Habitat for Humanity of Catawba Valley
The Rudy Project | Hickory, NC | HabitatCatawbaValley.org

“A home that is not only affordable to purchase, but also affordable to own and operate.” Habitat for Humanity Catawba Valley

PROJECT DATA

• Layout: 3 bdrm, 2 bath, 1 fl, 1,160 ft²
• Climate: IECC 4A, mixed-humid
• Completed: January 2019
• Category: affordable

MODELED PERFORMANCE DATA

• HERS Index: without PV 40
• Annual Energy Costs: without PV $750
• Annual Energy Cost Savings: (vs typical new homes) without PV $300
• Annual Energy Savings: without PV 3,400 kWh
• Savings in the First 30 Years: $12,200

KEY FEATURES

• Walls: 2x6 24” o.c. advanced framing; ladder blocking, open and insulated headers, R-26 total; ½” drywall, R-19 unfaced batts, ½” OSB sheathing, 1” taped rigid foam, 1x4 furring strips, ½” engineered wood lap siding.
• Roof: Gable roof; coated OSB sheathing, architectural asphalt shingles.
• Attic: Vented attic; 20” R-50 blown fiberglass; 24” raised heel trusses.
• Foundation: Unvented crawlspace, R-11 total; 2” rigid EPS on inside face of 8” CMU, rubberized waterproof coating, 12-mil reinforced polyethylene liner over dirt.
• Windows: Double-pane, argon-filled, low-e, vinyl single-hung frames, U=0.30, SHGC=0.22.
• Air Sealing: 2.5 ACH 50, drywall glued at top plate, sill seal.
• Ventilation: ERV, MERV 13 filters.
• HVAC: Ductless mini-split heat pump, 12.5 HSPF, 26.1 SEER, 1 indoor air handler, 1 outdoor compressor; dehumidifier in crawl.
• Hot Water: Heat pump water heater, 3.39 EF, 50-gal., compact plumbing design.
• Lighting: 100% LED, motion sensors on exterior lights.
• Appliances: ENERGY STAR refrigerator, dishwasher, clothes washer, and dehumidifier.
• Solar: Solar ready.
• Water Conservation: WaterSense-labeled fixtures and toilets.
• Energy Management System: Programmable thermostat.
• Other: 3-ft doors and hallways, low-VOC paint, Green Guard cabinets and flooring, passive radon vent, IBHS Fortified Home Bronze-level features.

CONTACT

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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.