PREDICTED ENERGY ASSESSMENT

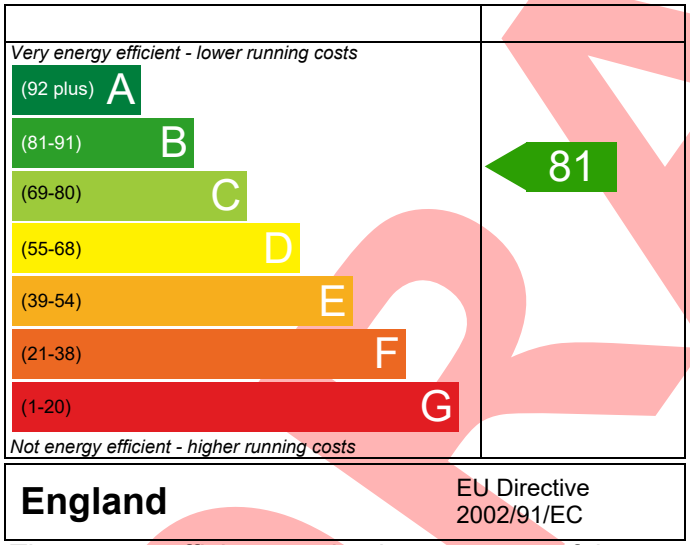
Design SAP
elmhurst energy

Dwelling type:	Flat, End-Terrace
Date of assessment:	18/06/2019
Produced by:	Morgan Wildman
Total floor area:	133.8 m²

This document is a Predicted Energy Assessment for properties marketed when they are incomplete. It includes a predicted energy rating which might not represent the final energy rating of the property on completion. Once the property is completed, this rating will be updated and an official Energy Performance Certificate will be created for the property. This will include more detailed information about the energy performance of the completed property.

The energy performance has been assessed using the Government approved SAP2012 methodology and is rated in terms of the energy use per square meter of floor area; the energy efficiency is based on fuel costs and the environmental impact is based on carbon dioxide (CO_2) emissions.

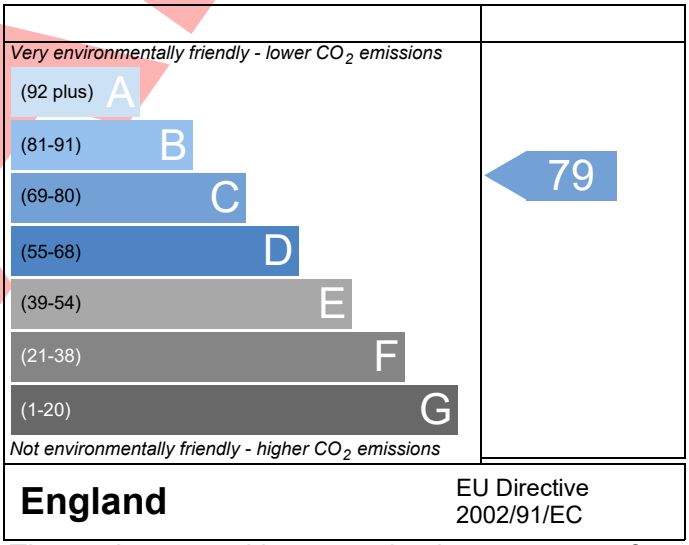
Energy Efficiency Rating



England EU Directive 2002/91/EC

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.

Environmental Impact (CO_2) Rating



England EU Directive 2002/91/EC

The environmental impact rating is a measure of a home's impact on the environment in terms of carbon dioxide (CO_2) emissions. The higher the rating the less impact it has on the environment.

This report has not been submitted through the Elmhurst Energy members' portal, therefore results are subject to change when the dwelling is completed.

SUMMARY FOR INPUT DATA
Calculation Type: Conversion (As Designed)

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Property Reference	The Old Chapel Unit 2	**Issued on Date**	18/06/2019
Assessment Reference	001	**Prop Type Ref**	
Property			

SAP Rating	81 B	**DER**	N/A	**TER**	N/A
Environmental	79 C	**% DER<TER**	N/A		
CO_2 Emissions (t/year)	2.64	**DFEE**	N/A	**TFEE**	N/A
General Requirements Compliance	N/A	**% DFEE<TFEE**	N/A		

Assessor Details	Mr. Morgan Wildman, Morgan Wildman, Tel: 01455 883250, office@cornwallplanninggroup.co.uk	**Assessor ID**	R396-0001
Client			

SUMMARY FOR INPUT DATA FOR: Conversion (As Designed)

Orientation	West
Property Tenure	Owner-occupied
Transaction Type	New dwelling
Terrain Type	Suburban
1.0 Property Type	Flat, End-Terrace
2.0 Number of Storeys	4
3.0 Date Built	2019
4.0 Sheltered Sides	0
5.0 Sunlight/Shade	Average or unknown

6.0 Measurements

	Heat Loss Perimeter	Internal Floor Area	Average Storey Height
Ground Floor:	12.07 m	33.99 m²	2.28 m
1st Storey:	12.17 m	39.79 m²	2.60 m
2nd Storey:	12.17 m	39.16 m²	2.35 m
3rd Storey:	8.45 m	20.86 m²	1.86 m

7.0 Living Area	23.45	m²
8.0 Thermal Mass Parameter	Simple calculation - Medium	
Thermal Mass	250.00	kJ/m²K

9.0 External Walls

Description	Type	Construction	U-Value (W/m²K)	Gross Area (m²)	Nett Area (m²)
External Wall 1	Solid Wall	Other	0.25	103.48	87.49

9.1 Party Walls

Description	Type	Construction	U-Value (W/m²K)	Area (m²)
Party Wall 1	Solid Wall	Single plasterboard on dabs on both sides, dense blocks, cavity or cavity fill	0.00	125.62

10.0 External Roofs

Description	Type	Construction	U-Value (W/m²K)	Gross Area (m²)	Nett Area (m²)
External Roof 1	External Slope Roof	Plasterboard, insulated slope	0.18	39.79	36.91

11.0 Heat Loss Floors

Description	Type	Construction	U-Value (W/m²K)	Area (m²)
Heat Loss Floor 1	Ground Floor - Solid	Slab on ground, screed over insulation	0.15	33.99

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12.0 Opening Types

Description	Data Source	Type	Glazing	Glazing Gap	Argon Filled	G-value	Frame Type	Frame Factor	U Value (W/m²K)
Windows	Manufacturer	Window	Double Low-E Soft 0.1			0.63		0.70	1.60
Door	Manufacturer	Solid Door							2.00
Roof light	Manufacturer	Roof Window	Double Low-E Soft 0.1			0.63		0.70	1.60

13.0 Openings

Name	Opening Type	Location	Orientation	Curtain Type	Overhang Ratio	Wide Overhang	Width (m)	Height (m)	Count	Area (m²)	Curtain Closed
Windows north	Window	[1] External Wall 1	North	None	0.00					4.68	
North windows	Window	[1] External Wall 1	North	None	0.00					6.28	
West windows	Window	[1] External Wall 1	West	None	0.00					3.14	
Door	Solid Door	[1] External Wall 1	South							1.89	
South roof light	Roof Window	[1] External Roof 1	South	None						1.44	
North roof light	Roof Window	[1] External Roof 1	North	None						1.44	

14.0 Conservatory	None	
15.0 Draught Proofing	100	%
16.0 Draught Lobby	No	
17.0 Thermal Bridging	Default	
Y-value	0.150	W/m²K
18.0 Pressure Testing	No	

19.0 Mechanical Ventilation

Summer Overheating

Windows open in hot weather	Windows fully open
Cross ventilation possible	Yes
Night Ventilation	Yes
Air change rate	8.00

Mechanical Ventilation

Mechanical Ventilation System Present	No

20.0 Fans, Open Fireplaces, Flues

	MHS	SHS	Other	Total
Number of Chimneys	0		0	0
Number of open flues	0		0	0
Number of intermittent fans				4
Number of passive vents				0
Number of flueless gas fires				0

21.0 Fixed Cooling System	No	

22.0 Lighting

Internal

Total number of light fittings	30	
Total number of L.E.L. fittings	30	
Percentage of L.E.L. fittings	100.00	%

External

External lights fitted	No	

23.0 Electricity Tariff	Standard	

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24.0 Main Heating 1	Database	
Percentage of Heat	100	%
Database Ref. No.	10244	
Fuel Type	Mains gas	
Main Heating	BGW	
SAP Code	104	
In Winter	90.0	
In Summer	90.4	
Controls	CBE Programmer, room thermostat and TRVs	
PCDF Controls	0	
Delayed Start Stat	Yes	
Sap Code	2106	
Flue Type	Balanced	
Fan Assisted Flue	Yes	
Is MHS Pumped	Pump in heated space	
Heat Emitter	Radiators	
Flow Temperature	Normal (> 45°C)	
Combi boiler type	Standard Combi	
Combi keep hot type	Gas/Oil, time clock	
25.0 Main Heating 2	None	
Community Heating	None	
28.0 Water Heating	HWP From main heating 1	
Water Heating	Main Heating 1	
Flue Gas Heat Recovery System	No	
Waste Water Heat Recovery Instantaneous System 1	No	
Waste Water Heat Recovery Instantaneous System 2	No	
Waste Water Heat Recovery Storage System	No	
Solar Panel	No	
Water use <= 125 litres/person/day	Yes	
SAP Code	901	
29.0 Hot Water Cylinder	None	

Recommendations

Lower cost measures

None

Further measures to achieve even higher standards

None