

Land at Lawrence Street, Bury BL9 9US

ECOLOGICAL SURVEY AND ASSESSMENT

July 2024

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Document Control

Survey Type:	Surveyors ¹	Survey Date(s)
Phase 1 Habitat Survey	Amy Sharples B.Sc. (Hons) M.Sc. ACIEEM	17 th June 2024
Bat activity surveys	Amy Sharples, Catie Haworth, Ian Nelson and Stuart Laverick	17 th June 2024
Reporting	Personnel	Date
Author	Amy Sharples B.Sc. (Hons) M.Sc. ACIEEM Senior Ecologist	3 rd July 2024
Signature(s)		
Checked	Rachel Brown B.Sc. (Hons)	4 th July 2024
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SUMMARY

Introduction and Scope

- i. This ecological survey and assessment presents the ecological, biodiversity and nature conservation status of the land at Lawrence Street, Bury BL9 9US. The assessment was requested in connection with proposals to redevelop the site to residential.
- ii. This report presents the results of a desktop study, extended Phase 1 Habitat Survey and a dusk emergence bat survey carried out in June 2024. The scope of survey undertaken is appropriate to identify potential ecological constraints, the remit of mitigation required and opportunities for biodiversity associated with the development proposals.
- iii. The site comprises a former builders merchants with associated hard standing, a cabin, colonising vegetation and scrub.

Results of Survey and Assessment

- iv. The proposals will have no adverse direct or indirect effect on statutory or non-statutory designated sites for nature conservation.
- v. No habitats within the site are Priority Habitat.
- vi. No roosting bats were detected at the site. Enhancements for roosting bats at the developed site are described at **Sections 5.3**.
- vii. The scrub at the site is suitable for use by nesting birds. Protection of nesting birds and recommendations for the provision of compensatory and enhanced habitats and opportunities for nesting birds are described at **Sections 5.2 and 5.3**.
- viii. No other protected species have been detected.

Recommendations

- ix. The recommendations in **Section 5.0** outline all the mandatory measures and additional actions to be applied to ensure compliance with wildlife legislation, the NPPF and best practice.
- x. The proposals will secure an opportunity to implement beneficial measures such as habitat creation that will safeguard habitats for wildlife such as birds and bats, with the aim of providing a net gain in biodiversity in accordance with the principles of the NPPF.

Conclusion

- xi. It is concluded that the proposals are feasible and acceptable in accordance with ecological considerations and relevant planning policy. Redevelopment at the site will provide an opportunity to secure ecological enhancement for wildlife associated with residential development.

1.0 INTRODUCTION

1.1 Background and Rationale

- 1.1.1 ERAP (Consultant Ecologists) Ltd was commissioned by Four Architects to carry out an ecological assessment of the land at Lawrence Street, Bury BL9 9US (hereafter referred to as the 'site'). The Ordnance Survey (OS) grid reference at the centre of the site is SD 80720 07989. An aerial image of the site and its surrounding habitats is appended at **Figure 1** (source image: ESRI World Imagery).
- 1.1.2 The assessment was requested in connection with a planning application to redevelop the site to residential.

1.2 Scope of Works

- 1.2.1 The scope of ecological works undertaken in June 2024 comprised:
- A desktop study for known ecological information at the site and the local area;
 - An Extended Phase 1 Habitat Survey and assessment, and assessment of the habitats present at the site using the UK Habitats Classification;
 - Assessment of the ecological value of the habitats within the site with the use of the National Vegetation Classification (NVC) and the Ratcliffe criteria, as presented in *A Nature Conservation Review* (Ratcliffe, 1977);
 - Survey and assessment of all habitats for relevant statutorily protected species¹ and other wildlife including bird species;
 - A dusk emergence bat survey;
 - The identification of any potential ecological constraints on the proposals and the specification of the scope of mitigation and ecological enhancement required in accordance with wildlife legislation, planning policy guidance and other relevant guidance; and
 - The identification of any further surveys or precautionary actions that may be required to inform the progression of the site through the planning process or prior to the commencement of any construction activities.

¹ In accordance with Government Circular: Biodiversity and Geological Conservation – Statutory Obligations and Their Impact on the Planning System (Ministry of Housing, Communities & Local Government, 2005) developers should not be required to undertake surveys for protected species unless there is reasonable likelihood of the species being present and affected by the development. In this instance (for example) there are no ponds within an unobstructed radius of 500 meters from the site, and no water bodies or water courses within or adjacent to the site; there has been no requirement to consider great crested newt (*Triturus cristatus*), water vole (*Arvicola amphibius*) or otter (*Lutra lutra*) as part of this assessment. The site lies within a highly urbanised area, and supports a former builders yard with associated hard standing, therefore the habitats at the site and within the wider area are not considered suitable for use by badger (*Meles meles*) and reptiles and there has been no requirement to consider these species further as part of this assessment.

2.0 METHOD OF SURVEY

2.1 Desktop Study

- 2.1.1 The proposals at the site are small scale and will be of limited impact upon the site and local area. In accordance with *Guidelines for Accessing, Using and Sharing Biodiversity Data in the UK* (CIEEM, 2020), it is considered that the purchase of ecological records (as provided by Greater Manchester Local Record Centre) is not required in this instance.
- 2.1.2 The results of a daytime bat and bird survey are presented at *Lawrence Street, Bury, Daytime Bat & Bird Survey* (Rachel Hacking Ecology, 2024), hereafter referred to as the 'daytime bat and bird survey report'.

2.2 Vegetation and Habitats

- 2.2.1 An Extended Phase 1 Habitat Survey of the site was carried out by Amy Sharples B.Sc. (Hons.) M.Sc. ACIEEM on 17th June 2024. The weather was dry and clear with a light breeze (Beaufort scale 2) and an air temperature of 14°C.
- 2.2.2 A habitat and vegetation map was produced for the site and the immediate surrounding area and is appended at **Figure 2**. The mapping is based on the Joint Nature Conservation Committee Phase 1 Habitat Survey methodology (JNCC, 2010) with minor adjustments to illustrate and examine the habitats with greater precision.
- 2.2.3 On site habitat mapping was assisted via use of GPS technology, using *23-028-FA-DR-03-101_P1_Existing Plans and Elevations* (Collins, J. (ed), 2023) and ERSI world imagery as base plans.
- 2.2.4 The plant species within the site boundary were determined with estimates of the distribution, ground cover, abundance and constancy of individual species. The estimation of abundance was based on the DAFOR system, where D = Dominant, A = Abundant, F = Frequent, O = Occasional and R = Rare, this being a widely used and accepted system employed by ecological surveyors. The terms L = Locally and V = Very were additionally used to describe the plant species distributions with greater precision.
- 2.2.5 Stands of vegetation and habitats were described and evaluated using the National Vegetation Classification (NVC). The NVC provides a systematic and comprehensive analysis of British vegetation and is a reliable framework for nature conservation and land-use planning.
- 2.2.6 Habitats within the site were assessed in accordance with *The UK Habitat Classification Version 2.0* (UKHab Ltd, 2023). The UK Habitat Classification, or 'UKHab' has been designed to function at two scales of minimum mappable unit (MMU): fine scale (25m² or 5 metres length) and large scale (400m² or 20 metres length). It has been considered for the purposes of this survey that the fine scale of 25m² or 5 metres length MMU is appropriate.
- 2.2.7 Searches were made for uncommon, rare and statutorily protected plant species, those species listed as protected in the *Wildlife and Countryside Act 1981* (as amended) and species which are indicators of important and uncommon plant communities. Plant nomenclature follows *New Flora of the British Isles 3rd Edition* (Stace, 2010).
- 2.2.8 Searches were carried out for the presence of invasive species, including those listed on Schedule 9 of the *Wildlife and Countryside Act 1981* (as amended), including Japanese Knotweed (*Fallopia japonica*), Indian Balsam (*Impatiens glandulifera*) and Giant Hogweed (*Heracleum mantegazzianum*).

2.3 Animal Life

Bat Species

- 2.3.1 In accordance with the daytime bat and bird survey report the building at the site is of 'low' suitability for use by roosting bats, and one dusk emergence survey is required.

Presence / Absence Surveys: Dusk Emergence Surveys

- 2.3.2 The survey was carried out in accordance with standard methodology including the *Bat Mitigation Guidelines* (Mitchell-Jones, 2004), the *Bat Workers' Manual 3rd Edition* (Mitchell-Jones & Mcleish, 2004) and *Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edn)* (Collins, J. (ed), 2023).
- 2.3.3 One dusk emergence survey, supplemented by night vision aids (NVAs), was conducted at the building in June 2024. The survey was conducted under suitable conditions. The date of the survey, surveyors, equipment used and weather conditions are presented in **Table 2.1**.
- 2.3.4 The dusk emergence survey commenced at least 15 minutes before sunset, and continued for at least 1.5 hours after sunset.
- 2.3.5 Surveyors, experienced in conducting bat surveys, were positioned at suitable locations to maximise the coverage of the building to determine any entry or emergence by roosting bats. Any bat emergence or re-entry activity was recorded, with brief notes relating to bat activity at each survey position collated at the end of the survey.
- 2.3.6 Heterodyne detectors were used to determine any bat detected to species or group (*Myotis* species, for example, often cannot be reliably identified to species from their echolocation calls). Recording bat detector units² were also used to record and analyse echolocation calls after the survey using Anabat Insight bat call analysis software.
- 2.3.7 Night vision aids (NVA)³, supplemented with additional infra-red lighting (comprising Nightfox XB5 torches) were used at the surveyor positions presented in **Table 2.1**. Footage was subsequently reviewed using VLC Media Player to determine any emergence / re-entry at the building.
- 2.3.8 Surveyor positions and NVA locations are annotated on **Figure 2**. Photographs showing each survey position from the darkest point of the surveys are appended at **Photos 5 to 8**.

² i.e. Anabat Scout units.

³ Canon XA10, Canon XA40 and Canon XA60.

Table 2.1: Dusk Emergence Survey Dates, Weather Conditions and Surveyors

Date	17 th June 2024
Sunset time:	21:42
Start & end time	21:15 until 23:15
Weather	14°C and dry with a light breeze (Beaufort scale 2)
Survey Position	Surveyor, Detector and NVA
1	Catie Haworth, Anabat Scout & Canon XA40
2	Amy Sharples, Anabat Scout & XA60
3	Ian Nelson, Anabat Scout & Canon XA60
4	Stuart Laverick, Anabat Scout & Canon XA10

Bird Species

- 2.3.9 Bird species observed and heard during the survey were recorded.
- 2.3.10 Habitats throughout the site and in the immediate surrounding area were assessed for their value to roosting, feeding and nesting birds, as indicated by the amount of shelter, feeding value, woody vegetation structure and species diversity of tree and shrub species in the site.

2.4 Survey and Reporting Limitations

- 2.4.1 All areas of the site were fully accessible at the time of the survey. No survey limitations were experienced.
- 2.4.2 All measurements within this report are approximate only, and have been either estimated whilst on site or calculated using mapping software (QGIS) or internet-based mapping services such as MAGiC Maps and Google Earth.

2.5 Evaluation Methods

- 2.5.1 The habitats, vegetation and animal life were evaluated with reference to standard nature conservation criteria as described in *A Nature Conservation Review* (Ratcliffe, 1977) and *Guidelines for the Selection of Biological SSSIs* (Bainbridge, et al., 2013). These are size (extent), diversity, naturalness, rarity, fragility, typicality, recorded history, position in an ecological or geographical unit, potential value and intrinsic appeal.
- 2.5.2 Habitats have been assessed to determine whether they meet those described in *UK Biodiversity Action Plan: Priority Habitat Descriptions* (Maddock, A (ed), 2008); these lists are used to help draw up the statutory lists of Priority Habitats, as required under Section 41 of the *Natural Environment and Rural Communities (NERC) Act 2006*. Where suitable, the ecological value of the habitats present has been assessed using the terms outlined in *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine* (CIEEM, 2018). Each habitat and individual trees have been assessed to determine whether they are 'irreplaceable habitat', defined in *National Planning Policy Framework* (Department for Levelling Up, Housing and Communities, 2023)⁴ as 'Habitats which would be

⁴Hereafter the NPPF

technically very difficult (or take a very significant time) to restore, recreate or replace once destroyed, taking into account their age, uniqueness, species diversity or rarity. They include ancient woodland, ancient and veteran trees, blanket bog, limestone pavement, sand dunes, salt marsh and lowland fen'. The further detail presented in The Biodiversity Gain Requirements (Irreplaceable Habitat) Regulations 2024 (GOV.UK, 2023) draft document has also been referred to.

- 2.5.3 Government advice on wildlife, as set out in the NPPF and associated government circulars has been taken into consideration. Legislation relating to protected species, such as those listed under Schedules 1, 5, 6 and 8 of the *Wildlife and Countryside Act 1981* (as amended) and *The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019*, is referenced where applicable, and any impacts to protected species are evaluated in accordance with current guidance.
- 2.5.4 The presence of any Priority Species, as listed under Section 41 of the *Natural Environment and Rural Communities (NERC) Act 2006* is noted, and habitats are assessed in terms of their suitability and value for these species. The presence of habitats and / or species listed by the Greater Manchester Biodiversity Action Plans has been taken into account in the evaluation of the site.

3.0 SURVEY RESULTS

3.1 Desktop Study

Statutory Designated Sites for Nature Conservation and SSSI Impact Risk Zones

- 3.1.1 The site is not and does not form part of any statutory designated site for nature conservation.
- 3.1.2 The site lies within a Site of Special Scientific Interest (SSSI) Impact Risk Zone for overlapping Rochdale Canal SSSI and Special Area of Conservation (SAC), located 7.6 kilometres east of the site and supports important habitats for submerged aquatic plants and emergent vegetation, including extensive colonies of the nationally scarce SAC species Floating Water-plantain (*Luronium natans*) and the West Pennine Moors SSSI located 8.5 kilometres north-west of the site which supports a mosaic of habitats and is important for breeding birds.
- 3.1.3 The SSSI Impact Risk Zone requires the Local Planning Authority to consult with Natural England on likely risks from the following development categories (Ordnance Survey, 2024):

Infrastructure: Airports, helipads and other aviation proposals.

Air Pollution: Livestock and poultry units with floorspace greater than 500m², slurry lagoons and digestate stores greater than 4000m².

Combustion: General combustion processes greater than 50 megawatt energy input. Including energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis / gasification, anaerobic digestion, sewage treatment works, other incineration / combustion.

Priority Habitats Inventory

- 3.1.4 The Priority Habitats Inventory⁵ was checked via MAGiC Maps. No Priority Habitats are identified at the site by the inventory.

Ancient Tree Inventory

- 3.1.5 No ancient or veteran trees are identified at the site by the inventory.

3.2 Vegetation and Habitats

General Description

- 3.2.1 The approximately 0.11 hectare site is located in an urban area of Bury and comprises a former builders merchant with associated hard standing, a cabin, colonising vegetation and scrub (**Photos 1 to 4**).
- 3.2.2 The northern, western and southern site boundaries are defined by fencing. The eastern boundary is defined by the western elevation of the existing building. Chelsea Street lies directly adjacent to the eastern site boundary, with existing residential properties beyond. A car sales centre lies directly adjacent to the western boundary, an industrial building lies beyond the northern boundary and Lawrence Street lies directly adjacent to the southern site boundary, beyond which lies commercial buildings and residential properties.
- 3.2.3 The appended **Figure 2** can be referred to for all habitat descriptions. Photographs are appended in **Section 8.3**.
- 3.2.4 The site supports a former builders merchant. The building and cabin do not support any vegetation and are described by the UKHab as u1b5 buildings.
- 3.2.5 The hard standing at the site supports colonising vegetation associated with the edges of the building. The vegetation is characterised by locally frequent Cock's-foot (*Dactylis glomerata*), Yorkshire-fog (*Holcus lanatus*), Perennial Rye-grass (*Lolium perenne*) and Broad-leaved Dock (*Rumex obtusifolius*). A plant species list is appended at **Table 8.1**.
- 3.2.6 The colonising vegetation is not characteristic of an NVC community and is described by the UKHab as u1b developed land; sealed surface with the secondary code 81 ruderal or ephemeral.
- 3.2.7 An area of scrub lies at the northern boundary. The vegetation is characterised by locally abundant Cleavers (*Galium aparine*), Grey Willow (*Salix cinerea*), Bramble (*Rubus fruticosus* agg.) and Common Nettle (*Urtica dioica*) with locally frequent Sycamore (*Acer pseudoplatanus*). A plant species list is appended at **Table 8.1**.
- 3.2.8 The scrub is not characteristic of an NVC community and is described by the UKHab as h3h mixed scrub.

⁵ A spatial dataset that describes the geographic extent and location of Natural Environment and Rural Communities Act (2006) Section 41 habitats of principal importance.

Invasive Plant Species

- 3.2.9 No Japanese Knotweed, or any other species as listed on Schedule 9 of the *Wildlife and Countryside Act 1981* (as amended), is present at the site.

3.3 Animal Life

Bat Species

Dusk Emergence Survey

17th June 2024

- 3.1 No bat emergence or re-entry was detected at the site. Subsequent review of the NVA footage did not detect any emergence or re-entry activity.
- 3.2 Common pipistrelle activity was detected between 22:20 and 22:58, with the first call sequence detected 38 minutes after sunset. No other species were recorded.
- 3.3 Raw data are appended in **Table 8.2**.

Bird Species

- 3.3.2 No bird species were observed at the site during the survey. The scrub at the northern site boundary is suitable for use by nesting passerine (i.e. perching) species. This is considered further at **Section 4.4**.

4.0 EVALUATION AND ASSESSMENT

4.1 Introduction and Description of Proposals

- 4.1.1 In accordance with *15-23-028-FA-DR-03-604_P1_Landscaping Plan* (Four Architects, 2024) it is proposed to redevelop the site to residential with associated car parking and landscaping.
- 4.1.2 **Section 4.2** provides an assessment of any impacts of the proposed development on the designated sites for nature conservation present in the wider area. The ecological value of habitats within the site is at **Section 4.3**, and protected and notable species are considered at **Section 4.4**.

4.2 Designated Sites for Nature Conservation

- 4.2.1 The site does not support any habitats that are a primary reason for selection of the statutory designated sites for nature conservation in the wider area. No potential pathways for direct or indirect impacts or likely significant effects on the integrity and conservation objectives of the statutory designated sites for nature conservation in the wider area are identified.
- 4.2.2 The proposals will have no impact upon designated sites for nature conservation within the wider area.

4.3 Vegetation and Habitats

- 4.3.1 Only common and widespread plant species were found. None of the habitats present are representative of semi-natural habitat.

4.3.2 In terms of each habitat's importance in a geographical context⁶, the scrub is of 'site' value only, and the building, hard standing and colonising vegetation are not considered to hold any importance on a geographical scale.

4.4 Protected Species and Other Wildlife

4.4.1 Habitats in the wider area are suitable for foraging and commuting bats. Recommendations relating to features to enhance habitats for roosting bats at the site are presented at **Sections 5.3 and 5.4**.

4.4.2 The scrub at the northern boundary provides habitat suitable for foraging and nesting habitat for birds. Consideration of birds (including protection of breeding birds and recommended enhancements for Priority Species) are presented at **Sections 5.3 and 5.4**.

4.5 Consideration of Statutory Biodiversity Net Gain (BNG)

4.5.1 The development, as proposed, will not impact a Priority Habitat or an irreplaceable habitat and will impact less than:

- 25 square metres (5m by 5m) of on-site habitat; and
- 5 metres of on-site linear habitats such as hedgerows.

4.5.2 Based on the above it is understood that the proposals meet the *de minimis* exemption criteria in consideration of statutory 10% biodiversity net gain⁷.

4.5.3 Notwithstanding the above, the recommendations outlined below aim to secure measurable gains for biodiversity / ecological enhancement to satisfy the requirements of the National Planning Policy Framework (NPPF), *Biodiversity Net Gain: Good Practice Principles for Development* (CIEEM, 2016) and best practice.

5.0 RECOMMENDATIONS AND ECOLOGICAL ENHANCEMENT

5.1 Introduction

5.1.1 These recommendations aim to ensure that the development is implemented in accordance with relevant wildlife legislation, Natural England guidance, the principles of the NPPF, local planning policy and best practice.

5.1.2 In accordance with Chapter 15, paragraph 186(d) of the NPPF:

'opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate'.

⁶ Using the terms presented at Section 4.7 of *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine* (CIEEM, 2018), i.e. International and European, National, Regional, Local Authority-wide area, River Basin District, Estuarine system / Coastal cell or Local. The term 'site' value is additionally used to highlight ecological features considered to be of importance in the context of the wider site habitats, but which are of negligible value in the context of the local area.

⁷ As presented at <https://www.gov.uk/guidance/biodiversity-net-gain-exempt-developments>

- 5.1.3 Where possible, opportunities to enhance the ecological interest and habitat connectivity and seek biodiversity gain through appropriate landscape planting and habitat creation have been identified.
- 5.1.4 All recommendations are appropriate to the geographical area, the habitats in the wider area, the wildlife present in the local area (and likely to use the site post-construction) and take into consideration the end use of the site as a residential development.

Recommendations in Relation to Site Layout

- 5.1.5 It is recommended that the site layout incorporates features for wildlife such as boxes for roosting bats and nesting birds (refer to **Section 5.3**) and the use of native species in the landscape planting scheme (refer to **Section 5.4**).

Consideration of Lighting

- 5.1.6 Paragraph 191(c) in Chapter 15 (conserving and enhancing the natural environment) of the NPPF states that development should:

'limit the impact of light pollution from artificial light on local amenity, intrinsically dark landscapes and nature conservation.'

Construction Phase

- 5.1.7 Any lighting to be used at the site during construction should be directional and screened where possible, this specification should be included within a Construction Environment Management Plan (CEMP), or similar.

Development Lighting Design

- 5.1.8 The lighting scheme to be implemented at the developed site must involve the use of appropriate products and screening, where necessary, to ensure no excessive artificial lighting shines over any landscape planting, as lighting overspill may deter use by wildlife such as foraging bats.
- 5.1.9 The lighting scheme will be designed with reference to current guidance, namely:
- Guidance Note 08/23: Bats and Artificial Lighting at Night* (Institution of Lighting Professionals & Bat Conservation Trust, 2023); and
 - Bats and lighting: Overview of current evidence and mitigation guidance* (Stone, 2014).

5.2 Protection of Existing Features and Wildlife During Construction Phase

Protection of Trees

- 5.2.1 During the construction phase, temporary protective demarcation fencing will be used to protect any trees, shrubs and hedgerows to be retained. The fencing must extend outside the canopy of the retained trees and must remain in position until all areas have been developed to ensure protection is provided throughout the construction phase.
- 5.2.2 The fencing will be in accordance with BS5837:2012 Trees in Relation to Design, Demolition and Construction: Recommendations (BSI, 2012).

Protection of Bat Foraging Habitat During Works; Construction Phase Lighting

- 5.2.3 The measures outlined above will protect the habitats identified as being suitable for use by foraging and commuting bats during the construction phase of the proposed development. To ensure that this habitat is not degraded due to unsuitable lighting, any lighting to be used at the site during construction should be directional and screened where possible. This specification should be included within a Construction Environmental Management Plan (CEMP) or similar document.

Protection of Bats

- 5.2.4 Although no evidence of a bat roost has been detected at the site the following best practice measures are advised:
- a. Ridge copings and roof materials to be removed by hand. The underside of the ridge copings and roof slates to be checked for bats prior to discard or stacking; and
 - b. If at any point during the demolition works a bat is found or suspected, all works in the area must stop immediately and ERAP (Consultant Ecologists) Ltd or the Bat Conservation Trust must be contacted for guidance.
- 5.2.5 If works have not commenced by the start of the next bat activity survey season (i.e. May 2025) then it is recommended that an updated dusk emergence survey is completed at Building 1 to ensure these findings remain valid.

Protection of Nesting Birds

- 5.2.6 All wild birds are protected under the *Wildlife and Countryside Act 1981* (as amended) while they are breeding. Any works such as vegetation clearance that will affect habitats suitable for use by nesting birds are scheduled to commence outside the bird nesting season. Commencement of works in the nesting season must be informed by a pre-works nesting bird survey, carried out by a suitably experienced ecologist. The bird breeding season typically extends between March to August inclusive.
- 5.2.7 If breeding birds are detected the ecologist will issue guidance in relation to the protection of the nesting birds in conjunction with the scheduled works. This may involve cordoning off an area of the site until the young birds have fledged.

5.3 Provision of Opportunities for Nesting Birds and Roosting Bats

Enhancing Habitats for Roosting Bats

- 5.3.1 It is recommended that the new residential building incorporates the installation of one bat access panel.
- 5.3.2 The bat access panel should be sited at least 4 metres above ground level, ideally facing or close to areas of landscape planting or existing linear features. The access panel should not be positioned over windows or doorways where bat droppings may become a nuisance. An ecologist should advise on appropriate positions for the bat access panels. Suitable bat access panels are available from NHBS Ecology (www.nhbs.com), Wild Care (www.wildcare.co.uk) and / or Greenwood's Ecohabitats (www.greenwoodsecohabitats.co.uk) and are presented at **Insert 1**.



Insert 1: Examples of integrated bat access panels and an externally mounted box⁸

Enhancing Habitats for Nesting Birds

House Sparrow

- 5.3.3 House sparrows are associated with suburban areas. Monitoring suggests a severe decline in the UK house sparrow population, estimated as dropping by 71 per cent between 1977 and 2008 with large falls in both rural and urban populations (RSPB, 2023).
- 5.3.4 The installation of one house sparrow terrace nest box is recommended at the proposed new residential building. The box will not be positioned over windows or doorways where droppings may become a nuisance. RSPB advice states that boxes should ideally be sited facing north to east, to avoid exposure to direct sunlight, which may cause overheating of chicks in the nest. An ecologist should advise on appropriate positions for the bat access panels.
- 5.3.5 Suitable bird boxes are available from the NHBS (www.nhbs.com) or Wild Care (www.wildcare.co.uk), an example of a suitable house sparrow bird box is given below at **Insert 2**.



Insert 2: Schwegler 1SP House Sparrow Nesting Terrace

5.4 Landscape Planting

- 5.4.1 It is recommended that the landscape planting within the residential site is composed from native species and species known to be of value for the attraction of wildlife.
- 5.4.2 It is recommended that trees which support blossom and fruit which will attract insects are incorporated into the landscape planting. Suitable species are presented in **Table 5.1**.

⁸ Left to right: IBstock Enclosed Bat Box 'C' (left); Habibat Bat Access Panels (centre left and centre right) and Greenwood's Ecohabitat's two crevice bat box (right). Products with a brick face are illustrated, however the Habibat bat access panels can be supplied unfaced to enable the addition of matching material.

Table 5.1: Suitable Native Species for Tree and Shrub Planting

Scientific Name	Common Name	Scientific Name	Common Name
<i>Acer campestre</i>	Field Maple	<i>Prunus spinosa</i>	Blackthorn
<i>Corylus avellana</i>	Hazel	<i>Rosa arvensis</i>	Field Rose
<i>Crataegus monogyna</i>	Hawthorn	<i>Rosa canina</i>	Dog-rose
<i>Ilex aquifolium</i>	Holly	<i>Sambucus nigra</i>	Elder
<i>Malus sylvestris</i>	Crab Apple	<i>Sorbus aucuparia</i>	Rowan
<i>Prunus avium</i>	Wild Cherry	<i>Ulmus glabra</i>	Wych Elm
<i>Prunus padus</i>	Bird Cherry	<i>Viburnum opulus</i>	Gelder Rose

- 5.4.3 The understorey and ground cover planting design should be prepared to optimise the attraction of invertebrates such as feeding bumblebees and butterflies. Where possible the use of native species should be maximised but where necessary non-native species known to be attractive to invertebrates should be used.
- 5.4.4 Planting schemes that include flowering species such as *Viburnum*, *Ceanothus*, *Hebe*, *Lavandula*, *Lonicera*, *Potentilla*, *Rosmarinus* and *Vinca* can maximise opportunities for feeding invertebrates and for the attraction of foraging bats and birds.
- 5.4.5 For further plants suitable for the attraction of pollinators please refer to the *Perfect for Pollinators Plant List* (Royal Horticultural Society, 2012). It is recommended that the selection of plant species at the site ensures that a variety of flowering species are available throughout the year.
- 5.4.6 Other appropriate plants to include within the landscaping scheme include night-scented flowers which will attract moth species and bats; a list of suggested species is presented at **Table 5.2**.

Table 5.2: Recommended Plants for Use in Gardens to Attract Bats⁹

Flowers for Borders	
Aubretia species (<i>Aubretia</i> sp.)	Michaelmas Daisy (<i>Aster</i> sp.)
Candytuft (<i>Iberis sempervirens</i>)	Night-scented Stock (<i>Matthiola longipetala</i>)
Cherry pie (<i>Heliotropium arborescens</i>)	Oxeye Daisy (<i>Leucanthemum vulgare</i>)
Corncockle (<i>Agrostemma githago</i>)	Fiddleneck (<i>Phacelia tanacetifolia</i>)
Cornflower (<i>Centaurea cyanus</i>)	Poached Egg Plant (<i>Limnanthes douglasii</i>)
Corn Marigold (<i>Glebionis segetum</i>)	Primrose sp. (<i>Primula</i> sp.)
Corn Poppy (<i>Papaver rhoeas</i>)	Red Campion (<i>Silene dioica</i>)
Coneflower species (<i>Echinacea</i> sp.)	Common Valerian (<i>Valeriana officinalis</i>)
Bluebell (<i>Hyacinthoides non-scripta</i>)	Scabious species (<i>Scabiosa</i> sp.)
Evening primrose (<i>Oenothera biennis</i>)	St John's Wort species (<i>Hypericum</i> sp.)
Honesty (<i>Lunaria annua</i>)	Sweet William (<i>Dianthus barbatus</i>)
Ice plant 'Pink lady' (<i>Delosperma cooperi</i>)	Tobacco Plant species (<i>Nicotiana</i> sp.)
Knapweed species (<i>Centaurea</i> sp.)	Vervain species (<i>Verbena</i> sp.)
Mallow species (<i>Malva</i> sp.)	Wallflower species (<i>Erysimum</i> sp.)
Mexican aster (<i>Cosmos bipinnatus</i>)	
Herbs	
Wild Angelica (<i>Angelica sylvestris</i>)	Hyssop (<i>Hyssopus officinalis</i>)
Bergamot (<i>Monarda didyma</i>)	Lavender species (<i>Lavandula</i> sp.)
Borage (<i>Borago officinalis</i>)	Lemon Balm (<i>Melissa officinalis</i>)
Coriander (<i>Coriandrum sativum</i>)	Marjoram (<i>Origanum majorana</i>)
English Marigold (<i>Calendula officinalis</i>)	Rosemary (<i>Rosmarinus officinalis</i>)
Fennel (<i>Foeniculum vulgare</i>)	Sweet Cicely (<i>Myrrhis odorata</i>)
Feverfew (<i>Tanacetum parthenium</i>)	Thyme species (<i>Thymus</i> sp.)

6.0 CONCLUSION

- 6.1 This ecological assessment has demonstrated that the redevelopment of the site to residential is feasible and acceptable in accordance with ecological considerations and the NPPF.
- 6.2 Development at the site will provide an opportunity to secure ecological enhancement for fauna typically associated with residential areas such as breeding birds and roosting bats.
- 6.3 The development proposals can be achieved in accordance with wildlife legislation, relevant planning policy and best practice.

⁹ Extracted from *Encouraging bats, A guide for bat-friendly gardening and living* (Bat Conservation Trust, 2016).

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8.0 APPENDIX: TABLES AND FIGURES

8.1 Plant Species Lists

Table 8.1: Plant Species List for the Scrub and Colonising Vegetation at the Site

Scientific Name	Common Name	DAFOR ¹	Cover
<i>Acer pseudoplatanus</i>	Sycamore	LF	<1%
<i>Alopecurus pratensis</i>	Meadow Foxtail	VLF	<1%
<i>Anthoxanthum odoratum</i>	Sweet Vernal-grass	VLF	<1%
<i>Calystegia sepium</i>	Hedge Bindweed	VLF	<1%
<i>Cerastium fontanum</i>	Common Mouse-ear	VLF	<1%
<i>Chamerion angustifolium</i>	Rosebay Willowherb	VLF	<1%
<i>Cirsium vulgare</i>	Spear Thistle	VLF	<1%
<i>Dactylis glomerata</i>	Cock's-foot	LF	<1%
<i>Equisetum arvense</i>	Field Horsetail	VLF	<1%
<i>Galium aparine</i>	Cleavers	LA	<1%
<i>Geranium robertianum</i>	Herb-Robert	VLF	<1%
<i>Holcus lanatus</i>	Yorkshire-fog	LF	<1%
<i>Ilex aquifolium</i>	Holly	LA	<1%
<i>Lolium perenne</i>	Perennial Rye-grass	LF	<1%
<i>Pilosella aurantiaca</i>	Fox-and-cubs	R	<1%
<i>Poa annua</i>	Annual Meadow-grass	LF	<1%
<i>Poa pratensis</i>	Smooth Meadow-grass	VLF	<1%
<i>Ranunculus repens</i>	Creeping Buttercup	VLF	<1%
<i>Rubus fruticosus</i> agg.	Bramble	LA	<1%
<i>Rumex obtusifolius</i>	Broad-leaved Dock	LF	<1%
<i>Salix cinerea</i>	Grey Willow	LA	<1%
<i>Sorbus aucuparia</i>	Rowan (sapling)	R	<1%
<i>Tanacetum parthenium</i>	Feverfew	R	<1%
<i>Taraxacum officinale</i> agg.	Dandelion	VLF	<1%
<i>Tussilago farfara</i>	Colt's-foot	R	<1%
<i>Urtica dioica</i>	Common Nettle	LA	<1%

¹**Key to DAFOR:** D=Dominant, A=Abundant, F=Frequent, O=Occasional, R=Rare, V=Very, L=Local and *denotes a constant species

8.2 Raw Data from Bat Activity Surveys

Table 8.2: Activity Survey 1, 17th June 2024, Sunset Time 21:42, Start Time 21:25

Survey Position 1: Catie Haworth

Time	Species	Notes
22:22 until 22:23	Common pipistrelle	2 bats flying over building from north to south
		No bat emergence or re-entry detected
The Anabat Scout made the following recordings: 2 common pipistrelle call sequences at 22:22 and 22:23.		

Survey Position 2: Amy Sharples

Time	Species	Notes
22:52 until 22:53	Common pipistrelle	Brief pass, heard not seen
		No bat emergence or re-entry detected
The Anabat Scout made the following recordings: 2 common pipistrelle call sequences at 22:52 and 22:53.		

Survey Position 3: Ian Nelson

Time	Species	Notes
22:20	Common pipistrelle	Brief pass, heard not seen
22:23	Common pipistrelle	2 bats flying over building from north to south
		No bat emergence or re-entry detected
The Anabat Scout made the following recordings: 1 common pipistrelle call sequence at 22:20.		

Survey Position 4: Stuart Laverick

Time	Species	Notes
		No bat emergence or re-entry detected
The Anabat Scout made the following recordings: 1 common pipistrelle call sequence at 22:58.		

8.3 Photographs

Table 8.3: Photographs



Photo 1: Eastern elevation of building, hard standing and colonising vegetation



Photo 2: Eastern elevation of building, hard standing and colonising vegetation



Photo 3: Northern area of site with building, cabin, hard standing, colonising vegetation and scrub



Photo 4: Northern elevation of the building, cabin, hard standing, colonising vegetation and scrub

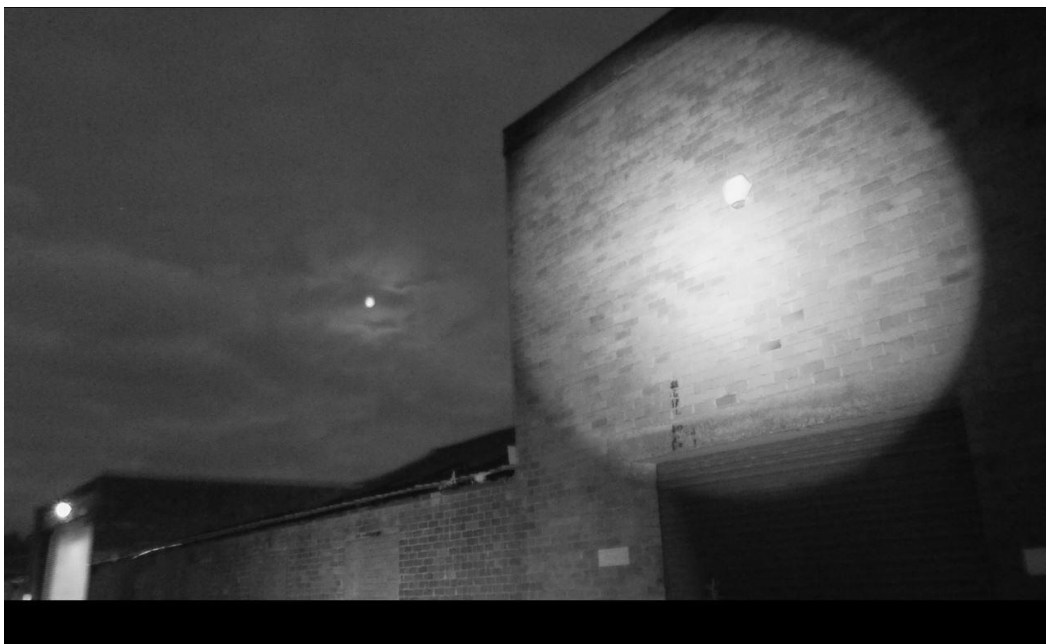


Photo 5: Survey Position 1

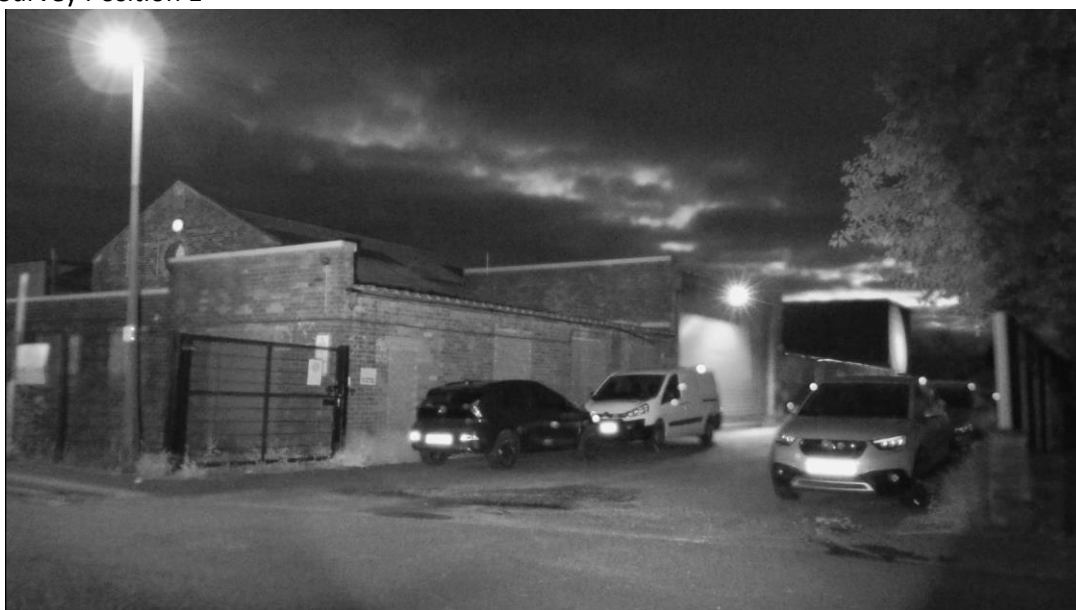


Photo 6: Survey Position 2



Photo 7: Survey Position 3



Photo 8: Survey Position 4

8.4 Figures

Figure 1: Aerial Image of the Site and its Surroundings

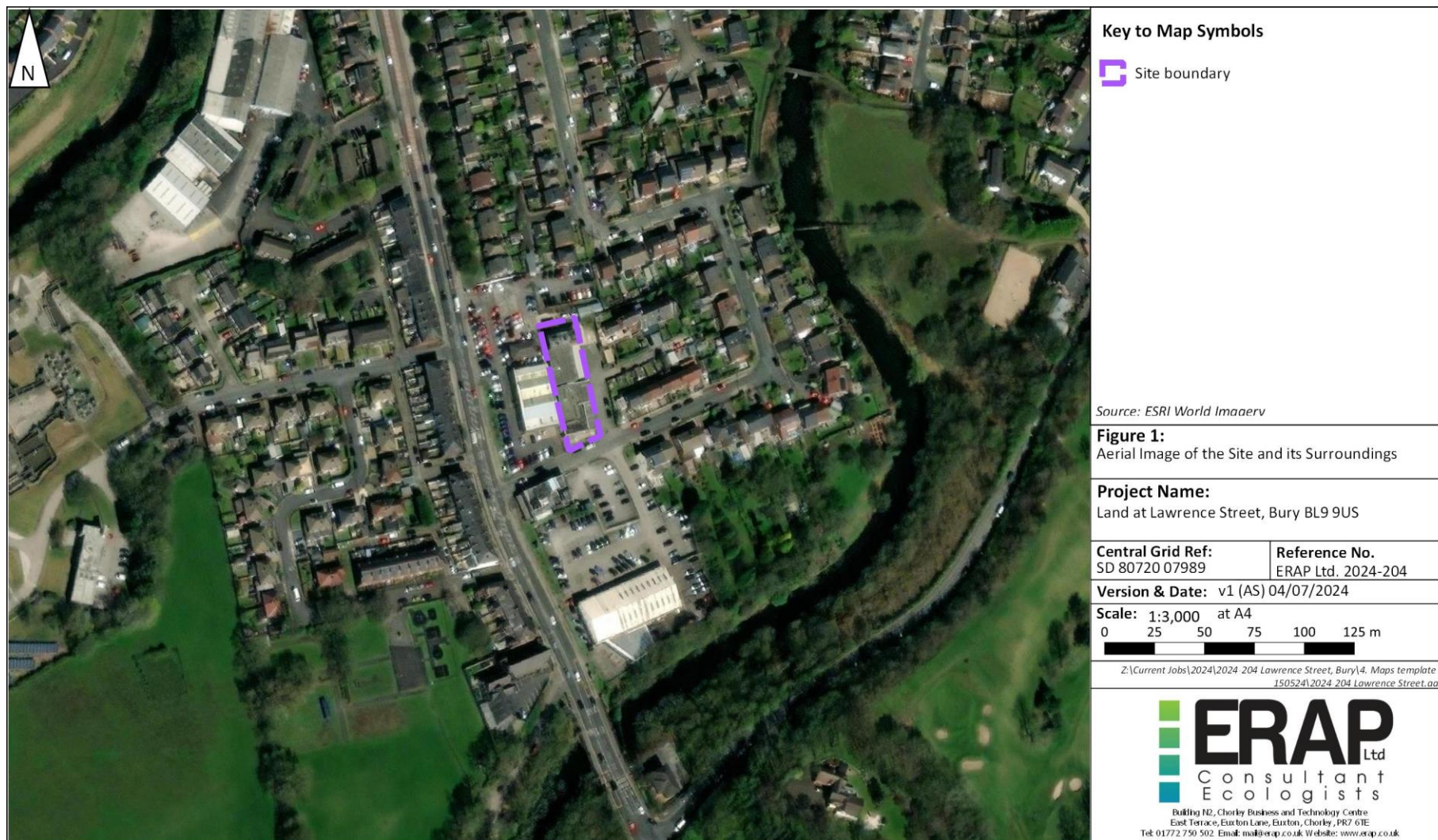


Figure 2: Phase 1 Habitat and Vegetation Map of the Site and Survey and NVA Positions for Bat Activity Survey

