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.

Philgreen Construction
L’Avenir Townhomes | Fort Collins, CO | PhilgreenCo.com

“My favorite aspect of the home is all the natural light.” Homeowner

PROJECT DATA

• Layout: 2 bdrm, 4 bath, 3 fls, 2,478 ft²
• Climate: IECC SB, cold
• Completed: December 2020
• Category: Attached Housing

MODELED PERFORMANCE DATA

• HERS Index: without PV 40; with PV -2
• Annual Energy Costs: without PV $1,300; with PV $0
• Annual Energy Cost Savings: (vs typical new homes) without PV $1,950; with PV $3,250
• Annual Energy Savings: without PV 16,100 kWh; with PV 27,100 kWh
• Savings in the First 30 Years: without PV $79,300; with PV $131,100

CONTACT

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KEY FEATURES

• Walls: Double wall, R-37 total: first floor double wall 2x6 + 2x4, upper two floors 2x6, 16" o.c., advanced framed 5.5" fiberglass, ¼" coated OSB, 3" rigid rock wool, metal horizontal furring for air gap and attachment of terracotta tile siding.
• Roof: Rafter flat roof and shed roof: 14” l-joist, ½” OSB. Shed roof: self-adhered underlayment, Class 4 asphalt shingles. Flat roof: 2” tapered insulation, cementitious board, 80-mil TPO.
• Attic: Unvented attic: R-51 total: 3” R-21 closed-cell spray foam on underside of roof deck, 11” R-30 blown-in fiberglass to fill rest of netted l-joist cavity.
• Foundation: Insulated basement, 2” rigid foam on exterior over waterproofing.
• Windows: Double-pane, argon-filled, low-e2, motorized blinds, U=0.22, SHGC=0.34.
• Air Sealing: 2.43 ACH50, seal all nail holes, tape all joints, aerosol sealed whole house.
• Ventilation: ERV, MERV 10 filter at 2 air handler locations, 60 SRE, 69 ASRE, 50 ATRE.
• HVAC: Ground-source heat pump with 2 air handlers, 1 radiant floor, 4 COP, 18.4 EER.
• Hot Water: Ground-source heat pump for space and hot water, reverse indirect tanks, 4 COP.
• Lighting: 100% LED, motion sensors, skylights, high LRV wall and ceiling paint.
• Appliances: ENERGY STAR refrigerator, clothes washer, dryer.
• Solar: 713 kW/unit, 9.8 kWh battery. Passive solar design.
• Water Conservation: EPA WaterSense-certified home.
• Energy Management System: Smart thermostats, PV/battery system tied to utility rates.
• Other: EV charging. Accessible shower, framed for future elevator, low/no-VOC carpet, floors, cabinets, paint; shared electric car and electric bike.