

# Green Phoenix Development

Highland High Performance Home | Weston, MA | GreenPhoenixDev.com













### PROJECT DATA

- Layout: 8 bdrm, 8 bath, 3 fls + bsmt, 7,491 ft<sup>2</sup>
- Climate: IECC 5A, cold
  Completed: May 2019
  Category: Custom Spec

#### MODELED PERFORMANCE DATA

- HERS Index: without PV 39; with PV 19
- Annual Energy Costs: without PV \$6,300; with PV \$3,100
- Annual Energy Cost Savings: (vs typical new homes) without PV \$9,900; with PV \$13,250
- Annual Energy Savings: without PV 41,900 kWh; with PV 58,000 kWh
- Savings in the First 30 Years: without PV \$414,100; with PV \$554,700

# CONTACT

Steve Snider 508-494-6528 steve@greenphoenixdev.com

## **KEY FEATURES**

- Walls: 2x6, 16" o.c., R-34 total: 5.5" mineral wool,  $\frac{1}{2}"$  plywood, 2" foil-faced polyiso,  $\frac{1}{2}"$  OSB sheathing, self-adhered WRB, rainscreen drain mat, fly-ash-polymer clapboard siding.
- Roof: 2x12 rafters, 5/8" plywood, ice & water shield deck, 5/8" plywood.
- Attic: Unvented attic, R-72 total: 12" R-48 cellulose in roof rafters. Above roof deck: two 2" layers R-24 foil-faced, taped.
- **Foundation:** Insulated basement, R-28 total: 10" poured concrete walls. Exterior: 0.2" waterproofing membrane, 1.2" insulation board. On interior: 2x6 studs 16" o.c.; 5" closed-cell spray foam. Slab: 4" concrete poured over 4" CC foam sprayed on 8" gravel base.
- Windows: Double-pane, argon-filled, low-e2, wood double-hung, U=0.25, SHGC=0.25.
- Air Sealing: 0.44 ACH 50; all exterior foam seams taped, all joints caulked.
- **Ventilation:** Three ERVs ducted separately from HVAC. MERV 13 filters. Large range hood fan tied to makeup air. Power-vented fireplaces. Garage exhaust fan. Passive radon.
- HVAC: Ducted and ductless mini-split heat pumps; 3 outdoor, 6 ducted air handlers, 4 ductless air handlers, COP 3.29, HSPF 10.3, SEER 16.1, EER 11.6. Dehumidifier.
- Hot Water: Heat pump water heater, 3.7 UEF, 80-gal + 50-gal tank. 3 recirc pumps.
- Lighting: 95% LED; timers, programmable.
- Appliances: ENERGY STAR refrigerator, dishwasher, clothes washer, heat pump dryer.
- Solar: 14.72-kW; 46 rooftop panels, 2 inverters.
- Water Conservation: EPA WaterSense fixtures. Drip and smart irrigation. Leak detection.
- Energy Management System: Energy, PV, temp, humid monitors; Wi-Fi thermostats.
- Other: Wired for EV. ADA features. Green Guard Gold cert. flooring, cabinetry, doors.





