

Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.4.18
Printed on 04 November 2019 at 12:10:26

Project Information:

Assessed By: Gerard Mcguigan (STRO011196)

Building Type: Detached House

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 136.7m²

Site Reference : Bedhampton

Plot Reference: Type A DET

Address : Type A, Manor Farm, Bedhampton

Client Details:

Name: Bargate Homes

Address : The New Barn, Vicarage Farm Business Par, Winchester Road, Fair Oak, SO50 7HD

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas

Fuel factor: 1.00 (mains gas)

Target Carbon Dioxide Emission Rate (TER) 15.59 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER) 12.15 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE) 53.6 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE) 46.6 kWh/m²

OK

2 Fabric U-values

Element	Average	Highest	
External wall	0.24 (max. 0.30)	0.24 (max. 0.70)	OK
Floor	0.12 (max. 0.25)	0.12 (max. 0.70)	OK
Roof	0.11 (max. 0.20)	0.11 (max. 0.35)	OK
Openings	1.40 (max. 2.00)	1.40 (max. 3.30)	OK

2a Thermal bridging

Thermal bridging calculated from linear thermal transmittances for each junction

3 Air permeability

Air permeability at 50 pascals 5.10 (design value)
Maximum 10.0

OK

4 Heating efficiency

Main Heating system: Database: (rev 450, product index 018405):
Boiler systems with radiators or underfloor heating - mains gas
Brand name: Vaillant
Model: ecoFIT sustain 630
Model qualifier: VU 306/6-3 (H-GB)
(Regular)
Efficiency 89.8 % SEDBUK2009
Minimum 88.0 %

OK

Secondary heating system: None

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5 Cylinder insulation

Hot water Storage:	Measured cylinder loss: 1.48 kWh/day	
	Permitted by DBSCG: 2.30 kWh/day	OK
Primary pipework insulated:	Yes	OK

6 Controls

Space heating controls	TTZC by plumbing and electrical services	OK
Hot water controls:	Cylinderstat	OK
	Independent timer for DHW	OK
Boiler interlock:	Yes	OK

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous extract system (decentralised)		
Specific fan power:	0.16 0.18	
Maximum	0.7	OK

9 Summertime temperature

Overheating risk (South England):	Medium	OK
Based on:		
Overshading:	Very Little	
Windows facing: North	9.6m ²	
Windows facing: South	15.7m ²	
Windows facing: East	3.8m ²	
Windows facing: West	0.65m ²	
Ventilation rate:	4.00	
Blinds/curtains:	None	

10 Key features

Thermal bridging	0.039 W/m ² K
Roofs U-value	0.11 W/m ² K
Floors U-value	0.12 W/m ² K
Photovoltaic array	

Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.4.18
Printed on 04 November 2019 at 12:10:16

Project Information:

Assessed By: Gerard Mcguigan (STRO011196)

Building Type: Detached House

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 105m²

Site Reference : Bedhampton

Plot Reference: Type B & C DET

Address : Type B & C, Manor Farm, Bedhampton

Client Details:

Name: Bargate Homes

Address : The New Barn, Vicarage Farm Business Par, Winchester Road, Fair Oak, SO50 7HD

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas

Fuel factor: 1.00 (mains gas)

Target Carbon Dioxide Emission Rate (TER) 17.82 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER) 13.22 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE) 57.2 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE) 49.5 kWh/m²

OK

2 Fabric U-values

Element	Average	Highest	
External wall	0.24 (max. 0.30)	0.34 (max. 0.70)	OK
Floor	0.12 (max. 0.25)	0.12 (max. 0.70)	OK
Roof	0.14 (max. 0.20)	0.18 (max. 0.35)	OK
Openings	1.40 (max. 2.00)	1.60 (max. 3.30)	OK

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

OK

4 Heating efficiency

Main Heating system: Database: (rev 450, product index 017953):
Boiler systems with radiators or underfloor heating - mains gas
Brand name: Vaillant
Model: ecoTEC exclusive 835
Model qualifier: VUW 356/5-7 (H-GB)
(Combi)
Efficiency 89.7 % SEDBUK2009
Minimum 88.0 %

OK

Secondary heating system: None

Regulations Compliance Report

5 Cylinder insulation

Hot water Storage: No cylinder

6 Controls

Space heating controls TTZC by plumbing and electrical services **OK**
 Hot water controls: No cylinder thermostat

No cylinder
 Boiler interlock: Yes **OK**

7 Low energy lights

Percentage of fixed lights with low-energy fittings 100.0%
 Minimum 75.0% **OK**

8 Mechanical ventilation

Continuous extract system (decentralised)
 Specific fan power: 0.16 0.18
 Maximum 0.7 **OK**

9 Summertime temperature

Overheating risk (South England): Medium **OK**

Based on:

Overshading: Very Little
 Windows facing: West 3.55m²
 Windows facing: East 8.8m²
 Windows facing: West 3.5m²
 Windows facing: East 2.5m²
 Windows facing: North 1.4m²
 Roof windows facing: East 0.55m²
 Ventilation rate: 4.00
 Blinds/curtains: None

10 Key features

Roofs U-value 0.11 W/m²K
 Floors U-value 0.12 W/m²K
 Photovoltaic array

Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.4.18
Printed on 04 November 2019 at 12:10:05

Project Information:

Assessed By: Gerard Mcguigan (STRO011196) **Building Type:** Semi-detached House

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 70.8m²

Site Reference : Bedhampton

Plot Reference: Type E SEMI

Address : Type E, Manor Farm, Bedhampton

Client Details:

Name: Bargate Homes

Address : The New Barn, Vicarage Farm Business Par, Winchester Road, Fair Oak, SO50 7HD

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas

Fuel factor: 1.00 (mains gas)

Target Carbon Dioxide Emission Rate (TER) 18.81 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER) 14.56 kg/m² **OK**

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE) 50.8 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE) 44.2 kWh/m² **OK**

2 Fabric U-values

Element	Average	Highest	
External wall	0.24 (max. 0.30)	0.24 (max. 0.70)	OK
Party wall	0.00 (max. 0.20)	-	OK
Floor	0.11 (max. 0.25)	0.11 (max. 0.70)	OK
Roof	0.11 (max. 0.20)	0.11 (max. 0.35)	OK
Openings	1.40 (max. 2.00)	1.40 (max. 3.30)	OK

2a Thermal bridging

Thermal bridging calculated from linear thermal transmittances for each junction

3 Air permeability

Air permeability at 50 pascals	5.10 (design value)	
Maximum	10.0	OK

4 Heating efficiency

Main Heating system:	Database: (rev 450, product index 017953): Boiler systems with radiators or underfloor heating - mains gas Brand name: Vaillant Model: ecoTEC exclusive 835 Model qualifier: VUW 356/5-7 (H-GB) (Combi) Efficiency 89.7 % SEDBUK2009 Minimum 88.0 %	OK
Secondary heating system:	None	

Regulations Compliance Report

5 Cylinder insulation

Hot water Storage: No cylinder

6 Controls

Space heating controls TTZC by plumbing and electrical services **OK**

Hot water controls: No cylinder thermostat

No cylinder

Boiler interlock: Yes **OK**

7 Low energy lights

Percentage of fixed lights with low-energy fittings 100.0%

Minimum 75.0% **OK**

8 Mechanical ventilation

Continuous extract system (decentralised)

Specific fan power: 0.16 0.18

Maximum 0.7 **OK**

9 Summertime temperature

Overheating risk (South England): Slight **OK**

Based on:

Overshading: Very Little

Windows facing: North 4.2m²

Windows facing: South 6.45m²

Windows facing: East 0.6m²

Ventilation rate: 4.00

Blinds/curtains: None

10 Key features

Roofs U-value 0.11 W/m²K

Party Walls U-value 0 W/m²K

Floors U-value 0.11 W/m²K

Photovoltaic array

Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.4.18
Printed on 04 November 2019 at 12:09:55

Project Information:

Assessed By: Gerard Mcguigan (STRO011196) **Building Type:** Semi-detached House

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 69.4m²

Site Reference : Bedhampton

Plot Reference: Type F END

Address : Type F, Manor Farm, Bedhampton

Client Details:

Name: Bargate Homes

Address : The New Barn, Vicarage Farm Business Par, Winchester Road, Fair Oak, SO50 7HD

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas

Fuel factor: 1.00 (mains gas)

Target Carbon Dioxide Emission Rate (TER) 18.62 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER) 14.17 kg/m² **OK**

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE) 49.2 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE) 43.5 kWh/m² **OK**

2 Fabric U-values

Element	Average	Highest	
External wall	0.24 (max. 0.30)	0.30 (max. 0.70)	OK
Party wall	0.00 (max. 0.20)	-	OK
Floor	0.12 (max. 0.25)	0.12 (max. 0.70)	OK
Roof	0.13 (max. 0.20)	0.20 (max. 0.35)	OK
Openings	1.42 (max. 2.00)	1.70 (max. 3.30)	OK

2a Thermal bridging

Thermal bridging calculated from linear thermal transmittances for each junction

3 Air permeability

Air permeability at 50 pascals	5.10 (design value)	
Maximum	10.0	OK

4 Heating efficiency

Main Heating system:	Database: (rev 450, product index 017960): Boiler systems with radiators or underfloor heating - mains gas Brand name: Vaillant Model: ecoFIT sustain 835 Model qualifier: VUW 356/6-3 (H-GB) (Combi) Efficiency 89.3 % SEDBUK2009 Minimum 88.0 %	OK
Secondary heating system:	None	

Regulations Compliance Report

5 Cylinder insulation

Hot water Storage: No cylinder

6 Controls

Space heating controls TTZC by plumbing and electrical services **OK**
 Hot water controls: No cylinder thermostat

No cylinder
 Boiler interlock: Yes **OK**

7 Low energy lights

Percentage of fixed lights with low-energy fittings 100.0%
 Minimum 75.0% **OK**

8 Mechanical ventilation

Continuous extract system (decentralised)
 Specific fan power: 0.16 0.18
 Maximum 0.7 **OK**

9 Summertime temperature

Overheating risk (South England): Slight **OK**

Based on:

Overshading: Very Little
 Windows facing: East 2.1m²
 Windows facing: West 5.35m²
 Windows facing: East 0.7m²
 Windows facing: West 0.7m²
 Roof windows facing: West 0.7m²
 Ventilation rate: 4.00
 Blinds/curtains: None

10 Key features

Roofs U-value 0.11 W/m²K
 Party Walls U-value 0 W/m²K
 Floors U-value 0.12 W/m²K
 Photovoltaic array

Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.4.18
Printed on 04 November 2019 at 12:09:44

Project Information:

Assessed By: Gerard Mcguigan (STRO011196)

Building Type: Detached Bungalow

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 82.7m²

Site Reference : Bedhampton

Plot Reference: Type G DET

Address : Type G, Manor Farm, Bedhampton

Client Details:

Name: Bargate Homes

Address : The New Barn, Vicarage Farm Business Par, Winchester Road, Fair Oak, SO50 7HD

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas

Fuel factor: 1.00 (mains gas)

Target Carbon Dioxide Emission Rate (TER) 19.35 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER) 15.06 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE) 58.2 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE) 48.2 kWh/m²

OK

2 Fabric U-values

Element	Average	Highest	
External wall	0.24 (max. 0.30)	0.24 (max. 0.70)	OK
Floor	0.11 (max. 0.25)	0.11 (max. 0.70)	OK
Roof	0.11 (max. 0.20)	0.11 (max. 0.35)	OK
Openings	1.40 (max. 2.00)	1.40 (max. 3.30)	OK

2a Thermal bridging

Thermal bridging calculated from linear thermal transmittances for each junction

3 Air permeability

Air permeability at 50 pascals 5.10 (design value)
Maximum 10.0

OK

4 Heating efficiency

Main Heating system: Database: (rev 450, product index 017953):
Boiler systems with radiators or underfloor heating - mains gas
Brand name: Vaillant
Model: ecoTEC exclusive 835
Model qualifier: VUW 356/5-7 (H-GB)
(Combi)
Efficiency 89.7 % SEDBUK2009
Minimum 88.0 %

OK

Secondary heating system: None

Regulations Compliance Report

5 Cylinder insulation

Hot water Storage: No cylinder

6 Controls

Space heating controls TTZC by plumbing and electrical services **OK**
 Hot water controls: No cylinder thermostat

No cylinder
 Boiler interlock: Yes **OK**

7 Low energy lights

Percentage of fixed lights with low-energy fittings 100.0%
 Minimum 75.0% **OK**

8 Mechanical ventilation

Continuous extract system (decentralised)
 Specific fan power: 0.16 0.18
 Maximum 0.7 **OK**

9 Summertime temperature

Overheating risk (South England): Slight **OK**

Based on:

Overshading: Very Little
 Windows facing: North 4.2m²
 Windows facing: South 11.6m²
 Windows facing: East 0.65m²
 Ventilation rate: 4.00
 Blinds/curtains: None

10 Key features

Thermal bridging 0.032 W/m²K
 Roofs U-value 0.11 W/m²K
 Floors U-value 0.11 W/m²K
 Photovoltaic array

Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.4.18
Printed on 04 November 2019 at 12:09:34

Project Information:

Assessed By: Gerard Mcguigan (STRO011196)

Building Type: Detached House

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 97.4m²

Site Reference : Bedhampton

Plot Reference: Type H DET

Address : Type H, Manor Farm, Bedhampton

Client Details:

Name: Bargate Homes

Address : The New Barn, Vicarage Farm Business Par, Winchester Road, Fair Oak, SO50 7HD

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas

Fuel factor: 1.00 (mains gas)

Target Carbon Dioxide Emission Rate (TER) 18.47 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER) 14.02 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE) 58.0 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE) 51.0 kWh/m²

OK

2 Fabric U-values

Element	Average	Highest	
External wall	0.24 (max. 0.30)	0.24 (max. 0.70)	OK
Floor	0.12 (max. 0.25)	0.12 (max. 0.70)	OK
Roof	0.11 (max. 0.20)	0.11 (max. 0.35)	OK
Openings	1.40 (max. 2.00)	1.40 (max. 3.30)	OK

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

OK

4 Heating efficiency

Main Heating system: Database: (rev 450, product index 017954):
Boiler systems with radiators or underfloor heating - mains gas
Brand name: Vaillant
Model: ecoTEC exclusive 843
Model qualifier: VUW 436/5-7 (H-GB)
(Combi)
Efficiency 89.6 % SEDBUK2009
Minimum 88.0 %

OK

Secondary heating system: None

Regulations Compliance Report

5 Cylinder insulation

Hot water Storage: No cylinder

6 Controls

Space heating controls TTZC by plumbing and electrical services **OK**
 Hot water controls: No cylinder thermostat

No cylinder
 Boiler interlock: Yes **OK**

7 Low energy lights

Percentage of fixed lights with low-energy fittings 100.0%
 Minimum 75.0% **OK**

8 Mechanical ventilation

Continuous extract system (decentralised)
 Specific fan power: 0.16 0.18
 Maximum 0.7 **OK**

9 Summertime temperature

Overheating risk (South England): Slight **OK**

Based on:

Overshading: Very Little
 Windows facing: North 9m²
 Windows facing: South 3.45m²
 Windows facing: East 2.1m²
 Windows facing: West 4.55m²
 Ventilation rate: 4.00
 Blinds/curtains: None

10 Key features

Roofs U-value 0.11 W/m²K
 Floors U-value 0.12 W/m²K
 Photovoltaic array

Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.4.18
Printed on 04 November 2019 at 12:09:24

Project Information:

Assessed By: Gerard Mcguigan (STRO011196)

Building Type: Detached House

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 116m²

Site Reference : Bedhampton

Plot Reference: Type J DET

Address : Type J, Manor Farm, Bedhampton

Client Details:

Name: Bargate Homes

Address : The New Barn, Vicarage Farm Business Par, Winchester Road, Fair Oak, SO50 7HD

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas

Fuel factor: 1.00 (mains gas)

Target Carbon Dioxide Emission Rate (TER) 16.89 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER) 13.17 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE) 54.5 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE) 48.0 kWh/m²

OK

2 Fabric U-values

Element	Average	Highest	
External wall	0.24 (max. 0.30)	0.24 (max. 0.70)	OK
Floor	0.12 (max. 0.25)	0.12 (max. 0.70)	OK
Roof	0.11 (max. 0.20)	0.11 (max. 0.35)	OK
Openings	1.40 (max. 2.00)	1.40 (max. 3.30)	OK

2a Thermal bridging

Thermal bridging calculated from linear thermal transmittances for each junction

3 Air permeability

Air permeability at 50 pascals 5.10 (design value)
Maximum 10.0

OK

4 Heating efficiency

Main Heating system: Database: (rev 450, product index 017953):
Boiler systems with radiators or underfloor heating - mains gas
Brand name: Vaillant
Model: ecoTEC exclusive 835
Model qualifier: VUW 356/5-7 (H-GB)
(Combi)
Efficiency 89.7 % SEDBUK2009
Minimum 88.0 %

OK

Secondary heating system: None

Regulations Compliance Report

5 Cylinder insulation

Hot water Storage: No cylinder

6 Controls

Space heating controls TTZC by plumbing and electrical services **OK**

Hot water controls: No cylinder thermostat

No cylinder

Boiler interlock: Yes **OK**

7 Low energy lights

Percentage of fixed lights with low-energy fittings 100.0%

Minimum 75.0% **OK**

8 Mechanical ventilation

Continuous extract system (decentralised)

Specific fan power: 0.16 0.18

Maximum 0.7 **OK**

9 Summertime temperature

Overheating risk (South England): Slight **OK**

Based on:

Overshading: Very Little

Windows facing: North 9.6m²

Windows facing: South 13.4m²

Ventilation rate: 4.00

Blinds/curtains: None

10 Key features

Thermal bridging 0.038 W/m²K

Roofs U-value 0.11 W/m²K

Floors U-value 0.12 W/m²K

Photovoltaic array

Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.4.18
Printed on 04 November 2019 at 12:09:14

Project Information:

Assessed By: Gerard Mcguigan (STRO011196)

Building Type: End-terrace House

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 110.4m²

Site Reference : Bedhampton

Plot Reference: Type K END

Address : Type K, Manor Farm, Bedhampton

Client Details:

Name: Bargate Homes

Address : The New Barn, Vicarage Farm Business Par, Winchester Road, Fair Oak, SO50 7HD

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas

Fuel factor: 1.00 (mains gas)

Target Carbon Dioxide Emission Rate (TER) 16.36 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER) 12.58 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE) 50.3 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE) 44.0 kWh/m²

OK

2 Fabric U-values

Element	Average	Highest	
External wall	0.24 (max. 0.30)	0.24 (max. 0.70)	OK
Party wall	0.00 (max. 0.20)	-	OK
Floor	0.12 (max. 0.25)	0.12 (max. 0.70)	OK
Roof	0.11 (max. 0.20)	0.11 (max. 0.35)	OK
Openings	1.40 (max. 2.00)	1.40 (max. 3.30)	OK

2a Thermal bridging

Thermal bridging calculated from linear thermal transmittances for each junction

3 Air permeability

Air permeability at 50 pascals	5.10 (design value)	
Maximum	10.0	OK

4 Heating efficiency

Main Heating system:	Database: (rev 450, product index 017954): Boiler systems with radiators or underfloor heating - mains gas Brand name: Vaillant Model: ecoTEC exclusive 843 Model qualifier: VUW 436/5-7 (H-GB) (Combi) Efficiency 89.6 % SEDBUK2009 Minimum 88.0 %	OK
Secondary heating system:	None	

Regulations Compliance Report

5 Cylinder insulation

Hot water Storage: No cylinder

6 Controls

Space heating controls TTZC by plumbing and electrical services **OK**
 Hot water controls: No cylinder thermostat

No cylinder
 Boiler interlock: Yes **OK**

7 Low energy lights

Percentage of fixed lights with low-energy fittings 100.0%
 Minimum 75.0% **OK**

8 Mechanical ventilation

Continuous extract system (decentralised)
 Specific fan power: 0.16 0.18
 Maximum 0.7 **OK**

9 Summertime temperature

Overheating risk (South England): Slight **OK**

Based on:

Overshading: Very Little
 Windows facing: North 7.2m²
 Windows facing: South 14.2m²
 Ventilation rate: 4.00
 Blinds/curtains: None

10 Key features

Roofs U-value 0.11 W/m²K
 Party Walls U-value 0 W/m²K
 Floors U-value 0.12 W/m²K
 Photovoltaic array

Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.4.18
Printed on 04 November 2019 at 12:09:02

Project Information:

Assessed By: Gerard Mcguigan (STRO011196)

Building Type: End-terrace House

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 110.4m²

Site Reference : Bedhampton

Plot Reference: Type L END

Address : Type L, Manor Farm, Bedhampton

Client Details:

Name: Bargate Homes

Address : The New Barn, Vicarage Farm Business Par, Winchester Road, Fair Oak, SO50 7HD

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas

Fuel factor: 1.00 (mains gas)

Target Carbon Dioxide Emission Rate (TER) 16.29 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER) 12.50 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE) 50.1 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE) 43.8 kWh/m²

OK

2 Fabric U-values

Element	Average	Highest	
External wall	0.24 (max. 0.30)	0.24 (max. 0.70)	OK
Party wall	0.00 (max. 0.20)	-	OK
Floor	0.12 (max. 0.25)	0.12 (max. 0.70)	OK
Roof	0.11 (max. 0.20)	0.11 (max. 0.35)	OK
Openings	1.40 (max. 2.00)	1.40 (max. 3.30)	OK

2a Thermal bridging

Thermal bridging calculated from linear thermal transmittances for each junction

3 Air permeability

Air permeability at 50 pascals	5.10 (design value)	
Maximum	10.0	OK

4 Heating efficiency

Main Heating system:	Database: (rev 450, product index 017954): Boiler systems with radiators or underfloor heating - mains gas Brand name: Vaillant Model: ecoTEC exclusive 843 Model qualifier: VUW 436/5-7 (H-GB) (Combi) Efficiency 89.6 % SEDBUK2009 Minimum 88.0 %	OK
Secondary heating system:	None	

Regulations Compliance Report

5 Cylinder insulation

Hot water Storage: No cylinder

6 Controls

Space heating controls TTZC by plumbing and electrical services **OK**
 Hot water controls: No cylinder thermostat

No cylinder
 Boiler interlock: Yes **OK**

7 Low energy lights

Percentage of fixed lights with low-energy fittings 100.0%
 Minimum 75.0% **OK**

8 Mechanical ventilation

Continuous extract system (decentralised)
 Specific fan power: 0.16 0.18
 Maximum 0.7 **OK**

9 Summertime temperature

Overheating risk (South England): Slight **OK**

Based on:

Overshading: Very Little
 Windows facing: North 7.2m²
 Windows facing: South 15.3m²
 Ventilation rate: 4.00
 Blinds/curtains: None

10 Key features

Roofs U-value 0.11 W/m²K
 Party Walls U-value 0 W/m²K
 Floors U-value 0.12 W/m²K
 Photovoltaic array

Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.4.18
Printed on 04 November 2019 at 12:08:50

Project Information:

Assessed By: Gerard Mcguigan (STRO011196)

Building Type: Semi-detached Bungalow

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 61.8m²

Site Reference : Bedhampton

Plot Reference: Type M SEMI

Address : Type M, Manor Farm, Bedhampton

Client Details:

Name: Bargate Homes

Address : The New Barn, Vicarage Farm Business Par, Winchester Road, Fair Oak, SO50 7HD

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas

Fuel factor: 1.00 (mains gas)

Target Carbon Dioxide Emission Rate (TER) 20.72 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER) 16.02 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE) 58.4 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE) 48.2 kWh/m²

OK

2 Fabric U-values

Element	Average	Highest	
External wall	0.24 (max. 0.30)	0.24 (max. 0.70)	OK
Party wall	0.00 (max. 0.20)	-	OK
Floor	0.11 (max. 0.25)	0.11 (max. 0.70)	OK
Roof	0.11 (max. 0.20)	0.11 (max. 0.35)	OK
Openings	1.40 (max. 2.00)	1.40 (max. 3.30)	OK

2a Thermal bridging

Thermal bridging calculated from linear thermal transmittances for each junction

3 Air permeability

Air permeability at 50 pascals 5.10 (design value)
Maximum 10.0

OK

4 Heating efficiency

Main Heating system: Database: (rev 450, product index 017960):
Boiler systems with radiators or underfloor heating - mains gas
Brand name: Vaillant
Model: ecoFIT sustain 835
Model qualifier: VUW 356/6-3 (H-GB)
(Combi)
Efficiency 89.3 % SEDBUK2009
Minimum 88.0 %

OK

Secondary heating system: None

Regulations Compliance Report

5 Cylinder insulation

Hot water Storage: No cylinder

6 Controls

Space heating controls TTZC by plumbing and electrical services **OK**
 Hot water controls: No cylinder thermostat

No cylinder
 Boiler interlock: Yes **OK**

7 Low energy lights

Percentage of fixed lights with low-energy fittings 100.0%
 Minimum 75.0% **OK**

8 Mechanical ventilation

Continuous extract system (decentralised)
 Specific fan power: 0.16 0.18
 Maximum 0.7 **OK**

9 Summertime temperature

Overheating risk (South England): Slight **OK**

Based on:

Overshading: Very Little
 Windows facing: South East 4.2m²
 Windows facing: North West 6.5m²
 Ventilation rate: 4.00
 Blinds/curtains: None

10 Key features

Thermal bridging 0.038 W/m²K
 Roofs U-value 0.11 W/m²K
 Party Walls U-value 0 W/m²K
 Floors U-value 0.11 W/m²K
 Photovoltaic array

Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.4.18
Printed on 04 November 2019 at 12:08:40

Project Information:

Assessed By: Gerard Mcguigan (STRO011196) **Building Type:** Semi-detached House

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 83.8m²

Site Reference : Bedhampton

Plot Reference: Type N SEMI

Address : Type N, Manor Farm, Bedhampton

Client Details:

Name: Bargate Homes

Address : The New Barn, Vicarage Farm Business Par, Winchester Road, Fair Oak, SO50 7HD

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas

Fuel factor: 1.00 (mains gas)

Target Carbon Dioxide Emission Rate (TER) 18.25 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER) 14.65 kg/m² **OK**

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE) 51.5 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE) 44.5 kWh/m² **OK**

2 Fabric U-values

Element	Average	Highest	
External wall	0.24 (max. 0.30)	0.24 (max. 0.70)	OK
Party wall	0.00 (max. 0.20)	-	OK
Floor	0.11 (max. 0.25)	0.11 (max. 0.70)	OK
Roof	0.11 (max. 0.20)	0.11 (max. 0.35)	OK
Openings	1.40 (max. 2.00)	1.40 (max. 3.30)	OK

2a Thermal bridging

Thermal bridging calculated from linear thermal transmittances for each junction

3 Air permeability

Air permeability at 50 pascals	5.10 (design value)	
Maximum	10.0	OK

4 Heating efficiency

Main Heating system:	Database: (rev 450, product index 017960): Boiler systems with radiators or underfloor heating - mains gas Brand name: Vaillant Model: ecoFIT sustain 835 Model qualifier: VUW 356/6-3 (H-GB) (Combi) Efficiency 89.3 % SEDBUK2009 Minimum 88.0 %	OK
Secondary heating system:	None	

Regulations Compliance Report

5 Cylinder insulation

Hot water Storage: No cylinder

6 Controls

Space heating controls TTZC by plumbing and electrical services **OK**
 Hot water controls: No cylinder thermostat

No cylinder
 Boiler interlock: Yes **OK**

7 Low energy lights

Percentage of fixed lights with low-energy fittings 100.0%
 Minimum 75.0% **OK**

8 Mechanical ventilation

Continuous extract system (decentralised)
 Specific fan power: 0.16 0.18
 Maximum 0.7 **OK**

9 Summertime temperature

Overheating risk (South England): Slight **OK**

Based on:

Overshading: Very Little
 Windows facing: South 4.4m²
 Windows facing: North 6.45m²
 Windows facing: West 1.3m²
 Ventilation rate: 4.00
 Blinds/curtains: None

10 Key features

Roofs U-value 0.11 W/m²K
 Party Walls U-value 0 W/m²K
 Floors U-value 0.11 W/m²K
 Photovoltaic array

Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.4.18
Printed on 04 November 2019 at 12:08:29

Project Information:

Assessed By: Gerard Mcguigan (STRO011196)

Building Type: Detached House

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 97.4m²

Site Reference : Bedhampton

Plot Reference: Type HA DET

Address : Type HA, Manor Farm, Bedhampton

Client Details:

Name: Bargate Homes

Address : The New Barn, Vicarage Farm Business Par, Winchester Road, Fair Oak, SO50 7HD

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas

Fuel factor: 1.00 (mains gas)

Target Carbon Dioxide Emission Rate (TER) 18.52 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER) 14.51 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE) 59.1 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE) 52.7 kWh/m²

OK

2 Fabric U-values

Element	Average	Highest	
External wall	0.24 (max. 0.30)	0.24 (max. 0.70)	OK
Floor	0.12 (max. 0.25)	0.12 (max. 0.70)	OK
Roof	0.11 (max. 0.20)	0.11 (max. 0.35)	OK
Openings	1.40 (max. 2.00)	1.40 (max. 3.30)	OK

2a Thermal bridging

Thermal bridging calculated from linear thermal transmittances for each junction

3 Air permeability

Air permeability at 50 pascals 5.10 (design value)
Maximum 10.0

OK

4 Heating efficiency

Main Heating system: Database: (rev 450, product index 017954):
Boiler systems with radiators or underfloor heating - mains gas
Brand name: Vaillant
Model: ecoTEC exclusive 843
Model qualifier: VUW 436/5-7 (H-GB)
(Combi)
Efficiency 89.6 % SEDBUK2009
Minimum 88.0 %

OK

Secondary heating system: None

Regulations Compliance Report

5 Cylinder insulation

Hot water Storage: No cylinder

6 Controls

Space heating controls TTZC by plumbing and electrical services **OK**
 Hot water controls: No cylinder thermostat

No cylinder
 Boiler interlock: Yes **OK**

7 Low energy lights

Percentage of fixed lights with low-energy fittings 100.0%
 Minimum 75.0% **OK**

8 Mechanical ventilation

Continuous extract system (decentralised)
 Specific fan power: 0.16 0.18
 Maximum 0.7 **OK**

9 Summertime temperature

Overheating risk (South England): Medium **OK**

Based on:

Overshading: Very Little
 Windows facing: West 9m²
 Windows facing: East 10.5m²
 Windows facing: North 5m²
 Ventilation rate: 4.00
 Blinds/curtains: None

10 Key features

Roofs U-value 0.11 W/m²K
 Floors U-value 0.12 W/m²K
 Photovoltaic array

Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.4.18
Printed on 04 November 2019 at 12:08:19

Project Information:

Assessed By: Gerard Mcguigan (STRO011196)

Building Type: Detached House

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 136.7m²

Site Reference : Bedhampton

Plot Reference: Type AA DET

Address : Type AA, Manor Farm, Bedhampton

Client Details:

Name: Bargate Homes

Address : The New Barn, Vicarage Farm Business Par, Winchester Road, Fair Oak, SO50 7HD

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas

Fuel factor: 1.00 (mains gas)

Target Carbon Dioxide Emission Rate (TER) 16.16 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER) 13.02 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE) 55.8 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE) 48.5 kWh/m²

OK

2 Fabric U-values

Element	Average	Highest	
External wall	0.24 (max. 0.30)	0.24 (max. 0.70)	OK
Floor	0.12 (max. 0.25)	0.12 (max. 0.70)	OK
Roof	0.11 (max. 0.20)	0.11 (max. 0.35)	OK
Openings	1.40 (max. 2.00)	1.40 (max. 3.30)	OK

2a Thermal bridging

Thermal bridging calculated from linear thermal transmittances for each junction

3 Air permeability

Air permeability at 50 pascals 5.10 (design value)
Maximum 10.0

OK

4 Heating efficiency

Main Heating system: Database: (rev 450, product index 017953):
Boiler systems with radiators or underfloor heating - mains gas
Brand name: Vaillant
Model: ecoTEC exclusive 835
Model qualifier: VUW 356/5-7 (H-GB)
(Combi)
Efficiency 89.7 % SEDBUK2009
Minimum 88.0 %

OK

Secondary heating system: None

Regulations Compliance Report

5 Cylinder insulation

Hot water Storage: No cylinder

6 Controls

Space heating controls TTZC by plumbing and electrical services **OK**

Hot water controls: No cylinder thermostat

No cylinder

Boiler interlock: Yes **OK**

7 Low energy lights

Percentage of fixed lights with low-energy fittings 100.0%

Minimum 75.0% **OK**

8 Mechanical ventilation

Continuous extract system (decentralised)

Specific fan power: 0.16 0.18

Maximum 0.7 **OK**

9 Summertime temperature

Overheating risk (South England): Medium **OK**

Based on:

Overshading: Very Little

Windows facing: East 9.6m²

Windows facing: West 15.7m²

Windows facing: South 3.8m²

Windows facing: North 0.65m²

Ventilation rate: 4.00

Blinds/curtains: None

10 Key features

Thermal bridging 0.039 W/m²K

Roofs U-value 0.11 W/m²K

Floors U-value 0.12 W/m²K

Photovoltaic array

Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.4.18
Printed on 04 November 2019 at 12:08:08

Project Information:

Assessed By: Gerard Mcguigan (STRO011196)

Building Type: Detached House

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 116m²

Site Reference : Bedhampton

Plot Reference: Type JA DET

Address : Type JA, Manor Farm, Bedhampton

Client Details:

Name: Bargate Homes

Address : The New Barn, Vicarage Farm Business Par, Winchester Road, Fair Oak, SO50 7HD

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas

Fuel factor: 1.00 (mains gas)

Target Carbon Dioxide Emission Rate (TER) 17.1 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER) 13.38 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE) 55.9 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE) 49.2 kWh/m²

OK

2 Fabric U-values

Element	Average	Highest	
External wall	0.24 (max. 0.30)	0.24 (max. 0.70)	OK
Floor	0.12 (max. 0.25)	0.12 (max. 0.70)	OK
Roof	0.11 (max. 0.20)	0.11 (max. 0.35)	OK
Openings	1.40 (max. 2.00)	1.40 (max. 3.30)	OK

2a Thermal bridging

Thermal bridging calculated from linear thermal transmittances for each junction

3 Air permeability

Air permeability at 50 pascals 5.10 (design value)
Maximum 10.0

OK

4 Heating efficiency

Main Heating system: Database: (rev 450, product index 017953):
Boiler systems with radiators or underfloor heating - mains gas
Brand name: Vaillant
Model: ecoTEC exclusive 835
Model qualifier: VUW 356/5-7 (H-GB)
(Combi)
Efficiency 89.7 % SEDBUK2009
Minimum 88.0 %

OK

Secondary heating system: None

Regulations Compliance Report

5 Cylinder insulation

Hot water Storage: No cylinder

6 Controls

Space heating controls TTZC by plumbing and electrical services **OK**
 Hot water controls: No cylinder thermostat

No cylinder
 Boiler interlock: Yes **OK**

7 Low energy lights

Percentage of fixed lights with low-energy fittings 100.0%
 Minimum 75.0% **OK**

8 Mechanical ventilation

Continuous extract system (decentralised)
 Specific fan power: 0.16 0.18
 Maximum 0.7 **OK**

9 Summertime temperature

Overheating risk (South England): Slight **OK**

Based on:

Overshading: Very Little
 Windows facing: North East 9.6m²
 Windows facing: South West 13.4m²
 Ventilation rate: 4.00
 Blinds/curtains: None

10 Key features

Thermal bridging 0.038 W/m²K
 Roofs U-value 0.11 W/m²K
 Floors U-value 0.12 W/m²K
 Photovoltaic array

Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.4.18
Printed on 04 November 2019 at 12:07:57

Project Information:

Assessed By: Gerard Mcguigan (STRO011196)

Building Type: Detached House

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 97.8m²

Site Reference : Bedhampton

Plot Reference: Type O DET

Address : Type O, Manor Farm, Bedhampton

Client Details:

Name: Bargate Homes

Address : The New Barn, Vicarage Farm Business Par, Winchester Road, Fair Oak, SO50 7HD

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas

Fuel factor: 1.00 (mains gas)

Target Carbon Dioxide Emission Rate (TER) 17.63 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER) 13.34 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE) 54.4 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE) 48.1 kWh/m²

OK

2 Fabric U-values

Element	Average	Highest	
External wall	0.24 (max. 0.30)	0.24 (max. 0.70)	OK
Floor	0.12 (max. 0.25)	0.12 (max. 0.70)	OK
Roof	0.11 (max. 0.20)	0.11 (max. 0.35)	OK
Openings	1.40 (max. 2.00)	1.40 (max. 3.30)	OK

2a Thermal bridging

Thermal bridging calculated from linear thermal transmittances for each junction

3 Air permeability

Air permeability at 50 pascals 5.10 (design value)
Maximum 10.0

OK

4 Heating efficiency

Main Heating system: Database: (rev 450, product index 017953):
Boiler systems with radiators or underfloor heating - mains gas
Brand name: Vaillant
Model: ecoTEC exclusive 835
Model qualifier: VUW 356/5-7 (H-GB)
(Combi)
Efficiency 89.7 % SEDBUK2009
Minimum 88.0 %

OK

Secondary heating system: None

Regulations Compliance Report

5 Cylinder insulation

Hot water Storage: No cylinder

6 Controls

Space heating controls TTZC by plumbing and electrical services **OK**

Hot water controls: No cylinder thermostat

No cylinder

Boiler interlock: Yes **OK**

7 Low energy lights

Percentage of fixed lights with low-energy fittings 100.0%

Minimum 75.0% **OK**

8 Mechanical ventilation

Continuous extract system (decentralised)

Specific fan power: 0.16 0.18

Maximum 0.7 **OK**

9 Summertime temperature

Overheating risk (South England): Medium **OK**

Based on:

Overshading: Very Little

Windows facing: North East 5.55m²

Windows facing: South West 12.2m²

Windows facing: South East 1.4m²

Windows facing: North West 1.4m²

Ventilation rate: 4.00

Blinds/curtains: None

10 Key features

Roofs U-value 0.11 W/m²K

Floors U-value 0.12 W/m²K

Photovoltaic array