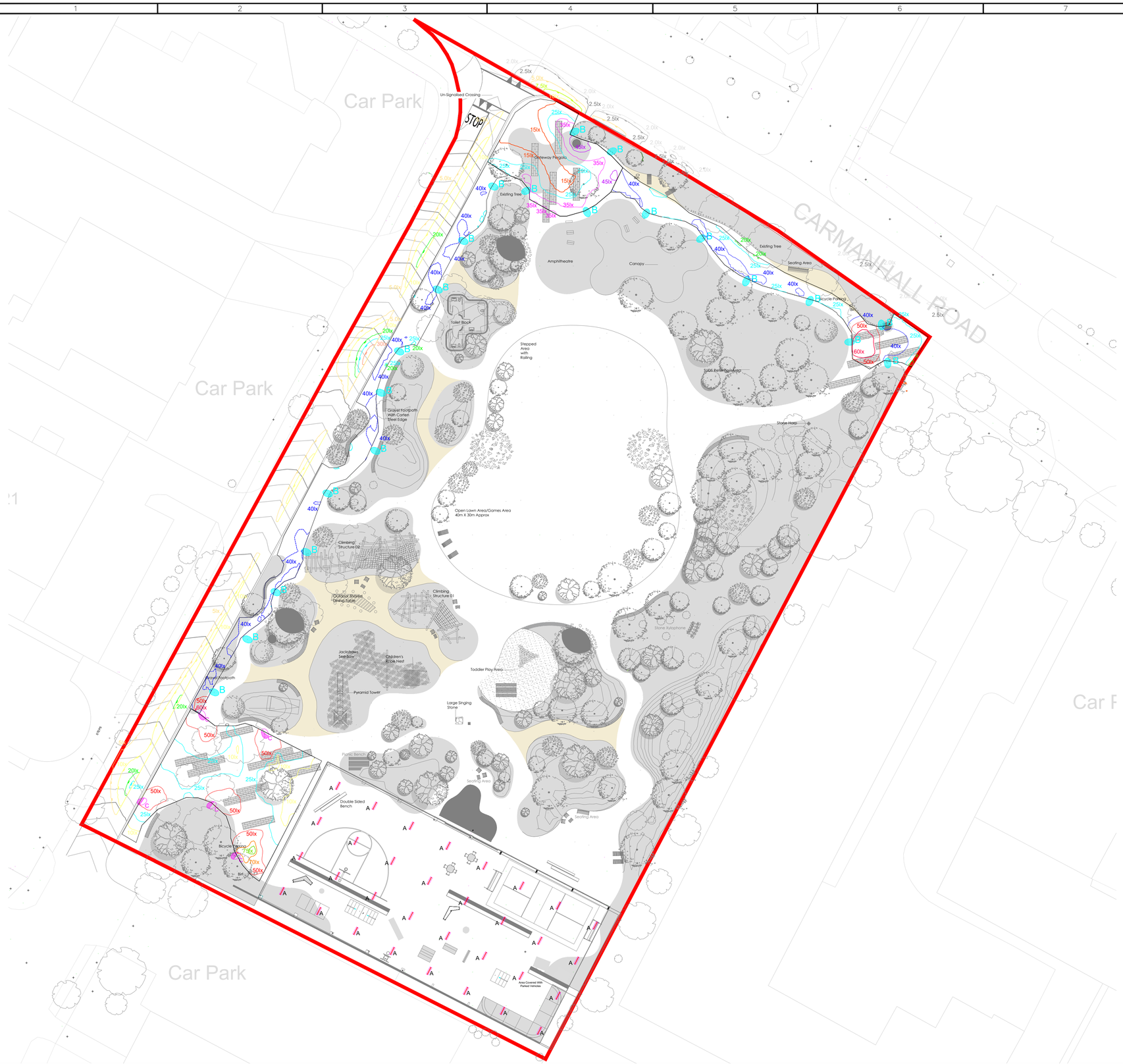

LEGEND

- 75 LUX
- 70 LUX
- 60 LUX
- 50 LUX
- 45 LUX
- 40 LUX
- 35 LUX
- 30 LUX
- 25 LUX
- 20 LUX
- 15 LUX
- 10 LUX
- 7.5 LUX
- 5.0 LUX
- 2.5 LUX
- 2.0 LUX

THORN LED5200 - TYPE A

Article No.	92901935
P	38.0 W
Φ_{lamp}	5090 lm
$\Phi_{luminaire}$	5090 lm
η	100.00 %
Luminous efficacy	133.9 lm/W
CCT	4000 K
CRI	80

THORN FW 12L50 - TYPE B

Article No.	92919485
P	19.0 W
Φ_{lamp}	2713 lm
$\Phi_{luminaire}$	2713 lm
η	100.01 %
Luminous efficacy	142.8 lm/W
CCT	3000 K
CRI	70

THORN LEDFIT 45W - TYPE C

Article No.	96628332
P	45.0 W
Φ_{lamp}	4500 lm
$\Phi_{luminaire}$	4498 lm
η	99.97 %
Luminous efficacy	100.0 lm/W
CCT	4000 K
CRI	80

GENERAL NOTES

1. THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL RELEVANT DRAWINGS, DOCUMENTS AND SPECIFICATIONS ASSOCIATED WITH THIS PROJECT.
2. THIS IS NOT AN INSTALLATION DRAWING. INSTALLATION DRAWINGS TO BE PREPARED WITH REFERENCE TO THE ARCHITECTS AND STRUCTURAL ENGINEERS CONSTRUCTION ISSUE DRAWINGS.
3. DO NOT SCALE FROM THIS DRAWING. WORK TO FIGURED DIMENSIONS ONLY. THE CONTRACTOR TO ALLOW FOR ALL SETTING OUT AND INSTALLATION AROUND OBSTRUCTIONS.
4. ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE STATED.
5. THE CO-ORDINATION OF THE ELECTRICAL SERVICES WITH OTHER TRADES TO BE AGREED ON SITE PRIOR TO INSTALLATION. ADDITIONAL COSTS DUE TO LACK OF CO-ORDINATION WILL NOT BE ENTERTAINED. THE CONTRACTOR SHALL CO-ORDINATE FULLY WITH ALL OTHER TRADES BEFORE COMMENCING WORK.
6. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL THE NECESSARY INFORMATION TO ALLOW THE MAIN CONTRACTOR TO CO-ORDINATE ALL SERVICES.
7. CABLE CARRIER SYSTEM, WIRING AND ALL OTHER ASSOCIATED WORKS CARRIED OUT BY THE ELECTRICAL CONTRACTOR.
8. WHERE SERVICES PASS THROUGH FIRE RATED STRUCTURE, THEY SHOULD BE FIRE SEALED AND CERTIFIED ON COMPLETION.
9. SEE OTHER ELECTRICAL DRAWINGS FOR LOCATION OF ELECTRICAL DISTRIBUTION BOARDS AND COMMUNICATION CABINETS.
10. ALL WORKS TO BE TESTED AND COMMISSIONED ON COMPLETION.
11. HANDOVER OF 'AS BUILT' MANUALS ON COMPLETION OF THE PROJECT TO INCLUDE ALL DRAWINGS, DOCUMENTS AND TEST CERTIFICATES.

NOTE:
ACTUAL RESULTS ACHIEVED MAY VARY FROM PREDICTED VALUES DUE TO NORMAL DEVIATION IN LUMINAIRE INSTALLATION, ELECTRICAL SUPPLY, EQUIPMENT TOLERANCES, OBSTRUCTIONS INCLUDING POLES, BRACKETS AND MOUNTING ARMS, REFLECTANCES ETC. THIS DESIGN IS FOR GENERAL GUIDANCE ONLY & ITS USE IS SUBJECT TO CONDITIONS (AVAILABLE ON REQUEST). BASED ON LUMEN OUTPUT AT 100000 HOURS, SPOT LAMP REPLACEMENT, NORMAL ENVIRONMENT, 6 YEAR CLEANING CYCLE GROUND IS LEVEL.

Calculation Summary

Description	Avg	Max	Min	Min/Avg	Min/Max	Units	PtSpcLr	PtSpcTb	# Pts
Fire Tender Route	8.19	21.5	2.0	0.24	0.09	Lux	1	1	360
Paths / Pedestrian Areas	5.04	22.0	1.0	0.20	0.05	Lux	1.5	1.5	1814
Sports Area	77.26	138	39	0.50	0.28	Lux	2	2	223

Luminaire Schedule

Symbol	Qty	Label	Lum. Lumens	MF	Description	Filename
	5	A27-A10	3274	0.800	Aro Streetlight Size 1, 27W 12LED 700mA 4000K Street Optic A10	5TCA11GLD-A10.ies
	8	A19-F	2186	0.800	Aro Streetlight Size 1, 19W 8LED 700mA 4000K Forward Throw Optic A14	5TCA10GLA-A14.ies
	6	A19-A10	2184	0.800	Aro Streetlight Size 1, 19W 8LED 700mA 4000K Street Optic A10	5TCA10GLA-A10.ies
	12	A10A	14050	0.800	AktraLED 100w LED, 4K, Asymmetric	5SF100LBA.ies

Luminaire list (Site 1)

Index	Manufacturer	Article name	Item number	Fitting	Luminous flux	Maintenance factor	Connected load	Quantity
A	Thorn Lighting	AQFPRO S LED5200-840 PC WB HF [STD]	92901935	1x LED 38 W	5090 lm	0.80	38 W	32
B	Thorn Lighting	FW 12L50 730 NR BS 3550 CL2 WS6 MTPA ANT [STD]	92919485	1x LED 19 W	2713 lm	0.80	19 W	22
C	Thorn Lighting	<LEDFIT S 45W A/S CL1 L840 [STD]	96628332	1x LED 45 W	4500 lm	0.80	45 W	5

#	Name	Parameter	Min	Max	Average	Min/average	Min/max
1	Part M Surface 3	Perpendicular illuminance	17.1 lx	61.4 lx	36.6 lx	0.47	0.28
2	Part M Surface 2	Perpendicular illuminance	5.09 lx	50.3 lx	24.7 lx	0.21	0.10
3	Part M Surface 1	Perpendicular illuminance	16.3 lx	69.1 lx	38.6 lx	0.42	0.24
4	Part M Surface 4	Perpendicular illuminance	2.75 lx	79.0 lx	33.4 lx	0.082	0.035
5	Spill 1	Perpendicular illuminance	0.26 lx	33.0 lx	5.20 lx	0.050	0.008
6	Spill 2	Perpendicular illuminance	0.061 lx	10.9 lx	1.54 lx	0.040	0.006
7	Building 1	Perpendicular illuminance	0.36 lx	0.59 lx	0.46 lx	0.78	0.61
8	Building 2	Perpendicular illuminance	0.80 lx	1.15 lx	0.96 lx	0.83	0.70
9	Building 3	Perpendicular illuminance	1.04 lx	1.52 lx	1.23 lx	0.85	0.68
10	Building 4	Perpendicular illuminance	0.42 lx	0.98 lx	0.57 lx	0.74	0.43
11	Building 5	Perpendicular illuminance	0.29 lx	0.54 lx	0.41 lx	0.71	0.54
12	Building 6	Perpendicular illuminance	3.10 lx	3.80 lx	3.44 lx	0.90	0.82
13	Building 7	Perpendicular illuminance	0.44 lx	1.00 lx	0.62 lx	0.71	0.44

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PLANNING

Rev No.	DESCRIPTION	Iss By	Chk By	App By	Date
1.2	ISSUED AS PART OF PLANNING SUBMISSION	N.K.	G.B.	G.B.	16.02.2026
1.1	DRAFT ISSUE FOR PLANNING	D.L.D.	G.B.	G.B.	19.12.2025
1.0	ISSUED FOR INFORMATION ONLY	D.L.D	G.B.	G.B.	24.09.2025

Client: SANDYFORD CIVIC PARK

Project: PROVISION OF ELECTRICAL SERVICES FOR PUBLIC REALM PROJECT

Title: SITE LIGHTING LAYOUT SITE PLAN

Drg By:	Size:	Scale:	Created:
D. LYNCH-DUFF	A1	1:300	SEPT 2025

Status: PLANNING

Drawing No: P24-403-MAL-ZZ-XX-DR-E45-0001

Rev: 1.2