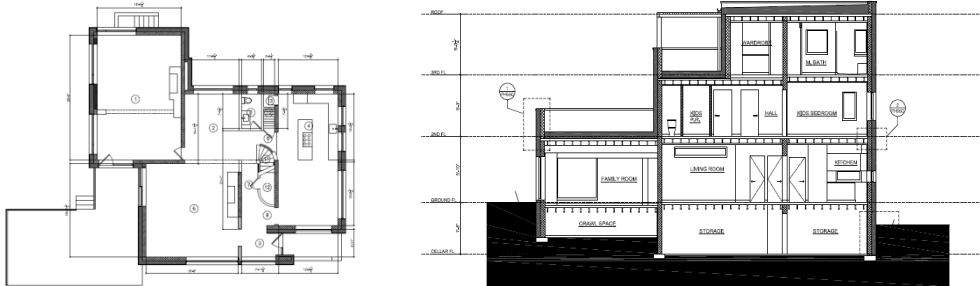


Treated floor area: 3376 ft² **Airtightness:** 1.0 ACH n₅₀ **Space heating demand:** 7.92 kBtu/(ft²yr)
Heating load: 8.24 BTU/(ft²hr) **Cooling Demand:** 3.49 kBtu/(ft²yr)

Project Description:

The Bauhaus Residence demonstrates the results that can be achieved when retrofitting contemporary building shapes to Passive house standards. The building envelope incorporates plenty of glazing that allows the views around the picturesque location to be framed inside. Even with the challenge of correctly thermally insulating the numerous punctures in the thermal envelope, the building occupants can now enjoy the benefits of a comfortable certified Passive home.



Building envelope (R-values = hr.ft².F/BTU, U-Values = BTU/hr.ft².F, $\Psi_{\text{installation}}$ BTU/hr.ft.°F)

Opaque elements: Roof (average) R 68.41, Walls (average) R 55.67, Floor R 3.04

Windows: U_{glass} 0.11 U_{frame} 0.17, SHGC 0.52, $\Psi_{\text{installation}}$ 0.023

Mechanical Services

Ventilation system: Zehnder ComfoAir 350, 84% efficiency (PHI Certified), Average air change rate 0.30/h

Heating system: Electric Heat Pump. Cooling: Electric Heat Pump.

Project Team:

Architect: Ken Levenson

Mechanical Services: Comfortable Heat. www.comfortableheat.com

Electrical Services: Positively Electric Inc., www.positivelyelectricct.com

