

DATE: 1 October 2020

PROJECT NAME: C15 - CO. MEATH -NAVAN - FARGANSTOWN

OP000162951-LD14590-CALCULATION

CARRIAGEWAY AND FOOTWAY:
BS 5489-2013 - CATEGORY P4 (1.5 S/P RATIO)

BS 5489-2013 - TABLE 4:
OPEN STAIRWAYS/RAMPS
Eav 30 LUX Emin 15 LUX

Maintenance Factor calculated as per ILP Guidance Note 11
(GN11/20) $f_{LF} \times f_S \times f_{LM} \times f_{SM} = f_m$
 $0.906 \times 0.97 \times 0.84 \times 1 = 0.74$ (CLO N/A)

Outdoor Lighting Report

This design has been prepared in accordance with the HEA/HEMSA Guidance Note - CDM2015 Regulations, Issue 1.1 dated 09/04/15 - Procedure 2 for an outline design. The information in this report does not account for installation considerations, site conditions or provide any form of risk assessment. Urbis' design service is advisory only and it is the responsibility of the recipient of this information to verify that the design is suitable for the intended application. No account is taken for the blocking effect caused by buildings, trees etc. The calculation shown assumes that the whole area considered is in the same plane.

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	C/way and F/way	1437.39	457.90	162.46	247.37	1.49	1.50
2	Steps and Slope	1530.95	475.25	18.70	10.56	0.49	0.50

Luminaires

Luminaire A Data



Supplier	Urbis Schreder
Type	AXIA 2.1 5241 Integrated lenses 16 NVSL 219CT@690mA NW 740 2
Lamp(s)	16 NVSL219CT@690mA NW 740 230V
LampFlux(klm)/Colour	4.42 NW 4000K/70
File Name	AXIA 2.1 5241 16 NVSL219CT 690mA NW 740 36W 402432 Integrated lenses 230V ...
Maintenance Factor	0.74
Imax70,80,90(cd/klm)	927.5, 159.3, 0.0
Lamp S/P Ratio	1.50
No. in Project	3

Luminaire B Data



Supplier	Urbis Schreder
Type	AXIA 2.1 5241 Integrated lenses 16 NVSL 219CT@480mA NW 740 2
Lamp(s)	16 NVSL219CT@480mA NW 740 230V
LampFlux(klm)/Colour	3.24 NW 4000K/70
File Name	AXIA 2.1 5241 16 NVSL219CT 480mA NW 740 26W 402432 Integrated lenses 230V ...
Maintenance Factor	0.74
Imax70,80,90(cd/klm)	927.5, 159.3, 0.0
Lamp S/P Ratio	1.50
No. in Project	12

Luminaire C Data



Supplier	Urbis Schreder
Type	AXIA 2.1 5167 Integrated lenses 16 NVSL 219CT@690mA NW 740 2
Lamp(s)	16 NVSL219CT@690mA NW 740 230V
LampFlux(klm)/Colour	4.43 NW 4000K/70
File Name	AXIA 2.1 5167 16 NVSL219CT 690mA NW 740 36W 383332 Integrated lenses 230V ...
Maintenance Factor	0.74
Imax70,80,90(cd/klm)	956.2, 194.5, 0.0
Lamp S/P Ratio	1.50
No. in Project	5

Layout

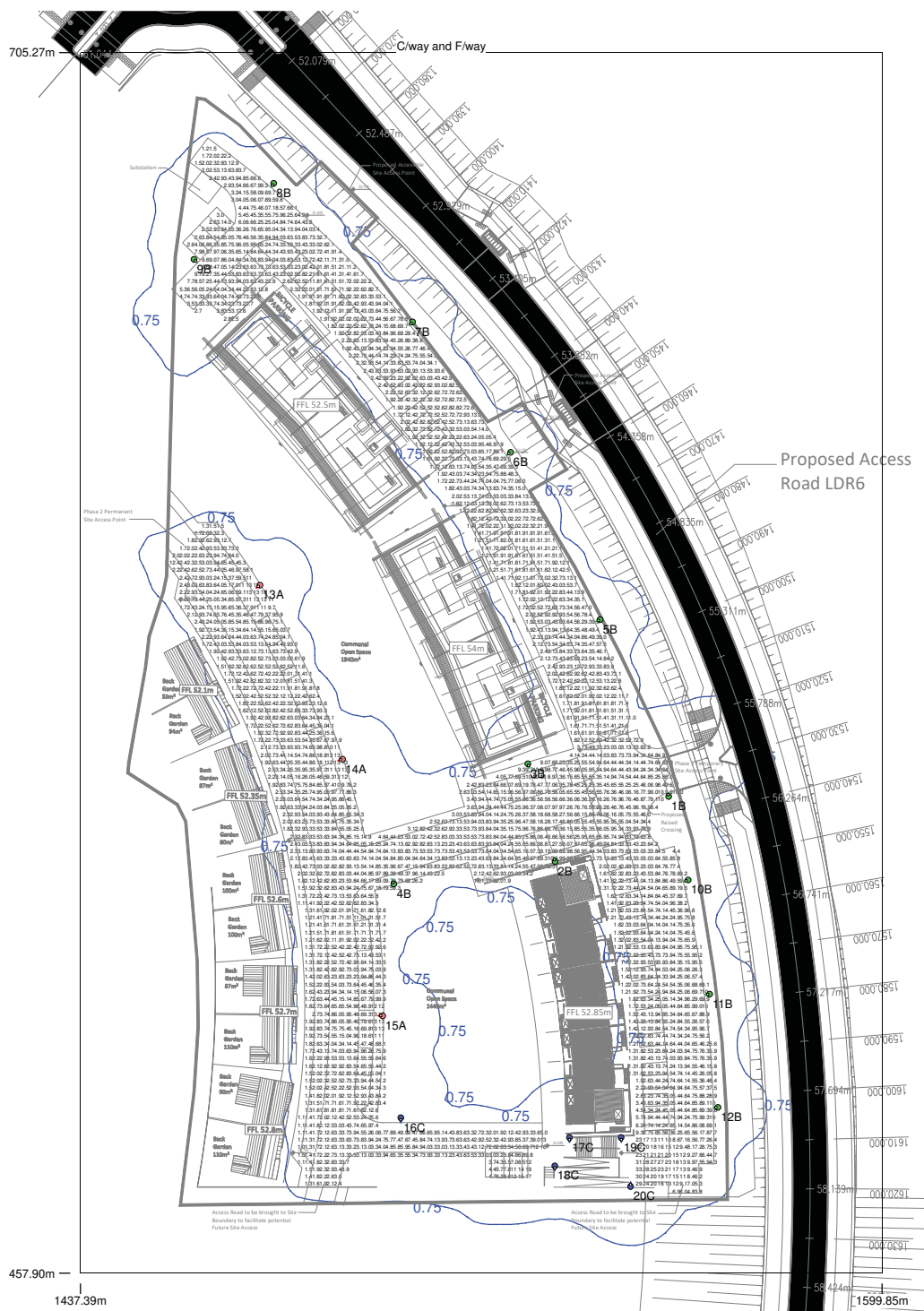
ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
1	B	1556.58	554.53	6.00	107.00	5.00	0.00	0.40			
2	B	1533.54	541.36	6.00	104.00	5.00	0.00	0.40			
3	B	1528.02	561.16	6.00	287.00	5.00	0.00	0.40			
4	B	1500.88	536.80	6.00	110.00	5.00	0.00	0.40			
5	B	1542.70	590.37	6.00	204.00	5.00	0.00	0.40			
6	B	1524.55	624.25	6.00	214.00	5.00	0.00	0.40			
7	B	1504.68	650.70	6.00	222.00	5.00	0.00	0.40			
8	B	1476.55	678.77	6.00	234.00	5.00	0.00	0.40			
9	B	1460.43	663.35	6.00	314.00	5.00	0.00	0.40			

Layout Continued

ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
10	B	1560.50	537.60	6.00	198.00	5.00	0.00	0.40			
11	B	1564.86	514.50	6.00	191.00	5.00	0.00	0.40			
12	B	1566.58	491.53	6.00	178.00	5.00	0.00	0.40			
13	A	1473.77	597.34	6.00	214.00	5.00	0.00	0.40			
14	A	1490.49	562.10	6.00	199.00	5.00	0.00	0.40			
15	A	1498.64	510.10	6.00	178.00	5.00	0.00	0.40			
16	C	1502.30	489.43	6.00	270.00	5.00	0.00	0.40			
17	C	1536.49	485.46	4.00	270.00	0.00	0.00	0.40			
18	C	1533.52	479.71	4.00	270.00	0.00	0.00	0.40			
19	C	1546.94	485.46	4.00	272.00	0.00	0.00	0.40			
20	C	1548.86	475.50	4.00	91.00	0.00	0.00	0.40			

Horizontal Illuminance (lux)

C/way and F/way

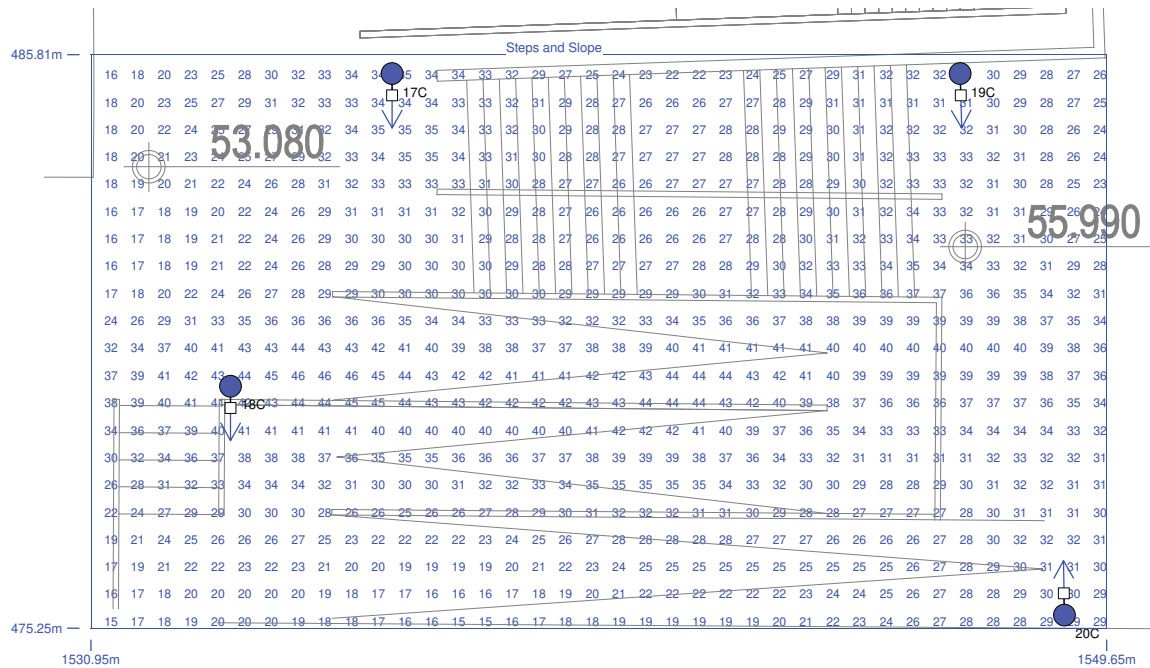


Results

Eav	4.34
Emin	1.03
Emax	33.11
Emin/Emax	0.03
Emin/Eav	0.24

Horizontal Illuminance (lux)

Steps and Slope



Results

Eav	30.30
Emin	15.36
Emax	45.97
Emin/Emax	0.33
Emin/Eav	0.51