



Carbon
Futures



Pappert's
Passivhaus Properties_____



A new affordable housing development in Bonhill, Alexandria is home to **West Dunbartonshire Council's first ever Passivhaus properties.**



As the appointed **Energy and Passivhaus Consultants**, Carbon Futures was involved in this project from the outset, developing an energy strategy to ensure the homes **met Passivhaus performance requirements**.

As **Energy Consultants**, we provided **Thermal Bridge Calculations** and ensured Building Regulation compliance through the provision of **SAP Calculations** and **EPCs**.

We carried out **Daylight and Sunlight Calculations** to assess the impact of the development on existing housing and identify daylight levels within the proposed houses and gardens.



As **Passivhaus Consultants**, we were responsible for ensuring the project achieved Passivhaus status.

Our role included hosting **Energy Workshops**, appraising the proposed design and undertaking the **Passive House Planning Package (PHPP)** calculations.



Certificate

Certified Passive House Classic



Authorised
by:



Dr. Wolfgang Feist
64283 Darmstadt
Germany

WARM: Low Energy Building Practice
3 Admirals Hard, Plymouth,
PL1 3RJ, UK

Block 01 - Type G Pappert Site, G83 9LF Alexandria, United Kingdom/ Britain



Client	West Dumbartonshire Council 16 Church Street G82 1QL Dumbarton , United Kingdom/ Britain
Architect	MAST
Building Services	NC Designs
Energy Consultant	Carbon Futures
Contractor	CCG (Scotland) Ltd

Passive House buildings offer excellent thermal comfort and very good air quality all year round. Due to their high energy efficiency, energy costs as well as greenhouse gas emissions are extremely low.

The design of the above-mentioned building meets the criteria defined by the Passive House Institute for the 'Passive House Classic' standard:

Building quality		This building		Criteria	Alternative criteria
Heating	Heating demand [kWh/(m ² a)]	17	≤	15	-
	Heating load [W/m ²]	10	≤	-	10
Cooling	Frequency of overheating (> 25 °C) [%]	0	≤	10	
Airtightness	Pressurization test result (n ₅₀) [1/h]	0.5	≤	0.6	
Renewable primary energy (PER)	PER-demand [kWh/(m ² a)]	48	≤	60	60
	Generation (reference to ground area) [kWh/(m ² a)]	0	≥	-	-

The associated certification booklet contains more characteristic values for this building.

Plymouth
7th August 2025

Certifier: Mike Roe, WARM

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3 Admirals Hard, Plymouth,
PL1 3RJ, UK

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Germany

Block 02 - Type A

Pappert Site, G83 9LF Alexandria, United Kingdom/ Britain



Client	West Dumbartonshire Council 16 Church Street G82 1QL Dumbarton , United Kingdom/ Britain
Architect	MAST
Building Services	NC Designs
Energy Consultant	Carbon Futures
Contractor	CCG (Scotland) Ltd

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The design of the above-mentioned building meets the criteria defined by the Passive House Institute for the 'Passive House Classic' standard:

Building quality	This building	Criteria	Alternative criteria
Heating			
Heating demand [kWh/(m ² a)]	16 ≤	15	-
Heating load [W/m ²]	10 ≤	-	10
Cooling			
Frequency of overheating (> 25 °C) [%]	0 ≤	10	
Airtightness			
Pressurization test result (n ₅₀) [1/h]	0.5 ≤	0.6	
Renewable primary energy (PER)			
PER-demand [kWh/(m ² a)]	48 ≤	60	60
Generation (reference to ground area) [kWh/(m ² a)]	0 ≥	-	-

The associated certification booklet contains more characteristic values for this building.

Plymouth
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_____Contact Us

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