David Hill-Chambers MSc (Hons) BSc (Hons)
Graduate Ecologist
[redacted]
Arbtech Consulting Ltd
arbtech.co.uk

Wildlife Sensitive Lighting Strategy

Survey site:

Wye, Wheelwright Drive, Dewsbury, West Yorkshire, WF13 4JB

Client:

Kabir Hussain

Date:

22nd April 2026

Project:

This report is prepared to inform a planning application with Kirklees Council. The proposal is described as:

Demolition of existing bungalow and erection of one bespoke detached family home with integral double garage.

Planning Application Number:

2026/62/90255/E

Limitations and Copyright

Legal

Arbtech Consulting Limited has prepared this report for the sole use of the above-named client or their agents in accordance with our General Terms and Conditions, under which our services are performed. It is expressly stated that no other warranty, expressed or implied, is made as to the professional advice included in this report or any other services provided by us. This report may not be relied upon by any other party without the prior and express written agreement of Arbtech Consulting Limited. The conclusions and recommendations contained in this report are based upon information provided by third parties. Information obtained from third parties has not been independently verified by Arbtech Consulting Limited.

Arbtech cannot be held responsible for any project management failures, delays or unforeseen costs arising from failure to read and ensure understanding of the content with in, Nor is Arbtech responsible for any adverse outcomes arising from failure to account for ecological advice given at any stage throughout the project collaboration.

Version Control			
Status	**Issue**	**Name**	**Date**
Draft	0.1	David Hill-Chambers MSc (Hons) BSc (Hons) – Graduate Ecologist	23/04/2026
Reviewed	0.2	Abby Pidgen BSc (Hons) MSc, Senior Ecologist	24/04/2026
Final	1.0	David Hill-Chambers MSc (Hons) BSc (Hons) – Graduate Ecologist	28/04/2026

Guidelines

This assessment has been designed to take into account:

- British Standard 42020 (2013) 'Biodiversity – Code of Practice for Planning and Development'.

Proportionality

The work involved in preparing and implementing all ecological surveys, impact assessments and measures for avoidance, mitigation, compensation and enhancement should be proportionate to the predicted degree of risk to biodiversity and to the nature and scale of the proposed development. Consequently, the decision-maker should only request supporting information and conservation measures that are relevant, necessary and material to the application in question. Similarly, the decision-maker and their consultees should ensure that any comments and advice made over an application are also proportionate.

This approach is enshrined in Government planning guidance, for example, paragraph 193 of the National Planning Policy Framework for England.

(BS 42020, 2013)

1.0 Introduction and Context

1.1 Background

Arbtech Consulting Limited were commissioned by Michael Chow of Jade 3 Architecture on behalf of Mr Kabir Hussian (the client) to produce a Wildlife Sensitive Lighting Strategy for the site of Wye, Wheelwright Drive, Dewsbury, West Yorkshire, WF13 4JB (hereafter referred to as the site).

1.2 Proposed development

The site has been granted planning permission with Kirkless Council:

Demolition of existing bungalow and erection of one bespoke detached family home with integral double garage (2026/62/90255/E).

1.3 Site location

The site location is described in the Preliminary Ecological Appraisal (PEA) (Arbtech, 2025):

The survey site is centred on National Grid Reference SE 23569 22677 and has an area of approximately 0.27ha. The site comprises a dwelling and associated garden area, with trees and hedgerows, also present. The site is located within the town of Dewsbury, 12km south-west of the city of Leeds and 11km north-east of the town of Huddersfield. The site is bound by dwellings on all boundaries, with the wider landscape dominated by extensive areas of built form, with minimal pockets of greenspace present within the urban landscape.

The current and proposed site plans and location plan are included with Appendix 1-3.

1.4 Scope of this report

The scope of this report is to provide guidance on a wildlife sensitive lighting strategy to help discharge a condition of the approved planning application *(2026/62/90255/E),* and to outline the measures that would be used to comply with legislation. It aims to improve the site's intrinsic biodiversity value within the framework of the proposed development, or to propose changes to the plan where appropriate. The planning condition is outlined below:

No works are to commence unless a detailed lighting scheme, developed in accordance with established guidance (e.g. Bat Conservation Trust and Institute of Lighting Professionals (2023) Bats and Artificial Lighting at Night), has been drafted and agreed with the council. The Sensitive Lighting Strategy will demonstrate that the proposed lighting will not impact upon ecological networks and/or sensitive features. Thereafter the agreed lighting scheme shall be implemented, subject to any variations approved in writing by the planning authority. All external lighting shall be installed strictly in accordance with the specifications and locations set out within the Lighting Strategy.

Reason: *In the interests of biodiversity and in accordance with Policy LP30 and NPPF15*

1.5 Previous ecological survey results

The site was provisionally assessed by means of a Preliminary Ecological Appraisal and Roost Assessment (PEARPA) undertaken by Arbtech Consulting Ltd on 15th October 2025. Further assessments provided are listed below:

- Biodiversity Net Gain (BNG) assessment including parts 1 & 2, and the metric (Arbtech, 2025)
- BS5837 (Arbtech, 2025)

1.6 Habitats recorded on site

The site contains no listed habitats of principal importance under Section 41 of the Natural Environment and Rural Communities (NERC) Act (2006). However, the site contains seven scattered trees which are of good quality and could be of value to local wildlife populations. Other habitats within the site are common and widespread and have low ecological value. Further notable habitats are present within 2km.

u1 - Built-up areas and gardens [vegetated garden 828 and scattered trees 32]

Located around the dwelling within the site is a vegetated garden, comprising an amenity lawn, small areas of introduced planting and a small, paved area. The lawn area comprises a rye-grass mix (Lolium perenne) that is extremely species poor, with only rare occurrences of white clover (Trifolium repens), dandelion (Taraxacum officinale) and creeping buttercup (Ranunculus repens) present. The lawn area is regularly mown to maintain its amenity value for the dwelling at the site. The areas of introduced shrubs comprise a range of species, which mainly border sections of these areas, although they are rare in their occurrence.

Located on the boundaries of the site are 7no. scattered trees, with species including sycamore (Acer pseudoplatanus), oak (Quercus robur), ash (Fraxinus excelsior) and chestnut (Castanea sativa). The trees are mainly mature and have DBHs between 60–90 cm and as such, are large trees. The trees are not subject to a routine pruning regime, and they maintain the majority of their canopy. They all oversail areas of vegetation below, and are generally in good, healthy condition.

u1b5 – Buildings

There is one building (B1) present within the site, which forms the main dwelling at the site. Building B1 comprises a detached, brick-built bungalow, with a cross pitched roof, covered in concrete roof tiles. The brickwork on the southern sections of the building has been rendered, with the rendering and brickwork throughout the building.

u1b6 – Other developed land

Forming the main access into the site is a tarmacked driveway and parking area. There is no associated vegetation, and the area is of minimal ecological value.

h2b – Non-native and ornamental hedgerow

Located on the southern boundary of the site is an ornamental hedgerow composed entirely of leylandii specimens. At the time of survey, the hedgerow appeared largely unmanaged, but has shown signs of previous management, by the previous occupant of the site. There is limited ground flora present within the hedgerow, mainly comprising species present within the garden area, detailed above.

2.0 Lighting plan parameters

2.1 introduction

The Wildlife Sensitive Lighting Strategy to be implemented at the site is detailed within Table 1 below. The Lighting Strategy aims to mitigate potential impacts of artificial light spill on wildlife as a result the proposed development.

2.2 The location and timing of any sensitive works to avoid harm to biodiversity features.

Prescription	Specification
Proposed dark corridors on site	Dark corridors around the site are planned to experience no more than +0.5lux of additional lighting as a result of the development illuminations. This is especially important for the mature trees on site which form a continuous canopy leading to deciduous woodland to the north of the site. These are outlined in Appendix 4.
Mitigating impacts of internal Lighting	Impacts of artificial light spill through windows will be mitigated by fitting internal lighting fixtures in line with recommendations within Guidance Note 08/23 (BCT & ILP 2023). See Appendix 5. Although the proposed new development lies relatively low to the ground, it comprises glazing, and internal lighting mitigation should be applied. Light spill onto the southern garden and tree-line habitats are considered reduced to acceptable levels. Given the typology of the land there is not anticipated to be any direct light spill onto other surrounding gardens or fields. The following advice must be adopted for internal lighting mitigation. • All luminaires should lack UV elements when manufactured. Metal halide, compact fluorescent sources should not be used. • LED luminaires should be used where possible due to their sharp cut-off, lower intensity, good colour rendition. • A warm white light source (2700Kelvin or lower) should be adopted to reduce blue light. • Light sources should feature peak wavelengths higher than 550nm to avoid the component of light most disturbing to bats (Stone, 2012).

	• Internal luminaires can be recessed (as opposed to using a pendant fitting - See Figure 9) where installed in proximity to windows to reduce glare and light spill. These should be fitted a minimum of 1m from windows. Lighting should be controlled by dimmers. In addition, black-out blinds or curtains are recommended to be used on all elevations to physically reduce to level of light spill from windows on this elevation. The use of window films, tints and low transmission glazing are now considered ineffective ways to fully mitigate against light spill from windows. As such, they are not recommended for use.
Mitigating impacts of external lighting	External lighting will be limited to low level lighting fixtures only, installed onto the south elevation entrance of the proposed new dwelling to provide low level illumination for safety and along the north elevation overlooking the rear of the site. High powered security lights will not be installed on site. The external lighting will be installed in accordance with current guidance issued by the Bat Conservation Trust and Institute of Lighting Professionals: *Guidance Note 08/23: Bats and Artificial lighting in the UK* (BCT & ILP 2023). The below strategy utilises light prescriptions detailed within this guidance to limit impacts of artificial lighting on bats likely to be utilising adjacent habitats. The following lighting design prescriptions are considered suitable for the type and scale of the proposed development to minimise the impacts of artificial lighting on site on bats. Lighting design prescriptions recommended for the Site comprise: • Where appropriate, external security lighting should be set on motion sensors and set to as short a possible a timer as the risk assessment will allow. For most general residential purposes, a 1- or 2-minute timer is likely to be appropriate. • Lighting will be set to “off” by default, to turn up to a predetermined low intensity output in response to a trigger and be combined with a timeclock or photocell to further add an element of seasonal or diurnal control. For example, Passive Infrared (PIR), Artificial Intelligence enabled cameras, on demand controls, or pressure sensors may be used to trigger lights to come on or dim in response to movements.

- Lighting will be controlled so not to be triggered by the movement of small animals such as bats or birds.
- Lighting will be downward pointing

The below lighting type is suitable for installation on site:

- Lucide Arne LED Outside Wall Light: https://www.lighting-direct.co.uk/lucide-arne-led-outdoor-wall-light-with-pir-sensor-black.html

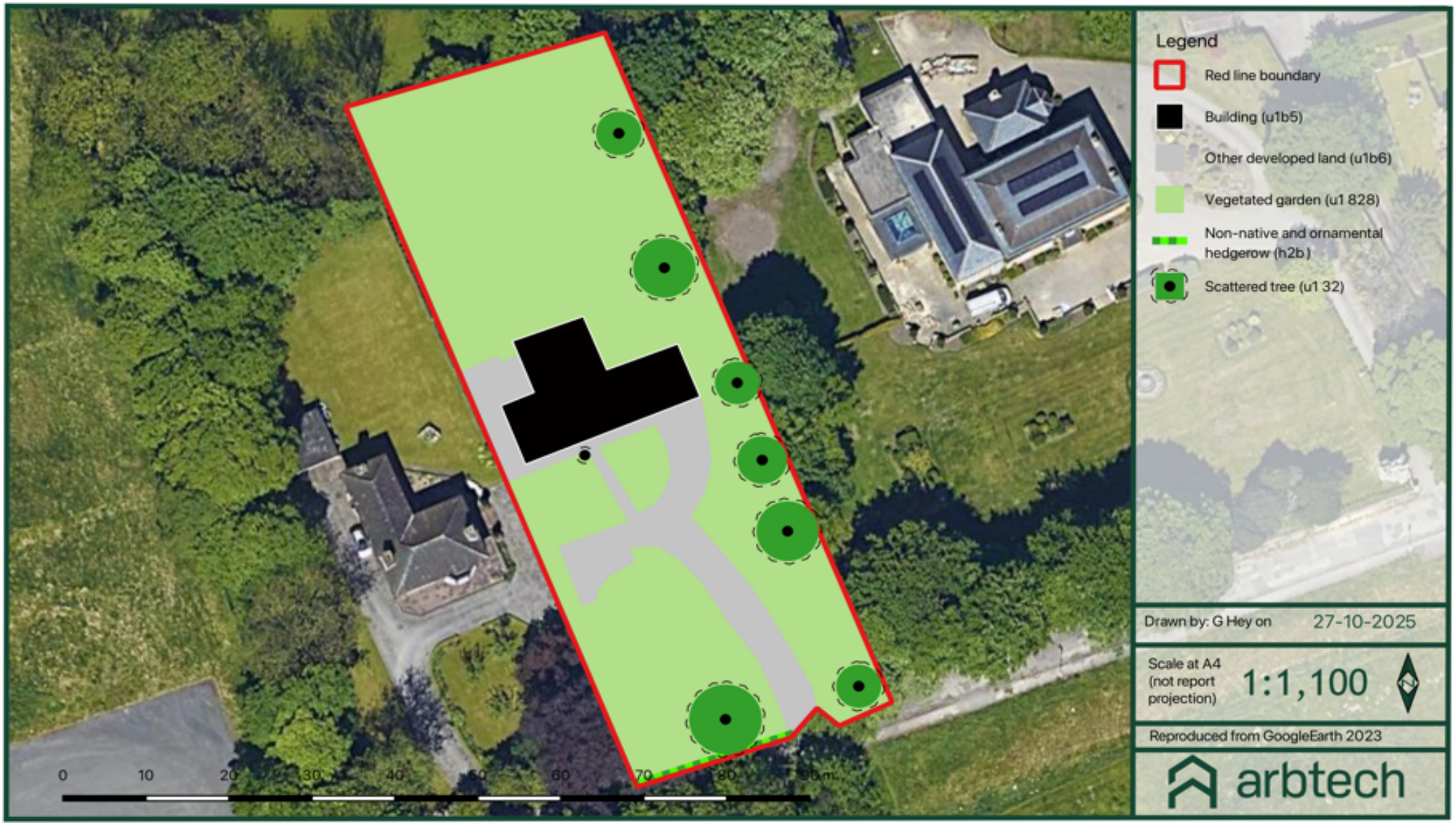
Figure 1: Recommended low level lighting suitable for the site. Image taken from: https://www.lighting-direct.co.uk/lucide-arne-led-outdoor-wall-light-with-pir-sensor-black.html

3.1 Ongoing monitoring and remedial measures.

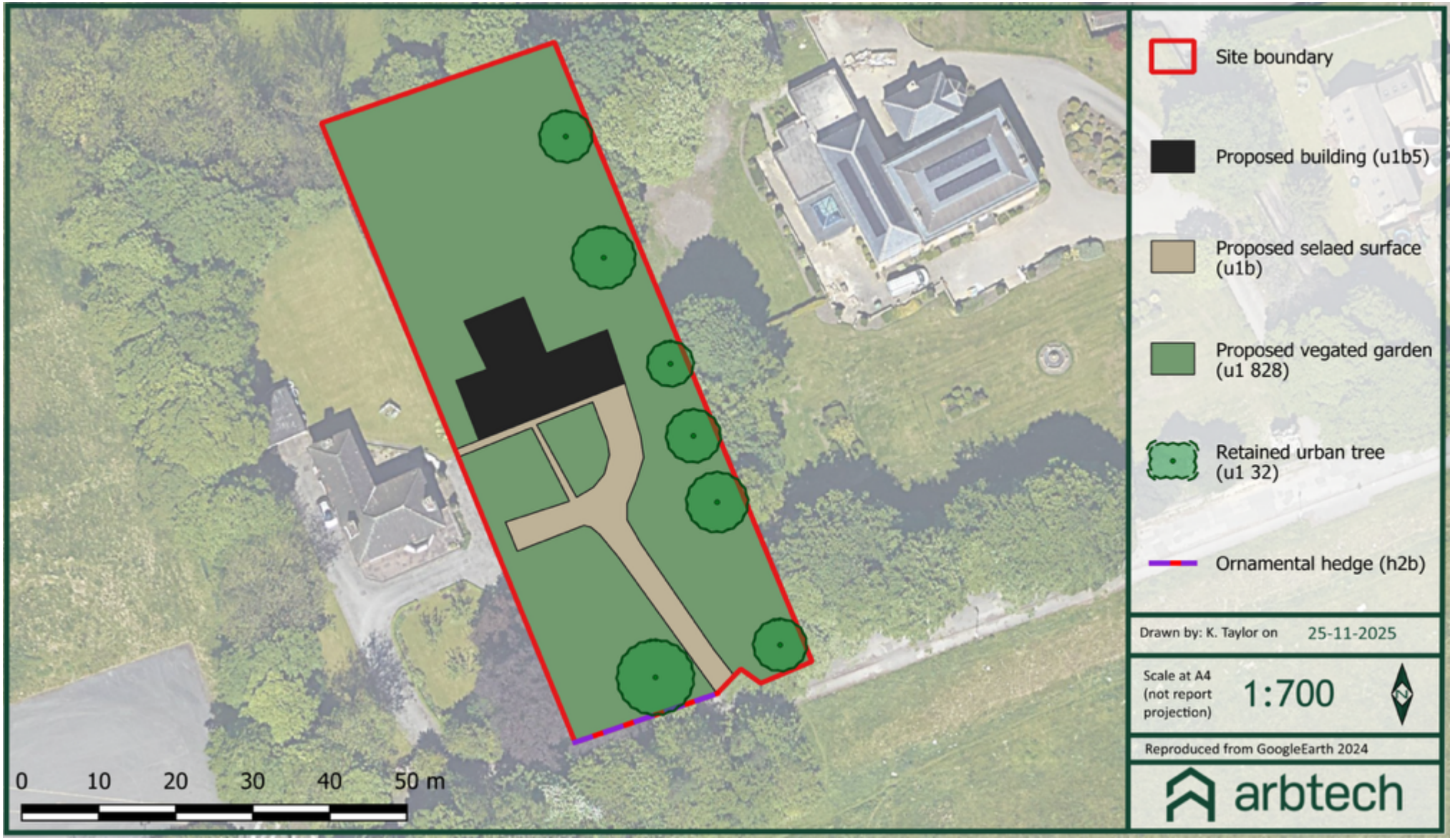
Post-Development inspection	After all the development is completed and ecological measures are installed, within 3 months an inspection of the site will be undertaken by an ecologist to ensure all lighting mitigation is fit for purpose and all measures are in accordance with this plan. A record note will be produced to confirm the inspection results and make any recommendations/iterations to this plan.

Appendix 1: Location Plan

Appendix 2: Current Site Plan

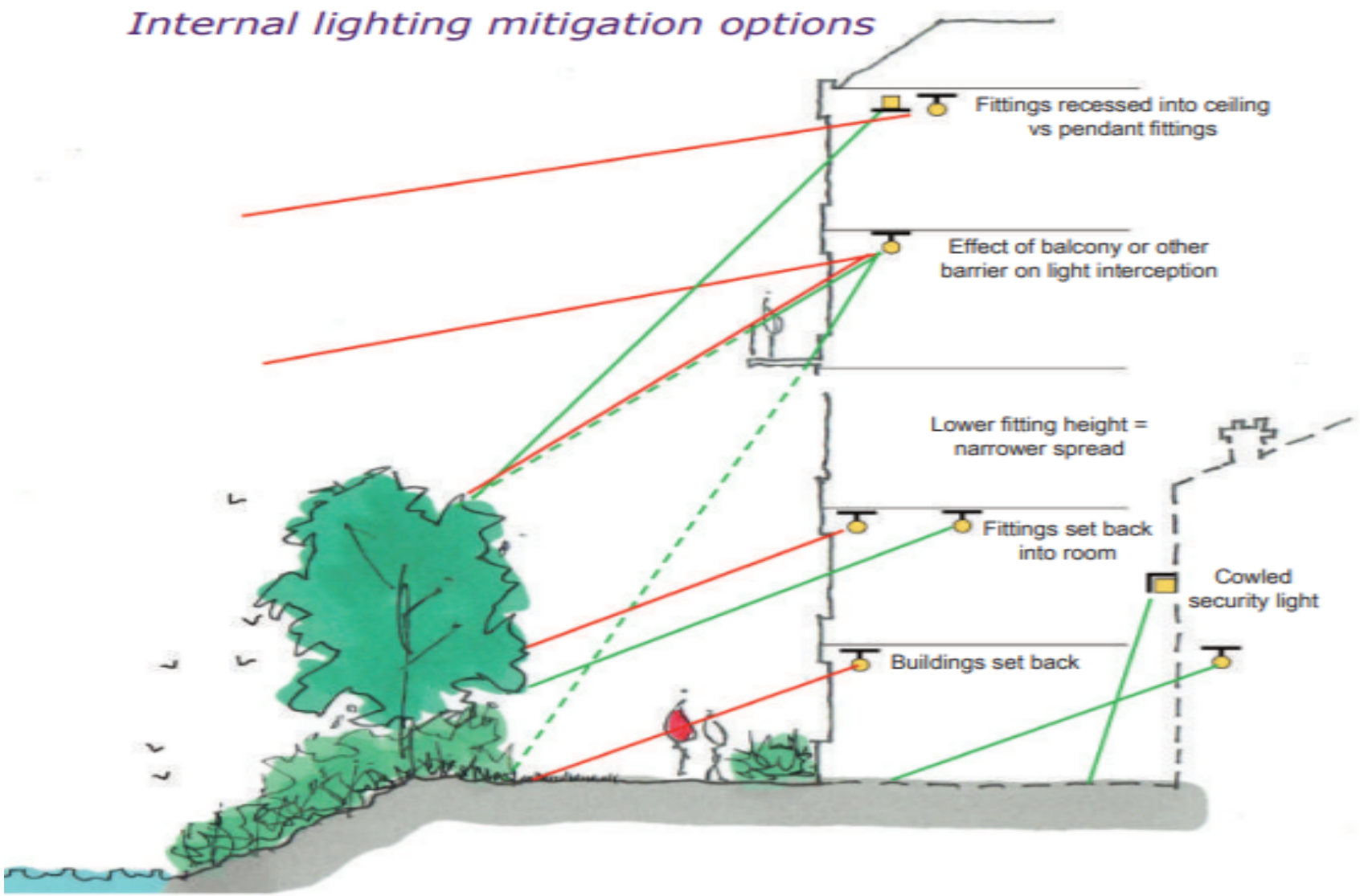


Appendix 3: Proposed Site Plan



Appendix 4: Dark Corridor Plan

Appendix 5: Guidance Note 08/23 (BCT & ILP 2023)



3.0 Bibliography

- BS 42020, Biodiversity – Code of practice for planning and development (2013) http://www.eoebiodiversity.org/pdfs/BS42020.pdf
- BS 42020, Biodiversity – Code of practice for planning and development (2013) http://www.bsigroup.com/LocalFiles/en-GB/biodiversity/BS-42020-Smart-Guide.pdf
- CIEEM (2016) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater and Coastal, 2nd edition. Chartered Institute of Ecology and Environmental Management, Winchester.

  http://www.cieem.net/data/files/Publications/EcIA_Guidelines_Terrestrial_Freshwater_and_Coastal_Jan_2016.pdf
- CIEEM (2013) Guidelines for Preliminary Ecological Appraisal Institute of Ecology and Environmental Management

  http://www.cieem.net/data/files/Resource_Library/Technical_Guidance_Series/GPEA/GPEA_April_2013.pdf
- Collins, J. (ed.) (2016). Bat Surveys for Professional Ecologists —Good Practice Guidelines, 3rd edition, Bat Conservation Trust, London.

  http://www.bats.org.uk/pages/batsurveyguide.html
- Garland & Markham (2008) Is important bat foraging and commuting habitat legally protected?
- Google Earth (2026).
- HMSO: Wildlife and Countryside Act 1981 (as amended) http://jncc.defra.gov.uk/page-1377
- HMSO: Countryside & Rights of Way Act (2000) http://jncc.defra.gov.uk/page-1378
- HMSO: Natural Environmental and Rural Communities Act (2006) http://www.legislation.gov.uk/ukpga/2006/16/contents
- HMSO: The Conservation of Habitats and Species Regulations (2010) http://www.legislation.gov.uk/uksi/2010/490/contents/made
- JNCC (2004) Bat Workers Manual, 3rd Edition. http://jncc.defra.gov.uk/page-2861

- Magic database (2024) http://www.magic.gov.uk/MagicMap.aspx
- Mitchell-Jones, A.J. (2004). Bat Mitigation Guidelines. English Nature, Peterborough.

  http://roost.bats.org.uk/sites/default/files/publications/EnglishNature_BatMitigationGuidelines_2004.pdf
- National Planning Policy Framework, 2012 https://www.gov.uk/government/publications/national-planning-policy-framework--2
- Natural England (2007). Badgers and Development a Guide to Best Practice and Licensing. Natural England. Bristol. http://www.wildlifeco.co.uk/wp-content/uploads/2014/03/badgers-and-development.pdf
- Oldham R.S., Keeble J., Swan M.J.S. & Jeffcote M. (2000) Evaluating the suitability of habitat for the Great Crested Newt (Triturus cristatus). Herpetological Journal 10(4), 143-155. https://www.waterways.org.uk/wrg/wrg_documents/gcn_hsi
- Paul Edgar, Jim Foster and John Baker (2010). Reptile Habitat Management Handbook. Amphibian and Reptile Conservation, Bournemouth

  http://downloads.gigl.org.uk/website/Reptile%20Habitat%20Management%20Handbook.pdf
- Tom Langton, Catherine Beckett and Jim Foster (2001). Great Crested Newt Conservation Handbook. Froglife. Suffolk. http://www.froglife.org/wp-content/uploads/2013/06/GCN-Conservation-Handbook_compressed.pdf
- Institution of Lighting Professionals (2023). Guidance Note Bats and Artificial Lighting in the UK. Bats and the Built Environment Series Publication: Bats and Artificial lighting in the UK (BCT & ILP 2023).