Preliminary Ecological Appraisal (PEA) Report.

207 – 209 Manchester Road, Thurlstone, S36 9QS.

21st December 2022.

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Report Summary

1. **Stuart and Anita Kimberley commissioned Dan Wildsmith to undertake a Preliminary Ecological Appraisal at 207 – 209 Manchester Road, Thurlstone, S36 9QS. The purpose of this report is to present the findings of the appraisal and identify potential ecological constraints to the proposed construction of a two story house at the top of their land with access to High Bank Lane.**

2. **An assessment of the site was carried out by Dan Wildsmith on the 9th December 2022. This included a ground-based inspection of the building plot defined as within the red line boundary of the architectural plans and an appraisal of the surrounding habitats.**

3. **The plot is approximately 0.0875ha in size and is surrounded by extents of dry-stone walling, bare rock face, trees and non-native hedge. In the immediate vicinity gardens, modified grassland, woodland and neutral grasslands were present.**

4. **The residential building situated on Manchester Road, and associated garage, sheds and green houses are deemed to be at a sufficient distance not to be subject to disturbance for potential bat roosts. Access to the plot will be from High Bank adjacent to the plot and not via Manchester Road.**

5. **The residential property on Manchester Road is not subject to any works.**

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1 INTRODUCTION

1.1 Purpose of the Report

Dan Wildsmith has been commissioned to undertake a Preliminary Ecological Appraisal (PEA) at a plot of land in the garden of 207 – 209 Manchester Road, Thurlstone, S36 9QS by Stuart and Anita Kimberly. This report presents the findings of a walkover survey, undertaken by Dan Wildsmith BSc (Hons) MSc MCIEEM and holder of Natural England Level 2 (Class Licence) for bats (2019-42895-CLS-CLS) on 9 th December October 2022. It provides details on the potential for any protected species and/or habitats to be present at the site and provides an assessment of the potential ecological constraints to the proposed redevelopment of the site. Recommendations for further surveys that are likely to be required to inform a planning application are provided, if necessary. Where appropriate, measures to avoid, mitigate and/or compensate for impacts are outlined.

1.2 Background

The proposed works is located to the rear of 207 – 209 Manchester Road, Thurlstone, Sheffield, S36 9QS. The grid reference for the site is SE 22776 03448, What3Words **slime.showcases.fanfare.**

The survey area is based on the site plan provided by Mr Stuart and Mrs Anita Kimberly, which shows the boundary to the development site and is reproduced in Figure 1.

The proposed works comprises of the construction of a two storey residential property with access afforded from High Bank Lane.

Figure 1. The construction boundary is shown with an approximate red line. The blue denotes the garden and residential building at 207 – 209 Manchester Road not subject to development. Images produced courtesy of Google maps (Map data ©2019 Google).

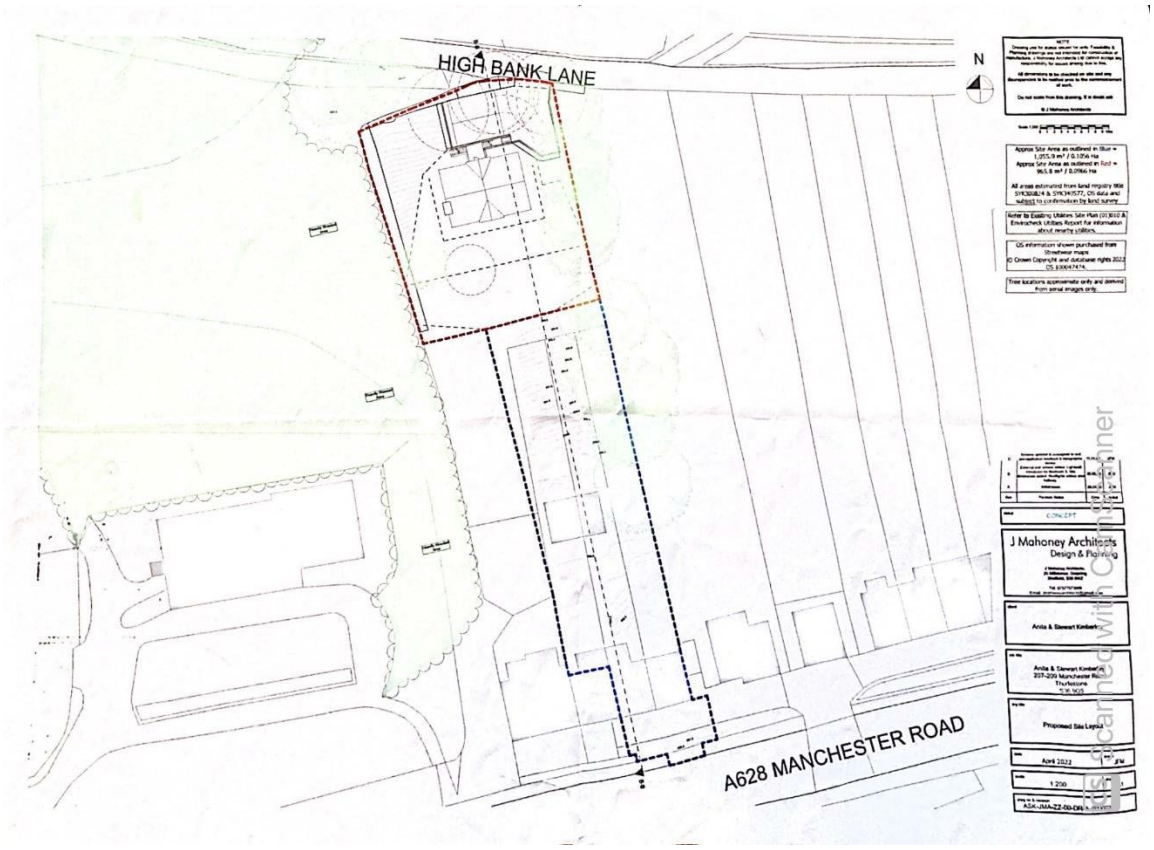

Figure 2. Architects drawing showing location of proposed residential building.

1.3 Policy and Legislation

Legal protection applying to all bat species in the UK is outlined in Appendix 1 of this report.

The results of this survey will be used to determine the need for further surveys, impact avoidance measures and/or an appropriate mitigation strategy to ensure compliance with UK and EU wildlife legislation.

2 Methodology

The methodology used for the PEA are in accordance with the survey guidelines produced by Chartered Institute of Ecology and Environmental Management [1].

2.1 Desk Study

A search of on-line mapping resources was undertaken to characterise the local context of the site with respect to semi-natural habitats and linear features of value to foraging and commuting bats. A search for Local Wildlife Sites was undertaken via the Barnsley Biodiversity Trust's, Biodiversity Action Plan. A request for comprehensive species data and Local Wildlife Sites was undertaken from Barnsley Biological Records Centre. The request included all notable species within 1km of the proposed works.

A search of priority habitats and ancient woodland classified as habitats of principal importance was undertaken using the MAGIC website resource (www.magic.gov.uk) up to 1km of the proposed building. These are detailed within the report where these are present, adjacent or in close proximity to the site.

Habitats of principal importance and ancient woodland are also afforded protection through the National Planning Policy Framework (NPPF) 2018[2], Paragraph 174b, which states that council policies should "*promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity*." The Office of the Deputy Prime Minister (ODPM) Circular 06/05[3] also states that the potential effects of a development on nearby habitats or species listed as priorities in the UK Biodiversity Action Plan (BAP) (now Habitats and Species of Principal Importance) can be a material consideration in planning decisions.

The MAGIC website resource was used to identify the location of designated sites for nature conservation and European Protected Species licenses granted within a 1km radius of the survey site.

2.2 Field Survey

The area within the red line boundary of the proposed building was inspected in detail noting any vascular plants present and any signs of animal species there in. This included the inspection of trees on site for bats. The habitats were assigned using the JNCC Phase 1 Classification [4].

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[1] https://cieem.net/wp-content/uploads/2018/01/Guidelines-for-Preliminary-Ecological-Appraisal-Jan2018-typo-edit.pdf.

[2] HM Government (2018). National Planning Policy Framework. Department for Communities and Local Government. Available online at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/728643/Revised_NPPF_2018.pdf.

[3] HM Government (2005) ODPM Circular 06/05 Government Circular: *Biodiversity and Geological Conservation – Statutory Obligations and their Impact within the Planning System*. Available online at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/7692/147570.pdf.

[4] JNCC Phase 1 Handbook (2010). https://data.jncc.gov.uk/data/9578d07b-e018-4c66-9c1b-47110f14df2a/Handbook-Phase1-HabitatSurvey-Revised-2016.pdf

Bats can use a wide range of features including loft spaces, cavity walls, loose tiles, mortice joints and cracks/gaps in a variety of built structures. They can also be found in trees with knot holes, splits, cracks, cavities and loose bark.

The detailed inspection involved looking for potential access points and potential roosting features (PRFs) that bats could use and any evidence indicating the presence of bats using trees, such as rub marks, staining or droppings. A high-powered torch, binoculars and endoscope was used to investigate external features from the ground.

The potential for roosting bats for each feature, or group of features was assessed as either negligible, low, moderate, or high, in accordance with best practice guidelines. Any evidence confirming the presence of bats would be recorded including photos and dropping samples taken where appropriate.

The habitats surrounding the site and wider landscape were broadly assessed for their potential to support foraging and commuting bats.

2.3 Other protected and/or notable species

Any evidence of nesting birds discovered during the site visit were recorded. Special attention was paid to notable species such as red-listed Birds of Conservation Concern (Eaton et al. 2015) [5] and those species afforded special protection on Schedule 1 of the Wildlife and Countryside Act (1981) [6].

Whilst this survey focused on habitats no specific searches were made with respect to other protected species, any evidence of other protected species that was encountered during the site visit was also recorded. This included badgers, great crested newts, other amphibians and reptiles.

2.4 Limitations

The timing of the survey is considered to be sub-optimal. Plants have died back and can prove more difficult to identify. However, identification was possible and considered not to impact on the data provided in this report.

[5] Eaton et al (2015). *Birds of Conservation Concern 4: the population status of birds in the UK, Channel Islands and Isle of Man*. British Birds 108: 708-746

[6] *Wildlife and Countryside Act 1981*. [online] Available at: http://www.legislation.gov.uk/ukpga/1981/69/contents

3 RESULTS/OBSERVATIONS

3.1 Desk Study Results for Habitats

Table 1 Summarises the results of the desk study for statutory and non-statutory designated sites in proximity to the proposed site using the Magic website.

Table 1. Summary of designated sites from the desk study.

Site and Designation	Distance	Direction
Spring meadows, Alderman's head & Cow Croft meadows SSSI	2.06km	South
Pye Flatts SSSI	4km	Northeast
South Pennines Moors SAC	4km	Southwest
Small Shaw & High Bank LWS	0.3km	West
Peak District Moor SPA	4km	Southwest
High Royd Reservoir LWS	1.3km	Northwest
Scout Dyke Reservoir LWS	1.3km	Northeast
Hartcliff Hill LWS	1.6km	South
Hollin and Spring Woods LWS	1.9km	Southeast

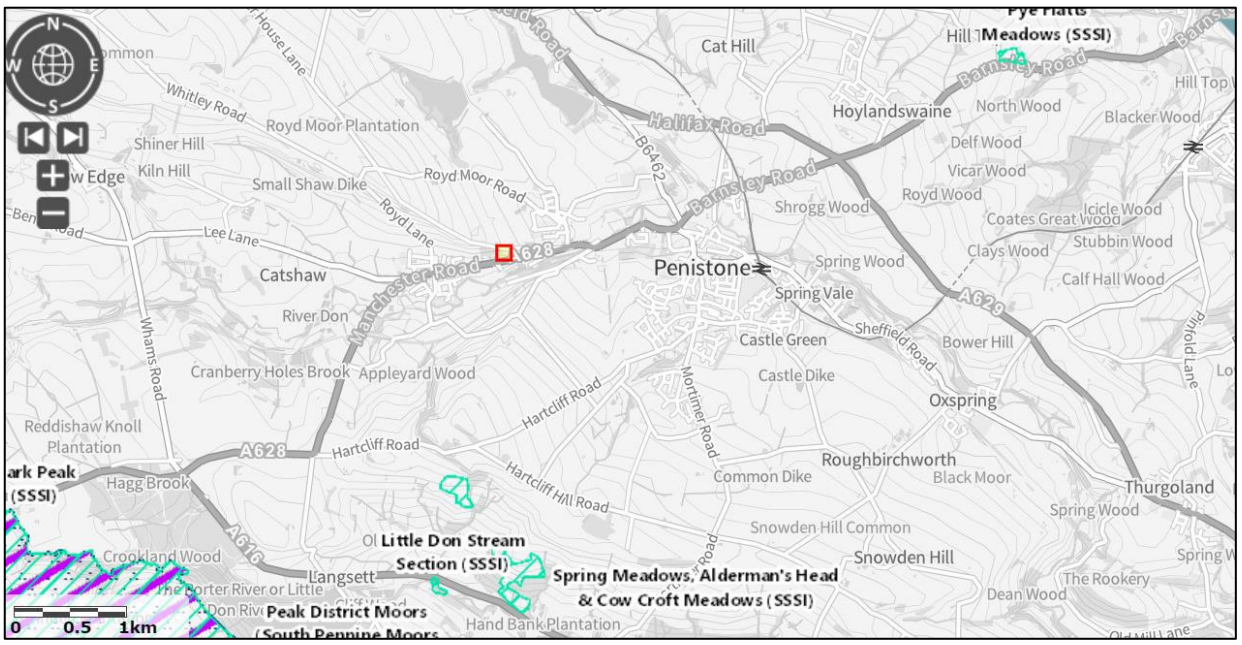

Figure 4. Map indicating the location of statutory designated sites in proximity to the proposed works. Images produced courtesy of Magic maps (http://www.magic.gov.uk/, contains public sector information licensed under the Open Government Licence v3.0).

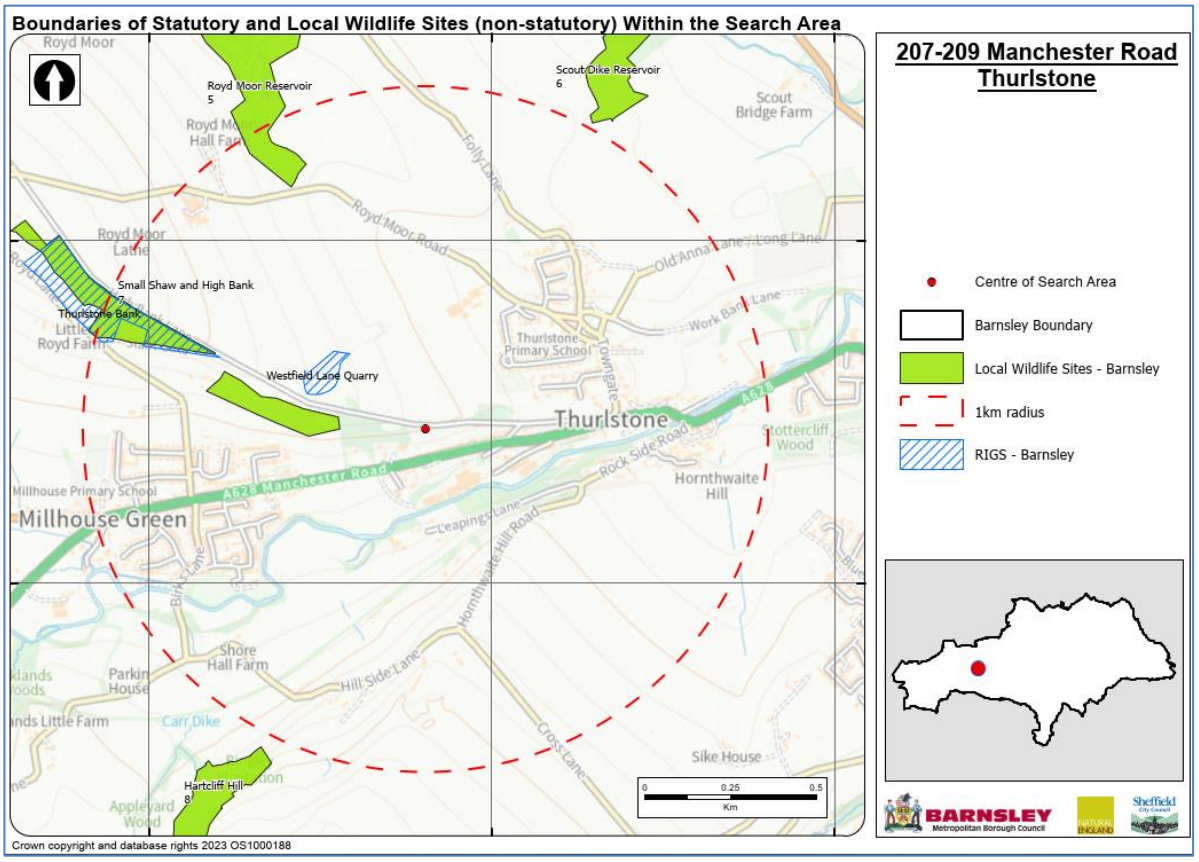

Figure 5. Map showing the location of Local Wildlife Sites in proximity to the proposed works. Image produced by BBRC (24.10.2023).

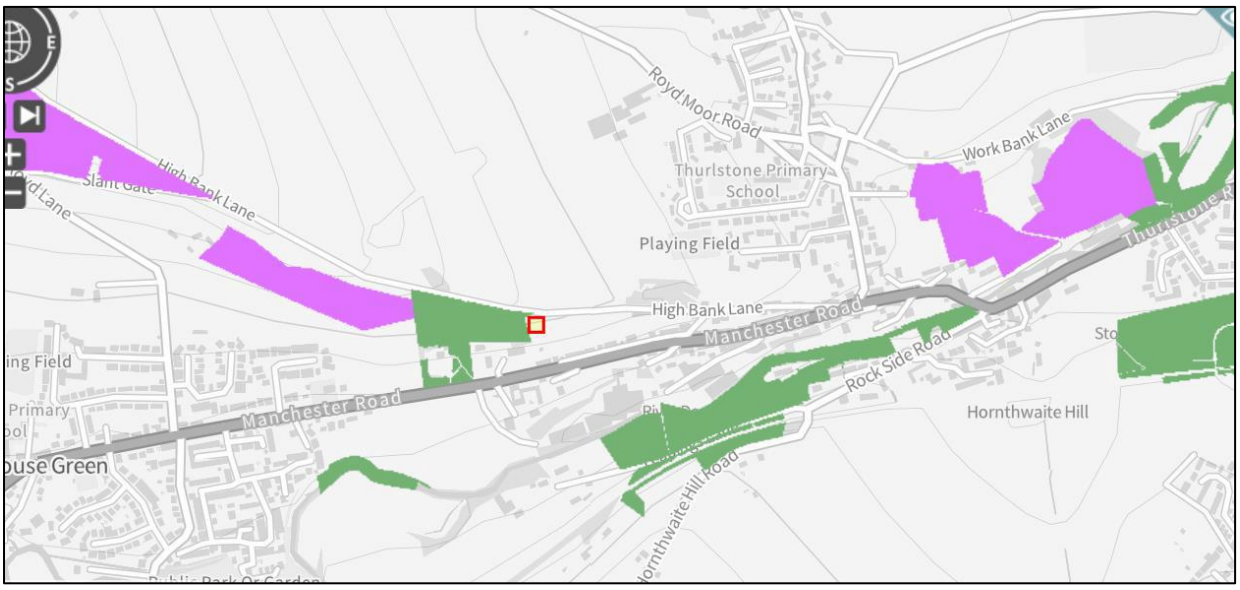

Figure 6. Map indicating the location of habitats adjacent to the Proposed Works. **Purple** – Good Quality Semi Improved Grassland. **Green** – Priority Habitat Deciduous Woodland. Images produced courtesy of Magic maps (http://www.magic.gov.uk/, contains public sector information licensed under the Open Government License v3.0).

The following table (Table 2) summarises the proximity of habitats to the proposed works to the Proposed Works.

Table 2. Proximity of notable habitats to the proposed site.

Habitat	Distance	Direction
Good Quality Semi Improved Grassland	225m	West
Priority Habitat Deciduous Woodland	18m	West
Pond (non – priority)	150m	South

Given the distance to grassland priority habitats and designated areas the works are deemed to have negligible impacts on these habitats and areas.

The works are adjacent to land identified as priority habitat Deciduous Woodland. A Public Right of Way (consisting of concrete steps) and dry stone wall separate the works area from the woodland, and, given that the trees are predominantly sycamore (Acer psuedoplatanus) the works are not deemed to pose a significant risk on the root protection areas of these trees.

A pond, identified from Ordnance Survey Maps, is located to the south of the proposed works. Amphibians that may be present on the site may utilise this aquatic habitat, however, the proposed works are to have negligible impact on amphibians connectivity to the pond.

3.2 Desk study Results for Species

The following table shows the results of the desk based search for species within 1km of the proposed works from the BBRC database (as accessed 29/04/23).

Group/Species	Records	Notes
Bats	14 Common Pipistrelle 2 Daubenton's bat 3 Noctule	Mostly commuting bats, 1 common pipistrelle roost at high bank quarry 300m from development and one hibernation roost in Millhouse Green.
Badger	5 records	Mostly field signs, 1 dead on Hornthwaite Road. Closest record 450m from development.
Hedgehog	28 Records	Both live and dead sightings, closest 250m to development.
Birds	Red and amber species include bullfinch, curlew, dunnock, fieldfare, green woodpecker, grey partridge, grey wagtail, house martin, house martin, kestrel, kingfisher, lapwing, meadow pipit, mistle thrush, redwing, reed bunting, skylark, spotted flycatcher, starling, song thrush, swallow, tree sparrow, willow warbler and yellowhammer	At various distances from the development.
Amphibians	2 common frog	300m from development

There is one European protected Species Licence (EPS) license granted concerning bats within 1km of the site shown on the Magic Maps website. There are no other EPS license for other protected species within 1km of the site.

3.3 Site Habitats and Site Context

The site of the proposed works is set in a semi - rural location to the west of the town of Penistone and is situated approximately at an altitude of 254m above sea level. The site is located at the top of strip of land belonging to 207 – 209 Manchester Road which includes areas of garden, hard standing and a residential property.

The surrounding residential properties, grasslands, woodlands and occasional hedge is deemed to be a high value foraging, commuting and roosting habitat for bats, for breeding birds and other mammal species. The mosaic of habitats provides insect prey, of various sizes, for a variety of species of bats encountered in South Yorkshire. Ten species of bat have been recorded in South Yorkshire, including Brandt's bat (*Myotis brandtii*), Daubenton's bat

(*Myotis daubentonii*), whiskered bat (*Myotis mystacinus*), Natterer's bat (*Myotis nattererii*), Leisler's bat (*Nyctalus leisleri*), noctule (*Nyctalus noctula*), Nathusius' pipistrelle (*Pipistrellus nathusii*), common pipistrelle (*Pipistrellus pipistrellus*), soprano pipistrelle (*Pipistrellus pygmaeus)* and brown long-eared bat (*Plecotus auratus*) (Harris and Yalden, 2008) [7].

The site supports a two-story stone built residential property greater than 100 years old, a recently constructed garage with wooden open carport, small wooden sheds and greenhouses.

The garden is divided into two compartments. The compartment adjacent to the residential property, which is not directly impacted by the works and a compartment south of High Bank Lane which is the site of the proposed works. The compartment adjacent to the residential property is comprised of hard standing patio areas, gravel pathways with steps and associated ornamental planting. A small rectangular area of mown modified grassland is observed at the top of this compartment bordering the site of the proposed works. Non -native hedges of laurel (*Prunus spp.*) are recorded on the boundaries of the mown modified grassland.

The compartment of the proposed site had been recently cleared and constituted dominant bracken (*Pteridium aquilinum*), frequent bramble (*Rubus fruticosus*), frequent nettle (*Urtica dioica*), occasional common hogweed (*Heracleum sphondylium*), frequent creeping buttercup (*Ranunculus repens*), occasional false oat grass (*Arrhenatherum elatius*), frequent creeping bent (*Agrostis stolonifera*), frequent cleaver (*Galium aperine*), occasional narrow leaf buckler fern (*Dryopteris carthusiana*) occasional foxglove (*Digitalis purpurea*), occasional daffodil (Narcissus var.) and occasional ivy (*Hedera helix*).

Woody species were mainly confined to the periphery of the site of the proposed works and included frequent sycamore (*Acer pseudoplatanus*), occasional holly (*Ilex aquifolium*), occasional hawthorn (*Crataegus monogyna*), rare apple (Malus spp.), rare silver birch (*Betula pendula*) and rare elder (Sambucus nigra). One specimen of laurel was noted within the proposed site.

Dry stone walling and small areas of bare rock outcrop are also observed surrounding the site of the proposed works which harboured mosses, false oat grass and narrow leaf buckler fern.

The following table summarises the habitats present within the proposed works area.

Phase 1 Habitat	Habitat Code
Continuous bracken (with other vegetation target noted)	C.1.1
Semi natural broadleaf woodland	A1.1.1

See Appendix 3 for habitat map.

3.4 Inspection for Bats and Other Species Recorded

The residential property and garage are at distance not to be impacted by the proposed works. The access for the development is off High Bank Lane immediately adjacent to the site. Therefore, no inspection was carried on these structures as they deemed at a minimal risk of disturbance.

[7] Harris, S., Yalden, D. (eds.) (2008). Mammals of the British Isles: Handbook 4th Edition. The Mammal Society, London

The wooden sheds offered a low potential for bats and are also not directly impacted by the development. One snagged branch with an associated tear out on a sycamore on the eastern periphery of the proposed site had a low potential bats. **See *Figure 6*.** The other trees are of negligible potential for roosting bats. The dry stone walls and bare rock also afforded low roosting potential for bats (see images in **Appendix 2**).

Figure 7. Snagged branch and small void with low potential for bats

No evidence of other mammals including were evident on the site of the proposed works. Birds observed during the site survey included robin (*Erithacus rubecula*), blue tit (*Parus caeruleus),* great tit (*Parus major*), wren (*Troglodytes troglodytes*), house sparrow (*Passer domesticus),* chaffinch (*Fringilla coelebs*), gold finch (*Carduelis carduelis*) and long tailed tit (*Aegithalos caudatus).*

4 ECOLOGICAL CONSTRAINTS AND OPPORTUNITIES

4.1 Bats

Using best practice guidelines outlined by the Bat Conservation Trust the potential for the external areas of the dry stone wall and the feature in the sycamore tree to support bats is rated as **Low**. There is no need for further surveys to be undertaken however, prior to the removal of the associated dry stone wall and sycamore, it is

recommended that an inspection is carried out to eliminate the presence of bats. This can be done with an endoscope, torch and binoculars from the ground.

Young sycamores are due to be removed for the access off High bank Lane. These are not deemed significant in hindering commuting bats. The adjacent woodland to the west of the proposed works offers commuting lines and foraging opportunities far bats. It is advised that any spill from lighting associated with the development (during construction and after construction) is avoided in these areas. The use of directional lighting (using cowls, baffles etc), using lights without metal halides, using LED lights and using lights of a warm white spectrum should be adopted[8]. Internal lighting for windows adjacent to the woodland edge should be recessed to prevent light spill

4.2 Other protected and/or notable species

The dry stone walls and vegetation of the site offer suitable basking and refugia opportunities for reptiles. The removal of the vegetation prior to construction should include a two stage cut (one cut to approximately 150mm and the next as low as is possible) starting at the centre of the vegetation and moving outwards towards the site perimeter. This allows any reptiles to move away unhindered. The dry stone walls and vegetation also offers opportunities for common toad. An ecologist should be present when removal of the afore mentioned walls and vegetation is undertaken to assist with the removal of these species to adjacent safe areas.

The site does offer suitable habitat for birds and there is a risk that the construction works may disturb nesting birds. Therefore, the removal of trees and the dry tone walls should be undertaken out of the breeding bird season and construction work should be timed outside of the nesting bird season (1st March – 31st August). A pre works check of the drystone walls for nesting birds should be undertaken. Any nest found during construction should be given a 5m buffer until fledging has occurred.

The desk study records show that badger and hedgehog are identified with 1km of the proposed development. The proposed development will have negligible impact on the foraging, movement and territories of local badger clans. The removal of vegetation for the proposed works will remove a small area of potential foraging and cover for hedgehogs. A pre works check for hedgehog should be undertaken prior to the commencement of works. The owner provides food and shelter for hedgehogs in the existing garden space and this should be replicated in the garden space of the new development.

4.3 Enhancement Opportunities

The proposed development represents an opportunity for habitat enhancement to benefit insects, birds, and bats. Therefore, in line with the guidelines of the NPPF (see Appendix 1) the following enhancement measures may be considered favourably when determining the planning application.

[8] Bat Conservation Trust, Guidance Note 08/18. Bats and artificial lighting in the UK (2018)

To help create nesting opportunities for house sparrows, which are Red List Species, a 1SP Schwegler Sparrow Terrace (see Figure 7) can be affixed to a wall of the newly constructed property. Ideally this should be placed 2m minimum above the ground and away from prevailing winds.

Figure 8. 1SP Schwegler Sparrow Terrace.

Specific mitigation measures and enhancements for roosting bats should include bat boxes attached to the new property and kept trees.

Figure 9. Schwegler 2f Bat Box

***If any protected species are found during the proposed work, work should be stopped immediately, and an ecologist must be contacted immediately for advice.**

Should you need any further advice on the information provided above, please do not hesitate to contact Dan Wildsmith.

APPENDIX 1 –Wildlife Legislation and National Planning Policy

The following text is intended for general guidance only and does not constitute comprehensive professional legal advice. It provides a summary of the current legal protection afforded to bats.

All bat species in the UK are included in Schedule II of the Habitats Regulations 2017, which transpose Annex II of the Council Directive 92/43/EEC 1992 on the Conservation of Natural Habitats and of Wild Fauna and Flora ("The EC Habitats Directive"). As such all bat species in the UK are defined as 'European Protected Species (EPS).

Four species of bat (Bechstein's bat *Myotis bechsteinii*, Barbastelle bat (*Barbastella barbastellus)*, greater and lesser horseshoe bats, *Rhinolophus ferrumequinum* and *R. hipposideros*) are also listed on Annex IV of the EC Habitats Directive. This requires the designation of a series of sites which contain important populations of these species as Special Areas of Conservation (SACs).

All species of British bat are also fully protected under the Wildlife and Countryside Act (1981), as amended, through inclusion in Schedule V.

All species of bat are listed on Section 41 of the Natural Environment and Rural Communities (NERC) Act (2006). Section 41 of the NERC Act lists the habitats and species of principle importance. This places a statutory duty on all public bodies, including planning authorities, under Section 40, to take, or promote the taking by others, steps to further the conservation of habitats and species of principal importance for the conservation of biodiversity in England (commonly referred to as the 'Biodiversity Duty'). This duty extends to all public bodies the biodiversity duty of Section 74 of the Countryside and Rights of Way (CROW) Act 2000, which placed a duty only on Government and Ministers.

Under the above legislation it is an offence to:

- Kill, injure or take any individual bat of any species;
- possess any part of an individual bat, either alive or dead;
- intentionally or recklessly damage, destroy or obstruct access to any place or structure used by bats for shelter, rest, protection, or breeding;
- intentionally or recklessly disturb these species whilst using any place of shelter or protection; or
- deliberately disturb bats in such a way as to be likely to impair their ability to:

- survive, to breed or reproduce, to rear or nurture their young; to hibernate or migrate; or to affect significantly the local distribution or abundance of the species to which they belong; • keep (possess), transport, sell or exchange, or offer for sale or exchange, any live or dead bat, or any part of, or anything derived from a bat.

It is also an offence to set and use articles capable of catching, injuring, or killing bats (for example a trap or poison), or knowingly cause or permit such an action. There is also protection under Schedule 6 of The Wildlife and Countryside Act 1981 (as amended) relating specifically to trapping and direct pursuit of bats.

A European Protected Species License (EPSL) in relation to bats is required from Natural England for any work that would result in an otherwise unlawful activity (e.g. damage to a bat roost). A license can only be issued to permit otherwise prohibited acts if Natural England are satisfied that all the following three tests are met:

- The proposal is for 'preserving public health or public safety, or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment';
- There is no satisfactory alternative; and
- The action authorised by the license will not be detrimental to the maintenance of bat populations at a favourable conservation status in their natural range.

A bat roost is defined by the Bat Conservation Trust's Bat Surveys—Good Practice Guidelines 3 rd Edition as "the resting place of a bat". In general, the word roost is interpreted as "any structure or place, which any wild bat uses for shelter or protection."

Bats tend to re-use the same roosts; therefore, legal opinion is guided by recent case law precedents, that a roost is protected, whether or not the bats are present at the time. This includes summer roosts used for breeding; or winter roosts, used for hibernating.

Appendix 2.

Images from the site survey.

Photo 1: View from fence line looking at the site of the proposed works

Photo 2: Dry stone wall and bare rock with coppiced sycamore.

Photo 3: View from north of the site of the proposed works. Laurel tree in the middle right. Bracken scrub (cut back) is predominant habitat.

Photo 4: Dry stone wall on west periphery of the site.

Appendix 3

Site Habitat Map

Habitat Map Legend: Black line – dry stone wall. Red line – bare rock. Purple line – non-native hedgerow. Brown – bracken scrub. Blue – garden. Yellow – modified grassland. Green shapes denote trees in semi natural woodland strip or individual trees. Red star – Tree with low bat roost potential.