absolute ecology LLP wildlife surveys

Preliminary Roost Assessment for Bats & Birds

Location: London Mill, Leek

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Notice to Readers

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Executive Summary

Absolute Ecology LLP Absolute Ecology was commissioned as part of an outline planning application to undertake a daytime bat and bird survey of a redundant mill at London Mill, London Street, Leek, Staffordshire, ST13 5LD. The following report details the legislation protecting bats and our methodology, findings and recommendations.

The redundant mill was considered to have high potential to support roosting bats due to the identification of bat droppings which seem to consistent to the Pipistrelle species of bat on level 5d of the mill. Bat roosting opportunities were evident within the building though during the survey certain roof void areas could not be competently investigated due to the access such as roof hatches. The gaps that were available were confidently inspected with care and diligence.

The survey found evidence that the mill level 5d on site is used by roosting bats. There are also a number of additional features that may also support bat roosts which could not be inspected given the size of the building it is therefore recommended further surveys are required in order to confirm likely absence.

1. A bat activity surveys to be conducted in the form of three dusk emergence and re-entry, these should be carried out between May to September.

2. A European Protected Species Licence is required to permit the proposed works to the mill on site. Further surveys as above are necessary in order to gain sufficient information to inform a licence application. Further detail on the scope of these surveys is provided.

Contents

1. Introduction

1.1. Site Description

Absolute Ecology was commissioned to undertake a Preliminary Roost Assessment for the bat roost potential at a site known as London Mill, Leek, Staffordshire. Grid Reference: SJ989563

1.2. Proposed Works

It is proposed to re/develop the building into either residential or commercial premises.

1.3. Best Practice Guidance

The scope of this appraisal has been determined in line with the proportional approach to ecological survey, assessment and subsequent recommendations for avoidance and mitigation of impacts, which is encouraged in the emerging 'BS 42020: Biodiversity – Code of practice for planning and development'. This report has been prepared with du consideration for various best-practice guidance and methodologies including those of the Chartered Institute of Ecology and Environmental Management (CIEEM (2012)1, the emerging BS 42020 and the Bat Conservation Trust Best Practice 2012.

1.4. Aims of the Survey

1.3.1 The aims of the Preliminary Roost Assessment is to provide an ecological evaluation of the following species within the proposed application area:

Bats
• Probability of bats and their roost sites being present at the proposed re/development site.
• To assess the roost status.
• To assess suitable food resources and habitat requirements.
• If a roost site is found, to provide an impact assessment.

Table 1. Aims of survey in relation to bats.

1.3.2 A bat roost is interpreted as 'any structure or place, which any wild bat uses for shelter or protection'. Bats tend to show a high fidelity to roosts. Subsequently, legal opinion regards a roost to be protected whether or not the bats are present at the time. There are many types of roost used by temperate bats during their annual cycle: Any structures found having evidence of bats will be further evaluated to assess which of the following roost categories may be present onsite (if any):

Status	Description

Maternity / Nursery Roost	*used by breeding bats, where pups are born and raised to independence (Anecdotal evidence may support this prospect despite sub-optimal survey period).*
Hibernation Site	*where bats may be found during the winter. (This is assessed within the context of this report).*
Daytime Summer Roost	*used by males and/or non-breeding females (Seasonal limitations prevent robust analysis of this).*
Night Roost	*where bats rest between feeding bouts during the night but are rarely present during the day.*
Feeding Roost	*where bats temporarily utilize feeding perches and stations to eat an item of prey.*
Transitional (or Swarming) Site	*where bats may be present during the spring or autumn (This can not be assessed within the context of this report).*

Table 2. Bat roost status definitions

Birds
• Establish if birds are using the site.
• Locate nest sites, if present.
• Assess what types of activities were shown within the redevelopment site.
• Assess suitable food resources and habitat requirements.
• Provide an impact assessment, if nests are found.

Table 3. Aims of survey in relation to birds.

Barn Owl (*Tyto alba)*
• Establish presence onsite.
• Establish potential nest sites (PNS).
• Locate any active roost sites (ARS).
• Locate any temporary roost sites (TRS)
• Assess potential feeding and dispersal habitats (PFH)
• Provide an impact assessment, should barn owl(s) be present

Table 4. Aims of survey in relation to Barn Owl.

1.3.2 Assessment also considers potential effects on valued ecological receptors (VERs) and zones of influence (ZoI) during pre and post development, both onsite and off- site. The term Zone of Influence is used to describe the geographic extent of potential impacts of a proposed development. Should a likely significance of negative impacts be identified, further surveys, mitigation and enhancement measures will then be determined accordingly; to prevent, offset or reduce the degree of impact that may occur should development commence.

1.3.3 Sshould bats be present or evidence of bats identified onsite or that constraints are identified during the Preliminary Roost Assessment, then further survey would be required, if bat are identified then a European Protected Species (EPS) development license issued by Natural England (NE) may be required prior to any works taking place. If required, further presence/absence survey should be undertaken and a mitigation strategy be implemented with Natural England and the Local Planning Authority. Should no further surveying effort be considered, then the PEA report will include full justification and evaluation.

2. Methods

2.1. Summary of Survey Methods

All bat species resident in the UK have been recorded using trees, buildings and built structures, e.g. bridges, at some time during the year (Bat Conservation Trust, 2007 2nd edition 2012). The buildings were inspected externally and internally, where access was available, for signs of bat activity. These typically include bat presence, droppings, feeding remains, urine stains and grease marks. Notes were made on the following in accordance with the guidelines published by the BCT (2007 2nd edition 2012) for the surveying of buildings and built structures:

- Type and age of building
- Type of construction
- Presence of potential roost features, e.g. hanging tiles, raised tiles, roof voids
- Information or evidence of work having been undertaken that could affect use of the structure by bats
- Amount and location of evidence of bats such as presence of live or dead bats, droppings, grease marks, urine stains, characteristic smell of bats.

In the absence of any evidence, trees and structures have been assigned a rating of suitability from negligible to high potential for supporting bats. The rating is based on the location of the structure in the surrounding landscape, the number and type of features suitable for use by bats and the surveyor's experience. For example, a structure with a high level of regular disturbance and few opportunities for access by bats that is in a highly urbanised area with few or no mature trees, parkland, woodland or wetland would have negligible potential. Conversely, a pre-20th-century or early 20th-century building with many features suitable for use by bats close to good foraging habitat would have high potential.

Survey methodology also utilized a number of passive monitoring techniques including an infra-red night-vision camera (XLT Bushnell Trophy CamTM: USA) to qualitatively record any evidence of bat activity inside the building during surveying periods. Further equipment included a NVMT-12x24 night vision scope (Yukon: USA), a SeeSnake 2 video endoscope, a GPS eTrex Venture HC, a hand net and a CB2 Clubman Deluxe high-power lamp with filter.

2.2. Pre-Survey Data Search

Ecological data searches supplied by Staffordshire Ecological Records (SER) were acquired to establish whether any notable protected bat species have been recorded within a 2-km radius of the proposed development area. Furthermore, a desktop study of the area using online resources

was undertaken independently to corroborate the current overview of the site and its importance in the landscape. A number of electronic sources were consulted, including www.magic.gov.uk, www.naturalengland.org.uk and Google Earth.

2.3. Surveyor Information

Surveyor 1

Matthew Haydock – HND, ND, MIEEM, Natural England Bat Survey Class Licence CL18, Registration Number CLS01637. Matthew is an ecologist with four years' experience of environmental consultancy work. He holds a HND in Environmental Management with distinction. Matthew is an experienced bat surveyor with competency in activity surveys, dawn and dusk bat roost assessments, daytime surveys for bat field signs, assessments of trees as potential bat roosts and the production of reports providing advice on best practice, mitigation and compensation works relating to bats as may be required. Matthew holds a Natural England and Countryside Council for Wales licence, since 1997, to disturb bats for the purposes of science and education or conservation and has held Development Licences to permit development works affecting bats. Matthew has been an active bat group worker with the Staffordshire Bat Group since 1997, conducting various surveys throughout Staffordshire and Derbyshire. He also works alongside the Bat Conservation Trust with various projects such as the National Bat Monitoring Project, and is now a corporate member of the Bat Conservation

2.4 Field Surveys

2.4.1. Habitat Survey

Bat scoping survey was conducted in January 2012 updating April 2012

2.4.2. Roost Surveys

Equipment used to aid the survey included low- and high-powered torches, ladders, binoculars and an endoscope. A preliminary bat and bird roost assessment of the building was undertaken on 21st January 2015 updating April 2012 daytime inspection. Such scoping exercises can be undertaken throughout the year. Other than when assessing trees, environmental factors such as the weather do not have an impact upon the overall assessment survey results (see Table 5).

Table 5. Annual survey optimality for bats

Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Inspection of hibernation roosts – semi-optimal survey period			Limited activity – sub-optimal for surveys	Summer roost emergence & re-entry surveys – optimal survey period					Limited activity – sub-optimal survey period	Inspection of hibernation roosts – semi-optimal survey period	

Internal roost surveys are possible/trees are best surveyed during winter

The survey focused predominantly on the mill which is to be converted, The building on site was assessed during a less than optimal survey period, The inspection incorporated a visual assessment with the use of binoculars, torch, endoscope and ladders in full daylight to ascertain the following:

The internal & external inspection incorporated visual assessment with the use of torch, endoscope and ladders to undertake the following:

- To locate any potential roost/nest sites
- To listen for any bats and birds
- To examine floors, walls and structural elements for anecdotal evidence, i.e. droppings, urine stains, corpses and feeding remains.

3. Results

3.1. Pre-Survey Data Search

3.1.1. Designated Sites

Lady Dale is approximately 200 metres to the south which is a mixed grassland, woodland and wetland habitat with Billington Wood 600 metres to the south of the mill.

3.1.2. Protected Species.

Seven British bat species are currently given UK BAP (2007) Priority Species Status: Eleven of the seventeen resident UK bat species occur in Staffordshire. Staffordshire Ecological Records show three UK BAP species being recorded within 2km of the proposed application area.

UKBAP	Common name	Species	
☑	Brown long-eared bat	*Plecotus auritus*	☑
☑	Barbastelle bat	*Barbastella barbastellus*	☒

☑	Bechstein's bat	*Myotis bechsteinii*	☒
☑	Noctule	*Nyctalus noctula*	☑
☑	Greater horseshoe bat	*Rhinolophus ferrumequinum*	☒
☑	Lesser horseshoe bat	*Rhinolophus hipposideros*	☒
☑	Soprano pipistrelle	*Pipistrellus pygmaeus*	☑

UKBAP Bat species recorded within Staffordshire.

A further four/five bat species that are not currently given UK BAP consideration are also recorded within the county.

UKBAP	Common name	Species	Recorded within the county
☒	Natterer's bat	*Myotis Nattereri*	☑
☒	Daubenton's bat	*Myotis daubentonii*	☑
☒	Whiskered/ brandt bat	*Myotis mystacinus/brandtii*	☑
☒	Common pipistrelle	*Pipistrellus pipistrellus*	☑

Non UKBAP Bat species recorded within Staffordshire.

Staffordshire Ecological Records show no records of Barn Owl within a 2km radius of the application area.

3.2. Field Surveys

3.2.1. Habitat Description

The 1870s mill is a large six storey brick structured building with pitched and clad in tiles with a hard standing car park. The mill is situated close to the town of leek. The area around the mill consists of residential and commercial properties

3.2.2. Roost Surveys

External Description

The redundant mill is a rectangle building at the front of London Street with six floors. The structure of the building consisted of brick walls and a hipped roof and a gable-end construction roof with

attached pre-fabricated warehouses to the south west of the site. The brick walling of the buildings shows some opportunity for habitation by bats or birds to gain access internally,
The roofing of the buildings, which is mainly hipped and flat, has medium to high potential access opportunities for bats; this is due to the raised tiles, which in areas would assist bats to fit in between the tiles, and the roof ridges provide potential access to the roof space. The attached warehouse extension shows little or no opportunities for bats or birds.

6a internal inspection;

The inspection of 6a section of the building found to be an open planned area, the brick work was noticably painted showing little in the way of cracks or crevices. A roof void was evident above and this was inspected for bat & bird activity, it was evident that the roof was pitched and tiled with areas of plastic membrane, this was inspected for bat activity with care and dilagence. The gable end brick work to the east showed some crevices in which day light penetrated through indicating potential access for bats and birds.

No bat droppings, scratch marks or oil marks from fur were evident during the external inspections

6b internal inspection*;*

This area of the building is of an open planned design with some office rooms which has been incorporated within the room, the walls showed little opportunity for bats and birds to utlize the ceiling of the 6b. It is clad with boarding, no access was present such as a loft hatch preventing an inspection of the roofing area. The windows were intact preventing any potential access points for bats or birds.

No bat droppings, scratch marks or oil marks from fur were evident during the external inspections

5a internal inspection;

This section of the building is divided into two small rooms, the brick work of the building showed no potential for bats due to the lack of cracks or crevices, the roofing is boarded allowing no access to the roof space.

No bat droppings, scratch marks or oil marks from fur were evident during the external inspections.

5b internal inspection;

This area of the building is of an open planned design, the walls showed little opportunity for bats and birds to utlize. The ceiling is clad with boarding, no access was present such as a loft hatch preventing an inspection of the roofing area. The windows were intact preventing any potential access points for bats or birds.

No bat droppings, scratch marks or oil marks from fur were evident during the external inspections

5c internal inspection;

This section of the building connects to room 5b and is on a smaller scale. This area has a tiled and hipped roof. 5c has been divided into office spaces, these rooms have a suspended ceiling with evidence of two loft hatches which could not be accessed.

Two dry bat droppings were evident on the floor, from an inspection of the droppings they were relatively smooth with a diameter of 1.6mm and length 7.6mm this indicates possible Pipistrelle species.

5d internal inspection;

Area 5d is a large area divided into office spaces and corridors with a suspended ceiling, some of the offices were locked preventing any inspection. The walls are wooden panels and it was noticeable along the top end of the windows there were gaps on the south west elevation which were suitable for bats especially crevice species such as Pipistrelle species. The inspection found a hundred plus bat droppings through the corridor, attached to the window internally and externally and some scattering of droppings within the offices particularly noticeable on desks. One dead young male Pipistrelle species was evident on the floor possibly a young born 2011, due to the fading color of the fur it prevented a full identification of the species. Measurements were made of forearm length and facial shape though the phalanx could not be measured therefore determination of Pipistrelle species could not be made. The small area of roof voids were inspected where possible as some sections could not be accessible, no further bat evidence was found.

5e & f internal inspection;

Large open planned room which was fairly sealed preventing any access from the outside. The inspection did find on the floor one highly decomposed bat species, identification could not be made. The roof is pitched and sealed preventing any inspection.

5g internal inspection;

This area is a divided into two rooms, all walls and windows were intact preventing any potential bat or bird access from the outside, the roof is plastered with no roof void being present.

No bat droppings, scratch marks or oil marks from fur were evident during the external inspections

4a, b and h internal inspection;

This part of the mill is a large open planned workshop space which is divided by the lift and doorway. Brick end walls on the north side of the room. Windows on the east wall face London street both sections A and B have flat ceilings supported by metal columns. Section H has a 3 pitched roof one half of this is felted on the sloping side and the other half with skylights on the steeper pitch.

No bat droppings, scratch marks or oil marks from fur were evident during the external inspections

4c internal inspection;

This section is a reception room with a stairwell, the inspection found limited bat and bird opportunities.

No bat droppings, scratch marks or oil marks from fur were evident during the external inspections

4d internal inspection;

This area is a large open workshop floor which is the equivalent to the previous section of level 5a.

No bat droppings, scratch marks or oil marks from fur were evident during the external inspections

***4e & f internal inspection**;*

This is a large open planned room with accompanying small offices, the brick work and windows showed little potential for bats to utilize.

No bat droppings, scratch marks or oil marks from fur were evident during the external inspections

4g internal inspection;

This is a small room with brick walling, the inspection found this area to be of low potential for bats or birds due to the lack of cracks or crevices.

No bat droppings, scratch marks or oil marks from fur were evident during the external inspections

3c internal inspection;

No access was obtainable.

***3d internal inspection**;*

This area is a large open planned room with no windows or roof void being present.

No bat droppings, scratch marks or oil marks from fur were evident during the external inspections

3e internal inspection;

This room is open planned with windows being present .

No bat droppings, scratch marks or oil marks from fur were evident during the external inspections

3f internal inspection;

This area is an open planned workshop with windows, some cracks and crevices were evident especially along some of the windows, these were inspected with care and diligence for bat or bird activity.

No bat droppings, scratch marks or oil marks from fur were evident during the external inspections

3g internal inspection;

Level 3g is a small workshop area with windows, the cracks and crevices that were evident were inspected thoroughly.

No bat droppings, scratch marks or oil marks from fur were evident during the external inspections

2e internal inspection;

Level 2e is a small area which is divided into a variety of rooms, the inspection found very little potential for bats or birds within these rooms due to the lack of crevices for roosting or nesting.

No bat droppings, scratch marks or oil marks from fur were evident during the external inspections

2f internal inspection;

Area 2f is a large open planned workshop area with windows. During the inspection care and diligence was made checking any potential cracks or crevices for bird or bat activity.

No bat droppings, scratch marks or oil marks from fur were evident during the external inspections

2g internal inspection;

Is a small workshop room with windows and is well lit also providing little potential nest and roosting opportunities.

No bat droppings, scratch marks or oil marks from fur were evident during the external inspections

2i internal inspection;

This is an open planned room with brick walling and a sloping glass sealing.

No bat droppings, scratch marks or oil marks from fur were evident during the external inspections

2i internal inspection;

This area is a small, dark and dusty boiler room with boarded windows.

No bat droppings, scratch marks or oil marks from fur were evident during the external inspections

4. Assessment

4.1. Constraints on Survey Information

The Inspection was conducted during the season when most bats are in hibernation so no emergence or dawn activity surveys was conducted. Given the size of the building and the amount of crevices that could not be fully inspected.

4.2. Constraints on Equipment Used

No Constraints Identified

4.3. Potential Impacts of Development

4.3.1. Designated Sites

Given the physical distance to the designated sites coupled with the site being within a town setting it is unlikely that any re/development would have any impact.

4.3.2. Roosts

Level 5d is used by roosting bats as the interior is undisturbed. It is easily accessible by bats through crevices along the brick work of the window. There was a high quantity of droppings found in one of the 5d rooms and corridors. The type of roost could not be determined but the location and number of droppings indicates that the building is likely to be used as a maternity roost, this is where females give birth to their young.

4.4. Legislation and Policy Guidance

Unlike many smaller mammals, bats have low fecundity with a long and complex life cycle, which is played out over a large spatial landscape. Bats show a strong fidelity to different types of roosts throughout their annual cycle i.e. hibernacula, maternity, bachelor, satellite roosts and feeding perches. Linear features within the landscape such as hedgerows and tree lines are often used by bats for commuting, predator avoidance and foraging. Bats are highly social animals and loss of a single habitat alone can have a serious impact on populations. The status of many bat populations is tentative, being based on relatively few records and are highly susceptible to habitat loss and fragmentation. As such bats are given protected consideration within the following legislation and policy guidelines:

Policy guidelines

PAS 2010	The published 'PAS 2010' 'Planning to halt the loss of biodiversity' which is the government's new policy aimed at all authorities and developers involved in the planning process in the UK to halt biodiversity decline by 2010 and deliver net biodiversity gains as part of the green infrastructure provisions.
National Planning Policy Framework, Section 11:	The recently published framework in 2012, replaces the previous Planning Policy Statement 9. Section 11: Conserving and enhancing the natural environment, reaffirms the Governments commitment to maintaining green belt protections and preventing urban sprawl, retains the protection of designated sites and preserves wildlife, aims to improve the quality of the natural environment, and halt declines in species and habitats, protects and enhances biodiversity and promotes wildlife corridors.
Article 10 of the EC Habitats Directive:	The published Article requires government to develop features such as 'stepping stones' on the landscape, such as clusters of ponds, tracts of rough grassland or scrubland and vegetated railway line embankments.
Wildlife and Countryside Act 1981:	All species of bat are fully protected under the Wildlife and Countryside Act 1981, the European Conservation (Natural Habitats etc.) Regulations 1994, and the Countryside and Rights of Way Act 2000. This legislation 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.
Conservation of Habitats and Species Regulations (2010)	The Conservation of Habitats and Species Regulations 2010 consolidate all the various amendments made to the Conservation (Natural Habitats, &c.) Regulations 1994, in respect of England and Wales. It is an offence to possess, sell or offer, or transport for sale any European species of bat or any part derived from such a

	species. These Regulations also remove the 'incidental result defence'. In other words, it is no longer a defence to show that the killing, capture or disturbance of a species covered by the Regulations or the destruction or damage of their breeding sites or resting places was the incidental and unavoidable result of a lawful activity. Natural England can grant European Protected Species (EPS) licences in respect of development to permit activities that would otherwise be unlawful.
Natural Environment and Rural Communities Act (2006)	Under Section 40 of the Natural Environment and Rural Communities Act (2006), public bodies, including Local and Regional Planning Authorities, have a duty to 'have regard' to the conservation of biodiversity in England when carrying out their normal functions, which includes consideration of planning applications. In compliance with Section 41 of the Act, the Secretary of State has published a list of species considered to be of principal importance for conserving biodiversity in England. This is known as The England Biodiversity List, all of which make up the UK BAP Priority Species. Regional Planning Bodies and Local Planning Authorities will use it to identify the species that should be afforded priority to maintain, restore and enhance species and habitats.
Bird legislation	Most resident nesting birds are protected under the Wildlife and Countryside Act 1981, which protects birds, nests, eggs and nestling's. Some rarer species, such as barn owls, are afforded extra protection.

Please note: If bat species are present at the site, the purpose of this report will only summarize the potential requirements for a bat mitigation package or project. A separate mitigation report or project will include the necessary compensation measures to maintain the conservation status of a European Protected Species.

5. Recommendations and Mitigation

5.1. Further Surveys

In order to gain sufficient information for an EPS licence application, further surveys are recommended on London Mill, which is known to support roosting bats. It is recommended that 3 dusk emergence and dawn re-entry surveys be undertaken on this building In accordance with the Bat Conservation Trust guidelines (BCT, 2012) 2nd addition, the surveys should be conducted between May and September with a month between each survey.

6. Summary

The site comprises redundant mill situated within leek town, Staffordshire which will be re/developed to make way for a residential dwelling or commercial premises.

During the daytime inspection for potential for bats and nesting birds, the inspection had various constraints with the daytime inspection though evidence of bats were located primarily on 5d investigate therefore the identified showed that the building provided high potential to support bats by the amount of roosting opportunities and that evidence of bats were identified within Level 5d it is also possible that bats be also roosting in other locations within the building though this would be confirmed by bat activity surveys.

7. References

Bat Conservation Trust (2012). *Bat Surveys – Good Practice Guidelines*. Bat Conservation Trust: London.

BSBI (2008). *BSBI 2007 List.* [Online]. Available at: http://www.bsbi.org.uk/html/database.html [accessed on 20th October 2010].

The Conservation of Habitats and Species Regulations 2010. SI 2010/490.

The Conservation (Natural Habitats, &c.) (Amendment) Regulations 2007. SI 2007/1843, London: HMSO.

Countryside and Rights of Way Act 2000 (c.37). London: HMSO.

Office of the Deputy Prime Minister (2005) *Planning Policy Statement 9: Biodiversity and Geological Conservation*. The Stationery Office, Norwich.

UK Biodiversity Action Plan (2007). *UK List of Priority Species.* Joint Nature Conservation Committee. [Online]. Available at: http://www.ukbap.org.uk/NewPriorityList.aspx [accessed on 20th October 2010].

Biodiversity Action Reporting System (2010). *Biodiversity Action in Staffordshire.* BARS. [Online]. Available at: http://ukbap-

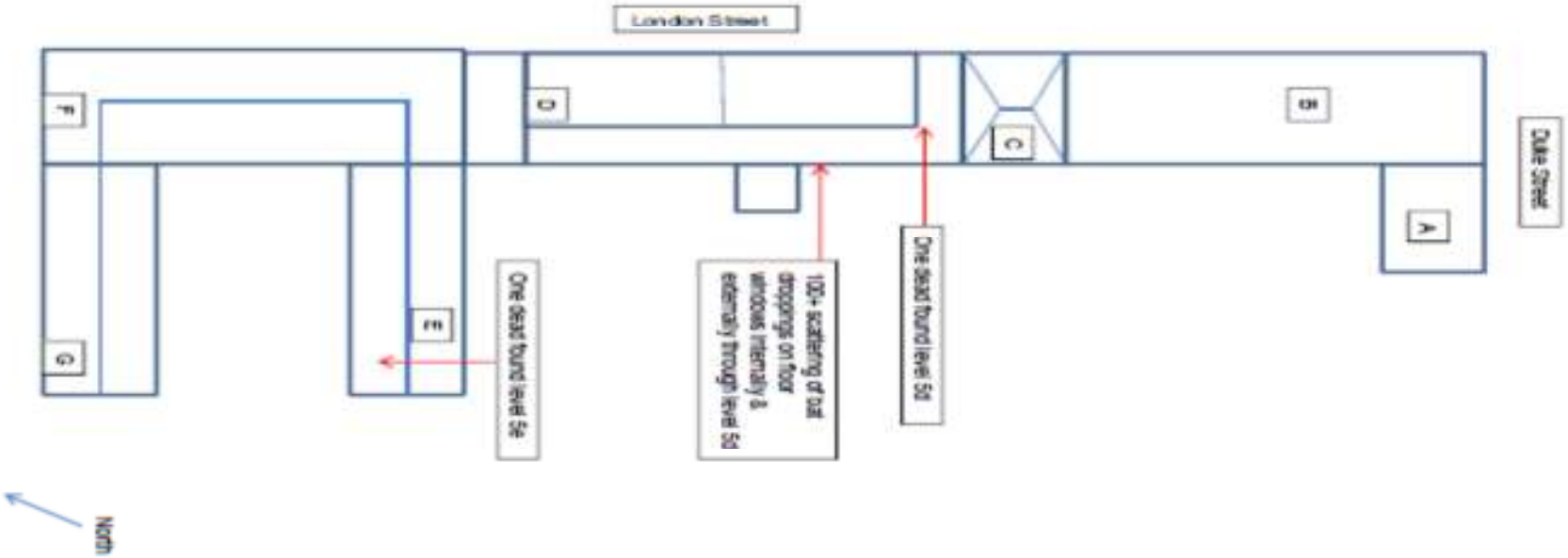
reporting.org.uk/plans/map_county.asp?X=%7BD7D87E4F%2D9520%2D48D6%2D93E0%2DD2698BA05B9D%7D&CTRY=%7B7C884413%2D1AC7%2D48B6%2DADCD%2D23CBA1482CD6%7D&WES= [accessed on 20th October 2010].

Wildlife and Countryside Act 1981 (and amendments) (c.69). London: HMSO.

Appendix 1 Maps

Building Location Plan

Evidence Plan of Bat Activity within London Street Mill



Appendix 2 Photographs

Plate 1: View of London Street Mill along London Street, Leek

Plate 2: Views of western elevation where bat evidence was located (5d).

Plate 3: Views of western elevation where some bat evidence was located on window (5d).

Plate 4 & 5: Views of corridor where bat evidence was located (5d).