Elite Ecology

Passionate about Ecology

Twickenham Film Studios

Twickenham

Bat Method Statement

January 2021

01782 308418

enquiries@eliteecology.co.uk

www.eliteecology.co.uk
www.facebook.com/eliteecology
www.twitter.com/eliteecology

Wellesley House, Wellesley Street,
Stoke on Trent, ST1 4NF

Contents

1 Introduction

1.1 Report rationale

This method statement has been prepared at the request of Miss. Alexandra Bamford (Boyers Planning) on behalf of Twickenham Film Studios. It relates to the potential presence of bats and birds at the proposed re-development site located at Twickenham Film Studios, The Barons, Twickenham, London, Greater London, TW1 2AW (Central OS Grid Reference: TQ 16902 74311).

This report should be read in conjunction with the Preliminary Ecological Appraisal undertaken by Elite Ecology (January 2021).

1.2 Site description

The site is situated in an urban setting in the settlement of Twickenham, London in the county of Greater London.

The site contains numerous habitat types. These come in the form of mixed scattered trees, introduced shrub, buildings, bare ground, Climbers on the Ivy. Overgrown Weeds (possibly under bare ground with emergent weeds). Some of these habitats could be utilised by protected species. Photographs of the site are found within **Appendix C**.

Within the wider landscape, further habitats are present. These come in the form of agricultural land, hedgerows, residential structures (and their associated gardens/land) and woodland. The habitats that surround the site also have the potential to be utilised by a variety of protected species.

Figure 1: An aerial map showing the location of the land proposed for re-development at Twickenham Film Studios, Twickenham (Yellow star) in relation to some of the local landscape.

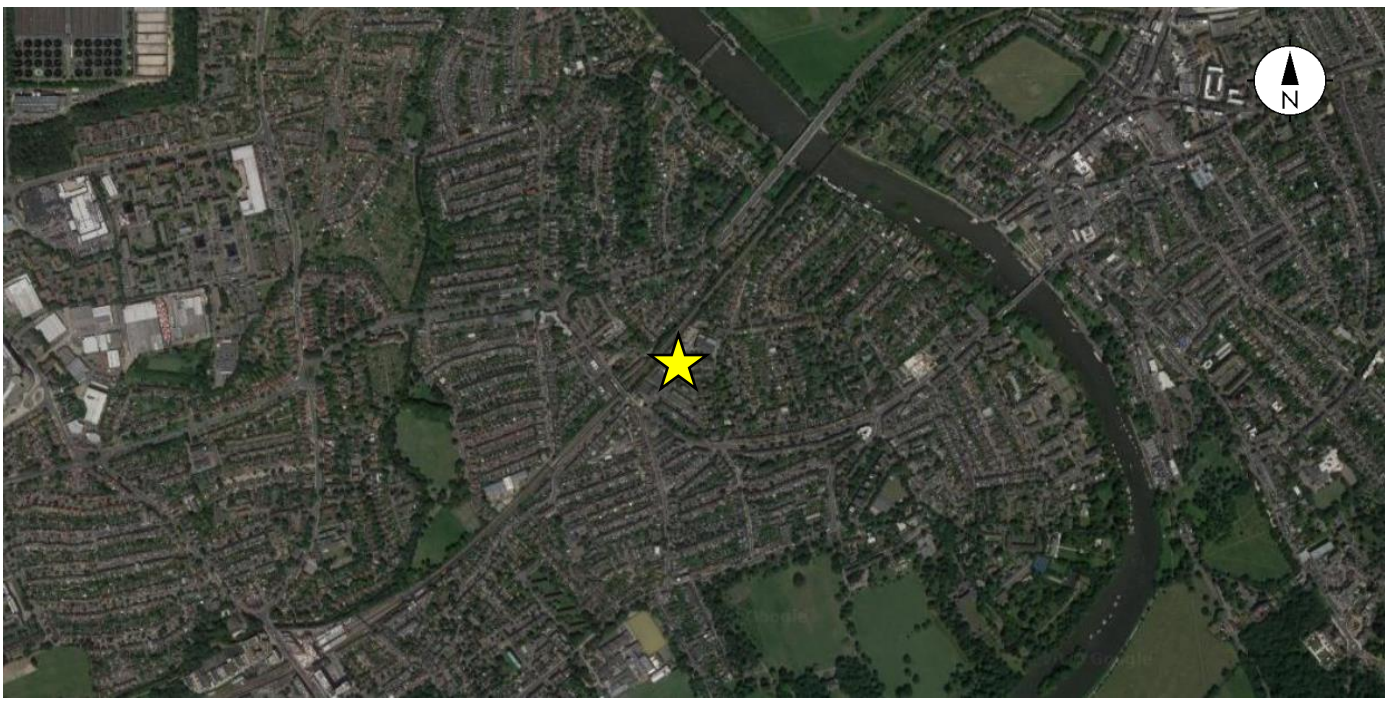


Figure 2: An OS map obtained from Bing showing the location of Twickenham Film Studios, Twickenham (yellow star).

1.3 Proposed works

The proposed development will comprise the erection of a new block ("Block A") at the front corner of the site, together with the partial demolition of Block C and construction of a single-storey extension. The construction of an additional storey and external staircase to Block E, the construction of an additional storey above Block H and the refurbishment and modernisation of all existing blocks within the site.

2 Survey Methodology

2.1 Desktop Survey Methodology

2.1.1 A variety of resources were independently consulted to assess the known local records within the nearby area and the importance of the site within the local landscape from an ecological perspective. The resources used were the Local Records Centre, www.naturalengland.org.uk, www.ordnancesurvey.co.uk, Google Maps, Google Earth and Bing Maps. A search of other relevant nature conservation information was made through the use of the Multi-Agency Geographic Information for the Countryside (MAGIC) database.

2.1.2 The local records centre was contacted to provide data on all protected species and sites within 1km of the proposed development site. Greenspace Information for Greater London (GiGL) were the relevant local record centre for this project.

2.2 Field Survey Methodology

2.2.1 All site surveys were undertaken in accordance with the industry accepted good practice guidelines for Preliminary Roost Assessments.

2.3 Surveyors Information

2.3.1 The survey was undertaken by licensed bat ecologist/s and members of the Chartered Institute of Ecology & Environmental Management (CIEEM) and Elite Ecology staff members:

Mr. Richard Millington BSc (Hons), ACIEEM, Senior Ecologist, Natural England Bat Survey Licence Number: 2016-26861-CLS-CLS Bat Survey Level 2.

Mr Matthew Cotterill: Ecologist, BSc (Hons), bat Survey Licence Level 1

3 Impact Assessment

3.1 Constraints

Constraints on:	Survey Information	Equipment Used
Constraint (Yes or No):	Yes	No
Explanation of Constraints:	Survey works not yet undertaken	N/A
Action Taken:	Surveys to be carries out during optimal months (May-September)	N/A

3.2 Potential Impacts of the re-development

The proposed development will comprise the erection of a new block ("Block A") at the front corner of the site, together with the partial demolition of Block C and construction of a single-storey extension. The construction of an additional storey and external staircase to Block E, the construction of an additional storey above Block H and the refurbishment and modernisation of all existing blocks within the site.

3.2.1 Designated sites

As the proposed works are due to remain within the site boundary, the presence of any designated sites nearby is not applicable to this project. therefore, any building works would be of no detriment to the surrounding habitats and landscape.

3.2.2 Bat Roosts

Impact	Short-term Impacts: Disturbance	Long-term Impacts: Roost Modification	Long-term Impacts: Roost Loss
Classification:	Unknown	Unknown	Unnkown
Justification:	Survey works not yet undertaken	Survey works not yet undertaken	Survey works not yet undertaken
Any further action:	Surveys to be carries out during optimal months (May-September)	Surveys to be carries out during optimal months (May-September)	Surveys to be carries out during optimal months (May-September)

3.2.4 Foraging and commuting habitat

It is considered that the re-development of the site would have a **'negligible'** effect on potential foraging and commuting habitat. This is due to the fact that the trees along the north-west boundary are not in the scope of works, and the current plans show the retention and expansion of treelines near block H.

4 Impact Assessment

4.1 Constraints

Constraints on:	Survey Information	Equipment Used
Constraint (Yes or No):	Yes	No
Explanation of Constraints:	Survey works not yet undertaken	N/A
Action Taken:	Surveys to be carries out during optimal months (May-September)	N/A

4.2 Potential Impacts of the re-development

The proposed development will comprise the erection of a new block ("Block A") at the front corner of the site, together with the partial demolition of Block C and construction of a single-storey extension. The construction of an additional storey and external staircase to Block E, the construction of an additional storey above Block H and the refurbishment and modernisation of all existing blocks within the site.

4.2.1 Designated sites

As the proposed works are due to remain within the site boundary, the presence of any designated sites nearby is not applicable to this project. therefore, any building works would be of no detriment to the surrounding habitats and landscape.

4.2.2 Bat Roosts

Impact	Short-term Impacts: Disturbance	Long-term Impacts: Roost Modification	Long-term Impacts: Roost Loss
Classification:	Unknown	Unknown	Unknown
Justification:	The presence/absence of bats in the blocks cannot be ascertained as no activity surveys have been undertaken, with potential roosting features apparent according to photographic evidence provided.	The presence/absence of bats in the blocks cannot be ascertained as no activity surveys have been undertaken, with potential roosting features apparent according to photographic evidence provided.	The presence/absence of bats in the blocks cannot be ascertained as no activity surveys have been undertaken, with potential roosting features apparent according to photographic evidence provided.
Any further action:	Please see section 5 for more information.	Please see section 5 for more information.	Please see section 5 for more information.

4.2.3 Bird Nests

Due to the absence of nesting birds in the surveyed structures, the proposed scheme of works is deemed to be of a **'negligible'** effect to the local bird populations.

4.2.4 Foraging and commuting habitat.

It is considered that the re-development of the site would have a **'negligible'** effect on potential foraging and commuting habitat. This is due to the fact that the trees along the north-west boundary are not in the scope of works, and the current plans show the retention and expansion of treelines near block H.

5 Method Statement

5.1 Summary of Results

In summary, it is unknown if bats are present at Twickenham Film Studios, Twickenham. Due to the amount of potential ingress/egress points and suitable roosting features, the structures at Twickenham Film Studios, Twickenham were deemed as having:

- Block B: **'Low'** potential for bat to roost and **'negligible'** to support nesting birds.
- Block C: '**Low**' potential for bat to roost and **'negligible'** potential for birds to nest.
- Block E: **'Low'** potential for bat to roost and **'negligible'** potential for birds to nest.
- Block H: **'High'** potential for bat to roost and **'Negligible'** potential for birds to nest.

Therefore, a minimum of one further activity survey is required during the bat survey season (May to September, inclusive) on Blocks B, C, and E. A minimum of three surveys are required for Block H.

It has been deemed that Block B will need one surveyor, Block C and E will need two surveyors each, and block H will need seven surveyors to adequately cover all elevations.

No artificial lighting is to be shone on any scattered trees, shrubs, linear features, woodland or waterways. For the site itself, an artificial lighting plan is required. All lighting must avoid the features of interest for the local bat populations. This is required due to the habitats within the local landscape meaning there is likely to be foraging and commuting bats within the local landscape.

5.2 Timings of the Works

If bats are identified during the activity surveys, a licence will be required from Natural England prior to the commencement of works. Works on the structure should only take place during the autumn or spring, in conditions that are deemed suitable for bat activity (temperature above 7^{o}C and avoiding heavy rain). This will reduce any impacts on bats should they be found during the works.

Any tree removal should be undertaken outside of the breeding bird season of March to August, inclusive. If works on trees are required to be undertaken during the nesting season, then a competent ecologist must be present on site to undertake a detailed check of vegetation for active birds' nests immediately before vegetation clearance and provide written confirmation that no birds will be harmed and /or that there are appropriate measures in place to protect nesting birds on site. Any such written confirmation must be submitted to the Local Planning Authority prior to any work first commencing.

5.3 Avoidance Measures and Mitigation

At the start of the proposed works, a licenced bat ecologist is required to be on site to conduct a toolbox talk prior to works commencing. On the morning prior to the commencement of the works, one 2F Schwegler Bat Box per species identified is required to be installed on a nearby tree facing north.

The building will then be thoroughly inspected by a licenced bat ecologist (both externally and internally), through the use of an endoscope to check for any anecdotal presence of bats. This will check all cracks/crevices around the affected areas and around the tiles. A soft strip of the tiles will also be undertaken under the supervision of the licenced ecologist.

Under the Natural England Licence, any bats found will be translocated to these boxes. A licenced ecologist is required to be on site during the soft strip. Old bat droppings found during this process will be recovered by the **licenced ecologists**. These will be used on the new roof to encourage the bats to return at the completion of the works

If any bats are harmed or injured during the works, the local bat group will be contacted.

5.4 Compensation

As no site survey has been undertaken, with the populations and species of bats at the site unknown at the production of this document, the following options have all been explored:

- No bats are found
- A small number of crevice dwelling species (e.g. day roosts)
- A large number of crevice dwelling species (e.g. maternity roosts)
- The presence of Myotis bat roosts in the structure (known to use both crevices and voids for roosting purposes

It has been deemed that there are not appropriate voids on site for void dwelling species to inhabit.

The below measures are pending alteration upon the survey results obtained for the site.

It is imperative that **no modern breathable felt is used in the compensation features where bats could be present**. This is due to the membrane on the modern felt entangling bats and leading to their demise. All compensation features also need to avoid any artificial lighting.

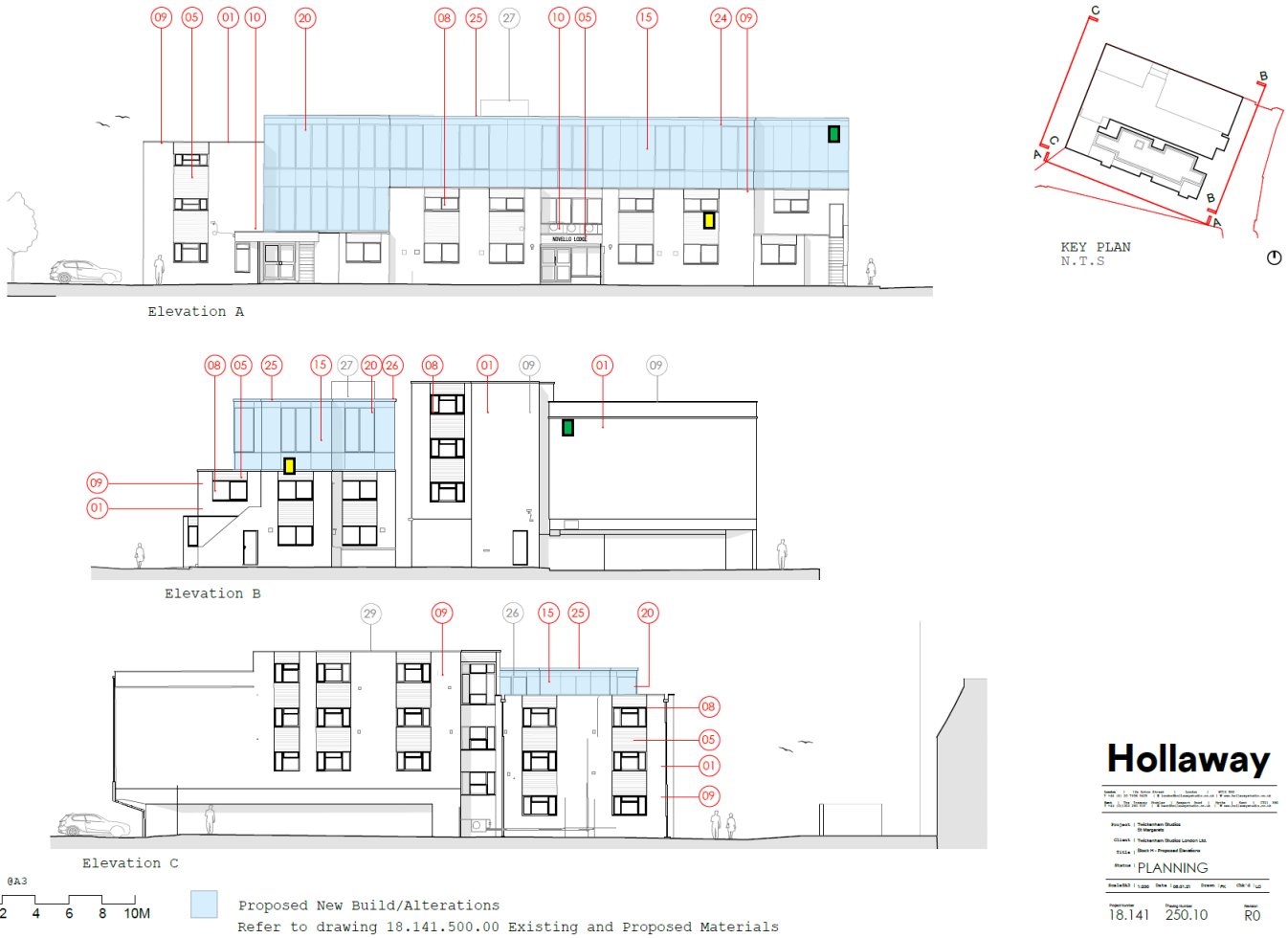
No bats:

If no bats are found, no compensatory features are required. However, in this scenario, further enhancements can be incorporated into the design scheme. Section 5.8 outlines the options for this.

Small Number of Crevice Dwellers:

If a small number of crevice dwelling bats are found during the activity surveys, two Eco Bat Boxes will be installed on elevations near to the bat roosts. If these bats are found to use the tiles, two Bat Access Tiles will be incorporated as close to the existing roost as possible.

Figure 3: Annotated site plans for a small number of crevice dwellers. The eco bat boxes are shown by the green shape. The bat access tiles, if required, are shown by the yellow shapes. **Please note:** these positions may alter depending on any identified ingress/egress points identified from the activity surveys.



Large Number of Crevice Dwellers:

If a large number of crevice dwelling bats are found during the activity surveys, five Eco Bat Boxes will be installed on elevations near to the bat roosts. If these bats are found to use the tiles, five Bat Access Tiles will be incorporated as close to the existing roost as possible.

In this instance, it will also be necessary to install three Eco Bat Boxes on nearby trees.

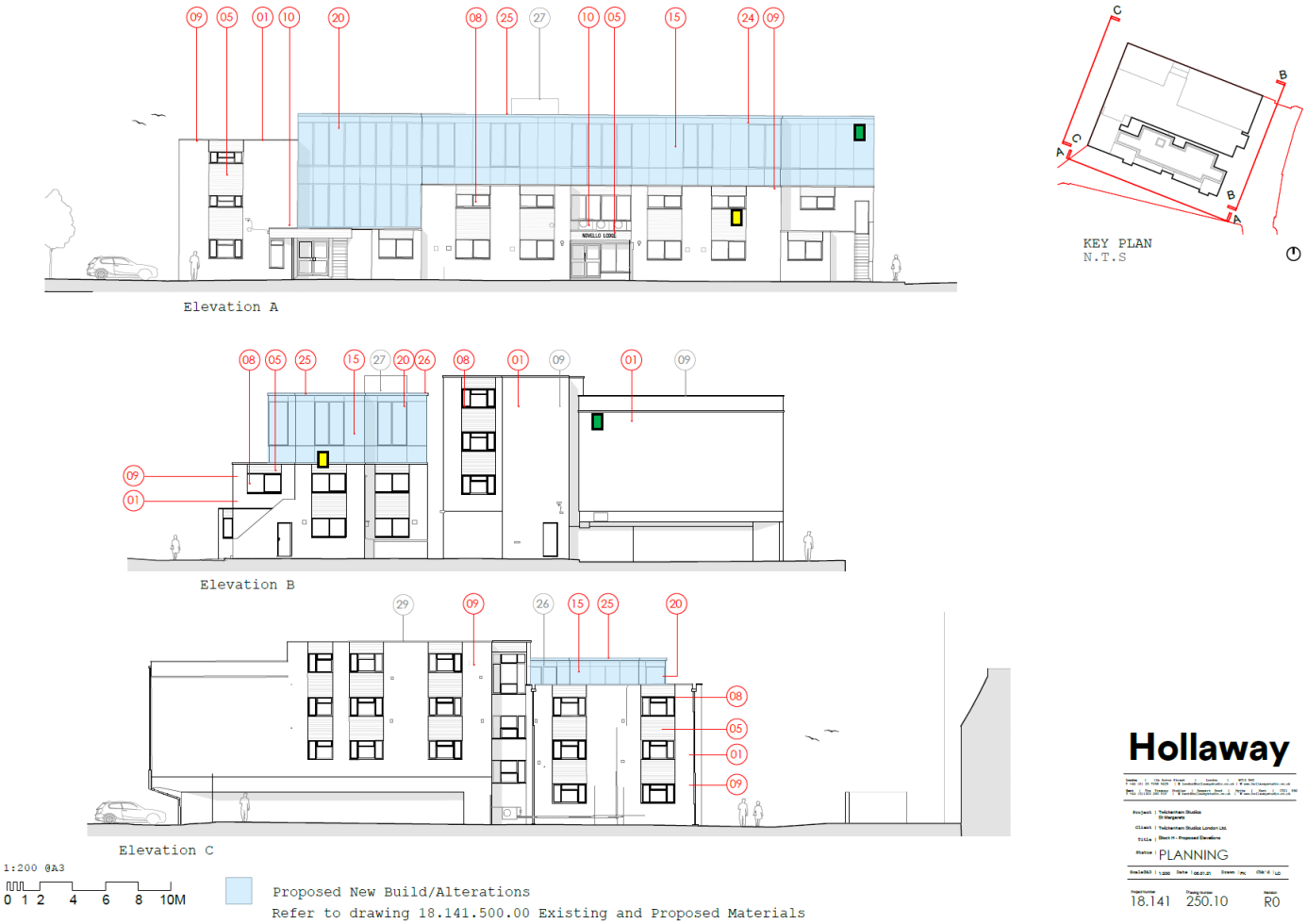
Finally, all bat compensation features will need to be seeded with droppings to facilitate the uptake of the new roosting features.

Figure 4: Annotated site plans for a large number of crevice dwellers. The eco bat boxes are shown by the green shape. The bat access tiles, if required, are shown by the yellow shapes. **Please note:** these positions may alter depending on any identified ingress/egress points identified from the activity surveys.

The Presence of Myotis Bats:

As Myotis bats roost in both crevices and voids, it will be necessary to incorporate both features on site. A bat loft will not be necessary, as like-for-like roosting conditions can be replicated. The provision two Eco Bat Boxes will be installed on elevations near to the bat roosts. If these bats are found to use the tiles, two Bat Access Tiles will be incorporated as close to the existing roost as possible.

Figure 3: Annotated site plans for the presence of Myotis bats. The eco bat boxes are shown by the green shape. The bat access tiles, if required, are shown by the yellow shapes. **Please note:** these positions may alter depending on any identified ingress/egress points identified from the activity surveys.



5.5 Post Development Maintenance

The bat compensatory features should be maintained indefinitely, with replacement boxes installed during the winter months if required.

5.6 Post Development Monitoring

At the completion of the works, two bat emergence surveys of the compensatory features will be undertaken. These are required to be undertaken on years 2 and 4 following the completion of the works. The years and number of surveys may be altered if Natural England deem necessary.

5.7 Reporting

A report will be produced following the bat activity surveys to finalise the appropriate recommendations for the site. Following this, a letter statement will be produced following each site visit to report actions taken and the survey findings.

5.8 Enhancements

The proposed enhancements for the site are to incorporate at least one Eco Bat Boxes, Integrated Eco Bat Boxes or Bat Access Tiles on the redeveloped blocks. **Please be aware** that all bat features need to avoid artificial lighting and no modern breathable felt should be used. The site can be enhanced by introducing a bat friendly planting scheme in the soft landscaping plan. The table below outlines species recommended by the Bat Conservation Trust, all of which could be incorporated into the site post development.

Flowers for borders	Trees, shrubs & climbers
Aubretia	Bramble
Candytuft	Buddleia
Cherry pie	Common alder
Corncockle	Dogrose
Corn marigold	Elder
Corn poppy	English oak
Echniacea	Gorse
English bluebell	Guelder rose
Evening primrose	Hawthorn
Field poppies	Hazel
Honesty	Honeysuckle (native)
Ice plant ‘pink lady’	Hornbeam
Knapweed	Ivy
Mallow	Jasmine
Mexican aster	Pussy willow
Michaelmas daisy	Rowan
Night-scented stock	Silver birch
Ox-eye daisy	**Herbs**
Phacelia	Angelica
Poached egg plant	Bergamot
Primrose	Borage
Red campion	Coriander
Red valerian	English marigolds
Scabious	Fennel
St. John’s Wort	Feverfew
Sweet William	Hyssop
Tobacco plant	Lavenders
Verbena	Lemon balm
Wallflowers	Marjoram
Wood forget-me-not	Rosemary
Yarrow	Sweet Cicely
	Thyme

6 Appendices

Appendix A: Site Plans

Appendix B: Artificial Light and Bats

Appendix C: Photographic Records

Appendix D: The Annual Bat Year (BCT)

Appendix E: Legislation

Appendix A: Site Plans

Appendix B: Artificial Lighting and Bats

Artificial lighting is known to affect bat's roosting and foraging behaviour, with lighting resulting in a range of impacts that includes roost desertion (BCT, 2009), delayed emergence of roosting bats (Downs et al., 2003), increased activity of some bat species and decreased activity by others (Stone et al., 2012).

An experimental approach using LED units, demonstrated that relatively fast-flying bat species, including the common pipistrelle, showed no significant impacts as a result of new artificial lighting, even when lighting was set at relatively high levels close to 50 lux.

In contrast, slow flying bats such as the myotid bats (Myotis spp.) showed sharp reductions in presence, even at low light levels of 3.6 lux (Stone et al., 2012).

Current recommendations for all bat species specify that no bat roost should be directly illuminated.

Due to the impacts of lighting, mitigation and sensitive lighting design schemes are required for projects where bats are present. These should include bat friendly lighting plans that should aim to avoid lighting wherever possible. If this is not possible, then the minimisation of any lighting impacts is required by adopting the following measures:

- To introduce lighting curfews or use of PIR sensors.

  Lighting curfews can be an effective way of avoiding impacts on bats. These curfews may involve either turning off lighting or dimming light units at specific times of the night, dimming units at key times of the year, providing the luminaire allows for this option via a control unit. Lighting to be triggered by PIR sensors can be expected to be illuminated only when required and for a low proportion of time.

- To consider no lighting solutions where possible.

  Options such as white lining, good signage and LED cats eyes should be considered as preferable. Reflective fittings may help make use of headlights to provide any necessary illumination in some areas.

- To use only high pressure sodium or warm white LED lamps where possible.

  High pressure sodium and warm white LED lamps emit lower proportions of insect attracting UV light than mercury, metal halide lamps and white LED lighting. Generally, lamps should have a lower proportion of white or blue wavelengths, with a colour temperature <4200 kelvin recommended (BCT, 2014).

- To minimise the spread of light.

  The light spread should be kept at or near horizontal to ensure that only the task area is lit. Flat cut-off lanterns or accessories should be used to shield or direct light to where it is required. Baffles, hoods, louvres and shields should be used where necessary to reduce light spill.

- To consider the height of the lighting column.

  While downward facing bollard lighting is often preferable, it should be noted that a lower mounting height does not automatically reduce impacts to bats as bollard lighting can often be designed to provide up-lighting. Where bollard lighting is considered to be the most appropriate system, bollard spacing or unit density should be kept to a minimum and units should be fitted with the appropriate hoods/deflectors to reduce any up-lighting.

- To avoid reflective surfaces below lights.

  The polarisation of light by shiny surfaces attracts insects increasing bat activity (BCT, 2012). Consequently, surface materials around lighting require consideration.

Appendix C: Photographic Records

These photographs are a summary of the habitats on site. Additional photographs of the site are available on request.

Plate 1: showing a gap under the facia board which Bats could utilise (yellow arrow).

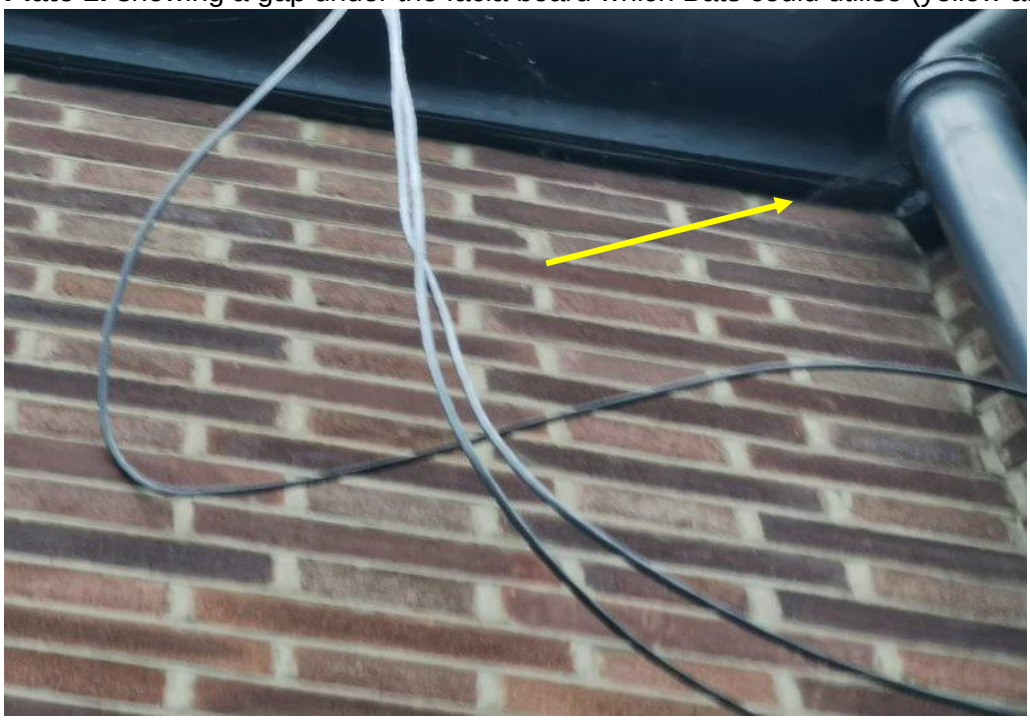


Plate 2: showing gaps under the wooden panelling

Plate 3: showing a hole in the wall.

Plate 4: showing a gap under the felt yellow arrow.

Plate 5: Image showing gaps between the walls (yellow arrows).

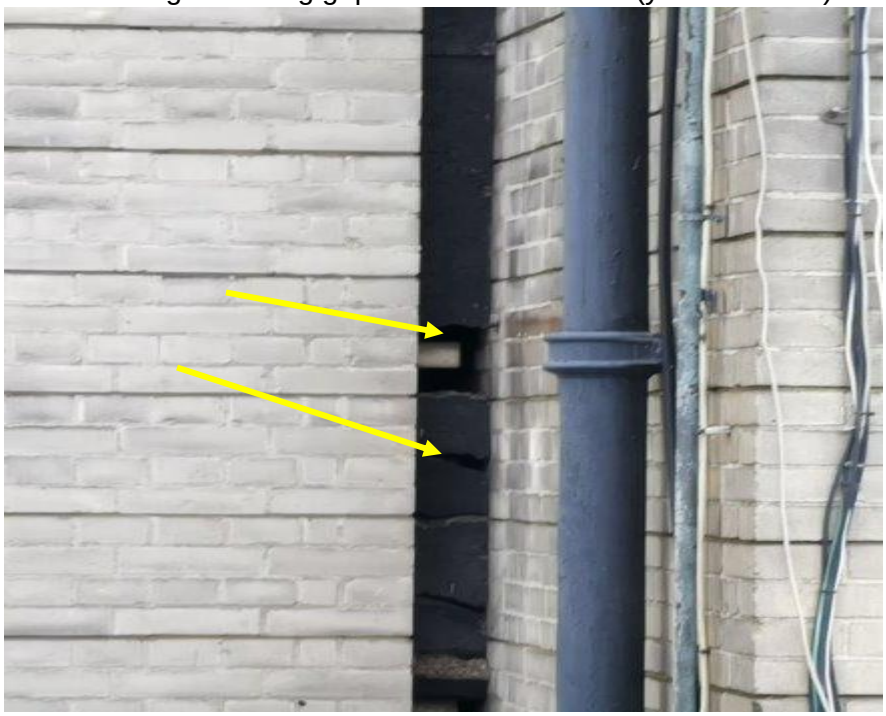


Plate 6: Image showing gaps under the lead flashing (yellow arrow).

Plate 7: Image showing gaps under the tiles.

Plate 8: showing damaged rendering

Appendix D: The Annual Bat Year (BCT)

A Year in the Life of a Bat			
January		**February**	
	Hibernating; using up fat reserves.		Still hibernating; few fat reserves left.
March		**April**	
	Some activity; occasional bat seen feeding.		Awake and feeding at night.
May		**June**	
	Females looking for nursery sites.		Young born, usually only one.
July		**August**	
	Young still suckling.		Young start catching insects; females leave nursery to find males.
September		**October**	
	Mating season begins; start building fat reserves for hibernation.		Search for suitable hibernation site.
November		**December**	
	Hibernation begins although still some activity in warm weather.		Hibernating.

Appendix E: Legislation and Policy

All species of bat are fully protected under a variety of domestic, European and international legislation and conventions. These include:

- Bern Convention (Appendix II)
- Bonn Convention (Appendix II)
- Conservation Regulations (Northern Ireland) 1995
- Conservation of Habitats and Species Regulations 2017
- Countryside Rights of Way Act 2000
- Eurobats Agreement
- Habitats Directive (Annexes IV and II)
- Habitats Regulations 1994 (as amended) Scotland
- NERC Act 2006
- Wildlife and Countryside Act 1981 (as amended)
- Wild Mammals Protection Act

In addition to this, some species have additional protection by being listed on the UK Biodiversity Action Plan (UKBAP).

The legislation afforded to bats makes it illegal to possess or control any live or dead specimens, to damage, destroy or obstruct access to any structure or place used for shelter, protection or breeding, and to intentionally disturb a bat while it is occupying a structure or place which it uses for that purpose.

All nesting birds are protected under the Wildlife and Countryside Act 1981 (as amended), which protects birds, nests, eggs and nestlings from harm. In addition to this, some rarer species, such as barn owls are afforded extra protection.

National Planning Policy Framework, Section 15:

In early 2012, the National Planning Policy Framework (NPPF) replaced much previous planning policy guidance, including Planning Policy Statement 9: Biological and Geological Conservation. The government circular 06/05: Biodiversity and Geological Conservation - Statutory Obligations and Their Impact within the Planning System, which accompanied PPS9, still remains valid. A presumption towards sustainable development is at the heart of the NPPF. This presumption does not apply however where developments require appropriate assessment under the Birds or Habitats Directives. The latest National Planning Policy Framework was updated in February 2019, with the section in relation to conserving the natural environment being located within section 15.

Section 15, on conserving and enhancing the natural environment, sets out how the planning system should contribute to and enhance the natural and local environment by minimising impacts on biodiversity and, where possible, provide net gains in biodiversity. Opportunities to incorporate biodiversity gains into a development should be encouraged.

Biodiversity 2020:

This sets out to halt overall biodiversity loss and support healthy well-functioning ecosystems by establishing coherent ecological networks, with more and better places for nature, to the benefit of wildlife and people. The government's policy is aimed at individuals, communities, local authorities, charities, business and government, which all have a role to play in delivering Biodiversity 2020.

7 Notice to Readers: Conditions of this Report

All reports are certified products and cannot be shown, copied or distributed to third parties without the written permission of Elite Ecology. No liability is accepted for the contents of the report, other than to that of the client(s). If any part of this report is altered without the written permission of Elite Ecology, then the whole report becomes invalid.

Elite Ecology agrees to supply ecological consulting services and advice of a preliminary or thorough nature as advised or commissioned. Upon commissioning Elite Ecology to undertake the work, the client(s) grant access to the site upon the agreed date. If no site access is available upon this date, Elite Ecology holds the right to charge the client(s) for lost staffing time and additional travel costs.

Elite Ecology undertake all site surveys with reasonable skill, care and diligence, within the terms of the contract that has been agreed with the client and abiding by the Elite Ecology Terms and Conditions. The actions of the surveyors on site, and during the production of the report, were undertaken in accordance with the Code of Professional Conduct for the Chartered Institute of Ecology and Environmental Management.

The latest good practice guidelines put in place by Natural England or the relevant statutory conservation bodies have been followed by the surveyors on site. If those methodologies fail to identify a protected species during the survey efforts, no responsibility can be attributed to Elite Ecology. If any of these guidelines are adapted between the date(s) of the surveys being undertaken and the submission of this report, then Elite Ecology takes no responsibility for this.

Should any equipment be damaged or lost on site at the fault of the client(s), then Elite Ecology withholds the right to charge 100% above the current market value for that exact product or the nearest similar product.

The survey results purport the current status of the site and its potential for protected species utilisation at the time of surveying. It should not be viewed as a complete list of the possible flora and fauna species that could be using the site at different times of the year.

Elite Ecology has been provided with full payment for this report and thus the product has been released to the client(s) for the purpose of their planning application. If any part of the report is lost or altered without the written permission of Elite Ecology, then the entire report becomes invalid. Due to the potential for continual change within the natural world, this report is valid for **2 years only** from the date of the last survey visit. If this report is submitted after the 2 year deadline, then a further updated inspection will be required to ascertain whether the site remains in the same condition as it was when initially inspected.

No reliance should be made on any such comments in relation to the structural integrity of the features located on the surveyed site. All information within the report is based solely on evidence that has been found on site during the service provided. No individual opinion or inference will be made other than that of the suitably qualified ecologist appointed to the project.