Huddersfield Student Scheme,

Extended Phase 1 Habitat Survey &

Daytime Bat Survey

2023

RACHEL
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ECOLOGY

Client	Abode Asset Management Limited
Project Title	Huddersfield Student Scheme
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Report Contents

Executive Summary

Development Details

The client is proposing commercial renovation of the high-rise building formally known as Crown House, hereafter referred to as the 'site'. This report describes the ecological features of the site and its surroundings and assesses the potential impacts of the development on the ecological interest. Recommendations are provided so that the development is compliant with biodiversity policy and legislation.

Ecological Interest

The site is situated within an urban setting in the middle of Huddersfield town centre and has a low level of ecological interest. The site consists of sealed surfaces and buildings, Ecological features include a small patch of amenity-managed grassland with scattered trees, and a raised bed of introduced shrubs. The invasive non-native Wall Cotoneaster *Cotoneaster horizontalis* is present within the shrub beds. The roof appears to be used by Peregrine Falcon *Falco peregrinus* as a perch.

Outcomes

Further survey work is not required because the building has no potential for roosting bats and the only nesting bird activity is feral pigeon *Columba livia*. The proposed works will not affect the Peregrine Falcon perch.

Mitigation measures are proposed to offset the impacts of habitat loss and to provide a gain for biodiversity

1. Introduction

1.1 Project Brief

1.1.1 Rachel Hacking Ecology Limited was commissioned in 2023 by Abode Asset Management Limited to carry out an Ecological Appraisal at Huddersfield Student Scheme, former Crown House, Southgate in Huddersfield (O.S. grid reference: SE 14732 16877 – see Figure 1).

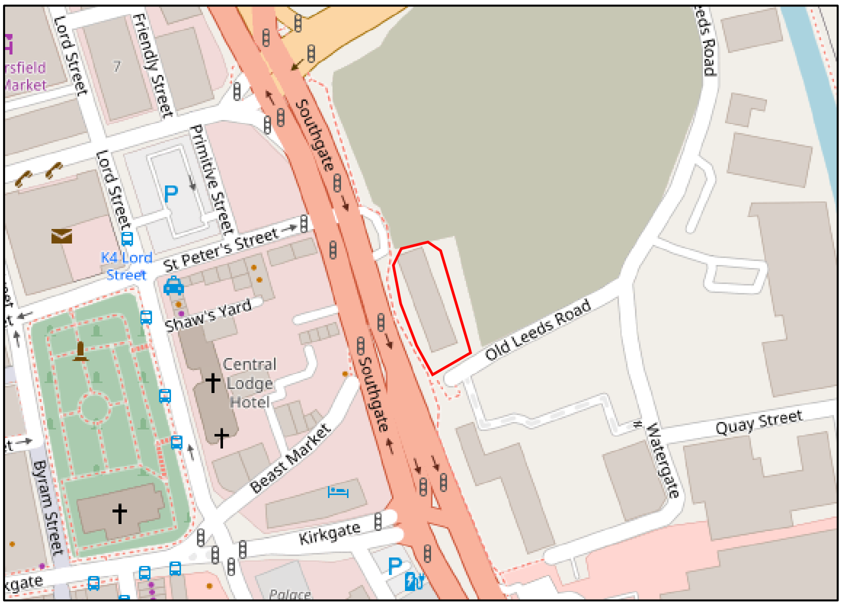

Figure 1. Map showing the location of the site courtesy of © OpenStreetMap Contributors

1.1.2 The proposed development site is a high-rise building surrounded by sealed surfaces and shrubberies with scattered trees. This site is situated in an urban setting at Huddersfield town centre, surrounded by commercial and residential properties and associated infrastructure.

Description of Development

The site will be the subject of a planning application for the renovation of the high-rise building, new landscaping and parking areas.

1.2 Scope of Work

1.2.1 The Client commissioned Rachel Hacking Ecology to carry out the following works:

- Record the extent and type of habitats within and next to the site.

- Search for signs of protected species and assessment of the potential of habitats and features to support protected and notable species.
- External and internal survey of buildings, searching for evidence of bat activity and assessing the potential for bat roosts.
- Survey for invasive, non-native species on the site.

1.3 Site Visit Information

Surveyor Details

1.3.1 Joe Cooper BSc (Hons), MRes, visited the site on 2nd February 2023. Joe is an experienced ecologist with over 5 years of survey experience and holds a Natural England Class 2 Bat Licence (Licence No: 2022-10780-CL18-BAT).

Weather

1.3.2 The weather at the time of the survey was overcast with sunny intervals. The site conditions were suitable for a full assessment to be undertaken.

2. Methods

2.1 Field Survey

Extended Phase 1 Habitat Survey

2.1.1 In accordance with JNCC guidelines[1] the site was walked over, and the habitats and features of ecological interest were mapped and described. Habitats and features of particular interest were target noted.

2.1.2 During the walkover habitat and features were assessed for their suitability to support of protected and notable species in accordance with CIEEM guidelines[2]. Field signs of protected, notable, and invasive non-native species, if encountered, were mapped, and described.

Bats

2.1.3 The exterior of the site was surveyed from the ground using binoculars and a high-powered torch. Features offering potential access to roosting bats were recorded. Such features may include suitable gaps in roof coverings and flashing, gaps behind external cladding/facia and gaps in masonry.

2.1.4 Evidence indicating the presence of roosting bats was also searched for. This may include bat droppings on windows or on the ground below roost entrances or staining from fur oil around roost entry points.

2.1.5 The interior of the site, including the roof void, was surveyed to identify any evidence indicating use by roosting bats. Such evidence may include bat droppings, feeding remains, urine splashes, live or dead bats and staining from fur oil on timbers.

2.1.6 Any trees on the site that are to be affected by the proposals were given a ground-level assessment, searching for Potential Roosting Features (PRF's), such as flaking bark, woodpecker holes, knot holes and limb splits.

Nesting Birds

2.1.7 A pair of close-focusing binoculars were used to survey the site for signs that would indicate past and present nesting activity.

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[1] Joint Nature Conservation Committee (2010*). Handbook for Phase 1 Habitat Survey: A Technique for Environmental Audit*. Joint Nature Conservation Committee, Peterborough

[2] Chartered Institute of Ecologists and Environmental Managers (2017). *Guidelines for Preliminary Ecological Appraisal.* Chartered Institute of Ecologists and Environmental Managers, Winchester.

2.2 Mitigation Hierarchy

2.2.1 Mitigation measures should be embedded within the masterplan design and planning application process. Measures during the construction phases should be included in a Construction Environmental Management Plan: Biodiversity (CEMP). This process from proposal to implementation needs to consider the 'mitigation hierarchy' of avoid, reduce, compensate, and enhance:

- Aim to avoid negative effects through the design process.
- Mitigate if negative effects cannot be avoided.
- Use compensation measures to offset residual impacts.
- Identify and implement opportunities to enhance biodiversity.

3. Results

3.1 Constraints

3.1.1 Field survey results are valid for a limited duration and no investigation can provide a complete description and characterisation of a site. The composition of habitats and species can change depending on environmental variables and the mobility of species, so the results of a study become less reliable over time. In some cases, surveys that are 3 years old may be acceptable for a project assuming that habitats have not significantly changed in the intervening period, but for protected species it is likely that survey data will need to be no more than 18 months old.

3.1.2 The site was partially accessible during the survey. The inspection of the building was made possible both internally and externally, including the flat roof. The understory car-parking was inaccessible due to recent security issues resulting in full closure of the car-parking area. Current ground works on the adjacent site meant that the northwest corner of the redline boundary was inaccessible with it being an active construction zone. However, given the habitats on site a full and robust assessment was still possible.

3.2 Designated Sites

3.2.1 The desk study provided information on the designated sites listed below in Table 2.

Table 1. Designated Sites

Name	Status	Location/ distance	Interest
Gledholt Woods	LNR	1.4km	Mature woodland and rough meadow. White claw crayfish population.
Castle Hill	LNR	2.6km	Acid grassland and scrub.
Dalton Bank	LNR	2.7km	Conifer plantations and native woodlands.
Upper Park Wood	LNR	3.6km	Mature woodland.
Honley Station Cutting	SSSI	4.2km	Geological designation.
Elland Bypass Cutting	SSSI	4.1km	Geological designation.

3.2.2 The desk study identified that the site was located within the Impact Risk Zone of four Sites of Special Scientific Interest (SSSI) which include Honley Station Cutting, South Pennine Moors, Dark Peak and Denby Grange Colliery Ponds. However, the proposed development will not require the Local Planning Authority to consult with Natural England.

3.3 Habitats

3.3.1 Target Notes and photographs are contained in Appendix 2 and the habitat survey plan is contained in Appendix 3. A botanical species list is provided in Appendix 4.

Bare ground

3.3.2 The site largely consists of sealed surface including tarmac, paved surface, and walkways (see Photograph 1).

Photograph 1 showing the bare ground on site

Introduced Shrub

3.3.3 Introduced shrub beds are located to the west of the site, positioned along the former entrance of the former Crown House building (see Photograph 2). Dominant species within this habitat include Elder *Sambucus nigra*, Snowberry *Symphoricarpos albus*, Oregon-grape *Mahonia aquifolium* and the invasive non-native Wall Cotoneaster.

Photograph 2 showing the introduced shrubs

Amenity Grassland

3.3.4 A small patch of amenity-managed grassland is present to the north of the site. The area was inaccessible at the time of the survey due to the active construction zone and exclusion fencing.

Scattered Trees

3.3.5 Scattered trees are located within the amenity-managed grassland (see paragraph 3.3.4). The species are unknown.

3.4 Species

Bats

3.4.1 The former Crown House high-rise building is a 9-storey property that is currently unoccupied with some material damage (see Photograph 3). The brickwork and mortar is all intact with no missing bricks or cracks. Concrete slabs separate the individual floors with lead flashing hanging between the slabs and the brickwork (see Photograph 4). The windows are metal framed and flush to the surrounding brickwork with many of the windows and doors on the first few floors having been boarded up (see Photograph 5).

Photograph 3 showing the building on site

Photograph 4 showing the lead flashing

Photograph 5 showing the windows and doors

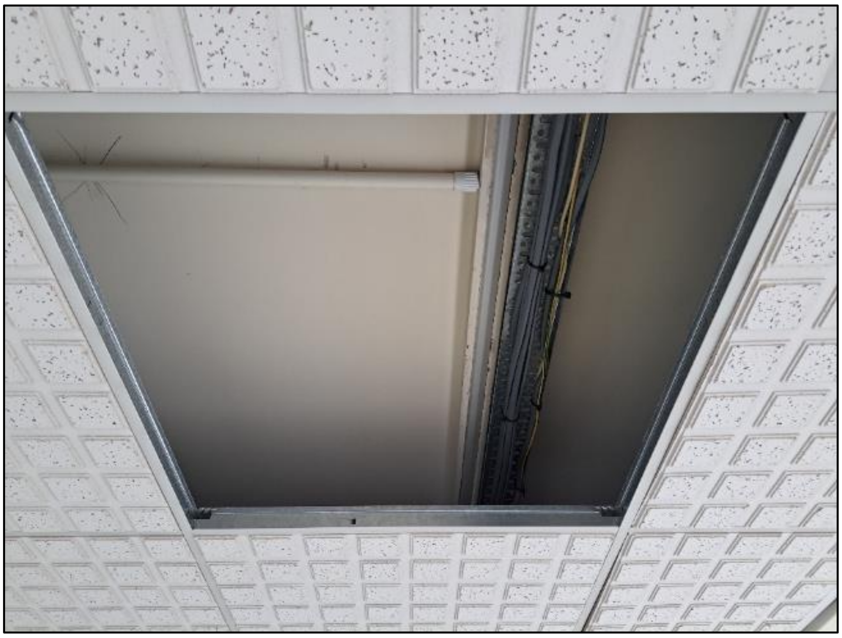
3.4.2 The roof of the high-rise building is flat with a parapet wall and is lined with bitumen-based roofing felt (see Photograph 6). Two utility buildings are raised above the roof level which are also flat roofed with bitumen-based lining (see Photograph 7). The utility buildings are well-sealed, with all brickwork complete and intact. One of the utility buildings is covered in uPVC cladding. Both building have wooden vented doors sealed with finer mesh on the inside.

Photograph 6 showing the flat roof

Photograph 7 showing a utility building

3.4.3 The internal space within the high-rise is comprised of offices and meeting rooms (see Photograph 8). All rooms feature ceiling tiles which creates a false ceiling and give way to flat, concrete roof slabs (see Photograph 9). No suitable cavities are present in these spaces. No evidence of bat activity was found on any of the floors.

Photograph 8 showing the internal space



Photograph 9 showing the false ceiling and space behind

3.4.4 The utility building internally has exposed breezeblock walls, which are mortared and sealed (see Photograph 10). The ceiling of the utility areas are large concrete slabs supported by steel beams which are well sealed to the brick work (see Photograph 11). The beams offer no suitable cracks or crevices for bats to exploit. Vents are present which are well sealed and filter in natural light.

Photograph 10 showing the internal space of the utility buildings

Photograph 11 showing the internal roof of the buildings

Birds

3.4.5 Evidence within the utility buildings suggests that the site has been previously used by Feral Pigeon. Large quantities of droppings and perished adults and young were scattered throughout the top floor and within the utility buildings (see Photograph 12).

Photograph 12 showing the evidence of nesting pigeon

3.4.6 A female Peregrine Falcon was seen using the roof top of the high-rise building. A concentration of faecal splashing is located in the north-eastern corner of the utility building roof where the Peregrine Falcon was observed (see Photograph 13).

Photograph 13 showing the evidence of Peregrine Falcon

4. Assessment

4.1.1 Appendix 1 provides a summary of the relevant legislation and policies against which the results of the survey have been assessed.

4.2 Development Context

4.2.1 The following assessment assumes that the development proposals will involve the loss of all areas of greenspace and refurbishment of the building.

4.3 Impacts on Designated Sites

4.3.1 There are six statutory designated sites within 5km from the site boundary including two Sites of Special Scientific Interest and four Local Nature Reserves. The nearest non-statutory protected site is Huddersfield Broad Canal Local Wildlife Site (LWS) which lies approximately 500m to the east of the site. All of these sites are geographically isolated by urban development and an adverse impact on the qualifying features is not anticipated.

4.4 Impacts on Habitats

Amenity Grassland

4.4.1 The loss of this habitat will have a negligible impact because it a very common and it will be replaced elsewhere on the site upon completion of the construction phase.

Scattered Trees

4.4.2 The impact on scattered trees will be negligible because they will be retained within the development.

Introduced Shrub

4.4.3 The introduced shrub beds will be removed during the construction phase, but replacement planting will offset the short-term loss.

4.5 Impacts on Species

Bats

4.5.1 It is considered that the high-rise building holds negligible potential to support a bat roost. No signs of roosting bats were found, and the building possesses no roof voids, is constructed from materials not easily exploited by bats and is in a sub-optimal location.

Birds

4.5.2 Peregrine Falcon is listed on Schedule 1 of the Wildlife & Countryside Act 1981 (as amended) and awarded a level of protection which makes it an offence to '*recklessly disturb a Peregrine Falcon whilst it is building a nest… or recklessly disturb a Peregrine Falcon whilst near a nest… or recklessly disturb dependent young of a Peregrine Falcon*.

4.5.3 Consultation with the local Peregrine Falcon group confirmed that a pair are nesting on the NGN Gasholder tower to the northeast of the site. It is considered likely that the female Peregrine Falcon uses the high-rise building as a perch rather than a nest site.

5. Recommendations

5.1 Mitigation Measures

Habitats

5.1.1 It is recommended that a suitable landscaping scheme is provided that retains the existing trees and replaces the ornamental shrubs with native shrubs such as Guelder Rose *Viburnum opulus*, Broom *Cytisus scoparius*, European Gorse *Ulex europaeus* and Sweet briar *Rosa rubiginosa*.

Nesting Birds

5.1.2 Impacts on nesting birds should be avoided in particular, by carrying out site clearance and similar operations outside of the bird breeding season (April- August). Construction activities that might directly impact upon breeding birds should hence be limited to the September-February period.

5.1.3 If vegetation has to be cleared during the bird breeding season checks immediately before clearance by a suitably qualified ecologist will be required. If nesting activity is detected work in that area will need to stop until the ecologist considers that nesting activity is finished.

5.1.4 Nesting bricks[3] for House Sparrow *Passer domesticus*, Starling *Sturnus vulgaris* and Swift *Apus apus* installed into the fabric of the building are recommended. Bricks should be installed in clusters of three at least 3m above ground and should be installed on any elevation that is not south-facing.

Invertebrates

5.1.5 The provision of three bee bricks[4] installed at a height of more than 1m above ground level on a south facing wall will provide suitable habitat for a wide variety of solitary bee species.

Invasive Species

5.1.6 The removal of the Wall Cotoneaster must not cause the spread of the species. It should be treated with a suitable herbicide before removal and offsite disposal. The soil in which it was contained should be buried more than 1m deep or disposed off-site.

5.2 General Precautions

5.2.1 This report is considered to be valid for two years. After this, a suitably qualified ecologist should be consulted to assess its validity. An assessment update may be required.

[3] https://www.ibstockbrick.co.uk/ecohabitat-products/

[4] See footnote 3

Appendix 1: Planning Policy & Legislation

National Policy

The National Planning Policy Framework (NPPF 2021) describes the Government's planning policy for England and how it should be applied. Within this framework, the requirements in relation to biodiversity are included within several policies. The two most relevant to individual planning decisions are Paragraphs 174 and 180, shown below:

- 174. Planning policies and decisions should contribute to and enhance the natural and local environment by:

  a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);

  b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;

  c) maintaining the character of the undeveloped coast, while improving public access to it where appropriate;

  d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures; etc…

- 180. When determining planning applications, local planning authorities should apply the following principles:

  a) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;

  b) development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;

  c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists; and

d) development whose primary objective is to conserve or enhance biodiversity should be supported; while 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.

Legislation

The Wildlife and Countryside Act 1981 (as amended by the CRoW Act 2000) includes the notification and confirmation of Sites of Special Scientific Interest (SSSIs). SSSIs can be notified for their floral, faunal, geological, or physiographical features. Protection against damaging operations and management of SSSIs is also included within the Act. Impact Risk Zones (IRZs) are zones around an SSSI account for the particular sensitivities of the features for which it is notified and identify development proposal which could have adverse impacts.

The Wildlife and Countryside Act 1981 (as amended by the CRoW Act 2000) protects native animals, plants and habitats. Under the Act it is an offence to intentionally kill, injure or take any wild animal listed on Schedule 5 and it is an offence to interfere with places used for shelter or protection, or intentionally disturb animals occupying such places. The Act prohibits picking, uprooting or destroy any wild plant (or any attached seed or spore) listed in Schedule 8.

European Protected Species (EPS) such as bats, Hazel Dormouse, Otter, Natterjack Toad, Smooth Snake, Sand Lizard and Great Crested Newt are protected by the Wildlife and Countryside Act 1981 (as amended by the CRoW Act 2000) and the Conservation of Habitats and Species Regulations 2017. The Acts make it an offence to:

a) Deliberately capture, injure or kill an EPS;
b) Deliberately impair an EPS's ability to survive, breed, reproduce, rear or nurture young; to hibernate or migrate; or significantly affect the local distribution or abundance of the EPS.
c) Possess or control live or dead EPS or any part of, or anything derived from a EPS;
d) Damage or destroy a breeding site or resting place of an EPS;
e) Intentionally or recklessly obstruct access to any place that is used for shelter or protection by an EPS;
f) Intentionally or recklessly disturb a structure or place that it uses for shelter or protection that is occupied by an EPS.

All common herptiles are protected under the Wildlife and Countryside Act 1981 (as amended by the CRoW Act 2000). Grass Snake, Slow Worm, Common Lizard, Adder are protected against intentional killing or injury.

Common Frog, Common Toad, Smooth Newt and Palmate Newt is protected against sale. In addition, all British reptiles, Common toad and Great Crested Newt are listed as Species of Principal Importance.

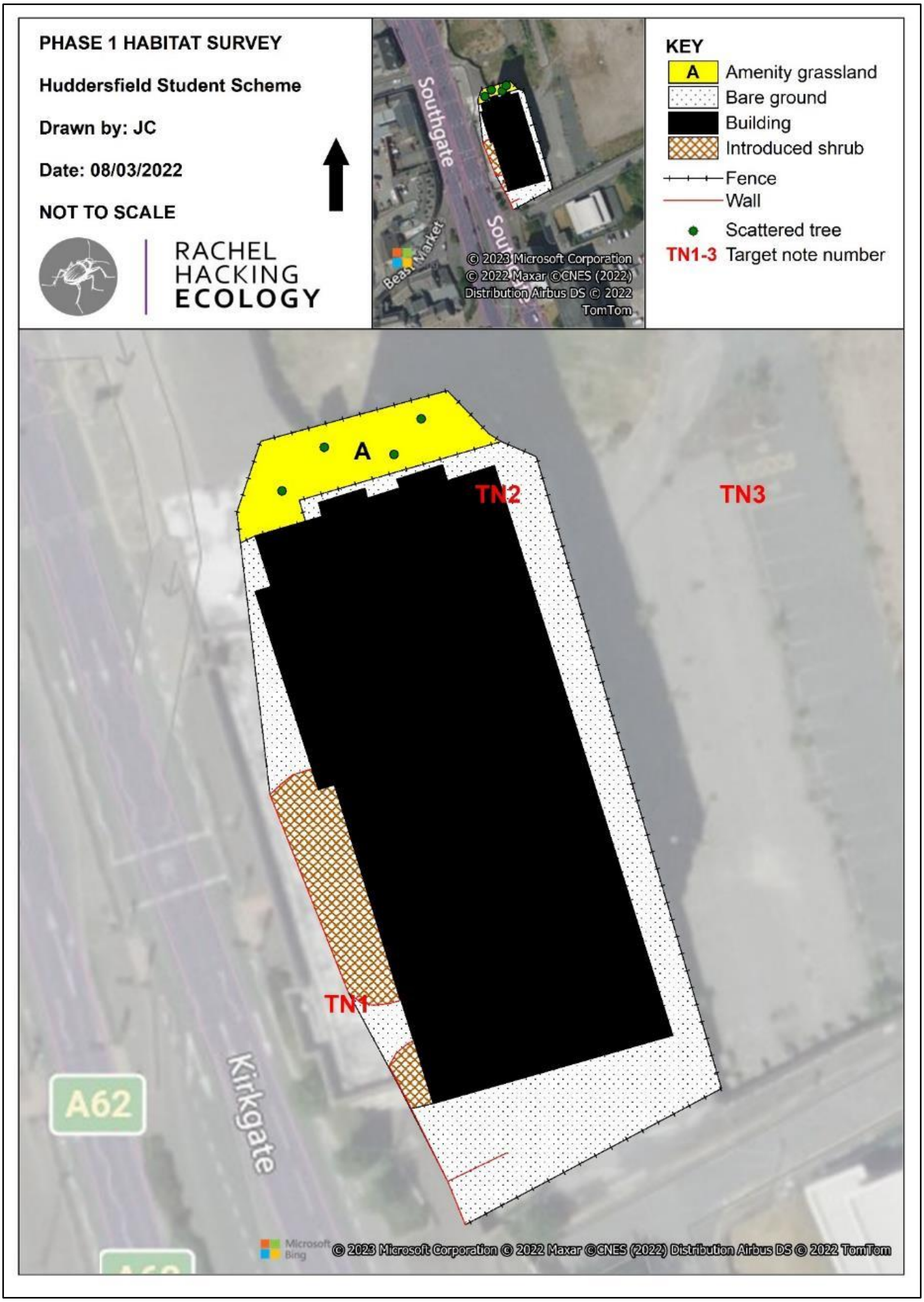
All nesting birds are protected under the Wildlife and Countryside Act 1981 (as amended). It is an offence to intentionally kill, injure or take any wild bird or take, damage, or destroy its nest whilst in use or being built, or take or destroy its eggs. It is an offence to intentionally or recklessly disturb a species listed on Schedule 1 of the Act while they are nest building or at or near a nest with eggs or young, or to disturb the dependent young.

Section 40 of the Natural Environment and Rural Communities (NERC) Act 2006 places a duty on every public authority to have regard to conserving biodiversity. Section 41 of the same Act requires the Secretary of State to publish a list of the living organisms and types of habitats that are of 'Principal Importance' for the purpose of conserving biodiversity. The Secretary of State must take steps, as appear reasonably practicable, to further the conservation of those living organisms and habitats in any list published under this section. The list of species and habitats of principal importance currently includes 943 species and 56 habitats. These are the species and habitats found in England which are regarded as conservation priorities under the UK Post-2010 Biodiversity Framework

Appendix 2: Target Notes

Table 2. Target Notes		
Reference No.	Habitat	Photograph
TN1	Invasive non-native: *Cotoneaster horizontalis*	
TN2	Peregrine roosting site	
TN3	Active construction zone	

Appendix 3: Phase 1 Habitat Map



Appendix 4: Species Lists

Table 3. Species List		
Common Name	**Latin Name**	**Abundance (or Notes)**
Butterfly bush	*Buddleja davidii*	A
Elder	*Sambucus nigra*	F
Viburnum	*Viburnum sp*	F
Snowberry	*Symphoricarpos albus*	F
Cotoneaster	*Cotoneaster horizontalis*	O
Oregon-grape	*Mahonia aquifolium*	O