

Bat Roost Assessment Report

Project: Swansea Road, Reading, Berkshire (1005765)

October 2019

1 Introduction

1.1 Background & Understanding

1.1.1 Aspect Ecology was commissioned by Bellway Homes Limited (Thames Valley) in October 2019 to undertake a bat roost assessment in respect of redevelopment of land at Swansea Road, Reading, Berkshire, centred at grid reference SU 7117 7414.

1.1.2 It is understood that the site is proposed for redevelopment for residential use and that pre-application advice has been provided by Reading Borough Council, which requested that the planning application be informed by specific survey work in respect of bats.

1.2 Bat Ecology

1.2.1 There are at least 17 breeding bat species in Britain. Many of them are considered threatened due to a variety of factors including habitat loss and disturbance / damage to roosts. Of these species, a number regularly use buildings as roost sites.

1.2.2 Bats are highly mobile flying mammals, which, in Britain, feed entirely on insects. They are able to fly and feed in the dark by using a system of echolocation that gives them a 'sound picture' of their surroundings.

1.2.3 In winter when prey is scarce, British bats hibernate in humid parts of buildings, caves or hollow trees where temperatures are typically stable. They may wake occasionally but only become fully active again in the spring.

1.2.4 Female bats gather together in maternity roosts in summer to give birth and rear their single offspring. Like other mammals, bats have fur and give birth to live young. Infant bats suckle on their mother's milk for several weeks until they can fly and hunt insects for themselves. Bats are long-lived mammals and some British species are known to live to over twenty-five years of age.

1.3 Legislation

Bats

1.3.1 All British bats are classed as European Protected Species under the Conservation of Habitats and Species Regulations 2017 (as amended) and are also listed under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). As such, both bats and their roosts (breeding sites and resting places) receive full protection under the legislation (see Appendix 5765/1 for detailed provisions). If proposed development work is likely to result in an offence a licence

may need to be obtained from Natural England which would be subject to appropriate measures to safeguard bats. Given all bats are protected species, they are considered to represent important ecological features. A number of bat species are also considered S41 Priority Species.

Nesting Birds

- 1.3.2 All wild birds and their nests receive protection under Section 1 of the Wildlife and Countryside Act 1981 (as amended) in respect of killing and injury, and their nests, whilst being built or in use, cannot be taken, damaged or destroyed. Species included on Schedule 1 of the Act receive greater protection and are subject to special penalties (see Appendix 5765/1 for detailed provisions).

1.4 Purpose of the Report

- 1.4.1 This report documents the methods and findings of the internal and external visual inspection survey carried out at the site, in order to establish the potential for the on-site buildings to support roosting bats, and subsequently provides an appraisal of the likely ecological effects of the proposed demolition works. Appropriate recommendations and mitigation measures are also set out, in order to ensure that bats are fully safeguarded under the proposals.

2 Methodology

2.1 Desktop Study

- 2.1.1 Baseline ecological information has been sourced from the Multi-Agency Geographic Information for the Countryside (MAGIC) database, whilst a review of available aerial photography and Ordnance Survey mapping has also been undertaken, with a search radius of 2km.

2.2 Visual Inspection Surveys^{1, 2}

Buildings

- 2.2.1 The on-site buildings were subject to a specific internal and external visual inspection survey by Aspect Ecology in October 2019 using ladders, torches and binoculars where necessary. The surveys were carried out by suitably qualified ecologists under the direction of the holder of Natural England Class Licence 2017-28514-CLS-CLS.
- 2.2.2 During the external inspection survey, particular attention was given to any potential roost features or access points, such as hanging tiles, gaps in brickwork, lifted or damaged tiles etc., and for any external signs of use by bats such as accumulations of bat droppings or staining. Binoculars were used to inspect any inaccessible areas more closely where appropriate.
- 2.2.3 During the internal inspections, evidence for the presence of bats was searched for with particular attention paid to any loft voids and relevant potential roost features and locations, such as ridge boards, rafters, purlins, gable walls, and mortise joints. Specific searches were made for bat droppings that can indicate present or past use and extent of use, whilst other signs that can indicate the possible presence of bats were also searched for, e.g. presence of stained areas, feeding remains, corpses, etc.

¹ Collins, J. (ed.) (2016) *'Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn).'* Bat Conservation Trust

² Based on: English Nature (2004) *'Bat Mitigation Guidelines'*

2.3 Survey Constraints / Limitations

- 2.3.1 All buildings present within the site were recorded to be in a poor state of repair at the time of survey. The apparent structural instability and dilapidated nature of the buildings, evidence of rough sleepers and presence of asbestos material raised concerns over surveyor health and safety, such that safe internal access was not possible for buildings B1a and B2b, with only limited access possible for buildings B1b and B2a. Nonetheless, a comprehensive external visual inspection survey of all buildings was undertaken and, given the nature of the buildings and level of survey effort that was able to be successfully completed, it is considered that this level of survey work is sufficient to allow for a robust assessment of the suitability of the buildings to support roosting bats.
- 2.3.2 Accordingly, this approach is considered to take into account and address the limitations experienced during the survey work undertaken and enables an appropriate safeguarding and mitigation strategy to be developed.

3 Survey Results and Evaluation

3.1 Background Records

- 3.1.1 A review of the MAGIC database did not identify any European Protected Species Licences in respect of bats having been granted within the vicinity of the site, with the closest such licence located approximately 0.6km south-east of the site.

3.2 Site Overview

- 3.2.1 The site is located in an urban context within the north of Reading and comprises a two-storey terraced residential building with an associated car port and lean-to (identified as building **B1a** on Plan 5765/BRAR1 and Appendix 5765/2), with further adjoining two-storey warehouse / workshop buildings (identified as buildings **B1b**, **B2a** and **B2b** on Plan 5765/BRAR1 and Appendix 5765/2). The site is located off Swansea Road and Northfield Road and is likely to be subject to relatively high levels of night-time lighting due to the presence of street lighting and passing traffic. Limited areas of vegetation are present both within and in proximity to the site, which are restricted to small areas of recolonising ground and adjacent residential gardens.

3.3 Survey Results

Building B1a

- 3.3.1 Building **B1a** is a two-storey, unoccupied, residential building of brick construction with boarded up windows. Building **B1a** supports a pitched slate tile roof, with openings at the eaves recorded, with two chimney stacks and an associated lean-to structure located at the rear of the building. The exposed external walls are of a construction considered unlikely to support a notable cavity, and were recorded to be in a relatively good state of repair at the time of survey, although areas of mortar were recorded to be missing at the chimneys and above a lintel associated with the car port. Dormer windows are present within the roof and as such, it is considered unlikely that a separate / accessible loft void is present. Potential access features for bats include the areas of missing mortar, numerous lifted and missing tiles on the roof and areas of lifted lead flashing.
- 3.3.2 Internal inspections of building **B1a** were not possible due to its dilapidated nature, in combination with the presence of disturbed asbestos.

Building B1b

- 3.3.3 Building **B1b** is an unoccupied, two-storey warehouse / workshop space, of brick construction. Building **B1b** supports a pitched clay tile roof with soffit boxes recorded to be in poor condition, providing a gap of at least 2.5cm between the soffit boxes and the building. The external walls are of a construction considered unlikely to support a cavity and were recorded to be in a relatively good state of repair with Ivy *Hedera helix* present on the south-western aspect. The roof was recorded to be in a moderate state of repair with some missing tiles identified, in addition to missing mortar at the gable end rakes. The windows were recorded to be either boarded or cemented over. An old wooden sign is present on the eastern aspect of the building with gaps present between the sign and the brickwork, which could provide roosting opportunities to bats. A large garage door with gaps around the edges is also present on the eastern aspect of the building providing potential access opportunities to bats. A remnant wall, presumably from a previous lean-to building, is present along the western wall of building **B1b**, which provides large gaps and crevices.
- 3.3.4 No access was possible to the second floor of the building due to health and safety concerns associated with the presence of rotting floorboards, which also prevented an exhaustive internal inspection of the ground floor from taking place. The interior of the building comprises exposed brickwork with wooden ceilings and was recorded to be in a poor state of repair.

Building B2a

- 3.3.5 Building **B2a** is a two-storey warehouse / workshop space, of brick construction, currently being used as a storage area with evidence of rough sleeping also recorded. Building **B2a** supports a largely flat roof of bitumen felt and corrugated asbestos, with a section of pitched roof at the north-east of the building. Many of the windows were recorded to be open or broken with gaps also present beneath the corrugated asbestos. Large warehouse doors are present which were also recorded to have large gaps into the interior of the building.
- 3.3.6 Due to health and safety concerns associated with the presence of rotting floorboards, an appraisal of the second floor was made from the stairway of the building only. No loft void is present, with the roof recorded to be backed with wooden sarking boards and support beams, which could provide potential crevices for bats to roost. The first floor was recorded to be light and breezy due to the number of broken and uncovered windows present.
- 3.3.7 Building **B2a** also supports a lean-to structure to the south of the building, comprising wooden beams supporting a sloping roof of corrugated plastic sheeting which is broken in places and in a poor state of repair.

Building B2b

- 3.3.8 Building **B2b** is a two-storey warehouse of metal frame / clad construction, with a concrete base, supporting a flat roof. A large, metal roller door is present on the southern aspect of the building, with gaps present at the top that could allow access to bats. A security light is also present on the southern wall of the building, though it is not known whether it is still functional. No internal access was possible for this building.

3.4 Evaluation

- 3.4.1 A number of potential opportunities for roosting bats were recorded to be present at buildings **B1a**, **B1b** and **B2a** restricted to external features such as lifted, damaged or missing roof tiles, missing mortar, areas of lifted lead flashing, gaps between soffit boxes, garage doors and external signs, open / broken windows and exposed beams. These features could potentially

be used by individual bats opportunistically, however the buildings are unlikely to be suitable for maternity or hibernation roosts and no evidence of bats was recorded.

- 3.4.2 The presence of street lighting located at the southern and eastern aspects, in addition to being situated in an entirely urban context adjacent to a number of active roads with no links to any suitable foraging habitat, further reduces the likelihood / potential for the buildings to support any bat roosts. On this basis, and given the context of the site within the surrounding landscape, buildings **B1a**, **B1b** and **B2a** are considered be of negligible to low suitability for roosting bats and no evidence of roosting bats was recorded during the survey work undertaken. Accordingly, no further survey work, e.g. dusk emergence / dawn re-entry, is considered necessary. Precautionary safeguarding measures are proposed at Section 4 below, in the unlikely event that bats colonise the site in the future.
- 3.4.3 A limited number of potential opportunities for roosting bats were recorded to be present across building **B2b**, restricted to external features such as the gaps above the roller door. This could potentially allow access into the building for individual opportunistic bats, however the building is unlikely to be suitable for maternity or hibernation roosts, with no evidence of bats recorded.
- 3.4.4 The presence of the security light and the location of the building in an entirely urban context further reduces the likelihood / potential for the building to support any bat roosts. On this basis, and given the context of the site within the surrounding landscape, building **B2b** is considered to be of negligible suitability for roosting bats and no evidence of roosting bats was recorded during the survey work undertaken. Accordingly, no further survey work, e.g. dusk emergence / dawn re-entry, is considered necessary.

4 Mitigation Measures

- 4.1 Based on the ecological features identified within / adjacent to the site, it is proposed that the following precautionary safeguarding and mitigation measures (**MM1 – 3**) are implemented.

4.2 Precautionary Measures

Bats

- 4.2.1 Given the context of the site and level of survey work undertaken, buildings **B1a**, **B1b** and **B2a** are considered to offer negligible to low bat roosting potential, with no evidence of bats recorded.
- 4.2.2 Nonetheless, bats are dynamic animals and as such, it remains possible that individual bats could choose to utilise the buildings in the future. Natural England guidance in respect of European Protected Species such as bats advises that, even where proposals are reasonably unlikely to result in any offence, such that licensing is not required, reasonable precautions should be taken to minimise the risk to protected species in the unlikely event that they should be found during the course of the activity.
- 4.2.3 Accordingly, it is recommended that the following precautionary measures are implemented:
- 4.2.4 **MM1 - Update Survey.** Should any considerable time (e.g. >1 year) elapse between the survey work detailed above and any demolition works, a further visual inspection survey should be undertaken prior to the commencement of works to confirm the continued likely absence of bats.
- 4.2.5 **MM2 – Precautionary Approach to Demolition Works.** Buildings **B1a**, **B1b** and **B2a** are considered to offer negligible to low bat roosting potential. However, as described above, bats

are highly mobile and can colonise suitable features at any time. Therefore, it is recommended that a precautionary approach to demolition works be adopted to minimise the risk of harm to bats (should they be present in the future), which would involve:

- A toolbox talk should be given to all relevant contractors by a suitably qualified ecologist to brief them on the potential presence of bats and a site-wide watching brief maintained to enhance awareness of bats;
- Removal of any features with potential to support or conceal roosting bats, e.g. ridge tiles, roof tiles, lifted lead flashing, etc. in the buildings should be undertaken using a precautionary approach (i.e. by hand or using hand tools) with care during favourable weather conditions (e.g. not during heavy rain, high winds or unseasonably low temperatures) under the supervision of a suitably qualified ecologist; and
- Should any bats be encountered, works would need to stop so that suitable mitigation can be agreed prior to works re-commencing. This may involve discussions with Natural England and acquisition of a mitigation licence for works to resume lawfully.

Birds

- 4.2.6 **MM3 – Timing of Works.** No evidence of bird nesting was identified within the on-site buildings, but due to their poor state of repair it remains possible that birds could nest within them in the future. As such, as a precautionary measure, to avoid a potential offence under the Wildlife and Countryside Act, no building demolition works should be undertaken during the bird-nesting season (1st March to 31st August inclusive). If this is not practicable, any areas of the external façade to be removed should first be checked by a competent ecologist in order to determine the location of any active nests. Any active nests identified should then be cordoned off (minimum 5m buffer) and protected until the end of the nesting season or until the birds have fledged.

5 Conclusions

- 5.1 Aspect Ecology has carried out a roost assessment for bats at Swansea Road, Reading, to inform proposed demolition works.
- 5.2 No evidence of roosting bats was recorded during the survey and, given the context of the site and the results of the survey work undertaken, the on-site buildings have been assessed as providing negligible to low suitability to support roosting bats, with no evidence of bats having been recorded. However, precautionary measures have been set out which are intended to fully safeguard bats, should they colonise the site in the future.
- 5.3 Subject to the implementation of the measures recommended above, it is considered unlikely that the proposals will result in harm to bats.

Enclosed:

Plan 5765/BRAR1 – Visual Inspection Survey Results

Appendix 5765/1 – Legislation Summary

Appendix 5765/2 – Photographs

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Plan 5765/BRAR1:

Visual Inspection Survey Results

Appendix 5765/1:

Legislation Summary

LEGISLATION SUMMARY

1. In England and Wales primary legislation is made by the UK Parliament, and in Scotland by the Scottish Parliament, in the form of Acts. The main piece of legislation relating to nature conservation in the UK is the Wildlife and Countryside Act 1981 (as amended).
2. Acts of Parliament confer powers on Ministers to make more detailed orders, rules or regulations by means of secondary legislation in the form of statutory instruments. Statutory instruments are used to provide the necessary detail that would be too complex to include in an Act itself¹. The provisions of an Act of Parliament can also be enforced, amended or updated by secondary legislation.
3. In summary, the key pieces of legislation relating to nature conservation in the UK are:
 - Wildlife and Countryside Act 1981 (as amended)
 - Protection of Badgers Act 1992
 - Hedgerows Regulations 1997
 - Countryside and Rights of Way (CROW) Act for England and Wales 2000
 - Natural Environment and Rural Communities Act 2006
 - Conservation of Habitats and Species Regulations 2017
4. A brief summary of the relevant legislation is provided below. The original Acts and instruments should be referred to for the full and most up to date text of the legislation.
5. **Wildlife and Countryside Act 1981 (as amended)**. The WCA Act provides for the notification and confirmation of Sites of Special Scientific Interest (SSSIs) identified for their flora, fauna, geological or physiographical features. The Act contains strict measures for the protection and management of SSSIs.
6. The Act also refers to the treatment of UK wildlife including protected species listed under Schedules 1 (birds), 5 (mammals, herpetofauna, fish, invertebrates) and 8 (plants).
7. Under Section 1(1) of the Act, all wild birds are protected such that it is an offence to intentionally:
 - Kill, injure or take any wild bird;
 - Take, damage or destroy the nest of any wild bird whilst in use* or being built;
 - Take or destroy an egg of any wild bird.

* The nests of birds that re-use their nests as listed under Schedule ZA1, e.g. Golden Eagle, are protected against taking, damage or destruction irrespective of whether they are in use or not.
8. Offences in respect of Schedule 1 birds are subject to special, i.e. higher, penalties. Schedule 1 birds also receive greater protection such that it is an offence to intentionally or recklessly:
 - Disturb any wild bird included in Schedule 1 while it is building a nest or while it is in, on or near a nest containing eggs or young;
 - Disturb dependent young of such a bird.

¹ <http://www.parliament.uk/business/bills-and-legislation/secondary-legislation/statutory-instruments/>

9. Under Section 9(1) of the Act, it is an offence to:
 - Intentionally kill, injure or take any wild animal included in Schedule 5.
10. In addition, under Section 9(4) it is an offence to intentionally or recklessly:
 - Obstruct access to, any structure or place which any wild animal included in Schedule 5 uses for shelter or protection; or
 - Disturb any wild animal included in Schedule 5 while occupying a structure or place which it uses for that purpose.
11. Under Section 13(1) it is an offence:
 - To intentionally pick, uproot or destroy any wild plant listed in Schedule 8; or
 - Unless the authorised person, to intentionally uproot any wild plant not included in Schedule 8.
12. The Act also contains measures (S.14) for preventing the establishment of non-native species that may be detrimental to native wildlife, prohibiting the introduction into the wild of animals (releases or allows to escape) and plants (plants or causes to grow) listed under Schedule 9.
13. **Protection of Badgers Act 1992.** The Act aims to protect the species from persecution, rather than being a response to an unfavourable conservation status, as the species is in fact common over most of Britain. It should be noted that the legislation is not intended to prevent properly authorised development. Under the Act it is an offence to:
 - Wilfully kill, injure, take, possess or cruelly ill-treat* a Badger, or attempt to do so;
 - To intentionally or recklessly interfere with a sett# (this includes disturbing Badgers whilst they are occupying a sett, as well as damaging or destroying a sett or obstructing access to it).

* the intentional elimination of sufficient foraging area to support a known social group of Badgers may, in certain circumstances, be construed as an offence

A sett is defined as “any structure or place which displays signs indicating current use by a Badger”. Natural England advice (June 2009) is that a sett is protected so long as such signs remain present, which in practice could potentially be for some time after the last actual occupation by Badger. Interference with a sett includes blocking tunnels or damaging the sett in any way
14. Licences can be obtained from the Statutory Nature Conservation Organisation (SNCO) for development activities that would otherwise be unlawful under the legislation, provided there is suitable justification. The SNCO for England is Natural England.
15. **Hedgerows Regulations 1997.** ‘Important’ hedgerows (as defined by the Regulations) are protected from removal (up-rooting or otherwise destroying). Various criteria specified in the Regulations are employed to identify ‘important’ hedgerows for wildlife, landscape or historical reasons.
16. **Countryside and Rights of Way (CROW) Act for England and Wales 2000.** The CROW Act provides increased measures for the management and protection of SSSIs and strengthens wildlife enforcement legislation. Schedule 12 of the Act amends the species provisions of the WCA 1981, strengthening the legal protection for threatened species. The Act also introduced a duty on Government to have regard to the conservation of biodiversity and maintain lists of species and habitats for which conservation steps should be taken or promoted, in accordance with the Convention on Biological Diversity.

17. **Natural Environment and Rural Communities Act 2006.** Section 41 of the NERC Act requires the Secretary of State to publish a list of habitats and species that are of principal importance for the conservation of biodiversity in England. The S41 list is used to guide decision-makers such as local planning authorities, in implementing their duty under Section 40 of the Act, to have regard to the conservation of biodiversity in England, when exercising their normal functions. 56 habitats and 943 species of principal importance are included on the S41 list. These are all the habitats and species in England that were identified as requiring action in the UK Biodiversity Action Plan (BAP).
18. **Conservation of Habitats and Species Regulations 2017 (as amended).** The Regulations enact the European Union's Habitats Directive (92/43/EEC) in the UK. The Habitats Directive was designed to contribute to the maintenance of biodiversity within member states through the conservation of sites, known in the UK as Special Areas of Conservation (SACs), containing habitats and species selected as being of EC importance (as listed in Annexes I and II of the Habitats Directive respectively). Member states are required to take measures to maintain or restore these natural and semi-natural habitats and wild species at a favourable conservation status.
19. The Regulations also require the compilation and maintenance of a register of European sites, to include SACs and Special Protection Areas (SPAs)² classified under Council Directive 79/409/EEC on the Conservation of Wild Birds (the Birds Directive). These sites constitute the Natura 2000 network. The Regulations impose restrictions on planning decisions likely to significantly affect SPAs or SACs.
20. The Regulations also provide protection to European Protected Species of animals that largely overlaps with the WCA 1981, albeit the provisions are generally stricter. Under Regulation 43 it is an offence, *inter alia*, to:
 - Deliberately capture, injure or kill any wild animal of a European Protected Species;
 - Deliberately disturb any wild animals of any such species, including in particular any disturbance likely to impair their ability to survive, to breed or reproduce, to rear or nurture their young, to hibernate or migrate, or which is likely to affect significantly their local distribution or abundance;
 - Deliberately take or destroy the eggs of such an animal;
 - Damage or destroy a breeding site or resting place of such an animal.
21. Similar protection is afforded to European Protected Species of plants, as detailed under Regulation 47.
22. The Regulations do provide a licensing system that permits otherwise illegal activities in relation to European Protected Species, subject to certain tests being fulfilled.

² Special Protection Areas (SPAs) are protected sites classified in accordance with Article 4 of the EC Directive on the Conservation of Wild Birds (79/409/EEC) (aka the Birds Directive), which came into force in April 1979. SPAs are classified for rare and vulnerable birds (as listed on Annex I of the Directive), and for regularly occurring migratory species.

Appendix 5765/2:

Photographs

B1a – External



B1a – Internal



B1b - External



B1b - Internal



B2a - External



B2a - Internal



B2b - External

