SUMMARY FOR INPUT DATA
Calculation Type: New Build (As Designed)

Design SAP
elmhurst energy

Property Reference	Withington Step Places, 003	**Issued on Date**	28/09/2020
Assessment Reference	003	**Prop Type Ref**	003
Property			

SAP Rating	84 B	**DER**	23.33	**TER**	30.93
Environmental	86 B	**% DER<TER**	24.57		
CO_2 Emissions (t/year)	1.00	**DFEE**	54.84	**TFEE**	54.89
General Requirements Compliance	Pass	**% DFEE<TFEE**	0.08		

Assessor Details	Mr. Thomas Claffey, TWC Consulting (Sustainable Prop. Conultants) Ltd, Tel: 01455883250, t.claffey@twcconsulting.com	**Assessor ID**	W747-0001
Client			

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

Orientation	South West
Property Tenure	Owner-occupied
Transaction Type	New dwelling
Terrain Type	Urban
1.0 Property Type	Flat, End-Terrace
2.0 Number of Storeys	1
3.0 Date Built	2020
4.0 Sheltered Sides	1
5.0 Sunlight/Shade	Average or unknown

6.0 Measurements

	Heat Loss Perimeter	Internal Floor Area	Average Storey Height
Ground Floor:	15.75 m	51.10 m²	3.15 m

7.0 Living Area	23.50	m²
8.0 Thermal Mass Parameter	Simple calculation - Medium	
Thermal Mass	250.00	kJ/m²K

9.0 External Walls

Description	Type	U-Value (W/m²K)	Gross Area (m²)	Nett Area (m²)
External Wall 1	Cavity Wall	0.25	49.61	40.70

9.1 Party Walls

Description	Type	Construction	U-Value (W/m²K)	Area (m²)
Heated Corridor	Filled Cavity with Edge Sealing		0.00	22.68
Party Wall	Filled Cavity with Edge Sealing		0.00	21.58

10.1 Party Ceilings

Description	Construction	Area (m²)

11.0 Heat Loss Floors

Description	Type	Construction	U-Value (W/m²K)	Area (m²)
Heat Loss Floor 1	Ground Floor - Solid		0.18	51.10

12.0 Opening Types

SUMMARY FOR INPUT DATA
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Description	Data Source	Type	Glazing	Glazing Gap	Argon Filled	G-value	Frame Type	Frame Factor	U Value (W/m²K)
DG Units	Manufacturer	Window	Double Low-E Soft 0.1			0.63		0.70	1.40

13.0 Openings

Name	Opening Type	Location	Orientation	Curtain Type	Overhang Ratio	Wide Overhang	Width (m)	Height (m)	Count	Area (m²)	Curtain Closed
Rear elevation	Window	[1] External Wall 1	North East	None	0.00					8.91	

14.0 Conservatory	None	
15.0 Draught Proofing	100	%
16.0 Draught Lobby	No	
17.0 Thermal Bridging	Calculate Bridges	

17.1 List of Bridges

Source Type	Bridge Type	Length	Psi	Imported
Table K1 - Approved	E2 Other lintels (including other steel lintels)	3.49	0.300	No
Table K1 - Approved	E3 Sill	1.35	0.040	No
Table K1 - Approved	E4 Jamb	10.05	0.050	No
Table K1 - Approved	E7 Party floor between dwellings (in blocks of flats)	15.75	0.070	No
Table K1 - Approved	E16 Corner (normal)	9.45	0.090	No
Table K1 - Approved	E17 Corner (inverted – internal area greater than external area)	9.45	-0.090	No
Table K1 - Default	P3 Party wall - Intermediate floor between dwellings (in blocks of flats)	14.05	0.000	No

Y-value	0.027	W/m²K
18.0 Pressure Testing	Yes	
Designed AP_{50}	5.00	m³/(h.m²) @ 50 Pa
Property Tested ?		
As Built AP_{50}		m³/(h.m²) @ 50 Pa

19.0 Mechanical Ventilation

Summer Overheating

Windows open in hot weather	Windows fully open
Cross ventilation possible	Yes
Night Ventilation	Yes
Air change rate	6.00

Mechanical Ventilation

Mechanical Ventilation System Present	Yes
Approved Installation	Yes
Mechanical Ventilation data Type	Database
Type	Balanced mechanical ventilation with heat recovery
MV Reference Number	500500
Configuration	2
MVHR Duct Insulated	Yes
Manufacturer SFP	0.59
Duct Type	Rigid
MVHR Efficiency	89.00
Wet Rooms	2

20.0 Fans, Open Fireplaces, Flues

	MHS	SHS	Other	Total
Number of Chimneys	0		0	0
Number of open flues	0		0	0
Number of intermittent fans				0
Number of passive vents				0
Number of flueless gas fires				0

21.0 Fixed Cooling System	No	
22.0 Lighting		
Internal		
Total number of light fittings	10	
Total number of L.E.L. fittings	10	
Percentage of L.E.L. fittings	100.00	%
External		
External lights fitted	No	
23.0 Electricity Tariff	Standard	
24.0 Main Heating 1	Database	
Percentage of Heat	100	%
Database Ref. No.	103254	
Fuel Type	Electricity	
Main Heating	PET	
SAP Code	224	
In Winter	0.0	
In Summer	0.0	
Controls	CHC Programmer and room thermostat	
PCDF Controls	0	
Sap Code	2204	
Is MHS Pumped	Pump in heated space	
Heat Emitter	Radiators	
Flow Temperature	Normal (> 45°C)	
25.0 Main Heating 2	None	
Community Heating	None	
28.0 Water Heating	HWP From main heating 1	
Water Heating	Main Heating 1	
Flue Gas Heat Recovery System	No	
Waste Water Heat Recovery Instantaneous System 1	No	
Waste Water Heat Recovery Instantaneous System 2	No	
Waste Water Heat Recovery Storage System	No	
Solar Panel	No	
Water use <= 125 litres/person/day	Yes	
SAP Code	901	
Immersion Only Heating Hot Water	Yes	
29.0 Hot Water Cylinder	Hot Water Cylinder	

Cylinder Stat	Yes	
Cylinder In Heated Space	Yes	
Independent Time Control	Yes	
Insulation Type	Measured Loss	
Cylinder Volume	200.00	L
Loss	1.56	kWh/day
Pipes insulation	Fully insulated primary pipework	

31.0 Thermal Store	None	

Recommendations

Lower cost measures

None

Further measures to achieve even higher standards

None