Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.4.0
Printed on 16 November 2021 at 16:12:04

Project Information:

Assessed By: Amy Webb (STRO036520) **Building Type:** Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE Total Floor Area: 74.88m²

Site Reference : Renforth **Plot Reference:** 4-10

Address :

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: Electricity (c)
Fuel factor: 1.47 (electricity (c))

Target Carbon Dioxide Emission Rate (TER)	28.31 kg/m²	
Dwelling Carbon Dioxide Emission Rate (DER)	11.74 kg/m²	**OK**

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)	57.0 kWh/m²	
Dwelling Fabric Energy Efficiency (DFEE)	56.2 kWh/m²	
		OK

2 Fabric U-values

Element	Average	Highest	
External wall	0.16 (max. 0.30)	0.20 (max. 0.70)	**OK**
Party wall	0.00 (max. 0.20)	-	**OK**
Floor	(no floor)		
Roof	0.11 (max. 0.20)	0.11 (max. 0.35)	**OK**
Openings	1.40 (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	3.00 (design value)	
Maximum	10.0	**OK**

4 Heating efficiency

Main Heating system:	Community heating schemes - Heat pump Community heat pump
Secondary heating system:	None

5 Cylinder insulation

Hot water Storage:	Measured cylinder loss: 1.28 kWh/day	
	Permitted by DBSCG: 2.10 kWh/day	**OK**
Primary pipework insulated:	Yes	**OK**

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6 Controls

Space heating controls	Charging system linked to use of community heating, programmer and TRVs	OK
Hot water controls:	Cylinderstat	OK

7 Low energy lights

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

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.5	
Maximum	1.5	OK
MVHR efficiency:	90%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (South East England):	Medium	OK

Based on:

Overshading:	Average or unknown
Windows facing: North East	4.59m²
Windows facing: North East	2.55m²
Windows facing: North West	14.58m²
Ventilation rate:	2.00
Blinds/curtains:	Light-coloured venetian blind Closed 100% of daylight hours

10 Key features

Air permeablility	3.0 m³/m²h
Roofs U-value	0.11 W/m²K
Party Walls U-value	0 W/m²K
Community heating, heat from electric heat pump	
Photovoltaic array	

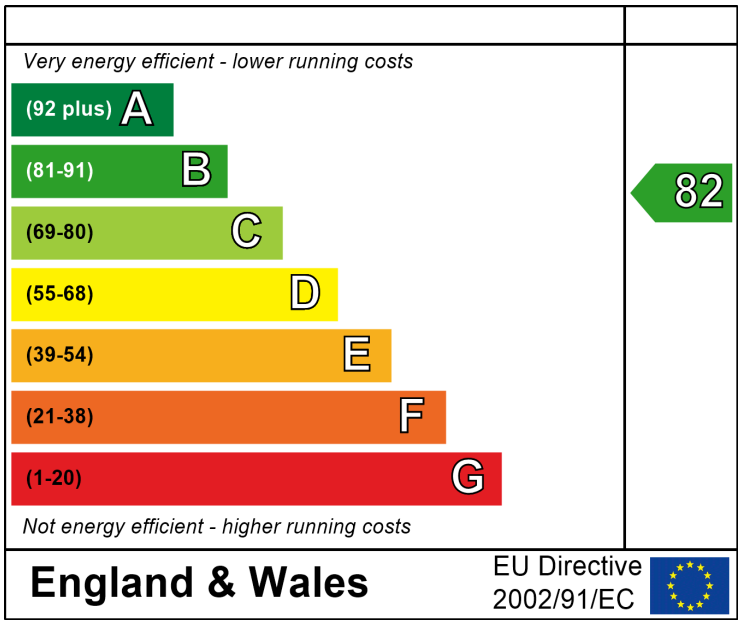
Predicted Energy Assessment

Dwelling type:	Mid floor Flat
Date of assessment:	15 July 2021
Produced by:	Amy Webb
Total floor area:	74.88 m²

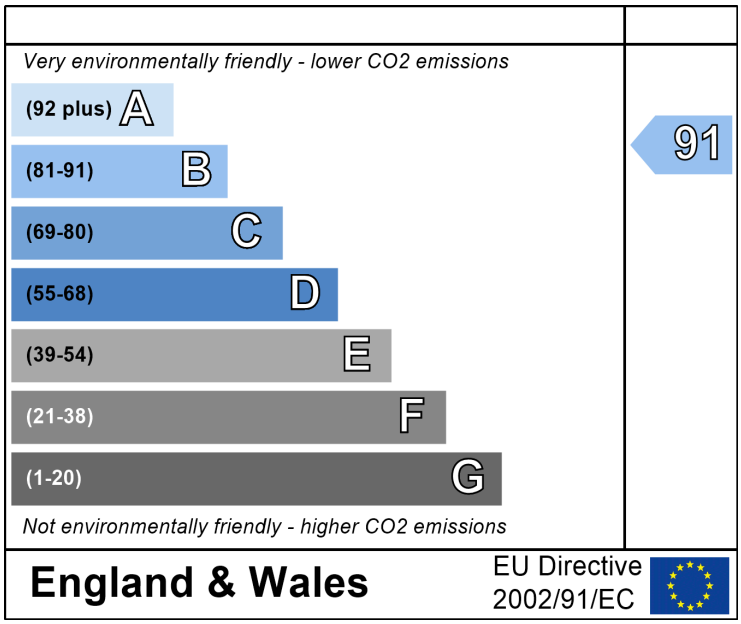
This is a Predicted Energy Assessment for a property which is not yet complete. It includes a predicted energy rating which might not represent the final energy rating of the property on completion. Once the property is completed, an Energy Performance Certificate is required providing information about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

Energy Efficiency Rating



Environmental Impact (CO_2) Rating



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 carbonn dioxide (CO2) emissions. The higher the rating the less impact it has on the environment.

SAP Input

Property Details: 4-10

Address:	
Located in:	England
Region:	South East England
UPRN:	
Date of assessment:	15 July 2021
Date of certificate:	16 November 2021
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
Water use <= 125 litres/person/day:	True
PCDF Version:	485

Property description:

Dwelling type:	Flat	
Detachment:		
Year Completed:	2021	
Floor Location:	Floor area:	Storey height:
Floor 0	74.88 m²	2.5 m
Living area:	27.77 m² (fraction 0.371)	
Front of dwelling faces:	Unspecified	

Opening types:

Name:	Source:	Type:	Glazing:	Argon:	Frame:
Front Door	Manufacturer	Solid			Wood
Window 1	Manufacturer	Windows	double-glazed	No	
Window 2	Manufacturer	Windows	double-glazed	No	
Window 3	Manufacturer	Windows	double-glazed	No	

Name:	**Gap:**	**Frame Factor:**	**g-value:**	**U-value:**	**Area:**	**No. of Openings:**
Front Door	mm	0.7	0	1.4	2.37	1
Window 1	6mm	0.8	0.4	1.4	4.59	1
Window 2	6mm	0.8	0.4	1.4	2.55	1
Window 3	6mm	0.8	0.4	1.4	4.86	3

Name:	Type-Name:	Location:	Orient:	Width:	Height:
Front Door		Corridor Wall 00	South East	1.05	2.26
Window 1		External Wall 00	North East	2.03	2.26
Window 2		External Wall 00	North East	1.13	2.26
Window 3		External Wall 00	North West	2.15	2.26

Overshading: Average or unknown

Opaque Elements:

Type:	Gross area:	Openings:	Net area:	U-value:	Ru value:	Curtain wall:	Kappa:
External Elements							
External Wall 00	78.57	21.72	56.85	0.14	0	False	N/A
Corridor Wall 00	32.7	2.37	30.33	0.2	0	False	N/A
Roof Terrace	9.37	0	9.37	0.11	0		N/A
Internal Elements							
Party Elements							
Party Wall 01	20.64						N/A

Thermal bridges:

SAP Input

Thermal bridges: User-defined (individual PSI-values) Y-Value = 0.1216

Length	Psi-value		
10.66	0.05	E2	Other lintels (including other steel lintels)
27.12	0.07	E4	Jamb
36.07	0.14	E7	Party floor between dwellings (in blocks of flats)
9.25	0.18	E16	Corner (normal)
3.08	0	E17	Corner (inverted internal area greater than external area)
6.17	0.045	E18	Party wall between dwellings
5.78	0.04	E9	Balcony between dwellings, wall insulation continuous
28.75	0.14	E7	Party floor between dwellings (in blocks of flats)
7.32	0.08	E14	Flat roof
0	0.32	E5	
0	0.14	E6	
0	0.12	E25	
0	0.15	E20	
6.69	0	P3	Intermediate floor between dwellings (in blocks of flats)
5.03	0	P3	Intermediate floor between dwellings (in blocks of flats)
1.66	0.24	P4	Roof (insulation at ceiling level)
0	0.24	P8	
0	0	P2	

Ventilation:

Pressure test: Yes (As designed)

Ventilation: Balanced with heat recovery
Number of wet rooms: Kitchen + 1
Ductwork: Insulation, rigid
Approved Installation Scheme: True

Number of chimneys: 0
Number of open flues: 0
Number of fans: 0
Number of passive stacks: 0
Number of sides sheltered: 0
Pressure test: 3

Main heating system:

Main heating system: Community heating schemes
Heat source: Community heat pump
heat from electric heat pump, heat fraction 1, efficiency 319
Piping>=1991, pre-insulated, low temp, variable flow

Main heating Control:

Main heating Control: Charging system linked to use of community heating, programmer and TRVs
Control code: 2306

Secondary heating system:

Secondary heating system: None

Water heating:

Water heating: From main heating system
Water code: 901
Fuel :heat from electric heat pump
Hot water cylinder
Cylinder volume: 180 litres
Cylinder insulation: Measured loss, 1.28kWh/day
Primary pipework insulation: True
Cylinderstat: True
Cylinder in heated space: True
Solar panel: False

Others:

Electricity tariff: Standard Tariff
In Smoke Control Area: No

SAP Input

Conservatory:	No conservatory
Low energy lights:	100%
Terrain type:	Dense urban
EPC language:	English
Wind turbine:	No
Photovoltaics:	Photovoltaic 1 Installed Peak power: 0.4216148 Tilt of collector: 30° Overshading: None or very little Collector Orientation: South
Assess Zero Carbon Home:	No