Penny Anderson Associates Ltd
CONSULTANT ECOLOGISTS

SALBOY CENTRAL LTD

VIADUX PHASE 2

PRELIMINARY ROOST ASSESSMENT FOR BATS



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PRELIMINARY ROOST ASSESSMENT FOR BATS

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

Signed:_____

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1. INTRODUCTION

1.1 Penny Anderson Associates (PAA) was commissioned by Salboy Central Ltd to undertake a Preliminary Roost Assessment (PRA) for bats at the Viadux site in central Manchester. The survey boundary covered Plots 2a and 2b of Phase 2 of the scheme, as mapped in Figure 1.

1.2 This report details the methods and results of the survey as well as making any further recommendations as necessary.

1.3 This assessment follows on from the Preliminary Ecological Appraisal (PEA) of the site (PAA 2024) which recommended a further detailed inspection of the structures on site for potential use by roosting bats.

Site Location

1.4 Viadux is an urban city centre site comprising hardstanding and viaduct structures extending over two levels. The wider surrounding land use is primarily urban development consisting of roads and a number of large buildings with a mixture of uses.

1.5 Greenspace in the area is limited, but the Rochdale Canal is approximately 25m to the south of the site, and this links to other watercourses such as the River Medlock and Bridgewater Canal that flow through central Manchester.

Scheme Description

1.6 The Site is located in Manchester city centre. It is bounded by the Manchester Central Conference Complex and Great Northern Warehouse to the north, Albion Street to the east, the Deansgate Castlefield Metrolink station and Deansgate Locks to the south, and the Beetham Tower to the west. It extends to 1.49 ha.

1.7 The Proposed Development will be delivered across two plots comprising the following principal uses:

- Plot A: a hotel with residential apartments above; and
- Plot B: affordable homes.

1.8 Together with these principal uses, the Proposed Development comprises residential amenities; secure cycle parking; public realm improvements and new green landscaping; and associated works to the public highway.

1.9 Plot 2a is located immediately east of the recently completed Phase 1 building, on land partially comprising the grade II listed Castlefield Viaduct. This plot will deliver a 76-storey mixed use tower comprising a hotel (Use Class C1) with associated bar and restaurant and residential units above comprising 1, 2 and 3 bed, and penthouse apartments (Use Class C3) with associated residential amenity spaces. Secure cycle spaces, serving this and the Phase 1 building, are provided at the ground floor level. At viaduct level, a redesigned service yard for the conference centre is enclosed by a new podium structure with residents' external amenity space above. A section of the Great Bridgewater Street bridge (deck) is removed to bring light into the street below.

1.10 Plot 2b, located at the western-most section of the Site between the viaduct and Beetham Tower, consists of a 23-storey residential building accommodating affordable 1-, 2- and 3-bed apartments (Use Class C3), secure cycle parking spaces, flexible commercial units (Use Class E) opening onto the viaduct, and public realm enhancements on Great Bridgewater Street.

Legislative Context

1.11 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).

1.12 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).

1.13 At the national level, Biodiversity 2020 (Defra 2011) forms England's national biodiversity strategy. Building on the Natural Environment White Paper published in 2011, this provides a means of delivering the UK's commitments to maintaining and protecting biodiversity. Under Biodiversity 2020, the Priority Species and Habitats referred to are those of 'Principal Importance' for the conservation of biodiversity in England as listed on Section 41 (England) of the Natural Environment and Rural Communities (NERC) Act 2006 (amended).

1.14 More recently, the Environment Act 2021 further supports this commitment to, and strengthens the legislation in respect of, maintaining and also enhancing biodiversity in England, and Part 6 Nature and Biodiversity includes the following key areas:

- Strengthened biodiversity duty for public authorities in England;
- Biodiversity net gain to ensure developments deliver at least 10% increase in biodiversity;
- Local Nature Recovery Strategies to support a Nature Recovery Network;
- Duty upon Local Authorities to consult on street tree felling;
- Strengthen woodland protection enforcement measures; and
- Protected Site Strategies and Species Conservation Strategies to support the design and delivery of strategic approaches to deliver better outcomes for nature.

1.15 Finally, the National Planning Policy Framework (NPPF 2023) 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.

1.16 The NPPF identifies the following principals that should be applied by local planning authorities when determining planning applications:

- If significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;
- Development on land within or outside a SSSI, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of SSSI;

- Development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons, and a suitable compensation strategy exists; and
- Development whose primary objective is to conserve or enhance biodiversity should be supported; while 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.

1.17 The NPPF states that the planning system should contribute to and enhance the natural environment through a range of actions, including:

a) Protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);

b) Recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;

c) Maintaining the character of the undeveloped coast, while improving public access to it where appropriate;

d) Minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;

e) Preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and

f) Remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.

1.18 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.

Bats and the Law

1.19 Details of the protected species legislation relevant to bats can be found in Appendix 1.

2. METHODS

Desk Study

2.1 Protected species records were obtained from the local record centre Greater Manchester Ecology Unit (GMEU) as part of the Preliminary Ecological Appraisal (PEA) in October 2023 (PAA 2024). The parameters of the data search were for a 2km radius around the site boundary.

2.2 Additionally, the Multi-Agency Geographic Information for the Countryside (MAGIC[1]) website was reviewed to locate any European protected species licences within 1km of the site. The desk study was compiled by Assistant Ecologist Stephen Griffith. The desk study data obtained relevant to bats has been included in this report.

Preliminary Roost Assessment of Structures

2.3 Built structures within the site were subject to detailed PRA to assess potential to support roosting bats. This was completed by Senior Ecologist Rob Lamb (Natural England Bat Survey Class 1 Licence 2020-44441-CLS-CLS, ACIEEM[2]) on 27th November 2023, following standard methodologies based on best practice survey guidance (Collins 2023).

2.4 Structures were inspected from the ground using close-focussing binoculars and a high-powered torch to search for Potential Roost Features (PRF) that could be used by bats, such as small holes and crevices in the built structures, and also potential access points for bats to enter/exit internal areas such as cavity walls. A search was also made for any evidence of bat presence, such as accumulations of droppings and feeding remains or sightings of the animals themselves.

2.5 Each PRF was described in terms of potential for use by roosting bats and, using this information, each structure was assigned to either Low, Medium or High roost potential, or Negligible where no/few suitable features were present.

2.6 The habitats within the site and immediately adjacent areas were also considered for their general suitability for commuting and foraging bats in order to place the site in the context of its surroundings, as this can have a bearing on the likelihood of a roost being present.

2.7 The assessment of suitability was based on the broad criteria outlined in Tables 1 and 2 (Collins 2023), combined with the professional judgement and experience of the surveyor in recognising suitable habitat features and field signs of bats.

[1] *https://magic.defra.gov.uk/MagicMap.aspx (last accessed October 2023)*

[2] *Associate member of the Chartered Institute of Ecology and Environmental Management*

Table 1 Bat Roost Assessment Criteria for Buildings and Structures

Suitability	Description of Roosting Habitats
None	No features on site likely to be used by any roosting bats at any time of year (i.e. a complete absence of crevices/suitable shelter at all ground/underground levels).
Negligible[3]	No obvious habitat features on site likely to be used by roosting bats; however, a small element of uncertainty remains as bats can use small and apparently unsuitable features on occasion.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically at any time of the year. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions[4] and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity roosts and not a classic cool/stable hibernation site, but could be used by individual hibernating bats[5]).
Moderate	A structure 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 status (with respect to roost type only, such as maternity and hibernation – the categorisation described in this table is made irrespective of species conservation status, which is established after presence is confirmed).
High	A structure 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. These structures have the potential to support high conservation status roosts, e.g. maternity or classic cool/stable hibernation site.
Confirmed Roost	A structure 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.

[3] *Negligible is defined as 'so small or unimportant as to be not worth considering, insignificant'. This category may be used where there are places that a bat could roost or forage (due to one attribute), but it is unlikely that they actually would (due to another attribute).*

[4] *For example, in terms of temperature, humidity, height above ground level, light levels or levels of disturbance*

[5] *Evidence from the Netherlands shows mass swarming events of common pipistrelle bats in the autumn followed by mass hibernation in a diverse range of building types in urban environments (Korsten et al. 2016 and Jansen et al. 2022). Common pipistrelle swarming has been observed in the UK (Bell 2022 and Tomlinson 2020) and winter hibernation of numbers of this species has been detected at Seaton Delaval Hall in Northumberland (National Trust 2018). This phenomenon requires some research in the UK, but ecologists should be aware of the potential for larger numbers of this species to be present during the autumn and winter in prominent buildings in the landscape, urban or otherwise.*

Table 2 Bat Habitat Suitability Assessment Criteria

Suitability	Description of Commuting / Foraging Habitats
None	No habitat features on site likely to be used by any commuting or foraging bats at any time of the year (i.e. no habitats that provide continuous lines of shade/protection for flight-lines or generate/shelter insect populations available to foraging bats).
Negligible	No obvious habitat features on site likely to be used as flight-paths or by foraging bats; however, a small element of uncertainty remains in order to account for non-standard bat behaviour.
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 (not in a parkland situation) or a 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 connected 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 that is likely to be used regularly by commuting bats such as river valleys, streams, hedgerows, lines of trees and woodland edge. High quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree-lined watercourses and grazed parkland. Site is close to known roosts.

Limitations

2.8 All structures present on site were sufficiently accessible to provide an assessment of bat roosting potential.

3. RESULTS

Desk Study

3.1 A review of desk study data obtained revealed breeding sites/resting places for at least four species within 2km of the site boundary, comprising common pipistrelle (*Pipistrellus pipistrellus),* soprano pipistrelle (*Pipistrellus pygmaeus*), an unconfirmed *Myotis* species, and Daubenton's bat *(Myotis daubentonii).* In addition, non-roost records were found for at least a further two species; brown long-eared bat (*Plecotus auratus*) and noctule (*Nyctalus noctula*).

3.2 A summary of the findings is presented in Table 3.

Table 3 Summary of Bat Records

Common Name	Scientific Name	Type of record	No. of Records	Closest Record (approximate distance and direction from site boundary)
Brown long-eared bat	*Plecotus auritus*	Other signs	1	830m NW
Common pipistrelle	*Pipistrellus pipistrellus*	Roost	50	165m SE
Common pipistrelle	*Pipistrellus pipistrellus*	Other signs	121	One record falls close to the Site boundary. This is a record of presence using a bat detector (likely a commuting bat), dating from 2010. The next closest record is located 145m south of the site.
Daubenton's bat	*Myotis daubentonii*	Roost	1	670m NW
Daubenton's bat	*Myotis daubentonii*	Other signs	2	1.1km N
Myotis species	*Myotis* sp.	Roost	1	1.35km E
Myotis species	*Myotis* sp.	Other signs	1	1.8km NW
Noctule	*Nyctalus noctula*	Other signs	3	1.5km NE
Pipistrelle species	*Pipistrelle* sp.	Roost	16	165m SE
Pipistrelle species	*Pipistrelle* sp.	Other signs	40	270m S
Soprano pipistrelle	*Pipistrellus pygmaeus*	Roost	2	705m NW
Soprano pipistrelle	*Pipistrellus pygmaeus*	Other signs	9	380m NW
Unidentified bat species	Chiroptera spp.	Roost	1	715m NW
Unidentified bat species	Chiroptera spp.	Other signs	5	500m N

3.3 The records returned indicate that the majority of bat detections within 2km are attributable to pipistrelle species and the nearest roost records are also for these species. 50 common pipistrelle roost records are present within 2km, with the closest located 165m south-east of the site boundary. Two soprano pipistrelle roost records were returned, with the closest 705m north-west. 16 unconfirmed pipistrelle roosts are also recorded, with the closest at the same location at the nearest common pipistrelle roost.

3.4 Single roost records were also returned for Daubenton's bat (670m north-west of the site) and an unconfirmed *Myotis* species at a greater distance away (1.35km east of the site).

3.5 Additionally, a review of the MAGIC dataset for granted European Protected Species Licences for bats returned seven licences, as summarised in Table 4.

Table 4 European Protected Species Licenses for Bats

Species	License to Allow	Date Licence Granted	Date of Licence Expiry	Distance from Site Boundary
Brown long-eared bat	Impact and destruction of a breeding site Destruction of a resting place	10/12/2012	31/08/2015	330m N
Common pipistrelle and Soprano pipistrelle	Destruction of a resting place	23/04/2014	30/06/2017	925m NE
Common pipistrelle	Destruction of a resting place	28/01/2016	27/01/2021	815m NW
Common pipistrelle	Destruction of a resting place	28/08/2012	30/09/2013	330m N
Common pipistrelle	Damage and destruction of a resting place	12/03/2018	30/04/2040	720m NE
Common pipistrelle	Destruction of a resting place	05/03/2020	01/01/2025	410M N
Common pipistrelle	Unknown	23/05/2013	30/09/2016	195m S

3.6 Overall, the findings of the desk study exercise indicate that the highly urbanised surroundings are well used by both common and soprano pipistrelle species, with occasional or 'patchier' use by at least a further three species comprising Daubenton's bat, noctule and brown long-eared bat.

3.7 No roost records were detected within the site boundary.

3.8 It should be noted that where certain bat species are not recorded, this can often be a result of a lack of survey data, rather than an indication that species are absent.

Preliminary Roost Assessment of Structures

Bats

3.9 The survey covered Plots 2a and 2b of the wider Viadux development site, referred to as Phase 2 (Figure 1).

3.10 Plot 2a extended over two levels, both levels previously used for car parking. The ground level comprised a series of brick arches beneath the upper level of active open hardstanding and high-rise development construction.

3.11 At the time of survey, the internal arches present at ground level were progressed in development, with internal lighting and construction disturbance present throughout (Appendix 2, Photograph 1). The brickwork, mortar, stone lintels and fixings of the arches and walls were in solid condition without suitable gaps which crevice dwelling bat species such as pipistrelle may use (Photograph 2). Some more secluded aspects were present within the underground complex, however, these were still exposed to lower levels of artificial light, significant construction noise disturbance and lacked obvious crevice feature opportunities associated with the brickwork.

3.12 The internal areas also featured other recently developed aspects such as concrete, breezeblock, wooden and plasterboard walls and fixings, but were of little interest in relation to roosting opportunities for bats (Photographs 1, 2 and 3).

3.13 The upper level and high-rise construction above (Phase 1 of the development scheme) were assessed to have Negligible bat roost potential.

3.14 The external aspects at ground level were predominantly of red brick construction which was in generally solid condition (Photographs 4 and 5). It was assessed that there was some potential for nesting feral pigeon (*Columba livia*) on the underside of the bridge immediately adjacent north of the Plot 2a (Photograph 6 and TN[6]1, Figure 1), however, bat roost potential was limited around the ground level structure.

3.15 The Plot 2b boundary was limited to the ground level, comprising entirely hardstanding currently in use for the storage of building materials and metal corrugated works cabins (Photograph 7). Immediately adjacent to this plot were modern high-rise structures which were unsuitable to provide PRF for bats. An adjacent-west flat-roofed garage structure was also viewed externally and assessed to provide Negligible bat roost potential.

3.16 East of the Site is a *c.*7m tall red brick wall, beyond which begins the two-storey aspect of the wider site and internal red brick arches. These internal areas were mostly under high levels of construction and internal lighting as described above. The external area of the red brick wall bordering this plot was also inspected. The brickwork present was in a more degraded state than the internal brickwork, however, it was still solid overall. A minor crevice was noted associated with drainage pipes; however, this was likely to be damp and assessed as having Negligible potential to support roosting bats (Photograph 8).

3.17 Overall, the structures surveyed were assessed to have **Negligible potential to support roosting bats** at the time of survey.

Nesting Birds

3.18 The suitability of the site for black redstart (*Phoenicurus ochruros*) or peregrine (*Falco peregrinus*) was considered to be very limited due to the dominance of intact hardstanding and lack of suitable

[6] *Target Note*

features for foraging and/or nesting. These species are known to be present within Manchester city centre but are not considered to be likely present or reliant on this site.

3.19 On the edge of the site boundary for Plot 2a was a bridge that traverses Great Bridgewater Street. The underside of this bridge offers suitable nesting habitat for feral pigeon with sightings of birds roosting at this location (TN1, Figure 1 and Photograph 6).

4. DISCUSSION AND RECOMMENDATIONS

Bats

4.1 The structures within the site were assessed to have Negligible potential to support roosting bats, owing to the levels of active construction present and the generally solid brickwork construction internally.

4.2 Therefore, there are no further recommendations in respect of bats and their roosts.

Nesting Birds

4.3 The site is considered to provide a relatively limited foraging resource for local populations of birds. The site is unlikely, therefore, to form a key part of the foraging habitat for any local populations of notable bird species such as black redstart.

4.4 Nesting birds, their nests, eggs and dependant young are protected under the WCA 1981 (as amended). Work during the nesting season has the potential to disturb or destroy active bird nests during the period March to September, which would be an offence under this legislation.

4.5 The underside of the bridge on Great Bridgewater Street offers suitable nesting habitat for feral pigeon. It is assumed that the underside of the bridge will be left undisturbed as part of the site works. If this changes then prior to commencement of works a check for nesting birds will be required and any active nests will need to remain *in situ* undisturbed until the young have fledged.

Survey Validity

4.6 The findings of the survey should be considered valid for a period of 24 months from the date of survey (November 2023). If works have not begun by November 2025, then an Ecologist should be consulted and the survey may need to be updated to ensure the ecological advice given is based on up-to-date information, as per guidance[7].

[7] https://cieem.net/resource/advice-note-on-the-lifespan-of-ecological-reports-and-surveys/

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6. ABBREVIATIONS

CIEEM	Chartered Institute of Ecology and Environmental Management
CRoW	Countryside and Rights of Way
EU	European Union
GMEU	Greater Manchester Ecology Unit
MAGIC	Multi Agency Geographic Information for the Countryside
NERC	National Environment and Rural Communities
NPPF	National Planning Policy Framework
PAA	Penny Anderson Associates Ltd
PEA	Preliminary Ecological Appraisal
PRA	Preliminary Roost Assessment
PRF	Potential Roost Feature(s)
SSSI	Site(s) of Special Scientific Interest
TN	Target Note(s)
WCA	Wildlife and Countryside Act

FIGURE

383500 383550 383600 383650

397650 397600 397550

STREET LEVEL

Phase 2 plot b

Phase 2 plot a

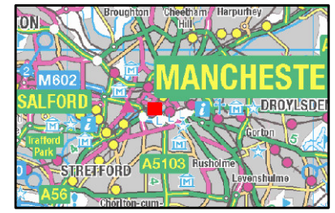
1

UPPER LEVEL

Phase 2 plot a

Trafford Street

TARGET NOTES
1. Nesting bird potential - underside of bridge



Legend

- Survey areas
- Phase 1 Habitats
- Ephemeral/short perennial
- Hardstanding
- Target notes

N

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

Metres
0 5 10 15 20

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Discipline: Ecology

Title:

Extended Phase 1 Habitat Survey Map

Scale	1:600	Drawing No.	Figure 1
Drawn By	CC	Originator: SRS	Date: 24/10/2024
PAA Ref.			Revision: 1.1

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Figure 1 - Phase 1 Habitats Map - Viadux Manchester - SALB04-2 CC 241024.mxd

APPENDICES

APPENDIX 1

Summary of the Legislation Relating to Bats

SUMMARY OF THE LEGISLATION RELATING TO BATS

All wild species of bat are protected under the Wildlife and Countryside Act (WCA) 1981, which has also been amended by later legislation, including the Countryside and Rights of Way (CRoW) Act 2000. Bats are listed on Schedule 5 of the WCA and are therefore subject to some the provisions of Section 9 which, with the amendments, make it an offence to:

- Intentionally or recklessly disturb a bat while it is occupying a structure or place which it uses for shelter or protection (S9:4b).
- Intentionally or recklessly obstruct access to any structure or place used for shelter or protection by a bat (S9:4c).

There are additional offences in relation to buying and selling (S9:5) any live or dead animal of this species or anything derived from them.

Bat species are also listed under Annexes IIa and IVa of the EC Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora, also known as the 'Habitats Directive'. Inclusion on Annex IVa means they are consequently identified as European Protected Species (EPS) and protected under the Conservation of Habitats and Species Regulations 2017 (amended).

The Conservation of Habitats and Species Regulations 2017 (amended) state that a person commits an offence if they:

(a) deliberately capture, injure or kill any wild animal of a European protected species,

(b) deliberately disturb wild animals of any such species, in such a way as –

  (i) to impair their ability to survive, to breed or reproduce, or to rear their young, or

  (ii) in the case of animals of a hibernating or migratory species, to hibernate or migrate, or

  (iii) to affect significantly the local distribution or abundance of the species to which they belong;

(c) deliberately take or destroy the eggs of such an animal, or

(d) damage or destroy a breeding site or resting place of such an animal.

Under these Regulations it is an offence to damage or destroy a breeding site or resting place whether the animal is in occupation or not, and protection extends to all life stages of the animal in question. There are additional offences relating to possession, control and sale of a live or dead bat or part of such an animal.

In addition, seven native British bat species, including the soprano pipistrelle (*Pipistrellus pygmaeus*) and the brown long-eared bat (*Plecotus auritus*), are listed as 'species of principal importance' for the conservation of biodiversity in England under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006 (amended). In Wales, Section 7 of the Environment (Wales) Act 2016 provide a list of organisms of 'principal importance for maintaining and enhancing biodiversity' and lists several species of bat including the common pipistrelle (*Pipistrellus pipistrellus*) which is absent from England's S41 list.

Please note: the above text provides a brief summary of the legislation in relation to bats and their roosts and the original Acts, Regulations and any amendments should be referred to for the precise wording.

APPENDIX 2

Photographs



Photograph 1
Example of ground level internal arches, Plot 2a



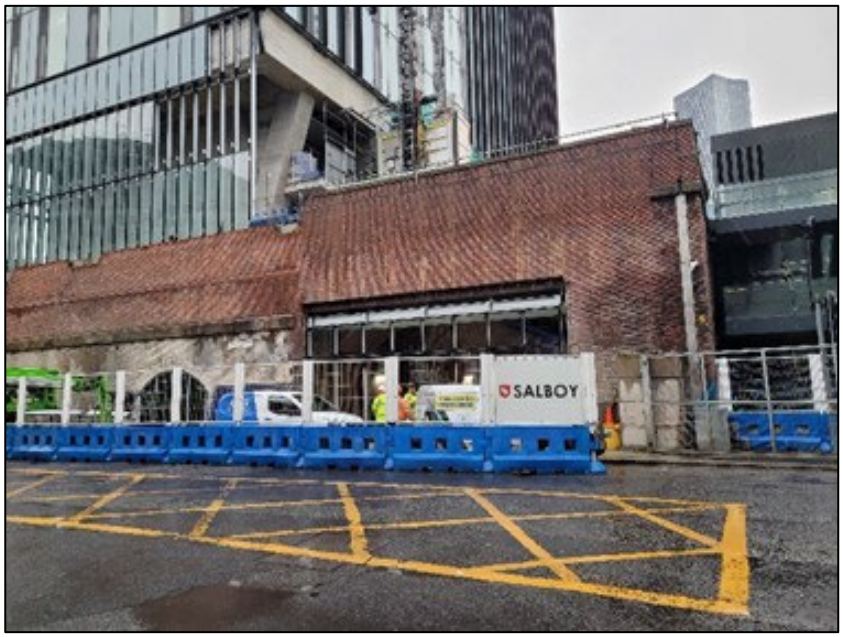
Photograph 2
Example of ground level internal arches, Plot 2a



Photograph 3
Example of ground level internal arches, Plot 2a



Photograph 4
Looking across Plot 2c towards Plot 2a from the east at ground level



Photograph 5
The Plot 2a from the north at ground level



Photograph 6
The underside of the bridge immediately adjacent north of the Plot 2a



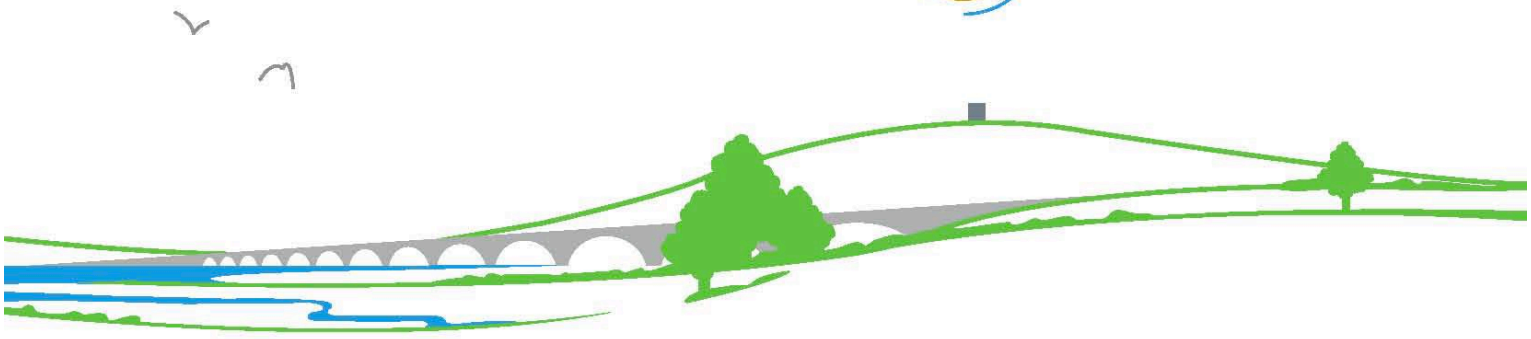
Photograph 7
The Plot 2b plot taken from a vantage point to the south



Photograph 8
The brickwork immediately adjacent to the Plot 2b plot

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