



Edmansons Close, Bruce Grove,
Tottenham

Bat Survey Report and Update Site Walkover

Prepared by
CSA Environmental

on behalf of
Drapers' almshouse charity

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This report may contain sensitive ecological information. It is the responsibility of the Local Authority to determine if this should be made publicly available.

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EXECUTIVE SUMMARY

Redevelopment works are proposed at Edmansons Close, Bruce Grove, Tottenham for which detailed planning permission and listed building consent is sought. The proposals include the demolition of B8, B10 and the outbuildings associated with B4, and redevelopment of the Site to include the construction of new build apartments/houses and the refurbishment/extension of existing almshouses.

CSA Environmental was previously instructed to undertake an external inspection of the on-site buildings in order to assess their potential to support roosting bats, as part of a Preliminary Ecological Appraisal of the Site, undertaken in 2019. The 2019 PEA report (CSA/4443/01) identified one building to have 'Moderate' bat roost potential (B8), eight to have 'Low' potential (B1-7 and B9) and two to have 'Negligible' potential (B10 and 11).

This was followed by internal building inspections in July 2020 and, in line with current best practice survey guidelines, dusk emergence/dawn re-entry surveys in July/August 2020. Update building inspections were undertaken in February 2022 and update dusk emergence surveys were undertaken in May/June 2022 which focused only on those buildings to be directly impacted by the proposals. The results of these surveys are presented herein.

The survey work has identified a small day (non-breeding) roost utilised by common pipistrelle and a small day (non-breeding) roost utilised by soprano pipistrelle, associated with the same lifted tile on the northern elevation of the main roof toward the western end of B3. No further roosts associated with any of the other buildings at the Site have been identified. Other bat activity recorded during the surveys was limited to a low number of passes and foraging activity by common and widespread bat species.

The identified bat roosts will be retained under the proposals. Given that the proposed works are well removed from the identified roosts and with the implementation of the safeguards set out herein, no disturbance impacts are anticipated. However, should it become necessary to undertake any works to the main roof of B3, an assessment of potential impacts to roosting bats would need to be undertaken and the need for an EPS mitigation licence from Natural England would need to be explored.

No overriding constraints to development at the Site have been identified. Recommendations for ecological enhancement measures that the proposed development could deliver have been outlined herein, in line with local and national policy (i.e NPPF, 2021).

1.0 INTRODUCTION

- 1.1 This report has been prepared by CSA Environmental on behalf of Drapers' almshouse charity. It sets out the findings of bat survey work undertaken at Edmansons Close, Bruce Grove, Tottenham (hereafter referred to as 'the Site'). Redevelopment is proposed at the Site, for which detailed planning permission and listed building consent is sought.
- 1.2 The Site is located around central grid reference TQ335905, to the north of Tottenham. The Site comprises a series of terraced almshouses built around a central green, with several additional detached buildings surrounding.
- 1.3 Development proposals at the Site include the demolition of B10, B8 and the outbuildings associated with B4, construction of new apartment buildings and refurbishment of existing buildings at the Site, including single storey rear extensions to some properties associated with B3 and B5.
- 1.4 The following survey work was carried out:
 - Internal inspection of the buildings to assess their potential to support roosting bats (July 2020)
 - Update inspection of the buildings to assess their potential to support roosting bats (February 2022)
 - Site walkover (February 2022)
 - Dusk emergence/pre-dawn re-entry surveys (July-August 2020; May-June 2022)
- 1.5 The purpose of these surveys was to confirm the presence/likely absence of roosting bats in association with the structures, following the initial external building inspection in November 2019, as set out within the Preliminary Ecological Appraisal (PEA) (CSA/4443/01). In addition, the update site walkover was undertaken to identify any significant deviations, in terms of ecological constraints and opportunities, from the 2019 PEA.
- 1.6 The content of this report has been determined with due consideration for best-practice guidance provided by the Chartered Institute of Ecology and Environmental Management (CIEEM, 2017 & 2018), and to the *Biodiversity: Code of practice for planning and development* (BS 42020:2013) published by the British Standards Institution (2013). Survey methods, design, data analysis and interpretation have been undertaken with due consideration of the Bat Conservation Trust (BCT) guidelines 3rd Edition (Collins, 2016).

2.0 LEGISLATION, PLANNING POLICY & STANDING ADVICE

2.1 All British bat species are legally protected under Regulation 43 of the Conservation of Habitats and Species Regulations 2017 (as amended). These Regulations make it an offence to:

- Deliberately capture, injure, or kill a bat
- Deliberately disturb bats, impairing their ability to survive, breed, reproduce or rear/nurture their young, or which significantly affects the local distribution or abundance of the species
- Damage or destroy a breeding site or resting place used by bats

2.2 All bats and their roosts in the UK were previously fully protected under the Wildlife & Countryside Act 1981 (as amended). Amendments to the Act have removed most provisions as they relate to bats, however it remains an offence to:

- Intentionally or recklessly disturb a bat while it is occupying a structure or place which it uses for shelter or protection
- Intentionally or recklessly obstruct access to any structure or place used for shelter or protection

2.3 It is important to note that bat roosts are protected throughout the year, regardless of whether or not bats are present at the time. Under the Regulations, the offence of damaging or destroying a breeding site or resting place is subject to 'strict liability', i.e. an offence is committed irrespective of whether the causal act was deliberate or otherwise.

Licensing

2.4 Where development is proposed that would result in an offence under the Regulations, a European Protected Species (EPS) statutory derogation licence (often termed 'EPS Mitigation Licence') will need to be secured from Natural England to permit an act that would otherwise be unlawful. Such a licence can only be granted following receipt of planning permission with all relevant conditions discharged, and where it has been demonstrated that specific statutory derogation tests have been met.

3.0 METHODS

Update Preliminary Roost Assessment (PRA)

Structures

- 3.1 An Initial external building inspection of all on-site structures (B1-B11) was undertaken on 28 November 2019, as reported within the 2019 PEA report. For completeness, the results of this external inspection are also contained herein.
- 3.2 A detailed internal inspection of all on-site structures was undertaken on 21 July 2020, using high-powered torches, binoculars and ladder as appropriate. The survey was carried out by Alexandra Cole MCIEEM (Bat Class Survey Licence WML-CL18, Registration Number 2016-25563-CLS-CLS) and Carly Howes ACIEEM)
- 3.3 An update external and internal inspection of buildings to be impacted by the current proposals (i.e. B3, outbuildings associated with B4, B5, B8 and B10) was undertaken on 09 February 2022, using high-powered torches, binoculars and ladder as appropriate. The survey was carried out by Michelle Bullock MCIEEM (Bat Class Survey Licence WML-CL18, Registration Number 2015-13958-CLS-CLS) and Matthew Dale.
- 3.4 External inspection focused on identifying potential bat access points to the interior of the structure and any external features that could potentially be used by crevice-dwelling species. Particular attention was given to window sills, window panes, weatherboarding, and pitch/ridge tiles; as evidence is typically found in these locations.
- 3.5 The internal inspection involved a systematic search for bats or any evidence of their activity, in particular droppings and/or feeding remains within the buildings/loft spaces of the buildings.
- 3.6 A description of the structure was made, including construction, condition (in respect of roosting, rather than building or structural integrity) and age (where known).
- 3.7 The aim of this inspection is to record direct (i.e. actual roosting bats) or indirect evidence of roosting bats (e.g. droppings), as well as the nature and number of features with 'potential' to support roosting bats. This includes consideration of structure to support bats whilst in hibernation.

Limitations

- 3.8 A single loft void associated with part of the main roof of B5 could not be accessed during the inspections. This is not considered a significant constraint given that no impacts to the main roofs of the almshouses are anticipated. In any case, the PRA was followed up with emergence/re-

entry surveys to confirm the presence/likely-absence of roosting bats associated with the buildings.

Trees

- 3.9 An Initial inspection of all on site trees from ground level was undertaken on 28 November 2019, as reported within the 2019 PEA report. For completeness, the results of this ground level inspection are also contained herein.
- 3.10 An update inspection of all on-site trees was undertaken from ground level on 09 February 2022 by Michelle Bullock MCIEEM (Bat Class Survey Licence WML-CL18, Registration Number 2015-13958-CLS-CLS) and Matthew Dale. The survey was undertaken using binoculars and high-powered torches as appropriate. Particular attention was given to woodpecker holes, limb splits, lifting bark and mature ivy stems.
- 3.11 The aim of this inspection was to record direct (i.e. actual roosting bats) or indirect evidence of roosting bats (e.g. droppings), as well as the nature and number of features with 'potential' to support roosting bats. This includes consideration of trees to support bats whilst in hibernation.

Limitations

- 3.12 The initial ground level roost assessment was undertaken just outside the optimal period for such surveys. However, the update survey was undertaken within the optimal period, when the trees were not in leaf, thereby allowing optimal viewing of PRFs which is less likely to be obscured by vegetation. As such, the timing of the survey work is not considered a limitation. Nonetheless, it should be noted that not all PRFs may be visible from ground level.

Assessing 'Potential' of Buildings/Trees to Support Roosting Bats

- 3.13 All structures and trees were assigned to one of four categories in respect of their 'potential' to support roosting bats, or the confirmation of any bat roosts identified. 'Potential' in this context is taken to be the broad suitability of features to support roosting bats, based upon the nature, condition or structure of such features, in the absence of confirmed evidence of roosting.
- 3.14 Assigning the following categories is intended to determine the effort of any further targeted survey or inspections which are necessary to prove presence or likely absence of roosting bats, rather than to assign importance to such features.
- 3.15 The following categories are assigned to structures and trees herein, Either:
- **Confirmed roost** – where one or more bat roosts are identified during PRA inspections, either through direct sightings of bats, and/or indirect evidence such as bat droppings. Or;

- **High** – A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.
- **Moderate** – A structure or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only, assessments at this stage are made irrespective of species conservation status).
- **Low** – A structure or tree with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation).
- **Negligible** – Negligible habitat features on site likely to be used by roosting bats.

3.16 The potential of a tree or structure to support roosting bats is often influenced by its age and construction, thermal stability, lighting and levels of human activity. Furthermore, the proximity to foraging habitat - particularly woodland, parkland and wetland- as well as the presence of navigational routes (e.g. hedgerows, treelines and watercourses) influence both the potential for bats to roost, as well as the species which may roost. Professional judgement is therefore applied, based upon known factors which effect the potential of features to support roosting bats, insofar as determining the need or scope of further surveys or inspections.

Roost Surveys

- 3.17 The 2020 surveys comprised two dusk emergence surveys undertaken on 28 July 2020 and 11 August 2020, and a single dawn re-entry survey undertaken on 26 August 2020.
- 3.18 The update surveys comprised two dusk emergence surveys undertaken on 09 May 2022 and 27 June 2022. These surveys focused on those buildings/building sections to be impacted by the proposals only i.e. the rear (northern elevations) of B3 and B5 where two-storey extensions are proposed and B8 which is to be demolished under the proposals. Roost surveys were not undertaken of B10 or the outbuildings associated with B4 given that these buildings are assessed as having 'Negligible' potential to support roosting bats.
- 3.19 The aim of the surveys was to confirm the presence/likely-absence of roosting bats in association with the buildings and to characterise any roost present including identification of species, number of bats and roost type (i.e. day, night feeding, maternity and transitory).

- 3.20 The dusk emergence surveys commenced approximately 15 minutes before British Summer Time (BST) sunset and continued for approximately 1.5 hours after sunset with due consideration for the BCT good practice guidelines. The dawn re-entry survey commenced approximately 1.5 hours prior to BST sunrise and finished approximately 15 minutes after sunrise
- 3.21 The 2020 surveys were led by Alexandra Cole MCIEEM (Bat Class Survey Licence WML-CL18, Registration Number 2016-25563-CLS-CLS). The 2022 surveys were led by Carly Howes ACIEEM (Bat Class Survey Licence WML-CL17, Registration Number 2021-55125-CLS-CLS). The surveys were undertaken in suitable weather conditions (see Appendix B).
- 3.22 The positions of the surveyors are illustrated on the Bat Survey Plans in Appendix C.
- 3.23 During the surveys each surveyor watched for any bats emerging from or entering parts of the buildings or using key flight lines. Surveyors were equipped with Batlogger M bat detectors or a Wildlife Acoustics EM3 bat detector. Records were made of all observed bat activity, including time, species and any information regarding behaviour, including direction of flight, and activity type e.g. foraging/commuting. Following the surveys all bat calls were downloaded from the bat detectors and analysed using BatExplorer v.1.11.4.0 and/or AnalookW v.4.2g.

Limitations

- 3.24 There were no limitations to the survey.

Assessment

- 3.25 Any bat roosts identified during the surveys have been evaluated with consideration for Wray *et al.* (2010), which provides guidance on assessing the conservation value of bat roosts according to type and species. This guidance has been adapted and is summarised in the following tables.

Table 1. Categorising Bats by Distribution and Rarity (adapted from Wray *et al.*, 2010)

Rarity within range	Species
Rarest (under 10,000)	Greater mouse-eared bat Greater horseshoe Grey long-eared bat Bechstein's bat Barbastelle Alcathoe
Rarer (10,000 – 100,000)	Lesser horseshoe Whiskered/Brandt's bat Nathusius' pipistrelle Serotine Leisler's
Common (over 100,000)	Common pipistrelle Soprano pipistrelle

Rarity within range	Species
	Brown long-eared bat Noctule Natterer's bat Daubenton's bat

Table 2. Valuation of Roosts (Wray *et al.*, 2010)

Geographic frame of reference	Roost Types
International	SAC sites
National	Sites meeting SSSI guidelines Maternity sites of rarest species
Regional	Large swarming sites Mating sites for rarer/rarest species Maternity sites of rarer species Significant hibernation sites for rarer/rarest species ,or all species assemblages
County	Feeding perches of rarer/rarest species Small numbers of rarer/rarest species (not maternity sites) Hibernation sites for small numbers of common/rarer species Maternity sites of common species
Local (Parish or District)	Feeding perches Individual bats of common species Small numbers of common species (not maternity sites) Mating site of common species

Table 3. Conservation significance of roosts (adapted from Mitchell-Jones, 2004)

Low ↓ Conservation significance ↓ High	Roost Status
	Feeding perches of common/rarer species
	Individual bats of common species
	Small number of common species. Not a maternity site
	Feeding perches of Annex II species
	Small number of rarer species. Not a maternity site
	Hibernation sites for small numbers of common/rarer species
	Maternity sites of rarer species
	Significant hibernation sites for rarer/rarest species or all species assemblages
	Sites meeting SSSI guidelines
	Maternity site of rarest species

Site Walkover

- 3.26 A site walkover survey was carried out by Michelle Bullock MCIEEM and Matthew Dale on 09 February 2022, encompassing the Site and immediately adjacent habitats that could be viewed. This updates the extended Phase 1 habitat survey undertaken in November 2019 as reported within the 2019 PEA report.
- 3.27 The aim of this survey was to identify any significant deviations to the previous extended Phase 1 Habitat survey.

Limitations

- 3.28 There were no limitations to the Site walkover.

4.0 RESULTS

Preliminary Roost Assessment

Structures

- 4.1 All on-site structures were assessed for their potential to support roosting bats. However, only those buildings to be impacted by the current proposals (i.e buildings B3, B5, B8, B10 and the outbuildings associated with B4) were subjected to the update survey in 2022. Building B8 was considered to have 'Moderate' potential to support roosting bats, B1-B7 and B9 were considered to have 'Low' potential, and buildings B10, B11 and the outbuildings associated with B4 were considered to have 'Negligible' potential. For building descriptions and full results see Table 4 below. The full results are illustrated in the Preliminary Roost Assessment Plan at Appendix A and Table 4 below.

Trees

- 4.2 All on-site trees were assessed for their potential to support roosting bats.
- 4.3 One tree (T1) is considered to have 'Moderate' bat roost potential and six trees (T2-T7) are considered to have at least 'Low' potential. All other trees present at the Site are considered to have 'Negligible' potential. The full results are illustrated in the Preliminary Roost Assessment Plan at Appendix A and Table 5 below.

Table 4: Preliminary Roost Assessment of Structures (2019/2020 & 2022)

Building Ref.	Building Description	External Evidence /Features	Internal Evidence /Features	Photographs	Bat Roost Potential
B1, B2, B3, B5, B6, B7, B9	Terrace of brick-built 2 storey almshouses built in 1870. Double pitched, open gable roof lined with slate roof tiles with ornate clay ridge tiles. Brick chimney stacks and lead flashing where external walls/party walls meet the roof. Stone window sills and lintels, timber sash windows and timber doors. Timber framed porches to front elevations, also slate clad roofs with clay ridge tiles. Single storey brick built lean-to extensions to rear elevations with slate clad roof. Single storey extensions B1-7 are all of a similar structure with wooden batons, and a lining of bitumen felt or breathable roofing membrane (BRM) and fibreglass insulation. Many of these extensions have plastic air ventilation systems installed and water tanks. A few small wasps nests were noted. The majority of the bitumen felt/BRM was intact, allowing no obvious light ingress, although occasional small tears in the felt were recorded within some roof spaces. Light ingress was also observed at the eaves. Mouse droppings were noted in a number of flats. Main roof void The void above the first-floor flat is wooden framed with a bitumen/BRM lining. Most of the roof voids contain covered water tanks and fibre glass insulation. Each void is divided by a brick-built wall with an entrance hole which leads to the next void. Plastic ventilation systems are present. Occasional tears in the felt are present allowing some light ingress into the voids. Several voids also contain wasps nests.	<u>2020</u> No evidence of bats. Occasional lifted/missing tiles and gaps under lead flashing associated with chimney provide potential roosting opportunities for crevice dwelling species. Gas between porch timbers and wall of B3.	<u>2020</u> No evidence of bats. No potential roosting features or bat egress/ingress points recorded.	Single storey extension – roof void  Main roof void 	Low
		<u>2022</u> B3 and B5 - as recorded in 2020. B1, B2, B6, B7 & B9 - not surveyed	<u>2022</u> B3 and B5 - as recorded in 2020. B1, B2, B6, B7 & B9 - not surveyed		

Building Ref.	Building Description	External Evidence /Features	Internal Evidence /Features	Photographs	Bat Roost Potential
					
B4	Central chapel building. Same construction as terraced almshouses with slate clad roof with ornate clay roof tiles. Spire clad with slate tiles and lead flashing. Bird netting deployed under spire structure. In current use.	<u>2020</u> Gaps beneath lead flashing <u>2022</u> Not surveyed	<u>2020</u> No internal access <u>2022</u> Not surveyed		Low

Building Ref.	Building Description	External Evidence /Features	Internal Evidence /Features	Photographs	Bat Roost Potential
Outbuildings associated with B4	Single storey, brick-built flat roof buildings adjoined to B4.	<u>2020</u> No evidence of bats No PRFs recorded <u>2022</u> As recorded in 2020	<u>2020</u> No internal access <u>2022</u> No internal access		Negligible

Building Ref.	Building Description	External Evidence /Features	Internal Evidence /Features	Photographs	Bat Roost Potential
B8	70s infill T-shaped building between original almshouses understood to have been constructed between 1978 and 1981. Slate clad gabled overhanging mansard roof to the front and double pitched roof to rear elevations. Close fitting hanging slate tiles on mansard roof. Timber sash windows and timber soffit. The roof voids consist of wooden batons with intact bitumen felt lining with no light ingress. Numerous water tanks and beams create a cluttered environmental. Mouse droppings present.	<u>2020</u> Purpose built slots within soffit along whole front elevation and within porches to the rear. Lifted lead flashing associated with chimney and gable end. Gaps around top or dormer windows on southern elevation Missing roof tiles on southern elevation. <u>2022</u> As recorded in 2020	<u>2020</u> All voids well sealed. No evidence or features <u>2022</u> As recorded in 2020	 	Moderate

Building Ref.	Building Description	External Evidence /Features	Internal Evidence /Features	Photographs	Bat Roost Potential
B10	Single storey laundry building with pebble dash render and corrugated asbestos roof. In current use and therefore subjected to regular disturbance. No enclosed roof space present. Windows expose interior to natural light.	<u>2020</u> No evidence or features. Gaps behind soffits too narrow for bat access <u>2022</u> As recorded in 2020.	<u>2020</u> No access <u>2022</u> No evidence or features.		Negligible
B11	Two storey detached brick built building with concrete roof tiles. uPVC windows and soffits. In current use.	<u>2020</u> No evidence or features <u>2022</u> Not surveyed	<u>2020</u> No internal access <u>2022</u> Not surveyed		Negligible

Table 5: Preliminary Ground-Level Roost Assessment of Trees (2019 & 2022)

Tree Ref.	Species	PRF	Height of PRF from ground level	Orientation of PRF in relation to trunk	Bat Roost Potential
T1	Cherry	No. 3 woodpecker holes in main trunk.	3m	North	Moderate
T2	Cherry	Lifted/loose bark	3m	North	Low
T3	Pear	Knot hole	4m	East	Low
T4	Dead horse chestnut	Lifted bark	NA	NA	Low
T5-7	Horse chestnut	Ivy clad	NA	NA	Likely to be at least Low*

*Located off-site and as such could not be fully assessed

Roost Surveys

- 4.4 A detailed account of the bat activity recorded during the bat surveys is presented in the Bat Survey Results Tables within Appendix B and the Bat Survey Plans within Appendix C.

Dusk Emergence Survey (28 July 2020)

- 4.5 No bats of any species were seen emerging from the buildings during the survey.
- 4.6 Six surveyors were deployed during the survey, occupying positions A-F (see Bat Survey Plan 2020 at Appendix C). At least three bat species were detected during the survey, these include common pipistrelle *Pipistrellus pipistrellus*, soprano pipistrelle *Pipistrellus pygmaeus* and noctule *Nyctalus noctula*, along with an unidentified *Nyctalus* species (noctule or Leisler's *Nyctalus leisleri*).
- 4.7 The first bat was a non-echolocating bat recorded at 21:08 (c. 14 minutes after sunset). The majority of bat activity was by common and soprano pipistrelle and was concentrated along the eastern site boundary of the Site where there was noted to be foraging activity on the eastern aspect of B3 and B5, along with residential gardens in the south eastern part of the Site.

- 4.8 Foraging activity was constant throughout the survey.

Dusk Emergence Survey (11 August 2020)

- 4.9 A total of three bats were seen to emerge from B3 during the survey. The first was a single soprano pipistrelle which emerged at 20:45 (c. 15 minutes after sunset) from a lifted tile towards the western end of the main roof of B3, on the northern elevation. At 20:52 (c. 22 minutes after sunset) two common pipistrelles emerged in quick succession from the

same lifted tile as the first bat. No further bats were recorded emerging from any other building during the survey.

- 4.10 Eight surveyors were deployed during the survey, occupying positions A-D and G-J (see Bat Survey Plan 2020 at Appendix C). The majority of calls recorded during the survey were common pipistrelle with smaller numbers of noctule and soprano pipistrelle. Three passes of Nathusius's pipistrelle *Pipistrellus nathusii*, were detected at positions B and G at 21:21, suggesting it may have been a single commuting bat.

Dawn Re-entry Survey (26 August 2020)

- 4.11 No bats of any species were seen re-entering the buildings during the survey.
- 4.12 Seven surveyors were deployed during the survey, occupying positions A-C and G-J (see Bat Survey Plan 2020 at Appendix C). Very limited bat activity was recorded during the survey. No bats of any species were observed at positions G-J. A single pass of common pipistrelle was detected by surveyors at positions A and B at 05:36 and observed flying from B2 at 05:37 by the surveyor at position C. No other bats were recorded during the survey.

Dusk Emergence Survey (09 May 2022)

- 4.13 No bats of any species were seen emerging from the buildings during the survey.
- 4.14 Five surveyors were deployed, occupying positions A-E (see Bat Survey Plan 2022 at Appendix C). Surveyors at locations A and B were positioned to view the single storey extensions of B3 and B5. Surveyors at locations C, D and E were positioned to view all elevations of B8.
- 4.15 Bat activity recorded during the survey was limited to two species; common pipistrelle and soprano pipistrelle.
- 4.16 The first pass was a common pipistrelle detected at position A, at 20:49 (c.13 minutes after sunset). Frequent passes, predominantly by common pipistrelle were recorded throughout the survey period including along the eastern elevations of B3 and B5. These bats are likely using the buildings and tree line as a feature to navigate through the landscape. Some commuting and foraging activity was also noted around B8.

Dusk Emergence Survey (27 June 2022)

- 4.17 No bats of any species were seen emerging from the buildings during the survey.
- 4.18 Three surveyors were deployed around B8, occupying positions C-E (see Bat Survey Plan 2022 at Appendix C). Three bat species were detected during the survey, these include common pipistrelle, soprano pipistrelle and noctule.

- 4.19 The first bat pass was a noctule at 22:07 (c. 45 minutes after sunset) recorded by surveyors at positions D and E. The majority of passes were detected at position C between 22:10 and 22:19. This bout of activity was noted to be mostly foraging activity by common and soprano pipistrelle around the courtyard area between B6, B7 and B8.

Update Site walkover

- 4.20 The habitats on Site remain largely unchanged since the extended Phase 1 habitat survey undertaken in November 2019. The Site comprises habitats of predominantly low to negligible ecological importance, together with occasional trees of elevated ecological importance. The site is dominated by buildings and hardstanding (comprising a series of terraced almshouses, with several additional detached buildings surrounding with associated access road, pavements/pathways). The surrounding 'garden' habitats include a central green of close-cut amenity grassland planted with c. 20, predominantly, young to semi-mature fruit trees, introduced shrub, ornamental hedgerows and occasional trees. The previously prepared Preliminary Ecological Appraisal (CSA/4443/01) remains true and valid.

5.0 DISCUSSION AND RECOMMENDATIONS

Assessment

Buildings

Building B3

- 5.1 The survey work has confirmed the presence of a small soprano pipistrelle day roost (non-breeding) and a small common pipistrelle day roost (non-breeding) associated with a lifted tile on the northern elevation of the main roof of B3, toward the western end.
- 5.2 The parts of B3 to be directly impacted by the proposed works (i.e. the rear (northern) elevation including the removal of some of the single-storey lean-tos to make way for the new double-storey extensions) are considered to have low potential to support roosting bats and the survey work undertaken in 2022 has confirmed the likely-absence of roosting bats associated with these parts of the building.

Buildings B5, B8, B10 and out buildings associated with B4

- 5.3 No evidence of roosting bats has been recorded in association with B5, B8, B10 or the outbuildings associated with B4. The update survey work has confirmed the likely-absence of roosting bats associated with these buildings.

Buildings B1, B2, B4, B6, B7, B9 and B11

- 5.4 The previous survey work undertaken in 2019 identified B1, B2, B4, B6, B7 and B9 to have 'Low' potential to support roosting bats and identified B11 to have 'Negligible' potential. The dusk emergence/dawn re-entry surveys undertaken in 2020 identified no evidence of roosting bats associated with these buildings.

Trees

Tree 1

- 5.5 Tree T1 is considered to have moderate potential to support roosting bats, given the PRFs present which include three woodpecker holes associated with the main trunk.

Trees T2-T7

- 5.6 Trees T2-T4 are considered to have low potential to support roosting bats. Trees T3-T7 are considered to have at least low potential, although these trees could not be fully assessed from all sides as they are located off-site.

Other trees

- 5.7 All other trees at the Site are considered to have 'Negligible' potential to support roosting bats and as such bats are considered likely absent from all other trees at the Site.

Importance

- 5.8 Soprano pipistrelle and common pipistrelle are both common and widespread, being the first and second most common bats in the UK, with estimated populations estimated at approximately 4,670,000 and 3,040,000 individuals, respectively (BCT, 2021). The population of common pipistrelle in Great Britain is considered to have increased since 1999 whilst the population of soprano pipistrelle is considered to have been stable since 1999 (BCT, 2021). Both species are also common in a local context and occur frequently within London and within the London Borough of Haringey. In addition, several records were returned from within a 2km search radius of the Site as reported within the 2019 PEA report (CSA/4443/01).
- 5.9 As such, the small day (non-breeding) roost utilised by common pipistrelle and the small day (non-breeding) roost utilised by soprano pipistrelle, both associated with the main roof of B3, are considered to be of low conservation significance in accordance with the criteria set out by Mitchell-Jones, 2004. In line with the adapted guidance from Wray *et al.*, 2010 (detailed above), both roosts are considered to be of 'Local' importance.
- 5.10 Bat activity at the Site during the dusk emergence surveys was limited to low levels of activity, with foraging and commuting of common and widespread species. As such, and coupled with habitats present, the Site is not considered to be of significant ecological importance for foraging/commuting bats in the local area.

Impact Assessment

- 5.11 Works are proposed for the redevelopment of the Site to provide new and refurbished residential dwellings and associated hard- and soft-landscaping. The formal description of the development is:

"Demolition of existing laundry building and 1970s infill building; alterations and extensions to 44 existing almshouses to create 8 x 1 bed, 12 x 2 bed and 6 x 3 bed units; alterations to existing Gatehouse to provide 1 x 2 bed unit; construction of 1 x new build 3 bed almshouse to replace 1970s infill building; construction of a new apartment building comprising 7 x studio units and 9 x 1 bed units; construction of 4 x new build 2 bed units within two new pavilions (2 units in each pavilion, 4 units in total); with landscaping; improvements to access; car parking; and ancillary development thereto."

- 5.12 Under the proposals, there will be minimal interventions to the existing layout. Many of the existing buildings are to be retained. Additional new build apartments will be constructed and double-storey extensions are proposed to the rear of a select number of almshouses associated with B3 and B5. B8, B10 and the outbuildings associated with B4 are to be demolished under the proposals.

Buildings

- 5.13 As the survey work has confirmed the likely-absence of roosting bats associated with B8, B10 and the outbuildings associated with B4, demolition of these buildings can proceed without the need for measures to safeguard bats.
- 5.14 The proposed rear extensions to B3 and B5 are considered unlikely to result in disturbance impacts to the confirmed common pipistrelle and soprano pipistrelle small day (non-breeding) roosts associated with the roof of B3, given that the roosts are well removed from the proposed works. Nonetheless, the measures set out below will ensure the roosts are safeguarded from disturbance impacts during the works to these buildings as well as during the construction and operational phases at the Site as a whole.
- 5.15 Should any works to the main roof of B3 (including the internal roof space) be required, a European Protected Species (EPS) licence from Natural England would likely be required to enable the works to proceed legally.
- 5.16 The previous survey work undertaken in 2019/2020 identified no evidence of roosting bats in association with B1, B2, B4, B6, B7, B9 and B11. It is understood that under the current proposals there will be no works undertaken to the external fabric or roof spaces of these buildings. B11 is no longer within the Site boundary.

Trees

- 5.17 It is understood that all existing trees at the Site are to be retained.

Landscaping

- 5.18 The proposed landscaping works at the Site include wildflower grassland creation, construction of a SUDS basin seeded with a suitable wet wildflower seed mix, biodiverse green roof creation and enhancement of the existing orchard through the implementation of a relaxed management regime. These measures are likely to enhance foraging/commuting opportunities for bats at the Site.

Mitigation Strategy

- 5.19 To avoid disturbance impacts to the known common pipistrelle and soprano pipistrelle small day (non-breeding) roosts associated with the main roof of B3, the following measures are to be implemented:

- In the unlikely event that any bat(s) are found at any point, works are to cease immediately and advice sought from a suitably qualified ecologist. Contractors are explicitly forbidden from handling bats.
- Although some breathable roofing membrane is unfortunately already present within some of the retained on-site buildings, no further breathable roofing membranes are to be used during any of the construction/refurbishment works across the Site. Only building regulations compliant traditional bitumastic felt ('Type 1F') is to be used, to prevent the risk of entanglement in fibres of breathable roofing membranes.
- No works to the main roof of B3 (including the internal roof space) are to be undertaken (unless a thorough impact assessment has been undertaken including obtaining an EPS Mitigation licence from Natural England, if required)
- Any new lighting scheme for the Site is to be designed to avoid illumination of the roof of B3, as well as minimising illumination of retained and created boundary vegetation, trees, hedgerows and SuDS features, which are likely to be used by bats for navigation and foraging.

5.20 It is understood that all existing trees at the Site are to be retained under the proposals. Should trees T2-T4 require removal or significant arboricultural works, then a 'soft' approach to these works should be undertaken whereby limbs are gently lowered to the ground. Should T1 or T5-T7 require removal or significant arboricultural works then further surveys should be undertaken to confirm the presence or likely-absence of roosting bats and to inform mitigation measures where required.

Enhancement

5.21 In addition to the opportunities for ecological enhancement set out within the PEA report, provision of new roosting opportunities are to be incorporated within the development. This is to include a minimum of four integrated bat roosting units built into the external fabric of the new buildings. These will be of a purpose-built, durable and long-lasting variety such as those available from Habibat.

6.0 CONCLUSIONS

- 6.1 The bat survey work has confirmed the presence of a small (non-breeding) day roost utilised by common pipistrelle and a small (non-breeding) day roost utilised by soprano pipistrelle associated with the main roof of B3, on the northern elevation at the western end of the building. These roosts are considered to be of low conservation importance and in any case will be retained under the proposals.
- 6.2 The proposed rear extensions to B3 and B5 are considered unlikely to result in disturbance impacts, given that the roosts are well removed from the proposed works. Nonetheless, to ensure no disturbance impacts during the construction and operational phases of the development, appropriate safeguards have been set out herein.
- 6.3 The survey work has identified the likely-absence of roosting bats in association with buildings B8, B10 and the outbuildings associated with B4. As such, these buildings can be demolished without the need for an EPS mitigation licence.
- 6.4 The previous survey work undertaken in 2019/2020 identified no evidence of roosting bats in association with B1, B2, B4, B6, B7, B9 and B11. It is understood that under the current proposals there will be no works undertaken to the external fabric or roof spaces of these buildings. B11 is no longer within the Site boundary.
- 6.5 It is understood that all existing trees at the Site are to be retained under the proposals. Should trees T2-T4 require removal or significant arboricultural works, then a 'soft' approach to these works should be undertaken whereby limbs are gently lowered to the ground. Should T1 or T5-T7 require removal or significant arboricultural works then further surveys should be undertaken to confirm the presence or likely-absence of roosting bats and to inform mitigation measures where required.
- 6.6 Recommendations for ecological enhancement measures that could be delivered at the Site have also been set out in line with local and national planning policy (i.e. NPPF, 2021).

7.0 REFERENCES

Bat Conservation Trust, 2021. *The National Bat Monitoring Programme: Annual Report 2021*. Bat Conservation Trust, London. Available at: <http://www.bats.org.uk/pages/nbmp_annual_report.html> [Accessed July 2022]

British Standards Institution, 2013. *BS 42020:2013 Biodiversity — Code of practice for planning and development*. London: BSI.

Chartered Institute of Ecology and Environmental Management, 2017. *Guidelines for Ecological Report Writing*. Winchester: CIEEM.

Chartered Institute of Ecology and Environmental Management, 2018. *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine*. Version 1.1. Winchester: CIEEM.

Collins, J., ed., 2016. *Bat Surveys for Professional Ecologists: Good Practice Guidelines*. 3rd ed. London: The Bat Conservation Trust.

Ministry of Housing, Communities and Local Government, 2021. *National Planning Policy Framework (NPPF)*. London: Ministry of Housing, Communities and Local Government.

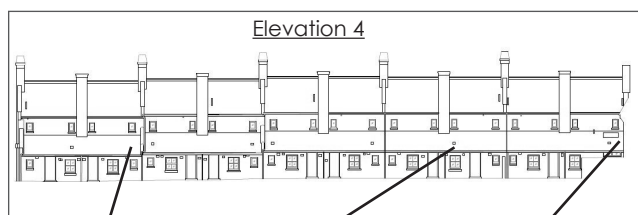
Mitchell-Jones, A.J. and McLeish, A.P., ed., 2004. *Bat Workers' Manual*. 3rd ed. Peterborough: Joint Nature Conservation Committee

Mitchell-Jones, A.J., 2004. *Bat Mitigation Guidelines*. Version 1. Peterborough: Joint Nature Conservation Committee

Wray et al., 2010. *Valuing bats in ecological impact assessment*. In Practice - Bulletin of the Chartered Institute of Ecology and Environmental Management, 70, pp.23-25.

Appendix A

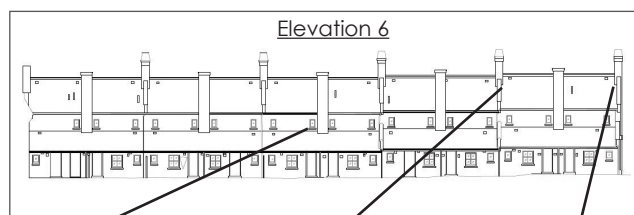
Preliminary Roost Assessment Plan



Lifted tile

Gap beneath vent

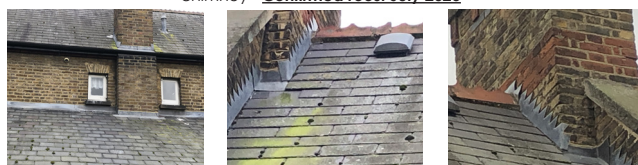
Lifted tile



Missing tile

Raised tile next to lead flashing on chimney - **Confirmed roost July 2020**

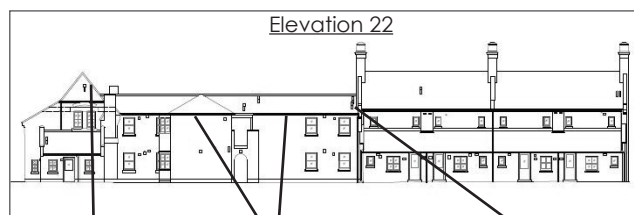
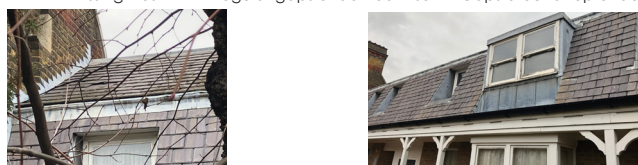
Gaps under lead flashing



Missing tiles

Regular gaps underneath soffit

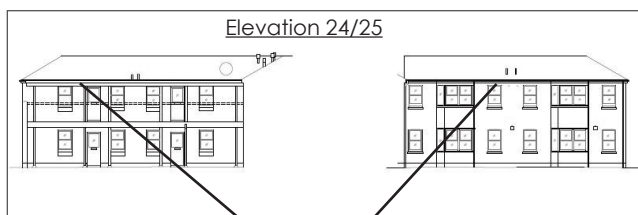
Gaps around top of dormer



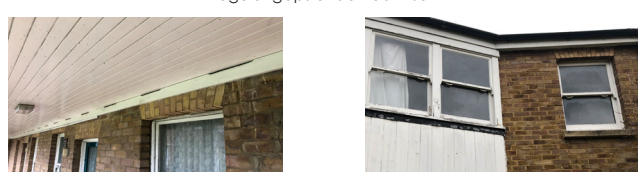
Lifted lead flashing

Gaps in soffit at regular intervals all the way along

Lifted lead flashing



Regular gaps underneath soffit



Site boundary



Negligible suitability for roosting bats



Low suitability for roosting bats



Moderate suitability for roosting bats



Confirmed roost (* indicates location)



Elevation (with number)

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Drawing Title Preliminary Bat Roost Assessment Plan

Client Drapers' almshouse charity

Drawing No. CSA/4443/102

Scale Refer to scale

Date Aug 2022

Rev A

Drawn MD

Checked MJB

Appendix B

Bat Survey Results Tables

Table B1: Dusk Emergence Survey - 28 July 2020

Survey Start	20:39	Temp		Cloud		Wind		Rain
Sunset	20:54	Start	End	Start	End	Start	End	
Survey End	22:24	17	16	2	0	2	1	No rain
Number of Surveyors	6							
Number of Bat Emergences	0							

Time	Species	Notes (emergence/number of passes/direction etc)
20:39-21:07		No activity
21:08	<i>Non echolocating</i>	B: SNH
21:09-21:13		No activity
21:14	<i>Pipistrellus pipistrellus</i>	F: Flew south west along B5 from the chapel (1)
21:15-21:16		No activity
21:17-21:27	<i>Pipistrellus pygmaeus</i> <i>Pipistrellus pipistrellus</i>	B: Commute along roof (2) & foraging C: HNS E: Fly north towards B5 (3) F: HNS
21:28-21:33		No activity
21:34-21:37	<i>Pipistrellus pygmaeus</i> <i>Pipistrellus pipistrellus</i>	A: Commuting along B1 from north (4) & Foraging B: Foraging around trees C: HNS F: HNS
21:38	<i>Nyctalus noctula</i>	A: HNS C: HNS
21:39-21:51	<i>Pipistrellus pygmaeus</i> <i>Pipistrellus pipistrellus</i>	A: HNS B: Commuting along roof & through gap between B1/B2 (5); Foraging C: Foraging/circling around lawn (6) D: HNS E: HNS
21:52-22:02	<i>Pipistrellus pygmaeus</i> <i>Pipistrellus pipistrellus</i>	A: HNS B: Foraging C: HNS D: HNS F: Foraging over gardens (7)
22:03		No activity
22:04-22:08	<i>Pipistrellus pygmaeus</i> <i>Pipistrellus pipistrellus</i>	A: HNS B: HNS/Foraging around trees C: HNS D: HNS F: HNS E: Foraging in front of B5 (8) F: Foraging
22:09-22:24	<i>Pipistrellus pipistrellus</i> <i>Nyctalus sp.</i>	B: HNS F: Foraging

Abbreviations: HNS = Heard, not seen. SNH = Seen, not heard.

Table B2: Dusk Emergence Survey - 11 August 2020

Survey Start	20:15	Temp		Cloud		Wind		Rain
Sunset	20:30	Start	End	Start	End	Start	End	
Survey End	22:00	29	28	3	1	1	2	None
Number of Surveyors	8							
Number of Bat Emergences	3							

Time	Species	Notes (emergence/number of passes/direction etc)
20:15-20:44		No activity
20:45	<i>Pipistrellus pygmaeus</i>	B: Soprano pipistrelle emergence at 20:45 from slightly lifted tile, next to chimney on northern elevation of B3, towards western end.
20:46-20:50		No activity
20:51-20:52	<i>Pipistrellus pygmaeus</i> <i>Pipistrellus pipistrellus</i>	B: Foraging and commuting. Common pipistrelle emergence x2 at 20:52 from same location as described above
20:53-20:06		No activity
21:07-21:11	<i>Nyctalus noctula</i> <i>Pipistrellus pygmaeus</i> <i>Pipistrellus pipistrellus</i>	A: HNS B: Flew between buildings B2/B3 (3) & Foraging around gardens C: Commuting (9) D: HNS G: HNS H: HNS J: HNS
21:12-21:14		No activity
21:15-21:18	<i>Nyctalus noctula</i> <i>Nyctalus sp.</i> <i>Pipistrellus pipistrellus</i>	B: HNS G: HNS H: HNS J: HNS
21:19-21:20		No activity
21:21-21:23	<i>Pipistrellus pipistrellus</i> <i>Pipistrellus nathusii</i>	A: HNS B: Foraging in garden between B2&B3 C: HNS F: HNS G: HNS
21:24-21:26		No activity
21:27-21:36	<i>Pipistrellus pipistrellus</i>	A: HNS B: Foraging along the back of B3 (2) C: HNS D: HNS G: HNS I: HNS J: HNS
21:37-21:37		No activity
21:38-21:58	<i>Pipistrellus pygmaeus</i> <i>Pipistrellus pipistrellus</i>	A: HNS B: Foraging C: HNS D: Pass overhead (10)
21:59-22:00		No activity

Abbreviations: HNS = Heard, not seen. SNH = Seen, not heard.

Table B3: Dawn Emergence Survey - 26th August 2020

Survey Start	04:34	Temp		Cloud		Wind		Rain
Sunset	06:04	Start	End	Start	End	Start	End	
Survey End	06:19	17	16	3	2	5	4	None
Number of Surveyors	7							
Number of Bat Re-entries	0							

Time	Species	Notes (emergence/number of passes/direction etc)
04:34-05:35		No bat activity
05:36-05:37	<i>Pipistrellus pipistrellus</i>	A: Circled around building 1 before flying north west over B2 B: Observed flying over B3 C: Observed flying from B2
05:38-06:19		No bat activity

Abbreviations: HNS = Heard, not seen. SNH = Seen, not heard.

Table B4: Dusk Emergence Survey - 09 May 2022

Survey Start	20:21	Temp		Cloud		Wind		Rain
Sunset	20:36	Start	End	Start	End	Start	End	
Survey End	22:06	21	20	8	8	0	1	No rain
Number of Surveyors	5							
Number of Bat Emergences	0							

Time	Species	Notes (emergence/number of passes/direction etc)
20:21-20:48		No activity
20:49	<i>Pipistrellus pipistrellus</i>	A: HNS
20:50-20:54		No activity
20:55-20:56	<i>Pipistrellus pygmaeus</i>	B: Commuting and foraging along trees and B5 (1) E: Pass over roof flying towards road (6)
20:57-21:01		No activity
22:02-22:05	<i>Pipistrellus pipistrellus</i> <i>Pipistrellus pygmaeus</i>	A: HNS
21:06-21:14		No activity
21:15	<i>Pipistrellus pipistrellus</i>	A: HNS B: HNS
21:16-21:18		No activity
21:19	<i>Pipistrellus pygmaeus</i>	C: Commuting (3)
21:20-21:29		No activity
21:30	<i>Pipistrellus pipistrellus</i>	A: HNS B: Commuting along B5(1) D: HNS
21:31-21:33		No activity
21:34	<i>Pipistrellus pipistrellus</i>	A: HNS B: Commuting along B5 (1) D: HNS
21:35-21:36		No activity
21:37-21:41	<i>Pipistrellus pipistrellus</i>	A: Brief pass overhead B: Foraging over B5 (2) and commuting along B5 (1) D: HNS E: HNS
21:42-21:43		No activity
21:44-21:48	<i>Pipistrellus pipistrellus</i> <i>Pipistrellus pygmaeus</i>	A: HNS B: HNS C: HNS E: HNS
21:49-21:51		No activity
21:52-21:57	<i>Pipistrellus pipistrellus</i> <i>Pipistrellus pygmaeus</i>	B: Foraging above roof of B5 (2) C: HNS D: HNS
21:58-22:03		No activity
22:04-22:05	<i>Pipistrellus pipistrellus</i>	A: HNS B: HNS C: HNS
22:06		No activity

Abbreviations: HNS = Heard, not seen. SNH = Seen, not heard.

Tabke B5: Dusk Emergence Survey - 27 June 2022

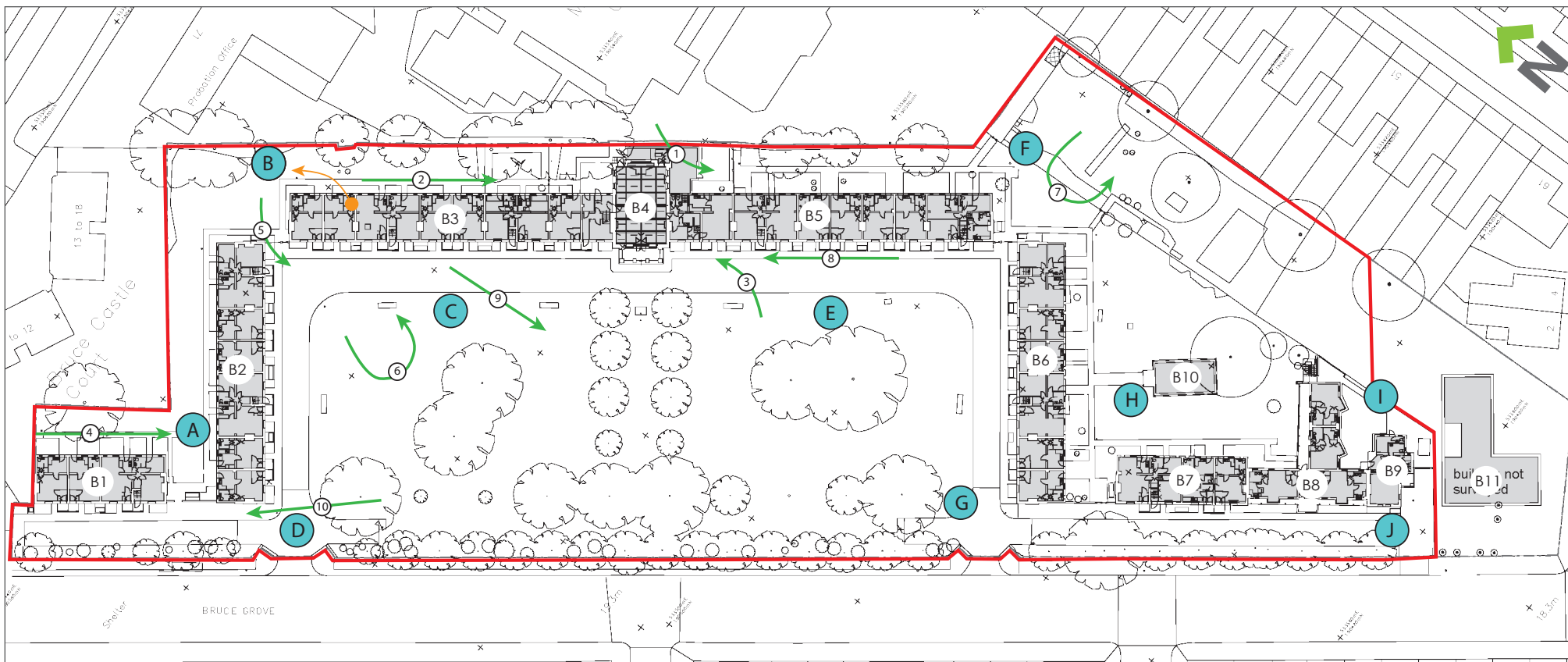
Survey Start	21:07	Temp		Cloud		Wind		Rain
Sunset	21:22	Start	End	Start	End	Start	End	
Survey End	22:52	19	18	4	2	1	0	No rain
Number of Surveyors	3							
Number of Bat Emergences	0							

Time	Species	Notes (emergence/number of passes/direction etc)
21:07-22:06		No activity
22:07	<i>Nyctalus noctula</i>	D: HNS E: HNS
22:08-22:09		No activity
22:10-22:19	<i>Pipistrellus pipistrellus</i> <i>Pipistrellus pygmaeus</i>	C: Continuous foraging around courtyard (7)
22:20-22:46		No activity
22:47-22:51	<i>Pipistrellus pipistrellus</i>	C: HNS D: HNS E: HNS
22:52		No activity

Abbreviations: HNS = Heard, not seen. SNH = Seen, not heard.

Appendix C

Bat Survey Plans



Site Boundary



Bat Emergence - 1 No. Soprano pipistrelle (@ 20:45) and 2. No common pipistrelle (@20:52) on 11 August 2020



Building (with number)



Surveyor Location



Flight Lines (with number)



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Drawing Title Bat Survey Plan 2020

Client Drapers' almshouse charity

Date Aug 2022

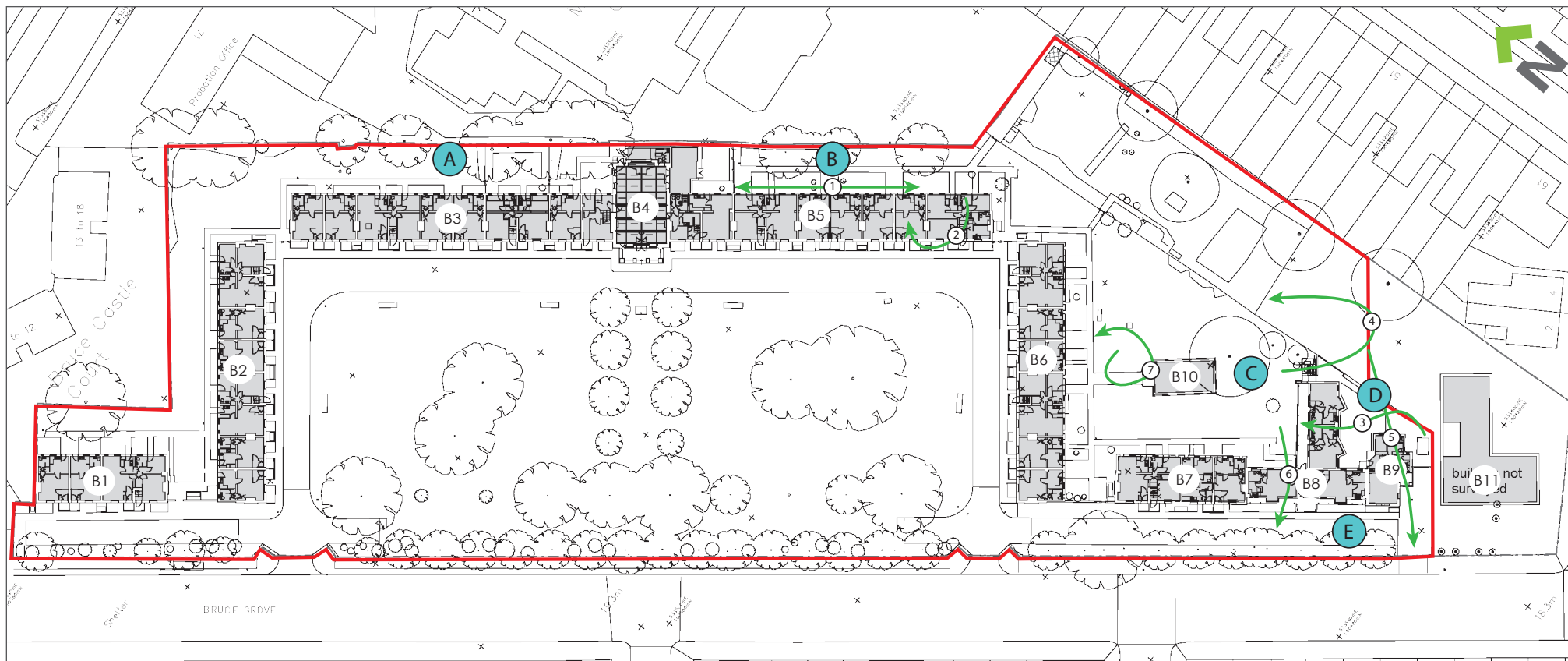
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Drawn MD

Drawing No. CSA/4443/104

Rev A

Checked MJB



-  Site Boundary
-  Building (with number)
-  Surveyor Location
-  Flight Lines (with number)



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Drawing Title	Bat Survey Plan 2022
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Date	Aug 2022	Drawing No.	CSA/4443/104
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