Thrive Home Builders
Courtyard Rows | Lone Tree, CO | ThriveHomeBuilders.com

"The real test came when I moved in, got my utility bill, and all I can say is wow! The solar panels produce more energy than I am using, three months in a row so far!" Home owner

**PROJECT DATA**

- **Layout:** 2 bdrm, 2 bath, 2 fl + bsmt, 2,780 ft²
- **Climate:** IECC 5B, cold
- **Completed:** August 2016
- **Category:** multifamily

**MODELED PERFORMANCE DATA**

- **HERS Index:** without PV 41, with PV 8
- **Projected Annual Energy Costs:** without PV $1,200, with PV $150
- **Projected Annual Energy Cost Savings:** (vs typical new homes) without PV $1,750, with PV $2,850
- **Annual Energy Savings:** without PV 6,300 kWh, 360 therms; with PV 15,300 kWh, 360 therms

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**KEY FEATURES**

- **Walls:** Double walls, 2x4 24" o.c. advance framed, staggered studs, 9.5" R-41 blown fiberglass. Sprayer applied sealant; ½" OSB; corrugated house wrap; fiber cement & stone siding.
- **Roof:** Ice-and-water shield; waterproof underlayment; metal drip edge; 30-yr asphalt shingles.
- **Attic:** Vented attic; R-50 blown fiberglass; 14" raised heel trusses; sealed top plates.
- **Foundation:** Basements with R-19 blanket insulation on interior of unfinished walls; R-15 in cavity of finished walls; 4" gravel and vapor barrier under slab.
- **Windows:** ENERGY STAR double-pane, argon-filled, vinyl-framed; U=0.21, SHGC=0.28.
- **Air Sealing:** 4.35 ACH 50.
- **Ventilation:** Continuous exhaust fans.
- **HVAC:** Central air-source heat pump HSPF 9.0, SEER 15.5, plus 97.4 AFUE backup gas furnace. Ducts in conditioned space.
- **Hot Water:** .97 EF tankless gas water heater.
- **Lighting:** 100% CFL.
- **Appliances:** ENERGY STAR refrigerator, dishwasher, exhaust fans.
- **Solar:** 6.2-kW solar PV.
- **Water Conservation:** WaterSense fixtures, “smart” hot water recirc; drip irrigation.
- **Energy Management System:** Internet monitoring of PV production and energy use.
- **Other:** EPA Indoor airPLUS, low-VOC paints; low-formaldehyde wood products. Shear walls; reinforced framing and roof. Excavation to 30-ft depth to replace high-expansion soils. Active radon ventilation system. Ducts cleaned.

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.