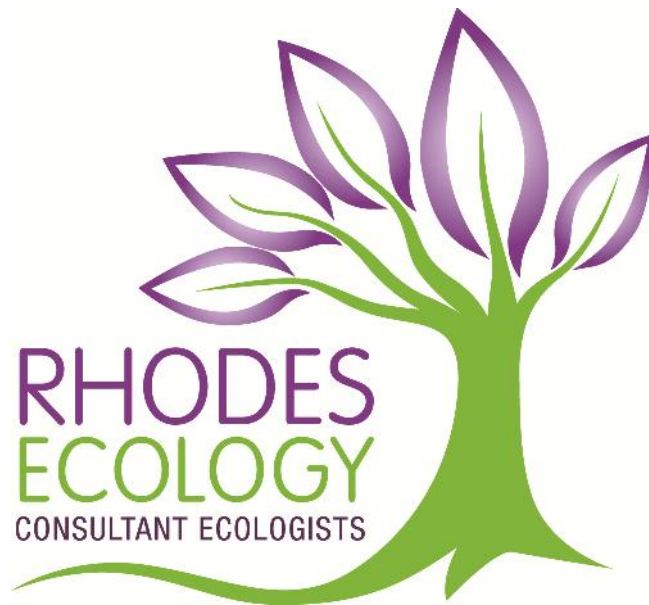




Carr Bank Lodge, Ramsbottom

Bat Assessment

January 2024

Control sheet

Project No & Title: 325. Carr Bank Lodge, Ramsbottom. Bat Assessment

Client: Cool Delight Ltd

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1. Introduction

- 1.1 Rhodes Ecology Ltd were commissioned by Cool Delight Ltd to undertake a bat assessment of a site at Carr Bank Lodge, Ramsbottom. This assessment was undertaken in support of a planning application for the construction of a new dwelling on land which is currently colonised by mixed semi natural woodland.
- 1.2 The assessment was undertaken by Kerry Rhodes BSc (Hons) MCIEEM, an ecologist with over twenty years experience of ecological assessment and the holder of a Natural England Class Licence for bats (Level 2) since 2007 (Licence Number 2020-49756-CLS-CLS). As a full member of the Chartered Institute of Ecology and Environmental Management, Kerry Rhodes undertakes all work under their professional code of conduct specified by CIEEM and in accordance with published guidance. Such guidance in relation to bat surveys includes Bat Surveys for Professional Ecologists, Bat Conservation Trust, 4th Edition (2023).
- 1.3 The site is situated in Ramsbottom at NGR SD 79091 17062.
- 1.4 The objectives of the assessment include the following:
-) To investigate the suitability of the trees within the site to support roosting bats;
 -) If trees are considered likely to support bats, to investigate the presence of roosting bats;
 -) To identify and assess any impacts that could result from the proposals on bat roosting habitat;
 -) To suggest mitigation measures to reduce the potential impacts of the proposed development on bats.
 -) To assess the potential of the trees to provide suitable bird nesting habitat.

2. Background Information

Bat Ecology

- 2.1 A total of eighteen bat species are known to have resident breeding populations in Britain. Bats have been confirmed to roost in a variety of structures including caves, mines, trees, buildings and other built structures. Woodland, pasture, standing water and slow flowing rivers or canals all provide suitable habitat for foraging bats as these habitats can support an abundance of insect life. Generally the main period of foraging activity for most species of bat is during the first two to three hours after sunset and similarly a period of time three hours prior to dawn, when insect activity is at its most intense.
- 2.2 Bat activity over the course of a year reflects the seasonal climate and the availability of food and tends to adhere to the following yearly pattern (English Nature [now Natural England], 2004).
-) **January - March** – Hibernation period; insect prey is scarce and bats will hibernate alone or in small groups, there may be limited activity in periods of mild weather.
 -) **April - May** - insects become more plentiful as the temperature becomes warmer and bats become active. They may become torpid (cool and inactive) in cooler weather. Females will start to form groups and will roost in several sites.
 -) **June - July** - females gather in maternity roosts and give birth to young, which are suckled for several weeks (young are independent by July-August). Males roost alone nearby.
 -) **August - September** – mothers leave the roost before the young. Swarming activity occurs as bats mate and build up fat for the winter.
 -) **October - December** – Bats search for potential hibernation sites. They become torpid for longer periods and then commence hibernation, subject to temperature reduction and periods of frost.
- 2.3 Bats seldom stay in the same roost throughout the year. They have different roost requirements at different times of the year. For instance, in summer the females require warm roosts when they are producing young and in winter they require cool roosts in order to conserve their energy. Summer roosts may be occupied between April and October, with peak activity from May to September. The remaining part of the year is a hibernation period. These timings can differ slightly depending on the bat species.
- 2.4 There are several different types of roost sites used by bats throughout the year; these are described below (BCT, 2007).
-) **Spring gathering roost** used by breeding females before moving to a maternity roost;
 -) **Maternity or nursery roost** where females give birth and raise their offspring;
 -) **Daytime summer roost** used by breeding and/or non-breeding males;
 -) **Mating roost** (spring or autumn) occupied by males seeking to attract females for breeding;
 -) **Night roosts** used by bats for short periods between phases of foraging activity, but rarely or not used during the day;
 -) **Feeding roost or perch** where bats temporarily hang up to devour an item of prey once it has been caught;

-) **Transitional roost** used for short periods in the spring and autumn;
-) **Hibernation sites** – where bats remain during the winter months.

2.5 The biggest threats to bats include direct loss of roost structures (such as woodland removal and building conversions), degradation of suitable foraging habitat as a result of modern forestry and farming practices, use of toxic agrochemicals and remedial timber treatment chemicals and disturbance to bat roosts themselves.

2.6 Bats have been in decline both nationally and internationally during the latter part of the 20th century. It is thought that their physical attributes, reproductive strategies and lifestyles render them particularly vulnerable to environmental change (Cowan, 2003). Bats require a variety of specific habitats in order to meet the basic needs of feeding, breeding and hibernating and are therefore extremely vulnerable to change such as the loss of flightlines through the removal of hedgerows as some species will not cross open areas. However, there is a lack of information on their population dynamics and the relative impact of the factors causing their decline nationally (Cowan, 2003).

Legislation

2.7 In Britain all bat species and their roosts are legally protected, by both domestic and international legislation. This means you may be committing a criminal offence if you:

-) Deliberately take, injure or kill a wild bat
-) Intentionally or recklessly disturb a bat in its roost or deliberately disturb a group of bats.
-) Damage or destroy a place used by bats for breeding or resting (roosts) (even if bats are not occupying the roost at the time)
-) Possess or advertise/sell/exchange a bat of a species found in the wild in the EU (dead or alive) or any part of a bat.
-) Intentionally or recklessly obstruct access to a bat roost.

2.8 In 2007, a new UK Priority List for species of the UK Biodiversity Action Plan (UK BAP) was created and new additions to this list for bats are noctule (*Nyctalus noctula*), brown long eared (*Plecotus auritus*) and soprano pipistrelle. Due to their recent inclusion on the UK Priority List, Species Action Plans for these species have not yet been prepared. Species Action Plans (SAPs) have been, or will be, prepared for the following seven species:

-) Greater horseshoe (*Rhinolophus ferrumequinum*)
-) Lesser horseshoe (*Rhinolophus hipposideros*).
-) Bechstein (*Myotis bechsteini*)
-) Barbastelle (*Barbastella barbastellus*).
-) Soprano pipistrelle
-) Brown long eared
-) Noctule

3. Methodology

Data Search

- 3.1 A request for data relating to known bat roosts within 1km of the site was submitted to the West Yorkshire Bat Group.

Ground Level Tree Assessment

- 3.2 The ground level tree assessment was conducted on the 25th October 2023 in favourable weather conditions (18°C, F1 wind, 10% cloud cover and dry).
- 3.3 Each tree within the site was assessed from the ground for the presence of potential roosting features. This consisted of a methodical search using a high powered torch, binoculars, an endoscope and a bat detector used to pick up the social calls which bats often emit when roosting during the day. Signs or indications that bats are likely to be present include:
-) Droppings on or near potential roost sites.
 -) Scratch and grease marks, which are often left by bats entering and emerging from roosts.
 -) Obvious cracks and crevices that can be used by bats for shelter.
 -) The distinctive smell of bat urine which would indicate the presence of a roost.
 -) The presence of dense spider webs at a potential roost entrance can often indicate the absence of bats.
- 3.4 Each tree was numbered according to the numbering used in the Arboricultural Report and Arboricultural Impact Assessment produced by JCA Ltd (JCA Ltd, 2023) for consistency.

4. Results

Data Search

4.1 The data search results are provided within Appendix A and revealed 269 bat records within a 1km radius of the site including maternity roosts, feeding roosts, summer roosts, grounded bats and bats in flight of at least five species of bat - the common pipistrelle, soprano pipistrelle, Nathusius's pipistrelle, Daubenton's and Noctule. A number of the records were for unspecified species of bat therefore the species diversity is likely to be greater than suggested by the data search.

4.2 Four large common pipistrelle roosts are recorded within close proximity to the site (approximately 65m, 117m, 121m and 178m respectively), including two which have been categorised as maternity roosts and another two which are uncategorised but given the numbers of bats identified within are likely to be maternity roosts. Although all four roosts are within close proximity to the site, given the urban nature of the area and therefore the presence of regular ongoing disturbance it is unlikely that the proposals will have a significant negative effect on these roosts.

Habitat Assessment

4.3 The site is located in an urban area in the centre of Ramsbottom. The habitat surrounding the property is dominated by residential housing, commercial premises and industrial buildings. Small patches of broadleaf woodland occur around the centre of Ramsbottom and along the margins of the River Irwell which lies approximately 268m to the east of the site. The habitat in the wider area is dominated by improved grassland with hedgerow and dry stone wall field boundaries. All of the above habitat types will provide valuable foraging, roosting and commuting habitat for a range of species of bat.

Ground Level Tree Assessment

4.4 The site is a small area of approximately 170m² that lies between Ramsbottom Lane and a footpath leading towards the north west. The site currently supports semi natural mixed woodland. Please see Table 1 below for an outline of the individual assessment of each tree within the site and the assessment of each trees suitability to support bat roosting features.

Table 1 Ground Level Tree Assessment

Tree Number	Species	DBH	Notes	Suitability
1	Norway Spruce	50cm	Densely shaded on all elevations apart from the southern crown. No crevices visible.	None
2	Beech	60cm	No crevices visible on trunk or lower branches. Crown cannot be seen. Densely shaded.	None
3	Holly	20cm	No crevices visible	None
4	Norway Spruce	40cm	No cavities visible.	None
5	Beech	55cm	No PRF in lower trunk or branches. Can see majority of crown.	None

- 4.5 No evidence of nesting birds was noted at the time of the survey although suitable habitat exists within the crown of all trees.

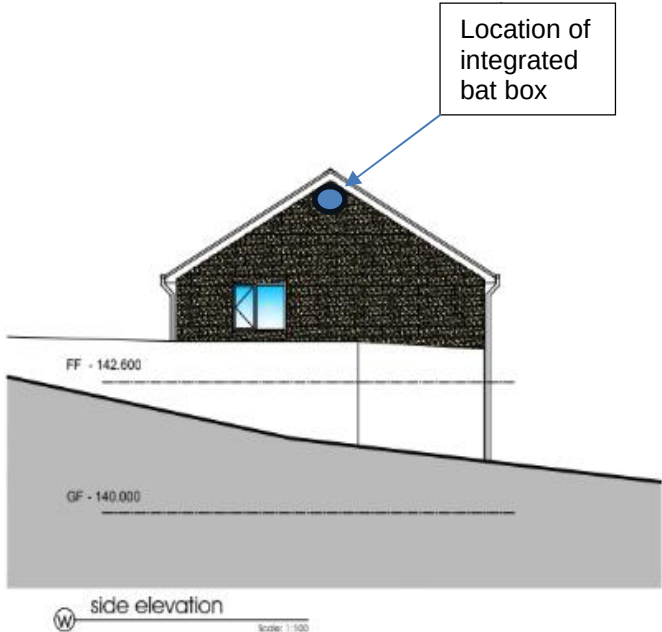
5. Conclusion and Recommendations

- 5.1 This assessment concluded that the trees present within the site offer no habitat with potential to support roosting bats. It also concluded that all trees within the site have the potential to support nesting birds. It is therefore recommended that the tree removal works are timed to avoid the period in which birds may be nesting (i.e. tree felling between 1st November to the 1st March).
- 5.2 Table 2 outlines a series of recommendations to further reduce the risk of encountering bats and nesting birds, in addition to advice should a bat or nesting bird be encountered during the works.
- 5.3 The clients are committed to a programme of enhancement of the site for biodiversity, therefore additional recommended enhancements are outlined below.

Table 1 Recommended Mitigation

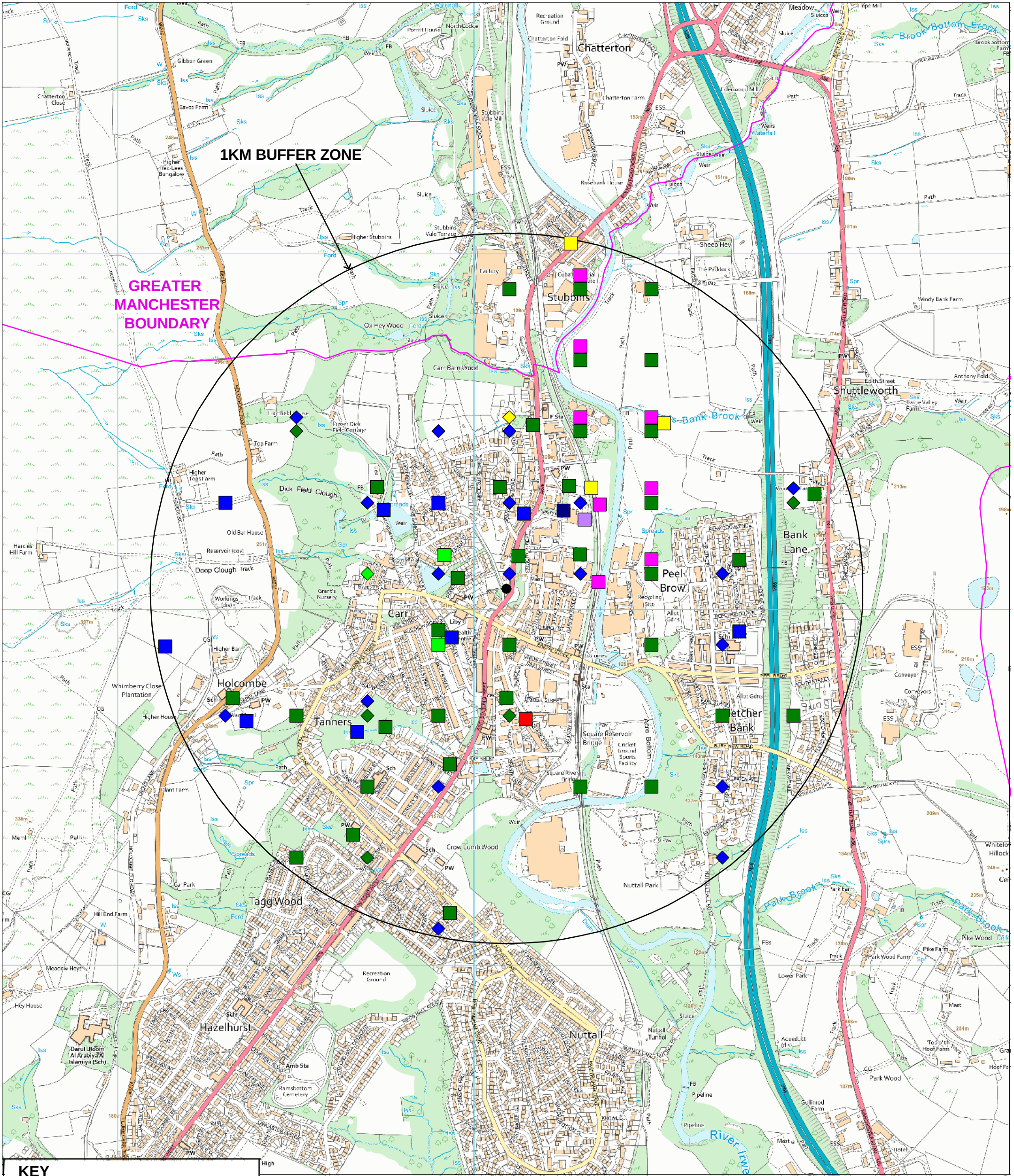
Action	Method
1. Protection of bat habitat	All development should be undertaken with an awareness of the legislation which protects bats and their places of shelter. All European bat species and their roosts are listed in Annex IV of the EC Directive 92/94/EEC 'The Conservation of Natural Habitats and of Wild Fauna and Flora' as being in need of "strict protection". This is implemented in Britain under the Conservation (Natural Habitats &c.) Regulations (as amended by the Conservation (Natural Habitats &c.) (Amendment) (England and Wales) Regulations 2010. In summary, in the UK, it is an offence to:) Deliberately capture, injure or kill a bat;) Deliberately disturb a bat in a way that would affect its ability to survive, breed or rear young, hibernate or migrate or significantly affect the local distribution or abundance of the species;) Damage or destroy a roost (this is an absolute offence);) Possess, control, transport, sell, exchange or offer for sale/exchange any live or dead bat or any part of a bat. British bat species and their roosts are included under Schedule 5 of the Wildlife & Countryside Act, 1981 (as amended). In summary, the relevant sections of this legislation make it an offence to:) Intentionally or recklessly disturb a bat at a roost;) Intentionally or recklessly obstruct access to a roost.
2. Timing of the	It is recommended that trees are felled between the 1 st

Action	Method
works	November and the 1 st March to avoid the period in which birds are likely to be nesting.
3. Unexpected discovery of bats	In the event that a bat or bats are discovered during the course of the works, all work in the vicinity should stop and the ecologist should be contacted for advice on how to proceed. Under no circumstances should a bat be handled by site personnel. All site personnel should be made aware that a bat in torpor may appear cold and lifeless. In the event of a chance discovery of a bat, the ecologist will remove it with gloved hands and either place it in the temporary bat box or take it into care in the event of an injury. The ecologist will then provide advice on how to proceed with the works. NB. In very cool weather or after cold nights, resting bats may be in a torpid state and therefore unable to move / or escape quickly. Contractors should be made aware that bats in torpor can often appear cold and lifeless.
4. Evidence of bats	The evidence of bats which is most likely to be discovered during the course of any building works is that of droppings. The droppings are small, approximately 5 – 10mm long (refer to Plate 1 below) and crumble into a fine powder when crushed unlike mouse droppings which cannot be crumbled. Plate 1 Bat droppings  If bats are discovered during the course of the works, it is likely that they will appear to be huddled behind or within a crevice rather than hanging from the rafters as many people believe. The most likely species to be identified at this property is the Pipistrelle spp. bat as pictured in Plate 2 below. They are tiny bats which are no bigger than an adult's thumb and may appear cold and lifeless if they are in torpor and may take up to half an hour to wake if disturbed. Plate 2 Pipistrelle bats

Action	Method
	
5. Provision of additional bat roosting habitat	It is recommended that one Istock Enclosed Bat Box 'C' (available from NHBS) is built into the apex of the southern gable of the new property. All boxes should be placed in an area of the site which will remain unlit by the new development.  Low profile woodstone bat box  side elevation Scale: 1:100

Action	Method
6. Protection of breeding birds	All development should be undertaken with an awareness of the legislation which protects birds during the breeding season, which for most species is from March to August inclusive. All wild birds, their nests and eggs are protected by the Wildlife and Countryside Act, 1981 (as amended) against damage or disturbance. Any removal of vegetation (including dense ground cover of scrub) should be undertaken outside the bird nesting season.
7. Provision of additional habitat for nesting birds	It is recommended that three Vivara Pro WoodStone House Sparrow boxes (available from NHBS) are placed immediately adjacent to one another on the western face of the building immediately below the eaves Vivara Pro WoodStone House Sparrow Box 
8. Site contractors	All site contractors must be made aware of the potential risk of encountering bats and breeding birds and the procedure to be followed should bats or breeding birds be identified during the works.

Appendix A – Data Search



KEY
BAT ROOSTS

- ◆ BAT SP
- ◆ COMMON PIPISTRELLE
- ◆ PIPISTRELLE SP
- ◆ SOPRANO PIPISTRELLE

BATS OTHER SIGNS

- BAT SP
- COMMON PIPISTRELLE
- DAUBENTON'S BAT
- MYOTIS SP
- NATHUSIUS'S PIPISTRELLE
- NOCTULE BAT
- PIPISTRELLE SP
- SOPRANO PIPISTRELLE

GREATER MANCHESTER ECOLOGY UNIT
ECOLOGICAL SEARCH - SD 79092 17058
CARR BANK LODGE - MAP 1

SCALE 1:10,000

BAT DATA COURTESY OF SOUTH LANCS BAT GROUP

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