

Project name

Steyning Cricket Club B02 Planning Draft As designed

Date: Mon Jul 06 13:52:31 2026

Administrative information

Building Details

Address:

Certifier details

Name: [REDACTED]

Telephone number: [REDACTED]

Address: 185 Lennard Road Beckenham BR3 1QN,
LONDON, BR3 1QN

Certification tool

Calculation engine: SBEM

Calculation engine version: v6.1.e.2

Interface to calculation engine: DesignBuilder SBEM

Interface to calculation engine version: v7.3.1

BRUKL compliance module version: v6.1.e.1

Foundation area [m²]: 91.27The CO₂ emission and primary energy rates of the building must not exceed the targets

Target CO ₂ emission rate (TER), kgCO ₂ /m ² annum	15.08
Building CO ₂ emission rate (BER), kgCO ₂ /m ² annum	3.3
Target primary energy rate (TPER), kWh _{PE} /m ² annum	162.59
Building primary energy rate (BPER), kWh _{PE} /m ² annum	33.01
Do the building's emission and primary energy rates exceed the targets?	BER =< TER BPER =< TPER

The performance of the building fabric and fixed building services should achieve reasonable overall standards of energy efficiency

Fabric element	U _{a-Limit}	U _{a-Calc}	U _{i-Calc}	First surface with maximum value
Walls*	0.26	0.12	0.48	Block 2 - kitchenette_P_6
Floors	0.18	0.18	2.93	L00 - wc 03_F_4
Pitched roofs	0.16	0.13	0.25	L00 - wc 03_R_5
Flat roofs	0.18	-	-	No heat loss flat roofs
Windows** and roof windows	1.6	0.8	0.8	Block 2 - bar_G_7
Rooflights***	2.2	-	-	No external rooflights
Personnel doors^	1.6	0.81	0.81	L00 - corridor_D_7
Vehicle access & similar large doors	1.3	-	-	No external vehicle access doors
High usage entrance doors	3	-	-	No external high usage entrance doors

U_{a-Limit} = Limiting area-weighted average U-values [W/(m²K)]U_{i-Calc} = Calculated maximum individual element U-values [W/(m²K)]U_{a-Calc} = Calculated area-weighted average U-values [W/(m²K)]

* Automatic U-value check by the tool does not apply to curtain walls whose limiting standard is similar to that for windows.

** Display windows and similar glazing are excluded from the U-value check. *** Values for rooflights refer to the horizontal position.

^ For fire doors, limiting U-value is 1.8 W/m²K

NB: Neither roof ventilators (inc. smoke vents) nor swimming pool basins are modelled or checked against the limiting standards by the tool.

Air permeability	Limiting standard	This building
m ³ /(h.m ²) at 50 Pa	8	1

Building services

For details on the standard values listed below, system-specific guidance, and additional regulatory requirements, refer to the Approved Documents.

Whole building lighting automatic monitoring & targeting with alarms for out-of-range values	NO
Whole building electric power factor achieved by power factor correction	>0.95

1- reception split system

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	4.8	6.7	-	-	-
Standard value	2.5*	5	N/A	N/A	N/A
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system					YES
* Standard shown is for all types >12 kW output, except absorption and gas engine heat pumps.					

2- ashp

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	4.47	-	-	-	-
Standard value	2.5*	N/A	N/A	N/A	N/A
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system					YES
* Standard shown is for all types >12 kW output, except absorption and gas engine heat pumps.					

1- heat pump HWS becker and wolf

	Water heating efficiency	Storage loss factor [kWh/litre per day]
This building	4.5	0.002
Standard value	2*	N/A
* Standard shown is for all types except absorption and gas engine heat pumps.		

Zone-level mechanical ventilation, exhaust, and terminal units

ID	System type in the Approved Documents
A	Local supply or extract ventilation units
B	Zonal supply system where the fan is remote from the zone
C	Zonal extract system where the fan is remote from the zone
D	Zonal balanced supply and extract ventilation system
E	Local balanced supply and extract ventilation units
F	Other local ventilation units
G	Fan assisted terminal variable air volume units
H	Fan coil units
I	Kitchen extract with the fan remote from the zone and a grease filter
NB: Limiting SFP may be increased by the amounts specified in the Approved Documents if the installation includes particular components.	

Zone name	SFP [W/(l/s)]										HR efficiency	
ID of system type	A	B	C	D	E	F	G	H	I		Zone	Standard
Standard value	0.3	1.1	0.5	2.3	2	0.5	0.5	0.4	1			
Block 2 - bar	-	-	-	-	0.8	-	-	-	-		0.88	N/A
Block 2 - kitchenette	0.2	-	-	-	-	-	-	-	-		-	N/A
Block 2 - presidents lounge	-	-	-	-	0.8	-	-	-	-		0.88	N/A
L00 - wc 03	0.2	-	-	-	-	-	-	-	-		-	N/A
L00 - wc 04	0.2	-	-	-	-	-	-	-	-		-	N/A
L00 - shower	0.2	-	-	-	-	-	-	-	-		-	N/A

Zone name	SFP [W/(l/s)]										HR efficiency	
	ID of system type	A	B	C	D	E	F	G	H	I		
	Standard value	0.3	1.1	0.5	2.3	2	0.5	0.5	0.4	1	Zone	Standard
L00 - changing		0.3	-	-	-	-	-	-	-	-	-	N/A
L00 - wc 05		0.2	-	-	-	-	-	-	-	-	-	N/A
L00 - wc 06		0.2	-	-	-	-	-	-	-	-	-	N/A
L00 - changing		0.3	-	-	-	-	-	-	-	-	-	N/A
L00 - shower		0.2	-	-	-	-	-	-	-	-	-	N/A

General lighting and display lighting		General luminaire	Display light source	
Zone name		Efficacy [lm/W]	Efficacy [lm/W]	Power density [W/m²]
	Standard value	95	80	0.3
Block 2 - bar		160	-	-
Block 2 - kitchenette		160	-	-
Block 2 - presidents lounge		160	-	-
L00 - wc 03		160	-	-
L00 - corridor		160	-	-
L00 - lobby		160	-	-
L00 - wc 04		160	-	-
L00 - shower		160	-	-
L00 - changing		160	-	-
L00 - wc 05		160	-	-
L00 - lobby 03		160	-	-
L00 - wc 06		160	-	-
L00 - changing		160	-	-
L00 - lobby 04		160	-	-
L00 - shower		160	-	-
Block 2 - stairs		160	-	-
Block 2 - store		160	-	-

The spaces in the building should have appropriate passive control measures to limit solar gains in summer

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
Block 2 - bar	NO (-41.9%)	NO
Block 2 - kitchenette	N/A	N/A
Block 2 - presidents lounge	NO (-64.2%)	NO

Regulation 25A: Consideration of high efficiency alternative energy systems

Were alternative energy systems considered and analysed as part of the design process?	NO
Is evidence of such assessment available as a separate submission?	NO
Are any such measures included in the proposed design?	NO

Technical Data Sheet (Actual vs. Notional Building)

Building Global Parameters

	Actual	Notional
Floor area [m ²]	186.8	186.8
External area [m ²]	443	443
Weather	SOU	SOU
Infiltration [m ³ /hm ² @ 50Pa]	1	3
Average conductance [W/K]	83.33	169.98
Average U-value [W/m ² K]	0.19	0.38
Alpha value* [%]	10.36	27.37

* Percentage of the building's average heat transfer coefficient which is due to thermal bridging

Building Use

% Area	Building Type
	Retail/Financial and Professional Services
	Restaurants and Cafes/Drinking Establishments/Takeaways
	Offices and Workshop Businesses
	General Industrial and Special Industrial Groups
	Storage or Distribution
	Hotels
	Residential Institutions: Hospitals and Care Homes
	Residential Institutions: Residential Schools
	Residential Institutions: Universities and Colleges
	Secure Residential Institutions
	Residential Spaces
	Non-residential Institutions: Community/Day Centre
	Non-residential Institutions: Libraries, Museums, and Galleries
	Non-residential Institutions: Education
	Non-residential Institutions: Primary Health Care Building
	Non-residential Institutions: Crown and County Courts
100	General Assembly and Leisure, Night Clubs, and Theatres
	Others: Passenger Terminals
	Others: Emergency Services
	Others: Miscellaneous 24hr Activities
	Others: Car Parks 24 hrs
	Others: Stand Alone Utility Block

Energy Consumption by End Use [kWh/m²]

	Actual	Notional
Heating	7.05	19.35
Cooling	3.56	3.24
Auxiliary	12.89	22.39
Lighting	9.24	9.87
Hot water	18.53	55.53
Equipment*	37.18	37.18
TOTAL**	51.27	110.38

* Energy used by equipment does not count towards the total for consumption or calculating emissions.

** Total is net of any electrical energy displaced by CHP generators, if applicable.

Energy Production by Technology [kWh/m²]

	Actual	Notional
Photovoltaic systems	29.28	0.79
Wind turbines	0	0
CHP generators	0	0
Solar thermal systems	0	0
<i>Displaced electricity</i>	<i>29.28</i>	<i>0.79</i>

Energy & CO₂ Emissions Summary

	Actual	Notional
Heating + cooling demand [MJ/m ²]	204.64	306.11
Primary energy [kWh _{PE} /m ²]	33.01	162.59
Total emissions [kg/m ²]	3.3	15.08

HVAC Systems Performance

System Type	Heat dem MJ/m2	Cool dem MJ/m2	Heat con kWh/m2	Cool con kWh/m2	Aux con kWh/m2	Heat SSEFF	Cool SSEER	Heat gen SEFF	Cool gen SEER
[ST] Split or multi-split system, [HS] ASHP, [HFT] Electricity, [CFT] Electricity									
Actual	7.7	197.6	0.5	11	4.6	4.71	5.01	4.8	6.7
Notional	50.2	158.1	5.3	10	2.6	2.64	4.4	----	----
[ST] Central heating using water: floor heating, [HS] ASHP, [HFT] Electricity, [CFT] Natural Gas									
Actual	159.8	43.9	10.6	0	17.5	4.2	0	4.47	0
Notional	256.8	88.6	27	0	25.7	2.64	0	----	----
[ST] No Heating or Cooling									
Actual	219.9	2.4	0	0	0	0	0	0	0
Notional	454.6	121.8	0	0	0	0	0	----	----

Key to terms

Heat dem [MJ/m2]	= Heating energy demand
Cool dem [MJ/m2]	= Cooling energy demand
Heat con [kWh/m2]	= Heating energy consumption
Cool con [kWh/m2]	= Cooling energy consumption
Aux con [kWh/m2]	= Auxiliary energy consumption
Heat SSEFF	= Heating system seasonal efficiency (for notional building, value depends on activity glazing class)
Cool SSEER	= Cooling system seasonal energy efficiency ratio
Heat gen SSEFF	= Heating generator seasonal efficiency
Cool gen SSEER	= Cooling generator seasonal energy efficiency ratio
ST	= System type
HS	= Heat source
HFT	= Heating fuel type
CFT	= Cooling fuel type