

Acre Stevenage Limited

**33 Julians Road
Stevenage**

Ecological Report

**Job No: 233309
November 2023**



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1.0 INTRODUCTION

Overview

- 1.1 AA Environmental Limited (AAe) has been commissioned by Acre Stevenage Limited to carry out an ecological survey of the redevelopment proposals at 33 Julians Road, Stevenage. The aims of the survey were to:

provide a description of the existing habitat types;
determine the existence and location of any ecologically valuable areas; and
identify the presence of any protected species.

- 1.2 This information will serve to assess the ecological impact of the proposals and identify any ecological constraints and/or mitigation measures required and also identify any enhancement measures that may be available.
- 1.3 The redevelopment proposals are to demolish the existing yard buildings (office and storage) and replace with six terraced family houses with associated gardens, landscaping, car and cycle parking. The existing residential (two flats) and office building to the front of the site (33 Julians Road) will be retained.

Site Description

- 1.4 The site is located off Julians Road in Stevenage, Hertfordshire, centred at National Grid Reference: TL 230254 and covers approximately 0.2 of a hectare. The site comprised the existing buildings and associated hardstanding areas, with areas of sparsely vegetated ground and some colonising vegetation. The site is bordered by residential properties and associated gardens to all sides (Figure 1).

2.0 METHODOLOGY

General

- 2.1 The study comprised two key phases: a desk-top study; and a walk-over field survey. The study was undertaken with reference to the Institute of Environmental Assessment's '*Guidelines for Baseline Ecological Assessment*' (1995), Chartered Institute of Ecology and Environmental Management (CIEEM) '*Guidelines for Preliminary Ecological Appraisal*' (2017) and BS 42020: 2013 '*Biodiversity - Code of practice for planning and development*'.

Desk-top Study

- 2.2 Hertfordshire Environmental Records Centre (HERC) was consulted in order to obtain baseline data held for the site and the surrounding 2 km area.
- 2.3 In addition, as certain baseline data is now readily available on the internet, the Multi-agency website (<http://magic.defra.gov.uk/>) was consulted to determine whether any part of the site or nearby habitats have been statutorily or otherwise designated and a review of Google Earth's satellite imagery (http://www.google.co.uk/intl/en_uk/earth/index.html) was completed to determine past land uses of the site and surrounding land.

Field Survey

- 2.4 It was necessary to supplement the information obtained from the desk-top study with a walk-over field survey, in order to:

ascertain whether, while the site itself or nearby habitats might not be covered by any ecological designations, they could be of ecological interest and/or contain protected species; and

establish the ecological value of the site in order for the overall disturbance to ecosystems within the area to be fully evaluated.

- 2.5 The walk-over survey of the site was carried out on Thursday 5 October 2023. The dominant plant species were recorded and habitats classified according to their vegetation types and presented in the standard UK Habitat Classification System (Butcher et al, 2020). The weather conditions at the time of survey were: 100% cloud cover; wind speed 1 (Beaufort scale); temperature 17°C; and occasional rain showers.

Habitat Evaluation

- 2.6 By applying recognised criteria produced by Ratcliffe (1977), the following seven-point scale was used to rank the importance of the habitat types and species they support. The value of each habitat was ranked according to its importance in a local context (a summary of the Ratcliffe criteria is attached at Appendix A):

low value;
low to intermediate value;
intermediate value;
intermediate to high value;
high value (Local/District importance);
very high value (County importance e.g. Site of Importance for Nature Conservation (SINC), County Wildlife Site); and
exceptional value (National importance e.g. Site of Special Scientific Interest (SSSI)).

Fauna

- 2.7 Particular attention was paid to record the presence of/ or suitable habitat for badgers, bats and herpetofauna (amphibians and reptiles) that may be present on the site or within adjacent habitats, in accordance with the following survey methodologies:

Badgers

- 2.8 Badgers (*Meles meles*) and their setts are protected by *The Protection of Badgers Act 1992*, under which it is an offence to harm badgers or their setts. A sett is defined as “any structure or place which displays signs indicating current use by a badger”. Natural England has provided the following guidance on the interpretation of current use:

A sett is defined as such (and thus protected) as long as signs indicative of ‘current use’ are present. Thus, a sett remains protected by the Act until such times as the signs (i.e. ‘field signs’) have deteriorated or decayed to such an extent that they indicate that the sett is no longer in ‘current use’.

- 2.9 A thorough survey of the whole site and adjacent habitats, where access was available, was carried out. Particular attention was paid to dense areas of vegetation to check for any evidence of badger activity, which is usually detected by any one or more of the following signs:

presence of holes with evidence of badger such as footprints, discarded hair, etc.;;
presence of dung pits and latrines;
presence of well used runs with subsidiary evidence of badger activity; and
presence of other indications of badger activity, such as signs of foraging and footprints.

Bats

- 2.10 Currently there are 17 species of bat known to breed in the UK. All species and their roosts are protected under Regulation 41 of *The Conservation of Habitats and Species Regulations 2010 (as amended)*. As a signatory to the *Bonn Convention (Agreement on the Conservation of Bats in Europe)* the UK is also required to protect their habitats. This legislation makes it illegal to kill, injure, capture or disturb bats or to obstruct access to, damage or destroy bat roosts. Under the law, a roost is any structure or place used for shelter or protection.

- 2.11 A visual survey of the site was completed to record any evidence of bats or features that could provide potential roosting opportunities. The survey was carried out following the guidelines provided by the Bat Conservation Trust¹ and by an experienced and licensed ecologist². A thorough internal and external examination of the existing buildings was carried out, with any potential access points inspected for evidence of bats. All internal roof voids/spaces, where present, were accessed to check for any evidence of bats.
- 2.12 The surrounding habitat was also surveyed to identify any important features such as mature trees with suitable features for roosting bats and any established lines of vegetation that might provide important flightlines.
- 2.13 Evidence of bats is usually detected by any one or more of the following signs:
- the presence of bat droppings, which tend to accumulate under established roost sites or at roost entrances;
 - the accumulation of large numbers of moth wings, which have been discarded by feeding bats;
 - areas of staining by urine or from fur rubbing; and
 - the presence of bats themselves or their corpses.
- 2.14 The visual survey was facilitated by the use of binoculars, ladders, powerful torches (1M candlepower) and a Ridgid Micro CA-350 Inspection Camera endoscope. A heterodyne bat detector (Pettersson D200) was also used during the inspection to record any bat calls.

Herpetofauna

Amphibians

- 2.15 All amphibian species have some level of protection under *The Wildlife and Countryside Act 1981 (as amended)*. Great crested newts (*Triturus cristatus*) are protected under *The Wildlife and Countryside Act 1981 (as amended)* and *The Conservation of Habitats and Species Regulations 2010 (as amended)*. The intentional or reckless killing, injury or taking, and intentional or reckless disturbance of great crested newts whilst occupying a 'place used for shelter or protection', is prohibited, as is the destruction of these places.

Reptiles

- 2.16 All reptile species are protected at some level under Schedule 5 of the *Wildlife and Countryside Act 1981 (as amended)* and *The Conservation of Habitats and Species Regulations 2010 (as amended)*. The more common species of reptiles, which include slow-worm (*Anguis fragilis*), common or viviparous lizard (*Zootoca vivipara*), adder (*Vipera berus*) and grass snake (*Natrix helvetica*) are protected by the *Wildlife and Countryside Act 1981 (as amended)* by part of *Section 9(1)* and all of *Section 9(5)*. This means that they are protected against intentional or reckless killing and injuring (but not 'taking') and against sale and transporting for sale.
- 2.17 An assessment of the site was carried out to determine its suitability for herpetofauna by recording the habitats present. In addition, any natural/artificial refugia present on the site was lifted to check for any sheltering animals or evidence of animals, such as sloughs (shed skins).

Other Species

- 2.18 In accordance with good practice, the site was checked for any evidence of other protected species or species of particular note.

¹ Collins, J. (ed) (2023) *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (4th edition). The Bat Conservation Trust, London.

² Lead surveyor was Harry Simpson, BSc (Hons), MSc.

3.0 RESULTS

Desk-top Study

- 3.1 A summary of the baseline data obtained from HERC has been provided and detailed in Table 1; please note, due to sensitivity of data, the report cannot be reproduced but can be requested by the Local Planning Authority³.
- 3.2 There are no ecological statutory designated sites located on, adjacent or within the surrounding 2 km study area. The nearest statutory designated site was Knebworth Woods Site of Special Scientific Interest (SSSI), located approximately 2.19 km to the south of the site. The nearest non-statutory designated site was Whitney Drive Wood Local Wildlife Site (LWS), located 0.37 km to the north of the site. Full details of the designated sites located within the 2 km search area are provided in Table 1.
- 3.3 There are no records of protected species located on or adjacent to the site. There are a number of records within the 2 km study area, the majority of which were supplied with specific 6-figure grid references allowing a high-resolution indication of their locations, although a number of coarse and confidential records were also supplied. Further details of protected species recorded within 2 km of the site are provided in Table 1.
- 3.4 According to the Multi-agency website, there are no Habitats of Principal Importance (HPIs) located on or adjacent to the site, with the closest being an area of Deciduous Woodland and National Forest Inventory Broadleaved Woodland, located approximately 0.3 km to the north-north-west of the site.
- 3.5 Google Earth Imagery shows that the site has remained largely unchanged since at least 2000, comprising the existing buildings and associated hardstanding areas. The south of the site appears to have been operational until about 2021, after which time it appears to have become disused.

Table 1: Summary of Data Search Results (HERC)

Statutory Designated Sites		
Description	Protection/Designation	Distance/Direction (m)
Knebworth Woods	SSSI	2190 to the S
Non-Statutory Designated Sites		
Description	Protection/Designation	Distance/Direction (m)
Whitney Drive Wood	LWS	370 to the N
Whitney Wood	LWS	620 to the N
Martins Way, Stevenage	LWS	870 to the ENE
Symonds Green	LWS	890 to the WSW
Fishers Green Wood	LWS	960 to the W
St Nicholas Churchyard, Stevenage	LWS	1180 to the ENE
Margaret's Wood & Spoil Bank Wood, Todds Green	LWS	1210 to the NNW
Lucas Wood	LWS	1240 to the NW
Almond Spring	LWS	1290 to the E
Martins Way/Canterbury Way Roundabout	RIGGS	1410 to the ENE
Six Hills Comon	LWS	1790 to the S
Sishes Wodd	LWS	1950 to the E
High Broomin Wood	LWS	1950 to the SSW
Kitching Green Lane	LWS	2000 to the SSW
Protected/notable Specie		
Description	Protection/designation	Distance from site (m)
West European Hedgehog (<i>Erinaceus europaeus</i>)	Priority Species	30
Common Pipistrelle (<i>Pipistrellus pipistrellus</i>)	European Protected Species & Protected Species	90

³ HERC data cannot be passed on to any third parties (excluding local authorities), without express written permission.

Lesser Noctule (<i>Nyctalus leisleri</i>)	European Protected Species & Protected Species	190
Nathusius's Pipistrelle (<i>Pipistrellus nathusii</i>)	European Protected Species & Protected Species	190
Noctule Bat (<i>Nyctalus noctula</i>)	European Protected Species, Protected Species & Priority Species	190
Soprano Pipistrelle (<i>Pipistrellus pygmaeus</i>)	European Protected Species, Protected Species & Priority Species	190
Red Kite (<i>Milvus milvus</i>)	Protected Species	250
Brown Long-eared Bat (<i>Plecotus auritus</i>)	European Protected Species, Protected Species & Priority Species	300
Bluebell (<i>Hyacinthoides non-scripta</i>)	Protected Species	360
Dunnock (<i>Prunella modularis</i>)	Priority Species	440
House Sparrow (<i>Passer domesticus</i>)	Priority Species	440
Small Heath (<i>Coenonympha pamphilus</i>)	Priority Species	470
Eurasian Badger (<i>Meles meles</i>)	Badgers Act (1992)	500
Unknown Bat (<i>Chiroptera sp.</i>)	European Protected Species, Protected Species	520
Fieldfare (<i>Turdus pilaris</i>)	Protected Species	740
Pipistrelle Bat species (<i>Pipistrellus sp.</i>)	European Protected Species, Protected Species	760
Herring Gull (<i>Larus argentatus</i>)	Priority Species	850
Bullfinch (<i>Pyrrhula pyrrhula</i>)	Priority Species	860
Reed Bunting (<i>Emberiza schoeniclus</i>)	Priority Species	860
White-letter Hairstreak (<i>Satyrrium w-album</i>)	Protected Species & Priority Species	930
Roman Snail (<i>Helix (Helix) pomatia</i>)	Protected Species	950
Peregrine (<i>Falco peregrinus</i>)	Protected Species	1090
Redwing (<i>Turdus iliacus</i>)	Protected Species	1090
Turtle Dove (<i>Streptopelia turtur</i>)	Priority Species	1090
Long-eared Bat species (<i>Plecotus sp.</i>)	European Protected Species, Protected Species	1150
Small Blue (<i>Cupido minimus</i>)	Protected Species & Priority Species	1180
Polecat (<i>Mustela putorius</i>)	Priority Species	1190
Serotine (<i>Eptesicus serotinus</i>)	European Protected Species & Protected Species	1200
Brown Hare (<i>Lepus europaeus</i>)	Protected Species, Priority Species	1280
Cinnabar (<i>Tyria jacobaeae</i>)	Priority Species	1380
Pasqueflower (<i>Pulsatilla vulgaris</i>)	Priority Species	1400
Yellowhammer (<i>Emberiza citrinella</i>)	Priority Species	1460
Corn Bunting (<i>Emberiza calandra</i>)	Priority Species	1560
Grey Partridge (<i>Perdix perdix</i>)	Priority Species	1570
Grasshopper Warbler (<i>Locustella naevia</i>)	Priority Species	1620
Ring Ouzel (<i>Turdus torquatus</i>)	Priority Species	1620
Common Toad (<i>Bufo bufo</i>)	Protected Species (against sale) & Priority Species	1720
Lesser Redpoll (<i>Carduelis cabaret</i>)	Priority Species	1740
Marsh Tit (<i>Poecile palustris</i>)	Priority Species	1770
Stag Beetle (<i>Lucanus cervus</i>)	European Protected Species, Protected Species (against sale) & Priority Species	1810
Yellow Wagtail (<i>Motacilla flava</i>)	Priority Species	1880
Spotted Flycatcher (<i>Muscicapa striata</i>)	Priority Species	1900
Barn Owl (<i>Tyto alba</i>)	Protected Species	1910
Black Redstart (<i>Phoenicurus ochruros</i>)	Protected Species	1910
Cuckoo (<i>Cuculus canorus</i>)	Priority Species	1910
Hobby (<i>Falco subbuteo</i>)	Protected Species	1910
Lapwing (<i>Vanellus vanellus</i>)	Priority Species	1910
Linnet (<i>Linaria cannabina</i>)	Priority Species	1910
Little Ringed Plover (<i>Charadrius dubius</i>)	Protected Species	1910

Marsh Harrier (<i>Circus aeruginosus</i>)	Protected Species	1910
Skylark (<i>Alauda arvensis</i>)	Priority Species	1910
Song Thrush (<i>Turdus philomelos</i>)	Priority Species	1910
Starling (<i>Sturnus vulgaris</i>)	Priority Species	1910
Stone-curlew (<i>Burhinus oedichnemus</i>)	Protected Species & Priority Species	1910
Tree Pipit (<i>Anthus trivialis</i>)	Priority Species	1910
Wryneck (<i>Jynx torquilla</i>)	Protected Species & Priority Species	1910
Hawfinch (<i>Coccothraustes coccothraustes</i>)	Priority Species	1920
Purple Emperor (<i>Apatura iris</i>)	Protected Species	1920
Great Crested Newt (<i>Triturus cristatus</i>)	European Protected Species, Protected Species & Priority Species	1940
Protected/notable Species (Coarse/Confidential Records)		
Description	Protection/designation	Distance of nearest record from site (m) (grid accuracy)
Eurasian Badger (<i>Meles meles</i>)	Badgers Act (1992)	50 (1 km)
Common Pipistrelle (<i>Pipistrellus pipistrellus</i>)	European Protected Species & Protected Species	90 (100m)
Lesser Noctule (<i>Nyctalus leisleri</i>)	European Protected Species & Protected Species	190 (100m)
Nathusius's Pipistrelle (<i>Pipistrellus nathusii</i>)	European Protected Species & Protected Species	190 (100m)
Noctule Bat (<i>Nyctalus noctula</i>)	European Protected Species, Protected Species & Priority Species	190 (100m)
Soprano Pipistrelle (<i>Pipistrellus pygmaeus</i>)	European Protected Species, Protected Species & Priority Species	190 (100m)
Brown Long-eared Bat (<i>Plecotus auritus</i>)	European Protected Species, Protected Species & Priority Species	300 (100m)
Unknown Bat (<i>Chiroptera sp.</i>)	European Protected Species, Protected Species	520 (100m)
Pipistrelle Bat species (<i>Pipistrellus sp.</i>)	European Protected Species, Protected Species	760 (100m)
Long-eared Bat species (<i>Plecotus sp.</i>)	European Protected Species, Protected Species	1150 (100m)
Serotine (<i>Eptesicus serotinus</i>)	European Protected Species & Protected Species	1200 (10m)
Daubenton's Bat (<i>Myotis daubentonii</i>)	European Protected Species & Protected Species	1950 (1km)

NB: All distances are calculated from the centre of the site, National Grid Reference: TL 230254.

SSSI = Site of Special Scientific Interest, LWS = Local Wildlife Site; RIGGS = Regionally Important Geological/Geomorphological Site.

European Protected Species = species listed under *The Habitats Directive Annexes II and IV*.

Protected Species = species listed under the *Wildlife and Countryside Act 1981 (as amended)* Schedules 1, 5 and 8.

Priority Species = species listed under the *Natural Environment and Rural Communities (NERC) Act 2006* Section 41.

Field Survey

Introduction

- 3.6 The results of the survey are presented as a series of habitat descriptions for each of the areas on the site. The Existing Habitats Plan is shown on Figure 2 and the habitat descriptions should be read in conjunction with this Plan. Target Notes (TNs) were made on any species or features of particular importance. An indicative plant species list is attached at Appendix B (nomenclature follows Stace, 2010) and a series of site photographs attached at Appendix C.

Habitat Types and Evaluation

Developed Land; Sealed Surface

- 3.7 There were a number of buildings present on the site, including offices, residential apartments and warehouse, with associated hardstanding and car parking areas. A description of each building has been provided in Table 2.

Table 2: Building Descriptions

Building No.	Type	Description
1	Warehouse	Double height, masonry constructed warehouse, with pitched, slate tiled roof. Cat slide roof present at eastern elevation, with timber cladding recorded at northern and southern gable ends. Connected to B4 to the north. Internally, the ceilings were vaulted, with timber sarking. No separate roof space.
2	Northern Office	Two storey, masonry constructed offices, with a pitched roof of slate tiles. Timber barge boards present at each elevation. Connected to B3 to the north. Internally, suspended ceilings were recorded with a restricted void above. Building construction indicated the presence of a separate roof space, although no loft hatch was present (access via B3).
3	Apartments	Two storey, masonry constructed residential apartments, with pitched roof of slate tiles. Timber barge boards present at each elevation. Connected to B2 to the south. No internal access was possible at the time of the survey, with no answer from residents. Considered likely that separate roof space present due to building design.
4	Western Office	Two storey, masonry constructed offices with pitched roof of slate tiles. Connected to B1 to the south. Restricted area of timber cladding recorded above front doors. Timber barge boards present at northern elevation. Internally, the building had been boarded out but was open to the rafters, with no separate roof void recorded.
5	Storage Containers	Two metal storage units were recorded on the south of the site.

- 3.8 The buildings and associated areas of hardstanding provide limited habitat for any wildlife but the buildings provide some potential bird nesting and bat roosting opportunities.

Habitat value: Low

Sparsely Vegetated Land

- 3.9 The south of the site comprised a disused yard area, with areas of bare ground, colonising vegetation and bramble (*Rubus fruticosus* agg.) stubble. Colonising species recorded included perennial rye-grass (*Lolium perenne*), Canadian fleabane (*Conyza canadensis*), common nettle (*Urtica dioica*), green alkanet (*Pentaglottis sempervirens*), colt's-foot (*Tussilago farfara*), cleavers (*Galium aparine*), elder (*Sambucus nigra*), common ivy (*Hedera helix*), sycamore (*Acer pseudoplatanus*) saplings, creeping thistle (*Cirsium arvense*), and dandelion (*Taraxacum* agg.).
- 3.10 The area of sparsely vegetated land due to its restricted size provided very limited foraging and sheltering opportunities for wildlife and consequently of low value.

Habitat value: Low

Bramble Scrub

- 3.11 Areas of bramble scrub had colonised some of the south-east of the site, with individual plants recorded along the southern and western site boundaries.
- 3.12 The areas of bramble scrub provide some foraging and sheltering habitat for common species, although limited due to its restricted extent.

Habitat value: Low

Introduced Shrub

- 3.13 The south of the site had been colonised by self-seeded vegetation with a restricted area of ornamental planting also present at the eastern site boundary. Species recorded included butterfly-bush (*Buddleja davidii*), bamboo (*Pleioblastus sp.*), cherry laurel (*Prunus laurocerasus*) and rosemary (*Rosmarinus officinalis*).
- 3.14 The introduced shrubs provided some foraging opportunities and shelter for a range of common species but its restricted size and poor species diversity reduces its overall value.

Habitat value: Low

Other Developed Land

- 3.15 Within the southern half of the site were a few areas of stored building materials and crushed concrete, located on areas of hardstanding and partially colonised by encroaching bramble scrub.
- 3.16 These areas provided limited foraging and sheltering opportunities for common species of wildlife, but their overall ecological value was limited by the extent of this habitat and lack of any established vegetation.

Habitat value: Low

Adjacent Habitat

- 3.17 The site was located in an urban area and largely surrounded by residential properties with associated gardens.

Fauna

Badgers

- 3.18 No evidence of badgers or their setts were recorded on site, with only evidence of rabbit (*Oryctolagus cuniculus*) recorded (droppings and a couple of holes (TN 1 on Figure 2)). No badger records were returned for the site or adjacent land, with the nearest record located approximately 0.5 km from the site.

Bats

- 3.19 No evidence of bats was recorded during the external inspection of the various buildings on the site. The offices and residential apartments were in good condition, with the roof and ridge tiles well-fitted and aligned, with no obvious gaps recorded. In addition, the timber barge boards on buildings 2-4 and restricted area of timber cladding on building 4 were all tightly fitted, with no evidence of bats recorded. Timber cladding on the warehouse (B1) was in poor condition, single skinned, with missing areas facilitating a thorough inspection using ladders, torches and binoculars, with no evidence of bats recorded. During the internal inspection, a few individual mixed age brown long-eared (*Plecotus auritus*)⁴ droppings were recorded within the north-western corner of B1, below an area of timber sarking (TN 2 on Figure 2). In addition, a single old bird nest (thought to be a Feral Pigeon (*Columba livia domestica*)) was recorded within B1, located above some stored ladders.
- 3.20 The site, being dominated by the existing buildings and hardstanding areas, with no established vegetation, does not provide any notable foraging opportunities for bats.

Herpetofauna

- 3.21 There were no ponds on the site and therefore no breeding opportunities for any species of amphibian. The site being dominated by buildings and hardstanding with no established vegetation does not provide any suitable terrestrial habitat for any species of herpetofauna. In addition, despite a careful search of the site, no species of herpetofauna were seen or found sheltering under any refugia lifted during the survey.

⁴ Confirmed by DNA analysis. A copy of the technical report has been attached at Appendix D for reference.

- 3.22 There are no nearby records returned by HERC, with no records of any reptiles within the 2 km study area and the nearest record of great crested newt nearly 2 km away (c. 1.94 km).

Other Wildlife

- 3.23 Apart from the rabbit already mentioned, and a few common species of birds, either recorded on the site or flying overhead, no other species of any note were recorded.

4.0 DISCUSSION AND RECOMMENDATIONS

- 4.1 The redevelopment proposals are to demolish the existing yard buildings (office and storage) and replace with six terraced family houses with associated gardens, landscaping, car and cycle parking. The existing residential (two flats) and office building to the front of the site (33 Julians Road) will be retained.

- 4.2 There are no habitats of international, national, county or local importance that would be directly affected by the proposals. The site is of overall low ecological value, with the species recorded described as common or abundant and are found in similar places across much of Britain, with the warehouse assessed to be an occasionally used day roost (possibly historical) by individual brown-long eared bats.

- 4.3 Although it is acknowledged that further surveys are required in order to confirm this initial assessment, a range of measures can be implemented on the site to minimise disturbance and maintain roosting opportunities for bats in the long-term, as detailed below. The further follow-up surveys will include a re-check of the buildings and activity surveys at the appropriate time of year and during suitable weather conditions (optimal time is May through to August). The results of the additional surveys would confirm the status of the bat roost and provide the further details required to support an EPSL application to Natural England.

- 4.4 In order to provide alternative roosting opportunities for bats, two bat boxes (x2 2FN Schwegler, or equivalent) will be installed on the retained buildings (or pole to be erected on the site). In addition, four bat tubes (e.g. Ibstock Enclosed Bat Box B, or equivalent) will be installed in suitable locations on the new builds to provide additional roosting opportunities (a guidance document has been attached at Appendix E for reference).

- 4.5 Typical precautionary measures will be implemented during the demolition works, as detailed below:

all site operatives will be given a toolbox talk on the possibility of encountering bats and the legal protection they and their roosts are afforded (copy of a toolbox talk has been attached at Appendix F for reference);

prior to the demolition works, the buildings will be carefully re-checked by a licensed bat worker/accredited agent for any roosting bats;

initial works will be carried out with great care. All tiles will be lifted and removed by hand, lifting them clear with two hands rather than lifting the front and rolling the tile backwards which may crush any bats beneath;

tiles will also be checked underneath before being stacked or discarded, as bats sometimes cling to the undersides of tiles; and

a similar soft strip of other features that bats can utilise for roosting (such as lead flashing, timber cladding and soffits/fascias) will be completed.

- 4.6 Should any bats be encountered during this initial check and soft strip, they will be caught by hand by the licensed bat worker/accredited agent, checked thoroughly for any indication of damage before being placed in a bat bag. The bat will then be placed in one of the bat boxes already installed on the site. The box will have the hole loosely blocked with a piece of cloth to prevent any bats escaping, which will be removed at dusk to allow any bats to move off after dark. Should any injured or severely underweight bats be located, remedial measures will be taken, including seeking appropriate care of the bat and providing additional food in the form of mealworms.

- 4.7 Brown long-eared bats are considered to be relatively common and widespread throughout most of Great Britain. Population estimates in Great Britain are around 934,000⁵. Brown long-eared bats are a current UK BAP Priority Species. Results from both hibernation surveys and roost counts show no significant trend in the change in numbers of brown long-eared bats since their baseline years (1999 and 2001 respectively); other than a marginal decline in 2016 in the hibernation survey data but with high counts in 2017 pulling the curve back level again. Therefore, the population of brown long-eared bats in Great Britain is considered to have been stable since 1999⁶.
- 4.8 Roosts of individual bats of the more common species are considered of a low conservation status (in accordance with Figure 4 of the Bat Mitigation Guidelines⁷). The level of mitigation as detailed above is in line with that provided within Section 7.2 of the Bat Mitigation Guidelines, which states for roosts used by individual bats of common species that are to be destroyed:
- 'Individual bats of common species - Flexibility over provision of bat-boxes, access to new buildings etc. No conditions about timing or monitoring.'*
- 4.9 It is considered that with the series of mitigation measures to be implemented on the site, there should be no deleterious effects on the conservation status of the bats that are using the site and therefore favourable conservation status will be maintained.
- 4.10 In addition to the above specific mitigation measures detailed above, a series of generic mitigation measures, as detailed below, will be implemented to reduce any impact the development proposals may have on local wildlife. There is also an opportunity to implement some enhancement measures to increase the nature conservation value of the site in the long term in accordance with Government guidance as set out in National Planning Policy Framework (NPPF) 2023⁸.
- 4.11 It should be noted that all species of wild bird and their nests are protected under the *Wildlife and Countryside Act 1981 (as amended)*. Therefore, site clearance should be timed to avoid the main bird nesting season, which, in general, runs from March to August inclusive. If this is not possible, a check should be carried out prior to any clearance works to ensure there are no active nests present.
- 4.12 In order to protect any adjacent established vegetation, suitable fencing may be required at certain locations to reduce the possibility of any damage that could be caused during the works. To minimise accidental damage, any overhanging branches should be pruned back to suitable live growth points. All works should be undertaken by a suitably qualified and experienced specialist contractor and should conform to current industry best practice, i.e. BS 3998: 2010 *'Tree Work - Recommendations'*.
- 4.13 As part of the proposals, soft landscaping will be carried out. Where any new planting is proposed it should aim to use native species, but where this is not practicable then species of known value for wildlife can be used. In particular, flowering plants will be of benefit to invertebrate species and shrubs and trees may provide nesting opportunities for birds once they become established.
- 4.14 Any new boundary treatment should be designed to promote permeability of the Site to minimise fragmentation and allow free movement of wildlife throughout the Site, for example by strengthening/enhancing the existing boundary vegetation, planting up a series of new hedgerows and/or installing post and rail fences. If close boarded fences are required for security reasons these should be minimised and raised slightly off the ground (c. 150-200 mm) to allow animals to pass underneath.

⁵ Mathews F., Kubasiewicz L.M., Gurnell J., Harrower C.A., McDonald R.A. & Shore R.F. (2018). *A Review of the Population and Conservation Status of British Mammals. A report by the Mammal Society under contract to Natural England, Natural Resources Wales and Scottish Natural Heritage*. Natural England, Peterborough.

⁶ Bat Conservation Trust (2019). *The National Bat Monitoring Programme. Annual Report 2018*. Bat Conservation Trust, London.

⁷ Mitchell-Jones, A.J. (2004) *Bat Mitigation Guidelines*. English Nature. ISBN 1 85716 781 3.

⁸ Ministry of Housing, Communities and Local Government (2023). *National Planning Policy Framework*. London

- 4.15 The site could be further enhanced by providing roosting, nesting and sheltering opportunities for a range of species and the creation of new wildlife habitats, such as some of those recommended by the Chartered Institute of Ecology Environment and Management's published Biodiversity Net Gain Good Practice Guidance, and listed below:

- Bird nest boxes
- Bug hotels
- Hedgehog houses
- Pollinator nest sites
- Planting wildflowers

- 4.16 The effects of lighting on plants and animals are difficult to assess, but it is thought that lighting can adversely affect invertebrates, birds and bats. Although the site is located within a well-lit urban area, in accordance with best practice, a sensitive lighting scheme will be designed to minimise light spillage and pollution and not directed onto any wildlife boxes installed.

5.0 CONCLUSIONS

- 5.1 The redevelopment proposals are to demolish the existing yard buildings (office and storage) and replace with six terraced family houses with associated gardens, landscaping, car and cycle parking. The existing residential (two flats) and office building to the front of the site (33 Julians Road) will be retained.
- 5.2 An ecological survey has been carried out, supplemented by obtaining available baseline data from Hertfordshire Environmental Record Centre. The findings from the survey and review of baseline data have provided information to assess the impact of the proposals on species and/or features of ecological/biodiversity value.
- 5.3 There are no habitats of international, national, county or local importance that would be directly affected by the proposals. The site is of overall low ecological value, with the species recorded described as common or abundant and are found in similar places across much of Britain, with the warehouse assessed to be an occasionally used day roost (possibly historical) by individual brown-long eared bats.
- 5.4 Overall the findings of this ecological appraisal would indicate that there are no over-riding ecological constraints to the redevelopment proposals to preclude planning permission being granted at this stage, subject to suitably worded conditions. Proportionate mitigation is available and deliverable, to ensure that there would be no adverse impact on bats and local wildlife that are using the site or present in the surrounding area, along with a range of control measures to be applied to avoid contravention of current legislation. In addition, there is an opportunity to create new habitats for the benefit of wildlife and if designed appropriately and managed effectively then the scheme should result in an increase in biodiversity in full compliance with national and local policy.

233309/HRS

AA Environmental Limited

November 2023

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Oldham R.S., Keeble J., Swan M.J.S. & Jeffcote M. (2000). *Evaluating the suitability of habitat for the Great Crested Newt (Triturus cristatus)*. Herpetological Journal 10(4), 143-155.

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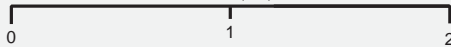
The Conservation of Habitats and Species Regulations 2010 (as amended). TSO, London.

The Wildlife and Countryside Act 1981 (as amended). HMSO, London.

Figures



Scale (km)



KEY

Site Boundary: 

2 km Study Area: 

 OS Explorer™ 193

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UK Location:



Rev.	Details	Drawn Chkd.	Date
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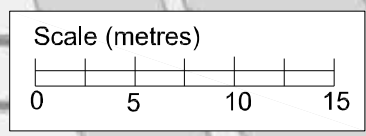
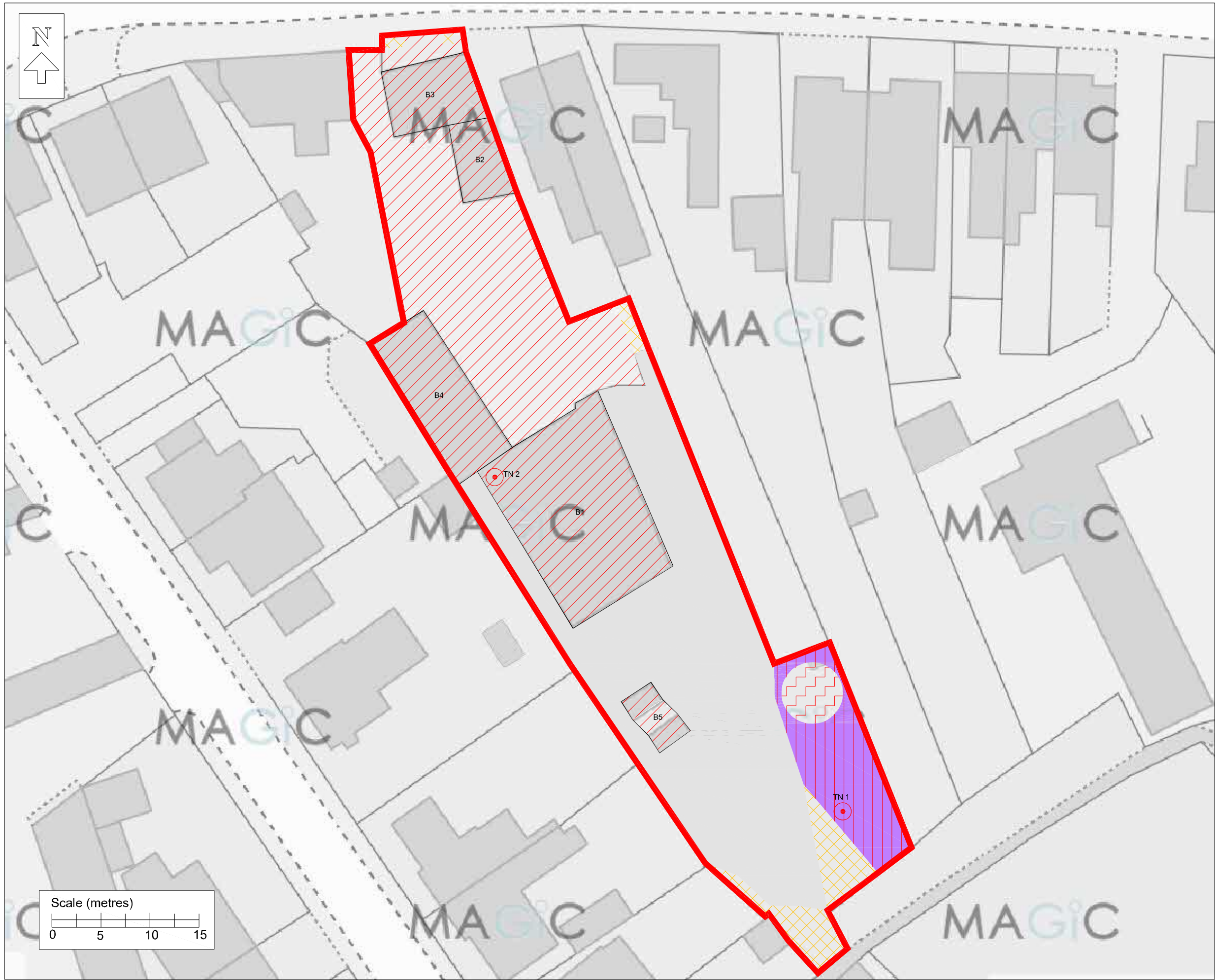
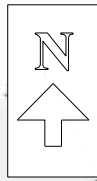
AA Environmental Ltd
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T: 01235 536042
F: 01235 523849
info@aae-ltd.co.uk
www.aae-ltd.co.uk

Project
233309
33 Julians Road
Stevenage

Title
Site Location Plan

Scale As shown	Date 08.11.23	Drawn HRS	Chkd. ARB	Drq. No. Figure 1	Rev.
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UK HABS KEY

- Site Boundary *
 - Developed Land/Sealed Surface *
 - Sparsely Vegetated Land *
 - Bramble Scrub *
 - Introduced Shrub *
 - Other Developed Land *
 - Building Reference
 - Target Note *
- * Indicative location

Notes

TN 1 - x2 Rabbit holes.

TN 2 - A few individual, mixed age brown long-eared (*Plecotus auritus*) droppings (confirmed by DNA analysis).

Base map (c) Crown Copyright and database rights 2022. Ordnance Survey 100022861 and obtained from Magic Maps (<https://magic.defra.gov.uk/magicmap.aspx>).

Rev.	Details	Drawn	Date
		Chkd.	
<p>Project 233309 33 Julians Road Stevenage</p>			
<p>Title Existing Habitats Plan</p>			
		<p>AA Environmental Ltd Units 4-8 Cholswell Court Shippon Abingdon Oxon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-ld.co.uk www.aae-ld.co.uk</p>	
Scale	Date	Drg. No.	Rev.
As shown	08.11.23	Figure 2	
	Drawn	Chkd.	
	HRS	ARB	

Appendix A

Summary of Ratcliffe Criteria

Fragility – some habitats, communities and species are particularly sensitive to environmental change and as such tend to be rare.

Rarity – the threat of loss of a particular habitat or species lends value to the organism and the site it occupies. Whether a species has rarity value is largely dependent upon the context, as a species or habitat can be internationally rare, but relatively common locally or nationally. Likewise, a nationally rare species can in some circumstances be more common at internationally level.

Size (area or extent) – size does play an important part in determining the ecological interest of an area, but is also a relative concept. For example, a 30 acre woodland or a one acre meadow could have a similar degree of nature conservation importance.

Diversity – the diversity of a site can be expressed in a number of ways and both low and high diversity can have a high nature conservation value under different circumstances.

Potential value – some sites have the potential to provide greater nature conservation interest than presently exists.

Position within the Ecological/Geographical Unit – a site which is near or adjacent to other similar habitats may have a higher nature conservation value than an isolated one because the range of fauna can be greater.

Typicalness – certain habitats have become important as they are good examples of what is, or has historically been, typical of the area. Efforts have been made to safeguard representative areas to prevent what was once common becoming fragmented or rare.

Recorded history – a well-documented site with detailed biological and/or natural history records presents a valuable insight into the ecology of a site. Such information is important for current and future management.

Naturalness – this is a measure of the degree to which an area has been modified by human activity. In England unmodified habitats are extremely rare being restricted to remote, inaccessible areas such as cliffs, and some saltmarshes. The bulk is either semi-improved, improved or artificial.

Intrinsic Appeal – this refers to value in a popular rather than ecological sense, and highlights the fact that value is also derived from society's preferences for landscape and other aesthetic features and is not just based on ecological considerations.

Appendix B

PLANT SPECIES LIST

<i>Acer pseudoplatanus</i>	Sycamore
<i>Buddleja davidii</i>	Butterfly-bush
<i>Cirsium arvense</i>	Creeping thistle
<i>Conyza canadensis</i>	Canadian fleabane
<i>Galium aparine</i>	Cleavers
<i>Hedera helix</i>	Common ivy
<i>Lolium perenne</i>	Perennial rye-grass
<i>Pentaglottis sempervirens</i>	Green alkanet
<i>Pleiblastus sp.</i>	Bamboo
<i>Prunus laurocerasus</i>	Cherry laurel
<i>Rosmarinus officinalis</i>	Rosemary
<i>Rubus fruticosus</i> agg.	Bramble
<i>Sambucus nigra</i>	Elder
<i>Taraxacum</i> agg.	Dandelion
<i>Tussilago farfara</i>	Colt's-foot
<i>Urtica dioica</i>	Common nettle

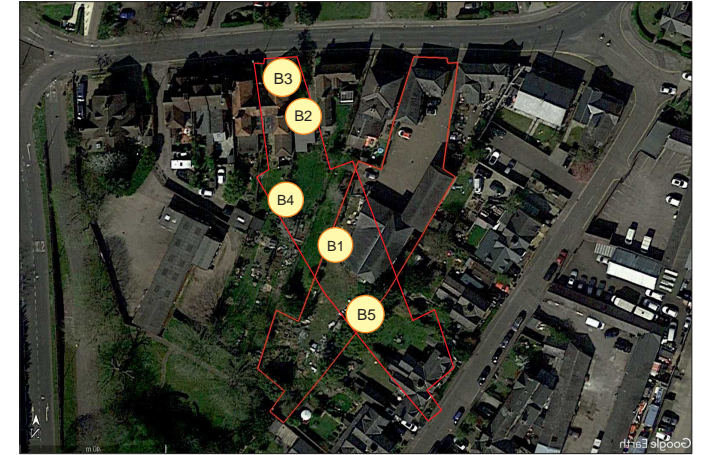
Appendix C



Photograph 1: Showing the front of the Warehouse (B1) and associated hardstanding.



Photograph 2: Showing the rear of the Warehouse (B1).



- Site Boundary
- Building Reference



Photograph 3: Showing the front/side of the Northern Office (B2) and rear of the Apartments (B3).



Photograph 4: Showing the front of the Western Office (B4) and associated hardstanding.

- Building References:**
 B1 - Warehouse
 B2 - Northern Office
 B3 - Apartments
 B4 - Western Office
 B5 - Storage Containers

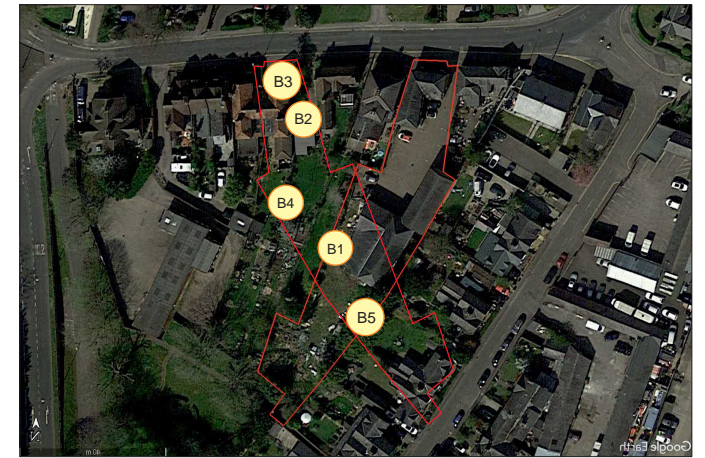
Rev.	Details	Drawn	Date	
		Chkd.		
PROJECT				
33 Julians Road Stevenage				
TITLE				
Photograph Record Sheet 1 (Photographs 1 - 4)				
		AA Environmental Ltd Units 4-8 Cholswell Court Shippon Abingdon Oxon OX13 6HX T: 01235 536042 F: 01235 523849 info@aae-ltd.co.uk www.aae-ltd.co.uk		
		Scale	Date 08.11.23	Drg No.
NTS	Drawn HRS	Chkd. ARB	Appendix C	



Photograph 5: Showing the vaulted roof of the Warehouse (B1).



Photograph 6: Showing the vaulted ceiling inside the Western Office (B4).



- Site Boundary
- Building Reference




Photograph 7: Showing the metal Storage Containers (B5) and adjacent boundary vegetation.



Photograph 8: Showing the site, facing south, and restricted areas of colonising vegetation.

- Building References:**
 B1 - Warehouse
 B2 - Northern Office
 B3 - Apartments
 B4 - Western Office
 B5 - Storage Containers

Rev.	Details	Drawn Chkd.	Date
PROJECT			
33 Julians Road Stevenage			
TITLE			
Photograph Record Sheet 2 (Photographs 5 - 8)			
		AA Environmental Ltd Units 4-8 Cholswell Court Shippon Abingdon Oxon OX13 6HX T: 01235 536042 F: 01235 523849 info@aae-ltd.co.uk www.aae-ltd.co.uk	
Scale	Date 08.11.23	Drg No.	Rev.
NTS	Drawn HRS	Chkd. ARB	Appendix C

Appendix D

Folio No: E19299
 Report No: 1
 Purchase Order: 233309-NB
 Client: AA ENVIRONMENTAL LTD
 Contact: Nicholas Braybrook

TECHNICAL REPORT

ANALYSIS OF BAT DROPPINGS FOR SPECIES OF ORIGIN IDENTIFICATION

SUMMARY

The droppings of bats contain small amounts of DNA belonging to the organism from which they originated. By analysing droppings collected from a bat roost or colony for the presence of DNA, a robust identification of the species present can be made. Recent advancements in molecular methods including PCR (polymerase chain reaction) and DNA sequencing mean that 92% of bat species worldwide can be identified including all 17 UK resident bat species.

RESULTS

Date sample received at Laboratory: 09/10/2023
 Date Reported: 17/10/2023
 Matters Affecting Results: None

Lab Sample ID.	Site Name	O/S Reference	Genetic Sequence	Common Name	Result	Sequence Similarity
B2690	33 Julians Road		TCGGAGGCTTCGGGACTGAT TGGTGCCACTAATAATTGGA GCCCTGATATAGCTTTTCC CCGAATAAATAACATAAGCT TCTGACTGCTTCCCCATCT TTTCTACTACTTTTAGCTTCG TCTGCAGTAGAGGCTGGAGC AGGTACCGGTTGAACAGTCT ATCCTCCTTTAGCGGGAAC CTAGCACATGCTGGAGAG	Brown long-eared bat	<i>Plecotus auritus</i>	98.45%

If you have any questions regarding results, please contact us: ForensicEcology@surescreen.com

Reported by: Lauryn Jewkes

Approved by: Chelsea Warner



METHODOLOGY

Once samples have arrived in the laboratory, a single bat dropping is selected for its suitability (freshness and size). The DNA is then isolated using a commercial DNA extraction kit. Using PCR, bat DNA (if present within the sample) is amplified using bat DNA-specific molecular markers designed to amplify a short fragment of the mitochondrial gene. If amplification is successful, the resulting DNA sequence is revealed using a process known as Sanger Sequencing in order to obtain the genetic sequence. The sequence results are aligned against a library of known bat reference sequences using bioinformatics software, which enables us to determine which species the extracted DNA matches with, informing the species identity and sequence similarity (%).

If the initial analysis is unsuccessful, the entire process is repeated up to two additional times with fresh reserve droppings. If no DNA is detected after three attempts, we can be confident that any further analysis of the sample will likely also fail to result in species identification.

INTERPRETATION

Genetic Sequence: The unique DNA sequence obtained from the sample.

Sequence Similarity: How closely matched the DNA sequence from your sample is to the sequences within our reference database. This can be interpreted as a score of result accuracy, with the maximum score of 100% indicating an exact match of dropping to the indicated species' reference sequence. Lower scores (80-99%) indicate some variation between the sample and reference sequence, likely due to natural variation between individual genetic sequences and/or systematic variations generated through the sequencing process. Scores below 80% similarity should be interpreted with care and can indicate part degraded or part contaminated samples.

Inconclusive Result:

Degraded sample:
DNA degraded, unable to determine species identification due to degradation of sample DNA. This can happen either before sample collection (old droppings, exposure to UV etc.) or after sample collection if stored for long periods before analysis or not handled correctly.

Inhibited/contaminated sample:
Unable to determine species identity due to contamination or the suspected presence of large quantities of PCR inhibitors. Contamination sources can come from other species which come into contact with droppings, human contamination during sample collection.

Alternative Result: Sometimes, other mammalian species such as rodents are detected. We find this to be a common occurrence as some bat droppings can be similar in appearance to rodent droppings. Although sometimes unexpected, repeat analyses in these cases would likely return the same results.



Appendix E

BIRD AND BAT BOX/TUBE GUIDANCE DOCUMENT

Overview

The boxes/tubes used should be made of woodcrete material¹ (or equivalent) wherever possible and be positioned in accordance with good practice. All of the boxes can be obtained from the following suppliers:

Jacobi Jayne www.jacobijayne.co.uk
Wildcare www.wildcare.co.uk
NHBS www.nhbs.com

Bird Box Installation Guidance

The requirements for nest boxes vary between species. However there are some general rules to follow:

- Boxes should be located in a sheltered position out of strong sunlight, wind and rain. Generally this means that the box should be positioned somewhere between the north east and south east side of a structure.
- For extra shelter, smaller boxes should be positioned at a slight forward angle.
- Large open boxes should be angled upwards when mounted to allow the nest to rest naturally at the back of the box.
- Boxes should be positioned out of the reach of predators where possible (e.g. cats).
- A density of around 10 bird boxes per hectare is acceptable.
- Position boxes away from bird tables and other feeding areas where possible.

Bat Box/tube Installation Guidance

- Boxes should be located in a sheltered position, out of strong wind, but exposed to sunlight for part of the day to provide solar warming.
- When installed on trees, where possible boxes should be put up in groups of two or three, facing in different directions to allow bats access to a range of temperature conditions. Furthermore, it is recommended that, to avoid competition for bat boxes, bird boxes should also be installed on the same trees².
- It should be ensured that the entrance hole to the box is kept clear, so that bats can access it freely.
- Ideally bat boxes should be positioned near linear vegetation (e.g. a hedgerow).
- When installing boxes on trees, the ideal position is at around 5 metres or more.
- On buildings, boxes should be positioned high up by the eaves to avoid bats being predated by cats and other predators.
- Boxes should be installed out of the direct line of artificial lighting, both current and to be installed.

References

1. Du Feu, C. (1993). *Nestboxes BTO Guide No. 23*. BTO, Thetford.
2. The Bat Conservation Trust (2003). *Bat Boxes - Your Questions Answered*.
3. Meddings, A., Taylor, S., Batty, L., Green, R., Knowles, M., Latham, D. (2011). Managing competition between birds and bats for roost boxes in small woodlands, north-east England. *Conservation Evidence*, 8, pg. 74-80.

¹ Woodcrete is a blend of cement and sawdust. This material is found to be as successful as wooden bat boxes/tubes with greater durability and longevity. Schwegler bat boxes/tubes are constructed from this material.

² Research carried out by Meddings *et al.* (2011) suggests that installing bird and bat boxes on the same tree will reduce the likelihood of birds nesting in bat boxes and thus preventing a reduction in roosting opportunities for bats.

Appendix F

TOOLBOX TALK: BATS

Did you know?

- Bats are the world's only flying mammal.
- There are 17 species of bat known to be breeding in the UK, 6 of which are endangered or rare and 6 are classed as vulnerable.
- Bats can be found across the country in urban and rural locations.
- They are often sighted at dusk as they leave their roost, flying around hedgerows, woodland and waterbodies, feeding on insects.
- Throughout the year bats will often change their roost, depending upon the season.
- Usually a pregnant female will only have one baby a year, this makes colonies vulnerable to population decline.
- During the winter bats hibernate and may not wake up, even if disturbed. Therefore it's important not to work on sites with bats during these months.
- Bats may not use the same roost throughout the year, however they are legally protected with or without a bat occupying them.

Identification

- You may find bats in any number of places, they tend to prefer dark, quiet spots with good shelter, such as holes and cracks in trees, roofs and walls of buildings, under bridges, old tunnels and in caves.
- Signs of bat presence include discarded moth wings, staining around crevices and small mouse-like droppings which crumble easily.

Legislation

- All bats and their roosts are protected by UK and European Law. This makes it **illegal to kill, injure, capture or disturb bats** or obstruct access, damage or destroy their roosts and protects important feeding areas from damage or disturbance.
- Under law, a roost is any structure or place used for shelter or protection.

Site Controls

- There is always a **risk** that bats, as they move between different roost sites and occupy new roosts, could be encountered during site works.
- **If any bats are encountered during work the following controls must be applied to avoid breaking the law:**
 1. If bats are discovered/suspected work must stop **immediately** with any bat left in-situ and AAe immediately contacted (contact details above).
 2. If any injured bats are found during the work AAe would care for them and where possible be released in the same location once recovered.
 3. During work staff must wear gloves in case of accidental contact with bats.
 4. Any roof tiles will be lifted straight up, rather than being rolled over, minimising the risk of harming bats which may be sheltering underneath.
 5. Areas must be fully checked for any bats or their evidence prior to filling any gaps and repointing any brickwork.
 6. Any lighting must be installed to avoid illuminating vegetation and or bat boxes/access points.

These controls have been put in place to protect all site operatives from breaking the law. You're not expected to be able to identify bats or their presence so remember, **if in doubt shout and contact the relevant person.**

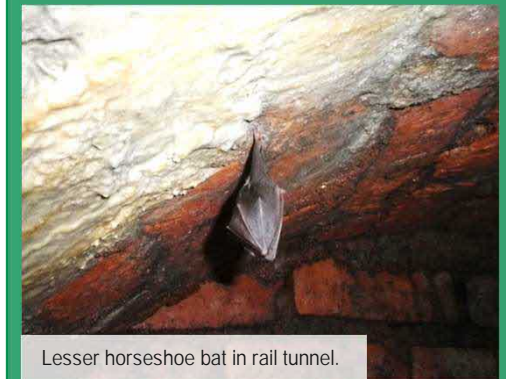
Key Contacts

AA Environmental Ltd, Units 4-8 Cholswell Court, Shippon, Oxfordshire, OX13 6HX

Tel: 01235 536042



Brown long-eared bat.



Lesser horseshoe bat in rail tunnel.



Common pipistrelle bat.

