off groups of lights when not in use.

### **Demonstrate compliance with illuminance limits and buffers**

- Design and pre-planning phase; it may be necessary to demonstrate that the proposed lighting will comply with any agreed light-limitation or screening measures set as a result of your ecologist's recommendations and evaluation. This is especially likely to be requested if planning permission is required.
- Baseline and post-completion light monitoring surveys; baseline, pre-development lighting surveys may be useful where existing on or off-site lighting is suspected to be acting on key habitats and features and so may prevent the agreed or modelled illuminance limits being achieved.
- Post-construction/operational phase compliance-checking; as a condition of planning, post-completion lighting surveys by a suitably qualified person should be undertaken and a report produced for the local planning authority to confirm compliance. Any form of non-compliance must be clearly reported, and remedial measures outlined. Ongoing monitoring may be necessary, especially for systems with automated lighting/dimming or physical screening solutions.

### **Lighting Fixture Specifications**

The Bat Conservation Trust recommends the following specifications for lighting on developments to prevent disturbance:

- lighting spectra: peak wavelength >550nm
- colour temperature: <2700K (warm)
- reduction in light intensity
- minimal UV emitted
- upward light ratio of 0% and good optical control.