

Appendix I.

Homebuyer's Checklist

Homebuyers, take this with you when you go house shopping to make sure you get an energy-efficient home.

MEASURE	Building America Recommendations	Builder #1	Builder #2	Builder #3
HEATING AND COOLING EQUIPMENT				
ENERGY STAR qualified air conditioning of SEER* 13 or greater	Yes			
ENERGY STAR qualified heat pump	Yes			
ENERGY STAR qualified boiler	Yes			
ENERGY STAR qualified sealed combustion gas furnace of 90 AFUE* or higher	Yes			
ENERGY STAR qualified programmable thermostat	Yes			
Ductwork sealed with mastic (no duct tape)	Yes			
5% or less duct leakage found with pressure test 10% allowed if all ducts are located in the conditioned space.	Yes			
Duct Insulation: R-4 in conditioned space, R-8 in attic, R-6 in crawlspace	Yes			
House plans show duct layouts	Yes			
Ducts located in conditioned space	Yes			
Ducts sized according to industry standards in Manual D	Yes			
Heating and cooling equipment sized according to industry standards in Manual J	Yes			
House pressure balanced with jump ducts or transfer grills	Yes			
HVAC* equipment and duct work inspected and tested after installation	Yes			
Filter with MERV rating of 8 or higher installed on the central air handler	Yes			
Air handler isolated from garage by a thermal barrier (insulation) and air barrier (e.g., drywall sealed at seams)	Yes			

MEASURE	Building America Recommendations	Builder #1	Builder #2	Builder #3
INSULATION (take a look at a house under construction before sheetrock is installed)				
Insulation installed behind tubs, landings, and other hard to reach places	Yes			
Insulation fills entire cavities—no voids or compressed batts—Attic insulation level without gaps and covers entire attic floor	Yes			
Where fiberglass batt insulation is used it is high-density	Yes			
Rim joists are insulated	Yes			
Rigid foam insulation applied under exterior siding or stucco	Yes			
WINDOWS (take a look at a house under construction before exterior siding is installed)				
ENERGY STAR qualified windows, doors, and skylights	Yes			
Windows flashed to help repel water	Yes			
Windows rated to U-factor of 0.40 or less and SHGC of 0.40 or less	Yes			
MOISTURE MANAGEMENT (take a look at a house under construction before exterior siding is installed)				
Ground slopes away from house	Yes			
Housewrap, building paper, or rigid foam exterior insulation, taped at seams and caulked at edges, covers OSB walls in wood-framed houses	Yes			
Roof flashing in valleys, where walls and roofs intersect, and at other places where water may enter the house—the more complex the roof, the more flashing you should see	Yes			
Air gap between stucco, brick, or masonry cladding and housewrap	Yes			
Overhangs for shade and to direct water away from walls	Yes			
Trees planted ten feet from house, no overhanging branches	Yes			
Plantings 18 to 36 inches away from the foundation	Yes			
No wood or siding in direct contact with ground	Yes			
AIR BARRIERS				
Follow ENERGY STAR Thermal Bypass Checklist	Yes			
All penetrations through exterior walls sealed	Yes			
Careful sealing of sheetrock or exterior sheathing	Yes			
Canned lights rated as airtight and for insulated ceiling (ICAT)	Yes			
Electrical boxes on exterior walls caulked or gasketed	Yes			
Holes into attic sealed	Yes			
Attic hatch weather-stripped and insulated	Yes			
Air leakage determined with house depressurization test	Yes			
Wall-roof intersection carefully sealed to avoid ice dams	Yes			
Draft stops installed behind tubs, showers, stairs, and fireplaces	Yes			
Garage completely sealed from conditioned areas of house	Yes			
Careful sealing around bathtubs, landings, fireplaces, kneewalls, cantilevered floors, etc.	Yes			
Sill plates gasketed or sealed	Yes			

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FOUNDATION MEASURES				
Radon control measures installed	Yes			
4 to 6 inch gravel base under slab and basement floors	Yes			
Polyethylene (plastic) vapor barrier between gravel and slab	Yes			
Conditioned crawlspace	Yes			
Exterior slab insulation	Yes			
Termite flashing added at sill plate	Yes			
PLUMBING				
No pipes in exterior walls	Yes			
Pipe insulation	Yes			
VENTILATION				
Whole-house mechanical ventilation installed	Yes			
Spot ventilation installed in kitchen and bathrooms	Yes			
Clothes dryers are vented to the outside	Yes			
Gas-fired furnaces or water heaters sealed combustion, direct vented, or power vented	Yes			
Carbon monoxide detector installed in homes with a combustion appliance or attached garage	Yes			
Attached garages are ventilated	Yes			
FRAMING				
Use Optimum Value Engineering (also called Advanced Framing): - 2x6 24 in. oc instead of 2x4 18 in. oc studs - Align framing members from floor joists to wall studs to rafters - Use single top plates and single headers where possible - Use two-stud corners and drywall clips instead of 3-stud corners	Yes			
OTHER				
Low VOC interior coatings	Yes			
Low VOC adhesives	Yes			
Low emission cabinets	Yes			
CFL lighting	Yes			
OTHER FEATURES FOR COMPARISON				

*SEER: Seasonal Energy Efficiency Ratio | *AFUE: Annual Fuel Utilization Efficiency | *HVAC: heating, ventilation, and air conditioning