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Report prepared for: Mike Teale

For the Site of: Collis Primary School, Fairfax Road, TW11 9BS

Date: 13/08/2018

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Cherryfield Ecology has prepared this report for the named clients use only.

Ecological reports are limited in shelf life, Natural England usually expect reports for licenses to be no more than 12 months old and therefore should the project not proceed within 12 months of this report an updated survey should be undertaken in order to check for changes that may have occurred on site.

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Contents

Preliminary Roost Assessment (PRA)

0.0 Non Technical Summary

0.1 Background -

The survey follows national guidelines Collins (2016) allowing for a day-time inspection and recommends for further surveys if considered necessary. If a deviation from the guidelines has been made this will be detailed in the Method Section.

The following report details the findings and recommendations for the site of Collis Primary School, Fairfax Road, TW11 9BS.

The client commissioned Cherryfield Ecology to undertake a PRA as the proposals include for the demolition of selected school buildings B1 (EFAA & EFAF) and B2 (EFAD) and the construction of a new school building (buildings EFAB and EFAE are to remain and will not be affected by the development).

0.2 Results and Findings -

The site consists of two large school buildings EFAA & EFAF (B1) and one small classroom building EFAD (B2). Two small gaps were found on B1; however, these did not provide suitable roosting features as the gaps did not lead to any sort of cavity. No bats and or evidence were found in either buildings. All buildings were deemed negligible for bats.

0.3 Impact Assessment and Recommendations -

No impacts foreseen.

No further surveys are considered necessary, however sensible precautions are given in section 4 of the report.

1.0 Introduction

1.1 Aim of the Survey

This survey aims to inform the client of any bat issues that may be present on site and that could affect the development. It recommends for further survey when considered necessary and provides possible mitigation and enhancement should this become required.

1.2 Background Information

The client, Mike Teale, has commissioned Cherryfield Ecology to undertake a PRA for the site of Collis Primary School, Fairfax Road, TW11 9BS. Planning permission is being sought to the demolition of selected school buildings B1 (EFAA & EFAF) and B2 (EFAD) and the construction of a new school building (buildings EFAB and EFAE are to remain and will not be affected by the development).

This survey has checked all buildings, trees (from ground level only) or structures due to be affected by the proposals for bats, signs of bats or features known to be used by bats e.g. crevices, gaps or holes that cannot be checked for a variety of reasons.

The inspection was conducted on the 13/08/2018.

The survey can only ever provide a 'snap shot' of the site at the time of the survey and circumstances may change following this report. Health and Safety restrictions or obstructions may limit the ability to find evidence.

Biological records have been requested to give the report context and allow a study of the surrounds. The information is often sensitive and therefore a synopsis is provided.

The survey can be conducted year round, however it can be limited due to bad weather and in the winter, when bats are not active, thus evidence and bats are often not found. During these periods habitat value (likely presence) becomes more important to the assessment of the site.

Summary of legislation and National Planning Policy that protects bats in England:

- Conservation of Habitats and Species Regulations 2017.
- Wildlife and Countryside Act 1981 as amended.

- Countrywide and Rights of Way Act 2000.
- Natural Environment and Rural Communities Act 2006.
- National Planning Policy Framework ("NPPF").
- Circular 06/05.

This legislation makes it illegal to:

- Intentionally or deliberately kill, injure or capture bats.
- Deliberately disturb bats, whether at roost or not.
- Damage, destroy or obstruct access to bat roosts.
- Possess or transport a bat or any part of a bat, unless acquired legally.
- Sell, barter or exchange bats, or any part of a bat.

A bat roost is well-defined by the legislation as the 'resting place' of a bat. However, the word roost is used to describe this resting place and is generally accepted as the word describing where a bat or bats rest, feed or sleep.

2.0 Methods

The survey follows the national guidelines Collins (2016) and the following equipment is available for the inspection (it may or may not all be used):

- Torches (e.g. LED Lensar type).
- Ladders (Standard 4m telescopic surveying ladder).
- Endoscope where holes, cracks and crevices are accessible.
- Mirrors as above (extendable and movable mirror face).
- Binoculars (Pentax close focus).
- Thermometer/hygrometer.
- Camera.
- Sample bags for collecting dropping and feeding evidence (should this be found).

The assessment allows for a detailed inspection of the site looking for bats, evidence of use by bats e.g. droppings/feeding remains and features known to be used by bats for roosting e.g. gaps, crevices and holes. Trees and buildings are assessed from ground level only and may require climbed surveys of holes, cracks and crevices.

Biological records data is ordered from the local records centre to provide context and background information. As the data is often sensitive a synopsis is provided.

If a deviation from the guidelines has been made the reason and justification will be explained below: -

No deviation from the standard guidelines has been made for this survey.

2.1 Limitations

This survey provides a snap –shot of the site at the time of the survey(s) only. Bats are highly mobile and can and do turn-up from time to time unexpectedly. All care has been taken to ensure the results and recommendations are suitable to the context of the development and the information gathered on surveys.

Table 1: Roosting features (likelihood) of bat presence assessed against Collins (2016) guidelines *Source: Adapted from Collins (2016) pp 35, Table 4.1.*

Likelihood of bat presence (Habitat Value)	**Features that bats can and will use, regardless of evidence being present.**
Confirmed Bat Presence	Bats are found to be present during the survey. Evidence of bats is found to be present during the survey.
Higher likelihood of bat presence.	Pre-20th century or early 20th century construction. Agricultural buildings of traditional brick, stone or timber construction. Large and complicated roof void with unobstructed flying spaces. Large (>20 cm) roof timbers with mortice joints, cracks and holes. Entrances for bats to fly through. Poorly maintained fabric providing ready access points for bats into roofs, walls, bridges, but at the same time not too draughty and cool. Roof warmed by the sun, in particular south facing roofs. Weatherboarding and/or hanging tiles with gaps. Low level of disturbance by humans. Bridge structures, follies, aqueducts and viaducts over water and/or wet ground.
Moderate and Lower likelihood of bat presence.	Modern, well-maintained buildings or built structures that provide few opportunities for access by bats. Small, cluttered roof space. Buildings and built structures comprised primarily of prefabricated steel and sheet materials. Cool, shaded, light or draughty roof voids. Roof voids with a dense cover of cobwebs and no sections of clean ridge board. High level of regular disturbance. Highly urbanised location with few or no mature trees, parkland, woodland or wetland. High levels of external lighting.
Negligible likelihood of bat presence.	No features suitable for roosting, minor foraging or commuting.

Notes on using this table

1 The features listed here may not be indicative of use of the site by bats during winter or spring.

2 Pre-1914 buildings may present the greatest likelihood of providing roost space for bats due to their design, materials used and age. Pre-1990 buildings, especially when close to good foraging habitat, and with favoured features such as cavity walls and soffits, also have a high likelihood of providing roost sites for some bat species.

3 Post-1990 buildings are generally less likely than older buildings to house roosts; however, some modern designs provide access to suitable roosting spaces for bats. Pipistrelles in particular occupy modern buildings and built structures providing that there are suitable access gaps (> 8mm) and provided the structure has appropriate characteristics for roosting.

3.0 Results

The following section details the results of the desk study, inspection and survey, it includes MAGIC information, biological records data and map/aerial photo information. The results detail the building, structure or tree (numbered for reference) description of any evidence found and habitat value if no evidence has been located.

3.1 Desk Study

The desk study is centred on Grid Ref – TQ165705 and postcode – TW11 9BS.

Table 2: Weather records –

Temperature	20ºC
Cloud cover	65%
Precipitation	none
Wind	1/8

3.2 Magic:

The following statutory sites and European Protected Species (EPS) have been located on the 2km search (see Figure 1) –

- Three statutory designations were found within the search area. The local nature reserves (LNR) of Ham Lands and Ham Common are found approx. 1.1km north and 2km north east, respectively. Bushy Park & Home Park special site of scientific interest (SSSI) is found approx. 308m south west and is classified as being in a favorable condition.
- Four EPS licenses were found within the search area, these are as follows; 2001-2921, 2014-2080, 2014-274 and 2016-24315. The licenses include for common pipistrelle *Pipistrellus pipistrellus,* soprano pipistrelle *P. pygmaeus* Natterer's bat *Myotis nattereri* and brown long eared *Plecotus auritus*. The nearest of these are the 2014 licenses which are found approx. 840m south east and 687m north east.

MAGIC Collis Primary School

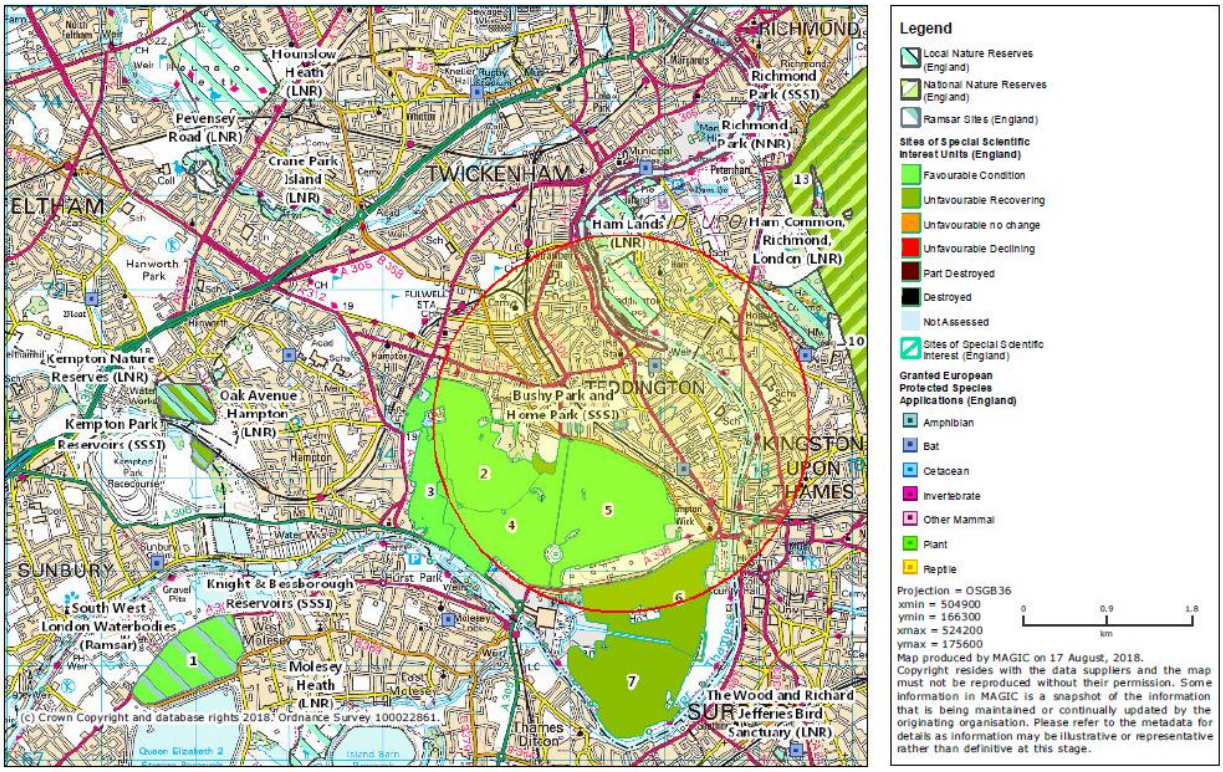


Figure 1: Magic search

3.3 Biological Records Data:

A 2km data search of existing records for protected species and nature reserves has been commissioned, below details the results and site context:

Biological records were obtained from London Bat Group (LBG, 2018). 604 records were supplied, ranging in date from 1986 to 2017. Species included are common pipistrelle, *Pipistrellus pipistrellus*, soprano pipistrelle, *P. pygmaeus* brown long-eared, *Plecotus auritus*, Daubenton's bat, *Myotis daubentonii*, Natterer's bat, *M. nattereri*, noctule, *Nyctalus noctula*, whiskered bat, *M. mystacinus*, vesper bat *Vespertilionidae* and a few unidentified species records. There are no records from the site itself, however there are a number of records in the general area including many found in nearby parkland, these records include roosting sites as well as in flight records.

3.4 Site Location and Surrounds:

The site is located in Twickenham, Greater London and is surrounded by high density urban and parkland in the immediate local. Table 3 details the commuting, feeding and habitat features in a 1km radius of the site.

Table 3: Habitat features suitable for bat use in the general area

Feature	Description
Water course	The River Thames is found approx. 1km to the east.
Water bodies	There are a number of small unnamed water bodies in the search area mostly confined to nearby parkland, the closest being found approx. 700m east.
Woodland	N/A
Linear e.g. hedgerows	There are garden hedgerows however, these do not link to the wider landscape.
Pasture/arable/grassland	A large area of parkland is found approx. within 300m south of the site. There is also amenity grassland found on site in school grounds.
Other	A railway line is found approx. 150m south west of the site.

3.5 Building, Tree or Other Structure

The following section details the structures reference, description, bats located, evidence located and likelihood of bat presence (see Figure 11 for site plan).

Building/tree/structure reference – B1 (EFAA & EFAF) & B2 (EFAD)

3.6 Description

3.6.1 General

B1 is a large multipurpose school building. B2 is a small classroom building.

3.6.2 External

B1 is a brick-built structure with concrete render with a flat roof design. Plastic rain water goods were found and metal framed windows. B1 has no chimneys and a mixture of PVC and wooden framed doors. B2 is a brick-built building with a mono pitch roof design. Plastic rain water goods were found and wooden framed windows.

Figure 2: Front elevation of B1.

Figure 3: Rear and side elevation of B1.

Figure 4: Rear elevation of B1.

Figure 5: South easterly facing elevation of B1.

Figure 6: Rear and side elevation of B2.

3.6.3 Internal

Three loft spaces were found in B1, with a small amount of connectivity between them. All loft spaces in B1 have fully boarded floors. All loft spaces in B1 are currently used for storage. B2 has one small loft space/void, this area was heavily cobwebbed.

Figure 7: Example of loft space found in B1.

Figure 8: Example of loft space found in B2.

3.7 Bats, Evidence or Likelihood of Bat Presence

The following table details the results of the surveys -

Table 4: Bats, evidence or likelihood of bats being present.

Bats found	No bats found.
Evidence of bat use	No evidence found.
Potential for bat use	Level of likelihood of presence – negligible. There were two small gaps found on the wall plate of B1 however these gaps did not provide suitable roosting potential as the gaps provided no cavity in which bats could roost. B2 did not exhibit any suitable roosting features.

Figure 9: Example of gap found on B1, highlighted in red.

Figure 10: Example of another gap found on B1 highlighted in red.

3.8 Supplementary Observations

No other protected species found.

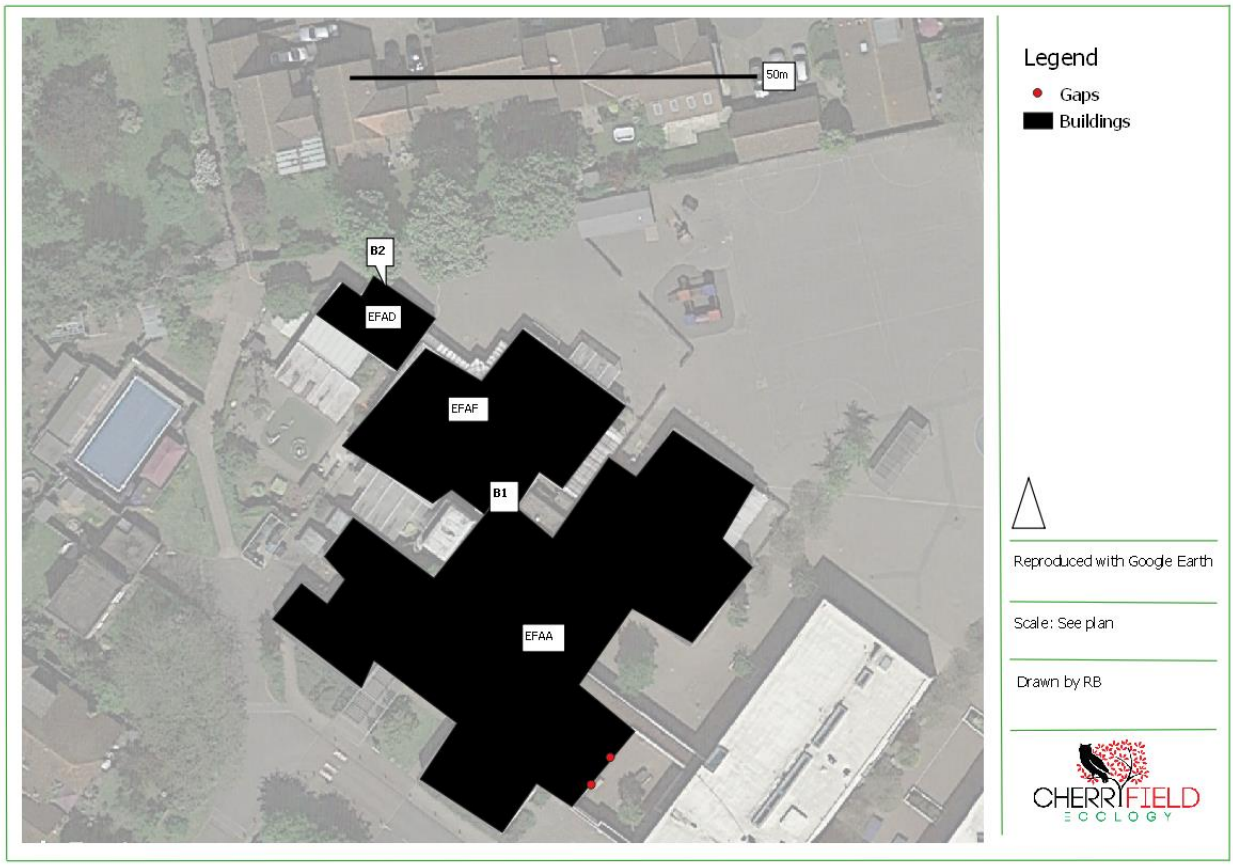


Figure 11: Site plan

4.0 Conclusions, Discussion and Recommendations

The following section details the conclusions, discussion, potential impacts and recommendations in the context of the proposed works.

Building/tree/structure reference – B1 & B2

4.1 Conclusion and Discussion

The development will involve the demolition of selected school buildings B1 (EFAA & EFAF) and B2 (EFAD) and the construction of a new school building (buildings EFAB and EFAE are to remain and will not be affected by the development). No bats, evidence or suitable roosting features were found. All buildings were found to be negligible for bats. No further action is necessary.

4.2 Potential Impact

Impact assessments must be proportionate to the scale of the development (CIEEM, 2016) and the following details a proportionate impact assessment based on current information –

Table 5: Impact assessment

Impact	None foreseen.
Characterisation of unmitigated impact on the feature	N/A
Effect without mitigation	N/A
Mitigation	N/A
Significance of effects of residual impacts (after mitigation)	N/A

4.3 Recommendations

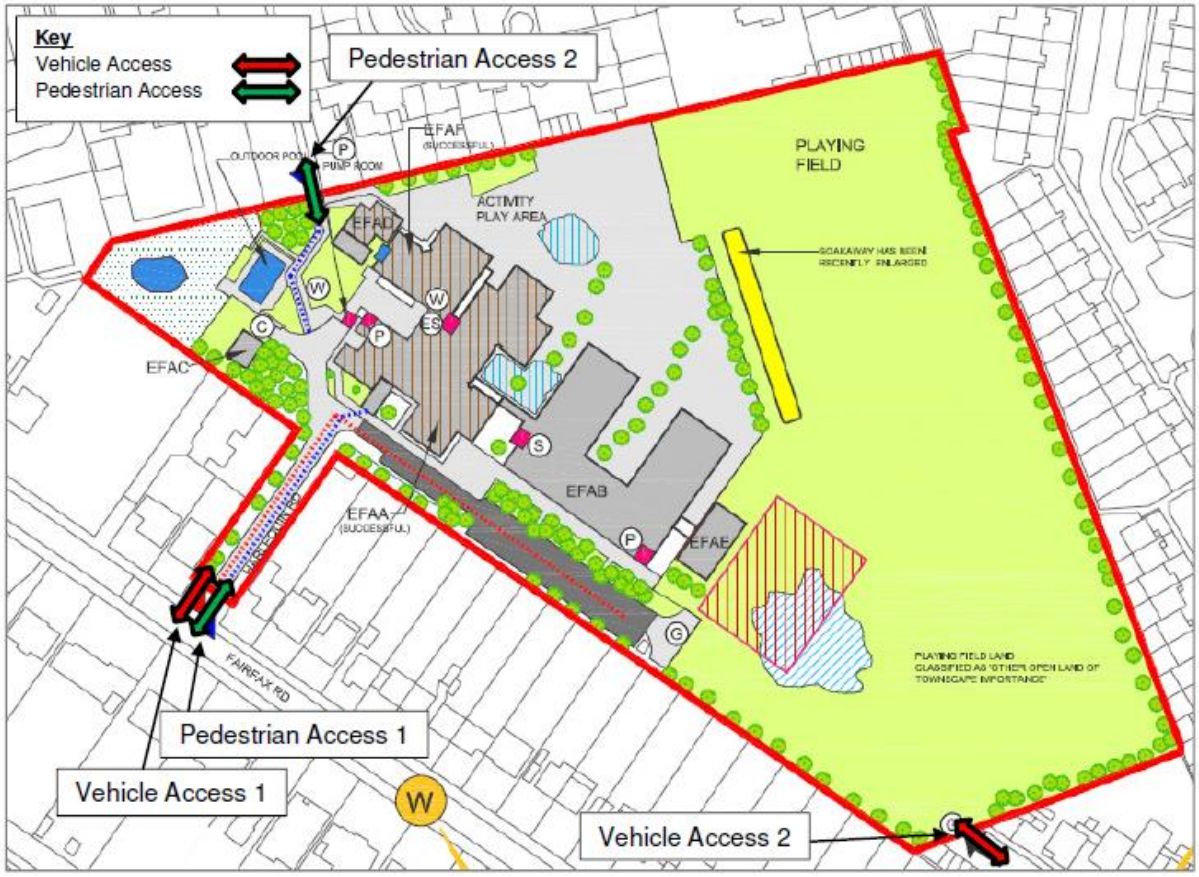
- No time restrictions to the works are considered necessary.

- If a bat is found at any time, work must stop, and further advice sought from a bat ecologist.
- If works do not proceed within 12 months of this report an update will be required to check for material change.

4.4 Potential Enhancement

Table 6: Potential enhancements, based on the current information available. The LPA has a duty to have a net gain in biodiversity through its duties.

Work	Specification
Potential enhancements	Bat boxes can be installed, there are trees suitable for this purpose. These boxes will be placed on said trees and will be no less than 3m above ground level and away from any neighbouring ledge to prevent local cats predating on bats using the boxes A minimum of two Schweglar 1FF boxes (see Figure 12) will be hung on the trees at a minimum of 3m from ground level and face south/southwesterly. These boxes are known to be used by crevice and void dwelling species.  Figure 12: Schweglar 1FF bat box
Lighting	Any lighting near or shining onto any trees, especially those with bat boxes in should be designed to minimize the impact it has on potential bat roosting and commuting. Lighting should be in-line with the BCT lighting guidelines (Bats and Lighting in the UK (Bat conservation trust, 2008) *http://www.bats.org.uk/publications_download.php/1136/guidance_notes_light_pollution_20111.pdf*. This lighting should be of low level, be on downward deflectors and ideally be on PIR sensors. Using LED directional lighting can also be a way of minimizing the light spill affecting the habitat. No up-lighting should be used. This will ensure that the roosting and commuting resources that the bats are likely to be using is maintained.



Existing site plan.

5.0 References

CIEEM (2016) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater and Coastal, 2nd edition. Chartered Institute of Ecology and Environmental Management, Winchester, online at https://www.cieem.net/data/files/Publications/EcIA_Guidelines_Terrestrial_Freshwater_and_Coastal_Jan_2016.pdf

Collins, J. (ed), (2016), Bat Surveys for Professional Ecologists: Good Practice Guidelines 3rd Edition, BCT, London

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Mitchell-Jones, A.J. (2004), Bat Mitigation Guidelines, English Nature, Peterborough

Records: London Bat Group, (2018) Records Data, LBG