East Midlands Gateway
Phase 2 (EMG2)

Document DCO 6.9C/MCO 6.9C

ENVIRONMENTAL STATEMENT

Technical Appendices

Appendix 9C

Bat Report

October 2025

09

The East Midlands Gateway Phase 2
and Highway Order 202X and The East Midlands Gateway
Rail Freight and Highway (Amendment) Order 202X

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East Midlands Gateway 2

ES Appendix 9C

BAT REPORT

August 2025

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1.0 INTRODUCTION

1.1 FPCR Environment & Design Ltd. were commissioned by SEGRO to undertake bat surveys in relation to the EMG2 Project.

1.2 The main objective of this assessment was to establish levels of activity across the area covered by the EMG2 Project Order Limits to confirm potential impacts and mitigation requirements.

1.3 This document should be read in conjunction with the other ecological documents prepared for the EMG2 Environmental Statement which includes the Environmental Statement itself, the Preliminary Ecological Appraisal[1], protected species reports for badger[2], birds[3], invertebrates[4], riparian mammals[5], and reptiles[6], the shadow Habitat Regulations Assessment for the River Mease SAC[7], and Biodiversity Net Gain (BNG) calculations[8].

Development Proposals

1.4 The EMG2 Project comprises the following three main components:

DCO Application (DCO Scheme)

- EMG2 Works – Logistics and advanced manufacturing development located on the EMG2 Main Site south of East Midlands Airport and the A453, and west of the M1 motorway. The development includes HGV parking and a bus interchange, together with the provision of a Community Park and and an upgrade to the EMG1 substation;
- Highways Works – works to the highway network: the A453 access junction works, significant improvements at Junction 24 of the M1, works to the wider highway network including the Active Travel Link, Hyam's Lane Works, L57 footpath upgrade, A6 Kegworth Bypass/A453 Junction Improvements and finger farm roundabout improvements, together with other works;

MCO Application (MCO Scheme)

- EMG1 Works – Additional warehousing development on Plot 16 together with works to increase the permitted height of the cranes at the EMG1 rail-freight terminal, improvements to the EMG1 public transport interchange, site management building and the EMG1 pedestrian crossing.

Site Location

1.5 The location of the Scheme is described in Chapter 2 of the ES with reference to its various component parts. In brief, the majority of development will be on the EMG2 Main Site (build development) and the Community Park (landscaping/drainage attenuation). The remaining components of the proposals are located on land within EMG1 and on land required for off-site highway improvements.

[1] FPCR (2025) EMG2 Appendix 9a: Preliminary Ecological Appraisal
[2] FPCR (2025) EMG2 Appendix 9b: Badger Report
[3] FPCR (2025) EMG2 Appendix 9d: Bird Report
[4] FPCR (2025) EMG2 Appendix 9e: Invertebrate Report
[5] FPCR (2025) EMG2 Appendix 9f: Otter and Water Vole Report
[6] FPCR (2025) EMG2 Appendix 9g: Reptile Report
[7] FPCR (2025) EMG2 Appendix 9h: Shadow Habitat Regulations Assessment – River Mease SAC
[8] FPCR (2025) EMG2 Appendix 9i: Biodiversity Net Gain Report

2.0 LEGISLATION

2.1 All bats and their roosts are afforded legal protection under the Conservation of Habitats and Species Regulations 2017 (as amended) and the Wildlife & Countryside Act 1981 (as amended). The purpose of the legislation is to maintain and restore protected species to a situation where their populations are favourable.

2.2 Under Regulation 43 of the Conservation of Habitats and Species Regulations 2017 (as amended) it is an offence to deliberately capture, injure or kill; deliberately disturb (including intentionally or recklessly) all UK bat species. This includes disturbance which impairs their ability to: breed and rear young; migrate; and hibernate; or affects their local distribution and abundance.

2.3 Under the Wildlife and Countryside Act 1981 (as amended) it is illegal to:

- Recklessly or intentionally kill, injure or take any wild animals included in Schedule 5;
- Recklessly or intentionally damage or destroy, or obstruct access to any structure or place which any wild animal included in Schedule 5 uses for shelter or protection; and/or
- Recklessly or intentionally disturb any such animal while it is occupying a structure or place which it uses for shelter or protection.

2.4 Foraging habitat and commuting routes used by bats are not protected as such but impacts that could prevent bats from using a resource or commuting to or from a valued roosting site may be considered as an indirect impact on a roost or a significant disturbance effect and would therefore also need to be avoided or prevented.

2.5 Several bat species are listed as species of principal importance for the purpose of conserving biodiversity under the Natural Environment and Rural Communities (NERC) Act 2006. These species are barbastelle bat, Bechstein's bat, brown long-eared bat, greater horseshoe bat, lesser horseshoe bat, noctule and soprano pipistrelle.

2.6 Bats are recognised in the National Planning Policy Framework[9] (NPPF) which advises that when determining planning applications, Local Planning Authorities should aim to conserve and enhance biodiversity by applying a set of principles including:

- *"If significant harm resulting from a development cannot be avoided……., adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;*
- *development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity."*

9 Department for Communities and Local Government. (2019). National Planning Policy Framework. Available from: https://www.gov.uk/government/publications/national-planning-policy-framework--2

3.0 METHODOLOGY

Previous Survey Work

3.1 A suite of bat surveys was undertaken by FPCR in 2022 on the EMG2 Main Site and Community Park in compliance with the recommended practice set out in the guidelines from the Bat Conservation Trust (BCT, 2016)[10], that has since been superseded. These surveys comprised ground-based, aerial and nocturnal assessments of trees, activity transect surveys, and static bat detector surveys.

Desktop Study

3.2 A desk study was undertaken to collate existing information in relation to bat species. This included a review of:

- Biological records requested from Derbyshire Biological Records Centre (DBRC), Leicestershire and Rutland Environmental Records Centre (LRERC), and Nottinghamshire Biological and Geological Record Centre (NBGRC);
- Granted EPS licences for bats from https://magic.defra.gov.uk/magicmap.aspx;
- Statutory designated sites that include bat species as part of their designation from https://magic.defra.gov.uk/magicmap.aspx; and
- Publicly available aerial imagery showing connectivity across the Site and to the wider landscape.

3.3 Bat records were searched for at a resolution of 2km around the EMG2 Project Order Limits and were limited to records from within the last 20 years.

Field Surveys

3.4 The field surveys at this site have been undertaken in detail on the EMG2 Main Site and Community Park, with reduced survey effort in the Highway Works and EMG1 Works Areas.

3.5 The scope of impact within the Highway Works area is generally limited in nature and unlikely to affect any significant area of foraging resources for the local bat population. Bat activity surveys were not conducted within this area, however an assessment of potential roost features was still undertaken.

3.6 The EMG1 Works area consists of a previously cleared plot of the previous phase of development with areas of new landscaping. During the survey period, much of this area comprised an active construction site and bare ground. Bat activity surveys were not conducted within this area, however an assessment of potential roost features was still undertaken.

[10] Collins, J. (ed) (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd Edition). The Bat Conservation Trust, London.

Tree Surveys

Ground-Level Tree Assessments

3.7 Preliminary Roost Assessments (PRA) were undertaken from ground level, with the aid of binoculars on the 1st May and 24th May 2024 by suitably experienced ecologists from FPCR. Potential Roosting Features (PRFs) (based on p.16, British Standard 8596:2015 Surveying for bats in trees and woodland, October 2015) which were sought included:

- Natural holes (e.g. knot holes) arising from naturally shed branches or branches previously pruned back to a branch collar;
- Man-made holes (e.g. cavities that have developed from flush cuts or cavities created by branches tearing out from parent stems;
- Woodpecker holes;
- Cracks/splits in stems or branches (horizontal and vertical);
- Partially detached, loose or platy bark;
- Cankers (caused by localised bark death) in which cavities have developed;
- Other hollows or cavities, including butt rots;
- Compression of forks with occluded bark, forming potential cavities;
- Crossing stems or branches with suitable roosting space between;
- Ivy stems with diameters in excess of 50mm with suitable roosting space behind (or where roosting space can be seen where a mat of thinner stems has left a gap between the mat and the trunk); and
- Bat or bird boxes.

3.8 Certain factors such as orientation of the feature, its height from the ground, the direct surroundings, and its location in respect to other features may enhance or reduce the potential value.

3.9 Using professional judgement, the ground-based PRA assessment classified any trees identified based upon the presence of suitable features as set out in Bat Surveys for Professional Ecologists: Good Practice Guidelines[11] (BCT, 2023) in which the general bat roost potential groups are defined (refer Table 4.2 of the guidelines) and provided in Table 1 below.

Table 1: Suitability of Trees for Bats

Suitability	Description
NONE	Either no potential roost features or highly unlikely to be any.
FAR	Further Assessment Required to establish if Potential Roost Features are present.
PRF	A tree with at least one Potential Roost Feature.

3.10 Where features suitable to be used as a roost site were identified, evidence that bats had used the Site as a roost was sought. Such evidence comprises live or dead bats, droppings, urine staining, and grease/scratch marks on wood.

11 Collins, J. (ed.) (2023) Bat Surveys for Professional Ecologists: Good Practice Guidelines (4thedition). The Bat Conservation Trust, London.

Aerial Tree Assessments

3.11 Where it was deemed safe to do so, further inspection was undertaken (June-September 2024) on trees identified as providing roosting potential, and that are to be lost under the proposals. Surveys were conducted using aerial roped access methods by FPCR licensed bat ecologists with arborist tree climbing qualifications (City & Guilds NPTC Level 2 Qualifications – 003922 – certificate of competence in tree climbing and aerial rescue).

3.12 Features identified as providing potential to support roosting bats during the climbing inspection were thoroughly examined using endoscopes, mirrors and torches. Evidence of bat occupation sought included: the physical presence of bats, droppings, urine staining, and mammalian oil staining. Each PRF was then categorised as outlined in Table 2 overleaf. Figure 1 shows the location of all trees surveyed in 2024 and any trees surveyed in 2022 that were not situated within the updated survey area but are included in the final EMG2 Project Order Limits boundary.

Table 2: Classification and Survey Requirements for Bats in Trees

Classification of Tree	Description of Category and Associated Features (based on Potential Roosting Features listed above)	Likely Further Survey work
Negligible/ No potential	Negligible/no habitat features likely to be used by roosting bats	None.
PRF-I	A tree with one or more Potential Roosting Features that are suitable for only individual bats or very small numbers of bats either due to size or lack of suitable surrounding habitats. Examples include (but are not limited to); loose/lifted bark, shallow splits exposed to elements or upward facing holes.	No further survey is required but appropriate compensation must be provided in advance of impacts and a precautionary working method statement must be applied. [A]
PRF-M	A tree with PRF's which could support multiple bats and may therefore be used by a maternity colony. Examples include (but are not limited to); woodpecker holes, larger cavities, hollow trunks, hazard beams, etc.	Three aerial assessments of PRF's by appropriately licensed/ accredited tree climbers to determine presence or likely absence of roosting bats[B]. Surveys were undertaken between May and September (with at least two surveys between May and August and spread at least three weeks apart).[C] If roost sites are confirmed and the roost is affected by proposals a licence from Natural England will likely be required. After completion of survey work (and the presence of a bat roost is discounted), a precautionary pre-felling survey or working method statement may still be appropriate.

[A] In circumstances where there are lots of trees grouped together with PRF-I then further surveys may still be appropriate.

[B] Nocturnal surveys using NVA's may be appropriate if a tree or PRF cannot be sufficiently accessed or fully assessed.

[C] If the initial aerial inspection was undertaken during the optimum survey period, this can count as one of the three surveys

Nocturnal Tree Assessments

3.13 Nocturnal dusk emergence surveys were completed on the three trees identified with bat roosting potential that could not be safely assessed aerially. Surveyors were positioned at various aspects of the tree to cover all potential features from up to 15 minutes prior until 120 minutes following sunset, with surveyor locations shown in Figure 2. The number and species of bats observed emerging from the tree was recorded. All surveys were undertaken when weather conditions were suitable i.e. when the ambient air temperature exceeded 10˚C and when there was little/no wind or rain (see Table 3). This methodology takes into account the statutory guidance from English Nature (now Natural England, 2001)[12] and guidance from the Joint Nature Conservation Committee (JNCC, 1999)[13]. Further guidelines introduced by the Bat Conservation Trust (BCT, 2023)[14].

3.14 Wildlife Acoustics Inc. Echo Meter Touch® bat detectors were utilised in conjunction with Echo Meter Touch® app and Apple Inc. iPad® (referred to as EM Touch detectors) to provide back-up information and enable identification of bats encountered.

3.15 Post-survey, bat calls recorded using the EM Touch detectors were subjected to computer analysis using the Kaleidoscope© software package (Wildlife Acoustics) Interpretation of each bat call recorded was made by taking measurements of the peak frequency, inter-pulse interval, call duration and start / end frequency in addition to observations on the call shapes within the sonogram. Analysis was undertaken by suitably experienced and licensed bat ecologists from FPCR.

Table 3: Summary of Nocturnal Tree Survey Dates and Conditions

Tree Reference	Survey Date	Start Time	End Time	Sunset Time	Weather Conditions
T13U, T14U, T66C	21/08/2024	20:03	22:18	20:18	Cloud cover: 75%, wind: gentle breeze, no rain, start temp: 18°C, end temp: 16°C

Bat Activity Surveys

Habitat Assessment

3.16 This assessment was undertaken to identify the suitability of the Site for foraging and commuting bats, or areas which may be important for exhibiting various social behaviours. This was informed by the results of the initial habitat walkover survey and information gathered in the desk study to

[12] Mitchell-Jones, A. J., (2004) Bat Mitigation Guidelines. English Nature

[13] Mitchell-Jones, A. J. & McLeish, A. P. (eds), (2004) Bat Workers' Manual (3rd Edition). JNCC

[14] Collins, J. (ed.) (2023) Bat Surveys for Professional Ecologists: Goo:d Practice Guidelines (4thedition). The Bat Conservation Trust, London.

ensure that potential effects are considered in the context of the on-site habitats within the wider area.

3.17 The site was also categorised for its habitat suitability for bats to inform the necessary survey effort. The habitat suitability was assessed using guidance from 'Bat Surveys for Professional Ecologists: Good Practice Guidelines' (Bat Conservation Trust, 4th Edition, 2023). Table 4.1 of those guidelines provides an outline for assessing the potential suitability of proposed development sites for bats, based on the presence of habitat features within the landscape. This should be applied using professional judgement. This groups a site into five categories based on habitat suitability for foraging and commuting bats which has been further summarised in Table 4, overleaf:

Table 4: Criteria for Assessing Habitat Suitability for Commuting and Foraging Bats - Based on table 4.1 (Collins, 2023)

Suitability	Potential Flight Paths and Foraging habitat	Proposed Further Survey Requirements
None	No habitat features on site likely to be used by any commuting or foraging bats at any time of the year (i.e. no habitats that provide continuous lines of shade/protection for flight-lines or generate/shelter insect populations available to foraging bats).	No further surveys required
Negligible	No obvious habitat features on site likely to be used as flightpaths or by foraging bats; however, a small element of uncertainty remains in order to account for non-standard bat behaviour.	
Low	Habitat that could be used by small numbers of bats as flightpaths such as a gappy hedgerow or unvegetated stream, but isolated, i.e. not very well connected to the surrounding landscape by other habitat. Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.	Automated static detector monitoring and nighttime bat walkover surveys (flight path and transect) on a seasonal* basis.
Moderate	Continuous habitat connected to the wider landscape that could be used by bats for flightpaths such as lines of trees and scrub or linked back gardens. Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.	Automated static detector monitoring on a monthly basis and nighttime bat walkover surveys (flight path and transect) on a seasonal* basis.
High	Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by bats for flightpaths such as river valleys, streams, hedgerows, lines of trees and woodland edge. High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree-lined watercourses and grazed parkland. Site is close to and connected to known roosts.	
*Seasonal surveys should be increased to monthly where Annex II species are expected/ detected or if significant commuting routes are identified.		

Night-Time Bat Walkover Surveys

3.18 In line with current guidance (Collins, 2024) night-time bat walkovers are undertaken in two parts. The first part is undertaken by stationary surveyors positioned on habitat features most likely to be

utilised as commuting routes by bats. Once conditions become too dark to see or once commuting activity has been observed, and has largely ended, surveyors begin a walked transect sampling all areas and habitats within the Site, noting any bat activity that is heard or observed along the way. Whilst this includes two elements it is one survey designed to record information to provide further context to elements that static detectors cannot always identify such as bat behaviour or abundance of bats.

3.19 The first part of the survey to observe flightpaths involved two surveyors being positioned at predetermined locations as shown on Figure 3. The survey started just before sunset and lasted for between 30 minutes and one hour after sunset. After this the walked transect was started and continued until two to three hours after sunset. The route followed during each transect was repeated on each survey occasion, however the starting point was varied throughout the season. Figure 4 shows the route of the transect and the start/end points of each survey.

3.20 Surveyors were equipped with Wildlife Acoustics Inc. Echo Meter Touch® bat detectors in conjunction with Echo Meter Touch® app and Samsung Galaxy Tab Active 3® during the night-time bat walkover surveys to detect bats and aid species identification.

Table 5: Night-time Bat Walkover Timings

Date	Sunset/Start of Flightline	End of Flightline	Start of Transect		End of Transect	
			East Route	West Route	East Route	West Route
30.04.24	20:32	21:32	21:40	21:44	23:10	23:13
10.06.24	21:33	22:33	22:40	22:43	00:00	00:07
25.06.24	21:34	22:34	22:44	22:52	00:14	00:12
22.07.24	21:14	22:14	22:30	22:27	00:00	00:04
13.08.24	20:35	21:35	21:44	21:54	23:00	23:16
03.09.24	19:48	20:48	21:04	21:04	22:24	22:29
15.10.24	18:09	19:09	19:16	19:09	20:35	20:40

Table 6: Night-time Bat Walkover Conditions

Survey Date	Start Temp	Rain	Wind Beaufort Scale	Cloud cover (%)
30.04.24	16	Dry	Light Air	25
10.06.24	10	Dry	Light Air	5
25.06.24	21	Dry	Light Air	5
22.07.24	17	Dry	Light Breeze	30
13.08.24	21	Dry	Light Air	50
03.09.24	16	Dry	Light Air	10
15.10.24	14	Dry	Light Air	100

3.21 The data from the Night-time Bat Walkover survey was analysed as soon as possible after the survey using the Kaleidoscope Viewer© (Wildlife Acoustics, Inc.) software package to assess the

amount of bat activity onsite by recording the number of bat registrations. Measurements including peak frequency, inter-pulse interval, call duration and end frequency were taken to aid in species identification. This analysis was completed by a suitably experienced ecologist (analysts are audited internally for quality control purposes and to maintain consistent results).

Static Monitoring

3.22 Static (passive) monitoring was undertaken using an automated logging system (Wildlife Acoustics Inc. Song Meter® SM4BAT FS bat detectors with SMM-U2 microphones), positioned within the site to record bat registrations for at least five consecutive nights per month.

3.23 The number of static detectors used, and location of deployment was determined to allow a representative sample of all habitats within the site to be monitored. The locations were subjectively predetermined using professional judgment in consideration of likely impacts and were positioned at least 15m away from any known or likely roosts. To provide rigorous analysis, static detectors were placed in the same location during each survey; locations are shown on Figure 3.

3.24 The devices were deployed for five consecutive nights during suitable weather conditions that were typical for the season/ month of deployment and were programmed to activate 30 minutes before sunset and record continuously until 30 minutes following sunrise.

3.25 A total of six static detectors were deployed each month during the following periods (to date);

- 25th to 30th April
- 24th to 29th May
- 21st to 26th June
- 18th to 23rd July
- 16th to 21st August
- 26th September to 1st October
- 24th to 29th October

3.26 The data was analysed as soon as possible after retrieval of the static units using the SonoBat UK software package to assess the amount of bat activity onsite based on the number and species composition of bat registrations recorded. Auto-analysis using SonoBat Classifier was undertaken, and subsequent manual vetting was then carried out.

Limitations

3.27 Where calls could not be identified to species level, for example due to the lower quality of those recordings or where there are similarities between species echolocation calls (particularly for *Myotis* and *Nyctalus* genus bats) making a definite identification difficult, a likely species identification is provided. This is based on the features displayed by the calls when analysed and taking in to account the geographical location of the site and the habitats present. It was therefore considered that:

- *Nyctalus* species bats were likely to be noctule but exhibited some overlap with Leisler's bats;
- *Myotis* species bats were likely to be whiskered / Brandt's or Natterer's bats.

- Some *Pipistrellus* calls were able to be analysed to genus level but call parameters overlapped and a clear identification could not be made to species level.

3.28 The analysis of the SM4Bat FS files recorded can highlight the presence of more than one bat if they are recorded simultaneously on the same sound file. However, it is not possible to determine whether consecutive sound files have been recorded as the result of multiple single bats passing the detector or a single individual repeatedly triggering the detector as it forages in close proximately for an extended period. Therefore, each sound file is counted as a single bat registration.

3.29 Whilst the static data cannot be used to estimate total bat numbers, calculation of the number of bat registrations per hour does reflect the relative importance of the detector location to foraging/commuting bats.

3.30 Owing to the difficulty of detecting brown long-eared bats *Plecotus auritus* due to the low volume of their calls it is considered that the nocturnal data may represent an underestimation of brown long-eared bat activity levels and numbers present.

3.31 Denial of access to the section of the EMG2 Main Site which lies adjacent to the northern boundary resulted in an incomplete survey of the trees onsite. The supporting ecological documentation (Tyler Grange 2024) for the “Land South of A453” application (24/00727/OUTM) however includes emergence surveys on several trees which resulted in no notable changes to the status of the trees surveyed in this area by FPCR in 2022. As such, it is considered that the lack of updated surveys for this area does not constrain the impact assessment of the development on bats.

3.32 Due to adverse weather conditions, the night-time bat walkover for the month of May was cancelled. In order to compensate for the lack of night-time bat walkover data in May, two surveys were undertaken in June. It is considered that given the monthly static data, additional June night-time bat walkover, monthly night-time bat walkovers, and historical data, the lack of a May night-time bat walkover does not pose a constraint to the assessment of the site for bats.

3.33 Technical difficulties with four of the static bat detectors (Position B in July and September, Position D in August, and Position C in October) resulted in a lack of data for these four units. It is considered that, given the other data recorded across the Site for these four months in combination with the data across the other months, this does not pose a constraint to the survey results and an accurate impact assessment of the development of the site on bats can still be undertaken.

4.0 RESULTS

Previous Survey Work

Tree Surveys

4.1 During the suite of bat surveys undertaken in 2022, the trees present on the EMG2 Main Site and Community Park were subject to ground-based, aerial, and nocturnal assessments. The roosting potential of each tree was determined and of the trees onsite, three had high potential, sixteen had moderate potential, and fifteen had low potential.

4.2 The nocturnal surveys identified the presence of a single common pipistrelle *Pipistrellus pipistrellus* day roost within T21C. No bats were recorded emerging or re-entering any of the other trees during the suite of nocturnal surveys.

Activity Transects Surveys

4.3 The transects found bat activity levels to be generally low across the EMG2 Main Site and Community Park throughout the year. The highest activity levels were recorded during summer months. Activity was associated with mature hedgerows throughout the site, with no recordings of bats utilising field compartments. Common pipistrelle made up most of the activity across all surveys, other species recorded during the surveys included soprano pipistrelle *Pipistrellus pygmaeus*, noctule *Nyctalus noctula*, brown long-eared bat *Plecotus auritus*, *Myotis* species and *Nyctalus* species, but only in very small numbers. Most bats were utilising the site for commuting, with relatively low foraging levels recorded.

Static Bat Detector Surveys

4.4 Statics were deployed to complement the manual walked bat activity transects of the EMG2 Main Site and Community Park. A total of 42 units were deployed with six units used each month from April until October 2022.

4.5 Bat species recorded onsite were common pipistrelle, soprano pipistrelle, noctule, *Myotis* species, *Nyctalus* species, *Pipistrellus* species, brown long-eared bat, Nathusius' pipistrelle *Pipistrellus nathusii, Nyctalus / Eptesicus* species, Leisler's *Nyctalus leisleri,* and barbastelle B*arbastella barbastellus.* The order they appear in above is the most-frequently recorded species onsite through to the least recorded during the survey period.

4.6 Over the entire 2022 survey period, common pipistrelle was the most recorded species, making up over 88% of all registrations, with soprano pipistrelle and noctule the second and third most recorded species. All other species/species groups recorded onsite were encountered at relatively low numbers, collectively making up less than 5% of the total registrations.

Desktop Study

4.1 No statutory sites that are designated for bats were identified within 15km of the EMG2 Project Order Limits boundary.

4.2 The DBRC, LRERC, and NBGRC returned 374 records of bats within 2km of the Order Limits as shown on Figure 5. The closest of these records comprised three *Pipistrellus* sp., one common pipistrelle, and one brown long-eared bat situated within 100m to the west. Other species identified

within 2km comprise Daubenton's *Myotis daubentonii*, Leisler's, *Myotis* sp., Nathusius' pipistrelle, Natterer's *Myotis nattereri*, noctule, *Nyctalus* sp., serotine *Eptesicus serotinus*, soprano pipistrelle, unidentified bat sp., and whiskered bats *Myotis mystacinus*.

4.3 A search on MAGIC indicated five European Protected Species Licences (EPSL) within 2km. The details for the ESPL are as follows:

- Approximately 450m west of the Orde Limits, Natural England reference 2016-25575-EPS-MIT – brown long-eared bat, common pipistrelle, Natterer's bat, and whiskered bat resting site. License valid 21/09/2016 – 19/09/2021.
- Approximately 520m west of the Order Limits, Natural England reference EPSM2010-2454 – common pipistrelle and brown long-eared bat breeding and resting site. License valid 01/11/2010 – 31/10/2012.
- Approximately 960m east of the Order Limits, Natural England reference EPSM2012-4876 – common pipistrelle and brown long-eared bat breeding and resting site. License valid 17/12/2012 – 31/08/2014.
- Approximately 1.05km west of the Order Limits, Natural England reference EPSM2011-3211 – common pipistrelle and brown long-eared bat resting place. License valid 21/07/2011 – 31/08/2013.
- Approximately 1.96km southeast of the Order Limits, Natural England reference EPSM2012-4829 – common pipistrelle resting place. License valid 27/09/2012 – 31/10/2012.

Field Surveys

Tree Surveys

Ground-Level and Aerial Tree Assessments

4.4 Ground-level assessments were completed on all trees across the EMG2 Project with further aerial assessments undertaken on trees classified as FAR or PRF as detailed in Appendix A. A total of 42 trees were identified as FAR during the ground-level assessment. Following the aerial assessments, 9 trees were identified as PRF-M, 12 trees were identified as PRF-I, and 18 trees were identified as having negligible potential to support roosting bats. Appendix A summarises the features which were identified during the ground-level and aerial assessments.

4.5 No bat roosts in tree features were confirmed during the ground-based and aerial assessments.

Table 7: Final Bat Roosting Potential

Roosting Suitability	Trees
PRF-M	T4C, T24C, T27C, T34C, T35C, T41B, T65C, T70C, T81C
PRF-I	G4A, G13A, T6C, T21C, T23C, T33C, T42U, T48C, T52C, T53B, T54B, T83C
Negligible	T50C, T51U, T59C, T60C, T63C, T64C, T71C, T78C, T84C

Roosting Suitability	Trees
Unsafe to Climb	T13U, T14U, T66C

Tree Nocturnal Surveys

4.6 3 trees identified as being unsafe to climb during the ground-level assessment and were subject to a single update nocturnal survey.

4.7 During the nocturnal survey of trees T13, T14, and T66 on the 21st August 2024, no bats were observed emerging from or re-entering the trees.

4.8 Activity recorded during the survey comprised of low numbers of commuting common pipistrelle, soprano pipistrelle and noctules.

Bat Activity Surveys

4.9 This section covers the EMG2 Main Site only. The potential impacts on foraging bats in the Highways Works and EMG1 Area are considered negligible, and as such, it was agreed with the LPA ecologist that they would not be surveyed in detail.

Foraging and Commuting Habitat Suitability Assessment

4.10 Onsite habitats that provide higher potential value for foraging bats are limited to the network of hedgerows, compartments of modified and other neutral grassland in the southwest of the EMG2 Main Site and Community Park, small areas of scrub across the EMG2 Main Site and the onsite ponds. The majority of the onsite habitats comprise arable fields, which are of low value to bats due to the lack of floristic diversity, resulting in limited numbers of invertebrates. A network of native hedgerows and wet ditches provide good connectivity across the Site and into the wider area and act as commuting and foraging corridors for bats.

4.11 Several mature trees were identified on site with the potential to provide roosting habitat for bats.

Night-Time Bat Walkover Surveys

4.12 Figures 6a to 12b illustrate bat transect routes and results.

30.04.24

Flightline (Figure 6a)

4.13 Position 1E recorded seven common pipistrelle (of which six were foraging and one was commuting), one foraging noctule, and one commuting soprano pipistrelle.

4.14 Position 1W recorded six common pipistrelle (of which three were foraging and three were commuting) and one commuting noctule. Observed commuting flightpaths comprised two common pipistrelle travelling east along the lane across the centre of the Site.

4.15 Position 2E recorded three commuting common pipistrelle and two commuting noctule. Observed commuting flightpaths comprised two common pipistrelle, one travelling south and one travelling north along one of the Sites hedgerows.

4.16 Position 2W recorded two non-visual commuting common pipistrelle.

4.17 The earliest recorded contact was a common pipistrelle recorded by position 2W at 20:41.

Walked Transect (Figure 6b)

4.18 During the walked transects, 27 bat contacts were recorded. These comprised 25 common pipistrelle and two soprano pipistrelle.

10.06.24

Flightline (Figure 7a)

4.19 Position 1E recorded five common pipistrelle, of which three were foraging and two were commuting.

4.20 Position 1W recorded two noctule (of which one was foraging and one was commuting) and two commuting common pipistrelle. The observed commuting flightpaths comprised one common pipistrelle commuting east and ne common pipistrelle commuting west across the Site.

4.21 Position 2E recorded two noctule, of which one was foraging and one was commuting.

4.22 Position 2W recorded on common pipistrelle commuting southeast along a hedgerow.

4.23 The earliest recorded contact was a foraging common pipistrelle recorded by position 1E at 21:59.

Walked Transect (Figure 7b)

4.24 During the walked transects, 24 bat contacts were recorded. These comprised 21 common pipistrelle, two brown long-eared bats, and one soprano pipistrelle.

25.06.24

Flightline (Figure 8a)

4.25 Position 1E recorded one non-visual commuting noctule.

4.26 Position 1W recorded five common pipistrelle, of which three were foraging and two were commuting. The commuting common pipistrelle were observed using hedgerows to travel north and east across the Site.

4.27 No bats were recorded at position 2E.

4.28 Position 2W recorded one non-visual commuting common pipistrelle.

4.29 The earliest recorded contact was a commuting noctule recorded by position 1E at 22:00.

Walked Transect (Figure 8b)

4.30 During the walked transects, 13 bat contacts were recorded. These comprised ten common pipistrelle and three soprano pipistrelle.

22.07.24

Flightline (Figure 9a)

4.31 Position 1E recorded three common pipistrelle (of which two were commuting and one was foraging) and one commuting noctule.

4.32 Position 1W recorded two non-visual commuting common pipistrelle.

4.33 Position 2E recorded two foraging common pipistrelle, one foraging soprano pipistrelle, and one commuting noctule.

4.34 Position 2W recorded five common pipistrelle, of which four were foraging and one was commuting.

4.35 The earliest recorded activity was a foraging common pipistrelle at 21:52 recorded by position 2W.

Walked Transect (Figure 9b)

4.36 During the walked transects, 32 bat contacts were recorded. These comprised 23 common pipistrelle, four noctule, two soprano pipistrelle, two unidentified *Myotis* sp., and one brown long-eared bat.

13.08.24

Flightline (Figure 10a)

4.37 Position 1E recorded nine common pipistrelle (of which five were foraging and four were commuting) and two commuting noctule. Observed commuting flightpaths comprised three common pipistrelle, commuting west across the site.

4.38 Position 1W recorded eight common pipistrelle (of which six were foraging and two were commuting) and two commuting noctule. Observed commuting flightpaths comprised one common pipistrelle travelling north along the western boundary.

4.39 Position 2E recorded seven noctule (of which four were foraging and three were commuting), six common pipistrelle (of which five were foraging and one was commuting), and one commuting soprano pipistrelle.

4.40 Position 2W recorded eight noctule (of which six were foraging and two were commuting), three common pipistrelle (of which two were commuting and one was foraging), and one commuting soprano pipistrelle. Observed commuting flightpaths comprised one soprano pipistrelle travelling northwest.

4.41 The earliest recorded activity was a commuting noctule recorded by position 1W at 20:50.

Walked Transect (Figure 10b)

4.42 During the walked transects, 13 bat contacts were recorded. These comprised twelve common pipistrelle and one soprano pipistrelle.

03.09.24

Flightline (Figure 11a)

4.43 Position 1E recorded seven common pipistrelle (of which five were foraging and two were commuting), two soprano pipistrelle (of which one was foraging and one was commuting), and one foraging brown long-eared bat.

4.44 Position 1W recorded five noctule (of which three were foraging and two were commuting), five common pipistrelle (of which three were foraging and two were commuting), and two soprano pipistrelle (of which one was foraging and one was commuting). Observed commuting flightpaths comprised one common pipistrelle travelling north along the western boundary.

4.45 Position 2E recorded four common pipistrelle (of which three were foraging and one was commuting) and one commuting noctule. Observed commuting flightpaths comprised on common pipistrelle travelling east across the site.

4.46 Position 2W recorded four commuting noctules and three common pipistrelle (of which two were commuting and one was foraging). Observed commuting flightpaths comprised three noctule (of

which one was travelling northwest and two were travelling north) and one common pipistrelle commuting west across the site.

4.47 The earliest recorded contact was a foraging noctule recorded travelling north by position 1W at 19:58. The earliest brown long-eared bat was recorded at 20:44 by position 1E.

Walked Transect (Figure 11b)

4.48 During the walked transects, 17 bat contacts were recorded. These comprised fifteen common pipistrelle, one noctule, and one brown long-eared bat.

15.10.24

Flightline (Figure 12a)

4.49 Position 1E recorded five common pipistrelle (of which four were commuting and one was foraging) and two soprano pipistrelle (of which one was foraging and one was commuting). Observed commuting flightpaths comprised two common pipistrelle (of which one was travelling south, and one was travelling west) and one soprano pipistrelle travelling southeast.

4.50 Position 1W recorded eleven common pipistrelle (of which eight were foraging and three were commuting) and one commuting soprano pipistrelle.

4.51 Position 2E recorded ten common pipistrelle (of which nine were foraging and one was commuting) and two commuting soprano pipistrelle. Observed commuting pathways comprised one soprano pipistrelle travelling northwest across the site.

4.52 Pipistrelle 2W recorded two common pipistrelle (of which one was commuting and one was foraging), one commuting Nathusius' pipistrelle, and one commuting soprano pipistrelle.

4.53 The earliest recorded contact was a commuting Nathusius' pipistrelle recorded by position 2W at 18:32.

Walked Transect (Figure 12b)

4.54 During the walked transects, 18 bat contacts were recorded. These comprised seventeen common pipistrelle and one soprano pipistrelle.

Night-Time Bat Walkover Survey Summary

4.55 The night-time bat walkover surveys recorded low activity levels across the EMG2 Main Site and Community Park. Features with the most recorded activity included the network of hedgerows, mature trees, and wet ditches across the site, and the woodland edge along the eastern boundary. No activity was recorded in association with the central open areas of field compartments. All commuting flightpaths recorded were in association with the onsite hedgerows. Common and soprano pipistrelle made up most of the activity, with low levels of noctule, brown long-eared bat, Nathusius' pipistrelle, and *Myotis* sp. also recorded. Behaviours recorded comprised commuting and foraging bats.

Automated Static Bat Detector Surveys

4.56 Unit locations onsite are shown on Figure 2 and a summary of results per unit is provided within Table 8 below. Please note, in this context, the term 'registration' refers to a unique sound files created over the course of a number of seconds. Based on this, one 'registration' does not

necessarily refer to one bat as one bat can create a number of registrations, for example a bat which is foraging in the area surrounding the microphone for a sustained period of time.

Table 8: Static Detector Survey Results

Survey Period	Position	Unit Number	Avg. Registrations per Hour	Total Registrations	Most Recorded Species (number of registrations)	Other Species Recorded (number of registrations)
April 25.04.24 – 30.04.24	A	20	2.587	131	Common Pipistrelle 128	Noctule 2 Soprano Pipistrelle 1
	B	22	1.560	79	Common Pipistrelle 73	Soprano Pipistrelle 4 Noctule 2
	C	21	18.897	960	Common Pipistrelle 932	Soprano Pipistrelle 11 *Myotis* Species 6 Noctule 5 Brown Long-eared Bat 5 *Nyctalus* Species 1
	D	19	0.276	14	Common Pipistrelle 8	Brown Long-eared Bat 2 Soprano Pipistrelle 1 Noctule 1 *Nyctalus* Species 1 *Myotis* Species 1
	E	17	1.284	65	Common Pipistrelle 61	Brown Long-eared Bat 2 Noctule 1 *Nyctalus / Eptesicus* 1
	F	18	0.671	34	Common Pipistrelle 27	Soprano Pipistrelle 5 Noctule 1 *Nyctalus* Species 1

Survey Period	Position	Unit Number	Avg. Registrations per Hour	Total Registrations	Most Recorded Species (number of registrations)	Other Species Recorded (number of registrations)
May 24.05.24 - 29.05.24	A	5	45.792	1968	Common Pipistrelle 1882	*Myotis* Species 43 Noctule 17 Soprano Pipistrelle 16 *Pipistrellus* Species 8 *Nyctalus* Species 1 Brown Long-eared Bat 1
	B	19	20.430	878	Common Pipistrelle 824	*Myotis* Species 22 *Pipistrellus* Species 14 Brown Long-eared Bat 8 Soprano Pipistrelle 7 Noctule 3
	C	23	35.678	1533	Common Pipistrelle 1499	*Pipistrellus* Species 15 Noctule 10 Brown Long-eared Bat 5 Soprano Pipistrelle 3 *Myotis* Species 1
	D	20	3.027	130	Common Pipistrelle 73	Noctule 32 Brown Long-eared Bat 10 *Myotis* Species 6 *Pipistrellus* Species 5 Soprano Pipistrelle 3 Nathusius' pipistrelle 1
	E	6	23.362	1004	Common Pipistrelle 976	Noctule 13 *Pipistrellus* Species 6 Brown Long-eared Bat 6 Soprano Pipistrelle 3
	F	22	22.361	961	Common Pipistrelle 831	Soprano Pipistrelle 60 *Myotis* Species 39 *Pipistrellus* Species 17 Noctule 8 Brown Long-eared Bat 6
June 21.06.24 – 26.06.24	A	21	41.627	1690	Common Pipistrelle 1521	*Myotis* Species 101 Noctule 32 *Pipistrellus* Species 25 Soprano Pipistrelle 9 Brown Long-eared Bat 2

Survey Period	Position	Unit Number	Avg. Registrations per Hour	Total Registrations	Most Recorded Species (number of registrations)	Other Species Recorded (number of registrations)
	B	22	5.663	230	Common Pipistrelle 189	Soprano Pipistrelle 24 *Myotis* Species 10 *Pipistrellus* Species 7
	C	12	13.911	565	Common Pipistrelle 493	*Pipistrellus* Species 37 Noctule 23 Soprano Pipistrelle 6 *Myotis* Species 5 Brown Long-eared Bat 1
	D	19	2.659	108	Pipistrelle Species 54	Common Pipistrelle 36 Noctule 8 Brown Long-eared Bat 5 Soprano Pipistrelle 3 *Myotis* Species 2
	E	13	8.518	346	Common Pipistrelle 251	*Pipistrellus* Species 37 Noctule 28 Soprano Pipistrelle 23 *Myotis* Species 5 Nathusius' pipistrelle 1 Brown Long-eared Bat 1
	F	23	12.261	498	Common Pipistrelle 436	Soprano Pipistrelle 22 Noctule 15 *Pipistrellus* Species 11 Brown Long-eared Bat 8 *Myotis* Species 6
July 18.07.24 – 23.07.24	A	6	64.156	2855	Common Pipistrelle 2536	*Myotis* Species 187 Soprano Pipistrelle 92 Noctule 25 *Nyctalus* Species 13 Brown Long-eared Bat 1 *Pipistrellus* Species 1
	B	21 (Failed)	N/A	N/A	N/A	N/A

Survey Period	Position	Unit Number	Avg. Registrations per Hour	Total Registrations	Most Recorded Species (number of registrations)	Other Species Recorded (number of registrations)
	C	23	24.485	1090	Common Pipistrelle 1022	Soprano Pipistrelle 28 Noctule 28 *Nyctalus* Species 10 *Pipistrellus* Species 1 Brown Long-eared Bat 1
	D	7	11.479	511	Common Pipistrelle 425	*Pipistrellus* Species 39 Noctule 28 *Nyctalus* Species 7 Soprano Pipistrelle 5 Brown Long-eared Bat 4 *Myotis* Species 3
	E	5	19.386	863	Common Pipistrelle 773	Noctule 27 Soprano Pipistrelle 21 *Nyctalus* Species 14 *Pipistrellus* Species 12 *Myotis* Species 11 Brown Long-eared Bat 5
	F	19	11.569	515	Common Pipistrelle 355	*Nyctalus* Species 77 Soprano Pipistrelle 29 Noctule 21 *Pipistrellus* Species 16 *Myotis* Species 12 Brown Long-eared Bat 4 *Nyctalus* / *Eptesicus* 1
August 16.08.24 – 21.08.24	A	17	29.588	1563	Common Pipistrelle 1040	*Myotis* Species 442 Soprano Pipistrelle 63 Noctule 8 Brown Long-eared Bat 6 *Nyctalus* Species 4
	B	14	7.383	393	Common Pipistrelle 333	Soprano Pipistrelle 23 *Myotis* Species 21 Noctule 6 Brown Long-eared Bat 4 Barbastelle 3 *Nyctalus* Species 2 *Nyctalus* / *Eptesicus* 1

Survey Period	Position	Unit Number	Avg. Registrations per Hour	Total Registrations	Most Recorded Species (number of registrations)	Other Species Recorded (number of registrations)
	C	15	10.166	538	Common Pipistrelle 449	Soprano Pipistrelle 72 Noctule 7 *Myotis* Species 6 Brown Long-eared Bat 2 *Pipistrellus* Species 1 *Nyctalus* Species 1
	D	13 (Failed)	N/A	N/A	N/A	N/A
	E	22	3.540	187	Common Pipistrelle 145	Noctule 19 Soprano Pipistrelle 12 Brown Long-eared Bat 5 *Myotis* Species 3 *Nyctalus* Species 2 *Nyctalus*/*Eptesicus* 1
	F	16	4.033	213	Common Pipistrelle 159	Soprano Pipistrelle 34 *Myotis* Species 9 Noctule 5 *Nyctalus* Species 4 Brown Long-eared Bat 1 *Nyctalus*/*Eptesicus* 1
September 26.09.24 – 01.10.24	A	16	20.443	1362	Common Pipistrelle 823	Soprano Pipistrelle 436 *Myotis* Species 82 Brown Long-eared Bat 8 Noctule 7 *Nyctalus* Species 5 *Pipistrellus* Species 1
	B	12 (Failed)	N/A	N/A	N/A	N/A
	C	15	1.786	119	Common Pipistrelle 111	Noctule 6 Brown Long-eared Bat 1 *Nyctalus* Species 1
	D	20	0.781	52	Soprano Pipistrelle 24	Common Pipistrelle 17 Noctule 8 Brown Long-eared Bat 1 *Myotis* Species 1 *Nyctalus*/*Eptesicus* 1

Survey Period	Position	Unit Number	Avg. Registrations per Hour	Total Registrations	Most Recorded Species (number of registrations)	Other Species Recorded (number of registrations)
	E	18	1.712	91	Common Pipistrelle 79	Noctule 6 Brown Long-eared Bat 2 *Myotis* Species 2 Soprano Pipistrelle 2
	F	21	1.679	89	Common Pipistrelle 51	Soprano Pipistrelle 21 Noctule 8 Brown Long-eared Bat 5 *Myotis* Species 3 *Pipistrellus* Species 1
October 24.10.24 – 29.10.25	A	4	22.231	1690	Common Pipistrelle 1346	Soprano Pipistrelle 306 *Myotis* Species 22 *Nyctalus* Species 14 Noctule 2
	B	8	2.565	195	Common Pipistrelle 101	Soprano Pipistrelle 52 Noctule 27 *Myotis* Species 8 *Nyctalus* Species 7
	C	10 (Failed)	N/A	N/A	N/A	N/A
	D	6	1.421	108	Common Pipistrelle 73	*Nyctalus* Species 12 Noctule 8 Soprano Pipistrelle 5 Brown Long-eared Bat 5 *Myotis* Species 5
	E	9	2.026	154	Common Pipistrelle 138	*Myotis* Species 5 Brown Long-eared Bat 4 Soprano Pipistrelle 3 *Nyctalus* Species 3 Noctule 1

Survey Period	Position	Unit Number	Avg. Registrations per Hour	Total Registrations	Most Recorded Species (number of registrations)	Other Species Recorded (number of registrations)
	F	3	6.511	495	Soprano Pipistrelle 358	Common Pipistrelle 122 Noctule 5 *Nyctalus* Species 4 Brown Long-eared Bat 3 *Myotis* Species 3

4.57 Relative usage of the Site per species, as shown by percentage of all bat registrations recorded over the duration of the static monitoring period, is shown in Table 9 below.

Table 9: Summary of Static Survey Results

Species	Total Registrations	Percentage
Common Pipistrelle	20338	83.775%
Soprano Pipistrelle	1787	7.361%
Myotis Species	1072	4.416%
Noctule	453	1.866%
Pipistrelle Species	308	1.269%
Nyctalus Species	184	0.758%
Brown Long-eared	124	0.511%
Nyctalus / Eptesicus	6	0.025%
Barbastelle	3	0.012%
Nathusius' pipistrelle	2	0.008%

Static Monitoring Survey Summary

4.58 Common pipistrelle was the most frequent bat species recorded over the static monitoring surveys comprising approximately 83.8% of the contacts. Soprano pipistrelle was the second most common species recorded with *Nyctalus / Eptesicus* species, barbastelle, and Nathusius' pipistrellle the least common comprising <0.05% of all recorded contacts). Three barbastelle registrations were recorded on the static unit at Position B in August and comprised approximately 0.01% of all registrations.

4.59 Across the EMG2 Main Site and Community Park as a whole, activity was generally low with peaks recorded in association with the watercourse along the western border and the months of May and July. Activity was spread across the site and was concentrated largely on Position A and was relatively low across the other Positions throughout the surveys. The units that recorded the highest activity were Position A in July and May with 2856 and 1968 contacts respectively. the lowest recorded activity was Positions D and F in April with 14 and 34 contacts respectively.

5.0 DISCUSSION & RECOMMENDATIONS

Previously Confirmed Roosts

5.1 During the 2022 suite of bat surveys, the presence of a common pipistrelle day roost of one individual in tree T21C was identified. T21C was subjected to ground-level and three aerial assessments in 2024 during which the tree was classified as PRF-I and no evidence of a roost was identified. As a precaution, Natural England were consulted on this historic roost, and have issued a LONI for a bat licence to cover the loss of this tree.

Trees

5.2 The ground-level and subsequent aerial tree assessments identified eighteen trees of negligible potential, twelve trees with PRF-I, and nine trees with PRF-M.

5.3 Three trees, T13U, T14U, and T66C were considered unsafe to climb. These three trees had been subject to a full suite of nocturnal surveys as part of the 2022 survey effort. After discussion with the County Ecologist, it was agreed that a single update nocturnal assessment would be undertaken on these trees during 2024. No roosts were identified in any of the trees throughout any of the tree assessments.

5.4 Trees that have potential for roosting bats and are situated within the survey area have had a full suite of surveys undertaken. Any trees supporting potential roosting features for bats that are proposed for removal not included within the 2024 survey area will need to be subject to the relevant surveys prior to the commencement of works. Due to the transient nature of bat roosts, if the trees have not been removed within 12 months from the last survey update, additional surveys will need to be undertaken to confirm that bats have not begun using the features present. Should a roost be discovered at this time, a European Protected Species Licence (EPSL) application will be needed to facilitate the removal of the tree(s).

Bat Activity

5.5 Static detectors located recorded a relatively low number of registrations, considering the number of detectors deployed over the survey period and the size of the site. With an average of 12.3 registrations per hour per static detector unit across the 210 nights of deployment, the site is not considered to have high levels of bat activity.

5.6 The static detectors identified features across the site that are of higher value to bats. These included the watercourse and woodland belt along the western site boundary and Hyams' Lane running east to west across the centre of the site. Across the surveys, Position A, situated along the western boundary of the site, consistently recorded the highest number of bat contacts in association with the watercourse and woodland belt, which, under current proposals, are to be retained.

5.7 The night-time bat walkovers identified that activity levels across the site were low, with bats utilising the hedgerows, wet ditches, and mature trees for commuting and foraging and no roosting sites identified. The internal filed compartments comprised of arable land provided limited value for foraging bats. Under the proposed DCO Scheme Development Parameters Plan, most of the internal hedgerows are being lost. However, retaining the majority of boundary features, in addition to the newly proposed hedgerows across the site, will allow the site to continue to provide

commuting opportunities by retaining the connectivity to the surrounding landscape. To ensure these hedgerows can continue to be utilised for commuting bats, where possible they will need to be maintained as dark corridors in accordance with the sensitive lighting scheme. The EMG2 Works proposalsinclude an area of GI along the west of the site (The Community Park); this area will consist of a mosaic of habitats including scrub, broadleaved woodland, other neutral grassland and modified grassland. These habitat types are of greater value to bats than the arable fields currently present onsite. The increased floristic diversity of these habitats may attract a more diverse assemblage of invertebrates, supporting foraging opportunities for the local bat population.

Annex II & Notable Species

5.8 One species listed as Annex II under the Habitats Directive, barbastelle, was recorded onsite.

5.9 Barbastelle bats are an Annex II species of the Habitats Directive and a species of Principal Importance under S41 of the NERC Act (2006). JNCC note that: "*The barbastelle is widely distributed across southern England and across Wales but is likely to have been significantly under-recorded within its range."*

5.10 Two registrations of barbastelle were identified in October 2022 during the static detector survey in association with hedgerows on the southeastern and western site boundaries. Three more registrations of barbastelle were recorded on the static unit at Position B in August during the 2024 surveys in association with the hedgerows along the northeastern boundary. Barbastelles are known to become far more transitory in their nature during the autumn months as summer nursery roosts disperse and adult male bats begin mating behaviour and, therefore, can have much larger ranges in the autumn months. In addition, the maternity colony can push juvenile male bats out of the nursery woodlands in the autumn to establish their home ranges. Very small numbers (<5) of registrations on the same night in autumn, such as found on this site, are most likely to represent an individual male commuting or foraging along the boundary and hedgerows.

5.11 Barbastelle records are present in all three of the surrounding counties (Leicestershire, Derbyshire and Nottinghamshire) and as barbastelles are known to have much larger ranges in Autumn it is not unexpected to have recorded them on this site as it is located in an area that provides connectivity between the counties. The boundary features in the west and northeast of the site are to be retained and are located within proposed areas of green infrastructure. Whilst H12 is to be lost, it is directly adjacent an area of proposed woodland planting along the southern boundary of site. In addition, the majority of the boundary features are being retained, and as outlined in the lighting strategy will be retained as dark corridors with a sensitive approach to lighting implemented across the site.

5.12 As only two registrations were recorded on one night in 2022 and three registrations were recorded on one night in 2024 and the current proposals show the retention of the majority of boundary features, the development is likely to not have any significant impact on barbastelle populations. Artificial lighting recommendations detailed below should be incorporated into the works. Given the extremely low levels of barbastelle activity and lack of registrations from the 2024 surveys, no further mitigation is required.

5.13 One notable species was recorded onsite, Nathusius' pipistrelle. Nathusius' pipistrelle was recorded once at Position D in May, once at Position E in June, and once on the on the October night-time bat walkover survey. The level of activity associated with this species is consistent with its known abundance at a regional and national scale and is not considered to be significant.

5.14 The species making up the bulk of the activity are common and widespread generalists, that will continue to use the site in a modified manner once the development is complete. The more notable Nathusius' pipistrelle was recorded at a low frequency across the site, and it is likely the species utilises the Site infrequently for foraging and commuting. As such, the site is likely to comprise a minor part of this species' range.

Enhancements

5.15 Under the submitted proposals, the field compartments and most of the internal hedgerows are due to be lost, and the majority of the boundary features are to be retained. Retaining these features as green corridors and landscape buffers will allow bats to enter the development area and continue utilising the area for foraging and commuting. However, this depends on minimising disturbance to these areas, particularly where segments of hedgerow are to be removed, as described below in the hop-overs and lighting sections.

5.16 The central hedgerow running east to west is also due to be mostly retained. The hedgerows will be managed for biodiversity and allowed to develop in height and width. However, due to the location in close proximity to the proposed buildings and adjacent access road and cycle route this central hedgerow will be subject to increased levels of lighting. Consideration will be given to minimising light levels where reasonably practical, though it will not be possible to manage Hyam's Lane as a dark corridor. No Annex II bat species were recorded using Hyam's Lane for foraging or commuting. The lighting strategy will maintain dark areas around the site boundaries, so overall connectivity to the wider landscape will remain possible.

5.17 Green infrastructure should seek to provide habitats of greater value to bats, with areas of herb-rich grassland and scrub to provide a foraging resource and well-structured linear wood-edge habitats to provide movement corridors. Large trees felled as part of the development should be used to create several log piles and deadwood monoliths located in the greenspaces and along the retained hedgerows. This will provide additional habitat for insects, which will increase the number of prey items available to foraging bat species. It is considered that with the above recommendations, the green infrastructure being created will be sufficient to maintain the existing bat species populations on site.

5.18 As many trees are to be lost as part of the development, bat boxes should be erected on trees within the retained hedgerows to increase the roosting habitat available. Approximately 50 bat boxes should be erected across the site. Boxes should be erected between three and four meters and installed on trunks with no surrounding branches or vegetation to allow clear flight paths. Three boxes should be installed on each tree at the same height, facing north, south-east and south-west. A range of models should be used consisting of the below types, or similar, to suit a range of species. The maternity box will provide a larger cavity for maternity roosts to use.

5.19 Examples of suitable boxes include a mix of the following:

- Vincent Pro boxes
- Large colony box such as Schwegler 1FS
- Miramare bat boxes
- 1FD boxes

5.20 The exact types, numbers and locations will be determined on-site by the project ecologist.

Artificial Lighting

5.21 The presence of light sensitive species including brown long-eared bat and *Myotis* species is of particular note and must be accommodated accordingly, including with an adequate amount of canopy cover.

5.22 Illumination either of external lighting or light spill from the development may impact on bats commuting and foraging along the retained site boundaries and newly created habitats. The lighting and layout of the proposed development will be designed to minimise light-spill onto habitats both within and adjacent to it that are used by the local bat population foraging or commuting. This will be achieved by ensuring that the design of lighting is based upon guidelines presented in the Bat Conservation Trust '*Guidance Note GN08/23 Bats and Artificial Lighting At Night'*[15]. Therefore, the lighting scheme will include the following:

- During the construction period no lighting is present at night.
- Any upward lighting should be avoided.
- The strategic use of landscaping and planting to avoid light spill on sensitive habitats (particularly hedgerows and woodland plantations)
- The avoidance of direct lighting of existing hedgerows, trees, scrub, woodland, or proposed areas of habitat creation / landscape planting.
- Unnecessary light spill will be controlled through a combination of directional lighting, low lighting columns, hooded / shielded luminaires or strategic planting.
- Luminaires should feature peak wavelengths higher than 550nm to avoid the component of light most disturbing to bats (Stone, 2012).
- Lighting that is incorporated into the development design should be LED luminaires due to their sharp cut-off, lower intensity, good colour rendition and dimming capability. All luminaires should lack UV elements when manufactured. Metal halide, fluorescent sources should not be used.
- Where appropriate, luminaires on the site boundary will be fitted with light baffles to prevent light spill.

5.23 Following the above mitigation is provided, it is expected that impacts on bats roosting or utilising the Site for commuting and foraging will be minor. The species recorded have largely comprised common and widespread species and through the implementation of a sensitive lighting plan, retention and buffering of all major habitat corridors, creation of new seminatural habitats, there will be no impact on the favourable conservation status of bats in the locality post-development.

[15] Bat Conservation Trust (2023) Guidance Note GN08/23 Bats and Artificial Lighting At Night, Bat Conservation Trust [online] Available from: https://theilp.org.uk/publication/guidance-note-8-bats-and-artificial-lighting/

APPENDIX 9C-A – GROUND-LEVEL AND AERIAL TREE ASSESSMENT RESULTS

Tree Ref.	Tree Species	Features	Initial Potential – Ground-Level Tree Assessment	Aerial Assessment Undertaken	Final Potential - Bat Evidence Recorded
G4A	Crack Willow	Rot hole at 1m on eastern aspect	FAR	09.07.24	PRF-I
G13A	Crack Willow	Knot hole at 2m on northern aspect	FAR	09.07.24	PRF-I
T4C	Ash	Knot hole at 4m on northern aspect	FAR	13.06.24 15.08.24 18.09.24	PRF-M
T5C	Ash	Knot hole at 15m on western aspect	FAR	13.06.24	Negligible
T6C	Ash	Woodpecker hole and knot hole at 1m and 10m respectively, on eastern aspect	FAR	13.06.24	PRF-I
T7C	Ash	Tear out and knot hole, leading into exposed cavity at top	FAR	13.06.24	Negligible
T13U	Ash	Platy bark at 10m to northern aspect Split and knot hole at 8m and 10m respectively to northeast aspect Knot hole at 8m on southeast aspect	FAR	Not Safe to Climb	Nocturnal survey required
T14U	Ash	Branch tear out at 8m on southeast aspect Knot hole and branch tear out both on south aspect	FAR	Not Safe to Climb	Nocturnal survey required
T18C	Ash	Branch tear out to northeast at 6m	FAR	13.06.24	Negligible
T19	Ash	Ivy cover	FAR	13.06.24	Negligible
T21C	Ash	Woodpecker hole at 7m on north aspect	FAR	13.06.24 20.08.24 18.09.24	PRF-I Previously confirmed roost
T23C	Ash	Knot hole at 6m on eastern aspect	FAR	13.06.24	PRF-I
T24C	Ash	Knot hole at 4m on eastern aspect	FAR	13.06.24 15.08.24 18.09.24	PRF-M

Tree Ref.	Tree Species	Features	Initial Potential – Ground-Level Tree Assessment	Aerial Assessment Undertaken	Final Potential - Bat Evidence Recorded
T27C	Hybrid Black Poplar	Knot hole northwest at 6m, branch tear out at 6m on the northern aspect	FAR	13.06.24 15.08.24 18.09.24	PRF-M
T33C	Ash	Knot hole at 7m on the southwest aspect	FAR	13.06.24	PRF-I
T34C	Ash	Vertical splits at 5m	FAR	13.06.24 15.08.24 18.09.24	PRF-M
T35C	Ash	Branch tear out at 4m to the southern aspect	FAR	13.06.24 15.08.24 18.09.24	PRF-M
T39A	English Oak	Knot hole	FAR	09.07.24	Negligible
T40B	English Oak	Branch tear out on the northern aspect	FAR	09.07.24	Negligible
T41B	English Oak	Occluded union at 4m to northern aspect	FAR	13.06.24 15.08.24 18.09.24	PRF-M
T42U	Ash	Vertical split at 2m to northern aspect	FAR	09.07.24	PRF-I
T43C	Ash	Tree no longer present	FAR	09.07.24	Negligible
T46B	Ash	Woodpecker hole on northwest aspect at 15m	FAR	09.07.24	Negligible
T48C	Ash	Knot hole at 7m on northern aspect	FAR	13.06.24	PRF-I
T49C	Ash	Knot hole at 8m to western aspect	FAR	13.06.24	Negligible
T50C	Ash	Bark plates present at 14m on southern aspect Knot hole at 8m on northern aspect	FAR	13.06.24	Negligible
T51U	Ash	Branch tear out at 5m on northern aspect	FAR	13.06.24	Negligible
T52C	Ash	Branch tear out at 6m on southern aspect	FAR	13.06.24	PRF-I
T53B	Ash	Four knot holes present	FAR	13.06.24	PRF-I
T54B	Field Maple	Knot hole at 2m on western aspect	FAR	09.07.24	PRF-I

Tree Ref.	Tree Species	Features	Initial Potential – Ground-Level Tree Assessment	Aerial Assessment Undertaken	Final Potential - Bat Evidence Recorded
T55C (Outside of 2024 survey area)	Ash, Fraxinus excelsior	Two large branch tear outs from main stem at a height of 6m on the northern aspect Dry and smooth cavity present at top of feature. Branch tear out at a height of 4m on the north-eastern aspect. 7cm dry upward cavity.	**Surveyed 2022** Moderate	Nocturnal surveys in 2022	**Surveyed 2022** Moderate
T56C (Outside of 2024 survey area)	Ash, Fraxinus excelsior	Branch tear out at a height of 10m on the southern aspect. Rough dry cavity extending downwards for 45cm. Open wound at a height of 10m on the southern aspect. No significant cavity found upon aerial inspection. Small branch tear out at a height of 11m on the south-eastern aspect. Cavity extends downward with old nesting material at the base. Knot hole present at a height of 9m on the southern aspect. No significant cavity found upon aerial inspection. Open wound along horizontal branch at a height of 10m on the southern aspect. Exposed and open from below. Knot hole at a height of 3m on the northern aspect. Large internal tube-shaped cavity extending 50cm upwards with a musty odour and smoothened bark.	**Surveyed 2022** Moderate	Nocturnal surveys in 2022	**Surveyed 2022** High
T58C (Outside of 2024 survey area)	Ash, Fraxinus excelsior	Two knot holes on two separate branches at a height of 8m on the southern aspect. Upward facing branch tear out in main stem at a height of 3m on the western aspect. Three knot holes located at a height of 8m on the eastern aspect.	**Surveyed 2022** Low	No	**Surveyed 2022** Low
T59C	Ash	Branch tear out at 3m on southern aspect	FAR	13.06.24	Negligible
T60C	Ash	Knot hole at 8m on southern aspect	FAR	13.06.24	Negligible

Tree Ref.	Tree Species	Features	Initial Potential – Ground-Level Tree Assessment	Aerial Assessment Undertaken	Final Potential - Bat Evidence Recorded
T63C	Ash	Two knot holes and 3 branch tear outs	FAR	13.06.24	Negligible
T64C	Ash	Branch tear out at 1m on southern aspect	FAR	13.06.24	Negligible
T65C	Ash	Branch tear out at 2m on northwest aspect	FAR	13.06.24 15.08.24 18.09.24	PRF-M
T66C	Ash	Split at 10m to the south Knot hole at 7m on western aspect Branch tear out at 8m on northeastern aspect	FAR	Not Safe to Climb	Nocturnal survey required
T70C	Ash	Knot hole at 8m on northern aspect	FAR	13.06.24 20.08.24 18.09.24	PRF-M
T71C	Ash	Ivy cover	FAR	13.06.24	Negligible
T78C	Ash	Ivy cover	FAR	13.06.24	Negligible
T81C	Ash	Branch tear out at 5m on northern aspect	FAR	13.06.24 15.08.24 18.09.24	PRF-M
T83C	Ash	Branch tear out at 5m on eastern aspect	FAR	13.06.24	PRF-I
T84C	Ash	Knot hole (does not extend)	FAR	13.06.24	Negligible

Key

- **Scheme Boundary**
- **2024 Survey Area Boundary**
- **Trees with Negligble Bat Potential**
- **Trees with PRF-I Bat Potential**
- **Trees with PRF-M Bat Potential**
- **Trees Outside the 2024 Survey Area with Bat Potential Surveyed in 2022**

T58C, T56C, T55C, T59C, T64C, T60C, T65C, T63C, T54B, T53B, T52C, T49C, T50C, T6C, T7C, T5C, T4C, T66C, T51U, T70C, T71C, T78C, T81C, G13a, T13U, T14U, T42U, T43C, T46B, T48C, T84C, T83C, T40B, T39A, T37B, T38B, T41B, T35C, T34C, T33C, T27C, G4a, T18C, T19, T24C, T21C, T23C

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client
SEGRO Properties Ltd and SEGRO (EMG) Ltd

project
East Midlands Gateway Phase 2 (EMG2)

drawing title
TREE LOCATION PLAN

scale @ A3 1:4500 | drawn LE/SJA | issue date 28/7/2025

drawing / figure number **Figure 1** | rev -

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Key

2024 Survey Area Boundary

Trees Subject to Nocturnal Assessment

Tree Nocturnal Assessment Surveyor Locations

- **T13U (with reference)**
- **T14U (with reference)**
- **T66C (with reference)**

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0 25 50 m

client
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East Midlands Gateway Phase 2 (EMG2)

drawing title
TREE NOCTURNAL ASSESSMENT SURVEYOR LOCATION PLAN

scale @ A3 1:750 | drawn KGF | issue date 28/7/2025

drawing / figure number **Figure 2** | rev -

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Key

- **Scheme Boundary**
- **2024 Survey Area Boundary**
- **Indicative Static Bat Detector Locations**
- **Indicative Flightlines Surveyor Locations**

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project
East Midlands Gateway Phase 2 (EMG2)

drawing title
STATIC BAT DETECTOR & FLIGHTLINES SURVEYOR LOCATIONS PLAN

scale @ A3	drawn	issue date
1:5000	LE/SJA	28/7/2025

drawing / figure number **Figure 3** rev **-**

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Key

- Scheme Boundary
- 2024 Survey Area Boundary
- East Transect Route
- West Transect Route

Start Points

- April
- May
- June
- July
- August
- September
- October

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client
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project
East Midlands Gateway Phase 2 (EMG2)

drawing title
NIGHT-TIME BAT WALKOVER TRANSECT ROUTE PLAN

scale @ A3 1:5000 | drawn LE/SJA | issue date 28/7/2025

drawing / figure number **Figure 4** | rev -

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Key

Red Line Boundary

- **Order Limits EMG1 MCO**
- **Order Limits EMG2 DCO**
- **Brown Long-eared**
- **Common Pipistrelle**
- **Daubenton's**
- **Leisler's**
- **Myotis sp.**
- **Nathusius's Pipistrelle**
- **Natterer's**
- **Noctule**
- **Nyctalus sp.**
- **Pipistrelle sp.**
- **Serotine**
- **Soprano Pipistrelle**
- **Unidentified Bat sp.**
- **Whiskered**

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drawing title
BAT RECORDS CONSULTATION PLAN

scale @ A3 1:35000 | drawn LE/SJA | issue date 28/7/2025

drawing / figure number **Figure 5** | rev -

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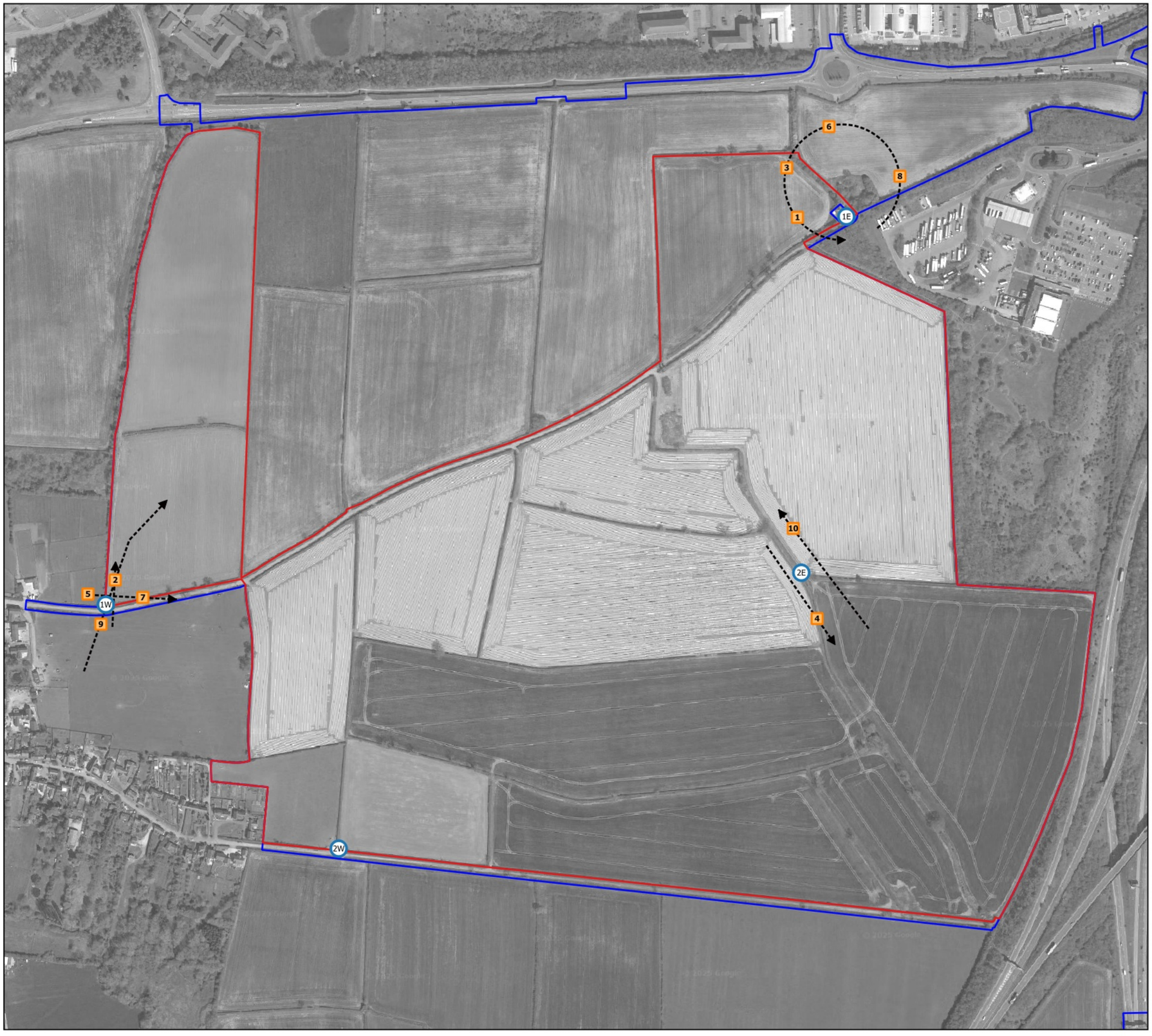

Key

- Scheme Boundary
- 2024 Survey Area Boundary
- Surveyor Locations
- Flight Arrows
- Common Pipistrelle

Time	Reference	Species	Behaviour	Passes	Direction	Surveyor
20:41:38.000	Non-Visual	Common Pipistrelle	Commuting	1	N/A	2W
20:59:19.000	Non-Visual	Noctule	Commuting	1	N/A	2E
21:01:43.000	Non-Visual	Common Pipistrelle	Commuting	1	N/A	1W
21:04:56.000	1	Common Pipistrelle	Foraging	4	Circular	1E
21:08:27.000	2	Common Pipistrelle	Foraging	Cont.	N	1W
21:09:25.000	3	2x Common Pipistrelle	Foraging	Cont.	Circular	1E
21:09:34.000	4	Common Pipistrelle	Commuting	1	S	2E
21:11:56.000	Non-Visual	Noctule	Foraging	5	N/A	1E
21:12:22.000	Non-Visual	Noctule	Commuting	1	N/A	1W
21:15:23.000	Non-Visual	Noctule	Commuting	1	N/A	2E
21:16:39.000	Non-Visual	Common Pipistrelle	Commuting	1	N/A	1E
21:17:29.000	5	Common Pipistrelle	Commuting	1	E	1W
21:18:41.000	Non-Visual	Common Pipistrelle	Commuting	1	N/A	2W
21:21:46.000	6	Common Pipistrelle	Foraging	2	Circular	1E
21:23:01.000	Non-Visual	Common Pipistrelle	Commuting	1	N/A	2E
21:23:06.000	7	Common Pipistrelle	Commuting	1	E	1W
21:25:07.000	Non-Visual	Common Pipistrelle	Foraging	3	N/A	1W
21:25:48.000	8	Common Pipistrelle	Foraging	2	Circular	1E
21:28:52.000	9	Common Pipistrelle	Foraging	3	NE	1W
21:29:14.000	10	Common Pipistrelle	Commuting	1	N	2E
21:29:42.000	Non-Visual	Soprano Pipistrelle	Commuting	1	N/A	1E
21:31:07.000	Non-Visual	Common Pipistrelle	Foraging	2	N/A	1E

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project
East Midlands Gateway Phase 2 (EMG2)

drawing title
FLIGHTLINES SURVEY RESULTS PLAN - 30TH APRIL

scale @ A3 1:5,000 | drawn LE/SJA | issue date 28/7/2025

drawing / figure number
Figure 6a

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Key

- Scheme Boundary
- 2024 Survey Area Boundary
- West Route
- East Route
- Start Points
- Flight Arrow
- Common Pipistrelle
- Soprano Pipistrelle

West Route Results

Time	Reference	Species	Behaviour	Passes	Habitat
21:49:49.000	1	Common Pipistrelle	Foraging	4	Stream
21:54:12.000	2	Common Pipistrelle	Foraging	4	Stream
21:54:42.000	3	Soprano Pipistrelle	Commuting	1	Stream
21:59:13.000	4	Common Pipistrelle	Commuting	1	Hedgerow
22:00:09.000	5	Soprano Pipistrelle	Commuting	1	Hedgerow
22:04:52.000	6	Common Pipistrelle	Commuting	1	Hedgerow
22:06:35.000	7	Common Pipistrelle	Foraging	2	Hedgerow
22:09:11.000	8	Common Pipistrelle	Foraging	2	Hedgerow
22:13:07.000	9	Common Pipistrelle	Foraging	2	Hedgerow
22:17:12.000	10	Common Pipistrelle	Foraging	2	Lane
22:20:55.000	11	Common Pipistrelle	Commuting	1	Lane
22:26:16.000	12	Common Pipistrelle	Foraging	3	Hedgerow
22:31:35.000	13	Common Pipistrelle	Foraging	Cont.	Mature Tree
22:59:34.000	14	Common Pipistrelle	Commuting	1	Hedgerow
23:05:16.000	15	Common Pipistrelle	Commuting	1	Hedgerow
23:09:46.000	16	Common Pipistrelle	Commuting	1	Hedgerow

East Route Results

Time	Reference	Species	Behaviour	Passes	Habitat
21:40:30.000	1	Common Pipistrelle	Foraging	2	Hedgerow/Manure Pile
21:42:29.000	2	Common Pipistrelle	Foraging	2	Hedgerow
21:44:25.000	3	Common Pipistrelle	Foraging	2	Hedgerow
21:49:17.000	4	Common Pipistrelle	Commuting	1	Hedgerow
22:03:01.000	5	Common Pipistrelle	Commuting	1	Hedgerow
22:06:04.000	6	Common Pipistrelle	Commuting	1	Hedgerow
22:13:57.000	7	Common Pipistrelle	Commuting	1	Hedgerow
22:17:47.000	8	Common Pipistrelle	Commuting	1	Hedgerow
23:00:39.000	9	Common Pipistrelle	Foraging	3	Manure Pile
23:04:37.000	10	Common Pipistrelle	Commuting	1	Hedgerow
23:06:28.000	11	Common Pipistrelle	Commuting	1	Hedgerow

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project
East Midlands Gateway Phase 2 (EMG2)

drawing title
WALKED TRANSECT SURVEY RESULTS PLAN - 30TH APRIL

scale @ A3 1:5,000 | drawn LE/SJA | issue date 28/7/2025

drawing / figure number
Figure 6b

Key

- Scheme Boundary
- 2024 Survey Area Boundary
- Surveyor Locations
- Flight Arrow
- Common Pipistrelle
- Noctule

Time	Reference	Species	Behaviour	Passes	Direction	Surveyor
21:59:15.000	1	Common Pipistrelle	Foraging	Cont.	SW	1E
22:02:08.000	Non-Visual	Common Pipistrelle	Commuting	1	N/A	1E
22:05:35.000	Non-Visual	Common Pipistrelle	Foraging	Cont.	N/A	1E
22:08:54.000	Non-Visual	Noctule	Commuting	1	N/A	1W
22:10:24.000	Non-Visual	Noctule	Foraging	4	N/A	1W
22:12:28.000	2	Common Pipistrelle	Foraging	2	SW	1E
22:12:44.000	3	Noctule	Foraging	4	S	2E
22:16:16.000	Non-Visual	Common Pipistrelle	Commuting	1	N/A	1E
22:17:30.000	4	Common Pipistrelle	Commuting	1	E	1W
22:19:54.000	5	Common Pipistrelle	Commuting	1	SE	2W
22:20:47.000	Non-Visual	Noctule	Commuting	1	N/A	2E
22:28:24.000	6	Common Pipistrelle	Commuting	1	W	1W

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East Midlands Gateway Phase 2 (EMG2)

drawing title
FLIGHTLINES SURVEY RESULTS PLAN - 10TH JUNE

scale @ A3 1:5,000 | drawn LE/SJA | issue date 28/7/2025

drawing / figure number
Figure 7a

Key

- Schem Boundary
- 2024 Survey Area Boundary
- West Route
- East Route
- Start Points
- Flight Arrow
- Common Pipistrelle
- Soprano Pipistrelle
- Brown Long-eared

West Route Results

Time	Reference	Species	Behaviour	Passes	Habitat
22:44:34.000	1	Common Pipistrelle	Commuting	1	Hedge
22:46:02.000	2	Common Pipistrelle	Commuting	1	Hedge
22:47:01.000	3	Common Pipistrelle	Commuting	1	Hedge
22:48:55.000	4	Common Pipistrelle	Foraging	5	Hedge
22:51:47.000	5	2x Common Pipistrelle	Foraging	2	Hedge
23:03:51.000	6	2x Common Pipistrelle	Foraging	3	Crop Field
23:05:03.000	7	Common Pipistrelle	Commuting	1	Crop Field
23:14:23.000	8	Common Pipistrelle	Foraging	2	Crops/Hedge
23:17:28.000	9	Common Pipistrelle	Commuting	1	Crops/Hedge
00:02:55.000	10	Common Pipistrelle	Foraging	2	Hedge

East Route Results

Time	Reference	Species	Behaviour	Passes	Habitat
22:40:13.000	1	Common Pipistrelle	Commuting	1	Hedge
22:45:39.000	2	Common Pipistrelle	Foraging	3	Hedge
22:45:42.000	3	Soprano Pipistrelle	Commuting	1	Hedge
23:02:37.000	4	Common Pipistrelle	Foraging	2	Hedge
23:04:39.000	5	Common Pipistrelle	Commuting	1	Hedge
23:10:13.000	6	Soprano Pipistrelle	Foraging	Cont.	Oak Tree
23:10:36.000	7	Brown Long-Eared	Foraging	Cont.	Oak Tree
23:13:18.000	8	Common Pipistrelle	Foraging	4	Hedge
23:14:12.000	9	Brown Long-Eared	Foraging	3	Hedge
23:15:54.000	10	Common Pipistrelle	Foraging	1	Hedge
23:21:15.000	11	Common Pipistrelle	Foraging	5	Tree
23:55:17.000	12	Common Pipistrelle	Foraging	3	Hedge

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drawing title
WALKED TRANSECT SURVEY RESULTS PLAN - 10TH JUNE

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drawing / figure number
Figure 7b

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Key

- Scheme Boundary
- 2024 Survey Area Boundary
- Surveyor Locations
- Flight Arrow
- Common Pipistrelle

Time	Reference	Species	Behaviour	Passes	Direction	Surveyor
22:00:57.000	Non-Visual	Noctule	Commuting	1	N/A	1E
22:07:03.000	1	Common Pipistrelle	Commuting	1	N	1W
22:16:23.000	2	Common Pipistrelle	Commuting	1	E	1W
22:18:13.000	3	Common Pipistrelle	Foraging	5	Circular	1W
22:26:32.000	4	Common Pipistrelle	Foraging	Cont.	Circular	1W
22:29:23.000	Non-Visual	Common Pipistrelle	Commuting	1	N/A	2W
22:32:37.000	5	Common Pipistrelle	Foraging	2	Circular	1W

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0 200 400 m

client
SEGRO Properties Ltd and SEGRO (EMG) Ltd

project
East Midlands Gateway Phase 2 (EMG2)

drawing title
FLIGHTLINES SURVEY RESULTS PLAN - 25TH JUNE

scale @ A3 1:5,000 | drawn LE/SJA | issue date 28/7/2025

drawing / figure number
Figure 8a

L:\10600\10666\ECO\QGIS\QGIS 2.14\Plans\Bat Figures\10666 Bat Figures 2024\June\10666 - Bat Transect Results Plan - June 25th.qgs

Key

- Scheme Boundary
- 2024 Survey Area Boundary
- West Route
- East Route
- Start Points
- Common Pipistrelle
- Soprano Pipistrelle

West Route Results

Time	Reference	Species	Behaviour	Passes	Habitat
23:22:20.000	1	Soprano Pipistrelle	Commuting	true	Hedge
23:25:59.000	2	Common Pipistrelle	Commuting	true	Hedge
23:28:05.000	3	Common Pipistrelle	Commuting	true	Hedge
23:29:15.000	4	Soprano Pipistrelle	Commuting	true	Hedge
23:50:38.000	5	Soprano Pipistrelle	Commuting	true	Hedge/Stream
23:56:16.000	6	Common Pipistrelle	Commuting	true	Hedge/Stream
00:11:47.000	7	Common Pipistrelle	Commuting	true	Hedge

East Route Results

Time	Reference	Species	Behaviour	Passes	Habitat
23:16:00.000	1	Common Pipistrelle	Commuting	1	Hedge
23:28:01.000	2	Common Pipistrelle	Commuting	1	Hedge
23:56:15.000	3	Common Pipistrelle	Commuting	1	Woodland Edge
00:00:10.000	4	Common Pipistrelle	Commuting	1	Woodland Edge
00:03:09.000	5	2x Common Pipistrelle	Foraging	3	Woodland Edge

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client
SEGRO Properties Ltd and SEGRO (EMG) Ltd

project
East Midlands Gateway Phase 2 (EMG2)

drawing title
WALKED TRANSECT SURVEY RESULTS PLAN - 25TH JUNE

scale @ A3 1:5,000 | drawn LE/SJA | issue date 28/7/2025

drawing / figure number
Figure 8b

L:\10600\10666\ECO\QGIS\QGIS 2.14\Plans\Bat Figures\10666 Bat Figures 2024\June\10666 - Bat Transect Results Plan - June 25th.qgs

Key

- Scheme Boundary
- 2024 Survey Area Boundary
- Surveyor Locations
- Flight Arrow
- Common Pipistrelle

Time	Reference	Species	Behaviour	Passes	Direction	Surveyor
21:52:01.000	1	Common Pipistrelle	Foraging	2	N	2W
21:55:33.000	2	Common Pipistrelle	Foraging	5	N - S	2W
21:57:03.000	Non-Visual	Common Pipistrelle	Commuting	1	N/A	1W
21:57:24.000	Non-Visual	Common Pipistrelle	Commuting	1	N/A	1E
21:58:34.000	Non-Visual	Soprano Pipistrelle	Foraging	4	N/A	2E
21:59:54.000	3	Common Pipistrelle	Foraging	Cont.	Circling	2W
22:04:05.000	Non-Visual	Common Pipistrelle	Commuting	1	N/A	1W
22:05:14.000	Non-Visual	Common Pipistrelle	Foraging	5	N/A	2E
22:07:00.000	4	Common Pipistrelle	Foraging	2	E	2W
22:07:04.000	5	Common Pipistrelle	Foraging	4	NE	1E
22:08:02.000	Non-Visual	Noctule	Commuting	1	N/A	2E
22:09:29.000	6	Common Pipistrelle	Foraging	5	SE	2E
22:11:21.000	Non-Visual	Noctule	Commuting	1	N/A	1E
22:11:21.000	Non-Visual	Common Pipistrelle	Commuting	1	N/A	1E
22:12:19.000	Non-Visual	Common Pipistrelle	Commuting	1	N/A	2W

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client
SEGRO Properties Ltd and SEGRO (EMG) Ltd

project
East Midlands Gateway Phase 2 (EMG2)

drawing title
FLIGHTLINE SURVEY RESULTS PLAN - 22ND JULY

scale @ A3 1:5,000 | drawn LE/SJA | issue date 28/7/2025

drawing / figure number
Figure 9a

L:\10600\10666\ECO\QGIS\QGIS 2.14\Plans\Bat Figures\10666 Bat Figures 2024\July\10666 - Bat Transect Results Plan - July 22nd.qgs

Key

- Scheme Boundary
- 2024 Survey Area Boundary
- West Route
- East Route
- Start Points
- Flight Arrow
- Common Pipistrelle
- Soprano Pipistrelle
- Brown Long-eared
- Myotis Species
- Noctule

West Route Results

Time	Reference	Species	Behaviour	Passes	Habitat
22:28:31.000	1	Common Pipistrelle	Commuting	1	Hedge
22:30:07.000	2	Noctule	Commuting	1	Hedge
22:38:18.000	3	Myotis Species	Commuting	1	Hedge
22:41:43.000	4	Common Pipistrelle	Foraging	2	Hedge
22:46:25.000	5	Common Pipistrelle	Commuting	1	Hedge
22:49:27.000	6	Common Pipistrelle	Foraging	2	Hedge
23:06:58.000	7	Common Pipistrelle	Commuting	1	Hedge
23:09:32.000	8	2x Common Pipistrelle	Foraging	2	Hedge
23:10:36.000	9	Common Pipistrelle	Foraging	Cont.	Hedge
23:15:20.000	10	Common Pipistrelle	Foraging	4	Lane
23:21:15.000	11	Common Pipistrelle	Foraging	Cont.	Tree/Ditch
23:29:15.000	12	Myotis Species	Commuting	1	Treeline
23:47:35.000	13	Common Pipistrelle	Foraging	2	Mature Tree
23:48:01.000	14	Soprano Pipistrelle	Commuting	1	Mature Tree
23:52:35.000	15	Common Pipistrelle	Commuting	1	Lane
23:57:41.000	16	Common Pipistrelle	Commuting	1	Lane

East Route Results

Time	Reference	Species	Behaviour	Passes	Habitat
22:19:51.000	1	Noctule	Commuting	1	Hedge
22:20:21.000	2	Common Pipistrelle	Commuting	1	Hedge
22:21:45.000	3	Noctule	Commuting	1	Hedge
22:24:56.000	4	Noctule	Foraging	3	Hedge
22:30:24.000	5	Common Pipistrelle	Foraging	3	Hedge
22:34:39.000	6	Common Pipistrelle	Commuting	1	Hedge
22:39:48.000	7	Common Pipistrelle	Commuting	1	Hedge
22:41:11.000	8	Brown Long-Eared	Commuting	1	Hedge
22:43:48.000	9	Common Pipistrelle	Foraging	2	Hedge
22:47:21.000	10	Common Pipistrelle	Commuting	1	Hedge
22:47:21.000	11	Soprano Pipistrelle	Commuting	1	Hedge
22:53:19.000	12	Common Pipistrelle	Commuting	1	Hedge
23:03:41.000	13	Common Pipistrelle	Foraging	3	Hedge
23:23:19.000	14	Common Pipistrelle	Foraging	Cont.	Mature Tree
23:39:04.000	15	Common Pipistrelle	Foraging	4	Woodland Edge

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client
SEGRO Properties Ltd and SEGRO (EMG) Ltd

project
East Midlands Gateway Phase 2 (EMG2)

drawing title
WALKED TRANSECT SURVEY RESULTS PLAN - 22ND JULY

scale @ A3 1:5,000 | drawn LE/SJA | issue date 28/7/2025

drawing / figure number
Figure 9b

Key

- Scheme Boundary
- 2024 Survey Area Boundary
- Surveyor Locations
- Common Pipistrelle
- Soprano Pipistrelle
- Noctule
- Flight Arrow

Time	Reference	Species	Behaviour	Passes	Direction	Surveyor
20:50:56.000	Non-Visual	Noctule	Commuting	1	N/A	1W
20:55:32.000	Non-Visual	Noctule	Foraging	2	N/A	2W
21:00:14.000	Non-Visual	Noctule	Foraging	5	N/A	2W
21:01:09.000	Non-Visual	Common Pipistrelle	Commuting	1	N/A	2W
21:02:55.000	Non-Visual	Noctule	Foraging	2	N/A	2E
21:03:00.000	1	Common Pipistrelle	Foraging	3	W - E	1E
21:06:00.000	2	Common Pipistrelle	Commuting	1	W	1E
21:06:27.000	Non-Visual	Noctule	Foraging	2	N/A	2E
21:06:34.000	3	Noctule	Foraging	2	NW	2W
21:06:42.000	Non-Visual	Common Pipistrelle	Foraging	3	N/A	1W
21:07:43.000	Non-Visual	Soprano Pipistrelle	Commuting	1	N/A	2E
21:08:00.000	4	Common Pipistrelle	Foraging	2	W	1E
21:09:00.000	Non-Visual	Noctule	Commuting	1	N/A	1E
21:09:15.000	5	Noctule	Foraging	3	Circling	2W
21:09:31.000	6	Common Pipistrelle	Foraging	2	E - W	2E
21:09:39.000	Non-Visual	Common Pipistrelle	Foraging	2	N/A	1W
21:10:00.000	7	Common Pipistrelle	Foraging	4	W	1E
21:12:37.000	Non-Visual	Common Pipistrelle	Commuting	1	N/A	1W
21:13:00.000	8	Common Pipistrelle	Commuting	1	W	1E
21:13:19.000	9	Common Pipistrelle	Foraging	Cont.	E - W	2E
21:14:29.000	10	Common Pipistrelle	Foraging	3	N	1W
21:15:00.000	11	Common Pipistrelle	Commuting	1	W	1E
21:15:03.000	Non-Visual	Noctule	Commuting	1	N/A	2W
21:16:40.000	Non-Visual	Noctule	Commuting	1	N/A	2E
21:17:00.000	Non-Visual	Noctule	Commuting	1	N/A	2W
21:17:09.000	12	Common Pipistrelle	Foraging	2	N	1W
21:17:35.000	Non-Visual	Common Pipistrelle	Foraging	Cont.	N/A	2E
21:18:00.000	13	Common Pipistrelle	Foraging	3	W	1E
21:18:47.000	14	Soprano Pipistrelle	Commuting	1	NW	2W
21:19:12.000	15	Noctule	Foraging	5	S	2W
21:20:00.000	Non-Visual	Common Pipistrelle	Foraging	2	N/A	1E
21:20:01.000	16	Common Pipistrelle	Commuting	1	N	1W
21:20:44.000	Non-Visual	Noctule	Commuting	1	N/A	2E
21:23:01.000	Non-Visual	Noctule	Commuting	1	N/A	1W
21:23:31.000	Non-Visual	Common Pipistrelle	Foraging	Cont.	N/A	1W
21:24:00.000	Non-Visual	Noctule	Commuting	1	N/A	1E
21:24:00.000	Non-Visual	Common Pipistrelle	Foraging	2	N/A	2W
21:25:14.000	17	Common Pipistrelle	Foraging	Cont.	E	2E
21:26:08.000	Non-Visual	Noctule	Foraging	2	N/A	2W
21:27:03.000	Non-Visual	Noctule	Foraging	2	N/A	2E
21:29:00.000	Non-Visual	Common Pipistrelle	Commuting	1	N/A	1E
21:29:34.000	Non-Visual	Noctule	Foraging	3	N/A	2E
21:30:12.000	Non-Visual	Common Pipistrelle	Commuting	1	N/A	2W
21:30:39.000	18	Noctule	Commuting	1	N	1W
21:31:42.000	Non-Visual	Common Pipistrelle	Foraging	3	N/A	1W
21:33:06.000	Non-Visual	Common Pipistrelle	Foraging	3	N/A	2E
21:34:24.000	Non-Visual	Noctule	Commuting	1	N/A	2E
21:35:17.000	Non-Visual	Common Pipistrelle	Commuting	1	N/A	2E

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0 200 400 m

client
SEGRO Properties Ltd and SEGRO (EMG) Ltd

project
East Midlands Gateway Phase 2 (EMG2)

drawing title
FLIGHTLINES SURVEY RESULTS PLAN - 13TH AUGUST

scale @ A3 1:5,000 | drawn LE/KGF | issue date 28/7/2025

drawing / figure number
Figure 10a

L:\10600\10666\ECO\QGIS\QGIS 2.14\Plans\Bat Figures\10666 Bat Figures 2024\August\10666 - Bat Transect Results Plan - August 13th.qgs

Key

- Scheme Boundary
- 2024 Survey Area Boundary
- East Route
- West Route
- Start Points
- Common Pipistrelle
- Soprano Pipistrelle

West Route Results

Time	Reference	Species	Behaviour	Passes	Habitat
21:56:02.000	1	Common Pipistrelle	Foraging	2	Hedge
22:02:06.000	2	Common Pipistrelle	Commuting	1	Hedge
22:26:10.000	3	Common Pipistrelle	Foraging	2	Hedge
22:33:08.000	4	Common Pipistrelle	Foraging	4	Mature Tree
22:38:56.000	5	Common Pipistrelle	Foraging	2	Mature Tree

East Route Results

Time	Reference	Species	Behaviour	Passes	Habitat
21:44:59.000	1	Common Pipistrelle	Foraging	2	Hedge
21:47:58.000	2	Common Pipistrelle	Foraging	3	Hedge
21:51:20.000	3	Common Pipistrelle	Foraging	3	Hedge
21:57:41.000	4	Common Pipistrelle	Commuting	1	Hedge
22:08:56.000	5	Common Pipistrelle	Commuting	1	Hedge
22:19:44.000	6	Soprano Pipistrelle	Commuting	1	Hedge
22:49:12.000	7	Common Pipistrelle	Foraging	4	Hedge
22:58:40.000	8	Common Pipistrelle	Foraging	3	Hedge

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client
SEGRO Properties Ltd and SEGRO (EMG) Ltd

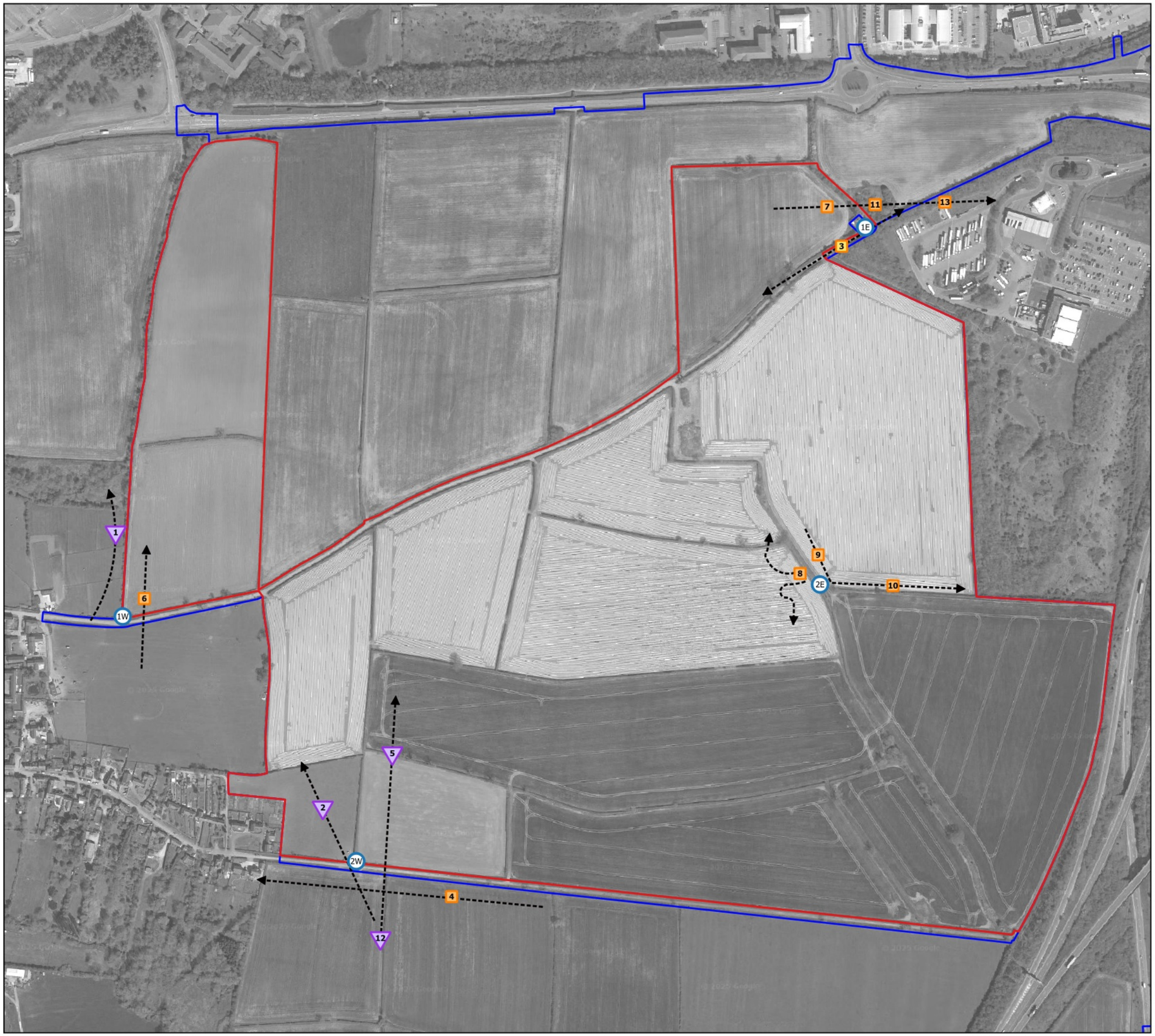
project
East Midlands Gateway Phase 2 (EMG2)

drawing title
WALKED TRANSECT SURVEY RESULTS PLAN - 13TH AUGUST

scale @ A3 1:5,000 | drawn LE/SJA | issue date 28/7/2025

drawing / figure number
Figure 10b

L:\10600\10666\ECO\QGIS\QGIS 2.14\Plans\Bat Figures\10666 Bat Figures 2024\August\10666 - Bat Transect Results Plan - August 13th.qgs



Key

- Scheme Boundary
- 2024 Survey Area Boundary
- Surveyor Locations
- Flight Arrow
- Common Pipistrelle
- Soprano Pipistrelle
- Noctule

Time	Reference	Species	Behaviour	Passes	Direction	Surveyor
19:58:10.000	1	Noctule	Foraging	2	N	1W
20:06:14.000	2	Noctule	Commuting	1	NW	2W
20:07:03.000	Non-Visual	Noctule	Foraging	2	N/A	1W
20:12:35.000	3	Soprano Pipistrelle	Foraging	Cont.	E - W	1E
20:13:31.000	Non-Visual	Common Pipistrelle	Commuting	1	N/A	1E
20:14:09.000	4	Common Pipistrelle	Commuting	1	W	2W
20:14:44.000	Non-Visual	Noctule	Foraging	2	N/A	1W
20:15:26.000	Non-Visual	Noctule	Commuting	1	N/A	2W
20:18:51.000	Non-Visual	Common Pipistrelle	Foraging	Cont.	N/A	2W
20:20:38.000	Non-Visual	Noctule	Commuting	1	N/A	1W
20:21:20.000	5	Noctule	Commuting	1	N	2W
20:21:47.000	Non-Visual	Common Pipistrelle	Commuting	1	N/A	1E
20:22:10.000	Non-Visual	Common Pipistrelle	Commuting	1	N/A	1W
20:24:19.000	6	Common Pipistrelle	Commuting	1	N	1W
20:24:36.000	7	Common Pipistrelle	Foraging	5	E	1E
20:25:31.000	Non-Visual	Noctule	Commuting	1	N/A	2E
20:26:57.000	Non-Visual	Soprano Pipistrelle	Commuting	1	N/A	1W
20:27:34.000	Non-Visual	Common Pipistrelle	Foraging	2	N/A	2E
20:29:06.000	Non-Visual	Common Pipistrelle	Foraging	2	N/A	1E
20:29:09.000	8	Common Pipistrelle	Foraging	3	N - S	2E
20:30:00.000	Non-Visual	Common Pipistrelle	Commuting	1	N/A	2W
20:30:20.000	Non-Visual	Noctule	Commuting	1	N/A	1W
20:30:20.000	Non-Visual	Common Pipistrelle	Foraging	Cont.	N/A	1W
20:33:05.000	Non-Visual	Soprano Pipistrelle	Commuting	1	N/A	1E
20:33:32.000	9	Common Pipistrelle	Commuting	1	E	2E
20:35:05.000	10	Common Pipistrelle	Foraging	Cont.	E	2E
20:35:23.000	Non-Visual	Common Pipistrelle	Foraging	2	N/A	1W
20:38:05.000	11	Common Pipistrelle	Foraging	2	E	1E
20:38:48.000	12	Noctule	Commuting	1	N	2W
20:39:04.000	Non-Visual	Soprano Pipistrelle	Foraging	4	N/A	1W
20:43:36.000	13	Common Pipistrelle	Foraging	2	E	1E
20:44:02.000	Non-Visual	Brown Long-Eared	Foraging	2	N/A	1E
20:44:49.000	Non-Visual	Common Pipistrelle	Foraging	2	N/A	1W
20:47:49.000	Non-Visual	Common Pipistrelle	Foraging	2	N/A	1E

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client
SEGRO Properties Ltd and SEGRO (EMG) Ltd

project
East Midlands Gateway Phase 2 (EMG2)

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FLIGHTLINES SURVEY RESULTS PLAN - 3RD SEPTEMBER

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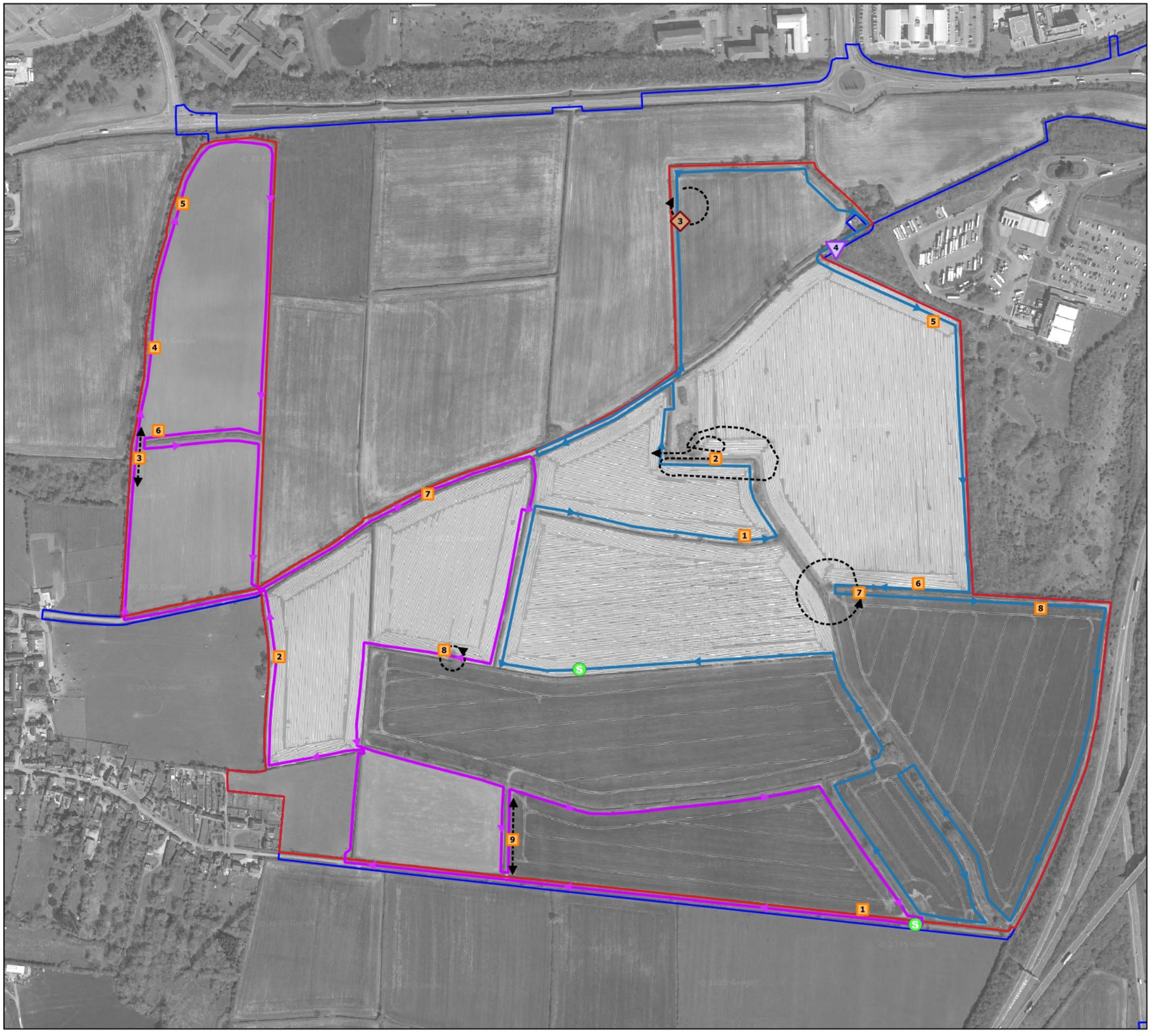
LE/SJA

issue date
28/7/2025

drawing / figure number
Figure 11a

L:\10600\10666\ECO\QGIS\QGIS 2.14\Plans\Bat Figures\10666 Bat Figures 2024\September\10666 - Bat Transect Results Plan - September 3rd.qgs



Key

- Scheme Boundary
- 2024 Survey Area Boundary
- West Route
- East Route
- Start Points
- Flight Arrow
- Common Pipistrelle
- Brown Long-eared
- Noctule

West Route Results

Time	Reference	Species	Behaviour	Passes	Habitat
21:05:00.000	1	Common Pipistrelle	Foraging	3	Hedge
21:21:00.000	2	Common Pipistrelle	Foraging	5	Hedge
21:29:00.000	3	Common Pipistrelle	Foraging	Cont.	Hedge
21:32:00.000	4	Common Pipistrelle	Foraging	2	Hedge
21:34:00.000	5	Common Pipistrelle	Commuting	1	Hedge
21:45:00.000	6	Common Pipistrelle	Commuting	1	Hedge
22:01:00.000	7	Common Pipistrelle	Commuting	1	Hedge
22:08:00.000	8	Common Pipistrelle	Foraging	2	Mature Tree
22:17:00.000	9	Common Pipistrelle	Foraging	2	Hedge

East Route Results

Time	Reference	Species	Behaviour	Passes	Habitat
21:05:00.000	1	Common Pipistrelle	Foraging	3	Hedge
21:21:00.000	2	Common Pipistrelle	Foraging	5	Hedge
21:29:00.000	3	Common Pipistrelle	Foraging	Cont.	Hedge
21:32:00.000	4	Common Pipistrelle	Foraging	2	Hedge
21:34:00.000	5	Common Pipistrelle	Commuting	1	Hedge
21:45:00.000	6	Common Pipistrelle	Commuting	1	Hedge
22:01:00.000	7	Common Pipistrelle	Commuting	1	Hedge
22:08:00.000	8	Common Pipistrelle	Foraging	2	Mature Tree
22:17:00.000	9	Common Pipistrelle	Foraging	2	Hedge

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client
SEGRO Properties Ltd and SEGRO (EMG) Ltd

project
East Midlands Gateway Phase 2 (EMG2)

drawing title
WALKED TRANSECT SURVEY RESULTS PLAN - 3RD SEPTEMBER

scale @ A3 1:5,000 | drawn LE/SJA | issue date 28/7/2025

drawing / figure number
Figure 11b

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Key

- Scheme Boundary
- 2024 Survey Area Boundary
- Surveyor Locations
- Flight Arrow
- Common Pipistrelle
- Soprano Pipistrelle

Time	Reference	Species	Behaviour	Passes	Direction	Surveyor
18:32:41.000	Non-Visual	Nathusius Pipistrelle	Commuting	1	N/A	2W
18:33:42.000	1	Common Pipistrelle	Commuting	1	S	1E
18:34:14.000	Non-Visual	2x Common Pipistrelle	Commuting	1	N/A	1W
18:36:03.000	Non-Visual	2x Common Pipistrelle	Foraging	Cont.	N/A	1W
18:36:44.000	2	Common Pipistrelle	Foraging	2	E - W	2E
18:38:55.000	Non-Visual	Soprano Pipistrelle	Commuting	1	N/A	2W
18:39:15.000	3	Common Pipistrelle	Commuting	1	W	1E
18:39:15.000	4	Soprano Pipistrelle	Commuting	1	SE	1E
18:39:32.000	Non-Visual	Common Pipistrelle	Foraging	2	N/A	2E
18:41:27.000	5	Common Pipistrelle	Foraging	5	N	2E
18:41:42.000	6	Common Pipistrelle	Foraging	2	W - E	1W
18:44:11.000	7	Soprano Pipistrelle	Commuting	1	NW	2E
18:45:06.000	8	Common Pipistrelle	Foraging	Cont.	N	2E
18:46:26.000	Non-Visual	Common Pipistrelle	Commuting	1	N/A	1E
18:46:39.000	9	Common Pipistrelle	Foraging	Cont.	Circular	1W
18:47:38.000	10	Soprano Pipistrelle	Foraging	Cont.	Circular	1E
18:48:20.000	Non-Visual	Common Pipistrelle	Commuting	1	N/A	2W
18:50:55.000	11	Common Pipistrelle	Foraging	Cont.	W - E	1W
18:51:18.000	12	Common Pipistrelle	Foraging	Cont.	Circular	2E
18:51:41.000	Non-Visual	Common Pipistrelle	Foraging	2	N/A	1E
18:51:55.000	Non-Visual	Common Pipistrelle	Foraging	2	N/A	2W
18:55:35.000	Non-Visual	Soprano Pipistrelle	Commuting	1	N/A	1W
18:55:56.000	13	Common Pipistrelle	Foraging	4	S	2E
18:58:55.000	Non-Visual	Common Pipistrelle	Foraging	3	N/A	1W
18:59:15.000	14	2x Common Pipistrelle	Foraging	3	Circular	2E
19:01:02.000	Non-Visual	Soprano Pipistrelle	Commuting	1	N/A	2E
19:02:01.000	Non-Visual	Common Pipistrelle	Foraging	5	N/A	1W
19:02:24.000	Non-Visual	Common Pipistrelle	Commuting	1	N/A	2E
19:04:18.000	Non-Visual	Common Pipistrelle	Foraging	5	N/A	2E
19:05:46.000	Non-Visual	Common Pipistrelle	Commuting	1	N/A	1W
19:06:58.000	Non-Visual	Common Pipistrelle	Commuting	1	N/A	1E
19:07:33.000	Non-Visual	Common Pipistrelle	Foraging	Cont.	N/A	1W

0 200 400 m

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client
SEGRO Properties Ltd and SEGRO (EMG) Ltd

project
East Midlands Gateway Phase 2 (EMG2)

drawing title
FLIGHTLINE SURVEY RESULTS PLAN - 15TH OCTOBER

scale @ A3 1:5,000 | drawn LE/SJA | issue date 28/7/2025

drawing / figure number
Figure 12a

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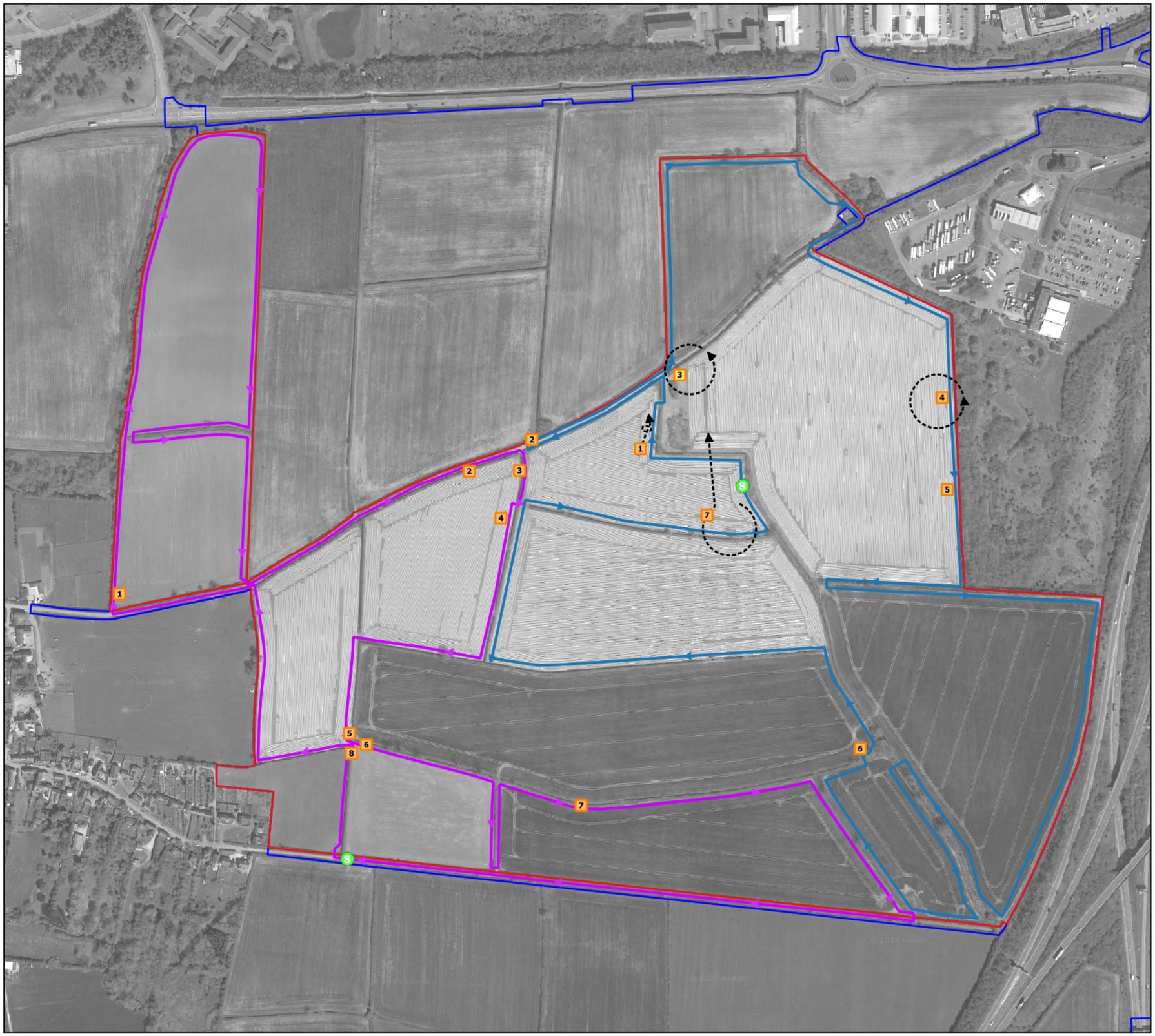

Key

- Scheme Boundary
- 2024 Survey Area Boundary
- West Route
- East Route
- Start Points
- Flight Arrow
- Common Pipistrelle
- Soprano Pipistrelle

West Route Results

Time	Reference	Species	Behaviour	Passes	Habitat
19:25:15.000	1	Common Pipistrelle	Foraging	Cont.	Lane
19:55:04.000	2	Common Pipistrelle	Foraging	2	Lane
19:57:55.000	3	Common Pipistrelle	Foraging	2	Hedge
19:59:44.000	4	Common Pipistrelle	Commuting	1	Hedge
20:09:05.000	5	Common Pipistrelle	Commuting	1	Hedge
20:10:47.000	6	Common Pipistrelle	Foraging	3	Hedge
20:17:49.000	7	Common Pipistrelle	Commuting	1	Hedge
20:40:05.000	8	Common Pipistrelle	Commuting	1	Hedge

East Route Results

Time	Reference	Species	Behaviour	Passes	Habitat
19:19:12.000	1	3x Common Pipistrelle	Foraging	Cont.	Hedge
19:24:22.000	2	Common Pipistrelle	Foraging	Cont	Hedge
19:28:48.000	3	Soprano Pipistrelle	Foraging	3	Hedge
19:43:34.000	4	Common Pipistrelle	Foraging	2	Hedge
19:45:22.000	5	Common Pipistrelle	Commuting	1	Hedge
20:13:15.000	6	Common Pipistrelle	Foraging	3	Mature Trees
20:33:55.000	7	2x Common Pipistrelle	Foraging	2	Hedge

0 200 400 m

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WALKED TRANSECT SURVEY RESULTS PLAN - 15TH OCTOBER

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drawing / figure number
Figure 12b

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