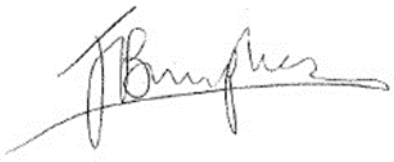
Greengage

81 Avenue Road, Wolff Architects
Preliminary Ecological Appraisal, September 2016

QA

81 Avenue Road – Preliminary Ecological Appraisal

Issue/Revision:	Draft	Final
Date:	September 2016	September 2016
Comments:		
Prepared by:	Naomi Foot	Naomi Foot
Signature:		
Authorised by:	James Bumphrey	James Bumphrey
Signature:		
File Reference:	550819nfSep16DV01_PEA	550819nfSep16FV01_PEA

CONTENTS

1.0 EXECUTIVE SUMMARY

1.1 Greengage Environmental Ltd were commissioned by Wolff Architects to undertake a Preliminary Ecological Appraisal of 81 Avenue Road in St John's Wood, London Borough of Camden, in order to establish the ecological value of the site and its potential to support notable and/or legally protected species.

1.2 The report has been prepared in support of a planning application which seeks the demolition of the existing dwelling and construction of a new dwelling with a subterranean basement.

1.3 Details received from a desk top study and the site walkover have confirmed the assessment site:

- Has negligible potential to provide habitat for badger;
- Has negligible potential to provide habitat great crested newt;
- Has low potential to provide habitat for roosting bats, with likely absence confirmed through further survey;
- Has moderate recorded levels of foraging and commuting bats;
- Has negligible potential to provide habitat for reptiles;
- Has negligible potential to provide habitat for dormouse;
- Has negligible potential to provide habitat for water vole;
- Has negligible potential to provide habitat for otter;
- Has negligible potential to support notable, rare or protected plant species;
- Has low potential to provide habitat for notable, rare or protected invertebrates;
- Has moderate potential for nesting birds; and
- Has low potential for other notable, rare or BAP species.

1.4 During the Preliminary Ecological Appraisal, low potential for roosting bats was identified. It was therefore recommended that a Bat Emergence Survey, consisting of one visit. The survey was completed on 7th September 2016, with no roosting bats observed. Roosting bats are therefore confirmed as likely absent and no formal mitigation is required. Moderate levels of foraging and commuting by common and soprano pipistrelle was recorded across the front and back gardens.

1.5 There is moderate potential for nesting birds to be present within the mature trees and shrubs onsite. Therefore, it is recommended that any clearance or pruning of shrub, trees or dense vegetation should be undertaken outside of the breeding season or following confirmation of absence by a suitably qualified ecologist.

1.6 There was negligible or low potential for all other rare, notable or protected species and no further surveys are required.

1.7 The development does not stand to result in any negative impacts upon any local statutory or non-statutory designated sites.

1.8 The Preliminary Ecological Appraisal and further protected species surveys have been used to inform any required mitigation, compensation or enhancement measures suitable for the development.

2.0 INTRODUCTION

2.1 Greengage Environmental Ltd were commissioned by Wolff Architects to undertake a Preliminary Ecological Appraisal (PEA) of 81 Avenue Road and surrounding land in the London borough of Camden, in order to establish the ecological value of the site and its potential to support notable and/or legally protected species.

2.2 This report has been produced in support of a planning application for the site. The proposals comprise demolition of the existing building and construction of a new dwelling with basement and soft and hard landscaping.

2.3 The PEA (otherwise known as an Extended Ecological Phase 1 Survey) was undertaken in accordance with guidance in the Joint Nature Conservation Committee (JNCC) (2010) Handbook for Phase 1 Habitat Survey[1] and the Chartered Institute of Ecological and Environmental Management (CIEEM) (2013) Guidelines for Preliminary Ecological Appraisal[2], in accordance with BS42020:2013: Biodiversity[3]. The overall assessment consisted of:

- Site specific biological information gained from statutory and non-statutory consultation; and
- A site walkover and ecological survey.

2.4 The site-specific consultation provided the ecological context for the site survey carried out on the 31st August 2016.

2.5 The application site boundary is shown at Figure 1, with details of the existing layout and features.

2.6 Greengage undertook the site walkover during warm and sunny weather conditions in August, within the optimal timing for ecological surveys (March-October). Features within the site boundary and accessible features immediately bordering it were evaluated and the extent and distribution of habitats and plant communities were recorded, supplemented with target notes on areas or species requiring further commentary. Fauna using the area were recorded and areas of habitat suitable for statutorily protected species were identified where present, with an active search carried out for evidence of such use.

2.7 The recommendations and opinions expressed in this report are based on the combination of information stated, site observations and feedback from the consultation exercise.

3.0 SITE DESCRIPTION

3.1 The site is approximately 0.17 hectares (ha) and is centred on National Grid Reference TQ268838.

3.2 The site is currently occupied by a large residential building over three levels; ground floor, first floor and second floor converted attic with surrounding roof voids. 81 Avenue Road features a paved drive with planted beds and a large garden area to the rear of the property with mature trees, shrub planting, a paved area and a swimming pool. The garden is predominantly short-cut amenity grassland.

3.3 The site is located on a tree-lined avenue within a relatively green area of northwest London where mature gardens are prevalent, approximately 300m west of Primrose Hill and 750m northwest of Regent's Park.

DEVELOPMENT PROPOSALS

3.4 Proposals include demolition of the existing dwelling and construction of a new building with a subterranean basement and new soft and hard landscaping to the front and rear garden space. Proposals are shown at Figure 2.

4.0 METHODOLOGY

DESK TOP REVIEW

4.1 A review of readily available ecological information and other relevant environmental databases (included Defra's Multi-Agency Geographic Information for the Countryside (MAGIC) website[4]) was undertaken for the site and its vicinity. In addition, local district/ county websites and a biological records search from the London Bat Group and Greenspace Information for Greater London (GiGL) were reviewed to identify the location and citations of local non statutory designated sites and presence of records for notable/protected species. This provided the overall ecological context for the site, to better inform the PEA.

ON SITE SURVEYS

Flora

4.2 The extent and distribution of different habitats on site were identified and mapped according to the standard Phase 1 Survey methodologies, supplemented with target notes describing the dominant botanical species and any valuable or interesting features. A habitat map has been produced to illustrate the results, as shown at Figure 1.

Fauna - Protected Species

4.3 The Phase 1 Survey specifically includes surveys to identify the likely presence of protected species and species protected by statute. This involved identifying potential habitats in terms of refugia, breeding sites and foraging areas.

4.4 The likelihood of occurrence is ranked as follows and relies on the current survey and evaluation of existing data through the desk top study.

- Negligible - While presence cannot be absolutely discounted, the site includes very limited or poor quality habitat for a particular species. The site may also be outside the known national range for a species;
- Low - On-site habitat is poor to moderate quality for a given species, with few or no information about their presence from desk top study. However, presence cannot be discounted due to the national distribution of the species or the nature of on-site and surrounding habitats;
- Moderate - The on-site habitats are of moderate quality, providing most or all of the key requirements for a species. Several factors may limit the likelihood of occurrence, habitat severance, habitat disturbance and small habitat area;

- High - On-site habitat of high quality for given species. Site is within a regional or national stronghold for that particular species with good quality surroundings and good connectivity; and
- Present - Presence confirmed for the survey itself or recent, confirmed records from information gathered through desk top study.

4.5 The species surveyed for included:

Badger (Meles meles)

4.6 The potential for badger to inhabit or forage within the study area was established during the site walkover. Evidence of badger activity includes the identification of setts (a system of underground tunnels and nesting chambers), grubbed up grassland (caused by the animals digging for earthworms, slugs, beetles etc.), badger hairs, paths, latrines and paw prints.

Great Crested Newt (Triturus cristatus)

4.7 During the site walkover, an assessment was carried out to identify any potential habitats that may support great crested newt (GCN) and other native amphibians. The aquatic and terrestrial habitats required generally include small, still ponds or water bodies suitable for breeding; and woodland or grassland areas where there is optimal invertebrate prey potential.

Bat Species (Chiroptera)

4.8 The site visit was undertaken in daylight and the evaluation of bat potential comprised an assessment of natural features on site that aimed to identify characteristics suitable for bat roosts, foraging and commuting. In accordance with Bat Conservation Trust survey guidelines[5] and methods given in English Nature's (now Natural England) *Bat Mitigation Guidelines*[6] consideration was given to:

- The availability of access to roosts for bats;
- The presence and suitability of crevices and other places as roosts; and
- Signs of bat activity or presence.

4.9 Definite signs of bat activity were taken to be:

- The bats themselves;
- Droppings;
- Grease marks;
- Scratch marks; and
- Urine spatter.

4.10 Signs of possible bat presence were taken to be:

- Stains; and
- Moth and butterfly wings.

4.11 Features with potential as roost sites include mature trees with holes, crevices or splits (the most utilised trees being oak, ash, beech, willow and Scots pine), caves, bridges, tunnels and buildings with cracks or crevices serving as entrance or exit holes.

4.12 Additionally, linear natural features such as tree lines, hedgerows and river corridors are often considered valuable for foraging and commuting. Consideration was given to the presence of these features both immediately within and adjacent to the assessment area.

4.13 The exterior and interior of the buildings (where necessary) were checked for gaps, cavities, access points and crevices, and any signs of bat droppings, in accordance with English Nature (now Natural England) guidelines.

Reptiles

4.14 The potential for reptile species on site was assessed during the walkover survey. Possible species include the grass snake (*Natrix natrix*), smooth snake (*Coronella austriaca*), adder (*Vipera berus*), common and sand lizard (*Lacerta vivipara* and *L. agilis*) and the slow worm (*Anguis fragilis*). These native reptile species generally require open areas with low, mixed-height vegetation, such as heathland, rough grassland, and open scrub or, in the case of grass snake, waterbody margins. Suitable well drained and frost free areas are needed so they can survive the winter.

Dormouse (Muscardinus avellanarius)

4.15 During the walkover survey the potential for dormouse to be present on site was assessed. This included observations for suitable habitat such as well-layered woodland, scrub and linking hedgerows, particularly those species offering suitable food sources such as honeysuckle and hazel, in addition to direct evidence such as characteristically gnawed hazelnuts, chewed ash keys and honeysuckle flowers, or nests.

Water Vole (Arvicola terrestris)

4.16 Water vole potential was assessed during the walkover survey. The potential is identified by the presence of ditches, rivers, dykes and lakes with holes and runs along the banks. Latrines, footprints or piles of food can also be noted.

Otter (Lutra lutra)

4.17 Where desk-top review or consultation indicates the presence of otter in a river catchment, the presence of water bodies with good cover and potential holt (den) sites would be noted.

Birds

4.18 During the walkover survey, the potential for breeding birds was assessed. In particular, this includes areas of trees, scrub, heathland and wetlands that could support nests for common or notable birds.

Notable Invertebrates

4.19 As part of the walkover survey the quality of invertebrate habitat and the potential for notable invertebrate species was considered. There is a wide variety of habitats suitable for invertebrates including wetland areas, heathland, areas of bare sandy soil, ephemeral brownfield vegetation and meadows.

Other Fauna

Biodiversity Action Plan priority species/ Species of Principal Importance

4.20 Where consultation and desk-study indicates the presence of BAP priority species (Species of Principal Importance) not protected by statute, effort was made to establish the potential for the site to support these species.

SURVEYORS

4.21 Naomi Foot, who surveyed the site and prepared this report, has an undergraduate degree in Ecology and Conservation (BSc Hons) and a Master's degree in Applied Ecology.

4.22 James Bumphrey, who reviewed this report, 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 sites of this nature.

4.23 This report was written by Naomi Foot and reviewed and verified by James Bumphrey 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.

5.0 BASELINE CONDITIONS

DESK TOP REVIEW

Designations

5.1 Consultations with the local biological records centre (GiGL) and the Multi-Agency Geographic Information for the Countryside (MAGIC) dataset[7] have confirmed that there are no statutory or non-statutory designated sites within or adjacent to the boundary of the site.

5.2 The Consultation shows that there are no sites subject to European or National statutory designation within the search area and one Local Nature Reserve (LNR).

5.3 Additionally, there were six non-statutory designated Sites of Importance for Nature Conservation (SINC) within 1km from the site boundary.

5.4 Table 5.1 below gives the locations and descriptions of the local designated sites that were identified within the search area.

Table 5.1 Statutory and Non-Statutory Designated Sites within a 2km Radius of the Application Site

Site Name	Approximate Location	Description
St. John's Wood Church Grounds LNR; SINC Borough Grade I	0.9km S	This site is a small park developed on the site of a former burial ground. The main body of the park comprises an area of short-mown turf with scattered trees. However, there is an area that is managed as a wildlife area and contains a mixture of meadow and woodland habitats with associated communities of tall grasses and herbs. In addition, a hedge of native species has been planted along part of the eastern boundary.
Regent's Park SINC Metropolitan	0.8km SE	One of the most charismatic and varied of the central Royal Parks, the Regent's is particularly important for its wide variety of breeding birds. The park's size and range of habitats is primarily responsible, especially its mature trees and ornamental lake. The heronry on one of the islands is one of London's larger breeding colonies, while the lake itself supports a nationally significant breeding population of pochard alongside the captive wildfowl collection. A surprising diversity of migrant birds are recorded every spring and autumn. In recent years, an informally-managed wildlife area has been established in the north-west of the park, which various common butterflies and other invertebrates have quickly colonised.
Chalk Farm Embankment and Adelaide Nature Reserve SINC Borough Grade I	0.8km NE	This steep-sided railway embankment lies between Adelaide Road and railway sidings and is densely vegetated with secondary woodland. The nature reserve to the west is open with neutral grassland and scrub, as well as woodland.

Site Name	Approximate Location	Description
Primrose Hill SINC Borough Grade II	0.3km E	This area of Regent's Park consists mostly of mown amenity grassland with scattered groups of mature trees (located around the hill itself and at the park's perimeter). From the top of the hill is one of the classic views of London. The grassland beneath the trees is less often mown and retains some of the original fine leaved species you could expect to find here including red fescue and creeping bent. The trees of the parkland are mostly London plane but common lime, hawthorn, horse-chestnut and young whitebeams are also present. Next to Albert Road there is a hedge of hawthorn and near the amenity block one composed of field maple. It is only along the south-western boundary where any significant planted shrubbery occurs.
Green Circle SINC Borough Grade II	0.6 NW	This is an excellent organic community garden with an area of sycamore (*Acer pseudoplatanus*) woodland with a ground cover of ivy (*Hedera helix*). There is an amenity area, well-stocked herb garden beds and parts planted with shrubs and young trees, mostly of native species, including English oak (*Quercus robur*), rowan (*Sorbus aucuparia*), yew (*Taxus baccata*) and silver birch (*Betula pendula*). Flower and herb beds include species attractive to insects, such as Canadian goldenrod (*Solidago canadensis*), Michaelmas daisy (*Aster* sp.), lemon balm (Melissa officinalis), common comfrey (*Symphytum officinale*) and common knapweed (*Centaurea nigra*). There is a wildlife pond with hemp-agrimony (*Eupatorium cannabinum*) at its margins and common frogs. Short lengths of new hedging (of mixed native species) have been planted.

Biodiversity Action Plans

5.5 UK Biodiversity Action Plans (BAPs) have been developed which set priorities for nationally important habitats and species. To support the BAPs, Species/Habitat Statements (otherwise known as Species/Habitat Action Plans) were produced that provide an overview of the status of the species and set out the broad policies that can be developed to conserve them. A list of priority species of conservation importance was also developed.

5.6 The UK BAP was succeeded in 2012 by the *UK-Post 2012 Biodiversity Framework* which informed the creation of the *Biodiversity 2020* strategy; England's contribution towards the UK's commitments under the *United Nations Convention of Biological Diversity*.

5.7 Despite this, the UK BAP priority species lists and conservation objectives still remain valid through integration with local BAPs (which remain valid), and in the form of the Habitats and Species of Principle Importance list (as required under section 41 of the Natural Environment and Rural Communities (NERC) Act).

5.8 Local Biodiversity Action Plans (LBAPs) ensure that national action plans (the UK BAP/Biodiversity 2020) are translated into effective action at the local level, and establish targets and actions for locally characteristic species and habitats.

5.9 The site is subject to the Greater London BAP and the Camden BAP.

Greater London BAP

5.10 Features within the Greater London BAP of importance to this report include:

- Bat Species Action Plan
- House Sparrow Species Action Plan

Camden BAP 2013-2018

5.11 Features within the Camden BAP of importance to this report include:

- The Built Environment Action Plan
- Camden Biodiversity Advice Note on Landscaping Schemes and Species Features

Species Record

5.12 The information provided in the biological data search from GiGL identified records of a number of protected and BAP priority species within 1km search radius of the site. Among others these include the following species of relevance to the site (primarily these are species that are known to be in the area that may be impacted by any proposals at the site, or that stand to benefit as a consequence of potential ecological enhancements at the site):

- Common frog (*Rana temporaria*);
- Common toad (*Bufo bufo*);
- West European hedgehog (*Erinaceus europaeus*);
- Swift (*Apus apus*);
- House sparrow (*Passer domesticus*);
- Swallow (*Hirundo rustica*);
- Black redstart (*Phoenicurus ochruros*);
- Starling (*Sturnus vulgaris*);
- Song thrush (*Turdus philomelos*);
- Stag beetle (*Lucanus cervus*); and
- Many invertebrates including: white letter hairstreak (*Satyrium w-album*), grey dagger (*Acronicta psi*), knot grass (*Acronicta rumicis*), August thorn (*Ennomos quercinaria*), narrow-bordered bee hawk-moth (*Hemaris tityus*), and white ermine (*Spilosoma lubricipeda*).

5.13 The data search provided by London Bat Group gave the following bat records:

Bat Roosts

- Soprano pipistrelle (*Pipistrellus pygmaeus*);
- Pipistrelle sp. (*Pipistrellus sp*.); and
- Noctule (*Nyctalus noctula*).

Bat Field Records

- Nathusius's pipistrelle (*Pipistrellus nathusii*);
- Common pipistrelle (*Pipistrellus pipistrellus*);
- Soprano pipistrelle (*Pipistrellus pygmaeus*);
- *Myotis* sp.;
- Daubenton's (*Myotis daubentonii*);
- Natterer's (*Myotis nattereri*);
- Noctule (*Nyctalus noctula)*;
- Leisler's (*Nyctalus leisleri*); and
- Serotine (*Eptesicus serotinus*).

DESCRIPTION OF SITE ECOLOGY

Detailed Description of Site: Habitats

5.14 Habitats on-site have been categorised according to *the Joint Nature Conservation Committee (JNCC) Phase 1 Habitat* categories.

5.15 The application site boundary contains the following habitats, as shown on figure 1:

- Buildings/hardstanding (J3.6);
- Scattered broadleaved trees (A3.1);
- Amenity grassland (J1.2);
- Species-poor hedge (J3.2); and
- Other (J5).

Target Note 1

5.16 Target Note 1 refers to the entrance driveway which has brick paving and planted borders featuring palm trees, topiary privet and conifer shrubs.

Target Note 2

5.17 Target Note 2 refers to the existing building. This a traditional brick, three-storey dwelling with green, clay-tiled pitched roofs. The building is split across ground level, first floor and second floor, with the latter a small converted loft area in the centre of the structure with roof voids surrounding. The building has several potential roosting features, including one small gap in soffit, loose lead flashing around windows, a potential access point into the roof void and gaps under the clay tiles. However, a survey confirmed roosting bats are likely absent.

Target Note 3

5.18 Target Note 3 refers to the swimming pool in the rear garden. At the time of the survey, this was covered with tarpaulin. There are changing facilities to the east of the pool as an extension to the main building, and a wooden decked area to the west of the pool.

Target Note 4

5.19 Target Note 4 refers to the amenity grassland which covers a large area of the rear garden and a small area of the front driveway. The lawn is low-cut and species poor, providing limited biodiversity value.

Target Note 5

5.1 Target Note 5 refers to the planted borders within the gardens. These beds are predominantly planted with rose shrubs (*Rosa* spp.) and low privet hedges (*Ligustrum* sp.) along the borders, with exposed earth and limited ground cover. There are also a number of large, mature scattered trees including species such as lime (*Tilia* sp.), false acacia (*Robinia* sp.), poplar (*Populus* sp.), elder (*Sambucus nigra*), cypress (*Cupressus* sp.), whitebeam (*Sorbus* sp.), *Viburnum* sp. and cherry (*Prunus* sp.*)*. These trees and shrubs have potential to support nesting birds during breeding season.

5.2 The garden areas provide some limited value for invertebrates, for which there is low potential for rare, notable or protected species to be present.

5.3 Site photographs are found at Appendix 1.

DETAILED DESCRIPTION OF SITE: PROTECTED SPECIES POTENTIAL

Badger

5.4 The assessment site does not provide the habitats required by foraging badger. Badger was confirmed as likely absent from the site during the scoping survey, with no setts or other evidence observed.

Great Crested Newt

5.5 There were no suitable waterbodies identified within 500m of the site during the desktop review and no records for GCN were present within 1km. In addition, terrestrial habitats onsite are considered unsuitable, lacking floral species and structural diversity required to support GCN populations. The potential for GCN to be present onsite is considered negligible.

Bats

Foraging

5.6 The site and adjacent habitats support mature trees and flowering plants associated with the tree-lined streets and mature gardens of St John's Wood. These features likely provide low foraging value, but may be used as green links for bats commuting between more valuable open greenspaces in the landscape, such as Regent's Park and Primrose Hill. The presence of foraging and commuting bats was assessed during the Emergence Survey, with moderate levels identified. Further details can be found in the Bat Survey report produced by Greengage[8].

Roosting

5.7 The potential for the building to support roosting bats was assessed during the scoping survey. The existing building features a clay-tiled pitched roof and internal roof voids centred around the second level bedroom and wardrobe space. Overall, the roof is in a fair condition, however, there are potential roosting opportunities under loose tiles and gaps in the cement at the eaves. The internal roof space was fully accessible and was subject to a systematic inspection for features and any evidence of roosting. Just one access point was observed, providing a potential opportunity for bats to enter the void. However, no evidence of roosting such as live bats, their droppings, urine splatter, grease marks or invertebrate remains, was identified. Overall, the potential for roosting bats was determined to be low and a further survey was undertaken on 7th September 2016. During the Emergence Survey, no roosting was observed and bats were confirmed as likely absent from the building.

Reptiles

5.8 Habitats across the site are largely unsuitable for reptile populations, with the majority of the garden short amenity grassland. The site is considered to have negligible potential for reptiles and no further surveys are recommended.

Dormouse

5.9 The site is lacking in dense woodland or hedgerows with arboreal connectivity to provide habitat for dormouse. The potential for dormouse to be present at site is considered negligible and no further surveys are recommended.

Water vole

5.10 There are no water bodies on site to provide habitat for water vole. Overall the potential is considered to be negligible.

Otter

5.11 There are no water bodies on site to provide habitat for otters. Overall the potential is considered to be negligible.

Invertebrates

5.12 The garden provides some limited value for common invertebrate species within orders such as Lepidoptera, Hymenoptera and Coleoptera. Overall, the potential for rare, important or notable invertebrates is low, and no further surveys are recommended. However, any new soft landscaping is recommended to be 'wildlife-friendly' to provide enhanced opportunities for local invertebrate communities.

Nesting Birds

5.13 No evidence of nesting birds was identified during the PEA, however, there is potential for nesting birds to be present within the mature trees and shrubs in the garden.

5.14 As such, any clearance of trees, shrubs or dense vegetation should either be carried out outside of the bird breeding season, or following confirmation of absence of nesting birds by a suitably qualified ecologist.

5.15 Nest boxes are recommended to be incorporated into the new building to provide nesting opportunities.

Other Rare, BAP, and Notable Species

5.16 No other species were observed during the site walkover however there are data records of BAP priority species in the local area, such as stag beetle, common frog and common toad and many bird species. In addition, European hedgehog is found locally in Regent's Park, and may be present within residential gardens in the surrounding area, such as that present at the site.

6.0 RECOMMENDATIONS

MITIGATION

6.1 Roosting bats were confirmed as likely absent during the Emergence Survey and no formal mitigation is required. However, a number of commuting bats were observed passing across the site and several bats were recorded foraging around the mature trees in the dark area at the back of the rear garden, and around the bright security lights affixed to the building.

6.2 Whilst the existing lighting in the garden is likely leading to an increase in foraging levels of 'light-tolerant' bat species such as common and soprano pipistrelle attracted to the high concentration of invertebrates, this lighting is predicted to exclude slow-flying, 'light-intolerant' bat species present in the local area such as Daubenton's (*Myotis daubentonii*) and Natterer's (*Myotis nattereri*). These species are unlikely to traverse across brightly lit areas, and this lighting could therefore be disturbing a commuting route. In addition, artificial lighting also disturbs natural distributions of invertebrates and bats by attracting species from natural habitats in the wider landscape.

6.3 It is therefore recommended that any new/replacement lighting associated with the scheme should comply with the Institute of Lighting Engineers and the Bat Conservation Trust guidance. There should be no up-lighting of trees and no net increase in lighting within the garden.

6.4 To further ensure this commuting and foraging resource is not disturbed, it is recommended that mature trees are retained, where possible, or replaced with native species.

6.5 The potential for nesting birds to be present was considered to be moderate. As such, any clearance of trees, shrubs or dense vegetation should be undertaken outside of the breeding bird season (March – September), or following confirmation of absence by a suitably qualified ecologist.

6.6 The potential for all other rare, notable or protected species was determined to be negligible or low and no further surveys are recommended.

ENHANCEMENTS

6.7 Where possible, the following ecological enhancements should be incorporated into the scheme to provide net gains in biodiversity and to comply with planning policy.

- Wildlife-friendly landscaping to include fruit and berry producing trees and locally important wildflowers;

- Bird nest boxes and bat boxes integrated into the building or affixed to suitable mature trees. Bird boxes should target locally important and locally recorded species such as house sparrow, song thrush and swift;
- Invertebrate features such as stag beetle loggeries and bee hotels;
- Hedgehog hotel within a suitable location in the garden to promote use by hedgehogs known to be present in the local area.

7.0 SUMMARY & CONCLUSIONS

7.1 Greengage were commissioned by Wolff Architects to undertake a PEA of 81 Avenue Road, in the London Borough of Camden in order to establish the ecological value of the site and its potential to support notable and/or legally protected species.

7.2 The report has been prepared in support of a planning application which seeks demolition of the existing building and construction of a new dwelling with subterranean basement and associated landscaping.

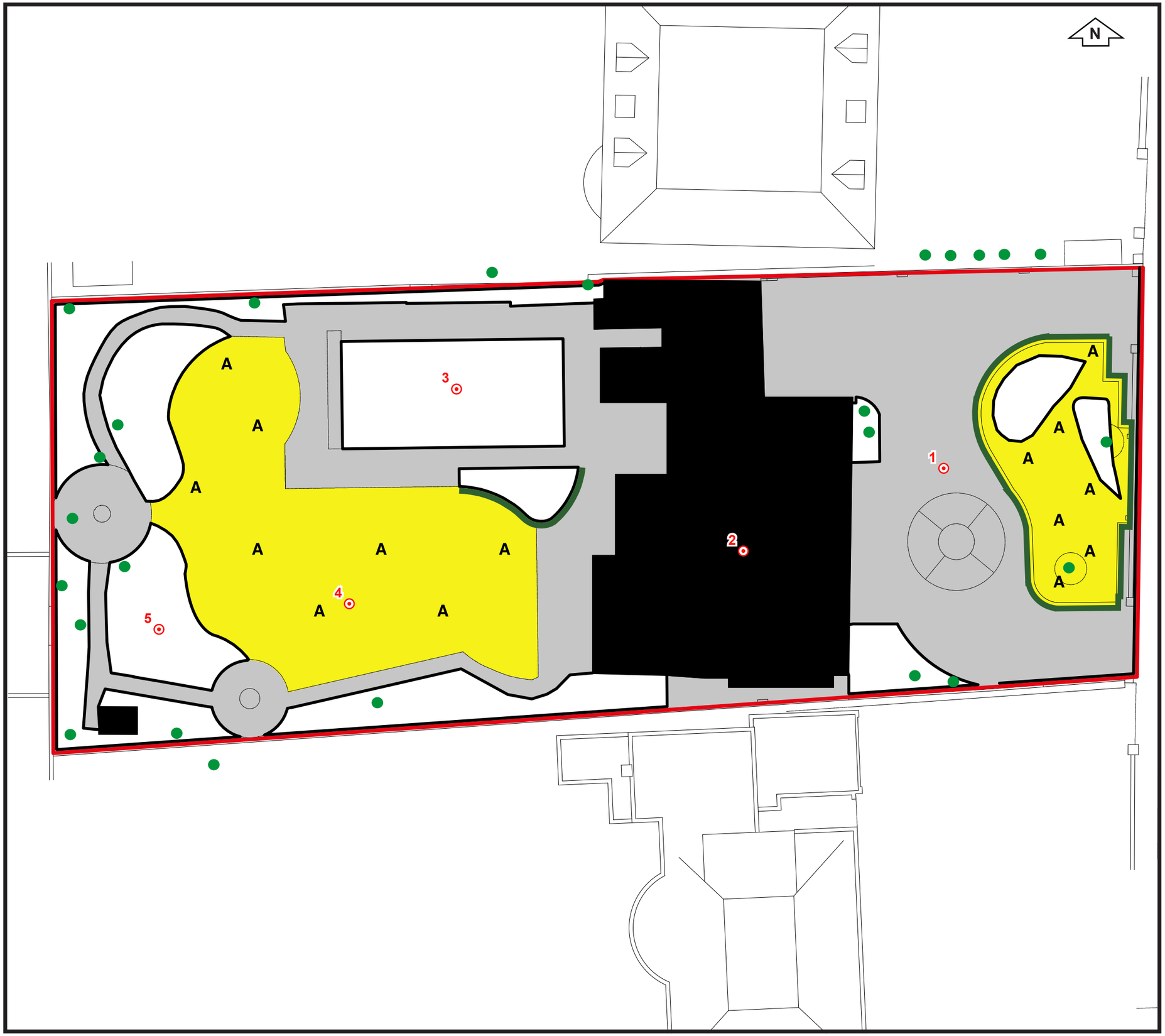
7.3 Details received from a desk top study and the site walkover have confirmed the assessment site:

- Has negligible potential to provide habitat for badger;
- Has negligible potential to provide habitat great crested newt;
- Has low potential to provide habitat for roosting bats, with likely absence confirmed through further survey;
- Has moderate recorded levels of foraging and commuting bats;
- Has negligible potential to provide habitat for reptiles;
- Has negligible potential to provide habitat for dormouse;
- Has negligible potential to provide habitat for water vole;
- Has negligible potential to provide habitat for otter;
- Has negligible potential to support notable, rare or protected plant species;
- Has low potential to provide habitat for notable, rare or protected invertebrates;
- Has moderate potential for nesting birds; and
- Has low potential for other notable, rare or BAP species.

7.4 Assuming any necessary mitigation actions are adhered to and the ecological enhancements including wildlife-friendly landscaping and bird and bat boxes are incorporated, the development will provide net gains in biodiversity.

FIGURE 1 SITE PLAN AND HABITAT MAP

81 AVENUE ROAD, NW8 6JD



- Assessment Site
- Other
- Buildings
- Hardstanding
- A — Amenity Grassland
- Species Poor Hedge
- Scattered Trees
- 4 — Target Notes

Greengage

Greengage Environmental
64 Great Suffolk Street, London, SE1 0BL
T: 0203 544 4000

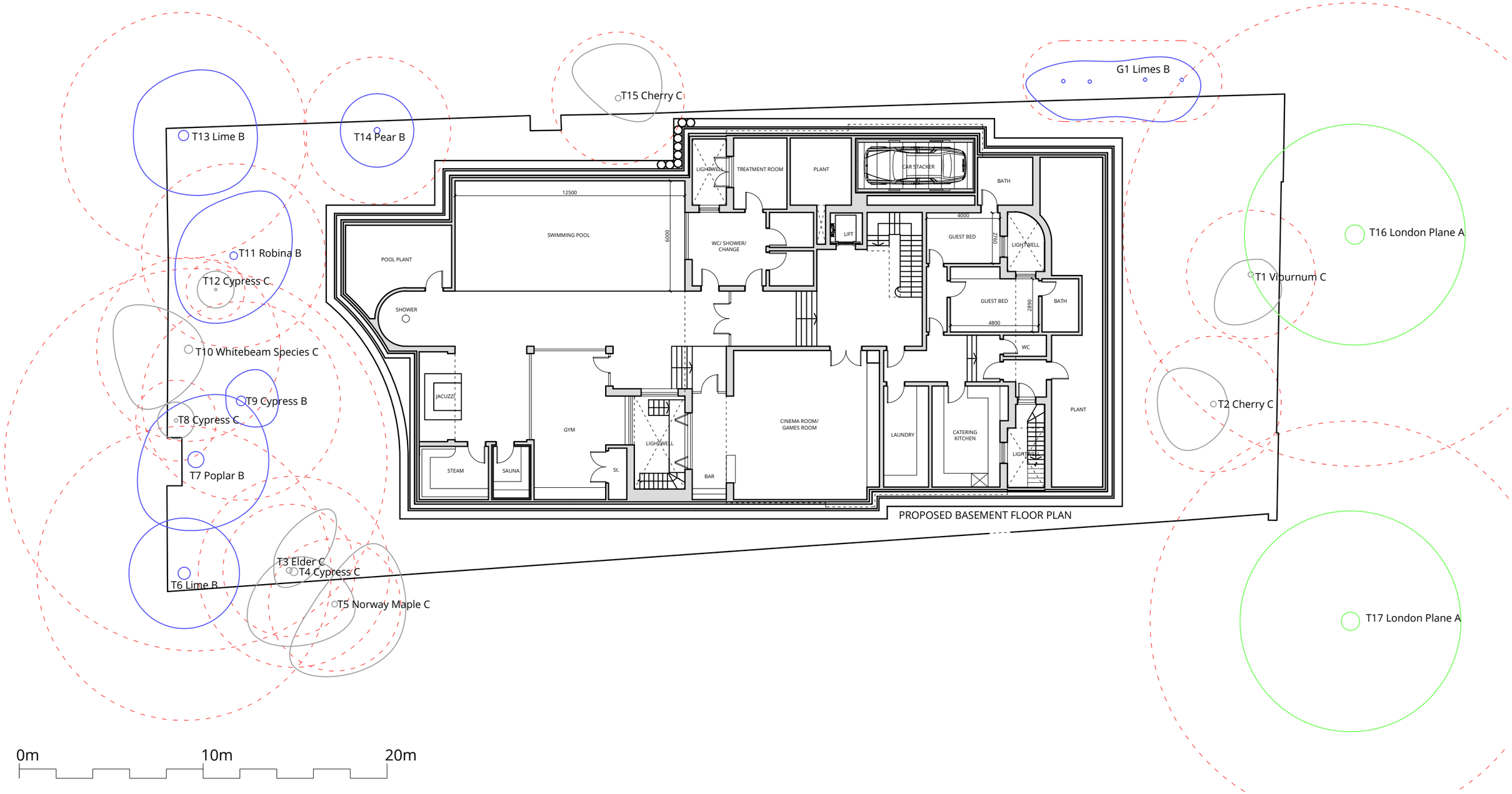
www.greengage-env.com

FIGURE 1.0

Site Plan and Habitat Map

Job No. 2478 - Not to scale - September 2016

FIGURE 2 PROPOSALS



WOLFF ARCHITECTS

London 16 Lambton Place Notting Hill London W11 2SH T +44 (0)20 7229 3125
Oxford Chandos Yard 83 Bicester Road Long Crendon HP18 9EE T +44 (0)1844 203310
E info@wolffarchitects.co.uk W www.wolffarchitects.co.uk

rev:		date:
0	First Issue	07.08.15
A	Minor Amendments	12.08.15
B	Alternative design	17.08.15
C	RPAs Added	29.09.15
D	Light well Changed	06.11.15

rev:		date:

status: FE

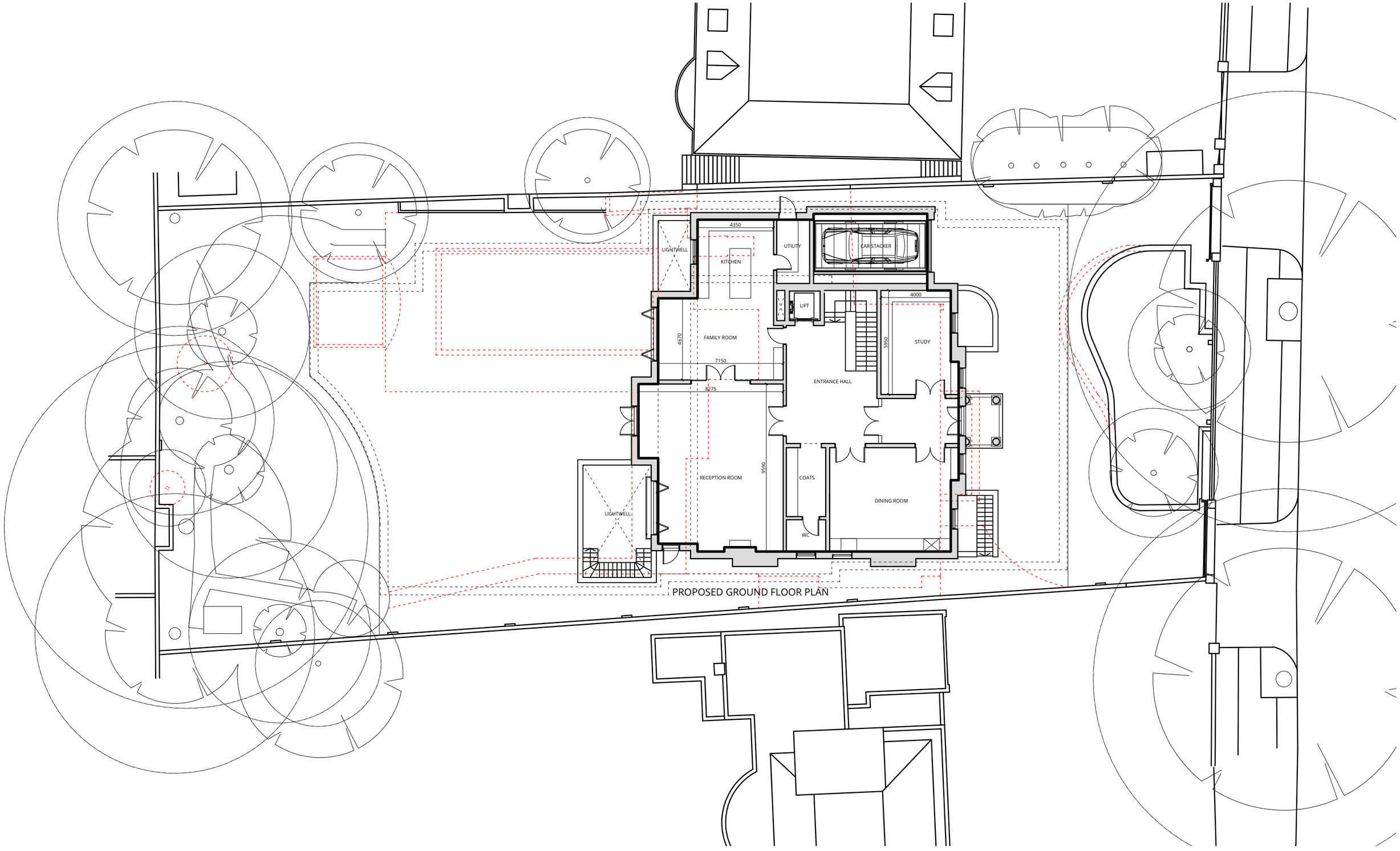
project: 81 Avenue Road London, NW8

title: Proposed Basement Plan

scale: 1:200 @ A3

no: 1510-FE-201

rev no: D



PROPOSED GROUND FLOOR PLAN

WOLFF ARCHITECTS

London 16 Lambton Place Notting Hill London W11 2SH T +44 (0)20 7229 3125
Oxford Chandos Yard 83 Bicester Road Long Crendon HP18 9EE T +44 (0)1844 203310
E info@wolffarchitects.co.uk W www.wolffarchitects.co.uk

rev:		date:
0	First Issue	07.08.15
A	Minor Amendments	12.08.15
B	Alternative design	17.08.15

rev:		date:

status: FE

project: 81 Avenue Road London, NW8

title: Proposed Site Plan

scale: 1:200 @ A3

no: 1510-FE-200

rev no: B

APPENDIX 1 SITE PHOTOGRAPHS

Photograph 1 – 81 Avenue Road view from the rear garden.

Photograph 2 – 81 Avenue Road frontage with paved drive.

Photograph 3 – Rear garden showing swimming pool, low-cut amenity grassland, mature trees and rose beds.

APPENDIX 2 RELEVANT LEGISLATION AND POLICY

Current key legislation relating to ecology includes the Wildlife and Countryside Act 1981 (as amended)[9]; The Conservation of Habitats and Species Regulations 2010 ('Habitats & Species Regulations')[10], The Countryside and Rights of Way Act 2000 (CRoW Act)[11], and The Natural Environment and Rural Communities Act, 2006[12].

The Conservation of Habitats and Species Regulations 2010

The Habitats & Species Regulations replace The Conservation (Natural Habitats, etc.) Regulations 1994 (as amended)[13], and transpose Council Directive 92/43/EEC on the Conservation of Natural Habitats and Wild Fauna and Flora ('EU Habitats Directive')[14], and Council Directive 79/409/EEC on the Conservation of Wild Birds ('Birds Directive')[15] into UK law (in conjunction with the Wildlife and Countryside Act).

Regulation 41 of the Habitats & Species Regulations makes it an offence (subject to exceptions) to deliberately capture, kill, disturb, or trade in the animals listed in Schedule 2 (European protected species of animals), or pick, collect, cut, uproot, destroy, or trade in the plants listed in Schedule 4 (European protected species of plant). Development that would contravene the protection afforded to European protected species requires a derogation (in the form of a licence) from the provisions of the Habitats Directive.

Regulation 61(1) states: 'A competent authority, before deciding to undertake, or give any consent, permission or other authorisation for, a plan or project which —

> (a) is likely to have a significant effect on a European site or a European offshore marine site (either alone or in combination with other plans or projects); and
>
> (b) is not directly connected with or necessary to the management of that site; must make an appropriate assessment of the implications for that site in view of that site's conservation objectives.'

Wildlife and Countryside Act 1981 (as amended)

The Wildlife and Countryside Act 1981 (as amended) is the principal mechanism for the legislative protection of wildlife in Great Britain. This legislation is the means by which the Convention on the Conservation of European Wildlife and Natural Habitats[16] (the 'Bern Convention') and the Birds Directive and EU Habitats Directive are implemented in Great Britain.

The Countryside and Rights of Way Act 2000

The Wildlife and Countryside Act has been updated by the CRoW Act. The CRoW Act amends the law relating to nature conservation and protection of wildlife. In relation to

threatened species it strengthens the legal protection and adds the word 'reckless' to the offences of damaging, disturbing, or obstructing access to any structure or place a protected species uses for shelter or protection, and disturbing any protected species whilst it is occupying a structure or place it uses for shelter or protection.

The Natural Environment and Rural Communities Act 2006

The Natural Environment and Rural Communities Act 2006 states that every public authority must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity. Biodiversity Action Plans provide a framework for prioritising conservation actions for biodiversity.

Section 41 of the Natural Environment and Rural Communities Act requires the Secretary of State to publish a list of species of flora and fauna and habitats considered to be of principal importance for the purpose of conserving biodiversity. The list, a result of the most comprehensive analysis ever undertaken in the UK, currently contains 1,149 species, including for example, hedgehog (*Erinaceus europaeus*), and 65 habitats that were listed as priorities for conservation action under the now defunct UK Biodiversity Action Plan[17] (UK BAP). Despite the devolution of the UK BAP and succession of the UK Post-2010 Biodiversity Framework[18] (and Biodiversity 2020 strategy[19] in England), as a response to the Convention on Biological Diversity's (CBD's) Strategic Plan for Biodiversity 2011-2020[20] and EU Biodiversity Strategy (EUBS)[21], this list (now referred to as the list of Species and Habitats of Principal Importance in England) will be used to guide decision-makers such as public bodies, including local and regional authorities, in implementing their duty under section 41 of the Natural Environment and Rural Communities Act 2006 'to have regard' to the conservation of biodiversity in England, when carrying out their normal functions.

Biodiversity Action Plans

Non-statutory Biodiversity Action Plans (BAPs) have been prepared on a local and regional scale throughout the UK over the past 15 years. Such plans provide a mechanism for implementing the government's broad strategy for conserving and enhancing the most endangered ('priority') habitats and species in the UK for the next 20 years. As described above the UK BAP was succeeded in England by Biodiversity 2020 although the list of priority habitats and species remains valid as the list of *Species of Principal Importance for Nature Conservation*.

Regional and local BAPs are still valid however and continue to be updated and produced.

Detail on the relevant BAPs for this site are provided in the main text of this report.

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.

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.

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.

The Wildlife & Countryside Act 1981 (WCA) 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 Directive, 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 2010, 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.

Legislation Relating to Natura 2000 Sites and Habitats Directive Annex I/II Species

European Commission Council Directive 92/43/EEC on the Conservation of Natural Habitats and Wild Fauna and Flora ('EU Habitats Directive'), and Council Directive 79/409/EEC on the Conservation of Wild Birds ('Birds Directive') form the cornerstones of nature conservation legislation across EU member states. Priority species requiring protection across Europe are listed in the Annexes of these Directives. The Habitats Regulations, 2010 (as amended) and Offshore Marine Conservation Regulations, 2007 (as amended) transpose these directives into UK law and set the basis for the designations of protected sites (known as Natura 2000 sites; Special Areas of Conservation under the Habitat Directive and Special Areas of Protection under the Birds Directive) that are of importance for habitats, species or assemblages listed on the directive Annexes. In the UK Ramsar sites are also offered the same level of protection as SPAs and SACs however the qualifying species for the designation may differ; Ramsar sites being designated specifically as important wetland habitats.

Under article 6(3) of the Habitats Directive, where projects stand to have likely significant effect (in accordance with the European Court of Justice ruling of C-127/02 Waddenzee cockle fishing) upon the integrity of conservation objectives (i.e. conservation status of the qualifying species or habitats) within the designated sites then the Competent Authority must undertake an Appropriate Assessment.

Planning Policy

National Planning Policy Framework (NPPF)

Guidance on nature conservation within planning is issued by the Government within the National Planning Policy Framework[22.] 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.

The NPPF has replaced, among other planning guidance documents, Planning Policy Statement 9: Biological and Geological Conservation[23]. However, the accompaniment to PPS9, government circular 06/05: Biodiversity and Geological Conservation - Statutory Obligations and Their Impact within the Planning System[24], remains valid. The prevention of harm to biodiversity through prudent planning decisions is the key principle in the NPPF when considering planning and the natural environment; set out in section 11.

Within the NPPF the Government's vision for conserving and enhancing biological diversity in England within the planning system is set out. The Governments objectives for planning from an ecological perspective are, among others, to recognise the wider benefits of ecosystem services, minimise the impacts on biodiversity and provide net

gains in biodiversity where possible, contributing to the Government's commitment to halt the overall decline in biodiversity, which will include the establishment of coherent ecological networks that are more resilient to current and future pressures.

Of particular note to ecological impact assessment is paragraph 152 of the Plan-Making Section which states:

"Local planning authorities should seek opportunities to achieve each of the economic, social and environmental dimensions of sustainable development, and net gains across all three. Significant adverse impacts on any of these dimensions should be avoided and, wherever possible, alternative options which reduce or eliminate such impacts should be pursued. Where adverse impacts are unavoidable, measures to mitigate the impact should be considered. Where adequate mitigation measures are not possible, compensatory measures may be appropriate".

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 in the planning process.

Regional Planning Policy: The London Plan Spatial Development Strategy for Greater London[25]

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 2014[26]

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 or 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

1 Joint Nature Conservation Committee (2010), Handbook for Phase 1 Habitat Survey: A Technique for Environmental Audit. JNCC, Peterborough.

2 CIEEM (2013), Guidelines for Preliminary Ecological Appraisal

3 BSI (2013) British Standard 42020:2013: Biodiversity — Code of practice for planning and development, BSI Standards Publication

4 MAGIC, (2013); Interactive Map. (Partnership project involving six government organisations: Defra (Department for Environment, Food and Rural Affairs); English Heritage; Natural England; Environment Agency; Forestry Commission; Department for Communities and Local Government). www.magic.gov.uk.

5 Bat Conservation Trust (BCT) 2012, Bat Surveys – Good Practice Guidelines, 2nd Edition, BCT

6 English Nature, (2004); Bat Mitigation Guidelines. English Nature.

7 MAGIC, (2007); Interactive Map. (Partnership project involving six government organisations: Defra (Department for Environment, Food and Rural Affairs); English Heritage; Natural England; Environment Agency; Forestry Commission; Department for Communities and Local Government). www.magic.gov.uk.

8 Greengage Environmental Ltd (2016) 81 Avenue Road – Bat Emergence Survey Report

9 HM Government, (1981); Part I and Part II of Wildlife and Countryside Act (as amended). HMSO

10 HM Government, (2010); The Conservation of Habitats and Species Regulations 2010. Statutory Instrument 2010 no. 490 Wildlife Countryside. OPSI

11 HM Government, (2000); The Countryside and Rights of Way Act. HMSO

12 HM Government, (2006); Natural Environment and Rural Communities Act 2006. HMSO

13 HM Government, (1994); The Conservation (Natural Habitats, &c.) Regulations. HMSO

14 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

15 The European Parliament And Of The Council, (30 November 2009); Directive 2009/147/EC On The Conservation Of Wild Birds (Codified Version)

16 CEC (Council of the European Communities), (1979); Convention on the Conservation of European Wildlife and Natural Habitats (Bern, 19.IX.1979). EC

17 UK Biodiversity Action Plan (2007). UKBAP Priority Species and Habitats. http://www.ukbap.org.uk/newprioritylist.aspx

18 JNCC and Defra (on behalf of the Four Countries' Biodiversity Group) (2012). UK Post-2010

Biodiversity Framework. July 2012. Available from: http://jncc.defra.gov.uk/page-6189

19 Defra (2011). Biodiversity 2020: A strategy for England's wildlife and ecosystem services

20 Convention on Biological Diversity (CBD) (2010). Decision X/2 Strategic Plan for Biodiversity 2011-2020, including Aichi Biodiversity Targets. Available at https://www.cbd.int/decision/cop/?id=12268

21 European Commission (2012). Our life insurance, our natural capital: an EU biodiversity strategy to 2020 European Parliament resolution of 20 April 2012 on our life insurance, our natural capital: an EU biodiversity strategy to 2020 (2011/2307(INI))

22 Department for Communities and Local Government (2012) National Planning Policy Framework (NPPF)

23 DCLG (Former ODPM), (2005); Planning Policy Statement 9: Biodiversity and Geological Conservation. HMSO

24 ODPM, (2005); Circular 06/2005; Biodiversity and Geological Conservation – Statutory Obligations and their Impact within the Planning System. TSO

25 Greater London Authority, (2011), The London Plan: Spatial Development Strategy for Greater London, GLA

26 Greater London Authority (2014), Sustainable design and construction: supplementary planning guidance, GLA