

PLANNING APPLICATION DRAWING

INTELLIGENT LIGHTING DETAILS

The integrated intelligent lighting installation will be controlled by 'Smart Home' technology controlling security, lighting, climate control, cameras and domestic devices - wireless technology controlled from a central management system adjusting in response to weather, circumstance and individual need. All internal lighting to be low energy LED. LED 'strips' to be used in all habitable rooms to provide 'indirect light'. All internal and external lighting will be automatically switched off or dimmed by movement detectors. Lighting will be directed downwards wherever possible to illuminate its target. If there is no alternative to up lighting, then the use of shields and baffles will help reduce light spill to a minimum.

FIXED EXTERNAL LIGHTING

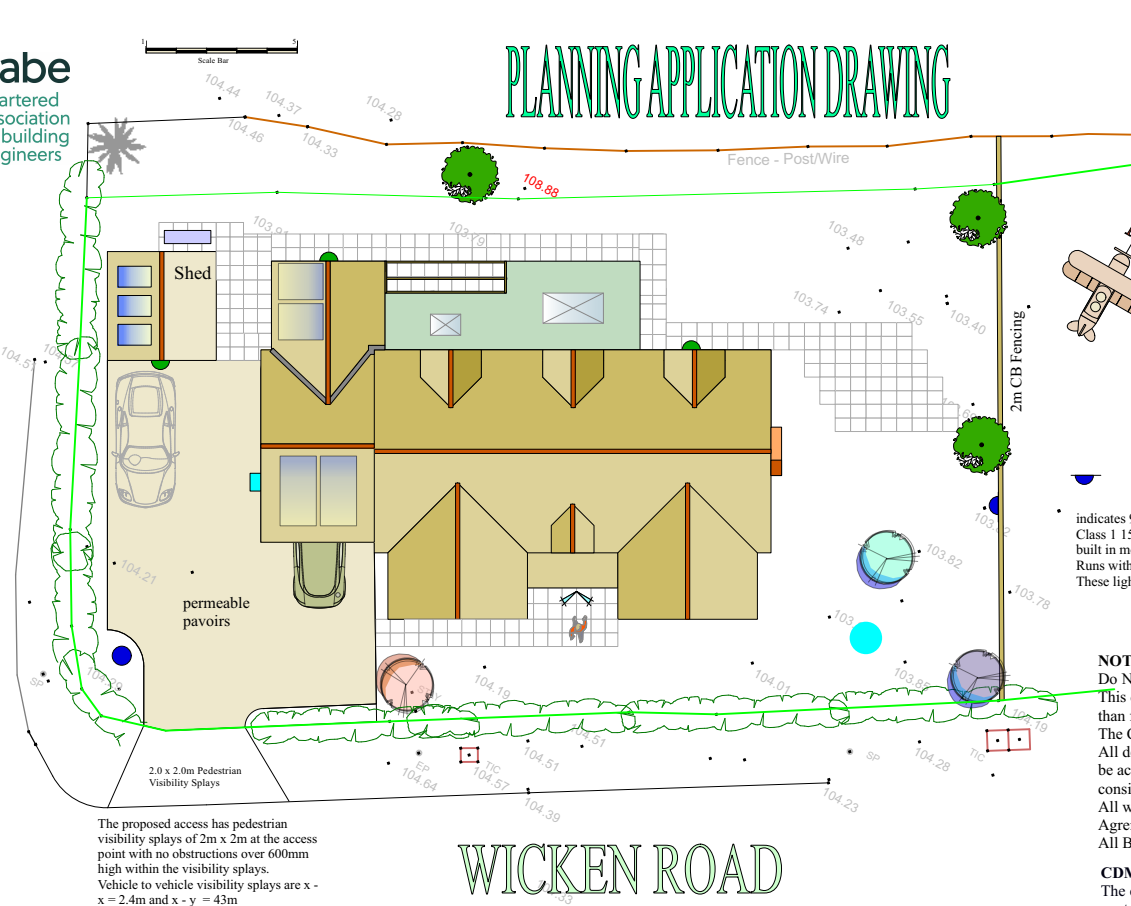
Install low energy light fittings that only take lamps having a luminous efficiency better than 80 lumens per circuit watt. External light fittings to have both the following:
 - Automatic controls which switch luminaires off in response to daylight
 - If luminous efficacy is 75 light source lumens or less automatic controls which switch luminaires off after the area lit becomes unoccupied, if luminous efficacy is greater than 75 light source lumens, manual control can be installed.
 Dwelling primary energy rate and dwelling emission rate calculations to account for the efficacy of lamps installed in the fixed lighting locations.

LIGHTING DESIGN REQUIREMENTS

The site at present has no major external lighting due to the rural nature of its location. It is proposed to carry a minimal lighting theme through the development ensuring safe access to all pedestrians; this would be to continue the character of lighting suitable for a rural location and therefore reduce the impact on the surrounding areas. It is likely that access points and pedestrian pathways within the development will implement external lights to the face of the building; however, these will be of a low-level design with PIR/movement sensors to ensure minimum impact/light pollution. Established and proposed planting belts around and within the development would assist in screening the additional light from neighbouring areas, once again reducing any potential impact. The lighting design of this site should be carried out by a competent person governed by the Institution of Lighting Professionals. It is recommended that the street lighting design proposals for this site shall be designed in accordance with BS5489-1:2020 & BS EN 13201-2:2015. Institution of Lighting Professionals Guidance Notes for the Reduction of Obtrusive Light (GN01: 2021) should be adhered to. This will ensure that lighting designs produced are suitable and sensitive to their surroundings. New lighting in accordance with Guidance Note 08/18 - Bats & Artificial Lighting in the UK - Bat Conservation Trust & Institute of Lighting Professionals. New external lighting/security lighting shall have controlled spays. In addition, motion sensing/timers shall be used in the provision of external lighting.

Environmental Zone

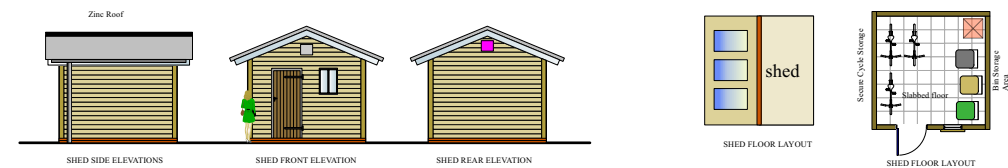
E2 Low District Brightness.
Sparsely inhabited rural areas, village or relatively dark outer suburban location



The proposed access has pedestrian visibility splays of 2m x 2m at the access point with no obstructions over 600mm high within the visibility splays. Vehicle to vehicle visibility splays are x - x = 2.4m and x - y = 43m

MITIGATION MEASURES

During Construction
 Mitigation of the effects of the lighting installation during construction phase will include the following:
 During construction, specifying working hours, use of lighting, location of temporary floodlights in the construction compound and agreeing these with the local council. Lighting to be switched off when not required specifically for construction activities or required health and safety or security. Adhere to best practice measures as recommended by the Institution of Lighting Professionals (ILP), Health & Safety Executive (HSE) and CIE (International Commission on Illumination) guidance. Lighting solutions will be selected to reduce light pollution. Specifically, designed luminaires will be selected to minimise upward spread of light. The optics in the lanterns will control the distribution of light to avoid overspill, sky glow and glare. Glare will be kept to a minimum by ensuring the main beam angle of all lights directed towards any potential observer is not more than 70°. Higher mounting heights allow lower main beam angles, which can assist in reducing glare. Restrict lighting to the task area using horizontal cut-off optics and zero tilts. Operate curfew and minimise the duration of any lighting (switch off or part-night dimming).



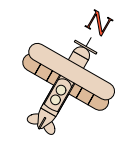
SLED DETAILS



20W LED PIR Downlighter wall mounted at 2m above FGL over doors



OPA FLUSH 11W LED ceiling mounted flush bulkhead light Warm White - 3000K 1122 lm(N)



indicates 9550SS LED wall/fence mounted downlighter Class 1 150mm high, 140mm protrusion built in motion sensor. Stainless steel. Runs with 36no 0.06w leds. These lights are 'Bat friendly'.



indicates 43707 Dylan LED post light Uses 36no 0.06w leds. Height 750mm Length 110mm, width 120mm. 59 Lumens output with a single 3w natural light led. Part L compliant with motion sensor. These lights are 'Bat friendly'.

NOTES

Do NOT scale from this drawing or any other prepared by JDA in connection with this project This drawing is copyright and may not be altered, traced, copied, photographed or used for any purpose other than for which it has been issued without written permission of the copyright holder. The Contractor is to check all dimensions on site and report any discrepancies PRIOR TO commencing work. All details shown on this drawing are based upon typical site conditions related to the area. No responsibility can be accepted for abnormal conditions unless they have been reported in detail so that design amendments may be considered. All works and materials are to be in full accordance with current British Standards, Building Regulations, Agreement Certificates and Manufacturers printed instructions. All Building Regulations inspections are to be carried out at the appropriate stages of work.

CDM REGULATIONS 2015

The client must abide by the Construction Design and Management Regulations 2015. The client must appoint a contractor, if more than one contractor is to be involved, the client will need to appoint (in writing) a principal designer (to plan, manage and coordinate the planning and design work) and a principal contractor (to plan, manage and coordinate the construction and ensure there are arrangements in place for managing and organising the project). Domestic clients The domestic client is to appoint a principal designer and a principal contractor when there is more than one contractor, if not your duties will automatically transferred to the contractor or principal contractor. The designer can take on the duties, provided there is a written agreement between you and the designer to do so. The Health and Safety Executive is to be notified as soon as possible before construction work starts if the works: (a) Last longer than 30 working days and has more than 20 workers working simultaneously at any point in the project. Or: (b) Exceeds 500 person days.

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Proposed Development at
 Hill House, Wicken Road, Clavering CB11 4QT

Drawing Title : Proposed Lighting

Date : January 2024

Scales 1 to 250 at A3 Portrait

Drawing No JDA/2023/925/LIGHTING.001

