

25 July 2017

Helen North  
Environmentalist | Environment & Sustainability | Consulting and Rail  
Amey

*By E-mail*

Our Ref: 406.05730.00012

Dear Helen,

***RE: PRELIMINARY BAT ROOST ASSESSMENT (PRA) OF BUILDINGS OFF LLANTHONY ROAD, GLOUCESTER***

## 1. INTRODUCTION

In July 2017, SLR Consulting Limited (SLR) was appointed by Amey to complete a Preliminary Bat Roost Assessment (PRA) of a large multi-use office and warehouse building to the west of Llanthony Road, Gloucester, GL2 5JH (UK Grid Reference: SO 82256 18043).

The PRA comprises a detailed daytime inspection of the exterior and interior of the building to look for features that bats could use for entry/exit and roosting, and to search for signs of roosting by bats.

Demolition of part, or all, of the building is being considered to facilitate a road widening scheme of the adjacent A430 Llanthony Road.

This report details the results of the survey and provides recommendations for any further survey or mitigation measures required to prevent impacts on bats as a result of proposed plans.

## 2. METHODOLOGY

### Study Area

The building is located to the west of the A430 Llanthony Road and is outlined in red on Figure 2-1 below.





**Figure 2-1**  
**Building (highlighted in red) subject to Preliminary Roost Inspection**

## Personnel

The building inspection was undertaken on 21<sup>st</sup> July 2017 by two ecologists from SLR, both highly experienced in bat surveys and one the holder of an NE survey licence<sup>1</sup>.

## Preliminary Roost Inspection

The preliminary roost inspection of the building followed current best practice guidelines<sup>2</sup> and entailed a thorough internal and external inspection of the building. The inspection of the exterior of the building was undertaken to identify potential features for roosting bats, and potential bat entry or exit points. The interior was searched for evidence that would indicate the presence of bats such as feeding remains, bat droppings, oil staining, dead bats, and the bats themselves. The building surveyed would be classified on its potential likelihood of supporting a bat roost and this is based on the number and extent of potential roost features and entry/exit points to the building. The criteria for determining the potential of the building to support a bat roost is included in Table 1.

<sup>1</sup> Andy Law CECOL and MCIEEM and Rob Williams AIEEM. Andy holds a Class Licence 18 Level 2 Natural England bat survey licence (No: 2015-10724-CLS-CLS).

<sup>2</sup> Collins J. (ed.) (2016) *Bat Surveys for Professional Ecologists*, Good Practice Guidelines. 3<sup>rd</sup> Edition. BCT

**Table 1**  
**Classification of buildings and trees, according to their potential to support roosting bats (based on Collins, 2016)**

Category (Bat Potential)	Description
Negligible value	Building, structure or tree where surveyor has not identified any suitable potential roosting features, or where those that are present are of such poor quality or condition, such that bats are highly unlikely to use them.
Low value	Building, structure or tree with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation).
Moderate value	Building, structure or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only – the assessments in this table are made irrespective of species conservation status, which is established after presence is confirmed).
High value	Building, structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.
Confirmed Roost	Bats or signs of bats, such as droppings and / or feeding remains, found, or information provided via desk study which indicates a roost.

### Survey Constraints

The only roof void within the building was un-boarded and the age and state of the wooden ceiling beams was unknown. It was therefore not considered safe to access all areas within the roof void. However, the roof void was surveyed as far as possible from the loft hatch using high power-torches. The survey was considered adequate to assess the suitability of the void for roosting bats and complete a partial search for bat evidence, thus this constraint is not considered to materially alter the conclusions drawn in this report.

All other areas of the building were fully accessible.

## 3. RESULTS

The findings of the preliminary roost inspection survey of the building are detailed in Table 2.

**Table 2**  
**Preliminary Roost Inspection results of the Building**

Photograph	Notes
	<p><b>External Description</b></p> <p>The multi-use office and warehouse building has a range of construction styles due to the building having been extended at least once during its lifetime. It dates from the 1940's/1950's.</p>
	<p>The majority of the building is constructed from single skin breeze block walls with a row of five metal framed roof pitches covered with corrugated concrete/asbestos sheets. There are a number of windows at regular points. The building is mostly in reasonable condition, however, certain areas are dilapidated and support small features potentially suitable for individual or small numbers of roosting bats. This part of the building is divided up into many smaller individual units. Most of the units are in active use and house small manufacturing and engineering businesses which produce light, noise, odour and vibration.</p>
	<p>The original part of the building has cavity walls constructed from red brick, with a small section of flat roof and a metal framed pitched roof covered with corrugated concrete sheets. There is a single, large enclosed roof void within this part of the building, which is accessible from the offices below. This section of the building contains offices and a bathroom showroom.</p>
	<p>There are a number of small potential bat roost features and/or entry and exits points on each of the four elevations of the building and these are detailed below.</p> <p>The southern elevation of the building has localised gaps in the brickwork and masonry, small gaps between the wall top and roof-covering, gaps around a blocked window frame, gaps under the end ridge tiles, and small gaps behind a wooden board.</p> <p>The eastern elevations have a partially open soffit box, gaps behind the facia boards, gaps between the corrugated roof panel, and small weep holes above the</p>

Photograph	Notes
	<p>window frames.</p> <p>The northern elevation has a gap at the roofline beneath a capping stone on the flat roof, gaps behind the fascia board above the windows, small gaps under lead flashing, and gaps under the end ridge tiles.</p> <p>The western elevation has gaps under roofing felt on the flat roof, small gaps behind the fascia board and in the brickwork, and gaps between the wall top and roof covering.</p>
	<p><b>Internal Description</b></p> <p>No evidence of bat activity was found within the enclosed roof void within the building. The void was noted to be particularly draughty (due to gaps between the single skin of corrugated roof sheets) and have dense accumulations of cobwebs. A window or vent opened into the roof void allowing light ingress into the void. It is anticipated, due to the single-skin roof covering and abundance of gaps that the void suffers from wide fluctuations of temperature. Rats have been known to be present within the roof void in the past, and evidence of bird presence (feathers) was noted in the void.</p> <p>There are no other accessible roof voids within the building and the majority of the remainder of the building is open to the roof. In these parts of the building the single-skin of corrugated roofing sheets are lined internally with rectangular boards suspended from the metal roof frame. In many places these lining boards are beginning to decay leaving open gaps and in other places the boards have fallen out completely.</p> <p>As stated the majority of the building is in active use, and is thus subject to significant noise and light levels.</p>
N/A	<p><b>Bat Roost Potential</b></p> <p>The building is considered to have low potential for crevice dwelling species, such as pipistrelle and myotid bats, primarily within the small features (i.e. gaps in brickwork etc.) noted on the exterior of the building.</p> <p>The building is considered to have negligible potential for hibernating bats due to a lack of suitable features</p>

Photograph	Notes
	which would provide a draft-free and stable temperature environment suitable for hibernation.

## 4. CONCLUSION AND RECOMMENDATIONS

### Bats

No bat roosts were confirmed within the building and no evidence of bats was found during the daytime survey.

The building was considered to have low potential to support roosts of crevice-dwelling bat species due to the presence of small gaps on the exterior of the building. However, the likelihood of bats using these features for roosting is reduced due the urban context of the building. The roads immediately to the north, south, and east of the building are all lit by street lamps this is likely to decrease the chances of bats using the building for roosting. In addition, there is likely to be better roosting locations within residential buildings close by.

### Legislation

All native UK species of bat are listed on Annex II and IV of the EEC Directive on the Conservation of Natural Habitats and Wild Fauna and Flora. This Directive is transposed into UK law through The Conservation of Habitats and Species Regulations 2010 (as amended). All bats are also listed on Schedule 5 of Wildlife & Countryside Act 1981 (as amended) and are afforded further protection under Section 9 of this Act. In brief, this legislation makes it offence to:

- Deliberately kill, injure or take a bat;
- Deliberately disturb a bat or bats in such a way as to be likely to impair their ability to survive, breed, or rear or nurture their young; to hibernate or migrate; or to affect significantly the local distribution or abundance of that species;
- Damage or destroy the breeding or resting place of a bat;
- Intentionally or recklessly obstruct access to a place that bats use for shelter or protection; and
- Intentionally or recklessly disturb a bat whilst it is occupying a place which it uses for shelter or protection.

A European Protected Species (EPS) Licence may be required for any activity which will damage, destroy or obstruct access to bat roost or protection or disturb a bat whilst it is occupying a roost.

### Recommendations

Based on the preliminary roost inspection survey the building is considered as having a low potential to support roosting bats. However, despite being considered to have a low potential, the presence of bat roosts within the building cannot be entirely ruled out.

The proposed development works therefore need to take reasonable steps to avoid damage or destruction to potential bat roosts during the works. The most cost-effective method of achieving this is to complete roost detection surveys (i.e. dusk emergence or dawn re-entry surveys) to ascertain the presence or likely absence of bat roosts within the building prior to demolition works commencing. As the building is considered to have low potential for bat roosting this would require a single dusk emergence or dawn re-entry survey with four surveyors (covering each aspect of the building) to be completed between May and September during the year in which the demolition works are to commence. If no bat roosts are found during the survey then the works can begin without further delay. However, should bat roosts be found a Natural England EPS development licence would be required before works could commence. This approach reduces the chances of unexpected delays to the development as a result of a bat roost being found. However, development works would not be able to begin until the roost detection survey work had been completed. In addition, there is a risk that surveys would become out of date if the demolition was delayed and would need to be repeated.

## 5. CLOSURE

This report has been prepared by SLR Consulting Limited with all reasonable skill, care and diligence, and taking account of the manpower and resources devoted to it by agreement with the client. Information reported herein is based on the interpretation of data collected and has been accepted in good faith as being accurate and valid.

This report is for the exclusive use of Amey; no warranties or guarantees are expressed or should be inferred by any third parties. This report may not be relied upon by other parties without written consent from SLR.

SLR disclaims any responsibility to the client and others in respect of any matters outside the agreed scope of the work.

Yours sincerely

**SLR Consulting Limited**



**Robert Williams**  
Senior Field Ecologist