

# BASIC COMPLIANCE REPORT

## Calculation Type: New Build (As Designed)



|                                    |                                                                                |               |       |                |            |
|------------------------------------|--------------------------------------------------------------------------------|---------------|-------|----------------|------------|
| Property Reference                 | CYPRUS ROAD 7                                                                  |               |       | Issued on Date | 29/01/2020 |
| Assessment Reference               | As-Designed                                                                    | Prop Type Ref |       |                |            |
| Property                           | Flat 7 -, 1, Cyprus Road, Burgess Hill, West Sussex, RH15 8DX                  |               |       |                |            |
|                                    |                                                                                |               |       |                |            |
| SAP Rating                         | 85 B                                                                           | DER           | 15.58 | TER            | 15.63      |
| Environmental                      | 88 B                                                                           | % DER<TER     | 0.30  |                |            |
| CO <sub>2</sub> Emissions (t/year) | 1.04                                                                           | DFEE          | 32.57 | TFEE           | 36.11      |
| General Requirements Compliance    | Pass                                                                           | % DFEE<TFEE   | 9.81  |                |            |
|                                    |                                                                                |               |       |                |            |
| Assessor Details                   | Mr. Alexander Pelling, Alexander Pelling, Tel: 01732808238, alex@arcarch.co.uk |               |       | Assessor ID    | T297-0001  |
| Client                             | Martin Landivar, Landivar Architects                                           |               |       |                |            |

### 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)   | 15.63            | kgCO <sub>2</sub> /m <sup>2</sup> |      |
| Dwelling Carbon Dioxide Emission Rate (DER) | 15.58            | kgCO <sub>2</sub> /m <sup>2</sup> | Pass |
|                                             | -0.05 (-0.3%)    | kgCO <sub>2</sub> /m <sup>2</sup> |      |

##### 1b TFEE and DFEE

|                                          |              |                        |      |
|------------------------------------------|--------------|------------------------|------|
| Target Fabric Energy Efficiency (TFEE)   | 36.11        | kWh/m <sup>2</sup> /yr |      |
| Dwelling Fabric Energy Efficiency (DFEE) | 32.57        | kWh/m <sup>2</sup> /yr |      |
|                                          | -3.5 (-9.7%) | kWh/m <sup>2</sup> /yr | Pass |

#### Criterion 2 – Limits on design flexibility

##### Limiting Fabric Standards

##### 2 Fabric U-values

| Element       | Average          | Highest          |      |
|---------------|------------------|------------------|------|
| External wall | 0.21 (max. 0.30) | 0.21 (max. 0.70) | Pass |
| Party wall    | 0.00 (max. 0.20) | -                | Pass |
| Openings      | 1.20 (max. 2.00) | 1.20 (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 | 5.00 (design value) |      |
| Maximum                        | 10.0                | Pass |

##### Limiting System Efficiencies

##### 4 Heating efficiency

|                          |                                                                                                                                                           |      |
|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| Main heating system      | Boiler system with radiators or underfloor - Mains gas<br>Data from manufacturer<br>TBC Gas Condensing<br>Combi boiler<br>Efficiency: 89%<br>Minimum: 88% | Pass |
| Secondary heating system | None                                                                                                                                                      |      |

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### 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

Not applicable

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

### 9 Summertime temperature

Overheating risk (Thames Valley)

Slight

Pass

Based on:

Overshading

Average

Windows facing South

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

Windows facing West

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

Air change rate

4.00 ach

Blinds/curtains

Light-coloured curtain or roller blind, closed 100% of daylight hours

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

### Party Walls

Type

U-value

Filled Cavity with Edge Sealing

0.00

W/m<sup>2</sup>K

Pass

### Air permeability and pressure testing

#### 3 Air permeability

Air permeability at 50 pascals

5.00 (design value)

Maximum

10.0

Pass

### 10 Key features

Party wall U-value

0.00

W/m<sup>2</sup>K

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