Preliminary Ecological Appraisal and Preliminary Bat Roost Assessment

Ringer's Road, Bromley

Tyler Grange

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Summary

S.1. This report has been prepared by Tyler Grange Limited Group on behalf of Ringers Road Properties Ltd. It sets out the findings of a Phase 1 Habitat Survey, Preliminary Bat Roost Assessment (PBRA) and Habitat Suitability Index (HSI) assessment on land at Ringer's Road, Bromley, BR1 1HT (OS Grid Reference TQ 40249 68904), hereinafter referred to as the 'site'.

S.2. The purpose of this report is to describe the results of ecological surveys undertaken on the site. An initial Phase 1 habitat survey, PBRA and HSI assessment were undertaken on the site on the 30th of October 2020, the results of which were as follows:

- The desk study found:
  - Two Sites of Importance for Nature Conservation (SINCs) are located within a 1km search radius from the site boundary. It is considered that any proposed development will have no significant impact on these sites.
- The results of the Phase 1 habitat survey, PBRA and HSI assessment found:
  - The site primarily comprises: two buildings, amenity grassland and areas of hardstanding. There is also one mature sycamore tree.
  - The site has habitats which could potentially support roosting bats and populations of nesting birds and further surveys for these species, would be required (see **Section 4** of this report). No other protected species are considered to be onsite or likely to be affected by the development.

S.3. The habitats that are being lost to the development are mostly of negligible ecological importance and require no specific mitigation (hardstanding, amenity grassland). It is considered that the loss of tree T1 can be mitigated through suitable habitat creation and replacement planting. Species-specific enhancements recommended within this report, will improve the habitat diversity onsite and will establish a mosaic of habitats that will provide a range of nesting, foraging and commuting opportunities for species such as bats, birds, stag beetles and hedgehogs.

S.4. Building B1 was found to possess a low potential to support roosting bats and therefore is recommended to undergo one emergence/re-entry survey in the optimal bat active season (May-August, inclusive) and will be undertaken in June 2021. As the proposed planning timescales means that this survey cannot take place before submission of the application, an Outline Bat Mitigation Strategy (OBMS) has been produced which assumes a "reasonable worst-case scenario" and outlines the subsequent mitigation requirements. This strategy will ensure that the development will not have an impact upon any bat populations potentially associated with building B1.

S.5. It has been recommended that the mitigation and enhancement recommendations made throughout this report be actioned through the production of a Construction Environmental Management Plan (CEMP), a Landscape and Environment Management Plan (LEMP) and a sensitive bat lighting strategy.

S.6. In anticipation of the results of the recommended surveys and implementation of any necessary mitigation, it is considered that the development of the site will accord with relevant legislation and planning policy that seeks to protect and enhance ecological features and that the mitigation and enhancement strategy can be secured by planning conditions.

Section 1: Introduction and Site Context

Introduction

1.1 This report has been prepared by Tyler Grange Limited Group on behalf of Ringers Road Properties Ltd. It sets out the findings of a Phase 1 Habitat Survey, Preliminary Bat Roost Assessment (PBRA) and Habitat Suitability Index (HSI) assessment on land at Ringer's Road, Bromley, BR1 1HT (OS Grid Reference TQ 40249 68904), hereinafter referred to as the 'site'. See **Figure 1** for the site boundary.

1.2 All methodology followed throughout the Phase 1 habitat survey, PBRA and HSI assessment are detailed in **Appendix 2**.

1.3 The purpose of this report is to make an assessment of potential and known impacts on protected/notable sites, habitats and species as a result of the development proposals. The proposals include the demolition of existing buildings and construction of a mixed-use development comprising residential units, ancillary residents' facilities (including co-working space) and commercial floor space (Use Class E) across two blocks, along with associated hard and soft landscaping, amenity spaces, cycle and refuse storage. The proposals also require the removal of tree T1 (see **Proposed Site Plan 18.085.100.03**).

Figure 1: Site Context and Boundary
(Aerial Imagery © Google 2020)

Purpose

1.4 This report:

- Uses available background data and results of field surveys to describe and evaluate the ecological features present within the likely "zone of influence" (ZoI) of the proposed development;
- Describes the actual or potential ecological issues and opportunities that might arise as a result of the site's development;
- Where appropriate, makes recommendations for mitigation measures for adverse effects on ecological features as well as ecological enhancements, to ensure conformity with policy and legislation listed in **Appendix 1**; and
- Identifies further work required to inform planning application if relevant.

1.5 This assessment and the terminology used are consistent with the "Guidelines for Ecological Impact Assessment in the UK and Ireland" (CIEEM, 2019)

Section 2: Ecological Features

Context

2.1 The site primarily comprises two buildings with a small area of seeded amenity grassland and areas of hardstanding. The two buildings at the site are 2-4 Ringers Road and 5 Ethelbert Road:

2-4 Ringers Road:

- Fronts both Ringers Rd and Ethelbert Rd.
- Ringers Rd elevation is single storey and in restaurant use, occupied by Smoque.
- Ethelbert Rd elevation is three storeys. The ground floor is used for servicing the restaurant. The first and second floors are in use as a photographic/recording studio.

5 Ethelbert Road

- Two storey plus lower ground floor building in residential use, divided into five studios.

2.2 To the north and west, the site is bordered by residential housing and Church House Gardens, with a large block of flats to the south and Bromley town centre to the east. As the site is located in a town centre, the wider surrounding landscape mainly consists of urban development, residential housing and gardens.

Designated Sites

2.3 The data search was conducted by eCountability & Greenspace Information for Greater London. There are no protected sites of either statutory or non-statutory designation present within or directly adjacent to the site boundary.

Statutory Designated Sites

2.4 The are no European or National statutory designated nature conservation sites near to the site boundary:

- There are no RAMSAR sites, Special Areas of Conservation (SACs) or Special Protection Areas (SPAs) within 10km of the site boundary.
- There are no Sites of Special Scientific Interest (SSSIs) or Local Nature Reserves (LNRs) within 2km of the site boundary.

Non-statutory Designated Sites

2.5 There are two Sites of Importance for Nature Conservation (SINCs) within 1km of the site boundary and both are of local level of importance:

- Martins Hill and Church House Gardens SINC which lies 30m to the northwest of the site and is designated for its largely formal mixture of public gardens and urban park, that attracts a range of bird species. Martins Hill is crowned with relatively extensive acid grassland and bushes of yellow-flowered broom (*Cytisus scoparius*). The grassland grades into mature broadleaved woodland. The pond is rather formal but does support invertebrates and wildfowl; and

- Bromley Civic Centre Grounds SINC which lies 0.4km to the northeast of the site and is designated for its surprising range of wildlife habitats, including ponds, woodland and meadows.

A large pond is home to thriving populations of frogs and toads. It also boasts resident wildfowl, dragonflies and frequent visits by herons. A strip of woodland edges the eastern side of the pond, providing habitat for a good range of birds.

Habitats and Flora

2.6 The habitats present across the site are summarised below in **Table 2.1**, along with a description of the composition of the main plant species present and an assessment of their ecological importance.

2.7 The location of the habitats presented below are shown on the Habitats Features Plan (**13577/P01**). All corresponding site photos are presented in **Appendix 3**.

Table 2.1: Habitats and Flora

Feature	Description	Ecological Importance
Buildings (Photos 1-5)	There are two buildings on the site (2-4 Ringers Road and 5 Ethelbert Road). Potential for roosting bats is discussed in paragraph 2.12 below. 2-4 Ringers Road: • Fronts both Ringers Rd and Ethelbert Rd. • Ringers Rd elevation is single storey and in restaurant use, occupied by Smoque. • Ethelbert Rd elevation is three storeys. The ground floor is used for servicing the restaurant. The first and second floors are in use as a photographic/recording studio. 5 Ethelbert Road • Two storey plus lower ground floor building in residential use, divided into five studios.	Negligible ecological importance
Hardstanding (Photo 1)	Areas of hardstanding surround building B1 and B2 and provide no benefit to biodiversity.	Negligible ecological importance
Amenity grassland (Photo 6)	There is a small area of amenity grassland, that has only recently been seeded. Therefore, the grass is very sparse and there are patches of bare ground where vegetation has not yet established itself. The dominant plant species included annual meadow grass *Poa annua.*	Ecological importance within the site context only.
Scattered trees (Photo 7)	There is one mature sycamore *Acer pseudoplatanus* tree T1 on the site boundary that could provide habitat for nesting birds. This tree species is common and widespread, and its location is highlighted on **Plan 13577/P01.**	Ecological importance within the site context only.

Protected and Priority Fauna Species

Amphibians

2.8 The data search returned one record of common frog *Rana temporaria*, located 1km from the site boundary. There were no records of GCN within the past 10 years.

2.9 There are no ponds or waterbodies onsite, however there were two ponds and one ditch identified within 250m of the site boundary. Terrestrial habitat onsite is of poor quality (amenity grassland) and the site is surrounded by roads that would limit amphibian dispersal. One offsite waterbody, pond P1 (HSI score: 0.44) was accessed and subject to a Habitat Suitability Index (HSI) assessment (**Appendix 4**). There was no access to Pond P2. Ponds P1 and P2 are manmade ponds situated

within the Church House Gardens and have steep concrete sides, which are very unsuitable for amphibians. There was no access to the ditch and given that there are no waterbodies or suitable terrestrial habitat onsite, amphibians are **not considered further in this report.**

Bats

Desk Study

2.10 The data search returned 15 records for two bat species within 1km of the site with the closest record being of a soprano pipistrelle *Pipistrellus pygmaeus* 0.3km west. Other records included common pipistrelle *Pipistrellus pipistrellus*, with the most recent record in 2017.

2.11 The site was assessed as having **very low to negligible potential** for foraging and commuting bats.

Preliminary Bat Roost Assessment

2.12 The PBRA assessment found building B1 to have **low potential for roosting bats**, with potential roost features (PRFs) identified such as gaps under the slate roof tiles, a gap under one of the gable end ridge tiles and a gap in the soffit box. Building B2 was assessed as having **negligible potential for roosting bats** and is not considered further in this report.

2.13 Building B1 is a large and recently converted block of flats with a slate tiled roof. The building comprises a shallow pitch roof with a surrounding soffit box and guttering.

2.14 An external inspection of the building B1 identified several features with the potential to support roosting bats. These features are detailed in **Table 2.2** below.

Table 2.2: Results of PBRA on building B1.

Feature	Feature Description and Suitability	Photos
Gap under gable end ridge tile	One ridge tile had a gap underneath that could provide shelter for one or two bats; however this feature could be quite exposed to the weather. This feature is of **low suitability** for use by roosting bats.	

Feature	Feature Description and Suitability	Photos
Slate roof tile gaps	Gaps between loose tiles across both sides of the roof. These features provide opportunities for crevice-dwelling bat species. These features are of **low suitability** for use by roosting bats.	
Gap in soffit box	Building B1 has a gap in the soffit, which could provide an opportunity for roosting bats. This small gap could extend further into the roof, offering shelter for a small number of common and widespread species. This feature is of **low suitability** for use by roosting bats.	

2.15 An external inspection of the building B2 identified one feature with negligible potential to support roosting bats. This feature is detailed in **Table 2.3** below.

Table 2.3: Results of PBRA on building B2.

Feature	Feature Description and Suitability	Photo
Gaps between bricks due to missing mortar from ivy damage	Gaps between bricks, due to missing mortar from ivy damage. This feature is very exposed to the weather and so provides little shelter for roosting bats. This feature is of **negligible suitability** for use by roosting bats.	

2.16 Tree T1 was assessed as having **negligible potential for roosting bats**.

2.17 Potential impacts and recommended surveys are discussed in **Section 3 and 4** of this report.

Birds

2.18 The data search returned 288 records of birds within 1km of the site. This includes records of species on the Birds of Conservation Concern (BoCC) Red List[1], including six red listed bird species, such as house sparrow *Passer domesticus* and starling *Sturnus vulgaris* and five amber listed bird species including swift *Apus apus*.

2.19 Tree T1 and the onsite buildings have the potential to support nesting birds, whose nests and eggs are protected under the Wildlife and Countryside Act (WCA) 1981, as amended.

2.20 Surveys for breeding and wintering birds are not considered necessary as given the limited extent and quality of the habitats present, the site is not deemed likely to be of importance for breeding or wintering bird assemblages.

Stag beetles

2.21 The data search returned 418 records for stag beetles within 1km of the site, with the closest record located 0.9km from the site boundary in 2019.

2.22 The site does not currently comprise of any habitat suitable for stag beetles, however the redevelopment of the site could provide opportunities by enhancing onsite habitat for this species.

[1] Eaton M, Aebischer N, Brown A, Hearn R, Lock L, Musgrove A, Noble D, Stroud D and Gregory R. (2015). Birds of Conservation Concern 4: the population status of birds in the UK, Channel Islands and Isle of Man. British Birds, 108:708 - 746.

West European Hedgehog

2.23 The data search returned eleven records for West European hedgehog Erinaceus europaeus within 1km of the site and the closest record was 0.5km from the site boundary in May 2019.

2.24 The site has an area of amenity grassland that could provide foraging opportunities for hedgehogs, but there are limited opportunities for hibernation.

Other protected species

2.25 The site is also considered unlikely to support Eurasian otter *Lutra lutra*, UK reptile species, Eurasian badger *Meles meles,* European water vole *Arvicola amphibius*, white-clawed crayfish *Austropotamobius pallipes* or hazel dormouse *Muscardinus avellanarius* due to the lack of records returned by the data search, lack of suitable habitats within the site, and the lack of connectivity of habitats at the site to notable areas of suitable habitat within the wider landscape. As such, none of these species are considered likely to be present at the site or otherwise affected by the proposed re-development works and are **not discussed further within this report.**

Invasive species

2.26 Invasive species are those listed under Schedule 9 of the WCA 1981. With regard to invasive plant species (listed under Part II of Schedule 9), it is an offence to plant or otherwise cause to grow in the wild any plant which is included in Part II of Schedule 9.

2.27 During the Phase I habitat survey, Buddleia *Buddleja davidii* was observed onsite and this is a species included on the London Invasive Species Initiative (LISI) as a category 3: Species of high impact or concern which are widespread in London and require concerted, coordinated and extensive action to control/eradicate.

Section 3: Ecological Opportunities and Constraints

Proposed Development

3.1. The proposals comprise the demolition of existing buildings and construction of a mixed-use development comprising residential units, ancillary residents' facilities (including co-working space) and commercial floor space (Use Class E) across two blocks, along with associated hard and soft landscaping, amenity spaces, cycle and refuse storage. The proposals also require the removal of tree T1 (see **Proposed Site Plan 18.085.100.03**).

3.2. The potential impacts at this site as a result of the proposed works are set out below, with reference to relevant legislation and planning policy, which is summarised in **Appendix 1.**

Potential Impacts, Requirement for Mitigation and Enhancement Opportunities

3.3. Both the Countryside and Rights of Way (CRoW) Act 2000 and the Natural Environment and Rural Communities (NERC) Act 2006 give the importance of conserving biodiversity a statutory basis, requiring government departments (which includes Local Planning Authorities) to have regard for biodiversity in carrying out their obligations (which includes determination of planning applications) and to take positive steps to further the conservation of listed species and habitats. These articles of legislation require the London Borough of Bromley to take measures to protect species or habitats from the adverse effects of development, where appropriate, by using planning conditions or obligations. Planning authorities should refuse permission where harm to the species or their habitats would result, unless the need for, and benefits of, the development clearly outweigh the harm.

3.4. Where there are potential impacts to the ecological features identified within the ZoI of the site, at either the construction or operational phases of the development, these are described below. Where impacts would trigger legislation or planning policy (as set out in **Appendix 1**), the requirement for mitigation is noted.

3.5. The mitigation and enhancement recommendations take account of national planning policy (NPPF) which requires that the planning system should contribute to and enhance the natural and local environment minimising impacts on biodiversity and providing net gains, as well as local planning policy, the key polices of which are provided in **Appendix 1**.

Protected sites

3.6. There are no impacts expected on any Ramsar sites, SPAs or SACs, due to the distance from the site boundary and a lack of identifiable impact pathways.

3.7. Martins Hill and Church House Gardens SINC is in closest proximity to the site, however, is separated by urban features such as a road and other residential housing. Pollution relating to the construction phase of the site, can be mitigated for by the implementation of sensitive construction practices which could be controlled by the implementation of a CEMP. None of these protected sites are directly adjacent to the development and so there are no expected impacts resulting from the construction phase provided the CEMP is implemented.

3.8. In terms of potential Impacts resulting from increased recreational pressure, both Martins Hill and Church House Gardens SINC and Bromley Civic Centre Grounds SINC are currently accessible to the public, which is carefully managed through a network of paths, so no effects are considered likely.

Given the nature of the habitats present at these sites and the distance from the site, no other tangible impact pathways have been identified and no impacts are considered likely.

Habitats and Fauna

3.9. For each ecological feature at the site, the requirement for further surveys, impacts, avoidance, mitigation and enhancement measures are presented in **Table 3.1** below. Works are likely to result in the loss of some habitats described in **Table 2.1**. As such, **Table 3.1** outlines the likely impacts and mitigation required (where appropriate) to offset the loss of habitats. Recommended enhancements are also given in the table, in order to demonstrate how the development could deliver a net gain for biodiversity, in line with relevant policy.

3.10. The location of the habitats presented below are shown on the Habitats Features Plan (**13577/P01**). All corresponding site photos are presented in **Appendix 3**.

Table 3.1: Potential Impacts, Requirement for Mitigation and Enhancement Opportunities

Feature	Potential impacts	Requirement for mitigation	Enhancement opportunities
Habitats			
Buildings (Photos 1-5)	Loss of buildings B1 and B2.	Building B1 with low potential for roosting bats requires one emergence/re-entry survey in the bat active season (May-August, inclusive).	As discussed further below in the section relating to bats, appropriate mitigation and enhancements are presented within the Outline Bat Mitigation Strategy (OBMS).
Hardstanding (Photo 1)	Loss of area of hardstanding.	N/A	N/A
Amenity grassland (Photo 6)	Loss of area of amenity grassland.	N/A	Enhancements for biodiversity could be provided by planting native herb, shrub and bulb species and through the incorporation of green roofs or walls.
Scattered trees (Photo 7)	Loss of tree T1.	For any trees that can be retained within the site plan, a suitable buffer zone should be erected, and the trees protected during the construction phase according to best practice guidance (BS5837: Trees in relation to design, demolition and construction). Site plans show the removal of tree T1 and therefore replacement planting should be used to compensate for this loss Ideally, native species should be used, and the area of planting should be well connected, to create valuable onsite habitat.	

Feature	Potential impacts	Requirement for mitigation	Enhancement opportunities
		This is in line with the London Plan Policies G6 & G7 and the Bromley Biodiversity Plan.	
Protected and Priority Fauna Species			
Amphibians	N/A	N/A	Native planting could be used to provide suitable habitat for common and widespread amphibians. This could comprise of native planting that will increase the insect abundance and diversity at the site to provide forage. These enhancements are in line with the London Plan Policy G6. A range of herb and shrubby species will provide a range of habitat structures that could provide shelter. Management could be used to maintain a diversity of habitat structures and maintain heterogeneity across site planting. The construction of log piles could also provide new and enhanced habitat for amphibians.
Bats	Loss of potential roosting sites within building B1.	Given that the buildings will be demolished as part of construction of the proposed scheme, further survey of all PRFs upon building B1 are required. However, given the proposed planning timescale for the scheme, the surveys will not be undertaken before submission of the application. As such, an Outline Bat Mitigation Strategy (OBMS) is set out below, which assumes a 'reasonable worst-case scenario' (based on the findings of the PBRA) and subsequent mitigation requirements.	Bat boxes could be installed to compensate for the loss of bat roosting sites.
	Loss of foraging area over the amenity grassland.	N/A	Enhancement of the site for foraging bats through native replacement planting, to increase the amount of insect forage available. Foraging opportunities could be further increased for bats through the incorporation of green roofs or walls, which where possible should support native planting. As well as increasing the amount of insect forage available for bats, green roof and wall planting is

Feature	Potential impacts	Requirement for mitigation	Enhancement opportunities
			in line with the London Plan Policies G1 and G5.
	Potential impact from construction lighting on foraging bats.	If a roost is found during the emergence survey, a sensitive lighting strategy will be required. This will ensure the value of the site bats is maximised during the construction phase and once the scheme is built. Any lighting scheme should be designed to maintain dark, unlit areas by avoiding the illumination of bat foraging and commuting habitats, particularly those that are not already subject to illumination.	Sensitive lighting will help to encourage the use of the site by bats. This should be put in place to ensure minimal disturbance (e.g. low bollard lighting where possible, use of hoods and cowls on lamps and use of low-pressure sodium or, where glass glazing is preferred, use of high-pressure sodium instead of metal halide lamps – Collins, 2016; BCT and Institute of Lighting Engineers, 2018)[2]. These enhancements for bats are in line with the London Plan Policy G1, London BAP and the London Borough of Bromley - Policy 72.
Birds	Potential to disturb nesting birds in buildings will require a pre-commencement nesting bird check.	If nesting birds are found to be present during site clearance a buffer zone will be instated, and no works should be undertaken within the buffer zone until the chicks have fledged or a suitably qualified ecologist confirms the nest is no longer active. If any demolition is to take place during the core nesting bird season (March-August inclusive, although birds may nest outside of this period), prior to the commencement of works a check by an Ecological Clerk of Woks (ECoW) should be undertaken to determine if nesting birds are present. These methods would be controlled via a CEMP.	Planting a mix of native species throughout the site can also increase foraging opportunities through providing a mixture of species that flower at different times of year, such as Ivy *Hedera helix* which flowers in autumn, and by increasing the abundance of invertebrates on site though planting species such as honey suckle *Lonicera periclymenum*. Bird boxes should be incorporated into the scheme design, where possible, to enhance opportunities for nesting birds. Boxes targeting species of conservation concern (House sparrow and swift) should be included. These enhancements for birds are in line with the London BAP and the London Borough of Bromley - Policy 72.
Stag Beetle	N/A	N/A	Deadwood habitat could be provided for any stag beetle that may be present on site or in the wider area. These log piles

[2] Bat Conservation Trust & Institution of Lighting Professionals (2018). Guidance Note 08/18 – "Bats and artificial lighting in the UK".
Jones, J. (2000) Impact of Lighting on Bats. Bat Conservation Trust, London.

Feature	Potential impacts	Requirement for mitigation	Enhancement opportunities
			should be placed within areas of native planting. This enhancement is in line with the London BAP and the Bromley Biodiversity Plan, where stag beetles are listed as priority species.
Hedgehog	Loss of foraging habitat.	If any fences are to be installed around the site, small gaps should be provided to allow hedgehogs free movement across the site.	The construction of log piles could also provide new and enhanced habitat for hedgehogs. This enhancement is in line with the Bromley Biodiversity Plan, where hedgehogs are listed as priority species.

3.11. The above mitigation and enhancement recommendations for protected and priority species will be in line with the Bromley Biodiversity Plan 2015-2020, which identifies these species, such as bats, as key groups within the borough.

Outline Bat Mitigation Strategy (OBMS)

3.12. This OBMS outlines the mitigation required for a "worst-case scenario" where building B1 is identified as supporting a bat roost. However, as outlined in **Table 2.2** the building offers limited opportunities to bats and as such, this scenario is considered unlikely. Furthermore, the site currently offers little foraging opportunities for bats.

3.13. As stated above, building B1 is considered to have low potential to support common and widespread roosting bats. In the absence of required survey data, a 'reasonable worst-case scenario', including appropriate associated mitigation, is detailed below.

Assumed Roost Presence

3.14. Given the limited number and nature of the external building features supported by Building B1, it is considered that a summer day roost or transitional roost(s) for a low number of common pipistrelle and/or soprano pipistrelle is the most likely to be present. It is considered for purpose of the OBMS that:

- Building B1 possess a transitional or summer day roost of common pipistrelle within a gap in the slate roof tiles.

Required Works

3.15. Buildings B1 and B2 are due to be demolished as part of the proposed development. The hardstanding and amenity grassland will also be removed as part of enabling works at the site.

Need for a BLICL

3.16. If bats are determined to be present once the emergence/re-entry survey is complete, a Natural England (NE) development licence will need to be applied for once planning consent is granted. This licence will ensure no bats are killed or injured during the construction phase of the development. If the roost(s) present are found to be of low conservation significance, it is likely that a Bat Low Impact

Class Licence (BLICL) from NE can be used. The BLICL will enable the destruction of any roosts that are found to be present to proceed lawfully.

Timing and Supervision of Work

3.17. Works would be timed to minimise impacts on bats and would be determined following further surveys and confirmation with Natural England as part of the licencing process, if required.

3.18. In the event a licence is required, prior to starting the works, the BLICL registered ecologist will attend the site to carry out an inspection of all roost features to check for any bats present. A toolbox talk will be used to brief the roofing contractors on the possible presence of bats, and the required approach.

3.19. The ecologist will remain on site to supervise soft stripping of building B1, which will include the removal of any roof tiles or sheeting, prefabricated cladding and brick work etc. as necessary until the PRFs are rendered unusable by bats. If any live bats are found during works, they will be transferred to one of the replacement roosts (described below) which will be erected in advance of the works taking place.

Replacement Roost and Enhancement

3.20. To compensate for roost loss, and to provide increased opportunities for roosting bats, a range of artificial roost features will be included within the design of the proposed development as follows:

- No suitably retained buildings will be available to install bat boxes on before the commencement of works. Therefore, ideally one small bat box (Schwegler 1FF type) will be installed on a pole or, if possible, on a suitable tree, adjacent to the site on the western boundary, with landowner permission, prior to the commencement of works. The box will be placed at 3-5m in height on a south-westerly aspect of the tree trunk or pole to provide suitable roosting conditions.

- One bat roost will be incorporated within the design of the new residential units by either using integrated brick bat boxes or externally erected bat boxes. The above-described bat boxes can be used as externally mounted bat boxes or internal bat boxes can be used such as the Ibstock Enclosed Bat Box “C”. This bat box will replace the temporary pole or tree mounted bat box that would be installed prior to works commencing at the site. If any pole or tree mounted bat boxes are to be removed following completion of works this must be done during the autumn months and by a suitably licenced ecologist.

3.21. The site may be further enhanced for bats through the planting of native nectar rich flora species within the planting regime, such as ivy and honeysuckle that will act to attract invertebrates, thereby enhancing the food resource in the local area for bats.

Lighting

3.22. Lighting at the site during the construction and operation phases of the proposed development should be sympathetic to bats that may be roosting at the site or utilising the site and nearby habitats for foraging and commuting activity. The lighting at the site should be designed to minimise disturbance to bats (e.g. low bollard lighting where possible, use of hoods and cowls on lamps and use of low-pressure sodium or, where glass glazing is preferred, use of high-pressure sodium instead of metal halide lamps – Collins, 2016; BCT and Institute of Lighting Engineers, 2018).

Timing of survey

3.23. One emergence/re-entry survey should take place on Building B1 in the bat active season and will be undertaken in June 2021.

Conclusion

3.24. If a bat roost of a type and species as assumed above is identified on site, provided the measures described in the outline mitigation strategy are followed, it should be possible to effectively mitigate the impacts of the proposed development and maintain the favourable conservation status of bat populations on site.

3.25. If no roosts are identified during the emergence/re-entry survey, the mitigation measures will not be required. However, the permanent roost replacement and enhancement measures would still be recommended to be incorporated into the development to enhance the value of the site for bats.

Section 4: Recommended Further Work

4.1. One emergence/re-entry survey (requiring two surveyors) is recommended to be undertaken upon building B1 before demolition works take place. This must be carried out in the bat active season (May to August, inclusive) and is advised to take place in June 2021.

Section 5: Conclusions

5.1. No Ramsar Sites, SPAs, SACs or SSSIs will be affected by the proposed development. There are two SINCs within 1km of the site, Martins Hill and Church House Gardens and Bromley Civic Centre Grounds, which will not be subject to any direct or indirect effects. Martins Hill and Church House Gardens is located 30m from the site boundary, however potential impacts from construction pollution will be controlled through a CEMP.

5.2. As the site is predominantly existing buildings, hardstanding and amenity grassland, the majority of the habitats to be lost as a result of the proposed development are of negligible ecological importance and no specific mitigation is required. All habitats of ecological importance within the context of the site only (scattered tree T1) will be lost as a result of the proposals. It is considered, however that this can be mitigated through suitable habitat creation and replacement planting.

5.3. Building B1 was found to possess a low potential to support roosting bats and therefore is recommended to undergo one emergence/re-entry survey in the optimal bat active season (May-August, inclusive), comprising of two surveyors. As the proposed planning timescales means that this survey cannot take place before submission of the application, an Outline Mitigation Strategy (OMS) has been produced which assumes a “reasonable worst-case scenario” and outlines the subsequent mitigation requirements. This describes the potential need for a licence, the timing and supervision of works and how roost mitigation and site enhancement for bats can be included within the design of the scheme. This strategy will ensure that the development will not have an impact upon any potential bat populations.

5.4. Should trees or buildings at the site be removed during the ‘core’ nesting bird season (March – August, inclusive, however some bird species can nest at any time of year), prior to the commencement of works a check by an ECoW should be undertaken to determine if nesting birds are present. Should nesting birds be present in these areas, an appropriate buffer will need to be put in place and retained until an ECoW confirms that the young have fledged, or the nest is no longer active.

5.5. Where possible, new habitat should be created onsite in line with local and national planning policy. In addition, enhancements for specific species groups could be provided, including bird boxes to increase the number of nesting sites and native planting to increase foraging opportunities for bats, birds and mammals that may use the site. Wood piles formed from felled trees could benefit hedgehogs and invertebrates such as stag beetles, which have been recorded in the local area. Enhancements, such as these (detailed in **Table 3.1**), will satisfy the policies outlined in the Borough of Bromley Local Plan and the Bromley Biodiversity Plan.

5.6. In summary, those valuable ecological resources that exist, or could exist, at the site, could be accommodated by the adoption of design principles. Where impacts may occur, these could be more than mitigated for through creation and better management of new habitat within the site (namely soft landscaping). In conclusion, it is considered that the principle of development at the site could be compliant with the relevant planning policy and legislation with regard to ecology and a net gain for biodiversity could be achieved at the site with some simple habitat creation measures.

Appendix 1: Planning & Legislative Context

Legislation

A1.1. Specific habitats and species receive legal protection in the UK under various pieces of legislation, including:

- The Wildlife and Countryside Act (WCA) 1981 (as amended);
- The Conservation of Habitats and Species Regulations 2018;
- The Countryside and Rights of Way (CRoW) Act 2000;
- The Natural Environment and Rural Communities Act (NERC) 2006;
- The Hedgerows Regulations 1997; and
- The Protection of Badgers Act 1992.

A1.2. The European Council Directive on the Conservation of Natural Habitats and of Wild Flora and Fauna, 1992, often referred to as the 'Habitats Directive', provides for the protection of key habitats and species considered of European importance. Annexes II and IV of the Directive list all species considered of community interest. The legal framework to protect the species covered by the Habitats Directive has been enacted under UK law through The Conservation of Habitats and Species Regulations 2018 (as amended).

A1.3. In Britain, the WCA 1981 (as amended) is the primary legislation protecting habitats and species. SSSIs, representing the best examples of our natural heritage, are notified under the WCA 1981 (as amended) by reason of their flora, fauna, geology or other features. All breeding birds, their nests, eggs and young are protected under the Act, which makes it illegal to knowingly destroy or disturb the nest site during nesting season. Schedules 1, 5 and 8 afford protection to individual birds, other animals and plants.

A1.4. The CRoW Act 2000 strengthens the species enforcement provisions of the WCA 1981 (as amended) and makes it an offence to 'recklessly' disturb a protected animal whilst it is using a place of rest or shelter or breeding/nest site.

National Planning Policy

National Planning Policy Framework (NPPF), July 2021

A1.5. *The National Planning Policy Framework (NPPF) was updated in July 2021 and sets out the Government's planning policies for England and how these should be applied. It replaces the National Planning Policy Framework published in July 2019.*

A1.6. *Paragraph 11 states that:*

- *"Plans and decisions should apply a presumption in favour of sustainable development."*

A1.7. *Section 15 of the NPPF (paragraphs 174 to 182) considers the conservation and enhancement of the natural environment including habitats and biodiversity (paragraphs 179-182)*

A1.8. *Paragraph 174 states that planning and decisions should contribute to and enhance the natural and local environment by:*

- *"protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);*
- *recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland; and*
- *minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures"*

A1.9. *Paragraph 175 states that plans should distinguish between the hierarchy of international, national and locally designated sites; allocate land with the least environmental or amenity value; take a strategic approach to maintaining and enhancing networks of habitats and green infrastructure; and plan for the enhancement of natural capital at a catchment or landscape scale across local authority boundaries.*

A1.10. *Paragraph 179 states that in order to protect and enhance biodiversity and geodiversity, plans should:*

- *"Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation; and*
- *promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity."*

A1.11. *When determining planning applications, Paragraph 180 states that local planning authorities should aim to conserve and enhance biodiversity by applying the following principles:*

- *"if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;*
- *development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;*
- *development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists; and*
- *development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate."*

A1.12. *As stated in paragraph 181 the following should be given the same protection as habitats sites:*

- *"potential Special Protection Areas and possible Special Areas of Conservation;*

- *listed or proposed Ramsar sites; and*
- *sites identified, or required, as compensatory measures for adverse effects on habitats sites, potential Special Protection Areas, possible Special Areas of Conservation, and listed or proposed Ramsar sites."*

A1.13. *Paragraph 182 states that the presumption in favour of sustainable development does not apply where the planned project is likely to have a significant effect on a habitat site (alone or in combination with other plans or projects) unless an appropriate assessment has concluded the plan or project will not adversely affect the integrity of the habitats site.*

Local Planning Policy

The London Plan, The Spatial Development Strategy for Greater London, March 2021

A1.14. *Policies relating to ecology and nature conservation can be found in Chapter 8: Green Infrastructure and Natural Environment, which are summarised as follows:*

A1.15. *Policy G1: Green Infrastructure*

A London's network of green and open spaces, and green features in the built environment, should be protected and enhanced. Green infrastructure should be planned, designed and managed in an integrated way to achieve multiple benefits.

B Boroughs should prepare green infrastructure strategies that identify opportunities for cross-borough collaboration, ensure green infrastructure is optimised and consider green infrastructure in an integrated way as part of a network consistent with Part A.

C Development Plans and area-based strategies should use evidence, including green infrastructure strategies, to:

1) identify key green infrastructure assets, their function and their potential function
2) identify opportunities for addressing environmental and social challenges through strategic green infrastructure interventions.

D Development proposals should incorporate appropriate elements of green infrastructure that are integrated into London's wider green infrastructure network should prepare green infrastructure strategies that integrate objectives relating to open space provision, biodiversity conservation, flood management, health and wellbeing, sport and recreation.

A1.16. *Policy G5: Urban Greening*

A Major development proposals should contribute to the greening of London by including urban greening as a fundamental element of site and building design, and by incorporating measures such as high-quality landscaping (including trees), green roofs, green walls and nature-based sustainable drainage.

B Boroughs should develop an Urban Greening Factor (UGF) to identify the appropriate amount of urban greening required in new developments. The UGF should be based on the factors set out in Table 8.2, but tailored to local circumstances. In the interim, the Mayor recommends a target score of 0.4 for developments that are predominately residential, and a target score of 0.3 for predominately commercial development (excluding B2 and B8 uses).

C Existing green cover retained on site should count towards developments meeting the interim target scores set out in (B) based on the factors set out in Table 8.2.

A1.17. *Policy G6: Biodiversity and Access to nature*

A Sites of Importance for Nature Conservation (SINCs) should be protected.

B Boroughs, in developing Development Plans, should:

1) use up-to-date information about the natural environment and the relevant procedures to identify SINCs and ecological corridors to identify coherent ecological networks
2) identify areas of deficiency in access to nature (i.e. areas that are more than 1km walking distance from an accessible Metropolitan or Borough SINC) and seek opportunities to address them
3) support the protection and conservation of priority species and habitats that sit outside the SINC network, and promote opportunities for enhancing them using Biodiversity Action Plans
4) seek opportunities to create other habitats, or features such as artificial nest sites, that are of particular relevance and benefit in an urban context
5) ensure designated sites of European or national nature conservation importance are clearly identified and impacts assessed in accordance with legislative requirements.

C Where harm to a SINC is unavoidable, and where the benefits of the development proposal clearly outweigh the impacts on biodiversity, the following mitigation hierarchy should be applied to minimise development impacts:

1) avoid damaging the significant ecological features of the site
2) minimise the overall spatial impact and mitigate it by improving the quality or management of the rest of the site
3) deliver off-site compensation of better biodiversity value.

D Development proposals should manage impacts on biodiversity and aim to secure net biodiversity gain. This should be informed by the best available ecological information and addressed from the start of the development process.

E Proposals which reduce deficiencies in access to nature should be considered positively.

A1.18. *Policy G7: Trees and woodlands*

A London's urban forest and woodlands should be protected and maintained, and new trees and woodlands should be planted in appropriate locations in order to increase the extent of London's urban forest – the area of London under the canopy of trees.

B In their Development Plans, boroughs should:

1) protect 'veteran' trees and ancient woodland where these are not already part of a protected site
2) identify opportunities for tree planting in strategic locations.

C Development proposals should ensure that, wherever possible, existing trees of value are retained. If planning permission is granted that necessitates the removal of trees there should be adequate replacement based on the existing value of the benefits of the trees removed, determined by, for example, i-tree or CAVAT or another appropriate valuation system. The planting of additional trees should generally be included in new developments – particularly large-canopied species which provide a wider range of benefits because of the larger surface area of their canopy.

The London Borough of Bromley Local Plan (2019)

A1.19. *Section 5.2 – Open and Natural Space – Policy 49: Green Belt*

Within the Green Belt permission will not be given for inappropriate development unless very special circumstances can be demonstrated that clearly outweigh the harm by reason of inappropriateness or any other harm.

The construction of new buildings on land falling within the Green Belt will be inappropriate, unless it is for the following purposes:

- *agriculture and forestry;*
- *appropriate facilities for outdoor sport and outdoor recreation and cemeteries which preserve the openness of the Green Belt and do not conflict with the purposes of including land in it;*
- *extension or alteration of a building that it does not result in disproportionate additions over and above the size of the original building;*
- *the replacement of a building, provided the new building is in the same use and not materially larger than the one it replaces;*
- *limited infilling in villages, and limited affordable housing for local community needs under policies set out in the Local Plan; or*
- *limited infilling or the partial or complete redevelopment of previously developed sites (brownfield land), whether redundant or in continuing use (excluding temporary buildings), which would not have a greater impact on the openness of the Green Belt and the purpose of including land within it than the existing development.*

Certain other forms of development are also not inappropriate in the Green Belt provided they preserve the openness of the Green Belt and do not conflict with the purposes of including land in Green Belt. These are:

- *mineral extraction;*
- *engineering operations;*
- *local transport infrastructure which can demonstrate a requirement for a Green Belt location;*
- *the re-use of buildings provided that the buildings are of permanent and substantial construction; and*
- *development brought forward under a Community Right to Build Order.*

A1.20. *Section 5 – Policy 56: Local Green Space*

Local Green Space is green or open space which has been demonstrated to have special qualities and holds particular significance to the local community which it serves. Development which causes harm to the "special qualities" of a Local Green Space as defined within its Statement of Significance but is otherwise policy compliant will be considered inappropriate and will not be accepted except in very special circumstances.

A1.21. *Section 5 – Policy 69: Development and Nature Conservation Sites*

A development proposal that may significantly affect the nature conservation interest or value of a Local Nature Reserve (LNR), Site of Importance for Nature Conservation (SINC) or a Regionally Important Geological Site (RIG) will be permitted only:

- *If it can be shown that the reasons for the development or benefits to the local community from the development outweigh the interest or value of the site, or*
- *Any harm can be overcome by mitigating measures, secured through conditions or planning obligations.*

A1.22. *Section 5 – Policy 70: Wildlife Features*

Where development proposals are otherwise acceptable, but cannot avoid damage to and/or loss of wildlife features, the Council will seek through planning obligations or conditions:

- *Inclusion of suitable mitigation measures; and*
- *The creation, enhancement, and management of wildlife habitats and landscape features to contribute towards the Bromley Biodiversity Action Plan.*

A1.23. *Section 5 – Policy 72: Protected Species*

Planning permission will not be granted for development or change of use of land that will have an adverse effect on protected species, unless mitigating measures can be secured to facilitate survival, reduce disturbance or provide alternative habitats.

A1.24. *Section 5 – Policy 73: Development and Trees*

Proposals for new development will be required to take particular account of existing trees on the site and on adjoining land, which in the interests of visual amenity and/or wildlife habitat, are considered desirable to be retained. Tree preservation orders will be used to protect trees of environmental importance and visual amenity. When trees have to be felled, the Council will seek suitable replanting.

A1.25. *Section 5 – Policy 79: Biodiversity and Access to Nature*

The Council will enhance biodiversity across the Borough, assist ecological restoration and address spatial deficiencies in access to nature by:

- *Using the procedures in the Mayor's Biodiversity Strategy to identify and secure the appropriate management of sites of metropolitan, borough and local importance for nature conservation in consultation with the London Wildlife Sites Board.*
- *Identifying areas deficient in accessible wildlife sites and seek opportunities to address them.*

Biodiversity Action Plan

A1.26. Bromley Biodiversity Plan 2015 – 2020 is a written strategy for the protection and enhancement of biodiversity in the borough.

Habitats:

- Woodland
- Ancient Trees
- Hedgerows
- Grasslands
- Lowland Heath and Mire
- Wetland
- Scrub
- Gardens & Allotments
- Churchyards & Cemeteries

Species:

Birds

- Barn Owl
- Fieldfare
- Firecrest
- Hobby
- Kingfisher
- Redwing
- Starling
- House sparrow
- House martin
- Swift

Mammals

- All bat species
- Hazel dormouse
- Hedgehog
- All shrew species
- Water vole

Amphibians and reptiles

- Adder
- Common Frog
- Common lizard
- Common toad
- Grass snake
- Great Crested Newt
- Palmate Newt
- Slow-worm
- Smooth newt

Invertebrates

- Purple Emperor
- Roman Snail
- Stag Beetle
- White-letter hairstreak

Appendix 2: Survey Methodology

Data Search

A2.1 A desk-based study was conducted whereby records of designated sites and records of protected and priority species were purchased and interrogated for the site and the surrounding landscape. The following resources were consulted / contacted:

- Multi-Agency Geographic Information for the countryside (MAGIC) website[3];
- eCountability & Greenspace Information for Greater London[4];
- London Borough of Bromley Council Website[5];
- Joint Nature Conservation Committee (JNCC) website[6];
- Natural England (NE) designated sites website[7];
- Ordnance Survey mapping; and
- Google Maps, including aerial photography.

A2.2 The following areas of search around the boundary of the site boundary were applied:

- 1km for protected and priority species;
- 2km for non-statutory and statutory designated sites; and
- 10km for European statutory sites.

Extended Phase I Habitat Survey

A2.3 A site walkover survey was conducted on the 30th October 2020 by Christian Cairns and Zoe Durran who are both experienced field ecologists and qualifying members of the Chartered Institute of Ecology and Environmental Management (CIEEM). The methods used during the walkover survey broadly followed methods used in an 'extended' Phase I habitat survey (JNCC, 2010[8]). This technique provides an inventory of the habitat types present and dominant species. Note was taken of the more conspicuous fauna and any evidence of, or the potential for, the presence of protected notable flora and fauna.

A2.4 The weather conditions for the survey were overcast with 80% cloud cover and approximately 14°C.

A2.5 Additionally, the habitats identified were evaluated for their potential to support legally protected and notable fauna species.

[3] https://magic.defra.gov.uk/
[4] https://www.gigl.org.uk/
[5] http://www. bromley.gov.uk/site/
[6] http://jncc.defra.gov.uk/ProtectedSites/
[7] https://designatedsites.naturalengland.org.uk/
[8] Joint Nature Conservation Committee (2010). Handbook for Phase 1 habitat survey - a technique for environmental audit. JNCC, Peterborough.

Preliminary Bat Roost Assessment

A2.6 A Preliminary Bat Roost Assessment (PBRA) of the buildings and trees present within the site was undertaken to assess their potential to support roosting bats. This survey was undertaken alongside the 'extended' Phase 1 habitat survey. The surveys followed standard methodologies (Mitchell-Jones, A.J., 2004; Mitchell-Jones, A.J. and McLeish, A.P., 2004; Collins, 2016[9]) which are described below.

A2.7 The PBRA for buildings comprised an external inspection of the building present onsite to assess for the potential to support roosting bats. In summary this required the following:

- A visual inspection of the exterior of the building and trees on site was undertaken on the 30th October 2020, examining features such as brickwork, lead flashing, and tiles for evidence of use by bats, including the presence of bat droppings and staining from fur-oil or urine; and
- A number of factors were considered including the presence of features suitable for use by crevice dwelling bats, proximity to foraging habitats or cover, and potential for disturbance from lighting and other sources.

A2.8 Evidence of the presence of bat roosts was also sought. These signs included:

- Presence of bats;
- Bat droppings in, around or below a potential roost feature (PRF);
- Odour emanating from a PRF;
- Audible squeaking at dusk or in warm weather; and
- Visible staining below a PRF.

A2.9 The potential for the onsite buildings and trees at the site to support roosting bats has been categorised against the criteria described in **Table A2.1**.

Table A2.1 – Roost Assessment Criteria (adapted form Collins, 2016).

Suitability	Description of Roosting Habitats
Negligible	Negligible habitat features on-site likely to be used by roosting bats.
Low	A structure 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). A tree of sufficient size and age to contain PRFs but with none seen from the ground or features are seen with only very limited roosting potential.

[9] Mitchell-Jones, A.J. (2004). Bat Mitigation Guidelines. English Nature, Peterborough.
Mitchell-Jones, A.J. and McLeish, A.P. (2004). Bat Workers' Manual. 3rd Edition. JNCC, Peterborough.

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.
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 long periods of time due to their size, shelter, protection conditions and surrounding habitat.

Evaluation

A2.10 The evaluation of habitats and species is defined in accordance with published guidance (CIEEM, 2019). The level of importance of specific ecological features is assigned using a geographic frame of reference, with international being most important, then national, regional, county, borough, local and lastly, within the site boundary only.

A2.11 Evaluation is based on various characteristics that can be used to identify ecological features likely to be important in terms of biodiversity. These include site designations (such as SSSIs), or for undesignated features, the size, conservation status (locally, nationally or internationally), and the quality of the ecological feature. In terms of the latter, quality can refer to habitats (for instance if they are particularly diverse, or a good example of a specific habitat type), other features (such as wildlife corridors or mosaics of habitats) or species populations or assemblages. In the case of the evaluation of the value of fauna at the site, an assumed valuation of each ecological feature has been given based on the habitats observed at the site during the initial survey. Where further surveys are required, the valuation may be subject to variation following the interpretation of survey results.

Limitations

A2.12 The weather conditions were optimal during the survey visit and therefore do not pose any limitation to the interpretation of the survey results.

A2.13 Owing to the timing of the initial habitat survey, some plant species may not have been visible. This may have a minor impact on the classification of habitat areas at the site. However, given the nature of the habitats present, this limitation is not considered likely to affect the conclusions of this report.

A2.14 Due to restrictions from Covid-19, an internal inspection of the buildings was not completed due to lack of access to the roof. However, given the results of the external inspection this is not considered to have an impact on the assessment of the potential for roosting bats onsite.

Quality Control

A2.15 All ecologists at Tyler Grange Group Limited are members or qualifying members of CIEEM and abide by the Institute's Code of Professional Conduct.

Appendix 3: Site Photographs

Photo 1. Detached, recently converted block of flats facing Ethelbert Road (low potential building B1), also showing some areas of hardstanding and amenity grassland.

Photo 2. Building B1 from Ethelbert Road.

Photo 3. B2 block of flats facing Ethelbert Road.

Photo 4. B2 restaurant facing Ringer's Road.

Photo 5. Old uninhabited house with overgrown garden directly next to building B1.

Photo 6. Amenity grassland area and building directly adjacent to site boundary.

Photo 7. Scattered broadleaved sycamore tree T1 and building B2 behind.

Appendix 4: Habitat Suitability Index (HSI)

Methodology

A4.1 A Habitat Suitability Index (HSI) assessment of the offsite Pond P1 was undertaken on 30th of October 2020 to determine the suitability of the pond for Great Crested Newt (GCN) *Triturus cristatus*, by Tyler Grange Group Limited Ecologists Christian Cairns (GCN Class License No. 2015-16404-CLS-CLS) and Zoe Durran, in line with published guidance (Oldham, R.S., Keeble, J., Swan, M.J.S. and Jeffcote, M., 2000[10]).

A4.2 **The National Amphibian and Reptile Recording Scheme HSI guidance** (based on the Oldham *et al*. methods) was used, whereby a number of factors including pond size and location, proximity to other ponds, water quality, macrophyte cover and shading were assessed. A score is given to a waterbody between 0 and 1, with scores closer to 0 having lower probability of GCN occurrence. Although the HSI cannot be used as confirmation of GCN presence or likely absence, it can be used as a guide to assess the habitat in terms of its potential to support GCN. It also provides useful information that can inform pond management and enhancement programmes.

A4.3 The HSI classifications are provided below:

- < 0.5 Poor;
- 0.5 – 0.59 Below average;
- 0.6 – 0.69 Average;
- 0.7 – 0.79 Good; and
- ≥ 0.8 Excellent.

Limitations

A4.4 The HSI assessment was undertaken at a sub-optimal time of year, but this limitation is not considered to have a significant impact upon results.

Results

A4.5 The HSI calculations for pond P1 are shown in **Table A4.1**. There was no access to pond P2 (240m west of the site boundary), however it was possible to get a restricted view of the waterbody and it was observed to have steep concrete sides, which are unsuitable for amphibians. There was no access or view of the ditch 150m southwest.

[10] Oldham, R.S., Keeble, J., Swan, M.J.S. and Jeffcote, M. (2000) Evaluating the suitability of habitat for the great crested newt (Triturus cristatus). Herpetological Journal, 10: 143-155.

Table A4.1 HSI of Pond P1.

Indices	Pond P1
Grid reference	TQ 40105 69062
Distance from site	170m north
Photograph	
SI_1 – Location	Optimal
SI_2 – Pond area	1840m^2
SI_3 – Pond drying	Never dries
SI_4 – Water quality	Poor
SI_5 - Shade	20%
SI_6 - Fowl	Major
SI_7 - Fish	Possible
SI_8 – Ponds (within 1km)	1
SI_9 – Terrestrial habitat	Moderate
SI_{10} – Macrophyte cover	10%
HSI Score	0.44
HSI Classification	Poor

Appendix 5: Ecology Survey Planner

Birmingham
t. 0121 773 0770

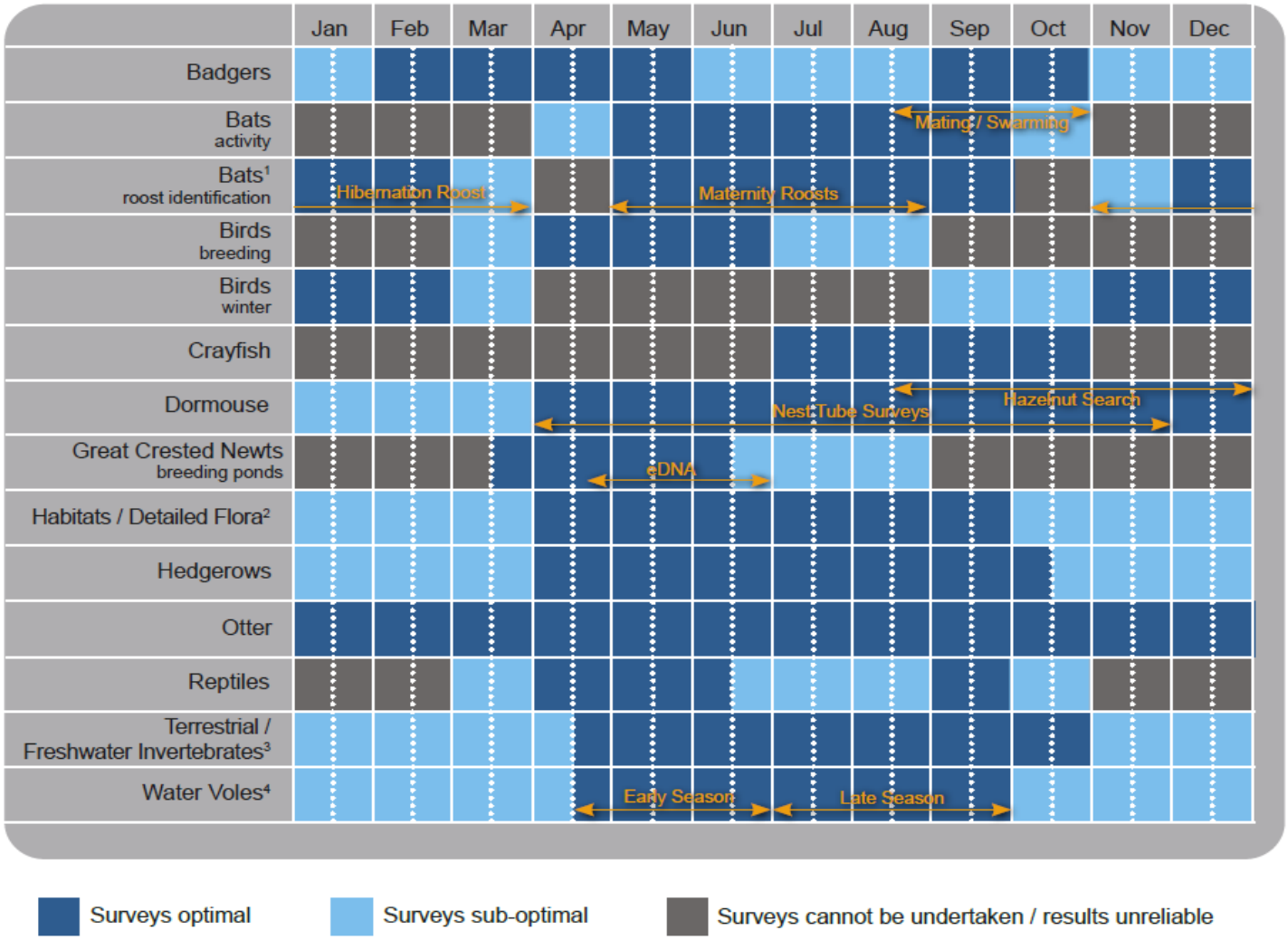
Cotswolds
t. 01285 831 804

Exeter
t. 01392 447 588

Manchester
t. 0161 236 8367

London
t. 020 3934 9470

e. info@tylergrange.co.uk
w. tylergrange.co.uk



[1] Internal building searches for evidence of bats can be undertaken at any time; winter is the best time for assessing trees for roosting potential, with further work to confirm potential undertaken in spring / summer.

[2] The timing of detailed flora surveys, such as those to inform planning and Biodiversity Net Gain, are dependent on the specific habitat type to be investigated.

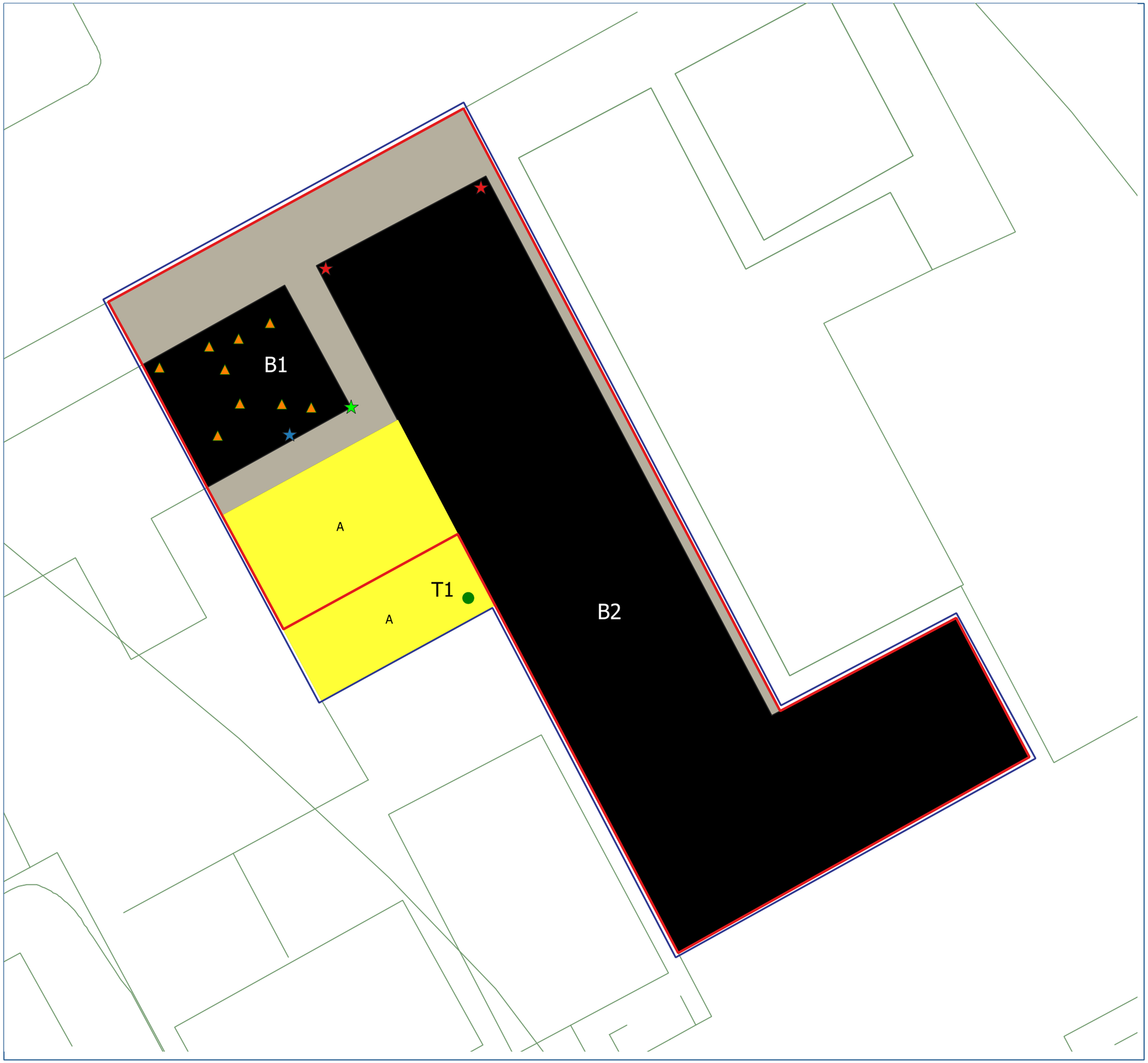
[3] Timing is dependent on target species/group.

[4] Surveys are required in both the early and late seasons.

Plans

Plan 1: 13577/P01: Habitat Features and Preliminary Bat Roost Assessment Plan

Plan 2: Proposed Site Plan 18.085.100.03



Legend

- Red Line Boundary
- Site Boundary

Habitat Features

- Building
- Hardstanding
- A — Amenity grassland
- Scattered broadleaved tree

Potential Roost Features

- Gap in soffit
- Ridge tile gap
- Gap in brick mortar
- Tile gap

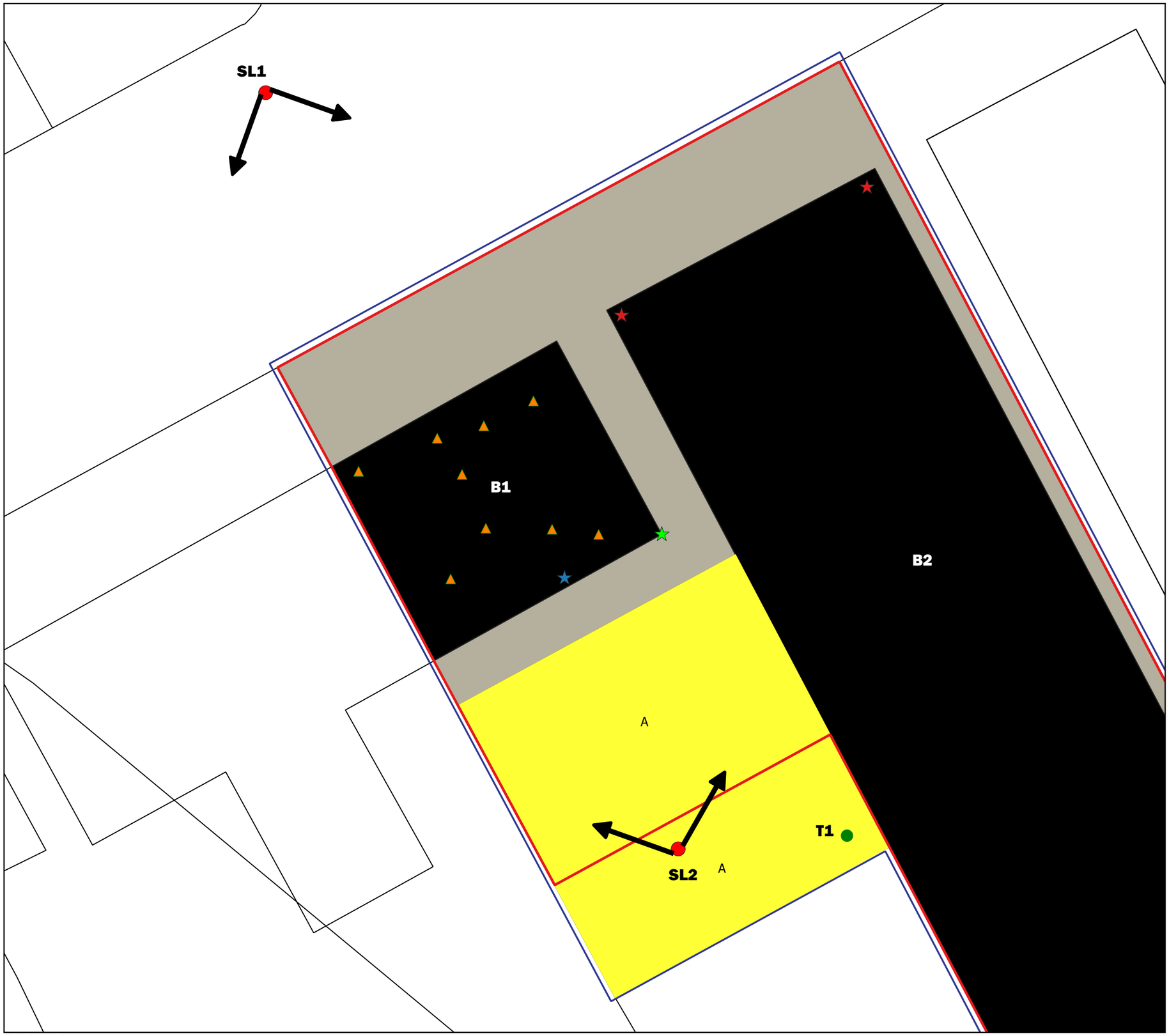
N

0 5 10 m

Project	Ringer's Road, Bromley
Drawing Title	**Habitat Features and Preliminary Bat Roost Assessment Plan**
Scale	As Shown (Approximate)
Drawing No.	13577/P01
Date	November 2020
Checked	ZD/CC

Tyler Grange

South Bank Central Vivo Tower, 30 Stamford Street
London, SE1 9PY
T:020 3934 9470 E: info@tylergrange.co.uk W: www.tylergrange.co.uk



Red Line Boundary

Site Boundary

Habitat Features

Building

Hardstanding

A Amenity grassland

Tree T1

Preliminary Bat Roost Assessment

Gap in brick mortar

Gap in soffit

Ridge tile gap

Tile gap

Emergence Survey

Surveyor locations

N

0 5 10 m

Project	Ringer's Road, Bromley
Drawing Title	Bat Surveyor Location Plan
Scale	As Shown (Approximate)
Drawing No.	13577/P02
Date	June 2021
Checked	ZD/NJ

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