



Thrive Home Builders

Panacea | Denver, CO | ThriveHomeBuilders.com



Photos courtesy of Thrive Home Builders

“It is remarkable-the quality of living for me personally just because of the air quality.” Home owner



PROJECT DATA

- **Layout:** 5 bdrm, 4.5 bath, 2 fls + bsmt, 5,142 ft²
- **Climate:** IECC 5B, cold
- **Completed:** October 2017
- **Category:** production

MODELED PERFORMANCE DATA

- **HERS Index:** without PV 43; with PV 8
- **Annual Energy Costs:** without PV \$1,800; with PV \$200
- **Annual Energy Cost Savings:** (vs typical new homes) without PV \$2,800; with PV \$4,500
- **Annual Energy Savings:** without PV 10,000 kWh, 600 Therms; with PV 24,200 kWh, 600 Therms
- **Savings in the First 30 Years:** \$216,000

CONTACT

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KEY FEATURES

- **Walls:** Double wall of two 2x4 24" o.c. advanced framed walls with 2.5" gap. R-41 total: ½" drywall, 9.5" blown fiberglass, ⅞" OSB sheathing, house wrap, brick veneer and fiber cement siding.
- **Roof:** Gable roof; ⅞" APA-rated sheathing, synthetic underlayment, 40-mil self-adhering bituminous ice-and-water membrane, 30-year asphalt shingles.
- **Attic:** Vented attic, R-49 batt in cathedral and R-50 blown fiberglass on flat ceilings, 14" raised heel trusses.
- **Foundation:** Insulated basement, ½" drywall, R-15 fiberglass batt, 8" concrete.
- **Windows:** Double-pane, argon-filled, low-e2, vinyl frames, U=0.25, SHGC=0.20.
- **Air Sealing:** 1.82 ACH 50; flexible top-plate drywall gasket; spray foam at rim joists.
- **Ventilation:** ERV MERV 8 filter, HVAC MERV 16 filter; smart indoor air quality monitors.
- **HVAC:** Central air-source heat pump, 12.5 HSPF, 18 SEER; gas furnace backup, 0.95 AFUE; metal ducts in conditioned space.
- **Hot Water:** Gas tankless, .96 EF, push-button recirculation pump.
- **Lighting:** 100% LED, transom windows, daylighting.
- **Appliances:** ENERGY STAR refrigerator, dishwasher, clothes washer, bath fans.
- **Solar:** 9.92-kW PV system, 7-kW battery.
- **Water Conservation:** EPA WaterSense fixtures and toilets, drought-resistant landscaping.
- **Energy Management System:** Smart thermostat, internet-enabled energy monitoring.
- **Other:** KCMA cabinets, Green Guard gold-certified flooring, paint; active radon system.



Energy Efficiency & Renewable Energy



For more information on the **DOE Zero Energy Ready Home** program, go to <http://energy.gov/eere/buildings/zero-energy-ready-home> or scan the QR code.



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