

**APPENDIX 6.7**  
**METHODOLOGY AND GRADING CRITERIA FOR BAT**  
**ROOST POTENTIAL FEATURES**

## 6.7 METHODOLOGY AND GRADING CRITERIA FOR BAT ROOST POTENTIAL FEATURES

**Table 6.7A: Survey methodology for undertaking bat roost potential of buildings and trees**

Methodology
<p><u>Buildings</u></p> <p>Bats use many different features in buildings for places of shelter and roosting. Features that are observed, noted and graded (in accordance with criteria in Table 2) during the external and internal survey of buildings include:</p> <p>External</p> <ul style="list-style-type: none"> <li>external features associated with each building were visually inspected for their suitability for use by roosting bats. Equipment including close focusing binoculars and powerful spot-lamps were used to study the walls, eaves and roofs of the buildings. Inspection mirrors and endoscopes were used as required.</li> <li>any of the bat species present in the area would be able to enter a roosting cavity through a gap no larger than 20 mm wide. However, bats usually also require an area to land that is adjacent to the entrance hole and has a rough surface. Such features were sought during the inspection.</li> <li>features include; gaps in ridge tiles (where mortar is missing) gaps under roof tiles or slates, lead flashing around chimney stacks and around dormer windows, gaps under the fascias and soffits, weatherboarding, missing mortar from joints in stone/ brickwork, roof valleys and hips.</li> <li>special attention was paid to the areas directly below any potential access/ egress point in an attempt to identify any accumulation of bat droppings.</li> <li>no work involving scaffolding, multi-sectional ladders over 3 m in height or rope access work was undertaken as part of the external survey.</li> </ul> <p>Internal</p> <ul style="list-style-type: none"> <li>the most effective method of determining the presence of bat activity within a building is by the presence of their droppings. Bats deposit droppings in both roost and social areas, but the use of such sites by bats can change due to prevailing weather conditions or the time of year.</li> <li>the internal inspection comprises surveying all surfaces window ledges, rough wall surfaces, floors, cobwebs, cupboard tops and any relatively undisturbed surface were inspected.</li> <li>areas of particular interest (but not restricted to) are the tops of gable end walls, top of the ridge beam, hip and other roof beams, mortise joints, junction of roof beams, areas around chimney breasts, between roof tiles and felting.</li> <li>other features, such as accumulations of discarded wings of moths or butterflies are also recorded where present. Certain bat species are more likely than others to deal with prey items and leave evidence such as this, and so such features can help identify the species present. Similarly, the location of the droppings can provide an indication of both the species and the type of roost that</li> </ul>

<b>Methodology</b>
is present.
<p data-bbox="223 324 295 358"><u>Trees</u></p> <p data-bbox="223 369 1300 459">Bats use many different features in trees for places of shelter and roosting. Features that are observed, noted and graded (in accordance with criteria in Table 2) during the 360 degree tree surveys include:</p> <ul data-bbox="223 492 1324 1265" style="list-style-type: none"><li data-bbox="223 492 973 526">• cracks and crevices, especially those with upward-leading cavities</li><li data-bbox="223 571 1117 604">• significant areas of loose bark with space behind appropriate for bats to shelter</li><li data-bbox="223 660 1324 728">• holes (including rot holes, boss holes and woodpecker holes), especially with horizontal or upward-leading cavities</li><li data-bbox="223 772 893 806">• splits, perhaps resulting from drought or lightening strikes</li><li data-bbox="223 862 1292 896">• an absence of branches and vegetation immediately below and surrounding the cavity entrance</li><li data-bbox="223 952 805 985">• dark stains running down the tree, below the hole</li><li data-bbox="223 1030 1109 1064">• stains around the hole resulting from the deposition of oil secretions in bat fur</li><li data-bbox="223 1120 1324 1187">• odours or noise characteristic of bats coming from within the hole or scratch marks around the hole entrance (resulting from bat claw holds)</li><li data-bbox="223 1232 686 1265">• bat droppings below or within the hole</li></ul>

**Table 6.7B: Criteria used to describe bat roost potential in buildings and trees**

<b>Bat roost potential</b>	<b>Description</b>
Negligible	Generally used where a feature initially appears to have some bat roost potential, but on closer examination, the feature is confirmed to have no or negligible potential importance for roosting bats. In survey work, the category is used where a feature has been inspected and found not to contain any features of use to bats, and hence provides confirmation that a feature has been inspected or considered.
Low	Superficially, the feature may have some interest to roosting bats but it is considered sub-optimal to the extent that the surveyor would not anticipate bats to use it for shelter. For example the entrance to a gap/ crevice may be obstructed, or a feature may be exposed in some form. The surveyor may decide that due to access constraints during the survey that a single activity survey may be appropriate to gather further information about bats using the buildings (if at all). This method is used when a watching brief is not deemed necessary but there is still doubt as to whether bats are present.
Moderate	A feature that has some potential for roosting bats but is less than ideal in some way. The surveyor would not expect such a feature to be regularly used by roosting bats. Connectivity with navigational features might be sub-optimal; the feature might be occupied by other fauna (such as spiders etc.), subject to disturbance, or be very exposed. Buildings with significant ivy cover might fall within this category. In the context of licensing procedures, the Bat Conservation Trusts' Bat Surveys - Good Practice Guidelines (2007), Joint Nature for Conservation Committees' Bat Workers Manual (2004) and English Natures' Bat Mitigation Guidelines (2004), the specialist bat surveyor would not automatically subject a 'moderate' feature to additional activity surveys, unless specific reasons were identified that justified this. If a precautionary approach is deemed appropriate, a watching brief at the time of any works taking place might be recommended.
High	An 'ideal' feature, which in the experience of the surveyor is wholly appropriate for use by roosting bats. For example, it has no obstructions at the gap / crevice, it is free or nearly so, from disturbance from artificial lighting, but no direct evidence of bats has been found. In the context of licensing procedures, the Bat Conservation Trusts' Bat Surveys - Good Practice Guidelines (2007), Joint Nature for Conservation Committees' Bat Workers Manual (2004) and English Natures' Bat Mitigation Guidelines (2004), a feature with 'high' bat roosting potential (BRP) is likely to be subject to additional activity surveys such as dusk and dawn swarming surveys to assist in confirmation of its status, and may also be subject to a watching brief during works that may disturb them. If a feature with 'high' BRP is subsequently found to support roosting bats, the results of any additional surveys that qualify the nature of the roost, the species present, or quantify the population associated with it may be used in support of an application for a European Protected Species (EPS) derogation licence from Natural England.
Confirmed	Positive evidence of bats recorded, i.e. individual bats present, bat droppings or existing records of bat roost are directly associated with this feature. An upgrade to 'confirmed' status might be appropriate based on the findings of a dusk emergence or pre-dawn swarming survey.