

Bat Roost Assessment Survey Report for the Langtree Group

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Version: 3rd

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This report is based on survey data gathered in March 2013 at this site at 86-90 Duke Street, Liverpool, L1 5AA.

1.0 Summary

- 1.1 Solum Environmental was commissioned in March 2013 by Paul Hodgson E C Harris to undertake an external bat survey of a collection of buildings centred around 86-90 Duke Street, Liverpool, L1 5AA. Survey was commissioned on behalf of the Langtree Group to support a planning application to develop this site for mixed use. Survey was commissioned of the buildings' exteriors only, as the buildings were declared by the client to be unsafe to enter due to unknown structural issues and the potential presence of asbestos. In line with Solum Environmental's health and safety policy this building was declared to be unsuitable for internal inspection for bats
- 1.2 The proposed re-development project will include:
 - demolition of the existing buildings;
 - erection of a new building containing four floors of office accommodation, over a semi-basement car park to be accessed from Henry Street; and
 - retention of an inner courtyard with five car parking spaces.
- 1.3 The site comprises six buildings in poor repair, arranged around a central area of bare ground. Three of these buildings have a joint frontage onto Duke Street. Within the surrounding area are commercial properties and apartment blocks. The Mersey Docks lie approximately 600m to the west of the site. This wider city centre area is highly urbanised with high levels of lighting and human disturbance.
- All species of bats are European Protected Species and their breeding and nesting sites (roosts) are given a high degree of legal protection under the terms of the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2010. In addition, all bats are the subject of a UK-wide Biodiversity Action Plan (BAP). This combined legislation offers bats, their roost sites and resting places strict protection from intentional or reckless disturbance. Where bats are present at a proposed development site it is usually possible to continue with the proposed project, but only upon receipt of a site-specific licence from Natural England.
- 1.5 Desk study was carried out to identify any nearby national and local nature conservation designations, and any protected species records which already exist for this area. A bat roost assessment survey was undertaken by Richard Castell and Laura Holmes during daylight hours on 21st March 2013 in cool, overcast, dry weather.
- 1.6 The survey was severely constrained by lack of access to the interior of the buildings and to all sides of external walls, due to a combination of unsound structures, potential for asbestos to be present and high fencing around portions of the site.
- 1.7 Despite these constraints surveyors observed a small number cracks and crevices within a number of the six buildings on site, each offering potential, opportunistic roost sites for single or small numbers of crevice dwelling bats such as Pipistrelle (*Pipistrellus*) species.
- 1.8 Restricted access to the buildings only permitted a preliminary assessment of their potential to support roosting bats, the probability of which was deemed as being low. Records for this city centre location indicate low numbers of bats in the area. However given that the presence of bats could not be ruled out, it is recommended that these buildings undergo a 'soft-strip' demolition with licensed bat ecologist present, if feasible (ie with planning consent or demolition notices in place) outwith the hibernation and summer activity periods (see appendix), as guided by a qualified bat ecologist.
- 1.9 If this is not possible then, in line with BCT guidelines revised in 2012, further bat survey will be required prior to determination of a planning application for this site. This further survey effort should consist of a single dusk emergence /activity or dawn re-entry / activity survey, to be carried out at this site between May and August. In line with BCT guidelines a minimum of three surveyors would be required to cover all sightlines of the building. Should any bats be found emerging or re-entering any of these buildings during this survey then the building

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would be confirmed as hosting a bat roost and no works should be carried out on the building until a licence to derogate from the Conservation of Habitats and Species Regulations 2010 is obtained from Natural England.

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2.0 Introduction

2.1 Background and Commission

- 2.1.1 Solum Environmental was commissioned in March 2013 by Paul Hodgson E C Harris to undertake an external bat survey of a collection of buildings centred around 86-90 Duke Street, Liverpool, L1 5AA. Survey was commissioned on behalf of the Langtree Group to support a planning application to develop this site for office use. Survey was commissioned of the buildings' exteriors only, as the buildings were declared by the client to be unsafe to enter due to unknown structural issues and the potential presence of asbestos. In line with Solum Environmental's health and safety policy this building was declared to be unsuitable for internal inspection for bats.
- 2.1.2 Paul Hodgson at E C Harris confirmed that the proposed re-development project will include:
 - demolition of the existing buildings;
 - erection of a new building containing four floors of office accommodation, over a semi-basement car park to be accessed from Henry Street; and
 - retention of an inner courtyard with five car parking spaces.

2.2 Aims of the Survey

- 2.2.1 This preliminary bat survey aimed to:
 - assess the site's general potential to support bats species;
 - identify any protected habitats within or adjacent to this site; and
 - advise on any further bat survey, mitigation or licensing requirements, where re-development is likely to impact on bats or bat habitats.

2.3 Site Context

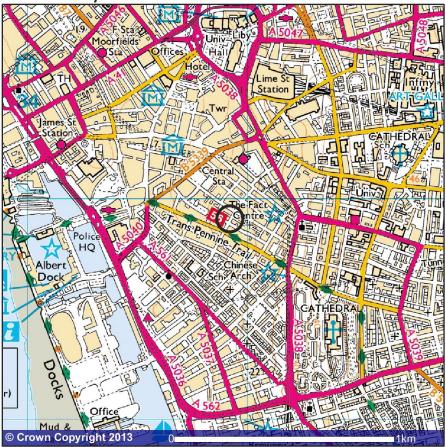
- 2.3.1 The site survey area is shown as a red-line boundary at Plan 1 below. The site's wider location is shown at Plan 2 below.
- 2.3.2 The site comprises six buildings in poor repair, arranged around a central area of bare ground. Three of these buildings have a joint frontage onto Duke Street. Within the surrounding area are commercial properties and apartment blocks. The Mersey Docks lie approximately 600m to the west of the site. This wider city centre area is highly urbanised with high levels of lighting and human disturbance.
- 2.3.3 The grid reference for the approximate centre of this site is \$J348898.

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Plan 1: Survey Site Boundary



Plan 2: Survey Site Location



3.0 Legal Protection and Planning Guidance

3.1 Bats (Chiroptera)

- 3.1.1 Bats (Chiroptera): All species of bats are European Protected Species and their breeding and nesting sites (roosts) are given a high degree of legal protection under the terms of the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2010. In addition, all bats are the subject of a UK-wide Biodiversity Action Plan (BAP). This combined legislation offers bats, their roost sites and resting places strict protection from intentional or reckless disturbance (see wording of GCN legislation above). It should be noted that, under the legislation, a bat roost is defined as any structure or place which is used by bats to shelter, breed or perch whilst feeding. As bats tend to reuse the same roosts, the roost is legally protected, whether the bats are present at the time or not.
- 3.1.2 Where bats are present at a proposed development site it is usually possible to continue with the proposed project, but only upon receipt of a site-specific licence from Natural England. The licence application process can be complex and can only be conducted by a suitably qualified bat-specialist ecologist. Each licence application must be supported by:
 - full optimal-season bat survey results and analysis;
 - a suitable mitigation strategy that ensures that the favourable conservation status of the bat population will
 be maintained (this usually involves the provision by the developer of replacement permanent bat roosts,
 additional bat boxes and both bat-friendly planting and lighting within the development site). This mitigation
 strategy should usually be agreed by the ecologist through liaison with Natural England; and
 - a method statement explaining how bats will be accommodated legally if found during the development process.

3.2 National Planning Policy Framework (NPPF)

- 3.2.1 The NPPF came into force in March 2012. It sets out the Government's planning policies for England and how these are expected to be applied. It gives guidance to local planning authorities on the content of their local plans but is also a material consideration in determining planning applications. The NPPF states that the planning system should provide a net gain for biodiversity wherever possible. The NPPF replaces much of the previous planning policy guidance, including PPS9: Biodiversity and Geological Conservation. However, the Government Circular 06/05: Biodiversity and Geological Conservation Statutory Obligations and Their Impact within the Planning System (which accompanied PPS9) remains valid.
- 3.2.2 Under the terms of the Natural Environment and Rural Communities Act 2006, all public bodies are required to have regard to the conservation of biodiversity when carrying out their activities. This means that efforts must be made to consider priority and protected species and habitats in particular. There would be a presumption in the land-use planning process against any development that would result in loss to an area of priority habitat or harm to the population of any priority species.

3.3 UK Biodiversity Action Plans

3.3.1 The UK Biodiversity Action Plan (UKBAP) was established in response to the Convention on Biological Diversity 1992, signed by 150 members at the Rio Earth Summit, which aimed to promote sustainable development amongst all signatories. Specific action plans have been prepared for highly protected species. As well as a national Biodiversity Action Plan, local Biodiversity Action Plans identify species of note at local level throughout the UK. The survey site is covered by the North Merseyside Biodiversity Action Plan.

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4.0 Methodologies

4.1 Desktop Survey Methodology

- 4.1.1 Desk study was carried out to identify any nearby national and local nature conservation designations, and any protected species records which already exist for this area. The MagiC website was interrogated to determine whether any statutory or non-statutory conservation sites lay within 1km of the survey area, and the data supplied was subsequently assimilated and reviewed.
- 4.1.2 Records were requested from the local ecological records centre (Merseyside BioBank) of any bat species recorded within a 1km radius of the site over the previous ten years.

4.2 Field Survey Methodology

- 4.2.1 The building inspection for bats was undertaken by Richard Castell and Laura Holmes during daylight hours on 21st March 2013 in cool, overcast, dry weather.
- 4.2.2 During the survey, surveyors inspected the exterior of the buildings for direct evidence of bats including:
 - any cracks or crevices under weather boarding or hanging tiles;
 - any gaps above soffits and behind fascia and barge boarding;
 - any gaps between window frames and wall brickwork;
 - any gaps behind cladding tiles or wood;
 - any gaps between underfelt and boards or tiles;
 - any staining from urine or signs of excessive scratching around suitable entry and exit points;
 - any bat droppings on the ground, ledges, windows, sills or walls or urine on window sills; and
 - any feeding remains including piles of insect wings.

4.3 Timing of Field Surveys in Relation to Optimal Seasons

4.3.1 March is not within the breeding season for bats and is therefore sub-optimal for survey of buildings. However, signs of recent and historic bat use would still be present even though the bats themselves may have departed to hibernation sites.

4.4 Survey Team Members

- 4.4.1 Richard Castell is Senior Ecologist at Solum Environmental Ltd. He has over 30 years' field experience, with particular expertise in the study of the breeding ecology of European birds. He has surveyed with Solum Environmental for over four years and is also a highly-experienced, general-species ecologist.
- 4.4.2 Laura Holmes is Ecologist at Solum Environmental Ltd. She has a first class honours degree in Biological Sciences and has worked in the ecological sector for 6 years for Cheshire Wildlife Trust, The NBN and rECOrd, the Cheshire local biodiversity records centre. She is experienced in the field identification of plants, amphibians and mammals. Laura is a member of the Cheshire Bat Group.

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4.5 Survey Constraints

- 4.5.1 Surveyors were unable to get close to the exterior walls of buildings due to fencing and scaffolding. The risk of building or scaffolding collapse and the threat from falling brickwork was deemed too high for surveyors to enter the central open space in the middle of the buildings.
- 4.5.2 Surveyors were unable to see all of the exterior walls along Suffolk Street due to high fencing and boarding that allowed limited view and no access to the buildings on this side of the site. Due to the height of this fencing the footprint of the buildings was unclear.
- 4.5.3 Surveyors were unable to enter the buildings as a full structural survey and asbestos survey had not been carried out by the client and therefore Solum Environmental were advised it would be unsafe to enter any buildings.
- 4.5.4 The timing of the survey meant that evidence of bats such as droppings from any use in the previous maternity season could have been destroyed by inclement weather or from human disturbance.

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5.0 Survey Results

5.1 Desktop Survey Results

- 5.1.1 The MagiC site check returned no sites of local, national or international protected status within a 1km radius of the survey site.
- 5.1.2 Relevant local records for bats within a 1 km radius of this site were obtained from Merseyside Biobank (the local ecological records centre). The only record in the last ten years is of a single dead male common pipistrelle (*Pipistrellus pipistrellus*) found to the north of the site. There are earlier historic records of brown long-eared bats (*Plecotus auritis*) roosting to the north-east of the site and *Pipistrellus* sp. recorded at various locations within a kilometre of the site, however these records were more than ten years old.

5.2 Field Survey Results

- 5.2.1 This site comprises six buildings in poor repair, arranged around a central area of bare ground. Three of these buildings have a joint frontage onto Duke Street. Within the surrounding area are commercial properties and apartment blocks. The Mersey Docks lie approximately 600m to the west of the site. This wider city centre area is highly urbanised with high levels of lighting and human disturbance.
- 5.2.2 The buildings on site were categorised as:

Building 1 Partly demolished redbrick (frontage Henry Street)

Building 2 71 Henry Street

Building 3 Former Cafe, 14 Suffolk Street

Building 4 90a Duke Street Building 5 88-90 Duke Street Building 6 86 Duke Street

5.2.3 Plan 3 shows the locations of these six buildings with the red-line survey-area boundary.

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Plan 3: Locations of Buildings within the Red-line Survey Boundary

5.2.4 The area surveyed did not contain any landscaped areas, trees or hedgerows. Some vegetation was visible inside Building 1 from Google Maps images, however this could not be observed from any of the surveyors' positions during this survey.

5.3 Bat Roost Potential Assessment

- 5.3.1 Table 1 below provides photographs and descriptions of each building and sets out an assessment of each building's potential to support bats.
- 5.3.2 Plan 4 below shows the approximate locations of features on this collection of buildings which showed potential for roosting bats.

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Table 1 : Assessment of Buildings for Bat Roost Potential

Bldg No.	Building Name	Photographs	Description	Bat Roost Potential
1	Partly demolished redbrick (frontage Henry Street)		It is not clear externally how much of this building remains. The view from Google Maps suggests that there is no interior of this building but that there is a large amount of vegetation growing within the enclosing walls which could provide feeding habitat. Cavities in brick work mainly on east side wall overlooking open space. One cracked and one open window to front. The brickwork will be warmed by the sun on the south and east side.	Low — offers a small number of potential (opportunistic) roosting sites in brickwork but unlikely to be a maternity site.
2	71 Henry Street		Some gaps in mortar on roof visible from east side. Cracks in crevice of brickwork on left side of frontage to Henry Street. Some parts of roof removed but there appears to be an intact flat roof section to rear. Gaps under barge board of flat roof. Dead rat observed in front of building. Further rats likely to be in this building as rat-sized hole observed at bottom of door.	Low – offers a small number of potential (opportunistic) roosting sites mainly in crevice in brickwork but unlikely to be a maternity site.

Bldg No.	Building Name	Photographs	Description	Bat Roost Potential
3	Former cafe, 14 Suffolk St	THE F. CORD. CO	Gaps under brickwork by corner door, above wooden beam, above window and under a slate tile on roof.	Low – offers a small number of potential (opportunistic) roosting sites but unlikely to be a maternity site

Bldg No.	Building Name	Photographs	Description	Bat Roost Potential
4	90a Duke St (left of Duke St frontage)	PO YOU LIR	Building 4 is the remains of the redbrick building (shown on the left of the Duke Street frontage in this photograph). It is a long thin building which historically extended along most of the length of Suffolk Street. Only the wall shared with the neighbouring property appears to remain. A few crevices were observed in brickwork but they did not appear to be deep or enclosed sufficiently to provide adequate roost potential for bats. However closer observation was not possible due to fencing and boarding around this portion of site.	Very low
5	88-90 Duke St (centre of Duke St frontage)	THE AMERICAN PROPERTY OF THE STREET OF THE S	Building 5 is the middle building shown in this photograph. The façade facing Duke Street looks intact and has tightly boarded windows and doors which appeared to offer no entry points for bats. Viewing the east side of this building from behind the fencing, along Suffolk Street, revealed holes and crevices in brickwork. The west side of the rear of this building is partly held up by scaffolding, situated in the central area of bare ground to the rear. There is potentially a loft void in the pitched roof.	Low - offers a small number of potential (opportunistic) roosting sites in crevices along east side but unlikely to be a maternity site. However potential loft void could not be assessed as internal inspection of buildings was not possible during this survey.

Bldg No.	Building Name	Photographs	Description	Bat Roost Potential
6	86 Duke St (right of Duke St frontage)	THE ASSESSMENT OF THE STATE OF	Building 6 is the right-hand building shown in this photograph. The façade facing Duke Street and the west side looks intact and has tightly boarded windows and doors so offered no bat entry points. The east side and the rear of the property adjoin Building 5. There is potentially a loft void in the pitched roof.	Very low as building is tightly sealed on all exposed sides. However potential loft void could not be assessed as internal inspection of buildings was not possible during this survey.

Plan 4: Bat Roost Potential of Collection of Buildings



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6.0 Conclusions and Recommendations

- 6.1 The survey was severely constrained by lack of access to the interior of the buildings and to all sides of external walls, due to a combination of unsound structures, potential for asbestos to be present and high fencing around portions of the site.
- 6.2 Surveyors did observe a small number cracks and crevices offering potential, opportunistic roost sites for single or small numbers of crevice dwelling bats such as Pipistrelle (*Pipistrellus*) species.
- 6.3 Given that the area around the site is very urban, well lit and provides limited foraging habitat, it is unlikely that species such as *Myotis* species or brown long-eared bats (*Plecotus auritis*) would be present at this site. However the urban setting and light levels would be less likely to disturb pipistrelles.
- The desktop records collated indicate that, historically, pipistrelles have roosted in the urban area within 1km of this site. However other than a single dead common pipistrelle (*Pipistrellus pipistrellus*) there are no more recent records. It is not known whether this is due to under-recording or the absence of bats in this area.
- 6.5 Restricted access to the buildings only permitted a preliminary assessment of their potential to support roosting bats, the probability of which was deemed as low. However given that the presence of bats could not be ruled out, the following actions are recommended for this site:
 - If possible (should suitable planning consent or demolition notices be in place) a 'soft-strip' demolition should be undertaken outwith the hibernation and summer activity periods (see Appendix 1), as guided by a qualified bat ecologist. During this demolition a licensed bat ecologist should be present on site at all times to legally handle and safely remove any bats found to be roosting within these buildings. Further details are given at Appendix 2.
 - If this is not possible (given the timescales for consideration of planning applications) then best practice guidelines outlined set out in the Bat Conservation Trust guidelines should be followed, in order to confirm the presence or absence of a roost (Hundt L, Bat Surveys: Good Practice Guidelines 2nd edition, published 2012). This would require a single dusk emergence /activity or dawn re-entry / activity survey to be carried out at this site between May and September inclusive (the optimum time being May to August). In line with BCT guidelines a minimum of three surveyors would be required to cover all sightlines of the building. Should any bats be found emerging or re-entering any of these buildings during this survey then the building would be confirmed as hosting a bat roost and no works should be carried out on the building until a licence to derogate from the Conservation of Habitats and Species Regulations 2010 is obtained from Natural England.

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7.0 Contacts, References and Bibliography

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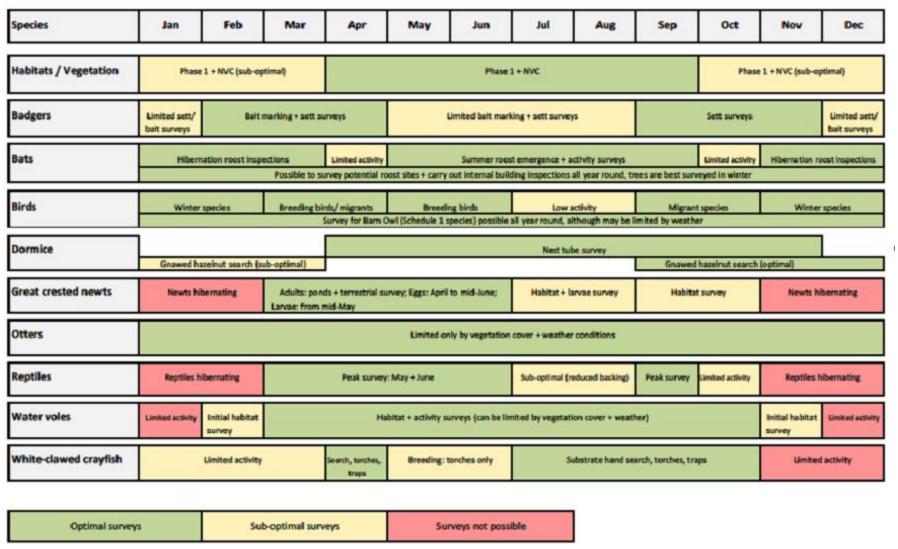
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UK BAP www.ukbap.org.uk

86-90 Duke Street, Liverpool Bat Survey 28th March 2013

Appendix 1 Ecological Survey Calendar



Appendix 2: Safe Methodology for Demolition in Relation to Bats

Before commencing any works on site a licensed bat ecologist should be appointed to be available by telephone or in person throughout demolition works, as required.

Timing of the most sensitive works should aim to avoid maternity bat season (ie May to September inclusive) and the coldest months of hibernation (December and January). Wherever possible demolition work should be timed for late October to November, or for February to mid-April. At these times bats are least likely to be present at this site and those remaining are less likely to be torpid or hibernating. This means that any bats present are more likely to be able to fly away from the site of their own accord and successfully re-locate if accidentally disturbed.

Before commencing any work on site, all demolition contractors, builders and other workers should receive a 'toolbox talk' or induction by a licensed bat ecologist to make them aware of:

- the possible presence of bats;
- their legal protection;
- safe working practices to avoid harming bats;
- actions to be taken in the event that a bat is found during any works on site.

Works to 'soft strip' this building should take place before full demolition. During this soft strip, all roof tiles should be removed by hand in the presence of the licensed ecologist or their accredited agent. During the remainder of this soft strip, the appointed licensed ecologist should be kept updated of progress daily and should be available to attend site if any bats are found during any of these works.

If any bats are encountered during supervised works, then all work on site should cease and the appointed ecologist should attend site as soon as possible. The building should remain exposed for 24 hours to allow bats to disperse naturally, provided that weather conditions allow. Where this is not possible or suitable, the licensed bat ecologist should capture the bat with thinly-gloved hands or a hand net, place the bat in a drawn-string cloth bag, examine and weigh the animal to check its health. The animal should then be taken to the nearest bat rescue centre. Natural England should be advised by the licensed ecologist. Works should not re-commence on site until the licensed ecologist had advised that all necessary actions for legal compliance have been taken.

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