



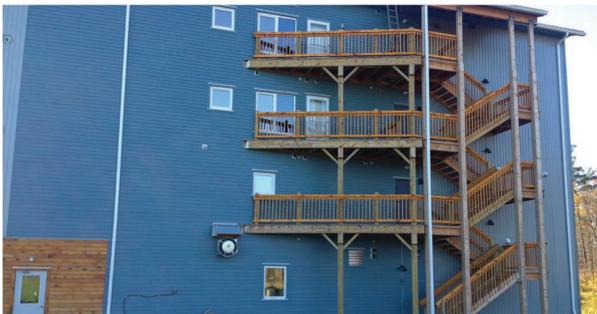
AquaZephyr

TREE at EcoVillage | Ithaca, NY | EcoVillagelthaca.org



Photos courtesy of AquaZephyr

“In most cases, we find building to zero net energy ready levels is not a significant added cost.”
Kendall Carpenter, builder, AquaZephyr LLC



PROJECT DATA

- **Layout:** 1 bdrm, 1 bath, 1 fl, 467 ft² 4-story building with 15 apartments + 3,750 ft² shared space.
- **Climate:** IECC 6A, cold
- **Completed:** Fall 2015
- **Category:** multi-family

MODELED PERFORMANCE DATA

- **HERS Index:** without PV 58, with PV 26
- **Projected Annual Energy Costs:** without PV \$1,050, with PV \$583
- **Projected Annual Energy Cost Savings:** (vs home built to 2009 IECC) without PV \$274, with PV \$1,137
- **Annual Energy Savings:** without PV 1,525 kWh, with PV 6,314 kWh

CONTACT

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KEY FEATURES

- **Walls:** 2x6, 16" o.c. dense-pack cellulose. Door and window headers have 2" polyisocyanurate. Sheathing is 1/2" coated OSB, then fire-rated exterior-grade fiber rock, then 2" foil-faced polyisocyanurate, all seams taped on all layers, then 1" furring strips, then fiber cement and wood siding. Total wall value is R-32.
- **Roof:** Metal 29-gauge over 2x4 purlins over engineered trusses.
- **Attic:** Vented with 18" blown cellulose for R-65. All penetrations caulked or foamed.
- **Foundation:** Slab-on-grade, 3" R-20 polyisocyanurate under slab plus slab edge.
- **Windows:** Triple-pane, U=0.17.
- **Air Sealing:** 6,134 ACH at 75 cfm.
- **Ventilation:** Continuous ERVs.
- **HVAC:** Electric resistance baseboard.
- **Hot Water:** Solar with 400-gal pre-heat tank with back-up electric heater.
- **Lighting:** 72% LED, 28% CFL, motion sensors.
- **Appliances:** ENERGY STAR dishwasher, refrigerator, HRVs, clothes washer, water heater, ceiling fans, light fixtures.
- **Solar:** 50-kW PV grid-tied; twelve 4x8 solar hot water collectors.
- **Water Conservation:** Low-flow toilets.
- **Energy Management System:** Online tracking of PV production.
- **Other:** No-/low-VOC paints, LEED platinum, electric car charging station.

