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Preliminary Ecological Appraisal
McDonalds Barnsley
Barnsley
South Yorkshire

Landscape Architects ■ Urban Designers ■ Ecologists ■ Horticulturists

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1.0 INTRODUCTION

Smeeden Foreman Limited has been commissioned by McDonalds Restaurants Limited to undertake a preliminary ecological appraisal of their site at McDonalds Barnsley, Barnsley, South Yorkshire (central grid reference SE 34566 05975), hereafter referred to as the 'site'.

This report will include the following information gathered by a desk study and phase I habitat survey:

- Proximity to statutory and non-statutory designated sites;
- Proximity to existing records of protected species; and,
- Site habitat appraisal and potential to support protected species.

A review of the above information will be made to identify any features or sites of ecological interest which may be affected by the development proposals. Where potential impacts or protected species are identified the need for mitigation measures and requirements for further surveys will be discussed.

The report has been commissioned to inform the application to demolish the existing buildings and construct a McDonalds restaurant and carpark.

2.0 SITE DESCRIPTION

The site is located within an urban area on the outskirts of Barnsley town centre. It occupies an area of approximately 0.5 hectares and comprises two buildings, hard standing with marginal vegetation, amenity grassland, trees and shrubs, refer to *Figure 01* below.



Figure 01: Aerial view / site location (red line denotes approximate site boundary).

The site is bound to the north by John street; to the east by Burleigh Street; to the south by Thomas Street; and, to the west by Upper New Street. Habitats to the north and west of the site comprise a dense urban predominantly commercial area which is likely to receive heavy volumes of traffic and be well illuminated overnight. To the south and east of the site is a mainly residential area which contains areas of green space, larger trees, will receive less traffic and be less illuminated overnight,

3.0 BASELINE INFORMATION

3.1. Methodology

The ecological interest of the site and its surroundings has been investigated by a combination of the following.

- Desk study of existing sources of information including:
 - The UK Biodiversity Action Plan (UKBAP);
 - The Sheffield Biodiversity Action Plan (LBAP);
 - Magic map, a government website for nature conservation information; and,
 - Aerial photographs.
- Existing protected species records and statutory / non-statutory designated sites information within local area (within 2km) of the development site has been requested and received from the Sheffield Biological Records Centre (SBRC) and South Yorkshire Bat Group (SYBG).
- Field survey of the site and immediate surroundings which was undertaken on 1st March 2017.

3.2. Nature Conservation Designated Sites

3.2.1. Statutory Designations

There are no statutorily designated sites within the site but one is present within the local area (~2km); Dearne Valley Park Local Nature Reserve (LNR) is located approximately 1.3km north-east, it comprises woodland and wetland habitats.

The site does not lie within any Sites of Special Scientific Interest (SSSI) Impact Risk Zone (IRZ), as such it is considered unlikely that it will have a significant adverse impact on any SSSI.

3.2.2. Non-Statutory Designations

There are no non-statutory sites within the site, but two Local Wildlife Sites (LWS) are present with the local area; Old Mill Lane LWS is located approximately 1300m north of the site, it comprises woodland, a section of the River Dearne corridor, and a Daubentons's bat maternity roost within a culverted section of Old Mill Lane; and, Cliff Wood LWS which is located approximately 1450m north-east and comprises broadleaf woodland and grassland habitat.

Due to the lack of complimentary habitats and intervening land use it is considered reasonable to discount any significant adverse impact from the proposed development on either of these sites.

3.3. Existing Records

3.3.1. Protected species

South Yorkshire Bat Group (SYBG) hold 578 records for bat species, including the following species:

- brown long-eared *Plecotus auritus*;
- common pipistrelle *Pipistrellus pipistrellus*;
- soprano pipistrelle *Pipistrellus pygmaeus*;
- Daubenton's bat *Myotis daubentonii*;
- Leisler's bat *Nyctalus leisleri*;
- myotis species *Myotis sp.*;
- Nathusiu's pipistrelle *Pipistrellus nathusii*;
- noctule *Nyctalus noctula*;
- whiskered bat *Myotis mystacinus*.



There are no records located within the site; the closest record is located approximately 300m north, for a single common pipistrelle bat, dated August 1992. The closest roost record is located approximately 500m east, for a pipistrelle species of bat, dated August 2005.

SBRC holds no records for protected species within the site but the following records are present outwith the site and within the local area (~2km):

- White-clawed crayfish (~1.3km north);
- Otter *Lutra lutra* (~1.3km north);
- Badger *Meles meles* but the location is only available to the nearest 10km grid square; and,
- Bats, including noctule, common pipistrelle and Daubenton's bat, the closest being located approximately 300m north, for a single common pipistrelle bat, dated August 1992.

SBRC holds records for the following Schedule I species, which are afforded additional protection under the Wildlife and Countryside Act 1981 (as amended), making it illegal to disturb, intentionally or recklessly when nesting.

- Barn owl *Tyto alba*;
- Brambling *Fringilla montifringilla*;
- Fieldfare *Turdus pilaris*;
- Firecrest *Regulus ignicapilla*;
- Goshawk *Accipiter gentilis*;
- Green sandpiper *Tringa ochropus*;
- Hobby *Falco Subbuteo*;
- Kingfisher *Alcedo atthis*;
- Little ringed plover *Charadrius dubius*;
- Merlin *Falco columbarius*;
- Peregrine *Falco peregrinus*; and,
- Redwing *Turdus iliacus*.

3.3.2. Notable species

SBRC holds no records for notable species within the site but there are records for the following UKBAP priority species outwith the site and within the local area (~2km):

- Harvest mouse *Micromys minutus*;
- Brown hare *Lepus europaeus*;
- Hedgehog *Erinaceus europaeus*;
- Cuckoo *Cuculus canorus*;
- Grasshopper warbler *Locustella naevia*;
- Grey partridge *Perdix perdix*;
- Hawfinch *Coccothraustes coccothraustes*;
- House sparrow *Passer domesticus*;
- Lapwing *Vanellus vanellus*;
- Nightjar *Caprimulgus europaeus*;
- Reed bunting *Emberiza schoeniclus*;
- Spotted flycatcher *Muscicapa striata*;
- Tree pipit *Anthus trivialis*;
- Tree sparrow *Passer montanus*;
- Turtle dove *Streptopelia turtur*;
- Wood warbler *Phylloscopus sibilatrix*;
- Yellow wagtail *Motacilla flava* subsp. *Flavissima*; and,
- Yellowhammer *Emberiza citronella*.

3.4. Site Survey

A phase I habitat survey was undertaken on the 1st March 2017. Habitat types and key species were noted and are presented in the Phase I Habitat format based on the Joint Nature Conservation Committee methodology, 2010 (see *Figure 03: Phase I Habitat Survey* appended).

The survey at the site found it to be composed of two buildings, hard standing with marginal vegetation, amenity grassland, trees and shrubs, refer to *Figure 03* appended and *Section 3.4.7* for photographs.

3.4.1. Buildings

There are two buildings present at the site (B1 and B2).

During the survey the buildings were assessed to determine their potential to house roosting bats. This included an internal and external inspection of the buildings, where possible (internals of B1 were not accessible), to identify access points and potential roosting opportunities, as well as any direct evidence of bats, such as droppings, fur/urine staining, scratch marks, grease marks, feeding remains, distinctive smell and/or dead bats. The buildings were examined using close focussing binoculars and a high powered torch. The walls, window panes, sills and loft spaces were checked for signs of bat use.

The buildings potential to support roosting bats were categorised to relate to the value of identified features. These categories are based on those described in Table 4.1 from the Bat Conservation Trust (BCT) *Bat Surveys for Professional Ecologists: Good Practice Guidelines 3rd edition* (2016), and are summarised in the *Table 03* below.

Table 03: Categories for describing bat potential of buildings

Suitability	Description of roosting features
Negligible	Negligible habitat features suitable for use by roosting bats
Low	One or more sub-optimal features which could be used by a low number of roosting bats
Moderate	One or more good quality features which could be used by a low number of roosting bats
High	One or more good quality features which are suitable for a larger number of roosting bats

B1: Former Gala Bingo Hall

Building B1 covers the majority of the site. It is constructed from brick walls partially covered in metal sheeting, a glass fronted entrance, and a metal flat roof.

The external inspection of the building found it to be in good condition and well sealed with limited potential access points for use by bats. There were a number of vents around the building's exterior but these all had a metal mesh present that would not allow bats to pass through. There were a number of breather slits between bricks around the building at approximately 2m above ground, it is anticipated that these would allow access into a wall cavity. On the north-west elevation, at two separate locations, there were a total of three holes in the wall (refer to *Figure 03*), but it was not possible to discern if they would allow access into the wall cavity. There were some gaps under gutters and the metal sheeting on the walls but due to metal having a low specific heat capacity, which will heat up quickly during the day and cool down quickly at night, it is considered that that roosting bats would be unlikely to use such features.

The internal inspection found each room to be generally very well sealed from the next, making access practically impossible for bats to either get into such rooms. On the first floor there is a large room which had a suspended ceiling with multiple tiles missing that allowed access between the roof space and the room below. However above this room the roof space appeared to be constructed entirely from metal materials, and the roof to be composed of a single skin of metal sheeting. Closer inspection of this area was not possible due to lack of access and health and safety reasons.

No evidence of bats was detected during the survey on or around the exterior of, or within the building.

Due to the limited potential access points present, the well sealed internal structures, and materials used to construct the roof section of the building having a low specific heat capacity, which will heat up



quickly during the day and cool down quickly at night, the building bat potential is considered to be limited to the few low level holes and breather slits which may provide access into the wall cavity. None of which showed any evidence of being used by bats, such as grease stains, fur or droppings.

Given the above it is considered that building B1 has a ***low to negligible bat potential***.

B2: Gas Governor

Building B2 is a gas governor building composed of brick walls, wooden doors and a flat bitumen felt roof. It is located in the north-west corner of the site. The internals of this building were not accessible.

There were some limited opportunities for roosting bats present, such as small gaps between vents on the wooden doors, otherwise the building was in good condition and well sealed. Based on the typical single skin wall and roof construction of a building of this type, and the good condition of the pointing it is considered unlikely that there would be any opportunities for roosting bats within the building internals.

No evidence of bats was detected during the survey on or around the exterior of the building.

Given the above it is considered that building B2 has ***'negligible' bat potential***.

3.4.2. Hardstanding with Marginal Vegetation

Surrounding the buildings at the site is hardstanding which is composed of concrete/tarmac with some scattered patches of sparse vegetation around the edges. Species present include buddleja, bramble *Rubus fruticosus*, creeping thistle *Cirsium arvense*, cleavers *Galium aparine*, Yorkshire-fog, cock's-foot, dandelion, broadleaved dock and moss species.

3.4.3. Amenity Grassland

Along the north-east and south-east boundaries of the site are thin strips of amenity grassland characterised by: abundant and constant perennial ryegrass *Lolium perenne*; frequent and constant Yorkshire-fog *Holcus lanatus*, cock's-foot *Dactylis glomerata*, broadleaved dock *Rumex obtusifolius* and dandelion *Taraxacum agg.*; and, locally frequent common nettle *Urtica dioica*, ribwort plantain *Plantago lanceolata*, creeping buttercup *Ranunculus repens*, ragwort *Jacobaea vulgaris* and rosebay willowherb *Chamerion angustifolium*.

3.4.4. Trees, shrubs and scrub

Trees and shrubs at the site are associated with the site boundaries. Species present include, cherry *Prunus sp.*, elder *Sambucus nigra*, Darwin's barberry *Berberis darwinii*, buddleja *buddleja davidii*, ash saplings *Fraxinus excelsior* and ornamentals.

All the trees at and immediately adjacent to the site were surveyed during the walkover survey in order to identify if they had potential to house roosting bats. All aspects of the trees were surveyed using close focusing binoculars and high powered torch light. The surveyor looked for features which are commonly used by bats for roosting or shelter, such as natural holes, woodpecker holes, cracks and splits, cavities, epicormic growth and bat boxes; and, for signs of bats utilising a tree for roosting purposes such as scratches on the bark at entry points, staining, droppings, audible noise, distinctive smells and the smoothing of surfaces near to cavities.

The trees potential to support roosting bats was categorised to relate to the value of identified features. These categories are provided by the Bat Conservation Trust (BCT) *Bat Surveys for Professional Ecologists: Good Practice Guidelines 3rd edition (2016)* and are summarised in the *Table 04* below.

Table 04: Summary of BCT bat tree/building categories

BCT Category	Description
High	One or more, highly suitable features capable of supporting larger roosts.
Moderate	One or more, suitable features, but unlikely to be used by a large number of bats.
Low	One or more, suitable features, suitable for low numbers of bats.
Negligible	Negligible features likely to be used by roosting bats

During the walkover survey no trees within or immediately adjacent to the site were considered to have bat potential.

3.4.5. Fauna

During the walkover survey no wildlife was observed at or adjacent to the site.

With regards to great crested newt *Triturus cristatus* (GCN) and other amphibians: there were no ponds detected within the site or within an unobstructed 500m from it.

With regards to badger *Meles meles*, no badgers or evidence of badgers was detected during the survey and habitats within or adjacent to the site are not considered suitable for this species.

3.4.6. Invasive Species

No invasive species as listed under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) were detected at the site during the survey.

3.4.7. Photographs



Building B1



Building B2



Hard standing with marginal vegetation



Amenity grassland



Buddleja shrubs



Well sealed internal rooms



Metal construction of roof space



North-west elevation of building B1 showing potential access points

3.5. Biodiversity Action Plan

3.5.1. National Biodiversity Action Plan

The UK Biodiversity Action Plan (UK BAP) identifies priority species and habitats which are those considered to be the most threatened and therefore most in need of conservation action. The lists were updated in 2007 to include 1150 species and 65 habitats.

During the survey no UKBAP priority habitats, or species or habitats suitable for them, were detected within or adjacent to the site.

3.5.2. Local Biodiversity Action Plan

Habitat types for which action plans have been prepared for the Barnsley Biodiversity Action Plan include:

- Upland Oakwood;
- Lowland Mixed Deciduous Woodland;
- Wet Woodland;
- Wood Pasture and Parkland;
- Hedgerows;
- Arable Field Margins;
- Floodplain Grazing Marsh;
- Lowland Meadows;
- Lowland Dry Acidic Grassland;
- Lowland Heathland;

- Upland Heathland;
- Blanket Bog;
- Purple Moor Grass and Rush Pasture;
- Reedbeds;
- Ponds;
- Rivers; and,
- Open Mosaic Habitats on Previously Developed Land.

Species for which action plans have been prepared for the Barnsley Biodiversity Action Plan include:

- Hedgehog;
- Bats;
- Water Vole;
- Otter;
- Grey Partridge;
- Bittern;
- Kestrel;
- Little Ringed Plover;
- Lapwing;
- Barn Owl;
- Skylark;
- Tree Sparrow;
- Twite;
- Great Crested Newt;
- Salmon;
- Bullhead;
- White-clawed Crayfish;
- Glow Worm;
- Dingy Skipper; and,
- Bluebell.

During the survey no local BAP priority habitats, or species or habitats suitable for them, were detected within or adjacent to the site.

4.0 IMPLICATIONS / RECOMMENDATIONS

4.1. Nature Conservation Designated Sites

There are no statutorily or non-statutory designated sites within the site, but Dearne Valley Park LNR is located approximately 1.3km north-east, Old Mill Lane LWS is located approximately 1.3km, and Cliff Wood LWS which is located approximately 1.4km north-east. The site does not lie within any Sites of Special Scientific Interest (SSSI) Impact Risk Zone (IRZ).

Due to the above, lack of complimentary habitats and intervening land uses it is considered that there will be no significant adverse impacts on these sites.

4.2. Habitats

The site comprises two buildings, hard standing with marginal vegetation, amenity grassland, trees and shrubs.

The site is classified as having a low conservation value. None of the habitats within the site are of significant interest (in terms of the plant species composition) nor do they have characteristics of semi-natural habitats. The plant communities at the site are of widespread occurrence and are characteristic of the habitats present in the wider area and common nationally. No rare or locally uncommon plant species or invasive species as listed under the Wildlife and Countryside Act 1981 (as amended) were detected at the site.

The trees at the site are considered to be of limited value to breeding birds due to their small size.

Given the low ecological value of the site, in accordance with the stated aims of the National Planning Policy Framework (NPPF), the proposed development offers the opportunity to provide enhancement of the site for wildlife. As such the following enhancements at the site are recommended:

- Native tree and shrub planting should be undertaken where feasible; and,
- Seeding of soft landscaping areas with high nectar and pollen producing species.

4.3. Protected Species

Survey of the site and review of existing ecological records has highlighted the potential for the following protected species within the search area or on site, upon which the potential effects of the proposed development are discussed below (see *Appendix 01* for relevant legislation).

4.3.1. Bats

There are multiple records for bats within the local area, but none of the trees at the site were considered to have bat potential, and the habitats at the site are not considered to be of value to commuting or foraging bats.

Building B1 was assessed as having *negligible to low bat potential*, and building B2 as having *negligible bat potential*. Concerning building B1 the potential access points identified were on its north-west elevation. Whilst surrounding habitats on that side of the building are unfavourable for bats and are likely to receive a high level of disturbance, and this in combination with the negligible to low bat potential of the building makes it unlikely that roosting bats would be present, due to the amount of local records for bats, and the presence of more favourable foraging habitat to the south and east, it is not possible to completely discount the presence of roosting bats within building B1. It is therefore as a precautionary measure recommended that one bat emergence/re-entry survey is carried out on building B1 during the appropriate survey season (May to September inclusive). In the event of bat roosts being found within trees or buildings to be affected by a development at the site, a licence from Natural England may be required, with appropriate mitigation and working methods.



In order to enhance the site for bats it is recommended that a bat roosting feature is installed at the site, on the new building or as a stand alone feature such as a bat pole. A range of mitigation options are available; guidance should be sought from a Suitable Qualified Ecologist (SQE) as to what would be appropriate for the site.

4.3.2. *Birds*

No evidence of breeding birds was discovered during the survey, but not all areas of the roof space in building B1 were visible or accessed, and the internals of B2 were not accessible. Proposals will not affect building B2 but include the demolition of building B1. It is considered that there is the potential for birds to nest in the roof space of building B1.

The trees at the site are considered to have limited potential to support breeding birds and no previous evidence such as old nests were detected. However future presence of breeding birds in the two trees at the site can't be completely discounted.

All wild birds are protected under the *Wildlife and Countryside Act 1981 (as amended)* during breeding. It is, therefore, recommended that the building B1 is demolished, and as a precaution trees at the site felled, outside of the breeding bird season (March to August inclusive) or subsequent to a checking survey by an appropriately qualified ecologist.

If nesting birds are identified advice will be sought. The advising ecologist will issue guidance in relation to the protection of the nesting birds in conjunction with the scheduled works. Measures such as applying a set boundary around the nest may be necessary until the young birds have fledged.

There are a number of records for Schedule I bird species, but it is considered that habitats within or adjacent to the site do not provide suitable nesting opportunities for these species, and it is considered reasonable to discount presence of these species at the site.

4.3.3. *Other species*

It is considered reasonable to discount the presence of any other UK or EU protected species at the site.

4.4. Notable Species

4.4.1. *Bird species (UKBAP)*

The development proposals offer the opportunity to enhance the site for UKBAP priority bird species and birds in general. In order to enhance the site for such species, which are considered likely to be present in the local area, the following is recommended:

- Installation of a house sparrow nesting terrace on the new building; and,
- Incorporation into the landscape planting plan of species known to be of value to wildlife, such as those that promote invertebrate diversity and/or produce fruit (e.g. hawthorn, crab apple, dog rose and wild cherry).

5.0 SUMMARY

Smeeden Foreman Limited has been commissioned by McDonalds Restaurants Limited to undertake a preliminary ecological appraisal of their site at McDonalds Barnsley, Barnsley, South Yorkshire, hereafter referred to as the 'site'.

The site is classified as having a low conservation value. None of the habitats within the site are of significant interest (in terms of the plant species composition) nor do they have characteristics of semi-natural habitats, and the trees at the site are considered to be of limited value to breeding birds due to their small size.

With regards to protected species, the buildings have the potential to provide habitat for nesting birds, but it is considered reasonable to discount the presence of roosting bats and any other protected species from the site.

Given the low ecological value of the site, in accordance with the stated aims of the National Planning Policy Framework (NPPF), the proposed development offers the opportunity to provide enhancement of the site for wildlife. As such the following enhancements at the site are recommended:

- Installation of a house sparrow nesting terrace on the new building;
- A bat roosting feature is installed at the site; and,
- Incorporation into the landscape planting plan of species known to be of value to wildlife:
 - Native tree and shrub planting should be undertaken where feasible; and,
 - Seeding of soft landscaping areas with high nectar/pollen producing species.

With regards to protected species, above those listed above, the following recommendations have been highlighted:

- Building B1 is demolished, and trees at the site felled, outside of the breeding bird season (March to August inclusive) or subsequent to a checking survey by an appropriately qualified ecologist; and,
- One bat emergence/re-entry survey is carried out on building B1 during the appropriate survey season (May to September inclusive).

For more details refer to *Section 4.0* above.

FIGURES

Figure 02: Map of Non-Statutory Sites provided by SBRC (Not yet received)
Figure 03: Phase I Habitat Map



Figure 02: Map of Non-Statutory Sites provided by SBRC

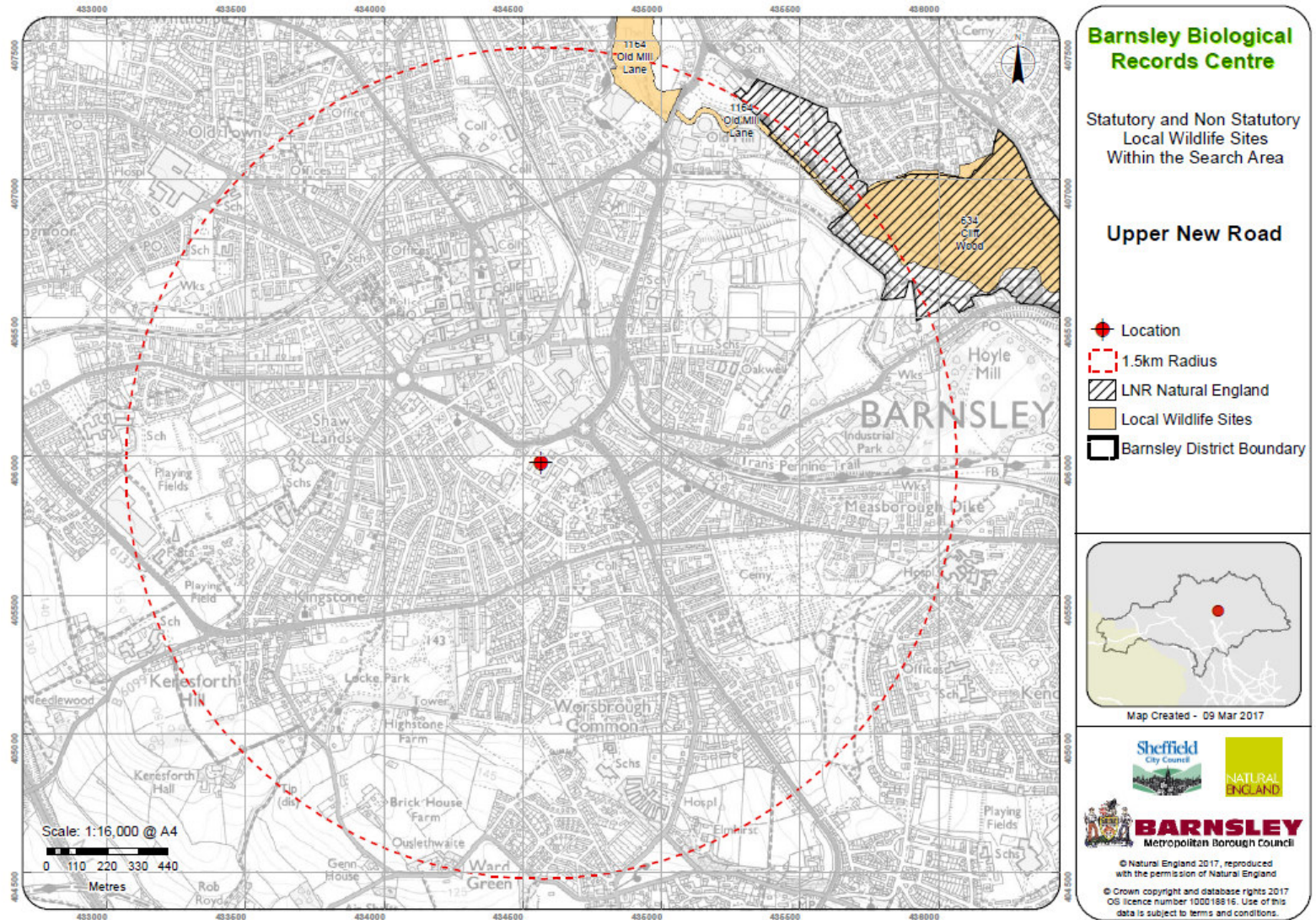
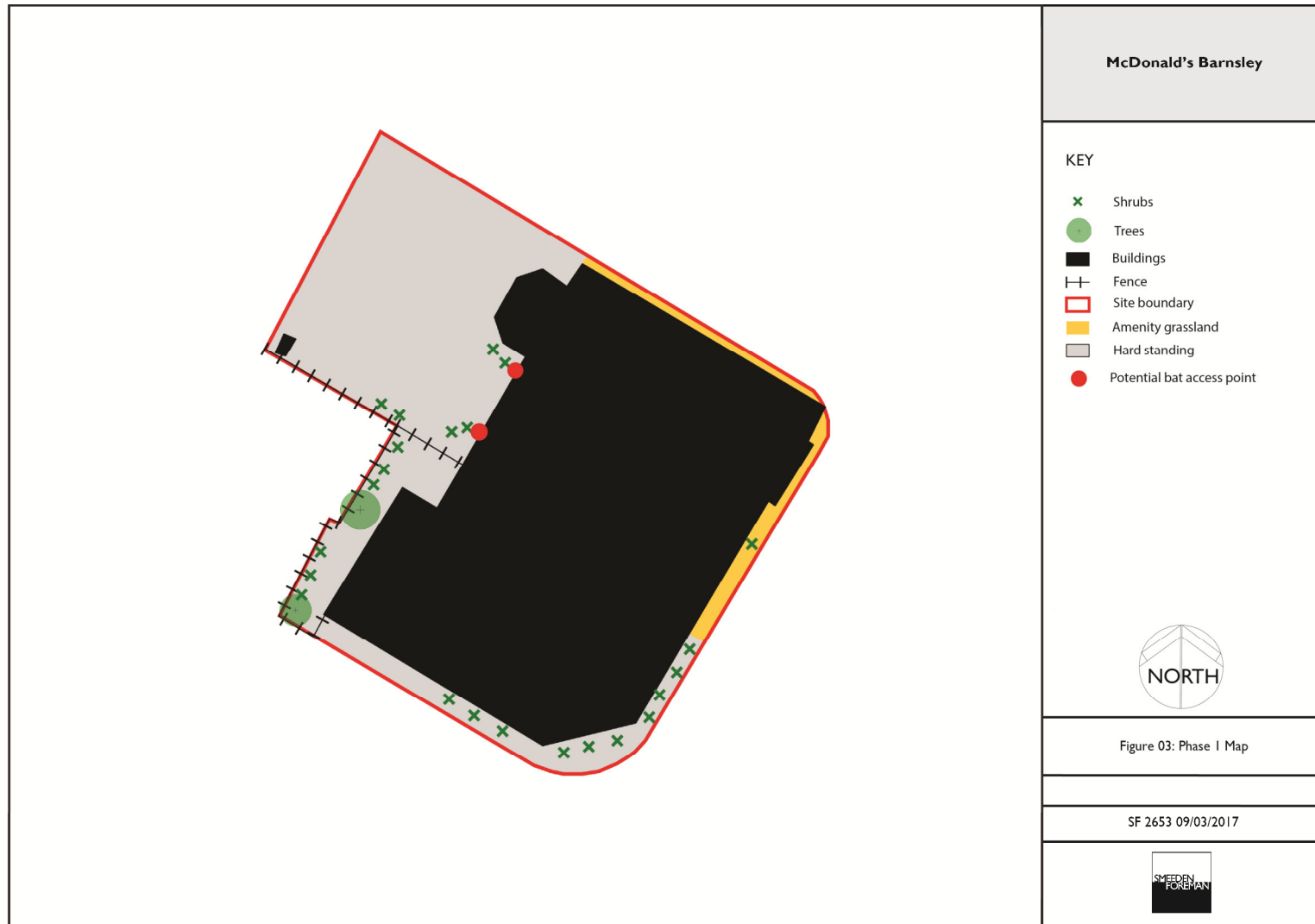


Figure 03: Phase I Habitat Map



APPENDIX 01: LEGISLATION: PROTECTED SPECIES



Bats

All British bats are afforded full protection under both UK and European legislation.

The Conservation (Natural Habitats & c.) Regulations 2007 transpose the Habitats Directive into UK law, making it an offence to:

- deliberately disturb a bat;
- deliberately kill or capture a bat; and
- damage, destroy or obstruct access to a breeding site or resting place (note this applies to both deliberate and reckless actions).

The Wildlife and Countryside Act 1981 (as amended) (Schedule 5) made it an offence to:

- intentionally kill, injure or take a bat
 - damage, destroy or obstruct a resting place *;
 - disturb the species in a resting place *
 - possess or control a bat or any part thereof
 - sell, offer for sale, possess or transport for sale any bat or part thereof
 - set traps for catching, killing or injuring bats
 - possess articles for the purposes of committing offences against bats
- [*= intentional and reckless offences covered]

Legal protection under the Habitats Directive applies to their breeding sites and resting places. This means that bat roosts are fully protected, whether they are in use at the time or not. Where roosts or resting/breeding sites are identified, any works which may contravene the protection afforded to them require derogation from the provisions of the legislation in the form of a licence from Natural England.

Breeding birds

The Wildlife and Countryside Act 1981 gives protection to all bird's nests (whilst being built or in use) and eggs from intentional damage or destruction. Additional protection against disturbance on the nest or of dependant young is provided for birds included on Schedule 1.