

How to Use This Manual

This guide is not a technical details construction manual. Instead, its purpose is to serve as a comprehensive planning and analysis tool. It is designed to introduce homeowners, as well as homebuilders and designers, to:

- Advantageous components of a *sustainable* house in the Gulf Region.
- A range of ways to address the criteria — from low-cost options to higher-end, high-performance solutions.
- Basic principles of building science that should be considered when choosing and installing any building system or technology in a hot-humid or mixed-humid climate.

To present this information in a useful and meaningful manner, it is organized by the above criteria of a sustainable Gulf Region house. Strategies and features that address each criterion are listed in the Sustainable, High Performance House Checklist and briefly described in the Reference Guide. This is designed to link components with their primary advantages to help you explore options for achieving each criterion. Keep in mind, however, that the various elements are interrelated, and many affect multiple criteria.

Study the Key Building Science Principles section first to gain a basic understanding of why some things “work” and some don’t. Building a house in the Gulf Region the way they do it in other parts of the country can be disastrous. Basic principles of building science apply to all building systems. Your understanding of them is your first defense against building failures and your key to making choices that are a good investment.

Use the Checklist to explore and select components of a sustainable, high-performance house – then use it again to evaluate a set of construction plans. It is designed to be photocopied and used as a handy planning tool. The checklist includes both basic recommendations and some currently available higher-performance solutions to help you balance and integrate the criteria in your new home. Other products and systems or new developments not included in the checklist may also offer good solutions. Apply the principles of building science to evaluate them.

Refer to the Reference Guide for more information about items on the checklist. It is organized in the same sequence as the checklist; the banner at the top of each page identifies the corresponding segment of the checklist to help you locate the item of interest. The Reference Guide provides a brief explanation of each segment of the checklist and defines the abbreviations and terms used in it.

Take Advantage of Incentives

Seek out incentive programs that could help you create a high-performance home. Possibilities include federal and state tax credits for energy efficiency or renewable energy technology (solar, wind, etc.); property and flood insurance premium discounts for hazard-resistant features or homes that are certified by a third party to meet specific criteria – such as *EnergyStar*, *Health House*, *Fortified...for Safer Living*; or various green building programs (such as the new national *Green Building Standard*, the U.S. Greenbuilding Council’s *Leadership in Energy and Environmental Design (LEED for Homes)* program, the Southface *EarthCraft House* program, National Association of Home Builders *NAHB Model Green Home Building Guidelines*, *Florida Green Building Coalition* and others).