

DATE: 6 September 2023
DESIGNER: WLC
PROJECT No: WLC654
PROJECT NAME: Officers' Meadow, Shenfield



R1: REVISED BASE LAYOUT

LIGHTING STRATEGY:

THE PROPOSALS HAVE BEEN DESIGNED TO MEET THE REQUIREMENTS OF THE FOLLOWING TARGET LIGHTING CLASS(ES): C3, P3, P4 AND P5 IN ACCORDANCE WITH BS 5489:2020

LEVELS ACHIEVED:
REFER TO INDIVIDUAL GRID WITHIN REPORT.

WLC654-LC-AC-001-R1

PREPARED BY: Williams Lighting Consultants Ltd.
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Layout Report

General Data

Dimensions in Metres Angles in Degrees

Calculation Grids

ID	Grid Name	X	Y	X' Length	Y' Length	X' Spacing	Y' Spacing
1	Grid 1	561654.89	196080.69	114.00	55.47	1.50	1.50
2	Grid 2	561804.83	196037.42	192.00	138.00	1.50	1.50
3	Grid 3	561936.82	196263.07	157.23	120.00	1.50	1.50
4	Grid 4	561907.97	196263.13	48.00	69.00	1.50	1.50
5	Grid 5	561716.72	195888.78	84.00	69.00	1.50	1.50
6	Grid 6	561691.29	195818.79	63.00	48.00	1.50	1.50
7	Grid 7	562009.68	196081.10	87.00	54.00	1.50	1.50
8	Grid 8	561491.76	196196.22	81.00	106.20	1.50	1.50
9	Grid 9	561573.76	196163.62	153.00	105.00	1.50	1.50
10	Grid 10	561737.64	196098.01	210.80	48.00	1.50	1.50
11	Grid 11	561907.01	196179.54	199.00	90.00	1.50	1.50
12	Grid 12	561997.95	196109.73	39.00	129.00	1.50	1.50
13	Grid 13	561789.41	196068.51	27.00	75.00	1.50	1.50
14	Grid 14	561643.54	195833.42	168.00	246.95	1.50	1.50
15	Grid 15	561647.84	195770.03	51.00	69.00	1.50	1.50
16	Grid 16	561522.16	195792.11	132.00	97.41	1.50	1.50

Luminaires



Luminaire B Data

Supplier	Philips
Type	BGP702 DW52
Lamp(s)	LED-HB 5.2S 730
Lamp Flux (klm)	5.20
File Name	Luma Gen2 Micro_BGP702_DW52_5200_2_0LED_5.2S_CLO_L90_730.ies
Maintenance Factor	0.76
Lum. Int. Class	G3
No. in Project	40

Luminaire C Data

Supplier	
Type	BGP702 DW50 BL2
Lamp(s)	LED-HB 5.2S 740
Lamp Flux (klm)	5.20
File Name	Luma Gen2 Micro_BGP702_DW50 BL2_5200_20LED_5.2S_CLO_L90_740.ies
Maintenance Factor	0.76
Lum. Int. Class	G3
No. in Project	1



Luminaire D Data

Supplier	Philips
Type	BGP703 DM10
Lamp(s)	LED-HB 5.2S 730
Lamp Flux (klm)	10.00
File Name	Luma Gen2 Mini_BGP703_DM10_10000_4_0LED_5.2S_CLO_L90_730.ies
Maintenance Factor	0.83
Lum. Int. Class	G3
No. in Project	7

Luminaire F Data

Supplier	
Type	BGP702 DW50 BL1
Lamp(s)	LED-HB 5.2S 730
Lamp Flux (klm)	13.50
File Name	Luma Gen2 Micro_BGP702_DW50 BL1_6400_20LED_5.2S_CLO_L90_730.ies
Maintenance Factor	1.00
Lum. Int. Class	G3
No. in Project	5

Luminaires

Luminaire H Data

Supplier	
Type	BGP702 DM10 BL1
Lamp(s)	LED-HB 5.2S 730
Lamp Flux (klm)	2.60
File Name	Luma Gen2 Micro_BGP702_DM10 BL1_26 00_20LED_5.2S_CLO_L90_730.ies
Maintenance Factor	1.00
Lum. Int. Class	G3
No. in Project	5

Luminaire I Data

Supplier	
Type	BGP702 DN09 BL1
Lamp(s)	LED-HB 5.2S 730
Lamp Flux (klm)	1.00
File Name	Luma Gen2 Micro_BGP702_DN09 BL1_10 00_6LED_5.2S_CLO_L90_730.ies
Maintenance Factor	1.00
Lum. Int. Class	G2
No. in Project	4



Luminaire J Data

Supplier	D W Windsor
Type	Windsor Street -LX3- 16LED-3k-A1 200mA UMSUG 42 0012 0000 100
Lamp(s)	16x 3k LED
Lamp Flux (klm)	1.20
File Name	Windsor Street -LX3- 16LED-3k-A1_200mA UMSUG 42 0012 0000 100.ies
Maintenance Factor	1.00
Lum. Int. Class	None
No. in Project	29

Layout

ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Dimmed to	Target X	Target Y	Target Z
1	B	561665.38	195797.30	6.00	223.00	0.00	0.00	0.30	100%			
2	B	561662.62	195773.83	6.00	39.00	0.00	0.00	0.30	100%			
3	I	561643.12	195819.60	6.00	222.00	0.00	0.00	0.30	100%			
6	J	561923.49	196284.02	5.00	0.00	0.00	0.00	0.00	100%			
7	J	561924.13	196304.94	5.00	359.00	0.00	0.00	0.00	100%			
8	J	561931.34	196319.17	5.00	282.00	0.00	0.00	0.00	100%			
9	B	561583.16	196167.98	6.00	49.00	0.00	0.00	0.30	100%			
10	B	561592.27	196181.24	6.00	222.00	0.00	0.00	0.30	100%			
11	B	561616.25	196155.93	6.00	223.00	0.00	0.00	0.30	100%			
12	B	561638.97	196137.90	6.00	267.00	0.00	0.00	0.30	100%			
13	B	561682.69	196130.90	6.00	72.00	0.00	0.00	0.30	100%			
14	B	561661.79	196138.68	6.00	106.00	0.00	0.00	0.30	100%			
15	B	561709.50	196121.96	6.00	76.00	0.00	0.00	0.30	100%			
16	B	561738.57	196125.95	6.00	272.00	0.00	0.00	0.30	100%			
17	B	561758.34	196123.57	6.00	117.00	0.00	0.00	0.30	100%			
18	B	561781.42	196133.88	6.00	123.00	0.00	0.00	0.30	100%			
19	B	561783.49	196158.05	6.00	29.00	0.00	0.00	0.30	100%			
20	B	561808.09	196133.33	6.00	207.00	0.00	0.00	0.30	100%			
21	B	561809.00	196155.95	6.00	297.00	0.00	0.00	0.30	100%			
22	B	561840.81	196160.29	6.00	114.00	0.00	0.00	0.30	100%			
23	B	561859.04	196178.14	6.00	291.00	0.00	0.00	0.30	100%			
24	B	561885.99	196180.26	6.00	116.00	0.00	0.00	0.30	100%			
25	B	561918.23	196195.29	6.00	117.00	0.00	0.00	0.30	100%			
26	B	561922.77	196214.48	6.00	328.00	0.00	0.00	0.30	100%			
27	B	561933.60	196242.49	6.00	180.00	0.00	0.00	0.30	100%			
28	B	561956.61	196255.37	6.00	270.00	0.00	0.00	0.30	100%			
29	B	561933.60	196258.27	6.00	177.00	0.00	0.00	0.30	100%			
30	B	561990.06	196246.67	6.00	91.00	0.00	0.00	0.30	100%			
31	B	562026.83	196251.66	6.00	250.00	0.00	0.00	0.30	100%			
32	B	562041.77	196239.49	6.00	79.00	0.00	0.00	0.30	100%			
33	B	562062.02	196243.93	6.00	260.00	0.00	0.00	0.30	100%			
35	H	562028.02	196225.85	6.00	168.00	0.00	0.00	0.30	100%			
36	B	562089.72	196237.75	6.00	254.00	0.00	0.00	0.30	100%			
37	H	562022.65	196195.10	6.00	175.00	0.00	0.00	0.30	100%			
38	H	562019.72	196166.92	6.00	174.00	0.00	0.00	0.30	100%			
38	B	561676.99	195849.56	6.00	324.00	0.00	0.00	0.30	100%			

Layout Continued

ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Dimmed to	Target X	Target Y	Target Z
40	H	562020.27	196137.21	6.00	179.00	0.00	0.00	0.30	100%			
41	H	562006.01	196110.13	6.00	158.00	0.00	0.00	0.30	100%			
43	B	561796.34	196103.07	6.00	355.00	0.00	0.00	0.30	100%			
44	C	561813.81	196093.77	6.00	266.00	0.00	0.00	0.30	100%			
45	B	561790.01	196072.99	6.00	311.00	0.00	0.00	0.30	100%			
46	B	561764.07	196057.25	6.00	311.00	0.00	0.00	0.30	100%			
47	B	561741.01	196035.20	6.00	321.00	0.00	0.00	0.30	100%			
48	B	561739.45	196008.40	6.00	173.00	0.00	0.00	0.30	100%			
49	B	561739.84	195982.07	6.00	178.00	0.00	0.00	0.30	100%			
50	B	561730.99	195959.02	6.00	158.00	0.00	0.00	0.30	100%			
52	B	561707.66	195925.82	6.00	346.00	0.00	0.00	0.30	100%			
54	B	561708.92	195899.68	6.00	169.00	0.00	0.00	0.30	100%			
56	B	561691.05	195871.87	6.00	335.00	0.00	0.00	0.30	100%			
57	B	561663.41	195830.28	6.00	319.00	0.00	0.00	0.30	100%			
58	D	561543.40	196209.60	10.00	316.00	0.00	0.00	0.50	100%			
59	D	561534.75	196186.03	10.00	316.00	0.00	0.00	0.30	100%			
60	D	561546.60	196169.98	10.00	123.00	0.00	0.00	0.30	100%			
61	D	561565.53	196173.92	10.00	91.00	0.00	0.00	0.30	100%			
62	D	561580.94	196203.10	10.00	194.00	0.00	0.00	0.30	100%			
63	D	561563.96	196224.74	10.00	316.00	0.00	0.00	0.30	100%			
64	D	561588.98	196225.30	10.00	137.00	0.00	0.00	0.30	100%			
65	F	561514.74	196173.01	10.00	305.00	0.00	0.00	0.30	100%			
66	F	561502.95	196142.99	10.00	139.00	0.00	0.00	0.30	100%			
67	F	561467.74	196132.03	10.00	325.00	0.00	0.00	0.30	100%			
68	F	561449.24	196110.58	10.00	316.00	0.00	0.00	0.30	100%			
69	F	561445.14	196079.67	10.00	149.00	0.00	0.00	0.30	100%			
63	I	561617.36	195847.83	6.00	225.00	0.00	0.00	0.30	100%			
64	I	561588.52	195863.25	6.00	249.00	0.00	0.00	0.30	100%			
65	I	561544.79	195876.68	6.00	254.00	0.00	0.00	0.30	100%			
66	J	561697.79	196121.10	5.00	160.00	0.00	0.00	0.00	75%			
67	J	561710.89	196109.48	5.00	247.00	0.00	0.00	0.00	75%			
68	J	561732.72	196097.29	5.00	85.00	0.00	0.00	0.00	75%			
69	J	561751.23	196110.64	5.00	195.00	0.00	0.00	0.00	75%			
70	J	561686.40	196117.59	5.00	247.00	0.00	0.00	0.00	75%			
71	J	561842.60	196101.06	5.00	299.00	0.00	0.00	0.00	100%			
72	J	561871.19	196115.46	5.00	299.00	0.00	0.00	0.00	100%			

Layout Continued

ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Dimmed to	Target X	Target Y	Target Z
73	J	561902.43	196119.89	5.00	121.00	0.00	0.00	0.00	100%			
74	J	561926.85	196132.79	5.00	108.00	0.00	0.00	0.00	100%			
75	J	561908.90	196096.61	5.00	205.00	0.00	0.00	0.00	100%			
76	J	561903.79	196073.91	5.00	324.00	0.00	0.00	0.00	100%			
77	J	561930.04	196084.71	5.00	280.00	0.00	0.00	0.00	100%			
78	J	561961.22	196148.21	5.00	107.00	0.00	0.00	0.00	100%			
79	J	561984.65	196151.83	5.00	176.00	0.00	0.00	0.00	100%			
80	J	561960.25	196316.30	5.00	94.00	0.00	0.00	0.00	100%			
81	J	562003.02	196321.15	5.00	101.00	0.00	0.00	0.00	100%			
82	J	562044.75	196327.74	5.00	106.00	0.00	0.00	0.00	100%			
83	J	562060.76	196315.14	5.00	187.00	0.00	0.00	0.00	100%			
84	J	562054.48	196282.49	5.00	164.00	0.00	0.00	0.00	100%			
85	J	562047.01	196341.15	5.00	8.00	0.00	0.00	0.00	100%			
86	J	561742.50	195928.86	5.00	65.00	0.00	0.00	0.00	100%			
87	J	561769.35	195914.72	5.00	43.00	0.00	0.00	0.00	100%			
88	J	561707.07	195856.99	5.00	237.00	0.00	0.00	0.00	75%			
89	J	561724.21	195837.98	5.00	65.00	0.00	0.00	0.00	75%			
90	J	562029.96	196116.78	5.00	254.00	0.00	0.00	0.00	100%			
91	J	562061.45	196111.01	5.00	269.00	0.00	0.00	0.00	100%			

Horizontal Illuminance (lux)

Grid 1



Results

Eav	3.50
Emin	0.79
Emax	9.25
Emin/Emax	0.09
Emin/Eav	0.23

Horizontal Illuminance (lux)

Grid 2



Grid 2

561996.83m

Results

Eav	3.33
Emin	0.82
Emax	8.18
Emin/Emax	0.10

Horizontal Illuminance (lux)

Grid 3

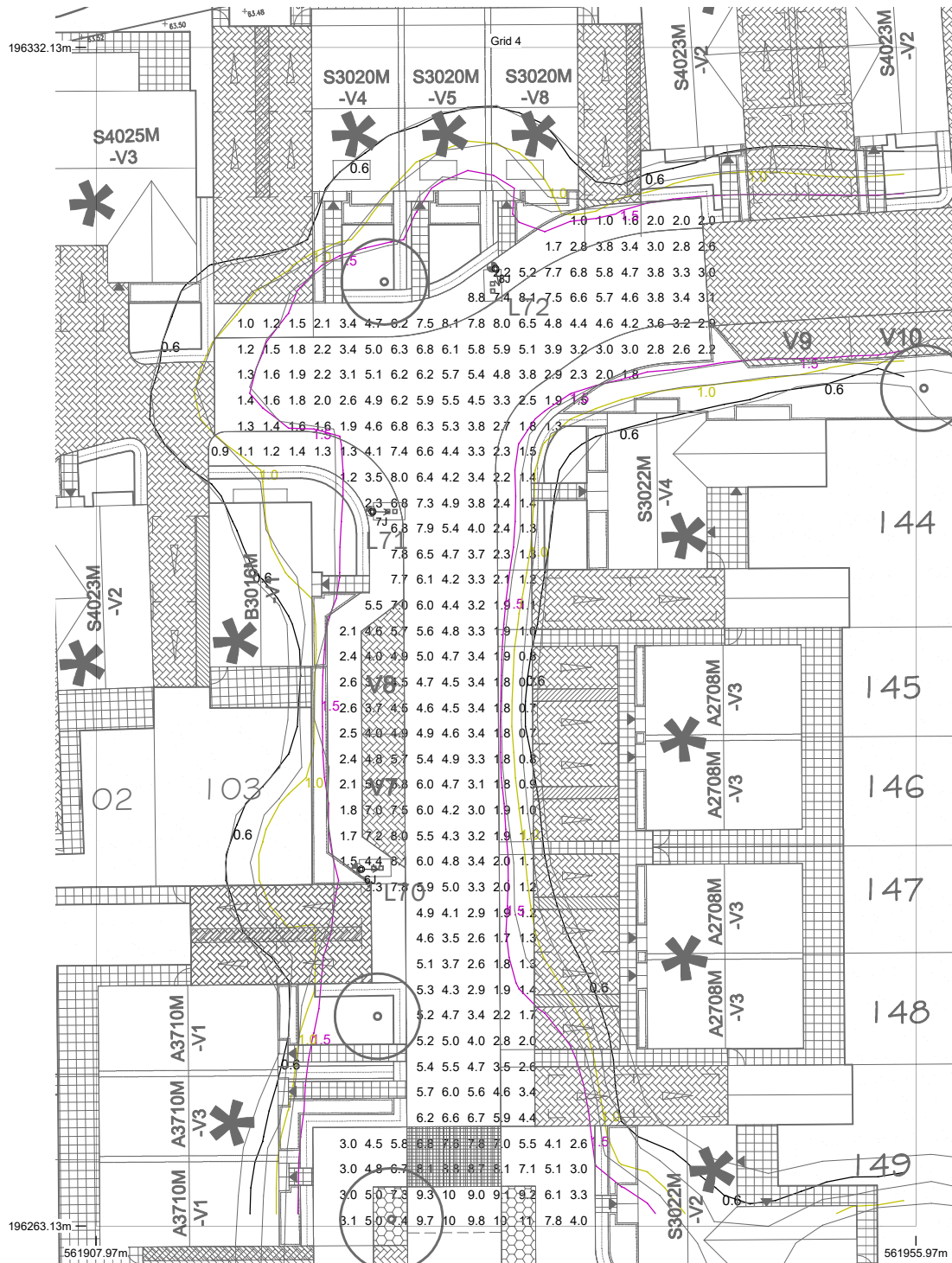


Results

Eav	3.23
Emin	0.69
Emax	8.42
Emin/Emax	0.08
Emin/Eav	0.21

Horizontal Illuminance (lux)

Grid 4



Results

Eav	4.13
Emin	0.70
Emax	11.16
Emin/Emax	0.06
Emin/Eav	0.17

Horizontal Illuminance (lux)

Grid 5

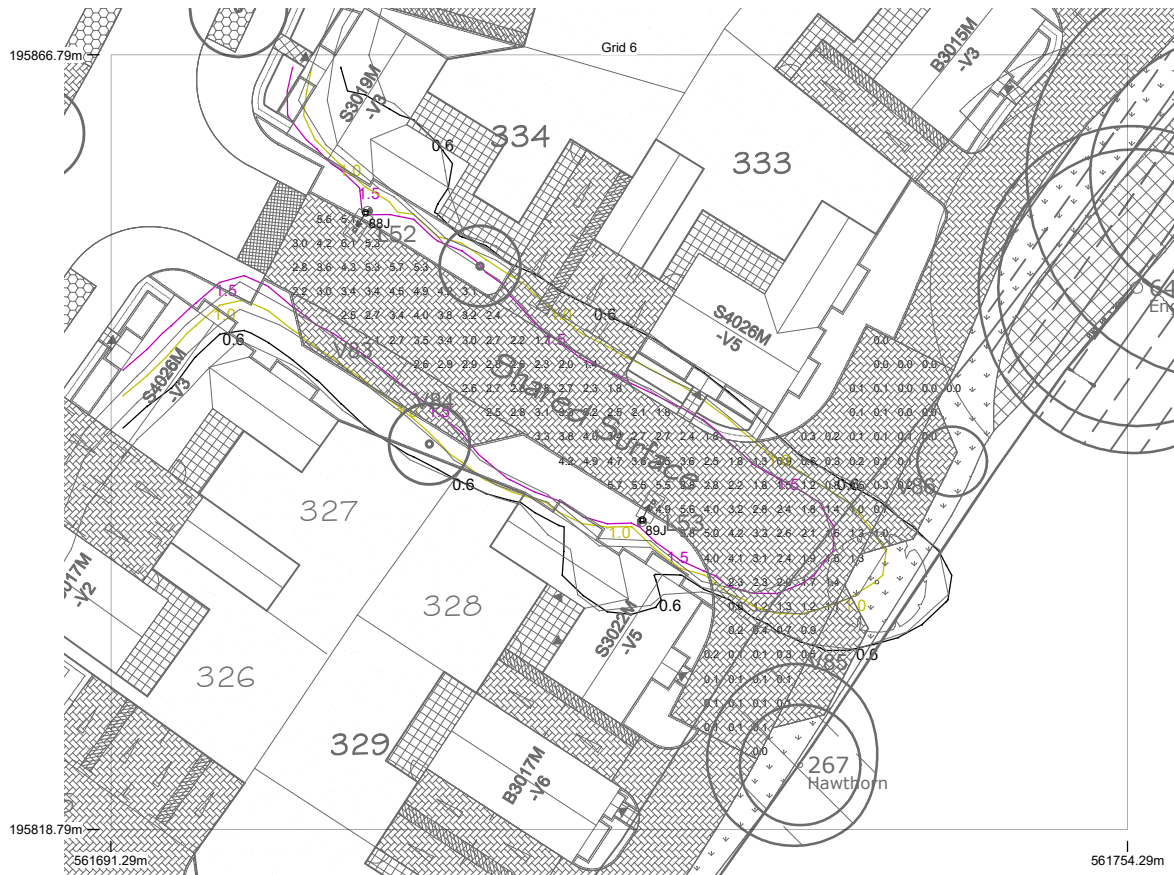


Results

Eav	3.25
Emin	0.89
E _{max}	7.59
E _{min} /E _{max}	0.12
E _{min} /E _{av}	0.27

Horizontal Illuminance (lux)

Grid 6

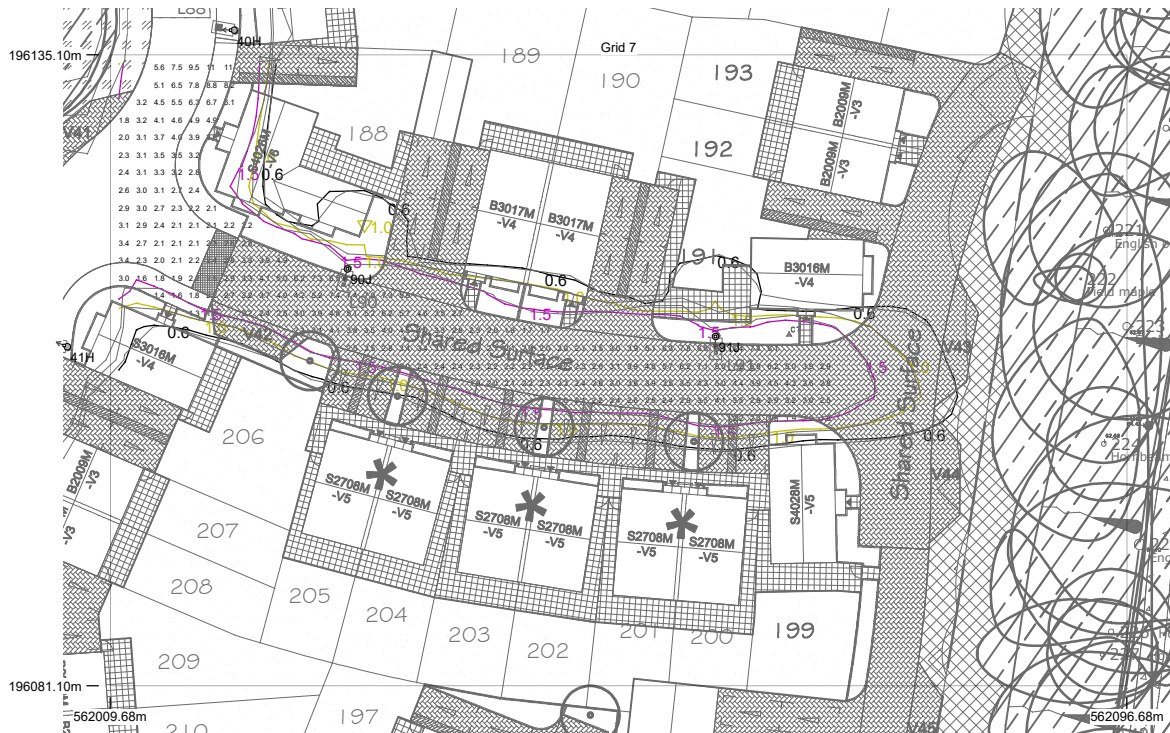


Results

Eav	2.17
Emin	0.03
Emax	6.08
Emin/Emax	0.00
Emin/Eav	0.01

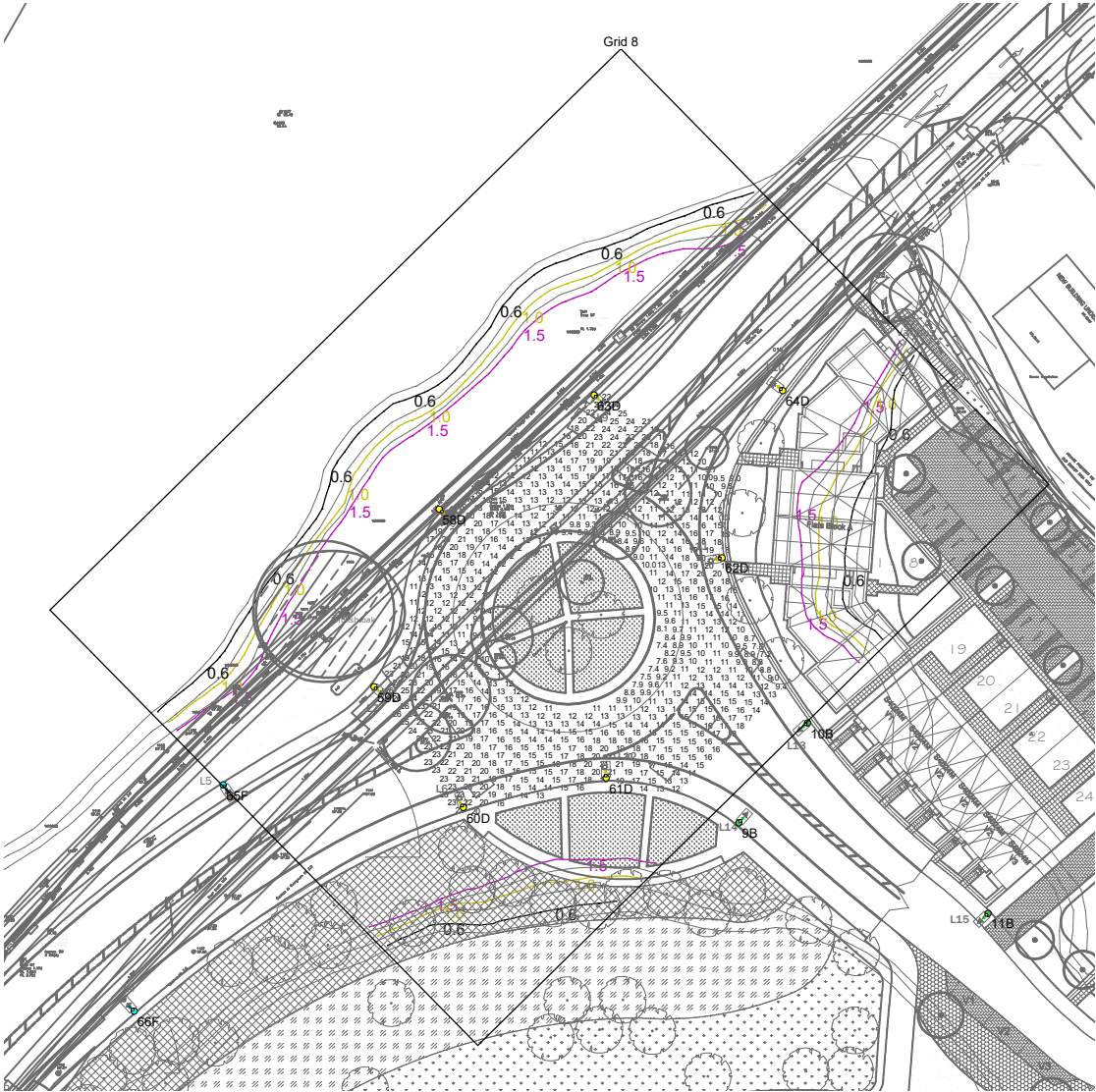
Horizontal Illuminance (lux)

Grid 7



Horizontal Illuminance (lux)

Grid 8

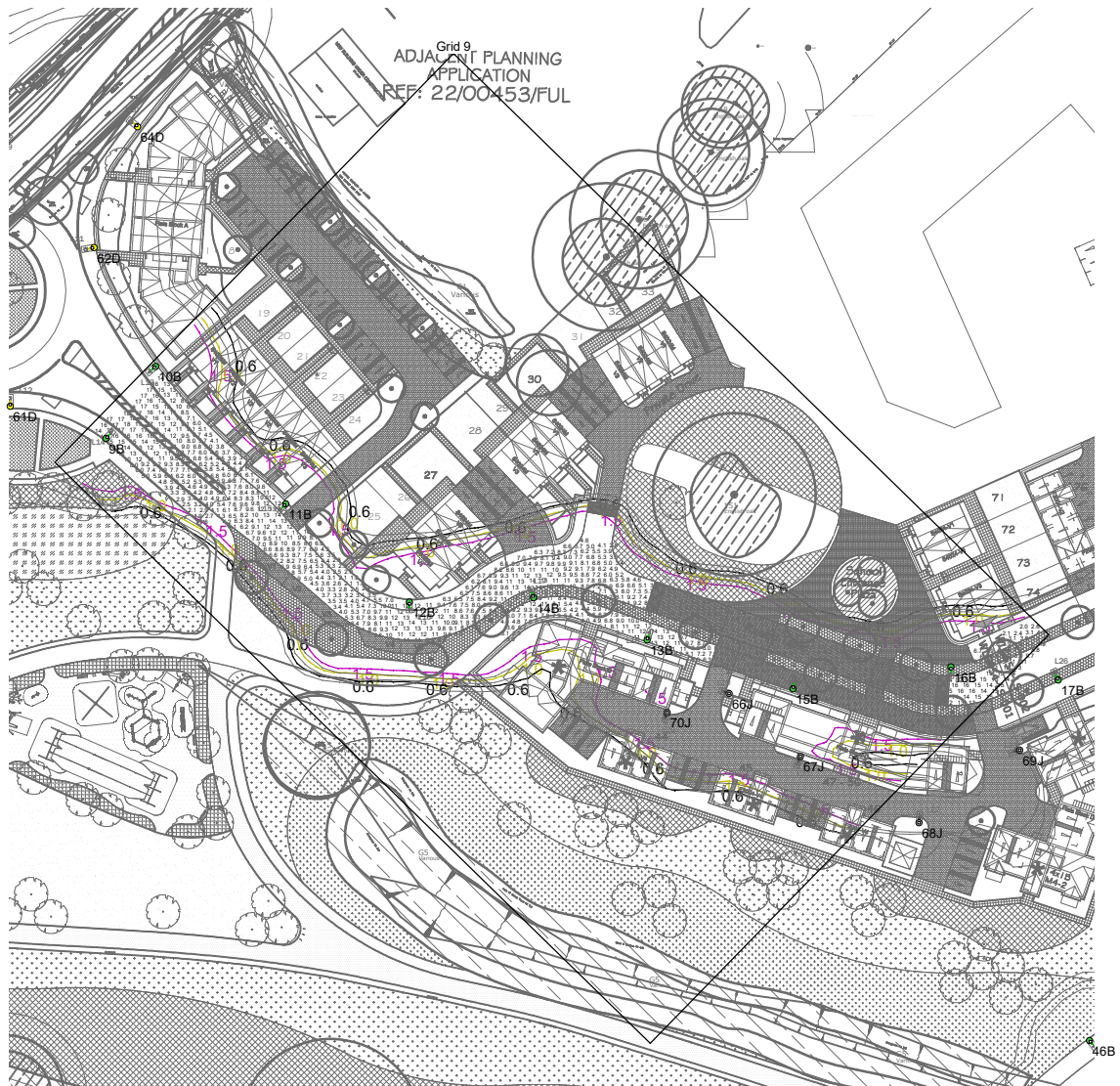


Results

Eav	15.04
Emin	7.23
Emax	26.35
Emin/Emax	0.27
Emin/Eav	0.48

Horizontal Illuminance (lux)

Grid 9

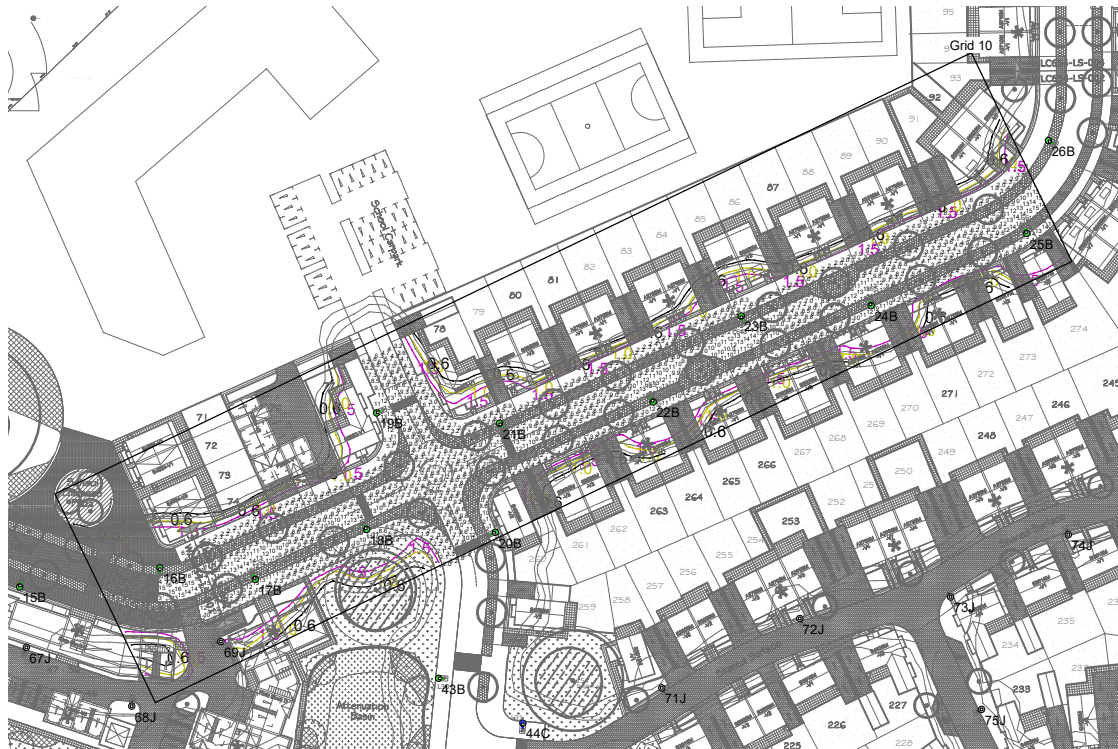


Results

Eav	8.53
Emin	1.65
Emax	17.95
Emin/Emax	0.09
Emin/Eav	0.19

Horizontal Illuminance (lux)

Grid 10



Results

Eav	7.55
Emin	1.63
Emax	16.01
Emin/Emax	0.10
Emin/Eav	0.22

Horizontal Illuminance (lux)

Grid 11



Results

Eav	7.72
Emin	1.55
Emax	16.54
Emin/Emax	0.09
Emin/Eav	0.20

Horizontal Illuminance (lux)

Grid 12

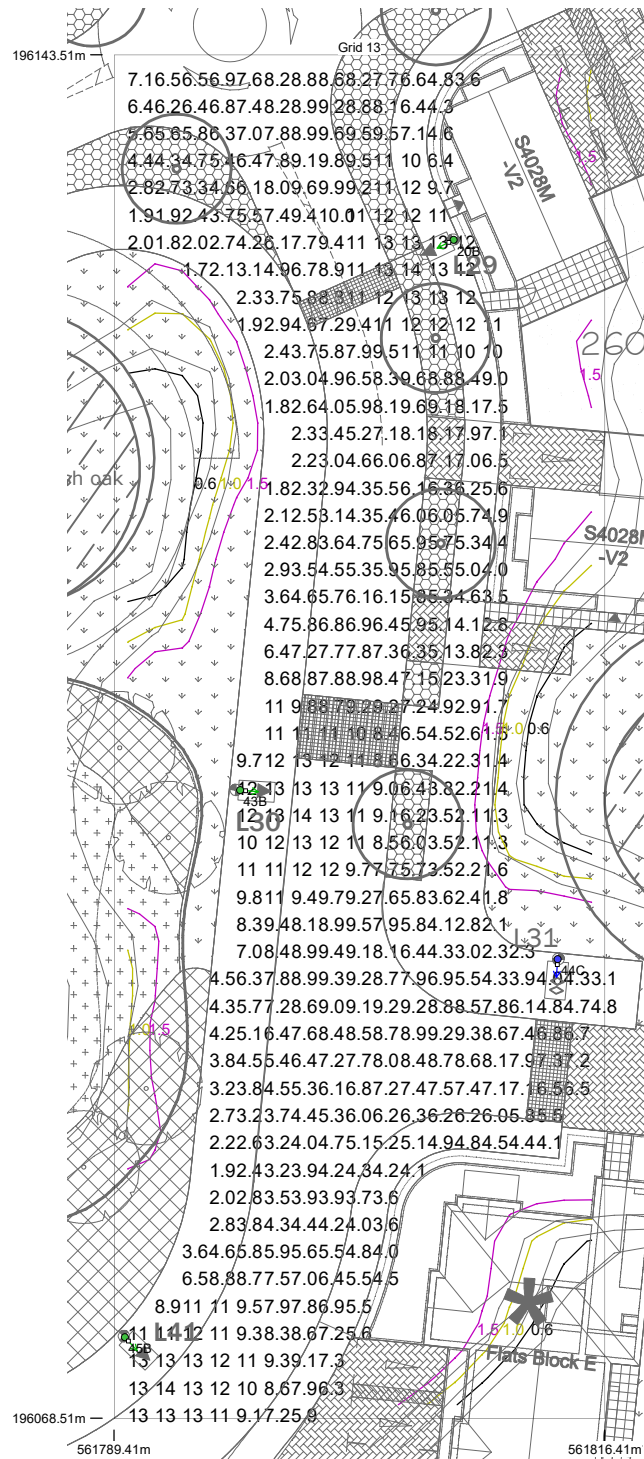


Results

Eav	5.10
Emin	1.25
Emax	15.03
Emin/Emax	0.08
Emin/Eav	0.24

Horizontal Illuminance (lux)

Grid 13



Results

Eav	6.85
Emin	1.25
Emax	13.92
Emin/Emax	0.09
Emin/Eav	0.18

Horizontal Illuminance (lux)

Grid 14

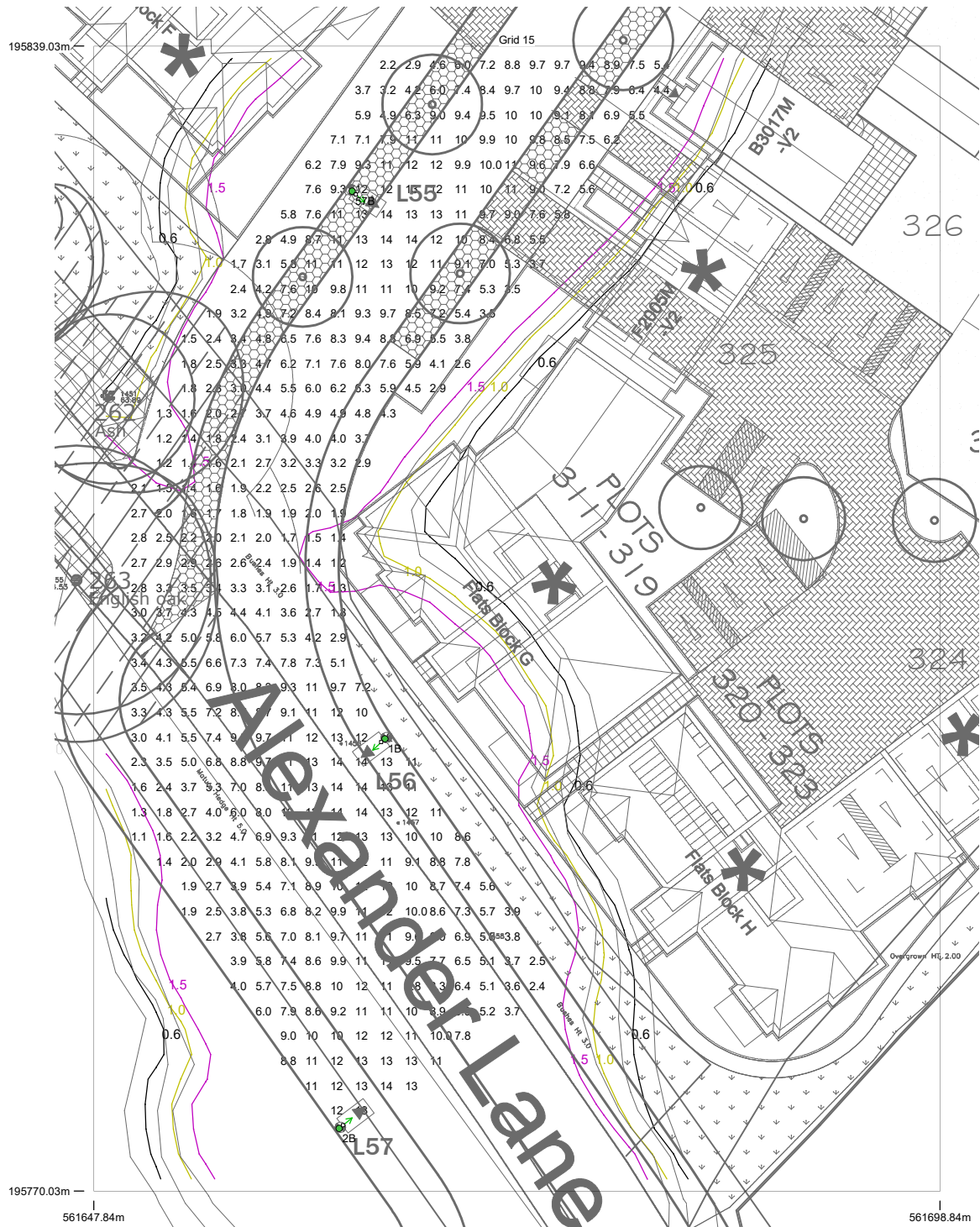


Results

Eav	6.90
Emin	1.03
Emax	14.26
Emin/Emax	0.07
Emin/Eav	0.15

Horizontal Illuminance (lux)

Grid 15



Results

Eav	6.91
Emin	1.10
Emax	14.33
Emin/Emax	0.08
Emin/Eav	0.16

Horizontal Illuminance (lux)

Grid 16



Results

Eav	3.25
Emin	0.68
Emax	7.37
Emin/Emax	0.09
Emin/Eav	0.21