

Efficient Heating and Cooling

- Properly sized heating and cooling system in accordance with "Manual J" method of the Air Conditioning Contractors Association (a right-sized A/C runs longer than an oversized unit, but uses less energy and runs more efficiently).
- The air conditioner has a cooling efficiency of 13 SEER or higher.
- Return air ducts or transfer grills in every enclosable habitable room (not including bathrooms, kitchens, closets, pantries, laundry rooms).
- A programmable thermostat is installed.
- Ceiling fans installed in all major rooms.

Airtight Ducts

Most houses lose 25% of their conditioned air through leaks in the ductwork. This affects utility bills, air quality and health.

- Ducts have a min. R-4.2 insulation in conditioned spaces and min. R-8 insulation in unconditioned spaces such as attics.
- The ducts have been pressure-tested for leaks by a qualified technician.

Air Filters

A good air filter improves the quality of the air you breathe and increases the life span of the heating and cooling equipment.

- Air filters have a min. MERV (Minimum Efficiency Reporting Value) rating of 8.
- Filters are readily accessible and easy to change.

Efficient Lighting, Appliances, and Plumbing Fixtures

- Energy Star labeled light fixtures.
- Individually switched task lighting in at least 3 areas such as bathroom vanity, kitchen counter and work areas.
- Energy Star labeled appliances.
- High efficiency faucets/showerheads (less than 2.5 gal/minute) and toilets (1.3 or less gal/flush).
- Hot water demand-controlled recirculation pump when water heater is located more than 20 feet from the furthest fixture served. A manual control or occupant sensor switch should be installed to operate the pump with an automatic temperature sensor shut-off.



THE RIGHT ECONOMY

Using local businesses and products keeps the local economy healthy, while reducing the effects of transportation on air quality.

- House is built using native and local/regional materials such as masonry, mesquite, paving stone, earthen walls and/or recycled content materials.
- Construction of the house uses local businesses, tradesmen, artists and artisans.



HOW TO BUY A GREEN HOME

The City of Scottsdale Green Building Program has a directory of local designers and builders who have designed and built qualified projects under Scottsdale's green home rating checklist.

- Request a Green Building Designer and Builder Directory.
- Look for Green Building features in the sales literature of the homes you are considering.
- Review and/or inspect homes with this buyer's guide in hand.

A GREEN HOME IS ...

- ✓ Healthy for your family and the environment.
- ✓ Economical because it's energy and water-efficient.
- ✓ Environmentally responsible because of resource efficient and low impact materials.
- ✓ Comfortable and durable.
- ✓ Low maintenance.

GREEN BUILDING EVENTS

- Monthly Green Building Lectures
- Monthly Solar Lectures
- Annual Green Building Expo Every Fall

For more information on Green Building:

Visit the Scottsdale's Green Building website at www.scottsdaleaz.gov/greenbuilding
Or call 480-312-7080

Green Home Buyer's Guide

Sustainable Building In the Sonoran Desert

SCOTTSDALE



GREEN BUILDING PROGRAM

SEE IF THE HOUSE YOU ARE CONSIDERING HAS THESE FEATURES



The Right Site and Location

The right location for your home improves your quality of life. A site with smart design is important to making your home comfortable, affordable and attractive.

- Home is designed with minimum impact on site topography and natural drainage ways.
- All exterior entrances are protected from direct summer sun by means of recessed or covered design elements.
- Home is designed with protected outdoor living areas (semi or fully covered patio, porch, trellis, shade trees, courtyard).
- Shade trees are planted on the east and west sides of house.
- Water-efficient landscaping (xeriscape).
- Plants, shrubs and trees selected for the Sonoran Desert.
- Gutters and downspouts are located to direct water away from the house and to vegetated areas.
- Zoned irrigation system designed with multiple control valves (to accommodate specific water needs of different types of plants), rain sensor shut-off and a timer with multiple start times.
- Located in an existing community on previously developed land.
- Farmers' markets in the area.
- City offers a recycling program.
- Neighborhood is conducive for walking and biking.
- House is located in close proximity to services and activities. Consider the distance to work, school, shopping, entertainment, trails or parks, and public transportation.



THE RIGHT DESIGN

Comfort and economy are possible when a house is designed for its site and climate.

Minimal Solar Heat Gain

- All exterior entrances are protected from direct summer sun by recessed or covered design elements.
- The longest walls of the house face north and south (not always possible due to lot/street orientation and topography).
- Few windows are located on east and west sides of house. Most windows face north and south.
- Windows are shaded by overhangs, porches, awnings, trellises and/or trees (exterior shading devices are better than interior shading devices).
- The garage, storage, service areas, and/or infrequently used rooms are positioned on the west side as thermal buffer.

Maximum Natural Light and Ventilation

- Most rooms have windows on at least two sides for daylighting.
- All of the windows are operable and positioned for cross ventilation.
- High windows are operable, to vent out hot air during appropriate seasons and times of day and evening.



THE RIGHT EXTERIOR

Look for a third-party energy performance inspected and tested home including such programs as Energy Star, Environments for Living and LEED for Homes.

A Cool Shell

- Light-colored surfaces for walls and roofing to reduce heat gain. Look for Energy Star or Cool Roof labeled roofing.

Optimal Insulation

- The attic insulation is at least R-30 and is evenly distributed.
- Radiant barrier is used in attic to protect against radiant heat build-up (most effective in vented attics).
- The wall insulation is a type that fills every hole, crack, and void (min. R-13 for 2X4 framed walls and R-19 for 2X6 framed walls).

High Performance Windows

- Windows are double pane with low-e coating or solar screen (except on the south side where warmth from the low winter sun is desired).
- Minimum use of skylights to reduce heat gain (consider light tubes instead).

Durability

- The roof has a min. 35-year life warranty (shingle, tile or metal).
- High durability/low maintenance roofing materials such as concrete, clay, metal, slate, fiber-cement.
- Reusable/recyclable roofing materials such as metal or concrete tile.



THE RIGHT INTERIOR

Using the right materials can improve indoor environmental quality and therefore improve health, safety and comfort.

Healthy Interiors

- Carbon monoxide (CO) detector installed at the house/garage entry door and within each room where combustion appliances are used (not including sealed combustion appliances).
- Exhaust fans expel moisture and odors to the outside in bathrooms, kitchen and laundry areas (min. 50 cubic feet/minute for bathrooms and min. 100 cubic feet/minute for kitchens).
- Flooring is mostly a hard surface, such as concrete, tile or wood.
- Carpeting and padding is certified under the Carpet and Rug Institute (CRI) "Green Label" program.
- Consider flooring made from rapidly renewable materials (bamboo, linoleum, cork, wool or other materials that regenerate within a 10-year cycle)
- Consider wood flooring from a sustainable managed forest (protects regional biodiversity, soil erosion, water quality) that is certified by the Forest Stewardship Council (FSC) or Sustainable Forest Initiative (SFI).
- Consider regional materials made within 500 miles (using regional materials supports the local economy and reduces transportation impacts and costs).
- Exclusion of vinyl wallpaper that can trap moisture in walls.
- Paints, finishes, and glues contain low or zero volatile organic compounds (VOC's less than 250 grams per liter). VOC fumes can cause headaches, allergic reactions and other health effects.