McStain Neighborhoods
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“we did analyze incremental costs and other factors such as product availability and determined that those costs were negligible compared to the branding power of building efficient healthy homes.” Builder

PROJECT DATA

- **Layout:** 3 bdrm, 2.5 bath, 2 fls, 2,916 ft²
- **Climate:** IECC 5B, cold
- **Completed:** February 2021
- **Category:** Production

MODELED PERFORMANCE DATA

- **HERS Index:** without PV 51; with PV 34
- **Annual Energy Costs:** without PV $1,400; with PV $800
- **Annual Energy Cost Savings:** (vs typical new homes) without PV $1,700; with PV $2,250
- **Annual Energy Savings:** without PV 3,600 kWh, 650 Therms; with PV 8,300 kWh, 650 Therms
- **Savings in the First 30 Years:** without PV $82,500; with PV $110,500

CONTACT

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KEY FEATURES

- **Walls:** Panelized, 2x6 24 in o.c., R-19 total; advanced framed, R-23 blown fiberglass in cavity. Factory-installed coated OSB sheathing taped. Fiber cement lap siding.
- **Roof:** Truss gabled roof; self-adhered underlayment, 30-year architectural asphalt shingles.
- **Attic:** Vented attic: 20° R-50 blown-in fiberglass in attic.
- **Foundation:** Insulated basement: 10° poured concrete walls, spray-on damp proofing; R-19 closed-cell foam in rim joists; R-19 fiberglass drape on interior basement and crawl space walls. Active radon vent in aggregate below sealed 6-mil crawl vapor barrier. Exterior perimeter drain pipe to sump.
- **Windows:** Double-pane, argon-filled, low-e, vinyl frame, U=0.29, SHGC=0.31.
- **Air Sealing:** 1.7 ACH50, closed-cell spray foam at rim joists and exterior penetrations.
- **Ventilation:** Exhaust-only, MERV 14 filter, 59 CFM/Watt.
- **HVAC:** Gas furnace, 95 AFUE, modulating furnace, variable speed fan motor, AC unit, 13 SEER, rigid metal duct system, ducts in conditioned space.
- **Hot Water:** Gas tankless, .96 EF, smart recirc pump.
- **Lighting:** 100% LED.
- **Appliances:** ENERGY STAR dishwasher, refrigerator, hood vent.
- **Solar:** 4 kW, rooftop panels.
- **Water Conservation:** Low-flow fixtures; central manifold with PEX piping; hot water recirc.
- **Energy Management System:** Smart thermostat.
- **Other:** Low/no-VOC finishes, flooring, cabinets; active sub-slab radon venting.

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.