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21st May 2026

Ref: Ground Level Tree Assessment (GLTA) at Thakeham Tiles.

To whom it may concern,

The Ecology Co-op undertook a Ground Level Tree Assessment (GLTA) at Thakeham Tiles on 5th May 2026 at the request of Thakeham Tiles Concrete Products LTD. This assessment was undertaken with regards to a proposal for the erection of 108 new dwellings with associated landscaping and open space, as well as the formation of new access onto Rock Road. The survey was undertaken in accordance with best practice guidance produced by the Bat Conservation Trust¹. This report focusses on the impacts to roosting bats within the trees that are set to be removed under the current proposals. Where possible, trees with an identified PRF were subject to a climbed inspection by James Whitby, Project Ecologist at The Ecology Co-op and Level 1 bat licence holder, accredited under Sam Lunn's Level 2 bat license. Climbed assessments included the use of an endoscope where possible to better inspect features on trees.

The site measures 6.12ha and is situated on the eastern outskirts of Storrington, West Sussex, RH20 3AD. The site is in use as a working yard in the manufacture of concrete products, and comprises of industrial buildings and hardstanding, surrounded by woodland, scrub and a line of trees. The central grid reference for the site is TQ 10392 15033. The site location is shown in Figure 1, Appendix 1.

The proposed development as outlined above will result in the removal of 1.78ha of woodland, primarily in the north-western boundary of the site. The proposals for the site are shown in Figure 2, Appendix 1.

Table 1 below shows a summary of the trees inspected for their potential to support roosting bats. Further surveys are recommended as appropriate. A plan indicating the location of the trees inspected can be found in Figure 3, Appendix 1. Photographs of the trees are in Appendix 2.

¹ Collins, J.(ed.) (2023) *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (4th edn). The Bat Conservation Trust, London.

Table 1. Summary of trees assessed for Potential Roost Features (PRFs) at Thakeham Tiles.

Building section	Description of features	Assessment of suitability (Collins 2023)
Oak Tree 1	A large mature oak <i>Quercus</i> sp. set to be retained under the current proposals. Tree reference in the Arboricultural report is T79². Approximate diameter at breast height (DBH) of 45cm. PRF identified includes a large section of loose bark as well as a large hole approximately 3m off the ground. Endoscope inspection was undertaken to better assess the internal gap. The hole is approximately 5cm x 10cm which opens up into a large cavity within the main tree trunk. The cavity spans approximately 40cm down and goes approximately 50cm upwards before narrowing. The endoscope was unable to reach past the narrowing gap, however, from the inspection it looks to widen back out.	High bat roost suitability - PRF-M.
Oak Tree 2	Fallen limb of a larger mature oak. Approximate DBH of 30cm. PRF identified on the fallen limb; one wound approximately 5cm x 5cm. Upon inspection with an endoscope, wound does not lead to a void space and therefore is unsuitable for bats.	Negligible bat roost suitability - NONE
Oak Tree 3	A large mature oak to be retained, but could be indirectly impacted during the construction phase. Approximate DBH of 40cm. PRF identified on the trunk; one very large wound, approximately 90cm x 10cm. Upon inspection with an endoscope, wound does not lead to a void space, and therefore is unsuitable for bats.	Negligible bat roost suitability - NONE
Oak Tree 4	A large mature oak set to be removed under the current proposals. Approximate DBH of 65cm. No features obviously seen, however, there is a large amount of ivy <i>Hedera helix</i> covering the majority of the tree meaning PRF features could be hidden underneath.	Further Assessment Required
Oak Tree 5	A very small oak tree to be retained, but could be indirectly impacted during the construction phase Approximate DBH of 15cm. PRF identified on the trunk; one small hole, approximately 3cm x 3cm. Upon inspection with an endoscope, wound does not lead to a void space and therefore is unsuitable for bats. Tree was primarily dead and unstable and fell during inspection.	Negligible bat roost suitability - NONE

Oak Tree 2, 3 and 5 are rated as having NONE suitability for tree roosting bats and no further surveys are required.

While Oak Tree 1 is rated as PRF-M, as this is to be retained under the scheme no further surveys are considered necessary.

Oak Tree 4 will require further assessment. It is recommended that the tree is removed under the supervision of a licensed bat ecologist. The ivy will be removed by hand in stages, and the tree

² CBA Trees (2025). *Arboricultural Implication Assessment*

underneath inspected by a licensed ecologist for PRFs that may have been hidden at the time of the initial walkover assessment. If further PRFs are found after removal of ivy, further surveys may be required.

To mitigate disturbance to foraging and commuting bats from artificial lighting, the proposed development should include an 'ecologically sensitive lighting scheme' in accordance with guidance produced by the Bat Conservation Trust (summarised in Appendix 3).

If you have any queries about the findings of this assessment, then please do not hesitate to contact me.

Kind regards,

EDavies

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APPENDIX 1 – Figures



Figure 1. Aerial image showing the location of Thakeham Tiles. The site boundary is indicated with a red line. Image produced courtesy of Google maps (map data ©2021 Google).





Figure 3. Trees inspected by The Ecology Co-op where PRFs were found. Trees are labelled according to Table 1.

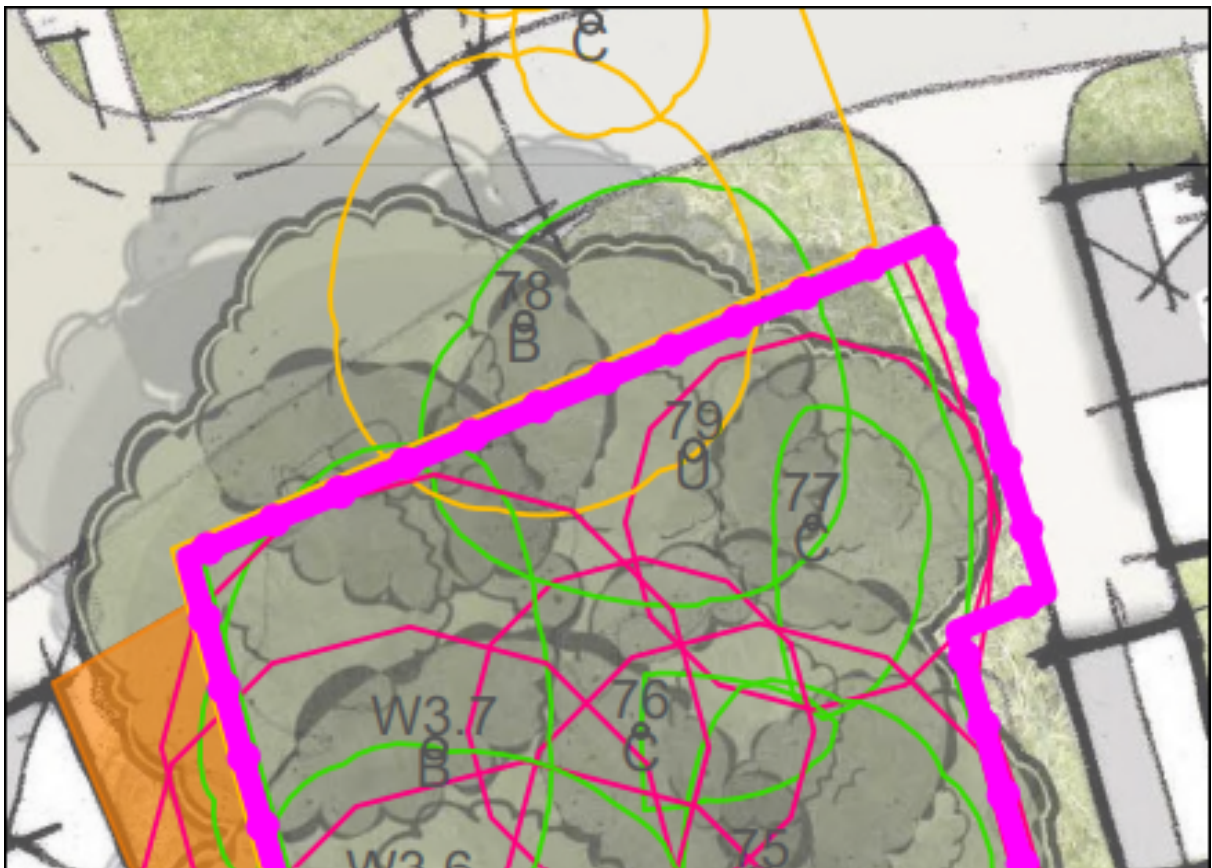


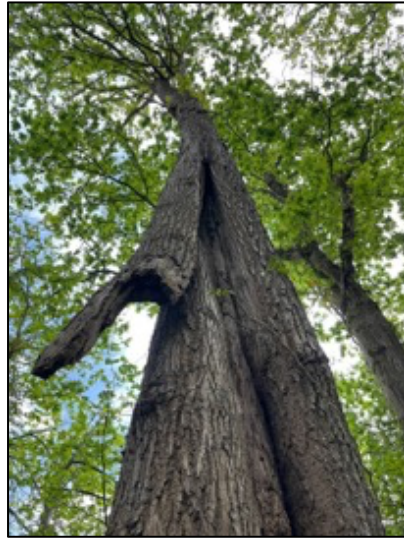
Figure 4. Image showing T79 to be retained. Image taken from CBA's AIS report.

APPENDIX 2 – Site Photographs

Oak Tree 1



Photograph 1. The large wound within Oak Tree 1.



Photograph 2. The large piece of lifted bark on the tree.

Oak Tree 2



Photograph 3. The hole within Oak Tree 2.

Oak Tree 3



Photograph 4. The large wound in Oak Tree 3.

Oak Tree 4



Photograph 5. Oak Tree 4, primarily covered in ivy.

Oak Tree 5



Photograph 6. The small hole in Oak Tree 5, prior to the tree falling down.

APPENDIX 3 – Reducing Impacts of Artificial Light

Bright external lighting can have a detrimental impact upon foraging and commuting bat flight paths, but more importantly can also cause bats to remain in their roosts for longer. Artificial lighting can also cause significant impacts to other nocturnal species, most notably moths and other nocturnal insects. It can also result in disruption of the circadian rhythms of birds, reducing their fitness.

Guidelines issued by the Bat Conservation Trust³ should be referred to when designing the lighting scheme. Note that lighting designs in very sensitive areas should be created with consultation from an ecologist and using up-to-date bat activity data where possible. The guidance contains techniques that can be used on all sites, whether a small domestic project or larger mixed-use, commercial or infrastructure development. This includes the following measures:

Avoid lighting key habitats and features altogether

There is no legal duty requiring any place to be lit. British Standards and other policy documents allow for deviation from their own guidance where there are significant ecological/environmental reasons for doing so. It is acknowledged that in certain situations lighting is critical in maintaining safety, such as some industrial sites with 24-hour operation; however, in the public realm, while lighting can increase the perception of safety and security, measurable benefits can be subjective. Consequently, lighting design should be flexible and be able to fully consider the presence of protected species.

Apply mitigation methods to reduce lighting to agreed limits in other sensitive locations – lighting design considerations

Where bat habitats and features are considered to be of lower importance or sensitivity to illumination, the need to provide lighting may outweigh the needs of bats. Consequently, a balance between a reduced lighting level appropriate to the ecological importance of each feature and species, and the lighting objectives for that area will need to be achieved. The following are techniques which have been successfully used on projects and are often used in combination for best results:

- dark buffers, illuminance limits and zonation;
- sensitive site configuration, whereby the location, orientation and height of newly built structures and hard standing can have a considerable impact on light spill;
- consideration of the design of the light and fittings, whereby the spread of light is minimised ensuring that only the task area is lit. Flat cut-off lanterns or accessories should be used to shield or direct light to where it is required. Consideration should be given to the height of lighting columns. It should be noted that a lower mounting height is not always better. A lower mounting height can create more light-spill or require more columns. Column height should be carefully considered to balance task and mitigation measures. Consider no lighting solutions where possible such as white lining, good signage, and LED cat's eyes. For example, light only high-risk stretches of roads, such as crossings and junctions, allowing headlights to provide any necessary illumination at other times;
- screening, whereby light spill can be successfully screened through soft landscaping and the installation of walls, fences and bunding;
- glazing treatments, whereby glazing should be restricted or redesigned wherever the ecologist and lighting professional determine there is a likely significant effect upon key bat habitat and features;
- creation of alternative valuable bat habitat on site, whereby additional or alternative bat flightpaths, commuting habitat or foraging habitat could result in appropriate compensation for any such habitat being lost to the development;
- dimming and part-night lighting. Depending on the pattern of bat activity across the key features

³ Bat Conservation Trust and Institute for Lighting Professionals (2018) Guidance note 8. Bats and Artificial Lighting. <https://www.theilp.org.uk/documents/guidance-note-8-bats-and-artificial-lighting/>

identified on site it may be appropriate for an element of on-site lighting to be controlled either diurnally, seasonally or according to human activity. A control management system can be used to dim (typically to 25% or less) or turn off groups of lights when not in use.

Demonstrate compliance with illuminance limits and buffers

- *Design and pre-planning phase*; it may be necessary to demonstrate that the proposed lighting will comply with any agreed light-limitation or screening measures set as a result of your ecologist's recommendations and evaluation. This is especially likely to be requested if planning permission is required.
- *Baseline and post-completion light monitoring surveys*; baseline, pre-development lighting surveys may be useful where existing on or off-site lighting is suspected to be acting on key habitats and features and so may prevent the agreed or modelled illuminance limits being achieved.
- *Post-construction/operational phase compliance-checking*; as a condition of planning, post-completion lighting surveys by a suitably qualified person should be undertaken and a report produced for the local planning authority to confirm compliance. Any form of non-compliance must be clearly reported, and remedial measures outlined. Ongoing monitoring may be necessary, especially for systems with automated lighting/dimming or physical screening solutions.

Lighting Fixture Specifications

The Bat Conservation Trust recommends the following specifications for lighting on developments to prevent disturbance:

- Lighting spectra: peak wavelength >550nm
- Colour temperature: <2700K (warm)
- Reduction in light intensity
- Minimal UV emitted
- Upward light ratio of 0% and good optical control

Further reading:

Buglife (2011) A review of the impact of artificial light on invertebrates.

Royal Commission on Environmental Pollution (2009) Artificial light in the environment. HMSO, London. Available at: <https://www.gov.uk/government/publications/artificial-light-in-the-environment>

Rich, C., Longcore, T., Eds. (2005) Ecological Consequences of Artificial Night Lighting. Island Press. ISBN 9781559631297.

CPRE (2014) Shedding Light: A survey of local authority approaches to lighting in England. Available at: <http://www.cpre.org.uk/resources/countryside/dark-skies/item/3608-shedding-light>

Planning Practice Guidance guidance (2014) When is light pollution relevant to planning? Available at: <https://www.gov.uk/guidance/light-pollution>

Institution of Lighting Professionals (2021) Guidance Notes for the Reduction of Obtrusive Light GN01:2011. Available at: <https://www.theilp.org.uk/resources/free-resources/>

Voigt, C.C., Azam, C., Dekker, J., Ferguson, J., Fritze, M., Gazaryan, S., Hölker, F., Jones, G., Leader, N., Lewanzik, D. and Limpens, H., 2018. *Guidelines for consideration of bats in lighting projects*. Unep/Eurobats. Available at:

https://cdn.bats.org.uk/uploads/pdf/Resources/EUROBATGuidelines8_lightpollution.pdf?v=15421093