

# BASIC COMPLIANCE REPORT

## Calculation Type: New Build (As Designed)

<b>Property Reference</b>	The Hall P04	<b>Issued on Date</b>	17/11/2020
<b>Assessment Reference</b>	Plot 04	<b>Prop Type Ref</b>	
<b>Property</b>	Plot 4, The Hall, Leatherhead Road, Chessington, KT9 2NB		

<b>SAP Rating</b>	102 A	<b>DER</b>	-0.03	<b>TER</b>	17.60
<b>Environmental</b>	102 A	<b>% DER&lt;TER</b>	100.17		
<b>CO<sub>2</sub> Emissions (t/year)</b>	-0.50	<b>DFEE</b>	52.88	<b>TFEE</b>	57.17
<b>General Requirements Compliance</b>	Pass	<b>% DFEE&lt;TFEE</b>	7.50		

<b>Assessor Details</b>	Mr. Steven Leahy, County Inspections, Tel: 01455883250, info@countyinspections.co.uk	<b>Assessor ID</b>	A593-0001
<b>Client</b>	Prunus Developments, 8899		

### 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)	17.60	kgCO <sub>2</sub> /m <sup>2</sup>	
Dwelling Carbon Dioxide Emission Rate (DER)	-0.03	kgCO <sub>2</sub> /m <sup>2</sup>	Pass
	-17.63 (-100.2%)	kgCO <sub>2</sub> /m <sup>2</sup>	

##### 1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)	57.17	kWh/m <sup>2</sup> /yr	
Dwelling Fabric Energy Efficiency (DFEE)	52.88	kWh/m <sup>2</sup> /yr	
	-4.3 (-7.5%)	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	0.18 (max. 0.30)	0.18 (max. 0.70)	Pass
Floor	0.13 (max. 0.25)	0.13 (max. 0.70)	Pass
Roof	0.13 (max. 0.20)	0.13 (max. 0.35)	Pass
Openings	1.38 (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	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 Data from manufacturer To Be Confirmed To Be Confirmed  Efficiency: 90% Minimum: 88%	Pass
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Secondary heating system

None

### 5 Cylinder insulation

Hot water storage

Measured cylinder loss: 2.30 kWh/day  
Permitted by DBSCG 2.30

Pass

Primary pipework insulated

Yes

Pass

### 6 Controls

Space heating controls

Time and temperature zone control

Pass

Hot water controls

Cylinderstat

Pass

Independent timer for DHW

Pass

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 North

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

Windows facing East

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

Windows facing South

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

Windows facing West

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

Air change rate

5.00 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

5.00 (design value)

Maximum

10.0

Pass

### 10 Key features

Photovoltaic array

5.05

kW

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