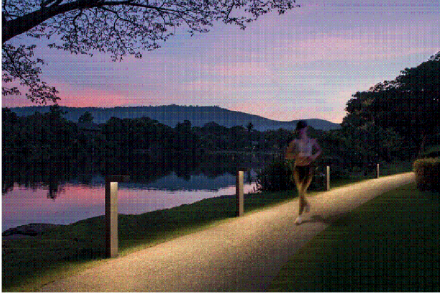
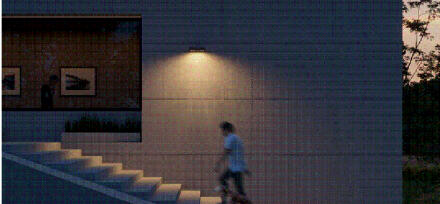
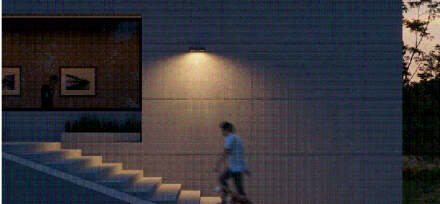
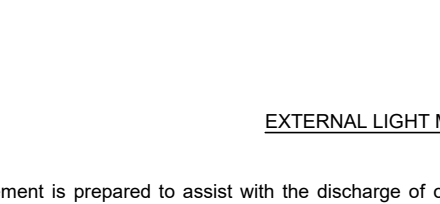


Area	Luminaire Type/ Mounting	Proposed Luminaire			Controls Strategy
C	LED 3000K Dotted c/w Pathway Distribution 1560 1x10 Marine Grade	we of PSY64 (R63.3K) 6LED 12W (131-9509)			Protocol and timeslot arrangement from external services distribution board. Timeslot scheduling linked to BMS.
D	Surface Mounted LED c/w Polycarbonate reflector and wide distribution 3000K 1560 1x10 Marine Grade	we of PSY24 (R63.3K) 6LED 12W (114-4140)			Protocol and timeslot arrangement from external services distribution board. Timeslot scheduling linked to BMS.

Calculation Summary					
Label	Avg	Max	Min	Min/Avg	Min/Max
Building Perimeter	14.65	22	4	0.25	0.15
Ice Lines	3.73	158	0	0.00	0.00
Parking	6.35	85	0	0.00	0.00
Parking 1	7.35	101	0	0.00	0.00
Parking 10	10.08	130	1	0.06	0.01
Parking 11	15.08	16	0	0.00	0.00
Parking 2	7.33	123	0	0.00	0.00
Parking 3	7.17	109	0	0.00	0.00
Parking 4	6.96	19	0	0.00	0.00
Parking 5	7.90	101	0	0.00	0.00
Parking 6	7.81	108	0	0.00	0.00
Parking 7	5.58	108	0	0.00	0.00
Parking 8	5.35	95	0	0.00	0.00
Parking 9	14.10	14	1	0.07	0.01
Path	15.89	85	1	0.05	0.01
Road	12.31	108	1	0.05	0.01

EXTERNAL LIGHT MANAGEMENT STATEMENT

This statement is prepared to assist with the discharge of outline planning permission relating to location and control of external lighting at the proposed New Visitors Centre at Groll Estate Country Park and the new and existing Car Parking areas. The Site is located to the North, East of Neath town centre in South Wales.

The development consists of a 2-storey visitors centre comprising of a Café area, WC's and Reception/Office space to the Ground Floor and an additional Café space to the first floor along with Soft Play areas.

The existing site is home to the existing Visitors Centre and ecological area primarily comprising scattered trees and scrub and Goll Park Pond. The surrounding topography generally consists of Greenland and a housing site to the West.

A Preliminary Ecology Appraisal is yet to be received but will be reviewed prior to completion of the final design. As a result of this consideration, McCann and Partners have developed the initial external lighting proposals using 3000K colour temperature LED luminaires, recognising the importance of mitigating the influence of artificial light on the potential movements of bats and other wildlife in the future. Luminaires with blue short wavelength light sources shall be avoided as this colour temperature has a significant and negative effect on insect which subsequently effects the feeding of bats.

The proposed external lighting strategy will entail the illumination of car parking spaces, entrance road and pedestrian access and egress routes from the development. All external lighting for the development will afford adequate illumination of emergency exits and pedestrian escape routes whilst offering ambient lighting to key design features including building perimeter and elevated bridge between the visitors centre and car parking areas. This will be achieved without causing obtrusive light spillage to adjacent scrubs and pond. The design will adhere to the requirements of the Institute of Lighting Engineers Guidance for the control of Night Time Pollution.

Glare is also considered, and wall mounted luminaires will be kept to a maximum of 3m mounting height to avoid direct vision into the lamp source of the fitting from distant locations. All wall mounted luminaires will be installed with their distribution directed downward. This will be ensured via the internal forward throw optic which is specified c/w maximum ratios of 97% downward LOR and 3% upward LOR.

Luminaire fixtures to the car park and entrance road will consist of low level bollards providing pathfinding light level supplemented by building mounted luminaires illuminating the building perimeter. .

All luminaires will be controlled by daylight level monitoring to avoid un-necessary operation and via time control to switch off at pre-determined times. In addition, a manual override facility will be provided adjacent to the time clock to allow operation of the external lighting circuits for emergency control or unique occasions and special events.

- This is not an installation drawing.
- The final coordination of services, specialist Sub-Contractors, and building structure is the responsibility of the building services Contractor.
- Do not scale from this drawing.
- This drawing shall be read in conjunction with the MEP Specification.
- The installation of services shall be in compliance with the workmanship clauses detailed in the Specification.

Notes

Legend

Safety, Health & Environmental Information

In addition to the hazards / risks normally associated with the types of work detailed on this drawing, note the following:

Construction

- None identified at date of issue.

Maintenance / Cleaning

- None identified at date of issue.

Decommissioning / Demolition

- None identified at date of issue.

It is assumed that all works will be carried out by a competent contractor working, where appropriate, to an approved method statement

Details	Eng	Date	Rev
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Revisions

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Job Title
Groll Park
Neath

Drawing Title
Electrical Engineering Services
External Light Management Strategy

Scale @ A1	Date	Authorised	Checked	Engineer	Drawn
1:1250	Aug 23	GBH	DC	BM	CR
McCann Ref	Status	Code		Revision	
9007	Information	S0		P01	
UPRN	Job No.	Originator	Role	Type	Number
2080	9007	MCP	E	DR	9000