

Ferrier Custom Homes

U.S. DOE

ZERO

ENERGY READY HOME

2019 WINNER

Housing
Innovation
Awards

The Brazos River House | Mineral Wells, TX | FerrierCustomHomes.com



"As a specialist in energy-efficient, sustainable, green homes, this home...is an extension of our philosophy." Home owner









PROJECT DATA

• **Layout:** 2 bdrm, 2 bath, 1 fl, 2,133 ft²

• Climate: IECC 3A, mixed-humid

• Completed: June 2018

Category: custom for buyer

MODELED PERFORMANCE DATA

- **HERS Index:** without PV 50; with PV 12
- Annual Energy Costs: without PV \$1,450; with PV \$450
- Annual Energy Cost Savings: (vs typical new homes) without PV \$400; with PV \$1,400
- Annual Energy Savings: without PV 7,200 kWh, with PV 14,800 kWh
- Savings in the First 30 Years: \$60,500

CONTACT

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KEY FEATURES

- Walls: 6.5" SIPs, R-17.5 total: house wrap, stone and brick siding.
- **Roof:** Shed roof; 10.5" R-33 SIPs, synthetic underlayment, Class IV highly reflective standing-seam metal roof, 60-mil TPO membrane on awnings and overhangs.
- Attic: Unvented, vaulted ceilings; 10.25" SIPs; small conditioned attic for HVAC.
- Foundation: Slab on grade.
- Windows: Triple-pane, argon-filled, low-e4, wood, fiberglass, and composite casement frames, U=0.27, SHGC=0.19.
- Air Sealing: 2.07 ACH 50.
- Ventilation: ERV, exhaust fan timers, MERV 11 filters.
- **HVAC:** 4-ton central air-source heat pump with 5-ton variable-speed air handler, 9 HSPF, 16 SEER; flex ducts located in conditioned attic; humidity controls on thermostat.
- Hot Water: Electric tankless, 99% efficient; compact plumbing with PEX piping.
- Lighting: 60% LED, 40% CFL, 2 solar tubes for daylighting.
- **Appliances:** ENERGY STAR refrigerator, dishwasher, and clothes washer.
- Solar: 4.64-kW PV system.
- Water Conservation: EPA WaterSense fixtures and toilets; native and drought-resistant landscaping. Rooftop rainwater catchment with 10,000-gal. tank provides all of the house's water needs.
- Energy Management System: Programmable thermostat, PV tracking system.
- Other: 3-ft doors, zero-entry shower, non-toxic pest control. Sustainable wood products. IBHS Fortified Home with high wind, tornado, hail, and wildfire-resistant features.





