Certificate

Certified Passive House Classic

Wicklow County Campus, Clermont House, Rathnew, Co.Wicklow A67 X566, Ireland

Authorised by:

Passive House Institute
Dr. Wolfgang Feist
64283 Darmstadt
Germany

Cascadia Passive House
954 Byng St, V8S 5B4 Victoria, Canada

Certified Passive House
Passive House Institute
| classic | plus | premium |

Client	Sharon & Peter Johannknecht 954 Byng St V8S 5B4 Victoria, ada
Architect	Cascadia Architects Inc. 101-804 Broughton Street V8W 1E4 Victoria, Canada
Building Services	NZ Builders Ltd. PO Box 53016 Victoria BC V8W 3Z2 V8W 3Z2 Victoria BC, ada
Energy Consultant	Peter Johannknecht, Architect AIBC, MRAIC, 101-804 Broughton Street V8W 1E4 Victoria, Canada

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/(m²a)]	11	≤	15	-
Heating load	[W/m²]	10	≤	-	10
Cooling					
Cooling + dehumidification demand	[kWh/(m²a)]	-	≤	-	-
Cooling load	[W/m²]	-	≤	-	-
Frequency of overheating (> 25 °C)	[%]	0	≤	10	
Frequency of excessively high humidity	[%]	0	≤	20	
Airtightness					
Pressurization test result (n_{50})	[1/h]	0.2	≤	0.6	
Non-renewable primary energy (PE)					
PE demand	[kWh/(m²a)]	59	≤	0	
Renewable primary energy (PER)					
PER-demand	[kWh/(m²a)]	26	≤	-	-
Generation (reference to ground area)	[kWh/(m²a)]	0	≥	#REF!	#REF!

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

Certifier: Tomas O'Leary, Tomas O'Leary

Certification Documentation

Specific building characteristics with reference to the treated floor area					Criteria	Alternative criteria	Fullfilled?[2]
	Treated floor area	m²	234.5				
Space heating	Heating demand	kWh/(m²a)	10.92	≤	15	-	yes
	Heating load	W/m²	10	≤	-	10	
Space cooling	Cooling & dehum. demand	kWh/(m²a)	-	≤	-	-	-
	Cooling load	W/m²	-	≤	-	-	
	Frequency of overheating (> 25 °C)	%	0	≤	10		yes
	Frequency excessively high humidity (> 12 g/kg)	%	0	≤	20		yes
Airtightness	Pressurization test result n_{50}	1/h	0.2	≤	0.6		yes
Non-renewable Primary Energy (PE)	PE demand	kWh/(m²a)	59	≤	120		yes
Primary Energy Renewable (PER)	PER demand	kWh/(m²a)	26	≤	-	-	-
	Generation of renewable energy	kWh/(m²a)	0	≥	-	-	

[2] Empty field: Data missing; '-': No requirement

This building has been awarded the

Quality Approved Passive House

certificate by MosArt Ltd.

This certification is based solely on the design data and specifications provided to MosArt Ltd by the client for the purpose of certification. MosArt Ltd has checked and approved the building's energy balances according to these data.

This certification does not cover quality assurance of the construction work or design implementation. MosArt Ltd hereby takes no responsibility for any faults in the above.

Passive House Verification

Building:	Cascadia Passive House		
Street:	954 Byng St		
Postcode/City:	V8S 5B4	Victoria	
Province/Country:	BC	CA-Canada	
Building type:	Residential		
Climate data set:	CA0025a-Victoria		
Climate zone:	4: Warm-temperate	Altitude of location:	4.4 m

Home owner / Client:	Sharon & Peter Johannknecht		
Street:	954 Byng St		
Postcode/City:	V8S 5B4	Victoria	
Province/Country:	BC	Canada	

Architecture:	Cascadia Architects Inc.		
Street:	101-804 Broughton Street		
Postcode/City:	V8W 1E4	Victoria	
Province/Country:	BC	CA-Canada	

Mechanical system:	NZ Builders Ltd.		
Street:	PO Box 53016 Victoria BC V8W 3Z2		
Postcode/City:	V8W 3Z2	Victoria BC	
Province/Country:	BC	Canada	

Energy consultancy:	Peter Johannknecht, Architect AIBC, MRAIC,		
Street:	101-804 Broughton Street		
Postcode/City:	V8W 1E4	Victoria	
Province/Country:	BC	CA-Canada	

Certification:	Tomas O'Leary		
Street:	Wicklow County Campus, Clermont House		
Postcode/City:	A67 X566	Rathnew	
Province/Country:	Wicklow	IE-Ireland	

Year of construction:	2017	Interior temperature winter [°C]:	20.0	Interior temp. summer [°C]:	25.0
No. of dwelling units:	1	Internal heat gains (IHG) heating case [W/m²]:	2.3	IHG cooling case [W/m²]:	3.2
No. of occupants:	3.1	Specific capacity [Wh/K per m² TFA]:	132	Mechanical cooling:	

Specific building characteristics with reference to the treated floor area

				Criteria	Alternative criteria	Fullfilled?[2]
	Treated floor area m²	234.5				
Space heating	Heating demand kWh/(m²a)	10.92	≤	15	-	yes
	Heating load W/m²	10	≤	-	10	
Space cooling	Cooling & dehum. demand kWh/(m²a)	-	≤	-	-	-
	Cooling load W/m²	-	≤	-	-	
	Frequency of overheating (> 25 °C) %	0	≤	10		yes
	Frequency excessively high humidity (> 12 g/kg) %	0	≤	20		yes
Airtightness	Pressurization test result n_{50} 1/h	0.2	≤	0.6		yes
Non-renewable Primary Energy (PE)	PE demand kWh/(m²a)	59	≤	120		yes
Primary Energy Renewable (PER)	PER demand kWh/(m²a)	26	≤	-	-	-
	Generation of renewable energy kWh/(m²a)	0	≥	-	-	

[2] Empty field: Data missing; '-': No requirement

I confirm that the values given herein have been determined following the PHPP methodology and based on the characteristic values of the building. The PHPP calculations are attached to this verification.

Passive House Classic? yes

Task:	First name:	Surname:	Signature:
2-Certifier	Tomas	O'Leary	

Certificate ID	Issued on:	City:
24702_MosArt_PH_20191031_TOL	2019.10.31	Rathnew Co. Wicklow

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