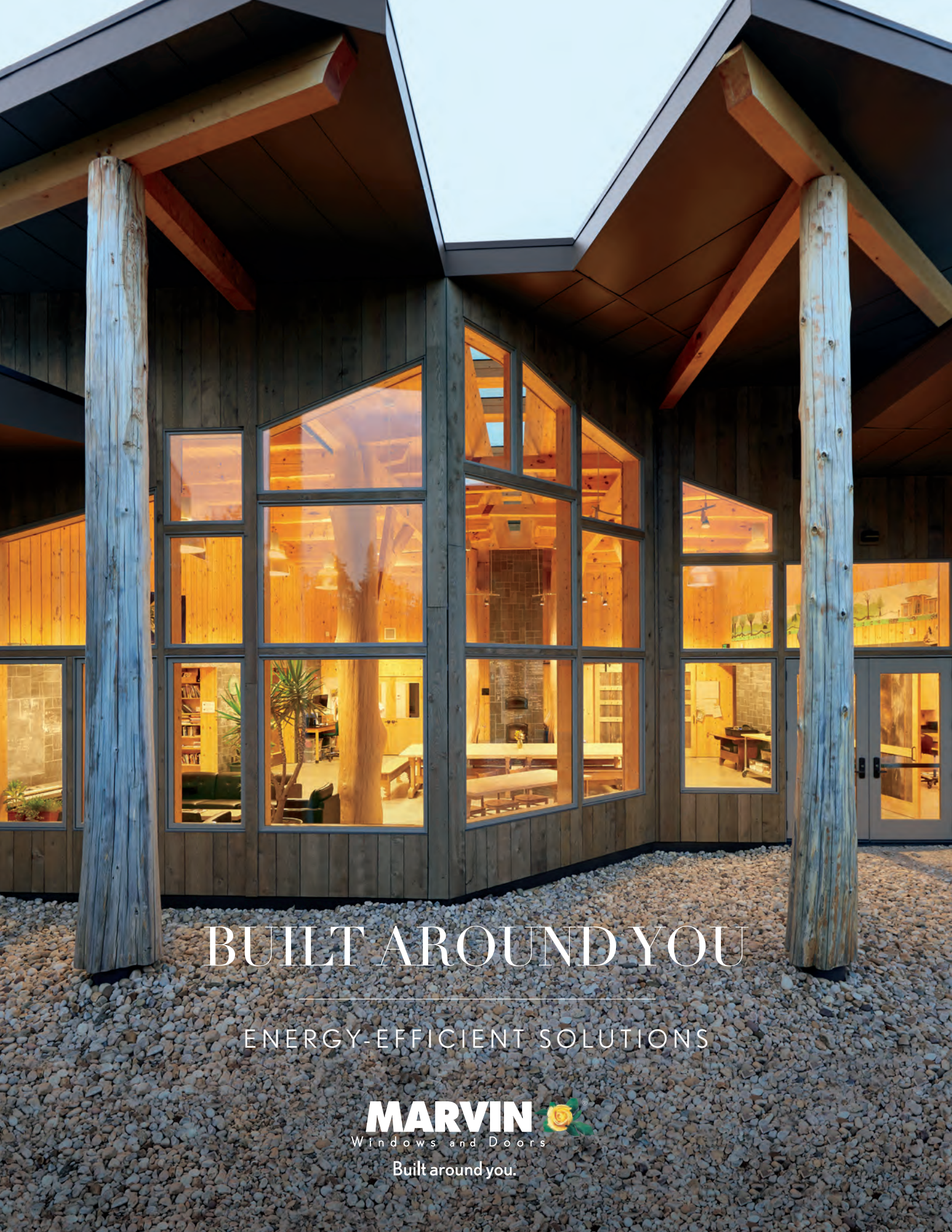
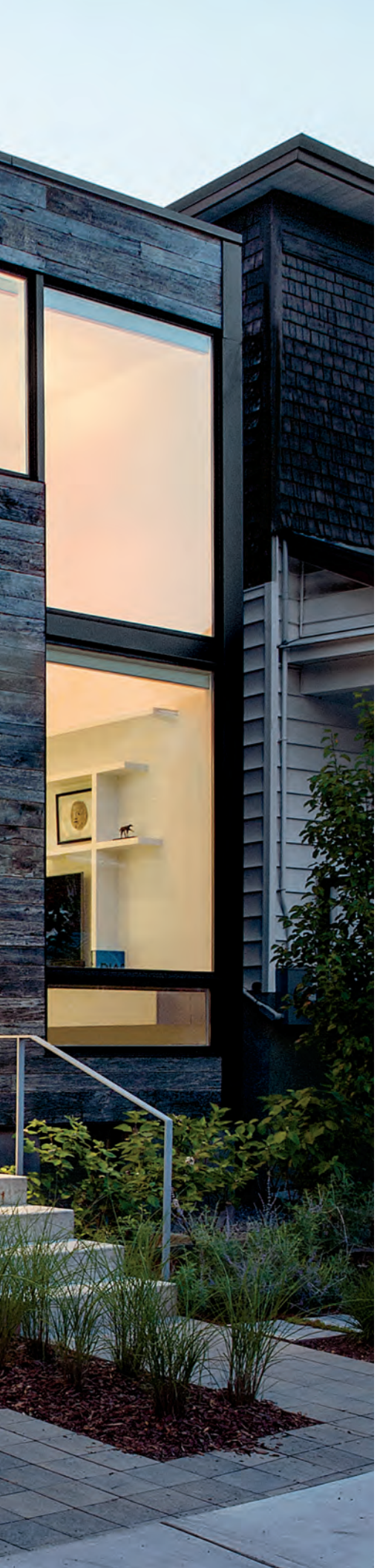

BUILT AROUND YOU
ENERGY-EFFICIENT SOLUTIONS
MARVIN
Windows and Doors
Built around you.®

ZEN BARN RESIDENCE - OTTAWA, ON CANADA

PROJECT TYPE: Residential, Certified LEED® Platinum
ARCHITECT: Christopher Simmonds Architect Inc.

With an estimated 19% reduction in greenhouse gas emissions compared to an average home and a 46% reduction of energy consumption, the Zen Barn achieved an EnerGuide rating of 82 – which is 10 points higher than that required by the Ontario Building Code.



ENERGY EFFICIENCY

BUILT AROUND YOU.

Marvin® windows and doors are made-to-order to suit the aesthetic preferences and performance requirements of each customer. Our products are *Built around you®* – both the visible characteristics like size, color, and material; and performance features like U-factor and Solar Heat Gain Coefficient (SHGC). As an industry leader in energy efficiency, we offer a variety of flexible and customizable window and door options that help customers balance their initial product investment with long-term performance and energy cost savings. Select or combine options to meet the demands of any residential or commercial location, project, climate, or budget.

22,612 CERTIFIED WINDOW AND DOOR PRODUCT/GLASS OPTIONS MEET A .20 U-FACTOR OR LOWER.

Marvin wood or aluminum clad wood windows and doors have a reputation for quality and durability. Marvin's thick, AAMA 2605 70% PVDF fluoropolymar finish, applied to an impact-resistant, extruded aluminum substrate, directly translates to more years of a gleaming clad exterior, backed by Marvin's 20-year warranty against loss of adhesion, chalking or fading.*

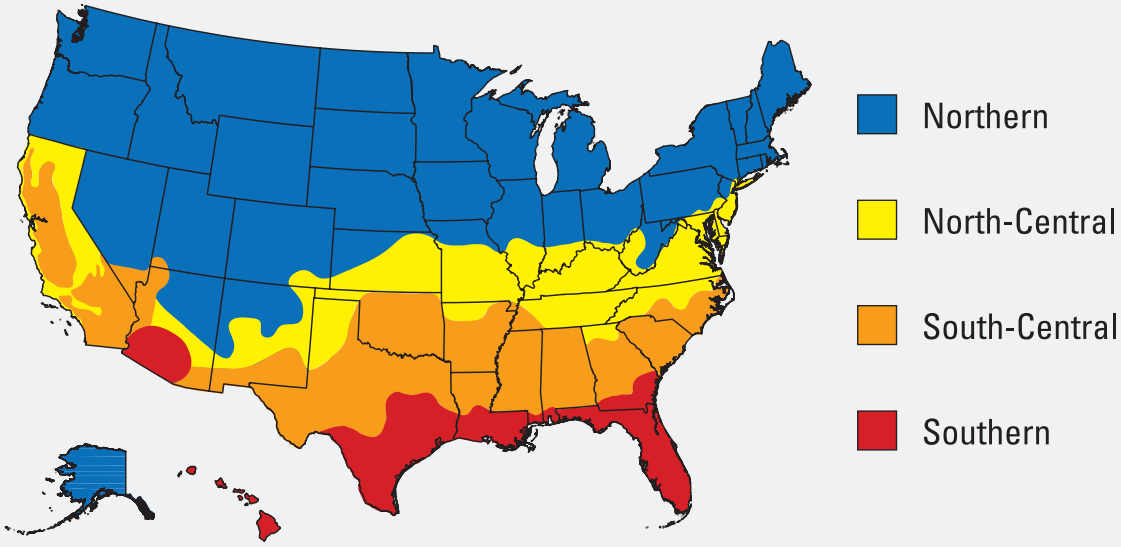
Contact your Marvin representative to find an energy-efficient solution for your next project.

* Loss of adhesion is covered for 10 years in coastal applications. For complete warranty information see MarvinWindows.com.

ENERGY STAR

THE INDUSTRY STANDARD FOR RATING ENERGY EFFICIENCY

ENERGY STAR® criteria varies in different areas of the country to suit specific climate and energy efficiency requirements. The new ENERGY STAR Version 6.0 values bring even greater energy efficiency to all four zones of the U.S. There are Marvin® window and door products in most operating styles that meet the 2015 Version 6.0 ENERGY STAR specifications.

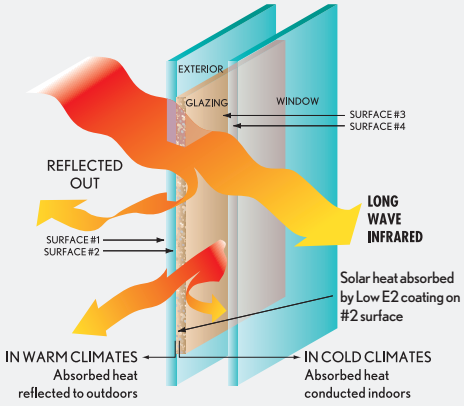


ENERGY STAR CRITERIA				
ZONE	WINDOWS		DOORS	
	U-FACTOR	SHGC	U-FACTOR	SHGC
NORTHERN ZONE	≤ 0.27	any	≤ 0.30	≤ 0.40
	= 0.28	≥ 0.32		
	= 0.29	≥ 0.37		
	= 0.30	≥ 0.42		
NORTH CENTRAL ZONE	≤ 0.30	≤ 0.40	≤ 0.30	≤ 0.40
SOUTH CENTRAL ZONE	≤ 0.30	≤ 0.25	≤ 0.30	≤ 0.25
SOUTHERN ZONE	≤ 0.40	≤ 0.25	≤ 0.30	≤ 0.25

GLASS & GLAZING

PERFORMANCE OPTIONS

Marvin® offers thousands of window and door options with two or three panes of glass and a range of glazing options to meet the performance challenges of any climate. The correct glazing selection can meet code requirements and provide optimal and cost-saving energy efficiency. Our standard glass and glazing is insulating glass with Low E2 and argon gas, but all products are made-to-order to suit the energy efficiency requirements of each individual building or project.



LOW E COATINGS MANAGE VISIBLE LIGHT AND HEAT

GLAZING OPTIONS - LOW E INSULATING GLASS COATINGS			
GLAZING	DESCRIPTION	CLIMATE	ENERGY PERFORMANCE
LOW E1	Features a single layer of metallic coating, which blocks heat loss to the outside while reflecting heat back into a room.	**NORTHERN**	low U-Factor high solar heat gain
LOW E2	Features a double layer of silver on an inside surface of IG glass. It provides year round performance and comfort. This coating option provides better protection against radiant heat transfer than single layer metallic Low E coatings.	**NORTHERN** **NORTH-CENTRAL** **SOUTH-CENTRAL**	low U-Factor medium solar heat gain
LOW E3	Features three layers of metallic silver and provides the lowest solar heat gain performance in climates where sun exposure is intense and cooling costs are high.	**NORTHERN** **NORTH-CENTRAL** **SOUTH-CENTRAL** **SOUTHERN**	lowest U-Factor lower solar heat gain
LOW ERS	A high-performance insulating glass that features a Low E coating on the room-side glass (4th surface) and Low E3 on the 2nd glass surface. Unavailable in some northern zones as condensation can be a concern in the coldest climates.	**NORTHERN (LIMITED)** **NORTH-CENTRAL** **SOUTH-CENTRAL** **SOUTHERN**	superior U-Factor lower solar heat gain

INSULATING GASES

Insulating gases are pumped into the spaces between panes of glass to slow the transfer of heat, increasing the insulating power of a window or door. Marvin products contain argon gas as our standard insulator, but we also offer a krypton/argon/air blend for even greater energy efficiency. The addition of krypton to this gas blend lowers the U-factor and increases the insulating capabilities in narrow airspaces.

ENERGY STAR

MOST EFFICIENT

The ENERGY STAR® Most Efficient classification recognizes products that meet high energy-efficiency guidelines. Marvin® offers the industry's widest selection of wood and clad wood products that meet the rigorous Most Efficient criteria.

ENERGY STAR MOST EFFICIENT					
OPERATING STYLE	U-FACTOR MAX = .20		SHGC		PG
	MIN	MAX	MIN	MAX	MIN = 15
HUNG					
Clad Ultimate Double/Single Hung - Next Generation	0.15	0.20	0.14	0.37	40
Clad Ultimate Double Hung Picture - Next Generation	0.18	0.20	0.15	0.42	50
Clad Ultimate Double Hung Transom - Next Generation	0.18	0.20	0.15	0.43	50
Clad Ultimate Double Hung Round Top Picture Transom - Next Generation	0.18	0.20	0.15	0.43	50
Clad Ultimate Double/Single Hung Picture Round Top - Next Generation	0.19	0.20	0.14	0.26	50
Wood Ultimate Double/Single Hung	0.15	0.20	0.14	0.37	30
Wood Ultimate Double Hung Picture 1 5/8" Sash	0.17	0.20	0.17	0.46	40
Clad Ultimate Insert Double/Single Hung	0.20	0.20	0.14	0.26	30
Wood Ultimate Insert Double/Single Hung	0.19	0.19	0.17	0.29	30
Clad Ultimate Insert Double Hung Picture	0.17	0.20	0.15	0.43	40
Wood Ultimate Double Hung Picture 2" Sash	0.16	0.20	0.14	0.43	40
Wood Ultimate Double/Single Hung Round Top	0.18	0.20	0.16	0.29	30
Wood Ultimate Double Hung Picture Round Top 2" Sash	0.16	0.20	0.14	0.41	60
Wood Ultimate Double Hung Transom	0.17	0.20	0.18	0.47	40
Wood Ultimate Double Hung Transom Round Top 2" Sash	0.15	0.20	0.15	0.42	30
Clad Ultimate Double/Single Hung Magnum	0.17	0.20	0.14	0.37	35
Wood Ultimate Double/Single Hung Magnum	0.15	0.20	0.14	0.50	35
Clad Ultimate Double Hung Picture IZ3 Magnum	0.17	0.20	0.15	0.42	50
Clad Simulated Double Hung Hopper	0.20	0.20	0.14	0.26	30
TILT-TURN					
Clad Magnum Tilt-Turn	0.20	0.20	0.14	0.25	40
Wood Magnum Tilt-Turn	0.17	0.20	0.13	0.38	40
Wood Magnum Tilt-Turn 4 9/16" Jamb	0.18	0.20	0.12	0.36	40

ENERGY STAR MOST EFFICIENT					
OPERATING STYLE	U-FACTOR MAX = .20		SHGC		PG
	MIN	MAX	MIN	MAX	MIN = 15
CASEMENT					
Clad Ultimate Casement	0.18	0.20	0.14	0.39	50
Wood Ultimate Casement	0.17	0.20	0.13	0.38	50
Clad Ultimate Casement Picture	0.15	0.20	0.15	0.45	50
Wood Ultimate Casement Picture	0.15	0.20	0.15	0.44	50
Clad Ultimate Pushout Casement	0.19	0.20	0.14	0.25	35
Wood Ultimate Pushout Casement	0.18	0.20	0.13	0.38	35
Clad Ultimate Pushout Casement Picture	0.16	0.20	0.15	0.45	50
Wood Ultimate Pushout Casement Picture	0.15	0.20	0.15	0.44	50
Clad Ultimate Casement Round Top Operator/Stationary	0.19	0.20	0.14	0.25	50
Wood Ultimate Casement Round Top Operator/Stationary	0.19	0.20	0.13	0.25	50
Clad Ultimate Casement Venting Picture	0.15	0.20	0.15	0.45	40
Clad Inswing Casement	0.20	0.20	0.14	0.20	35
AWNING					
Clad Ultimate Awning	0.18	0.20	0.13	0.39	40
Wood Ultimate Awning	0.18	0.20	0.12	0.36	50
Clad Ultimate Pushout Awning	0.19	0.20	0.14	0.25	30
Wood Ultimate Pushout Awning	0.18	0.20	0.12	0.37	30
GLIDER					
Clad Ultimate Glider	0.18	0.20	0.18	0.31	35
Wood Ultimate Glider	0.16	0.20	0.17	0.42	35
DIRECT GLAZE					
Clad Direct Glaze Polygon	0.13	0.20	0.17	0.59	50
Wood Direct Glaze Polygon	0.13	0.20	0.16	0.47	50
Clad Direct Glaze Round Top	0.14	0.20	0.17	0.61	50
Wood Direct Glaze Round Top	0.13	0.20	0.17	0.49	50

MOUNTAIN CABIN - WOODLAND, UT

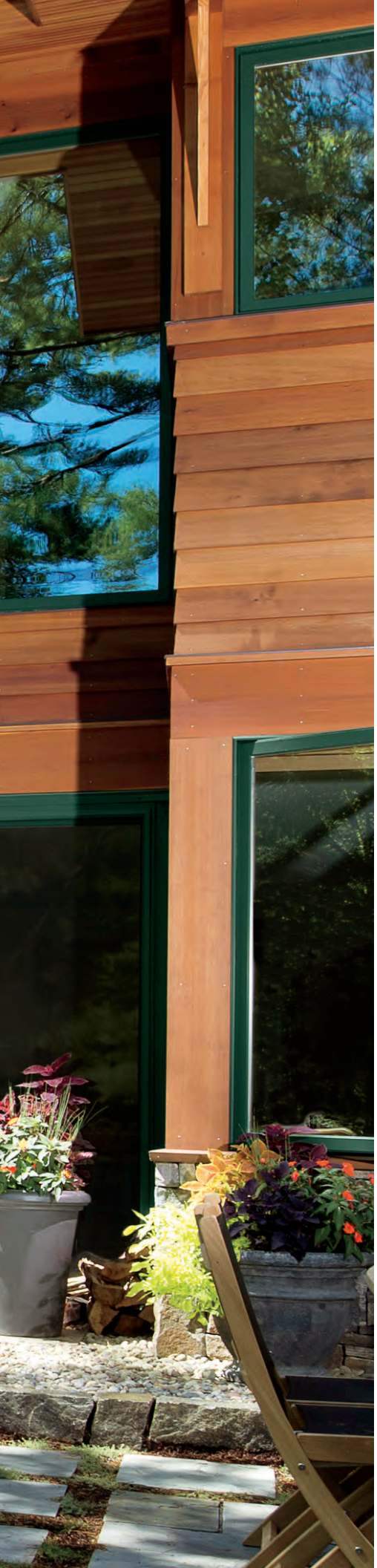
PROJECT TYPE: Residential, CLT construction
ARCHITECT: Shubin+Donaldson

As one of the first Cross Laminated Timber construction projects to be built in the U.S., this residence is truly a modern-day log home. The epitome of recycle and reuse, lumber was harvested on the property, cleaned and cut by a local timber mill, shop assembled, and shipped to the site ready for install. Marvin's energy-efficient clad products complement the conservation and sustainability already designed into the solid wood thermal mass structure.

LAKE LUZERNE RESIDENCE - ADIRONDACKS, NY

PROJECT TYPE: Residential, Tripane windows
ARCHITECT: Phinney Design Group

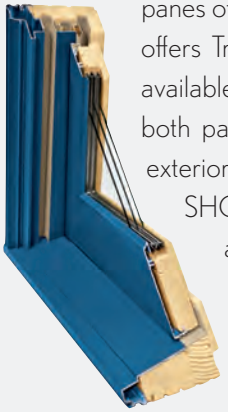
Designed with a wall of floor-to-ceiling windows, the Lake Luzerne residence offers a breathtaking view of the waterfront from every room of the house. Because of the amount of glass used in this residence, Marvin® high-efficiency Tripane windows were instrumental in meeting energy code requirements.



HIGH PERFORMANCE

TRIPANE

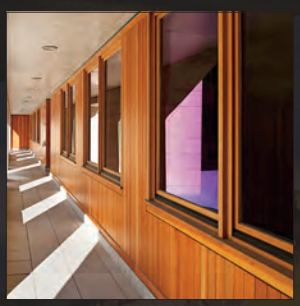
Tripane glazing, available with argon or krypton insulating gas, provides excellent energy performance. Available in products where glazing thickness can be wider than ¾", Tripane features two coated panes of glass with a third pane between them. Marvin® offers Tripane in a variety of Low E glass options. It's available with Low E2 on both panes, with Low E1 on both panes for high SHGC, or with Low E3 on the exterior pane and Low E1 on the interior pane for low SHGC. Tempered and laminated glazing options are available to meet special safety and impact requirements. Many Tripane glazed units have U-Factors less than 0.25, and fixed or combination units can be lower than 0.20 without sacrificing visible light transmission.



GLAZING OPTIONS

CLAD ULTIMATE CASEMENT	3/4" IG		1" IG	
	U-FACTOR	SHGC	U-FACTOR	SHGC
Low E1 (IG)	0.30	0.47	0.30	0.46
Low E1 / Clr / Low E1 (Tripane)	NA	NA	0.24	0.39
Low E2 (IG)	0.29	0.29	0.30	0.28
Low E2 / Clr / Low E2 (Tripane)	NA	NA	0.23	0.25
Low E3 (IG)	0.29	0.19	0.29	0.19
Low E3 / Clr / Low E2 (Tripane)	NA	NA	0.24	0.18

NEXT GENERATION CLAD ULTIMATE DOUBLE HUNG	7/8" IG	
	U-FACTOR	SHGC
Low E1 (IG)	0.30	0.50
Low E1 / Clr / Low E1 (Tripane)	0.25	0.41
Low E2 (IG)	0.30	0.30
Low E2 / Clr / Low E2 (Tripane)	0.25	0.26
Low E3 (IG)	0.29	0.20
Low E3 / Clr / Low E2 (Tripane)	0.26	0.18



KROON HALL - NEW HAVEN, CT

PROJECT TYPE: University facility, Certified LEED® Platinum
ARCHITECT: Centerbrook Architects, with Hopkins Architects

Kroon Hall is cutting-edge sustainable architecture. All windows are set deep into the walls to provide natural shading in the summer and take advantage of solar heat gain in the winter. Marvin® Tilt Turns in an open position can ventilate during cool evenings. With many windows operational, a signal system indicates if windows should be open or closed for optimal energy efficiency.

SIGNATURE SERVICES

CUSTOM CAPABILITIES IN ENERGY EFFICIENCY

Marvin® Signature Services engineers custom design solutions to meet unique structural, aesthetic and/or performance requirements. Signature offers innovative possibilities, from modifying and customizing Marvin standard products to designing entirely new solutions to optimize energy conservation and meet project goals. An experienced, dedicated Signature project manager will partner with you at the earliest design stage to concept and develop a tailor-made window or door solution.

Combining the craftsmanship of a small millwork shop with the research and technology capabilities of an industry leader, Signature Services will bring unparalleled service and personalization to even the most challenging, complicated projects.

MARVIN SIGNATURE

THE MARK OF AN ORIGINAL

ENERGY PERFORMANCE PROGRAMS

CODES, STANDARDS, AND CERTIFICATIONS

Technologies for enhanced energy performance in new and existing construction have been driven primarily by mandatory building energy codes. Criteria for window energy performance vary according to state and local codes, and are advanced through voluntary certification programs.

NET ZERO

Marvin offers various window types that contribute to net zero design, and also offers the flexibility and customization of made-to-order products that is often necessary to capitalize on the other variables involved in net zero building.

PASSIVE HOUSE

Marvin Windows and Doors leads the U.S. market in Passive solutions that meet Passive House Institute U.S. criteria.

LEED® CERTIFIED

While individual windows and doors are not LEED certified, our products contribute significantly to the credits required for whole-project certification. We've developed a database of Marvin products that generates project-specific reports for customers seeking LEED certification data. These reports can be included in LEED certification submissions – they provide performance data for Energy & Atmosphere credits; and break out recycled content by component weight, both in pounds and in percentage of total weight, for Materials & Resources credits.

MARVIN
Windows and Doors
Built around you.®

ENERGY-EFFICIENT PROJECT FEATURED ON COVER

BURR & BURTON ACADEMY MOUNTAIN CAMPUS - PERU, VT

PROJECT TYPE: School facility, Certified LEED® Platinum
ARCHITECT: Bensonwood

Energy-efficient Marvin® windows and commercial doors played a crucial role in the design of the nearly zero net energy building Burr and Burton Academy Mountain Campus. The all Tripane solution incorporated large operable awnings, fixed units and uniquely angled assemblies with optimized solar gain and shading.

ASK ABOUT ENERGY STAR

HANDCRAFTED IN AMERICA.

Part #19980723. January 2016.