

ANGLIA SQUARE, NORWICH

**Bat Survey Report** 

# **COPYRIGHT**

The copyright of this document remains with Ecology Solutions
The contents of this document therefore must not be copied or reproduced in whole or in part for any purpose without the written consent of Ecology Solutions.

# **PROTECTED SPECIES**

This report contains sensitive information relating to protected species.

The information contained herein should not be disseminated without the prior consent of Ecology Solutions.

# **CONTENTS**

1.	INT	RODUCTION	1
1.	1.	Background	1
1.	2.	Site Characteristics	
1.	3.	Purpose of this Report	1
2.	LEG	SISLATION AND ECOLOGY	2
2.	1.	Bats	2
3.	SUF	RVEY METHODOLOGY	4
	1.	Desk Study	
_		Field Survey	
4	SITE	DESCRIPTION	6
		The Site	
_			
5.	SUF	RVEY RESULTS	
•	1.	Desk Study	
	2.	External Inspections	
	3.	Emergence Survey	
5.	4.	Activity Survey	U
6.	DIS	CUSSION AND RECOMMENDATIONS1	2
6.	1.	Use of Buildings and Site	2
6.	2.	Proposals and Effect	2
6.	3.	Mitigation and Enhancements 1	2
7.	SUN	MMARY AND CONCLUSIONS 1	4

# **PLANS**

PLAN ECO1 Site Location and Ecological Designations

PLAN ECO2 Ecological Features

PLAN ECO3 Bat Survey Results 14.06.22

# **PHOTOGRAPHS**

PHOTOGRAPH 1 Ivy-covered wall adjacent to Building B11

PHOTOGRAPH 2 Buildings B11 and B12

#### 1. INTRODUCTION

## 1.1. Background

- 1.1.1. This Bat Survey Report has been prepared by Ecology Solutions in support of a hybrid planning application (Ref. 22/00434/F) which was submitted by Weston Homes (the Applicant) to Norwich City Council (NCC) on 1<sup>st</sup> April 2022 for the comprehensive redevelopment of Anglia Square and various parcels of mostly open surrounding land (see Plan ECO1). The Application comprised a full set of technical documents to assess the potential impacts of the proposals, including an EIA which covered a number of topics.
- 1.1.2. The Application continues to seek consent for up to 1,100 dwellings and up to 8,000 Sqm (NIA) non-residential floorspace and associated development.
- 1.1.3. A previously submitted Bat Survey Report (issued in 2018) was included within the submitted application and constitutes Appendix 6.3 of Chapter 6 of the ES. This report concluded that there was no evidence of roosting bats and that the site was of low interest overall. This report focuses solely on the survey work conducted in January and June 2022.

#### 1.2. Site Characteristics

- 1.2.1. The site is located in a highly accessible position within the northern part of Norwich City Centre and comprises a significant element of the Anglia Square / Magdalen Street / St Augustines Large District Centre, (the LDC). It is thus of strategic importance to the City, and accordingly has been identified for redevelopment for many years within various local planning policy documents, including the Northern City Centre Area Action Plan 2010 (NCCAAP) (now expired), the Joint Core Strategy for Broadland, Norwich and South Norfolk 2014 (JCS), and NCC's Anglia Square and Surrounding Area Policy Guidance Note 2017 (PGN). The Site forms the principal part of an allocation (GNLP 0506) in the emerging Greater Norwich Local Plan (GNLP).
- 1.2.2. The site consists primarily of buildings and associated hardstanding, with an area of amenity grassland in the south. Trees are situated throughout the site, mostly along the southern boundary (see Plan ECO2).

# 1.3. Purpose of this Report

- 1.3.1. This report sets out the results of the bat survey work undertaken by Ecology Solutions during January and June 2022.
- 1.3.2. Where necessary, mitigation measures are recommended so as to safeguard this faunal group within the site and, where appropriate, enhancement measures are put forward.

#### 2. LEGISLATION AND ECOLOGY

#### 2.1. **Bats**

Legislation and Licensing

- 2.1.1. All bats are protected under Schedule 5 of the Wildlife & Countryside Act 1981 (as amended) and included on Schedule 2 of the Conservation of Habitats and Species Regulations 2017 ("the Habitats Regulations"). These include provisions making it an offence to:
  - Deliberately kill, injure or take (capture) bats;
  - Deliberately disturb bats in such a way as to:-
    - be likely to impair their ability to survive, to breed or rear or nurture their young; or to hibernate or migrate; or
    - (ii) to affect significantly the local distribution or abundance of the species to which they belong;
  - Damage or destroy any breeding or resting place used by bats;
  - Intentionally or recklessly obstruct access to any place used by bats for shelter or protection (even if bats are not in residence).
- 2.1.2. The words deliberately and intentionally include actions where a court can infer that the defendant knew that the action taken would almost inevitably result in an offence, even if that was not the primary purpose of the act.
- 2.1.3. European Protected Species licences are available from Natural England in certain circumstances, and permit activities that would otherwise be considered an offence.
- 2.1.4. In accordance with the Habitats Regulations Natural England must apply the three derogation tests as part of the process of considering a licence application. These tests are that:
  - the activity to be licensed must be for imperative reasons of overriding public interest or for public health and safety;
  - there must be no satisfactory alternative; and
  - the favourable conservation status of the species concerned must be maintained.
- 2.1.5. Licences can usually only be granted if the development is in receipt of full planning permission.

## Ecology

- 2.1.6. There are seventeen breeding bat species in Britain. Many of them are considered threatened due to a variety of factors including habitat loss and disturbance / damage to roosts. Of these seventeen species, a number regularly use buildings as roost sites.
- 2.1.7. Bats are highly mobile flying mammals, which, in Britain, feed entirely on insects. They are able to fly and feed in the dark by

using a system of echolocation that gives them a 'sound picture' of their surroundings.

- 2.1.8. In winter when prey is scarce, British bats hibernate in humid parts of buildings, caves or hollow trees where temperatures are typically stable. They may wake occasionally but only become fully active again in the spring.
- 2.1.9. Female bats gather together in maternity roosts in summer to give birth and rear their single offspring. Like other mammals, bats have fur and give birth to live young. Infant bats suckle on their mother's milk for several weeks until they can fly and hunt insects for themselves. Bats are long-lived mammals and some British species are known to live to over twenty-five years of age.

#### 3. SURVEY METHODOLOGY

# 3.1. **Desk Study**

3.1.1. In order to compile background information on the Site and the surrounding area, Ecology Solutions contacted Norfolk Biodiversity Information Service (NBIS).

# 3.2. Field Survey

- 3.2.1. Field surveys were undertaken with regard to best practice guidelines issued by Natural England (2004<sup>1</sup>), the Joint Nature Conservation Committee (2004<sup>2</sup>) and the Bat Conservation Trust (2016<sup>3</sup>).
- 3.2.2. A walkover survey of the site was undertaken in January 2022, in order to assess whether the habitats and their conditions had changed since previous surveys (detailed in the supporting appendices of Chapter 6 of the ES). The site was also assessed for its current suitability for supporting bats.
- 3.2.3. External visual inspection of the buildings was completed to assess their potential to support roosting bats.
- 3.2.4. The probability of a building being used by bats as a summer roost site increases if it:
  - is largely undisturbed;
  - dates from pre-20<sup>th</sup> Century;
  - has a large roof void with unobstructed flying spaces;
  - has access points for bats (though not too draughty);
  - has wooden cladding or hanging tiles;
  - is in a rural setting and close to woodland or water.
- 3.2.5. Conversely, the probability decreases if a building is of a modern or pre-fabricated design / construction, is in an urban setting, has small or cluttered roof voids, has few gaps at the eaves or is a heavily disturbed premises.
- 3.2.6. The main requirements for a winter / hibernation roost site are that it maintains a stable (cool) temperature and humidity. Sites commonly utilised by bats as winter roosts include cavities / holes in trees, underground sites and parts of buildings. While different species may show a preference for one of these types of roost site, none are solely dependent on a single type.
- 3.2.7. In addition to the external surveys, a single dusk emergence survey was undertaken on the Ivy-covered wall adjacent to Building B11 (Photograph 1), on 14 June 2022. The surveyor

<sup>&</sup>lt;sup>1</sup> Mitchell-Jones, A. J. (2004). Bat Mitigation Guidelines. English Nature, Peterborough.

<sup>&</sup>lt;sup>2</sup> Mitchell-Jones, A.J. & McLeish, A.P. (Eds.) (2004). *Bat Workers' Manual*. 3<sup>rd</sup> edition. Joint Nature Conservation Committee, Peterborough.

<sup>&</sup>lt;sup>3</sup> Collins, J. (2016). *Bat Surveys for Professional Ecologists: Good Practice Guidelines*. 3rd Edition. The Bat Conservation Trust, London.

undertook the survey using an iPad paired with an Echo Meter Touch 2 PRO bat detector to record the data.

- 3.2.8. The survey method undertaken aimed to identify any roosting bats leaving or entering the wall and adjacent building or using the wider site for foraging. The dusk emergence survey was undertaken from approximately 15 minutes before sunset until approximately two hours after sunset, as per current guidelines.
- 3.2.9. A single activity survey was also undertaken on 14 June 2022. A surveyor walked a transect of the site from approximately 15 minutes before sunset to two hours after sunset, recording any sightings. The surveyor undertook the survey using an iPad paired with an Echo Meter Touch 2 PRO bat detector to record the data.
- 3.2.10. Surveys were conducted when the night-time temperature was above 10°C. The insectivorous diet of bats means there is little or no food available when the temperature falls below this level and consequently levels of activity are low and may not accurately reflect the value of the application site for bats. The weather conditions for the surveys were recorded and any limitations noted.
- 3.2.11. The surveys were carried out by experienced surveyors.
- 3.2.12. Following the completion of the surveys, all of the recorded data was analysed using the Kaleidoscope Viewer computer program.

## 4. SITE DESCRIPTION

#### 4.1. The Site

- 4.1.1. The site consists of the 14 buildings with associated hardstanding, an area of amenity grassland and trees (see Plan ECO2).
- 4.1.2. Building B1 is a purpose-built office block known as Gildengate House. It is a six-storey building in a reasonable state of repair. It is of concrete, brick and glass construction. The building is currently used on a temporary basis as an artists' studio. Cracks and gaps are present on the stair column where concrete lintels are beginning to crack. Gaps are also present under the steel cladding on the edge of the roof.
- 4.1.3. Building B1a is a small single storey extension to Building B1. It has a flat felt roof with slate sides. The building is currently used as a temporary gym but was previously used as retail units.
- 4.1.4. Building B2 is a disused two-storey steel and concrete retail unit with a flat steel roof. It is in a reasonable state of repair.
- 4.1.5. Building B3 is a seven-storey former office block (currently disused) known as Sovereign House. It is of steel, glass and concrete construction. Numerous gaps are present along the steel cladding. This building has a flat roof.
- 4.1.6. Building B4 is a multi-storey car park which has been closed to the public due to standard safety concerns. The building is a seven-storey brick-built construction with a flat roof. Cracks in the brick wall are visible.
- 4.1.7. Building B5 is a four-storey cinema complex of concrete and glass construction, with a pitched corrugated metal roof. It is in a poor state of repair, although there are no apparent gaps or cracks.
- 4.1.8. Building B6 is a two-storey brick building with a flat roof and slopping sides of artificial slate tiles, with metal cladding. The building is in a reasonable state of repair and used for retail purposes. The upper storey is disused.
- 4.1.9. Building B7 is known as Surrey Chapel and is a two-storey brick building with concrete panels and a flat roof. This building is outside of the application submission and is an enclave within the site.
- 4.1.10. Building B8 is a two-storey complex of disused units. It is brick built with a pitched roof of concrete pantiles. Chimneys with lead flashing are also present. The roofing felt on the gable end is lifting, and some gaps are present. The wooden soffit boxes are in good condition. A loft space is present in the south of the building. The plastic lining and wooden beams of the loft are in good condition. There are no obvious gaps in the lining or staining on the beams.

- 4.1.11. Building B9 is an older building than the others. It is currently unused but was previously used as a warehouse. It is a single storey building of brick, flint and metal construction, with wooden barge boards and a pitched concrete pantile roof. The roof appears to have been replaced relatively recently as it is in a good condition. There are gaps present along the wooden barge boards and wooden lintel, as well as between the doors. Internally the building contains a large number of cobwebs. The lining of the loft is in good condition with very few gaps present, plastic skylights mean the loft is very bright. A large number of cobwebs are present along the gaps by the doors.
- 4.1.12. Building B10 is a single-storey electrical substation of brick construction with a flat felt roof. This building is in good condition.
- 4.1.13. Building B11 is a two-storey brick building with a pitched / hipped concrete tile roof, with wooden soffit boxes (Photograph 2). There are no obvious gaps present. The building is currently occupied by a printing business. There is no loft space present. A separate single storey storage unit with steel sliding doors is present to the rear of the building, currently used as a storage facility by Scope. This warehouse has metal roofing panels with plastic skylights. There is a large lvy-covered wall to the rear of the building (Photograph 1).
- 4.1.14. Building B12 is a two-storey brick-built building adjoining building B11. It has a felt corrugated steel roof (Photograph 2).
- 4.1.15. Building B13 is not included within the hybrid application site boundary but is an enclave within the site. It is a two-storey brick-built building with a flat roof with artificial slates around the edge. The building is in good condition with no obvious gaps.
- 4.1.16. Building B14 is a two-storey brick-built building with a flat roof and artificial slate panelling, with timber cladding. It is currently used as a retail unit and office. The building is in a reasonable state of repair.
- 4.1.17. Of the 14 buildings within the site, the Ivy-covered wall adjacent to Building B11 was the only structure subject to an emergence survey during June 2022.
- 4.1.18. To the south of Buildings B1 and B2 is an area of amenity grassland characterised by a short sward length.
- 4.1.19. Several trees are present within or adjacent to the Site. Nine London Planes *Platanus x hispanica* are present on the southern boundary with St Crispins Road, which along with the Common Limes *Tilia platyphyllos x cordata* also present are the most significant area of vegetation within the site. A Silver Birch *Betula pendula* is also present on the boundary. Elsewhere within and adjacent to the site are specimens of Silver Maple *Acer saccharinum*, Common Lime, Large-leaved Lime *Tilia platyphyllos*, Sycamore *Acer pseudoplatanus*, Red Oak *Quercus rubra* and Whitebeam *Sorbus aria*. A group of Sycamore, Laburnum

Laburnum anagyroides and Elder Sambucus nigra is present to the east of Building B10.

#### 5. SURVEY RESULTS

## 5.1. **Desk Study**

- 5.1.1. The data search returned a total of 270 records of bat species from the past ten years recorded within the search area. These records relate to several species including Common Pipistrelle Pipistrellus pipistrellus, Soprano Pipistrelle Pipistrellus pygmaeus, Nathusius' Pipistrelle Pipistrellus nathusii, Brown Long-eared Bat Plecotus auritus, Daubenton's Bat Myotis daubentonii, Natterer's Bat Myotis nattereri, Noctule Nyctalus noctula, Serotine Eptesicus serotinus, Barbastelle Barbastella barbastellus, and Whiskered / Brandt's Bat Myotis mystacinus / Myotis brandtii.
- 5.1.2. The closest of these records are located within a 1km grid square which encompasses the western half of the site, between approximately 0 and 1.1km away. Five records are situated here, two of which are attributed to a Pipistrelle species, one dating from 2012 and the other 2016. One record each of Soprano Pipistrelle, Noctule, Daubenton's Bat were also recorded within this grid square, all dating from 2016. A further record of Soprano Pipistrelle was located within a 1km grid square encompassing the eastern half of the site, between approximately 0 and 1km away. This record was dated 2012.
- 5.1.3. The most recent records relate to an area approximately 0.9km northwest of the site and pertain to Common Pipistrelle and Soprano Pipistrelle. These records are dated 2019.
- 5.1.4. The remaining bat records are located to the north, east, south, and west of the site. Many of these records are situated within or near to vegetated areas within Norwich, including Train Wood County Wildlife Site and alongside the River Wensum. Records are also located within residential areas.

## 5.2. External Inspections

- 5.2.1. External inspections of the buildings on site were undertaken in January 2022.
- 5.2.2. The situation regarding bats on site remains unchanged since the earlier report issued in 2018 (appendix 6.3 of Chapter 6 of the ES), with the buildings being in the same condition.

## 5.3. **Emergence Survey**

- 5.3.1. A single dusk emergence survey was completed on 14 June 2022 on the Ivy-covered wall adjacent to Building B11.
- 5.3.2. No bats were observed emerging from the wall or adjacent building.
- 5.3.3. The weather conditions and timings of the survey are summarised in table 5.1 below.

Date	14.06.22
Sunset	21:19
Survey Start	21:05
Survey End	23:20
Cloud Cover (%)	10
Temperature (°C)	15-14
Weather & Wind	Light air and no rain

**Table 5.1.** Weather conditions and survey timings (Emergence).

5.3.4. The results of the emergence survey undertaken on the Ivy-covered wall adjacent to Building B11 on 14 June 2022 are shown in Table 5.2. The locations of bats recorded and their flight paths are shown on Plan ECO3.

Species	No. Registrations	First Registration Post Sunset
Common Pipistrelle	21	36 min
Soprano Pipistrelle	4	14 min

Table 5.2. Emergence survey results for 14 June 2022.

- 5.3.5. A low level of activity was recorded from Common Pipistrelle and Soprano Pipistrelle. A total of 21 registrations pertained to Common Pipistrelle and four related to Soprano Pipistrelle.
- 5.3.6. The earliest registration after sunset occurred after 14 minutes and related to Soprano Pipistrelle. Bats were observed foraging and commuting over the site.

## 5.4. **Activity Survey**

- 5.4.1. An activity transect survey was undertaken across the site in conjunction with the emergence survey on 14 June 2022.
- 5.4.2. A single surveyor walked a transect with their route shown on Plan ECO3.
- 5.4.3. The weather conditions and timings of the survey are summarised in Table 5.3 below.

Date	14.06.22
Sunset	21:19
Survey Start	21:12
Survey End	23:24
Cloud Cover (%)	10
Temperature (°C)	15-14
Weather & Wind	Light air and no rain

**Table 5.3.** Weather conditions and survey timings (Activity).

5.4.4. The results of the activity survey undertaken on 14 June 2022 are shown in Table 5.4 and illustrated on Plan ECO3.

Species	No. Registrations	First Registration Post Sunset
Common Pipistrelle	10	36 min
Soprano Pipistrelle	2	14 min

Table 5.4. Activity survey results for 14 June 2022.

5.4.5. Across the activity survey, Common Pipistrelle and Soprano Pipistrelle were recorded. The majority of registrations were attributed to Common Pipistrelle.

## Summary

5.4.6. Overall, a low level of activity was recorded during the emergence and activity survey undertaken in June 2022. The earliest bat registration occurred 14 minutes after sunset. The timing of this registration suggests that a roost may be situated within the locality of the site, but likely not in the site itself. The observations made during the surveys suggest that a low number of common and widespread bat species are occasionally commuting over the site to forage elsewhere and are also foraging within the site itself to an extent.

#### 6. DISCUSSION AND RECOMMENDATIONS

# 6.1. Use of Buildings and Site

- 6.1.1. No evidence of roosting bats was recorded during the external inspection of the buildings on-site in January 2022. The emergence survey undertaken in June 2022 recorded no emergences from the lyy-covered wall adjacent to Building B11. No emergences were observed from the adjacent building.
- 6.1.2. Common Pipistrelle was the most frequently recorded species across the site, but bat activity was low overall, during both the emergence and activity survey in June 2022. Bats were observed foraging within the site and commuting over the site.
- 6.1.3. The trees on-site do not offer any opportunities for roosting bats.

# 6.2. **Proposals and Effect**

- 6.2.1. No bats were evidenced to be roosting in any of the buildings during the January and June 2022 surveys, corroborating the previous findings of the 2018 bat report included within Chapter 6 of the ES. The site remains of low intertest to bats overall. As such a Natural England licence is not required to facilitate the demolition of the buildings on-site and no mitigation is required.
- 6.2.2. There is no evidence to suggest that the demolition of buildings onsite will have any effect on locally present bat species.

# 6.3. Mitigation and Enhancements

Conservation Significance

6.3.1. The bat survey work carried out at the site has recorded no evidence of bat roosts within the buildings and a low level of activity has been recorded overall. The site is therefore considered to be of negligible conservation value to bats. The necessary demolition can proceed without supervision. In the event that any bat is discovered during this, work in the affected area will cease, and a Natural England licence will be sought.

Creating Opportunities for Bats

- 6.3.2. In line with the previously submitted bat report (Appendix 6.3 of Chapter 6 of the ES) and ecological assessment (Appendix 6.4 of Chapter 6 of the ES), bat boxes of varying designs will be incorporated into the development. This would increase available roosting opportunities. Suitable designs would include those from the Bird Brick House company, Habibat bat boxes or the Schwegler 1FR Bat Tube.
- 6.3.3. Any external lighting on the proposed structures should also be minimal and designed to limit light spillage, to avoid disturbance to local bat populations. There should be no direct lighting on or near to any installed bat box.

6.3.4. The landscape strategy will include new ground cover shrub planting, mixed native hedging, and standard tree planting. These measures may encourage greater use of the site by bats. The proposed planting may also encourage a greater diversity and abundance of invertebrates to the site which in turn will provide further foraging resources to local bat populations.

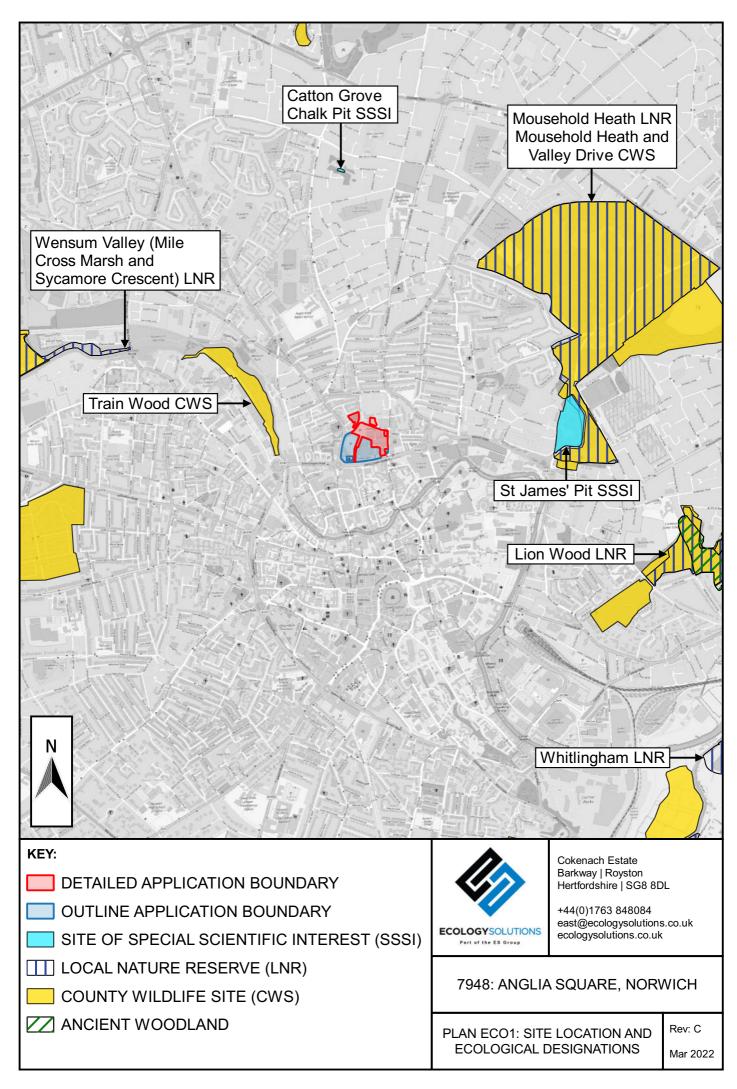
#### 7. SUMMARY AND CONCLUSIONS

- 7.1. Ecology Solutions was commissioned by Weston Homes in September 2021 to complete an updated walkover survey of the site and conduct two further bat surveys, a single dusk emergence survey of the Ivycovered wall adjacent to Building B11 and a single activity transect.
- 7.2. The application continues to seek consent for up to 1,100 dwellings and up to 8,000 Sqm (NIA) non-residential floorspace and associated development.
- 7.3. A previously submitted Bat Survey Report (issued in 2018) was included within the submitted application and constitutes Appendix 6.3 of Chapter 6 of the ES. This report concluded that there was no evidence of roosting bats and that the site was of low interest overall.
- 7.4. An updated walkover survey was undertaken in January 2022 and a single emergence survey and activity transect were conducted in June 2022.
- 7.5. No bats were recorded roosting in any of the buildings during any of the survey work in January and June 2022 and a low level of bat activity was recorded overall. The earliest bat registration was recorded 14 minutes after sunset, suggesting that a roost is likely present in the locality of the site, but likely not within the site itself. It is considered that the site remains of negligible conservation value to bats and as such a Natural England licence is not required to facilitate the demolition of any on-site buildings.
- 7.6. In the event that any bat is discovered during demolition activities, work in the affected area will cease, and a Natural England licence will be sought.
- 7.7. Bat boxes of varying designs will be incorporated into the development, in order to increase available roosting opportunities and a lighting strategy designed to limit light spillage with no direct lighting on or near to installed bat boxes.
- 7.8. The landscape strategy will offer new habitats to attract invertebrates which in turn will offer new foraging opportunities for local bat populations.
- 7.9. Overall, the favourable conservation status of bat species in the locality will be maintained as part of the proposed development. The habitat and roosting enhancements proposed will offer new opportunities.



# PLAN ECO1

Site Location and Ecological Designations



# **PLAN ECO2**

**Ecological Features** 

KEY:

Cokenach Estate Barkway | Royston Hertfordshire | SG8 8DL

NORWICH

+44(0)1763 848084 east@ecologysolutions.co.uk ecologysolutions.co.uk

Rev: C

Mar 2022

# **PLAN ECO3**

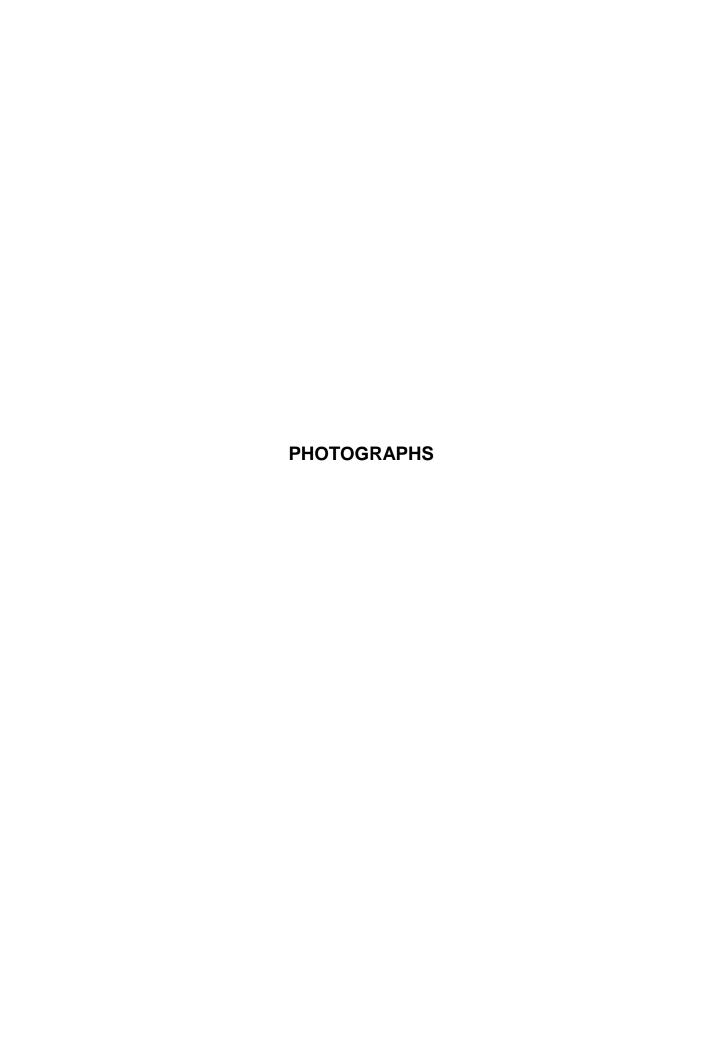
Bat Survey Results 14.06.22

KEY: DETAILED APPLICATION BOUNDARY OUTLINE APPLICATION BOUNDARY BUILDING HARDSTANDING AMENITY GRASSLAND IVY TREE **ACTIVITY TRANSECT** SURVEY CHECKPOINT SURVEYOR LOCATION COMMON PIPISTRELLE SOPRANO PIPISTRELLE SOPRANO PIPISTRELLE FLIGHT PATH Cokenach Estate Barkway | Royston Hertfordshire | SG8 8DL +44(0)1763 848084 east@ecologysolutions.co.uk ecologysolutions.co.uk **ECOLOGYSOLUTIONS** 7948: ANGLIA SQUARE, NORWICH

Rev: A

Jul 2022

PLAN ECO3:



PHOTOGRAPH 1: Ivy-covered wall adjacent to Building B11



PHOTOGRAPH 2: Buildings B11 and B12





Part of the ES Group

Ecology Solutions Limited | Cokenach Estate | Barkway | Royston | Hertfordshire | SG8 8DL

01763 848084 | east@ecologysolutions.co.uk | www.ecologysolutions.co.uk