

Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.4.15

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Project Information:

Assessed By: Carlos Melgar (STRO031596)

Building Type: Semi-Detached Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 73.57m²

Site Reference : WE082 West Witney

Plot Reference: Plot 440 1F Flat 1BF02

Address : Plot 440

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas

Fuel factor: 1.00 (mains gas)

Target Carbon Dioxide Emission Rate (TER) 18.55 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER) 17.03 kg/m² **OK**

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE) 47.4 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE) 43.0 kWh/m² **OK**

2 Fabric U-values

Element	Average	Highest	
External wall	0.24 (max. 0.30)	0.26 (max. 0.70)	OK
Party wall	0.00 (max. 0.20)	-	OK
Floor	0.21 (max. 0.25)	0.21 (max. 0.70)	OK
Roof	0.16 (max. 0.20)	0.16 (max. 0.35)	OK
Openings	1.32 (max. 2.00)	1.40 (max. 3.30)	OK

2a Thermal bridging

Thermal bridging calculated from linear thermal transmittances for each junction

3 Air permeability

Air permeability at 50 pascals 5.01 (design value)

Maximum 10.0 **OK**

4 Heating efficiency

Main Heating system: Database: (rev 431, product index 017956):
Boiler systems with radiators or underfloor heating - mains gas
Brand name: Ideal
Model: LOGIC COMBI ESP1
Model qualifier: 30
(Combi)
Efficiency 89.6 % SEDBUK2009
Minimum 88.0 % **OK**

Secondary heating system: None

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5 Cylinder insulation

Hot water Storage: No cylinder

6 Controls

Space heating controls TTZC by plumbing and electrical services **OK**

Hot water controls: No cylinder

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

Continuous extract system (decentralised)

Specific fan power: 0.19 0.18

Maximum 0.7 **OK**

9 Summertime temperature

Overheating risk (Thames valley): Slight **OK**

Based on:

Overshading: Average or unknown

Windows facing: South 2.88m²

Windows facing: West 2.88m²

Ventilation rate: 4.00

Blinds/curtains: Closed 0% of daylight hours

10 Key features

Doors U-value 1.09 W/m²K

Party Walls U-value 0 W/m²K

Predicted Energy Assessment



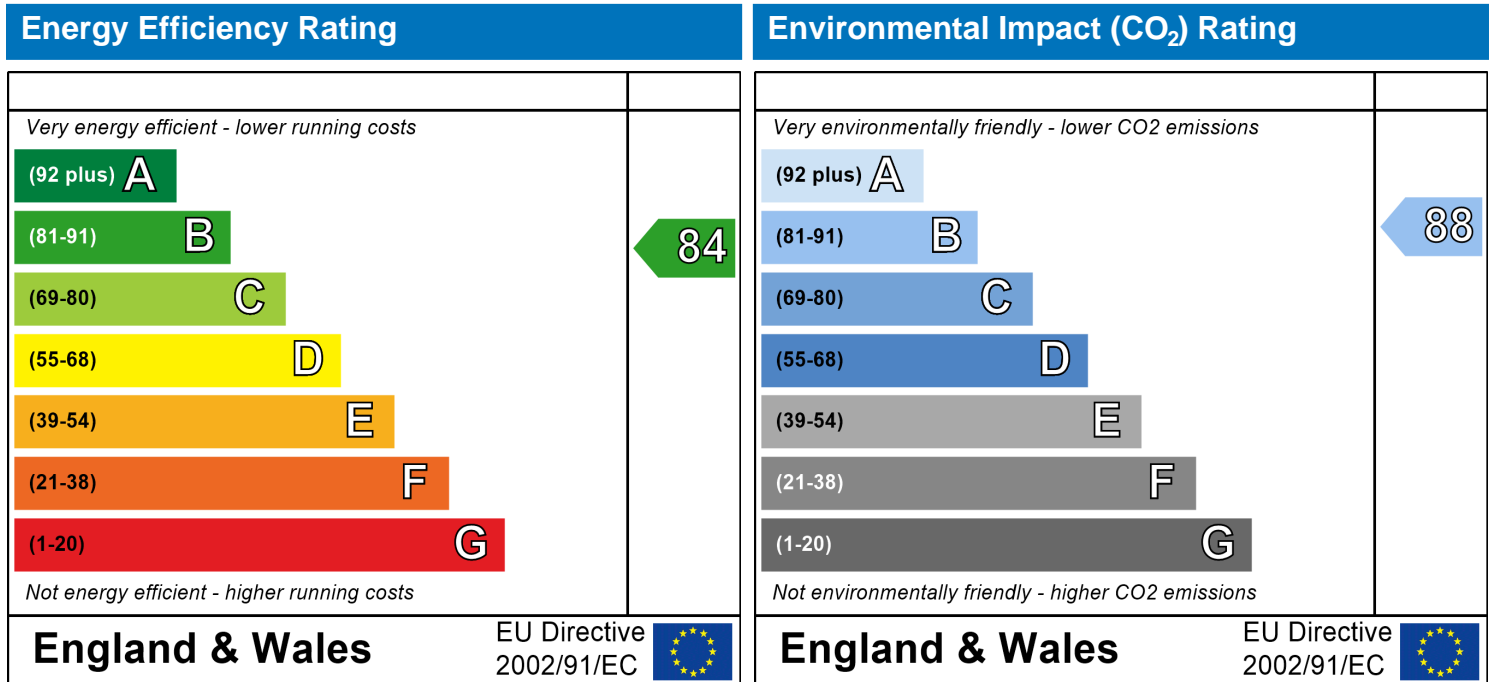
Plot 440

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

Semi-Detached Top floor Flat
08 August 2018
Carlos Melgar
73.57 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 2012 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.

SAP Input

Property Details: Plot 440 1F Flat 1BF02

Address: Plot 440
 Located in: England
 Region: Thames valley
 UPRN:
 Date of assessment: 08 August 2018
 Date of certificate: 05 September 2018
 Assessment type: New dwelling design stage
 Transaction type: New dwelling
 Tenure type: Unknown
 Related party disclosure: No related party
 Thermal Mass Parameter: Calculated 234.45
 Water use <= 125 litres/person/day: True
 PCDF Version: 431

Property description:

Dwelling type: Flat
 Detachment: Semi-Detached
 Year Completed: 2018
 Floor Location: Floor area: Storey height:
 Floor 0 6.33 m² 2.5 m
 Floor 1 67.24 m² 2.51 m
 Living area: 29.28 m² (fraction 0.398)
 Front of dwelling faces: South

Opening types:

Name:	Source:	Type:	Glazing:	Argon:	Frame:
L Side	Manufacturer	Solid			
Front	BFRC	Windows	double-glazed	Yes	
L Side	BFRC	Windows	double-glazed	Yes	

Name:	Gap:	Frame Factor:	g-value:	U-value:	Area:	No. of Openings:
L Side	mm	0.76	0.72	1.09	2.07	1
Front	16mm or more	0	0.5	1.4	2.88	1
L Side	16mm or more	0	0.5	1.4	2.88	1

Name:	Type-Name:	Location:	Orient:	Width:	Height:
L Side		Stone	West	0	0
Front		Render	South	0	0
L Side		Render	West	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>							
Render	45.76	5.76	40	0.24	0	False	60
Stone	12.67	2.07	10.6	0.26	0	False	60
Ins Joist	70.03	0	70.03	0.16	0		9
Ground Floor	6.33			0.21			75
<u>Internal Elements</u>							
1st Floor Stud	127.4						9
<u>Party Elements</u>							
Party Wall	65.49						110
Party Floor	59.46						80

SAP Input

Thermal bridges:

Thermal bridges:

User-defined (individual PSI-values) Y-Value = 0.0602

Length	Psi-value		
0	0.5	E1	Steel lintel with perforated steel base plate
5.81	0.224	E2	Other lintels (including other steel lintels)
4.8	0.009	E3	Sill
13.8	0.014	E4	Jamb
4.72	0.044	E5	Ground floor (normal)
0	0.005	E6	Intermediate floor within a dwelling
14.16	0.07	E7	Party floor between dwellings (in blocks of flats)
0	0	E8	Balcony within a dwelling, wall insulation continuous
0	0.02	E9	Balcony between dwellings, wall insulation continuous
20.69	0.046	E10	Eaves (insulation at ceiling level)
0	0.04	E11	Eaves (insulation at rafter level)
2.26	0.052	E12	Gable (insulation at ceiling level)
0	0.04	E13	Gable (insulation at rafter level)
0	0.04	E14	Flat roof
0	0.28	E15	Flat roof with parapet
12.88	0.058	E16	Corner (normal)
0	0.091	E17	Corner (inverted – internal area greater than external area)
7.86	0.041	E18	Party wall between dwellings
0	0.07	E19	Ground floor (inverted)
0	0.32	E20	Exposed floor (normal)
0	0.32	E21	Exposed floor (inverted)
0	0.07	E22	Basement floor
0	1	E23	Balcony within or between dwellings, balcony support penetrates wall
4.06	0.24	E24	Eaves (insulation at ceiling level - inverted)
5.02	0.12	E25	Staggered party wall between dwellings c
11.68	0.053	P1	Ground floor
0	0	P2	Intermediate floor within a dwelling
14.57	0	P3	Intermediate floor between dwellings (in blocks of flats)
14.57	0.072	P4	Roof (insulation at ceiling level)
0	0.02	P5	Roof (insulation at rafter level)
0	0.07	P6	Ground floor (inverted)
0	0.16	P7	Exposed floor (normal)
0	0.24	P8	Exposed floor (inverted)
0	0.08	R1	Head of roof window
0	0.06	R2	Sill of roof window
0	0.08	R3	Jamb of roof window
0	0.08	R4	Ridge (vaulted ceiling)
0	0.04	R5	Ridge (inverted)
0	0.06	R6	Flat ceiling
0	0.04	R7	Flat ceiling (inverted)
0	0.06	R8	Roof to wall (rafter)
0	0.04	R9	Roof to wall (flat ceiling)

Ventilation:

Pressure test:

Yes (As designed)

Ventilation:

Decentralised whole house extract

Number of fans in Wetroom: Kitchen 1 Other 1

Ductwork: ,

Approved Installation Scheme: False

Number of chimneys:

0

Number of open flues:

0

Number of fans:

0

Number of passive stacks:

0

Number of sides sheltered:

2

SAP Input

Pressure test: 5.01

Main heating system:

Main heating system: Boiler systems with radiators or underfloor heating
Gas boilers and oil boilers
Fuel: mains gas
Info Source: Boiler Database
Database: (rev 431, product index 017956) Efficiency: Winter 87.3 % Summer: 90.5
Brand name: Ideal
Model: LOGIC COMBI ESP1
Model qualifier: 30
(Combi boiler)
Systems with radiators
Central heating pump : 2013 or later
Design flow temperature: Unknown
Boiler interlock: Yes
Weather Compensator

Main heating Control:

Main heating Control: Time and temperature zone control by suitable arrangement of plumbing and electrical services
Control code: 2110

Secondary heating system:

Secondary heating system: None

Water heating:

Water heating: From main heating system
Water code: 901
Fuel :mains gas
No hot water cylinder
Solar panel: 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