



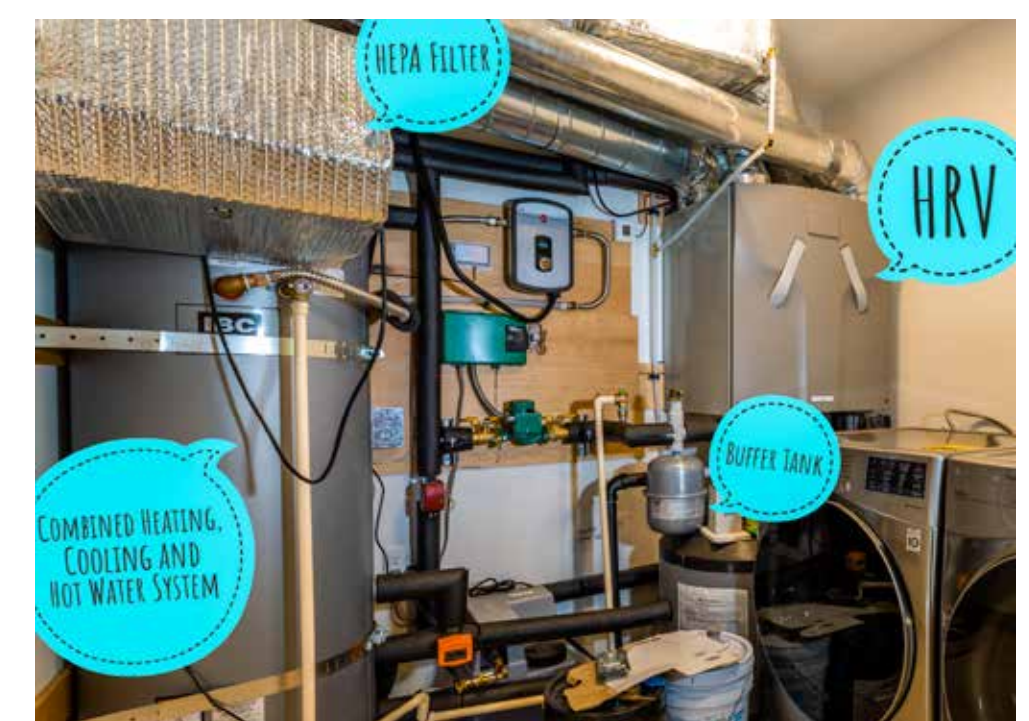
TC Legend Homes

House in a Hollow | Bellingham, WA | TCLegendHomes.com



Photos courtesy of TC Legend Homes

“An energy-efficient house makes a lot of sense.” Homeowners



PROJECT DATA

- **Layout:** 3 bdrm, 2.5 bath, 2 fl, 1,935 ft²
- **Climate:** IECC 4C, marine
- **Completed:** July 2021
- **Category:** Custom for Buyer

MODELED PERFORMANCE DATA

- **HERS Index:** without PV 33; with PV -23
- **Annual Energy Costs:** without PV \$600; with PV \$-280
- **Annual Energy Cost Savings:** (vs typical new homes) without PV \$1,200; with PV \$2,150
- **Annual Energy Savings:** without PV 8,400 kWh; with PV 20,350 kWh
- **Savings in the First 30 Years:** without PV \$48,930; with PV \$86,550

CONTACT

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KEY FEATURES

- **Walls:** SIPs, R-29: 6.5" graphite EPS SIPs; house wrap; fiber cement lap siding.
- **Roof:** SIP gable and shed roof: 10.25" R-49 (north) and 12.25" R-59 (south) graphite EPS SIPs, asphalt underlayment and asphalt composite roofing.
- **Attic:** No attic, vaulted ceilings.
- **Foundation:** Slab on grade: 4" R-20 EPS under slab; ICF stem walls 11.25" R-23.6.
- **Windows:** Triple-pane, argon-filled, low-e3, vinyl, U=0.15-0.18, SHGC=0.46-0.34.
- **Air Sealing:** 0.54 ACH50, all SIP joints sealed with double bead of mastic and tape. Windows have a double gasket. Whole-house aerosolized acrylic sealant.
- **Ventilation:** HRV to HVAC; timer, CO₂ and humidity sensors for boost setting.
- **HVAC:** Air-to-water heat pump with 50% central air handler, 50% radiant, 6.75 COP for cooling, 3.92 COP for heating. Passive heating design with exposed concrete floors.
- **Hot Water:** Combi air-to-water heat pump for space and water heating, 50-gal, 3.92 COP; electric tankless back-up water heater.
- **Lighting:** 100% LED, passive and shaded vertical glazing.
- **Appliances:** ENERGY STAR washing machine, dishwasher, refrigerator, exhaust fan.
- **Solar:** 10.56-kW, 33 rooftop panels, microinverters.
- **Water Conservation:** EPA WaterSense-rated fixtures. Central manifold with PEX piping.
- **Energy Management System:** CO₂ sensors, programmable HVAC system.
- **Other:** Low-VOC and recycled-content products. Aging-in-place design. EV charger installed.

