

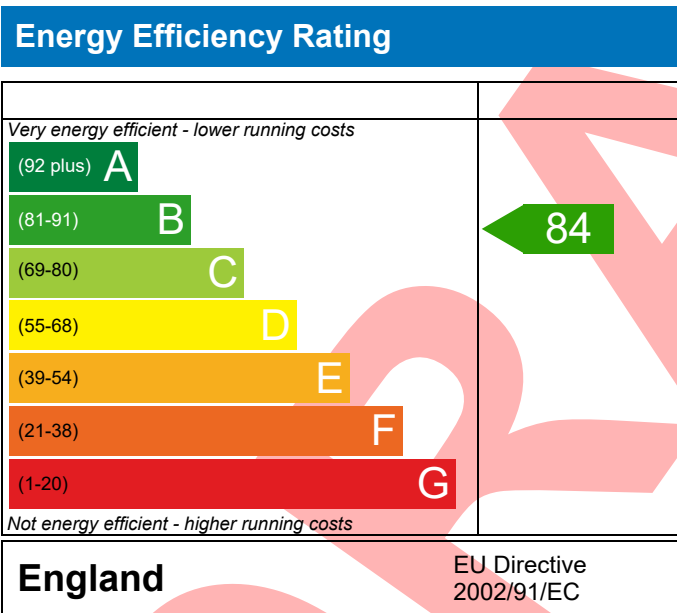
# PREDICTED ENERGY ASSESSMENT

Plot 486, 2 Bed, 1B

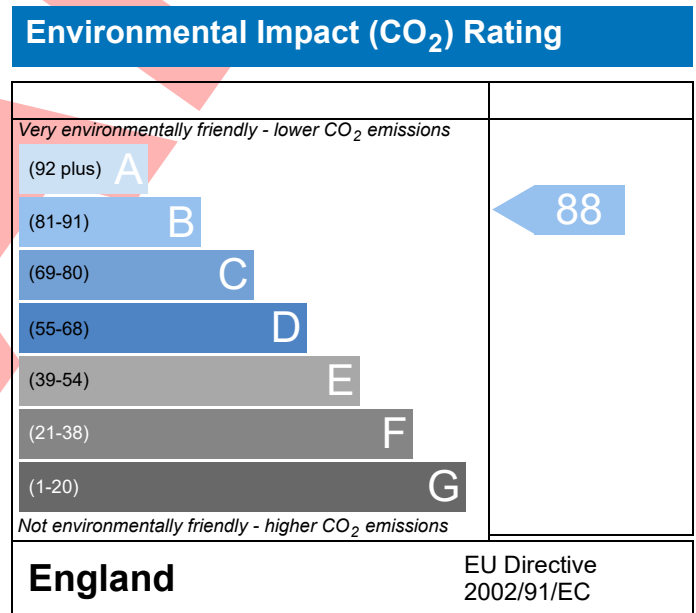
Dwelling type: Flat, Detached  
 Date of assessment: 07/01/2021  
 Produced by: Mitchell Bennellick  
 Total floor area: 70.29 m<sup>2</sup>

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<sub>2</sub>) 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 (CO<sub>2</sub>) 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.*

# BUILDING REGULATION COMPLIANCE

## Calculation Type: New Build (As Designed)

Property Reference	4907-0012-4686-486	Issued on Date	07/01/2021
Assessment Reference	486	Prop Type Ref	2BF - First Floor
Property	Plot 486, 2 Bed, 1B		

SAP Rating	84 B	DER	16.77	TER	16.87
Environmental	88 B	% DER<TER	0.61		
CO <sub>2</sub> Emissions (t/year)	0.97	DFEE	42.25	TFEE	40.73
General Requirements Compliance	Fail	% DFEE<TFEE	-3.74		

Assessor Details	Mr. Mitchell Bennellick, Mitchell Bennellick, Tel: 01884 242050, mitchell.bennellick@aessouthern.co.uk	Assessor ID	P635-0001
Client	Crest Nicholson, CN		

### SUMMARY FOR INPUT DATA FOR New Build (As Designed)

#### Criterion 1 – Achieving the TER and TFEE rate

##### 1a TER and DER

Fuel for main heating	Mains gas		
Fuel factor	1.00 (mains gas)		
Target Carbon Dioxide Emission Rate (TER)	16.87	kgCO <sub>2</sub> /m <sup>2</sup>	
Dwelling Carbon Dioxide Emission Rate (DER)	16.77	kgCO <sub>2</sub> /m <sup>2</sup>	Pass
	-0.10 (-0.6%)	kgCO <sub>2</sub> /m <sup>2</sup>	

##### 1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)	40.73	kWh/m <sup>2</sup> /yr	
Dwelling Fabric Energy Efficiency (DFEE)	42.25	kWh/m <sup>2</sup> /yr	
Excess energy	1.6 (3.9%)	kWh/m <sup>2</sup> /yr	Fail

#### Criterion 2 – Limits on design flexibility

##### Limiting Fabric Standards

##### 2 Fabric U-values

Element	Average	Highest	
External wall	0.25 (max. 0.30)	0.28 (max. 0.70)	Pass
Openings	1.39 (max. 2.00)	1.40 (max. 3.30)	Pass

##### 2a Thermal bridging

Thermal bridging calculated from linear thermal transmittances for each junction

##### 3 Air permeability

Air permeability at 50 pascals	4.00 (design value)	m <sup>3</sup> /(h.m <sup>2</sup> ) @ 50 Pa	
Maximum	10.0	m <sup>3</sup> /(h.m <sup>2</sup> ) @ 50 Pa	Pass

##### Limiting System Efficiencies

##### 4 Heating efficiency

Main heating system	Boiler system with radiators or underfloor - Mains gas Data from database Potterton Assure 30 Combi Combi boiler Efficiency: 89.0% SEDBUK2009 Minimum: 88.0%	Pass
---------------------	---	------

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

# BUILDING REGULATION COMPLIANCE

## Calculation Type: New Build (As Designed)

Secondary heating system

None

### 5 Cylinder insulation

Hot water storage

No cylinder

### 6 Controls

Space heating controls

Time and temperature zone control

Pass

Hot water controls

No cylinder

Boiler interlock

Yes

Pass

### 7 Low energy lights

Percentage of fixed lights with low-energy fittings

100 %

Minimum

75 %

Pass

### 8 Mechanical ventilation

Continuous extract system

Specific fan power

0.16

Maximum

0.7

Pass

## Criterion 3 – Limiting the effects of heat gains in summer

### 9 Summertime temperature

Overheating risk (South East England)

Not significant

Pass

Based on:

Overshading

Average

Windows facing North

2.05 m<sup>2</sup>, No overhang

Windows facing East

1.51 m<sup>2</sup>, No overhang

Windows facing South

8.64 m<sup>2</sup>, No overhang

Air change rate

6.00 ach

Blinds/curtains

None

## Criterion 4 – Building performance consistent with DER and DFEE rate

### Air permeability and pressure testing

#### 3 Air permeability

Air permeability at 50 pascals

4.00 (design value) m<sup>3</sup>/(h.m<sup>2</sup>) @ 50 Pa

Maximum

10.0 m<sup>3</sup>/(h.m<sup>2</sup>) @ 50 Pa

Pass

### 10 Key features

None

N/A

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

# RECOMMENDATIONS

	Typical cost	Typical savings per year	Energy efficiency	Environmental impact	Result
Low energy lights			0	0	Already installed
Solar water heating			0	0	Not applicable
Photovoltaic			0	0	Not applicable
Wind turbine			0	0	Not applicable
<b>Totals</b>	<b>£0</b>	<b>£0</b>	<b>B 84</b>	<b>B 88</b>	

**DRAFT**

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