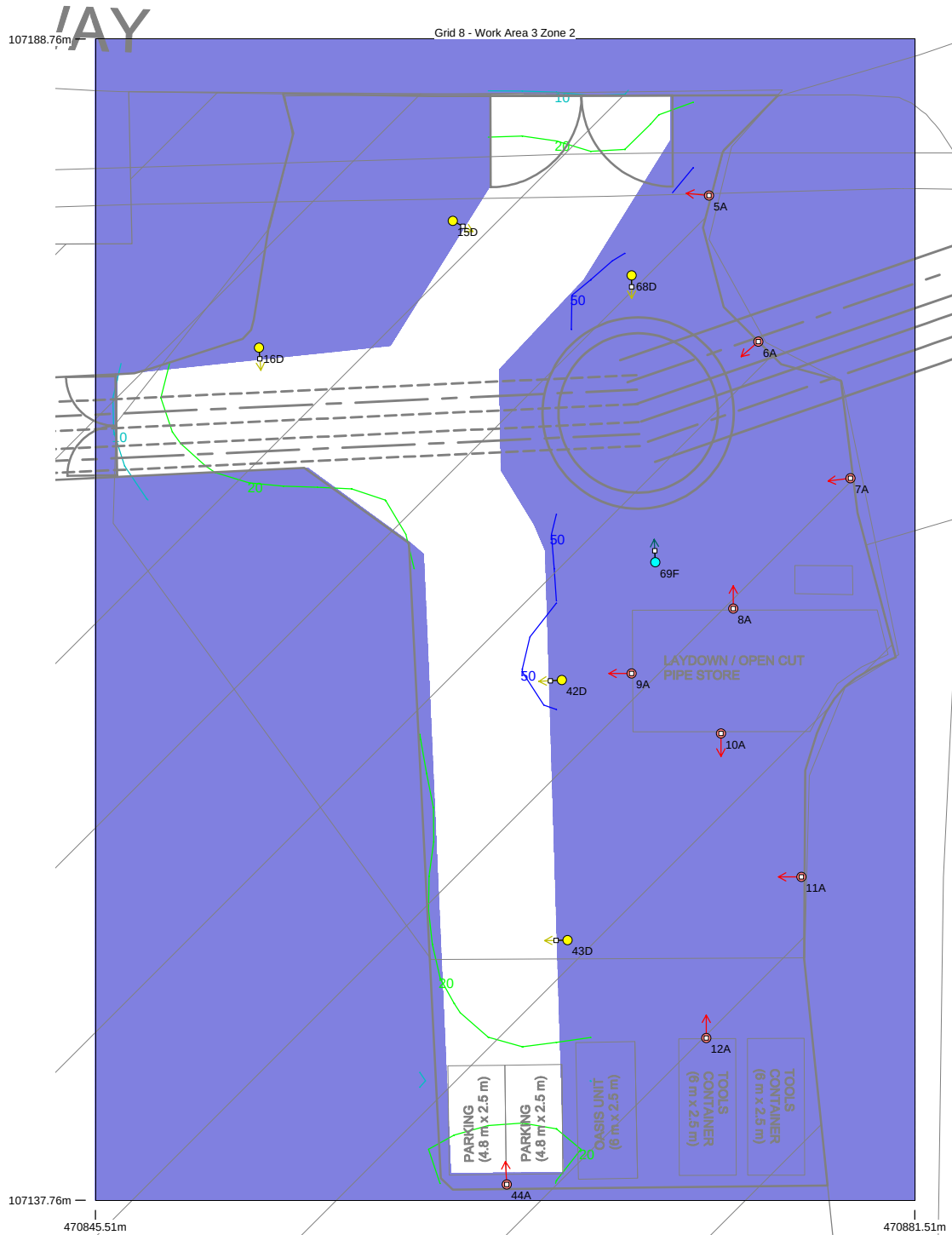


Horizontal Illuminance (lux)

Grid 8 - Work Area 3 Zone 2

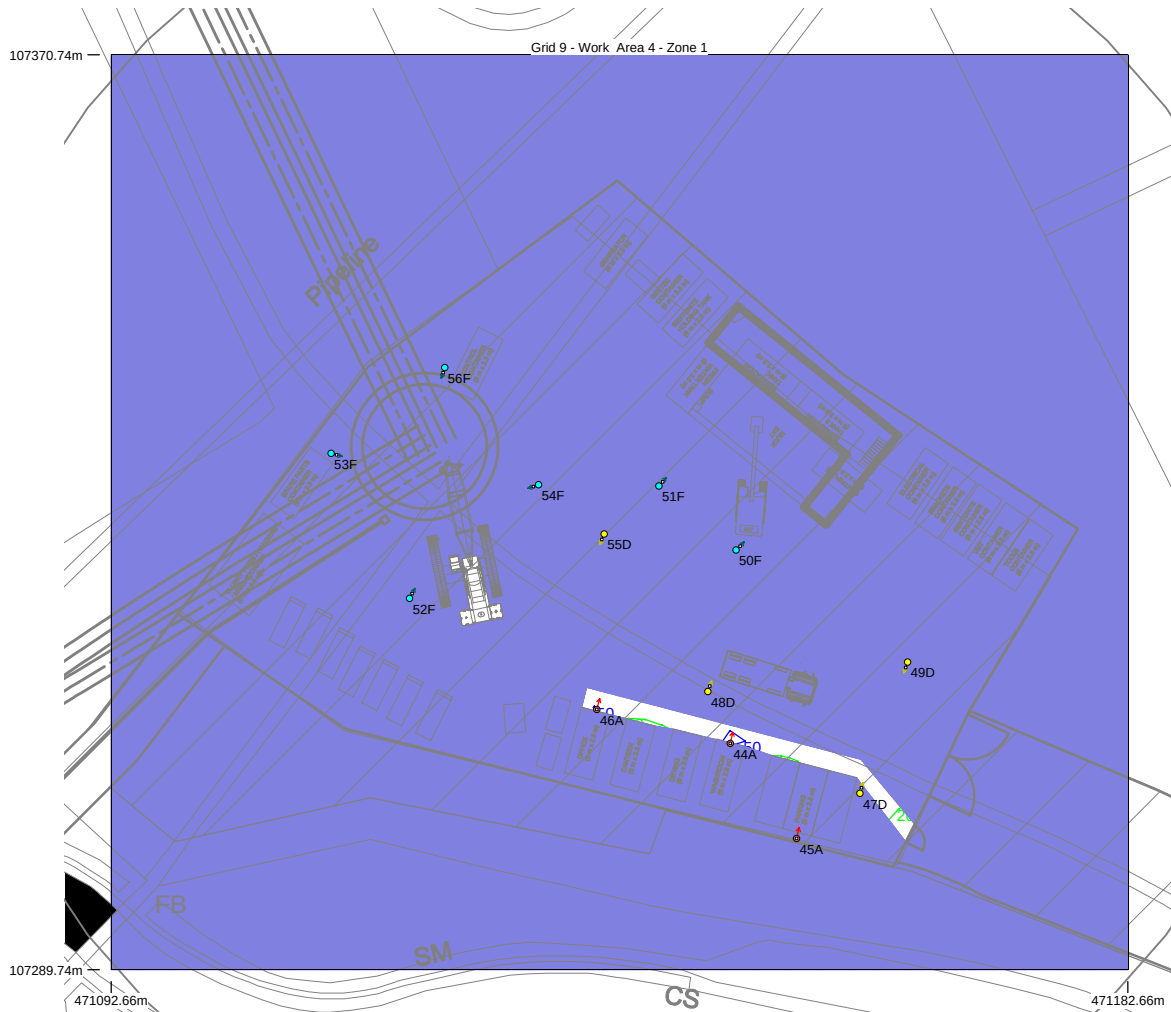


Results

Eav	29.66
Emin	11.75
Emax	50.05
Emin/Emax	0.23
Emin/Eav	0.40

Horizontal Illuminance (lux)

Grid 9 - Work Area 4 - Zone 1

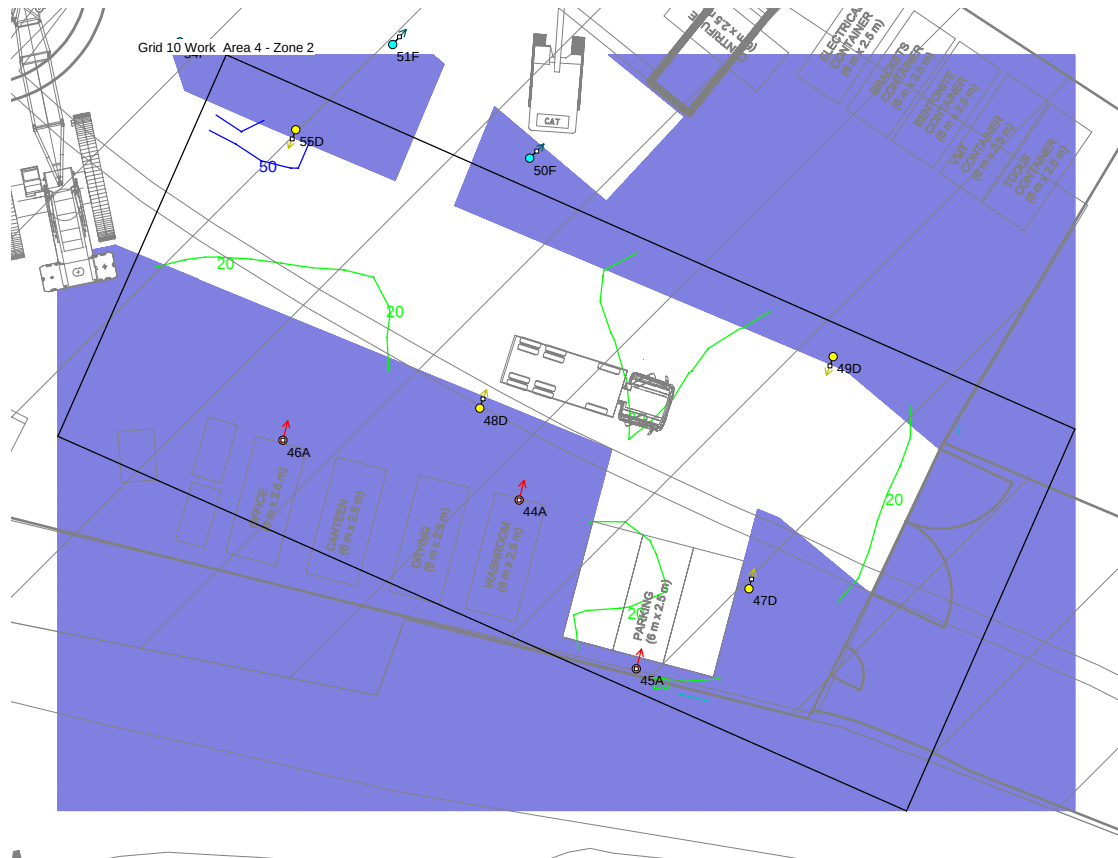


Results

Eav	33.99
Emin	15.19
Emax	63.35
Emin/Emax	0.24
Emin/Eav	0.45

Horizontal Illuminance (lux)

Grid 10 Work Area 4 - Zone 2

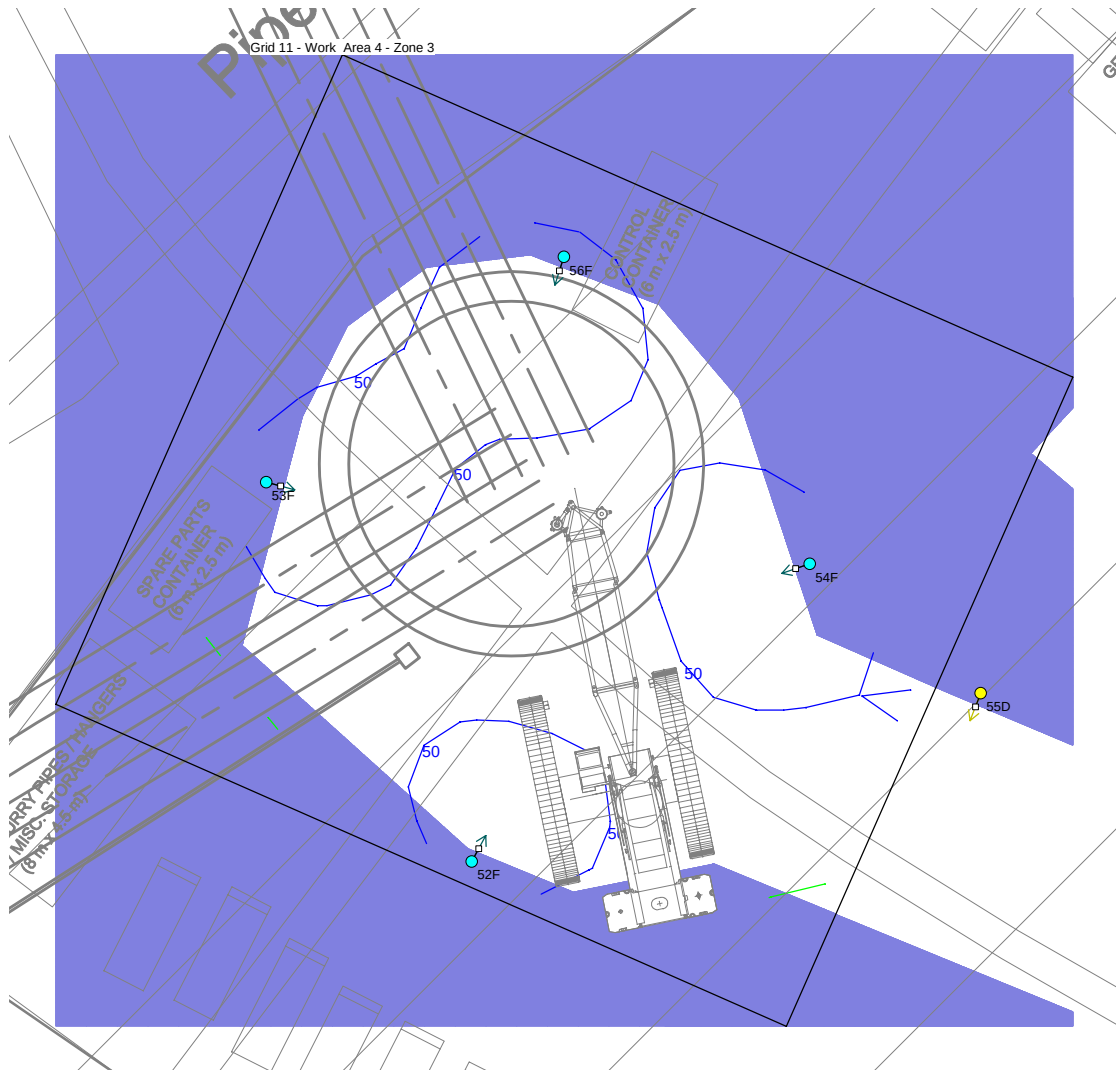


Results

Eav	27.80
Emin	12.01
Emax	52.54
Emin/Emax	0.23
Emin/Eav	0.43

Horizontal Illuminance (lux)

Grid 11 - Work Area 4 - Zone 3



Results

Eav	50.00
Emin	20.98
Emax	76.58
Emin/Emax	0.27
Emin/Eav	0.42

Horizontal Illuminance (lux)

Grid 12 - Work Area 4 - Zone 3

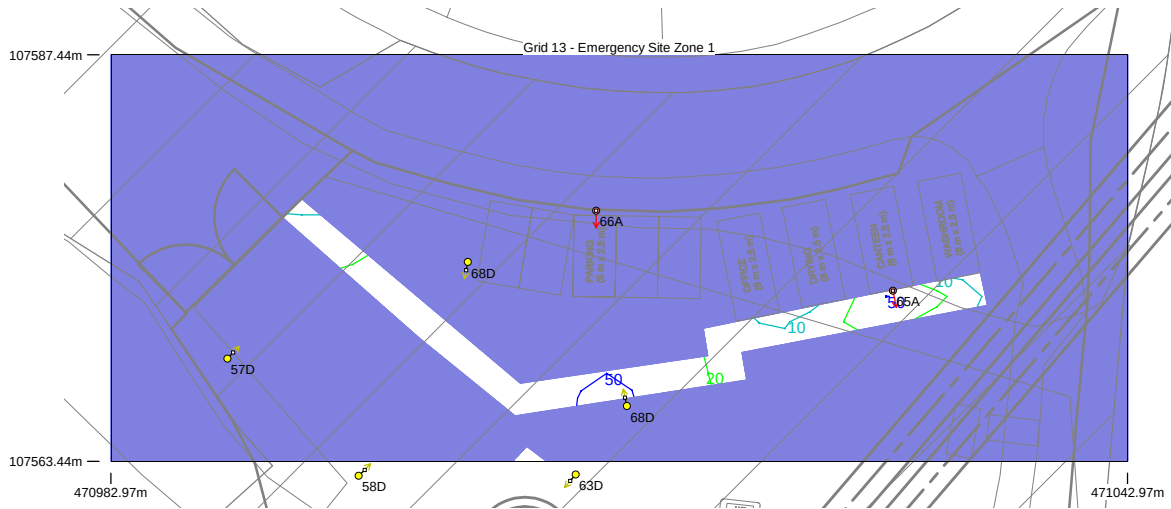


Results

Eav	50.91
Emin	23.59
Emax	78.06
Emin/Emax	0.30
Emin/Eav	0.46

Horizontal Illuminance (lux)

Grid 13 - Emergency Site Zone 1

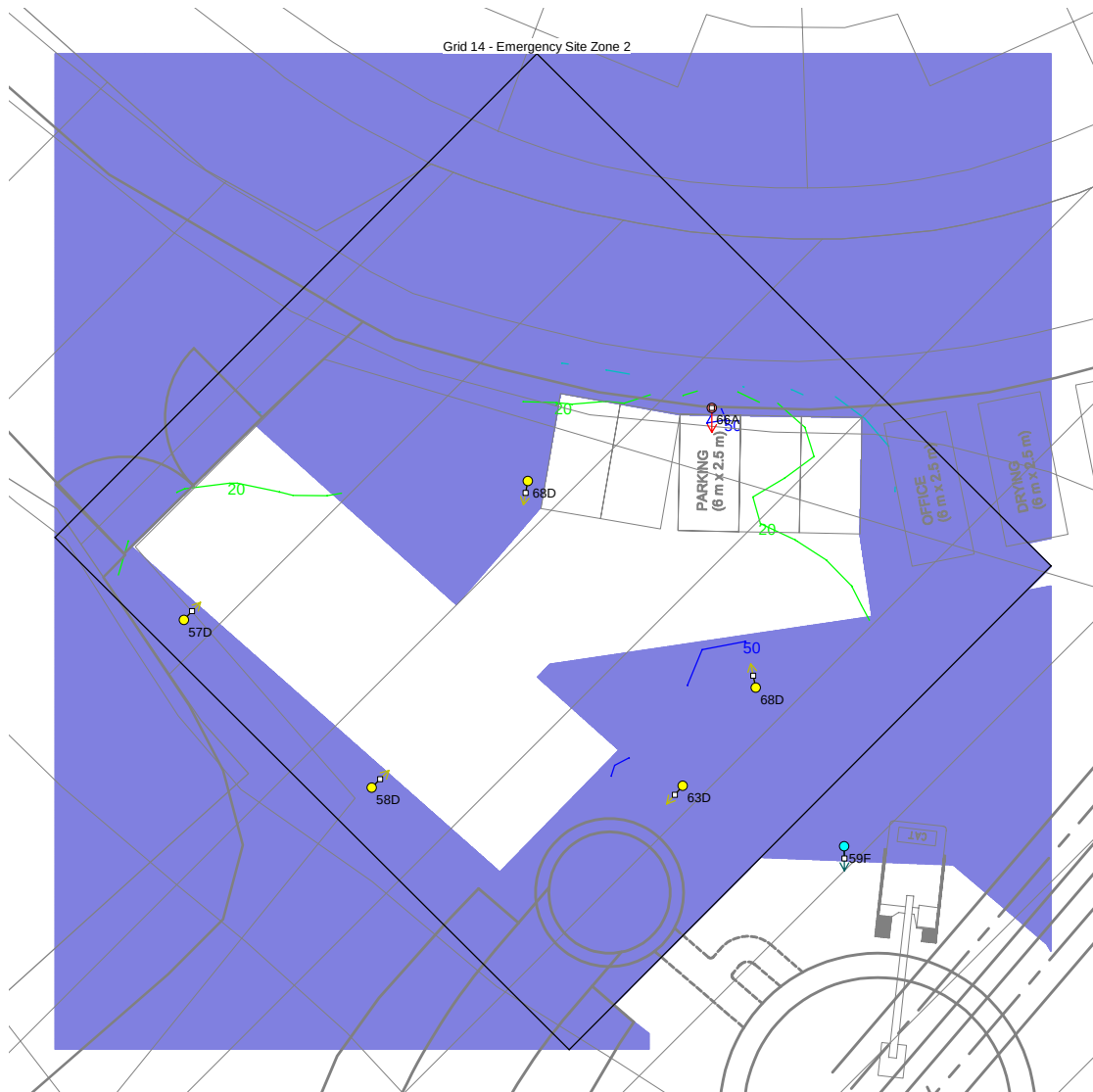


Results

Eav	28.54
Emin	9.58
Emax	53.96
Emin/Emax	0.18
Emin/Eav	0.34

Horizontal Illuminance (lux)

Grid 14 - Emergency Site Zone 2

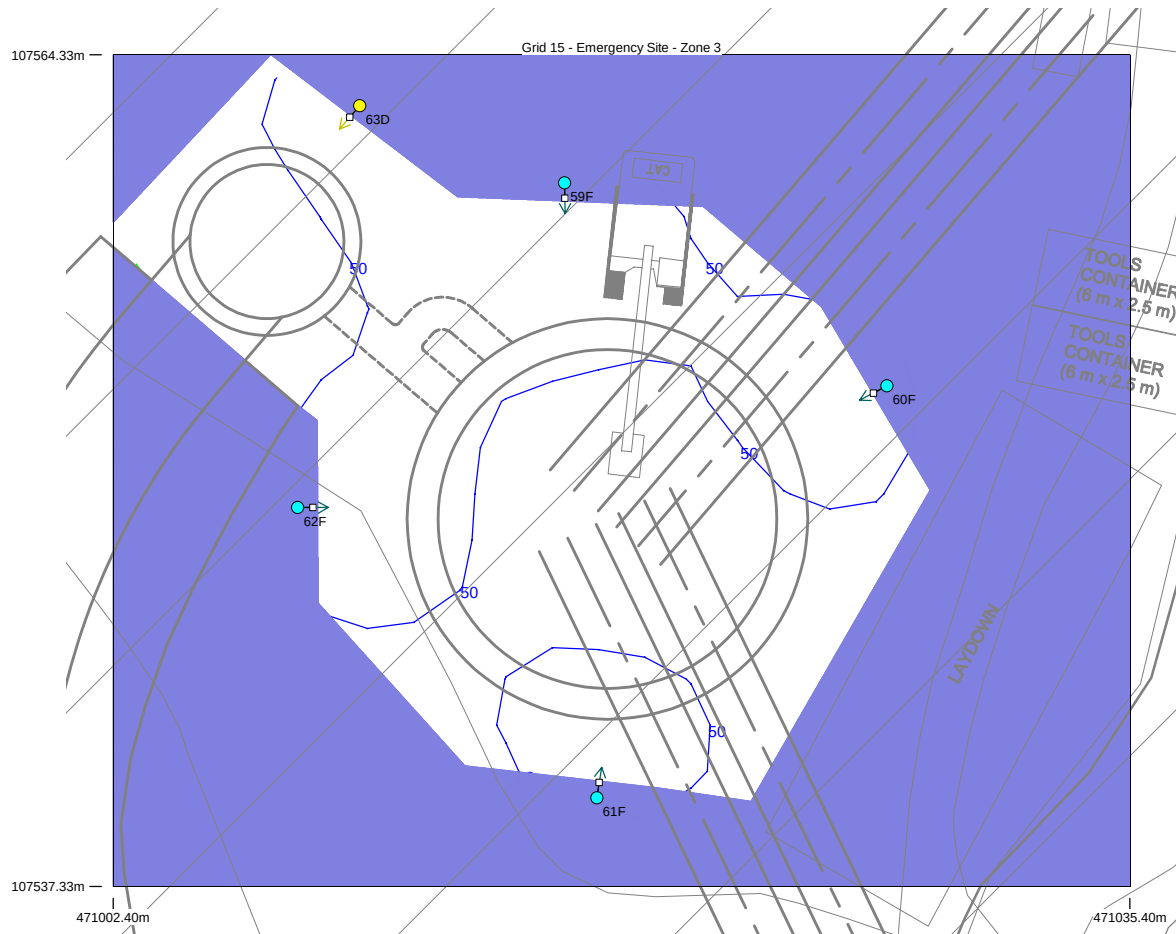


Results

Eav	32.57
Emin	13.92
Emax	48.17
Emin/Emax	0.29
Emin/Eav	0.43

Horizontal Illuminance (lux)

Grid 15 - Emergency Site - Zone 3

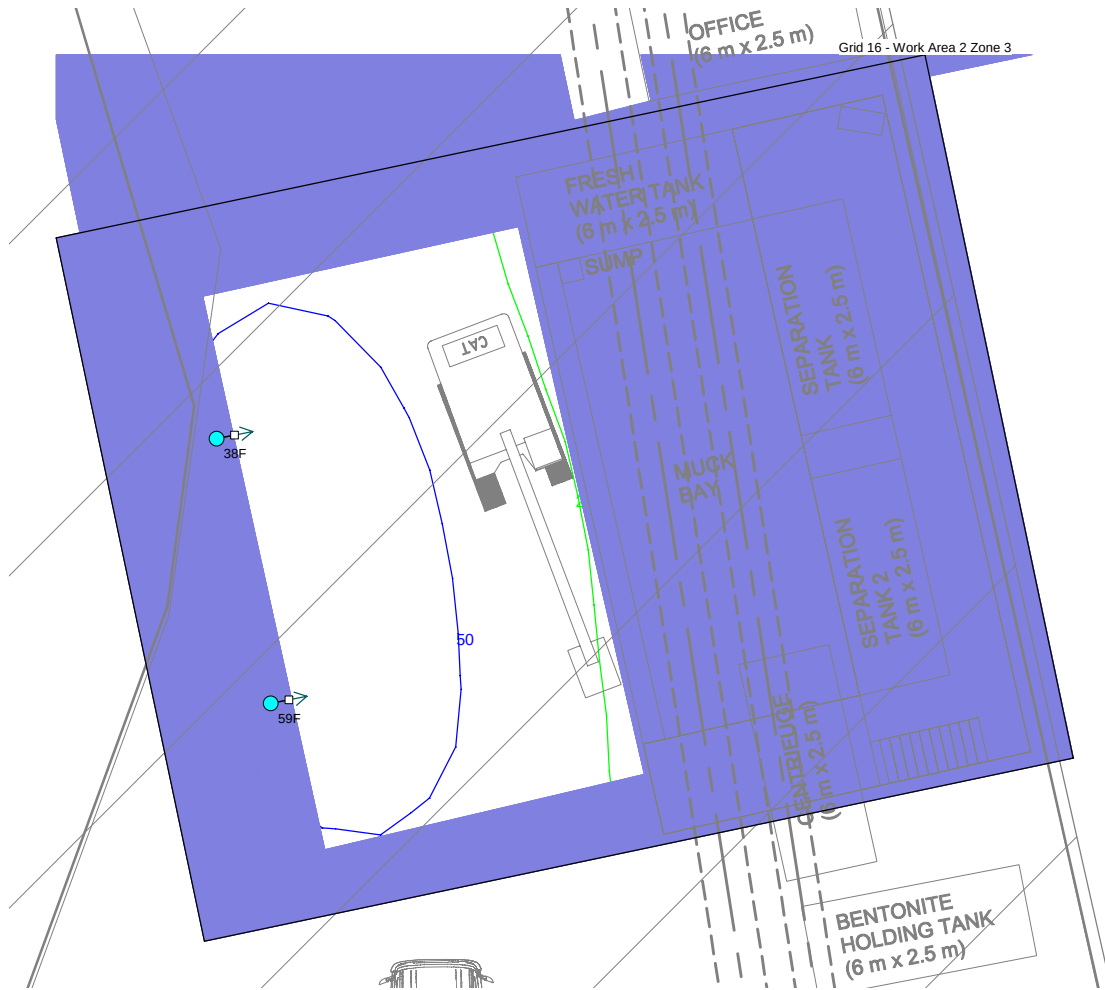


Results

Eav	50.76
Emin	20.09
Emax	82.82
Emin/Emax	0.24
Emin/Eav	0.40

Horizontal Illuminance (lux)

Grid 16 - Work Area 2 Zone 3



Results

Eav	52.10
Emin	21.92
Emax	83.11
Emin/Emax	0.26
Emin/Eav	0.42

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



Document ID: 65209354-SWE-ZZ-ZZ-C-E-1302

Revision: P02

Location: Havant, Hampshire

Design Standard: BS EN 12464-2 - Section 5.4

Required Minimum Levels:

Zone 1 (Walkways) - Eav = 5lux, Uo = 0.25

Zone 2 (Traffic Areas) - Eav = 10lux, Uo = 0.40

Zone 3 Construction Area) - Eav = 50lux, Uo = 0.40

MF (6m & Under) = $0.84 * 1 * 0.90 = 0.75$

MF (>6m) = $0.92 * 1 * 0.90 = 0.83$

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 3 Zone ...	470844.92	107134.54	42.00	57.00	1.50	1.50
2	Grid 2 - Work Area 5 Zone ...	471161.52	107782.42	15.00	24.00	1.50	1.50
3	Grid 3 - Work Area 5 Zone ...	471148.10	107780.91	62.38	65.55	1.49	1.49
4	Grid 4 - Work Area 5 Zone ...	471180.93	107783.08	42.00	54.00	1.50	1.50
5	Grid 5 - Work Area 6 Zone ...	471291.18	108161.24	12.00	24.00	1.50	1.50
6	Grid 6 - Work Area 6 Zone ...	471290.60	108148.65	21.00	12.00	1.50	1.50
7	Grid 7 - Work Area 6 Zone ...	471273.05	108150.06	19.42	21.00	1.49	1.50
8	Grid 8 - Work Area 7 Zone ...	471583.87	108256.33	45.00	27.00	1.50	1.50
9	Grid 9 - Work Area 7 Zone ...	471568.83	108255.08	61.27	47.72	1.49	1.49
10	Grid 10 - Work Area Zone 3	471561.25	108278.94	65.00	27.00	1.48	1.50
11	Grid 11 - Work Area 8 Zone...	471765.92	108668.06	78.00	99.00	1.50	1.50
12	Grid 12 - Work Area 8 Zone...	471786.62	108669.30	25.58	47.92	1.50	1.50
13	Grid 13 - Work Area 8 Zone...	471791.49	108714.80	25.38	15.05	1.49	1.50
14	Grid 14 - Work Area 8 Zone...	471805.79	108727.89	30.00	24.00	1.50	1.50
15	Grid 15 - Work Area 9 Zone...	470862.58	110175.86	46.10	34.50	1.49	1.50
16	Grid 16 - Work Area 9 Zone...	470870.60	110148.27	56.93	58.32	1.50	1.50
17	Grid 17 - Work Area 9 Zone...	470908.44	110171.18	56.70	26.48	1.49	1.47
18	Grid 18 - Work Area 9 Zone...	470858.05	110132.42	45.92	37.75	1.48	1.45

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.lid
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	30



Luminaire E 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	0.83
Imax70,80,90(cd/klm)	350.3, 52.4, 0.3
No. in Project	3



Luminaire F Data

Supplier	
Type	Sierra Solar Max 50W 3000K Asymmetrical Area
Lamp(s)	LED
Lamp Flux (klm)	9.43
File Name	Sierra Solar Max 50W 3000K Asymmetrical Area.IES
Maintenance Factor	0.75
Imax70,80,90(cd/klm)	328.6, 48.1, 0.4
No. in Project	26

Luminaires



Luminaire G Data

Supplier	
Type	Sierra Solar Max 50W 3000K Asymmetrical Area
Lamp(s)	LED
Lamp Flux (klm)	9.43
File Name	Sierra Solar Max 50W 3000K Asymmetrical Area.IES
Maintenance Factor	0.83
Imax70,80,90(cd/klm)	328.6, 48.1, 0.4
No. in Project	1

Layout

ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
1	F	470870.10	107165.79	5.00	93.00	0.00	0.00	0.50			
2	D	470869.06	107178.38	5.00	270.00	0.00	0.00	0.50			
3	A	471166.83	107790.75	2.50	275.00	0.00	0.00	0.00			
5	A	470872.46	107181.88	2.50	174.00	0.00	0.00	0.00			
6	A	470874.62	107175.47	2.50	221.00	0.00	0.00	0.00			
7	A	470878.68	107169.47	2.50	187.00	0.00	0.00	0.00			
8	A	470873.53	107163.75	2.50	90.00	0.00	0.00	0.00			
9	A	470869.06	107160.90	2.50	180.00	0.00	0.00	0.00			
10	A	470872.98	107158.27	2.50	270.00	0.00	0.00	0.00			
11	A	470876.51	107151.97	2.50	180.00	0.00	0.00	0.00			
12	A	470867.94	107144.76	2.50	90.00	0.00	0.00	0.00			
13	D	471162.49	107809.87	5.00	189.00	0.00	0.00	0.50			
14	A	471154.26	107824.96	2.50	10.00	0.00	0.00	0.00			
15	D	470861.21	107180.77	5.00	332.00	0.00	0.00	0.50			
16	D	470852.69	107175.21	5.00	275.00	0.00	0.00	0.50			
18	A	471162.88	107799.96	2.50	187.00	0.00	0.00	0.00			
19	A	471158.29	107794.16	2.50	6.00	0.00	0.00	0.00			
20	D	471164.98	107821.57	5.00	96.00	0.00	0.00	0.50			
21	D	471179.17	107822.05	5.00	90.00	0.00	0.00	0.50			
22	D	471157.90	107836.00	5.00	190.00	0.00	0.00	0.50			
42	D	470865.99	107160.62	5.00	184.00	0.00	0.00	0.50			
43	D	470866.24	107149.19	5.00	181.00	0.00	0.00	0.50			
44	A	470863.63	107138.43	2.50	94.00	0.00	0.00	0.00			
25	D	471193.63	107812.77	5.00	182.00	0.00	0.00	0.50			
26	F	471198.54	107827.10	5.00	181.00	0.00	0.00	0.50			
27	F	471210.05	107797.95	5.00	184.00	0.00	0.00	0.50			
28	F	471203.40	107785.49	5.00	92.00	0.00	0.00	0.50			
29	F	471187.09	107796.43	5.00	357.00	0.00	0.00	0.50			
30	F	471198.47	107804.98	5.00	275.00	0.00	0.00	0.50			
31	F	471193.00	107785.44	5.00	94.00	0.00	0.00	0.50			
32	F	471185.56	107829.42	5.00	359.00	0.00	0.00	0.50			
33	A	471290.58	108166.32	2.50	209.00	0.00	0.00	0.00			
34	D	471291.22	108161.83	5.00	299.00	0.00	0.00	0.50			
35	A	471286.56	108178.26	2.50	209.00	0.00	0.00	0.00			
36	F	471274.76	108158.65	5.00	26.00	0.00	0.00	0.50			
37	F	471286.51	108165.42	5.00	209.00	0.00	0.00	0.50			

Layout Continued

ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
38	A	471602.45	108276.61	2.50	102.00	0.00	0.00	0.00			
39	A	471590.43	108279.94	2.50	13.00	0.00	0.00	0.00			
40	D	471623.13	108272.74	5.00	194.00	0.00	0.00	0.50			
41	D	471605.19	108285.23	5.00	253.00	0.00	0.00	0.50			
42	F	471585.02	108288.87	5.00	80.00	0.00	0.00	0.50			
43	F	471590.41	108296.37	5.00	10.00	0.00	0.00	0.50			
44	F	471614.31	108302.34	5.00	196.00	0.00	0.00	0.50			
45	F	471600.87	108305.28	5.00	284.00	0.00	0.00	0.50			
46	F	471602.67	108288.06	5.00	107.00	0.00	0.00	0.50			
47	F	471569.01	108286.27	5.00	107.00	0.00	0.00	0.50			
48	D	471617.48	108280.47	5.00	225.00	0.00	0.00	0.50			
49	F	471576.67	108288.72	5.00	111.00	0.00	0.00	0.50			
50	D	471792.76	108678.21	5.00	352.00	0.00	0.00	0.50			
51	D	471794.40	108693.99	5.00	352.00	0.00	0.00	0.50			
52	D	471795.94	108709.73	5.00	352.00	0.00	0.00	0.50			
53	F	471804.52	108729.19	5.00	273.00	0.00	0.00	0.50			
54	F	471810.97	108721.83	5.00	181.00	0.00	0.00	0.50			
55	F	471797.29	108721.65	5.00	358.00	0.00	0.00	0.50			
56	A	471823.33	108729.79	2.50	181.00	0.00	0.00	0.00			
57	A	471823.05	108717.82	2.50	181.00	0.00	0.00	0.00			
58	A	471815.94	108708.95	2.50	89.00	0.00	0.00	0.00			
59	A	471808.52	108704.21	2.50	158.00	0.00	0.00	0.00			
60	D	471816.04	108740.67	5.00	320.00	0.00	0.00	0.50			
61	A	471823.37	108747.50	2.50	251.00	0.00	0.00	0.00			
62	A	471829.63	108738.26	2.50	182.00	0.00	0.00	0.00			
63	A	471804.87	108692.68	2.50	174.00	0.00	0.00	0.00			
64	A	471802.88	108677.54	2.50	172.00	0.00	0.00	0.00			
65	E	470875.98	110179.03	8.00	349.00	5.00	0.00	0.50			
66	E	470874.59	110168.84	8.00	350.00	5.00	0.00	0.50			
67	D	470877.74	110192.91	5.00	41.00	0.00	0.00	0.50			
68	D	470875.67	110205.91	5.00	221.00	0.00	0.00	0.50			
69	D	470905.05	110189.53	5.00	261.00	0.00	0.00	0.50			
70	F	470923.77	110179.32	5.00	83.00	0.00	0.00	0.50			
71	F	470932.81	110177.89	5.00	81.00	0.00	0.00	0.50			
72	F	470942.85	110176.62	5.00	81.00	0.00	0.00	0.50			
73	F	470952.60	110175.08	5.00	83.00	0.00	0.00	0.50			

Layout Continued

ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
74	F	470871.66	110143.48	5.00	344.00	5.00	0.00	0.50			
75	D	470895.45	110139.57	5.00	165.00	5.00	0.00	0.50			
76	G	470872.59	110154.40	8.00	347.00	5.00	0.00	0.50			
77	D	470905.73	110150.68	5.00	168.00	5.00	0.00	0.50			
78	D	470899.36	110141.25	5.00	76.00	5.00	0.00	0.50			
79	D	470913.96	110178.69	5.00	169.00	0.00	0.00	0.50			
80	D	470909.52	110165.49	5.00	168.00	5.00	0.00	0.50			
81	D	470908.34	110160.81	5.00	172.00	0.00	5.00	0.50			
82	D	470907.30	110156.53	5.00	170.00	5.00	0.00	0.50			
83	D	470882.54	110183.88	5.00	352.00	0.00	0.00	0.50			
84	F	470866.29	110140.38	5.00	261.00	0.00	0.00	0.50			
85	E	470873.49	110160.56	8.00	350.00	5.00	0.00	0.50			
86	D	470894.15	110133.04	5.00	165.00	0.00	0.00	0.50			