Ecological Impact Assessment

Scout Drive, Wythenshawe

BTP Architects

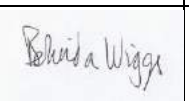
Project Reference: 1219
Report Revision: A
Published: February 2017

accessEcology

QUALITY ASSURANCE

REPORT TYPE	SITE NAME	REVISION
Ecological Impact Assessment	Scout Drive, Wythenshawe	A

CLIENT	COMMISION DATE
BTP Architects	20th January 2017

	NAME	QUALIFICATIONS	POSITION	SIGNATURE	DATE
PRINCIPAL AUTHOR	Louisa Molloy	BSc (Hons)	Ecologist		9th February 2017
CHECKED BY	Belinda Wiggs	BA (Hons)	Senior Ecologist		9th February 2017
AUTHORIZED BY	Nick Bonsall	BSc (Hons)	Principal Ecologist		10th February 2017

Access Ecology Ltd

Head Office
East Pennine Team
Unit R1B Riverside Block
Sheaf Bank Business Park
Sheffield
S2 3EN
Tel: 0114 258 7819

West Pennine Team
Chancery Place,
10th Floor
50 Brown Street
Manchester
M2 2JG
Tel: 0161 457 1520

info@accessecology.co.uk

www.accessecology.co.uk

TABLE OF CONTENTS

A INTRODUCTION 4
A.1 Background to Survey 4
A.2 Purpose of the Report 5
A.3 Survey Validity 5
B PLANNING POLICY AND LEGISLATION 6
C METHODOLOGY 8
C.1 Scope of the Assessment 8
C.2 Desk Study 8
C.3 Field Survey 9
C.4 Assessment Methodology 10
D BASELINE ECOLOGICAL CONDITIONS 14
D.1 Records Data Search 14
D.2 Statutory and Non-Statutory Designated Sites 14
D.3 Habitats 14
D.4 Species 15
E ECOLOGICAL EVALUATION 18
E.1 Evaluation of Ecological Receptors 18
E.2 Statutory and Non-statutory Designated Sites 18
E.3 Habitats 18
E.4 Controlled Invasive Species 18
E.5 Species 18
F ASSESSMENT OF IMPACTS 20
F.1 Brief Outline and Appraisal of Proposals 20
F.2 Future Ecological baseline Conditions without the Development 20
F.3 Identification of Sources of Potential Impacts 20
F.4 Assessment of Impacts 21
F.5 Summary of Residual Effects 25
G COMPENSATION AND ENHANCEMENT 26
G.1 Compensation 26
G.2 Enhancement 26
H REFERENCES 27
H.1 UK Legislation and Policy Web Addresses: 28

TABLES

TABLE 1. SITE LOCATION DETAILS 4
TABLE 2. PRE-EXISTING INFORMATION 5
TABLE 3. PURPOSE OF THE REPORT 5
TABLE 4. ECOLOGICAL RESOURCES/FEATURES CONSIDERED RELEVANT 8
TABLE 5. CONSULTED RECORDS ORGANISATION 8
TABLE 6. ORGANISATIONS CONSULTED WITH REGARDS DESIGNATED WILDLIFE SITES 9
TABLE 7. SURVEY, DATES, TYPE AND PERSONNEL 9
TABLE 8. CRITERIA FOR DETERMINING VALUE 11
TABLE 9. MAGNITUDE OF IMPACT FOR ECOLOGICAL ASSESSMENT 13
TABLE 10. SUMMARY OF RESIDUAL EFFECTS 25

APPENDICES

APPENDIX A

APPENDIX A.1 Location Plan

APPENDIX A.2 Phase 1 Habitat Plan

APPENDIX A.3 Site Images

APPENDIX A.4 Site Species List

APPENDIX A.5 GMEU Biological Records Summary

APPENDIX A.6 MAGIC Search Summary

APPENDIX A.7 Sites of Biological Importance (SBI) Location Plan

APPENDIX B

APPENDIX B.1 Bird Boxes for Buildings

APPENDIX B.2 Bird Boxes for Trees

APPENDIX B.3 Bat Boxes for Buildings

A INTRODUCTION

1 The principal author of the following report was Louisa Molloy BSc, Ecologist for Access Ecology Ltd.

2 Access Ecology Ltd was commissioned on 20th January 2017 by Simon Dennis of BTP Architects to undertake ecological survey works at the location listed within Table 1. The broad location of the site is included in APPENDIX A.1.

Table 1. Site Location Details

SITE ADDRESS	GRID REFERENCE (SITE CENTROID)
Scout Drive, Wythenshawe	SJ8096487635

3 This report has been designed to comply with standard reporting guidelines provided within both the *British Standard Biodiversity – Code of practice for planning and development – BS 42020:2013* (BSI, 2013) and the *Chartered Institute of Ecology and Environmental Management Guidelines for Ecological Report Writing* (CIEEM, 2015).

A.1 Background to Survey

4 The site subject to the assessment is parcel of land with an area of approximately 0.25a situated on Scout Drive in the Wythenshawe area of South Manchester. The site is composed mainly of grassland with scrub present on north western and south eastern boundaries. There also are two trees within the boundary of the site. Collections of fly-tipped materials are present mainly concentrated along the north western boundary.

5 The site is bounded to the south west by Scout Drive (including the Newell Green Hotel and Newell Green High School), residential gardens to the north west, a school building to the south east and a playing field to the north east. Palisade fencing is present on all boundaries except for the north western boundary which is composed of wooden fence panels. The north eastern section of palisade fencing is not the true survey boundary as the proposals for the site extend slightly beyond this by approximately 20m into the adjacent grassland.

6 The landscape to the north and east of the site mainly comprises of residential housing, gardens, and associated infrastructure. The M56 motorway is approxaimtely 800m to the east. There are pockets of green space interspersed between the built-up areas, such as Rodger's Park (approx. 650m north west) and Milky Button Park, which the Mill Brook flows through (approx. 350m east). Trees provide moderate connectivity to these areas for species using the tree line, although connectivity is likely to be reduced for less mobile species due to the presence of roads and impenetrable garden fences.

7 To the south west of the site, beyond the hotel and school, is a large area of farmland with a good network of hedgerow boundaries and small pockets of woodlands. Again, trees provide moderate connectivity between here and the site for mobile species using the tree

line to commute/forage, however the built up nature of the land between these areas is likely to provide a barrier to less mobile species.

8 Access Ecology Ltd has been provided with the plan as shown within Table 2. The plan shows a proposal to construct an apartment building on the site containing 20 units, 20 parking spaces with any remaining areas soft landscaping.

Table 2. Pre-existing Information

TYPE	ITEM TITLE / REFERENCE	DATE ISSUED / PUBLISHED
Plan	Feasibility Layout (20 Units)/ LD-BTP-10-DR-A-2889_F010	09/15/16

A.2 Purpose of the Report

9 Table 3 shows the purpose of the report.

Table 3. Purpose of the Report

OBJECTIVES
To identify and assess the impacts of the development proposal on ecological features, particularly and significant effects and impacts on any designated sites or protected species.
To highlight how significant ecological effects will be avoided or mitigated for wherever possible
To outline appropriate compensation and enhancement measures

A.3 Survey Validity

10 The results of this report are considered to be valid for up to two years of the date of publication: February 2017.

B PLANNING POLICY AND LEGISLATION

11 This legal information is presented in summary form and is intended for general guidance only. It is recommended the original documentation is referred to for detailed and definitive information. Web addresses are located in section H.1.

Habitat Regulations

12 The Conservation of Habitats and Species Regulations 2010 transpose Council Directive 92/43/EEC on the Conservation of Natural Habitats and Wild Flora and Fauna (Habitats Directive) into English law, making it an offence to deliberately capture, kill or disturb wild animals listed under Schedule 2 of the Regulations. It is also an offence to damage or destroy a breeding site or resting place of such an animal (even if the animal is absent at the time).

Wildlife & Countryside Act 1981

13 The Wildlife and Countryside Act 1981, as amended by the Countryside and Rights of Way Act (CRoW) 2000 and the Natural Environment and Rural Communities Act (NERC) 2006 (which also places a duty on authorities to have due regard for biodiversity and nature conservation) consolidates and amends existing national legislation to implement the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) and Council Directive 79/409/EEC on the Conservation of Wild Birds (Birds Directive), making it an offence to:

14 Intentionally kill, injure or take any wild bird or their eggs or nests (with certain exceptions) and disturb any bird species listed under Schedule 1 to the Act, or its dependent young while it is nesting;

15 Intentionally kill, injure or take any wild animal listed under Schedule 5 to the Act; intentionally or recklessly damage, destroy or obstruct any place used for shelter or protection by any wild animal listed under Schedule 5 to the Act; intentionally or recklessly disturb certain Schedule 5 animal species while they occupy a place used for shelter or protection;

- Pick or uproot any wild plant listed under Schedule 8 of the Act.
- Plant or otherwise cause any species listed in part 2 of Schedule 9 (Which includes Japanese Knotweed) to grow in the wild.

National Planning Policy Framework

16 The NPPF outlines government planning policies and how they should be applied within local authorities. The framework places an emphasis on sustainable development, encouraging the re-use of land that has previously been developed over using land that has a higher environmental value and by minimising impacts on biodiversity. The NPPF states

that developments should aim to conserve or enhance biodiversity and encourages opportunities to incorporate biodiversity in and around developments.

Biodiversity Action Plans

17 The original objective of the UK Biodiversity Action Plan (UKBAP) was to fulfil the requirements of the Rio Convention on Biological Diversity in 1992, to which the UK is a signatory. A list of national priority species and habitats has been produced with specific action plans defining the measures consider necessary to ensure their conservation. Regional and local BAPs have also been developed for species/habitats of nature conservation importance both regionally and locally.

Local Structure Plans

18 County, District and Local Councils have Structure Plans and other policy documents that include targets and policies which aim to maintain and enhance biodiversity through the planning system.

C METHODOLOGY

C.1 Scope of the Assessment

C.1.1 Zone of Influence

19 The proposal for the site is to construct an apartment building on the site containing 20 units, 20 parking spaces with any remaining areas utilised for soft landscaping.

20 The predicted zone of influence, in the main, is considered to be the site and a 25m buffer around the site due to the absence of direct pollution corridors (i.e. watercourses) between the site and habitats in the wider area. However, due to the moderate connectivity that the site has to habitats in the wider area, the potential zone of influence for highly mobile species (i.e. badgers, bats and nesting birds) has been considered up to 2km from the site.

C.1.2 Ecological Resources/Features Considered Relevant

21 Table 4 lists the ecological resources/features that are considered within this report. These resources/features are considered relevant to the site and type of development proposed.

Table 4. Ecological Resources/Features Considered Relevant

RESOURCE/FEATURE
Internationally Designated Wildlife Sites
Nationally Designated Wildlife Sites
Locally Designated Wildlife Sites
European Protected Species
Section 41 Habitats and Species
LBAP Habitats or Species

C.2 Desk Study

C.2.1 Records Data Search

22 Ecological record information for the site and surrounding area was requested from the organisations included within Table 5. The type of records requested and the distance from the site are also included within Table 5.

Table 5. Consulted Records Organisation

DATE CONSULTED	ORGANISATION	RECORDS REQUESTED
23rd January 2017	Greater Manchester Ecology Unit (GMEU)	All protected and notable species records within 2km of the site
6th February 2017	Multi-Agency Geographic Information for the Countryside (MAGIC)	Granted EPSM Mitigation Licences (bats & great crested newts) within 2km radius of the site

C.2.2 Designated Wildlife Sites

23 Information regarding designated wildlife sites within the local area was requested from the organisations within Table 6.

Table 6. Organisations Consulted with Regards Designated Wildlife Sites

DATE CONSULTED	ORGANISATION	RECORDS REQUESTED
6th February 2017	Multi-Agency Geographic Information for the Countryside (MAGIC)	Local Nature Reserves, National Nature Reserves, Ancient woodland, Sites of Special Scientific Interest, Areas of Outstanding Natural Beauty, Special Areas of Conservation, Special Protection Areas, Important Bird Areas, National Parks or Ramsar sites within a 2km radius of the site.
23rd January 2017	Greater Manchester Ecology Unit (GMEU)	Sites of Biological Importance within a 2km radius of the site.

C.3 Field Survey

24 Table 7 lists the surveys carried out on site and the personnel who undertook them. Summary methodologies are also provided below.

Table 7. Survey, Dates, Type and Personnel

DATE(S)	SURVEY TYPE	PERSONNEL
1st February 2017	Phase 1 Habitat Survey	Belinda Wiggs BA Hons, Senior Ecologist, MCIEEM (Natural England Bat Licence No. 2015-15859-CLS-CLS) and Louisa Molloy BSc Hons, Ecologist, Grad CIEEM (Natural England Bat Licence No. 2016-22694-CLS-CLS)
	Ground-based Risk Assessment of Trees for Bats	
	Other Protected and Notable Species Risk Assessment	

C.3.1 Phase 1 Habitat Survey

25 The Phase 1 Habitat Survey was carried out in accordance with the standard methodology as described in the Joint Nature Conservation Committee Phase 1 Habitat Survey handbook (JNCC, 2003), with minor adjustments to illustrate and examine the habitats with greater precision. Target notes have been used to annotate areas of the site of ecological interest including, where applicable, the presence of controlled invasive species.

C.3.2 Ground-based Risk Assessment of Trees for Bats

26 Trees within the curtailment of the site were visually assessed from the ground for potential bat roosting features in accordance with the methods outlined in *Bat Surveys for Professional Ecologists Good Practice Guidelines* (Collins, J. (ed.), 2016).

27 Each tree was inspected for features which may be used by roosting bats including natural holes, woodpecker holes, cracks/splits in major limbs, loose bark, dense thick-stemmed ivy, hollows, cavities and bird or bat boxes.

28 When a roost is positively identified during the assessment, the tree within which the roost is identified is classed as roost present. Other trees are classed as having high, moderate, low or negligible potential to contain bats roosts based upon the number and quality of features present, and the trees position in relation to surrounding environs.

C.3.3 Other Protected and Notable Species Risk Assessment

29 The habitats within the curtailment of the site and within a 25m radius of the site boundary were assessed for their suitability to support, or searched for field signs indicating the presence of, other protected and notable species including (but not limited to) badgers, reptiles and nesting birds.

C.4 Assessment Methodology

C.4.1 Evaluation of Ecological Features

30 The following criteria have been used to assess the value of any identified receptors within the identified zone of influence. The criteria have been applied to the habitats and species that need to be assessed because they are of biodiversity value rather than because they are legally protected (although it is recognised that there may be overlap).

- The habitats, vegetation plant and animal life have been evaluated with reference to standard nature conservation criteria as described by Ratcliffe (1977) and the Nature Conservancy Council (1989). These are size (extent), diversity, naturalness, rarity, fragility, typicalness, recorded history, position in an ecological or geographical unit, potential value and intrinsic appeal;
- The National Vegetation Classification (NVC) was used to evaluate those habitats that can be assessed in terms of plant communities.
- Government advice on wildlife, as set out in NPPF, has been taken into consideration. References to have been made to the associated documents, namely the Countryside and Rights of Way Act.
- Attention has also been given to the objectives of the UKBAP and to local BAPs and species action plans.

31 In addition to the actual value of habitats and wildlife, secondary (or supporting) value, potential value and social value have been considered. For example, some features that are currently of no particular ecological interest in themselves may nevertheless perform an ecological function, e.g. because they act as a buffer against negative impacts, or because they enable in some other way the effective conservation of a more valuable feature. An example of a feature which is of secondary value is the presence of small pockets of green spaces within an urban environment as the green spaces may create ‘stepping stones’ and contribute to the dispersal, migration and genetic exchange of wild species (including protected species).

32 Where possible, the potential value of a feature has been recognised. The potential value of a feature is related to the ease by which a feature (such as a habitat) can be altered for example by a change in the management to improve and enhance the feature and possible achieve biodiversity targets as defined in the UK and Local BAPs.

33 Using the evaluation tools described above a set of Valued Ecological Receptors has been identified. The value assigned to a receptor determines the geographic scale at which the impact is significant. The ecological receptor is considered valuable (or has the potential to become valuable) on the scale detailed in Table 8 below.

Table 8. Criteria for Determining Value

RECEPTOR VALUE	DESCRIPTION
International	International importance, plus biodiversity assets such as: • Internationally (including European) designated sites: Special Protection Area (SPA), Ramsar, Special Area for Conservation (SAC); • A site which meets the criteria for designation as an international site but is not designated; • A significant* population of a European protected species in this geographical region; • A small population of a European protected species not typical of the geographical region. *e.g. a population of bird species representative of more than 1% of the international population.
National/UK	National importance, plus biodiversity assets such as: • Nationally designated sites: Sites of Special Scientific Interest (SSSI), National Nature Reserve (NNR); • A site which meets the criteria for designation as a national site but is not designated; • A significant* population of a more common and widespread European protected species in this geographical region. • A significant population of a protected species under all parts of Schedule 1, 5 or 6 of the Wildlife and Countryside Act 1981 e.g. badger *e.g. a population of bird species representative of more than 1% of the national population.
Regional	Regional importance, plus biodiversity assets such as: • A good/typical example of a UK BAP Priority Habitat that satisfies all the criteria in the Priority Habitat definition but is in some way slightly enhanced (e.g. presence of a species that is localised in the region) • A regularly occurring, locally significant population of a species listed as being nationally scarce
County/ District	County or District importance, plus the biodiversity assets such as: • Sites of county importance (non-statutory) designated by local authorities or others, including semi-natural ancient woodland greater than 0.25ha, and species equivalents. In North East Derbyshire these are known as Local Wildlife Sites (LWSs) • UK Biodiversity Action Plan (BAP) Priority Habitats as defined by Section 74 of the Countryside and Rights of Way Act 2000 and UK BAP (2007). • Significant populations of UK Biodiversity Action Plan Species as defined by Section 74 of the Country side and Rights of Way Act and the UK BAP (2007).
Local	Local/Parish importance, plus biodiversity assets such as: • Populations of UK BAP Priority Species which are not considered to be exceptional or of significance in the local geographic area.

RECEPTOR VALUE	DESCRIPTION
	• Areas of habitat which appreciably enrich the habitat resource in the local or parish contexts but are not of substantive biological importance e.g. local green spaces and wildlife corridors within an urban area • Habitats and species listed on the Local BAP (but not already listed as UK BAP Priority Habitats and Species)
Within the zone of immediate influence only/ Site	Less than local importance, with very limited biodiversity assets such as: • Species poor vegetation communities; • Typical populations of common and widespread mammal, bird, amphibian and/or reptile species. • Habitats which are sub-optimal for use by wildlife because of problems with the structure, species composition and/or very limited in size.
Negative	Presence of species of flora or fauna listed under Schedule 9 of the Wildlife and Countryside Act 1981 or other non-native invasive/injurious species that have potential to have a significant impact on the native flora and fauna and could be considered to have an ecological, commercial or social adverse effect, usually at the local or site level.

C.4.2 Assessment of Impacts

34 Assessment of potential ecological impacts resulting from the implementation of the proposed development is based on predicting ecologically significant changes (impacts) to the baseline conditions of the site that are likely to occur.

35 Impacts are predicted based on the potential effects that the proposals would have on those aspects of ecological structure and function on which the identified Valued Ecological Receptors depend. Natural trends and inherent resilience of a receptor have been considered and changes will be discussed using the following headings:

- Direction (positive/negative): whether the effect will result in net loss or degradation of a Valued Ecological Receptor or whether it will enhance or improve it;
- Magnitude and/or extent of impact;
- Duration (short-or long-term, where short-term is defined and the duration of anticipated activity which results in an effect);
- Reversibility (chance of recovery/replacement within a reasonable timeframe); and
- Timing and frequency: consideration of the timing of events in relation to ecological change. Some effects may be of greater significance if they take place at certain time of year (e.g. breeding season). The extent to which an effect is repeated may also be of importance.

36 Each ecological receptor has been assessed to determine the likely construction and operational impacts of implementation of the development proposals, to outline any mitigation required and to highlight residual impacts.

37 A precautionary approach has been taken in the prediction of impacts. Where there is any doubt, the impact is given at a higher level.

38 Table 9 details the criteria used in the assessment of magnitude of an identified impact on the identified Valued Ecological Receptors.

Table 9. Magnitude of Impact for Ecological Assessment

MAGNITUDE OF IMPACT	DESCRIPTION
Major	The proposed development would cause a large change to existing environmental conditions. This includes major effects on the integrity of large-scale and ecological significant areas; the land being affected is likely to comprise a designated site (SPA, SAC, SSSI etc.) or key habitats as listed in the UK BAP (lowland meadow, lowland dry acid grassland, standing open waters etc.) and/or support significant populations of statutory protected species.
Moderate	The proposed development would cause a noticeable change to existing environmental condition. This includes major effects on a scale that would affect a moderate proportion of an area that is considered to be ecologically important, including designated sites, key habitats, and local sites of substantive biological importance (LWSs) but will not affect the overall integrity of the area, Also included here are minor scale effects on protected species.
Minor	The proposed development would cause a small change to existing environmental conditions. This includes major effects on common wildlife habits, common types of semi-natural vegetation and minor but valuable wildlife features in the landscape. Other important but not protected species may experience temporary disturbance and minor effects.
Negligible	The proposed development would cause no discernible change to exiting environmental conditions. Temporary or very small-scale damage to common types of semi-natural vegetation or habitat, or minor losses of such habitat is included here. This includes minor effects on very common wildlife species.

C.4.3 Significance Criteria

39 An ecologically significant impact is defined as one that affects the integrity of a site or ecosystem, or the conservation status of a habitat or species within a geographical area.

40 It must be recognised that there are limitations associated with the scope of any assessment. The relevance of surveys conducted at this stage must be considered at the time of implementation of site specific proposals. This would be achieved through the projection of current baseline conditions through the provision for updated survey to refine assessments throughout the development period. This is dealt with in the ecological evaluation (Section F of this EcIA).

41 The significance has been assessed on the basis of the value of the features and the magnitude of effects taking into account professional judgement.

42 It is generally the case that no significant effect can occur to features of less than local importance, other than in exceptional circumstances such as where a feature has high social or economic value, or the magnitude effect is particularly high.

D BASELINE ECOLOGICAL CONDITIONS

D.1 Records Data Search

44 Greater Manchester Ecology Unit (GMEU) returned several species records. Those considered most relevant to the habitats within the site, the predicted zone of influence and the proposed development have been extracted and their relevance discussed in relation to each species in Section E.4. A summary table of the relevant ecological records is included as APPENDIX A.5.

45 The search of the MAGIC database did not reveal the presence of any granted (European Protected Species Mitigation (EPSM) licences from within a 2km radius of the site.

D.2 Statutory and Non-Statutory Designated Sites

46 The search of the MAGIC database revealed that there is one Local Nature Reserve (LNR) within a 2km radius of the site. Wythenshawe Park LNR is located approximately 1.85km from the site, although the centroid of the LNR puts it at 2.23km from the site. The LNR supports a variety of woodland habitats in and around the park. Additionally GMEU provided 6 records of Sites of Biological Importance (SBI) from within a 2km radius of the site. None of these designated sites are within or directly adjacent to the site, or connected to the site by a direct pollution corridor.

47 A summary table of all the designated sites is provided in APPENDIX A.6 and A.7.

48 The search of the MAGIC database revealed that there are no National Nature Reserves, National Parks, Areas of Outstanding Natural Beauty, Ramsar Sites, Special Areas of Conservation, Special Protection Areas or Ancient Woodlands within a 2km radius of the site.

D.3 Habitats

49 Three habitat types were recorded within the site boundary. A Phase 1 Habitat Plan of the site is provided in APPENDIX A.2. The plant species list is recorded in APPENDIX A.3. Site images can be seen in APPENDIX A.4. A description of each habitat is provided below.

D.3.1 Grassland

50 The main habitat is semi-improved, neutral, un-mown rank grassland with a tussocky sward of common grasses such as creeping bent *Agrostis stolonifera* and cock's foot grass *Dactylis glomerata*. The grassland herbs include common species such as dandelion *Taraxacum officianale,* broad leaved dock *Rumex obtusifolius* and ribwort plantain *Plantago lanceolata*. There are clumps of species usually associated with wet marshy grassland such as pendulous sedge *Carex pendulosa*, soft rush *Juncus effuses* and hard rush *Juncus inflexus*.

51 On the re-vegetated hardstanding is frequent herb Robert *Geranium robertianum* and moss.

D.3.2 Scrub

52 Dense continuous scrub occurs in a swathe along the north-western boundary with frequent bramble *Rubus fruiticosus,* and occasional holly *Ilex aquifolium* and silver birch *Betula pendula* saplings. Tall ruderals of great willow herb *Epilobium hirsutum* also occur here.

53 In the north western corner is a stand, approximately 2m x 2m of Japanese knotweed *Fallopia japonica,* which extends through the fence and into the adjacent field off-site. Japanese knotweed is a non-native invasive species.

54 In the eastern corner is an area of hawthorn *Crataegus monogyna* and privet *Ligustrum ovifolium* scrub.

55 Across the site are bushes of brook *Cytisus scoparia,* buddleija *Buddleija davidii,* hawthorn saplings and bramble scrub.

D.3.3 Scattered Trees

56 Near the centre of the site is a mature oak *Quercus petraea.* It has a depth at breast height of approx 1.5m, is approximately 12m high with a crown width of approximately 10m.

57 In the south eastern corner is a semi-mature, multi stemmed sycamore.

D.3.4 Controlled Invasive Species

58 A 2m x 2m stand of Japanese knotweed, which is a controlled, non-native, invasive species, was observed within the site in the north eastern corner, spreading off this site onto the adjacent field.

D.4 Species

D.4.1 Bats

59 None of the trees within the curtailment of the survey area contain features to support roosting bats. As a result, all trees within the survey area are classed as having **negligible** potential to support roosting bats. Additionally, there were no historical bat roost records returned from the biological records for the site, with the closest roost record being of a pipistrelle *Pipistrellus sp.* bat roost approximately 400m south/ south west of the site.

60 The trees within the site are considered to offer moderate suitability for commuting and foraging for bats, particularly due to their connectivity to suitable roosting, foraging and commuting habitats in the wider area via the treeline and residential gardens.

61 The biological records provided by GMEU indicate that bats are active in the wider area, with 10 roost records and over 30 field records of bats provided in data. Species recorded in the data are mainly pipistrelle bats, both common *Pipistrellus pipistrellus and* soprano *P. pygmaeus*, with some single records for brown long-eared *Plecotus auritus*, Daubenton's bat *Myotis daubentonii* and noctule *Nyctalus noctula.*

62 **Great Crested Newts**

63 There are no waterbodies within the curtailment of the site. There are 18 waterbodies within 1km of the site; however all of these are located to the south and south west of the site in a large tract of farmland (Newell Green). Only 2 of these 18 waterbodies are within 500m of the site, the closest of which is a single waterbody within the grounds of Newell Green High School approximately 120m south of the site. This waterbody is in a fenced-off wildlife area and is surrounded by hard-surfaces and was not accessible during the site visit. The remaining waterbody is approximately 470m south west of the site.

64 The habitats within the survey site are considered to offer moderate potential for terrestrial great crested newts although there is a lack of suitable connective habitat between the site and the closest pond in the school grounds and the kerbed pavements are considered to offer a barrier to dispersal.

65 Moreover, the habitats to the south of the school pond, both terrestrial and aquatic, are considered to be more suitable for great crested newts as indicated by the 23 records of great crested newts returned in the biological data, which are all from this area.

66 As a result it is considered highly unlikely that great crested newts will be present within the site proposed for development.

D.4.2 Reptiles

67 The habitats within the site are considered to offer low suitability for reptile species due to the lack of suitable structure within the habitat and lack of connectivity to and from other suitable habitats within the wider area. The low suitability of the site is reduced further by the presence of domestic housing surrounding the site which increases chances of predation by domestic cats.

68 No evidence of reptiles was observed during the survey and no records of reptiles were returned in the biological data for the survey area or from within a 2km radius of the site. As a result it is considered highly unlikely that reptiles will be present within the site proposed for development.

D.4.3 Nesting Birds

69 The trees and scrub within the survey area are considered to offer suitable nesting habitat for common tree and garden birds such as song thrush *Turdus philomelos*, house sparrow *Passer domesticus and* dunnock *Prunella modularis.*

70 The grassland within the site may also offer suitable foraging habitat for the above birds, as well as starlings *Sturnus vulgaris*, particularly given that the houses surrounding the site may offer suitable nesting opportunities for the latter. Records of all these species were returned in the biological records, although none of these were for the site itself.

D.4.4 Badgers

71 No badger *Meles meles* setts, latrines, snuffle holes or hairs were observed within the survey area or the immediate surrounds. Some narrow mammal paths were observed leading into the bank of dense continuous scrub against the north western boundary, however, they were not well-worn or considered wide enough to be attributable to badgers and are more likely to be from domestic cats.

72 No records of badger setts or field signs were returned from within the site, with the closest sett record being over 1km north of the site. Whilst this indicates that badgers are present in the wider area, the palisade and panel fencing on the site boundaries is likely to offer a barrier to badgers entering the site, although some of this fencing is likely to be removed once the development works commence and so it is possible that badgers may occasionally enter the work area.

E ECOLOGICAL EVALUATION

E.1 Evaluation of Ecological Receptors

73 This section provides an account of the valued ecological receptors including nature conservation sites, habitats and species identified within the potential zone of influence of the development proposals. The identification of ecological receptors is based on the desktop study and field surveys.

E.2 Statutory and Non-statutory Designated Sites

74 None of the identified designated sites are within, adjacent to, or connected to the site by a direct pollution corridor. As none of the sites will be affected directly affected by the proposed development, no further consideration is required at this stage.

E.3 Habitats

E.3.1 Scattered Trees

75 The two scattered trees within the site will be lost to the proposed development according to the plans for the site. The sessile oak tree at the centre of the site is a particularly good example of a mature oak tree and both trees are considered to be of **local** value.

E.3.2 Remaining Habitats

76 The remaining habitats within the site are of relatively low ecological value, although they do have value as an open space and connective habitat in a built-up urban area. However, they are not the only connective habitat in the locality and as a result are considered to be **site** value only.

E.4 Controlled Invasive Species

77 Japanese Knotweed is present within the site on the western boundary. This plant is extremely invasive and as a result it is considered to be of **negative** value.

E.5 Species

E.5.1 Bats

E.5.1.1 Roosting

78 The trees within the site have negligible potential to support roosting bats. As a result no further consideration is required at this stage.

E.5.1.2 Foraging and Commuting

79 It is considered likely that common bat species may ocassionally utilise habitats within the site for foraging and commuting purposes and as a result these habitats are considered to be of **site** value for bats.

E.5.2 Great Crested Newts

80 The assessment has found that it is highly unlikely that great crested newts will be present within the area proposed for development. As a result, no further consideration is required at this stage.

E.5.3 Reptiles

81 The assessment has found that it is highly unlikely that reptiles will be present within the area proposed for development. As a result, no further consideration is required at this stage.

E.5.4 Nesting Birds

82 The assessment has found that there is suitable, albeit limited, nesting and foraging habitat for birds in the area proposed for development. Due to the amount and structure of suitable nesting and foraging habitat it is unlikely that the site will support no more than typical populations of common birds and as a result these features are considered to be of **site** value only for birds.

E.5.5 Badgers

83 The assessment has found that badgers may occasionally be present within the site for commuting and foraging purposes. As a result, the site is considered to be of **site** value for badgers.

F ASSESSMENT OF IMPACTS

F.1 Brief Outline and Appraisal of Proposals

84 The proposal for the site is to construct an apartment building on the site containing 20 units, 20 parking spaces with any remaining areas utilised for soft landscaping. This will more than likely initially result in the total loss of the existing habitats on the site (excluding the electricity substation). However, once constructed approximately 20% of the site area will be soft landscaping.

85 The impact assessment is based on the proposed layout of the development shown on plan *Feasibility Layout – (10 Unit Option)/ DS-BTP-OO-SP-DR-A-2913_F002.2.* If these proposals change significantly, the impact assessment should be undertaken against the new plans for the site.

86 It is understood that the development will not be phased.

F.2 Future Ecological baseline Conditions without the Development

87 Without the proposed development the current land use across the site is unlikely to change significantly within 10 years.

88 This means that the site will continue to be unmown; resulting in a poor floristic diversity in the grassland and the continued development of scrub across the site. This will, if unmanaged, continue and eventually will succeed to young woodland.

89 An exception to this may be the revegetating hardstanding to the east of the site, although with buddleija already present on the site, this is likely to become the main habitat type on a site such as this i.e. in an urban location with no/ very little disturbance.

F.3 Identification of Sources of Potential Impacts

90 Each identified valuable ecological receptor has been assessed to determine the likely construction and operational impacts of implementation of the proposed development, to identify any mitigation required and to determine any residual impacts.

91 Both qualitative and quantitative information has been used to identify likely significant ecological impacts.

92 Impacts associated with the following activities on identified valued receptors at the site clearance/ construction and operational phases are discussed in the following section.

F.3.1 Potential sources of Impacts during Site Clearance/ Construction

93 The potential sources of impacts during the site clearance/construction period are listed below:

- Habitat Loss;
- Spreading of invasive species;

- Disturbance/Injury/death or damage to during vegetation clearance, earthworks and operation of machinery (including pollution from spills, dust and sedimentation);

F.3.2 Potential Sources of Impacts during Operation (post-development)

94 There are no potential sources of impacts present in the operational phase of the development.

F.4 Assessment of Impacts

F.4.1 Scattered Trees

F.4.1.1 Impacts

Habitat Loss

95 The loss of a semi-mature sycamore and a mature oak tree will result in a **minor negative significance impact at local level**. The impact will be permanent and irreversible.

F.4.1.2 Mitigation

Habitat Loss

96 Not applicable .

F.4.1.3 Residual Effects

Habitat Loss

97 A minor negative significant impact at local level.

F.4.2 Remaining Habitats

F.4.2.1 Impacts

Habitat Loss

98 All of the remaining existing vegetative habitats will be lost during the initial site clearance and construction period. These habitats are assessed as being of low ecological value and therefore the loss of these habitats is assessed as having a **negligible negative insignificant impact at site level**.

F.4.2.2 Mitigation

Habitat Loss

99 Not applicable.

F.4.2.3 Residual Effects

Habitat Loss

100 A negligible negative insignificant impact at site level.

F.4.3 Japanese Knotweed

F.4.3.1 Impacts

Spreading of Invasive Species

101 There is significant potential for the Japanese knotweed, present on the western site boundary, to be spread into adjacent areas during the site clearance and construction phase of the development. This is assessed as having a **moderate negative significant impact**.

F.4.3.2 Mitigation

Spreading of Invasive Species

102 There is no obligation to remove or treat invasive plants, however landowners must not:

- Allow invasive plants to spread onto adjacent land – the owner of that land could take legal action against you.
- Plant or encourage the spread of invasive plants outside of your property – this can include moving contaminated soil from one place to another or incorrectly handling and transporting contaminated material and plant cuttings.

103 As a result, prior to any works commencing on the site the advice of a contractor who specialises in the removal of Japanese knotweed will be sought so that a suitable working method statement can be put in place to prevent the spread of the plant into adjacent areas.

F.4.3.3 Residual Effects

Spreading of Invasive Species

104 Subject to the recommended mitigation measures being implemented and suitable methods statements being in place there will be no significant or insignificant residual effects.

F.4.4 Bats – Foraging and Commuting

F.4.4.1 Impacts

Habitat Loss

105 The loss of moderately suitable foraging and commuting habitats for bats is considered to offer a **negligible negative insignificant impact at site level.**

F.4.4.2 Mitigation

Habitat Loss

106 Not applicable.

F.4.4.3 Residual Effects

Habitat Loss

107 A negligible negative insignificant impact at local level.

F.4.5 Nesting Birds

F.4.5.1 Impacts

Habitat Loss

108 There will be a loss of potential nesting bird habitat in the form of a scattered trees and scrub, and a loss of potential foraging habitat for birds in the form of the grassland. This habitat loss is assessed as having a **negligible negative insignificant impact at site level.**

Disturbance/Injury/Death to Individuals

109 Under the Wildlife and Countryside Act 1981, as amended (section 1), it is an offence to remove, damage or destroy the nest of any wild bird while that nest is in use or being built. Planning consent for a development does not provide a defence against prosecution under this act.

110 The removal of potential bird nesting habitat may result in the destruction/damage of nests and therefore a breach of the above law. If unmitigated, the removal of the potential nesting habitat would offer a **minor negative significant impact at the site level.**

F.4.5.2 Mitigation

Habitat Loss

111 Not applicable

Disturbance/Injury/Death to Individuals

112 The following reasonable avoidance measures will be put in place to ensure the protection of nesting birds throughout the clearance and construction phase.

- In order to minimise the risk to nesting birds, vegetation clearance works (where possible) will be conducted outside the main bird nesting period – 1st March to 31st August.
- All habitats present on the site (with the exception of the grassland) will be assumed to contain nesting birds between 1st March and 31st August, inclusive, unless a recent pre-works inspection has been undertaken by a competent ecologist to assess the nesting bird activity on site during this period which has shown with absolute certainty that nesting birds are not present.
- Workers will be made aware of the potential for nesting birds on the site. If at any point during the development active bird nests are suspected to be within the work area, works will be suspended immediately and the advice of a suitably experienced Ecologist sought.

F.4.5.3 Residual Effects

Habitat Loss

113 A negligible negative insignificant impact at site level.

Disturbance/Injury/Death to Individuals

114 With the recommended mitigation in place there will be no significant or insignificant residual effects.

F.4.6 Badgers

F.4.6.1 Impacts

Disturbance/Injury/Death to Individuals

115 It is considered possible that badgers may occasionally pass through the site from adjacent areas. As a result, there is the potential for badgers to fall into and become trapped within open excavations. Without mitigation this is considered to offer a **minor negative significant impact at a site level.**

F.4.6.2 Mitigation

Disturbance/Injury/Death to Individuals

116 The following reasonable avoidance measures will be employed during the site clearance and construction phase of the development:

- Any trenches/excavations should be covered overnight or left with a suitable ramped escape route for badgers and other mammals.
- If a badger(s) is encountered, contractors should not attempt to capture or corner it as doing so is likely to result in unnecessary harm to the badger and unnecessary risk of being bitten to the contractor.
- If a badger(s) is encountered, a suitably qualified ecologist should be contacted immediately for advice.

F.4.6.3 Residual Effects

Disturbance/Injury/Death to Individuals

117 With the recommended mitigation in place there will be no significant or insignificant residual effects.

F.5 Summary of Residual Effects

118 Table 10 below provides a summary of residual effects.

Table 10. Summary of Residual Effects

Valued Ecological Receptor	Ecological Value	Identified Impact	Significance of Impact Without Mitigation	Mitigation Measure	Residual Effect
Scattered Trees	Local	Habitat Loss	Minor Negative Significant	Not Applicable	Minor Negative Significant
Remaining Habitats	Site	Habitat Loss	Negligible Negative Insignificant	Not Applicable	Negligible Negative Insignificant
Japanese Knotweed	Negative	Spread of Invasive Species	Moderate Negative Significant	Seek advice of a qualified knotweed contractor prior to site works commencing for an appropriate method statement	None/Neutral
Bats – Foraging and Commuting	Site	Habitat Loss	Negligible Negative Insignificant	Not Applicable	Negligible Negative Insignificant
Nesting Birds	Site	Habitat Loss (nesting and foraging)	Negligible Negative Insignificant	Not Applicable	Negligible Negative Insignificant
		Disturbance/Injury /Death to Individuals	Minor Negative Significant	Reasonable avoidance measures including vegetation clearance works timed to avoid bird nesting season (Mar-Aug inc.) or pre-works inspection by Ecologist	None/Neutral
Badgers	Site	Disturbance/Injury / Death to Individuals	Minor Negative Significant	Reasonable avoidance measures including covering trenches and a rescue strategy	None/Neutral

G COMPENSATION AND ENHANCEMENT

119 The following section has been included to compensate for the residual effects identified within Table 10 above.

G.1 Compensation

120 The only residual effects are in relation to habitat loss namely vegetative, bird nesting and foraging, and bat foraging and commuting. Much of this results in a **negligible negative insignificant** residual effect, with the exception of the loss of scattered trees, which due to their greater ecological value, has a **minor negative significant** residual effect.

121 The proposal plans for the site show that approximately 20% of the overall site area will be soft landscaping. In order to neutralise the **negligible negative insignificant** residual effects the developer should consider improving the quality of the soft-landscaping within the new development by implementing the following:

- Areas of soft landscaping shown on the proposal plan should be sown/ turfed with a species rich grass mixture/turf such as a EL1 – Flowering Lawn Mixture or Species Rich Lawn Turf (e.g. rhttp://wildseed.co.uk/mixtures/view/56 or http://www.wildflowerturf.co.uk/Products/species-rich-lawn-turf.aspx)
- At least five bird boxes should be placed across the new development. A selection of bird boxes is included as APPENDIX B.1 and B.2. Those considered most appropriate for the site are boxes for house sparrows and larger birds.

122 It is considered that, if integrated into the proposed development, the compensatory features described above will neutralise the **negligible negative insignificant** residual effects.

123 The **minor negative significant** residual effects in relation to the loss of the mature and semi-mature scattered trees are more difficult to compensate for in the short term. However, in order to reduce these effects the developer should plant at least ten new scattered trees in the areas of soft landscaping. At least five of these should be sessile oak trees. All of the remaining trees should be native species of known wildlife value, such as rowan Sorbus aucuparia, hawthorn Crataegus monogyna, field maple Acer campestre; bird cherry Prunus padus, holly Ilex aquifolium etc.

G.2 Enhancement

124 Should the developer wish to enhance the ecological value of the site and integrate bat boxes into the proposed development, a range of suitable examples are provided in APPENDIX B.3.

H REFERENCES

Anon, 1999. *Advice Sheet 10: Reptile Survey.* Peterborough: Froglife.

Arnold, N. & Ovenden, D., 2004. *Reptiles and Amphibians, Britain and Europe.* London: Collins.

BSI, 2013. *Biodiversity. Code of practice for planning and development.* [Online] [Accessed November 2014].

CIEEM, 2015. *Guidelines for Ecological Report Writing,* Winchester: CIEEM.

Collins, J (ed.) (2016) *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn).* The Bat Conservation Trust, London

English Nature, 2001. *Great crested newt mitigation guidelines,* Peterborough: English Nature .

Froglife, 1999. *froglife advice sheet 10 reptile surveys,* Peterborough: Froglife.

Hill, D., Fasham, M., Shewry, G. & Shaw, P. eds., 2007. *Handbook of Biodiversity Methods, Survey, Evaluation and Monitoring.* Cambridge : Cambridge University Press.

JNCC, 2010. *The Handbook for Phase 1 habitat survey, A technique for enironmental audit.* [Online]
Available at: http://jncc.defra.gov.uk/PDF/pub10_handbookforphase1habitatsurvey.pdf

Mitchell-Jones, A.J. & McLeish, A.P. [Eds.] (2004) The Bat Workers Manual (3rd edition). Joint Nature Conservancy Council, Peterborough.

Oldham, R. S., Keeble, J., Swan, M. & Jeffcote, M., 2000. Evaluating the suitability of habitat for the Great Crested Newt (Triturus cristatus). *Herpetological Journal,* 10(4), pp. 143-155.

Strachan, R., Moorhouse, T. & Gelling, M., 2011. *Water Vole Conservation Handbook, Third Edition.* Alcester: Wildlife Conservation Research Unit.

H.1 UK Legislation and Policy Web Addresses:

Conservation of Habitats and Species Regulations 2010:

http://www.opsi.gov.uk/si/si2010/uksi_20100490_en_1

Habitats Directive:

www.europa.eu.int/eur-lex/en/lif/dat/1992/en_392L0043

Wildlife and Countryside Act 1981:

www.opsi.gov.uk/RevisedStatutes/Acts/ukpga/1981/cukpga_19810069_en_1

Countryside and Rights of Way Act 2000:

www.legislation.hmso.gov.uk/acts/acts2000/20000037

Natural Environment and Rural Communities Act 2006:

http://www.opsi.gov.uk/acts/acts2006/ukpga_20060016_en_1

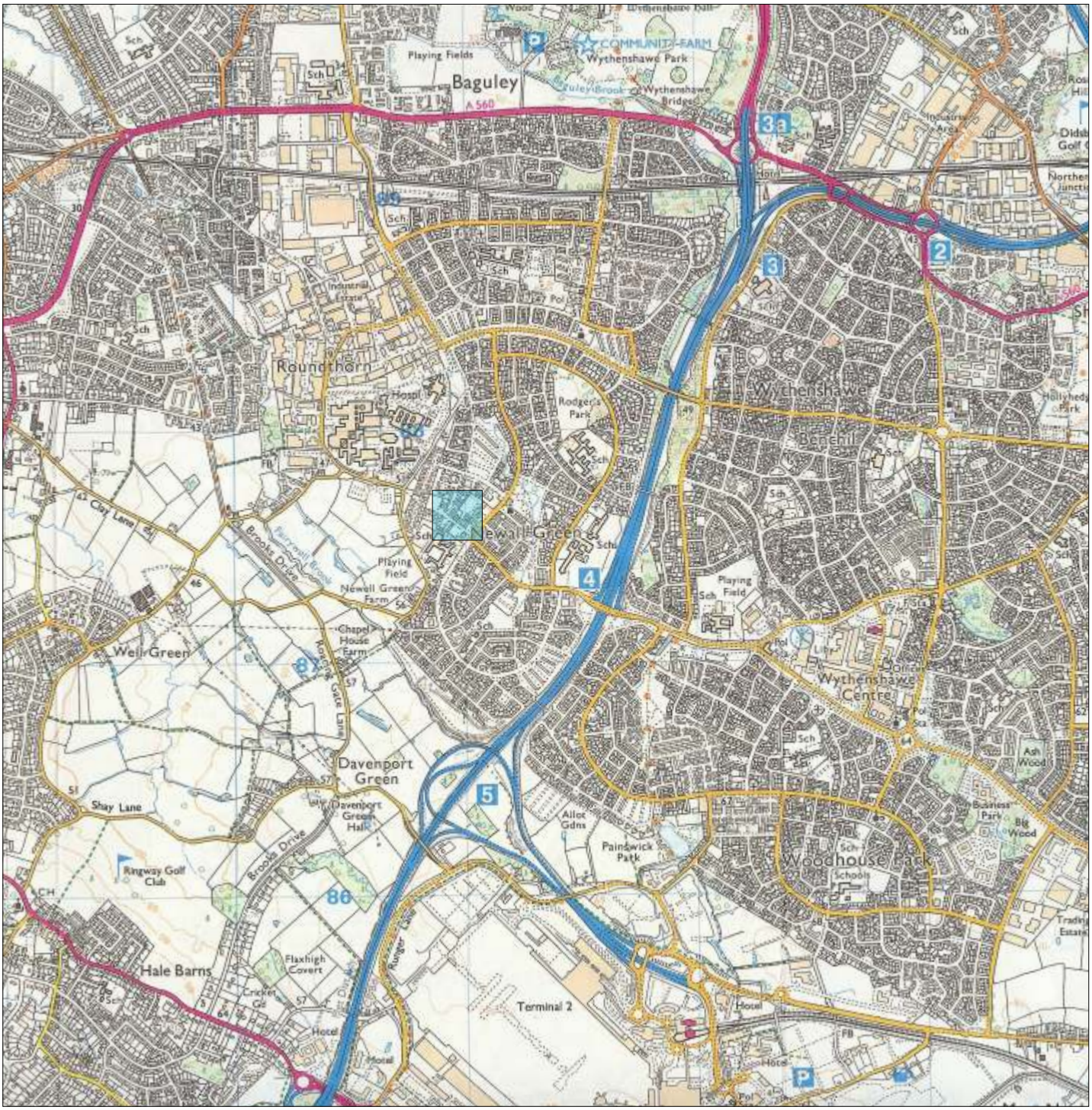
National Parks and Access to the Countryside Act 1949:

http://www.opsi.gov.uk/RevisedStatutes/Acts/ukpga/1949/cukpga_19490097_en_1

National Planning Policy Framework:

http://www.communities.gov.uk/publications/planningandbuilding/nppf

APPENDIX A

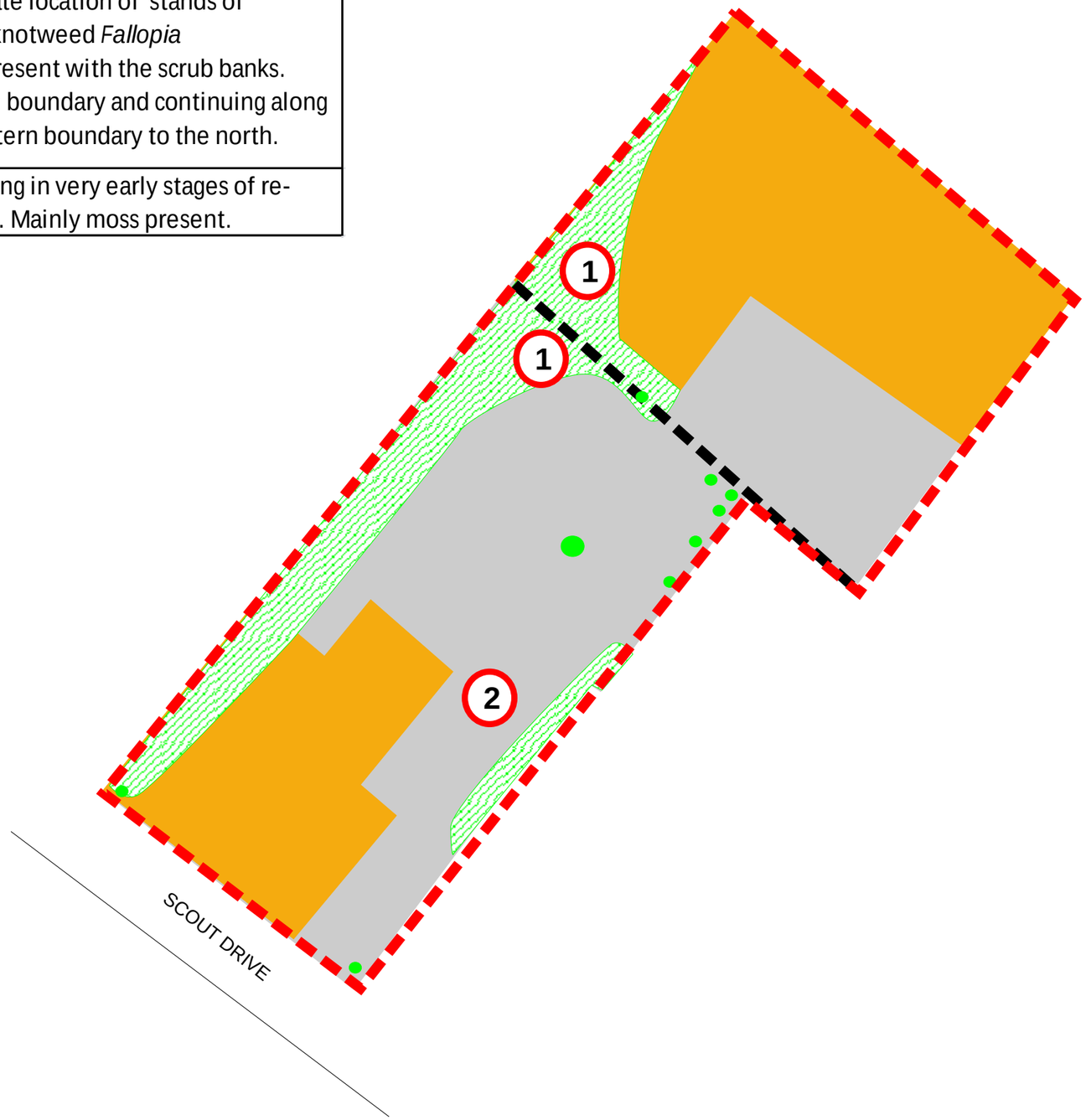


Reproduced from the original Ordnance Survey Map. With the permission of
Her Majesty's Stationary Office.
Crown Copyright
Licence Number: 100048739

N

accessEcology	Legend	Project	1219. Scout Drive, Wythenshawe
	Site location	Title	A.1 Location Plan
R1b Riverside Block Sheaf Bank Business Park Sheffield S2 3EN		Client	BTP Architects
		Date	February 2017
info@accessecology.co.uk	www.accessecology.co.uk	Ref	[1219]A.1[LM]loc

Target Notes	
No.	Description
1	Approximate location of stands of Japenese knotweed *Fallopia japonica* present with the scrub banks. Within site boundary and continuing along north-western boundary to the north.
2	Hardstanding in very early stages of re-vegetating. Mainly moss present.



N

Do not scale from plan

Legend

- Survey Area
- Palisade Fencing
- Scattered Trees
- Hardstanding
- Semi-improved Grassland
- Dense Continuous Scrub
- 1 Target Notes

accessEcology

R1b Riverside Block
Sheaf Bank Business Park
Sheffield
S2 3EN

info@accessecology.co.uk
www.accessecology.co.uk

Project	1219. Scout Drive, Wythenshawe
Title	A.2. Phase 1 Habitat Survey Plan
Client	BTP Architects
Date	February 2017
Ref	[1219]A.2[LM]P1

Re-vegetated hardstanding



Sycamores and rank grassland



Scrub along edge



Mature oak and scrub in corner



Mature oak



Mature oak



accessEcology

R1b Riverside Block
Sheaf Bank Business Park
Sheffield
S2 3EN

info@accessecology.co.uk

www.accessecology.co.uk

Project	1219. Scout Drive, Wythenshawe
Title	A.3. Site Images
Client	BTP Architects
Date	February 2017
Ref	[1219]A.3[BW]img

APPENDIX A.4 - SITE SPECIES LIST

Job Name / Number	1219 Scout Drive	Date	01/02/2017

Ecologists	BW LM	Time on site	

Area Reference	Habitat Type	Description
1	B2.2 Semi-improved neutral grassland	un-mown tussocky rank grassland
2	A2.1 Scrub	along edge of site and across the site
3	A3.1 Standard tree	mature oak

Species List

Area Reference	Common Name	Scientific Name	DAFOR
1	creeping bent grass	*Agrostis stonlifera*	**F**
	pendulous sedge	*Carex pendulosa*	**R**
	broom	*Cytisus scoparia*	**R**
	cock's foot grass	*Dactyllis glomerata*	**A**
	great willow herb	*Epilobium hirsutum*	**LO**
	herb robert	*Geranium robertianum*	**F**
	soft rush	*Juncus effusus*	**R**
	hard rush	*Juncus inflexus*	**R**
	ribwort plantain	*Plantago lanceolata*	**O**
	broad leaved dock	*Rumex obtusifolius*	**F**
	dandelion	*Taraxacum officianale*	**O**
	hairy tare	*Vicia hirsuta*	**R**
2	sycamore semi mature	*Acer pseudoplatanus*	**R**
	silver birch saplings	*Betula pendula*	**O**
	buddleija	*Buddleija davidii*	**O**

	hawthorn	*Crataegus monogyna*	**O**
	Japanese knotweed	*Fallopia japonica*	**LA**
	ash saplings	*Fraxinous excelsior*	**F**
	holly	*Ilex aquifolium*	**O**
	privet	*Ligustrum ovifolium*	**O**
	oak mature	*Quercus petraea*	**R**
	bramble	*Rubus fruiticosus*	**LA**
3	oak mature	*Quercus petraea*	**R**

D = Dominant
A = Abundant
F = Frequent
O = Occasional
R = Rare
L = Localised

APPENDIX A.5 – Biological Records Summary

Group	Taxa	Scientific Name	Common Name	Record Type	Date	Grid Ref.	Distance (km) from Site	Bearing o
GMEU	Terrestrial Mammal	Pipistrellus sp.	Pipistrelle sp	Field record	13/10/2004	SJ809875	0.15	205.36
GMEU	Terrestrial Mammal	Pipistrellus pipistrellus	Common Pipistrelle	Field record	22/05/2012	SJ80828730	0.36	203.26
GMEU	Terrestrial Mammal	Pipistrellus sp.	Pipistrelle sp	Field record	03/07/2015	SJ81058727	0.37	166.74
GMEU	Terrestrial Mammal	Pipistrellus sp.	Pipistrelle sp	Field record	03/07/2015	SJ81058727	0.37	166.74
GMEU	Terrestrial Mammal	Pipistrellus sp.	Pipistrelle sp	Field record	01/07/2015	SJ81058727	0.37	166.74
GMEU	Terrestrial Mammal	Pipistrellus sp.	Pipistrelle sp	Roost	01/01/2013	SJ80778729	0.40	209.35
GMEU	Terrestrial Mammal	Pipistrellus pipistrellus	Common Pipistrelle	Roost	03/07/2015	SJ81018723	0.41	173.52
GMEU	Terrestrial Mammal	Myotis sp.	Myotis sp	Field record	22/05/2012	SJ807872	0.51	211.25
GMEU	Terrestrial Mammal	Pipistrellus pipistrellus	Common Pipistrelle	Field record	15/09/2012	SJ807872	0.51	211.25
GMEU	Terrestrial Mammal	Pipistrellus pipistrellus	Common Pipistrelle	Field record	22/05/2012	SJ807872	0.51	211.25
GMEU	Terrestrial Mammal	Pipistrellus pipistrellus	Common Pipistrelle	Field record	17/08/2008	SJ807872	0.51	211.25
GMEU	Terrestrial Mammal	Pipistrellus pipistrellus	Common Pipistrelle	Field record	17/08/2008	SJ807872	0.51	211.25
GMEU	Terrestrial Mammal	Pipistrellus pipistrellus	Common Pipistrelle	Field record	12/08/2008	SJ807872	0.51	211.25
GMEU	Terrestrial Mammal	Pipistrellus pygmaeus	Soprano Pipistrelle	Field record	22/05/2012	SJ807872	0.51	211.25
GMEU	Terrestrial Mammal	Pipistrellus sp.	Pipistrelle sp	Field record	06/10/2008	SJ807872	0.51	211.25
GMEU	Terrestrial Mammal	Pipistrellus pipistrellus	Common Pipistrelle	Field record	12/09/2003	SJ804880	0.67	302.91
GMEU	Terrestrial Mammal	Pipistrellus sp.	Pipistrelle sp	Roost	12/06/2001	SJ813883	0.75	26.81
GMEU	Bird	Sturnus vulgaris	Starling	Field Record	22/04/2014	SJ804870	0.85	221.61
GMEU	Bird	*Turdus philomelus*	Song Thrush	Field Record	22/04/2014	SJ804870	0.85	221.61

APPENDIX A.5 – Biological Records Summary

GMEU	Terrestrial Mammal	Pipistrellus pipistrellus	Common Pipistrelle	Roost	29/06/2015	SJ801877	0.87	274.30
GMEU	Amphibian	Triturus cristatus	Great Crested Newt	Field Record	1997	SJ8030887045	0.88	228.03
GMEU	Amphibian	Triturus cristatus	Great Crested Newt	Field Record	1997	SJ8026486982	0.96	226.99
GMEU	Amphibian	Triturus cristatus	Great Crested Newt	Field Record	1997	SJ8028286952	0.97	224.96
GMEU	Bird	Prunella modularis	Dunnock	Field Record	07/07/2014	SJ81848716	1.00	118.47
GMEU	Bird	*Turdus philomelus*	Song Thrush	Field Record	2011	SJ806886	1.03	339.33
GMEU	Amphibian	Triturus cristatus	Great Crested Newt	Field Record	26/06/2002	SJ8006987110	1.04	239.60
GMEU	Amphibian	Triturus cristatus	Great Crested Newt	Field Record	1997	SJ8005787111	1.05	239.98
GMEU	Bird	Passer domesticus	House Sparrow	Field Record	26/06/2014	SJ81428669	1.05	154.24
GMEU	Amphibian	Triturus cristatus	Great Crested Newt	Field Record	1997	SJ8023386851	1.07	223.00
GMEU	Terrestrial Mammal	Pipistrellus pipistrellus	Common Pipistrelle	Field record	06/03/2013	SJ80958870	1.07	359.25
GMEU	Amphibian	Triturus cristatus	Great Crested Newt	Field Record	1997	SJ8018586880	1.08	225.90
GMEU	Amphibian	Triturus cristatus	Great Crested Newt	Field Record	26/06/2002	SJ8019586881	1.08	225.56
GMEU	Amphibian	Triturus cristatus	Great Crested Newt	Field Record	1997	SJ8004487029	1.10	236.63
GMEU	Amphibian	Triturus cristatus	Great Crested Newt	Field Record	26/06/2002	SJ8005387021	1.10	236.02
GMEU	Amphibian	Triturus cristatus	Great Crested Newt	Field Record	26/06/2002	SJ800871	1.10	240.97
GMEU	Amphibian	Triturus cristatus	Great Crested Newt	Field Record	26/06/2002	SJ800871	1.10	240.97
GMEU	Amphibian	Triturus cristatus	Great Crested Newt	Field Record	1997	SJ8001087077	1.11	239.68
GMEU	Bird	Sturnus vulgaris	Starling	Field Record	07/07/2014	SJ821876	1.14	91.76
GMEU	Amphibian	Triturus cristatus	Great Crested Newt	Field Record	26/06/2002	SJ800870	1.15	236.63

APPENDIX A.5 – Biological Records Summary

GMEU	Amphibian	Triturus cristatus	Great Crested Newt	Field Record	27/06/2002	SJ800870	1.15	236.63
GMEU	Terrestrial Mammal	Pipistrellus sp.	Pipistrelle sp	Roost	30/11/1998	SJ815887	1.19	26.72
GMEU	Terrestrial Mammal	Pipistrellus sp.	Pipistrelle sp	Field record	30/11/1988	SJ815887	1.19	26.72
GMEU	Amphibian	Triturus cristatus	Great Crested Newt	Field Record	26/06/2002	SJ801868	1.20	225.98
GMEU	Terrestrial Mammal	Myotis daubentonii	Daubenton's Bat	Roost	01/01/1988	SJ8287	1.22	121.51
GMEU	Terrestrial Mammal	Plecotus auritus	Brown Long-eared Bat	Roost	01/01/1988	SJ8287	1.22	121.51
GMEU	Amphibian	Triturus cristatus	Great Crested Newt	Field Record	1997	SJ7985687061	1.25	242.61
GMEU	Amphibian	Triturus cristatus	Great Crested Newt	Field Record	27/06/2002	SJ7986387038	1.25	241.53
GMEU	Bird	Passer domesticus	House Sparrow	Field Record	03/08/2011	SJ799869	1.29	235.36
GMEU	Bird	Prunella modularis	Dunnock	Field Record	03/08/2011	SJ799869	1.29	235.36
GMEU	Bird	Passer domesticus	House Sparrow	Field Record	31/07/2014	SJ82168822	1.33	63.94
GMEU	Terrestrial Mammal	Myotis daubentonii	Whiskered/Brandt's Bat	Field record	23/07/2011	SJ7958687578	1.38	267.63
GMEU	Terrestrial Mammal	Pipistrellus pipistrellus	Common Pipistrelle	Field record	01/08/2011	SJ7958687578	1.38	267.63
GMEU	Amphibian	Triturus cristatus	Great Crested Newt	Field Record	1993	SJ8056686303	1.39	196.64
GMEU	Terrestrial Mammal	Meles meles	Badger	Sett	12/07/2007	[redacted]	[redacted]	[redacted]
GMEU	Terrestrial Mammal	Pipistrellus sp.	Pipistrelle sp	Roost	06/07/2001	SJ820887	1.49	44.21
GMEU	Terrestrial Mammal	Pipistrellus sp.	Pipistrelle sp	Field record	15/08/2003	SJ818864	1.49	145.91
GMEU	Terrestrial Mammal	Pipistrellus sp.	Pipistrelle sp	Roost	08/08/2009	SJ80128640	1.50	214.35
GMEU	Bird	Sturnus vulgaris	Starling	Field Record	04/07/2014	SJ82478746	1.52	96.63
GMEU	Bird	Passer domesticus	House Sparrow	Field Record	28/07/2014	SJ82308843	1.55	59.24

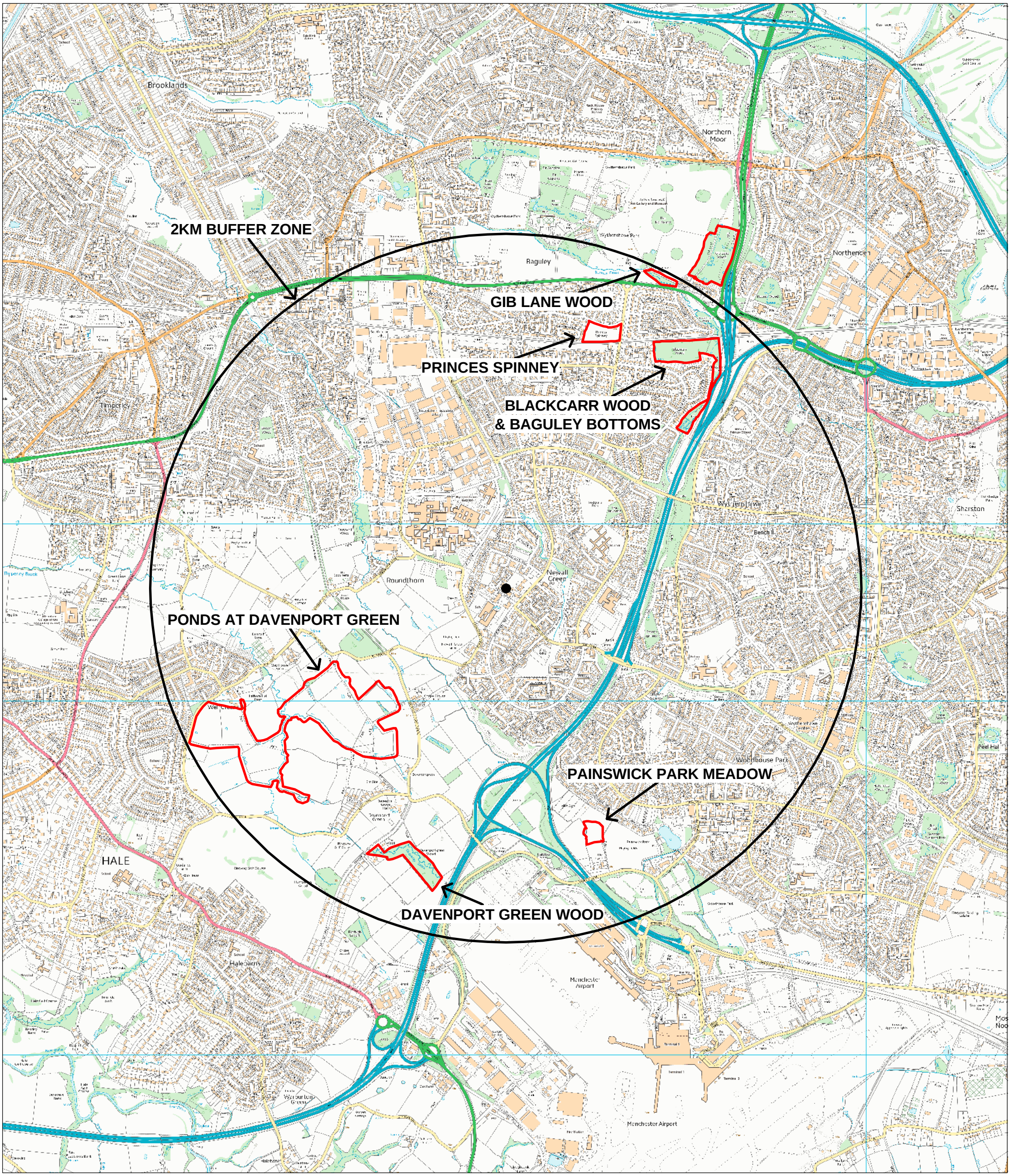
GMEU	Bird	Passer domesticus	House Sparrow	Field Record	12/05/2014	SJ82318842	1.56	59.75
GMEU	Bird	Sturnus vulgaris	Starling	Field Record	12/05/2014	SJ82318842	1.56	59.75
GMEU	Bird	Sturnus vulgaris	Starling	Field Record	13/05/2014	SJ82398835	1.60	63.37
GMEU	Bird	Prunella modularis	Dunnock	Field Record	01/01/2011	SJ804861	1.64	200.17
GMEU	Bird	Sturnus vulgaris	Starling	Field Record	12/05/2014	SJ82428838	1.64	62.90
GMEU	Bird	*Turdus philomelus*	Song Thrush	Field Record	2011	SJ804861	1.64	200.17
GMEU	Terrestrial Mammal	Pipistrellus pipistrellus	Common Pipistrelle	Field record	23/08/2014	SJ826875	1.64	94.72
GMEU	Bird	Passer domesticus	House Sparrow	Field Record	28/07/2014	SJ82588797	1.65	78.29
GMEU	Amphibian	Triturus cristatus	Great Crested Newt	Field Record	1997	SJ7980186455	1.66	224.58
GMEU	Terrestrial Mammal	Myotis sp.	Myotis sp	Field record	26/09/2006	SJ8072185969	1.68	188.30
GMEU	Terrestrial Mammal	Pipistrellus pipistrellus	Common Pipistrelle	Field record	13/08/2003	SJ821864	1.68	137.39
GMEU	Terrestrial Mammal	Vespertilionidae	Bat sp	Field record	04/07/2011	SJ81888623	1.68	146.90
GMEU	Terrestrial Mammal	Pipistrellus sp.	Pipistrelle sp	Field record	04/10/1984	SJ826871	1.72	108.11
GMEU	Terrestrial Mammal	Pipistrellus sp.	Pipistrelle sp	Field record	04/10/1984	SJ826871	1.72	108.11
GMEU	Amphibian	Triturus cristatus	Great Crested Newt	Field Record	16/06/1998	SJ7939286845	1.76	243.32
GMEU	Terrestrial Mammal	Nyctalus noctula	Noctule Bat	Field record	06/06/2014	SJ812894	1.78	7.62
GMEU	Bird	Sturnus vulgaris	Starling	Field Record	01/05/2014	SJ82358651	1.79	129.07
GMEU	Amphibian	Triturus cristatus	Great Crested Newt	Field Record	1997	SJ7936386771	1.82	241.65
GMEU	Bird	Sturnus vulgaris	Starling	Field Record	10/04/2014	SJ823864	1.82	132.75
GMEU	Bird	*Turdus philomelus*	Song Thrush	Field Record	07/06/2014	SJ814894	1.82	13.88

APPENDIX A.5 – Biological Records Summary

GMEU	Bird	Prunella modularis	Dunnock	Field Record	30/05/2013	SJ818893	1.86	26.66
GMEU	Bird	*Turdus philomelus*	Song Thrush	Field Record	07/06/2014	SJ81568942	1.88	18.46
GMEU	Terrestrial Mammal	Pipistrellus sp.	Pipistrelle sp	Roost	25/06/2012	SJ820892	1.88	33.50
GMEU	Terrestrial Mammal	Pipistrellus pipistrellus	Common Pipistrelle	Field record	03/08/2014	SJ813895	1.90	10.21
GMEU	Terrestrial Mammal	Pipistrellus pygmaeus	Soprano Pipistrelle	Field record	03/08/2014	SJ813895	1.90	10.21
GMEU	Amphibian	Triturus cristatus	Great Crested Newt	Field Record	1997	SJ7921486823	1.93	245.11
GMEU	Bird	Sturnus vulgaris	Starling	Field Record	19/05/2014	SJ82638860	1.93	59.92
GMEU	Bird	*Turdus philomelus*	Song Thrush	Field Record	06/06/2014	SJ81688943	1.93	21.75
GMEU	Terrestrial Mammal	Vespertilionidae	Bat sp	Field record	03/06/2001	SJ825888	1.93	52.82
GMEU	Bird	Prunella modularis	Dunnock	Field Record	07/06/2014	SJ81238956	1.94	7.87
GMEU	Bird	*Turdus philomelus*	Song Thrush	Field Record	03/08/2014	SJ81428956	1.98	13.33
GMEU	Bird	*Turdus philomelus*	Song Thrush	Field Record	30/05/2013	SJ81868941	1.99	26.78
GMEU	Bird	*Turdus philomelus*	Song Thrush	Field Record	30/05/2013	SJ81868941	1.99	26.78

APPENDIX A.6 – MAGIC Search Summary

Grid Reference	Name	Size (ha)	Distance from Site (km)	Bearing	Designation
SJ8151689800	Wythenshawe Park	85.45	2.23	14.30	Local Nature Reserve – supports a variety of woodland habitats in and around the park, three of which are sites of biological importance. Also wildflower meadows and formal beddings.



KEY

SITE OF BIOLOGICAL IMPORTANCE

SBI BOUNDARY

GREATER MANCHESTER ECOLOGY UNIT
ECOLOGICAL SEARCH - SJ 80964 87635
SCOUT DRIVE - MAP 1

SCALE 1:20,000

THE MAP IS BASED UPON ORDNANCE SURVEY MATERIAL WITH THE PERMISSION OF ORDNANCE SURVEY ON BEHALF OF THE CONTROLLER OF HMSO ©CROWN COPYRIGHT UNAUTHORISED REPRODUCTION INFRINGES CROWN COPYRIGHT AND MAY LEAD TO PROSECUTION OR CIVIL PROCEEDINGS

TAMESIDE MBC LICENCE NO LA100022697, 2017

Greater Manchester Ecology Unit

Telephone 0161 342 3723
Email: gmeu@tameside.gov.uk

Date Produced: 27/01/2017

APPENDIX B

Swallows

Considerations when choosing a swallow nest box:

Design - Either a nest platform/ledge or a ready-made bowl shaped nest
Example A

Material - Wood-concrete

Dimensions - Platform must be 260mm (w) x 100mm (d)

Access dimensions - Minimum 50 mm (h) 70 mm (w)

Considerations when installing a swallow nest box:

Where - Inside a cold roof space with permanent access, preferably in outbuildings or under deep eaves.

Height - At least 5m

How many - Nests should be placed at intervals of at least 1m

Other - Dropping will occur below the nest so provide a ledge below to catch them.



Swifts

Considerations when choosing a swift nest box:

Material - Wood-concrete or brick

Design - Preferably integral to the building example C and D. Can be integrated with a bat box example B.

Dimensions - 400mm (w) x 200mm (d) x 150 mm (h) or slightly smaller

Access dimensions - 30mm (h) x 65 mm (w) oval or rectangle

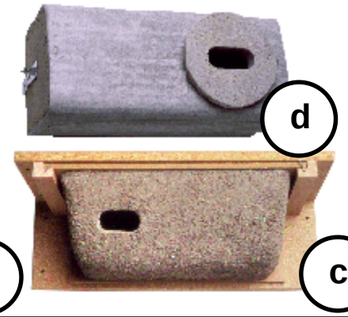
Considerations when installing a swift nest box:

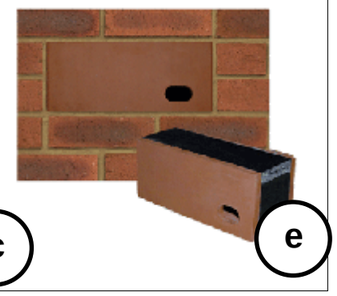
Where - Anywhere away from direct sunlight and disturbance, preferably under the eaves

Height - At least 5m

How many - Swifts are colonial nesters so ideally 1-4 on a house or 10-20 on a larger building







House Sparrows

Considerations when choosing a house sparrow nest box:

Design - Either singly, which can be used by many small bird species example G, or in a terrace example F.

Material - Wood-concrete

Dimensions - 150mm (w) x 150mm (d) x 350 mm (h)

Access dimensions - A 32 mm round hole

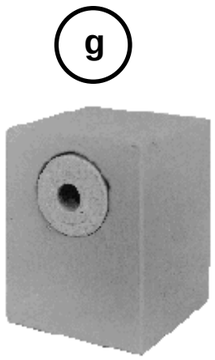
Considerations when installing a house sparrow nest box:

Where - Ideally within the structure at eaves level, example H, otherwise externally at the same location

Height - At least 3 m

How many - House sparrows nest in large colonies so fix 10-20 boxes together, 20-30 cm apart.







House Martins

Considerations when choosing a house martin nest box:

Design - Bowl shaped nest attached to a board in groups. Examples I and J.

Material - Air-permeable wood-concrete with a 75% wood content

Dimensions - 180mm in diameter

Access dimensions - A semi-circular hole 25mm (h) x 60-65mm (w)

Considerations when installing a house martin nest box:

Where - Externally under overhanging eaves on north and east facing walls

Height - At least 5m

How many - Fix nests in groups to increase the likelihood of use

Other - Dropping will occur below the nest so provide a ledge below to catch them.





a Schwegler Swallow Nest No. 11

b Schwegler Swift & Bat Box 1MF

c Schwegler Swift Box No. 18

d Schewegler Swift Box Type 25

e Ibstock swift box

f Schwegler Sparrow Terrace 1SP

g Schwegler Brick Box Type 24

h Boxes under eaves

I Schwegler House Martin Nest No. 9A

J Schwegler House Martin Facade No. 11

All pictures have been taken from the websites of Schwegler, Ibstock, Habitat Aid and Wild About Britain.

accessEcology

Access Ecology Ltd
R1b Riverside Bank
Sheaf Bank Business Park
Sheffield
S2 3EN

info@accessecology.co.uk
www.accessecology.co.uk

Project	1219. Scout Drive, Wythenshawe
Title	B.1 Bird Boxes for Buildings
Client	BTP Architects
Date	February 2017
Ref	[1219]B.1[LM]BiBB

Standard nest boxes

Considerations when choosing a standard nest box;

Design - A box with a small circular hole cut out of the front.

Material - Wood or Woodcrete

Dimensions - The exact dimensions vary across brands and designs but should be a minimum of 200mm (h), 150mm (w), 150mm (d)

Access Dimensions - Different birds require different access dimensions;
25mm - Blue tits, Marsh tits, Coal tits, 28mm - Great tit, Pied flycatcher, 32mm - Tree sparrows, Nuthatch
Most nest boxes will offer a variety of access hole options to suit different bird species.

Considerations when installing a standard nest box;

Height - 2 - 4m

Aspect - Face between north and east to avoid strong sunlight and wet winds. Tilt the box forward slightly to prevent rain from entering the nest box.

Attaching to tree - Try not to nail the boxes into trees, use wire or a strong twine to tie it in place and re tie it every two years to allow for trunk growth. Alternatively, nest boxes with hooks can be hung from branches.



a



b



c



d

Open fronted nest boxes

Considerations when choosing an open fronted nest box;

Design - Like the standard box except most of the front is missing to attract Robins, Pied Wagtails, Blackbirds and Redstarts.

Material - Wood or woodcrete.

Dimensions - The exact dimensions vary across brands and designs but should be a minimum of 200mm (h), 130mm (w), 150mm (d).

Considerations when installing an open fronted nest box;

Where - 1.5m - 4m well hidden in vegetation but with a clear view to the surrounding habitat. Ideal in hedgerows.

Attaching to tree - Try not to nail the boxes into trees, use wire or a strong twine to tie it in place and re tie it every two years to allow for trunk growth. Alternatively, nest boxes with hooks can be hung from branches.



e



f

Larger Birds

Considerations when choosing a nest box for larger birds;

Design - Larger versions of standard nest boxes will be used by larger bird species such as Stock Dove, Tawny Owl, Jackdaw, Little Owl and Starling.

Material - Wood or Woodcrete.

Dimensions - The exact dimensions vary across brands and designs but should be a minimum of 500mm (h), 200mm (w), 190mm (w).

Access Dimensions - A minimum of 80mm by 90mm

Considerations when installing a nest box for larger birds;

Where - 3 - 5m on isolated trees adjacent to woodland with good visibility from the box and a clear flight path from it.

Attaching to tree - Try not to nail the boxes into trees, use wire or a strong twine to tie it in place and re tie it every two years to allow for trunk growth. Alternatively, nest boxes with hooks can be hung from branches.



g



h

a Avianex

b The Nest Box Co. Apex bird box

c Schwegler 1N Deep Nest Box

d Schwegler 2M Nest Box

e Schwegler 2H Open Fronted Bird Box

f The Nest Box Co. Robin Nest Box

g Schwegler No 5 Owl Box

h The nest Box Co. Starling Nest Box

All pictures have been taken from the websites of Schwegler, The Nest Box Company and Living with Birds.

accessEcology

Access Ecology Ltd
R1b Riverside Bank
Sheaf Bank Business Park
Sheffield
S2 3EN

info@accessecology.co.uk
www.accessecology.co.uk

Project	1219. Scout Drive, Wythenshawe
Title	B.2. Bird Boxes for Trees
Client	BTP Architects
Date	February 2017
Ref	[1219]B.1[LM]BiBT

Crevice-dwelling bats

Crevice-dwelling bats are those species which choose crevices or narrow gaps within which to roost. These species are Pipistrelle's, Brandt's, whiskered, noctule, serotine, Leisler's, Daubenton's, barbastelle and Bechstein's.

To provide artificial roosting space for crevice-dwelling bats boxes can either be incorporated into the building, attached to external walls or attached to trees.

Considerations when choosing a crevice-dwelling bat box:

Materials - Rough (for grip), non-toxic and non-corrosive. We recommend wood-concrete (woodcrete)

Access dimensions - 15-20mm (h) x 20-50mm (w)

Dimensions - any size as long as it includes crevices of 20-30mm

Tree-mounted Boxes

Tree-mounted boxes cannot provide the constant temperature that bats prefer for roost sites. However boxes with a choice of panels at different temperatures can compensate for these fluctuations.

Tree-mounted bat boxes have the advantages of being easy to install and access for cleaning and monitoring.

When installing a bat box on a tree position it at a height of 2-7m, away from artificial lights.





b



c

Externally-mounted boxes

Externally-mounted boxes are easy to install and access. They can be mounted on external or internal walls and should be at a height of at least 3m from the ground facing south-southeast.



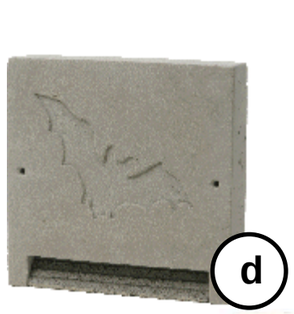
a

Boxes incorporated into walls

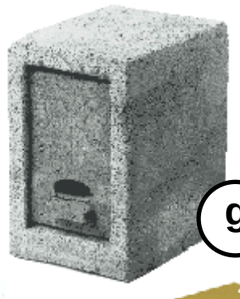
Bat boxes can be incorporated into internal, external or cavity walls and roofs by replacing bricks (d, g, h), facia boards/soffits (f) or roof tiles (e).

Boxes should be installed on the most southerly or westerly aspect, for use as summer maternity roosts, and on northerly aspects, for use during the winter and by males all year round.

The access point should not be illuminated by artificial lights and the box should be positioned at least 2-7m above the ground.



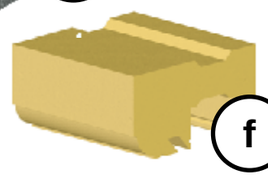
d



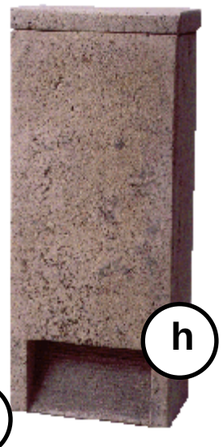
g



e



f



h

a Improved Treble Crevice bat box

b Schwegler 1FF Bat Box

c Schwegler Bat Hibernation box 1FW

d Schwegler Bat Access panel 1FE

e Tudor Roof Tile Co. Bat Access Tile Set

f RoofBLOCK Bat Roost

g Schwegler Brick Box Type 27

h Schwegler Bat Tube 1FE

All pictures have been taken from the websites of The Nest Box Company Schwegler, Tudor Roof Tile Co. and RoofBLOCK.

accessEcology

Access Ecology Ltd
R1b Riverside Bank
Sheaf Bank Business Park
Sheffield
S2 3EN

info@accessecology.co.uk
www.accessecology.co.uk

Project	1219. Scout Drive, Harpurhey
Title	B.3. Bat Boxes for Buildings
Client	BTP Architects
Date	February 2017
Ref	[1219]B.3[LM]BaBB