



Pazzo di Terra
Creating sustainable
& energy efficient homes

Green Point Rated Information Sheet

These days, it seems like everyone's talking about green homes, and for good reason. Environmentally friendly homes not only save resources and money, they can last longer, be healthier and more comfortable, and hold their value better than similarly priced homes. But how can you tell if a home really is green? Enter GreenPoint Rated. GreenPoint Rated removes the guesswork by having a Certified GreenPoint Rater evaluate a home's green features allowing homes to be compared on a level playing field. GreenPoint Rated rewards building professionals and homeowners who create green homes by allowing them to brand their products with a recognizable, trustworthy seal of approval. Think of GreenPoint Rated as a report card for a home. A GreenPoint Rated home is graded on five categories

- Energy Efficiency
- Resource Conservation
- Indoor Air Quality
- Water Conservation
- Community



Energy Efficiency

Improved comfort and lower energy bills

New houses in California must be built to the most stringent energy code in the country, but given the state's projected population growth, even this may not be enough to keep demand for energy in check. Generation and use of energy are major contributors to air pollution and global climate change. With homes accounting for roughly 31% of the electricity consumed in the state, it is clear that homebuilders have a significant role to play in helping our society address energy-related concerns now and in the coming decades.

Energy efficiency is the cornerstone of every green home. Improving energy efficiency and using renewable energy sources are effective ways to reduce the potential of energy supply interruptions, improve air quality, reduce the impacts of global warming, and slow the rate at which we need to build new power plants.

Energy efficiency also makes good sense for homeowners: an energy-efficient house saves money by reducing utility bills year after year, and provides other valuable benefits. Better insulation, for example, reduces uncomfortable drafts, and double-pane windows make for a quieter home.

Examples:

- Passive solar heating, overhangs on south windows, deciduous trees on west and south
- Upgraded insulation, SIPs, advanced air infiltration reduction practices (air sealing), Low-E double-pane windows
- Compact fluorescent lighting, low energy-using major appliances
- High-efficiency furnace or zoned, hydronic radiant heat; Tankless water heater
- Whole house fan, solar attic fan
- Solar water heating, photovoltaic system (solar panels), wind turbines

Resource Conservation

Wise resource use for future generations

Conventional building construction and operation consumes large quantities of wood, water, metals, fossil fuels and other natural resources. Even though the majority of the materials used to build a home are put to good use, vast quantities of resources are wasted. In fact, building an average 2,000-sq. ft. house produces about 7,000 pounds of waste.

Much of this waste is avoidable. Careful management of the construction process makes a big difference. There are also many well-established homebuilding practices that help protect natural resources. For example, advanced framing techniques can substantially reduce lumber requirements without compromising structural integrity. Using engineered lumber and wood products certified by the Forest Stewardship Council can help protect old-growth forests.

There are many effective building strategies that conserve natural resources, as well as provide benefits such as cost savings. These include using durable products such as roofing materials with 40- or 50-year warranties, and specifying recycled-content products that divert waste from landfills. Recycled-content decking, reclaimed lumber and other products

put waste to good use, while providing quality and durability that often exceed conventional materials. For example, decking materials made of recycled plastic mixed with wood waste fibers can last up to five times longer than wood decking, and never needs to be treated or painted.

Examples:

- Reuse/recycling of C&D (construction & demolition) waste
- High-volume recycled flyash in concrete (min. 25%)
- Reclaimed lumber, flooring, millwork, and other reused or salvaged materials
- FSC-Certified wood, engineered lumber, Advanced Framing techniques
- Recycled-content decking, ceramic tiles, glass tiles or counters, carpet, etc.
- Rapidly renewable flooring: cork, linoleum, bamboo, natural fiber carpet

Indoor Air Quality

Safe, pleasant and healthy homes

On average, Americans spend 90% of their time indoors, yet the air in new homes can be ten times more polluted than outdoor air, according to the U.S. Environmental Protection Agency. Children are particularly vulnerable when it comes to air pollution. A report in the New England Journal of Medicine states that 40% of children will develop respiratory disease, in part due to the chemicals in their homes.

A common source of indoor air pollution is the offgassing of chemicals found in many building materials. Kitchen cabinets, countertops, shelving and furniture may be made from particleboard or medium density fiberboard. These pressed-wood products are typically made with adhesives that release urea formaldehyde a known human carcinogen, into the home for years after installation. Also, many paints, floor finishes, adhesives and sealants emit unhealthy volatile organic compounds (VOCs). That "new house smell" is a telltale sign that there are harmful chemicals in the indoor environment.

Fortunately, the building products industry is responding to these indoor pollution problems by developing safer products, including low-VOC paints, cleaners and adhesives. These products are now commonly available from most major suppliers at costs comparable to conventional products. California also now has specifications available for some materials to assure that they are low emitting and safe.

Poor indoor air quality is also often caused by biological contaminants, such as mold that grows as a result of moisture infiltration due to inadequate ventilation, poor design and

maintenance, and other factors. Dust, another major source of air pollution inside homes, can be reduced by installing permanent front door walk-off mats and by using hard surface flooring materials such as natural linoleum, bamboo, wood or wood alternatives, or concrete.

Examples:

- Low or no-VOC paint, wood finishes, & adhesives; avoid products with added formaldehyde
- Mechanical ventilation system, heat recovery ventilation unit, sealed-combustion furnace and water heater
- Range hood and bath fans vent to outside, bath fans automatically controlled with a timer or humidistat
- No wood-burning fireplace, or retrofit wood-burning fireplace with EPA certified wood stoves/inserts

Water Conservation

Protection and conservation of water supplies

Water is another critical resource. California residences use 5.6 million acre-feet of applied water annually. Our prosperity and ability to meet the needs of our growing population hinge on having adequate supplies of clean, fresh water. Homes built and landscaped to use water wisely make a tremendous contribution to protecting our shared resources. An added benefit is lower expenses for the homeowner. Today's builders can take advantage of a new generation of cost-effective, high efficiency appliances and landscape water management systems.

Examples:

- Ultra-low flush or dual-flush toilets, fixtures with below standard flow rates (showers<2.5gpm, faucets<2.2gpm)
- Grey water system, rainwater harvesting system, low-water landscaping, native landscaping, high efficiency irrigation system, smart irrigation control, no irrigation
- Living "green" roof, storm water management (e.g. bio-swales, permeable paving)

Livable Communities - Builders - Architects - City Planners - Developers

Better neighborhoods and quality of life

California's homebuilders and homebuyers are making decisions today that will affect the quality of our lives for decades to come. New construction, whether of a single home or a large development, contributes to the state's economic vitality and helps meet our pressing need for more housing. At the same time, every new home places additional demands on

our supplies of land, water and energy, and on our infrastructure of roads, sewers and other services.

Green building offers homebuilders, community leaders and California residents sensible solutions that improve an individual home's performance and provide broad based community benefits. These benefits range from cleaner air to reduced traffic congestion, from more appealing recreational opportunities to greater economic vitality.

For local municipalities, green building can provide many economic benefits. Developments designed to reduce dependence on cars help ease traffic congestion, which can improve business productivity. Mixed-use developments encourage economic vitality and a diversified municipal tax base. Infill projects help revitalize older urban areas and allow public funds to be used for upgrading existing services such as schools, transit and sewers, rather than diverting limited funds to the development of new services.

For California residents, developments designed to cluster homes help preserve open space for recreation, views and natural habitats. Pedestrian- and bicycle friendly neighborhoods provide people with opportunities to exercise and get to know their neighbors. Higher density urban infill developments allow people to live closer to where they work, shop and go to school, which means less time spent driving and more time for family, community and personal activities.

Clearly, green building cannot solve all the social, economic or environmental challenges facing California's communities. Still, green building gives homebuilders a valuable set of strategies for meeting residents' expectations for livable, healthy, sustainable communities.

Examples:

- Broader site considerations (as applicable) such as infill or mixed use developments
- Keep size in check--conserve resources by increasing density on buildable land (i.e. 10 units per acre or greater)
- Design for diverse households; ADA-compliant