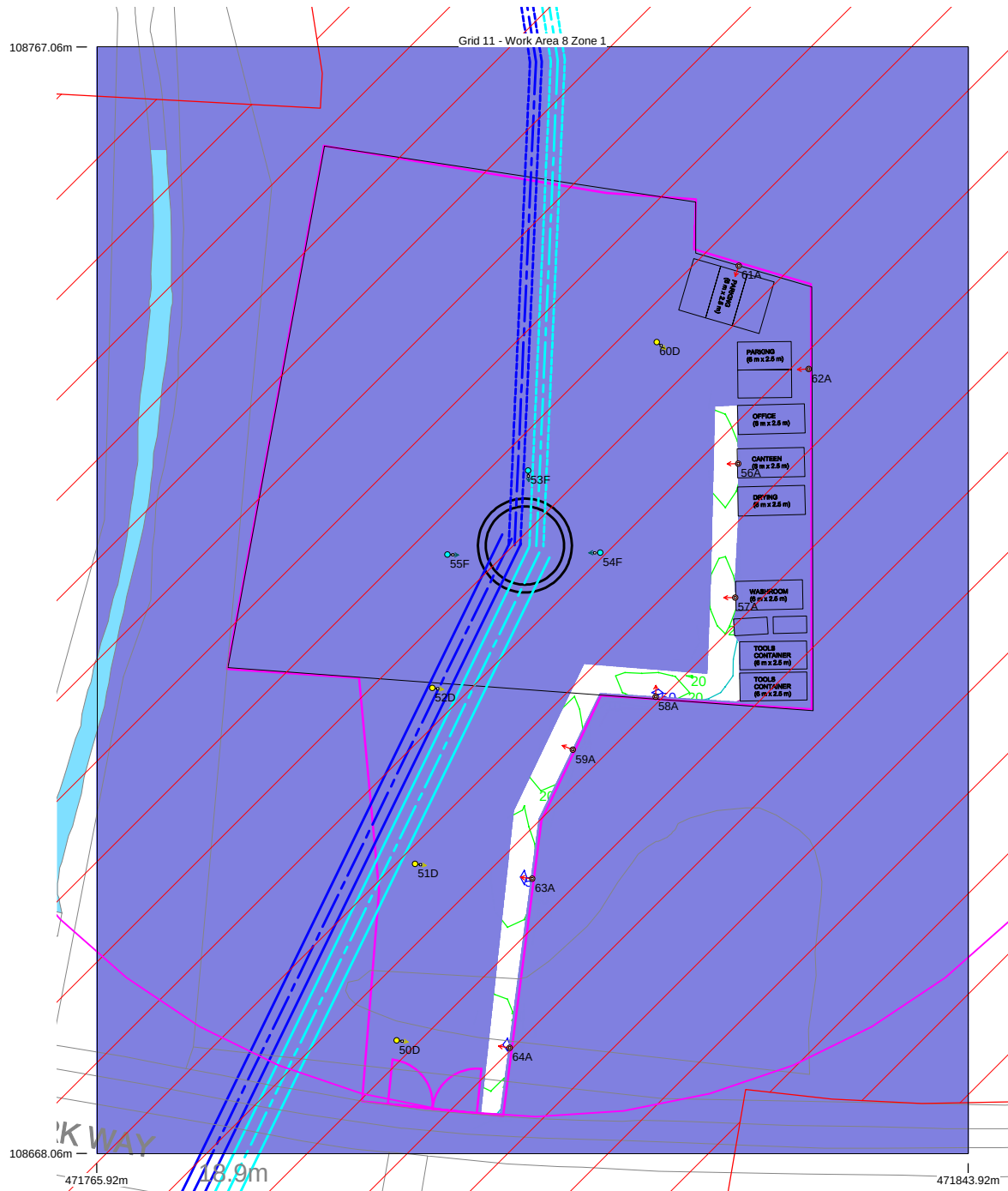


Horizontal Illuminance (lux)

Grid 11 - Work Area 8 Zone 1

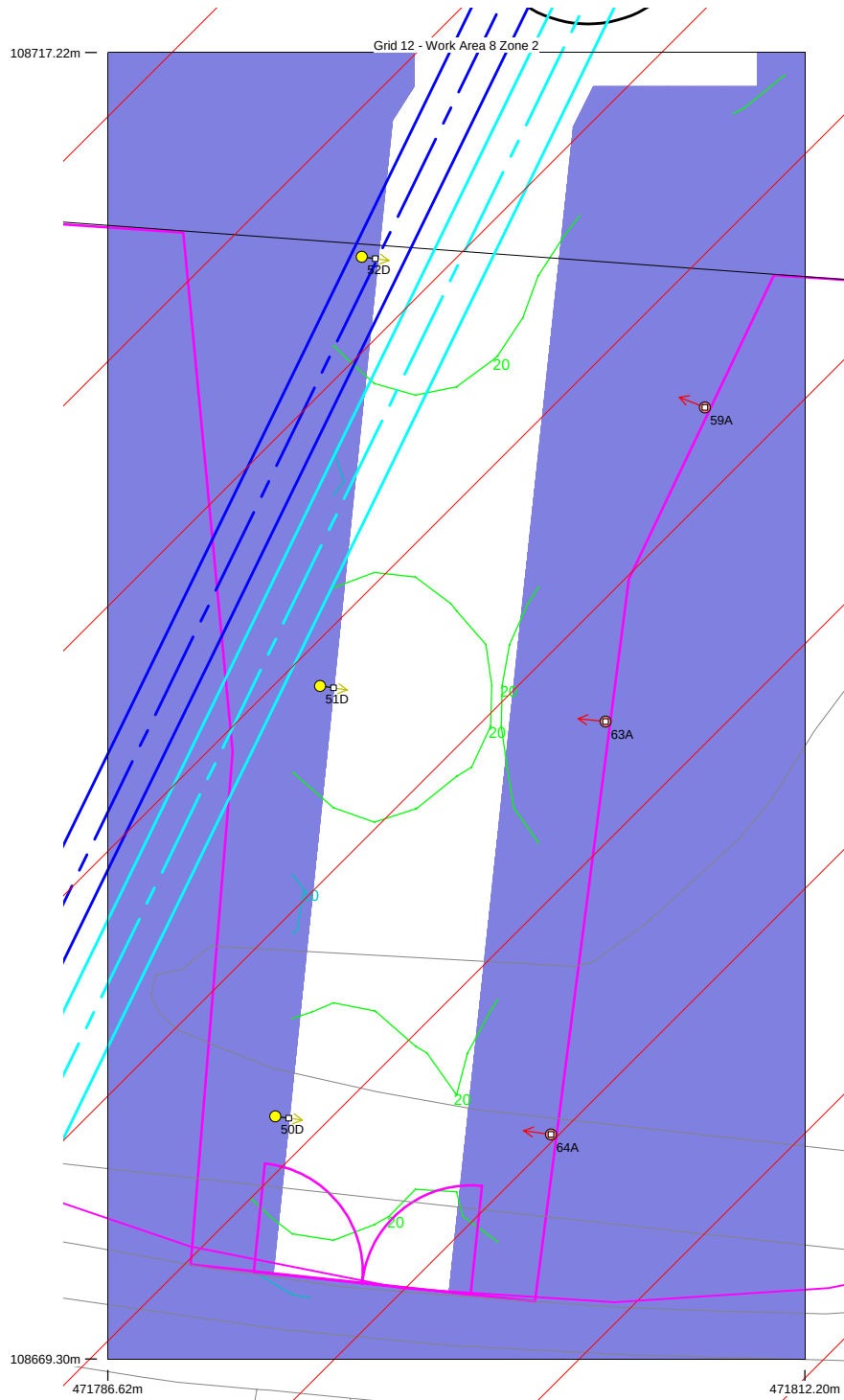


Results

Eav	24.91
Emin	8.86
Emax	57.66
Emin/Emax	0.15
Emin/Eav	0.36

Horizontal Illuminance (lux)

Grid 12 - Work Area 8 Zone 2

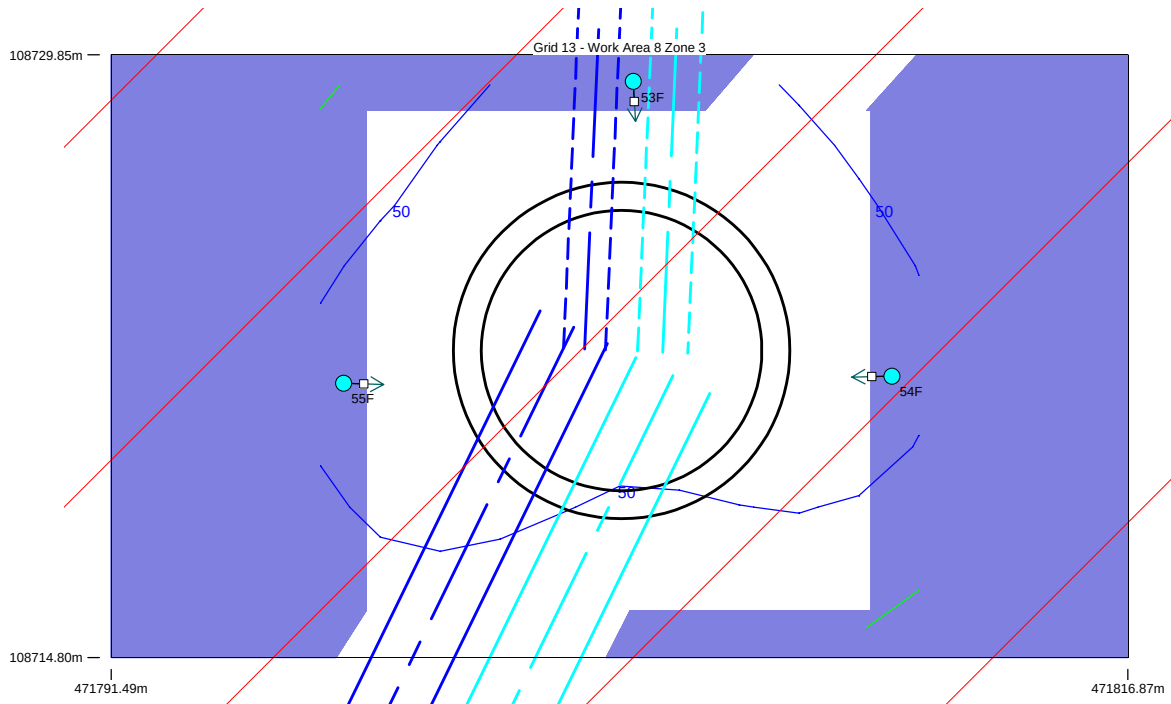


Results

Eav	23.45
Emin	11.53
Emax	41.67
Emin/Emax	0.28
Emin/Eav	0.49

Horizontal Illuminance (lux)

Grid 13 - Work Area 8 Zone 3

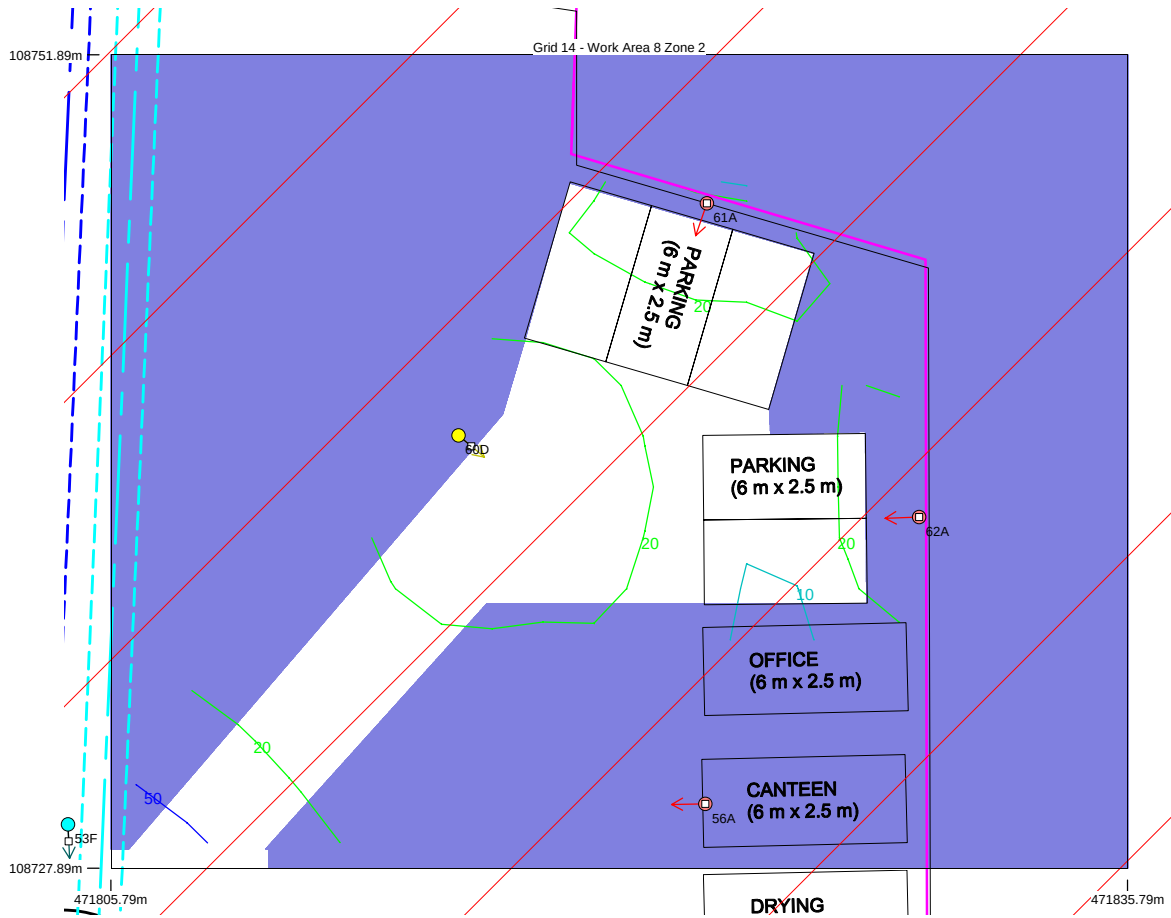


Results

Eav	62.74
Emin	30.48
Emax	92.47
Emin/Emax	0.33
Emin/Eav	0.49

Horizontal Illuminance (lux)

Grid 14 - Work Area 8 Zone 2



Results

Eav	22.53
Emin	9.49
Emax	72.50
Emin/Emax	0.13
Emin/Eav	0.42

DATE: 28 March 2025
DESIGNER: David Hendry
PROJECT No: 65209354
PROJECT NAME: Havant Pipeline



Document ID: 65209354-SWE-ZZ-ZZ-C-E-1309

Revision: P01

Location: Havant, Hampshire

Design Standard: BS EN 12464-2 - Section 5.4

Required Minimum Levels (Actual Results Dimmed to 50%):
Zone 1 (Walkways) - Eav = 5lux, Uo = 0.25

$MF = 0.84 * 1 * 0.90 = 0.75$

Outdoor Lighting Report

PREPARED BY: Sweco UK Limited
Sweco 2nd Floor Quay 2
139 Fountainbridge
Edinburgh, EH3 9QG
+44 131 550 6300
www.sweco.co.uk

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 - Work Area 1 Zone ...	470662.38	106439.66	18.00	34.92	1.50	1.46
2	Grid 2 - Work Area 2 Zone ...	470696.70	106922.21	27.00	41.87	1.50	1.50
3	Grid 3 - Work Area 3 Zone ...	470851.86	107135.80	34.19	54.00	1.49	1.50
4	Grid 4 - Work Area 4 Zone ...	471116.60	107289.74	66.06	38.46	1.47	1.48
5	Grid 5 - Emergency Site Zo...	470982.97	107563.44	60.00	24.00	1.50	1.50

Luminaires

Luminaire A Data

Supplier	
Type	STEALTH ELITE 3000K M1 LENS LED1500
Lamp(s)	LED
LampFlux(klm)/Colour	1.49 3000K/70
File Name	SEL-#3LED1500-M1.lgt
Maintenance Factor	0.75
Imax70,80,90(cd/klm)	850.2, 290.8, 15.6
No. in Project	25

Luminaire D Data

Supplier	
Type	Sierra Solar Midi 30W 3000K Asymmetrical Area
Lamp(s)	LED
Lamp Flux (klm)	5.79
File Name	Sierra Solar Midi 30W 3000K Asymmetrical Area.IES
Maintenance Factor	0.75
Imax70,80,90(cd/klm)	350.3, 52.4, 0.3
No. in Project	5

Layout

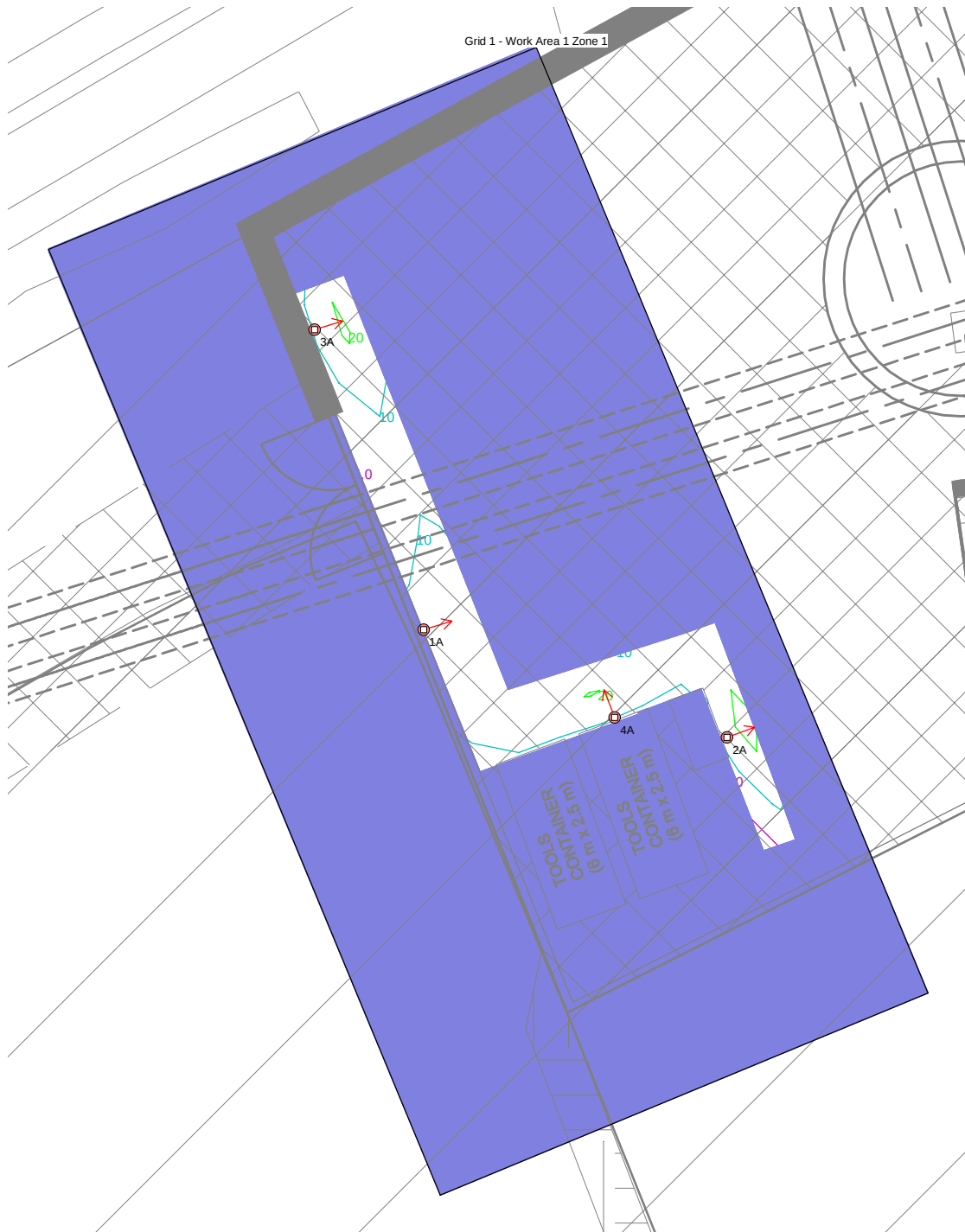
ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Dimmed to	Target X	Target Y	Target Z
1	A	470661.81	106458.95	2.50	17.00	0.00	0.00	0.00	50%			
2	A	470672.15	106455.27	2.50	20.00	0.00	0.00	0.00	50%			
3	A	470658.08	106469.18	2.50	17.00	0.00	0.00	0.00	50%			
4	A	470668.32	106455.95	2.50	111.00	0.00	0.00	0.00	50%			
5	A	470872.48	107181.99	2.50	174.00	0.00	0.00	0.00	50%			
6	A	470874.62	107175.47	2.50	221.00	0.00	0.00	0.00	50%			
7	A	470878.68	107169.47	2.50	187.00	0.00	0.00	0.00	50%			
8	A	470873.53	107163.75	2.50	90.00	0.00	0.00	0.00	50%			
9	A	470869.06	107160.90	2.50	180.00	0.00	0.00	0.00	50%			
10	A	470872.98	107158.27	2.50	270.00	0.00	0.00	0.00	50%			
11	A	470876.51	107151.97	2.50	180.00	0.00	0.00	0.00	50%			
12	A	470872.34	107144.90	2.50	90.00	0.00	0.00	0.00	50%			
13	A	470861.96	107186.16	2.50	270.00	0.00	0.00	0.00	50%			
14	A	471168.51	107312.57	2.50	156.00	0.00	0.00	0.00	50%			
15	D	470707.72	106954.74	5.00	189.00	0.00	0.00	0.50	50%			
35	A	470713.56	106948.89	2.50	192.00	0.00	0.00	0.00	50%			

Layout Continued

ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Dimmed to	Target X	Target Y	Target Z
17	D	471159.02	107304.83	5.00	77.00	0.00	0.00	0.50	50%			
18	A	471139.57	107311.71	2.50	76.00	0.00	0.00	0.00	50%			
44	A	470863.58	107138.47	2.50	94.00	0.00	0.00	0.00	50%			
44	A	471147.44	107309.81	2.50	76.00	0.00	0.00	0.00	50%			
45	A	471153.31	107301.38	2.50	76.00	0.00	0.00	0.00	50%			
65	A	471029.10	107573.52	2.50	282.00	0.00	0.00	0.00	50%			
66	A	471011.61	107578.24	2.50	270.00	0.00	0.00	0.00	50%			
68	D	471013.41	107566.72	5.00	102.00	0.00	0.00	0.50	50%			
68	D	471004.02	107575.22	5.00	259.00	0.00	0.00	0.50	50%			
47	A	470691.49	106954.11	2.50	278.00	0.00	0.00	0.00	50%			
47	D	470710.63	106941.43	5.00	191.00	0.00	0.00	0.50	50%			
48	A	470710.71	106931.32	2.50	192.00	0.00	0.00	0.00	50%			
29	A	470987.03	107571.65	2.50	312.00	0.00	0.00	0.00	50%			
30	A	470993.72	107578.39	2.50	319.00	0.00	0.00	0.00	50%			

Horizontal Illuminance (lux)

Grid 1 - Work Area 1 Zone 1



Results

Eav	15.44
Emin	7.91
Emax	24.72
Emin/Emax	0.32
Emin/Eav	0.51

Horizontal Illuminance (lux)

Grid 2 - Work Area 2 Zone 1

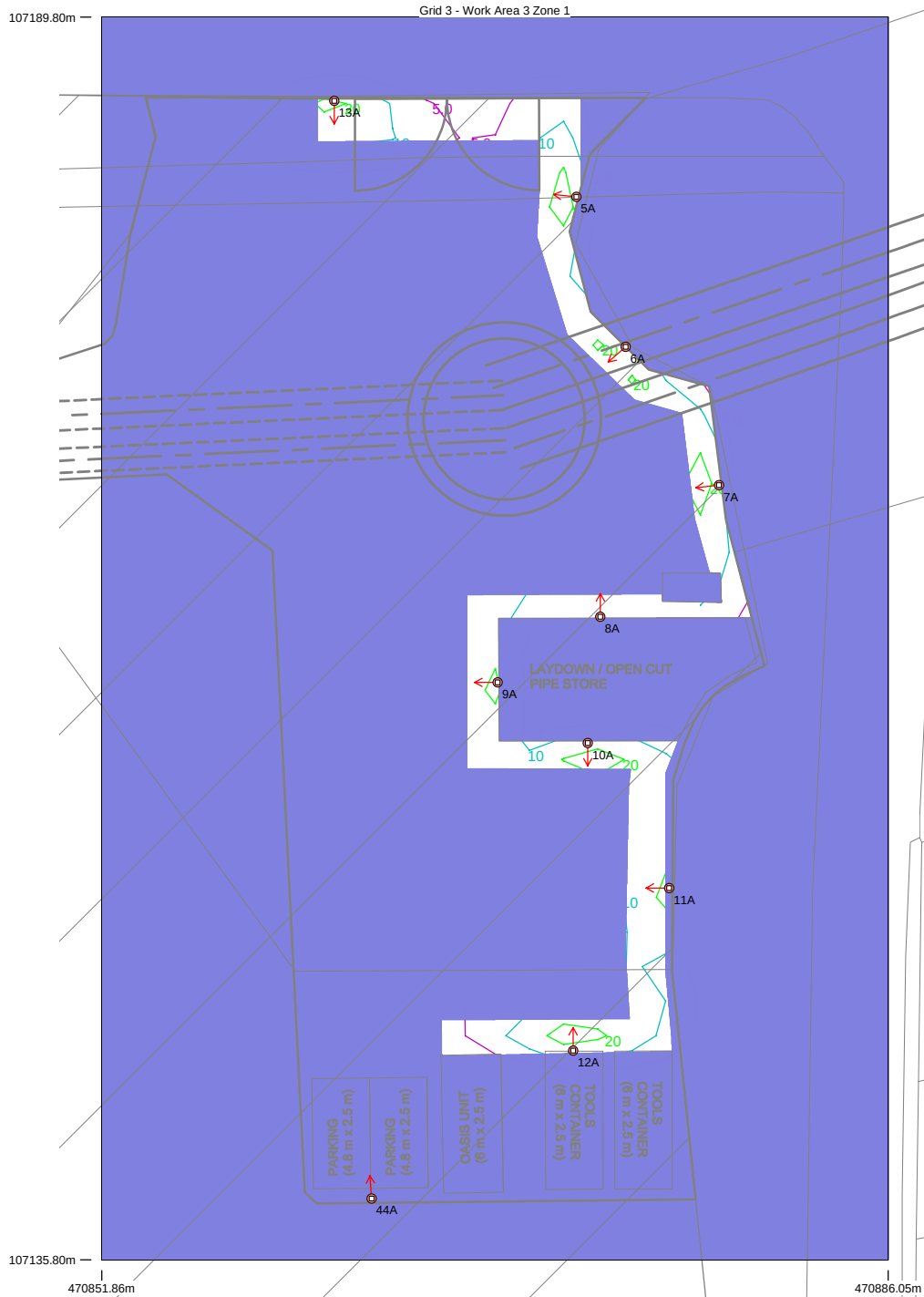


Results

Eav	12.72
Emin	5.06
Emax	20.15
Emin/Emax	0.25
Emin/Eav	0.40

Horizontal Illuminance (lux)

Grid 3 - Work Area 3 Zone 1

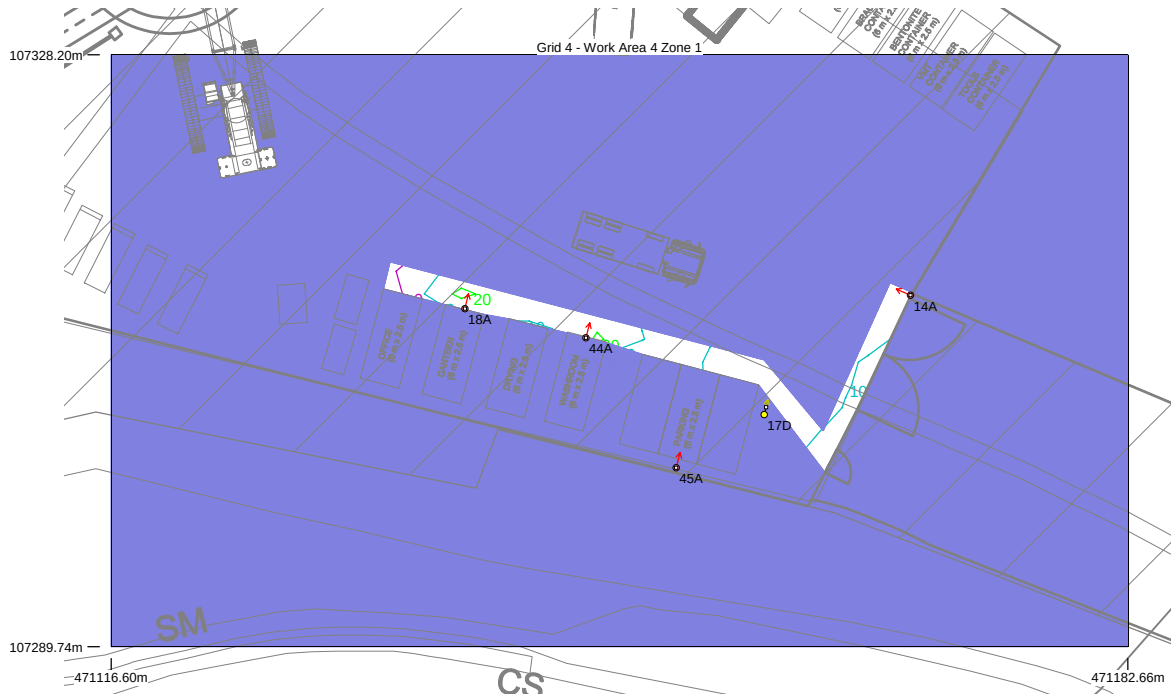


Results

Eav	13.57
Emin	3.34
Emax	27.07
Emin/Emax	0.12
Emin/Eav	0.25

Horizontal Illuminance (lux)

Grid 4 - Work Area 4 Zone 1

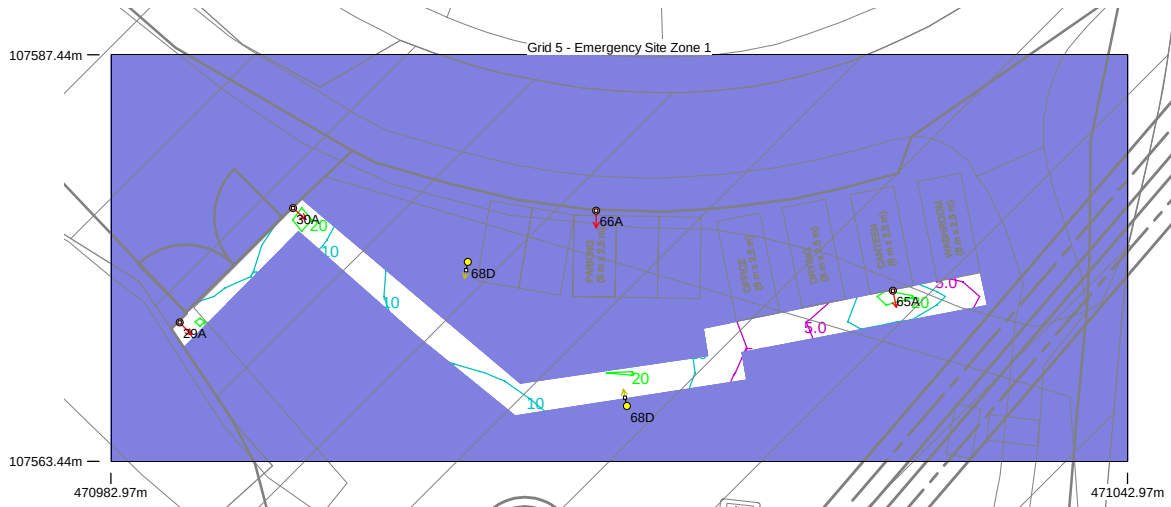


Results

Eav	13.34
Emin	4.64
Emax	23.49
Emin/Emax	0.20
Emin/Eav	0.35

Horizontal Illuminance (lux)

Grid 5 - Emergency Site Zone 1



Results

Eav	11.81
Emin	4.11
Emax	25.72
Emin/Emax	0.16
Emin/Eav	0.35

DATE: 26 August 2025
DESIGNER: David Hendry
PROJECT No: 65209354
PROJECT NAME: Havant Pipeline



Document ID: 65209354-SWE-ZZ-ZZ-C-E-1310

Revision: P02

Location: Havant, Hampshire

Design Standard: BS EN 12464-2 - Section 5.4

Required Minimum Levels (Actual Results Dimmed to 50%):
Zone 1 (Walkways) - Eav = 5lux, Uo = 0.25

$MF = 0.84 * 1 * 0.90 = 0.75$

Outdoor Lighting Report

PREPARED BY: Sweco UK Limited
Sweco 2nd Floor Quay 2
139 Fountainbridge
Edinburgh, EH3 9QG
+44 131 550 6300
www.sweco.co.uk

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 - Work Area 5 Zone ...	471154.89	107782.42	24.00	27.00	1.50	1.50
2	Grid 2 - Work Area 6 Zone ...	471291.18	108161.24	12.00	24.00	1.50	1.50
3	Grid 3 - Work Area 7 Zone ...	471583.87	108256.33	45.00	27.00	1.50	1.50
4	Grid 4 - Work Area 8 Zone ...	471765.92	108668.06	78.00	99.00	1.50	1.50
5	Grid 5 - Work Area 9 Zone ...	470862.58	110175.86	46.10	34.50	1.49	1.50
6	Grid 6 - Work Area 5 Zone ...	471146.89	107830.68	21.00	15.00	1.50	1.50

Luminaires



Luminaire A Data

Supplier	
Type	STEALTH ELITE 3000K M1 LENS LED1500
Lamp(s)	LED
LampFlux(klm)/Colour	1.49 3000K/70
File Name	SEL-#3LED1500-M1.lgt
Maintenance Factor	0.75
Imax70,80,90(cd/klm)	850.2, 290.8, 15.6
No. in Project	14



Luminaire D Data

Supplier	
Type	Sierra Solar Midi 30W 3000K Asymmetrical Area
Lamp(s)	LED
Lamp Flux (klm)	5.79
File Name	Sierra Solar Midi 30W 3000K Asymmetrical Area.IES
Maintenance Factor	0.75
Imax70,80,90(cd/klm)	350.3, 52.4, 0.3
No. in Project	5

Layout

ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Dimmed to	Target X	Target Y	Target Z
3	A	471166.83	107790.75	2.50	275.00	0.00	0.00	0.00	50%			
3	D	470875.67	110205.91	5.00	221.00	0.00	0.00	0.50	50%			
22	D	471157.90	107836.00	5.00	190.00	0.00	0.00	0.50	50%			
33	A	471290.58	108166.32	2.50	209.00	0.00	0.00	0.00	50%			
10	A	471614.27	108273.35	2.50	58.00	0.00	0.00	0.00	50%			
35	A	471286.85	108177.78	2.50	209.00	0.00	0.00	0.00	50%			
38	A	471602.45	108276.61	2.50	102.00	0.00	0.00	0.00	50%			
39	A	471590.43	108279.94	2.50	13.00	0.00	0.00	0.00	50%			
40	D	471623.13	108272.74	5.00	194.00	0.00	0.00	0.50	50%			
56	A	471823.33	108729.79	2.50	181.00	0.00	0.00	0.00	50%			
57	A	471823.05	108717.82	2.50	181.00	0.00	0.00	0.00	50%			
58	A	471815.94	108708.95	2.50	89.00	0.00	0.00	0.00	50%			
59	A	471808.52	108704.21	2.50	158.00	0.00	0.00	0.00	50%			
61	A	471823.37	108747.50	2.50	251.00	0.00	0.00	0.00	50%			
62	A	471829.63	108738.26	2.50	182.00	0.00	0.00	0.00	50%			

Layout Continued

ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Dimmed to	Target X	Target Y	Target Z
63	A	471804.87	108692.68	2.50	174.00	0.00	0.00	0.00	50%			
64	A	471802.88	108677.54	2.50	172.00	0.00	0.00	0.00	50%			
68	D	470877.74	110192.91	5.00	41.00	0.00	0.00	0.50	50%			
69	D	470905.05	110189.53	5.00	261.00	0.00	0.00	0.50	50%			