

“The Growcery Store” - Urban Growth Reimagined

Roof Structure (Flat roof with green roof and PV system)

10.0cm	Green roof substrate and vegetation (extensive)
4.0cm	Drainage and water retention layer
0.5cm	Filter layer
1.5cm	Roof waterproofing membrane
20.0cm	Thermal insulation (tapered insulation)
0.3cm	Vapour barrier
16.0cm	CLT roof panel (load-bearing)
2.0cm	Interior ceiling (gypsum or acoustic panel)

Total thickness: ~54.3 cm

U-value: 0.136 W/m²K

Exterior Wall Structure (Facade – from inside to outside)

2.2cm	Clay Plaster
2.5cm	Technical layer (hydroponic piping, installation space)
20.0cm	CLT panel (load-bearing structure)
1.3cm	OSB board (inner layer)
1.3cm	Gypsum board
1.8cm	OSB board (outer layer)
20.0cm	Wood-fiber insulation
1.6cm	Cement-bonded chipboard
0.4cm	Membrane (wind and moisture barrier)
3.0cm	Exterior cladding (larch)
3.0cm	

Total thickness: ~57.1 cm

U-value: 0.119 W/m²K

North Elevation - Detailed Interior-Exterior Interface /
Illustrated facade with visible structural and functional depth
Scale 1:20

