

Mr M Saadati
53 Fitzroy Park,
London
N6 6JA

18 June 2019

Our reference: 712940R(01) – 53 Fitzroy Park, London – Biodiversity lighting support letter

Dear Sir or Madam,

Biodiversity lighting support letter

This letter provides recommendations for the design of a biodiversity lighting strategy in connection with the planning application (Reference 2015/0441/P) for the erection of a three storey dwelling at 53 Fitzroy Park, London (TQ 27798 86984).

This report was produced to discharge Condition 15 of the planning permission given below:

Full details of a lighting strategy, to include information about potential light spill on to buildings, trees and lines of vegetation to minimise impact on bats, shall be submitted to and approved by the Local Planning Authority, in writing, before the development commences. The development shall not be carried out otherwise than in accordance with the details thus approved and shall be fully implemented before the premises are first occupied.

Ecological Context

The site is located in a suburban area of Highgate adjacent to Hampstead Heath. It is currently a vacant site as the former building has been demolished, however the site retains mature trees, which may be of value to bats. The site is adjacent to Hampstead Heath, with woodland located under 50 m and Highgate Ponds under 150 m to the west. There is also a pond located in an adjacent garden. The surrounding area is comprised of large houses with back gardens and mature trees. The site is ecologically connected to all these areas.

Lighting Design Strategy for Biodiversity Review

The review was carried out by Daniel Fellman, consultant ecologist, who holds a level 2 Natural England licence allowing the disturbance of bats for the purposes of survey in all counties of England (Licence Reference Number ref: 2015-10403-CLS-CLS) and has over ten years' experience of undertaking bat work.

The review looked at the documentation provided and freely available resources, listed below. The recommendations are based on this information.

- Camden planning decision (2015/0441/P), 4 July 2016
- RSK Lighting Impact Assessment, November 2018
- Ecological Survey, Clarkson & Woods, May 2015

- Bats and artificial lighting in the UK - Guidance Note 08/18 – Bat Conservation Trust, 2018

Results and Conclusions

Lighting can have negative impacts on bats such as delayed nightly emergence times¹, causing bats to miss the peak abundance of their insect prey², and causing the loss of foraging areas for some less light-tolerant bat species (e.g. *Myotis sp.* and *Plecotus auritus* which the background data search found within 1 km of the site)³. The lighting design strategy for the site should therefore aim to keep light levels as low as possible and to direct the light to the places where it is required (with minimal light spill). It is particularly important to avoid illuminating habitats with high value for foraging or commuting bats. A pragmatic approach is to limit the light spill onto the potential bat commuting areas to that of a full moon on a clear night (between 0.25 lux and <1 lux⁴).

The results from the RSK lighting impact assessment⁵, appendix F, shows predicted lux measurements from the light sources provide no more than 1 lux at the site boundary and therefore lie within the recommended guidelines. Provided the lighting is installed as specified in the lighting design there should be no adverse effects on bats using the area.

Yours sincerely,



Daniel Fellman, ecological consultant
On behalf of RSK Environment Ltd

Technical and commercial review by



Ruth Morton, principal ecological consultant
On behalf of RSK Environment Ltd

¹ Downs, N.C., Beaton, V., Guest, J., Polanski, J., Robinson, S.L. & Racey, P.A. (2003), The effects of illuminating the roost entrance on the emergence behaviour of *Pipistrellus pygmaeus*. *Biological Conservation*, **111**, 247-252.

² Jones, G. & Rydell, J. (1994), Foraging strategy and predation risk as factors influencing emergence time in echolocating bats. *Philosophical Transactions: Biological Sciences*, **346**, 445-455.

³ Rowse E.G., Lewanzik D., Stone E.L., Harris S. & Jones G. (2016), Dark Matters: The Effects of Artificial Lighting on Bats. In: Voigt C. & Kingston T. (eds) *Bats in the Anthropocene: Conservation of Bats in a Changing World*. Springer, Cham.

⁴ Bats and artificial lighting in the UK - Guidance Note 08/18 – Bat Conservation Trust, 2018

⁵ RSK Lighting Impact Assessment, November 2018