

Chapter Two:

How to Start Building Green

These Guidelines are for developers, builders and homeowners planning to construct a single-family residential project in California. The Guidelines provide a range of green building practices that can be implemented by people who are new to green construction as well as those aiming for higher levels of building performance.

“Ponderosa Homes believes green homes are kinder to the environment and provide substantial economic and comfort benefits. Homeowners can expect lower utility bills, higher resale values and reduced maintenance.”

—Dennis Swickard, Ponderosa Homes

How to Start Building Green

For building professionals, building green involves new ways of thinking about common building practices. Generally, it is best to build from your existing market base, adding green features as the market evolves and matures. If you start gradually, you are less likely to make expensive mistakes. It is critical to carefully consider the changes you make and the additional costs you might incur. The earlier you start integrating green strategies into your building process, the less it may cost you and the consumer in the long run.

Local governments can facilitate green building by providing educational opportunities and considering incentives for better quality construction. Builders value incentives that save them time in the development process or allow them to differentiate their homes in the marketplace. Incentives can include streamlined or expedited permitting, offering community recognition or partnering with organizations that offer consumer marketing programs.

Taking steps toward building green

The measures in these Guidelines range from basic, common sense recommendations such as venting bathroom fans to the outside, to more sophisticated strategies such as installing renewable energy systems.

No matter where you are on the green building spectrum—from novice to expert—you will find resources, design ideas, and real-world advice that you can put to use today.

If you are new to green building, you can start taking steps right away toward creating healthier and more energy- and resource-efficient homes. Inside these Guidelines, you'll find many strategies that are easy to implement and add virtually no cost.

As your team's experience with green building grows, you'll likely find yourselves scaling up to even healthier and more effective design and construction practices. The GreenPoint Checklist in Chapter Three provides a very convenient way for you to track green features in a particular project, as well as benchmark your progress over time as you and your company gain experience with green building.

If you are experienced with building green homes, some of the approaches and practices recommended here may already be part of your daily practice. In that case, these Guidelines will help you employ more advanced green-building strategies that will reinforce your organization's leadership position.



What's Inside the Guidelines

The measures in these Guidelines are listed in the Single-Family GreenPoint Checklist (Chapter 3) and described in detail in Chapter 4. The measures are grouped into sections corresponding to the various stages of construction. This organization will help you understand which green building measures can be incorporated at various points of a construction project. However, it's essential that each measure be considered and planned for holistically prior to designing a home.

These Guidelines also include some sidebars titled "Building Basics." They are included for general educational purposes and are not listed in Single-Family GreenPoint Checklist.

The sections are briefly summarized here:

Community Design and Planning. These measures are not part of the GreenPoint Checklist because they may not be in the developer's or builder's control. This section includes strategies to help preserve open space; promote social interaction, physical activity and community safety; and make homes more accessible to people of all physical abilities.

A. Site. Site measures include recommendations for managing the construction process to minimize disruptions to the building site, reduce waste, and prevent pollution of air, soil and waterways.

B. Foundation. New-home builders have the opportunity to make the buildings green from the ground up. This section includes suggestions for incorporating recycled flyash in concrete, using frost-protected shallow foundations in cold climates, and installing radon-mitigation measures where appropriate.

C. Landscaping. These measures offer strategies to keep pollutants out of waterways, reduce water use, promote healthy soils, create fire-safe landscaping, and reduce excessive outdoor lighting.

D. Structural Frame and Envelope. These measures address the building's structural frame, including the walls, floors and roof. Following these recommendations will result in more durable buildings that use energy and other resources more efficiently.

E. Exterior Finish. This section focuses on siding, roofing and decking materials that will hold up well for decades and help protect the home from moisture damage, fire, and general wear-and-tear.

F. Insulation. The measures in this section encourage proper insulation installation techniques, and the use of insulation products with recycled content and low or no formaldehyde emissions.

G. Plumbing. This section addresses ways in which builders and homeowners can save water and energy by designing the plumbing system to reduce hot-water runs, insulating hot water pipes and installing water-efficient toilets.

H. Heating, Ventilation and Air Conditioning. These measures provide two main, and complementary, benefits: energy efficiency and better indoor environmental quality. Houses with high-efficiency heating and cooling equipment tend to be more comfortable. Effective ductwork and ventilation provide better indoor air quality.

I. Renewable Energy. These measures describe solar hot water systems that reduce water heating energy costs, and photovoltaic systems that generate electricity from sunlight.

J. Building Performance. This section provides cost-effective recommendations for designing and building high performance homes that meet or exceed the state's building energy efficiency standards.

K. Finishes. Many conventional interior materials, including particleboard, paints and sealants, offgas noxious chemicals into the home. Most of the measures in this section describe healthier options for paints, trim, cabinets and countertops that perform well and are readily available. Other measures promote environmentally preferable materials for interior finishes.

L. Flooring. This section provides recommendations for a wide range of finish flooring materials that are attractive, long-lasting and environmentally friendly.

M. Appliances. High efficiency residential appliances can significantly cut a home's energy and water use. This section recommends choosing dishwashers, clothes washers, and refrigerators that exceed minimum federal efficiency standards.

N. Other. This section encourages innovative approaches to green building that go beyond the basic measures described in these Guidelines.