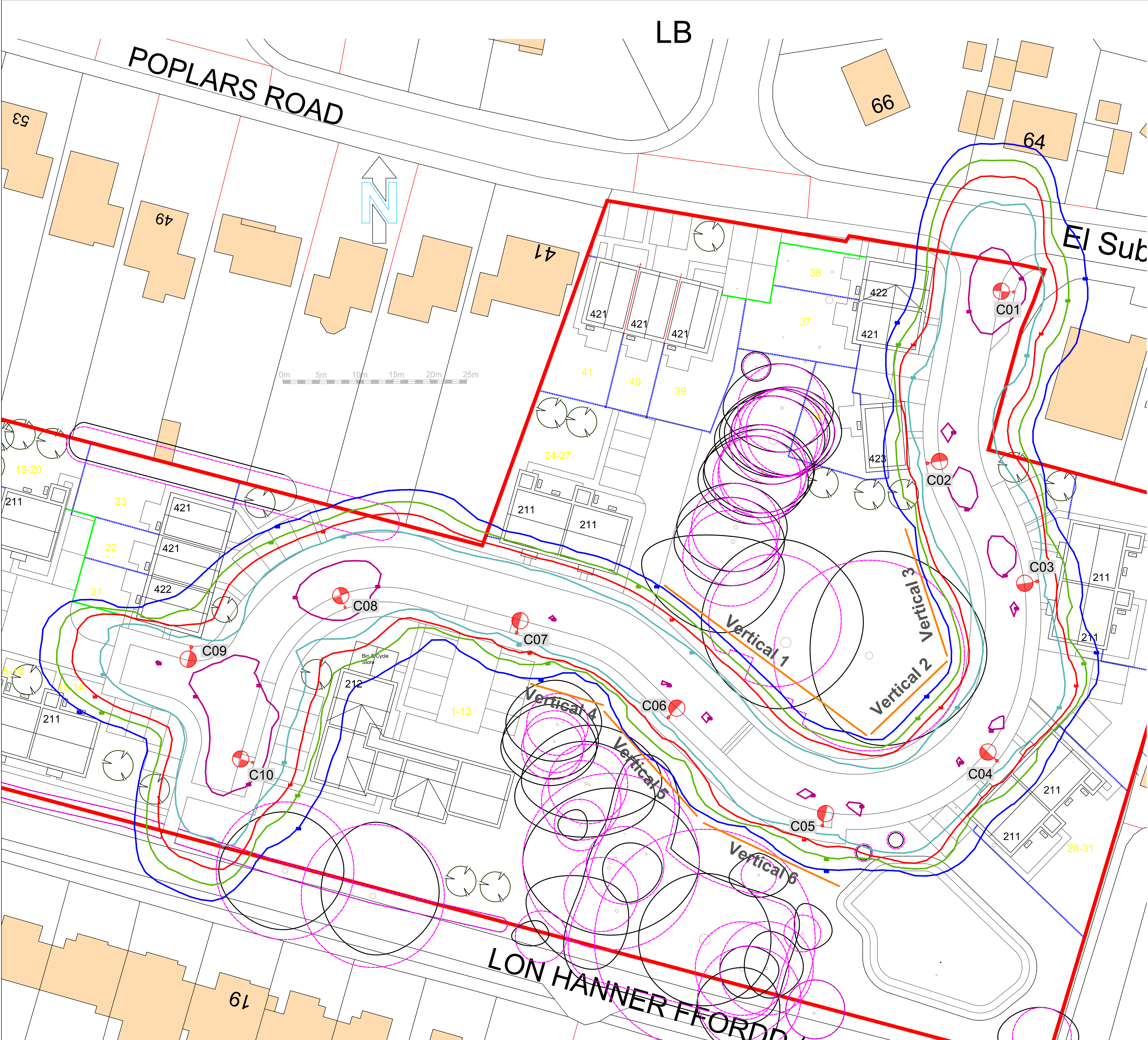




KEY TO LUMINAIRE SYMBOLS - PROPOSED ADOPTABLE

- Type "A1"**
Proposed new adoptable LED luminaire mounted post top on a 5m conical aluminium column with thermoplastic root protection at 0° tilt.
Lantern: Philips/Signify LumiStreet Gen2 Micro 13.8W c/w 2700K (very warm white) LED. With a DALI dimming enabled driver, 7-pin NEMA socket and "DW50" optic. Flux: 1.75 klm
- Type "B1"**
Proposed new adoptable LED luminaire mounted post top on a 5m conical aluminium column with thermoplastic root protection at 0° tilt.
Lantern: Philips/Signify LumiStreet Gen2 Micro 13.8W c/w 2700K (very warm white) LED. With a DALI dimming enabled driver, 7-pin NEMA socket, "DW50" optic and the manufacturers back light shield 1. Flux: 1.75 klm

KEY TO OTHER SYMBOLS

- C01** Column reference number (Proposed new lighting) - Design purposes only, see notes
- Vertical Illuminance grid position
- Site boundary

DESIGN COMMENTARY

Brief
This drawing is intended for ecological review and shows the light spill generated by all proposed external lighting on site.

Ecology
An Ecological Impact Assessment was provided by the client's ecology team, which identified that, without appropriate mitigation, artificial lighting associated with the development has the potential to disturb foraging and commuting bats, as well as other nocturnal species, particularly within the retained vegetation and around the trees located in the centre of the development. To minimise the impact of artificial lighting on these sensitive areas, a light spill assessment has been undertaken.
The associated light spill drawing demonstrates the combined effect of all proposed on-site external lighting sources under a worst-case scenario and confirms that appropriate dark corridors are maintained through and around the identified ecologically sensitive areas.
Light spill into these sensitive areas has been minimised as far as reasonably practicable whilst maintaining safe lighting levels in line with local guidance. Vertical calculation grids with a height of 6 metres and a spacing of 1 metre by 1 metre have been added to the drawing to illustrate the lighting results in the vertical plane. Isolux contours have also been included to show the lighting levels achieved in the horizontal plane.

Maintenance factor calculation
A maintenance factor of 1.00 is applied to all lighting in this calculation which models the light produced with all lighting switched on at full power on day 1 of installation.

Light spill mitigation strategy
-All areas are lit to the lowest levels deemed safe and appropriate for the visual task (P5 for subsidiary roads)
-All street lighting use a very warm white light source of 2700K
-All external light sources are LED with sharp cut off
-Lighting columns located adjacent to the identified dark corridors are limited to a mounting height of 5 metres and, where practicable, are positioned so that the luminaires face directly away from the ecologically sensitive areas. These luminaires are also fitted with the manufacturer's rear louvre assembly to further minimise backward light spill and maintain the required dark corridors.
-All street lighting will be dimmed to the Monmouthshire County Council residential dimming regime.
-All adoptable street lighting is mounted post-top at 0° and emits negligible levels of direct upward light.
-The use of bollards and low-level, downward-directed luminaires has been avoided
-Light sources feature peak wavelengths higher than 550nm to avoid disturbing the bats

NOTES

- No element of this drawing shall be purchased or constructed until approval is granted by the overseeing authority. All works and purchased prior to this are at the developer's risk
- This drawing must be printed in colour
- All dimensions are in metres unless specified otherwise

KEY TO ISOLUX CONTOURS

- 0.20 LUX
- 0.50 LUX
- 1.00 LUX
- 2.00 LUX
- 5.00 LUX

CALCULATION RESULTS
REF: P26107-LRA-PL-C02-V1

Vertical 1
Results - Horizontal Illuminance (lux)
Eav= 0.05
Emin= 0.00
Emax= 0.22
Emin/Eav= 0.00
Emax/Eav= 4.44

Vertical 2
Results - Horizontal Illuminance (lux)
Eav= 0.05
Emin= 0.00
Emax= 0.19
Emin/Eav= 0.00
Emax/Eav= 3.67

Vertical 3
Results - Horizontal Illuminance (lux)
Eav= 0.05
Emin= 0.00
Emax= 0.19
Emin/Eav= 0.00
Emax/Eav= 3.75

Vertical 4
Results - Horizontal Illuminance (lux)
Eav= 0.03
Emin= 0.00
Emax= 0.13
Emin/Eav= 0.00
Emax/Eav= 4.09

Vertical 5
Results - Horizontal Illuminance (lux)
Eav= 0.07
Emin= 0.00
Emax= 0.24
Emin/Eav= 0.00
Emax/Eav= 3.54

Vertical 6
Results - Horizontal Illuminance (lux)
Eav= 0.06
Emin= 0.00
Emax= 0.21
Emin/Eav= 0.00
Emax/Eav= 3.63

P01 Original for review		MVO	DPL	22.09.26
Rev	DESCRIPTION	DRWN	CHK	DATE
DPL LIGHTING				
Grove House Lutyens Close Chineham Court Basingstoke Hampshire RG24 8AG T 01256 578030 E enquiries@dpl-lighting.co.uk W www.dpl-lighting.co.uk				
CLIENT/CUSTOMER				
Amity Planning				
PROJECT				
Midway Lane, Abergavenny				
TITLE				
External Light Spill Calculation				
DRAWN		SCALE	DATE	
MVO		1: 250 @A1	21.09.2026	
DRAWING NUMBER			ISSUE	
P26107-DRG-PL-02			P01	
DO NOT SCALE FROM THIS DRAWING				
© THIS DRAWING IS THE COPYRIGHT OF DPL LIGHTING LTD It shall not be used or reproduced in any way without their prior written consent				