Development Application
Town of Stowe Planning & Zoning Department
PO Box 730
Stowe, VT 05672
Telephone: (802) 253-6141
This form serves as an application for all requested zoning and subdivision reviews.

Project # (To be assigned) 7503
Date Received: 10/29/24

Property Owner Information			
Property Owner	STOWE COMMUNITY CHURCH		
Mailing Street Address City, State and Zip	137 MAIN STREET STOWE, VT 05672		
Telephone Number 802.279.8973 SCOTT NOBLE		Email Scott@greenmountainfinancial.com	

Applicant Information (Relationship to Owner)
☐ Owner (If so, skip to property information) ☐ Lessee ☐ Contractor
☒ Architect/Designer ☐ Agent for Owner ☐ Under purchase contract
All information and correspondence is sent to applicant/contact.

Applicant Name Company (if any)	DOUG VIEHMANN GVV ARCHITECTS INC		
Mailing Street Address City, State and Zip	284 S. UNION ST. BURLINGTON, VT 05401		
Phone Number 802 862 9631		Email dv@gvvarchitects.com	

Property Information & Location			
Physical Address	188 VT ROUTE 100, STOWE VT		
Tax Map ID			
Existing Use RESIDENTIAL 1 FAMILY		Proposed Use RESIDENTIAL 1 FAMILY	

Please briefly describe the proposed project, intended use, and/or development request below:

INTERIOR RENOVATIONS ADDING 1 BATH
UPGRADING 1 BATH & 3/4 BATH & KITCHEN
ADDING MINI-SPLIT HVAC SYSTEM TO 2ND FLOOR
REPLACING TRIPLE WINDOW UNIT ON BACK WITH TWO DOUBLE HUNG WINDOWS.

For All Approvals:
The below signed hereby agrees that the proposed work shall be done in accordance with the application, plan, specifications, and other associated documentation and that the work shall conform to all applicable town ordinances and regulations. Signing as an "Agent for Owner" indicates that the person signing has the permission of the owner to act on the owner's behalf. Additional permits may be needed from the State of Vermont and/or the Town of Stowe for development.

Indicate if: ☐ Property Owner OR ☐ Agent for Owner	Signature: [signature] Date: 10/28/24

Additional application information is required on reverse side: ➔

Note: Local Zoning approval does not cover any required state approvals. Wastewater System and Potable Water Supply permits may be required for construction or modifications that change the wastewater flow. Other State permits may be required for certain uses. The applicant is advised to contact a DEC Permit Specialist to discuss the State permit requirements at 802-505-5367.

Construction Information

A site plan showing the proposed development is required if construction is involved.

The applicant is responsible for determining property lines and setbacks.

Please answer the questions below for all projects:

Will there be a new curb cut (driveway opening)?	Yes ☐ No ☒
Will over ½ acre of land be graded or disturbed?	Yes ☐ No ☒
Will the development create an additional ½ acre of impervious surface?	Yes ☐ No ☒
Will there be other changes resulting in increased sewer or water flows?	Yes ☐ No ☒
Will there be a new connection to the Stowe sewage system?	Yes ☐ No ☒
Will there be a new connection to the Stowe water system?	Yes ☐ No ☒
Is any portion of the building rented out?	Yes ☐ No ☒
Is an Act 250 permit or amendment required?	Yes ☐ No ☒

Maximum Bldg. Height: ____ * Building Height is defined as the vertical distance measured from the average elevation of the proposed finished grade at the front or rear of the building to the highest point of the roof for flat and mansard roofs, and to the average height between eaves and ridge for other types of roofs. On sloping sites the height will be measured on the uphill side.

Please answer the questions below for all projects involving residential dwellings:

Existing Rooms:	# Bathrooms:	1 3/4	# Bedrooms:	3	# Kitchens: 1
New Rooms:	# Bathrooms:	2 3/4	# Bedrooms:	3	# Kitchens: 1

Please complete the fee calculation below for all applications:

Zoning Permit Fees - Single & Two-Family Dwellings (Permitted Uses)	**Fee/Sq. Ft.**	**Fee Required**
Enclosed building spaces per sq. ft (heated & unheated)	$0.30	
Unenclosed building spaces per sq. ft (i.e., decks, open porches, etc.)	$0.10	
Structures other than buildings (i.e., ponds, tennis courts, fences, etc.) - per structure	$60.00	
Minimum application fee for Single & Two-Family Dwellings/Permitted Uses	$60.00	
	Fee:	$
Zoning Permit Fees – Conditional Uses (Commercial & Multi-Family Uses)	**Fee/Sq. Ft.**	**Fee Required**
Enclosed building spaces per sq. ft (heated & unheated)	$0.40	
Unenclosed building spaces per sq. ft (i.e., decks, open porches, etc.)	$0.25	
Structures other than buildings (i.e., ponds, tennis courts, fences, etc.) - per structure	$100	
Administrative amendment by Zoning Administrator	$75.00	
	Fee:	$
Development Review & Public Hearing Fees	**Fee/Sq. Ft.**	**Fee Required**
Appeal of Action of Zoning Administrator	$250.00	
Variance or Dimensional Waiver	$250.00	
Conditional Use Review	$250.00	
Ridgeline & Hillside Overlay District (RHOD) Review	$250.00	
Design Review (Single-Family & Two-Family Dwelling)	$60.00	
Design Review (All other uses except Single-Family & Two-Family Dwelling)	$250.00	
Subdivision Review (includes PRD's & PUD's)		
Preliminary Layout Application (base fee)	$250.00	
Preliminary Layout (fee per unit or lot if equal to and/or more than 5 lots/units)	$275.00	
Final Plat Application (base fee)	$250.00	
Final Plat Application (additional fee per unit or lot if preliminary layout was not required)	$150.00	
Minimal Alteration reviewed by Zoning Administrator	$100.00	
Other subdivision applications/amendments requiring DRB approval	$250.00	
	Fee:	$
Signs	$70.00	
	Fee:	$
Recording Fees /Stowe Land Records *(set by state law)*		

Additional Recording Fee for decision notice	$15.00/page	$
Additional Recording Fee for permit	$15.00/page	$
Additional Recording Fee for Mylar	$25.00/sheet	$
Total Application Fee Including Recording		$

Payments should be made to the Town of Stowe. Payment can be made by cash, check, or with a credit card (Mastercard, Visa or Discover) or online. Go to www.townofstowevt.org/townclerk/ and click the link for online payments. Please note there is a 3% convenience fee for credit card payments.

Incomplete applications will be returned. A complete application must include a site plan, elevation drawings, and floorplans. See application checklists for additional guidance.

OFFICE USE ONLY

Date Received _____

Zoning District _____

Overlay District _____

Approved Date _____
Effective Date _____
Expiration Date_____

Denied Date _____
Reason _____

Permit Fee	$
Recording Fee	$
TOTAL FEE	$

☐ *Check #* ☐ *Cash*

Referred _____
Hearing Date _____

Comments/Conditions

_____
_____
_____
_____
_____
_____

_____ _____

Zoning Administrator **Date**

For assistance, please contact the Planning & Zoning Department of 253-6141 or by email at PandZ@stowevt.gov

The Town of Stowe welcomes all persons, regardless of race, color, religion, national origin, sex, gender identity or expression, family status, age, or ability, and wants everyone to feel safe and welcome in our community. As a town, we formally condemn discrimination in all its forms, commit to fair and equal treatment of everyone in our community, and will strive to ensure all of our actions, policies, and operating procedures reflect this commitment. The Town of Stowe has and will continue to be a place where individuals can live freely and express their opinion.

GUILLOT • VIVIAN • VIEHMANN Architects Inc.

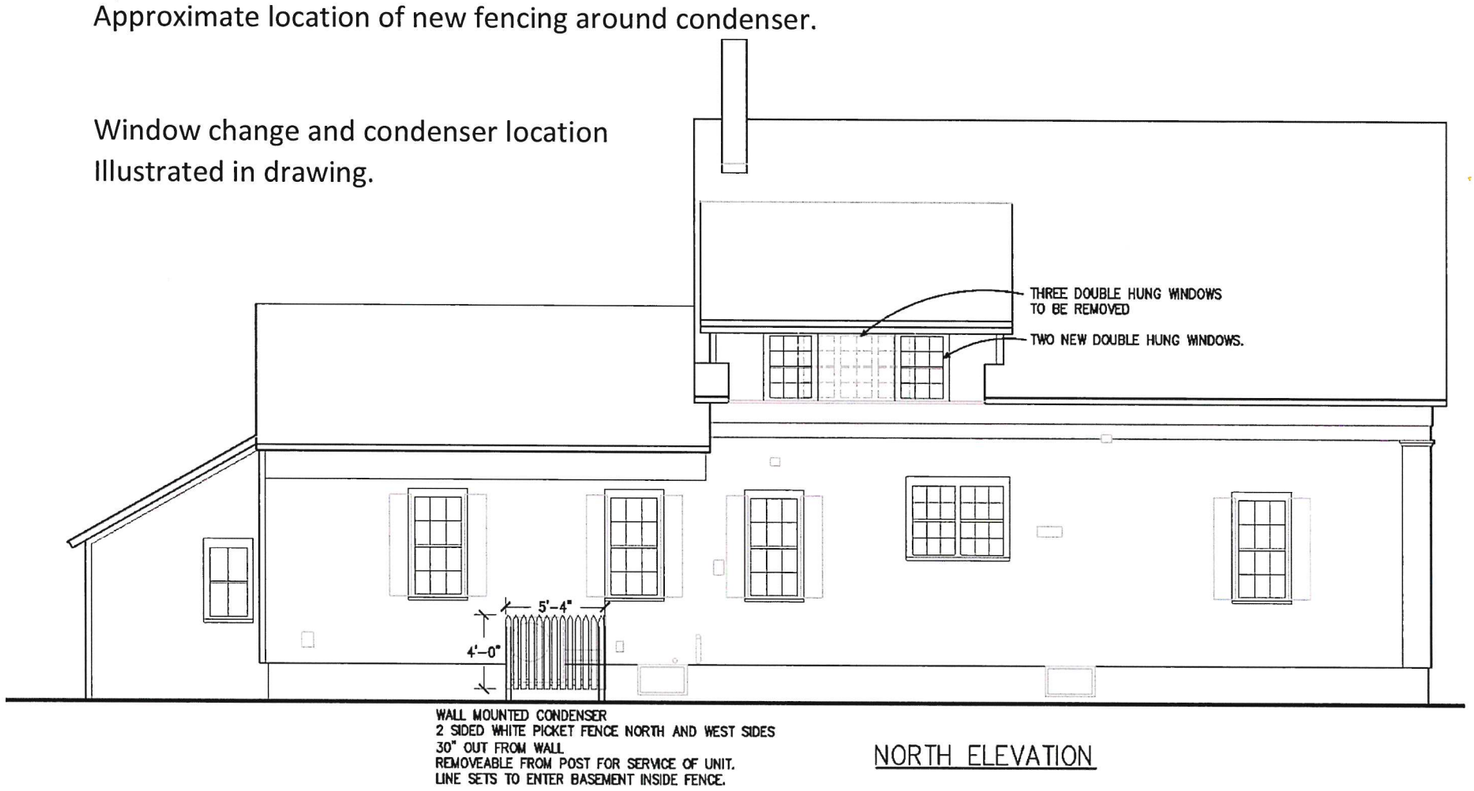
Stowe Community Church Parsonage

Condenser to be installed for new mini split HVAC system on north side of house. Picket fence similar to existing in back yard, will be installed on north and west sides of condenser. Sections will be removable for servicing equipment.

Line sets will run inside house to wall mounted interior units.

Approximate location of new fencing around condenser.

Window change and condenser location Illustrated in drawing.



NORTH ELEVATION

Submitted by GVV Architects, 10-24-24.

PERFORMANCE

100 Series products simply perform like modern windows and doors should. They're made from our proprietary Fibrex® material, which is extremely low maintenance and blocks thermal transfer 700 times better than aluminum to help your customers save money on heating and cooling costs.

ATTRACTIVE CORNER SEAMS

Low-visibility corner seams for a cleaner and more modern look.

COLORS THAT LAST

Durable factory-finished interiors and exteriors never need painting and won't fade, flake, blister or peel,* even in extreme cold or heat.

ATTRACTIVE MATTE INTERIORS

Premium matte finish isn't shiny like vinyl and is available in white, Sandtone, dark bronze and black.**

ENERGY EFFICIENT IN EVERY CLIMATE

Energy-efficient 100 Series products are available with options that make them ENERGY STAR® v. 7.0 certified throughout the U.S. so they can help reduce heating and cooling bills.

Visit **andersenwindows.com/energystar** for more information and to verify that the product with your glass option is certified in your area.

ASK ABOUT ENERGY STAR

DESIGNED FOR PERFORMANCE

100 Series products are designed to meet or exceed performance requirements in all 50 states† See pages 112-113 for details.

PG50†† PERFORMANCE OPTIONAL PERFORMANCE UPGRADE
100SHS4066 PGUP +50/-50 (AAMA/WDMA/CSA 101/I.S.2/A440-08 & -11)

EASY TO OPERATE FOR YEARS TO COME

All 100 Series products are tested to the extreme to deliver years* of smooth, reliable operation.

SUPERIOR WEATHER RESISTANCE

Our weather-resistant construction seals out drafts, wind and water so well that your reputation is protected whatever the weather.

QUALITY SO SOLID, THE WARRANTY IS TRANSFERABLE*

Many other window and door warranties end when a home is sold, but our coverage – 20 years on glass, 10 years on non-glass parts – transfers from each owner to the next. And because it's not prorated, the coverage offers full benefits year after year, owner after owner. So it can add real value when you decide to sell your home.

OWNER2OWNER® LIMITED WARRANTY

*Visit andersenwindows.com/warranty for details.
**Products with Sandtone, dark bronze and black interiors have matching exteriors.
†See your local code official for code requirements in your area.
††100SHS4066 PGUP +50/-50 (AAMA/WDMA/CSA 101/I.S.2/A440-08 & -11). Optional PG50 performance grade upgrade is available for most sizes. For more information, visit andersenwindows.com/100series.
"ENERGY STAR" is a registered trademark of the U.S. Environmental Protection Agency.

FIBREX® MATERIAL

Developed by Andersen, Fibrex material is a revolutionary structural composite material that blends the very best attributes of vinyl and wood. Fibrex material saves on natural resources because it's composed of 40% reclaimed wood fiber by weight. Special polymer formulations surround and fill each wood fiber, enabling top performance. The result is a material that provides uncommon value and enhances the quality of any project. In use for over two decades in Andersen® products, Fibrex material has proven its strength and durability in all types of climates.

REVOLUTIONARY BUILDING MATERIAL

- Twice as strong as vinyl so weathertight seals stay weathertight
- Blocks thermal transfer nearly 700 times better than aluminum to help reduce heating and cooling bills
- Retains its stability and rigidity in all climates for exceptional durability
- Offers superior scratch resistance compared to painted vinyl*

ENVIRONMENTALLY RESPONSIBLE

- Since Andersen developed the highly sustainable Fibrex material, reuse of waste wood fiber has prevented the harvesting of nearly 90 million board feet of timber
- 100 Series products can help builders earn LEED® points in three key categories: Energy & Atmosphere, Materials & Resources and Indoor Environmental Quality
- 100 Series products meet or exceed California Section 01350 Specification, a California indoor emission standard – one of the toughest in the country
- Like all Andersen products, 100 Series products are designed to last** and help reduce future waste streams

See how Andersen created Fibrex material at **andersenwindows.com/fibrex**.

*Visit andersenwindows.com/warranty for details.
**When tested against five leading competitors' painted vinyl window products.

EXTERIORS & INTERIORS

100 Series windows and patio doors come in five exterior colors, including dark bronze and black – colors that are darker and richer than those of most vinyl windows. The interiors feature a premium matte finish for an attractive appearance.

EXTERIOR COLORS

White | Sandtone | Terratone | Dark Bronze | Black

INTERIOR COLORS

White | Sandtone* | Dark Bronze* | Black*

*Products with Sandtone, dark bronze and black interiors have matching exteriors.
Printing limitations prevent exact duplication of colors. See your Andersen supplier for actual color samples.

HARDWARE

Casement & Awning Windows

Antique Brass | Black | Dark Bronze
Sandtone | **Satin Nickel** | White

Folding handles avoid interference with window treatments.

Single-Hung & Gliding Windows

Standard Lock

Optional Lift/Pull

Hardware color matches the window's interior. Shown in white.
Lock automatically engages when window is closed.

Optional Metal Slim Line Lock

Antique Brass | Black | **Dark Bronze**
Sandtone | Satin Nickel | White

Lock automatically engages when window is closed.

WINDOW HARDWARE FINISHES

Antique Brass | Black | Dark Bronze | Sandtone

Satin Nickel | White

Bold name denotes color or finish shown.

Gliding Patio Doors

Exterior | Interior

TULSA

Standard Handle

Exterior handle color matches the door's exterior. Interior handle color matches the door's interior. Exterior handle shown in dark bronze. Interior handle shown in white.

Optional auxiliary foot lock is available. See page 100.

TULSA HARDWARE FINISHES

Black | Dark Bronze | Sandtone | Terratone* | White

Exterior | Interior

AFTON

Optional Handle

Antique Brass
Black
Bright Brass
Satin Nickel

Optional auxiliary foot lock is available. See page 100.

Bold name denotes color or finish shown.

AFTON HARDWARE FINISHES

Antique Brass | Black | Bright Brass | Satin Nickel

*Available for exterior handle only.

Printing limitation prevent exact replication of colors and finishes.
See your Andersen supplier for actual color and finish samples.

GLASS

Andersen has the glass you need to get the performance you want, with options for every climate, project and customer. Check with your supplier for the selections that meet ENERGY STAR® requirements in your area.

GLASS		ENERGY		LIGHT	
		U-Factor How well a product prevents heat from escaping.	Solar Heat Gain Coefficient How well a product blocks heat caused by sunlight.	Visible Light Transmittance How much visible light comes through a product.	UV Protection How well a product blocks ultraviolet rays.
SmartSun™	Thermal control similar to tinted glass, with visible light transmittance similar to Low-E glass.	●●●○	●●●●	●●◐○	●●●●
SmartSun with HeatLock® Coating	Applied to the room-side surface, it reflects heat back into the home and improves U-Factor values.	●●●◐	●●●●	●●◐○	●●●●
Low-E	Outstanding overall performance for climates where both heating and cooling costs are a concern.	●●●○	●●●○	●●●○	●●●○
Low-E with HeatLock Coating	Applied to the room-side surface, it reflects heat back into the home and improves U-Factor values.	●●●◐	●●●○	●●●○	●●●○
Sun	Outstanding thermal control in southern climates where less solar heat gain is desired.	●●●○	●●●●	●○○○	●●●○
PassiveSun®	Ideal for northern, passive solar construction applications where solar heat gain is desired.	●●●○	●○○○	●●●◐	●●○○
PassiveSun with HeatLock Coating	Applied to the room-side surface, it reflects heat back into the home and improves U-Factor values.	●●●◐	●○○○	●●●◐	●●○○
Clear Dual-Pane	High visibility, with basic thermal performance.	●○○○	○○○○	●●●●	○○○○

Center of glass performance only. Ratings based on glass options as of August 2023. Visit andersenwindows.com/energystar for ENERGY STAR map and NFRC total unit performance data.

HEATLOCK TECHNOLOGY

Applied to the room-side glass surface, HeatLock coating reflects heat back into the home for improved performance.

TIME-SAVING FILM

We protect our products during delivery and construction with translucent film on the glass that peels away for a virtually spotless window.

For more details on our glass options, visit **andersenwindows.com/glass**.

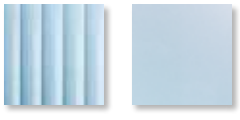
ASK ABOUT ENERGY STAR

ADDITIONAL GLASS OPTIONS

Tempered safety glass is standard on patio doors and required for larger window sizes.

Patterned glass lets in light while obscuring vision and adds a unique, decorative touch.

Cascade Fern Obscure



Reed Satin Etch

Cascade and Reed patterns are only available in a vertical orientation.

GLASS SPACER OPTIONS

In addition to stainless steel glass spacers, black glass spacers are available as another way to customize project designs and achieve a contemporary style. Black glass spacers can blend in with the color of the window or door for a sleek design or serve as a shadow line.

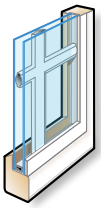
Add full divided light grilles and the grille spacer bar between the glass will match.

Black Stainless Steel

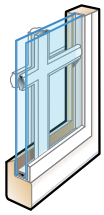
"ENERGY STAR" is a registered trademark of the U.S. Environmental Protection Agency.

GRILLES

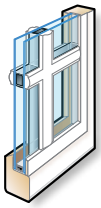
Grilles for 100 Series windows and patio doors are available in a wide variety of patterns to complement virtually any style of home. Plus, they have options for easy cleaning and architectural authenticity many vinyl windows can't match.



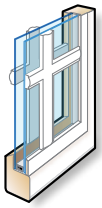
Finelight grilles-between-the-glass



Finelight grilles-between-the-glass with permanent exterior



Permanent exterior and permanent interior with spacer



Permanent exterior and permanent interior without spacer

FINELIGHT™ GRILLES-BETWEEN-THE-GLASS

Make glass easy to clean and have an elegant, sculpted profile. Choose a two-sided color scheme to match both the interior and exterior of the window or patio door. Also available with exterior grilles to provide architectural style and detail.

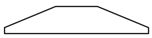
FULL DIVIDED LIGHT

Permanently applied to the exterior and interior of the window, with a spacer between the glass.

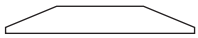
SIMULATED DIVIDED LIGHT

Permanently applied to the exterior and interior of the window, without a spacer between the glass.

Grille Bar Widths Actual width shown.



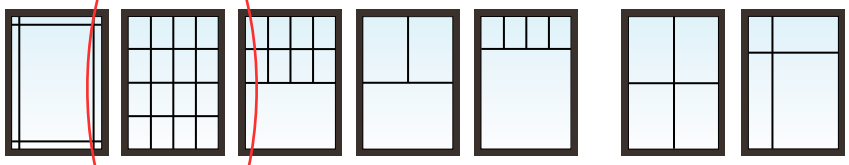
¾" (19) width grille bar for windows.



1" (25) width grille bar for patio doors.

A 2 ¼" (57) width grille is available for most units to simulate a meeting rail or a multi-unit combination such as a transom over a window or patio door.

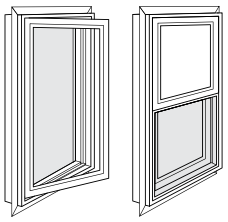
Grille Patterns



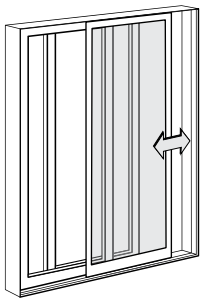
Prairie A | Colonial | Modified Colonial | Tall Fractional | Short Fractional | Specified Equal Light* | Custom

To see all of the standard patterns available for a specific window or door, refer to the detailed product sections in this product guide or contact your Andersen supplier.

INSECT SCREENS



Insect screens for venting windows have a fiberglass screen mesh. Optional TruScene® insect screens are made with a micro-fine stainless steel mesh, providing more than 50% greater clarity than our conventional insect screens. Insect screen frames for casement and awning windows are color matched to the product interior and for single-hung and gliding windows are matched to the product exterior.

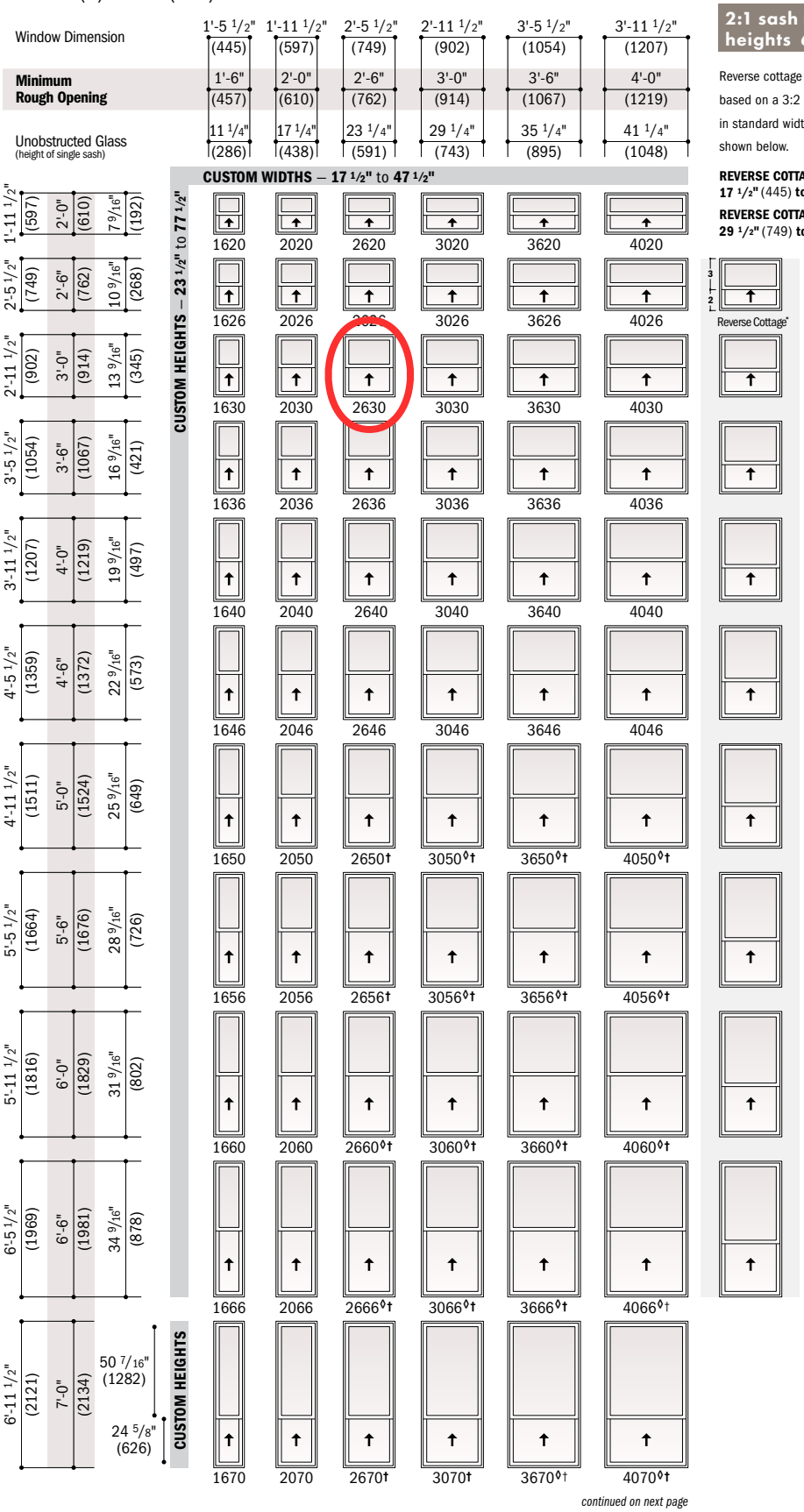


Gliding insect screens for two-panel gliding patio doors have a fiberglass screen mesh. Insect screen frames for doors are color matched to the product exterior.

*Specify number of same-size rectangles across or down.
Dimensions in parentheses are in millimeters.

Table of Single-Hung Window Sizes

Scale 1/8" (3) = 1'-0" (305) – 1:96



continued on next page

2:1 sash ratio is not available for heights 6'-5 1/2" (1969) and less.

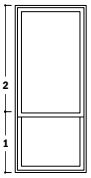
Reverse cottage sash is available based on a 3:2 ratio. Available in standard widths for the heights shown below.

REVERSE COTTAGE CUSTOM WIDTHS – 17 1/2" (445) **to 47 1/2"** (1207)

REVERSE COTTAGE CUSTOM HEIGHTS – 29 1/2" (749) **to 77 1/2"** (1969)

Custom-size windows are available in 1/8" (3) increments. See page 96 for custom sizes and specifications.

For construction site convenience, an optional drywall pass-through window is available for removal and reinstallation of the upper and lower sash.



Windows with a height greater than 6'-5 1/2" (1969) are only available with a 2:1 reverse cottage sash ratio.** To see all windows sizes with reverse cottage sash, visit **andersenwindows.com/sizing**.

Grille patterns shown on page 49.

Details shown on pages 52-54.

- Window Dimension always refers to outside frame-to-frame dimension.
- **Minimum Rough Opening dimensions may need to be increased to allow for use of building wraps, flashing, sill panning, brackets, fasteners or other items. See page 121 for more details.**
- Dimensions in parentheses are in millimeters.

◊Meets or exceeds clear opening area of 5.7 sq.ft. or 0.53 m², clear opening width of 20" (508) and clear opening height of 24" (610). See table on page 35.

†Drywall pass-through window available for these standard and reverse cottage sizes and for custom-size windows wider than 1'-11 1/2" (597) and taller than 4'-5 1/2" (1359).

*For reverse cottage sash windows, meeting rail location = (window height in inches x 0.40) + 1.96".

**For heights greater than 6'-5 1/2" (1969), meeting rail location = (window height in inches x 0.33) + 1.96".

Center of Glass Performance Data

For current performance information, please visit **andersenwindows.com**.

Andersen® 100 Series Product	VT[1]	SC[2]	SHGC[3]	RHG[4]	Fading Tuv[5]	Fading Tdw[6]	%RH @ center[7]	IGST[8]
Low-E								
Casement, Awning, Single-Hung, Gliding and Transom Windows (all frames types)	72%	0.48	0.41	98	16%	33%	61%	56°F
Picture and Specialty Windows – Flush Fin Frame	72%	0.48	0.41	98	16%	33%	61%	56°F
Picture and Specialty Windows – 1 3/8" Flange Setback, 1" Flange Setback, No Flange, Insert Frames	72%	0.47	0.41	98	16%	33%	60%	55°F
Gliding Patio Doors	72%	0.47	0.41	98	16%	33%	60%	55°F
Patio Door Sidelights and Transoms	72%	0.47	0.41	98	16%	33%	60%	55°F
Low-E With HeatLock® Technology								
Casement, Awning, Single-Hung, Gliding and Transom Windows (all frames types)	70%	0.47	0.41	96	16%	33%	44%	47°F
Picture and Specialty Windows – Flush Fin Frame	70%	0.47	0.41	96	16%	33%	44%	47°F
Picture and Specialty Windows – 1 3/8" Flange Setback, 1" Flange Setback, No Flange, Insert Frames	70%	0.47	0.40	95	16%	33%	44%	47°F
Gliding Patio Doors	70%	0.47	0.40	95	16%	33%	44%	47°F
Patio Door Sidelights and Transoms	70%	0.47	0.40	95	16%	33%	44%	47°F
Low-E SmartSun™								
Casement, Awning, Single-Hung, Gliding and Transom Windows (all frames types)	65%	0.31	0.27	66	5%	21%	62%	56°F
Picture and Specialty Windows – Flush Fin Frame	65%	0.31	0.27	66	5%	21%	62%	56°F
Picture and Specialty Windows – 1 3/8" Flange Setback, 1" Flange Setback, No Flange, Insert Frames	65%	0.31	0.27	65	5%	21%	61%	56°F
Gliding Patio Doors	65%	0.31	0.27	65	5%	21%	61%	56°F
Patio Door Sidelights and Transoms	65%	0.31	0.27	65	5%	21%	61%	56°F
Low-E SmartSun With HeatLock Technology								
Casement, Awning, Single-Hung, Gliding and Transom Windows (all frames types)	63%	0.31	0.27	64	5%	21%	46%	48°F
Picture and Specialty Windows – Flush Fin Frame	63%	0.31	0.27	64	5%	21%	46%	48°F
Picture and Specialty Windows – 1 3/8" Flange Setback, 1" Flange Setback, No Flange, Insert Frames	63%	0.31	0.27	63	5%	21%	44%	47°F
Gliding Patio Doors	63%	0.31	0.27	63	5%	21%	44%	47°F
Patio Door Sidelights and Transoms	63%	0.31	0.27	63	5%	21%	44%	47°F
Sun								
Casement, Awning, Single-Hung, Gliding and Transom Windows (all frames types)	40%	0.29	0.25	61	16%	24%	60%	55°F
Picture and Specialty Windows – Flush Fin Frame	40%	0.29	0.25	61	16%	24%	60%	55°F
Picture and Specialty Windows – 1 3/8" Flange Setback, 1" Flange Setback, No Flange, Insert Frames	40%	0.29	0.25	60	16%	24%	59%	55°F
Gliding Patio Doors	40%	0.29	0.25	60	16%	24%	59%	55°F
Patio Door Sidelights and Transoms	40%	0.29	0.25	60	16%	24%	59%	55°F
Low-E PassiveSun								
Casement, Awning, Single-Hung, Gliding and Transom Windows (all frames types)	79%	0.79	0.69	161	29%	42%	60%	55°F
Picture and Specialty Windows – Flush Fin Frame	79%	0.79	0.69	161	29%	42%	60%	55°F
Picture and Specialty Windows – 1 3/8" Flange Setback, 1" Flange Setback, No Flange, Insert Frames	79%	0.79	0.69	161	29%	42%	59%	55°F
Gliding Patio Doors	79%	0.79	0.69	161	29%	42%	59%	55°F
Patio Door Sidelights and Transoms	79%	0.79	0.69	161	29%	42%	59%	55°F
Low-E PassiveSun With HeatLock Technology								
Casement, Awning, Single-Hung, Gliding and Transom Windows (all frames types)	77%	0.72	0.62	146	27%	40%	42%	46°F
Picture and Specialty Windows – Flush Fin Frame	77%	0.72	0.62	146	27%	40%	42%	46°F
Picture and Specialty Windows – 1 3/8" Flange Setback, 1" Flange Setback, No Flange, Insert Frames	77%	0.72	0.63	146	27%	40%	42%	46°F
Gliding Patio Doors	77%	0.72	0.63	146	27%	40%	42%	46°F
Patio Door Sidelights and Transoms	77%	0.72	0.63	146	27%	40%	42%	46°F
Clear Dual-Pane								
Casement, Awning, Single-Hung, Gliding and Transom Windows (all frames types)	82%	0.89	0.78	186	58%	61%	39%	44°F
Picture and Specialty Windows – Flush Fin Frame	82%	0.89	0.78	186	58%	61%	39%	44°F
Picture and Specialty Windows – 1 3/8" Flange Setback, 1" Flange Setback, No Flange, Insert Frames	82%	0.89	0.78	186	58%	61%	39%	44°F
Gliding Patio Doors	82%	0.89	0.78	186	58%	61%	39%	44°F
Patio Door Sidelights and Transoms	82%	0.89	0.78	186	58%	61%	39%	44°F

• Based on NFRC testing/simulation conditions using Windows v7.4.6.0 and NFRC validated spectral data. 0°F outside temperature, 70°F inside temperature and a 15 mph wind. 1) Visible Transmittance (VT) measures how much light comes through the glass. The higher the value, from 0 to 1, the more daylight the glass lets in. Visible Transmittance is measured over the 380 to 760 nanometer portion of the solar spectrum. 2) Shading Coefficient (SC) defines the amount of heat gain through the glass compared to a single lite of clear 1/8" (3) glass. 3) Solar Heat Gain Coefficient (SHGC) defines the fraction of solar radiation admitted through the glass directly transmitted, as well as absorbed and subsequently released inward. The lower the value, the less heat is transmitted through the product. 4) Relative Heat Gain (RHG) is the amount of heat gain through a glazing incorporating U-Factor and Solar Heat Gain Coefficient. 5) Transmission Ultra-Violet Energy (Tuv). The transmission of short-wave energy in the 300-380 nanometer portion of the solar spectrum. The energy can cause fabric fading. 6) Transmission Damage Function (Tdw). The transmission of UV and visible light energy in the 300-600 nanometer portion of the solar spectrum. The value includes both the UV and visible light energy that can cause fabric fading. This rating has also been referred to as the Krochmann Damage Function. This rating better predicts fading potential than UV transmission alone. The lower the Damage Function rating, the less transmission of short-wave energy through the glass that can potentially cause fabric fading. Fabric type is also a key component of fading potential. 7) Percent relative humidity before condensation occurs at the center of glass, taken using center of glass temperature. 8) Inside glass surface temperatures are taken at the center of glass.

• This data is accurate as of November 2023. Due to ongoing product changes, updated test results or new industry standards, this data may change over time. Contact your Andersen supplier for current performance information or upgrade options.

• Contact your Andersen supplier for center of glass performance data on windows with patterned glass, tempered glass and products ordered with capillary breather tubes.

• Windows with flush fin frame are available in select Southwestern states including Arizona, California, Nevada, New Mexico and Utah. Limited configuration availability. See your Andersen supplier for more information.

NFRC Certified Total Unit Performance

For current performance information, please visit **andersenwindows.com**.

Andersen® Product	High-Performance Dual-Pane Glass Type	U-Factor[1]	SHGC[2]	VT[3]
100 Series Casement Windows AND-N-84 2.2 mm glass	Low-E Without Grilles	0.28	0.28	0.48
	Low-E Simulated Divided Light Grilles	0.28	0.25	0.43
	Low-E Finelight™ Grilles	0.28	0.25	0.43
	Low-E Finelight With Exterior Applied Grilles	-	-	-
	Low-E Full Divided Light Grilles	0.29	0.25	0.43
	Low-E w/HeatLock® Without Grilles	0.24	0.27	0.47
	Low-E w/HeatLock® Simulated Divided Light Grilles	0.24	0.25	0.42
	Low-E w/HeatLock® Finelight Grilles	0.24	0.25	0.42
	Low-E w/HeatLock® Finelight With Exterior Applied Grilles	-	-	-
	Low-E w/HeatLock® Full Divided Light Grilles	0.26	0.25	0.42
	Low-E SmartSun™ Without Grilles	0.27	0.18	0.43
	Low-E SmartSun™ Simulated Divided Light Grilles	0.27	0.17	0.39
	Low-E SmartSun™ Finelight Grilles	0.27	0.17	0.39
	Low-E SmartSun™ Finelight With Exterior Applied Grilles	-	-	-
	Low-E SmartSun™ Full Divided Light Grilles	0.28	0.17	0.39
	Low-E SmartSun w/HeatLock Without Grilles	0.24	0.18	0.42
	Low-E SmartSun w/HeatLock Simulated Divided Light Grilles	0.24	0.16	0.38
	Low-E SmartSun w/HeatLock Finelight Grilles	0.24	0.16	0.38
	Low-E SmartSun w/HeatLock Finelight With Exterior Applied Grilles	-	-	-
	Low-E SmartSun w/HeatLock Full Divided Light Grilles	0.25	0.16	0.38
	Low-E Sun Without Grilles	0.28	0.17	0.26
	Low-E Sun Simulated Divided Light Grilles	0.28	0.16	0.24
	Low-E Sun Finelight Grilles	0.28	0.16	0.24
	Low-E Sun Finelight With Exterior Applied Grilles	-	-	-
	Low-E Sun Full Divided Light Grilles	0.29	0.16	0.24
	Low-E PassiveSun® Without Grilles	0.28	0.46	0.53
	Low-E PassiveSun® Simulated Divided Light Grilles	0.28	0.42	0.47
	Low-E PassiveSun® Finelight Grilles	0.28	0.42	0.47
	Low-E PassiveSun® Finelight With Exterior Applied Grilles	-	-	-
	Low-E PassiveSun® Full Divided Light Grilles	0.29	0.42	0.47
	Clear Dual-Pane Without Grilles	0.41	0.52	0.55
	Clear Dual-Pane Simulated Divided Light Grilles	0.41	0.48	0.49
	Clear Dual-Pane Finelight Grilles	0.41	0.48	0.49
	Clear Dual-Pane Finelight With Exterior Applied Grilles	-	-	-
	Clear Dual-Pane Full Divided Light Grilles	0.42	0.48	0.49
100 Series Awning Windows AND-N-85 2.2 mm glass	Low-E Without Grilles	0.28	0.28	0.48
	Low-E Simulated Divided Light Grilles	0.28	0.25	0.43
	Low-E Finelight™ Grilles	0.28	0.25	0.43
	Low-E Finelight With Exterior Applied Grilles	-	-	-
	Low-E Full Divided Light Grilles	0.29	0.25	0.43
	Low-E w/HeatLock® Without Grilles	0.25	0.27	0.47
	Low-E w/HeatLock® Simulated Divided Light Grilles	0.25	0.25	0.42
	Low-E w/HeatLock® Finelight Grilles	0.25	0.25	0.42
	Low-E w/HeatLock® Finelight With Exterior Applied Grilles	-	-	-
	Low-E w/HeatLock® Full Divided Light Grilles	0.26	0.25	0.42
	Low-E SmartSun™ Without Grilles	0.27	0.18	0.43
	Low-E SmartSun™ Simulated Divided Light Grilles	0.27	0.17	0.39
	Low-E SmartSun™ Finelight Grilles	0.27	0.17	0.39
	Low-E SmartSun™ Finelight With Exterior Applied Grilles	-	-	-
	Low-E SmartSun™ Full Divided Light Grilles	0.28	0.17	0.39
	Low-E SmartSun w/HeatLock Without Grilles	0.24	0.18	0.42
	Low-E SmartSun w/HeatLock Simulated Divided Light Grilles	0.24	0.16	0.38
	Low-E SmartSun w/HeatLock Finelight Grilles	0.24	0.16	0.38
	Low-E SmartSun w/HeatLock Finelight With Exterior Applied Grilles	-	-	-
	Low-E SmartSun w/HeatLock Full Divided Light Grilles	0.26	0.16	0.38
	Low-E Sun Without Grilles	0.28	0.17	0.26
	Low-E Sun Simulated Divided Light Grilles	0.28	0.16	0.24
	Low-E Sun Finelight Grilles	0.28	0.16	0.24
	Low-E Sun Finelight With Exterior Applied Grilles	-	-	-
	Low-E Sun Full Divided Light Grilles	0.29	0.16	0.24
	Low-E PassiveSun® Without Grilles	0.28	0.46	0.53
	Low-E PassiveSun® Simulated Divided Light Grilles	0.28	0.42	0.47
	Low-E PassiveSun® Finelight Grilles	0.28	0.42	0.47
	Low-E PassiveSun® Finelight With Exterior Applied Grilles	-	-	-
	Low-E PassiveSun® Full Divided Light Grilles	0.29	0.42	0.47
	Clear Dual-Pane Without Grilles	0.42	0.52	0.55
	Clear Dual-Pane Simulated Divided Light Grilles	0.42	0.48	0.49
	Clear Dual-Pane Finelight Grilles	0.42	0.48	0.49
	Clear Dual-Pane Finelight With Exterior Applied Grilles	-	-	-
	Clear Dual-Pane Full Divided Light Grilles	0.42	0.48	0.49

Andersen® Product	High-Performance Dual-Pane Glass Type	U-Factor[1]	SHGC[2]	VT[3]
100 Series Single-Hung Windows AND-N-80 2.2 mm glass	Low-E Without Grilles	0.30	0.31	0.54
	Low-E Simulated Divided Light Grilles	0.30	0.28	0.48
	Low-E Finelight™ Grilles	0.30	0.28	0.48
	Low-E Finelight With Exterior Applied Grilles	-	-	-
	Low-E Full Divided Light Grilles	0.31	0.28	0.48
	Low-E w/HeatLock® Without Grilles	0.26	0.31	0.53
	Low-E w/HeatLock® Simulated Divided Light Grilles	0.26	0.28	0.47
	Low-E w/HeatLock® Finelight Grilles	0.26	0.28	0.47
	Low-E w/HeatLock® Finelight With Exterior Applied Grilles	-	-	-
	Low-E w/HeatLock® Full Divided Light Grilles	0.28	0.28	0.47
	Low-E SmartSun™ Without Grilles	0.29	0.21	0.49
	Low-E SmartSun™ Simulated Divided Light Grilles	0.29	0.19	0.43
	Low-E SmartSun™ Finelight Grilles	0.29	0.19	0.43
	Low-E SmartSun™ Finelight With Exterior Applied Grilles	-	-	-
	Low-E SmartSun™ Full Divided Light Grilles	0.31	0.19	0.43
	Low-E SmartSun w/HeatLock Without Grilles	0.25	0.20	0.48
	Low-E SmartSun w/HeatLock Simulated Divided Light Grilles	0.25	0.18	0.42
	Low-E SmartSun w/HeatLock Finelight Grilles	0.25	0.18	0.42
	Low-E SmartSun w/HeatLock Finelight With Exterior Applied Grilles	-	-	-
	Low-E SmartSun w/HeatLock Full Divided Light Grilles	0.28	0.18	0.42
	Low-E Sun Without Grilles	0.30	0.19	0.30
	Low-E Sun Simulated Divided Light Grilles	0.30	0.17	0.27
	Low-E Sun Finelight Grilles	0.30	0.17	0.27
	Low-E Sun Finelight With Exterior Applied Grilles	-	-	-
	Low-E Sun Full Divided Light Grilles	0.32	0.17	0.27
	Low-E PassiveSun® Without Grilles	0.31	0.52	0.60
	Low-E PassiveSun® Simulated Divided Light Grilles	0.31	0.47	0.53
	Low-E PassiveSun® Finelight Grilles	0.31	0.47	0.53
	Low-E PassiveSun® Finelight With Exterior Applied Grilles	-	-	-
	Low-E PassiveSun® Full Divided Light Grilles	0.32	0.47	0.53
	Clear Dual-Pane Without Grilles	0.46	0.59	0.62
	Clear Dual-Pane Simulated Divided Light Grilles	0.46	0.53	0.55
	Clear Dual-Pane Finelight Grilles	0.46	0.53	0.55
	Clear Dual-Pane Finelight With Exterior Applied Grilles	-	-	-
	Clear Dual-Pane Full Divided Light Grilles	0.47	0.53	0.55
100 Series Gliding Windows AND-N-81 2.2 mm glass	Low-E Without Grilles	0.30	0.31	0.54
	Low-E Simulated Divided Light Grilles	0.30	0.28	0.48
	Low-E Finelight™ Grilles	0.30	0.28	0.48
	Low-E Finelight With Exterior Applied Grilles	-	-	-
	Low-E Full Divided Light Grilles	0.31	0.28	0.48
	Low-E w/HeatLock® Without Grilles	0.26	0.31	0.53
	Low-E w/HeatLock® Simulated Divided Light Grilles	0.26	0.28	0.47
	Low-E w/HeatLock® Finelight Grilles	0.26	0.28	0.47
	Low-E w/HeatLock® Finelight With Exterior Applied Grilles	-	-	-
	Low-E w/HeatLock® Full Divided Light Grilles	0.28	0.28	0.47
	Low-E SmartSun™ Without Grilles	0.29	0.21	0.49
	Low-E SmartSun™ Simulated Divided Light Grilles	0.29	0.19	0.43
	Low-E SmartSun™ Finelight Grilles	0.29	0.19	0.43
	Low-E SmartSun™ Finelight With Exterior Applied Grilles	-	-	-
	Low-E SmartSun™ Full Divided Light Grilles	0.31	0.19	0.43
	Low-E SmartSun w/HeatLock Without Grilles	0.26	0.20	0.48
	Low-E SmartSun w/HeatLock Simulated Divided Light Grilles	0.26	0.18	0.42
	Low-E SmartSun w/HeatLock Finelight Grilles	0.26	0.18	0.42
	Low-E SmartSun w/HeatLock Finelight With Exterior Applied Grilles	-	-	-
	Low-E SmartSun w/HeatLock Full Divided Light Grilles	0.28	0.18	0.42
	Low-E Sun Without Grilles	0.30	0.19	0.30
	Low-E Sun Simulated Divided Light Grilles	0.30	0.17	0.27
	Low-E Sun Finelight Grilles	0.30	0.17	0.27
	Low-E Sun Finelight With Exterior Applied Grilles	-	-	-
	Low-E Sun Full Divided Light Grilles	0.32	0.17	0.27
	Low-E PassiveSun® Without Grilles	0.31	0.52	0.60
	Low-E PassiveSun® Simulated Divided Light Grilles	0.31	0.47	0.53
	Low-E PassiveSun® Finelight Grilles	0.31	0.47	0.53
	Low-E PassiveSun® Finelight With Exterior Applied Grilles	-	-	-
	Low-E PassiveSun® Full Divided Light Grilles	0.32	0.47	0.53
	Clear Dual-Pane Without Grilles	0.46	0.59	0.62
	Clear Dual-Pane Simulated Divided Light Grilles	0.46	0.53	0.55
	Clear Dual-Pane Finelight Grilles	0.46	0.53	0.55
	Clear Dual-Pane Finelight With Exterior Applied Grilles	-	-	-
	Clear Dual-Pane Full Divided Light Grilles	0.47	0.53	0.55

1) U-Factor defines the amount of heat loss through the total unit in BTU/hr-ft²-°F. The lower the value, the less heat is lost through the entire product. Window values represent non-tempered glass. Use of tempered glass can increase U-Factor ratings. See andersenwindows.com/nfrc for specific performance values. Door values represent tempered glass. 2) Solar Heat Gain Coefficient (SHGC) defines the fraction of solar radiation admitted through the glass directly transmitted, as well as absorbed and subsequently released inward. The lower the value, the less heat is transmitted through the product. 3) Visible Transmittance (VT) measures how much light comes through a product (glass and frame). The higher the value, from 0 to 1, the more daylight the product lets in over the product's total unit area. Visible light transmittance is measured over the 380 to 760 nanometer portion of the solar spectrum.

continued on next page

- NFRC ratings are based on modeling by a third-party agency as validated by an independent test lab in compliance with NFRC program and procedural requirements.
- This data is accurate as of August 2023. Due to ongoing product changes, updated test results, or new industry standards or requirements, this data may change over time. Ratings are for sizes specified by NFRC for testing and certification. Ratings may vary depending on unit size, use of tempered glass, different grille options, glass for high altitudes, etc.
- Values are for single units with given pane thickness and 3/4" (19 mm) grilles for windows and 1" (25 mm) grilles for door products.

Andersen® windows and patio doors can make significant contributions to the success of sustainable design strategies

As a charter member of the U.S. Green Building Council, we're active supporters of certified green buildings. Our products can help customers in pursuing green building programs, such as Leadership in Energy and Environmental Design (LEED®), the National Green Building Standard, Green Globes, GreenStar and more. Below is an overview of how our products may assist project teams with pursuing LEED v4 or the NAHB National Green Building Standard rating systems. More detailed credit summaries, as well as information about how Andersen products can support earlier versions of LEED certification (e.g., LEED v3 or LEED 2008), are available at **andersenwindows.com**.

LEED V4 FOR BUILDING DESIGN AND CONSTRUCTION: NEW CONSTRUCTION AND MAJOR RENOVATIONS

Integrative Process Credit:

Energy & Atmosphere

- Minimum energy performance prerequisite
- Optimize energy performance credit
- Renewable energy production credit
- Green power and carbon offsets credit

Materials & Resources

- Construction and demolition waste management planning credit
- Building product disclosure and optimization sourcing of raw materials credit
- Construction and demolition waste management credit

Indoor Environmental Quality

- Minimum indoor air quality performance prerequisite
- Minimum acoustic performance prerequisite – schools
- Enhanced indoor air quality strategies credit
- Low-emitting materials credit
- Thermal comfort credit
- Daylight credit
- Quality views credit
- Acoustic performance credit (option 2)

LEED V4 FOR BUILDING DESIGN AND CONSTRUCTION: HOMES AND MULTI-FAMILY MIDRISES

Energy & Atmosphere

- Minimum energy performance prerequisite
- Education of the homeowner, tenant or building prerequisite
- Annual energy use credit
- Building orientation for passive solar credit
- Air infiltration credit
- Windows credit

Materials & Resources

- Durability management prerequisite
- Environmentally preferable products credit
- Construction waste management credit

Indoor Environmental Quality

- Ventilation prerequisite
- Low-emitting products credit

ANSI ICC/ASHRAE 700-2015 NATIONAL GREEN BUILDING STANDARD

NGBS section numbers are referenced in parentheses.

Resource Efficiency

- Prefinished materials (601.7)
- Flashing (602.12)
- Exterior doors, including storm doors (602.1.10)
- Recycled construction materials (605.3)
- Bio-based products (606.1)
- Wood-based products (606.2)
- Manufacturer's environmental management system concepts (611.1)

Energy Efficiency

- Mandatory requirements (701.1)
- Building thermal envelope air sealing (701.4.3.1)
- Multi-family air leakage alternative (701.4.3.3)
- Fenestration air leakage (701.4.3.4)
- ICC IECC analysis (702.2.1)
- Energy performance analysis (702.2.2)
- UA improvement (703.2.1)
- Fenestration (703.2.5)
- Sun-tempered design (703.7.1)
- Passive cooling design (703.7.3)
- Passive solar heating design (703.7.4)

Indoor Environmental Quality

- Wood materials (901.4)
- Interior architectural coatings (901.9)
- Interior adhesives & sealants (901.9)
- Operable windows & sliding glass doors (902.1.5)

Energy Efficient

- Homeowner's manual (1001.1)
- Building construction manual (1002.1)