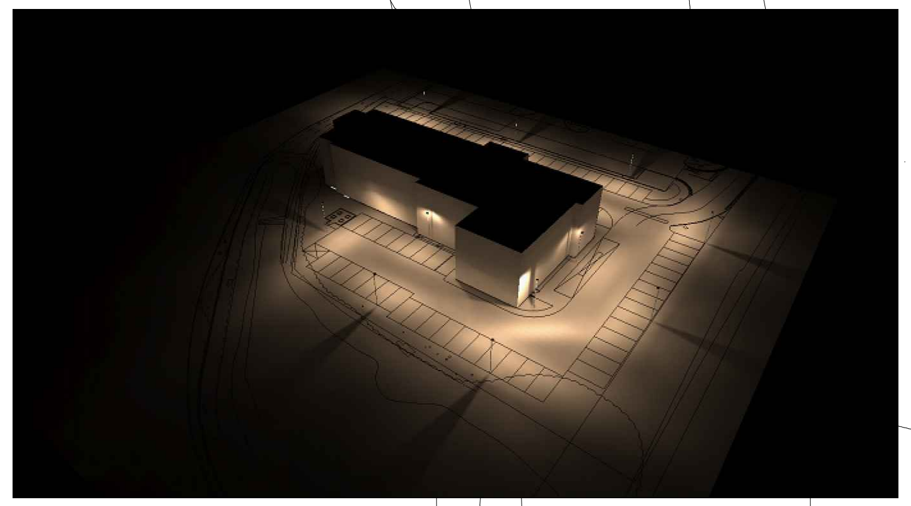
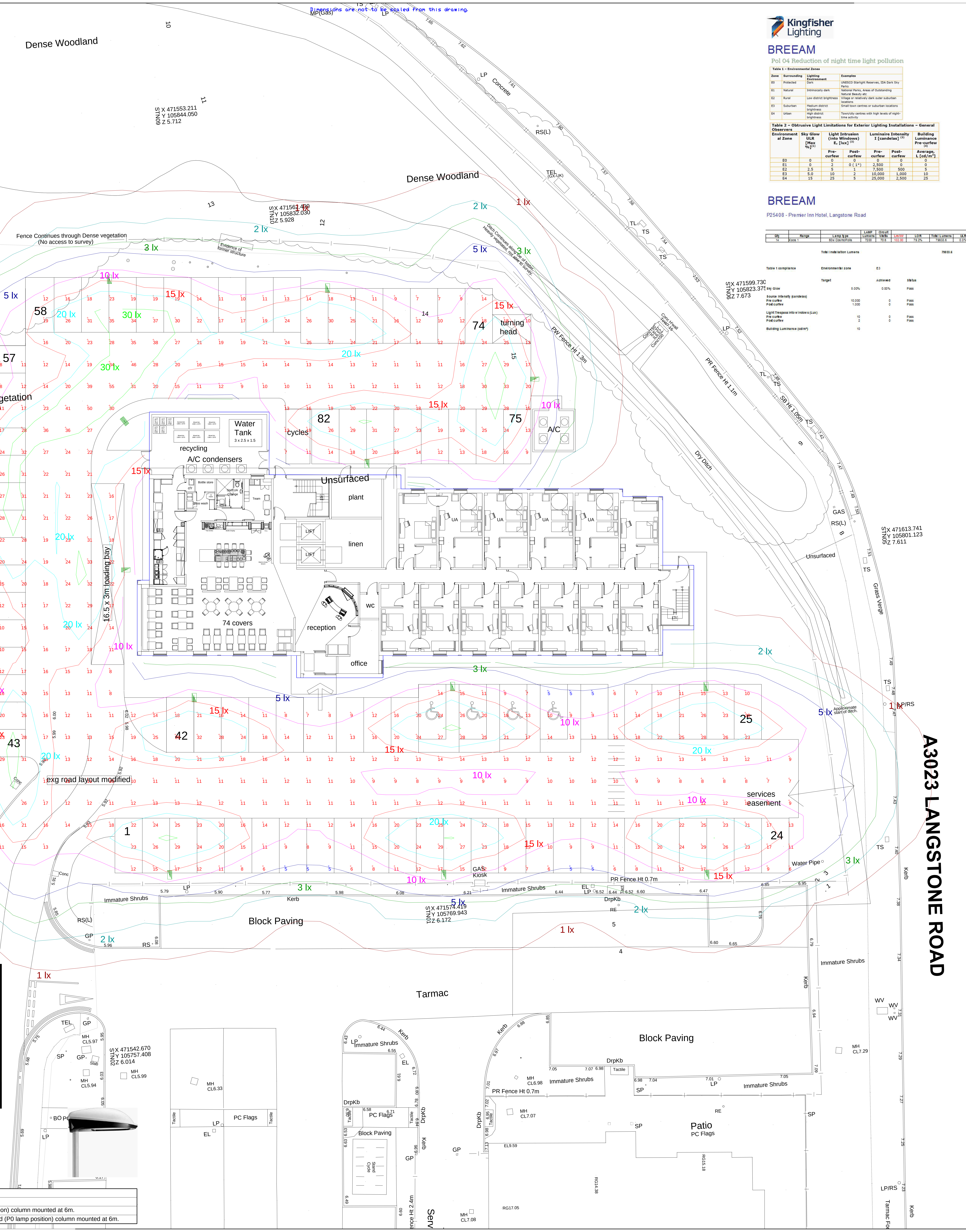
Dimensions are not to be scaled from this drawing.




Dense Woodland
Dense Woodland
STN09 X 471553.211 Y 105844.050 Z 5.712
STN10 X 471561.400 Y 105832.030 Z 5.928
STN06 X 471599.730 Y 105823.375 Z 7.673
STN05 X 471613.741 Y 105801.123 Z 7.611
STN01 X 471574.419 Y 105769.943 Z 6.172
STN02 X 471542.670 Y 105757.408 Z 6.014
Fence Continues through Dense vegetation (No access to survey)
Evidence of former structure
Ditch Continues along toe of batter. Heavily vegetated, not able to survey.
MP(Gas)
LP
Concrete
RS(L)
TEL (GX-UK)
TL
TS
Conc H'wall TW7.15
PW Fence Ht 1.3m
PR Fence Ht 1.1m
SB Ht 1.05m
Dry Ditch
GAS
Unsurfaced
Grass Verge
Approximate start of ditch.
LP/RS
A3023 LANGSTONE ROAD
10m exclusion zone from water's edge
Dense Vegetation
No Access
Dense Vegetation
Ht 7.0m
Stream
Flow
58
57
74
turning head
82
75
cycles
A/C
Water Tank
3 x 2.5 x 1.5
recycling
A/C condensers
Unsurfaced
plant
linen
LIFT
LIFT
UA
Bottle store
glass wash
Staff UA
Change
Team
16.5 x 3m loading bay
74 covers
reception
wc
office
42
43
25
1
24
exg road layout modified
services easement
Water Pipe
GAS Kiosk
PR Fence Ht 0.7m
Immature Shrubs
Kerb
Block Paving
Tarmac
Block Paving
Patio
PC Flags
PC Flags
Block Paving
Stand Cycle
DrpKb
Tactile
MH CL5.97
MH CL5.94
MH CL5.99
MH CL6.33
MH CL6.98
MH CL7.07
MH CL7.08
MH CL7.29
MH CL5.49
CL5.56
Unsurfaced
Dense Bushes
WV
SP
GP
EL
RE
Conc
Tarmac Foo
Serv
Fence Ht 2.4m
1 lx
2 lx
3 lx
5 lx
10 lx
15 lx
20 lx
30 lx

90°

Revision	Date	Description	Initials

BREEAM

Pol 04 Reduction of night time light pollution

Table 1 – Environmental Zones

Zone	Surrounding	Lighting Environment	Examples
E0	Protected	Dark	UNESCO Starlight Reserves, IDA Dark Sky Parks
E1	Natural	Intrinsically dark	National Parks, Areas of Outstanding Natural Beauty etc
E2	Rural	Low district brightness	Village or relatively dark outer suburban locations
E3	Suburban	Medium district brightness	Small town centres or suburban locations
E4	Urban	High district brightness	Town/city centres with high levels of night-time activity

Table 2 – Obtrusive Light Limitations for Exterior Lighting Installations – General Observers

Environmental Zone	Sky Glow ULR [Max %][1]	Light Intrusion (into Windows) E_v [lux] [2]		Luminaire Intensity I [candelas] [3]		Building Luminance Pre-curfew [4]
		Pre-curfew	Post-curfew	Pre-curfew	Post-curfew	Average, L [cd/m²]
E0	0	0	0	0	0	0
E1	0	2	0 (1*)	2,500	0	0
E2	2.5	5	1	7,500	500	5
E3	5.0	10	2	10,000	1,000	10
E4	15	25	5	25,000	2,500	25

Ene 03 External lighting

No. of credits available:	1
Minimum standards:	No

Aim

To recognise and encourage the specification of energy-efficient light fittings for external areas of the development.

Assessment Criteria

The following is required to demonstrate compliance for:

One credit

1. All external light fittings for the building, access ways and pathways have a luminous efficacy of at least 50 lamp lumens/circuit Watt when the lamp has a colour rendering index (Ra) greater than or equal to 60 OR 60 lamp Lumens / circuit Watt when the lamp has a colour rendering index (Ra) less than 60.
2. All external light fittings to car parking areas, associated roads and floodlighting has a luminous efficacy of at least 70 lamp lumens/circuit Watt when the lamp has a colour rendering index (Ra) greater than or equal to 60 OR 80 lamp Lumens / circuit Watts when the lamp has a colour rendering index (Ra) less than 60.
3. All external light fittings for signs and uplighting have a luminous efficacy of at least 60 lamp lumens/circuit Watt when the lamp wattage is greater than or equal to 25W OR 50 lamp lumens/circuit Watt when the lamp wattage is less than 25W.
4. External light fittings are controlled through a time switch, or daylight sensor, to prevent operation during daylight hours. Daylight sensor override on a manually switched lighting circuit is acceptable.

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P25408 - Premier Inn Hotel, Langstone Road

			LAMP	Circuit							ART	CO² Calculation for year		Compliance with ENE 03
Qty	Range	Lamp type	Lumens	Watts	Lm/W	LOR	Total Lumens	ULR	Upward Lmns	RA	Hour Per Day	CO² (Tonnes)	Kw/hour	
14	Kaos 1	60w CosmoPolis	7200	70.6	102.00	79.2%	79833.6	0.0%	0	65	12	2.36	4328.47	Pass

Total Installation Lumens	79833.6	0	
Total ULR	0.00%	Total CO² per year (Tonnes)	2.36
		Total Electrical consumption (Kw)	0.99
		Total Electrical consumption per year (Kwh)	4,328.47

Table 1 compliance — Environmental zone: E3

	Target	Achieved	Status	
Sky Glow	5.00%	0.00%	Pass	
Source Intensity (candelas)				
Pre curfew	10,000	0	Pass	Note - we have not been able to calculate this as no housing is shown on the drawing
Post curfew	1,000	0	Pass	Note - we have assumed no fittings will be left on Post curfew
Light Trespass into windows (Lux)				
Pre curfew	10	0	Pass	Note - we have not been able to calculate this as no housing is shown on the drawing
Post curfew	2	0	Pass	Note - we have assumed no fittings will be left on Post curfew
Building Luminance (cd/m²)	10			

Calculation Summary

Label	CalcType	Units	Avg	Max	Min	Min/Avg	Min/Max
Car Park	Illuminance	Lux	16.53	55	5	0.30	0.09

Luminaire Schedule

Symbol	Qty	Label	Arrangement	Description
🟩	1	A	SINGLE	60w Cosmopolis Kaos 1 Road lantern (P0 lamp position) column mounted at 6m.
🟩	13	B	SINGLE	60w Cosmopolis Kaos 1 Road lantern with Spill Shield (P0 lamp position) column mounted at 6m.

Members Of

HEMSA

ILP Institution of Lighting Professionals

Lighting Industry Association

SAPCA Ancillary Contractor

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Project Title

Premier Inn Hotel, Langstone Road

Scale	Project No
1:200 at A1	D25408
Date	**Drawing No**
4/12/2014	D25408/PY/A

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