

DATE: 16 December 2019
DESIGNER: AF.GS.
PROJECT No: SES 01819-2 Rev F
PROJECT NAME: Kilcock - Rycroft Homes Limited



Residential Rds designed in accordance with BS5489-1:2013 lighting class P4. S/P ratio 1.64.
Spine Roads designed to BS5489-1:2013 P3 (S/P Ratio 1.64)

Spine Rd's designed in accordance with BS5489-1:2015 Class P3 with S/P Ratio of 1.64

Rev A: Updated Layout, design amended to suit.
Rev B : Columns updated to suit layout
Rev C: Latest layout used and redesigned to suit.
Rev D: Updated site layout.
Rev E: Columns P3,P5,P7 moved.
Rev F: Blue site boundary line removed.

Outdoor Lighting Report

PREPARED BY: Sabre Electrical Services Ltd.
Unit 11,
Bellview Industrial Estate,
Tolka Valley Road,
Dublin 11
Phone Number: 01 8110875
Contact: Graham Sheehan
eMail: graham@sabrelighting.ie

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	(1). Kilcock - Residential...	239.00	-80.00	87.00	72.00	1.50	1.50
2	(2). Kilcock - Residential...	344.00	-39.00	200.00	275.00	1.49	1.49
3	(3).Kilcock - Residential ...	51.68	-269.27	220.00	313.00	1.50	1.50
4	(4). Kilcock - Residential...	426.46	226.08	319.00	101.00	1.50	1.49
5	Grid 5	324.00	-78.00	30.00	60.00	1.50	1.50
6	Grid 6	227.00	-128.00	114.00	27.00	1.50	1.50
7	Grid 7	212.00	-109.00	42.00	211.00	1.50	1.50
8	Grid 8	335.00	-87.00	174.00	48.00	1.50	1.50

Luminaire

Luminaire A Data



Supplier	C U Phosco
Type	P863-32-F2B-NW-F0500-51W
Lamp(s)	740P NW
Lamp Flux (klm)	6.09
File Name	P863-32-F2B-NW-F0500-51W.ies
Maintenance Factor	0.90
Imax70,80,90(cd/klm)	797.8, 97.0, 0.0
Lamp S/P Ratio	1.64
No. in Project	20

Luminaire B Data



Supplier	C U Phosco
Type	P852-12-P4-NW-CB0450-18W
Lamp(s)	740C NW
Lamp Flux (klm)	2.28
File Name	P852-12-P4-NW-CB0450-18W.ies
Maintenance Factor	0.83
Imax70,80,90(cd/klm)	760.6, 161.3, 0.8
Lamp S/P Ratio	1.64
No. in Project	77

Luminaire C Data



Supplier	C U Phosco
Type	P852-12-F2-NW-CB1000-38W
Lamp(s)	740C NW
Lamp Flux (klm)	4.38
File Name	P852-12-F2-NW-CB1000-38W.ies
Maintenance Factor	0.80
Imax70,80,90(cd/klm)	761.9, 260.5, 34.9
Lamp S/P Ratio	1.64
No. in Project	12

Luminaire E Data



Supplier	C U Phosco
Type	P852-6-R2B-NW-F0350-9W
Lamp(s)	740P NW
Lamp Flux (klm)	0.89
File Name	P852-6-R2B-NW-F0350-9W.ies
Maintenance Factor	0.83
Imax70,80,90(cd/klm)	688.5, 38.3, 4.6
Lamp S/P Ratio	1.64
No. in Project	10

Layout

ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
1	A	458.71	-128.86	8.00	231.00	0.00	0.00	0.50			
2	A	271.56	-92.31	8.00	287.00	0.00	0.00	0.50			
3	A	406.57	-98.43	8.00	243.00	0.00	0.00	0.50			

Layout Continued

ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
4	A	380.53	-85.90	8.00	250.00	0.00	0.00	0.50			
6	A	353.13	-76.04	8.00	252.00	0.00	0.00	0.50			
7	A	323.16	-73.66	8.00	285.00	0.00	0.00	0.50			
8	A	222.97	-103.22	8.00	29.00	0.00	0.00	0.50			
9	A	191.56	-21.95	6.00	206.00	0.00	0.00	0.50			
10	A	196.88	-51.10	8.00	31.00	0.00	0.00	0.50			
11	A	164.92	30.88	8.00	210.00	0.00	0.00	0.50			
12	A	329.27	-53.47	8.00	3.00	0.00	0.00	0.40			
13	B	335.27	-22.70	6.00	274.00	0.00	0.00	0.40			
14	A	467.17	-115.57	8.00	152.00	0.00	0.00	0.50			
15	B	516.30	-15.60	6.00	331.00	5.00	0.00	0.40			
16	B	509.39	-82.93	6.00	60.00	5.00	0.00	0.40			
17	B	525.70	-9.05	6.00	236.00	5.00	0.00	0.40			
18	C	497.23	-98.66	6.00	243.00	5.00	0.00	0.50			
19	B	490.34	-57.15	6.00	328.00	5.00	0.00	0.40			
21	B	459.53	-96.81	6.00	63.00	5.00	0.00	0.40			
24	B	438.02	-32.06	6.00	148.00	5.00	0.00	0.40			
25	B	536.55	48.40	6.00	52.00	0.00	0.00	0.40			
26	B	457.40	-1.35	6.00	149.00	5.00	0.00	0.40			
27	B	473.92	13.20	6.00	55.00	5.00	0.00	0.40			
28	B	499.64	-3.10	6.00	57.00	5.00	0.00	0.40			
29	B	421.46	-58.44	6.00	152.00	5.00	0.00	0.40			
30	B	502.50	26.05	6.00	327.00	5.00	0.00	0.40			
31	B	537.67	80.72	6.00	328.00	5.00	0.00	0.40			
32	B	541.03	117.47	6.00	35.00	5.00	0.00	0.40			
33	B	557.19	135.84	6.00	132.00	5.00	0.00	0.40			
34	B	520.34	53.47	6.00	326.00	5.00	0.00	0.40			
35	E	527.90	3.07	5.00	359.00	0.00	0.00	0.40			
36	E	535.93	28.18	5.00	322.00	0.00	0.00	0.40			
37	B	554.78	37.00	6.00	57.00	5.00	0.00	0.40			
38	B	580.04	65.42	6.00	139.00	5.00	0.00	0.40			
39	B	562.37	45.79	6.00	140.00	5.00	0.00	0.40			
40	E	596.40	104.38	5.00	320.00	0.00	0.00	0.40			
41	C	622.06	147.92	6.00	228.00	5.00	0.00	0.40			
42	A	432.81	-111.01	8.00	243.00	0.00	0.00	0.50			
43	A	298.83	-82.22	8.00	288.00	0.00	0.00	0.50			

Layout Continued

ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
44	B	225.14	-133.95	6.00	300.00	5.00	0.00	0.40			
45	B	448.02	-75.71	6.00	253.00	5.00	0.00	0.40			
46	B	487.34	-83.50	6.00	150.00	5.00	0.00	0.40			
47	A	479.43	-148.76	8.00	240.00	0.00	0.00	0.50			
50	B	415.88	-76.05	6.00	65.00	5.00	0.00	0.40			
51	A	217.66	-73.04	8.00	214.00	0.00	0.00	0.50			
52	A	170.59	1.02	8.00	22.00	0.00	0.00	0.50			
53	A	142.68	53.14	8.00	65.00	0.00	0.00	0.50			
54	A	138.22	86.80	8.00	218.00	5.00	0.00	0.50			
55	B	224.00	-175.22	6.00	28.00	5.00	0.00	0.40			
56	B	211.35	-184.92	6.00	299.00	5.00	0.00	0.40			
57	B	181.47	-199.92	6.00	295.00	5.00	0.00	0.40			
58	B	161.06	-187.42	6.00	220.00	5.00	0.00	0.40			
59	B	145.75	-164.05	6.00	208.00	5.00	0.00	0.40			
60	B	131.50	-135.56	6.00	210.00	5.00	0.00	0.40			
61	B	136.55	-117.07	6.00	116.00	5.00	0.00	0.40			
62	B	161.35	-104.52	6.00	119.00	5.00	0.00	0.40			
63	B	209.00	-129.91	6.00	210.00	5.00	0.00	0.40			
64	B	199.54	-142.93	6.00	30.00	5.00	0.00	0.40			
65	B	185.48	-115.00	6.00	16.00	5.00	0.00	0.40			
66	B	193.48	-99.48	6.00	209.00	5.00	0.00	0.40			
67	B	168.54	-81.33	6.00	21.00	5.00	0.00	0.40			
68	B	170.09	-55.43	6.00	209.00	5.00	0.00	0.40			
69	B	151.68	-48.02	6.00	26.00	5.00	0.00	0.40			
70	B	148.22	-10.22	6.00	205.00	5.00	0.00	0.40			
71	B	64.42	-68.93	6.00	224.00	5.00	0.00	0.40			
72	B	168.77	-32.15	8.00	114.00	5.00	0.00	0.40			
73	B	101.66	-49.41	6.00	298.00	5.00	0.00	0.40			
74	C	536.96	183.55	6.00	129.00	5.00	0.00	0.40			
75	B	116.24	-105.31	6.00	215.00	5.00	0.00	0.40			
76	B	79.21	-68.59	6.00	310.00	5.00	0.00	0.40			
77	B	96.29	-84.92	6.00	227.00	5.00	0.00	0.40			
78	B	129.82	-35.16	6.00	297.00	5.00	0.00	0.40			
79	B	130.57	-6.46	6.00	30.00	5.00	0.00	0.40			
80	B	130.33	25.70	6.00	198.00	5.00	0.00	0.40			
81	B	113.82	44.97	6.00	214.00	5.00	0.00	0.40			

Layout Continued

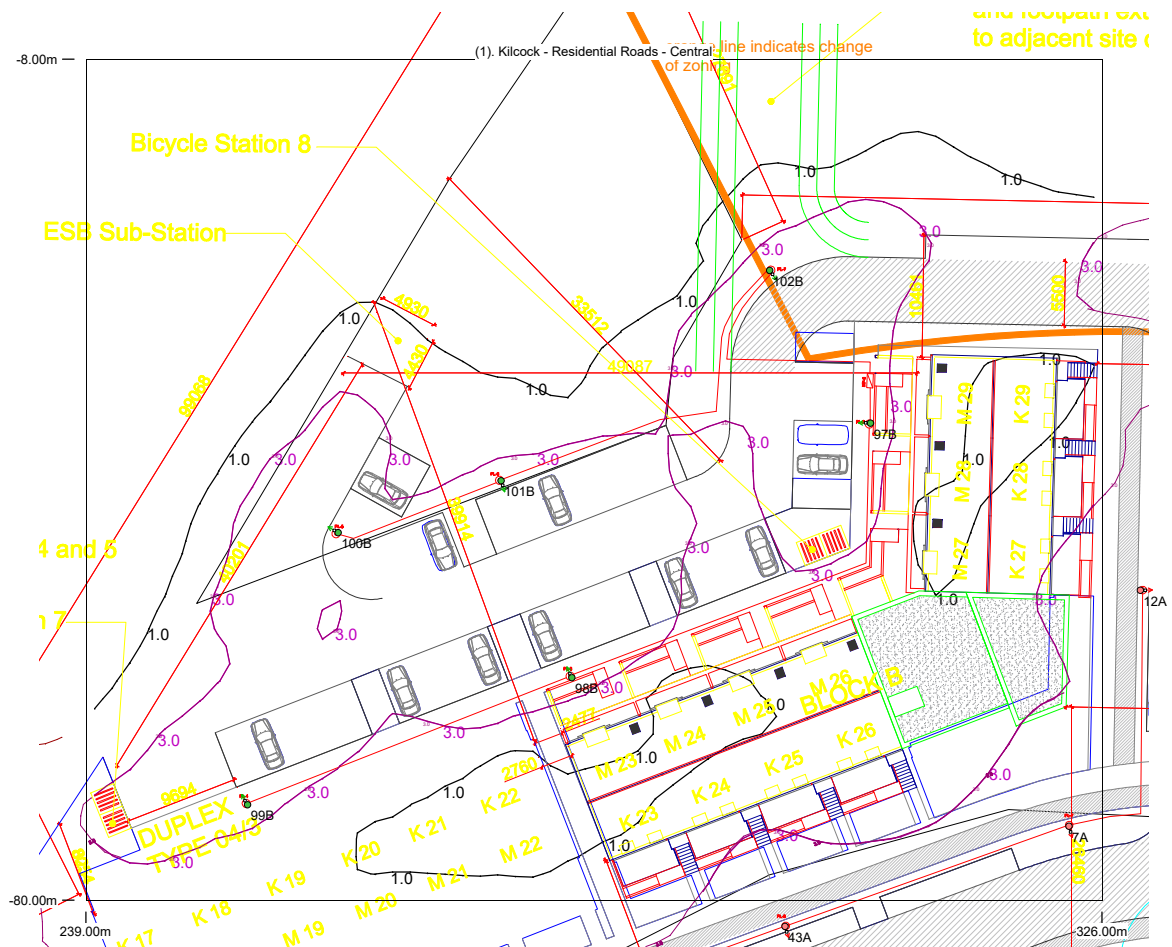
ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
82	B	103.23	17.14	6.00	114.00	5.00	0.00	0.40			
83	B	79.94	5.36	6.00	119.00	5.00	0.00	0.40			
84	B	50.93	-6.88	6.00	120.00	5.00	0.00	0.40			
85	B	28.38	-21.32	6.00	138.00	5.00	0.00	0.40			
86	B	1.78	-9.37	6.00	227.00	5.00	0.00	0.40			
87	B	33.00	-38.55	6.00	227.00	5.00	0.00	0.40			
88	B	374.23	-28.27	6.00	229.00	5.00	0.00	0.40			
89	B	401.52	-49.13	6.00	242.00	5.00	0.00	0.40			
90	B	377.87	-58.61	6.00	65.00	5.00	0.00	0.40			
91	B	365.14	-33.83	6.00	0.00	5.00	0.00	0.40			
92	B	581.09	157.71	6.00	134.00	5.00	0.00	0.40			
93	C	603.07	168.96	6.00	227.00	5.00	0.00	0.40			
94	C	530.05	229.46	6.00	232.00	5.00	0.00	0.40			
95	C	572.71	185.37	6.00	227.00	5.00	0.00	0.40			
96	C	552.42	206.80	6.00	222.00	5.00	0.00	0.40			
97	B	306.16	-39.15	6.00	179.00	5.00	0.00	0.40			
98	B	280.60	-60.94	6.00	114.00	5.00	0.00	0.40			
99	B	252.82	-71.82	6.00	119.00	5.00	0.00	0.40			
100	B	260.60	-48.52	6.00	151.00	5.00	0.00	0.40			
101	B	274.54	-44.08	6.00	288.00	5.00	0.00	0.40			
102	B	297.54	-26.08	6.00	304.00	5.00	0.00	0.40			
105	C	504.85	215.78	6.00	133.00	5.00	0.00	0.40			
106	C	509.31	249.91	6.00	225.00	5.00	0.00	0.40			
107	C	487.32	271.90	6.00	227.00	5.00	0.00	0.40			
108	C	467.71	252.29	6.00	133.00	5.00	0.00	0.40			
109	C	497.49	-98.28	6.00	50.00	5.00	0.00	0.40			
103	E	612.64	126.63	5.00	304.00	0.00	0.00	0.40			
111	E	572.47	85.79	5.00	312.00	0.00	0.00	0.40			
112	B	609.02	97.54	6.00	142.00	5.00	0.00	0.40			
113	B	636.87	125.37	6.00	133.00	5.00	0.00	0.40			
114	B	503.45	-36.55	6.00	330.00	5.00	0.00	0.40			
116	B	582.01	29.49	6.00	225.00	5.00	0.00	0.40			
117	B	547.69	-33.32	6.00	63.00	5.00	0.00	0.40			
113	B	159.82	-13.45	6.00	297.00	5.00	0.00	0.40			
111	B	229.16	-145.63	6.00	111.00	5.00	0.00	0.40			
112	E	559.00	63.47	5.00	334.00	0.00	0.00	0.40			

Layout Continued

ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
112	B	551.67	103.73	6.00	328.00	5.00	0.00	0.40			
113	E	648.74	138.89	5.00	219.00	0.00	0.00	0.40			
114	E	664.61	125.19	5.00	232.00	0.00	0.00	0.40			
115	E	475.33	289.15	5.00	348.00	0.00	0.00	0.40			
116	B	50.27	-55.38	6.00	227.00	5.00	0.00	0.40			
117	B	-15.89	8.25	6.00	287.00	5.00	0.00	0.40			
118	E	237.78	-124.01	5.00	227.00	0.00	0.00	0.40			
119	A	249.71	-100.34	8.00	287.00	0.00	0.00	0.50			

Horizontal Illuminance (lux)

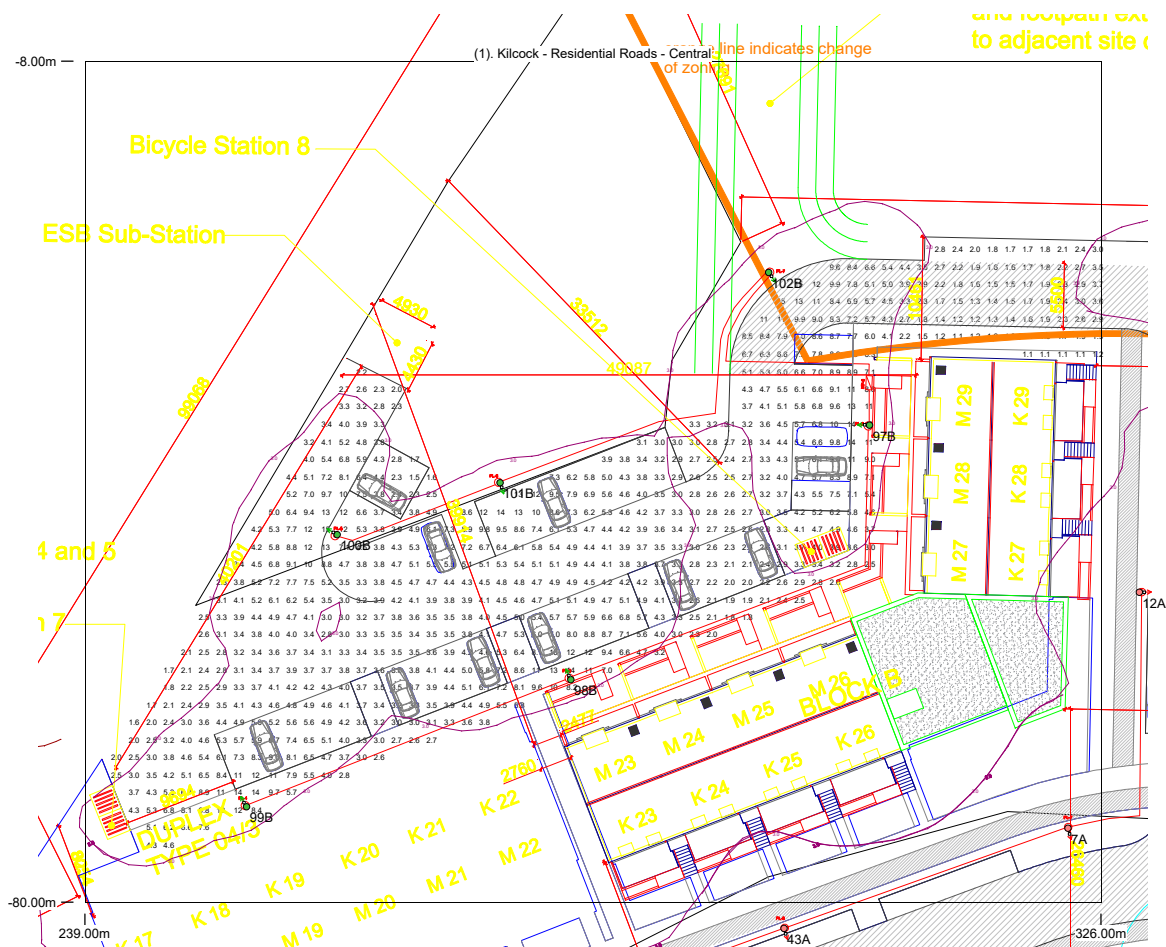
(1). Kilcock - Residential Roads - Central



Results

Eav	4.87
Emin	1.07
Emax	15.21
Emin/Emax	0.07
Emin/Eav	0.22

(1). Kilcock - Residential Roads - Central



Eav	4.87
Emin	1.07
E _{max}	15.21
Emin/E _{max}	0.07
Emin/Eav	0.22

Horizontal Illuminance (lux)

(2). Kilcock - Residential Roads - North East (A)



Results

Eav	5.04
Emin	0.99
Emax	23.26
Emin/Emax	0.04
Emin/Eav	0.20

(2). Kilcock - Residential Roads - North East (A)



Eav	5.04
Emin	0.99
Emax	23.26
Emin/Emax	0.04
Emin/Eav	0.20

(3).Kilcock - Residential Roads- North West

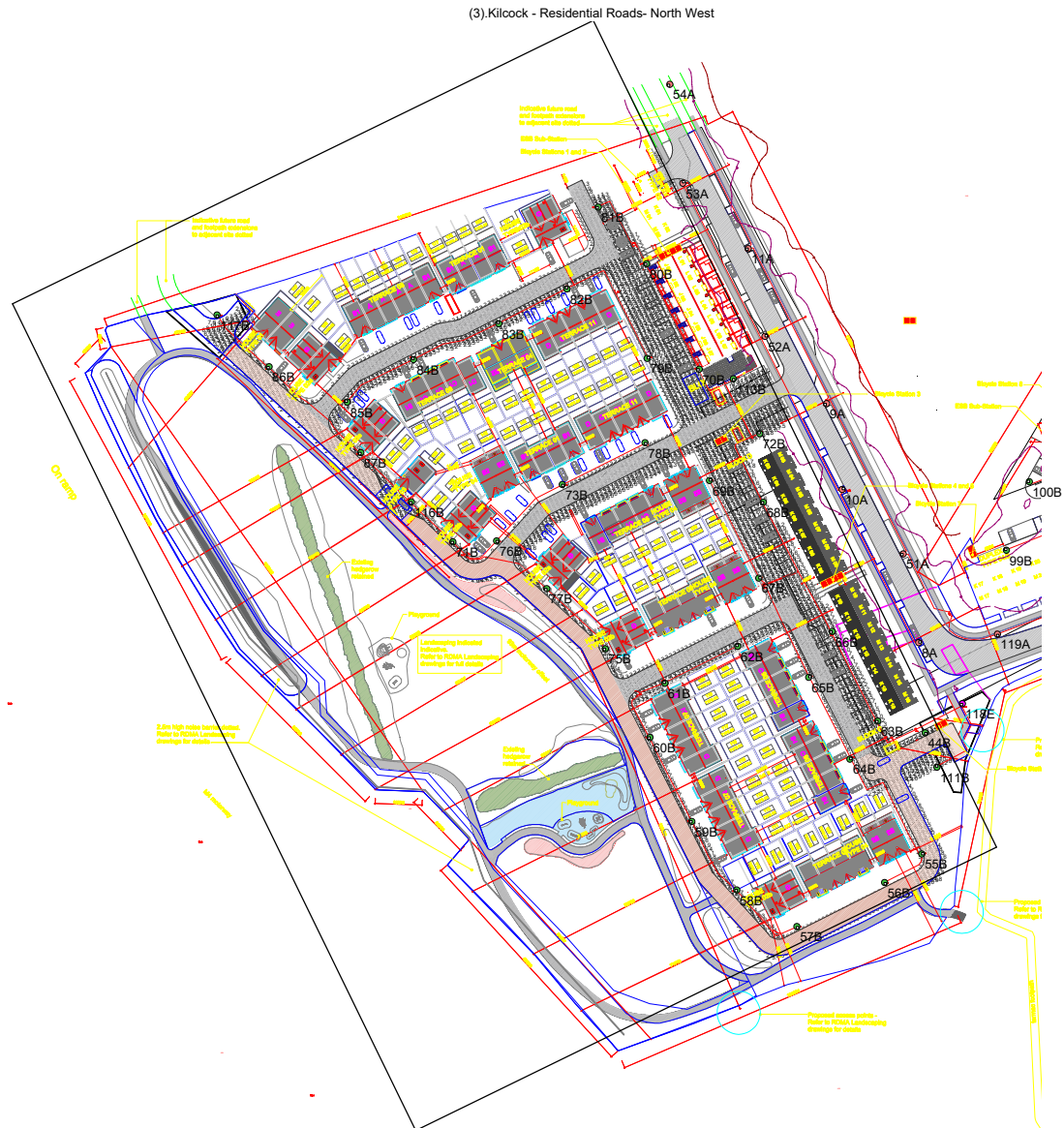
(3).Kilcock - Residential Roads- North West



Eav	5.27
Emin	1.16
Emax	15.23
Emin/Emax	0.08
Emin/Eav	0.22

Horizontal Illuminance (lux)

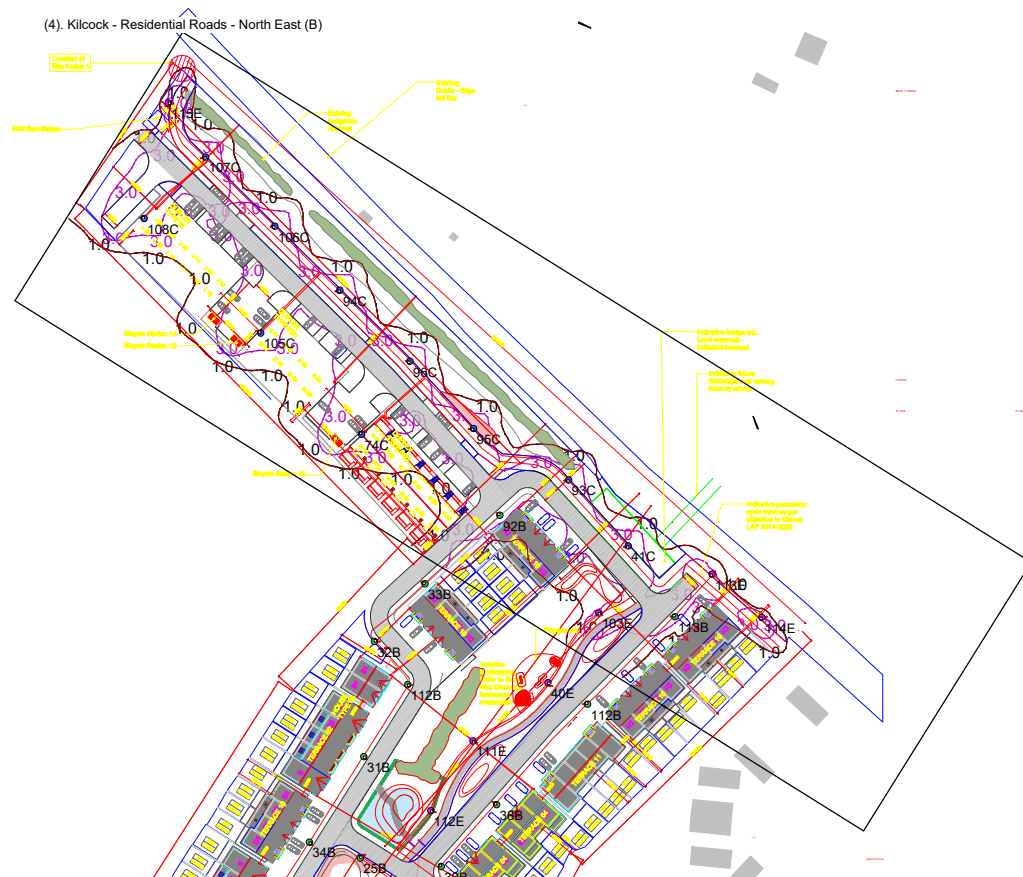
(3).Kilcock - Residential Roads- North West



Results

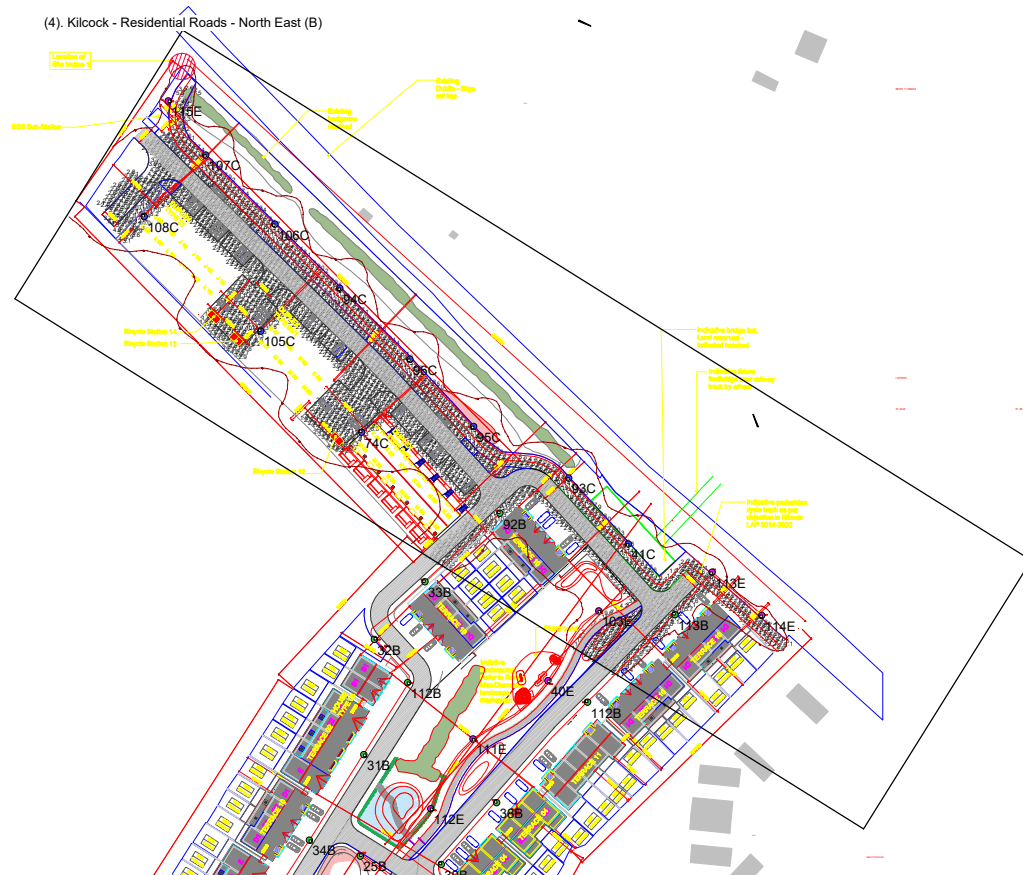
Eav	5.27
Emin	1.16
Emax	15.23
Emin/Emax	0.08
Emin/Eav	0.22

(4). Kilcock - Residential Roads - North East (B)



Eav	4.77
Emin	1.02
E _{max}	16.16
Emin/E _{max}	0.06
Emin/Eav	0.21

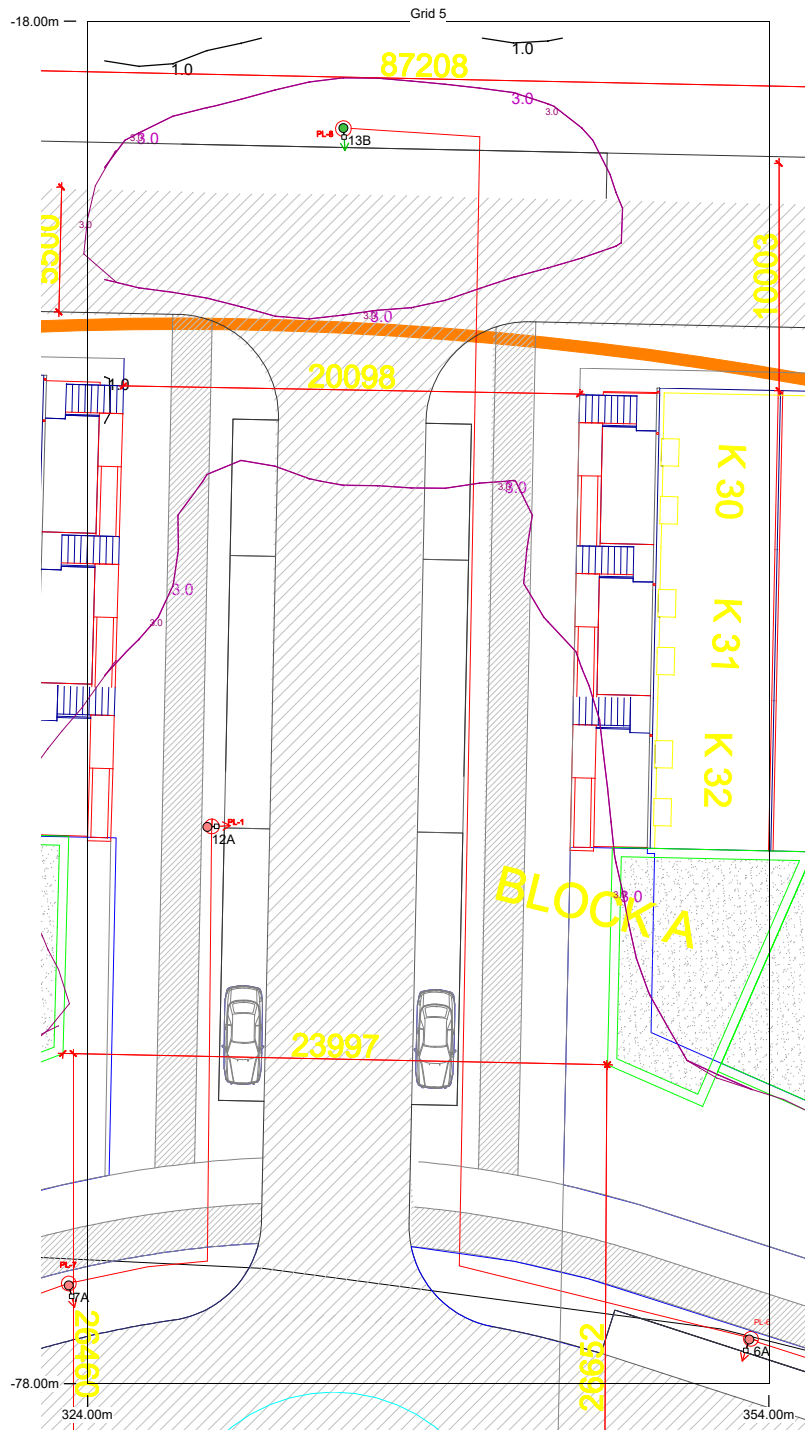
(4). Kilcock - Residential Roads - North East (B)



Eav	4.77
Emin	1.02
E _{max}	16.16
Emin/E _{max}	0.06
Emin/Eav	0.21

Horizontal Illuminance (lux)

Grid 5

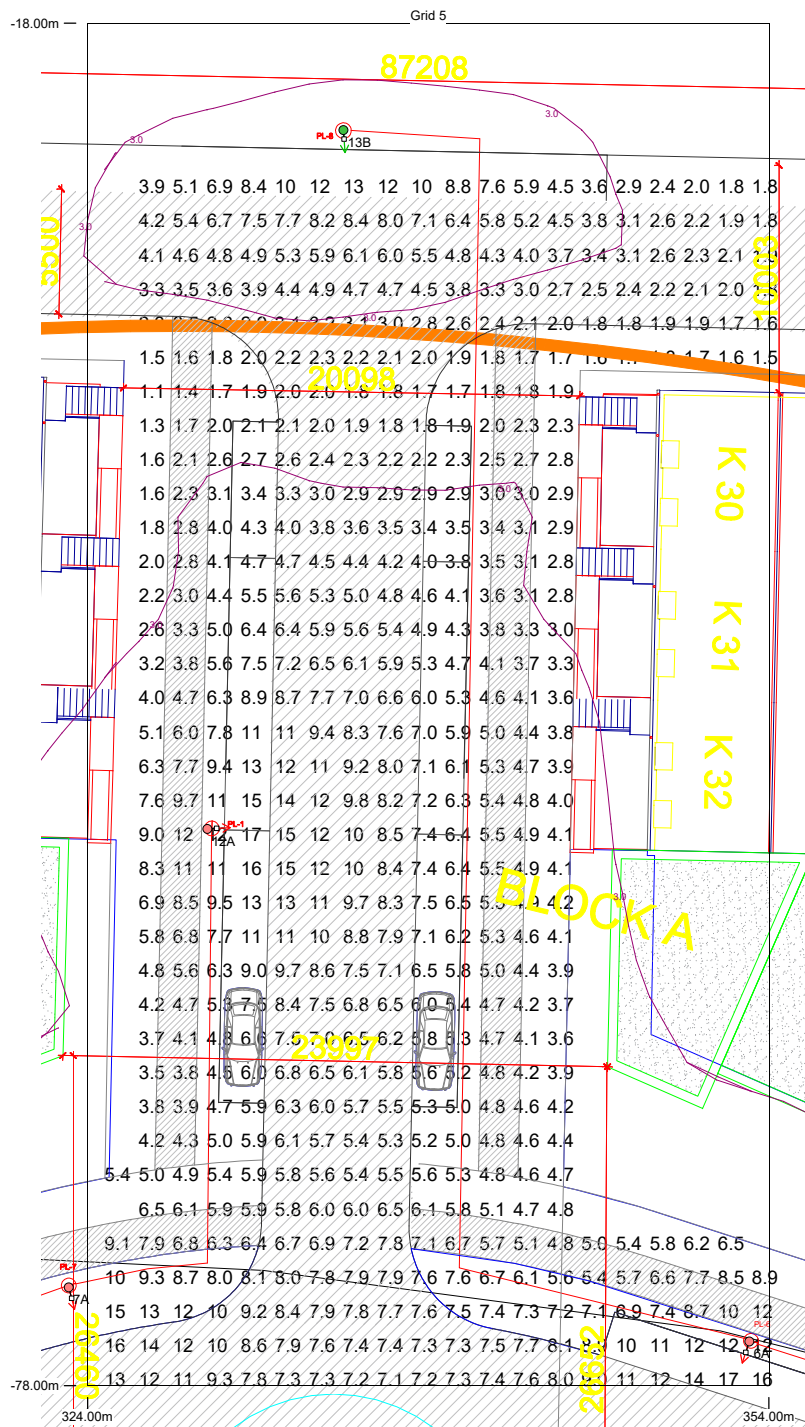


Results

Eav	5.75
Emin	1.13
Emax	16.94
Emin/Emax	0.07
Emin/Eav	0.20

Horizontal Illuminance (lux)

Grid 5

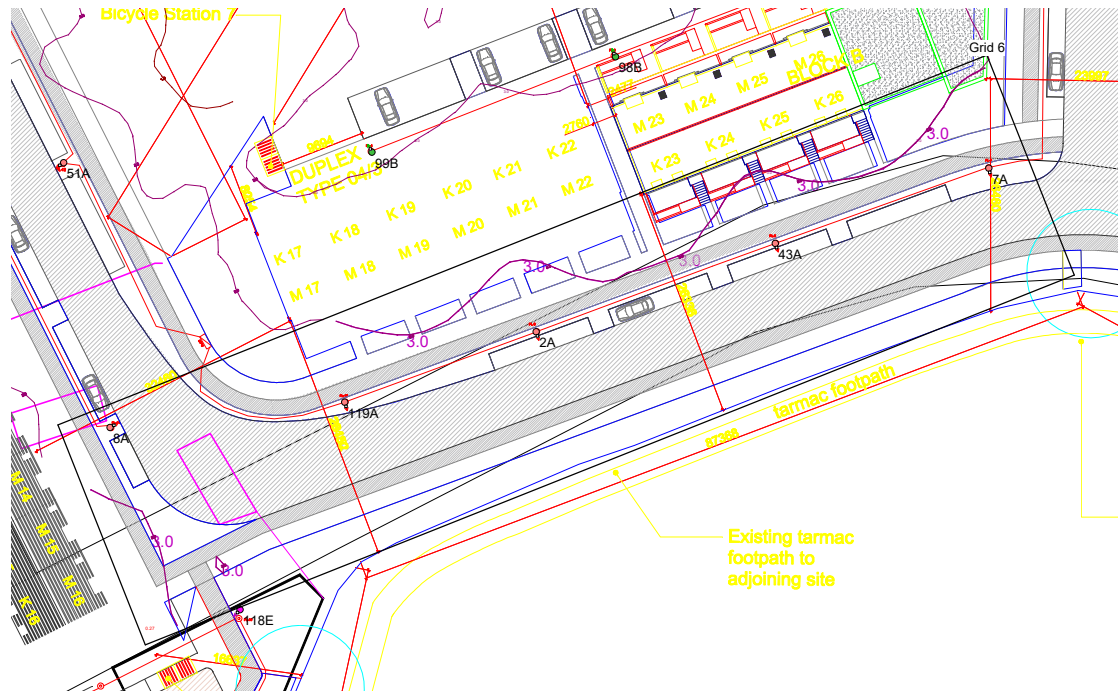


Results

Eav	5.75
Emin	1.13
E _{max}	16.94
Emin/E _{max}	0.07
Emin/Eav	0.20

Horizontal Illuminance (lux)

Grid 6

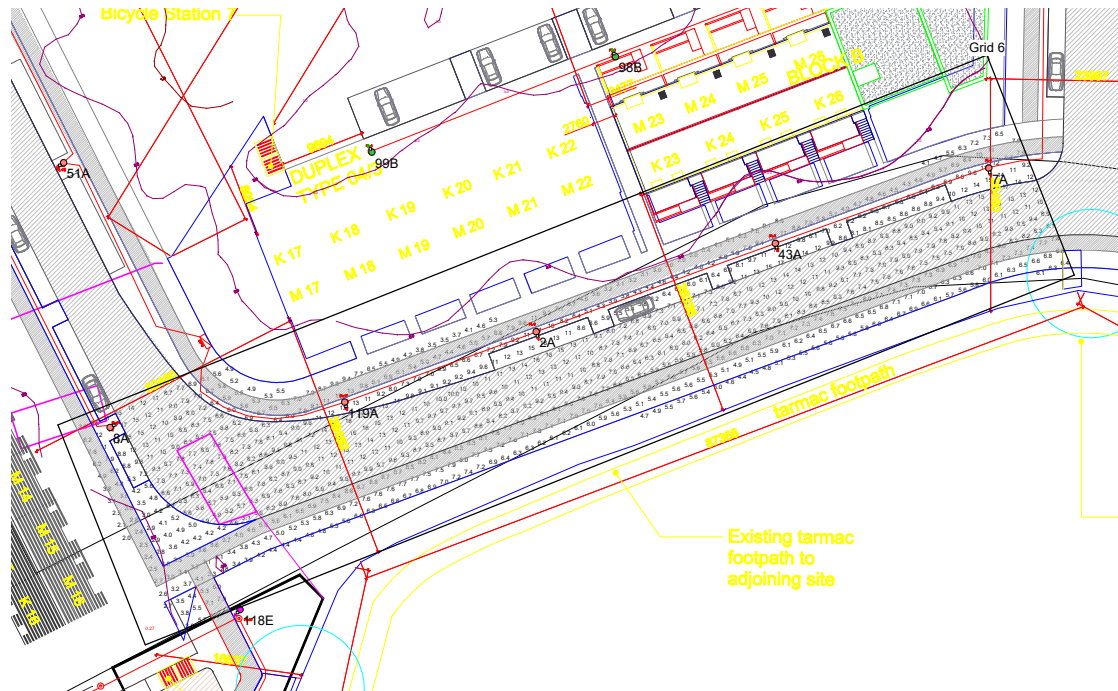


Results

Eav	7.77
Emin	2.03
Emax	18.29
Emin/Emax	0.11
Emin/Eav	0.26

Horizontal Illuminance (lux)

Grid 6

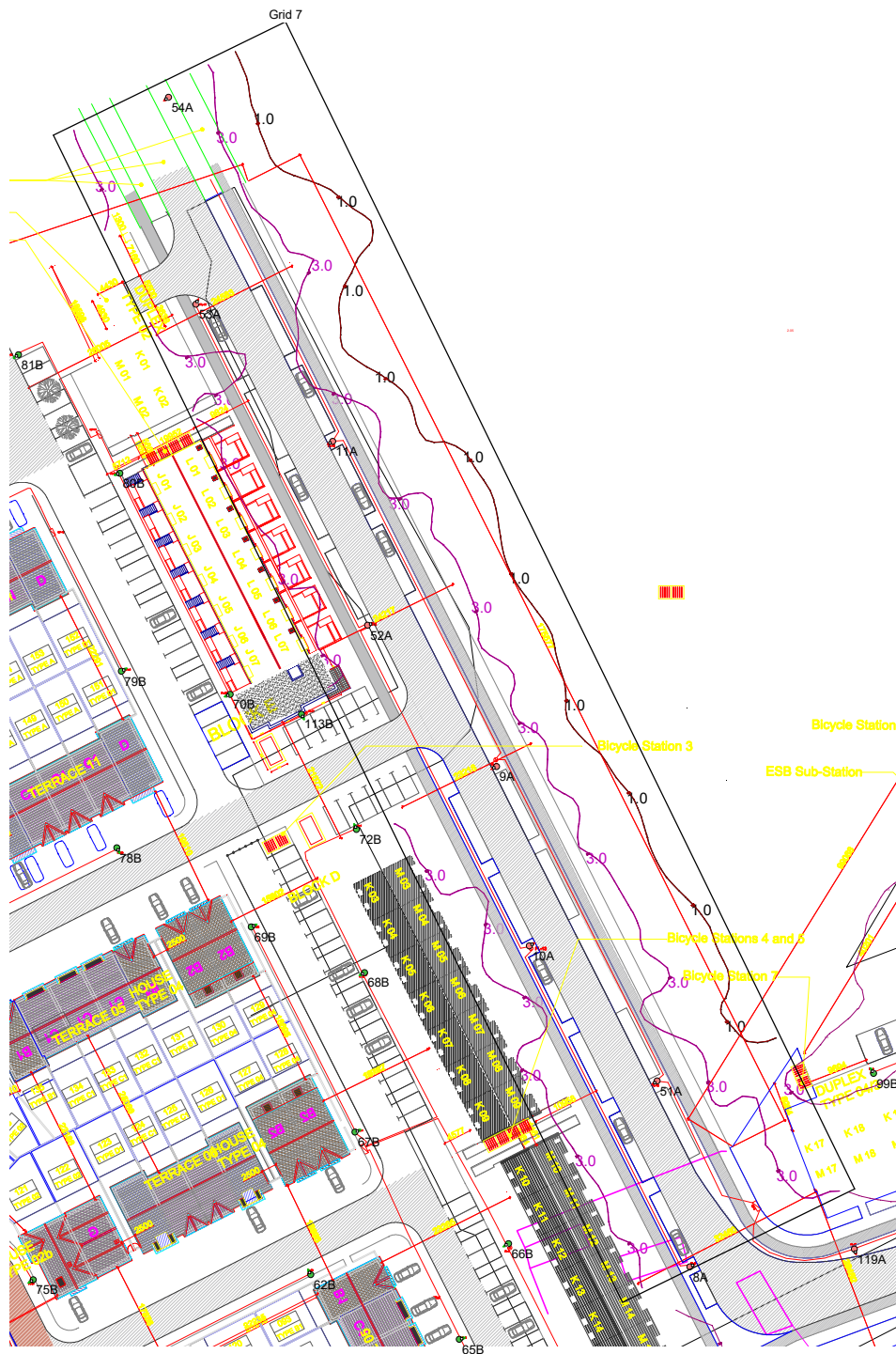


Results

Eav	7.77
Emin	2.03
Emax	18.29
Emin/Emax	0.11
Emin/Eav	0.26

Horizontal Illuminance (lux)

Grid 7

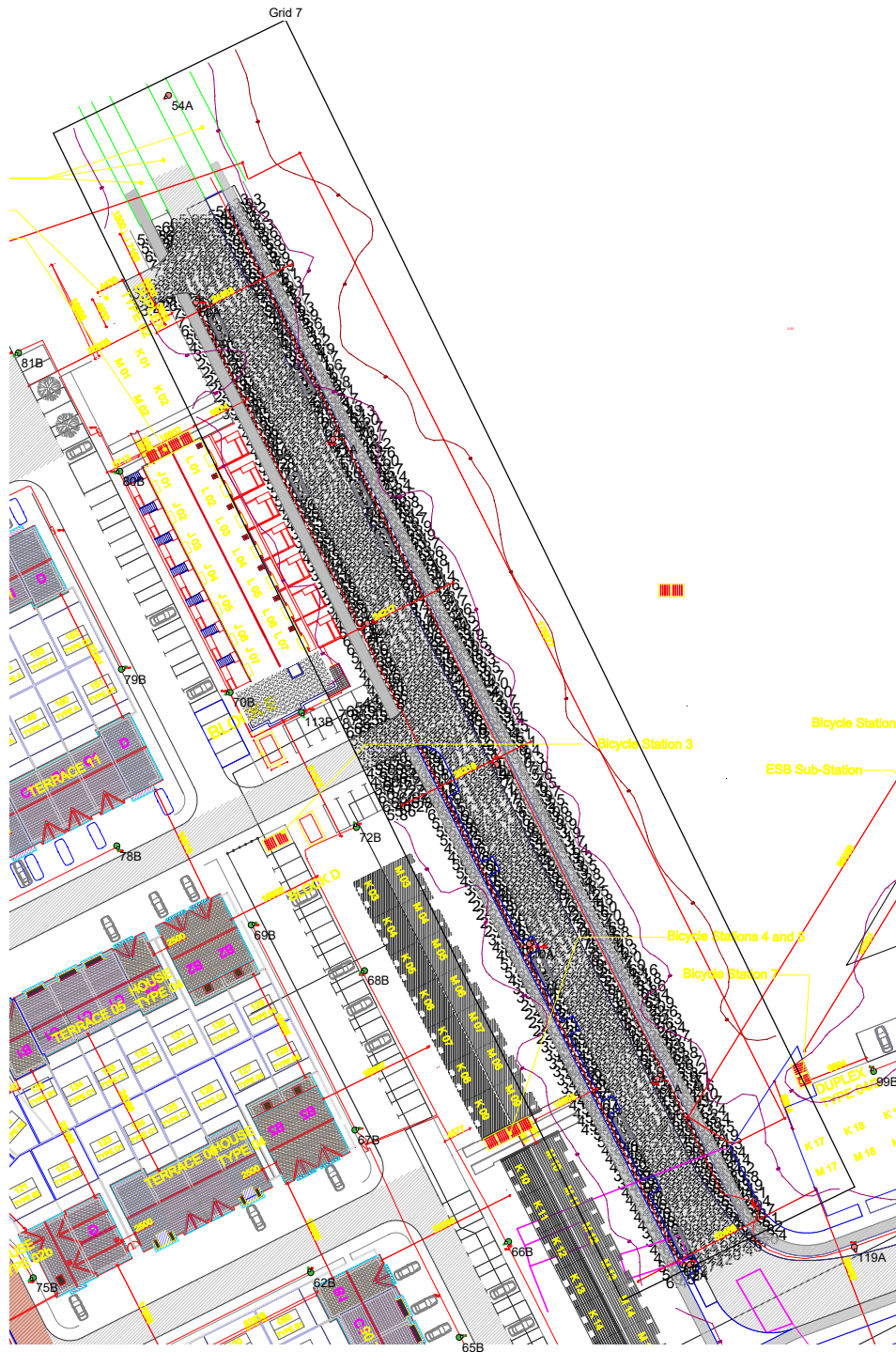


Results

Eav	6.68
Emin	1.60
Emax	29.44
Emin/Emax	0.05
Emin/Eav	0.24

Horizontal Illuminance (lux)

Grid 7

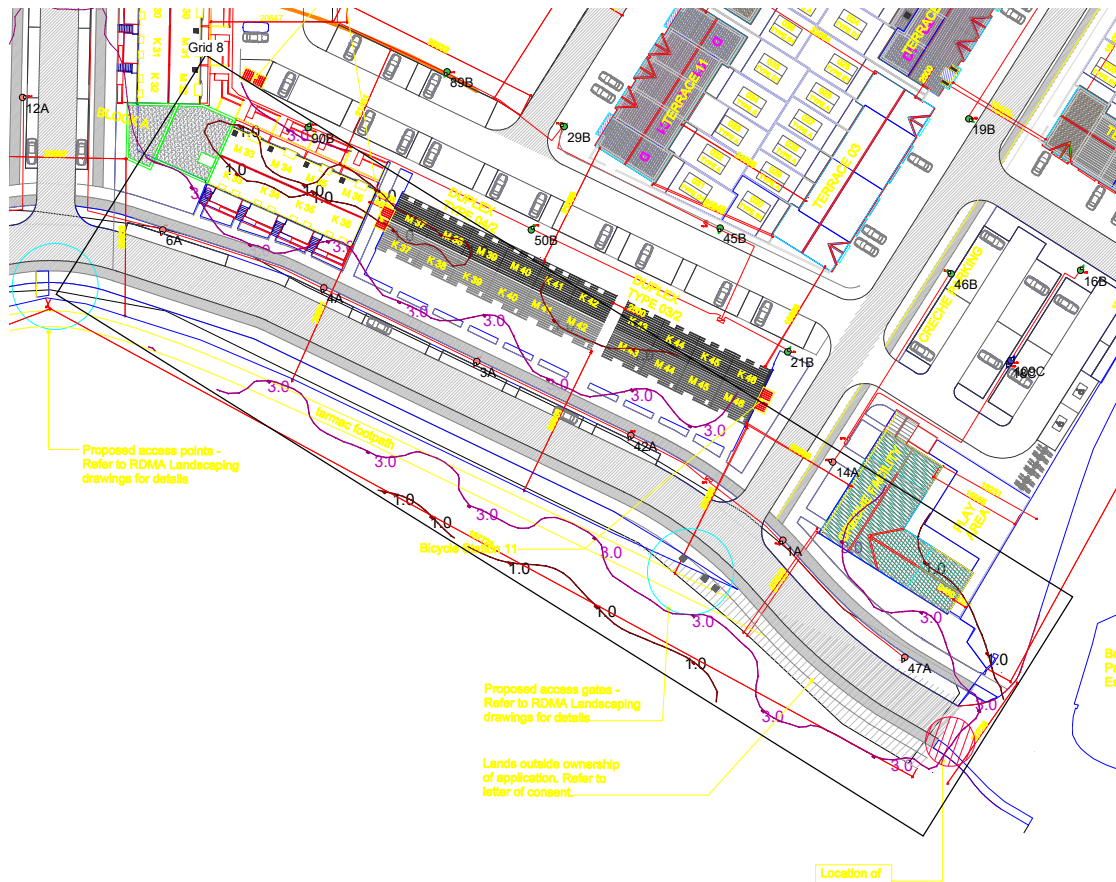


Results

Eav	6.68
Emin	1.60
Emax	29.44
Emin/Emax	0.05
Emin/Eav	0.24

Horizontal Illuminance (lux)

Grid 8

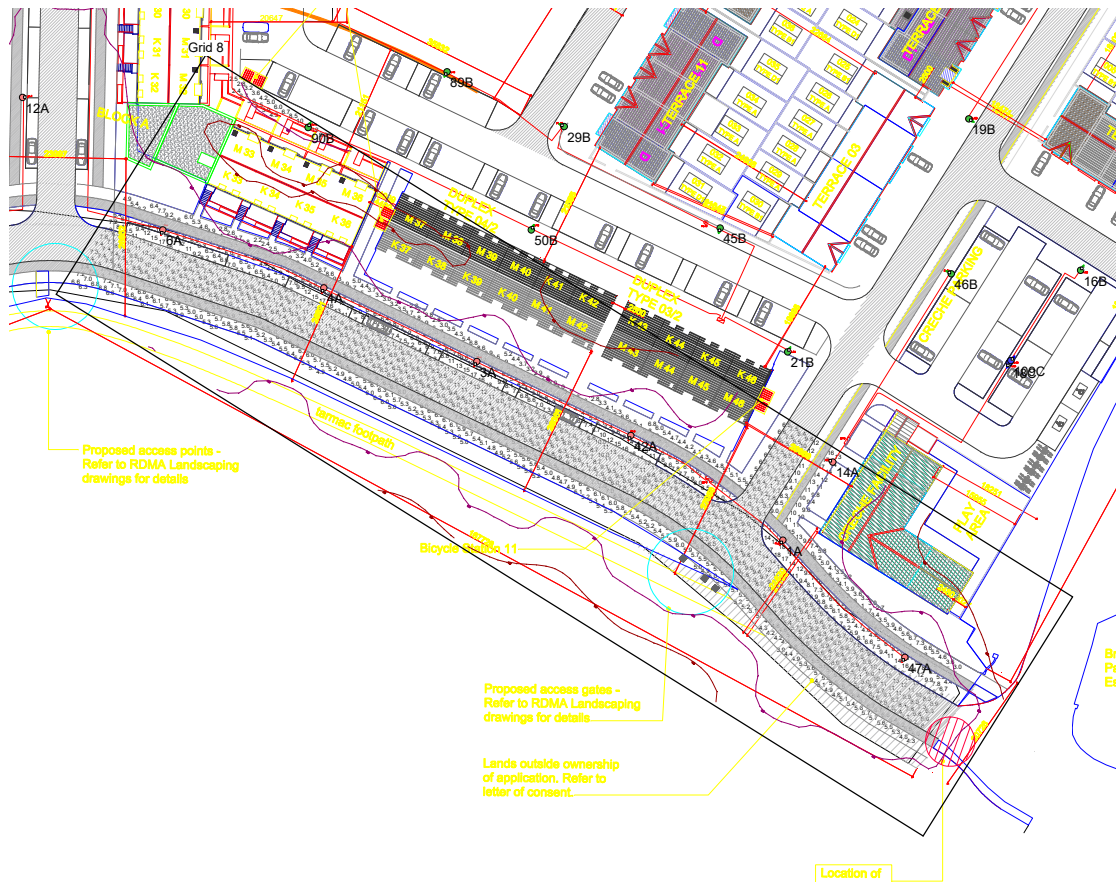


Results

Eav	7.43
Emin	2.25
Emax	17.90
Emin/Emax	0.13
Emin/Eav	0.30

Horizontal Illuminance (lux)

Grid 8



Results

Eav	7.43
Emin	2.25
Emax	17.90
Emin/Emax	0.13
Emin/Eav	0.30