



Net-Zero Energy Office Building 10298 Route 116 | Hinesburg, Vermont

Construction Details

Building History

- Originally constructed as a farmhouse, circa 1850
- Hinesburg Police Station, 2001-2014
- EFG renovation started Nov 2016; completed Sept 2017

Salvaged Materials

- Roof and wall sheathing repurposed as interior trim
- Posts, beams and rafters reused as decorative accents
- Retained foundation; poured new slab
- Refinished and relocated original wide-plank flooring
- Reused wall frames

Building Shell

Insulation

Space	Foundation	Walls	Attic
Original	Spray foam walls,	1.5" rigid foam, 2"	
farmhouse	rigid foam under slab	spray foam, 6" cellulose	18"
New addition	Rigid foam under slab	12" cellulose	cellulose

- Air Sealing: 0.45 ACH50 (Passive House standard = 0.60 ACH50)
- Windows: Paradigm triple glazed, R-5, low E (manufactured in Maine)

Building Mechanical & Electrical

- (2) Mitsubishi 24K BTU heat pumps for space heating/cooling, 5 zones
- Rheem Prestige 70-gallon heat pump hot water heater
- (2) Venmar E15 Energy Recovery Ventilators, 2 zones
- 100% LED lighting, ENERGY STAR and DLC qualified

Net-Zero Energy

- 100% electric; no fossil fuel use on-site
- Solar generation matched to anticipated total building energy use
- (34) roof-mounted PV panels, 320 watts per panel, 11 kW rated output
- Estimated 13,000 kWh annual renewable energy production
- eGauge energy monitoring and reporting

Project Partners

- Energy Futures Group
- Pill-Maharam Architects
- Reiss Building and Renovation
- Anchor Foundations
- Champlain Valley Drywall
- Champlain Valley Landscaping
- Community Bank
- Cx Associates
- David Eddington Cabinetry
- E&M Mechanical
- Efficiency Vermont
- Energy Alternatives
- Energy Balance
- Engineering Ventures
- Exclusively VT Wood Products
- Four Seasons Sotheby's Realty
- Geo Ventura Painting
- Giroux Body Shop
- Green Tree Real Estate
- Harvey Industries
- Integral Building & Design
- L. Randolph Amis, Esq.
- Memphremagog Heat Exchangers
- Northbranch Media, LLC
- Parker Excavation
- Penrod Stairs
- Rice Lumber
- Scott Johnson Electrical
- Town of Hinesburg
- Vermont Hardscapes
- VT Insulated Concrete Forms
- Windows & Doors by Brownell



