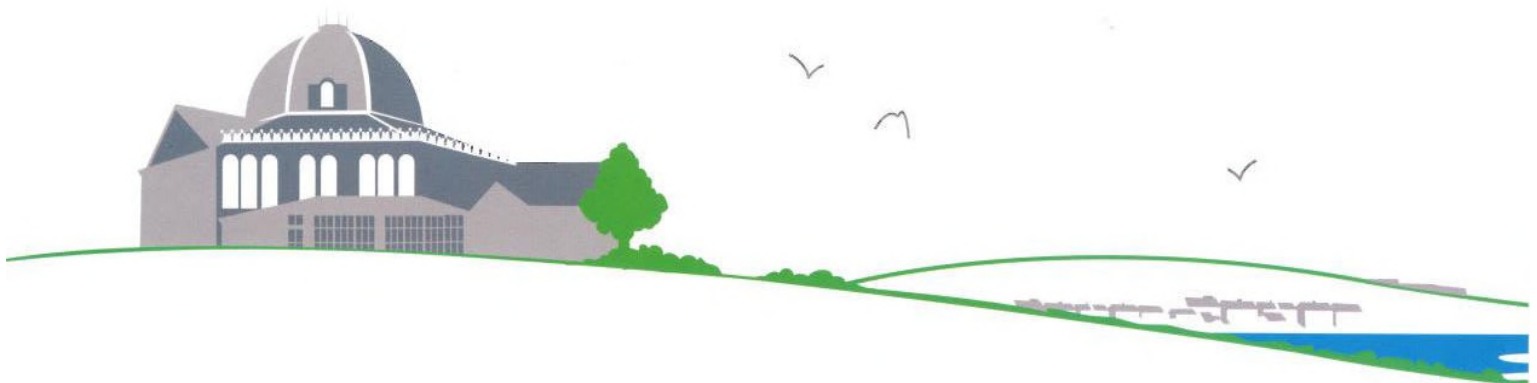




RIDGE AND PARTNERS LLP

50 FOUNTAIN STREET, MANCHESTER

EXTENDED PHASE 1 HABITAT SURVEY AND
INSPECTION OF BUILDING FOR BATS



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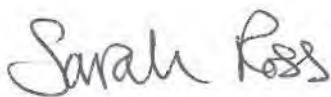
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March 2021

This project has been undertaken in accordance with PAA policies and procedures on quality assurance.

Signed: _____



CONTENTS

Page

1. INTRODUCTION	1
Site Location	1
Bat Biology	1
Legislative Context	1
2. METHODS	3
Desk Study	3
Extended Phase 1 Habitat Survey	3
Bat Building Inspection	3
Limitations	4
3. RESULTS	5
Desk Study	5
Statutory Protected Sites	5
European Sites	5
Sites of Special Scientific Interest	5
National and Local Nature Reserves	5
Priority Habitats	6
Non-Statutory Protected Sites	6
Protected and Notable Species	6
Granted European Protected Species Application	6
Badger	7
Otter	7
Water Vole	7
Bats	7
Other Mammals	8
Birds	8
Amphibians	9
Invertebrates	10
Reptiles, White-clawed Crayfish and Notable Fish	10
Notable Plant Species	10
Phase 1 Habitat Survey	10
Invasive Non-Native Species	10
Bat Building Inspection	10

Habitat Suitability	10
Building	11
External Survey	11
Internal Survey	11
Overall Assessment	12
Other Protected Species	12
4. DISCUSSION AND RECOMMENDATIONS.....	13
Bats.....	13
Breeding Birds.....	13
Biodiversity Enhancement Opportunities	14
5. REFERENCES	15
6. ABBREVIATIONS	16

TABLES

1	Building Assessment Criteria	4
2	Sites of Biological Importance and Regionally Important Geological/geomorphological Sites Designation Details.....	6
3	Bat European Protected Species Licences	6
4	Bat Records other than Roosts	8
5	Bird Species of Conservation Importance	9

FIGURE

- Extended Phase 1 Habitat Survey and Building Inspection for Bats

APPENDICES

- Photographs
- Botanical Species List

1. INTRODUCTION

- 1.1 Penny Anderson Associates Ltd (PAA) was commissioned by Ridge and Partners LLP to carry out an extended Phase 1 Habitat survey and building inspection for roosting bats at 50 Fountain Street, Manchester (hereafter referred to as the 'site').
- 1.2 This report describes the methods and results of an extended Phase 1 Habitat survey carried out in March 2021 and a review of desk study data obtained in March 2021 from Greater Manchester Ecology Unit (GMEU) local records centre. A detailed assessment of the potential for the built structure on the site to support roosting bats was also undertaken and is presented in this report.

Site Location

- 1.3 The site is located at 50 Fountain Street, Manchester, M2 2AS. The majority of the site comprises a three-storey built structure, with the rest of the site being a paved area at the site entrance with street trees and a small, planted compartment.
- 1.4 The setting of the site is highly urbanised, with the closest recreational green space, Piccadilly Gardens, being 200m to the north-east.
- 1.5 In the wider landscape, Rochdale Canal runs 500m to the south-east, and the River Irwell 550m to the north-west.

Bat Biology

- 1.6 There are 17 species of native bats known to be resident (i.e. breed) in the British Isles. British bats feed entirely on insects and have developed a complex sonar system, known as echolocation, which enables them to find prey and navigate around their environment at night.
- 1.7 Habitat requirements vary widely, both on an individual and species level, although certain features, such as woodland, parkland, traditional pasture, marshes and areas of freshwater, are often focal points for foraging, as insects are plentiful in these areas (Mitchell-Jones 2004). Bats use linear features, such as rivers, hedgerows, smaller roads and woodland edges, as landmarks in order to commute from one location to another (Schofield and Mitchell-Jones 2003).
- 1.8 Bats utilise different roosts at different times of the year. Between late October and March, bats hibernate; this requires an unexposed roost with a stable temperature, typically a cave, cellar or tunnel. Around March, the bats emerge and gradually move to their summer roosts, typically within man-made structures or suitable crevices in trees. During the spring and summer female bats gather together at maternity roosts to give birth and rear their young. Most births occur between late June and mid-July, with the young able to fly within three to five weeks (Altringham 2003; Waters and Warren 2003). By the end of August, most of the young bats are independent and the colony begins to break up (Schofield and Mitchell-Jones 2003). Mating takes place between August and December, either at the winter hibernation site or at autumn breeding sites. The numbers of bats utilising these roosts can vary from single bats to hundreds in a nursery colony or hibernation site (Altringham 2003).

Legislative Context

- 1.9 A range of international and national legislation has been established in the UK to protect important nature conservation sites and priority species. At the international level, European Union (EU) Directives require individual member states to implement their conservation provisions nationally for the benefit of Europe as a whole. These Directives have been transposed into UK law by the Conservation of Habitats and Species Regulations 2017 (amended); further details can be obtained from the Joint Nature Conservation Committee (JNCC) web site at www.jncc.defra.gov.uk.

- 1.10 Other international conventions include: the Bern Convention on the Conservation of European Wildlife and Natural Habitats (1979), which requires the maintenance of populations of wild flora and fauna, giving particular protection to endangered and vulnerable species; and the Bonn Convention on the Conservation of Migratory Species of Wild Animals (1979), which requires the protection of migratory species throughout their entire range. The above conventions are implemented in England and Wales via the Wildlife and Countryside Act (WCA) (1981) (as amended) and Countryside and Rights of Way (CROW) Act 2000. This legislation also protects important habitats and sites such as Sites of Special Scientific Interest (SSSI).
- 1.11 At the national level, the UK Post-2010 Biodiversity Framework published in 2012 is the Government's response to the Convention on Biological Diversity (2010). It describes the UK's biological resources, commits a detailed plan for the protection of these resources within the UK's devolved framework across England, Wales, Scotland and Northern Ireland. The document identifies future priorities for nature conservation and adopts a more strategic approach, including ecosystem services and sustainability alongside biodiversity. Despite administrative changes following devolution, there is still an underlying objective of protecting and enhancing a range of priority species and habitats, often still based on the objectives and classifications of the original UK Biodiversity Action Plan (BAP). *Biodiversity 2020* is England's national biodiversity strategy. Building on the *Natural Environment White Paper* published in 2011, this provides a means of delivering the international and EU commitments to biodiversity. Under Biodiversity 2020, Priority Species and Habitats referred to are those of 'Principal Importance' for the conservation of biodiversity in England listed on Section 41 (England) of the Natural Environment and Rural Communities (NERC) Act 2006.
- 1.12 Finally, the National Planning Policy Framework (NPPF 2019) provides guidance for local authorities on the content of the Local Plans and is a material consideration in determining planning applications. Briefly, with an overall focus on sustainable development, the NPPF states that developments should aim to engender positive outcomes for habitats and biodiversity, with a particular focus on the maintenance and creation of ecological networks. Furthermore, the NPPF also states that any planning proposals for which significant negative impacts on biodiversity cannot be avoided, mitigated or compensated for should be refused. The NPPF states that the planning system should contribute to and enhance the natural environment through a range of actions, including:
- protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils;
 - recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services; and
 - minimising impacts on biodiversity and providing net gains for biodiversity including establishing coherent ecological networks that are more resilient to current and future pressures.
- 1.13 To protect and enhance biodiversity and geodiversity, plans should:
- Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation; and
 - promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.

2. METHODS

Desk Study

- 2.1 A request for details of protected and notable species and locally designated sites within 2km of the centre of the site was made to GMEU, with data returned in March 2021. Additionally, the Multi-Agency Geographic Information for the Countryside (MAGIC¹) website was consulted for details of statutory designated sites and Priority Habitats within a 2km search area from the centre of the site.
- 2.2 It is important to note that the desk study results provide an indication of the species present in and around the site, and do not confirm current presence or absence of any species. Protected species are often under-recorded in county wildlife databases.

Extended Phase 1 Habitat Survey

- 2.3 An extended Phase 1 Habitat survey was undertaken by Ecologist Rob Lamb ACIEEM² on 5th March 2021.
- 2.4 The survey was carried out in accordance with the methodology in the *Handbook for Phase 1 Habitat Survey* (JNCC 2010). This entailed mapping, describing and collating plant species lists for habitats within the site boundary. The broad habitat types were mapped, with each habitat type coded according to the standard JNCC Phase 1 Habitat survey procedure.
- 2.5 Each plant species was assigned abundance codes within each habitat. This was done using the 'DAFOR' scale (where: d = dominant; a = abundant; f = frequent; o = occasional; r = rare), which provides an indication of the relative abundance of each plant species present within a particular habitat. Common names and scientific names according to Stace (2019) are provided in the species list (Appendix 2) but common names only are referred to in the text.
- 2.6 The survey was 'extended' (IEA 1995, CIEEM 2017) to include notes on fauna and habitats which could potentially support protected or notable species. The presence of, or potential for, protected or notable species was noted on the field map and in the written target notes (TN) during the survey.

Bat Building Inspection

- 2.7 The built structure on site was subject to a detailed inspection to assess potential to support roosting bats. This element of the survey was carried out by Ecologist Rob Lamb ACIEEM (Natural England Bat Survey Class 1 Licence Registration Number 2020-44441-CLS-CLS) on 5th March 2021 following standard methodologies. This entailed using a high-powered torch and binoculars, making detailed notes, taking photographs (Appendix 1) and following survey guidance (Collins 2016).
- 2.8 During the inspection, the exterior of the building was walked around and examined for any signs (such as staining or droppings on surfaces, including walls and window ledges) or features suitable for roosting bats. Features of interest would include gaps around door frames, beneath

¹ <https://magic.defra.gov.uk/MagicMap.aspx> (last accessed 16/02/2021)

² Associate Member of the Chartered Institute of Ecology and Environmental Management (CIEEM)

felt/lead flashing, at the wall plates and eaves of pitched roofs, and any crevices beneath fascia boards, barge boards, within soffits or created by missing mortar within any brickwork. The structure was then assessed internally, as well as again externally using vantage points on accessible roofspaces.

- 2.9 The bat inspection assigned an overall roost potential category, based on its suitability for supporting roosting bats and any evidence found, using criteria in Table 1 adapted from the *Bat Mitigation Guidelines* (Mitchell-Jones 2004) and *Bat Surveys Good Practice Guidelines* (Collins 2016).
- 2.10 During the survey any evidence of the buildings being used by nesting birds (e.g. old nest material) was also noted.

Table 1 Building Assessment Criteria

Suitability	Description of Roosting Habitats
Negligible	No features likely to be used by roosting bats.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically, but does not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats. A tree of sufficient size to contain potential roost features but none seen from the ground or only those with very limited suitability.
Moderate	A structure or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost type of high conservation significance (i.e. suitable for day roosting but unsuitable for maternity or hibernation roost.)
High	A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat. (i.e. suitable for maternity and/or hibernation roost.)
Confirmed Roost	A structure or tree with evidence of bat presence, i.e. droppings, feeding remains, audible bat calls heard during daytime survey or sightings of the animals themselves, existing (reliable) record of bats roosting at the location.

Limitations

- 2.11 The Phase 1 Habitat survey was undertaken outside of the optimum timeframe for surveys of this type, as during the early spring months plant species can be difficult to identify, resulting in some plant species being potentially missed. The survey was, however, considered sufficient for the types of habitats present and the urban setting, and the evaluation is considered robust.
- 2.12 The building inspection survey for bats was undertaken at an appropriate time of year for these types of survey under suitable weather conditions. All accessible areas of the building were viewed.

3. RESULTS

Desk Study

- 3.1 The desk study utilised data obtained from GMEU in March 2021, searching within a 2km radius of the site centre. The MAGIC search engine was also used to obtain additional data on Species (EPS) licences, as well as designated and non-designated sites.

Statutory Protected Sites

European Sites

- 3.2 European protected sites include Special Areas of Conservation (SAC), Special Protection Areas (SPA), RAMSAR wetland sites, possible SAC, potential SPA and proposed RAMSAR sites.
- 3.3 Consultation with the search engine MAGIC revealed that there are no European Protected Sites within the 2km search area.

Sites of Special Scientific Interest

- 3.4 SSSI represent a selection of this country's best wildlife and geological sites, and cover approximately 7% of the terrestrial area of the country (with over 4,000 separate sites in England).
- 3.5 During consultation with the search engine MAGIC, no SSSI sites were identified in the 2km search area.
- 3.6 The site does, however, fall within the Impact Risk Zone (IRZ³) of
- Rochdale Canal SSSI; and
 - Hollinwood Branch Canal SSSI/SPA.
- 3.7 Further investigation revealed that within these SSSI IRZ, Natural England should be consulted on impacts relating to:
- Livestock and poultry units with floorspace > 500m², slurry lagoons > 4000m²; and
 - General combustion processes >50MW energy input including energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/combustion.

National and Local Nature Reserves

- 3.8 No National Nature Reserves or Local Nature Reserves were identified within the 2km search area.

³ The Impact Risk Zones (IRZs) are a GIS tool developed by Natural England to make a rapid initial assessment of the potential risks to SSSIs posed by development proposals. They define zones around each SSSI which reflect the particular sensitivities of the features for which it is notified and indicate the types of development proposal which could potentially have adverse impacts.

Priority Habitats

- 3.9 Several Priority Habitat deciduous woodlands were identified within the 2km search area. The nearest of these to the site is located 1.3km north of the site boundary.

Non-Statutory Protected Sites

- 3.10 Seven non-statutory protected sites were returned in the 2km data search; three of the sites are designated as Sites of Biological Importance (SBI) and the other four sites are designated as Regionally Important Geological and Geomorphological Sites (RIGS). Table 2 lists the sites, along with their designation and proximity to the survey site.

Table 2 Sites of Biological Importance and Regionally Important Geological/geomorphological Sites Designation Details

Site Name	Reason for Designation	Distance from site boundary
Ashton Canal (West)	SBI	745m south-east
Canal Cutting – Rochdale Canal	RIGS	945m south-west
Canalside Cliff, Coal Wharf Carpark	RIGS	1km south -west
Erratic in Manchester University	RIGS	1.5km south
Rock display- Manchester Museum	RIGS	1.7km south
Rochdale Canal: Stott's Lane To Ducie Street Basin	SBI	585m south-east
River Irwell	SBI	1.6km north-west

Protected and Notable Species

Granted European Protected Species Application

- 3.11 Thirteen granted EPS applications for bats were returned within the 2km search area. Eleven EPS licenses were granted for common pipistrelle (*Pipistrellus pipistrellus*) bat species, one for soprano pipistrelle (*Pipistrellus pygmaeus*) and one for brown long-eared bats (*Plecotus auritus*). Table 3 shows the location and date of each licence granted, with the nearest records being a common and soprano pipistrelle roost 398m from the site, with two other roost (common pipistrelle and brown long-eared bat) within approximately 500m of the site. These existing licences indicate bats are regularly found roosting in the local area.

Table 3 Bat European Protected Species Licences

Species	License to Allow	Date License Granted	Date License Expires	Distance from Site Boundary
Common pipistrelle	Destruction of a resting place	2017	June 2023	545m north
Common pipistrelle	Destruction of a resting place	2016	Jan 2021	1.2km west
Common pipistrelle	Destruction of a resting place	2015	2020	1km
Common pipistrelle	Destruction of a resting place	2014	2020	650m north-west

Species	License to Allow	Date License Granted	Date License Expires	Distance from Site Boundary
Common pipistrelle	Destruction of a resting place	2017	2019	675m north-west
Common pipistrelle	Destruction of a resting place	2016	2018	860m north-east
Common pipistrelle and soprano pipistrelle	Destruction of a resting place	2014	2017	398m south
Common pipistrelle	Destruction of a resting place	2016	2016	1.9km
Common pipistrelle	Unknown	2013	2016	814m south-west
Common pipistrelle	Damage of a resting place	2015	2015	1.6km
Common pipistrelle	Destruction of a resting place	2013	2015	810m north-east
Brown long-eared	Destruction of a resting place and breeding site	2012	2015	555m south-west
Common pipistrelle	Destruction of a resting place	2014	2014	1.3km north-west

Badger

- 3.12 Three records of badger (*Meles meles*) were returned within the 2km search area. The closest record is located 500m from the site boundary. Due to the sensitive nature of this data the precise location of these records is not published in this report.

Otter

- 3.13 Three records of otter (*Lutra lutra*) were returned within the 2km search area. The closest record to the site boundary is located approximately 1.67km north-west of the site boundary. All three records are associated with the River Irwell.

Water Vole

- 3.14 No records of water vole (*Arvicola amphibius*) were returned within a 2km search area.

Bats

- 3.15 A total of 41 bat roosts were recorded in the 2km search area; the roosts were recorded for common pipistrelle, Daubenton's bat (*Myotis daubentonii*), *Myotis* species, pipistrelle species (*Pipistrellus* sp.) and soprano pipistrelle. The closest roost to the site is for common pipistrelle, located just 43m north-east of the site boundary, with approximately six roosts being within c.250m of the site. Most roost records were for pipistrelle bats with common pipistrelle dominating these records, with only single records for Daubenton's and *Myotis* species roosts. The types of roost recorded could not be determined from the dataset provided.
- 3.16 In addition, numerous records were returned for signs of bats within the 2km search area. Table 4 shows the number of records of each bat species recorded in the 2km search zone (excluding roost data) and the proximity to the site of the closest record for each species.

Table 4 Bat Records other than Roosts

Common Name	Scientific Name	No. of Records	Closest Record (approximate distance and direction from site boundary)
Bat species	Chiroptera	6	217m west
Brown long-eared bat	<i>Plecotus auritus</i>	1	855m west
Common pipistrelle	<i>Pipistrellus pipistrellus</i>	82	20m south-east
Daubenton's bat	<i>Myotis daubentonii</i>	1	628m north-west
<i>Myotis</i> species	<i>Myotis</i> sp.	1	1.9km north-west
Pipistrelle species	<i>Pipistrelle</i> sp.	16	28m south-east
Soprano pipistrelle	<i>Pipistrellus pygmaeus</i>	5	295m south-west

Other Mammals

- 3.17 Six records for hedgehog (*Erinaceus europaeus*) were identified within the 2km search area. The nearest record to the site boundary is located approximately 1.1km to the south.

Birds

- 3.18 All nesting birds, their nests and eggs are protected from harm under the WCA, 1981 (as amended). In addition, species listed under Schedule 1 of the WCA are further protected against disturbance when breeding.
- 3.19 A number of bird species are listed under Section 41 in the NERC Act (2006) as species 'of principal importance for the purpose of conserving biodiversity'. These species are often known as the 'S41 species'. There is a legal requirement for a public body to 'have regard to' these species in relation to maintaining biodiversity. The S41 list overlaps somewhat with the UK BAP species, with national or local targets to maintain and enhance populations.
- 3.20 Furthermore, the Birds of Conservation Concern (BoCC) report lists those bird species that are classed as being of High (Red listed) and Medium (Amber Listed) conservation concern based on population monitoring (Eaton *et al.* 2015). This Red and Amber classification helps guide the assessment of bird species of conservation interest on or near to a site, alongside legislative and policy requirements.
- 3.21 All protected and notable bird species recorded within the 2km search area are listed in Table 5, along with their conservation status.

Table 5 Bird Species of Conservation Importance

Common Name	Scientific Name	Conservation Status			
		Amber ⁴ Listed	Red Listed	Priority Species	WCA Schedule 1 ⁵
Black redstart	<i>Phoenicurus ochruros</i>		X		X
Bullfinch	<i>Pyrrhula pyrrhula</i>	X		X	
Common linnet	<i>Linaria cannabina</i>		X	X	
Cuckoo	<i>Cuculus canorus</i>		X	X	
Dunnock	<i>Prunella modularis</i>	X		X	
European herring gull	<i>Larus argentatus</i>		X	X	
Grey heron	<i>Ardea cinerea</i>				
Hobby	<i>Falco subbuteo</i>				X
House sparrow	<i>Passer domesticus</i>		X	X	
Kingfisher	<i>Alcedo atthis</i>	X			X
Lapwing	<i>Vanellus vanellus</i>		X	X	
Lesser redpoll	<i>Acanthis caberet</i>		X	X	
Little ringed plover	<i>Charadrius dubius</i>				X
Peregrine	<i>Falco peregrinus</i>				X
Skylark	<i>Alauda arvensis</i>		X	X	
Song thrush	<i>Turdus philomelos</i>		X	X	
Spotted flycatcher	<i>Muscicapa striata</i>		X	X	
Starling	<i>Sturnus vulgaris</i>		X	X	
Tree sparrow	<i>Passer montanus</i>		X	X	
Yellow wagtail	<i>Motacilla flava</i>		X	X	

- 3.22 The bird dataset indicates a range of notable bird species in the local area, with records for black redstart (*Phoenicurus ochruros*) and peregrine (*Falco peregrinus*) being particularly notable in the vicinity of the survey site, both being listed on Schedule 1 of the WCA 1981 (amended). The more diverse assemblages of local bird populations are, however, found to the west of the site, associated with habitat around the river Irwell.

Amphibians

- 3.23 A single great crested newt (*Triturus cristatus*, GCN) record was returned within the 2km search area; the record is located some distance away at approximately 1.8km north-west of the site boundary. Consultation with Natural England's GCN Geoportal showed no known locations with confirmed presence of GCN within 2km of the central grid reference.
- 3.24 An Ordnance Survey map search identified no suitable waterbodies located within 500m of the site boundary. Rochdale Canal is located 585m from the site boundary.
- 3.25 One record for common toad (*Bufo bufo*) was returned within a 2km search area; located at some distance away, approximately 1.8km to the west of the site boundary.

⁴ The UK's birds can be split in to three categories of conservation importance - red, amber and green. Red is the highest conservation priority, with species needing urgent action. Amber is the next most critical group, followed by green

⁵ A higher level of protection is offered to bird species listed in Schedule 1 of the WCA, 1981 (as amended)

Invertebrates

- 3.26 Seven Section 41 moth species were returned from the 2km data search, with the closest located approximately 658m east of the site boundary.

Reptiles, White-clawed Crayfish and Notable Fish

- 3.27 No reptile, white-clawed crayfish (*Austropotamobius pallipes*) or notable fish records were returned from the 2km search area.

Notable Plant Species

- 3.28 Two notable plant species were returned within the 2km search area. Floating water-plantain (*Luronium natans*) is a UK BAP species and is protected under Schedule 8 of the WCA, 1981 (as amended). The closest record is located 1.5km south-west of the site boundary at Ashton Canal (west) SBI.
- 3.29 Grasswrack pondweed (*Potamogeton compressus*) is a nationally scarce and endangered plant, and a species of principal importance. A single record was returned, located 604m west of the site boundary associated with a backwater off the Rochdale Canal.
- 3.30 Yellow bird's-nest (*Monotropa hypopitys*) is noted on the distribution map of Priority Species provided by GMEU, but the location of the record is not clear from the information provided. This species is epiparasitic and is normally associated with woodland or scrub areas, therefore it is unlikely to be present close to this urban site.

Phase 1 Habitat Survey

- 3.31 Figure 1 presents the habitat map. Botanical species lists for the habitats encountered are presented in Appendix 2.
- 3.32 The majority of the site comprised the built structure. A paved street frontage is present in the east of the site, comprising hardstanding, two young common whitebeam street trees and a vegetated planting area (Photo 1). This small patch comprised largely ephemeral/short perennial plant species such as herb-Robert, broad-leaved willowherb, daisy and common chickweed, as well as ivy, butterfly-bush, common nettle and pendulous sedge.
- 3.33 Some sporadic patches of ephemeral/short perennial vegetation including moss species and ground-ivy were present at the foot of the building and within cracks in paving.
- 3.34 The small patches of habitat present comprised typical early successional urban plant communities, with all botanical species identified being common and widespread.

Invasive Non-Native Species

- 3.35 No plants listed as Schedule 9 Invasive Non-native Species (INNS) in the WCA, 1981 (as amended) were recorded within the site boundary.

Bat Building Inspection

Habitat Suitability

- 3.36 The immediate surrounding habitat was assessed as having low suitability for bats. Most of the immediate surroundings comprise highly urbanised landscapes and well-lit roads, with the closest recreational green space, Piccadilly Gardens, 200m north-east.

- 3.37 In the wider landscape, Rochdale Canal runs 500m to the south-east, and the River Irwell 550m to the north-west. These more distant locations provide locally important foraging opportunities for bats.
- 3.38 The site itself was assessed as having low to negligible suitability for commuting and foraging bats. This is due to a lack of suitable habitat available and the presence of security and street lighting within and bordering the site.
- 3.39 Despite the poorly vegetated aspect of the site and its immediate surroundings, bats, in particular pipistrelle species, are often recorded using this type of urban landscape within Manchester city centre.

Building

External Survey

- 3.40 The building on-site is in current use as offices. Externally the structure is well-lit with security and street lighting.
- 3.41 The building is of mixed build. The southern aspect comprises a historic stone-built facade (Photo 2). The rest of the structure is red brick-built, with this aspect of the structure dated to 1978 (Photo 3). Both aspects feature a two-storey mansard roof.
- 3.42 The red brick elevation comprised solid brickwork without notable gaps in the mortar, apart from above upper level windows where small vertical mortar gaps were present (Photo 4). These features were inspected with binoculars and precautionarily assessed as likely accessible to small pipistrelle bats and, therefore, assessed as low potential roost features (PRF). Windows were PVC, fixed closely to brickwork, with small lintels (Photo 4).
- 3.43 Decorative tiling was present around the paved frontage entrance on the east face of the structure, along with tightly sealed lead flashing (Photo 5) around the entrance. No potential roost features (PRF) were present.
- 3.44 At the apex of the red brick elevation, a continuous line of lead flashing is present overhanging and sealing the roof and top bricks. This lead flashing was generally closely sealed but notably loose above the front entrance (Photo 4).
- 3.45 The historic stone elevation of the structure was built with large stone blocks, closely sealed to one another and PVC windows and associated lintels (Photo 2). This aspect of the structure lacked suitable PRF.
- 3.46 Vantage points on the structure were obtained to inspect the external elements of the roof. The roof was lined with thin roof tiles, closely sealed to one another with little overlap (Photo 6). Lead flashing sealing roof window borders were tightly sealed. A stone chimney on the western face of the structure provided no observable PRF.
- 3.47 Numerous sections of the roof were sealed with lead flashing and, in most cases, this was sealed closely without creating PRF. However, there were notable crevices created on the western face of the mansard roof by loosely fitted lead flashing (Photos 6 and 7). These were assessed as low PRF.

Internal Survey

- 3.48 Internally the structure comprised a basement level, office floors and a converted mansard roof.
- 3.49 The basement level was walked over and found to be poorly suitable and not accessible to bats (Photo 8). Further inspection found no signs of bats or obvious access points. The ground and middle floors were found to be similarly well-used office spaces, bright and inaccessible to bats.

- 3.50 The attic level was also set up for office use (Photo 9). It was assessed that the internal aspects of the structure had negligible potential to support roosting bats, and that any bat roosts present would be in small PRF on the external walls and/or roofs of the structure.

Overall Assessment

- 3.51 Overall the structure was assessed as having **low potential** to support roosting bats. This is based on the presence of small PRF on the external building that may be used as summer roosts by crevice dwelling bat species such as pipistrelles. With the findings of this assessment, and following good practice guidelines (Collins 2016), **a further survey recommendation is made in Section 4.**

Other Protected Species

- 3.52 No evidence of other protected species, including nesting birds, was found during the extended Phase 1 habitat survey.
- 3.53 The structure has some limited potential to support urban nesting bird species during the active breeding season (March – August inclusive). The site has the potential to be used by black redstart as a song post, although the roof appears unlikely to hold suitable sheltered ledges for nesting.
- 3.54 The site was generally considered unsuitable for other protected and notable species due to a lack of suitable habitat within or nearby the site.

4. DISCUSSION AND RECOMMENDATIONS

Discussion

- 4.1 The desk study identified that the site is within the IRZ of Rochdale Canal SSSI/SPA and Hollinwood Branch Canal SSSI.
- 4.2 The nearest priority habitat is woodland 1.3km from the site boundary. The nearest SBI is Rochdale Canal, 585m to the south-east. These are considered to be sufficiently distant not to be impacted by any development within the site boundary.
- 4.3 The extended Phase 1 habitat survey highlighted no features of significant nature conservation interest within the site. The plant species list was limited to species that are common and typical of early successional communities of urban sites. No INNS plants were noted.

Bats

- 4.4 Habitats within the site were of low to negligible value for foraging and commuting bats. The desk study found 13 EPS bat licences within a 2km radius of the site boundary. One of these was for brown-long eared bat, one for common and soprano pipistrelle and a further 11 for common pipistrelle only. The closest lies 398m south of the site boundary and was for common and soprano pipistrelle.
- 4.5 A number of other bat records are located within 2km of the site boundary, for at least four species. The closest records are for common pipistrelle and unidentified pipistrelle species, within 20m and 28m south-east of the site boundary respectively. These records indicate that bats, in particular pipistrelles, are using the immediate urban landscape, supporting the recommendation for further survey.
- 4.6 The building inspection survey identified **low potential** to support roosting bats on parts of the external aspect of the roof and vertical red brick walls of the structure. No direct evidence of roosting bats was found during the building inspection, however the external features offering PRF could not be closely inspected.
- 4.7 In line with current good practice guidelines, the features identified on the building should be subject to a **single evening bat activity survey to assess presence/absence of roosting bats**. The survey should be completed in the May to August period, under suitable weather conditions.
- 4.8 If bat roosts are identified on the structure during the above recommended presence/absence survey then further roost categorisation surveys would be required to support the preparation of suitable mitigation, along with advice on potential licensing requirements.

Breeding Birds

- 4.9 There is some limited potential for urban bird species to nest on the built structure or on street trees within the site boundary.
- 4.10 The nests and eggs of breeding birds are protected, therefore, works should occur outside of the key nesting period which is March to August inclusive. If site clearance occurs during March to August then a suitably experienced and qualified Ecologist should undertake an inspection of the building no more than 48 hours prior to demolition starting, to confirm the absence of active nests.
- 4.11 The site is located within the black redstart priority area of Manchester and there are numerous records of this species identified during the desk study review. The building structure has few sheltered locations within which nesting could occur, however, the height of the building does provide opportunities for this species to use the site as a 'song post' during the breeding season.

Summary Recommendations

- 4.12 A single evening bat survey should be completed within the May to August period, to assess the potential for the building to support small numbers of roosting bats.
- 4.13 Demolition and site clearance works should avoid the bird nesting season or employ an appropriate Method Statement to ensure nesting birds are not harmed if site clearance is within the March to August period.
- 4.14 Retention of some higher level areas of the building are anticipated, retaining features that provide opportunities for breeding black redstart to use these as song posts.

Biodiversity Enhancement Opportunities

- 4.15 The site is currently of limited ecological value and development presents an opportunity to increase biodiversity. Potential enhancement measures which could be considered comprise:
 - Use of native or wildlife-friendly tree, shrub and herbaceous species in any landscape planting, for example, inclusion of species which provide nectar for invertebrates or berries to provide a food source for birds;
 - Including a green/brown roof design would enhance forage opportunities for local populations of black redstart, if the design allows;
 - Inclusion of integrated or external bat roost features such as bat slates, tiles and bricks or bat boxes to increase opportunities for roosting bats, coupled with a suitable lighting strategy to avoid unnecessary lighting of roost features; and
 - Limiting exterior lighting to maintain links to the wider area for local bat populations.

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6. ABBREVIATIONS

BAP	Biodiversity Action Plan(s)
BoCC	Birds of Conservation Concern
CIEEM	Chartered Institute of Ecology and Environmental Management
CRoW	Countryside and Rights of Way
EPS	European Protected Species
EPS	European Protected Species
EU	European Union
GCN	Great Crested Newt(s)
GMEU	Greater Manchester Ecology Unit
INNS	Invasive Non-Native Species
IRZ	Impact Risk Zone(s)
JNCC	Joint Nature Conservation Committee
MAGIC	Multi Agency Geographic Information for the Countryside
NERC	National Environment and Rural Communities
NPPF	National Planning Policy Framework
PAA	Penny Anderson Associates Ltd
PRF	Potential Roost Feature(s)
RIGS	Regionally Important Geological/geomorphological Site(s)
SAC	Special Area(s) of Conservation
SBI	Site(s) of Biological Importance
SPA	Special Protection Area(s)
SSSI	Site(s) of Special Scientific Interest
TN	Target Note(s)
WCA	Wildlife and Countryside Act

FIGURE



Legend

Survey boundary

Habitat

Ephemeral/short perennial

Building

Hardstanding

Broadleaved tree

Building B1 - Low bat roost potential

British National Grid
Projection: Transverse Mercator
False Easting: 400000.000000
False Northing: -100000.000000
Central Meridian: -2.000000
Scale Factor: 0.999601
Latitude Of Origin: 49.000000

ISO A3

0 1 2 4 6 8 10

Metres

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Title:

Extended Phase 1
Habitat Survey and
Building Inspection
for Bats

Scale

1:250

Drawing No.

Figure 1

Drawn By

CC

Originator

RL

Date

16/03/2021

PAA Ref.

Revision

1.0

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Figure 1 - Habitats and Building Inspection - RIDG03 CC 160321.mxd

APPENDICES

APPENDIX 1

Photographs



Photo 1 Small compartment of vegetation at the foot of the structure at the paved eastern frontage

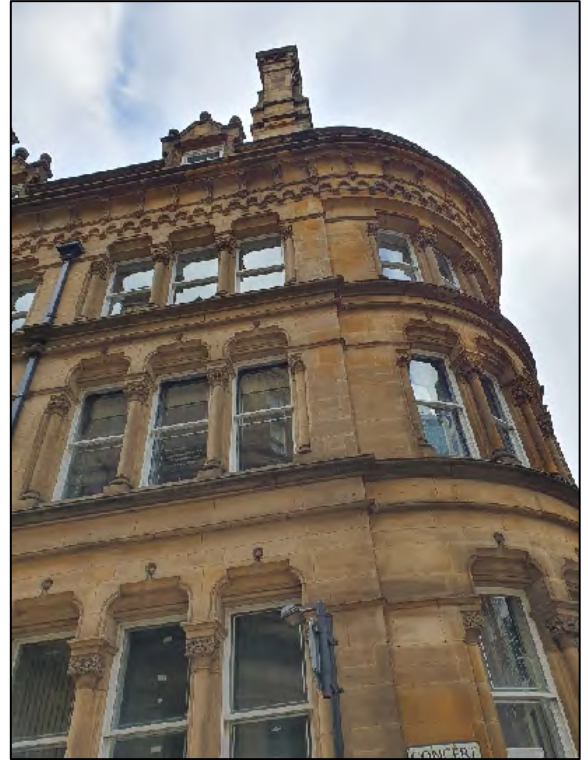


Photo 2 The stone-built façade on the south of the building



Photo 3 The red brick aspect of the structure



Photo 4 Eastern face showing small vertical mortar gaps above windows as well as raised lead flashing above top bricks



Photo 5 Decorative tiling at eastern entrance

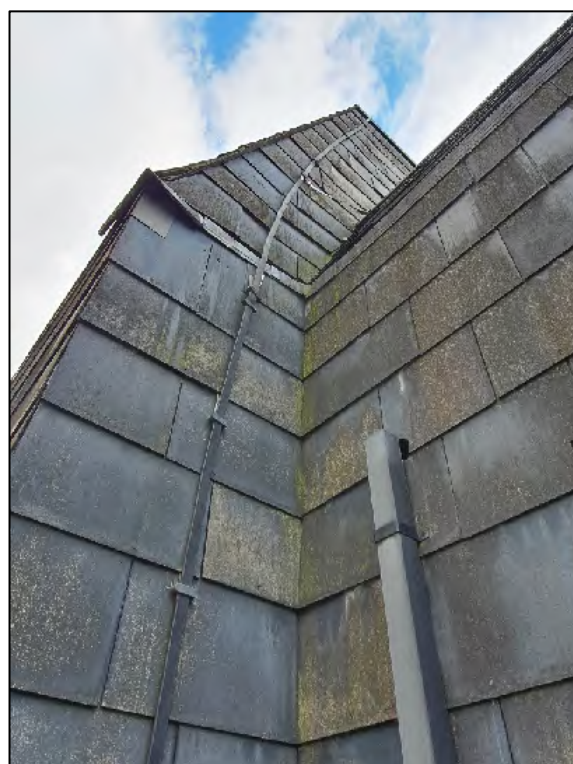


Photo 6 Thin vertical roof tiling and example of raised lead flashing on eastern side of mansard roof



Photo 7 Another example of loosely fixed flashing creating PRF



Photo 8 Example of the basement rooms



Photo 9 Converted mansard roof level, internally

APPENDIX 2
Botanical Species List

Appendix 2 Botanical Species List

Common Name	Scientific Name	Scattered Trees	Ephemeral/ Short Perennial
Woody Species			
Butterfly-bush	<i>Buddleja davidii</i>		LA
Common whitebeam	<i>Sorbus aria</i>	2	
Herbs, Grasses, Ferns, Mosses			
Bittercress species	<i>Cardamine</i> sp.		R
Broad-leaved willowherb	<i>Epilobium montanum</i>		R
Common chickweed	<i>Stellaria media</i>		R
Common nettle	<i>Urtica dioica</i>		LF
Daisy	<i>Bellis perennis</i>		R
Ground-ivy	<i>Glechoma hederacea</i>		R
Herb-Robert	<i>Geranium robertianum</i>		O
Ivy	<i>Hedera helix</i>		O-LA
Moss species	<i>Moss</i> sp.		R-LA
Pendulous sedge	<i>Carex pendula</i>		O
Perennial rye-grass	<i>Lolium perenne</i>		O

KEY

D-Dominant, A-Abundant, F-Frequent, O-Occasional, R-Rare, L-Locally

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