



# Clayton Ecology

## Preliminary Bat Roost Assessment

28 D'Ayncourt Walk

Farnsfield

November 2023

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## Contents

SUMMARY .....	3
1. INTRODUCTION .....	4
1.1 Legislation applicable to bats.....	5
1.2 Legislation applicable to breeding birds.....	5
2. SITE DESCRIPTION.....	6
2.1 Location of the Site .....	6
3. SURVEY METHODOLOGY .....	9
3.1 Desktop study .....	9
3.2 Preliminary Bat Roost Assessment .....	9
3.3 Survey constraints.....	9
3.4 Personnel.....	9
3.5 Breeding birds scoping survey .....	9
3.6 Other protected species.....	9
4. SURVEY RESULTS .....	10
4.1 Desk Study .....	10
4.2 Preliminary Bat Roost Assessment Results.....	10
4.3 Scoping survey results: breeding birds.....	12
4.4 Scoping survey results: other protected species.....	12
5. EVALUATION AND RECOMMENDATIONS.....	13
5.1 Evaluation .....	13
5.2 Recommendations.....	13
5.3 Breeding birds.....	13
6. ENVIRONMENTAL CONSTRUCTION METHOD .....	16
6.1 Safeguarding of individual bats from harm during works.....	16
6.2 Temporary receptor site .....	16
6.3 Actions post soft demolition .....	17
7. APPENDIX 1 - PROCEDURE FOR BAT IS DISCOVERED WHEN ECOLOGIST IS NOT PRESENT ...	18

## SUMMARY

This report has been prepared by Clayton Ecology Ltd on behalf of Richard Shapley. The report provides the results of a preliminary bat roost assessment of 28 D'Ayncourt Walk, Farnsfield NG22 8DP.

The proposal is to create a two storey extension into the existing loft space and over the current garage to enlarge the building from a 2 to 3 bedroom dwelling.

No evidence of roosting bats was found during the visual inspection. The building was in good structural condition although suitable features were located within the roof structure, that could appeal to crevice dwelling roosting bats.

The PBRA survey determined that the building did contain features of value for roosting bats and therefore assessed the structure as being of being "low bat roosting potential". Collins (2023) states that for Low Potential Buildings a more proportionate approach could be "precautionary measures could be applied during works."

Therefore based on our findings, the low number of features, the suburban habitat, and the guideline advice, we would recommend a precautionary approach in this project. It is the conclusion of this report that the dwelling is of low risk of supporting roosting bats and if bats were present within the features identified, the works would have a minimal impact to their ability to survive and reproduce. As a result, no further surveys are recommended for the structure. However some precautionary procedures are required due to the low risk of a bat roost being present when works are begun. This is outlined in section 6.

The development proposal will not require the submission for European Protected Species derogation licence.

**No further surveys are required if precautionary measures in section 6 are adhered to when works are undertaken on the dwelling's roof structure.**

No evidence of breeding birds or other protected species was found associated with the building during the survey. As no breeding bird evidence is present there is no seasonal constraint, however, to ensure all eventualities are covered if works proceed within the bird breeding season of March to September, then in advance the building should be checked to ensure there are no nesting birds present.

# 1. INTRODUCTION

This report has been prepared by Clayton Ecology Ltd on behalf of Richard Shapley. The report provides the results of a preliminary bat roost assessment of 28 D'Ayncourt Walk, Farnfield NG22 8DP. The survey building is located at Ordnance Survey grid reference, SK 65026 56980.

The proposal is to create a two storey extension into the existing loft space and over the current garage to enlarge the building from a 2 to 3 bedroom dwelling see figure 1 and 2 below.

The report provides the results of a preliminary bat roost assessment.

The legislation with regard to bats (*Chiroptera*) is listed below.

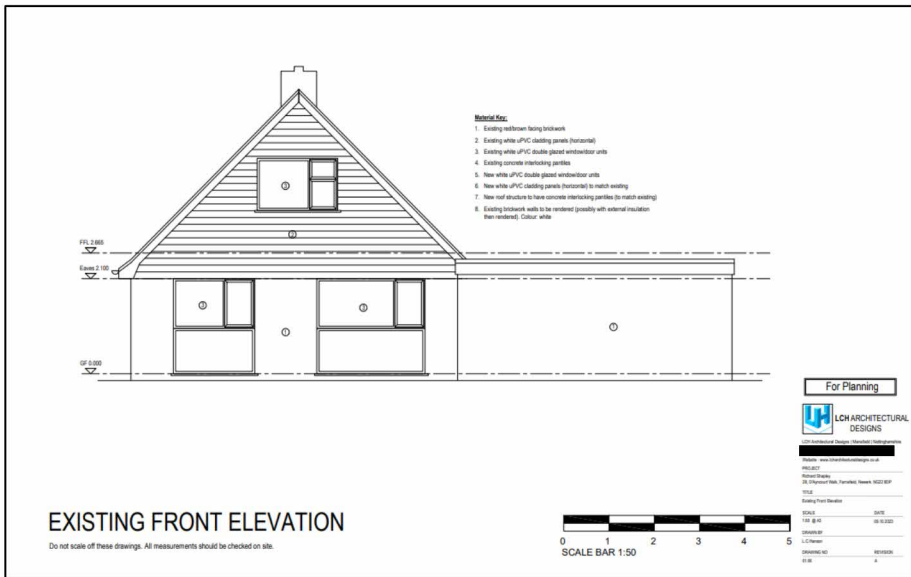


Figure 1: The current view of the front of the building.

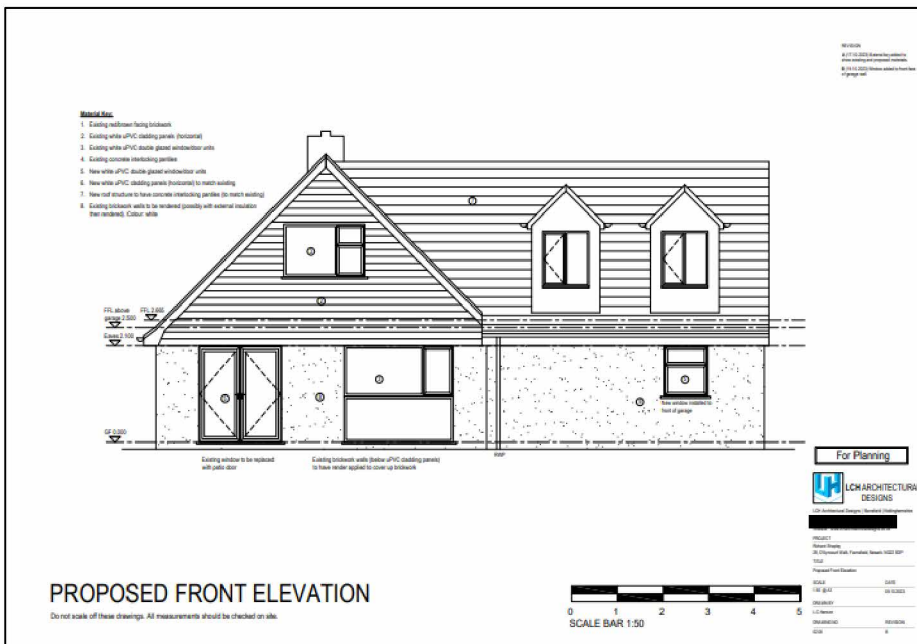


Figure 2: The proposed view of the front of the building.

## 1.1 Legislation applicable to bats

All species of British bat and their roosts are protected under British law by the Wildlife and Countryside Act 1981 (as amended), and bats are classified as European Protected Species under the Conservation of Habitats and Species Regulations 2017 ('the 2017 Regulations'). This has recently been amended by the Conservation of Habitats and Species Regulations (Amendment) (EU Exit) Regulations (2019) which continue the same provision for European protected species, licensing requirements, and protected areas after Brexit.

The legislation makes it an offence to kill, injure or disturb a bat and/or to damage or destroy a breeding site or resting place for a bat. It is also an offence to disturb the animals such that it impairs their ability to survive, to reproduce, to nurture their young, or such that it impairs their ability to hibernate or migrate. Under this legislation development work that could affect a bat or bat roost can only be permitted under a licence from Natural England.

Licences in respect of European Protected Species affected by development can be granted under Section 55(2) (e) of The Conservation of Habitats and Species Regulations (Amendment) (EU Exit) Regulations (2019), for the purpose of preserving public health or public safety or other imperative reasons of overriding public interest including those of social or economic nature and beneficial consequences of primary importance for the environment.

Under section 55(9) of the Regulations licences can only be issued if Natural England is satisfied that:

there is no satisfactory alternative to the work specification

and the action authorised will not be detrimental to the maintenance of the population of the species at a favourable conservation status in their natural range.

Natural England aim to process EPS licence applications within 35 working days of receipt and Low Impact Class licenses are typically registered within 14 working days of receipt.

## 1.2 Legislation applicable to breeding birds

Under the Wildlife and Countryside Act 1981 (as amended), all native birds and their nests, whilst in use, are protected from harm, disturbance or destruction during the breeding season. To avoid conflict, development work that could affect breeding birds should be timed to take place outside of the breeding season, variable between March and September. Note that a nest is protected from the beginning of its construction until the young have fledged and left the nest.

## 2. SITE DESCRIPTION

### 2.1 Location of the Site

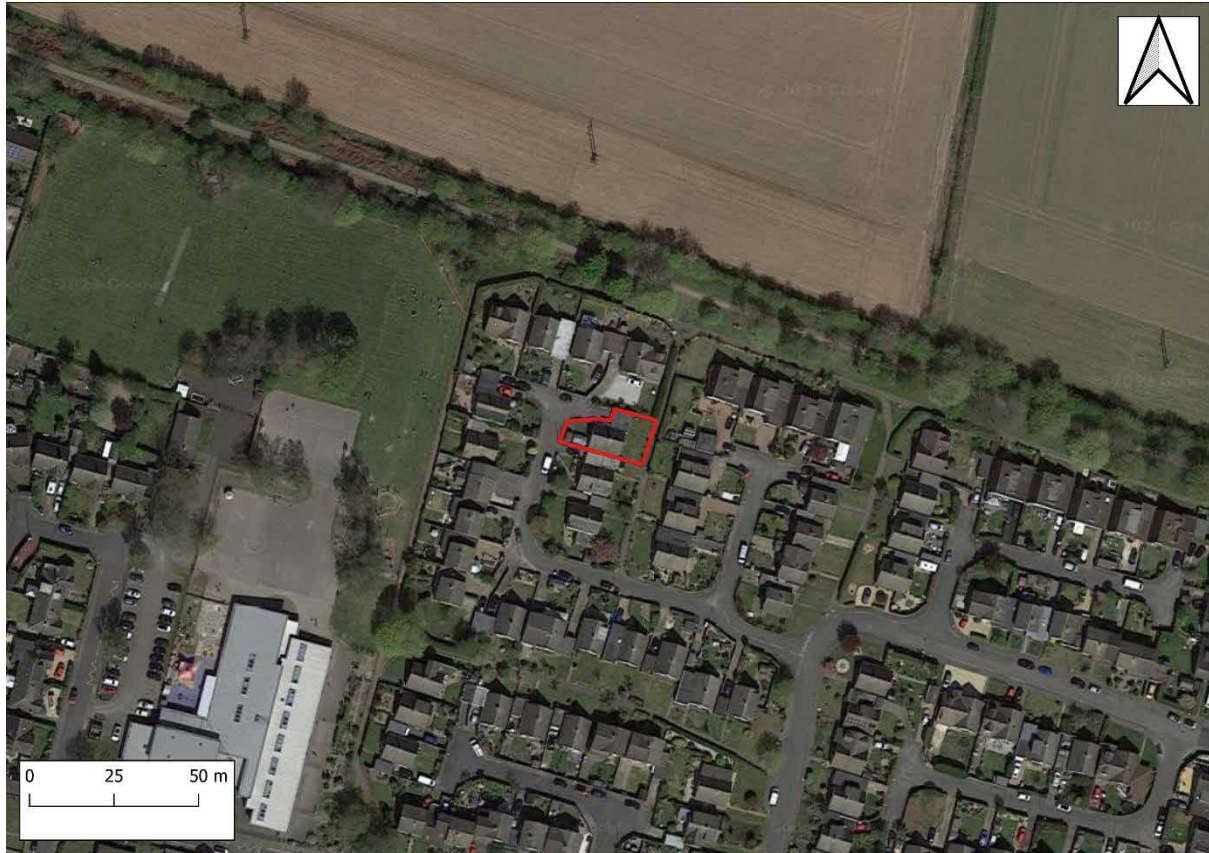


Figure 3: The situation of the Site, encircled in red, in relation to the surrounding landscape, courtesy of Google Earth.

The building is situated within the north east corner of the village of Farnsfield, within the wider county of Nottinghamshire. The building is situated within a cul-de-sac of D'Ayncourt Walk to its west and surrounded to all other aspects with residential housing (predominately bungalows), many of these with semi-mature gardens and trees and ornamental hedgerows. To the north of the building approximately 50 metres is the now disused railway line which is used as walking/riding route known as Southwell Trail.

The wider surrounding landscape contains agricultural farmland with a mixture of arable and pastoral fields, bounded by scattered tree lines and hedgerows, areas containing woodlands, and residential districts, many with established garden landscapes.

#### Description of the building

The building is a detached two-storey solid red brick building in the style of a bungalow with a large flat roofed attached garage. The roof structure of the main building contains a single gabled roof, supported by wooden timber purlin and rafter A frame, lined with bitumen felt and thin insulation and, covered in interlocking pressed concrete pantiles and ridge tiles. The gables at the west and east are clad in plastic, and all windows and doors are well sealed UPVC, the soffits and fascia boarding are wooden and starting to deteriorate however they are still well sealed. See photographs 1 to 4 inclusive.



Photograph 1: The east elevation of the building and garage showing the north roof aspect.



Photograph 2: The west and north elevations of the building.



Photograph 3: The south aspect of the roof and east elevation of the building.



Photograph 4: The internal roof structure.



## 3. SURVEY METHODOLOGY

### 3.1 Desktop study

The desktop study involved examining web-based resources. The following resources were examined:

MAGIC - Multi-Agency Geographic Information website for maps of statutory designated nature conservation sites within 2km of the survey area and previously Granted European Protected Species Applications for Bats.

### 3.2 Preliminary Bat Roost Assessment

A preliminary bat roost assessment was undertaken to the building on site. This survey was completed in accordance with the Good Practice Guidelines (Collins 2023), comprising a visual inspection of the building (formerly referred to as a bat scoping survey) as part of the ecological assessment of the potential development footprint.

The methodology included examining the building for potential roost features and assessing the likelihood of these features being used by bats. This included searching for evidence of bat roosting in the form of feeding remains, droppings, staining, worn surfaces and the bats themselves (alive or dead).

Equipment used included a powerful torch, collapsible ladders, endoscope, camera, and binoculars.

### 3.3 Survey constraints

The survey was undertaken outside of the main bat survey season of May to September inclusive. Any evidence of bats on the external elevations may be removed by the actions of water and wind, evidence within sealed and undisturbed areas such as attic spaces would remain unaffected however.

Overall, there were no significant limitations given the aims of the survey.

### 3.4 Personnel

The preliminary bat roost assessment was undertaken by Clayton Ecology Ltd on the 10<sup>th</sup> of November 2023. The survey was carried out by Mr Nick Clayton BSc (Hons) ACIEEM (Bat Licence: 2020-49905-CLS-CLS).

### 3.5 Breeding birds scoping survey

Features that had potential to support nesting birds were recorded along with any breeding bird activity observed during the visual inspection.

### 3.6 Other protected species

An ecological walkover of the area immediately surrounding the building was carried out to assess the habitat for other protected species.

## 4. SURVEY RESULTS

### 4.1 Desk Study

There are no Statutory Designated Sites (Site of Special Scientific Interest (SSSI) /Special Area of Conservation SAC/ National Nature Reserve (NNR) within the 2 km search radius.

There are four records of Local Wildlife Sites (LWS) within 2 km of the Site. No LWS were recorded within the Site. The LWS within 2 km are outlined in Table 1 below.

LWS	Direction from Site	Distance from Site
Farnsfield Disused Railway	N	50 m
Spring Farm Grasslands	E	1.7 km
Edingley Beck Pasture	SE	1.6 km
Kirklington Mill Ponds	NE	1.8 km

Table 1: Local wildlife sites within 2 km of the site.

A search of the Magic Map application for previously granted European Protected Species Derogation Licences within a 2 km radius of the site identified the following:

License number: EPSM2012-4509 Destruction of a Breeding site of Brown Long-eared *Plecotus auritus* dated 10/09/2012 approximately 1.9 km south east from the site.

### 4.2 Preliminary Bat Roost Assessment Results

No evidence of use by bats was found during the visual inspection. Access points into the building i.e. doors and windows were generally tight sealed. The dwelling is in reasonable structural condition with only a few crevices suitable for bats. The roof had two features that could be used by roosting bats however, the internal roof void was well sealed indicating that the likelihood of the presence of bats was reduced. No light spill was visible coming through into the roof space providing potential access points for bats

Access points into the void between the tiles and bitumen felt are: gaps on the eastern bedded tile verge due to missing mortar, and missing mortar beneath the east elevation gable end ridge tile (see photographs 5 and 6 below).

There are few mature trees and high hedgerows around the site which could add cover and connectivity for roosting bats. Habitats of value to bats in terms of providing foraging, commuting and possibly roosting opportunities include the tree lined Southwell Trail approximately 50 metres north from the site. The nearest water source is approximately 650 metres to the south west and is a large pond within some pastoral fields, there may however be other water sources within residential gardens surrounding the site.

The immediate landscape is of low potential for foraging bats although does have some limited connectivity to the wider area, specifically to the north, that may provide good foraging/commuting habitat for bat species within the local range.

In summary, the immediate area may provide low foraging/commuting habitat for light tolerant bat species within the local range, however the wider area provides good foraging and commuting habitat for all bat species within the local range.

The building was assessed as being of low potential for bats, based upon its geographical location of the structure against the potential bat roost features present.



Photograph 5: The eastern tile crease with missing mortar.



Photograph 6: The ridge tile with missing mortar at the western gable end.

#### **4.3 Scoping survey results: breeding birds**

There was no evidence that any bird species have utilised the structure for nesting.

#### **4.4 Scoping survey results: other protected species**

No evidence of other protected species or invasive species was found during the visual inspection of the surrounding landscape.

## 5. EVALUATION AND RECOMMENDATIONS

### 5.1 Evaluation

No evidence of roosting bats was found during the Preliminary Bat Roost Assessment.

The immediate landscape is of low potential for foraging bats although does have some limited connectivity to the wider area, specifically to the north, that may provide good foraging/commuting and roosting habitat for bat species within the local range.

The survey determined that the building contained some access points and features present that would be suitable for crevice dwelling bats. This would categorise the structure as being of “low bat roost potential” in accordance with national guidance.

### 5.2 Recommendations

Collins (2023) states in section 5.2.44 “A single survey during the summer months may be adequate to ensure nothing obvious has been missed and/or **precautionary measures could be applied during works.**”.

Therefore based on our findings, the low number of features, and the si and the guideline advice, we would recommend a precautionary approach in this project. It is the conclusion of this report that the dwelling is of low risk of supporting roosting bats and if bats were present within the features identified, the works would have a minimal impact to their ability to survive and reproduce. As a result, no further surveys are recommended for the structure. However some precautionary procedures are required due to the low risk of a bat roost being present when works are begun. This is outlined in section 6.

The development proposal will not require the submission for European Protected Species derogation licence.

**No further surveys are required if precautionary measures in section 6 are adhered to when works are undertaken.**

### 5.3 Breeding birds

No evidence of nesting birds was located within the building during the survey. However, the features may become present that could be utilised by birds in the future and therefore some caution is required.

All breeding birds are protected under the Wildlife and Countryside Act (1981) (as amended) that protects nests, whilst in use, from harm, disturbance or destruction during the breeding season.

As no breeding bird evidence is present there is no seasonal constraint, however, to ensure all eventualities are covered if works proceed within the bird breeding season of March to September, then in advance the building should be checked to ensure there are no nesting birds present.

In the event that an active bird nest is found during the planned works, it must be retained in situ undisturbed until the nest is no longer in active use. A nest is classed as active when it contains eggs or chicks and when it is being built.

### 5.4 Lighting

Artificial lighting causes disturbance to bats; it has been shown to negatively impact upon emergence times and foraging opportunities for bats thereby reducing their fitness and ability to survive (Stone, Jones & Harris, 2009) as such all new lighting must

be downward facing, of a low output and only lighting triggered by PIR sensors to be used. Any proposed scheme should not encourage the continuous illumination of linear features such as hedgerows to avoid creating a barrier to bats connecting with the wider landscape.

The following recommendations for mitigation of artificial lighting have been extracted from the Guidance note 08/18: Bats and Artificial Lighting in the UK produced by the Bat Conservation Trust and Institution of Lighting Professionals (2018).

- Lighting units should use LED which emit a warm white light (less than 2700K) to reduce the blue light component known to attract insects.
- Lighting units should feature peak wavelengths 550nm to avoid the component of light that is most disturbing to bats
- Lighting units should be mounted horizontally as such there is no upward tilt
- External security lighting should be motion sensitive on a short timer (1 min)
- Lighting should be directed to where it is needed, and efforts made to reduce light spill if necessary, by using accessories such as hoods and louvres.

## 5.5 Biodiversity Enhancement Opportunity

Wherever possible, negative ecological impacts should be avoided. If unavoidable, then mitigation and compensation measures will be proposed for adverse ecological effects. In addition, it is best practice to seek positive biodiversity benefits through enhancement measures, in particular with regard to Priority Habitats and Species listed on the national and local Biodiversity Action Plans and the NERC Act 2006.

IEEM (2006) endorses the following principle, recommended by the Royal Town Planning Institute (2000) for optimising the biodiversity outcomes of planning decisions:

New Benefits: seek to provide net benefits for biodiversity over and above requirements for mitigation and compensation.

Planning authorities are required to actively seek in development proposals, measures that aim to promote appropriate Priority Habitats and Species listed in the Biodiversity Action Plan and treat these as 'material considerations'.

The National Planning Policy Framework 2023 states in paragraph 180 section d:

"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."

It is therefore recommended that additional bird boxes, bat boxes should be combined into the fabric of the new building, and hedgehog highways should be incorporated into the proposals of the site where possible.

## REFERENCES

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

Institution of Lighting Professionals & Bat Conservation Trust (2018) Guidance note 08/18: Bats and Artificial Lighting in the UK, Institution of Lighting Professionals, Rugby.

Institute of Ecology and Environmental Management, (2006). Guidelines for Ecological Impact Assessment. IEEM.

GOV (2023) National Planning Policy Framework. Available at <https://www.gov.uk/government/publications/national-planning-policy-framework--2>

Royal Town Planning Institute, (2000). Planning for Biodiversity.

Natural England (2014) Use of safe roofing membranes. Available at <https://www.gov.uk/government/publications/bats-apply-for-a-mitigation-licence#full-publication-update-history:~:text=Use%20of%20safe%20roofing%20membranes>

Stone, E. L., Jones, G., & Harris, S. (2009). Street lighting disturbs commuting bats. *Current biology*, 19 (13), 1123-1127.

## 6. ENVIRONMENTAL CONSTRUCTION METHOD

### 6.1 Safeguarding of individual bats from harm during works

Immediately prior to the commencement of the development works on the dwelling, a toolbox talk is to be given to contractors on site to advise of the potential roost features and how to protect roosting bats from harm.

At the time that the works into the roof space of the dwelling commences, actions will be required to ensure that if any bat has returned to roost outside of the monitoring period, that it will not be harmed by the works start. This will be provided with a pre-commencement survey by an ecologist and a precautionary soft demolition of a limited section of the building where features were present and where bats typically roost. See photograph 7 below with yellow markers showing these areas. This work will need to be supervised by a suitably licensed bat ecologist.



Photograph 7: The areas of the roof to be stripped (highlighted in yellow) under the supervision of a licenced bat ecologist.

### 6.2 Temporary receptor site

If a bat is discovered during these works, if appropriate and safe the tile will be replaced, and a bat licence applied for. If it is unsafe to return the bat to its roost then it will be captured by the licenced bat ecologist only and placed into a holding box for a limited period of time. There will then be a bat box fixed to one of the buildings



or trees to be retained on the site, the bat will be placed in there and allowed to emerge and disperse at its own leisure.

### **6.3 Actions post soft demolition**

Once the areas of potential risk are removed under soft demolition and under the supervision of the licenced bat ecologist, the building should be left for a period of 2 days to allow the elements access and any other animals inside time to disperse.

From that point onwards, the contractor should be advised by the toolbox talk that if a bat is discovered elsewhere that work will be suspended and the licenced bat ecologist contacted for further advice without delay.

To ensure that the contractors follow this precautionary approach, once a toolbox talk has been provided the procedure included within Appendix 1 of this report will be issued and retained on site within the site cabin.

## 7. APPENDIX 1 - PROCEDURE FOR IF A BAT IS DISCOVERED DURING WORKS WHEN AN ECOLOGIST IS NOT PRESENT

If at any point in the building works bats are discovered, then contractors must stop work immediately and telephone **Clayton Ecology** [REDACTED]

**Clayton Ecology** will either provide an appropriately licensed bat worker to the site or provide a member of staff who will liaise directly with the contractor. Actions will then be taken following advice given. This may include removal of bats, but only where the bat ecologist considers this to be a viable and safe option.

Bats are a protected species and there should be no attempt to handle a bat if discovered. The bat should be covered with a light material (cloth) and the bat worker called out to carry out the rescue.

Only when the bat ecologist is satisfied that the risk to bats is ceased will works recommence.

Should it transpire that the operation being carried out is of more risk to bats than was originally thought, then works will be stopped until they can be supervised by an appropriately licensed bat worker.

If a bat is found under a tile or within any other niche to the building fabric, works will stop immediately (as above). If the bat does not voluntarily fly out, then the aperture will be carefully covered over to protect the bat(s) from the elements, leaving a small gap for the bat to escape voluntarily. Any covering should be free from grease or other contaminants and should not be a fibreglass-based material.