

Volt drop calculation for the most onerous circuit

SSB SUPPLY	SOURCE PILLAR	CIRCUIT	DESIGN CURRENT (Amps per Phase)	CABLE SIZE (sq.mm)	CABLE LENGTH (m)	FUSE (Amps)	VOLT DROP (Volts)
S1	MPT	MAIN	0.33	2x54	170	16	0.27

1.0 lux  
3.0 lux  
5.0 lux

TYPE G COLUMN DETAILS

HEIGHT : 6m  
BRACKET LENGTH : Post-top  
INCLINATION : 0 Degrees  
COLUMN QUANTITY : 31  
LANTERN DETAILS : WATTAGE (CLO) : 16  
MAKE & MODEL : C.U.Phosco E950-28LP-F2AB-740-C600  
Rear shield fitted.

TYPE H COLUMN DETAILS

HEIGHT : 6m  
BRACKET LENGTH : Post-top  
INCLINATION : 0 Degrees  
COLUMN QUANTITY : 54  
LANTERN DETAILS : WATTAGE (CLO) : 16  
MAKE & MODEL : C.U.Phosco E950-28LP-FAAB-740-C600  
Rear shield fitted.

Existing Approved LED luminaire as per SES 14222

TYPE B COLUMN DETAILS

HEIGHT : 6m  
BRACKET LENGTH : Post-top  
INCLINATION : 0 Degrees  
COLUMN QUANTITY : 21  
LANTERN DETAILS : WATTAGE (CLO) : 16  
MAKE & MODEL : C.U.Phosco E950-28LP-P4A-740-C600

TYPE C COLUMN DETAILS

HEIGHT : 6m Raise & Lower as required.  
BRACKET LENGTH : Post-top  
INCLINATION : 0 Degrees  
COLUMN QUANTITY : 13  
LANTERN DETAILS : WATTAGE (CLO) : 16  
MAKE & MODEL : C.U.Phosco E950-28LP-P4A-740-C350

TYPE D DETAILS - LED Handrail

HEIGHT : 1m  
BRACKET LENGTH : N/A  
INCLINATION : 0 Degrees  
MODULE QUANTITY : 4  
LANTERN DETAILS : WATTAGE (CLO) : 4  
MAKE & MODEL : Schroder-Alinea - 3 LED@350mA 5121-NW

TYPE F DETAILS - LED Bollard

HEIGHT : 1m  
BRACKET LENGTH : N/A  
INCLINATION : 0 Degrees  
MODULE QUANTITY : 6  
LANTERN DETAILS : WATTAGE (CLO) : 5  
MAKE & MODEL : Thorlux VIA ASY 160mA 4000K

TYPE A COLUMN DETAILS

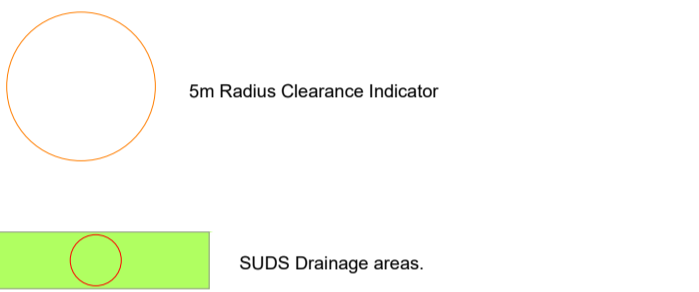
HEIGHT : 6m  
BRACKET LENGTH : Post-top  
INCLINATION : 0 Degrees  
COLUMN QUANTITY : 13  
LANTERN DETAILS : WATTAGE (CLO) : 16  
MAKE & MODEL : C.U.Phosco E950-28LP-F2A-740-C600

TYPE A/C COLUMN DETAILS

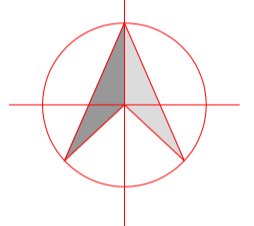
HEIGHT : 6m Raise & Lower as required.  
BRACKET LENGTH : Twin 0.3m stub bracket. Arms @180° to each other.  
INCLINATION : 0 Degrees  
COLUMN QUANTITY : 3 (Twin mounted 6 luminaires)  
LANTERN DETAILS : WATTAGE (CLO) : 16  
MAKE & MODEL : C.U.Phosco E950-28LP-F2A-740-C600  
C.U.Phosco E950-28LP-P4A-740-C350

Notes:  
All LED lanterns must have Constant Light Output (CLO).  
Automatically dimmed to 75% each night from 12 midnight to 6am. (U14 Profile)  
All lanterns to have Top NEMA sockets fitted.  
Electronic Protocols switched at 35/18lux.  
All columns, luminaires, cable and pillars, shall comply with Local Authority General Specification for Public Lighting.  
No trees to be located within falling distance of PL column.  
Minimum set-back of columns is 800mm from face of kerb.

20kg NYC cable laid in ducting to I.S.10101:2020.  
Single wall ducting, colour red to be used.  
Manufactured from high density polyethylene (H.D.P.E.).  
107mm external diameter, having a wall thickness of 5mm.  
This ducting to have the words "Street Lighting" stamped on, letter size 9mm at 1m intervals. The lettering to face upwards in the trench. All works to Local Authority specification.  
This is a circuit layout and not indicative of where ducts are to be laid.  
Public Lighting Pillar (located at least 2m from ESB pillar)  
Public lighting cable chamber as per Local Authority PL Dept. specification.



NORTH



NOTES  
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NO ACCOUNT IS TAKEN FOR THE BLOCKING EFFECT CAUSED BY BUILDINGS, TREES ETC. THE CALCULATION SHOWN BY THIS DRAWING ASSUMES THAT THE WHOLE AREA BEING CONSIDERED IS IN THE SAME PLANE, I.E. THERE ARE NO CHANGES IN GRADIENT OR ELEVATION.

This drawing layout is based on calculated lighting levels, produced by Sabre Electrical Services Ltd., using Lighting Reilly software. Any alterations to the layout or luminaire type used for the lighting design calculations, will require a revised lighting design to be carried-out. A design may require approval from the Local Authority Public Lighting Dept. prior to any alterations/modifications being implemented on site.

**Sabre**  
ELECTRICAL SERVICES LTD.  
Specialist Contractors  
PUBLIC LIGHTING - FLOOD LIGHTING - SPORTS LIGHTING

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REV	DESCRIPTION	INTS	CHK'D	DATE
?	?	GS	CHK	-----
?	?	GS	CHK	-----
E	Circuit Layout added	AN	CHK	27-03-24
D	Updated as per comments.	AN	CHK	02-11-23
C	Updated Site Layout	AN	CHK	18-10-23
B	Updated layout & updated as per comments	AN	CHK	27-01-23
A	Updated Site layout	AN	CHK	03-01-23

CLIENT/CUSTOMER  
Clear Real Estate Holdings Limited

PROJECT  
Clonburris - Adamstown Extension

TITLE  
Public Lighting Layout

DRAWN	SCALE	DATE
A.N	1:500@A1	22-11-22
DRAWING NUMBER	ISSUE	
SES 17022 Sheet 1	6	

BASE DRAWING NUMBER  
DRAWING ORIGIN  
DO NOT SCALE FROM THIS DRAWING

