

Affordable Housing Concepts

Zero Place | New Paltz, NY | AHCIIc.net













PROJECT DATA

• **Layout:** 1 bdrm, 1 bath, 1 fl, 1,222 ft²

• Climate: IECC 6A, cold • Completed: March 2022 Category: Multifamily

MODELED PERFORMANCE DATA

- **HERS Index:** without PV 31; with PV -14
- Annual Energy Costs: without PV \$750; with PV -250
- Annual Energy Cost Savings: (VS typical new homes) without PV \$1,200; with PV \$2,250
- Annual Energy Savings: without PV 8,050 kWh; with PV 14,900 kWh
- Savings in the First 30 Years: without PV \$50,500; with PV \$93,400

CONTACT

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KEY FEATURES

- Walls: ICF, R-22 total: 11.25", housewrap, brick veneer or engineered wood.
- Roof: Flat roof, 16" open-web steel joists at 48" o.c.; concrete deck, rubber membrane.
- Attic: 12" R-46 open-cell + 4" R-28 closed-cell spray foam under roof deck.
- Foundation: Insulated basement, 11.25" R-22 ICF walls, 4" R-26 cc spray foam under slab.
- Windows: Triple-pane windows, U=0.17, SHGC=0.27, vinyl-framed, low-e, argon fill, casement style. Fixed solar panel awnings.
- Air Sealing: 1.9 ACH50. All common wall connections spray foamed. Drywall sealed at top and bottom plates and corner studs of party walls.
- Ventilation: ERVs, one per apartment. Supplies fresh air thru ducted HVAC. Draws from bath, kitchen, laundry, mech room. Sensored and manual boost controls.
- HVAC: Ground souce heat pumps, 3.4 COP. Variable speed pump.
- Hot Water: Two central ground source heat pumps (3.2 COP) with four 162-gallon tanks provide space and water heating to all units. Risers with recirculation pumps distribute water to each line of apartments. Each apartment has a manifold to distribute hot water to each fixture.
- Lighting and Appliances: LED lighting, ENERGY STAR appliances.
- Solar: 248 kW of PV on roof and as window awnings.
- Energy Management System: Energy monitoring system measures energy usage of each load in each unit. Apps let tenants track their energy and water use.
- Other: Rooftop deck, ADA units, walkable neighborhood. Several EV charging stations.





