Mansell Construction Services Ltd

Kirby Street, Clerkenwell

Biodiversity Appraisal

February 2007

Entec UK Limited

Report for

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Document Revisions

No.	Details	Date

Contents

1. Introduction

1.1 Purpose of this report

Entec UK Ltd (Entec) was commissioned by Mansell Construction Services Ltd (Mansell) to undertake a Biodiversity Appraisal of the Kirby Street site, Clerkenwell, London (Grid Reference TQ 313 818)[1], which is required to discharge Planning Condition 7 of the Planning Consent (2006/1445/P). This requirement is to ensure that the development is sustainable in accordance with the requirements of policy N5 of the London Borough of Camden Replacement Unitary Development Plan[2] (Camden UDP).

In completing the appraisal an ecological survey of the site was undertaken, in which any potential ecological issues that might be associated with the development of the site were identified, along with opportunities for enhancement of biodiversity.

1.2 Site context and description

The site is located in north London, in the London Borough of Camden. The site is situated within an urban setting, comprising of mainly residential and commercial built-up areas on all sides.

1.3 Scheme description

There is currently a five storey building with basement on the site. Full planning permission has been granted for partial demolition, alterations and extensions to the existing buildings. This will include the stripping of the building back to its frame, and constructing an additional storey. The building will be extended to the rear with the basement and ground floor to be used as workshops. The remaining floors are to be converted into residential studio flats.

[1] Hereinafter, the area of land to be directly affected by the development is referred to as the site.

[2] Culture and Environment Department (2006) *London Borough of Camden Replacement Unitary Development Plan*. Camden Council, London. Available from: http://www.camden.gov.uk/udp

2. Desktop Study

2.1 Methods

Greenspace Information for Greater London (GiGL) was contacted for information regarding statutory[3] and non-statutory designated sites (Site of Importance for Nature Conservation or SINCs), as well as records of protected[4] and notable species within 1km of the site (reference: 07/057).

Additionally, a desk-top study of readily available information has been undertaken including the use of MAGIC[5], a web-based interactive map that brings together geographic information on key environmental schemes and designations in one place.

A study of biodiversity related planning policy at the national, regional and local level has also been undertaken for the site and locality in order to highlight an policy requirements with which the development scheme would need to meet in Camden.

2.2 Results

2.2.1 Statutory sites for nature conservation

There are no statutory sites for nature conservation within 1km of the site.

2.2.2 Non-statutory sites for nature conservation

The Greater London Authority designates and categorises Site of Importance for Nature Conservation (SINC) according to their level of importance for conservation on a scale of: Metropolitan/Borough Grade 1/Borough Grade 2/Local. Within the Camden UDP it is stated:

"*The Council will not grant planning permission for development that it considers would cause harm to Sites of Special Scientific Interest (SSSI), Local Nature Reserves (LNR) and Sites of Nature Conservation Importance (SINC)*"

Fourteen SINCs occur within 1km of the Kirby Street site and these have been summarised in Table 2.1 below. However, it should be noted that due to the nature and location of the development in relation to these sites, none of the outlined SINCs are considered to be within the zone of influence of the development site.

[3] Natural England notifies sites that are of international or national importance for nature conservation as Sites of Special Scientific Interest (SSSIs). Internationally important sites may also be designated as Special Areas of Conservation, Special Protection Areas or Ramsar sites. These sites are afforded legal protection.

[4] Many species of animal and plant receive some degree of legal protection: for details see Appendix A.

[5] www.magic.gov.uk

Table 2.1 Non-statutory protected sites within 1km

Name of site	Grid reference	Habitat types	Area (ha)	Level of importance	Distance from development site (m)
Temple Gardens	TQ312809	Amenity grassland, flower beds, planted shrubbery, scattered trees.	2.19	Borough Grade II	810 (S)
The Barbican and St Alphage's Gardens	TQ323818	Amenity grassland, planted shrubbery, lake, scattered trees, semi-improved neutral grassland, vegetated wall.	3.05	Borough Grade II	800 (E)
Middle Temple Garden (Westminster section)	TQ311808	Amenity grassland, flower beds, planted shrubbery, scattered trees, semi-improved neutral grassland, vegetated wall.	0.07	Borough Grade II	850 (S)
Calthorpe Community Garden	TQ306825	Amenity grassland, flower beds, hedge, planted shrubbery, scattered trees, tall herbs.	0.44	Local	980 (NW)
St Andrew's Gardens	TQ307824	Amenity grassland, planted shrubbery, scattered trees, tall herbs	0.66	Local	790 (NW)
Lincoln's Inn Fields	TQ307813	Amenity grassland, hedge, planted shrubbery, scattered trees.	2.92	Local	640 (SW)
Coram's Fields	TQ305823	Amenity grassland, hedge, planted shrubbery, scattered trees.	2.69	Local	850 (NW)
St Paul's Cathedral Gardens	TQ321811	Amenity grassland, flower beds, planted shrubbery, scattered trees.	0.71	Local	880 (SE)
Roman Wall, Noble Street	TQ322815	Vegetated wall.	0.06	Local	870 (SE)
Spa Green Garden	TQ314827	No information available.	0.32	Local	850 (N)
St John's Gardens	TQ316819	No information available.	0.14	Local	230 (E)
Lloyd Square	TQ311827	No information available.	0.19	Local	950 (N)
Wilmington Square	TQ311825	No information available.	0.39	Local	715 (N)
King Square	TQ319826	No information available.	1.25	Local	890 (NE)

A number of species considered important (e.g. afforded legal protection, listed in an existing nature conservation framework etc.) in nature conservation terms are also found within 1km of the site (see Table 2.2).

Table 2.2 Records of protected or notable species

Common name	Linnean nomenclature	Distance (m) and direction from site	Date of record	Details
Common toad	*Bufo bufo*	996 (NE)	10/1989	Protected by W&CA Sch5 Sec9.5
Common frog	*Rana temporaria*	482 (W), 955 (N)	1999, 1999	Protected by W&CA Sch5 Sec9.5
Peregrine	*Falco peregrinus*	612 (SE)	06/2004	Protected by W&CA Sch1 Part 1, Birds Dir Anx 1, London BAP priority species
Black redstart	*Phoenicurus ochruros*	403 (SE)	2002	Protected by W&CA Sch1 Part 1, London BAP priority species
Starling	*Sturnus vulgaris*	758 (SW)	07/2003	London BAP priority species
House sparrow	*Passer domesticus*	172 (NW), 681 (W), 732 (E), 760 (E), 781 (W), 818 (E), 892 (W), 912 (NE), 917 (E), 966 (E), 976 (N)	2001, 2002, 2002, 2002, 07/2003, 2002, 2002, 08/1989, 2002, 06/2001, 2001	London BAP priority species
Pipistrelle bat	*Pipistrellus* spp.	732 (SW)	08/1993	W&CA Sch5 Sec 9, Hab&Spp Dir Anx 2np, Conservation Regs 1994 Sch 2, London BAP priority species

2.2.3 Planning Policy

Planning Policy Statement 9: Biodiversity and Geological Conservation

The national planning policy statement for biodiversity states that:

> *"Development proposals provide many opportunities for building-in beneficial biodiversity or geological features as part of good design. When considering proposals, local planning authorities should maximise such opportunities in and around developments, using planning obligations where appropriate."*

London Borough of Camden Replacement Unitary Development Plan

Policy N5 of the Camden UDP states that:

"In assessing planning applications, the Council will expect development schemes to have considered conserving and enhancing biodiversity, including by creating wildlife habitats."

3. Field Survey

3.1 Methods

3.1.1 Flora

A phase 1 habitat survey of the site and its surrounds was undertaken by an Entec ecologist, on the 6th February 2007, in which distinct habitats were identified and mapped where appropriate, and any features of interest subject to a more detailed description[6]. As the standard phase 1 habitat survey methodology is mainly concerned only with vegetation communities, the survey was extended[7] to allow for the provision of information on other ecological features; including to identify the presence/potential presence of legally protected species.

3.1.2 Fauna

The methodologies used to establish the presence/potential presence of faunal species are summarised below. These relate to those species/biological taxa that the desk study and habitat types present indicated could occur on the site.

Bats

An assessment of the suitability of the habitats on the site, including buildings, to support populations of bats was made.

Birds

The site was assessed for its potential to provide nesting habitat for breeding birds or to support important assemblages of birds of rare or notable species.

Reptiles

The site was assessed for its potential to provide sheltering, foraging and breeding habitats for the four common reptile species: slow worm (*Anguis fragilis*), common lizard (*Lacerta vivipara*), grass snake (*Natrix natrix*) and adder (*Vipera berus*).

Invertebrates

The site was assessed for its potential to provide habitats that would support rare and/or notable invertebrate species.

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[6] Joint Nature Conservation Committee (1993) *Handbook for Phase 1 Habitat Survey*. JNCC, Peterborough.

[7] Institute of Environmental Assessment (1995) *Guidelines for Baseline Ecological Assessment*. E&FN Spon, London.

3.2 Results

3.2.1 Site surrounds

The site measures less than one hectare in area, and lies within a predominantly urban setting. Roads and buildings surround the site on all sides, with the wider area comprising of similar structures.

3.2.2 Overview of site conditions

The findings of the extended phase 1 habitat survey are illustrated Figure 3.1, Appendix B.

The site consists in the main of a five storey building, with a basement that leads out into a small yard to the west. This yard is enclosed on all sides by tall walls that form part of the surrounding buildings. The main building on the site is bordered to the east by a road with adjoining pavements, and to both the north and south are similar buildings.

The yard consists entirely of hardstanding, with two small butterfly bush (*Buddleja davidii*) plants growing through cracks along the western edge. In the southwest corner is a small shed, and a ramp leads up northwards on the western edge to a raised platform of hardstanding. The main building extends below this platform.

3.2.3 Fauna

The site lacks well established vegetation and it is considered that there are no habitats on site that offer any value for notable or protected fauna.

With regard to birds, there was no direct evidence that any birds use the site for nesting and its value for birds is considered negligible although common bird species (e.g. pigeons) may well utilise sheltered crevices during the breeding season.

The existing building has a flat roof with no internal roof space or opportunities for roosting bat species. Furthermore, due to the urban context of the site, the surrounding landscape provides no value for foraging or commuting bats due to the lack of waterbodies, tree lines or open green space within the vicinity of the site.

The lack of habitats across the site precluded the presence of notable invertebrate species.

4. Evaluation

4.1 Method

A key consideration in assessing the effects of any development on flora and fauna is to define the habitat areas and species that need to be considered. In identifying these receptors, it is important to recognise that a development can affect flora and fauna directly (e.g. the land-take required) and indirectly, by affecting land beyond the development site (e.g. through noise generation). The approach that has been undertaken in this report is to identify 'valued ecological receptors' and, separately, to consider legally protected species.

4.1.1 Valued ecological receptors

It is impractical for an assessment of the ecological effects of a development to consider every species and habitat that may be affected; instead it should focus on 'valued ecological receptors'. Valued ecological receptors are species and habitats that are valued in some way, and could be affected by the proposed development; other valued ecological receptors may occur on or in the vicinity of the site of the proposed development but do not need to be considered because there is no potential for them to be affected significantly.

The value of species, populations and habitats is assessed with reference to:

- their importance in terms of 'biodiversity conservation' value (which relates to the need to conserve representative areas of different habitats and the genetic diversity of species populations);
- any social benefits that species and habitats deliver (e.g. relating to enjoyment of flora and fauna by the public); and
- any economic benefits that they provide.

Species' populations and habitats have been valued using the following scale: international /UK /national (i.e. England) /regional /metropolitan /borough /less than borough /negligible. The approach that is taken in this report is that a species' population that is considered to be of county or greater importance in biodiversity conservation terms is considered a valued ecological receptor. Therefore an effect is not considered at the detailed stage if it concerns a species' population that is of metropolitan value or less. The exception to this is where it has been identified as having high social or economic value, or if the species is legally protected (see below).

For habitats, the approach that has been adopted is that a habitat of metropolitan or greater importance is considered to be a valued ecological receptor. Habitats of lower value need not be assessed at this stage unless the habitat has economic or social value (e.g. an open space that is used extensively for informal recreation by local people, where the area's wildlife makes an important contribution to this value).

4.1.2 Legal protection of species

It is considered that the site does not have potential to support any legally protected species; therefore an evaluation of the potential impact of the development on such is not required.

4.2 Results of evaluation

Table 4.1 provides information on the value assigned to each feature identified through the desk study and the subsequent surveys.

Table 4.1 Nature conservation value of recorded habitats

Habitat type	Nature conservation value	Rationale	Valued ecological receptor?
Off-site non-statutory protected sites	Not applicable	Although there are 14 SINCs within 1km of the site, none of these are considered to be within the zone of influence of the development site. AS such, the proposed development is not considered to have any adverse effects upon the biodiversity value of these SINCs.	No
Off site adjacent habitats:	Negligible	The site is surrounded on all sides by buildings, hardstanding and roads. There are no natural habitats or green space immediately adjacent to the site or within close proximity to the site. These land uses are considered to have negligible ecological value.	No
On site habitats:	Negligible	There are no natural habitats present on the site that provide biodiversity value.	No

5. Recommendations for Biodiversity Enhancement

In order to meet the requirements of policy N5 of the London Borough of Camden Replacement Unitary Development Plan, appropriate opportunities for enhancement of the biodiversity value of the site have been recommended below as part of the overall Biodiversity Appraisal. These recommendations have been made based on the current status of the site, habitats present within the wider area and information obtained regarding protected and notable species already recorded in the vicinity.

Opportunities for ecological enhancement on this site are very limited. This is primarily due to the lack of well established vegetation on site and within the vicinity of the site, in addition to limited space available for habitat creation within the scope of the new development. The development proposals as they stand will not result in the net loss of biodiversity value of the site and if the proposed measures indicated below are adopted, there will be an overall gain in biodiversity value.

The data search for the site and surrounds highlighted that there were no protected or notable species records within a 200m radius of the site. A number of bat and bird species were however noted within the 1km search area.

Whilst bat and bird species might be able to find shelter and roosting sites within new built structures on site, little is provided in terms of foraging habitat for such wildlife and the site has no ecological continuity with other habitats that would support these species. As such, creating roosting opportunities for bats on site in particular is not considered to be an effective enhancement measure. However, there may be opportunities for urban bird species such as the house sparrow within the locality of the site and simple bird nesting measures could easily be incorporated into the structure design to provide enhancement.

Guidance advises that nest boxes are most successful when they have been aimed at one specific species. Attempts to attract a wide range of species will be least successful due to interspecific competition[8].

Provision of nest boxes for starlings or house sparrows is considered likely to be the most appropriate measure for biodiversity enhancement at the site, with both these species recorded in the wider area. Access to nest boxes should be provided in the form of a slot or hole where the soffit meets the wall. This hole should ideally be 32mm for house sparrows, or 45mm for starlings. Wire mesh can be used to prevent birds from accessing the rest of the roof space from the provided nesting space. Nest sites, particularly for starlings which may be a little noisy and messy, should be situated away from windows and doors[9]. Refer to Figure 5.1, Appendix C for suggested sitings for three nest boxes. If multiple nest boxes for house sparrows are incorporated into the building, these should be placed at least 2m apart, and guidelines often recommend placing nest boxes with the entrance facing eastwards. Further information and

[8] Information available from: http://www.rspb.org.uk/homesfitforbirds/advice/buildings/index.asp

[9] Information available from: http://www.rspb.org.uk/homesfitforbirds/advice/buildings/internal.asp

specific details about nest box design are available on the internet, for example from www.rspb.org.uk. Refer to Appendix D for a suggested recommended nest box design that could be adopted.

Although peregrine falcons and black redstart have been recorded within 1km of the site, provision of nest boxes for these species are not considered to be appropriate for this site. With regard to peregrines[10], the most appropriate use of artificial nests is when the species have previously attempted to breed but failed due to a particular constraint on the structure selected or; where the birds are known to hold a territory (recorded on site) but where there is no suitable nest site at present. Neither of these scenarios is true of the development site and as such, such a measure is unlikely to be effective. Similarly, black redstarts are highly unlikely to use the development site for nesting or foraging due to the lack of well established vegetation or open expanses of water[11] within the vicinity.

Opportunities for other faunal species on site are considered to be severely limited.

[10] Dixon, N. and Shawyer, C. (2005) *Peregrine falcons: provision of artificial nest sites on built structures. Advice note for conservation organisations, local authorities and developers.* RSPB. Available from: http://www.lbp.org.uk/07library.html

[11] Information available from: http://www.blackredstarts.org.uk

6. Conclusions

Following a site visit and desk top study of the site and surrounding aea, it is concluded that the site in its current form has negligible value for biodiversity primarily due to the lack of any well established vegetation, a dominance of built structures and hardstanding and its location within a wholly urban context. As such, due to the lack of valued ecological receptors on site or on adjacent land, the proposed development is not considered to have any adverse impacts upon biodiversity within the locality.

This biodiversity appraisal has been undertaken in order to ensure that the development is sustainable in accordance with the requirements of policy N5 of the London Borough of Camden Replacement Unitary Development Plan. It can be concluded that there will be no net loss of biodiversity value on site and if the recommended measures associated with provisions for nesting urban bird species are adopted, there will be a net gain in biodiversity value on site.

Opportunities for effective enhancement of the site are limited as the site is isolated from natural habitats or greenspace and is considered to have poor ecological continuity with any areas of value within the borough. However, there are records of urban bird species within 1km of the site (over 200m away) and as such, the installation of nesting boxes for these species, namely house sparrows and or starlings, is considered the most appropriate measure to adopt on site to enhance biodiversity value.

Appendix A
Legislation Concerning Protected Species

Bats

All British bat species are listed on Schedule 5 of the *Wildlife and Countryside Act 1981* (as amended) and are therefore afforded protection under Section 9 of this Act. In addition, all bat species are listed in Schedule 2 of *The Conservation (Natural Habitats, &c.) Regulations 1994 (SI 1994 No. 2716)* (as amended) (known as the Habitats Regulations) and are therefore protected under Regulation 39 of the Regulations. These Regulations make provision for the purpose of implementing European Union Directive on the *Conservation of Natural Habitats and of Wild Fauna and Flora 1992*, under which bats are included on Annex IV. The Act and Regulations makes it an offence, inter alia, to:

- intentionally kill, injure, take (handle) or capture a bat;
- intentionally or recklessly damage, destroy or obstruct access to any place that a bat uses for shelter or protection (this is taken to mean all bat roosts whether bats are present or not) - under the Habitats Regulations it is an offence to damage or destroy a breeding site or resting place of any bat; or
- intentionally or recklessly disturb a bat while it is occupying a structure or place that it uses for shelter or protection - under the Habitats Regulations it is an offence to deliberately disturb a bat (this applies anywhere, not just at its roost).

In addition, five British bat species are listed on Annex II of the Habitats Directive. These are:

- Greater horseshoe bat (*Rhinolophus ferrumequinum*)
- Lesser horseshoe bat (*Rhinolophus hipposideros*)
- Bechstein's bat (*Myotis bechsteinii*)
- Barbastelle (*Barbastella barbastellus*)
- Greater mouse-eared bat (*Myotis myotis*)

These species are so rare that the Directive requires the designation of Special Areas of Conservation (SACs) by EC member states to ensure that their populations are maintained at a favourable conservation status. Outside of SACs, the level of legal protection that these species receive is the same as for other bat species. However, because of the nature conservation importance of all populations of these five species, it is less likely that adequate mitigation for loss of roosts of these species will be possible.

For projects in England: Further details of the above legislation, and of the roles and responsibilities of developers and planners in relation to bats, can be found in Natural England's *Bat Mitigation Guidelines*, which can be downloaded from the NE website: http://www.english-

nature.org.uk/pubs/publication/PDF/Batmitigationguide2.pdf#search=%22bat%20mitigation%20guidelines%22

Birds

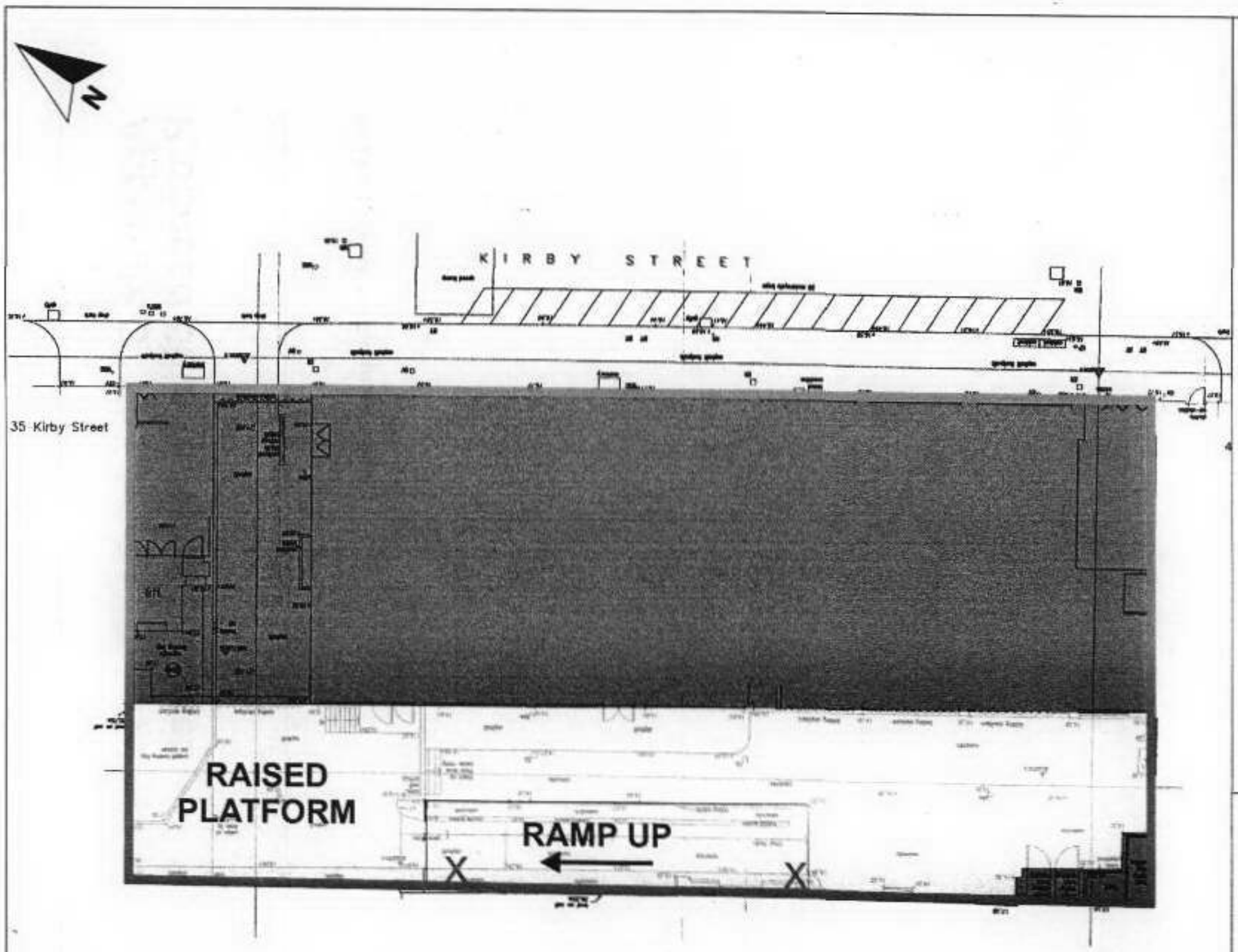
With certain exceptions[12], all wild birds, their nests and eggs are fully protected by the *Wildlife and Countryside Act* (1981) as amended.

Therefore, it is an offence, *inter alia*, to intentionally take, damage or destroy the nest of any wild bird while it is in use or being built, or to take or destroy the egg of any wild bird. It is also an offence to disturb any wild bird listed on Schedule 1 of the Act while it is nest building, or is at a nest containing eggs or young, or to disturb the dependent young of any such bird.

[12] Some species, such as game birds, are exempt in certain circumstances

Appendix B
Extended Phase 1 Habitat Survey Map

Figure 3.1 Extended phase 1 habitat survey map



Key

- Site boundary
- Buildings
- Hardstanding
- X X Non-native shrub

Not to scale

Kirby Street, Clerkenwell
Biodiversity Appraisal

Figure 3.1
Extended Phase 1 Habitat Survey Map

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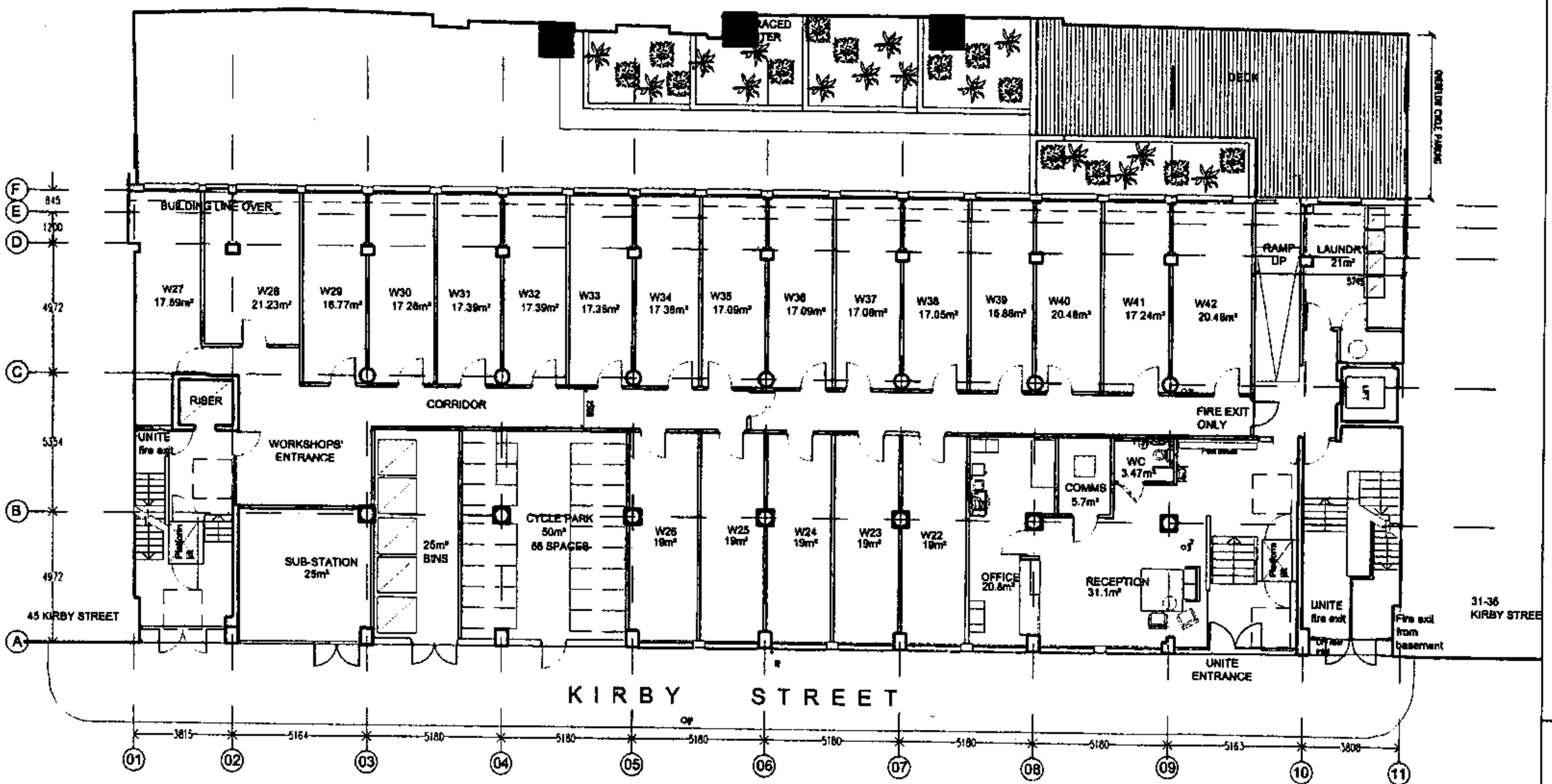
Base supplied by Stride Treglow.

Appendix C
Proposed Sitings for Nest Boxes

Figure 5.1 Proposed Sitings for Nest Boxes



Key

Proposed sitings for next boxes

Not to scale

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Figure 5.1
Proposed Sitings of Nest Boxes

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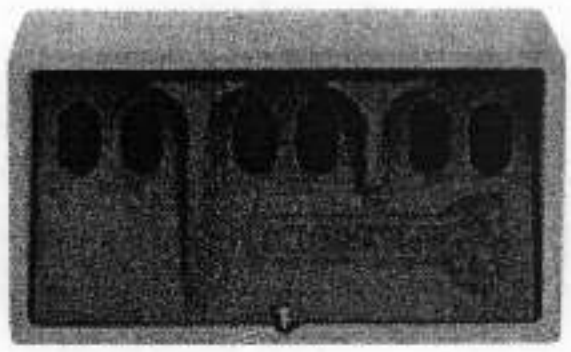
Appendix D
Nest Box Design

Sparrow Terrace, Stone Colour (SOURCE: www.alanaecology.com)



House sparrows are gregarious and prefer to nest close to each other, so this woodcrete box provides room for three families under one roof.

Made from long-lasting, breathable woodcrete. Stone colour.

No maintenance required.

Dimensions 245 x 430 x 200 mm.

Weight 13kg.

Designed for fixing to walls (not suitable for fences or sheds due to the weight of the box).

Schwegler boxes have the highest occupation rates of all box types. They are carefully designed to mimic natural nest sites and provide a stable environment for chick rearing and winter roosting. They can be expected to last 25 years or more without maintenance.

3S Starling House (SOURCE: www.jacobijayne.co.uk)

Starlings like nest boxes but are too big for most. The model 3S is ideal for them and can be erected against walls, fences or larger trees.

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