#### PREDICTED ENERGY ASSESSMENT



Poplar, Plot 038, 3 Bed, K. B. WC. ES

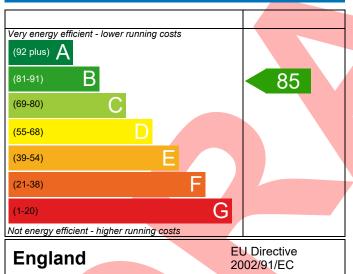
Dwelling type: House, End-Terrace

Date of assessment: 24/10/2023
Produced by: Jennifer Bantin
Total floor area: 118.59 m²

This document is a Predicted Energy Assessment for properties marketed when they are incomplete. It includes a predicted energy rating which might not represent the final energy rating of the property on completion. Once the property is completed, this rating will be updated and an official Energy Performance Certificate will be created for the property. This will include more detailed information about the energy performance of the completed property.

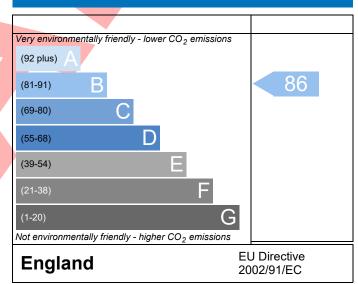
The energy performance has been assessed using the Government approved SAP2012 methodology and is rated in terms of the energy use per square meter of floor area; the energy efficiency is based on fuel costs and the environmental impact is based on carbon dioxide (CO<sub>2</sub>) emissions.

## **Energy Efficiency Rating**



The energy efficiency rating is a measure of the overall efficiency of a home. The higher the rating the more energy efficient the home is and the lower the fuel bills are likely to be.

### **Environmental Impact (CO<sub>2</sub>) Rating**



The environmental impact rating is a measure of a home's impact on the environment in terms of carbon dioxide (CO<sub>2</sub>) emissions. The higher the rating the less impact it has on the environment.

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# **BUILDING REGULATION COMPLIANCE Calculation Type: New Build (As Designed)**



Property Reference	4907-AM89-629	12-038					Issued on Date	24/10/2023	
Assessment	038				Pro	o Type Ref	Poplar End AS	2 1/ 20/ 2020	
Reference						,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
Property	Poplar , Plot 038	3, 3 Bed, K, B,	WC, ES						
SAP Rating			85 B	DER		15.71	TER	16.10	
Environmental			86 B	% DER <ter< td=""><td>₹  </td><td></td><td>2.40</td><td></td></ter<>	₹		2.40		
CO <sub>2</sub> Emissions (t/yea	ar)		1.54	DFEE		45.28	TFEE	50.07	
General Requiremen	nts Compliance		Pass	% DFEE <tf< td=""><td>EE</td><td></td><td>9.56</td><td></td></tf<>	EE		9.56		
	Mrs. Jennifer Bantir		ntin, Tel: 0	1884242050,			Assessor ID	AM89-0002	
	Jennifer.bantin@ae	ssc.co.uk							
Client									
SUMARY FOR INPUT	DATA FOR New Bui	ld (As Design	ed)						
Criterion 1 – Achievii	ng the TER and TFEE	rate							
a TER and DER									
Fuel for main hea	ting		Mains ga	ns		,			
Fuel factor 1.00 (mains gas)									
Target Carbon Dioxide Emission Rate (TER)			16.10				kgCO <sub>2</sub> /m <sup>2</sup>		
Dwelling Carbon Dioxide Emission Rate (DER)			15.71 kgCO <sub>2</sub> /s					Pass	
			-0.39 (-2	.4%)	_		kgCO <sub>2</sub> /m <sup>2</sup>		
b TFEE and DFEE									
Target Fabric Energy Efficiency (TFEE)			50.07				kWh/m²/y		
Dwelling Fabric Er	nergy Efficiency (DFE	EE)	45.28	20(1)			kWh/m²/y		
			-4.8 (-9.6	0%)			kWh/m²/y	r Pass	
Criterion 2 – Limits o				_					
Limiting Fabric St	andards								
2 Fabric U-values									
Element		Average			_	hest			
External w	all	0.25 (ma	* /		0.2	5 (max. 0.7)	0)	Pass	
Party wall		0.00 (ma			-	Pass Pass			
Floor			0.18 (max. 0.25)			0.18 (max. 0.70)			
Roof			0.17 (max. 0.20) 0.35 (max. 2.00)			0.17 (max. 0.35) 1.40 (max. 3.30)			
Openings		1.35 (ma	x. 2.00)		1.4	U (IIIdX. 3.3)	U)	Pass	
2a Thermal bridg		linaa, sk	Lauren e e e e e e e e e e e e e e e e e e		-l- :-				
	ing calculated from	iinear therma	i transmiti	ances for eac	en jund	πon			
3 Air permeability			F 04 / :				2 //1 25 = -		
	ty at 50 pascals		5.01 (design value)				m <sup>3</sup> /(h.m <sup>2</sup> ) @ 50 Pa		
Maximum	fficiencies		10.0				m³/(h.m²) @ 50	Pa Pass	

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4 Heating efficiency

Regs Region: England Elmhurst Energy Systems SAP2012 Calculator (Design System) version 4.14r19

# **BUILDING REGULATION COMPLIANCE Calculation Type: New Build (As Designed)**



Minimum: 88.0%   None	Main heating system	Boiler system with radiators or underfloor - Mains gas Data from database Ideal LOGIC COMBI ESP1 35 Combi boiler Efficiency: 89.6% SEDBUK2009	Pass
S Cylinder Insulation Hot water storage  6 Controls  Space heating controls Hot water controls Boiler interlock Press Pass  7 Low energy lights Percentage of fixed lights with low-energy fittings Minimum Press Minimum More and the effects of heat gains in summer  9 Summertime temperature Overheating risk (Thames Valley) Based on: Overshading Windows facing North East Windows facing South Vest Air change rate Blinds/curtains  Criterion 4 - Building performance consistent with DER and DFEE rate  Party Walls Type Filled Cavity with Edge Sealing Air permeability at 50 pascals Aix party august 10.00  None  10.00  Nym*K Deass  10 Key features Party Wall U-value Door U-value  Out -value	Secondary heating system		
Hot water storage		None	
Space heating controls Hot water controls Boiler interlock Pes Pass  **TLow energy lights Percentage of fixed lights with low-energy fittings Minimum Percentage of fixed lights with low-energy fittings Minimum  **Thin the property of the pass of		No cylinder	
Space heating controls Hot water controls Boiler interlock Yes Pass  **Tow energy lights Percentage of fixed lights with low-energy fittings Minimum 75 **Secretary **Minimum 75 **Secretary **Secreta		into symmetri	
Hot water controls Boiler interlock Yes Pass  7 Low energy lights  Percentage of fixed lights with low-energy fittings Minimum 75 % % Pass  8 Mechanical ventilation Continuous extract system (decentralised) Specific fan power Maximum 0.7 Pass  Criterion 3 — Limiting the effects of heat gains in summer  9 Summertime temperature Overheating risk (Thames Valley) Based on: Overshading Windows facing South East Windows facing South East Windows facing South East 0.72 m², No overhang Windows facing South West 9.97 m², No overhang Air change rate Blinds/curtains None  Criterion 4 — Building performance consistent with DER and DFEE rate  Party Walls  Type U-value  Party Walls Air permeability and pressure testing 3 Air permeability and pressure testing 10 Key features Party wall U-value Door U-value  W/m²K  W/m²K		Programmer, room thermostat and TPVs	Pacc
Boiler interlock  7 Low energy lights  Percentage of fixed lights with low-energy fittings Minimum 75 % % Pass  8 Mechanical ventilation  Continuous extract system (decentralised) Specific fan power Maximum 0.7 Pass  Criterion 3 — Limiting the effects of heat gains in summer  9 Summertime temperature Overheating risk (Thames Valley) Slight Pass  Based on:  Overshading Windows facing North East 6.74 m², No overhang Windows facing South East 0.72 m², No overhang Windows facing South West 9.97 m², No overhang Windows facing South West 9.97 m², No overhang  Criterion 4 — Building performance consistent with DER and DFEE rate  Party Walls  Type U-value Filled Cavity with Edge Sealing 0.00 W/m²K Pass  Air permeability and pressure testing 3 Air permeability and pressure testing 3 Air permeability at 50 pascals Maximum 10.0 m³/(h.m²) @ 50 Pa Pass  10 Key features  Party wall U-value 0.00 W/m²K Pass  10 Key features Party wall U-value 0.00 W/m²K Pass	-		F a 3 3
Percentage of fixed lights with low-energy fittings Minimum  75 % Pass  8 Mechanical ventilation Continuous extract system (decentralised) Specific fan power Maximum 0.7 Pass  Criterion 3 – Limiting the effects of heat gains in summer  9 Summertime temperature Overheating risk (Thames Valley) Slight Pass  Based on: Overshading Windows facing North East Windows facing South East Windows facing South West 9.72 m², No overhang Windows facing South West 9.97 m², No overhang Windows facing South West None  Criterion 4 – Building performance consistent with DER and DFEE rate  Party Walls Type Filled Cavity with Edge Sealing 0.00 W/m²K Pass  Air permeability and pressure testing 3 Air permeability and pressure testing 3 Air permeability and pressure testing Maximum 10.0 m³/(h.m²) @ 50 Pa Pass  10 Key features Party wall U-value Door U-value  Party wall U-value 0.00 W/m²K Door U-value 0.90 W/m²K W/m²K			Pacc
Percentage of fixed lights with low-energy fittings Minimum 75 % % Pass  8 Mechanical ventilation Continuous extract system (decentralised) Specific fan power Maximum 0.7 Pass  Criterion 3 - Limiting the effects of heat gains in summer  9 Summertime temperature Overheating risk (Thames Valley) Based on: Overshading Windows facing North East Windows facing South East Windows facing South West 9.97 m², No overhang Windows facing South West 9.97 m², No overhang Air change rate Bilinds/curtains  Criterion 4 - Building performance consistent with DER and DFEE rate  Party Walls  Type U-value Filled Cavity with Edge Sealing 0.00 W/m²k Pass  10 Key features Party wall U-value Door U-value  U-value  Party wall U-value  Party wall U-value 0.00 W/m²k Door U-value 0.00 W/m²k W/m²k W/m²k		103	1 033
fittings Minimum 75 Minimum 75 Mechanical ventilation Continuous extract system (decentralised) Specific fan power Maximum 0.7 Pass  Criterion 3 – Limiting the effects of heat gains in summer  9 Summertime temperature Overheating risk (Thames Valley) Based on: Overshading Windows facing North East Windows facing North East Windows facing South East 0.72 m², No overhang Windows facing South West 9.97 m², No overhang Windows facing South West None  Criterion 4 – Building performance consistent with DER and DFEE rate  Party Walls Type U-value Filled Cavity with Edge Sealing 0.00 W/m²K Pass Air permeability and pressure testing 3 Air permeability and pressure testing 3 Air permeability and pressure testing 3 Air permeability and pressure testing 10.00 M²/(h.m²) @ 50 Pa Pass  10 Key features Party wall U-value Door U-value  Party wall U-value 0.00 W/m²K		100	
Minimum  T55  Mechanical ventilation  Continuous extract system (decentralised) Specific fan power  Maximum  D75  Maximum  D76  Pass  Criterion 3 - Limiting the effects of heat gains in summer  9 Summertime temperature Overheating risk (Thames Valley)  Based on: Overshading Windows facing North East Mindows facing South East Mindows facing South East Mindows facing South West Air change rate Blinds/curtains  Criterion 4 - Building performance consistent with DER and DFEE rate  Party Walls  Type U-value Filled Cavity with Edge Sealing Air permeability and pressure testing 3 Air permeability and pressure testing 3 Air permeability and pressure testing 3 Air permeability and pressure testing 10.00  Maximum  D0.00  W/m²K  Pass  10 Key features  Party wall U-value  Door U-value  O.00  W/m²K  Mym²K		100 %	
8 Mechanical ventilation Continuous extract system (decentralised) Specific fan power Maximum  0.7 Pass  Criterion 3 - Limiting the effects of heat gains in summer  9 Summertime temperature Overheating risk (Thames Valley) Based on: Overshading Windows facing North East Windows facing South East 0.72 m², No overhang Windows facing South West Air change rate Blinds/curtains  Criterion 4 - Building performance consistent with DER and DFEE rate  Party Walls  Type U-value Filled Cavity with Edge Sealing Air permeability and pressure testing 3 Air permeability Air permeability and pressure testing 10.00 Maximum 10.0  Mym²K  Pass  10 Key features Party wall U-value Door U-value  0.00 W/m²K  Pass	9	75 %	Pass
Continuous extract system (decentralised) Specific fan power Maximum  0:7 Pass  Criterion 3 - Limiting the effects of heat gains in summer  9 Summertime temperature Overheating risk (Thames Valley) Based on: Overshading Windows facing North East Windows facing South East 0:72 m², No overhang Windows facing South West 9:97 m², No overhang Air change rate Blinds/curtains None  Criterion 4 - Building performance consistent with DER and DFEE rate  Party Walls Type U-value Filled Cavity with Edge Sealing Air permeability and pressure testing 3 Air permeability and pressure testing 3 Air permeability and pressure testing 10.0 m³/(h.m²) @ 50 Pa Maximum 10.0 m³/(h.m²) @ 50 Pa Pass  10 Key features Party wall U-value Door U-value  0.00 W/m²K Pass			1 555
Specific fan power Maximum  0.7  Maximum  0.7  Pass  Criterion 3 - Limiting the effects of heat gains in summer  9 Summertime temperature Overheating risk (Thames Valley)  Based on:  Overshading Windows facing North East Windows facing South East Windows facing South East Windows facing South West  Windows facing South West  Windows facing South West  Windows facing South West  Pass  10 Key features  Party wall U-value  Door U-value  Windows facing South West  Noore Windows facing South West  Noore Windows facing South West  Windows facing South West  Pass  Windows facing South West  Noore Windows facing West  Windows facing South West  Pass  Windows facing South West  Noore Windows facing West  Windows facing South West  Noore Windows facing South West  Noore Windows facing South West  Windows facing South West  Pass  Windows facing Noore West  Windows facing South West  Windows facing South West  Windows facing Noore West  Windo			
Criterion 3 – Limiting the effects of heat gains in summer  9 Summertime temperature  Overheating risk (Thames Valley)  Based on:  Overshading  Windows facing North East  Windows facing South East  Windows facing South East  Windows facing South West  Jerry Walls  Criterion 4 – Building performance consistent with DER and DFEE rate  Party Walls  Type  U-value  Filled Cavity with Edge Sealing  Air permeability and pressure testing  3 Air permeability  Air permeability at 50 pascals  Maximum  Ma		0.1700 0.1800	
Criterion 3 — Limiting the effects of heat gains in summer  9 Summertime temperature  Overheating risk (Thames Valley)  Based on:  Overshading  Windows facing North East  Windows facing South East  Windows facing South West  Air change rate  Blinds/curtains  Criterion 4 — Building performance consistent with DER and DFEE rate  Party Walls  Type  U-value  Filled Cavity with Edge Sealing  Air permeability at 50 pascals  Maximum  10.0  Door U-value  Door U-value  O.00  W/m²K  Door U-value  O.00  W/m²K  Door U-value  O.00  W/m²K  O.00  W/m²K  Door U-value  O.00  W/m²K			Pass
9 Summertime temperature Overheating risk (Thames Valley) Based on:  Overshading Windows facing North East Windows facing South East Windows facing South West Air change rate Blinds/curtains  Criterion 4 – Building performance consistent with DER and DFEE rate  Party Walls  Type U-value Filled Cavity with Edge Sealing O.00 W/m²K Pass  Air permeability and pressure testing 3 Air permeability Air permeability at 50 pascals Maximum  10.0  Mym²K Door U-value  O.00 W/m²K Door U-value  O.00 W/m²K Door U-value  O.00 W/m²K Door U-value  O.00 W/m²K Door U-value O.00 W/m²K W/m²K			
Overheating risk (Thames Valley)  Based on:  Overshading  Windows facing North East  Windows facing South East  Windows facing South East  Windows facing South West  Air change rate  Blinds/curtains  Criterion 4 – Building performance consistent with DER and DFEE rate  Party Walls  Type  U-value  Filled Cavity with Edge Sealing  Air permeability and pressure testing  3 Air permeability  Air permeability at 50 pascals  Maximum  10.0  M/m²K  Pass  10.00  W/m²K  Pass  10.00  W/m²K  Pass  10.00  W/m²K  Pass			
Based on:  Overshading Windows facing North East Windows facing South East Windows facing South East Windows facing South West Windows facing South West  Air change rate Blinds/curtains  Criterion 4 – Building performance consistent with DER and DFEE rate  Party Walls  Type U-value Filled Cavity with Edge Sealing O.00 W/m²K Pass  Air permeability and pressure testing 3 Air permeability Air permeability at 50 pascals Maximum  10.0  Mym²K  Pass  10 Key features Party wall U-value Door U-value  0.00 W/m²K  W/m²K  Door U-value  W/m²K		Slìght	Pacc
Overshading Windows facing North East Windows facing South East 0.72 m², No overhang Windows facing South West 9.97 m², No overhang Air change rate Blinds/curtains None  Criterion 4 – Building performance consistent with DER and DFEE rate  Party Walls Type U-value Filled Cavity with Edge Sealing 0.00 W/m²K Pass  Air permeability and pressure testing 3 Air permeability Air permeability at 50 pascals Maximum 10.0 m³/(h.m²) @ 50 Pa Pass  10 Key features Party wall U-value 0.00 W/m²K Door U-value 0.90 W/m²K		Siight	F ass
Windows facing North East Windows facing South East Windows facing South West Air change rate Blinds/curtains  Criterion 4 – Building performance consistent with DER and DFEE rate  Party Walls  Type U-value Filled Cavity with Edge Sealing 0.00 W/m²K Pass  Air permeability and pressure testing 3 Air permeability Air permeability at 50 pascals Maximum  10.0  Maximum  10.0  W/m²K  Pass  10 Key features Party wall U-value  0.00  W/m²K  Pass  10.00  W/m²K  Pass		Average	
Windows facing South East Windows facing South West Air change rate Blinds/curtains  Criterion 4 – Building performance consistent with DER and DFEE rate  Party Walls  Type U-value Filled Cavity with Edge Sealing 0.00 W/m²K Pass  Air permeability and pressure testing 3 Air permeability Air permeability at 50 pascals Maximum 10.0  Maximum 10.0  Mym²K Pass  10 Key features Party wall U-value 0.00 W/m²K  Pass	_		
Air change rate Blinds/curtains  None  Criterion 4 – Building performance consistent with DER and DFEE rate  Party Walls  Type Filled Cavity with Edge Sealing  O.00  W/m²K  Pass  Air permeability and pressure testing  3 Air permeability at 50 pascals Maximum  10.0  Maximum  Maximum  10.0  Mym²K  Pass  Party wall U-value  O.00  W/m²K  Pass  Party wall U-value  O.00  W/m²K  W/m²K		=	
Criterion 4 – Building performance consistent with DER and DFEE rate  Party Walls  Type  Filled Cavity with Edge Sealing  O.00  W/m²K  Pass  Air permeability and pressure testing  3 Air permeability  Air permeability at 50 pascals  Maximum  10.0  M³/(h.m²) @ 50 Pa  Pass  10 Key features  Party wall U-value  Door U-value  O.90  W/m²K	Windows facing South West	9.97 m <sup>2</sup> , No overhang	
Criterion 4 – Building performance consistent with DER and DFEE rate  Party Walls  Type  Filled Cavity with Edge Sealing  0.00  W/m²K  Pass  Air permeability and pressure testing  3 Air permeability  Air permeability at 50 pascals  Maximum  10.0  m³/(h.m²) @ 50 Pa  Pass  10 Key features  Party wall U-value  Door U-value  0.00  W/m²K	Air change rate	4.00 ach	
Type  Filled Cavity with Edge Sealing  0.00  W/m²K  Pass  Air permeability and pressure testing  3 Air permeability  Air permeability at 50 pascals  Maximum  10.0  M³/(h.m²) @ 50 Pa  Pass  10 Key features  Party wall U-value  Door U-value  0.00  W/m²K  W/m²K	Blinds/curtains None		
Type Filled Cavity with Edge Sealing  0.00  W/m²K  Pass  Air permeability and pressure testing  3 Air permeability  Air permeability at 50 pascals  Maximum  10.0  M³/(h.m²) @ 50 Pa  Pass  10 Key features  Party wall U-value  Door U-value  0.00  W/m²K  W/m²K	Criterion 4 – Building performance consistent with I	DER and DFEE rate	
Filled Cavity with Edge Sealing  O.00  W/m²K  Pass  Air permeability and pressure testing  3 Air permeability  Air permeability at 50 pascals  Maximum  10.0  m³/(h.m²) @ 50 Pa  Pass  10 Key features  Party wall U-value  O.00  W/m²K  Door U-value  O.90  W/m²K	Party Walls		
Air permeability  Air permeability  Air permeability at 50 pascals  Maximum  10.0  1	Туре	U-value	
3 Air permeability Air permeability at 50 pascals Maximum  10.0  10 Key features Party wall U-value Door U-value  0.90  5.01 (design value) m³/(h.m²) @ 50 Pa m³/(h.m²) @ 50 Pa W/m²K	Filled Cavity with Edge Sealing	0.00 W/m²K	Pass
Air permeability at 50 pascals       5.01 (design value)       m³/(h.m²) @ 50 Pa         Maximum       10.0       m³/(h.m²) @ 50 Pa       Pass         10 Key features         Party wall U-value       0.00       W/m²K         Door U-value       0.90       W/m²K	Air permeability and pressure testing		
Maximum       10.0       m³/(h.m²) @ 50 Pa       Pass         10 Key features       Party wall U-value       0.00       W/m²K         Door U-value       0.90       W/m²K	3 Air permeability		
10 Key features         0.00         W/m²K           Door U-value         0.90         W/m²K	Air permeability at 50 pascals	5.01 (design value) m <sup>3</sup> /(h.m <sup>2</sup> ) @ 50 Pa	
Party wall U-value 0.00 W/m²K Door U-value 0.90 W/m²K	Maximum	10.0 m <sup>3</sup> /(h.m <sup>2</sup> ) @ 50 Pa	Pass
Door U-value 0.90 W/m²K	10 Key features	<del></del>	
	Party wall U-value	0.00 W/m²K	
	Thermal bridging y-value	0.036 W/m²K	

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Regs Region: England Elmhurst Energy Systems SAP2012 Calculator (Design System) version 4.14r19

## **RECOMMENDATIONS**



	Typical cost	Typical savings per year	Energy efficiency	Environmental impact	Result
Low energy lights			0	0	Already installed
Solar water heating	£4,000 - £6,000	£85	B 86	B 88	Recommended
Photovoltaic	£3,500 - £5,500	£670	A 94	A 95	Recommended
Wind turbine			0	0	Not applicable
Totals	£7,500 - £11,500	£755	A 94	A 95	



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