

Regulations Compliance Report

Approved Document L1A 2010 edition assessed by Stroma FSAP 2009 program, Version: 1.5.0.11

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Project Information:

Assessed By: Gary Nicholls (STRO003305) **Building Type:** Detached Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Site Reference : Flat 4 - 33 Wicklow Street

Plot Reference: BEC/STUDIOV/WICKLOW/0006

Address : Flat 4, 33 Wicklow Street, Kings Cross, London, N1

Client Details:

Name: Studio V Architects

Address : 224 West Hendon Broadway, Hendon, London, NW9 7ED

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1 TER and DER

Fuel for main heating system: Natural gas

Fuel factor: 1.00 (natural gas)

Target Carbon Dioxide Emission Rate (TER) 21.37 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER) 14.58 kg/m² **OK**

2 Fabric U-values

Element	Average	Highest	
External wall	0.20 (max. 0.30)	0.23 (max. 0.70)	OK
Floor	(no floor)		
Roof	0.15 (max. 0.20)	0.15 (max. 0.35)	OK
Openings	1.32 (max. 2.00)	1.50 (max. 3.30)	OK

3 Air permeability

Air permeability at 50 pascals	3.00	
Maximum	10.0	OK

4 Heating efficiency

Main Heating system:	Database: (rev 331, product index 016661): Boiler system with radiators or underfloor - mains gas Brand name: Alpha Model: InTec 34C Model qualifier: (Combi boiler) Efficiency 88.8 % SEDBUK2009 Minimum 88.0 %	OK
Secondary heating system:	None	

5 Cylinder insulation

Hot water Storage:	No cylinder	N/A
Solar water heating		
Dedicated solar storage volume:	90 litres	
Minimum:	62 litres	OK

Regulations Compliance Report

6 Controls

Space heating controls	Time and temperature zone control	OK
Hot water controls:	No cylinder	
Boiler interlock:	Yes	OK

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Not applicable

9 Summertime temperature

Overheating risk (South East England):	Slight	OK
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Based on:

Overshading:	Average or unknown
Windows facing: North West	5.68m ² , Overhang twice as wide as window, ratio NaN
Windows facing: South East	1.8m ² , Overhang twice as wide as window, ratio NaN
Windows facing: South	3.24m ² , Overhang twice as wide as window, ratio NaN
Roof windows facing: Horizontal	4.8m ²
Ventilation rate:	6.00
Blinds/curtains:	None shutter closed 100% of daylight hours

10 Key features

Thermal bridging	0.04
Air permeability	3.0 m ³ /m ² h
Roof window U-value	1.3 W/m ² K
Windows U-value	1.3 W/m ² K
External Walls U-value	0.19 W/m ² K
Solar water heating	

SAP Input

Property Details: Flat 4 - 33 Wicklow Street

Address: Flat 4, 33 Wicklow Street, Kings Cross, London, N1
 Located in: England
 Region: South East England
 UPRN: na
 Date of assessment: 20 November 2012
 Date of certificate: 20 November 2012
 Assessment type: New dwelling design stage
 Transaction type: New dwelling
 Tenure type: Unknown
 Related party disclosure: No related party
 Thermal Mass Parameter: Indicative Value Medium
 Dwelling designed to use less than 125 litres per Person per day: True

Property description:

Dwelling type: Flat
 Detachment: Detached
 Year Completed: 2012
 Floor Location: Floor area: Storey height:
 Floor 0 63 m² 2.8 m
 Living area: 23 m² (fraction 0.365)
 Front of dwelling faces: North West

Opening types:

Name:	Source:	Type:	Glazing:	Argon:	Frame:
front door	Manufacturer	Solid			Wood
windows front	Manufacturer	Windows	double-glazed	Yes	PVC-U
windows rear	Manufacturer	Windows	double-glazed	Yes	PVC-U
windows side	Manufacturer	Windows	double-glazed	Yes	PVC-U
velux	Manufacturer	Roof Windows	double-glazed	Yes	PVC-U

Name:	Gap:	Frame Factor:	g-value:	U-value:	Area:	No. of Openings:
front door	mm	0.7	0	1.5	1.92	1
windows front	16mm or more	0.7	0.76	1.3	5.68	1
windows rear	16mm or more	0.7	0.76	1.3	1.8	1
windows side	16mm or more	0.7	0.76	1.3	3.24	1
velux	16mm or more	0.7	0.76	1.3	4.8	1

Name:	Type-Name:	Location:	Orient:	Width:	Height:
front door		wall to common area	South East	0	0
windows front		corium steel wall	North West	0	0
windows rear		corium steel wall	South East	0	0
windows side		corium steel wall	South	0	0
velux		flat roof	Horizontal	0	0

Overshading: Average or unknown

Opaque Elements:

Type:	Gross area:	Openings:	Net area:	U-value:	Ru value:	Curtain wall:	Kappa:
<u>External Elements</u>							
corium steel wall	78.86	10.72	68.14	0.19	0	False	N/A
wall to common area	12.88	1.92	10.96	0.28	0.82	False	N/A
flat roof	63	4.8	58.2	0.15	0		N/A
<u>Internal Elements</u>							
<u>Party Elements</u>							

Thermal bridges:

SAP Input

Thermal bridges:	User-defined (individual PSI-values)		
	Length	PSI-value	
Approved source	7.65	0.204	Other lintels (including other steel lintels)
Approved source	4.2	0.019	Sill
Approved source	12.3	0.02	Jamb
Approved source	32.7	0.07	Intermediate floor between dwellings
Approved source	32.7	0.04	Flat roof
Approved source	14	0.042	Corner (normal)
Approved source	2.8	-0.09	Corner (inverted)

Ventilation:

Pressure test:	Yes (As designed)
Ventilation:	Natural ventilation (extract fans)
Number of chimneys:	0
Number of open flues:	0
Number of fans:	2
Number of sides sheltered:	2
Pressure test:	3

Main heating system:

Main heating system:	Central heating systems with radiators or underfloor heating
	Gas boilers and oil boilers
	Fuel: mains gas
	Info Source: Boiler Database
	Database: (rev 331, product index 016661) SEDBUK2009 88.8%
	Brand name: Alpha
	Model: InTec 34C
	Model qualifier:
	(Combi boiler)
	Systems with radiators
	Pump in heat space: Yes
	Delayed start

Main heating Control:

Main heating Control:	Time and temperature zone control
	Control code: 2110
	Boiler interlock: Yes

Secondary heating system:

Secondary heating system:	None
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Water heating:

Water heating:	From main heating system
	Water code: 901
	Fuel :mains gas
	No hot water cylinder
	Flue Gas Heat Recovery System:
	Database (rev 331, product index 060001)
	Brand name: Zenex
	Model: GasSaver
	Model qualifier: GS-1
	Solar panel: True
	aperture area: 2.5
	Flat plate, glazed
	default values: False
	collector zero-loss efficiency: 0.8
	collector heat loss coefficient: 3.175
	orientation: SE/SW, 30° pitch
	overshading: None or Very Little (<20%)

SAP Input

dedicated solar store volume: 90 litres (seperate store)
solar powered pump: False

Others:

Electricity tariff:	standard tariff
In Smoke Control Area:	Unknown
Conservatory:	No conservatory
Low energy lights:	100%
Terrain type:	Low rise urban / suburban
EPC language:	English
Wind turbine:	No
Photovoltaics:	None
Assess Zero Carbon Home:	No

Predicted Energy Assessment

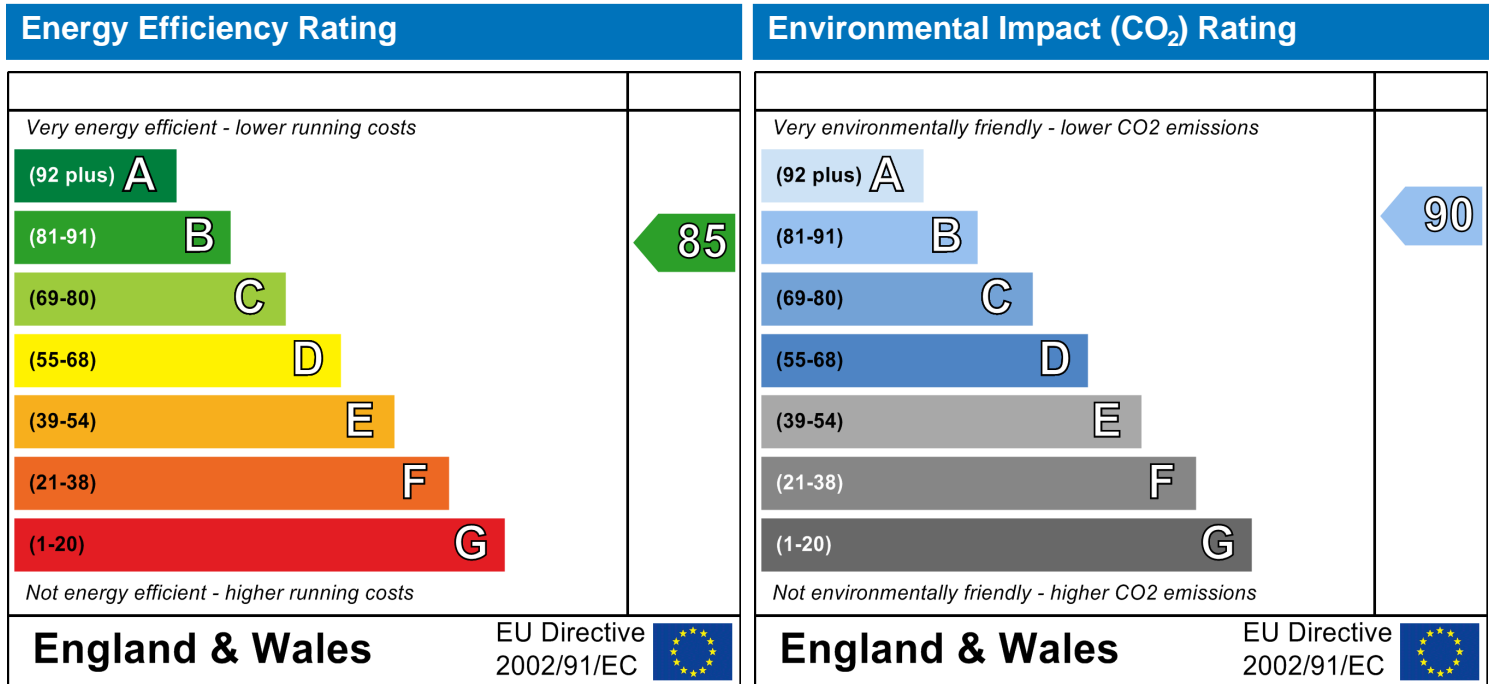
Flat 4
33 Wicklow Street
Kings Cross
London
N1

Dwelling type:
Date of assessment:
Produced by:
Total floor area:

Detached Top floor Flat
20 November 2012
Gary Nicholls
63 m²

This is a Predicted Energy Assessment for a property which is not yet complete. It includes a predicted energy rating which might not represent the final energy rating of the property on completion. Once the property is completed, an Energy Performance Certificate is required providing information about the energy performance of the completed property.

Energy performance has been assessed using the SAP 2009 methodology and is rated in terms of the energy use per square metre of floor area, energy efficiency based on fuel costs and environmental impact based on carbon dioxide (CO₂) emissions.



The energy efficiency rating is a measure of the overall efficiency of a home. The higher the rating the more energy efficient the home is and the lower the fuel bills are likely to be.

The environmental impact rating is a measure of a home's impact on the environment in terms of carbon dioxide (CO₂) emissions. The higher the rating the less impact it has on the environment.