

Former Chorlton Leisure Centre, Manchester Road, Chorlton

ECOLOGICAL SURVEY AND ASSESSMENT

ERAP (Consultant Ecologists) Ltd Reference: 2023-004

ERAP (Consultant Ecologists) Ltd
Building N2
Chorley Business and Technology Centre
East Terrace
Euxton Lane
Euxton
Chorley
PR7 6TE

Tel: 01772 750502

mail@erap.co.uk
www.erap.co.uk



CONTENTS

Summary	3
1.0 Introduction	4
1.1 Background and Rationale	4
1.2 Scope of Works.....	4
2.0 Method of Survey	5
2.1 Desktop Study and Data Search	5
2.2 Vegetation and Habitats (to be completed).....	5
2.3 Animal Life.....	6
2.4 Survey and Reporting Limitations	8
2.5 Evaluation Methods	8
3.0 Survey Results	9
3.1 Desktop Study and Data Search	9
3.2 Vegetation and Habitats	11
3.3 Animal Life.....	13
4.0 Evaluation and Assessment	14
4.1 Introduction and Description of Proposals.....	14
4.2 Designated Sites for Nature Conservation	14
4.3 Vegetation and Habitats	14
4.4 Protected Species and Other Wildlife.....	15
5.0 Recommendations	16
5.1 Introduction	16
5.2 Protection of Existing Vegetation	16
5.3 Invasive Plant Species	16
5.4 Bats	17
5.5 Birds	18
5.6 Protection of Hedgehog (and Other Wildlife) and Maintenance of Habitat Connectivity	19
5.7 Landscape Planting	20
6.0 Conclusion	21
7.0 References.....	21
8.0 Appendix: Tables, Photographs and Figures	23
8.1 Plant Species Lists	23
8.2 Photographs.....	24
8.3 Figures	27

List of Tables

Table 2.1: Survey Equipment used during Daylight Bat Survey	7
Table 2.2: Consideration of Suitability of Foraging and Commuting Habitat for Bats	7
Table 2.3: Important Habitat Characteristics for Reptiles	8
Table 3.1: SBIs Within 2 kilometres of the Site	10
Table 3.2: Records of Protected Species Within a 2 Kilometre Radius of the Site	10
Table 3.3: Bird species Detected on 13 th April 2023	14
Table 5.1: Further Surveys Required for Bats at Building 1	17
Table 5.2: Suitable Native Species for Tree and Shrub Planting	20
Table 8.1: Plant Species List for Vegetation Colonising Hard Standing	23
Table 8.2: Flailed Bramble Scrub	24

List of Figures

Figure 1: Aerial Image of the Site and its Surroundings	27
Figure 2: Phase 1 Habitat Vegetation Map of the Site	28

Document Control

Survey Type:	Surveyors¹	Survey Date(s)
Phase 1 Habitat and Daylight bat survey	Brian Robinson B.Sc. (Hons) MCIEEM	13 th April 2023
Reporting	Personnel	Date
Author	Brian Robinson B.Sc. (Hons) MCIEEM Senior Ecologist	21 st April 2023
Signature(s)		
Checked	Rachel Brown B.Sc. (Hons) Graduate Ecologist	24 th April 2023
Revised and issued	Brian Robinson B.Sc. (Hons) MCIEEM Senior Ecologist	26 th April 2023
Report issued to	Rowlinson Construction Ltd	
Version Number	1	

¹ Licence reference number

Bats
Brian Robinson Natural England Class Survey Licence (bats, Level 2) Registration Number 2015-13161-CLS-CLS

SUMMARY

- i. This ecological survey and assessment presents an assessment of the ecological, biodiversity and nature conservation status of former Chorlton Leisure Centre, Manchester Road, Chorlton. The assessment was requested in connection with proposals for the demolition of the existing building followed by the construction of 2 new later living apartment blocks.
- ii. This report presents the results of a desktop study, data search, extended Phase 1 Habitat Survey and a licensed bat survey carried out in April 2023. Further surveys are required to determine the presence or absence of roosting bats at the site. The scope of survey undertaken is otherwise appropriate to identify potential ecological constraints, the remit of mitigation required and opportunities for biodiversity associated with the development proposals.
- iii. The proposals will have no adverse direct or indirect effect on statutory or non-statutory designated sites for nature conservation.
- iv. The approximately 0.34 hectares site supports one extended building associated with the disused former swimming baths, hard standing, three trees (at the northern end of the site), unmanaged ornamental planting (at the south-western end of the site) and an area of recently flailed Bramble scrub and tall-herb vegetation at the south-eastern end of the site. Mature trees are parallel to, but beyond, the western and eastern site boundaries.
- v. Only common and widespread plant species were found. None of the habitats present are representative of semi-natural habitat. The NVC communities present are typical of the geographical area and conditions present. No Priority Habitats are present within or adjacent to the site. In terms of each habitat's importance in a geographical context, the planted trees, ornamental shrubs and area of scrub are of 'site' value only, and the building and hard standing are not considered to hold any importance on a geographical scale.
- vi. Measures for the protection of any habitats to be retained within the site and the trees at the site boundaries are presented at **Section 5.2**. Measures to include within the site landscape design for the benefit of biodiversity are presented at **Section 5.7**.
- vii. Japanese Knotweed, an invasive plant species listed under Schedule 9 of the *Wildlife and Countryside Act 1981* (as amended), has been detected within the site. It is considered that the proposals present an opportunity for the eradication of this species as part of the proposed development. Further guidance is presented at **Section 5.3**.
- viii. The building is assessed to be of 'moderate' suitability for use by roosting bats. At least two dawn re-entry / dusk emergence surveys are required at the building. Three will be required to reliably demonstrate absence of roosting bats if no access to the internal areas is possible. The scope of the further surveys is presented at **Section 5.4**.
- ix. Recommendations relating to the retention of features suitable for use by foraging and commuting bats, and features to enhance habitats for roosting bats at the site, are also presented at **Section 5.4**. Measures for the protection of breeding birds and recommended enhancements for birds are presented at **Section 5.5**. Measures for the protection of hedgehog during the construction phase of the proposed development are presented at **Section 5.6**, with measures to ensure that the proposals do not create obstructions to hedgehog and their movement. The presence or protected or notable species is otherwise reasonably discounted.
- x. The recommendations in **Section 5.0** outline all the mandatory measures and additional actions to be applied to ensure compliance with wildlife legislation, the National Planning Policy Framework (NPPF) and best practice.
- xi. The proposals will secure an opportunity to implement beneficial measures such as habitat creation that will safeguard habitats for wildlife such as birds and bats, with the aim of providing a net gain in biodiversity in accordance with the principles of the NPPF.
- xii. Further surveys are required to determine the presence or absence of roosting bats at the site. It is otherwise concluded that the proposals are feasible and acceptable in accordance with ecological considerations and relevant planning policy. Redevelopment at the site will provide an opportunity to secure ecological enhancement for wildlife associated with urban areas.

1.0 INTRODUCTION

1.1 Background and Rationale

- 1.1.1 ERAP (Consultant Ecologists) Ltd was commissioned on behalf of Mosscares St. Vincent's Housing Group to carry out an ecological assessment of the former Chorlton Leisure Centre, Manchester Road, Chorlton (hereafter referred to as the 'site'). The Ordnance Survey (OS) grid reference at the centre of the site is SJ 81708 94520. An aerial image of the site and its surrounding habitats is appended at **Figure 1** (source image: ESRI World Imagery).
- 1.1.2 The assessment was requested in connection with a planning application for the demolition of the existing building followed by the construction of 2 later living apartment blocks.

1.2 Scope of Works

- 1.2.1 The scope of ecological works undertaken in April 2023 comprised the following:
- A desktop study and data search for known ecological information at the site and the local area.
 - An Extended Phase 1 Habitat Survey and assessment;
 - Assessment of the ecological value of the habitats within the site with the use of the National Vegetation Classification (NVC) and the Ratcliffe criteria, as presented in *A Nature Conservation Review* (Ratcliffe, 1977);
 - Survey and assessment of all habitats for relevant statutorily protected species¹ and other wildlife including badger (*Meles meles*), barn owl (*Tyto alba*), bird species and reptiles;
 - A licensed daylight bat survey of the building and trees;
 - The identification of any potential ecological constraints on the proposals and the specification of the scope of mitigation and ecological enhancement required in accordance with wildlife legislation, planning policy guidance and other relevant guidance; and
 - The identification of any further surveys or precautionary actions that may be required to inform the progression of the site through the planning process or prior to the commencement of any construction activities.

¹ In accordance with *Government Circular: Biodiversity and Geological Conservation – Statutory Obligations and Their Impact on the Planning System* (Ministry of Housing, Communities & Local Government, 2005) developers should not be required to undertake surveys for protected species unless there is reasonable likelihood of the species being present and affected by the development. In this instance (for example) there are no ponds within 500 metres of the site, and no ditches or watercourses within or in proximity to the site; there has therefore been no requirement to consider great crested newt (*Triturus cristatus*), water vole (*Arvicola amphibius*) or otter (*Lutra lutra*) as part of this assessment.

2.0 METHOD OF SURVEY

2.1 Desktop Study and Data Search

2.1.1 The following sources of information and ecological records were consulted:

- a. MAGiC Maps: A web-based interactive map which brings together geographic information on key environmental schemes and designations, including details of statutory nature conservation sites;
- b. Greater Manchester Local Records Centre (GMLRC); and
- c. Greater Manchester Biodiversity Action Plan (BAP).

2.2 Vegetation and Habitats (to be completed)

2.2.1 An Extended Phase 1 Habitat Survey of the site was carried out by Brian Robinson on 13th April 2023. The weather was overcast with occasional showers, a light air (Beaufort scale 1) and an air temperature of 12°C.

2.2.2 A habitat and vegetation map was produced for the site and the immediate surrounding area at a scale of 1:500 and is appended at **Figure 2**. The mapping is based on the Joint Nature Conservation Committee Phase 1 Habitat Survey methodology (JNCC, 2010) with minor adjustments to illustrate and examine the habitats with greater precision.

2.2.3 On site habitat mapping will be assisted via use of GPS technology and QField on-site mapping software, using *ESRI World Imagery, Chorlton Baths, Manchester Road, Manchester M21 9GA: Arboricultural Implications Plan* (Lally Tree Management, 2021) and ESRI World Imagery as base plans.

2.2.4 The plant species within the site boundary were determined with estimates of the distribution, ground cover, abundance and constancy of individual species. The estimation of abundance was based on the DAFOR system, where D = Dominant, A = Abundant, F = Frequent, O = Occasional and R = Rare, this being a widely used and accepted system employed by ecological surveyors. The terms L = Locally and V = Very were additionally be used to describe the plant species distributions with greater precision.

2.2.5 Stands of vegetation and habitats were described and evaluated using the National Vegetation Classification (NVC). The NVC provides a systematic and comprehensive analysis of British vegetation and is a reliable framework for nature conservation and land-use planning.

2.2.6 Habitats within the site were assessed in accordance with the UK Habitats Classification / UKHab (Butcher, et al., 2020). The UKHab has been designed to function at two scales: fine scale (25m² or 5 metres length) and large scale (400m² or 20 metres length). It has been considered for the purposes of this survey that the fine scale of 25m² or 5 metres length is appropriate.

2.2.7 Searches were made for uncommon, rare and statutorily protected plant species, those species listed as protected in the *Wildlife and Countryside Act 1981* (as amended) and species which are indicators of important and uncommon plant communities. Plant nomenclature will follow *New Flora of the British Isles 3rd Edition* (Stace, 2010).

2.2.8 Searches were carried out for the presence of invasive species, including those listed on Schedule 9 of the *Wildlife and Countryside Act 1981* (as amended), including Japanese Knotweed (*Fallopia japonica*), Indian Balsam (*Impatiens glandulifera*) and Giant Hogweed (*Heracleum mantegazzianum*).

2.3 Animal Life

Badger

- 2.3.1 The survey area for badger covered the site (as annotated on **Figures 1 and 2**) and extended to accessible land within a radius of 50 metres from the site boundary. Private gardens / land were excluded from the survey.
- 2.3.2 The survey was conducted in accordance with guidance presented within *Badgers and Development* (Natural England, 2007) and *Badgers: advice for making planning decisions* (Natural England, 2022).
- 2.3.3 The following signs of badger activity will be searched for:
- Sett entrances, e.g. entrances that are normally 25 to 35cm in diameter and shaped like a 'D' on its side;
 - Large spoil heaps outside sett entrances;
 - Bedding outside sett entrances;
 - Badger footprints;
 - Badger paths;
 - Latrines;
 - Badger hairs on fences or bushes;
 - Scratching posts; and
 - Signs of digging for food.
- 2.3.4 Habitats within and surrounding the site were assessed in terms of their suitability for use by foraging and sheltering badger in accordance with their known habitat preferences as detailed in current guidance and *Badger* (Roper, 2010).

Bat Species

Daylight Survey

Survey Personnel

- 2.3.5 The site was assessed for its suitability to support roosting bats by Brian Robinson, Natural England Class Survey Licence WML CL18 (Bat Survey Level 2), Registration Number 2015-13161-CLS-CLS. The surveyor's qualifications and experience meet the criteria as defined in the *Technical Guidance Series Competencies for Species Survey: Bats* (CIEEM, 2013).

Building

- 2.3.6 The survey was carried out in accordance with standard methodology including the *Bat Mitigation Guidelines* (Mitchell-Jones, 2004), the *Bat Workers' Manual 3rd Edition* (Mitchell-Jones & Mcleish, 2004) and *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn)* (Collins, J. (ed), 2016).
- 2.3.7 An inspection of the external surfaces, walls and roofs of the building was carried out to find potential bat roosting habitat or accesses into internal areas where roosts may be present. Searches for evidence of bat presence in the form of droppings, urine stains, feeding signs, grease marks and other evidence was also be carried out.
- 2.3.8 No internal survey was possible during the initial assessment; this is considered further at **Section 2.4**.
- 2.3.9 A list of equipment available during the survey is detailed at **Table 2.1**.

Table 2.1: Survey Equipment used during Daylight Bat Survey

Ladders
LED Lenser P14 torch
Panasonic DMC- FT1 digital camera
8x20 binoculars
Ridgid Micro Inspection Camera Borescope CA-100

- 2.3.10 The suitability of the building will be assessed in accordance with Table 4.1 of *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn)*, (Collins, J. (ed), 2016), taking into account any presence of gaps suitable for access by bats and the suitability of the surrounding habitats for use by foraging and commuting bats.

Trees

- 2.3.11 A preliminary assessment of the trees within the site was conducted to assess their suitability for use by roosting bats, and to inform whether further surveys or precautionary measures were required. Trees were assessed from the ground using binoculars and a high-powered torch. Each tree was searched for the presence of the following features:

Woodpecker holes, rot holes, hazard beams, other vertical or horizontal cracks or splits in stems and branches, partially decayed platey bark, knot holes, man-made holes, tear-outs, cankers in which cavities have developed, other hollows or cavities, including butt-rots, double-leaders forming compression forks with included bark, gaps between overlapping stems or branches, partially detached Ivy (Hedera helix) with stem diameters in excess of 50mm and bat, bird or dormouse (Muscardinus avellanarius) boxes.

- 2.3.12 Terms used to describe any features present follow (where possible) those outlined and described in *Bat Tree Habitat Key, 2nd Edition* (Andrews, H (ed), 2013) and *Bat Roosts in Trees: A Guide to Identification and Assessment for Tree-care and Ecology Professionals* (BTHK, 2018).

Habitat Assessment for Commuting / Foraging Bats

- 2.3.13 Habitats within and adjacent to the site were assessed for their value and suitability for commuting and foraging bats in accordance with Table 4.1 of *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn)*, (Collins, J. (ed), 2016). Reference has been made to the categories and descriptions / examples presented at **Table 2.2**.

Table 2.2: Consideration of Suitability of Foraging and Commuting Habitat for Bats

Suitability	Commuting Habitat	Foraging Habitat
Negligible	Negligible habitat features on site likely to be used by commuting bats.	Negligible habitat features on site likely to be used by foraging bats.
Low	Habitat that could be used by small numbers of commuting bats such as a gappy hedgerow or unvegetated stream, but isolated i.e. not very well connected to the surrounding landscape by other habitat.	Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree or patch of scrub.
Moderate	Continuous habitat connected to the wider landscape that could be used by bats for commuting such as lines of trees and scrub or linked back gardens.	Habitat that is linked to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.
High	Continuous, high-quality habitat that is well connected to the wider landscape and is likely to be used regularly by commuting bats such as river valleys, streams, hedgerows, lines of trees and woodland edge. Habitats close to and connected to known roosts.	High-quality habitat that is well-connected to the wider landscape and is likely to be used regularly by foraging bats such as broadleaved woodland, tree-lined watercourses and grazed parkland. Habitats close to and connected to known roosts.

Bird Species

- 2.3.14 Bird species observed and heard during the survey were recorded.
- 2.3.15 Habitats throughout the site and in the immediate surrounding area will be assessed for their value to roosting, feeding and nesting birds, as indicated by the amount of shelter, feeding value, woody vegetation structure and species diversity of tree and shrub species in the site.

Reptile Species

- 2.3.16 The site and its surroundings were assessed in terms of their suitability for use by reptile species using the important characteristics for reptiles outlined in the draft document '*Reptile Mitigation Guidelines*' (Natural England, 2011), and the *Reptile Habitat Management Handbook* (Edgar, et al., 2010). These habitat characteristics are outlined in **Table 2.3**, below.

Table 2.3: Important Habitat Characteristics for Reptiles

1. Location (in relation to species range)	7. Connectivity to nearby good quality habitat
2. Vegetation Structure	8. Prey abundance
3. Insolation	9. Refuge opportunity
4. Aspect	10. Hibernation habitat potential
5. Topography	11. Disturbance regime
6. Surface geology	12. Egg-laying site potential

Other Wildlife

- 2.3.17 Evidence of other wildlife (including Priority Species) observed whilst on site (but for which specific surveys were not made) was recorded and has been included in this report where it is considered of relevance to the planning application.

2.4 Survey and Reporting Limitations

- 2.4.1 Direct searches for badger within the area surrounding the site were restricted; no access was possible to the scrub habitats beyond the eastern site boundary, which form the verge of the tramline. Searches for evidence of badger within the site was possible however, and off-site areas were searched for evidence of badger such as tracks and pathways with the use of binoculars where necessary. It is considered that a reliable assessment of the likely presence or absence of badger has been possible despite the access restrictions encountered.
- 2.4.2 No internal access was possible due to the presence of squatters inside the building; no searches for roosting bats and / or signs of roosting bats could be completed at the interior of the building. This access restriction has informed the requirement for and scope of further surveys at the site.
- 2.4.3 The site was otherwise accessible and surveys were completed at a suitable time of year. No further survey limitations were experienced.
- 2.4.4 All measurements within this report are approximate only, and will either be measured (using QField) or estimated whilst on site or calculated using mapping software (QGIS) or internet-based mapping services such as MAGiC Maps and Google Earth.

2.5 Evaluation Methods

- 2.5.1 The habitats, vegetation and animal life were evaluated with reference to standard nature conservation criteria as described in *A Nature Conservation Review* (Ratcliffe, 1977) and *Guidelines for the Selection of Biological SSSIs* (Bainbridge, et al., 2013). These are size (extent), diversity, naturalness, rarity, fragility, typicality, recorded history, position in an ecological or geographical unit, potential value and intrinsic appeal.

- 2.5.2 Habitats have been assessed to determine whether they meet those described in *UK Biodiversity Action Plan: Priority Habitat Descriptions* (Maddock, A (ed), 2008); these lists are used to help draw up the statutory lists of Priority Habitats, as required under Section 41 of the *Natural Environment and Rural Communities (NERC) Act 2006*. Where suitable, the ecological value of the habitats present has been assessed using the terms outlined in *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine* (CIEEM, 2018).
- 2.5.3 Government advice on wildlife, as set out in the *National Planning Policy Framework* (Ministry of Housing, Communities and Local Government, 2021) and associated government circulars has been taken into consideration. Legislation relating to protected species, such as those listed under Schedules 1, 5, 6 and 8 of the *Wildlife and Countryside Act 1981* (as amended) and *The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019*, is referenced where applicable, and any impacts to protected species will be evaluated in accordance with current guidance.
- 2.5.4 The presence of any Priority Species, as listed under Section 41 of the *Natural Environment and Rural Communities (NERC) Act 2006* is noted, and habitats are assessed in terms of their suitability and value for these species. The presence of habitats and / or species listed by the Greater Manchester Biodiversity Action Plans has been taken into account in the evaluation of the site.

3.0 SURVEY RESULTS

3.1 Desktop Study and Data Search

Statutory Designated Sites for Nature Conservation and SSSI Impact Risk Zones

- 3.1.1 The site is not and does not form part of any statutory designated site for nature conservation.
- 3.1.2 The site lies within a Site of Special Scientific Interest (SSSI) Impact Risk Zone for Hollinwood Branch Canal SSSI, which lies 10.5 kilometres north-east of the site and is designated for its mesotrophic standing water habitats.
- 3.1.3 The SSSI Impact Risk Zone requires the Local Planning Authority to consult with Natural England on likely risks from the following development categories (Ordnance Survey, 2023):
- Livestock and poultry units with floorspace greater than 500m² and slurry lagoons and digestate stores greater than 4,000m²; and
 - General combustion processes greater than 50 megawatts energy input, including energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis / gasification, anaerobic digestion, sewage treatment works and other incineration / combustion.
- 3.1.4 It is considered that the proposals do not meet the criteria which would require the local planning authority to consult with Natural England in respect of likely risks to the statutory designated sites as a consequence of the proposed development.

Non-statutory Designated Sites for Nature Conservation

- 3.1.5 The site is not and does not form part of any non-statutory designated site for nature conservation, which are termed Sites of Biological Interest or 'SBIs' in Greater Manchester.
- 3.1.6 The site is located within 2 kilometres of five SBIs, which are summarised at **Table 3.1**.

Table 3.1: SBIs Within 2 kilometres of the Site

SBI Name	Distance and Direction from the Site	Reason for Designation
Chorlton Ees	1.49 kilometres to the south-west	Habitat Mosaics (HM1); Birds (Br6 & Br7).
Hardy Farm	1.55 kilometres to the south	Grassland (Gr2).
Bridgewater Canal	1.59 kilometres to the south-west	Canal (Fw3); Bryophytes (GSG).
Broad Ees Dole	1.86 kilometres to the south-west	Ponds & small lodges (Fw2); Reedbed, swamp & fen (Fw1); Grassland (Gr2); Birds (Br6).
Meadows at Sale Water Park	1.9 kilometres to the south-west	Grassland (Gr1); Running Water (Fw4).

3.1.7 The presence of the SBIs within the wider area is considered further at **Section 4.2** below.

Priority Habitats Inventory

3.1.8 The Priority Habitats Inventory² was checked via MAGiC Maps. No Priority habitats are identified within or adjacent to the site.

Protected and Notable Species

3.1.9 GMLRC hold no records of protected and notable species for the site.

3.1.10 Records of protected and notable species for a 2-kilometre radius of the site are summarised at **Table 3.2**.

Table 3.2: Records of Protected Species Within a 2 Kilometre Radius of the Site

Taxon Group	Species Name and Designations ¹ and Notes
Amphibians	Common toad (<i>Bufo bufo</i>): PS. 6 records, dated between 2010 and 2019. The closest record is 835 metres to the north of the site, and from 2010.
Birds – WCAs1 Species	Barn owl (<i>Tyto alba</i>): WCAs1. 37 records, dated between 2014 and 2021. The closest record is 1205 metres to the south-west of the site, and from 2015. Hobby (<i>Falco subbuteo</i>): WCAs1. 4 records, dated between 2007 and 2017. The closest record is 1605 metres to the south-west of the site, and from 2017. Kingfisher (<i>Alcedo atthis</i>): WCAs1. 40 records, dated between 2004 and 2020. The closest record is 1310 metres to the south-east of the site, and from 2015. Little ringed plover (<i>Charadrius dubius</i>): WCAs1. 4 records, dated between 2008 and 2013. The closest record is 2040 metres to the south-west of the site, and from 2008. Peregrine (<i>Falco peregrinus</i>): WCAs1. 4 records, dated between 2008 and 2017. The closest record is 1185 metres to the east of the site, and from 2014.
Birds – PS and GMBAP Species	PS: Bullfinch (<i>Pyrrhula pyrrhula</i>), cuckoo (<i>Cuculus canorus</i>), dunnoek (<i>Prunella modularis</i>), grasshopper warbler (<i>Locustella naevia</i>), herring gull (<i>Larus argentatus</i>), house sparrow (<i>Passer domesticus</i>), lapwing (<i>Vanellus vanellus</i>), lesser redpoll (<i>Carduelis cabaret</i>), linnet (<i>Linaria cannabina</i>), reed bunting (<i>Emberiza schoeniclus</i>), ring ouzel (<i>Turdus torquatus</i>), skylark (<i>Alauda arvensis</i>), song thrush (<i>Turdus philomelos</i>), spotted flycatcher (<i>Muscicapa striata</i>), starling (<i>Sturnus vulgaris</i>) and tree sparrow (<i>Passer montanus</i>). GMBAP Only: Grey heron (<i>Ardea cinerea</i>): Heronries are GMBAP. 45 records, dated between 2004 and 2021. The closest record is 1570 metres to the south of the site, and from 2008.
Terrestrial Invertebrates – Moths and Butterflies	PS: Blood-vein (<i>Timandra comae</i>), broom moth (<i>Melanchra pisi</i>), buff ermine (<i>Spilosoma luteum</i>), cinnabar (<i>Tyria jacobaeae</i>), grey dagger (<i>Acronicta psi</i>), latticed heath (<i>Chiasmia clathrata</i>), powdered quaker (<i>Orthosia gracilis</i>), September thorn (<i>Ennomos erosaria</i>), shaded broad-bar (<i>Scotopteryx chenopodiata</i>), small phoenix (<i>Ecliptopera silaceata</i>), spinach (<i>Eulithis mellinata</i>) and white-letter hairstreak (<i>Satyrion w-album</i>).

² A spatial dataset that describes the geographic extent and location of Natural Environment and Rural Communities Act (2006) Section 41 habitats of principal importance.

Taxon Group	Species Name and Designations ¹ and Notes
Terrestrial Mammals	Otter (<i>Lutra lutra</i>): EPS, WCAs5 and PS. 2 records, both from 2020. The closest record is 1815 metres to the south-west of the site.
	Soprano pipistrelle (<i>Pipistrellus pygmaeus</i>): EPS, WCAs5, PS and GMBAP. 23 records, dated between 2003 and 2022. The closest record is 680 metres to the west of the site, and from 2022.
	Brown long-eared bat (<i>Plecotus auritus</i>): EPS, WCAs5, PS and GMBAP. 4 records, dated between 2011 and 2017. The closest record is 770 metres to the south of the site, and from 2015.
	Noctule bat (<i>Nyctalus noctula</i>): EPS, WCAs5, PS and GMBAP. 16 records, dated between 2009 and 2022. The closest record is 680 metres to the west of the site, and from 2022.
	Bat species (Order <i>Chiroptera</i>): EPS, WCAs5 and GMBAP. 10 records, dated between 2011 and 2020. The closest record is 610 metres to the west of the site, and from 2020.
	Common pipistrelle (<i>Pipistrellus pipistrellus</i>): EPS, WCAs5 and GMBAP. 122 records, dated between 1992 and 2020. The closest record is 105 metres to the north-west of the site, and from 2019.
	Daubenton's bat (<i>Myotis daubentonii</i>): EPS, WCAs5 and GMBAP. 16 records, dated between 2008 and 2020. The closest record is 1500 metres to the south-west of the site, and from 2017.
	Myotis species (<i>Myotis</i> sp.): EPS, WCAs5 and GMBAP. 22 records, dated between 2007 and 2022. The closest record is 680 metres to the west of the site, and from 2022.
	Pipistrelle species (<i>Pipistrellus</i> sp.): EPS, WCAs5 and GMBAP. 39 records, dated between 1992 and 2021. The closest record is 290 metres to the south of the site, and from 2003.
	Whiskered bat (<i>Myotis mystacinus</i>): EPS, WCAs5 and GMBAP. 1 record from 2005, located to the west of the site; an accurate estimation of distance of the record to the site cannot be made due to the locational data being less than a six figure grid reference
	Badger (<i>Meles meles</i>): PBA. 31 records, dated between 2010 and 2022. The closest record over 0.5 kilometres from the site.
¹ Key to Designation Codes: EPS = European Protected Species under <i>The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019</i> . WCAs1 = Species receives full protection under Schedule 1 of the <i>Wildlife and Countryside Act 1981</i> (as amended). WCAs5 = Species receives full protection under Schedule 5 of the <i>Wildlife and Countryside Act 1981</i> (as amended). PBA = Protection of Badger Act 1992. PS = Priority Species listed under Section 41 of the NERC Act 2006. GMBAP = Species listed on the Greater Manchester Biodiversity Action Plan.	

- 3.1.11 The presence of these protected and notable species within the wider area has been taken into account throughout this report.

3.2 Vegetation and Habitats

General Description

- 3.2.1 The approximately 0.34 hectares site is located within the suburban area of Chorlton-cum-Hardy and 4.8 kilometres to the south-west of the city centre. The site supports one extended building associated with the disused former swimming baths, hard standing, three trees (at the northern end of the site), unmanaged ornamental planting (at the south-western end of the site) and an area of recently flailed Bramble (*Rubus fruticosus* agg.) scrub and tall-herb vegetation at the south-eastern end of the site. Mature trees are parallel to, but beyond, the western and eastern site boundaries.
- 3.2.2 The northern site boundary is defined by a wall, beyond which lies Thirlmere Aqueduct, an area of scrub, and Manchester Road. The eastern site boundary is defined by fencing, beyond which lies an active tramline. The southern site boundary is defined by fencing and the southern elevation of the buildings within the site, beyond which lies land and buildings associated with the Unicorn Grocery retail outlet. The western site boundary is defined by fencing at its northern end. Manchester Road, retail outlets and housing lie beyond the western site boundary.

Building and Hard Standing

- 3.2.3 The building is described in detail in relation to its suitability for use by roosting bats at **Section 3.3** below. Very locally frequent Broad Buckler-fern (*Dryopteris dilatata*), Hart's-tongue fern (*Asplenium scolopendrium*), Maidenhair Spleenwort (*Asplenium trichomanes*), Wall-rue (*Asplenium ruta-muraria*) and Butterfly-bush (*Buddleja davidii*) and locally abundant Ivy are present at sections of the building's walls.
- 3.2.4 The vegetation holds characteristics of the OV39 *Asplenium trichomanes* - *Asplenium ruta-muraria* (Rodwell, 2000) community of the NVC. The building is described by the UKHab as u1b5 buildings with the secondary code 17 ruderal / ephemeral.
- 3.2.5 Refer to **Photo 1**. The vegetation colonising the asphalt and concrete slab hard standing is characterised by occasional and very locally frequent Bramble and Herb-Robert (*Geranium robertianum*), occasional Butterfly-bush, Common Nettle (*Urtica dioica*), Dandelion (*Taraxacum officinale* agg.) and Wood Avens (*Geum urbanum*), very locally frequent Common Valerian (*Valeriana officinalis*), Garden Strawberry (*Fragaria ananassa*) and Green Alkanet (*Pentaglottis sempervirens*) and rare Annual Meadow-grass (*Poa annua*), Cleavers (*Galium aparine*) and Common Mouse-ear (*Cerastium fontanum*). A plant species list is appended at **Table 8.1**.
- 3.2.6 The vegetation is not typical of any NVC community and is described by the UKHab as u1b6 other developed land with the secondary code 17 ruderal / ephemeral.

Trees and Ornamental Planting

- 3.2.7 Refer to **Photo 2**. Three Cherry (*Prunus* sp.) are located at the northern end of the site.
- 3.2.8 Refer to **Photo 3**. Areas of unmanaged ornamental planting are present at the south-western corner of the site. The vegetation is characterised by locally abundant garden exotics including Leyland Cypress (*X Cuprocyparis leylandii*) and Box (*Buxus sempervirens*), and colonising herbs including frequent Bramble (*Rubus fruticosus* agg.), occasional Great Willowherb (*Epilobium hirsutum*) and Dandelion, very locally frequent Common Nettle, and rare Broad-leaved Dock (*Rumex obtusifolius*), Wood Avens and Reed Canary-grass (*Phalaris arundinacea*). Ash (*Fraxinus excelsior*) saplings are of occasional occurrence.
- 3.2.9 The vegetation is not typical of any NVC community and is described by the UKHab as h3h mixed scrub with the secondary codes 11 scattered trees, 17 ruderal / ephemeral and 48 non-native.

Flailed Bramble Scrub and Tall-herb Vegetation

- 3.2.10 Refer to **Photo 4**. An area of recently flailed Bramble scrub and tall-herb vegetation is located at the south-eastern end of the site and is characterised by constant and abundant Bramble and Cleavers, constant and frequent Japanese Knotweed and locally frequent Ivy and Common Nettle. A plant species list is appended at **Table 8.2**.
- 3.2.11 The vegetation is typical of a W24 *Rubus fruticosus* – *Holcus lanatus underscrub* (Rodwell, 1991) of the NVC and is described by the UKHab as h3d Bramble scrub with the secondary codes 16 tall herb and 48 non-native.

Invasive Plant Species

- 3.2.12 Japanese Knotweed is locally abundant within the area of Bramble scrub at the south-eastern end of the site. No other plant species listed under Schedule 9 of the *Wildlife and Countryside Act 1981* (as amended) were detected within the site. The presence of Japanese Knotweed is considered further at **Section 4.2** below.

3.3 Animal Life

Badger

- 3.3.1 No badger or signs of badger were detected within the site or within the accessible 50 metres around the site. The habitats within the site are of poor suitability for use by foraging or sheltering badger. No tracks or paths indicative of badger were noted in the scrub adjacent to the eastern site boundary (and located at the tram line verge) and no paths were noted between the off-site scrub and the site. The presence of badger is reasonably discounted.

Bat Species

Daylight Survey: Building

- 3.3.2 Refer to **Photos 5 to 14**. The disused former swimming baths adjoins a retail outlet at its southern elevation, and is largely single-storey, with a two-storey section at its south-western end. The walls are composed of mortared brick, with areas of mortared stonework present at the building's western elevation. A single-storey extension composed of corrugated metal walls and supporting a pitched roof of corrugated metal is present at the eastern end of the building.
- 3.3.3 The building supports a complex roof, with areas of flat roofing surrounded by a parapet wall at the building's northern end, pitched roofs located at the south-eastern end of the building, and two hipped roofs present at the two-storey section of the building located at its western elevation. The pitched and hipped roofs are composed of slate with clay ridge tiles, and the flat sections are covered by bitumastic roofing felt. Two skylights are present at the southern end of the building.
- 3.3.4 Gaps suitable for access by bats were noted at the exterior of the building, at gaps in the brickwork, behind timber boarded windows, at ventilation bricks and louvred vents, under roofing slates and ridge tiles.
- 3.3.5 No evidence of roosting bats was detected at the exterior of the building. An internal inspection of the building could not be completed, however. Due to the presence of features suitable for use by roosting bats, and the suitability of the habitats within and surrounding the site for foraging and commuting bats (as described below), the building is assessed to be of 'moderate' suitability for use by roosting bats. The requirement for and scope of further surveys to determine the presence or absence of roosting bats at the building is considered further at **Section 4.4**.

Daylight Survey: Trees

- 3.3.6 None of the trees within the site support any features suitable for use by roosting bats. The presence of roosting bats is reasonably discounted at the trees within the site.

Habitat Assessment for Commuting and Foraging Bats

- 3.3.7 The buildings and hard standing within the site are of low suitability for use by foraging and commuting bats. The tree and scrub lined tramline to the immediate east of the site provides suitable habitat for foraging and commuting bats associated with urban areas such as common pipistrelle; the wider area is considered to be of 'moderate' suitability for use by foraging and commuting bats.

Bird Species

- 3.3.8 Birds detected in the site in April 2023 are listed in **Table 3.3**, below.

Table 3.3: Bird species Detected on 13th April 2023

Scientific Name	Common Name	BOCC Status ¹
<i>Corvus corone corone</i>	Carrion crow	Green
<i>Cyanistes caeruleus</i>	Blue tit	Green
<i>Parus major</i>	Great tit	Green
<i>Columba palumbus</i>	Wood pigeon	Green
<i>Passer domesticus</i>	House sparrow	Red
¹ BOCC: Birds of Conservation Concern (Stanbury, et al., 2021). Priority Species are presented in bold .		

- 3.3.9 The trees, scrub and building are all suitable for use by nesting passerine (i.e. perching) species, including those detected within the site during the survey. This is considered further at **Section 4.4**, below.

Reptiles

- 3.3.10 The habitats within the site provide poor quality habitat for sheltering, basking and hibernating reptiles. There are no piles of garden waste or other suitable debris for use by sheltering or hibernating reptiles, and the site supports no favourable habitat for basking reptiles. The species-poor habitats within the site are reasonably unlikely to support a large population or a variety of invertebrate prey.
- 3.3.11 The site is not adjacent or linked to any areas of favourable habitat for reptile species, and there are no records of reptile for the site or the wider area. The presence of reptiles within the site is reasonably discounted.

Other Wildlife

- 3.3.12 The site supports habitats which may be suitable for foraging hedgehog (*Erinaceus europaeus*), a Priority Species; it is considered that the site is too small to provide core or important habitat for this species, however. The suitability of the site for hedgehog is considered further at **Section 4.4** below.

4.0 EVALUATION AND ASSESSMENT

4.1 Introduction and Description of Proposals

- 4.1.1 It is proposed to demolish the existing building and construct 2 new later living apartment blocks.
- 4.1.2 **Section 4.2** provides an assessment of any impacts of the proposed development on the designated sites for nature conservation present in the wider area. The ecological value of habitats within the site is evaluated at **Section 4.3**, and protected and notable species are considered at **Section 4.4**.

4.2 Designated Sites for Nature Conservation

- 4.2.1 It is considered that the site is sufficiently small and distant from all designated sites for nature conservation that the proposed development will have no impact upon them.

4.3 Vegetation and Habitats

- 4.3.1 Only common and widespread plant species were found. None of the habitats present are representative of semi-natural habitat. The NVC communities present are typical of the geographical area and conditions present. No Priority Habitats are present within the site.

- 4.3.2 In terms of each habitat's importance in a geographical context³, the planted trees, ornamental shrubs and area of scrub are of 'site' value only, and the building and hard standing are not considered to hold any importance on a geographical scale.
- 4.3.3 Measures for the protection of any habitats to be retained within the site and the trees at the site boundaries are presented at **Section 5.2**. Measures to include within the site landscape design for the benefit of biodiversity are presented at **Section 5.7**.
- 4.3.4 Japanese Knotweed, an invasive species listed under Schedule 9 of the *Wildlife and Countryside Act 1981* (as amended), has been detected within the site. It is considered that the proposals present an opportunity for the eradication of this as part of the proposed development. Further guidance is presented at **Section 5.3** of this report.

4.4 Protected Species and Other Wildlife

- 4.4.1 The building is suitable for use by roosting bats, and is set within a wider landscape of habitat suitable for use by foraging and commuting bats. The building is assessed to be of 'moderate' suitability for use by roosting bats. In accordance with *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn)* (Collins, J. (ed), 2016), at least two dawn re-entry / dusk emergence surveys are required at the building. Three will be required to reliably demonstrate absence of roosting bats if no access to the internal areas is possible. The scope of the further surveys is presented at **Table 5.1**, below.
- 4.4.2 Habitats within and adjacent to the site are suitable for foraging and commuting bats. Recommendations relating to the retention of features suitable for use by foraging and commuting bats, and features to enhance habitats for roosting bats at the site are presented at **Section 5.4**.
- 4.4.3 The trees, shrubs and building provide suitable foraging and nesting habitat for the species of birds detected within the site and the wider area via the records search (including house sparrow, a Priority Species). Consideration of birds, including protection of breeding birds and recommended enhancements for Priority Species, are presented at **Section 5.5** of this report.
- 4.4.4 The site supports habitats which may contribute to a wider foraging area of hedgehog, a Priority Species. Measures for the protection of hedgehog during the construction phase of the proposed development are presented at **Section 5.6**, with measures to ensure that the proposals do not create obstructions to hedgehog and their movement.

³ Using the terms presented at Section 4.7 of *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine* (CIEEM, 2018), i.e. International and European, National, Regional, Local Authority-wide area, River Basin District, Estuarine system / Coastal cell or Local. The term 'site' value is additionally used to highlight ecological features considered to be of importance in the context of the wider site habitats, but which are of negligible value in the context of the local area.

5.0 RECOMMENDATIONS

5.1 Introduction

- 5.1.1 These recommendations aim to ensure that the development is implemented in accordance with relevant wildlife legislation, Natural England guidance, the principles of the National Planning Policy Framework (NPPF), local planning policy and best practice.
- 5.1.2 In accordance with Chapter 15, paragraph 180(d) of the NPPF:
'opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate'.
- 5.1.3 Where possible, opportunities to enhance the ecological interest and habitat connectivity and seek biodiversity gain through appropriate landscape planting and habitat creation have been identified.
- 5.1.4 All recommendations are appropriate to the geographical area, the habitats in the wider area, the wildlife present in the local area (and likely to use the site post-construction) and take into consideration the end use of the site as a residential development.

5.2 Protection of Existing Vegetation

Protection of Trees and Shrubs

- 5.2.1 During the construction phase, temporary protective demarcation fencing will be used to protect the trees, shrubs and hedgerows to be retained. The fencing must extend outside the canopy of the retained trees and must remain in position until all areas have been developed to ensure protection is provided throughout the construction phase.
- 5.2.2 The fencing will be in accordance with BS5837:2012 *Trees in Relation to Design, Demolition and Construction: Recommendations* (BSI, 2012).

5.3 Invasive Plant Species

- 5.3.1 It is an offence under the *Wildlife and Countryside Act 1981* (as amended) to cause the spread of Japanese Knotweed in the wild. It is recommended that a specialist contractor is employed for the eradication / control of this species at the site, and that this is completed under a suitable Invasive Species Management Plan.

5.4 Bats

Further Surveys

5.4.1 The further surveys required at the site are outlined at **Table 5.1**.

Table 5.1: Further Surveys Required for Bats at Building 1

Survey type	Survey Timings and Frequency ¹
Dusk emergence survey / dawn re-entry survey	Three surveys required to reliably determine absence if no access can be gained to the internal areas. Two surveys may be sufficient if an internal inspection is completed. Three surveys may still be required if roosting bats are detected and it is not considered that all roosting locations and / or the type of roost present has been determined by the first survey. The surveys must be completed in the bat active season, i.e. between May and September, with at least two of the surveys between May and August. Dusk emergence surveys must commence at least 15 minutes before sunset and last until between 1.5 and 2 hours after sunset. Dawn re-entry surveys must commence between 1.5 and 2 hours before sunrise and last until 5 minutes after sunrise. Surveys must be spaced at least 2 weeks apart.
¹ in accordance with Table 7.1 of <i>Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn)</i> (Collins, J. (ed), 2016)	

Lighting

5.4.2 Paragraph 185(c) in Chapter 15 (conserving and enhancing the natural environment) of the NPPF states that development should:

'limit the impact of light pollution from artificial light on local amenity, intrinsically dark landscapes and nature conservation.'

Construction Phase

5.4.3 Any lighting to be used at the site during construction should be directional and screened where possible, this specification should be included within a Construction Environment Management Plan (CEMP), or similar.

Development Lighting Design

5.4.4 The lighting scheme to be implemented at the developed site must involve the use of appropriate products and screening, where necessary, to ensure no excessive artificial lighting shines over the tramline to the east of the site, and any areas of ecological enhancement and / or landscape planting, as lighting overspill may deter use by wildlife such as foraging bats.

5.4.5 The lighting scheme will be designed with reference to current guidance, namely:

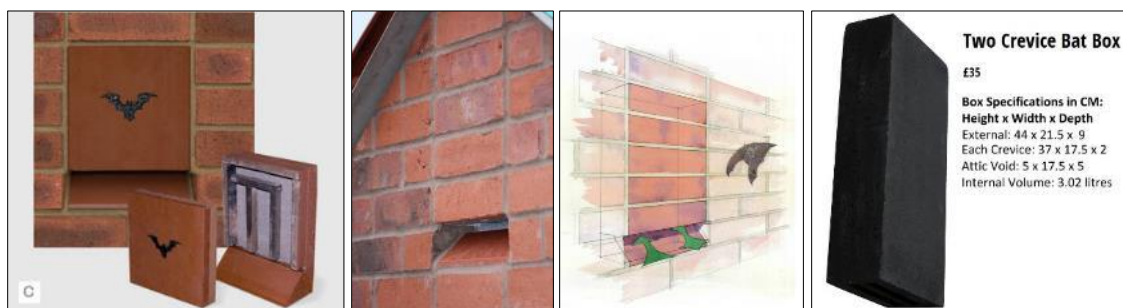
- Guidance Note 8: Bats and Artificial Lighting in the UK* (Institution of Lighting Professionals & Bat Conservation Trust, 2018); and
- Bats and lighting: Overview of current evidence and mitigation guidance* (Stone, 2014).

Enhancing Habitats for Roosting Bats

5.4.6 It is recommended that the development incorporates the installation of bat access panels at the new building.

5.4.7 The bat access panels should be sited at least 4 metres above ground level, ideally facing or close to areas of landscape planting or existing linear features. The access panels should not be positioned over windows

or doorways where bat droppings may become a nuisance. Once the development layout has been finalised, an ecologist should advise on appropriate positions for the bat access panels. Suitable bat access panels are available from NHBS Ecology (www.nhbs.com), Wild Care (www.wildcare.co.uk) and / or Greenwood's Ecohabitats (www.greenwoodsecohabitats.co.uk) and are presented at **Insert 1**, below:



Insert 1: Examples of integrated bat access panels and an externally mounted box⁴

5.5 Birds

Protection

- 5.5.1 All wild birds are protected under the *Wildlife and Countryside Act 1981* (as amended) while they are breeding. It is advised that any works such as vegetation clearance or demolition that will affect habitats suitable for use by nesting birds are scheduled to commence outside the bird nesting season. Commencement of works in the nesting season must be informed by a pre-works nesting bird survey, carried out by a suitably experienced ecologist. The bird breeding season typically extends between March to August inclusive.
- 5.5.2 If breeding birds are detected the ecologist will issue guidance in relation to the protection of the nesting birds in conjunction with the scheduled works. This may involve cordoning off an area of the site until the young birds have fledged.

Enhancing Habitats for Nesting Birds

House Sparrow

- 5.5.3 House sparrows are associated with suburban areas. Monitoring suggests a severe decline in the UK house sparrow population, estimated as halving in rural areas, and dropping by 60% in towns and cities since the mid-1970's (RSPB, 2018).
- 5.5.4 The installation of house sparrow terrace nest boxes is recommended at the proposed new building. The boxes will not be positioned over windows or doorways where droppings may become a nuisance. RSPB advice states that boxes should ideally be sited facing north to east, to avoid exposure to direct sunlight, which may cause overheating of chicks in the nest.
- 5.5.5 Such bird boxes are available from the NHBS (www.nhbs.com) or Wild Care (www.wildcare.co.uk). ERAP (Consultant Ecologists) Ltd will advise on the siting of bird boxes.
- 5.5.6 An example of a suitable house sparrow bird box is given below at **Insert 2**:

⁴ Left to right: IBstock Enclosed Bat Box 'c' (left); Habibat Bat Access Panels (centre left and centre right) and Greenwood's Ecohabitats's two crevice bat box (right). Products with a brick face are illustrated, however the Habibat bat access panels can be supplied unfaced to enable the addition of matching material.



Insert 2: Schwegler 1SP House Sparrow Nesting Terrace

Swift

- 5.5.7 The swift (*Apus apus*) has recently been added to The Birds of Conservation Concern Red list (Stanbury, et al., 2021) owing to the recorded recent declines and its identified status as a high conservation priority.
- 5.5.8 The construction of the residential properties provides an opportunity for the installation of additional nesting opportunities for swift to assist their conservation. Suitable swift nest boxes are illustrated at **Insert 3** below.



Insert 3: Examples of swift nest boxes⁵

5.6 Protection of Hedgehog (and Other Wildlife) and Maintenance of Habitat Connectivity

Protection of Wildlife During Works

- 5.6.1 The following Reasonable Avoidance Measures (RAMs) Method Statement will be completed during the construction phase of the proposed development:
- a. All site personnel must be made aware of this RAMs;
 - b. Prior to any soil strip, vegetation will be strimmed to a height of no less than 0.15 metres and all arising removed;
 - c. During construction, any holes, trenches or other pits which hedgehog (or other wildlife) could fall into will be covered overnight, or have sloped banks or ramps top allow escape; and
 - d. If any wildlife species (such as a hedgehog) is detected, it must be carefully picked up, placed in a clean bucket and moved to an area of suitable habitat beyond the development area.

⁵ From left to right No. 17A Schwegler Swift Nest Box (Triple Cavity) as installation (centre), Manthorpe Swift Nesting Box (right) and Ibstock Eco-habitat for Swift (right), all available from www.NHBS.com and / or Wild Care (www.wildcare.co.uk).

Maintenance of Habitat Connectivity

- 5.6.2 To ensure habitat connectivity is maintained as part of the development proposals, gaps within the proposed fencing to allow access by other wildlife (including hedgehog) should be incorporated across the site; example accesses are presented at **Insert 4**, below, as reproduced from *Hedgehogs and Development* (British Hedgehog Preservation Society / PTES, 2019). It is recommended that appropriate wildlife gaps (at least 0.1 metres tall and 0.15 metres wide) are installed at suitable intervals around the base of the proposed fencing.



Insert 4: Showing wildlife access gap within fencing

5.7 Landscape Planting

- 5.7.1 It is recommended that the landscape planting within the developed site is composed from native species and species known to be of value for the attraction of wildlife.
- 5.7.2 It is recommended that trees which support blossom and fruit which will attract insects are incorporated into the landscape planting. Suitable species are presented at **Table 5.2**, below.

Table 5.2: Suitable Native Species for Tree and Shrub Planting

Scientific Name	Common Name	Scientific Name	Common Name
<i>Acer campestre</i>	Field Maple	<i>Prunus spinosa</i>	Blackthorn
<i>Corylus avellana</i>	Hazel	<i>Rosa arvensis</i>	Field Rose
<i>Crataegus monogyna</i>	Hawthorn	<i>Rosa canina</i>	Dog-rose
<i>Ilex aquifolium</i>	Holly	<i>Sambucus nigra</i>	Elder
<i>Malus sylvestris</i>	Crab Apple	<i>Sorbus aucuparia</i>	Rowan
<i>Prunus avium</i>	Wild Cherry	<i>Ulmus glabra</i>	Wych Elm
<i>Prunus padus</i>	Bird Cherry	<i>Viburnum opulus</i>	Gelder Rose

- 5.7.3 The understorey and ground cover planting design should be prepared to optimise the attraction of invertebrates such as feeding bumblebees and butterflies. Where possible the use of native species should be maximised but where necessary non-native species known to be attractive to invertebrates should be used.
- 5.7.4 Planting schemes that include flowering species such as *Viburnum*, *Ceanothus*, *Hebe*, *Lavandula*, *Lonicera*, *Potentilla*, *Rosmarinus* and *Vinca* can maximise opportunities for feeding invertebrates and for the attraction of foraging bats and birds.
- 5.7.5 For further plants suitable for the attraction of pollinators please refer to the *Perfect for Pollinators Plant List* (Royal Horticultural Society, 2012). It is recommended that the selection of plant species at the site ensures that a variety of flowering species are available throughout the year.

6.0 CONCLUSION

- 6.1 Further surveys are required at the building to determine the presence or absence of roosting bats. This ecological assessment has otherwise demonstrated that the proposed demolition of the existing building followed by the construction of 2 later living apartment blocks is feasible and acceptable in accordance with ecological considerations and the National Planning Policy Framework.
- 6.2 It is possible to implement reasonable actions for the protection and long-term conservation of fauna such as nesting birds and commuting / foraging bats associated with the site. Measures to conserve the habitat connectivity through the site are entirely feasible.
- 6.3 Development at the site will provide an opportunity to secure ecological enhancement for fauna typically associated with urban areas such as breeding birds and roosting bats.

7.0 REFERENCES

- Andrews, H (ed), 2013. *Bat Tree Habitat Key, 3rd Edition*. Bridgewater: AEcol Ltd.
- Bainbridge, I. et al., 2013. *Guidelines for the Selection of Biological SSSIs*. Peterborough: Joint Nature Conservancy Council.
- British Hedgehog Preservation Society / PTES, 2019. *Hedgehogs and Development*, Ludlow: British Hedgehog Preservation Society / PTES.
- BSI, 2012. *Trees in relation to design, demolition and construction. Recommendations*. London: BSI Standards Limited.
- BTHK, 2018. *Bat Roosts in Trees - A Guide to Identification and Assessment for Tree-Care and Ecology Professionals*, Exeter: Pelagic Publishing.
- Butcher, B. et al., 2020. *UK Habitats Classification User Manual Version 1.1*, Stockport: UKHab Ltd.
- CIEEM, 2013. *Technical Guidance Series Competencies for Species: Bats*. Winchester: Chartered Institute of Ecology and Environmental Management.
- CIEEM, 2018. *Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine version 1.1*, Winchester: Chartered Institute of Ecology and Environmental Management.
- Collins, J. (ed), 2016. *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn)*. London: The Bat Conservation Trust.
- Edgar, P., Foster, P & Baker, J., 2010. *Reptile Habitat Management Handbook*. Bournemouth: Amphibian and Reptile Conservation.
- Great Britain, 1981. *Wildlife and Countryside Act*. London: H.M.S.O.
- Great Britain, 2006. *Natural Environment and Rural Communities Act*. London: H.M.S.O.
- Great Britain, 2019. *The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations*. London: H.M.S.O.
- Institution of Lighting Professionals & Bat Conservation Trust, 2018. *Guidance Note 8: Bats and Artificial Lighting in the UK*. [Online]
Available at: <https://www.theilp.org.uk/documents/guidance-note-8-bats-and-artificial-lighting/>
[Accessed 23 April 2023].
- JNCC, 2010. *Handbook for Phase 1 Habitat Survey: A technique for Environmental Audit*. Peterborough: NCC.
- Lally Tree Management, 2021. *Chorlton Baths, Manchester Road, Manchester M21 9GA: Arboricultural Implications Plan Drawing No. LTM0299.AIP.01*, Manchester: Lally Tree Management.
- Maddock, A (ed), 2008. *UK Biodiversity Action Plan: Priority Habitat Descriptions*. [Online]
Available at: <http://jncc.defra.gov.uk/page-5718>
- Maddock, A., 2008. *UK Biodiversity Action Plan; Priority Habitat Descriptions (Updated Dec 2011)*. [Online]
Available at: <http://jncc.defra.gov.uk/page-5706>

- Ministry of Housing, Communities & Local Government, 2005. *Circular 06/05: Biodiversity and Geological Conservation - Statutory Obligations and Their Impact Within The Planning System*, London: Office of the Deputy Prime Minister.
- Ministry of Housing, Communities and Local Government, 2021. *National Planning Policy Framework*. London: H.M.S.O.
- Mitchell-Jones, A., 2004. *Bat Mitigation Guidelines*. Peterborough: English Nature.
- Mitchell-Jones, A. J. & Mcleish, A. P., 2004. *Bat Workers' Manual, 3rd Edition*. Peterborough: Joint Nature Conservation Committee.
- Natural England, 2007. *Badgers and Development*, Peterborough: Natural England.
- Natural England, 2011. *The Reptile Mitigation Guidelines*. Peterborough: Natural England.
- Natural England, 2022. *Badgers: advice for making planning decisions*. [Online]
Available at: <https://www.gov.uk/guidance/badgers-advice-for-making-planning-decisions>
[Accessed 21 April 2023].
- Ordnance Survey, 2023. *Site Check Report Centroid Grid Ref: SJ81709450*. [Online]
Available at: <http://magic.defra.gov.uk/magicmap.aspx>
[Accessed 23 February 2023].
- Ratcliffe, D. A., 1977. *A Nature Conservation Review*. Cambridge: Cambridge University Press.
- Rodwell, J. S., 1991. *British Plant Communities: Volume 1, Woodlands and Scrub*. Cambridge: Cambridge University Press.
- Rodwell, J. S., 2000. *British Plant Communities Volume 5, Maritime Communities and Vegetation of Open Habitats*. Cambridge: Cambridge University Press.
- Roper, T., 2010. *Badger (Collins New Naturalist Library, Book 114)*. Glasgow: Harper Collins.
- Royal Horticultural Society, 2012. *Perfect for Pollinators, Garden Plants*. [Online]
Available at: <https://www.rhs.org.uk/science/conservation-biodiversity/wildlife/encourage-wildlife-to-your-garden/plants-for-pollinators>
- RSPB, 2018. *Population Trends: The Recent Decline of House Sparrows*. [Online]
Available at: <https://www.rspb.org.uk/birds-and-wildlife/wildlife-guides/bird-a-z/house-sparrow/population-trends/>
[Accessed 24 April 2023].
- Stace, C. A., 2010. *New Flora of the British Isles 3rd Edition*. Cambridge: Cambridge University Press.
- Stanbury, A. et al., 2021. The status of our bird populations: the fifth Birds of Conservation Concern in the United Kingdom, Channel Islands and Isle of Man and second IUCN Red List assessment of extinction risk for Great Britain. *British Birds*, Issue 108, pp. 723-747.
- Stone, E. L., 2014. *Bats and Lighting: Overview of current evidence and mitigation guidance*. Bristol: University of Bristol.

8.0 APPENDIX: TABLES, PHOTOGRAPHS AND FIGURES

8.1 Plant Species Lists

Table 8.1: Plant Species List for Vegetation Colonising Hard Standing

Scientific Name	Common Name	DAFOR ¹	% Cover
Woody Species			
<i>Acer pseudoplatanus</i>	Sycamore (sapling)	R	<1%
<i>Betula pendula</i>	Silver Birch (sapling)	R	<1%
<i>Buddleja davidii</i>	Butterfly-bush	O	<1%
Herb Species			
<i>Artemisia vulgaris</i>	Mugwort	R	<1%
<i>Capsella bursa-pastoris</i>	Shepherd's-purse	VLF	<1%
<i>Cerastium fontanum</i>	Common Mouse-ear	R	<1%
<i>Dipsacus fullonum</i>	Wild Teasel	R	<1%
<i>Epilobium hirsutum</i>	Great Willowherb	R	<1%
<i>Festuca rubra</i>	Red Fescue	VLF	<1%
<i>Fragaria ananassa</i>	Garden Strawberry	VLF	<1%
<i>Galium aparine</i>	Cleavers	R	<1%
<i>Geranium robertianum</i>	Herb-Robert	O/VLF	<1%
<i>Geum urbanum</i>	Wood Avens	O	<1%
<i>Hedera helix</i>	Ivy	VLF	<1%
<i>Hypericum androsaemum</i>	Tutsan	R	<1%
<i>Linaria purpurea</i>	Purple Toadflax	R	<1%
<i>Lolium perenne</i>	Perennial Rye-grass	VLF	<1%
<i>Meconopsis cambrica</i>	Welsh Poppy	R	<1%
<i>Myosotis arvensis</i>	Field Forget-me-not	R	<1%
<i>Oenothera biennis</i>	Common Evening-primrose	R	<1%
<i>Pentaglottis sempervirens</i>	Green Alkanet	VLF	<1%
<i>Plantago lanceolata</i>	Ribwort Plantain	R	<1%
<i>Poa annua</i>	Annual Meadow-grass	R	<1%
<i>Reseda luteola</i>	Weld	R	<1%
<i>Rubus fruticosus</i> agg.	Bramble	O/VLF	<1%
<i>Senecio vulgaris</i>	Groundsel	VLF	<1%
<i>Sonchus oleraceus</i>	Smooth Sow-thistle	R	<1%
<i>Taraxacum officinale</i> agg.	Dandelion	O	<1%
<i>Urtica dioica</i>	Common Nettle	O	<1%
<i>Valeriana officinalis</i>	Common Valerian	VLF	<1%
<i>Veronica chamaedrys</i>	Germander Speedwell	VLF	<1%

¹**Key to DAFOR:** D = Dominant, A = Abundant, F = Frequent, O = Occasional, R = Rare, L = Local / locally and V = Very. * Denotes a constant species.

Table 8.2: Flaile Bramble Scrub

Scientific Name	Common Name	DAFOR ¹	% Cover
<i>Dactylis glomerata</i>	Cock's-foot	O	<1%
<i>Epilobium hirsutum</i>	Great Willowherb	O	<1%
<i>Equisetum arvense</i>	Field Horsetail	VLF	<1%
<i>Fallopia japonica</i>	Japanese Knotweed	F*	10%
<i>Galium aparine</i>	Cleavers	A*	10%
<i>Geranium robertianum</i>	Herb-Robert	R	<1%
<i>Geum urbanum</i>	Wood Avens	O	<1%
<i>Hedera helix</i>	Ivy	LF	<1%
<i>Holcus lanatus</i>	Yorkshire-fog	R	<1%
<i>Rubus fruticosus</i> agg.	Bramble	A*	80%
<i>Rumex obtusifolius</i>	Broad-leaved Dock	O	<1%
<i>Taraxacum officinale</i> agg.	Dandelion	O	<1%
<i>Urtica dioica</i>	Common Nettle	LF	5%

¹**Key to DAFOR:** D = Dominant, A = Abundant, F = Frequent, O = Occasional, R = Rare, L = Local / locally and V = Very. * Denotes a constant species.

8.2 Photographs



Photo 1: Vegetation colonising hard standing



Photo 2: Cherry trees at the northern end of the site



Photo 3: Unmanaged ornamental planting



Photo 4: Flaile Bramble scrub



Photo 5: Building 1, south-western corner



Photo 6: Building 1, western elevation, southern end



Photo 7: Building 1, western elevation, northern end



Photo 8: Building 1, northern elevation, western end



Photo 9: Building 1, northern elevation, eastern end, showing metal single-storey extension



Photo 10: Building 1, eastern elevation, northern end



Photo 11: Building 1, showing southern elevation of metal extension



Photo 12: Building 1, eastern elevation, southern end



Photo 13: Building 1, south-eastern corner



Photo 14: Building 1, south-western corner

8.3 Figures

Figure 1: Aerial Image of the Site and its Surroundings



Figure 2: Phase 1 Habitat Vegetation Map of the Site

