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

Design SAP
elmhurst energy

Property Reference	2- Plot 5 ASHP	**Issued on Date**	06/02/2024
Assessment Reference	001	**Prop Type Ref**	New Build Plot 5
Property	Flat 5, Quilter House, 2A Tankerville Road, London, SW16 5FX		

SAP Rating	80 C	**DER**	33.22	**TER**	47.17
Environmental	82 B	**% DER<TER**	29.57		
CO_2 Emissions (t/year)	0.93	**DFEE**	74.47	**TFEE**	81.34
General Requirements Compliance	Fail	**% DFEE<TFEE**	8.46		

Assessor Details	Mr. Matthew Edis, Sustainable Construction Services Ltd, Tel: 0845 6807 175, medis@scspartnership.co.uk	**Assessor ID**	V539-0001
Client			

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

Orientation	North East
Property Tenure	Unknown
Transaction Type	New dwelling
Terrain Type	Urban
1.0 Property Type	Flat, Semi-Detached
2.0 Number of Storeys	1
3.0 Date Built	2021
4.0 Sheltered Sides	2
5.0 Sunlight/Shade	Average or unknown

6.0 Measurements

	Heat Loss Perimeter	Internal Floor Area	Average Storey Height
Ground Floor:	1.00 m	37.10 m²	2.65 m

7.0 Living Area	28.90	m²
8.0 Thermal Mass Parameter	Precise calculation	
Thermal Mass	361.17	kJ/m²K

9.0 External Walls

Description	Type	Construction	U-Value (W/m²K)	Kappa (kJ/m²K)	Gross Area (m²)	Nett Area (m²)
External Wall MAT 1 New	Cavity Wall	Cavity wall : plasterboard on dabs, dense block, filled cavity, any outside structure	0.15	150.00	64.57	50.32

9.1 Party Walls

Description	Type	Construction	U-Value (W/m²K)	Kappa (kJ/m²K)	Area (m²)
Wall to Apartments	Filled Cavity with Edge Sealing	Single plasterboard on both sides, dense cellular blocks, cavity	0.00	70.00	21.60

9.2 Internal Walls

Description	Construction	Kappa (kJ/m²K)	Area (m²)
Internal Wall	Plasterboard on timber frame	9.00	49.33

10.1 Party Ceilings

Description	Construction	Kappa (kJ/m²K)	Area (m²)
Party Ceiling	Other	30.00	37.10

11.0 Heat Loss Floors

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Description	Type	Construction	U-Value (W/m²K)	Kappa (kJ/m²K)	Area (m²)
Floor over Class E	Exposed Floor - Solid	Other	0.12	75.00	17.21
Floor over Cycle Store	Exposed Floor - Solid	Other	0.12	75.00	13.52
Floor over Lobby	Exposed Floor - Solid	Other	0.12	75.00	6.37

12.0 Opening Types

Description	Data Source	Type	Glazing	Glazing Gap	Argon Filled	G-value	Frame Type	Frame Factor	U Value (W/m²K)
D1 Front Door ET09	Manufacturer	Solid Door							0.62
D8 Balcony Door ET16.1	Manufacturer	Window	Triple glazed			0.53		0.57	0.92
W12 Window ET13	Manufacturer	Window	Triple glazed			0.53		0.78	0.95
W14 Window ET15	Manufacturer	Window	Triple glazed			0.53		0.60	0.88
W16 Window ET17	Manufacturer	Window	Triple glazed			0.53		0.78	0.92

13.0 Openings

Name	Opening Type	Location	Orientation	Curtain Type	Overhang Ratio	Wide Overhang	Width (m)	Height (m)	Count	Area (m²)	Curtain Closed
W12 Window ET23	Window	[1] External Wall MAT 1 New	South West	None	0.00					0.93	
W14 Window ET15	Window	[1] External Wall MAT 1 New	South East	None	0.00					2.03	
W16 Window ET17	Window	[1] External Wall MAT 1 New	North East	None	0.00					2.05	
D1 Front Door ET09	Solid Door	[1] External Wall MAT 1 New	South West							2.31	
D8 Balc Door ET16.1	Window	[1] External Wall MAT 1 New	North East	None	0.00					6.93	

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)	7.12	0.300	No
Table K1 - Approved	E3 Sill	0.91	0.040	No
Table K1 - Approved	E4 Jamb	19.44	0.050	No
Table K1 - Default	E20 Exposed floor (normal)	22.38	0.320	No
Table K1 - Approved	E7 Party floor between dwellings (in blocks of flats)	22.38	0.070	No
Table K1 - Default	E7 Party floor between dwellings (in blocks of flats)	5.61	0.140	No
Table K1 - Default	E16 Corner (normal)	8.66	0.180	No
Table K1 - Default	E17 Corner (inverted – internal area greater than external area)	8.66	0.000	No
Table K1 - Default	E18 Party wall between dwellings	5.77	0.120	No
Table K1 - Default	E18 Party wall between dwellings	2.89	0.120	No
Table K1 - Default	E25 Staggered party wall between dwellings	2.89	0.120	No
Table K1 - Default	P3 Party wall - Intermediate floor between dwellings (in blocks of flats)	7.49	0.000	No
Table K1 - Default	P7 Party Wall - Exposed floor (normal)	7.49	0.160	No

Y-value	0.165	W/m²K
18.0 Pressure Testing	Yes	

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Designed AP_{50}	4.50	$m^3/(h.m^2)$ @ 50 Pa
Property Tested ?	No	
As Built AP_{50}	4.06	$m^3/(h.m^2)$ @ 50 Pa

19.0 Mechanical Ventilation

Summary Overheating

Windows open in hot weather	Trickle vents only
Cross ventilation possible	Yes
Night Ventilation	No
Air change rate	0.10

Mechanical Ventilation

Mechanical Ventilation System Present	Yes
Approved Installation	No
Mechanical Ventilation data Type	Database
Type	Balanced mechanical ventilation with heat recovery
MV Reference Number	500140
Configuration	1
MVHR Duct Insulated	No
Manufacturer SFP	0.76
Duct Type	Rigid
MVHR Efficiency	91.00
Wet Rooms	1

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.	104367	
Fuel Type	Electricity	
Main Heating	PET	
SAP Code	224	
In Winter	0.0	
In Summer	0.0	
Controls	CHF Programmer and at least two room	

	thermostats	
PCDF Controls	0	
Sap Code	2205	
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	No	
29.0 Hot Water Cylinder	Hot Water Cylinder	
Cylinder Stat	Yes	
Cylinder In Heated Space	Yes	
Independent Time Control	Yes	
Insulation Type	Foam	
Insulation Thickness	60	
Cylinder Volume	150.00	L
Pipes insulation	Fully insulated primary pipework	
31.0 Thermal Store	None	

Recommendations

Lower cost measures

None

Further measures to achieve even higher standards

None