



ILLUMINANCE & UNIFORMITY TARGETS

SPACE	TARGET ILLUMINANCE	HATCH
BUILDING PERIMETER	20 lux	
ACCESS RAMP	100 lux	
PEDESTRIAN ENTRANCE	20 lux	
ACCESS ROAD & CAR PARK	10 lux (0.4 Uo)	
PEDESTRIAN WALKWAY	5 lux (0.25 Uo)	
LAY BY PARKING	TO BE DEVELOPED IN LINE WITH THE REQUIREMENTS OF BS5489-1 2020 DESIGN OF ROAD LIGHTING	

LEGEND

1.5 LUX
8 LUX

ISOLINES DIAGRAM

LUMINAIRE SCHEDULE

REF	MANUFACTURER	PRODUCT DESCRIPTION	IMAGE	MOUNTING HEIGHT
A	DW WINDSOR	DECORATIVE POST TOP LUMINAIRE. AS DW WINDSOR SOFIA		5m
B	DW WINDSOR	COLUMN MOUNTED LUMINAIRE C/W ASYMMETRICAL AREA OPTIC. AS DW WINDSOR KIRIUM ECO MIDI.		6m
C	DW WINDSOR	BOLLARD LUMINAIRE C/W ASYMETRIC NARROW OPTIC. AS DW WINDSOR KIRIUM 200 BOLLARD.		1m
D	DW WINDSOR	WALL MOUNTED LUMINAIRE C/W CLEAR MEDIUM OPTIC. AS DW WINDSOR KIRIUM WALL.		WALL MOUNTED
F	DW WINDSOR	WALL MOUNTED LUMINAIRE C/W CLEAR MEDIUM OPTIC. AS DW WINDSOR KIRIUM WALL.		WALL MOUNTED
G	DW WINDSOR	COLUMN MOUNTED LUMINAIRE C/W PATHWAY OPTIC. AS DW WINDSOR KIRIUM ECO MIDI.		5m
H	LIGMAN	RECESSED LED DOWNLIGHT FOR OUTDOOR USE, IP65. AS LIGMAN NIKON 1		RECESSED INTO CANOPY
I	DEXTRA	SURFACE MOUNTED IP65 LINEAR LUMINAIRE. AS DEXTRA LIGHTING TYPHON LED.		SURFACE MOUNTED TO SHELTER

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NOTES

- ALL SERVICE ROUTES DETAILED ARE APPROXIMATE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT ROUTES AND POSITIONS OF ALL INSTALLED SERVICES AND EQUIPMENT.
- THE EXACT POSITION OF ALL SERVICES AND EQUIPMENT SHALL BE AGREED BY THE CONTRACT ADMINISTRATOR.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR FULLY CO-ORDINATING ANY SERVICES INSTALLED WITH THE BUILDING AND SERVICES INSTALLED BY OTHERS.
- THIS DRAWING SHALL BE READ IN CONJUNCTION WITH ALL MECHANICAL, ELECTRICAL, ARCHITECTURAL AND STRUCTURAL DRAWINGS, CONTRACT DOCUMENTATION, SCHEDULES AND SPECIFICATION FOR THE WORKS.
- ALL DIMENSIONS SHOWN ARE IN MILLIMETRES UNLESS OTHERWISE STATED.
- DO NOT SCALE FROM THIS DRAWING.
- THE ELECTRICAL INSTALLATION SHALL BE IN INSTALLED ACCORDANCE WITH THE 18TH EDITION OF IEE WIRING REGULATIONS BS7671 (REQUIREMENTS FOR ELECTRICAL INSTALLATIONS).
- THE CONTRACTOR SHALL SUPPLY AND INSTALL A COMPLETE AND COORDINATED EXTERNAL LIGHTING AS TYPICALLY DEPICTED ON THIS DRAWING.
- THIS DRAWING DOES NOT DEPICT THE EXISTING INGROUND SITE SERVICES AROUND THE SITE.
- LIGHTING SHALL BE DESIGNED IN ACCORDANCE WITH BS 5489-1:2013 AND BS EN 12464-2:2014 TO PROVIDE ILLUMINANCE LEVELS THAT ENABLE USERS TO PERFORM OUTDOOR VISUAL TASKS EFFICIENTLY AND ACCURATELY.
- LIGHTING SHALL BE PROVIDED TO MINIMISE LIGHT SPILL AND NUISANCE. LIGHTING SHALL BE DESIGNED IN LINE WITH THE REQUIREMENTS OF THE RELEVANT ILP GUIDANCE NOTES ON OBTRUSIVE LIGHT (GN01).
- ALL LUMINAIRES SHALL BE OF THE ENERGY EFFICIENT LED TYPE. EXTERNAL COLUMN LUMINAIRES SHALL BE SUPPLIED VIA XLPE/SWA/SF CABLES INSTALLED IN BURIED PVC CABLE DUCTS.
- ALL SPECIFIED LIGHT FITTINGS SHALL HAVE AN AVERAGE INITIAL LUMINOUS EFFICACY OF AT LEAST 70 LUMINAIRE LUMENS PER CIRCUIT WATT.
- ALL FITTINGS SHALL BE CONTROLLED VIA PHOTOCELL TO AVOID OPERATION DURING DAYLIGHT HOURS. LIGHTING SHALL REMAIN OFF BETWEEN THE HOURS 23:00 AND 7:00. THIS SHALL BE AUTOMATICALLY CONTROLLED.
- PRESENCE DETECTION SHALL BE PROVIDED TO AREAS OF INTERMITTENT PEDESTRIAN TRAFFIC.
- BUILDING MOUNTED LUMINAIRES SHALL BE WIRED FROM INSIDE THE BUILDING AND NO CIRCUITRY SHALL BE VISIBLE FORM THE OUTSIDE.
- EXTERNAL LIGHTING CIRCUITS SHALL BE SUPPLIED FROM THE EXTERNAL SERVICES DISTRIBUTION BOARD AND SHALL BE TIMECLOCK AND PHOTOCELL CONTROLLED.
- EXTERNAL EMERGENCY LUMINAIRES SHALL BE LOCATED ADJACENT EACH FINAL EXIT DOOR. EXTERNAL EMERGENCY LIGHTING SHALL BE PROVIDED FROM FINAL EXITS TO A POINT OF SAFETY OR FIRE MUSTER POINT. THE LOCATION AND EXTENT OF WHICH SHALL BE DEVELOPED.
- LUMINAIRE QUANTITIES AND LOCATIONS SHALL BE DETERMINED FOLLOWING DESIGN CALCULATIONS AND ADDED AT THE NEXT DESIGN STAGE.
- THIS DRAWING IS PROVIDED TO ILLUSTRATE DESIGN INTENT ONLY AND IS SUBJECT TO DETAILED DESIGN. NO FINAL QUANTITIES, LENGTHS OR SIZES SHALL BE TAKEN FROM THIS DRAWING.

P1	PRELIMINARY ISSUE	28.08.21	JJ	MK
REV	DESCRIPTION	DATE	DRAWN	APPROVED

PRELIMINARY

Delivering COLLABORATIVE SUSTAINABLE SOLUTIONS

PROJECT
YSGOL YR HAFOD

DRAWING TITLE
ELECTRICAL SERVICES
PROPOSED EXTERNAL LIGHTING & LIGHT
POLLUTION MITIGATION LAYOUT

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SCALE 1:250@A1

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