



Photos courtesy of Under the Sun Building and Remodeling

"It's the most comfortable home I've ever lived in." Homeowners



PROJECT DATA

- **Layout:** 2 bdrm, 2 bath, 1 fl, 1,156 ft²
- **Climate:** IECC 5A, cold
- **Completed:** December 2021
- **Category:** Custom for Buyer

MODELED PERFORMANCE DATA

- **HERS Index:** without PV 31
- **Annual Energy Costs:** without PV \$850
- **Annual Energy Cost Savings:** (vs typical new homes) without PV \$1,550
- **Annual Energy Savings:** without PV 8,750 kWh
- **Savings in the First 30 Years:** without PV \$63,550

CONTACT

Jacki Chamberlain
518-791-5353
underthesunhomes@gmail.com

KEY FEATURES

- **Walls:** Double wall, R-53 total. Two 2x4 walls, 24" o.c., set 5.5" apart. Cavity filled with R-15+R-23+R-15 mineral wool batts. Coated OSB, 7/16" furring strips. Vinyl siding.
- **Roof:** Gable truss roof: 5/8" coated OSB sheathing, self-adhered membrane at eaves and valleys, #30 felt; architectural shingles. Ridge vent and vented cupola at peak.
- **Attic:** Vented attic: 1/2" foil-faced polyisocyanurate foam board vents (R-3.2) and 1-1/2" x 1-1/2" furring as spacer, 20" R-70 blown-in cellulose above ceiling/plenum.
- **Foundation:** Slab on grade: frost-protected shallow slab sits on 12" compacted gravel, topped by 15-mil vapor/radon barrier, and 8" (R-38.4) Type IX EPS under slab and at slab edge, plus 24" tapered wing extending out from base of slab.
- **Windows:** Triple-pane; argon-filled; low-e; vinyl-framed; U=0.13; SHGC=0.22.
- **Air Sealing:** 0.69 ACH50. All openings taped; air-tight electric boxes.
- **Ventilation:** Two ERVs with MERV. 13 filters, boost settings; ultraviolet air cleaner.
- **HVAC:** Mini-split heat pump, 14 HSPF, 33 SEER, 1 indoor/1 outdoor unit. Five 1,000-W electric wall heaters for bedrooms, baths, garage; ERV has heat and cool modes.
- **Hot Water:** Heat pump, 45-gal, 3.75 UEF, Wi-Fi controlled.
- **Lighting:** 100% LED lighting with motion sensors and timers.
- **Appliances:** ENERGY STAR refrigerator, dishwasher, clothes washer, clothes dryer.
- **Solar:** 25-kW system on farm property.
- **Water Conservation:** Whole house is EPA WaterSense certified.
- **Energy Management System:** ERV app monitors IAQ.
- **Other:** Low/no VOC paints and finishes, recycled-content insulation, flooring, decking.

