

[focus section]

# Aesthetics and Performance

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# CHOOSING WINDOWS

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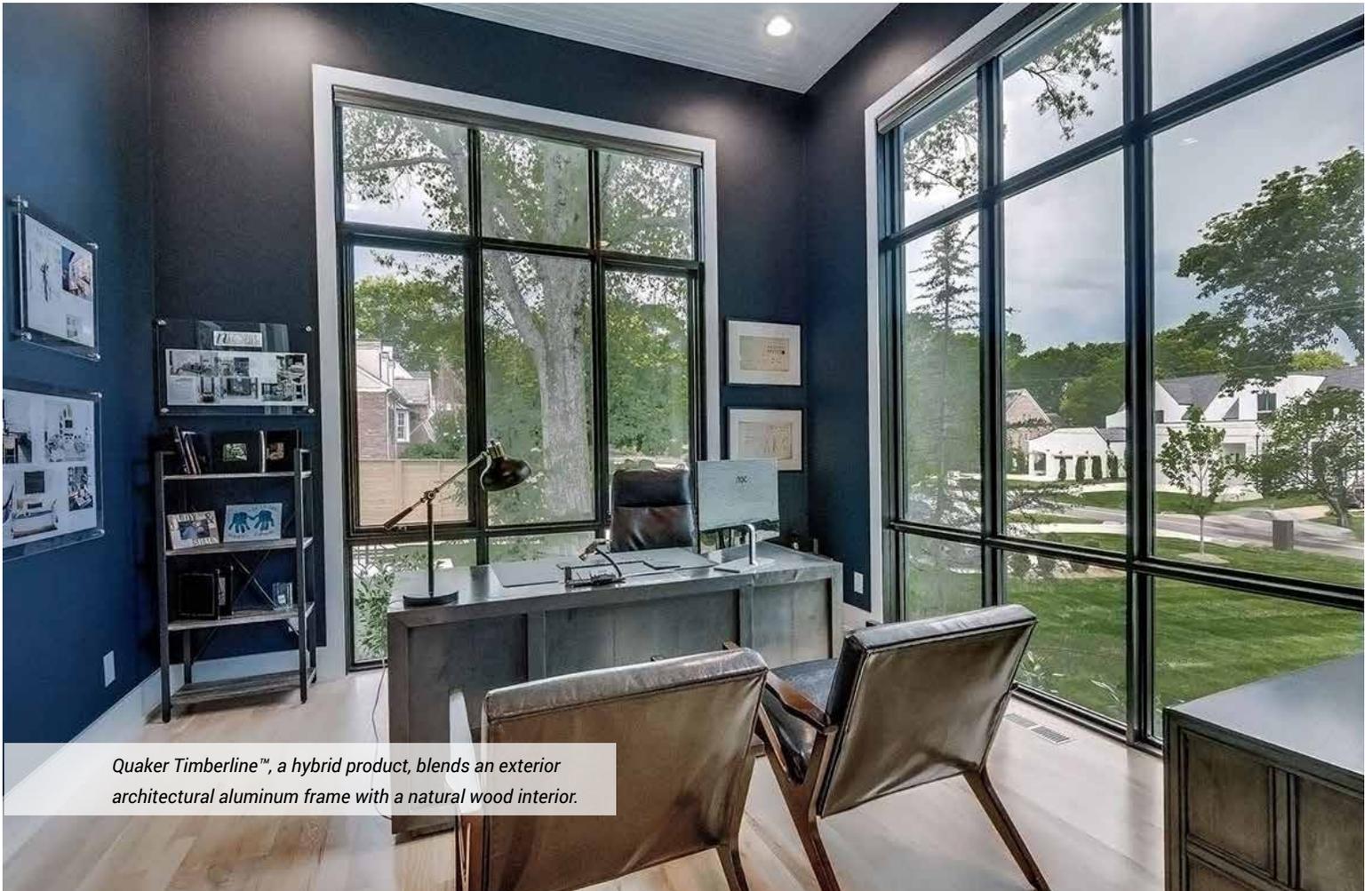
# & DOORS WISELY

By Beverly Smirnis .....

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## ***What's Hot? Thin Window Frames in Dark Colors***

The desire for seamless connections between indoor and outdoor spaces drives the thin-frame trend for windows and patio doors. A narrower frame means more glass area—maximizing natural light inside the home with less visual obstruction. Dark frame colors, especially black, are another trend not likely to abate any time soon. For entry doors, the hot style is to have no added embellishment or frame around the glass.



*Quaker Timberline™, a hybrid product, blends an exterior architectural aluminum frame with a natural wood interior.*



*SteelVu Windows, part of the Quartz Collection EdgeLine™ series from Quaker, combines thermally-advanced architectural aluminum construction with contemporary narrow sightlines – an alternative to traditional steel windows offering the industrial look often seen within historic architectural builds.*



*PlyGem's MaxView sliding patio doors have a streamlined aluminum frame that creates a wall of glass to optimize your view and light while connecting indoor and outdoor living areas.*



*Classic Craft® Founders Collection™ Mahogany-Grained Arch-Lite Double Doors feature glass built directly into the door to mimic historic wood doors with the superior benefits of fiberglass.*

### **Ratings: Know Your Lows and Highs**

No matter how beautiful a window, door or skylight product may present itself, poor performance will quickly diminish that beauty. The good news is—you don't have to choose between taller, wider windows and broader expanses of glass and energy efficiency, comfort and performance. Window manufacturers continue to roll out windows, doors and skylights with advanced engineering and technology that make modern fenestration products vastly superior to older ones.

Energy performance ratings of windows, doors, and skylights relate to their potential for gaining and losing heat, as well as transmitting sunlight into your home. The National Fenestration Rating Council (NFRC) operates a voluntary program that tests, certifies, and labels windows, doors, and skylights based on their energy performance ratings, providing a reliable way to determine a window's energy properties and to compare products. Keep in mind that you may choose a different window for different areas of your home, according to the amount of direct sun or way the property is facing.

Energy Star® bases its qualification only on U-factor (how much heat energy is lost or gained) and solar heat gain coefficient, SHGC, ratings (the amount of solar heat transmitted.). The lowest numbers are the best numbers on these. National Version 3.1 requires U-Values of .30 or less for Climate Zone 3 (North Texas) and .40 for Climate Zone 2 (South Texas). A SHGC of .25 is required for both North and South Texas. These requirements apply to site-built and modular single family homes, duplexes and townhomes. Low-rise multifamily projects permitted prior to July 1, 2021, may also be certified through this program if they meet the eligibility requirements defined in the program requirements.

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***The NFRC label may also rate air leakage, assuming proper installation, expressed in units of cubic feet per minute per square foot of frame area (usually ranging from 0.1 to 0.3).***

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The sunlight transmittance ratings expressed on NFRC labels indicate the ability of glazing in a window, door, or skylight to transmit sunlight into the home. Visible transmittance (VT) is expressed as a number between zero and 1, with a higher VT transmitting more visible light. Light-to-solar gain (LSG) is the ratio between SHGC and VT to gauge the relative efficiency of different glass or glazing types in transmitting daylight while blocking heat gains. You're looking for a higher number on LSG to give you the most light transmitted without adding heat.

Condensation resistance is another measurement expressed on the NFRC label, indicating how much moisture can build up on a window's surface, measured on a scale of 1 to 100. Here, a higher number is desired. The lower the number, the more condensation you can expect to see.

Energy Star's window and door insulation levels are modeled to 2012 IECC levels and Grade I installation per ANSI / RESNET / ICC Standard 301. Infiltration rates must not surpass 3 ACH50 in CZ 3, and 4 ACH50 in CZ 2.

### Look For Problem-Solving Solutions

Say goodbye to cumbersome cranking and hello to a simpler way to open and close windows. Pella was the first to introduce the Fold-Away style crank for casement and awning windows in 2000, setting a new standard for hardware design. Now, 20 years later, Pella has designed an even simpler and aesthetically pleasing way to operate casement and awning windows. The Pella® Easy Slide Operator was named Best Window & Door Product in the Best of IBSxT Awards for the 2021 NAHB International Builders' Show®. This hardware is a new way to open and close casement and awning windows. It allows homeowners to easily slide the operator up to open and down to close – a much smoother movement without continuous cranking.

Multipoint locks provide extra security and performance for entry doors with two additional locking points in addition to your deadbolt. These extra points provide protection on multiple levels: deflecting impact during attempted break-ins and forming a more perfect seal against the elements by pulling the door into alignment. While most multipoint lock systems require extra steps to engage and disengage the extra bolts, PanoLock delivers full protection from all three locking points with a simple turn of the key.

FusionFrame takes the rot-proof perks of a composite frame and adds the structural stability of wood frames, combining them into a winning combination that's built to last no matter the conditions. FusionFrame's unique design adds a level of structural rigidity that's built to last, even in extreme heat or cold. Features such as the built-in bubble level and "floating" brickmould make installation quick and easy even when the rough opening conditions are less than perfect. Hidden fasteners create a flawless maintenance-free finish.

Alside's Mezzo Full-Frame Replacement System with Trimworks can save up to 20-40 minutes of installation time per window—reducing waste materials and eliminating the need for special equipment, training or time-consuming cutting and mitering.



*Alside's Mezzo Full-Frame Replacement System with Trimworks prefabricated trim that simply snaps on to the newly installed window frame saves labor costs and reduces waste.*



*The Pella® Easy Slide Operator hardware is a new way to open and close casement and awning windows.*



*Available in prefinished white or textured stainable, FusionFrame door frames are available with a full offering of rippable jamb widths, plus a broad selection of brickmould, casing, and mulls.*



*While most multipoint lock systems require extra steps to engage and disengage the extra bolts, PanoLock delivers full protection from all three locking points with a simple turn of the key.*

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**The Bottom Line:** Think big, go thin, choose a frame color that makes a statement, compare labels and look for clever product designs that make installation and operation easier.

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**Beverly Smirnis is the co-founder of Building Savvy magazine and publishes its flagship Dallas/Fort Worth edition. She and her business partner and husband, Steve Smirnis, have served as judges for the International Builders' Show Best of IBS Awards and judged numerous homes for builders association parade events across the country.**