

BREEAM Compliance Status:

Poi 04 Reduction of night time light pollution Pass

Ene 03 Energy efficient external lighting Pass

Hea 01 Internal and external lighting levels Pass

BREEAM

P26089e - Hampstead School, Camden



Qty	Range	Lamp type	LAMP Lumens	Circuit Watts	LnW	LOR	Total Lumens	ULR	Upward Lmns	RA	ART Hour Per Day	COF (Tonnes)	PerHour
3	Kaas 2	250w CDO-TT	26300	277.5	89.77	79.2%	67240.8	0.0%	0	85	12	1.99	3546.35
19	Kaas 1	70w CDO-TT	7200	82.1	87.53	79.2%	88204	0.0%	0	85	12	3.14	5753.57
8	Kaas 1	100w CDO-TT	8500	113.7	88.17	79.2%	60192	0.0%	0	85	12	2.17	3984.00
3	Kaas 1	150w CDO-TT	14300	168.5	85.80	79.2%	33264	0.0%	0	85	12	1.21	2214.00
42	Quarto	32w PL	2400	32.0	37.86	50.5%	50904	0.0%	0	85	12	3.21	5869.72

Total Installation Lumens	300304.8	0	Total ULR	0.00%	Total COF per year (Tonnes)	11.71
					Total Electrical consumption (Kw)	4.91

Table 1 compliance	Environmental zone	E3			Total Electrical consumption per year (Kwh)	21,484.78
	Target	Achieved	Status		Average luminaire lumens per circuit Watt	61.22

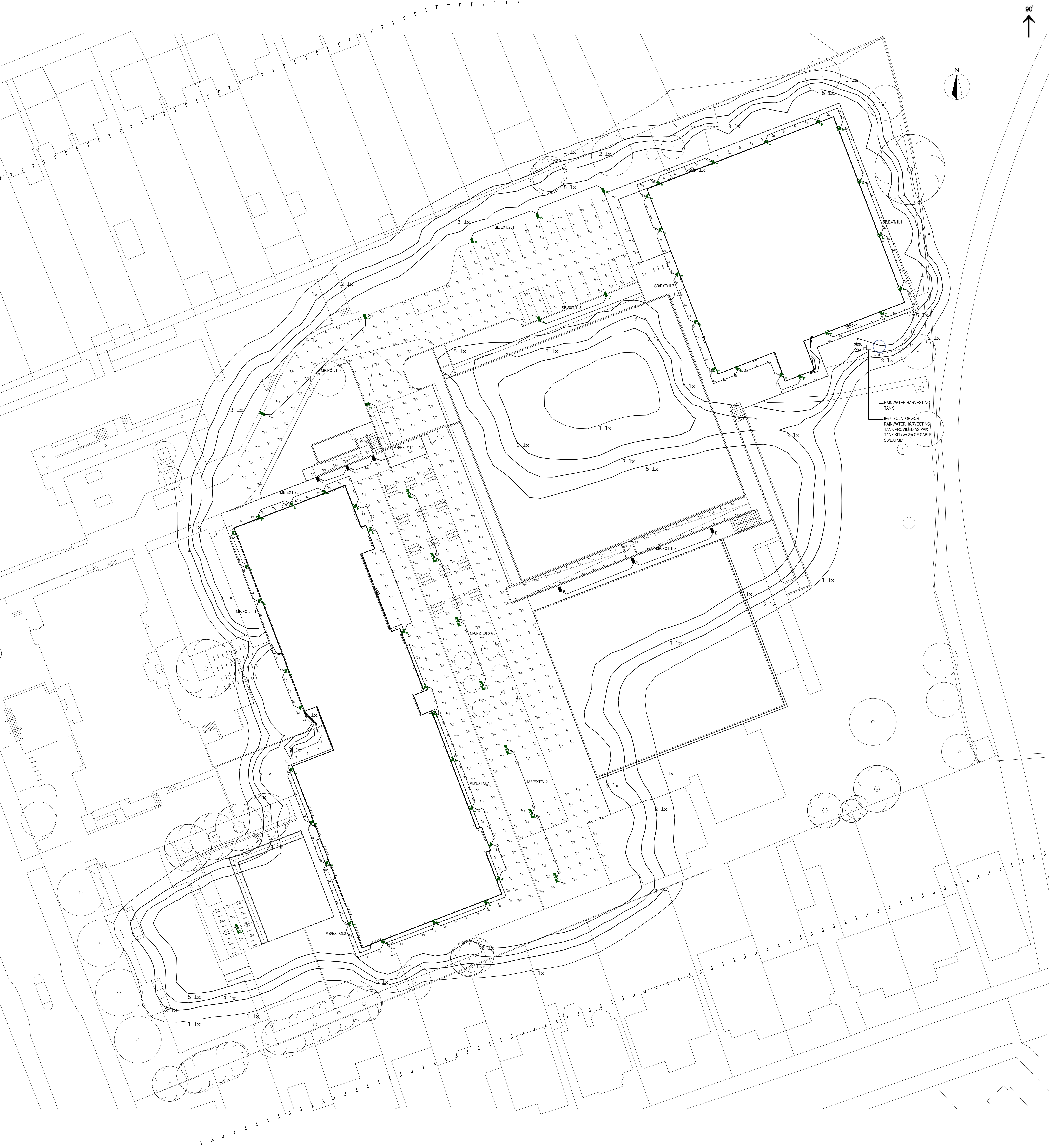
Sky Glow	5.00%	0.00%	Pass	
Source Intensity (candelas)				
Pre curfew	10,000	327	Pass	
Post curfew	1,000	0	Pass	Note - we have assumed no fittings will be left on Post curfew
Light Trespass into windows (Lux)				
Pre curfew	10	1	Pass	
Post curfew	2	0	Pass	Note - we have assumed no fittings will be left on Post curfew
Building Luminance (cd/m²)				
	2			

The criteria for a design to achieve the ENE 03 credit have now changed. Designs are now required to achieve an average of 60 luminaire lumens per circuit watt. This affects the type of fitting and light source that can be used. Please ensure that this is considered when comparing this drawing to previous designs or designs by others. For more information contact our lighting design department or go to : <http://goo.gl/IVGQJNy> (BREEAM's official website)



Calculation Summary	CalcType	Units	Avg	Max	Min	MinAvg	MinMax
Car Park	Illuminance	Lux	28.08	118	8	0.29	0.07
Cycle Bays	Illuminance	Lux	35.97	142	30	0.84	0.71
Large Ramp	Illuminance	Lux	100.40	134	59	0.59	0.44
Left Building Perimeter	Illuminance	Lux	31.44	98	0	N.A.	N.A.
Outside Eating and Play Area	Illuminance	Lux	37.47	190	9	0.24	0.10
Rear Of Lower Houses Verticals_C	Obtrusive Light - Cd	N.A.	76.45	327	0	N.A.	N.A.
Rear Of Lower Houses Verticals_I	Obtrusive Light - H	Lux	0.00	1	0	N.A.	N.A.
Rear Of Upper Houses Verticals_C	Obtrusive Light - Cd	N.A.	47.89	148	17	0.35	0.11
Rear Of Upper Houses Verticals_I	Obtrusive Light - H	Lux	0.00	0	0	N.A.	N.A.
Rear Of Upper Houses Verticals_J	Obtrusive Light - H	Lux	0.00	0	0	N.A.	N.A.
Rear Of Upper Houses Verticals_K	Obtrusive Light - H	Lux	0.00	0	0	N.A.	N.A.
Right Building Perimeter	Illuminance	Lux	22.15	58	6	0.27	0.11
Small Ramp	Illuminance	Lux	107.57	180	62	0.86	0.57

Luminaire Schedule	Symbol	Qty	Label	Arrangement	Description
	1	8	A	SINGLE	100w CDO-TT Kaas 1 Road lantern with Split Shield (P0 lamp position) column mounted at 6m.
	3	19	B	SINGLE	250w CDO-TT Kaas 2 Road lantern (P0 lamp position) column mounted at 6m.
	3	8	C	SINGLE	150w CDO-TT Kaas 1 Road lantern (P0 lamp position) column mounted at 6m.
	8	19	D	BACK-TO-BACK	70w CDO-TT Kaas 1 Road lantern (P0 lamp position) column mounted at 6m.
	42	42	E	SINGLE	32w PL Quarto bollard/wall mounted at 3.7m.



THE ARCHITECTURE IS BASED ON PLUNKE DRAWING NO. 0220 WORKING

22/07/15

THIS DRAWING IS FOR INFORMATION ONLY DO NOT SCALE			
CDM REGULATIONS			
NUMBERS	DATE ADDED	DATE MITIGATED	RISK ASSESSMENT DATE

- NOTES:
- EXTERNAL LIGHTING TO BE CONTROLLED VIA PHOTOCELL/TIMECLOCK ARRANGEMENT FROM APPROPRIATE BUILDING ON-ON/OFF AUTO SWITCH LOGICAL TO EXTERNAL LIGHTING DBS.
 - END USER TO CONFIRM SWITCHING REQUIREMENTS NOTING CURFEW DETAILS TO ACHIEVE BREEAM COMPLIANCE.

201/02/11/16	ISSUED AS INSTALLED.	SH	MR
REV	DATE	AMENDMENTS	BY

AS INSTALLED

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CLIENT
WATES CONSTRUCTION

PROJECT
HAMPSTEAD SECONDARY SCHOOL
CAMDEN

TITLE
ELECTRICAL SERVICES
EXTERNAL LIGHTING LAYOUT

SCALE: 1:250	SHEET: A0
DRAWN: SLB	ENGINEER: SH
STARTED: JUL '15	FINISHED: NOV '16
CHECKED BY: M. ROBERTS	
Job Number: 1050a	Originator: E
Zone: -	Dwg Number: 6305
Revision: Z01	

Do not print this drawing at a larger scale than 1:250. It is intended to be used as a reference only. The architect is not responsible for the accuracy of the information provided in this drawing. It is the user's responsibility to ensure that the information is used in accordance with the relevant standards and regulations.