

# AllClimate

## EnerGuide Rating System Energy Modelling Required Documents

<b><u>Architectural Drawings:</u></b>		<b><u>Heating/Cooling System:</u></b> (make & model of each)	
Site plan	✓	Indoor unit: heat pump, furnace or boiler	✓
Elevation	✓	Outdoor unit: heat pump or air-conditioning	✓
Floor plan	✓	Radiant floor system	
Section	✓	Secondary HWT connected to boiler or DHW tank?	✓
Assembly & connection details		Indicate location/assembly being heated	✓
Ceilings	✓	Fireplaces, stoves	✓
Exterior walls	✓		
Tall walls	✓	<b><u>Domestic Hot Water System:</u></b>	
Headers / rim joists	✓	Make & model	✓
Exposed floors / cantilevers	✓	Recirculation pump (if any)	✓
Foundation walls	✓		
Foundation floor, walkout slab	✓	<b><u>Solar Photovoltaic System:</u></b>	
Window & door schedule	✓	Quote from solar PV installer	✓
<b><u>Ventilation System:</u></b> (make & model of each)			
Energy/heat Recovery Ventilator (ERV/HRV)	✓		
Kitchen range hood	✓		
Exhaust fans (bathrooms, utility)	✓		

## Site plan

Neighbouring buildings including their height and distance to the proposed building must be represented on the site plan if they shade the building. Show topography if possible.

Angle of deviation from North

Neighbouring vegetation or / and any other elements which shade the building, including height and type of vegetation (e.g. coniferous or deciduous) must also be shown

Graphic identification of the building envelope intended for certification



Scale:

1:200

Angle of deviation  
from North:  
206°

Complete address:

Passive House str. 1  
Passive City, 12345

Geographic coordinates:

44°00'N, 25°30'E,  
Height above the sea level:  
+/-0.00=556.0m

## Elevation

Show outdoor and exhaust air vents, grid types, distance from ground

Make sure to show clearly and to name any unheated adjacent rooms accordingly

Show the different type of surfaces (e.g. cladding, stucco etc.)

Make sure to name all surfaces and windows using the same naming convention on the drawings, on the window schedule and in the PHPP

Correct representation of walls, windows, and doors

Make sure to show clearly the wall surfaces in contact with the ground as well as the ground line for semi-buried walls

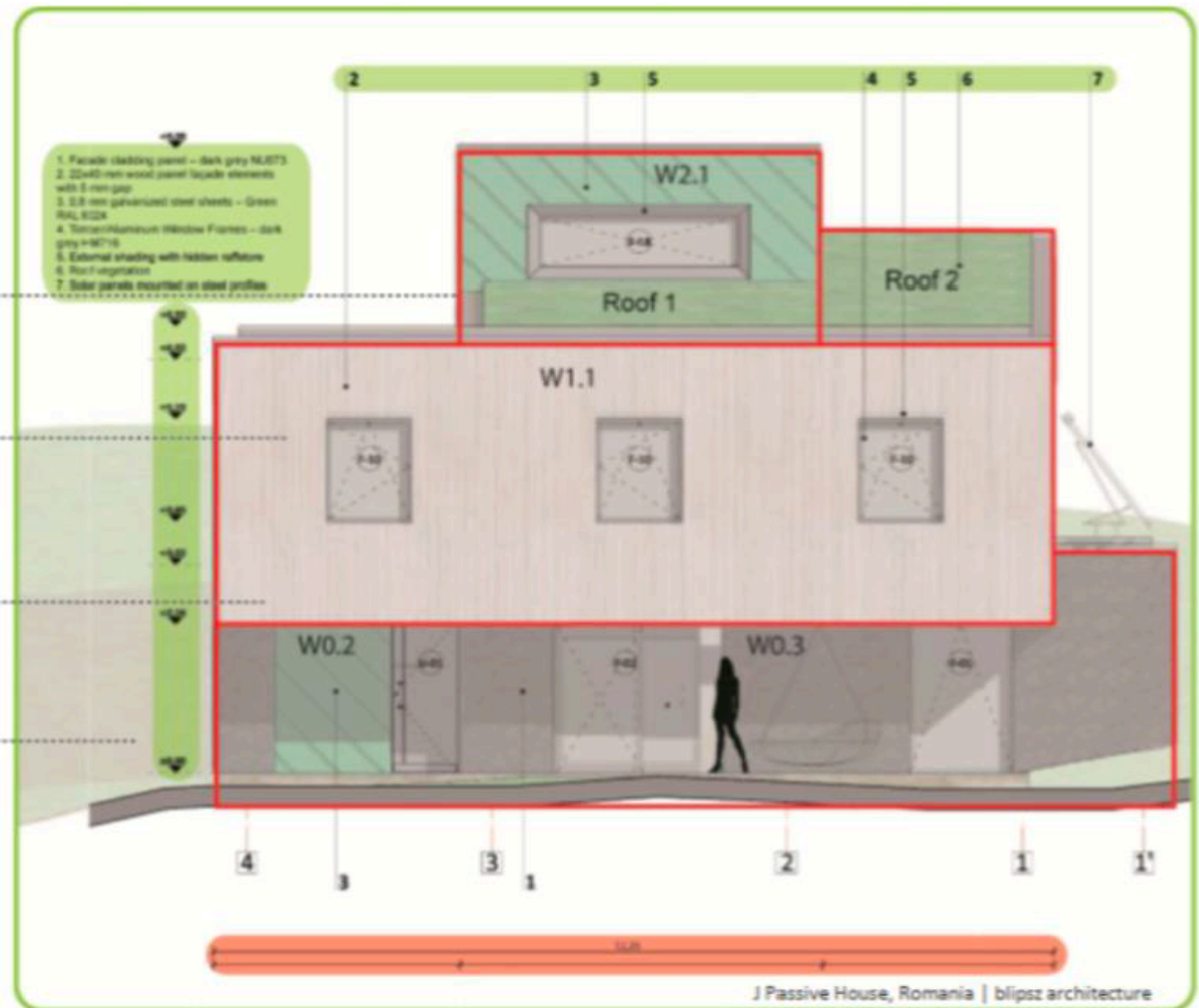
Dimensions

Scale:

1:50

or

1:100



Graphic identification and external dimensions of the thermal envelope



## Floor plan

Cross section

Dimensions

Clear and accurate representation of walls, windows, and doors

Graphic identification and calculation of each assigned TFA together with the surface calculated, and code names and the percentage used in the calculation

Graphic identification of areas where the room height is below 1 m or 2 m to support TFA calculation

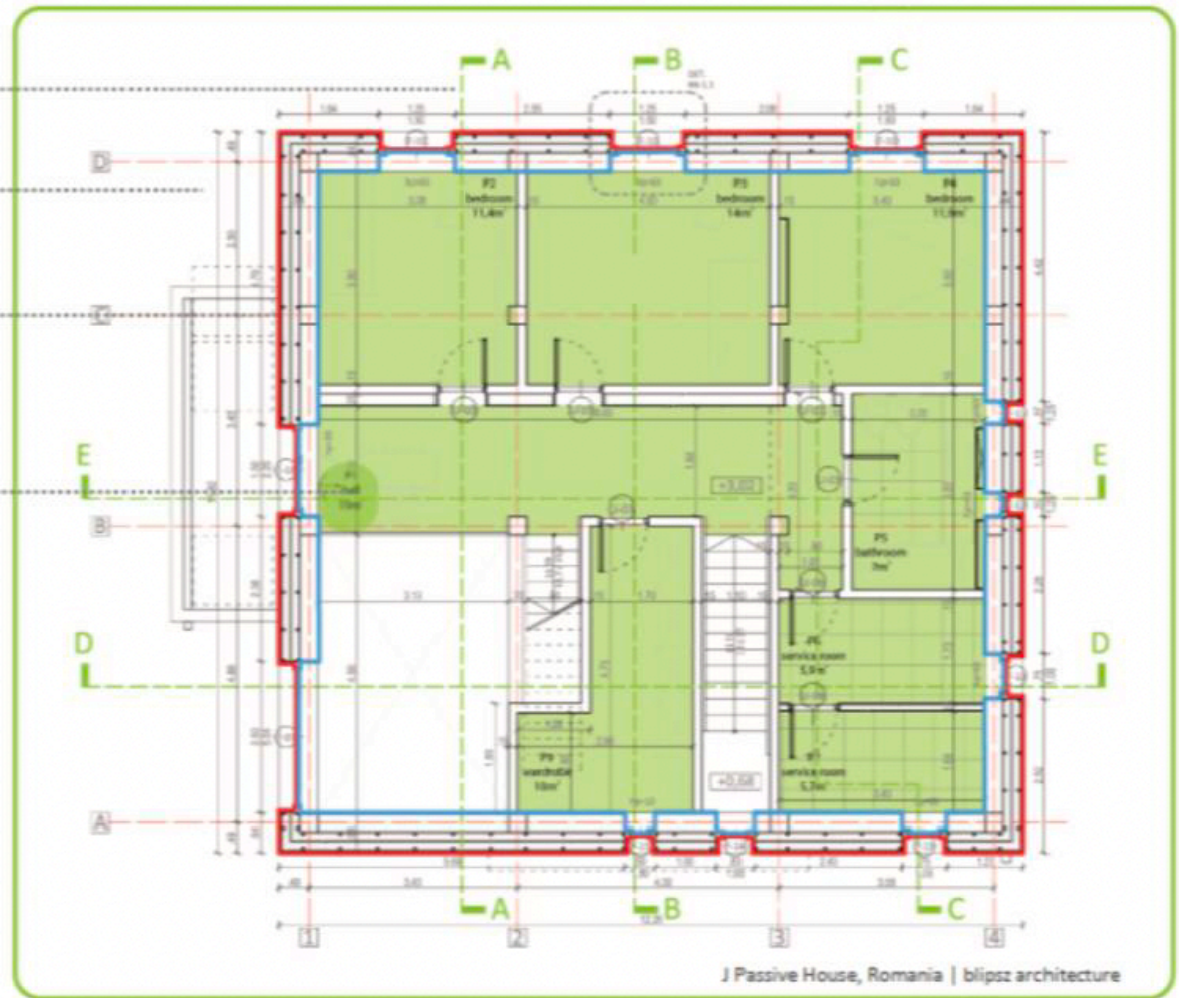
Any unconditioned (i.e. non-heated) adjacent spaces must be marked and named accordingly

Scale:  
1:50  
or  
1:100



Graphic identification and external dimensions of the thermal envelope

Graphic identification of the airtight layer



## Section

### Roof assembly 1 – Green roof

30 mm roof vegetation  
40 mm extensive soil layer  
Metal profile  
Geotextile membrane  
70mm 15-30 g gravel  
Drainage layer  
Mechanical protection layer  
Synthetic waterproof membrane, resistant to root penetration  
200 mm thermal insulation EPS + slope  
EPS  
200 mm thermal insulation EPS  
Diffusion and vapour barrier membrane  
130 mm reinforced concrete slab  
Gypsum board ceiling

Correct representation of walls, windows, doors, roofs, and floor

Description of each unique envelope assembly (including heterogeneous layers, e.g.: wood/insulation) with their features: manufacturer and product, thickness, thermal conductivity

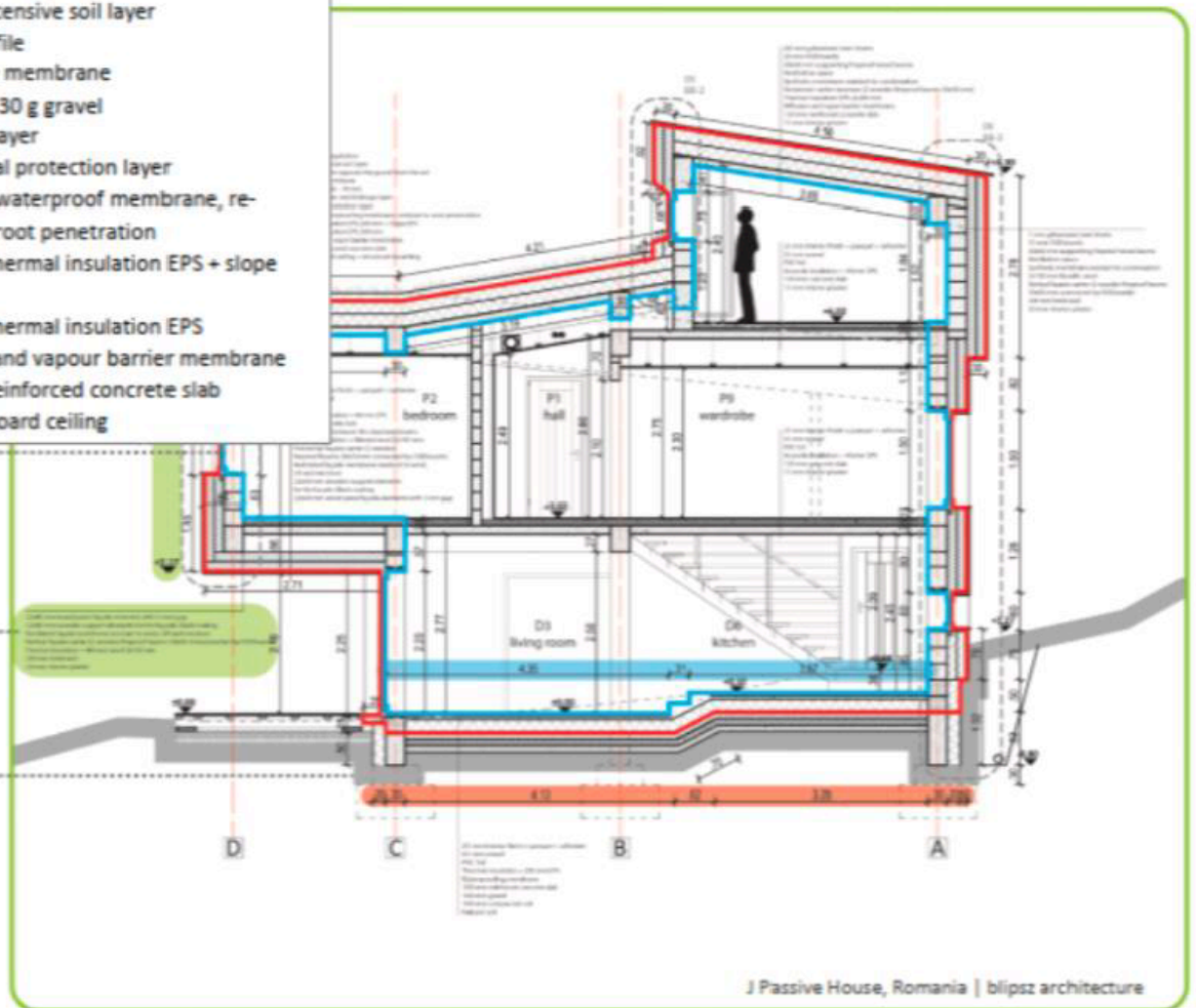
Dimensions

Scale:

1:50

or

1:100



Graphic identification and external dimensions of the thermal envelope

Graphic identification of the airtight layer



# Assembly and connection details

Detailed **construction drawings** should be prepared and submitted to the Certifier for **all** assemblies and connections of the building envelope. The thermal bridge details must be easily identifiable in the PHPP.

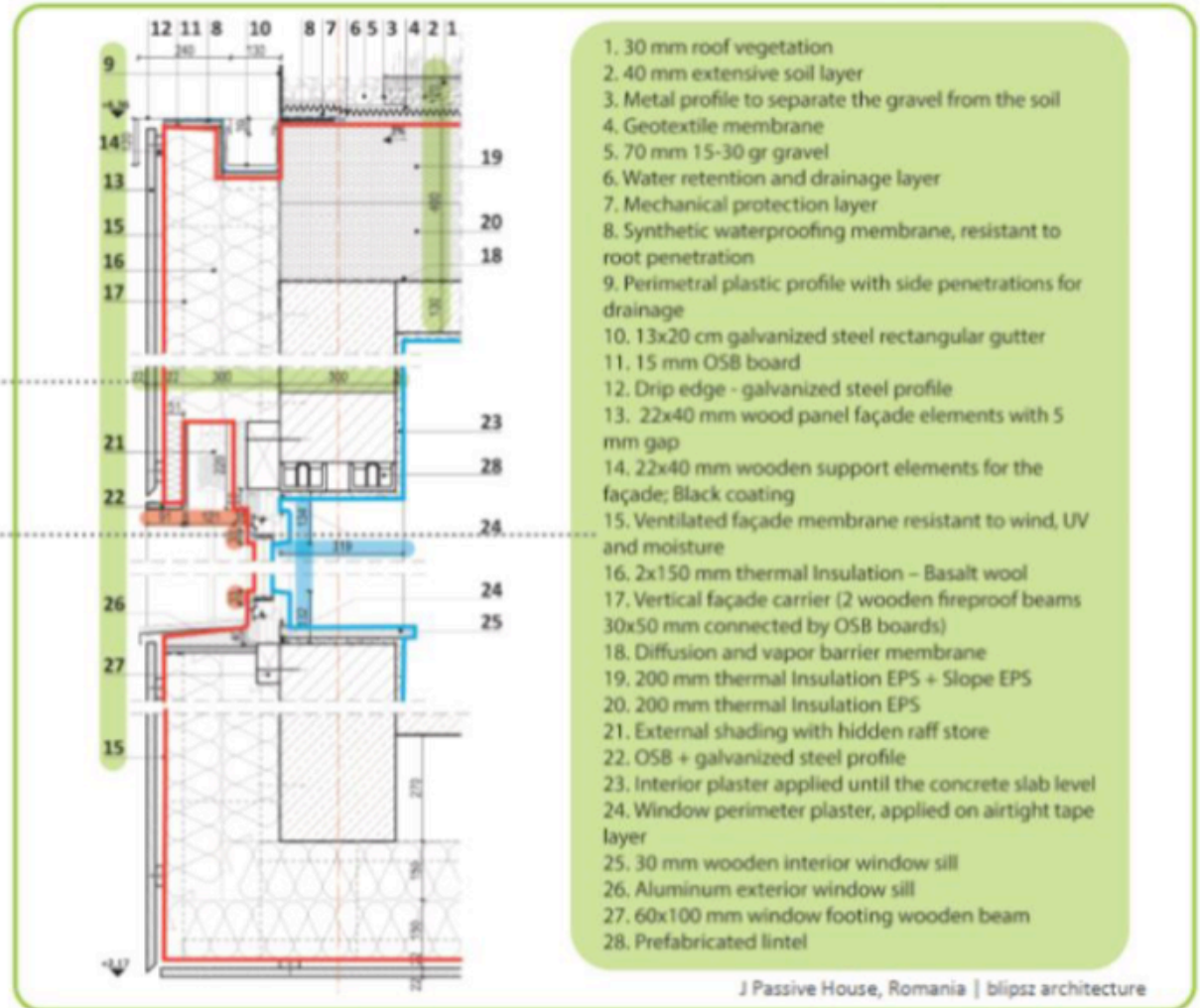
Thickness in mm of heterogeneous layers

Description of each component of the detail (incl. heterogeneous layers), product manufacturer and name, thickness [mm], thermal conductivity

For masonry/concrete materials:  
a | resistance class  
b | reinforcement degree  
c | volume density

Scale:

1:5  
or  
1:10  
or  
1:20



Graphic identification and external dimensions of the thermal envelope

Graphic identification of the airtight layer

## Window schedule

Make sure to use the same naming convention on the drawings and in the PHPP

Dimensions

Type of glazing and frame  
(U-values, lambda)

Area

Materials

Scale:  
1:50  
or  
1:100

Name	Door 1	Window 1	Window 2
Quantity	2	6	2
Dimensions	1 x 2.255 m	1.2 x 1.55 m	2.06 x 2.285 m
Area	2.255 m <sup>2</sup>	1.86 m <sup>2</sup>	4.707 m <sup>2</sup>
Glazing	„PH Glazing“	„PH Glazing“	„PH Glazing“
	U <sub>g</sub> = 0.60 W/m <sup>2</sup>	U <sub>g</sub> = 0.56 W/m <sup>2</sup>	U <sub>g</sub> = 0.56 W/m <sup>2</sup>
	g-value= 0.55	g-value= 0.50	g-value= 0.50
Frame	„PH Frame, SWISSPACER Ultimate“	„PH Frame, SWISSPACER Ultimate“	„PH Frame, SWISSPACER Ultimate“
	U <sub>f</sub> = 0.59 W/m <sup>2</sup>	U <sub>f</sub> = 0.59 W/m <sup>2</sup>	U <sub>f</sub> = 0.59 W/m <sup>2</sup>
	PU on wood	PU on wood	PU on wood
Facing frame width	L 0.16m; r 0.08m; t 0.08m; b 0.16m	L 0.11m; r 0.11m; t 0.11m; b 0.11m	L 0.11m; m 0.12m; r 0.04m; t 0.11m/0.04m; b 0.1m/0.04m
Glazing edge thermal bridge	Ψ <sub>glazing edge</sub> = 0.049 W/mK	Ψ <sub>glazing edge</sub> = 0.029 W/mK	Ψ <sub>glazing edge</sub> = 0.029 W/mK
Installation thermal bridge	Ψ <sub>installation</sub> = 0.02 W/mK	Ψ <sub>installation</sub> = 0.005 W/mK	Ψ <sub>installation</sub> = 0.005 W/mK