BASIC COMPLIANCE REPORT
Calculation Type: New Build (As Built)

Design SAP
elmhurst energy

Property Reference	PMCC-ROPE-1655-001	**Issued on Date**	28/07/2020
Assessment Reference	ABF	**Prop Type Ref**	
Property	3, Salt Marsh Road, SHOREHAM-BY-SEA, West Sussex, BN43 5QJ		

SAP Rating	83 B	**DER**	17.71	**TER**	19.04
Environmental	83 B	**% DER<TER**	7.00		
CO_2 Emissions (t/year)	2.02	**DFEE**	59.62	**TFEE**	70.79
General Requirements Compliance	Pass	**% DFEE<TFEE**	15.79		

Assessor Details	Mr. Malcolm Maclean, SRE Limited, Tel: 01730 710044, malcolm@sre.co.uk	**Assessor ID**	V497-0002
Client			

SUMARY FOR INPUT DATA FOR New Build (As Built)

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)	19.04	$kgCO_2/m^2$	
Dwelling Carbon Dioxide Emission Rate (DER)	17.71	$kgCO_2/m^2$	Pass
	-1.33 (-7.0%)	$kgCO_2/m^2$	

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)	70.79	$kWh/m^2/yr$	
Dwelling Fabric Energy Efficiency (DFEE)	59.62	$kWh/m^2/yr$	
	-11.2 (-15.8%)	$kWh/m^2/yr$	Pass

Criterion 2 – Limits on design flexibility

Limiting Fabric Standards

2 Fabric U-values

Element	Average	Highest	
External wall	0.19 (max. 0.30)	0.22 (max. 0.70)	Pass
Party wall	0.00 (max. 0.20)	-	Pass
Floor	0.16 (max. 0.25)	0.18 (max. 0.70)	Pass
Roof	0.14 (max. 0.20)	0.14 (max. 0.35)	Pass
Openings	1.34 (max. 2.00)	1.60 (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	3.91 (measured in this dwelling)	
Maximum	10.0	Pass

Limiting System Efficiencies

4 Heating efficiency

Main heating system	Boiler system with radiators or underfloor - Mains gas Data from database Vaillant ecoTEC plus 630 H system A VU GB 306/5-5 A Efficiency: 89.4% SEDBUK2009 Minimum: 88.0%	Pass

Secondary heating system	None		
5 Cylinder insulation			
Hot water storage	Measured cylinder loss: 1.45 kWh/day Permitted by DBSCG 2.10		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			
Continuous supply and extract system			
Specific fan power	0.60		
Maximum	1.5		Pass
MVHR efficiency	89	%	
Minimum	70	%	Pass

Criterion 3 – Limiting the effects of heat gains in summer

9 Summertime temperature

Overheating risk (South East England)	Slight	Pass
Based on:		
Overshading	Average	
Windows facing North	9.12 m², No overhang	
Windows facing East	3.78 m², No overhang	
Windows facing South	17.71 m², No overhang	
Air change rate	2.50 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		
Unfilled Cavity with Edge Sealing	0.20	W/m²K	Pass
Filled Cavity with Edge Sealing	0.00	W/m²K	Pass

Air permeability and pressure testing

3 Air permeability

Air permeability at 50 pascals	3.91 (measured in this dwelling)		
Maximum	10.0		Pass

10 Key features

Party wall U-value	0.00	W/m²K
Air permeability	3.9	m³/m²h

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

BASIC COMPLIANCE REPORT
Calculation Type: New Build (As Built)

Design SAP
elmhurst energy

Property Reference	PMCC-ROPE-1655-002	**Issued on Date**	28/07/2020
Assessment Reference	ABF	**Prop Type Ref**	
Property	5, Salt Marsh Road, SHOREHAM-BY-SEA, West Sussex, BN43 5QJ		

SAP Rating	83 B	**DER**	16.76	**TER**	17.95
Environmental	84 B	**% DER<TER**	6.64		
CO_2 Emissions (t/year)	1.91	**DFEE**	55.27	**TFEE**	64.90
General Requirements Compliance	Pass	**% DFEE<TFEE**	14.84		

Assessor Details	Mr. Malcolm Maclean, SRE Limited, Tel: 01730 710044, malcolm@sre.co.uk	**Assessor ID**	V497-0002
Client			

SUMARY FOR INPUT DATA FOR New Build (As Built)

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)	17.95	$kgCO_2/m^2$	
Dwelling Carbon Dioxide Emission Rate (DER)	16.76	$kgCO_2/m^2$	Pass
	-1.19 (-6.6%)	$kgCO_2/m^2$	

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)	64.90	$kWh/m^2/yr$	
Dwelling Fabric Energy Efficiency (DFEE)	55.27	$kWh/m^2/yr$	
	-9.6 (-14.8%)	$kWh/m^2/yr$	Pass

Criterion 2 – Limits on design flexibility

Limiting Fabric Standards

2 Fabric U-values

Element	Average	Highest	
External wall	0.19 (max. 0.30)	0.22 (max. 0.70)	Pass
Party wall	0.00 (max. 0.20)	-	Pass
Floor	0.16 (max. 0.25)	0.18 (max. 0.70)	Pass
Roof	0.14 (max. 0.20)	0.14 (max. 0.35)	Pass
Openings	1.34 (max. 2.00)	1.60 (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	3.99 (measured in this dwelling)	
Maximum	10.0	Pass

Limiting System Efficiencies

4 Heating efficiency

Main heating system	Boiler system with radiators or underfloor - Mains gas Data from database Vaillant ecoTEC plus 630 H system A VU GB 306/5-5 A Efficiency: 89.4% SEDBUK2009 Minimum: 88.0%	Pass

Secondary heating system	None		
5 Cylinder insulation			
Hot water storage	Measured cylinder loss: 1.45 kWh/day Permitted by DBSCG 2.10		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			
Continuous supply and extract system			
Specific fan power	0.60		
Maximum	1.5		Pass
MVHR efficiency	89	%	
Minimum	70	%	Pass

Criterion 3 – Limiting the effects of heat gains in summer

9 Summertime temperature

Overheating risk (South East England)	Slight		Pass
Based on:			
Overshading	Average		
Windows facing North Windows facing South	9.12 m², No overhang 17.71 m², No overhang		
Air change rate	2.50 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		
Unfilled Cavity with Edge Sealing	0.20	W/m²K	Pass
Filled Cavity with Edge Sealing	0.00	W/m²K	Pass

Air permeability and pressure testing

3 Air permeability

Air permeability at 50 pascals	3.99 (measured in this dwelling)		
Maximum	10.0		Pass

10 Key features

Party wall U-value	0.00	W/m²K
Air permeability	4.0	m³/m²h

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

BASIC COMPLIANCE REPORT
Calculation Type: New Build (As Built)

Design SAP
elmhurst energy

Property Reference	PMCC-ROPE-1655-003	**Issued on Date**	28/07/2020
Assessment Reference	ABF	**Prop Type Ref**	
Property	7, Salt Marsh Road, SHOREHAM-BY-SEA, West Sussex, BN43 5QJ		

SAP Rating	83 B	**DER**	17.21	**TER**	17.95
Environmental	84 B	**% DER<TER**	4.14		
CO_2 Emissions (t/year)	1.96	**DFEE**	55.94	**TFEE**	64.90
General Requirements Compliance	Pass	**% DFEE<TFEE**	13.80		

Assessor Details	Mr. Malcolm Maclean, SRE Limited, Tel: 01730 710044, malcolm@sre.co.uk	**Assessor ID**	V497-0002
Client			

SUMARY FOR INPUT DATA FOR New Build (As Built)

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)	17.95	$kgCO_2/m^2$	
Dwelling Carbon Dioxide Emission Rate (DER)	17.21	$kgCO_2/m^2$	Pass
	-0.74 (-4.1%)	$kgCO_2/m^2$	

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)	64.90	$kWh/m^2/yr$	
Dwelling Fabric Energy Efficiency (DFEE)	55.94	$kWh/m^2/yr$	
	-9.0 (-13.9%)	$kWh/m^2/yr$	Pass

Criterion 2 – Limits on design flexibility

Limiting Fabric Standards

2 Fabric U-values

Element	Average	Highest	
External wall	0.19 (max. 0.30)	0.22 (max. 0.70)	Pass
Party wall	0.00 (max. 0.20)	-	Pass
Floor	0.16 (max. 0.25)	0.18 (max. 0.70)	Pass
Roof	0.14 (max. 0.20)	0.14 (max. 0.35)	Pass
Openings	1.34 (max. 2.00)	1.60 (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	4.91 (measured in this dwelling)	
Maximum	10.0	Pass

Limiting System Efficiencies

4 Heating efficiency

Main heating system	Boiler system with radiators or underfloor - Mains gas Data from database Vaillant ecoTEC plus 630 H system A VU GB 306/5-5 A Efficiency: 89.4% SEDBUK2009 Minimum: 88.0%	Pass

Secondary heating system	None		
5 Cylinder insulation			
Hot water storage	Measured cylinder loss: 1.45 kWh/day Permitted by DBSCG 2.10		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			
Continuous supply and extract system			
Specific fan power	0.60		
Maximum	1.5		Pass
MVHR efficiency	89	%	
Minimum	70	%	Pass

Criterion 3 – Limiting the effects of heat gains in summer

9 Summertime temperature

Overheating risk (South East England)	Slight	Pass
Based on:		
Overshading	Average	
Windows facing North Windows facing South	9.12 m², No overhang 17.71 m², No overhang	
Air change rate	2.50 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		
Unfilled Cavity with Edge Sealing	0.20	W/m²K	Pass
Filled Cavity with Edge Sealing	0.00	W/m²K	Pass

Air permeability and pressure testing

3 Air permeability

Air permeability at 50 pascals	4.91 (measured in this dwelling)		
Maximum	10.0		Pass

10 Key features

Party wall U-value	0.00	W/m²K

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

BASIC COMPLIANCE REPORT
Calculation Type: New Build (As Built)

Design SAP
elmhurst energy

Property Reference	PMCC-ROPE-1655-004	**Issued on Date**	28/07/2020
Assessment Reference	ABF	**Prop Type Ref**	
Property	9, Salt Marsh Road, SHOREHAM-BY-SEA, West Sussex, BN43 5QJ		

SAP Rating	83 B	**DER**	17.12	**TER**	17.95
Environmental	84 B	**% DER<TER**	4.64		
CO_2 Emissions (t/year)	1.95	**DFEE**	55.79	**TFEE**	64.90
General Requirements Compliance	Pass	**% DFEE<TFEE**	14.03		

Assessor Details	Mr. Malcolm Maclean, SRE Limited, Tel: 01730 710044, malcolm@sre.co.uk	**Assessor ID**	V497-0002
Client			

SUMARY FOR INPUT DATA FOR New Build (As Built)

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)	17.95	$kgCO_2/m^2$	
Dwelling Carbon Dioxide Emission Rate (DER)	17.12	$kgCO_2/m^2$	Pass
	-0.83 (-4.6%)	$kgCO_2/m^2$	

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)	64.90	$kWh/m^2/yr$	
Dwelling Fabric Energy Efficiency (DFEE)	55.79	$kWh/m^2/yr$	
	-9.1 (-14.0%)	$kWh/m^2/yr$	Pass

Criterion 2 – Limits on design flexibility

Limiting Fabric Standards

2 Fabric U-values

Element	Average	Highest	
External wall	0.19 (max. 0.30)	0.22 (max. 0.70)	Pass
Party wall	0.00 (max. 0.20)	-	Pass
Floor	0.16 (max. 0.25)	0.18 (max. 0.70)	Pass
Roof	0.14 (max. 0.20)	0.14 (max. 0.35)	Pass
Openings	1.34 (max. 2.00)	1.60 (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	4.72 (measured in this dwelling)	
Maximum	10.0	Pass

Limiting System Efficiencies

4 Heating efficiency

Main heating system	Boiler system with radiators or underfloor - Mains gas Data from database Vaillant ecoTEC plus 630 H system A VU GB 306/5-5 A Efficiency: 89.4% SEDBUK2009 Minimum: 88.0%	Pass

Secondary heating system	None		
5 Cylinder insulation			
Hot water storage	Measured cylinder loss: 1.45 kWh/day Permitted by DBSCG 2.10		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			
Continuous supply and extract system			
Specific fan power	0.60		
Maximum	1.5		Pass
MVHR efficiency	89	%	
Minimum	70	%	Pass

Criterion 3 – Limiting the effects of heat gains in summer

9 Summertime temperature

Overheating risk (South East England)	Slight		Pass
Based on:			
Overshading	Average		
Windows facing North Windows facing South	9.12 m², No overhang 17.71 m², No overhang		
Air change rate	2.50 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		
Unfilled Cavity with Edge Sealing	0.20	W/m²K	Pass
Filled Cavity with Edge Sealing	0.00	W/m²K	Pass

Air permeability and pressure testing

3 Air permeability

Air permeability at 50 pascals	4.72 (measured in this dwelling)		
Maximum	10.0		Pass

10 Key features

Party wall U-value	0.00	W/m²K	

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

BASIC COMPLIANCE REPORT
Calculation Type: New Build (As Built)

Design SAP
elmhurst energy

Property Reference	PMCC-ROPE-1655-005	**Issued on Date**	28/07/2020
Assessment Reference	ABF	**Prop Type Ref**	
Property	11, Salt Marsh Road, SHOREHAM-BY-SEA, West Sussex, BN43 5QJ		

SAP Rating	83 B	**DER**	17.06	**TER**	17.95
Environmental	84 B	**% DER<TER**	4.97		
CO_2 Emissions (t/year)	1.94	**DFEE**	55.70	**TFEE**	64.90
General Requirements Compliance	Pass	**% DFEE<TFEE**	14.17		

Assessor Details	Mr. Malcolm Maclean, SRE Limited, Tel: 01730 710044, malcolm@sre.co.uk	**Assessor ID**	V497-0002
Client			

SUMARY FOR INPUT DATA FOR New Build (As Built)

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)	17.95	$kgCO_2/m^2$	
Dwelling Carbon Dioxide Emission Rate (DER)	17.06	$kgCO_2/m^2$	Pass
	-0.89 (-5.0%)	$kgCO_2/m^2$	

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)	64.90	$kWh/m^2/yr$	
Dwelling Fabric Energy Efficiency (DFEE)	55.70	$kWh/m^2/yr$	
	-9.2 (-14.2%)	$kWh/m^2/yr$	Pass

Criterion 2 – Limits on design flexibility

Limiting Fabric Standards

2 Fabric U-values

Element	Average	Highest	
External wall	0.19 (max. 0.30)	0.22 (max. 0.70)	Pass
Party wall	0.00 (max. 0.20)	-	Pass
Floor	0.16 (max. 0.25)	0.18 (max. 0.70)	Pass
Roof	0.14 (max. 0.20)	0.14 (max. 0.35)	Pass
Openings	1.34 (max. 2.00)	1.60 (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	4.60 (measured in this dwelling)	
Maximum	10.0	Pass

Limiting System Efficiencies

4 Heating efficiency

Main heating system	Boiler system with radiators or underfloor - Mains gas Data from database Vaillant ecoTEC plus 630 H system A VU GB 306/5-5 A Efficiency: 89.4% SEDBUK2009 Minimum: 88.0%	Pass

Secondary heating system	None		
5 Cylinder insulation			
Hot water storage	Measured cylinder loss: 1.45 kWh/day Permitted by DBSCG 2.10		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			
Continuous supply and extract system			
Specific fan power	0.60		
Maximum	1.5		Pass
MVHR efficiency	89	%	
Minimum	70	%	Pass

Criterion 3 – Limiting the effects of heat gains in summer

9 Summertime temperature

Overheating risk (South East England)	Slight	Pass
Based on:		
Overshading	Average	
Windows facing North Windows facing South	9.12 m², No overhang 17.71 m², No overhang	
Air change rate	2.50 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		
Unfilled Cavity with Edge Sealing	0.20	W/m²K	Pass
Filled Cavity with Edge Sealing	0.00	W/m²K	Pass

Air permeability and pressure testing

3 Air permeability

Air permeability at 50 pascals	4.60 (measured in this dwelling)		
Maximum	10.0		Pass

10 Key features

Party wall U-value	0.00	W/m²K

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

BASIC COMPLIANCE REPORT
Calculation Type: New Build (As Built)

Design SAP
elmhurst energy

Property Reference	PMCC-ROPE-1655-006	**Issued on Date**	28/07/2020
Assessment Reference	ABF	**Prop Type Ref**	
Property	15, Salt Marsh Road, SHOREHAM-BY-SEA, West Sussex, BN43 5QJ		

SAP Rating	83 B	**DER**	16.95	**TER**	17.95
Environmental	84 B	**% DER<TER**	5.59		
CO_2 Emissions (t/year)	1.93	**DFEE**	55.54	**TFEE**	64.90
General Requirements Compliance	Pass	**% DFEE<TFEE**	14.43		

Assessor Details	Mr. Malcolm Maclean, SRE Limited, Tel: 01730 710044, malcolm@sre.co.uk	**Assessor ID**	V497-0002
Client			

SUMARY FOR INPUT DATA FOR New Build (As Built)

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)	17.95	$kgCO_2/m^2$	
Dwelling Carbon Dioxide Emission Rate (DER)	16.95	$kgCO_2/m^2$	Pass
	-1.00 (-5.6%)	$kgCO_2/m^2$	

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)	64.90	$kWh/m^2/yr$	
Dwelling Fabric Energy Efficiency (DFEE)	55.54	$kWh/m^2/yr$	
	-9.4 (-14.5%)	$kWh/m^2/yr$	Pass

Criterion 2 – Limits on design flexibility

Limiting Fabric Standards

2 Fabric U-values

Element	Average	Highest	
External wall	0.19 (max. 0.30)	0.22 (max. 0.70)	Pass
Party wall	0.00 (max. 0.20)	-	Pass
Floor	0.16 (max. 0.25)	0.18 (max. 0.70)	Pass
Roof	0.14 (max. 0.20)	0.14 (max. 0.35)	Pass
Openings	1.34 (max. 2.00)	1.60 (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	4.37 (measured in this dwelling)	
Maximum	10.0	Pass

Limiting System Efficiencies

4 Heating efficiency

Main heating system	Boiler system with radiators or underfloor - Mains gas Data from database Vaillant ecoTEC plus 630 H system A VU GB 306/5-5 A Efficiency: 89.4% SEDBUK2009 Minimum: 88.0%	Pass

Secondary heating system	None		
5 Cylinder insulation			
Hot water storage	Measured cylinder loss: 1.45 kWh/day Permitted by DBSCG 2.10		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			
Continuous supply and extract system			
Specific fan power	0.60		
Maximum	1.5		Pass
MVHR efficiency	89	%	
Minimum	70	%	Pass

Criterion 3 – Limiting the effects of heat gains in summer

9 Summertime temperature

Overheating risk (South East England)	Slight	Pass
Based on:		
Overshading	Average	
Windows facing North Windows facing South	9.12 m², No overhang 17.71 m², No overhang	
Air change rate	2.50 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		
Unfilled Cavity with Edge Sealing	0.20	W/m²K	Pass
Filled Cavity with Edge Sealing	0.00	W/m²K	Pass

Air permeability and pressure testing

3 Air permeability

Air permeability at 50 pascals	4.37 (measured in this dwelling)		
Maximum	10.0		Pass

10 Key features

Party wall U-value	0.00	W/m²K

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

BASIC COMPLIANCE REPORT
Calculation Type: New Build (As Built)

Design SAP
elmhurst energy

Property Reference	PMCC-ROPE-1655-007	**Issued on Date**	28/07/2020
Assessment Reference	ABF	**Prop Type Ref**	
Property	17, Salt Marsh Road, SHOREHAM-BY-SEA, West Sussex, BN43 5QJ		

SAP Rating	83 B	**DER**	16.86	**TER**	17.95
Environmental	84 B	**% DER<TER**	6.09		
CO_2 Emissions (t/year)	1.92	**DFEE**	55.40	**TFEE**	64.90
General Requirements Compliance	Pass	**% DFEE<TFEE**	14.63		

Assessor Details	Mr. Malcolm Maclean, SRE Limited, Tel: 01730 710044, malcolm@sre.co.uk	**Assessor ID**	V497-0002
Client			

SUMARY FOR INPUT DATA FOR New Build (As Built)

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)	17.95	$kgCO_2/m^2$	
Dwelling Carbon Dioxide Emission Rate (DER)	16.86	$kgCO_2/m^2$	Pass
	-1.09 (-6.1%)	$kgCO_2/m^2$	

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)	64.90	$kWh/m^2/yr$	
Dwelling Fabric Energy Efficiency (DFEE)	55.40	$kWh/m^2/yr$	
	-9.5 (-14.6%)	$kWh/m^2/yr$	Pass

Criterion 2 – Limits on design flexibility

Limiting Fabric Standards

2 Fabric U-values

Element	Average	Highest	
External wall	0.19 (max. 0.30)	0.22 (max. 0.70)	Pass
Party wall	0.00 (max. 0.20)	-	Pass
Floor	0.16 (max. 0.25)	0.18 (max. 0.70)	Pass
Roof	0.14 (max. 0.20)	0.14 (max. 0.35)	Pass
Openings	1.34 (max. 2.00)	1.60 (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	4.18 (measured in this dwelling)	
Maximum	10.0	Pass

Limiting System Efficiencies

4 Heating efficiency

Main heating system	Boiler system with radiators or underfloor - Mains gas Data from database Vaillant ecoTEC plus 630 H system A VU GB 306/5-5 A Efficiency: 89.4% SEDBUK2009 Minimum: 88.0%	Pass

Secondary heating system	None		
5 Cylinder insulation			
Hot water storage	Measured cylinder loss: 1.45 kWh/day Permitted by DBSCG 2.10		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			
Continuous supply and extract system			
Specific fan power	0.60		
Maximum	1.5		Pass
MVHR efficiency	89	%	
Minimum	70	%	Pass

Criterion 3 – Limiting the effects of heat gains in summer

9 Summertime temperature

Overheating risk (South East England)	Slight	Pass
Based on:		
Overshading	Average	
Windows facing North Windows facing South	9.12 m², No overhang 17.71 m², No overhang	
Air change rate	2.50 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		
Unfilled Cavity with Edge Sealing	0.20	W/m²K	Pass
Filled Cavity with Edge Sealing	0.00	W/m²K	Pass

Air permeability and pressure testing

3 Air permeability

Air permeability at 50 pascals	4.18 (measured in this dwelling)		
Maximum	10.0		Pass

10 Key features

Party wall U-value	0.00	W/m²K

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

BASIC COMPLIANCE REPORT
Calculation Type: New Build (As Built)

Design SAP
elmhurst energy

Property Reference	PMCC-ROPE-1655-008	**Issued on Date**	28/07/2020
Assessment Reference	ABF	**Prop Type Ref**	
Property	19, Salt Marsh Road, SHOREHAM-BY-SEA, West Sussex, BN43 5QJ		

SAP Rating	83 B	**DER**	16.96	**TER**	17.95
Environmental	84 B	**% DER<TER**	5.53		
CO_2 Emissions (t/year)	1.93	**DFEE**	55.55	**TFEE**	64.90
General Requirements Compliance	Pass	**% DFEE<TFEE**	14.40		

Assessor Details	Mr. Malcolm Maclean, SRE Limited, Tel: 01730 710044, malcolm@sre.co.uk	**Assessor ID**	V497-0002
Client			

SUMARY FOR INPUT DATA FOR New Build (As Built)

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)	17.95	$kgCO_2/m^2$	
Dwelling Carbon Dioxide Emission Rate (DER)	16.96	$kgCO_2/m^2$	Pass
	-0.99 (-5.5%)	$kgCO_2/m^2$	

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)	64.90	$kWh/m^2/yr$	
Dwelling Fabric Energy Efficiency (DFEE)	55.55	$kWh/m^2/yr$	
	-9.3 (-14.3%)	$kWh/m^2/yr$	Pass

Criterion 2 – Limits on design flexibility

Limiting Fabric Standards

2 Fabric U-values

Element	Average	Highest	
External wall	0.19 (max. 0.30)	0.22 (max. 0.70)	Pass
Party wall	0.00 (max. 0.20)	-	Pass
Floor	0.16 (max. 0.25)	0.18 (max. 0.70)	Pass
Roof	0.14 (max. 0.20)	0.14 (max. 0.35)	Pass
Openings	1.34 (max. 2.00)	1.60 (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	4.39 (measured in this dwelling)	
Maximum	10.0	Pass

Limiting System Efficiencies

4 Heating efficiency

Main heating system	Boiler system with radiators or underfloor - Mains gas Data from database Vaillant ecoTEC plus 630 H system A VU GB 306/5-5 A Efficiency: 89.4% SEDBUK2009 Minimum: 88.0%	Pass

Secondary heating system	None		
5 Cylinder insulation			
Hot water storage	Measured cylinder loss: 1.45 kWh/day Permitted by DBSCG 2.10		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			
Continuous supply and extract system			
Specific fan power	0.60		
Maximum	1.5		Pass
MVHR efficiency	89	%	
Minimum	70	%	Pass

Criterion 3 – Limiting the effects of heat gains in summer

9 Summertime temperature

Overheating risk (South East England)	Slight	Pass
Based on:		
Overshading	Average	
Windows facing North Windows facing South	9.12 m², No overhang 17.71 m², No overhang	
Air change rate	2.50 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		
Unfilled Cavity with Edge Sealing	0.20	W/m²K	Pass
Filled Cavity with Edge Sealing	0.00	W/m²K	Pass

Air permeability and pressure testing

3 Air permeability

Air permeability at 50 pascals	4.39 (measured in this dwelling)		
Maximum	10.0		Pass

10 Key features

Party wall U-value	0.00	W/m²K

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

BASIC COMPLIANCE REPORT
Calculation Type: New Build (As Built)

Design SAP
elmhurst energy

Property Reference	PMCC-ROPE-1655-009	**Issued on Date**	28/07/2020
Assessment Reference	ABF	**Prop Type Ref**	
Property	21, Salt Marsh Road, SHOREHAM-BY-SEA, West Sussex, BN43 5QJ		

SAP Rating	85 B	**DER**	14.67	**TER**	15.75
Environmental	85 B	**% DER<TER**	6.88		
CO_2 Emissions (t/year)	2.22	**DFEE**	50.55	**TFEE**	59.54
General Requirements Compliance	Pass	**% DFEE<TFEE**	15.11		

Assessor Details	Mr. Malcolm Maclean, SRE Limited, Tel: 01730 710044, malcolm@sre.co.uk	**Assessor ID**	V497-0002
Client			

SUMARY FOR INPUT DATA FOR New Build (As Built)

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)	15.75	$kgCO_2/m^2$	
Dwelling Carbon Dioxide Emission Rate (DER)	14.67	$kgCO_2/m^2$	Pass
	-1.08 (-6.9%)	$kgCO_2/m^2$	

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)	59.54	$kWh/m^2/yr$	
Dwelling Fabric Energy Efficiency (DFEE)	50.55	$kWh/m^2/yr$	
	-9.0 (-15.1%)	$kWh/m^2/yr$	Pass

Criterion 2 – Limits on design flexibility

Limiting Fabric Standards

2 Fabric U-values

Element	Average	Highest	
External wall	0.19 (max. 0.30)	0.22 (max. 0.70)	Pass
Party wall	0.00 (max. 0.20)	-	Pass
Floor	0.16 (max. 0.25)	0.18 (max. 0.70)	Pass
Roof	0.14 (max. 0.20)	0.14 (max. 0.35)	Pass
Openings	1.33 (max. 2.00)	1.60 (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	4.29 (measured in this dwelling)	
Maximum	10.0	Pass

Limiting System Efficiencies

4 Heating efficiency

Main heating system	Boiler system with radiators or underfloor - Mains gas Data from database Vaillant ecoTEC plus 630 H system A VU GB 306/5-5 A Efficiency: 89.4% SEDBUK2009 Minimum: 88.0%	Pass

Secondary heating system	None		
5 Cylinder insulation			
Hot water storage	Measured cylinder loss: 1.61 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			
Continuous supply and extract system			
Specific fan power	0.60		
Maximum	1.5		Pass
MVHR efficiency	89	%	
Minimum	70	%	Pass

Criterion 3 – Limiting the effects of heat gains in summer

9 Summertime temperature

Overheating risk (South East England)	Slight	Pass
Based on:		
Overshading	Average	
Windows facing North Windows facing South	13.43 m², No overhang 22.19 m², No overhang	
Air change rate	2.50 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		
Unfilled Cavity with Edge Sealing	0.20	W/m²K	Pass
Filled Cavity with Edge Sealing	0.00	W/m²K	Pass

Air permeability and pressure testing

3 Air permeability

Air permeability at 50 pascals	4.29 (measured in this dwelling)		
Maximum	10.0		Pass

10 Key features

Party wall U-value	0.00	W/m²K

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

BASIC COMPLIANCE REPORT
Calculation Type: New Build (As Built)

Design SAP
elmhurst energy

Property Reference	PMCC-ROPE-1655-010	**Issued on Date**	28/07/2020
Assessment Reference	ABF	**Prop Type Ref**	
Property	23, Salt Marsh Road, SHOREHAM-BY-SEA, West Sussex, BN43 5QJ		

SAP Rating	85 B	**DER**	14.72	**TER**	15.75
Environmental	85 B	**% DER<TER**	6.57		
CO_2 Emissions (t/year)	2.23	**DFEE**	50.62	**TFEE**	59.54
General Requirements Compliance	Pass	**% DFEE<TFEE**	14.99		

Assessor Details	Mr. Malcolm Maclean, SRE Limited, Tel: 01730 710044, malcolm@sre.co.uk	**Assessor ID**	V497-0002
Client			

SUMARY FOR INPUT DATA FOR New Build (As Built)

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)	15.75	$kgCO_2/m^2$	
Dwelling Carbon Dioxide Emission Rate (DER)	14.72	$kgCO_2/m^2$	Pass
	-1.03 (-6.5%)	$kgCO_2/m^2$	

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)	59.54	$kWh/m^2/yr$	
Dwelling Fabric Energy Efficiency (DFEE)	50.62	$kWh/m^2/yr$	
	-8.9 (-15.0%)	$kWh/m^2/yr$	Pass

Criterion 2 – Limits on design flexibility

Limiting Fabric Standards

2 Fabric U-values

Element	Average	Highest	
External wall	0.19 (max. 0.30)	0.22 (max. 0.70)	Pass
Party wall	0.00 (max. 0.20)	-	Pass
Floor	0.16 (max. 0.25)	0.18 (max. 0.70)	Pass
Roof	0.14 (max. 0.20)	0.14 (max. 0.35)	Pass
Openings	1.33 (max. 2.00)	1.60 (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	4.40 (measured in this dwelling)	
Maximum	10.0	Pass

Limiting System Efficiencies

4 Heating efficiency

Main heating system	Boiler system with radiators or underfloor - Mains gas Data from database Vaillant ecoTEC plus 630 H system A VU GB 306/5-5 A Efficiency: 89.4% SEDBUK2009 Minimum: 88.0%	Pass

Secondary heating system	None		
5 Cylinder insulation			
Hot water storage	Measured cylinder loss: 1.61 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			
Continuous supply and extract system			
Specific fan power	0.60		
Maximum	1.5		Pass
MVHR efficiency	89	%	
Minimum	70	%	Pass

Criterion 3 – Limiting the effects of heat gains in summer

9 Summertime temperature

Overheating risk (South East England)	Slight	Pass
Based on:		
Overshading	Average	
Windows facing North Windows facing South	13.43 m², No overhang 22.19 m², No overhang	
Air change rate	2.50 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		
Unfilled Cavity with Edge Sealing	0.20	W/m²K	Pass
Filled Cavity with Edge Sealing	0.00	W/m²K	Pass

Air permeability and pressure testing

3 Air permeability

Air permeability at 50 pascals	4.40 (measured in this dwelling)	
Maximum	10.0	Pass

10 Key features

Party wall U-value	0.00	W/m²K

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

BASIC COMPLIANCE REPORT
Calculation Type: New Build (As Built)

Design SAP
elmhurst energy

Property Reference	PMCC-ROPE-1655-096	**Issued on Date**	29/07/2020
Assessment Reference	ABF	**Prop Type Ref**	
Property	30, Salt Marsh Road, SHOREHAM-BY-SEA, West Sussex, BN43 5QL		

SAP Rating	83 B	**DER**	18.14	**TER**	18.67
Environmental	83 B	**% DER<TER**	2.82		
CO_2 Emissions (t/year)	2.15	**DFEE**	60.18	**TFEE**	70.16
General Requirements Compliance	Pass	**% DFEE<TFEE**	14.23		

Assessor Details	Mr. Malcolm Maclean, SRE Limited, Tel: 01730 710044, malcolm@sre.co.uk	**Assessor ID**	V497-0002
Client			

SUMARY FOR INPUT DATA FOR New Build (As Built)

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)	18.67	$kgCO_2/m^2$	
Dwelling Carbon Dioxide Emission Rate (DER)	18.14	$kgCO_2/m^2$	Pass
	-0.53 (-2.8%)	$kgCO_2/m^2$	

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)	70.16	$kWh/m^2/yr$	
Dwelling Fabric Energy Efficiency (DFEE)	60.18	$kWh/m^2/yr$	
	-10.0 (-14.2%)	$kWh/m^2/yr$	Pass

Criterion 2 – Limits on design flexibility

Limiting Fabric Standards

2 Fabric U-values

Element	Average	Highest	
External wall	0.19 (max. 0.30)	0.22 (max. 0.70)	Pass
Party wall	0.00 (max. 0.20)	-	Pass
Floor	0.16 (max. 0.25)	0.18 (max. 0.70)	Pass
Roof	0.14 (max. 0.20)	0.14 (max. 0.35)	Pass
Openings	1.34 (max. 2.00)	1.60 (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	4.69 (measured in this dwelling)	
Maximum	10.0	Pass

Limiting System Efficiencies

4 Heating efficiency

Main heating system	Boiler system with radiators or underfloor - Mains gas Data from database Vaillant ecoTEC plus 630 H system A VU GB 306/5-5 A Efficiency: 89.4% SEDBUK2009 Minimum: 88.0%	Pass

Secondary heating system	None		

5 Cylinder insulation

Hot water storage	Measured cylinder loss: 1.45 kWh/day Permitted by DBSCG 2.10		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

Continuous extract system (decentralised)			
Specific fan power	0.2000 0.1800 0.1600		
Maximum	0.7		Pass

Criterion 3 – Limiting the effects of heat gains in summer

9 Summertime temperature

Overheating risk (South East England)	Medium		Pass

Based on:

Overshading	Average		
Windows facing East Windows facing South Windows facing West	17.71 m², No overhang 5.68 m², No overhang 9.12 m², No overhang		
Air change rate	2.50 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		
Unfilled Cavity with Edge Sealing	0.20	W/m²K	Pass
Filled Cavity with Edge Sealing	0.00	W/m²K	Pass

Air permeability and pressure testing

3 Air permeability

Air permeability at 50 pascals	4.69 (measured in this dwelling)		
Maximum	10.0		Pass

10 Key features

Party wall U-value	0.00	W/m²K	

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

BASIC COMPLIANCE REPORT
Calculation Type: New Build (As Built)

Design SAP
elmhurst energy

Property Reference	PMCC-ROPE-1655-097	**Issued on Date**	29/07/2020
Assessment Reference	ABF	**Prop Type Ref**	
Property	28, Salt Marsh Road, SHOREHAM-BY-SEA, West Sussex, BN43 5QL		

SAP Rating	83 B	**DER**	17.55	**TER**	18.06
Environmental	83 B	**% DER<TER**	2.83		
CO_2 Emissions (t/year)	2.07	**DFEE**	57.22	**TFEE**	66.79
General Requirements Compliance	Pass	**% DFEE<TFEE**	14.34		

Assessor Details	Mr. Malcolm Maclean, SRE Limited, Tel: 01730 710044, malcolm@sre.co.uk	**Assessor ID**	V497-0002
Client			

SUMARY FOR INPUT DATA FOR New Build (As Built)

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)	18.06	$kgCO_2/m^2$	
Dwelling Carbon Dioxide Emission Rate (DER)	17.55	$kgCO_2/m^2$	Pass
	-0.51 (-2.8%)	$kgCO_2/m^2$	

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)	66.79	$kWh/m^2/yr$	
Dwelling Fabric Energy Efficiency (DFEE)	57.22	$kWh/m^2/yr$	
	-9.6 (-14.4%)	$kWh/m^2/yr$	Pass

Criterion 2 – Limits on design flexibility

Limiting Fabric Standards

2 Fabric U-values

Element	Average	Highest	
External wall	0.19 (max. 0.30)	0.22 (max. 0.70)	Pass
Party wall	0.00 (max. 0.20)	-	Pass
Floor	0.16 (max. 0.25)	0.18 (max. 0.70)	Pass
Roof	0.14 (max. 0.20)	0.14 (max. 0.35)	Pass
Openings	1.34 (max. 2.00)	1.60 (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	4.85 (measured in this dwelling)	
Maximum	10.0	Pass

Limiting System Efficiencies

4 Heating efficiency

Main heating system	Boiler system with radiators or underfloor - Mains gas Data from database Vaillant ecoTEC plus 630 H system A VU GB 306/5-5 A Efficiency: 89.4% SEDBUK2009 Minimum: 88.0%	Pass

Secondary heating system	None		
5 Cylinder insulation			
Hot water storage	Measured cylinder loss: 1.45 kWh/day Permitted by DBSCG 2.10		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			
Continuous extract system (decentralised)			
Specific fan power	0.2000 0.1800 0.1600		
Maximum	0.7		Pass

Criterion 3 – Limiting the effects of heat gains in summer

9 Summertime temperature

Overheating risk (South East England)	Slight		Pass
Based on:			
Overshading	Average		
Windows facing East Windows facing West	17.71 m², No overhang 9.12 m², No overhang		
Air change rate	2.50 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		
Unfilled Cavity with Edge Sealing	0.20	W/m²K	Pass
Filled Cavity with Edge Sealing	0.00	W/m²K	Pass

Air permeability and pressure testing

3 Air permeability

Air permeability at 50 pascals	4.85 (measured in this dwelling)		
Maximum	10.0		Pass

10 Key features

Party wall U-value	0.00	W/m²K

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

BASIC COMPLIANCE REPORT
Calculation Type: New Build (As Built)

Design SAP
elmhurst energy

Property Reference	PMCC-ROPE-1655-098	**Issued on Date**	29/07/2020
Assessment Reference	ABF	**Prop Type Ref**	
Property	26, Salt Marsh Road, SHOREHAM-BY-SEA, West Sussex, BN43 5QL		

SAP Rating	83 B	**DER**	17.52	**TER**	18.06
Environmental	83 B	**% DER<TER**	3.00		
CO_2 Emissions (t/year)	2.07	**DFEE**	57.08	**TFEE**	66.79
General Requirements Compliance	Pass	**% DFEE<TFEE**	14.55		

Assessor Details	Mr. Malcolm Maclean, SRE Limited, Tel: 01730 710044, malcolm@sre.co.uk	**Assessor ID**	V497-0002
Client			

SUMARY FOR INPUT DATA FOR New Build (As Built)

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)	18.06	$kgCO_2/m^2$	
Dwelling Carbon Dioxide Emission Rate (DER)	17.52	$kgCO_2/m^2$	Pass
	-0.54 (-3.0%)	$kgCO_2/m^2$	

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)	66.79	$kWh/m^2/yr$	
Dwelling Fabric Energy Efficiency (DFEE)	57.08	$kWh/m^2/yr$	
	-9.7 (-14.5%)	$kWh/m^2/yr$	Pass

Criterion 2 – Limits on design flexibility

Limiting Fabric Standards

2 Fabric U-values

Element	Average	Highest	
External wall	0.19 (max. 0.30)	0.22 (max. 0.70)	Pass
Party wall	0.00 (max. 0.20)	-	Pass
Floor	0.16 (max. 0.25)	0.18 (max. 0.70)	Pass
Roof	0.14 (max. 0.20)	0.14 (max. 0.35)	Pass
Openings	1.34 (max. 2.00)	1.60 (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	4.66 (measured in this dwelling)	
Maximum	10.0	Pass

Limiting System Efficiencies

4 Heating efficiency

Main heating system	Boiler system with radiators or underfloor - Mains gas Data from database Vaillant ecoTEC plus 630 H system A VU GB 306/5-5 A Efficiency: 89.4% SEDBUK2009 Minimum: 88.0%	Pass

Secondary heating system	None		
5 Cylinder insulation			
Hot water storage	Measured cylinder loss: 1.45 kWh/day Permitted by DBSCG 2.10		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			
Continuous extract system (decentralised)			
Specific fan power	0.2000 0.1800 0.1600		
Maximum	0.7		Pass

Criterion 3 – Limiting the effects of heat gains in summer

9 Summertime temperature

Overheating risk (South East England)	Slight		Pass
Based on:			
Overshading	Average		
Windows facing East Windows facing West	17.71 m², No overhang 9.12 m², No overhang		
Air change rate	2.50 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		
Unfilled Cavity with Edge Sealing	0.20	W/m²K	Pass
Filled Cavity with Edge Sealing	0.00	W/m²K	Pass

Air permeability and pressure testing

3 Air permeability

Air permeability at 50 pascals	4.66 (measured in this dwelling)		
Maximum	10.0		Pass

10 Key features

Party wall U-value	0.00	W/m²K

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

BASIC COMPLIANCE REPORT
Calculation Type: New Build (As Built)

Design SAP
elmhurst energy

Property Reference	PMCC-ROPE-1655-099	**Issued on Date**	29/07/2020
Assessment Reference	ABF	**Prop Type Ref**	
Property	24, Salt Marsh Road, SHOREHAM-BY-SEA, West Sussex, BN43 5QL		

SAP Rating	83 B	**DER**	18.14	**TER**	18.67
Environmental	83 B	**% DER<TER**	2.82		
CO_2 Emissions (t/year)	2.15	**DFEE**	60.35	**TFEE**	70.16
General Requirements Compliance	Pass	**% DFEE<TFEE**	13.99		

Assessor Details	Mr. Malcolm Maclean, SRE Limited, Tel: 01730 710044, malcolm@sre.co.uk	**Assessor ID**	V497-0002
Client			

SUMARY FOR INPUT DATA FOR New Build (As Built)

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)	18.67	$kgCO_2/m^2$	
Dwelling Carbon Dioxide Emission Rate (DER)	18.14	$kgCO_2/m^2$	Pass
	-0.53 (-2.8%)	$kgCO_2/m^2$	

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)	70.16	$kWh/m^2/yr$	
Dwelling Fabric Energy Efficiency (DFEE)	60.35	$kWh/m^2/yr$	
	-9.9 (-14.1%)	$kWh/m^2/yr$	Pass

Criterion 2 – Limits on design flexibility

Limiting Fabric Standards

2 Fabric U-values

Element	Average	Highest	
External wall	0.19 (max. 0.30)	0.22 (max. 0.70)	Pass
Party wall	0.00 (max. 0.20)	-	Pass
Floor	0.16 (max. 0.25)	0.18 (max. 0.70)	Pass
Roof	0.14 (max. 0.20)	0.14 (max. 0.35)	Pass
Openings	1.34 (max. 2.00)	1.60 (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	4.97 (measured in this dwelling)	
Maximum	10.0	Pass

Limiting System Efficiencies

4 Heating efficiency

Main heating system	Boiler system with radiators or underfloor - Mains gas Data from database Vaillant ecoTEC plus 630 H system A VU GB 306/5-5 A Efficiency: 89.4% SEDBUK2009 Minimum: 88.0%	Pass

Secondary heating system	None		
5 Cylinder insulation			
Hot water storage	Measured cylinder loss: 1.45 kWh/day Permitted by DBSCG 2.10		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			
Continuous extract system (decentralised)			
Specific fan power	0.2000 0.1800 0.1600		
Maximum	0.7		Pass

Criterion 3 – Limiting the effects of heat gains in summer

9 Summertime temperature

Overheating risk (South East England)	Medium	Pass

Based on:

Overshading	Average	
Windows facing East Windows facing South Windows facing West	17.71 m², No overhang 5.68 m², No overhang 9.12 m², No overhang	
Air change rate	2.50 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		
Unfilled Cavity with Edge Sealing	0.20	W/m²K	Pass
Filled Cavity with Edge Sealing	0.00	W/m²K	Pass

Air permeability and pressure testing

3 Air permeability

Air permeability at 50 pascals	4.97 (measured in this dwelling)		
Maximum	10.0		Pass

10 Key features

Party wall U-value	0.00	W/m²K

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

BASIC COMPLIANCE REPORT
Calculation Type: New Build (As Built)

Design SAP
elmhurst energy

Property Reference	PMCC-ROPE-1655-100	**Issued on Date**	29/07/2020
Assessment Reference	ABF	**Prop Type Ref**	
Property	22, Salt Marsh Road, SHOREHAM-BY-SEA, West Sussex, BN43 5QL		

SAP Rating	83 B	**DER**	18.56	**TER**	19.23
Environmental	82 B	**% DER<TER**	3.48		
CO_2 Emissions (t/year)	2.20	**DFEE**	61.46	**TFEE**	72.69
General Requirements Compliance	Pass	**% DFEE<TFEE**	15.45		

Assessor Details	Mr. Malcolm Maclean, SRE Limited, Tel: 01730 710044, malcolm@sre.co.uk	**Assessor ID**	V497-0002
Client			

SUMARY FOR INPUT DATA FOR New Build (As Built)

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)	19.23	$kgCO_2/m^2$	
Dwelling Carbon Dioxide Emission Rate (DER)	18.56	$kgCO_2/m^2$	Pass
	-0.67 (-3.5%)	$kgCO_2/m^2$	

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)	72.69	$kWh/m^2/yr$	
Dwelling Fabric Energy Efficiency (DFEE)	61.46	$kWh/m^2/yr$	
	-11.2 (-15.4%)	$kWh/m^2/yr$	Pass

Criterion 2 – Limits on design flexibility

Limiting Fabric Standards

2 Fabric U-values

Element	Average	Highest	
External wall	0.19 (max. 0.30)	0.22 (max. 0.70)	Pass
Party wall	0.00 (max. 0.20)	-	Pass
Floor	0.16 (max. 0.25)	0.18 (max. 0.70)	Pass
Roof	0.14 (max. 0.20)	0.14 (max. 0.35)	Pass
Openings	1.34 (max. 2.00)	1.60 (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	4.43 (measured in this dwelling)	
Maximum	10.0	Pass

Limiting System Efficiencies

4 Heating efficiency

Main heating system	Boiler system with radiators or underfloor - Mains gas Data from database Vaillant ecoTEC plus 630 H system A VU GB 306/5-5 A Efficiency: 89.4% SEDBUK2009 Minimum: 88.0%	Pass

Secondary heating system	None		
5 Cylinder insulation			
Hot water storage	Measured cylinder loss: 1.45 kWh/day Permitted by DBSCG 2.10		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			
Continuous extract system (decentralised)			
Specific fan power	0.2000 0.1800 0.1600		
Maximum	0.7		Pass

Criterion 3 – Limiting the effects of heat gains in summer

9 Summertime temperature

Overheating risk (South East England)	Slight	Pass

Based on:

Overshading	Average
Windows facing North	17.71 m², No overhang
Windows facing East	5.68 m², No overhang
Windows facing South	9.12 m², No overhang
Air change rate	2.50 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		
Unfilled Cavity with Edge Sealing	0.20	W/m²K	Pass
Filled Cavity with Edge Sealing	0.00	W/m²K	Pass

Air permeability and pressure testing

3 Air permeability

Air permeability at 50 pascals	4.43 (measured in this dwelling)		
Maximum	10.0		Pass

10 Key features

Party wall U-value	0.00	W/m²K

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

BASIC COMPLIANCE REPORT
Calculation Type: New Build (As Built)

Design SAP
elmhurst energy

Property Reference	PMCC-ROPE-1655-101	**Issued on Date**	29/07/2020
Assessment Reference	ABF	**Prop Type Ref**	
Property	20, Salt Marsh Road, SHOREHAM-BY-SEA, West Sussex, BN43 5QL		

SAP Rating	83 B	**DER**	17.72	**TER**	18.36
Environmental	83 B	**% DER<TER**	3.50		
CO_2 Emissions (t/year)	2.10	**DFEE**	57.44	**TFEE**	67.84
General Requirements Compliance	Pass	**% DFEE<TFEE**	15.34		

Assessor Details	Mr. Malcolm Maclean, SRE Limited, Tel: 01730 710044, malcolm@sre.co.uk	**Assessor ID**	V497-0002
Client			

SUMARY FOR INPUT DATA FOR New Build (As Built)

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)	18.36	$kgCO_2/m^2$	
Dwelling Carbon Dioxide Emission Rate (DER)	17.72	$kgCO_2/m^2$	Pass
	-0.64 (-3.5%)	$kgCO_2/m^2$	

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)	67.84	$kWh/m^2/yr$	
Dwelling Fabric Energy Efficiency (DFEE)	57.44	$kWh/m^2/yr$	
	-10.4 (-15.3%)	$kWh/m^2/yr$	Pass

Criterion 2 – Limits on design flexibility

Limiting Fabric Standards

2 Fabric U-values

Element	Average	Highest	
External wall	0.19 (max. 0.30)	0.22 (max. 0.70)	Pass
Party wall	0.00 (max. 0.20)	-	Pass
Floor	0.16 (max. 0.25)	0.18 (max. 0.70)	Pass
Roof	0.14 (max. 0.20)	0.14 (max. 0.35)	Pass
Openings	1.34 (max. 2.00)	1.60 (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	4.70 (measured in this dwelling)	
Maximum	10.0	Pass

Limiting System Efficiencies

4 Heating efficiency

Main heating system	Boiler system with radiators or underfloor - Mains gas Data from database Vaillant ecoTEC plus 630 H system A VU GB 306/5-5 A Efficiency: 89.4% SEDBUK2009 Minimum: 88.0%	Pass

Secondary heating system	None		
5 Cylinder insulation			
Hot water storage	Measured cylinder loss: 1.45 kWh/day Permitted by DBSCG 2.10		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			
Continuous extract system (decentralised)			
Specific fan power	0.2000 0.1800 0.1600		
Maximum	0.7		Pass

Criterion 3 – Limiting the effects of heat gains in summer

9 Summertime temperature

Overheating risk (South East England)	Slight		Pass
Based on:			
Overshading	Average		
Windows facing North Windows facing South	17.71 m², No overhang 9.12 m², No overhang		
Air change rate	2.50 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		
Unfilled Cavity with Edge Sealing	0.20	W/m²K	Pass
Filled Cavity with Edge Sealing	0.00	W/m²K	Pass

Air permeability and pressure testing

3 Air permeability

Air permeability at 50 pascals	4.70 (measured in this dwelling)		
Maximum	10.0		Pass

10 Key features

Party wall U-value	0.00	W/m²K	

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

BASIC COMPLIANCE REPORT
Calculation Type: New Build (As Built)

Design SAP
elmhurst energy

Property Reference	PMCC-ROPE-1655-102	**Issued on Date**	29/07/2020
Assessment Reference	ABF	**Prop Type Ref**	
Property	18, Salt Marsh Road, SHOREHAM-BY-SEA, West Sussex, BN43 5QL		

SAP Rating	83 B	**DER**	17.72	**TER**	18.36
Environmental	83 B	**% DER<TER**	3.50		
CO_2 Emissions (t/year)	2.10	**DFEE**	57.04	**TFEE**	67.84
General Requirements Compliance	Pass	**% DFEE<TFEE**	15.93		

Assessor Details	Mr. Malcolm Maclean, SRE Limited, Tel: 01730 710044, malcolm@sre.co.uk	**Assessor ID**	V497-0002
Client			

SUMARY FOR INPUT DATA FOR New Build (As Built)

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)	18.36	$kgCO_2/m^2$	
Dwelling Carbon Dioxide Emission Rate (DER)	17.72	$kgCO_2/m^2$	Pass
	-0.64 (-3.5%)	$kgCO_2/m^2$	

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)	67.84	$kWh/m^2/yr$	
Dwelling Fabric Energy Efficiency (DFEE)	57.04	$kWh/m^2/yr$	
	-10.8 (-15.9%)	$kWh/m^2/yr$	Pass

Criterion 2 – Limits on design flexibility

Limiting Fabric Standards

2 Fabric U-values

Element	Average	Highest	
External wall	0.19 (max. 0.30)	0.22 (max. 0.70)	Pass
Party wall	0.00 (max. 0.20)	-	Pass
Floor	0.16 (max. 0.25)	0.18 (max. 0.70)	Pass
Roof	0.14 (max. 0.20)	0.14 (max. 0.35)	Pass
Openings	1.34 (max. 2.00)	1.60 (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	4.14 (measured in this dwelling)	
Maximum	10.0	Pass

Limiting System Efficiencies

4 Heating efficiency

Main heating system	Boiler system with radiators or underfloor - Mains gas Data from database Vaillant ecoTEC plus 630 H system A VU GB 306/5-5 A Efficiency: 89.4% SEDBUK2009 Minimum: 88.0%	Pass

Secondary heating system	None		
5 Cylinder insulation			
Hot water storage	Measured cylinder loss: 1.45 kWh/day Permitted by DBSCG 2.10		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			
Continuous extract system (decentralised)			
Specific fan power	0.2000 0.1800 0.1600		
Maximum	0.7		Pass

Criterion 3 – Limiting the effects of heat gains in summer

9 Summertime temperature

Overheating risk (South East England)	Slight		Pass
Based on:			
Overshading	Average		
Windows facing North Windows facing South	17.71 m², No overhang 9.12 m², No overhang		
Air change rate	2.50 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		
Unfilled Cavity with Edge Sealing	0.20	W/m²K	Pass
Filled Cavity with Edge Sealing	0.00	W/m²K	Pass

Air permeability and pressure testing

3 Air permeability

Air permeability at 50 pascals	4.14 (measured in this dwelling)		
Maximum	10.0		Pass

10 Key features

Party wall U-value	0.00	W/m²K

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

BASIC COMPLIANCE REPORT
Calculation Type: New Build (As Built)

Design SAP
elmhurst energy

Property Reference	PMCC-ROPE-1655-103	**Issued on Date**	29/07/2020
Assessment Reference	ABF	**Prop Type Ref**	
Property	16, Salt Marsh Road, SHOREHAM-BY-SEA, West Sussex, BN43 5QL		

SAP Rating	83 B	**DER**	17.72	**TER**	18.36
Environmental	83 B	**% DER<TER**	3.50		
CO_2 Emissions (t/year)	2.10	**DFEE**	57.22	**TFEE**	67.84
General Requirements Compliance	Pass	**% DFEE<TFEE**	15.66		

Assessor Details	Mr. Malcolm Maclean, SRE Limited, Tel: 01730 710044, malcolm@sre.co.uk	**Assessor ID**	V497-0002
Client			

SUMARY FOR INPUT DATA FOR New Build (As Built)

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)	18.36	$kgCO_2/m^2$	
Dwelling Carbon Dioxide Emission Rate (DER)	17.72	$kgCO_2/m^2$	Pass
	-0.64 (-3.5%)	$kgCO_2/m^2$	

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)	67.84	$kWh/m^2/yr$	
Dwelling Fabric Energy Efficiency (DFEE)	57.22	$kWh/m^2/yr$	
	-10.6 (-15.6%)	$kWh/m^2/yr$	Pass

Criterion 2 – Limits on design flexibility

Limiting Fabric Standards

2 Fabric U-values

Element	Average	Highest	
External wall	0.19 (max. 0.30)	0.22 (max. 0.70)	Pass
Party wall	0.00 (max. 0.20)	-	Pass
Floor	0.16 (max. 0.25)	0.18 (max. 0.70)	Pass
Roof	0.14 (max. 0.20)	0.14 (max. 0.35)	Pass
Openings	1.34 (max. 2.00)	1.60 (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	4.40 (measured in this dwelling)	
Maximum	10.0	Pass

Limiting System Efficiencies

4 Heating efficiency

Main heating system	Boiler system with radiators or underfloor - Mains gas Data from database Vaillant ecoTEC plus 630 H system A VU GB 306/5-5 A Efficiency: 89.4% SEDBUK2009 Minimum: 88.0%	Pass

Secondary heating system	None		
5 Cylinder insulation			
Hot water storage	Measured cylinder loss: 1.45 kWh/day Permitted by DBSCG 2.10		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			
Continuous extract system (decentralised)			
Specific fan power	0.2000 0.1800 0.1600		
Maximum	0.7		Pass

Criterion 3 – Limiting the effects of heat gains in summer

9 Summertime temperature

Overheating risk (South East England)	Slight		Pass
Based on:			
Overshading	Average		
Windows facing North	17.71 m², No overhang		
Windows facing South	9.12 m², No overhang		
Air change rate	2.50 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		
Unfilled Cavity with Edge Sealing	0.20	W/m²K	Pass
Filled Cavity with Edge Sealing	0.00	W/m²K	Pass

Air permeability and pressure testing

3 Air permeability

Air permeability at 50 pascals	4.40 (measured in this dwelling)		
Maximum	10.0		Pass

10 Key features

Party wall U-value	0.00	W/m²K

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

BASIC COMPLIANCE REPORT
Calculation Type: New Build (As Built)

Design SAP
elmhurst energy

Property Reference	PMCC-ROPE-1655-104	**Issued on Date**	29/07/2020
Assessment Reference	ABF	**Prop Type Ref**	
Property	14, Salt Marsh Road, SHOREHAM-BY-SEA, West Sussex, BN43 5QL		

SAP Rating	83 B	**DER**	17.72	**TER**	18.36
Environmental	83 B	**% DER<TER**	3.50		
CO_2 Emissions (t/year)	2.10	**DFEE**	57.36	**TFEE**	67.84
General Requirements Compliance	Pass	**% DFEE<TFEE**	15.45		

Assessor Details	Mr. Malcolm Maclean, SRE Limited, Tel: 01730 710044, malcolm@sre.co.uk	**Assessor ID**	V497-0002
Client			

SUMARY FOR INPUT DATA FOR New Build (As Built)

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)	18.36	$kgCO_2/m^2$	
Dwelling Carbon Dioxide Emission Rate (DER)	17.72	$kgCO_2/m^2$	Pass
	-0.64 (-3.5%)	$kgCO_2/m^2$	

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)	67.84	$kWh/m^2/yr$	
Dwelling Fabric Energy Efficiency (DFEE)	57.36	$kWh/m^2/yr$	
	-10.4 (-15.3%)	$kWh/m^2/yr$	Pass

Criterion 2 – Limits on design flexibility

Limiting Fabric Standards

2 Fabric U-values

Element	Average	Highest	
External wall	0.19 (max. 0.30)	0.22 (max. 0.70)	Pass
Party wall	0.00 (max. 0.20)	-	Pass
Floor	0.16 (max. 0.25)	0.18 (max. 0.70)	Pass
Roof	0.14 (max. 0.20)	0.14 (max. 0.35)	Pass
Openings	1.34 (max. 2.00)	1.60 (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	4.60 (measured in this dwelling)	
Maximum	10.0	Pass

Limiting System Efficiencies

4 Heating efficiency

Main heating system	Boiler system with radiators or underfloor - Mains gas Data from database Vaillant ecoTEC plus 630 H system A VU GB 306/5-5 A Efficiency: 89.4% SEDBUK2009 Minimum: 88.0%	Pass

Secondary heating system	None		
5 Cylinder insulation			
Hot water storage	Measured cylinder loss: 1.45 kWh/day Permitted by DBSCG 2.10		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			
Continuous extract system (decentralised)			
Specific fan power	0.2000 0.1800 0.1600		
Maximum	0.7		Pass

Criterion 3 – Limiting the effects of heat gains in summer

9 Summertime temperature

Overheating risk (South East England)	Slight		Pass
Based on:			
Overshading	Average		
Windows facing North Windows facing South	17.71 m², No overhang 9.12 m², No overhang		
Air change rate	2.50 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		
Unfilled Cavity with Edge Sealing	0.20	W/m²K	Pass
Filled Cavity with Edge Sealing	0.00	W/m²K	Pass

Air permeability and pressure testing

3 Air permeability

Air permeability at 50 pascals	4.60 (measured in this dwelling)		
Maximum	10.0		Pass

10 Key features

Party wall U-value	0.00	W/m²K

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

BASIC COMPLIANCE REPORT
Calculation Type: New Build (As Built)

Design SAP
elmhurst energy

Property Reference	PMCC-ROPE-1655-105	**Issued on Date**	29/07/2020
Assessment Reference	ABF	**Prop Type Ref**	
Property	12, Salt Marsh Road, SHOREHAM-BY-SEA, West Sussex, BN43 5QL		

SAP Rating	83 B	**DER**	17.72	**TER**	18.36
Environmental	83 B	**% DER<TER**	3.50		
CO_2 Emissions (t/year)	2.10	**DFEE**	56.96	**TFEE**	67.84
General Requirements Compliance	Pass	**% DFEE<TFEE**	16.05		

Assessor Details	Mr. Malcolm Maclean, SRE Limited, Tel: 01730 710044, malcolm@sre.co.uk	**Assessor ID**	V497-0002
Client			

SUMARY FOR INPUT DATA FOR New Build (As Built)

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)	18.36	$kgCO_2/m^2$	
Dwelling Carbon Dioxide Emission Rate (DER)	17.72	$kgCO_2/m^2$	Pass
	-0.64 (-3.5%)	$kgCO_2/m^2$	

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)	67.84	$kWh/m^2/yr$	
Dwelling Fabric Energy Efficiency (DFEE)	56.96	$kWh/m^2/yr$	
	-10.8 (-15.9%)	$kWh/m^2/yr$	Pass

Criterion 2 – Limits on design flexibility

Limiting Fabric Standards

2 Fabric U-values

Element	Average	Highest	
External wall	0.19 (max. 0.30)	0.22 (max. 0.70)	Pass
Party wall	0.00 (max. 0.20)	-	Pass
Floor	0.16 (max. 0.25)	0.18 (max. 0.70)	Pass
Roof	0.14 (max. 0.20)	0.14 (max. 0.35)	Pass
Openings	1.34 (max. 2.00)	1.60 (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	4.02 (measured in this dwelling)	
Maximum	10.0	Pass

Limiting System Efficiencies

4 Heating efficiency

Main heating system	Boiler system with radiators or underfloor - Mains gas Data from database Vaillant ecoTEC plus 630 H system A VU GB 306/5-5 A Efficiency: 89.4% SEDBUK2009 Minimum: 88.0%	Pass

Secondary heating system	None		
5 Cylinder insulation			
Hot water storage	Measured cylinder loss: 1.45 kWh/day Permitted by DBSCG 2.10		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			
Continuous extract system (decentralised)			
Specific fan power	0.2000 0.1800 0.1600		
Maximum	0.7		Pass

Criterion 3 – Limiting the effects of heat gains in summer

9 Summertime temperature

Overheating risk (South East England)	Slight		Pass
Based on:			
Overshading	Average		
Windows facing North Windows facing South	17.71 m², No overhang 9.12 m², No overhang		
Air change rate	2.50 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		
Unfilled Cavity with Edge Sealing	0.20	W/m²K	Pass
Filled Cavity with Edge Sealing	0.00	W/m²K	Pass

Air permeability and pressure testing

3 Air permeability

Air permeability at 50 pascals	4.02 (measured in this dwelling)		
Maximum	10.0		Pass

10 Key features

Party wall U-value	0.00	W/m²K

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BASIC COMPLIANCE REPORT
Calculation Type: New Build (As Built)

Design SAP
elmhurst energy

Property Reference	PMCC-ROPE-1655-106	**Issued on Date**	29/07/2020
Assessment Reference	ABF	**Prop Type Ref**	
Property	10, Salt Marsh Road, SHOREHAM-BY-SEA, West Sussex, BN43 5QL		

SAP Rating	83 B	**DER**	18.56	**TER**	19.23
Environmental	82 B	**% DER<TER**	3.48		
CO_2 Emissions (t/year)	2.20	**DFEE**	61.50	**TFEE**	72.69
General Requirements Compliance	Pass	**% DFEE<TFEE**	15.40		

Assessor Details	Mr. Malcolm Maclean, SRE Limited, Tel: 01730 710044, malcolm@sre.co.uk	**Assessor ID**	V497-0002
Client			

SUMARY FOR INPUT DATA FOR New Build (As Built)

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)	19.23	$kgCO_2/m^2$	
Dwelling Carbon Dioxide Emission Rate (DER)	18.56	$kgCO_2/m^2$	Pass
	-0.67 (-3.5%)	$kgCO_2/m^2$	

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)	72.69	$kWh/m^2/yr$	
Dwelling Fabric Energy Efficiency (DFEE)	61.50	$kWh/m^2/yr$	
	-11.2 (-15.4%)	$kWh/m^2/yr$	Pass

Criterion 2 – Limits on design flexibility

Limiting Fabric Standards

2 Fabric U-values

Element	Average	Highest	
External wall	0.19 (max. 0.30)	0.22 (max. 0.70)	Pass
Party wall	0.00 (max. 0.20)	-	Pass
Floor	0.16 (max. 0.25)	0.18 (max. 0.70)	Pass
Roof	0.14 (max. 0.20)	0.14 (max. 0.35)	Pass
Openings	1.34 (max. 2.00)	1.60 (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	4.50 (measured in this dwelling)	
Maximum	10.0	Pass

Limiting System Efficiencies

4 Heating efficiency

Main heating system	Boiler system with radiators or underfloor - Mains gas Data from database Vaillant ecoTEC plus 630 H system A VU GB 306/5-5 A Efficiency: 89.4% SEDBUK2009 Minimum: 88.0%	Pass

Secondary heating system	None		

5 Cylinder insulation

Hot water storage	Measured cylinder loss: 1.45 kWh/day Permitted by DBSCG 2.10		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

Continuous extract system (decentralised)			
Specific fan power	0.2000 0.1800 0.1600		
Maximum	0.7		Pass

Criterion 3 – Limiting the effects of heat gains in summer

9 Summertime temperature

Overheating risk (South East England)	Slight		Pass

Based on:

Overshading	Average		
Windows facing North Windows facing East Windows facing South	17.71 m², No overhang 5.68 m², No overhang 9.12 m², No overhang		
Air change rate	2.50 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		
Unfilled Cavity with Edge Sealing	0.20	W/m²K	Pass
Filled Cavity with Edge Sealing	0.00	W/m²K	Pass

Air permeability and pressure testing

3 Air permeability

Air permeability at 50 pascals	4.50 (measured in this dwelling)		
Maximum	10.0		Pass

10 Key features

Party wall U-value	0.00	W/m²K

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