

Top 10 Best Practices for Today's Homebuilder

(May be subject to change)

1. Design for Efficiency

- *Good:* Continuous thermal boundary
- *Better:* Add right sizing design & systems
- *Best:* Add optimization with energy modeling

2. Superior Air Sealing

- *Good:* Air Sealing (basic caulking and foaming)
- *Better:* Fully continuous air barrier + blower door test with advanced caulking and foaming
- *Best:* Exterior sheathing sealed (fluid applied, taped or glued sheathing)

3. High Performance Wall Systems

- *Good:* Intermediate or advanced framing with blown-in insulation
- *Better:* Single plate with staggered studs + blown insulation (\leq R-27) or 2x6 with exterior continuous insulation
- *Best:* R-27 + Insulated sheathing or double stud with blown-in insulation

4. High R-Value Ceilings

- *Good:* Standard truss with R-21 high density fiberglass batts or rigid insulation inserts + 1" vent channel at eaves
- *Better:* Raised heel truss, parallel chord cantilevered truss
- *Best:* True vaulted ceiling (I-joist) or insulated roof above attic

5. Windows

- *Good:* Proper U-Value and Solar Heat Gain Coefficient (SHGC) for applications
- *Better:* Window design (avoid too much glazing)
- *Best:* Daylighting + high performance low U-Value

6. Ducts and Distribution

- *Good:* Seal ducts with mastic
- *Better:* Seal ducts with mastic and test
- *Best:* Ducts inside or Ductless HVAC system

7. Fresh Air Ventilation

- *Good:* Exhaust only
- *Better:* Supply + exhaust w/ ECM blower motor
- *Best:* Heat Recovery Ventilator (HRV) or Energy Recovery Ventilator (ERV)

8. Lighting and Appliances

- *Good:* Energy Star appliances
- *Better:* Add heat pump dryer
- *Best:* Add induction cooktop

9. Mechanical Systems

- *Good:* High-efficiency ducted heat pump or condensing gas furnace
- *Better:* Ductless heat pump, highest efficiency condensing gas furnace or inverter driven ducted heat pump
- *Best:* Add heat pump water heater or condensing tankless gas water heater

10. Solar Energy

- *Good:* PV Solar and Electric Vehicle (EV) ready
- *Better:* Zero Energy (or ZE Ready)
- *Best:* Positive Energy with Electric Vehicle (EV)