



BPC Green Builders

Hillside Passive House | Stamford, CT | BPCGreenBuilders.com



Photos courtesy of BPC Green Builders

“We set out to design and build a house that was both highly energy efficient and healthy to live in.” Homeowner



PROJECT DATA

- **Layout:** 3 bdrm, 2 bath, 1 fl, 2,105 ft²
- **Climate:** IECC 5A, cold
- **Completed:** June 2020
- **Category:** Custom for Buyer <3,000 ft²

MODELED PERFORMANCE DATA

- **HERS Index:** without PV 34
- **Annual Energy Costs:** without PV \$1,900
- **Annual Energy Cost Savings:** (vs typical new homes) without PV \$3,100
- **Annual Energy Savings:** without PV 13,000 kWh
- **Savings in the First 30 Years:** without PV \$125,400

KEY FEATURES

- **Walls:** 2x6, 16" o.c.+ Larsen truss, R-62 total: 2x6 studs with 5.5" dense-packed cellulose, 1/2" plywood sheathing with joints taped, 12" I-joists at 16" o.c. dense-packed with cellulose, held in place by heavy breathable membrane, 3/4" furring strips, 1x4 horizontal cedar siding.
- **Roof:** Flat roof: Interior air and vapor control membrane, 28" open-web trusses dense-packed with R-98 cellulose, 1/2" plywood taped, 1/2" fiberglass gypsum, EPDM roofing.
- **Attic:** No attic, vaulted ceilings (hot roof).
- **Foundation:** Half unvented crawl space, half piers. 16" floor trusses dense-packed with R-57 cellulose, taped vapor membrane, 3" mineral wool, 1x4 battens, 5/16" cement board.
- **Windows:** Triple-pane, low-e, argon-filled, aluminum-clad wood-framed, fixed awnings, U=0.14-0.18, SHGC=0.36.
- **Air Sealing:** 0.75 ACH50, all seams and penetrations taped.
- **Ventilation:** ERV, MERV 8 filter, 86 SRE, bathroom timers.
- **HVAC:** Ductless mini-split heat pump, 10.4 HSPF, 17.6 SEER, 12.7 EER AC.
- **Hot Water:** Heat pump water heater, 43-gal, 3.03 EF, split system with heat pump in unconditioned crawl space and the water tank above in the conditioned mechanical room.
- **Lighting:** 100% LED, timers, 2 solar tubes.
- **Appliances:** ENERGY STAR refrigerator, dishwasher, clothes washer.
- **Solar:** N/A; solar ready with conduit from roof to electric panel. Passive solar design.
- **Water Conservation:** Low-flow fixtures, PEX piping, compact plumbing design.
- **Energy Management System:** N/A
- **Other:** Low-emission paints, cabinets. IAQ monitor; accessible sinks.

CONTACT

Albert Jensen-Moulton
917-903-8281
albert@bpcgb.com

