

Preliminary Ecological Appraisal



Environmental Business Solutions

Lodge House, Nonsuch Park, London
Road, Ewell, KT17 2DL
(Grid Ref: TQ 2263 6341)

Quality Management

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1 Introduction

1.1 Background to the scheme

Environmental Business Solutions (EBS) was instructed in August 2020 to carry out a Preliminary Ecological Appraisal (PEA) for a proposed development site (hereafter referred to as 'the site') at Lodge House, Nonsuch Park, London Road, Ewell, KT17 2DL (Grid Ref: TQ 2263 6341). The client proposes to change the use of the property from residential (C3) to a nursery (E) including associated landscaping works, renovations to the existing property and the erection of several outbuildings.

1.2 Site context



Figure 1: Site Extent

The site is located at National Grid Reference TQ 2263 6341 and situated on the edge of Nonsuch Park, Ewell with residential housing to the north. It consists of a two-story residential building (Currently vacant), brick built with an apex tiled roof. The area surveyed also contains a small garden area with hedges and semi-mature trees.

1.3 Purpose of this report

This report has been produced to set out the methods, results, and conclusions of a Preliminary Ecological Appraisal (PEA). This will inform the need for any further ecological surveys as required in order to fully assess the impacts of the proposals.

For the purposes of this study, the term 'protected and notable species' is defined in Appendix 1. Further information on legal protection of those species which are formally protected is defined in Appendix 2.

2 Methods

2.1 Desk study

Sources of information used in the desk study are presented in Table 2.1 below.

Table 2.1 – Desk study sources of information

| Source | Information sought |
|--|---|
| MAGIC website www.magic.gov.uk | Locations of statutorily-designated wildlife sites within 2km of the site boundary |
| Natural England https://designatedsites.naturalengland.org.uk/ | Relevant SSSI citations |
| JNCC http://jncc.defra.gov.uk/ | Information on European wildlife sites Details of relevant Section 41 species and habitats |
| OSmaps online www.ordnancesurvey.co.uk | Ponds and waterbodies within 250m of the site. |

2.2 Field survey

The site was subject to a field survey on 23/08/2020. The weather conditions were dry and clear with good visibility. The survey was undertaken by Bill Gaudie.

Bill Gaudie BSc hons (Wildlife Conservation), MCIEEM is an ecologist and has 13 years experience in undertaking ecological surveys including Preliminary Ecological Appraisals.

The methods were based on the standard 'Phase 1' habitat survey technique (JNCC 2010), which was extended (IEA 1995) to include any relevant information on evidence or suitability for use by protected or notable species.

2.3 Assessment of buildings and trees for use by roosting bats

An assessment of the site's suitability for use by roosting bats was undertaken on the 23/08/2020, this involved an external inspection of the building on site and a ground assessment of trees on site (as per; Collins, J, (ed.) (2016) *Bat Surveys for Professional Ecologists: Good Practice Guidelines*, (3rd edn), The Bat Conservation Trust, London, ISBN-13: 978-872745-96-1),

The category of suitability is used as a basis for determining the requirement for further surveys.

Table 2.2 – Suitability of buildings for use as roosts. (Taken from above guidelines Table 4.1 page 35)

| Suitability | Description Roosting habitats | Commuting and foraging habitats |
|--------------------|--|---|
| Negligible | Negligible habitat features on site likely to be used by roosting bats. | Negligible habitat features on site likely to be used by commuting or foraging bats. |
| Low | <p>A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation).</p> <p>A tree of sufficient size and age to contain PRFs but with none seen from the ground or features seen with only very limited roosting potential.</p> | <p>Habitat that could be used by small numbers of commuting bats such as a gappy hedgerow or unvegetated stream, but isolated, i.e. not very well connected to the surrounding landscape by other habitat.</p> <p>Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.</p> |
| Moderate | A structure or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only – the assessments in this table are made irrespective of species conservation status, which is established after presence is confirmed). | <p>Continuous habitat connected to the wider landscape that could be used by bats for commuting such as lines of trees and scrub or linked back gardens.</p> <p>Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.</p> |
| High | A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat. | <p>Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats such as river valleys, streams, hedgerows, lines of trees and woodland edge.</p> <p>High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, treelined watercourses and grazed parkland. Site is close to and connected to known roosts.</p> |

Table 2.3 – Suitability of buildings for use as roosts. (Taken from above guidelines (Table 7.2 page 51)

| Low roost suitability | Moderate roost suitability | High roost suitability |
|---|--|---|
| <p>One survey visit. One dusk emergence or dawn re-entry survey (structures).</p> <p>No further surveys required (trees).</p> | <p>Two separate survey visits. One dusk emergence and a separate dawn re-entry survey.</p> | <p>Three separate survey visits. At least one dusk emergence and a separate dawn re-entry survey. The third visit could be either dusk or dawn.</p> |

3 Results

3.1 Deskstudy

According to the Multi Agency Geographic Information for the Countryside database, the closest statutory designated site for nature conservation is Hosmill Local Nature Reserve, approximately 820m due west of the site and separated by housing and roads.

Great Crested Newt (*Triturus cristatus*) have been recorded approximately 520m east of the site in 2019.

3.2 Field survey

3.2.1 Habitats on site

The habitats on site, and accompanying photographs are presented in Appendix 3, and described in more detail below.

It consists of a two-story residential building (Currently vacant), brick built with an apex tiled roof. The area surveyed also contains a small garden area with hedges and semi-mature trees.

Improved Grassland B4. Overgrown garden area dominated by Perennial Rye Grass (*Lolium perenne*) and Cock's-foot (*Dactylis glomerata*) grasses. Ribwort Plantain (*Plantago lanceolata*), Dandelion (*Taraxcum officinale*), White Clover (*Trifolium repens*), Daisy (*Bellis perennis*), Yarrow (*Achillea millefolium*) and Germander Speedwell (*Veronica chamaedrys*) are present.

Scrub A2. A mixture of Bramble (*Rubus fruticosus*), Elder (*Sambucus nigra*), Buddleia and garden escapes.

Introduced Shrub J1.4. Mixture of Buxus sp and Prunus sp.

Scattered Trees A3.3. Semi-mature trees of moderate quality. Elder (*Sambucus nigra*), Cherry (*Prunus* sp), Holly (*Ilex aquifolium*), Ash (*Fraxinus excelsior*), Common Lime (*Tillia x vulagris*), Sycamore (*Acer psuedoplatanus*) and Leylandii.

Tall Ruderal Shrub C3.1. Small patches of Cow Parsley (*Anthriscus sylvestris*), Nettle (*Urtica dioica*), Cleavers (*Galium aparine*) and Cow Parsnip (*Heracleum sphndylium*) are present.

Buildings J3.6. Two-storey, brick built building with tiled apex roof

3.2.2 Habitats off site which require consideration

Semi-mature trees with associated flora border the site in parts.

3.2.3 Fauna on site

Birds. A number of common birds were recorded on site but no signs of nesting noted. See Table 3.2 for list species noted foraging or transecting the site during survey.

Table 3.2.3 List of birds noted foraging / transecting site.

| English Name | Scientific Name |
|---------------------|--------------------------------|
| Woodpigeon | <i>Columba palumbus</i> |
| Wren | <i>Troglodytes troglodytes</i> |
| Dunnock | <i>Prunella modularis</i> |
| Robin | <i>Erithacus rubecula</i> |
| Blackbird | <i>Turdus merula</i> |
| song thrush | <i>Turdus philomelos</i> |
| Chiffchaff | <i>Phylloscopus collybita</i> |
| blue tit | <i>Cyanistes caeruleus</i> |
| great tit | <i>Parus major</i> |
| Magpie | <i>Pica pica</i> |
| Chaffinch | <i>Fringilla coelebs</i> |

Reptiles. A single male Slow worm (*Anguis fragilis*) was discovered beneath a sheet of wood close to tall ruderal vegetation in the rear garden area. No other reptiles noted during increased search.

3.2.4 Species and species groups which may be present

Table 3.2.4 indicates the species, species groups, designated sites and habitats which are given further consideration in this appraisal.

Table 3.2.4 Species and species groups requiring further consideration

| Species / species group | Field evidence | Rationale for consideration |
|-------------------------|----------------|--|
| Bats (roosting) | None | Few gaps in tiled wall. Giving the building a low suitability for roosting bats. Bordering trees give good foraging habitat. No trees suitable for bats will be directly affected. |
| Birds | None | There is suitable nesting habitat in trees bordering and on the site |
| Trees | Present | Retained trees to be protected to BS3758 recommendations. |
| Reptiles | Present | Slow-worm (<i>Anguis fragilis</i>) noted during walkover survey. |

3.2.5 Species and species groups which are unlikely to be present

Table 3.2.5 indicates the species, species groups, designated sites and habitats could be present / affected based on a very basic knowledge of the site, but aren't given further consideration in the appraisal due either to the lack of suitable habitat or the lack of an effect caused by the development.

Table 3.2.5 Species and species groups which are not given further consideration

| Species / species group | Field evidence | Rationale for exclusion from the appraisal |
|--|----------------|---|
| Badger (<i>Meles meles</i>) | None | No signs of badger foraging or setts noted within 50m of the site. |
| Water vole (<i>Arvicola amphibius</i>) | None | No suitable water bodies within 500m of the site and isolated by further housing and associated infrastructure. |
| Amphibians | None | Nearest ponds approximately 200m north of the site. Separated by busy parking area for Nunsuch Park. |
| Otters | None | No suitable water bodies within 500m of the site and isolated by further housing and associated infrastructure. |
| Designated Sites | N/A | Due to the size of the proposed project, it is not thought that any adverse effects will happen on any designated site. |

3.3 Constraints to the survey

This report is limited to a description of the baseline conditions within the site. Through examination of historical biological records of species distribution, the suitability of habitats within the survey area and the surrounding locality, and current understanding of the biology and ecology of species, the report presents a preliminary evaluation of the likelihood of protected species being present. Due to the size and nature of the site, and the unavailability of localised data available via SBIC, BRD was not requested, and this has been given due consideration in the report and its recommendations.

3.4 Assessment of buildings and trees for use by roosting bats

The building on site was assessed externally during the site walkover. Further pictures of the buildings to accompany the descriptions are contained within appendix 3.

Due to the findings the building was assessed as being of low suitability for bat roosts.

The trees were assessed from ground level. All were semi-mature with no obvious signs of suitability for bat roosts.

Due to the findings the trees were assessed as being of negligible suitability for bat roosts.

Table 3.4 Assessment of buildings and trees for suitability of roosting bats

| Building Reference (see Appendix 3) | Description | Suitability for roosting bats |
|--|---|----------------------------------|
| B1 | <p>Two storey residential building, brick built with apex tiled roof. All brick work and soffits are in good condition. The majority of the roof tiles are in good condition. Tiled wall area with missing / damaged tiles.</p>  | Low |
| Trees | No obvious signs of suitability for roosting bats. | Negligible |

4 Recommendations

4.1 Protected and notable species

Based on the findings of the PEA, the following additional surveys / mitigation would be required to inform a complete ecological baseline;

- bats (roosting)
- Birds
- Reptiles

These are discussed in more detail in the following sections.

4.1.1 Bats (Roosting)

In line with the results it is recommended that as the site is of 'Low' suitability be subject to 1 emergence survey to be carried out during the bat activity season between May and September (optimum: May-August).

4.1.2 Breeding Birds.

Any construction work, tree or shrub clearance should be conducted outside of the breeding bird season (March – September). If this is not possible then a breeding bird survey should be conducted by a suitably qualified ecologist prior to works commencing. If nesting birds are discovered then the area around the nest shall be isolated and works halted until nesting has finished.

4.1.3 Reptiles.

Due to recent low management regimes, the scrub, tall ruderal vegetation and grassland on site provide suitable habitat for common reptiles and Slow worm were recorded on site. Due to the size of the plot it is likely that a low number of reptiles are present. The proposed development would reduce the habitat size and reptiles present could be harmed or killed during the works.

A reptile Mitigation Plan (RMP) should be created and agreed with the L.A. prior to any works commencing. The RMP should include the following mitigation measures along with enhancements:

- Timings of vegetation clearing
- Methods of vegetation clearing (phased / hand tools)
- Creation of receptor area, with hibernacula (on site) for reptiles discovered during works
- Planting / design of garden area

4.2 General mitigation and opportunities for enhancement

Where possible trees should be retained on the site boundary. Suggestions for biodiversity enhancement include the provision of bat and bird nesting boxes (if possible), and the creation of habitats through planting of native trees and hedgerows.

All construction activities should comply with general environmental best practice measures including;

- the measures set out in the Environment Agency's Pollution Prevention Guidelines;
- excavations should be sealed overnight or should have at least one shallow-sloping side allowing animals to escape should they fall in;
- an ecologist should be contacted for advice should any protected species be discovered during construction; and,
- appropriate measures to suppress dust should be put in place during hot, dry, or windy weather.

5 Summary

A desk based study and a field study were conducted in order to identify habitats and determine the suitability for any 'protected and notable' species to occur on site, with specific focus on bats due to the characteristics of the site.

The habitats present are common and widespread and are not of significant ecological value in their own right. Notwithstanding this, they are suitable to support a number of protected species.

Further surveys are required for the following species

- bats (roosting);
- breeding birds; and
- reptiles

Suggestions for biodiversity enhancement include the provision of bat and bird nesting boxes (if possible), and the creation of habitats suitable for reptiles. In the event that the recommended surveys confirm the presence of any protected species, then the approach to mitigation would need to be finalised via the Natural England licensing process.

Construction would also need to be managed appropriately to comply with best practice, as well as with any constraints posed by the outcome of further surveys.

6 References

IEA (1995). Guidelines for Baseline Ecological Assessment. E & F Spon.

JNCC (2010). Handbook for Phase One Habitat Survey – 2010 Edition. England Field Unit, Nature Conservancy Council, reprinted JNCC.

Appendix 1 – “Protected and notable species” as relevant to this report

For the purposes of this report, legal protection refers to:

- species included on Schedules 2 and 4 of the *Conservation of Habitats and Species Regulations 2010* (as amended);
- species included on Schedules 1, 5 and 8 of the *Wildlife and Countryside Act 1981* (as amended), excluding species that are only protected in relation to their sale (see section 9[5] and 13[2]); and
- badgers, which are protected under the *Protection of Badgers Act 1992*.

Appendix 2 – Relevant legislation

Bats

All species of bat are listed in Schedule 5 of the *Wildlife and Countryside Act 1981* (as amended) and Schedule 2 of the *Conservation of Habitats and Species Regulations 2010*. They are afforded full protection under Section 9(4) of the Act and Regulation 41 of the Regulations. These make it an offence to:

- deliberately capture, injure or kill any such animal;
- deliberately disturb any such animal, including in particular any disturbance which is likely to:
 - impair its ability to survive, breed, or rear or nurture their young;
 - impair its ability to hibernate or migrate.
 - affect significantly the local distribution or abundance of that species; or
- damage or destroy a breeding site or resting place of any such animal; or
- intentionally or recklessly disturb any of these animals while it is occupying a structure or place that it uses for shelter or protection; or
- intentionally or recklessly obstruct access to any place that any of these animals uses for shelter or protection

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*)

Great Crested Newt

Great crested newt is listed in Schedule 5 of the *Wildlife and Countryside Act 1981* (as amended) and Schedule 2 of the *Conservation of Habitats and Species Regulations 2010*. They are afforded full protection under Section 9(4) of the Act and Regulation 41 of the Regulations. These make it an offence to:

- deliberately capture, injure or kill any such animal;
- deliberately disturb any such animal, including in particular any disturbance which is likely to:
 - impair its ability to survive, breed, or rear or nurture their young;
 - impair its ability to hibernate or migrate.
 - affect significantly the local distribution or abundance of that species; or
- damage or destroy a breeding site or resting place of any such animal; or
- intentionally or recklessly disturb any of these animals while it is occupying a structure or place that it uses for shelter or protection; or
- intentionally or recklessly obstruct access to any place that any of these animals uses for shelter or protection.

Badger

The *Protection of Badgers Act 1992* consolidates previous legislation (including the *Badgers Acts 1973 and 1991 Badgers (Further Protection) Act 1991*). It makes it an offence to:

- kill, injure or take a badger;
- attempt to kill, injure or take a badger; or

- to damage or interfere with a sett.

The 1992 Act defines a badger sett as “any structure or place which displays signs indicating current use by a badger”.

Breeding Birds

With certain exceptions¹, all wild birds, their nests and eggs are protected by section 1 of the *Wildlife and Countryside Act 1981* (as amended). Therefore, it is an offence to:

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

These offences do not apply to hunting of birds listed in Schedule 2 subject to various controls.

Bird species listed on Schedule 1 of the Act receive further protection, thus for these species it is also an offence to:

- intentionally or recklessly disturb any bird while it is nest building, or is at a nest containing eggs or young; or
- intentionally or recklessly disturb the dependent young of any such bird.

Reptiles

The four widespread² species of reptile that are native to Britain, namely common or viviparous lizard (*Zootoca vivipara*), slow worm (*Anguis fragilis*), adder (*Vipera berus*) and grass snake (*Natrix natrix helvetica*), are listed in Schedule 5 of the *Wildlife and Countryside*

¹ Some species, such as game birds, are exempt in certain circumstances

² The other native species of British reptile (sand lizard and smooth snake) receive a higher level of protection under the *Habitats Regulations 1994* and (in England and Wales only) the *Wildlife and Countryside Act 1981* (as amended). However, the distribution of these species are restricted to only a very few sites. All marine turtles (*Cheloniidae* and *Dermochelyidae*) are also protected.

Act 1981 (as amended) and are afforded limited protection under Section 9 of this Act. This makes it an offence, *inter alia*, to:

- intentionally kill or injure any of these species.

Appendix 3 – Habitat Map and Target Notes



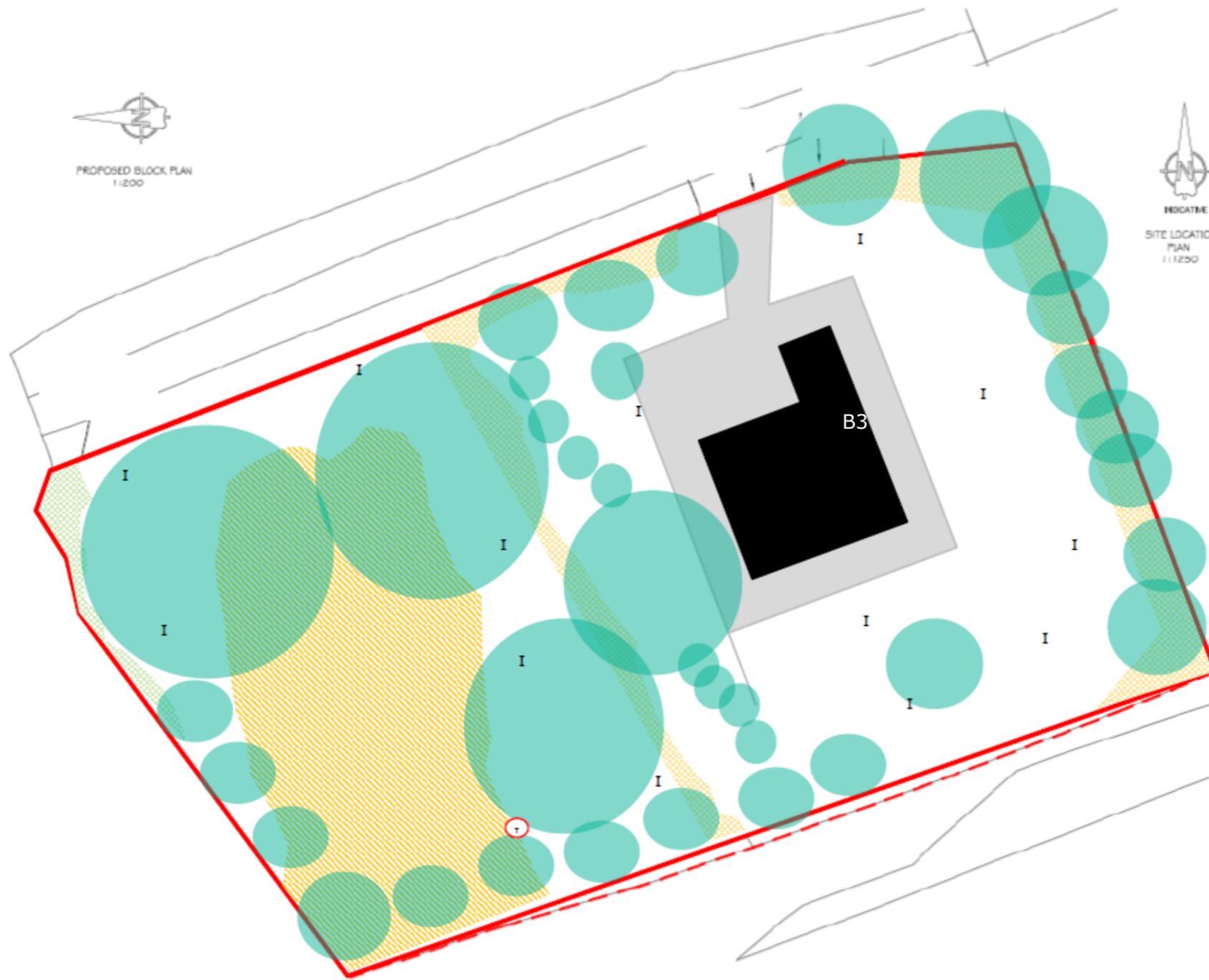
PROPOSED BLOCK PLAN
1:200



INDICATIVE
SITE LOCATION
PLAN
1:1250

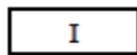


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PHASE 1 HABITAT MAP—Lodge House, Nunsuch Park, London Road, Ewell, KT17 2DL (Grid Ref: TQ 2263 6341) - August 2020

Improved Grassland



Scrub



Scattered Trees



Introduced Scrub



Tall Ruderal



Building



Hard standing



Target Note



Aerial Photo showing layout of site.



Slow worm discovered on site



Site Photo's taken around the site showing building and garden areas

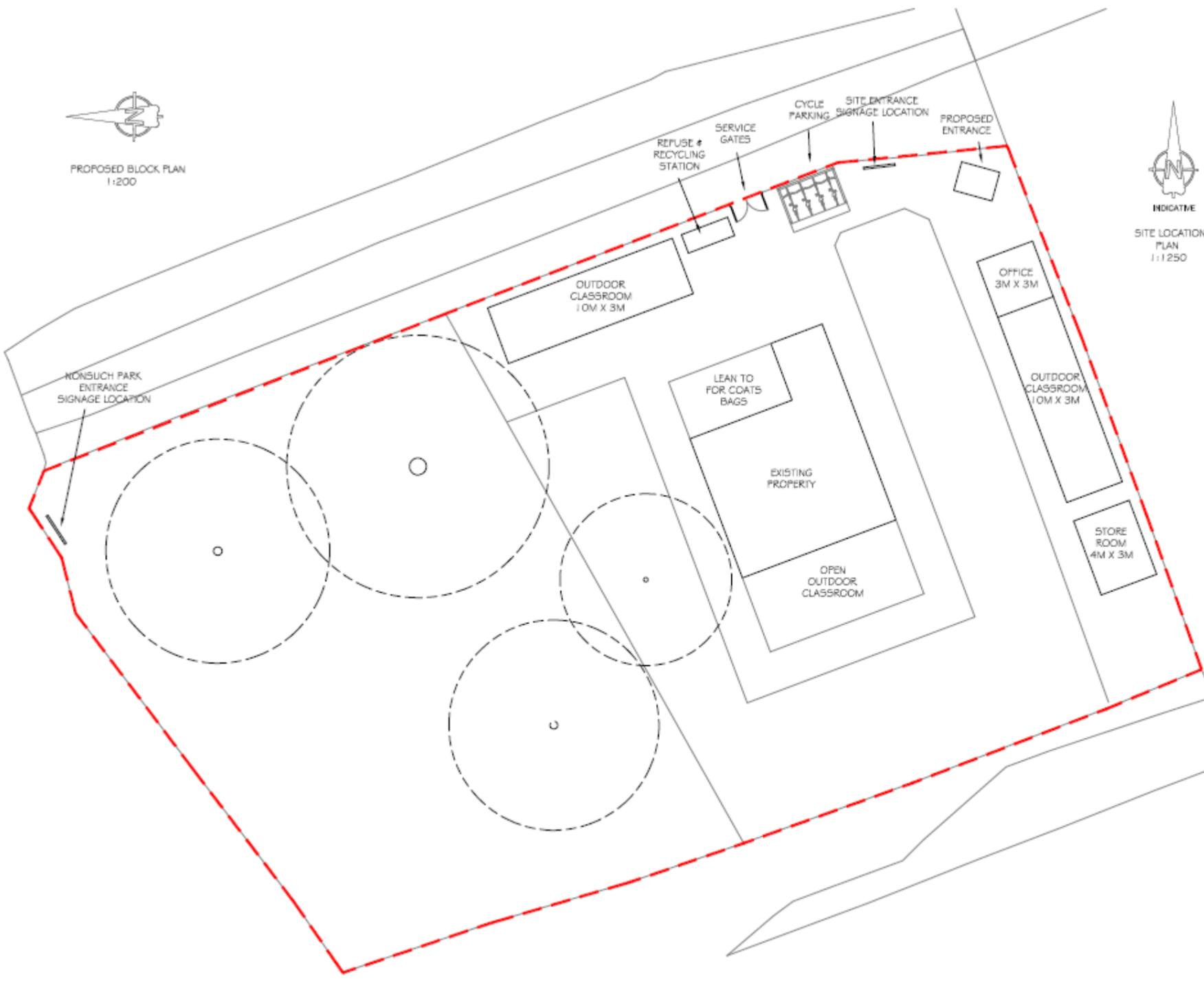




Appendix 4 – Proposed Site Plan



PROPOSED BLOCK PLAN
1:200



INDICATIVE
SITE LOCATION
PLAN
1:1250



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| REVISION NOTES: | | |
|-----------------|-------|--------|
| REV: | DATE: | NOTES: |
| | | |

DRAWING TITLE:
PROPOSED BLOCK & SITE LOCATION PLANS

CLIENT:
LEE CLIFT

PROJECT NO:
1104

PROJECT ADDRESS:
LONDON ROAD LODGE
NONSUCH PARK
EWELL
KT17 2DL

DATE:
NOV 2020

SCALE:
1:200 1:1250 @ A3

DRAWING NUMBER:
01

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