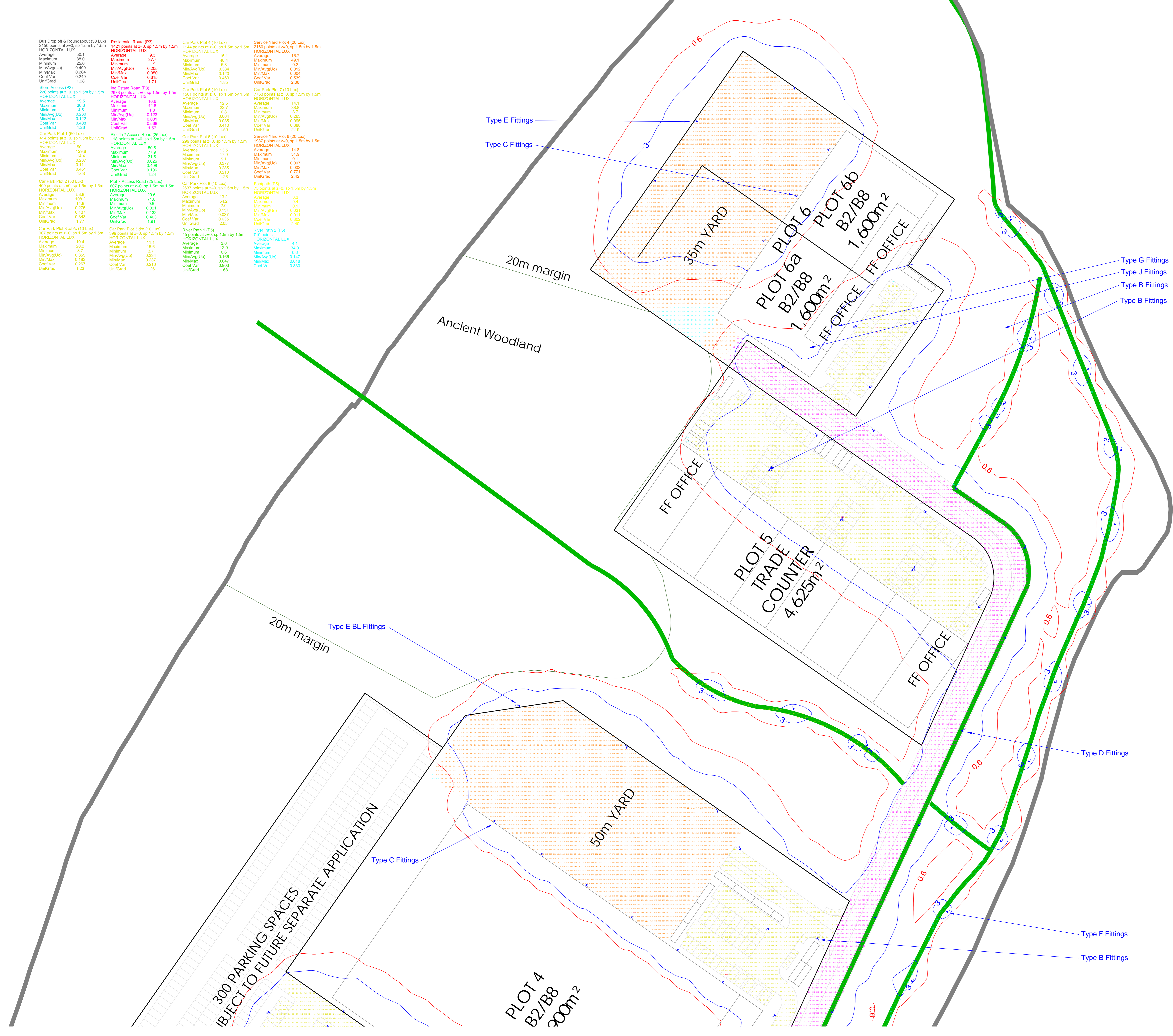


Bus Drop off & Roundabout (50 Lux) 2150 points at z=0, sp 1.5m by 1.5m HORIZONTAL LUX	Residential Route (P3) 1423 points at z=0, sp 1.5m by 1.5m HORIZONTAL LUX	Car Park Plot 4 (10 Lux) 1144 points at z=0, sp 1.5m by 1.5m HORIZONTAL LUX	Service Yard Plot 4 (20 Lux) 2160 points at z=0, sp 1.5m by 1.5m HORIZONTAL LUX
Average 50.1 Maximum 85.0 Minimum 25.0 Min/Avg(Uo) 0.459 Min/Max 0.284 Coef Var 0.249 Uni/Grad 1.28	Average 9.3 Maximum 37.7 Minimum 1.9 Min/Avg(Uo) 0.295 Min/Max 0.050 Coef Var 0.815 Uni/Grad 1.71	Average 15.1 Maximum 48.4 Minimum 5.8 Min/Avg(Uo) 0.354 Min/Max 0.120 Coef Var 0.469 Uni/Grad 1.85	Average 16.7 Maximum 49.4 Minimum 0.2 Min/Avg(Uo) 0.012 Min/Max 0.004 Coef Var 0.539 Uni/Grad 2.38
Store Access (P3) 226 points at z=0, sp 1.5m by 1.5m HORIZONTAL LUX	Int Estate Road (P3) 2913 points at z=0, sp 1.5m by 1.5m HORIZONTAL LUX	Car Park Plot 5 (10 Lux) 1501 points at z=0, sp 1.5m by 1.5m HORIZONTAL LUX	Car Park Plot 7 (10 Lux) 7763 points at z=0, sp 1.5m by 1.5m HORIZONTAL LUX
Average 19.5 Maximum 36.8 Minimum 4.5 Min/Avg(Uo) 0.230 Min/Max 0.122 Coef Var 0.408 Uni/Grad 1.26	Average 10.6 Maximum 42.6 Minimum 1.3 Min/Avg(Uo) 0.123 Min/Max 0.031 Coef Var 0.568 Uni/Grad 1.57	Average 12.5 Maximum 22.7 Minimum 0.8 Min/Avg(Uo) 0.094 Min/Max 0.035 Coef Var 0.410 Uni/Grad 1.50	Average 14.1 Maximum 38.4 Minimum 3.7 Min/Avg(Uo) 0.293 Min/Max 0.095 Coef Var 0.389 Uni/Grad 2.19
Car Park Plot 1 (50 Lux) 414 points at z=0, sp 1.5m by 1.5m HORIZONTAL LUX	Plot 1+2 Access Road (25 Lux) 118 points at z=0, sp 1.5m by 1.5m HORIZONTAL LUX	Car Park Plot 6 (10 Lux) 290 points at z=0, sp 1.5m by 1.5m HORIZONTAL LUX	Service Yard Plot 6 (20 Lux) 1897 points at z=0, sp 1.5m by 1.5m HORIZONTAL LUX
Average 50.1 Maximum 129.8 Minimum 14.4 Min/Avg(Uo) 0.287 Min/Max 0.111 Coef Var 0.461 Uni/Grad 1.63	Average 59.8 Maximum 77.9 Minimum 31.5 Min/Avg(Uo) 0.506 Min/Max 0.408 Coef Var 0.196 Uni/Grad 1.21	Average 13.2 Maximum 17.9 Minimum 5.1 Min/Avg(Uo) 0.377 Min/Max 0.285 Coef Var 0.218 Uni/Grad 1.26	Average 14.8 Maximum 51.9 Minimum 0.007 Min/Avg(Uo) 0.002 Min/Max 0.271 Coef Var 2.42
Car Park Plot 2 (50 Lux) 400 points at z=0, sp 1.5m by 1.5m HORIZONTAL LUX	Plot 7 Access Road (25 Lux) 607 points at z=0, sp 1.5m by 1.5m HORIZONTAL LUX	Car Park Plot 8 (10 Lux) 2637 points at z=0, sp 1.5m by 1.5m HORIZONTAL LUX	Footpath (P5) 73 points at z=0, sp 1.5m by 1.5m HORIZONTAL LUX
Average 53.8 Maximum 108.2 Minimum 14.6 Min/Avg(Uo) 0.275 Min/Max 0.137 Coef Var 0.348 Uni/Grad 1.77	Average 29.6 Maximum 71.8 Minimum 9.5 Min/Avg(Uo) 0.321 Min/Max 0.132 Coef Var 0.403 Uni/Grad 1.91	Average 13.2 Maximum 54.2 Minimum 0.151 Min/Avg(Uo) 0.037 Min/Max 0.035 Coef Var 0.205	Average 3.3 Maximum 9.4 Minimum 0.1 Min/Avg(Uo) 0.031 Min/Max 0.011 Coef Var 0.032 Uni/Grad 2.40
Car Park Plot 3 (10 Lux) 907 points at z=0, sp 1.5m by 1.5m HORIZONTAL LUX	Plot 7 Access Road (25 Lux) 607 points at z=0, sp 1.5m by 1.5m HORIZONTAL LUX	Car Park Plot 9 (10 Lux) 45 points at z=0, sp 1.5m by 1.5m HORIZONTAL LUX	River Path 2 (P5) 710 points at z=0, sp 1.5m by 1.5m HORIZONTAL LUX
Average 10.4 Maximum 20.2 Minimum 3.7 Min/Avg(Uo) 0.355 Min/Max 0.183 Coef Var 0.267 Uni/Grad 1.23	Average 11.1 Maximum 15.0 Minimum 3.7 Min/Avg(Uo) 0.334 Min/Max 0.227 Coef Var 0.210 Uni/Grad 1.26	Average 3.6 Maximum 12.9 Minimum 0.6 Min/Avg(Uo) 0.166 Min/Max 0.047 Coef Var 0.903 Uni/Grad 1.88	Average 4.1 Maximum 34.0 Minimum 0.147 Min/Max 0.018



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Rev	By	Date	Description	CHK
P1	CA	14.04.22	Amended with updated lighting layout.	PRH
P2	PR	18.09.22	Amended with updated lighting layout.	PRH

- All luminaires to be ordered with a lumen output 20% greater than shown below. All luminaires complete with 200lm beam diameter and 10 degree beam spread.
- L** Luma Gen2 Micro BGP702 3000K DW90 20 LED 5.04m Twin Luminaires
1 lamp(s) per luminaire, 5000 initial lumens per lamp
Maintenance Factor = 0.700, watts per luminaire = 51
88 angle 5 deg
Outreach (from mounting axis to photometric center) = 600 mm
mounting height: 6 m
number locations= 34, number luminaires= 68
 - H** Luma Gen2 Micro BGP702 3000K DW90 20 LED 5.04m Single Luminaires
1 lamp(s) per luminaire, 5000 initial lumens per lamp
Maintenance Factor = 0.700, watts per luminaire = 51
Outreach (from mounting axis to photometric center) = 400 mm
88 angle 5 deg
mounting height: 6 m
number locations= 12, number luminaires= 12
 - G** Luma Gen2 Mini BGP703 3000K DW90 40 LED 7.06m
1 lamp(s) per luminaire, 17000 initial lumens per lamp
Maintenance Factor = 0.700, watts per luminaire = 141
Outreach (from mounting axis to photometric center) = 400 mm
mounting height: 6 m
number locations= 6, number luminaires= 6
 - F** Luma Gen2 Micro BGP702 3000K DW10 BL2 4 LED 1.24m
1 lamp(s) per luminaire, 17000 initial lumens per lamp
Maintenance Factor = 0.700, watts per luminaire = 141
Outreach (from mounting axis to photometric center) = 400 mm
88 angle 5 deg
number locations= 38, number luminaires= 38
 - E** Luma Gen2 Medium BGP704 3000K DW90 80 LED 20.04m Twin Luminaires
1 lamp(s) per luminaire, 20000 initial lumens per lamp
Maintenance Factor = 0.830, watts per luminaire = 120
Outreach (from mounting axis to photometric center) = 600 mm
88 angle 5 deg
mounting height: 8 m
number locations= 5, number luminaires= 5
 - D** Luma Gen2 Mini BGP703 3000K DW90 40 LED 8.54m Single Luminaires
1 lamp(s) per luminaire, 8500 initial lumens per lamp
Maintenance Factor = 0.830, watts per luminaire = 50
Outreach (from mounting axis to photometric center) = 600 mm
mounting height: 8 m
number locations= 3, number luminaires= 6
 - C** Luma Gen2 Mini BGP703 3000K DW90 40 LED 7.06m
1 lamp(s) per luminaire, 20000 initial lumens per lamp
Maintenance Factor = 0.830, watts per luminaire = 141
Outreach (from mounting axis to photometric center) = 400 mm
88 angle 5 deg
number locations= 13, number luminaires= 13
 - B** Luma Gen2 Mini BGP703 3000K DW90 40 LED 8.54m Single Luminaires
1 lamp(s) per luminaire, 8500 initial lumens per lamp
Maintenance Factor = 0.830, watts per luminaire = 50
Outreach (from mounting axis to photometric center) = 400 mm
mounting height: 8 m
number locations= 30, number luminaires= 30
 - A** Luma Gen2 Large BGP705 3000K DW90 180 LED 41.06m
1 lamp(s) per luminaire, 41000 initial lumens per lamp
Maintenance Factor = 0.830, watts per luminaire = 246
Outreach (from mounting axis to photometric center) = 400 mm
mounting height: 10 m
number locations= 14, number luminaires= 14
 - J** Existing Twin Luma 1 3000K DW11 12.64m
1 lamp(s) per luminaire, 12600 initial lumens per lamp
Maintenance Factor = 0.830, watts per luminaire = 50
Outreach (from mounting axis to photometric center) = 900 mm
mounting height: 8 m
number locations= 1, number luminaires= 2
 - I** Luma Gen2 Medium BGP704 3000K DW90 80 LED 20.04m Twin Luminaires
1 lamp(s) per luminaire, 20000 initial lumens per lamp
Maintenance Factor = 0.700, watts per luminaire = 120
Outreach (from mounting axis to photometric center) = 600 mm
mounting height: 8 m
number locations= 1, number luminaires= 2
 - J** Luma Gen2 Medium BGP704 3000K DW90 80 LED 13.54m
1 lamp(s) per luminaire, 13500 initial lumens per lamp
Maintenance Factor = 0.700, watts per luminaire = 79
Outreach (from mounting axis to photometric center) = 400 mm
mounting height: 8 m
number locations= 7, number luminaires= 7
 - J** Luma Gen2 Medium BGP704 3000K DW90 80 LED 20.04m
1 lamp(s) per luminaire, 20000 initial lumens per lamp
Maintenance Factor = 0.700, watts per luminaire = 120
Outreach (from mounting axis to photometric center) = 400 mm
mounting height: 8 m
number locations= 7, number luminaires= 7
 - EBL** Luma Gen2 Medium BGP704 3000K DW90 BL2 80 LED 20.04m
1 lamp(s) per luminaire, 20000 initial lumens per lamp
Maintenance Factor = 0.830, watts per luminaire = 120
Outreach (from mounting axis to photometric center) = 400 mm
mounting height: 8 m
number locations= 1, number luminaires= 1

Client
**CURTIS HALL
CARDIFF PARK & RIDE EAST**

Architect
**HENRY MEIN
PARTNERSHIP**
ARCHITECTS &
INTERIOR DESIGNERS

Project Address
CARDIFF EAST PARK & RIDE

Drawing Title
EXTERNAL LIGHTING SEC 1/2

KTA
KELLY TAYLOR & ASSOCIATES
ENGINEERING & ENVIRONMENTAL CONSULTANTS
1 ASHLEIGH WAY, LANGAGE BUSINESS PARK,
PLYMOUTH, DEVON, PL2 5JX
TEL +44(0)1752 332890 FAX +44(0)1752 344282
E.MAIL general@kellytaylor.net

PRELIMINARY

Drawn by CA	Checked by PRH	Authorised by JDG
Scale 1:1000	Size A0	Date MAR 2022
Drawing No. 10341-EXT-100	Rev. P3	