



Pella®  
Impervia®

Windows  
and Patio  
Doors

HQ Apartments;  
Elness Swenson Graham,  
Architect; Kraus-Andersen,  
Builder;  
Minneapolis, MN

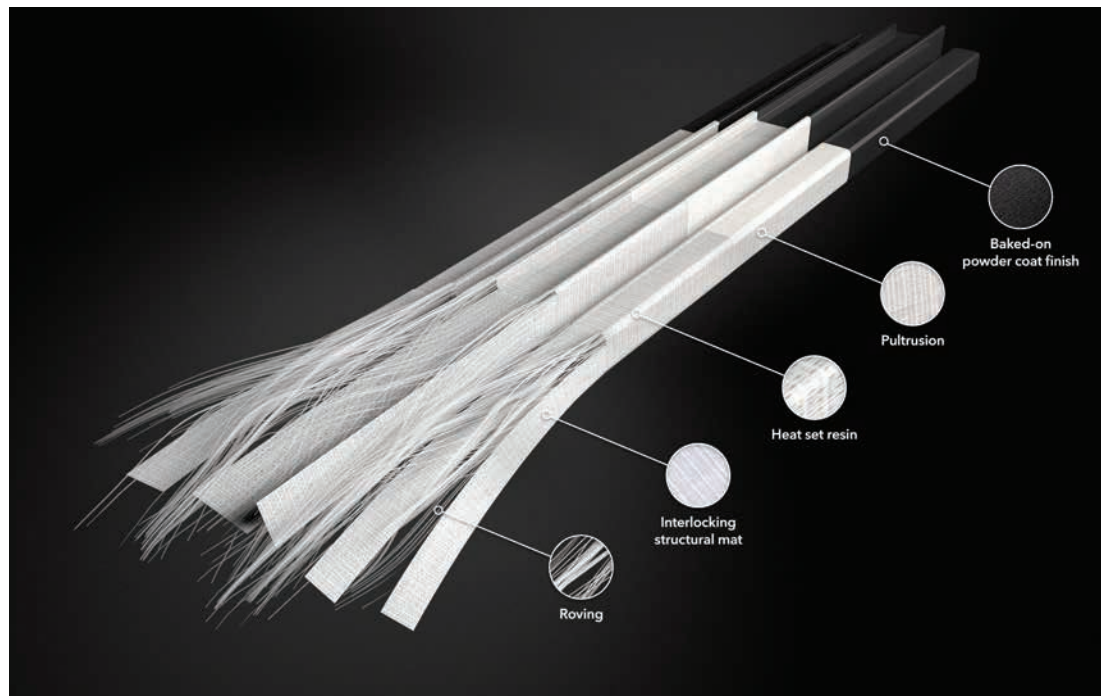
Photo: © VONDELINDE



Achieve commercial-grade strength and lasting durability for your customers' long-term return on investment. Pella Impervia products are made from our proprietary Duracast® fiberglass material, the strongest material for windows and patio doors, engineered for lasting durability.

Our long-lasting powdercoat finish meets AAMA 624, which is a highly-rated fiberglass coating.

Pella's proprietary fiberglass material has displayed superior strength over wood, vinyl, aluminum, wood/plastic composites, and other fiberglass materials used by leading national brands in tensile and 3-point bend tests performed in accordance with ASTM D638 and D790 testing standards.



**Delivering unmatched strength, engineered for lasting durability.**

**100x**

more impact-resistant  
than Andersen Fibrex

Impact testing performance based on testing 10 samples of each material using ASTM D256, Method C

**5,925x**

less thermally conductive  
than aluminum.

Based on thermal conductivity values found on engineeringtoolbox.com

**11x**

the tensile strength of  
vinyl or wood on average.

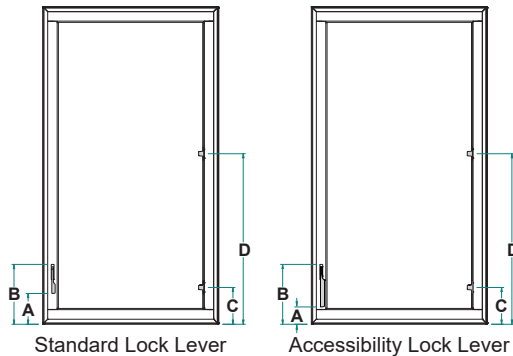
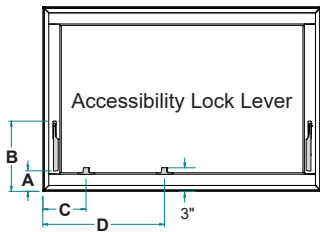
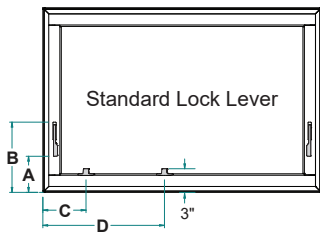
Tensile testing performance based on testing 7 samples of each material using ASTM D638 test methodology

## Americans with Disabilities Act (ADA) Options

### Accessibility Lock Lever

When paired with the Easy-Slide Operator, the optional Accessibility Lock Lever enables ADA specifications to be met on Pella® Impervia® casement and awning windows. Available on select sizes.

- The design combination of our Easy-Slide Operator paired with our accessibility lock lever keeps operational forces during the lock/unlock and open/close motion under five pounds.
- The Easy-Slide Operator hardware originated through universal design principles. The operator can be operated with one hand and does not require tight grasping, pinching or twisting of the wrist.
- The accessibility lock lever is a six-inch curved design that provides the leverage needed to easily lock and unlock the window.



### Awning Lock Handle Operator Height

Frame Height	Standard Locked Location (A)	Standard Unlocked Location (B)	Accessibility Locked Location (A)	Accessibility Unlocked Location (B)
≥ 17.50" to < 24"	9-5/8"	14-3/8"	7-1/2"	14-7/8"
≥ 24" to ≤ 59.5"	4-5/8"	9-3/8"	2-1/2"	9-7/8"

### Awning Easy-Slide Operator Travel

Frame Width	Closed Location (C)	Open Location (D)
≥ 23.5" to < 34.75"	3-7/8"	15-1/2"
≥ 34.75" to ≤ 59.5"	3-7/8"	19-7/8"

Height is measured from the bottom of the frame, proper installation height is required for ADA compliance.

### Casement Lock Handle Operator Height

Frame Height	Standard Locked Location (A)	Standard Unlocked Location (B)	Accessibility Locked Location (A)	Accessibility Unlocked Location (B)
≥ 20" to ≤ 59.5"	4-5/8"	9-3/8"	2-1/2"	9-7/8"
> 59.5" to < 72.5"	9-5/8"	14-3/8"	7-1/2"	14-7/8"
≥ 72.5" to ≤ 79.5"	30-9/16"	35-5/16"	—	—

### Casement Easy-Slide Operator Height

Frame Height	Closed Location (C)	Open Location (D)*
≥ 20" to < 30.5"	5-1/2"	15-1/2"
≥ 30.5" to < 72.5"	5-1/2"	25-1/2"
≥ 72.5" to ≤ 79.5"	21-1/2"	41-1/2"

Height is measured from the bottom of the frame. Proper installation height is required for ADA compliance. Review local and federal requirements for guidance on installation height and other considerations to meet ADA compliance.

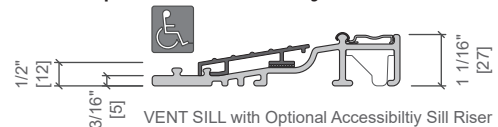
\*Limited Opening Limited Travel and Window Opening Control Device Hardware will reduce the open location by 5".

### Accessibility Sill Riser

Optional adapter enables ADA specifications to be met on Pella Impervia sliding patio doors.

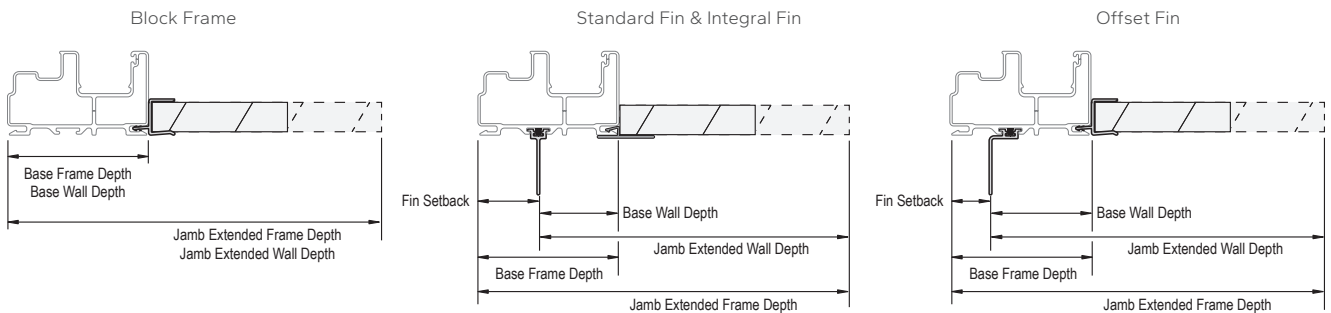
- The sill riser is designed to reduce the change in height of the sill and achieve the necessary slope requirements.
- 32" clear opening standard size widths available in 2- and 3-panel configurations, starting at 79.875" wide.
- Sill riser dependent on interior and exterior floor heights. Review local and federal requirements for guidance on floor heights and other considerations to meet ADA compliance.

### Optional Accessibility Sill Riser



# Brand Overview

	Cross Section	Frame / Install	Wall Depth Range	Performance Range
<b>Awning/ Casement Vent and Fixed</b>		Block Frame Standard Fin Off-set fin Integral fin	Base Frame Depth: 3-1/4" Std. Fin Setback: 1-5/16" Base Wall Depth: 1-15/16" Jamb extended wall depth: 4-9/16", 6-9/16"	LC30 – LC+50/-60 U: 0.21 – 0.51 SHGC: 0.17 – 0.61 STC: up to 37
<b>Double- Hung Vent</b>		Block Frame Standard Fin Off-set fin Integral fin	Base Frame Depth: 3" Std. Fin Setback: 1-5/16" Base Wall Depth: 1-11/16" Jamb extended wall depth: 4-9/16", 6-9/16"	LC30 – LC50 U: 0.25 – 0.48 SHGC: 0.19 – 0.59 STC: up to 29
<b>Single-Hung, Sliding Window &amp; Fixed Sash in Frame</b>		Block Frame Standard Fin Off-set fin Integral fin Flush Flange	Base Frame Depth: 3" Std. Fin Setback: 1-5/16" Base Wall Depth: 1-11/16" Jamb extended wall depth: 4-9/16", 6-9/16"	LC30 – CW50 U: 0.23 – 0.48 SHGC: 0.19 – 0.60 STC: up to 32
<b>Fixed Frame Direct Set</b>		Block Frame Standard Fin Off-set fin	Base Frame Depth: 3-1/4" Std. Fin Setback: 1-5/16" Base Wall Depth: 1-15/16" Jamb extended wall depth: 4-9/16", 6-9/16"	CW30 – CW+50/-55 U: 0.15 – 0.46 SHGC: 0.18 – 0.68 STC: up to 36
<b>Sliding Patio Door</b>		Block Frame Standard Fin Off-set fin	Base Frame Depth: 5" Std. Fin Setback: 1-5/16" Base Wall Depth: 3-11/16"	LC35 – CW50 U: 0.21 – 0.48 SHGC: 0.17 – 0.59 STC: up to 33



Jamb extensions are available factory installed on Standard Fin and Integral Fin rectangle windows. Additional jamb extended wall depths possible using field applied extensions.

Performance ranges shown are for single units and do not account for composite units (integral mullion) or combinations (multiple units mulled together).

Drawings are not to scale.

## Finishes

Pella Impervia products are factory finished with powder-coat paint. This paint meets the stringent AAMA 624 standards. Powder-coat paint is resistant to chalking and fading.

## Colors



White



Brown



Black



Tan



Morning Sky Gray

Optional dual-color finish, white interior with your choice of available exterior colors, available on Block Frame units. Dual color is not available with integral nail fin. Consult with your local Pella sales representative for current availability.

## Hardware

Standard hardware finishes match the interior color of the unit with the same powder-coated paint finish, optional metal finishes include a coating to prevent oxidation or tarnishing.

### Casement/Awning Window Easy-Slide Operators<sup>1</sup>



White



Brown



Matte Black



Tan



Morning Sky Gray

### Casement/Awning Window Easy-Slide Operators with Accessibility Lock Levers<sup>1</sup>



White



Brown



Matte Black



Tan



Morning Sky Gray

When paired with the Easy-Slide Operator, the optional Accessibility Lock Lever enables ADA specifications to be met on Pella Impervia casement and awning windows.

Available on select sizes.

Review local and federal requirements for guidance on installation height and other considerations to meet ADA compliance.

### Casement/Awning Window Fold-Away Cranks<sup>1</sup>



White



Brown



Matte Black



Tan



Morning Sky Gray



Satin Nickel

### Window Locks<sup>1</sup>



White



Brown



Matte Black



Tan



Morning Sky Gray



Satin Nickel



Oil-Rubbed  
Bronze



Bright Brass

### Sliding Patio Door Handles<sup>2</sup> and Secondary Locks



White



Brown



Matte Black



Tan



Morning Sky Gray



Satin Nickel

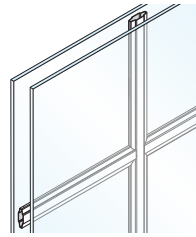
(1) Standard lock hardware is finished to match the interior of the window or door frame.

(2) Finish of exterior hardware matches color of exterior door frame.

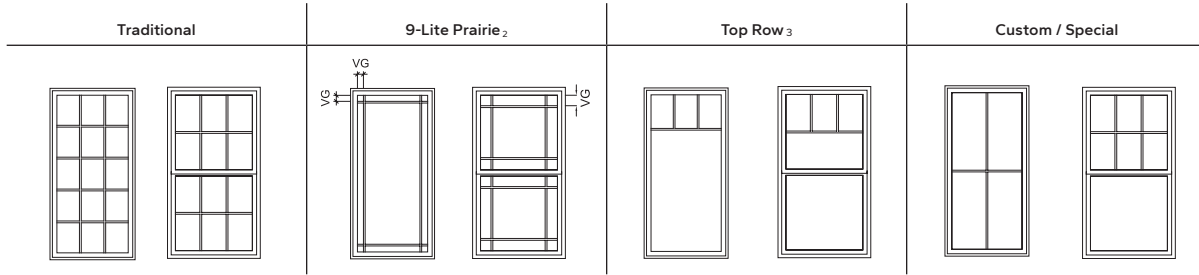
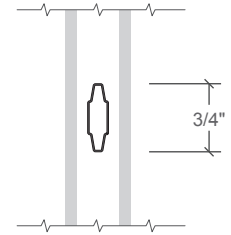
# Brand Overview

## Grilles-Between-The-Glass<sub>1</sub>

- Color matches frame.
- Grilles are 3/4" wide.
- Multiple grille patterns are available.
- Standard corner lite dimension for Prairie patterns = 4" visible glass (VG).
- Pattern availability may vary depending on size of unit.

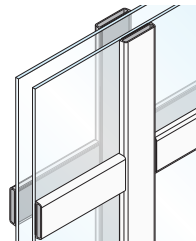


### Grille Profile

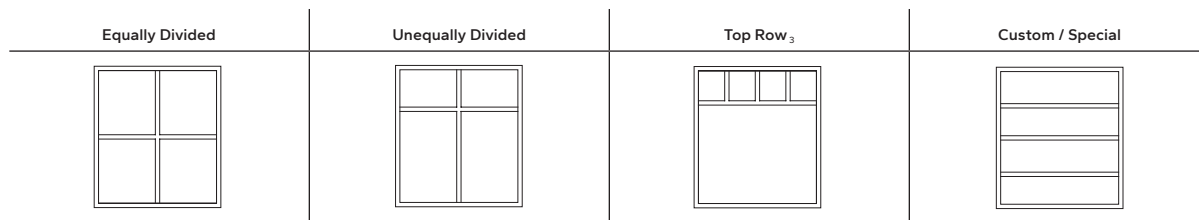
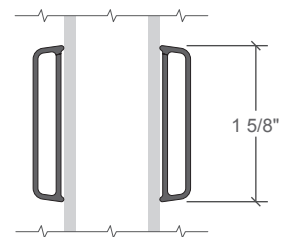


## Applied Grilles (Available on Fixed Frame Direct Set Rectangle Only)

- Grilles adhere to the exterior and interior faces.
- Color matches frame.
- Grilles are 1-5/8" wide to match frame width.
- Multiple grille patterns are available.
- Simulate multiple unit composites.



### Grille Profile



## Screens



### InView™ Screen

Standard screen on Pella Impervia windows and patio doors.

Vinyl coated 18/18 mesh fiberglass. Complies with performance requirements of SMA 1201.

The above are examples only. Lite dimensions noted can vary.

(1) Appearance of exterior grille color may vary depending on the Low-E insulating glass selection.

(2) Standard Corner lite dimension for Prairie patterns = 4" visible glass (VG).

(3) Standard visible glass to center line of separator bar = 14" or half the total visible glass height, whichever is smaller. Multiple rows are available up to 50% glass size.

Pattern availability may vary depending on size of unit.

Custom configurations are also available. For details contact your local Pella sales representative.

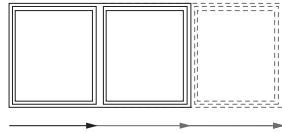
## Composite and Combination Assemblies

A combination is an assembly formed by two or more separate windows or doors whose frames are mullioned together by a combination or reinforcing mullion. A composite is an assembly of windows inside a single, continuous frame.

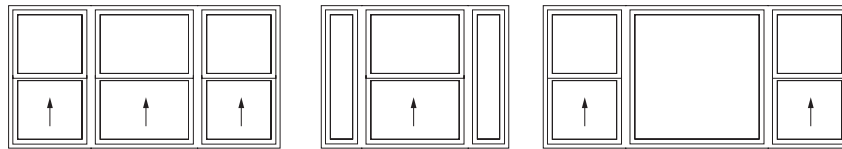
Pella Impervia products are available in an endless variety of configurations. Refer to the Product Application section of this book, [www.Pella.com/professionals](http://www.Pella.com/professionals) or your local Pella sales representative for information on performance and availability.

### Window Composite Examples

Fixed Frame



Single-Hung and fixed sash and frame



### Window Combination Examples

#### Factory Assembled Combination Parameters

143.5" x 105.5" max. overall frame size (block frame)\*.

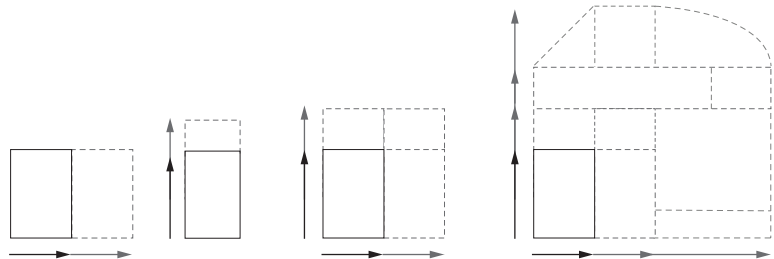
138.5" x 101" max. overall frame size (nail fin and offset nail fin)\*.

Not available with integral flange frame.

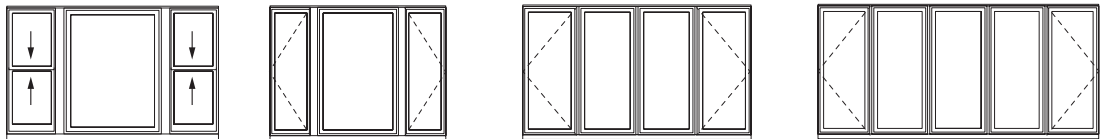
Mullion reinforcing may be required to limit deflection to code requirements.

Frame depth cannot vary within rows and columns.

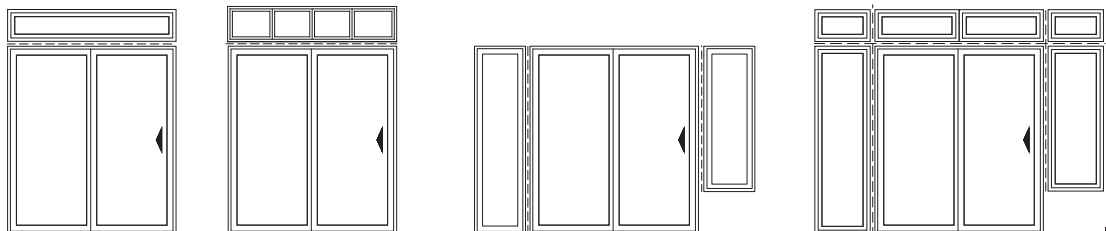
Double Hung windows cannot be placed above a 1/2" aluminum reinforcing mullion.



Bay/Bow



### Door and Window Combination Examples



Window to door jamb mullions require the window to be 2" above the sill of the door.

\*Actual mullion span and combination size availability depends on design pressure requirements. Consider combination size, weight and job site handling during design.







Pella®  
Impervia®

Awning  
Window



**Air, Water,  
& Structural  
Performance**

Performance Class & Grade Rating	Water Penetration Resistance	Air Infiltration	Design Pressure	Forced Entry
AP-LC30 – LC+50/-60	4.5 – 7.5 psf	0.05	+50/-60 psf	40

**Thermal  
Performance**

**Vent Units**

1 1/16" glass thickness; 3mm; Dual-Pane; optional foam  
Triple-Pane also available.

Type of Glazing (Argon fill)	U-Factor	SHGC	VLT %	CR	Energy Star® Capable
Advanced Low-E IG	0.28 – 0.33	0.24 – 0.27	0.44 – 0.49	54 - 58	–
SunDefense™ Low-E IG	0.27 – 0.33	0.18 – 0.20	0.41 – 0.45	54 - 59	SC, S
SunDefense+ Low-E IG	0.25 – 0.29	0.18 – 0.20	0.40 – 0.44	42 - 47	NC, SC, S
AdvancedComfort Low-E IG	0.25 – 0.29	0.24 – 0.26	0.43 – 0.48	42 - 46	NC
NaturalSun Low-E IG	0.29 – 0.33	0.44 – 0.48	0.50 – 0.55	54 - 58	–
NaturalSun+ Low-E IG	0.26 – 0.29	0.40 – 0.44	0.49 – 0.54	41 - 45	N

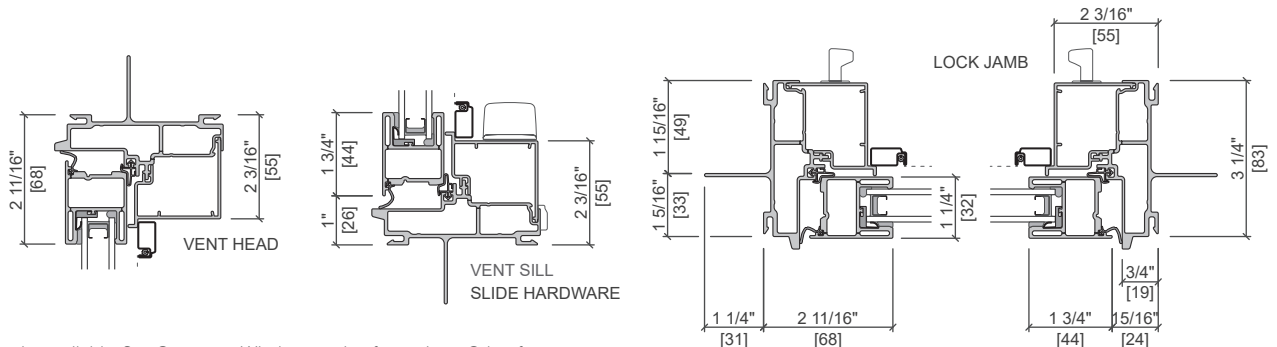
**Sound  
Performance**

**Vent Units**

Frame Size Tested	Type of Glazing	STC	OITC
59" x 23-1/2"	1 1/16" Overall Glazing Thickness	3mm / 3mm glass	29
		4mm / 4mm glass	31
		5mm / 3mm glass	32
59" x 23-1/2"	1" Overall Glazing Thickness	3mm / 3mm / 3mm glass	29
		4mm / 6mm glass	35
		5mm / 3mm glass	34
		5mm / 5mm glass	30
		6mm / 6mm glass	33
		4mm / 7mm PVB lam glass	36
		5mm / 10mm PVB lam glass	37

**Code Approvals:** Hallmark Certified; **FPAS#:** FL35281

Performance varies based on actual product attributes. See the Performance section earlier in this manual to learn more about performance standards and ratings.

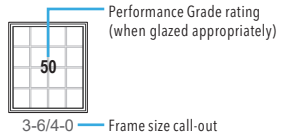


Fixed units available. See Casement Window section for options. Other frame types are available. Not to scale. All dimensions are approximate. Optional Easy-Slide Operator shown.

# Standard Sizes

## Vent and Fixed Units

	(521) (508)	(610) (597)	(711) (699)	(762) (749)	(813) (800)	(914) (902)	(1 067) (1 054)	(1 219) (1 207)	(1 372) (1 359)	(1 524) (1 511)
Opening	1' 8 1/2"	2' 0"	2' 4"	2' 6"	2' 8"	3' 0"	3' 6"	4' 0"	4' 6"	5' 0"
Frame	1' 8"	1' 11 1/2"	2' 3 1/2"	2' 5 1/2"	2' 7 1/2"	2' 11 1/2"	3' 5 1/2"	3' 11 1/2"	4' 5 1/2"	4' 11 1/2"
<b>SPECIAL NARROWER SIZES AVAILABLE</b>										
(457) (445)	1-8.5/1-6	2-0/1-6	2-4/1-6	2-6/1-6	2-8/1-6	3-0/1-6	3-6/1-6	4-0/1-6	4-6/1-6	5-0/1-6
(610) (597)	1-8.5/2-0	2-0/2-0	2-4/2-0	2-6/2-0	2-8/2-0	3-0/2-0	3-6/2-0	4-0/2-0	4-6/2-0	5-0/2-0
(762) (749)	1-8.5/2-6	2-0/2-6	2-4/2-6	2-6/2-6	2-8/2-6	3-0/2-6	3-6/2-6	4-0/2-6	4-6/2-6	5-0/2-6
(914) (902)	1-8.5/3-0	2-0/3-0	2-4/3-0	2-6/3-0	2-8/3-0	3-0/3-0	3-6/3-0	4-0/3-0	4-6/3-0	5-0/3-0
(1 067) (1 054)	1-8.5/3-6	2-0/3-6	2-4/3-6	2-6/3-6	2-8/3-6	3-0/3-6	3-6/3-6	4-0/3-6	4-6/3-6	5-0/3-6
(1 219) (1 207)	1-8.5/4-0	2-0/4-0	2-4/4-0	2-6/4-0	2-8/4-0	3-0/4-0	3-6/4-0	4-0/4-0	4-6/4-0	5-0/4-0
(1 372) (1 359)	1-8.5/4-6	2-0/4-6	2-4/4-6	2-6/4-6	2-8/4-6	3-0/4-6	3-6/4-6	4-0/4-6	4-6/4-6	5-0/4-6
(1 524) (1 511)	1-8.5/5-0	2-0/5-0	2-4/5-0	2-6/5-0	2-8/5-0	3-0/5-0	3-6/5-0	4-0/5-0	4-6/5-0	5-0/5-0



All vent sizes and glass types are tested for air/water/structural and impact-resistance, and are certified for wind zone 2, large missile rating C (Non-HVHZ).

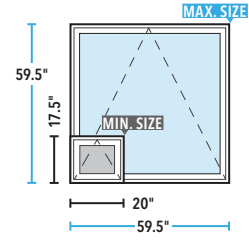
## Special Sizes

Special sizes are available in 1/8" increments.

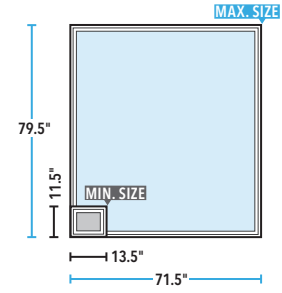
Frame height cannot exceed frame width on special size vent units.

## Awning

### Vent Sizes



### Fixed Sizes



When paired with the Easy-Slide Operator, the optional Accessibility Lock Lever enables ADA specifications to be met on Pella Impervia casement and awning windows. Available on select sizes. See our online documents for details.

Review local and federal requirements for guidance on installation height and other considerations to meet ADA compliance.

View the online ADM or consult your local Pella sales representative for triple-pane and fixed standard sizes product performance.







Pella®  
Impervia®

Casement  
Window



**Air, Water,  
& Structural  
Performance**

Performance Class & Grade Rating	Water Penetration Resistance	Air Infiltration	Design Pressure	Forced Entry
C - LC45 - LC +50/-60	6.75 – 7.5 psf	0.05	45 – 50 psf	40

**Thermal  
Performance**

**Vent Units**

1 1/16" glass thickness; 3mm; Dual-Pane; optional foam  
Triple-Pane also available.

Type of Glazing (Argon fill)	U-Factor	SHGC	VLT %	CR	Energy Star® Capable
Advanced Low-E IG	0.27 – 0.33	0.24 – 0.27	0.44 – 0.49	56 – 60	–
SunDefense™ Low-E IG	0.27 – 0.33	0.18 – 0.20	0.41 – 0.45	56 – 61	SC, S
SunDefense+ Low-E IG	0.24 – 0.28	0.18 – 0.20	0.40 – 0.44	44 – 48	NC, SC, S
AdvancedComfort Low-E IG	0.25 – 0.28	0.24 – 0.26	0.43 – 0.48	43 – 48	NC
NaturalSun Low-E IG	0.28 – 0.33	0.44 – 0.48	0.50 – 0.55	55 – 59	–
NaturalSun+ Low-E IG	0.25 – 0.28	0.40 – 0.44	0.49 – 0.54	43 – 47	N, NC

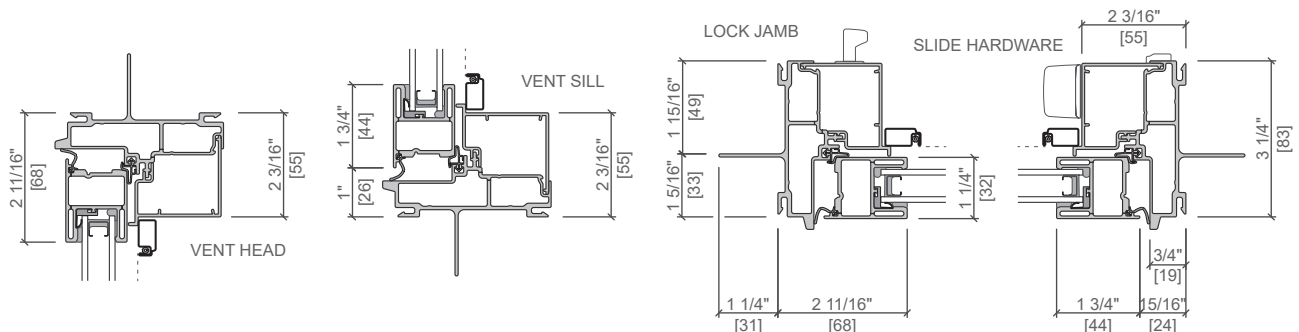
**Sound  
Performance**

**Vent Units**

Frame Size Tested	Type of Glazing	STC	OITC
23-1/2" x 59"	11/16" Overall Glazing Thickness	3mm / 3mm glass: 28	25
		4mm / 4mm glass: 31	26
		5mm / 3mm glass: 32	27
23-1/2" x 59"	1" Overall Glazing Thickness	3mm / 3mm / 3mm glass: 29	24
		4mm / 6mm glass: 34	28
		5mm / 3mm glass: 34	28
		5mm / 5mm glass: 30	24
		4mm / 7mm PVB lam glass: 36	29
		5mm / 10mm PVB lam glass: 37	32

Code Approvals: Hallmark Certified; FPAS#: Vent=FL35278; Fixed=FL35284

Performance varies based on actual product attributes. See the Performance section earlier in this manual to learn more about performance standards and ratings.



Other frame types are available. Not to scale. All dimensions are approximate. Easy-Slide Operator shown.

## Standard Sizes

### Transoms

	(457) (445)	(610) (597)	(711) (699)	(762) (749)	(813) (800)	(914) (902)
Opening	1' 6"	2' 0"	2' 4"	2' 6"	2' 8"	3' 0"
Frame	1' 5 1/2"	1' 11 1/2"	2' 3 1/2"	2' 5 1/2"	2' 7 1/2"	2' 11 1/2"

SPECIAL NARROWER AND WIDER SIZES AVAILABLE						
SPECIAL SIZES AVAILABLE	+50/-60	+50/-60	+50/-60	+50/-60	+50/-60	+50/-60
	1-6/1-2	2-0/1-2	2-4/1-2	2-6/1-2	2-8/1-2	3-0/1-2
	+50/-60	+50/-60	+50/-60	+50/-60	+50/-60	+50/-60
	1-6/1-6	2-0/1-6	2-4/1-6	2-6/1-6	2-8/1-6	3-0/1-6
	+50/-60	+50/-60	+50/-60	+50/-60	+50/-60	+50/-60
	1-6/2-0	2-0/2-0	2-4/2-0	2-6/2-0	2-8/2-0	3-0/2-0

### Vent and Fixed Units

	(762) (749)	(914) (902)	(1 067) (1 054)	(1 219) (1 207)	(1 372) (1 359)	(1 524) (1 511)	(1 676) (1 664)	(1 829) (1 816)
	2' 6"	3' 0"	3' 6"	4' 0"	4' 6"	5' 0"	5' 6"	6' 0"
	1-6/2-6	1-6/3-0	1-6/3-6	1-6/4-0	1-6/4-6	1-6/5-0	1-6/5-6	1-6/6-0
	+50/-60	+50/-60	+50/-60	+50/-60	+50/-60	+50/-60	50	50
	2-0/2-6	2-0/3-0	2-0/3-6	2-0/4-0	2-0/4-6	2-0/5-0	2-0/5-6	2-0/6-0
	+50/-60	+50/-60	+50/-60	+50/-60	+50/-60	+50/-60	50	50
	2-4/2-6	2-4/3-0	2-4/3-6	2-4/4-0	2-4/4-6	2-4/5-0	2-4/5-6	2-4/6-0
	+50/-60	+50/-60	+50/-60	+50/-60	+50/-60	+50/-60	50	50
	2-6/2-6	2-6/3-0	2-6/3-6	2-6/4-0	2-6/4-6	2-6/5-0	2-6/5-6	2-6/6-0
	+50/-60	+50/-60	+50/-60	+50/-60	+50/-60	+50/-60	50	50
	2-8/2-6	2-8/3-0	2-8/3-6	2-8/4-0	2-8/4-6	2-8/5-0	2-8/5-6	3-8/6-0
	+50/-60	+50/-60	+50/-60	+50/-60	+50/-60	+50/-60	50	50
	3-0/2-6	3-0/3-0	3-0/3-6	3-0/4-0	3-0/4-6	3-0/5-0	3-0/5-6	3-0/6-0
	+50/-60	+50/-60	+50/-60	+50/-60	+50/-60	+50/-60	50	50

When paired with the Easy-Slide Operator, the optional Accessibility Lock Lever enables ADA specifications to be met on Pella Impervia casement and awning windows. Available on select sizes. See our online documents for details.

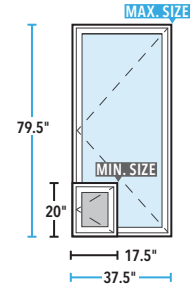
Review local and federal requirements for guidance on installation height and other considerations to meet ADA compliance.

## Special Sizes

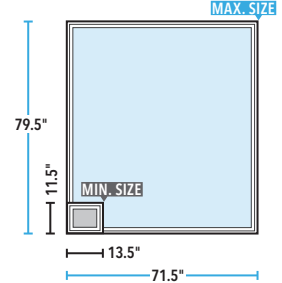
Special sizes are available in 1/8" increments.

Frame width cannot exceed frame height on vent special sizes.

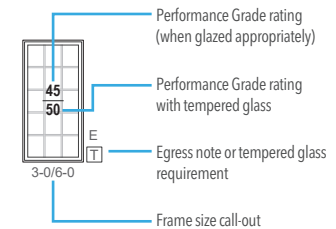
### Vent Sizes



### Fixed Sizes



Any vent casement with frame height greater than 70" will have 3mm tempered glass to reduce sash weight.



All vent sizes and glass types are tested for air/water/structural and impact-resistance, and are certified for wind zone 2, large missile rating C (Non-HVHZ).

### Egress Notes (IRC standard):

- E = Window meets minimum clear opening of 24" height, 20" width, and 5.7 ft<sup>2</sup>.
- E1 = Window meets minimum clear opening of 24" height, 20" width, and 5.0 ft<sup>2</sup>.

Egress shown is for units with Easy-Slide Operator and side pivot hinge. See complete product information online or consult your Pella sales representative for egress restrictions for other hardware options.

Check all applicable local codes for emergency egress requirements.

Not to scale.

View the online ADM or consult your local Pella sales representative for triple-pane and fixed standard sizes product performance. Use the QR code for quick access or visit [www.Pella.com](http://www.Pella.com).





Pella®  
Impervia®

Double-Hung  
Window



**Air, Water,  
& Structural  
Performance**

Performance Class & Grade Rating	Water Penetration Resistance	Air Infiltration	Design Pressure	Forced Entry
H-LC30 – H-LC50	4.5 psf	0.3	30 – 50 psf	10

**Thermal  
Performance**

**Vent Units**

1 1/16" glass thickness; 2.5 and 3mm; Dual-Pane; optional foam

Type of Glazing (Argon fill)	U-Factor	SHGC	VLT %	CR	Energy Star® Capable
Advanced Low-E IG	0.29 – 0.34	0.25 – 0.28	0.46 – 0.53	54 – 58	–
SunDefense™ Low-E IG	0.28 – 0.34	0.19 – 0.21	0.43 – 0.49	54 – 58	SC,S
SunDefense+ Low-E IG	0.23 – 0.27	0.19 – 0.21	0.42 – 0.47	42 – 47	NC, SC,S
AdvancedComfort Low-E IG	0.25 – 0.29	0.25 – 0.28	0.45 – 0.51	41 – 45	NC
NaturalSun Low-E IG	0.30 – 0.35	0.46 – 0.52	0.52 – 0.59	53 – 57	–
NaturalSun+ Low-E IG	0.24 – 0.28	0.42 – 0.48	0.51 – 0.58	41 – 46	CA, N

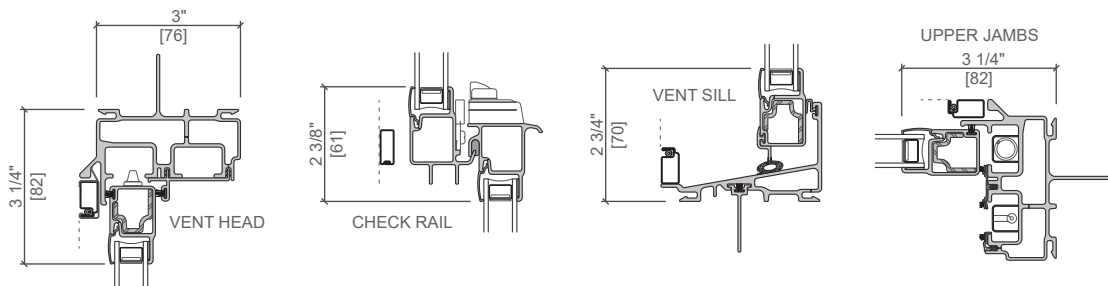
**Sound  
Performance**

**Vent Units**

Frame Size Tested	Type of Glazing		STC	OITC
47-1/2" x 59-1/2"	1 1/16" Overall glazing thickness	2.5mm / 2.5mm glass	26	22
		3mm / 5mm glass	29	26
		3mm / 6mm lam glass	29	26

Code Approvals: Hallmark Certified; FPAS#: Vent=FL12600; TDI#: Vent=WIN-684

Performance varies based on actual product attributes. See the Performance section earlier in this manual to learn more about performance standards and ratings.



Other frame types are available. Not to scale. All dimensions are approximate.

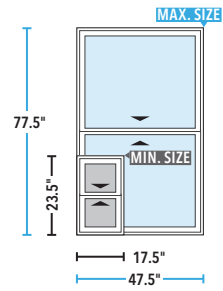
## Standard Sizes

Opening	Frame								
	1' 5 1/2"	1' 11 1/2"	2' 3 1/2"	2' 5 1/2"	2' 7 1/2"	2' 11 1/2"	3' 3 1/2"	3' 5 1/2"	3' 11 1/2"
(457) (445)	(610) (597)	(711) (699)	(762) (749)	(813) (800)	(914) (902)	(1 016) (1 003)	(1 067) (1 054)	(1 219) (1 207)	
1' 6"	2' 0"	2' 4"	2' 6"	2' 8"	3' 0"	3' 4"	3' 6"	4' 0"	
2' 6"	2' 5 1/2"	2' 11 1/2"	3' 0"	3' 2"	3' 6"	3' 10"	4' 0"	4' 2"	4' 6"
(762) (749)	(914) (902)	(965) (953)	(1 067) (1 054)	(1 168) (1 156)	(1 219) (1 207)	(1 270) (1 257)	(1 372) (1 359)	(1 473) (1 461)	(1 524) (1 511)
3' 0"	3' 1 1/2"	3' 5 1/2"	3' 9 1/2"	4' 0"	4' 4"	4' 8"	4' 10"	5' 0"	5' 2"
(1 676) (1 664)	(1 778) (1 765)	(1 829) (1 816)	(1 878) (1 864)	(1 929) (1 916)	(1 980) (1 967)	(2 031) (2 018)	(2 082) (2 069)	(2 133) (2 120)	(2 184) (2 171)
3' 6"	3' 7 1/2"	3' 11 1/2"	4' 0"	4' 2"	4' 6"	4' 10"	5' 0"	5' 4"	5' 8"
(1 981) (1 969)	(2 082) (2 069)	(2 133) (2 120)	(2 184) (2 171)	(2 235) (2 222)	(2 286) (2 273)	(2 337) (2 324)	(2 388) (2 375)	(2 439) (2 426)	(2 490) (2 477)
6' 6"	6' 5 1/2"	6' 11 1/2"							

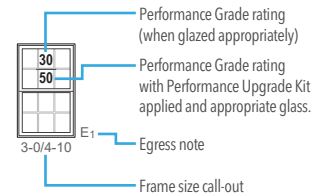
## Special Sizes

Special sizes are available in 1/8" increments.

### Vent - Equal



Cottage, contemporary and custom sash split also available. Specify checkrail height when ordering.



### Egress Notes:

- E = Window meets minimum clear opening of 24" height, 20" width, and 5.7 ft<sup>2</sup>.
  - E1 = Window meets minimum clear opening of 24" height, 20" width, and 5.0 ft<sup>2</sup>.
- Check all applicable local codes for emergency egress requirements.
- Unit meets E1 with High Performance sill adapter kit installed.
  - Does not meet egress with High Performance sill adapter kit installed.





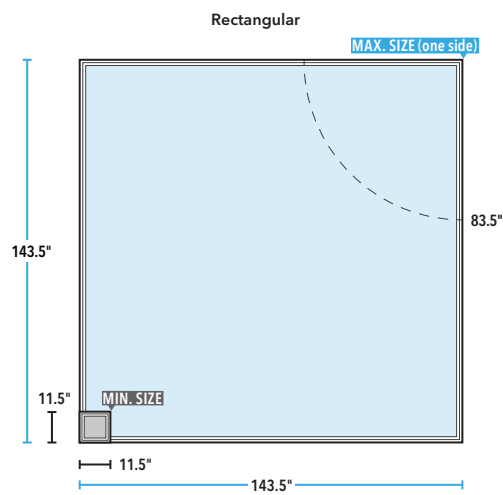


Pella®  
Fiberglass

Fixed  
Frame  
Direct Set  
Window

The Elliot Park Hotel;  
Elness Swenson Graham,  
Architect  
Kraus-Andersen, Builder  
Minneapolis, MN

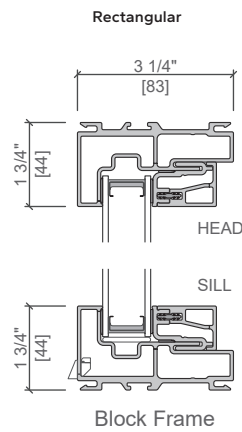
Photo: © Brandon Stengel  
www.farmkidstudios.com



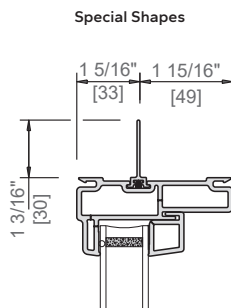
Maximum of 143-1/2" in one direction;  
70 sq. ft. maximum. Short side cannot be > 83.5"

Impact-Resistant Maximum:  
PVB laminate 37-1/2" W x 73-1/2" H;  
SGP laminate 60" W x 120" H

See online ADM for performance and size  
limitations of 2- and 3-wide composites.



Other frame types are available.  
Not to scale. All dimensions are  
approximate.



Special shape window frames and  
glass stops are made of a fiberglass-  
resin composite.

Other frame types are available.  
Not to scale. All dimensions are  
approximate.

Special Shapes Frame Dimensions

Description	Width		Height	
	Min.	Max.	Min.	Max.
Half Circle	23.5"	101.5"	-	-
Arch Head	17.5"	107.5"	11.5"	95.5"
Springline	23.5"	71.5"	47.5"	95.5"
Partial Arch Head	17.5"	71.5"	11.5"	95.5"
Quarter Circle	13.5"	71.5"	-	-
Trapezoid	11.5"	95.5"	11.5"	95.5"
Pentagon	17.5"	95.5"	23.5"	95.5"
Isosceles Triangle	17.5"	95.5"	11.5"	95.5"
Triangle	17.5"	95.5"	11.5"	71.5"

Shapes are available up to a maximum of 36 sq. ft. when  
measured as a rectangle.



## Fixed Frame Direct Set - Rectangular

Air, Water, & Structural Performance	Performance Class & Grade Rating	Water Penetration Resistance	Air Infiltration	Design Pressure	Forced Entry
	FW - CW +50 / -55	7.52 psf	0.05	50 psf	40

Thermal Performance	Type of Glazing (Argon fill)	U-Factor	SHGC	VLT %	CR	Energy Star® Capable
	1" glass thickness 3mm, Dual-Pane; optional foam  Triple-Pane also available.	Advanced Low-E IG	0.27 - 0.31	0.26 - 0.32	0.49 - 0.61	57 - 59
SunDefense™ Low-E IG		0.26 - 0.31	0.20 - 0.24	0.45 - 0.56	57 - 59	SC, S
SunDefense+ Low-E IG		0.21 - 0.25	0.19 - 0.23	0.44 - 0.55	46 - 50	CA, N, NC, SC, S
AdvancedComfort Low-E IG		0.22 - 0.25	0.26 - 0.32	0.48 - 0.60	45 - 49	N, NC
NaturalSun Low-E IG		0.28 - 0.32	0.49 - 0.60	0.55 - 0.69	57 - 58	CA
NaturalSun+ Low-E IG	0.23 - 0.26	0.44 - 0.55	0.54 - 0.67	39 - 49	CA, N	

Sound Performance	Frame Size Tested	Type of Glazing	STC	OITC
	47-1/2" x 59-1/2"	1" Overall glazing thickness	3mm / 3mm glass	28
4mm / 4mm glass			30	24
5mm / 5mm glass			31	25
6mm / 6mm glass			32	27
5mm / 3mm glass			31	27
4mm / 6mm glass			33	28
4mm / 7mm laminated glass			33	28
5mm / 10mm laminated glass			36	31
47-1/2" x 59-1/2"	1-1/4" Overall glazing thickness	3mm / 3mm / 3mm glass	28	22
		4mm / 4mm / 4mm glass	30	25
		5mm / 5mm / 5mm glass	31	26
		6mm / 6mm / 6mm glass	34	28

All sizes and glass types are tested for air/water/structural and impact-resistance, and are certified for wind zone 2, large missile rating C (Non-HVHZ).

The use of fixed frame direct set windows is limited by product performance rating, design pressure load chart, installation method and glass thickness or type. Always consult local building code and Florida FPAS for performance and installation requirements.

Impact-resistant laminated glass will only be available on single units using Block Frame with a Prep for Screw Through Frame or Installation Clips attachment methods. Composite units do not qualify. See FPAS documents or Pella Installation Instructions for required anchor layout and details.

Rectangular only: **Code Approvals:** Hallmark Certified; **FPAS#:** FL26584

Performance varies based on actual product attributes. See the Performance section earlier in this manual to learn more about performance standards and ratings.

## Fixed Frame Direct Set - Special Shapes

Air, Water, & Structural Performance	Performance Class & Grade Rating	Water Penetration Resistance	Air Infiltration	Design Pressure	Forced Entry
	FW-CW30	4.5 psf	0.05	30 psf	40

Thermal Performance	Type of Glazing (Argon fill)	U - Factor	SHGC	VLT %	CR	Energy Star® Capable
	1" glass thickness 3mm, Dual-Pane; optional foam	Advanced Low-E IG	0.27 - 0.32	0.30 - 0.33	0.55 - 0.62	58 - 60
SunDefense™ Low-E IG		0.27 - 0.32	0.22 - 0.24	0.51 - 0.57	59 - 60	SC, S
SunDefense+ Low-E IG		0.22 - 0.25	0.22 - 0.24	0.50 - 0.56	46 - 50	N, NC, SC, S
AdvancedComfort Low-E IG		0.22 - 0.26	0.29 - 0.32	0.54 - 0.60	46 - 50	N, NC
NaturalSun Low-E IG		0.28 - 0.33	0.55 - 0.61	0.63 - 0.70	58 - 60	CA
NaturalSun+ Low-E IG	0.23 - 0.26	0.50 - 0.55	0.61 - 0.68	45 - 49	CA, N	

Sound Performance	Frame Size Tested	Type of Glazing	STC	OITC
	47-1/2" x 47-1/2"	1" Overall glazing thickness	2.5mm / 2.5mm glass	27

Special Shapes: **Code Approvals:** Hallmark Certified; **FPAS#** = FL12603 ; **TDI#** = WIN-734

Performance varies based on actual product attributes. See the Performance section earlier in this manual to learn more about performance standards and ratings.

Special Shapes



Rectangular





Pella®  
Impervia®

Fixed  
Window



**Air, Water,  
& Structural  
Performance**

Performance Class & Grade Rating	Water Penetration Resistance	Air Infiltration	Design Pressure	Forced Entry
F-CW30 - F-CW50	7.5 psf	0.01	30 – 50 psf	40

**Thermal  
Performance**

1 1/16" overall glass thickness  
2.5mm and 3mm Dual-Pane; optional foam

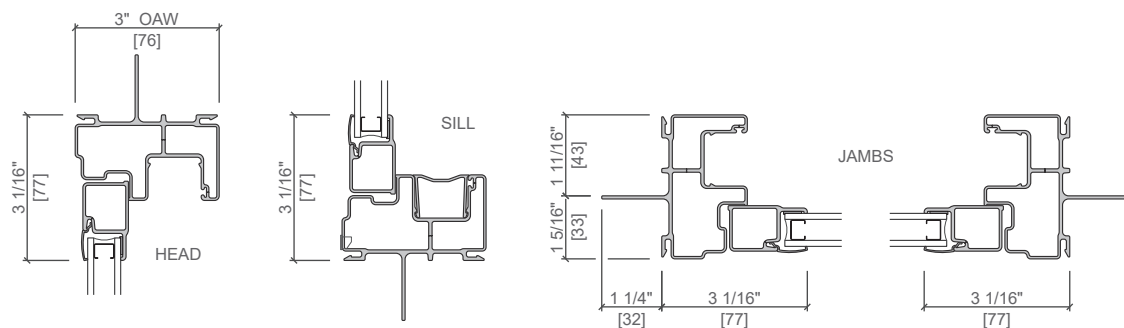
Type of Glazing (Argon fill)	U-Factor	SHGC	VLT %	CR	Energy Star® Capable
Advanced Low-E IG	0.26 – 0.33	0.27 – 0.30	0.49 – 0.55	56 – 60	–
SunDefense™ Low-E IG	0.25 – 0.32	0.20 – 0.22	0.45 – 0.51	56 – 61	NC, SC, S
SunDefense+ Low-E IG	0.22 – 0.28	0.20 – 0.22	0.44 – 0.50	43 - 49	N, NC, SC, S
AdvancedComfort Low-E IG	0.22 – 0.28	0.26 – 0.29	0.48 – 0.54	39 – 43	N, NC
NaturalSun Low-E IG	0.27 – 0.34	0.49 – 0.55	0.55 – 0.63	55 – 60	CA
NaturalSun+ Low-E IG	0.23 – 0.29	0.44 – 0.50	0.54 – 0.61	42 - 47	CA, N

**Sound  
Performance**

Frame Size Tested	Type of Glazing	STC	OITC
47-1/2" x 59-1/2"	3mm / 3mm glass	27	23
	3mm / 5mm glass	32	27
	3mm / 6mm lam glass	33	28
	4mm / 7mm lam glass	33	28

Code Approvals: Hallmark Certified; FPAS#: FL12599; TDI#: WIN-1595

Performance varies based on actual product attributes. See the Performance section earlier in this manual to learn more about performance standards and ratings.



Other frame types are available.

Not to scale. All dimensions are approximate.

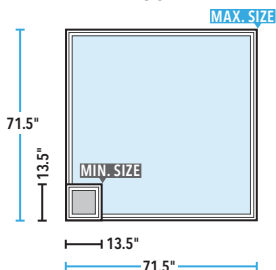
# Standard Sizes

## Fixed Units

	(356) (343)	(457) (445)	(610) (597)	(711) (699)	(762) (749)	(813) (800)	(914) (902)	(1 067) (1 054)	(1 219) (1 207)	(1 372) (1 359)	(1 524) (1 511)	(1 829) (1 816)
Opening	1' 2"	1' 6"	2' 0"	2' 4"	2' 6"	2' 8"	3' 0"	3' 6"	4' 0"	4' 6"	5' 0"	6' 0"
Frame	1' 1 1/2"	1' 5 1/2"	1' 11 1/2"	2' 3 1/2"	2' 5 1/2"	2' 7 1/2"	2' 11 1/2"	3' 5 1/2"	3' 11 1/2"	4' 5 1/2"	4' 11 1/2"	5' 11 1/2"
(356) (343)	1-6/1-2	2-0/1-2	2-4/1-2	2-6/1-2	2-8/1-2	3-0/1-2	3-6/1-2	4-0/1-2	4-6/1-2	5-0/1-2	6-0/1-2	
(457) (446)	1-6/1-6	2-0/1-6	2-4/1-6	2-6/1-6	2-8/1-6	3-0/1-6	3-6/1-6	4-0/1-6	4-6/1-6	5-0/1-6	6-0/1-6	
(610) (597)	1-6/2-0	2-0/2-0	2-4/2-0	2-6/2-0	2-8/2-0	3-0/2-0	3-6/2-0	4-0/2-0	4-6/2-0	5-0/2-0	6-0/2-0	
(762) (749)							3-0/2-6	3-6/2-6	4-0/2-6	4-6/2-6	5-0/2-6	6-0/2-6
(914) (902)	1-2/3-0						3-0/3-0	3-6/3-0	4-0/3-0	4-6/3-0	5-0/3-0	6-0/3-0
(1 067) (1 054)	1-2/3-6						3-0/3-6	3-6/3-6	4-0/3-6	4-6/3-6	5-0/3-6	6-0/3-6
(1 219) (1 207)	1-2/4-0						3-0/4-0	3-6/4-0	4-0/4-0	4-6/4-0	5-0/4-0	6-0/4-0
(1 372) (1 359)	1-2/4-6						3-0/4-6	3-6/4-6	4-0/4-6	4-6/4-6	5-0/4-6	6-0/4-6
(1 524) (1 511)	1-2/5-0						3-0/5-0	3-6/5-0	4-0/5-0	4-6/5-0	5-0/5-0	6-0/5-0
(1 676) (1 664)							3-0/5-6	3-6/5-6	4-0/5-6	4-6/5-6	5-0/5-6	6-0/5-6
(1 829) (1 816)							3-0/6-0	3-6/6-0	4-0/6-0	4-6/6-0	5-0/6-0	6-0/6-0

## Special Sizes

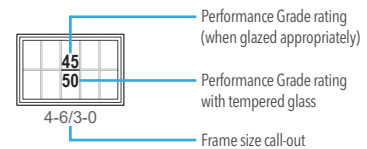
Fixed



Special sizes are available in 1/8" increments.

See online ADM for performance and sizes (including available standard sizes) of 2- and 3-wide composites.

Not to scale. Traditional grille patterns shown.



(1) Tempered glass is not available.





Pella®  
Impervia®

Single-Hung  
Window



**Air, Water,  
& Structural  
Performance**

Performance Class & Grade Rating	Water Penetration Resistance	Air Infiltration	Design Pressure	Forced Entry
H -LC30 – H-LC50	4.6 – 7.5 psf	0.10	30 – 50 psf	40

**Thermal  
Performance**

1 1/16" overall glass thickness  
2.5mm and 3mm Dual-Pane;  
optional foam

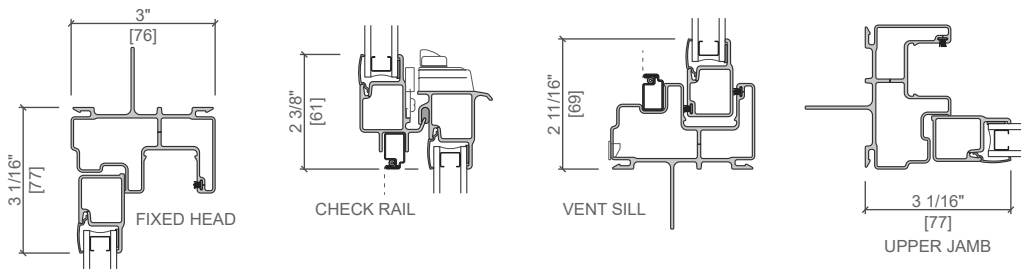
Type of Glazing (Argon fill)	U-Factor	SHGC	VLT %	CR	Energy Star® Capable
Advanced Low-E IG	0.27 – 0.33	0.25 – 0.29	0.47 – 0.53	55 – 59	–
SunDefense™ Low-E IG	0.27 – 0.33	0.19 – 0.21	0.43 – 0.49	55 – 59	SC, S
SunDefense+ Low-E IG	0.24 – 0.29	0.19 – 0.21	0.42 – 0.48	42 – 47	NC, SC, S
AdvancedComfort Low-E IG	0.23 – 0.29	0.25 – 0.28	0.46 – 0.52	42 – 46	NC
NaturalSun Low-E IG	0.28 – 0.34	0.47 – 0.53	0.54 – 0.60	54 – 58	CA
NaturalSun+ Low-E IG	0.25 – 0.29	0.43 – 0.48	0.52 – 0.59	41 – 46	CA, N

**Sound  
Performance**

Frame Size Tested	Type of Glazing	STC	OITC
47-1/2" x 59-1/2"	11/16" Overall glazing thickness	26	22
	2.5mm / 2.5mm glass	31	26
	3mm / 5mm glass	32	27

**Code Approvals:** Hallmark Certified; **FPAS#:** Vent=FL12602; Fixed=FL12599; **TDI#:** Vent=WIN-1649; Fixed= WIN-1595

Performance varies based on actual product attributes. See the Performance section earlier in this manual to learn more about performance standards and ratings.



Other frame types are available. Not to scale. All dimensions are approximate.

# Standard Sizes

## Fixed Units

Opening	1' 6"	2' 0"	2' 4"	2' 6"	2' 8"	3' 0"	3' 6"	4' 0"
	(457)	(610)	(711)	(762)	(813)	(914)	(1 067)	(1 219)
	(445)	(597)	(699)	(749)	(800)	(902)	(1 054)	(1 207)
Frame	1' 5 1/2"	1' 11 1/2"	2' 3 1/2"	2' 5 1/2"	2' 7 1/2"	2' 11 1/2"	3' 5 1/2"	3' 11 1/2"

1' 2"	(366)	(366)	(366)	(366)	(366)	(366)	(366)	(366)
1' 2"	1-6/1-2	2-0/1-2	2-4/1-2	2-6/1-2	2-8/1-2	3-0/1-2	3-6/1-2	4-0/1-2
1' 6"	(457)	(597)	(699)	(749)	(800)	(902)	(1 054)	(1 207)
1' 6"	1-6/1-6	2-0/1-6	2-4/1-6	2-6/1-6	2-8/1-6	3-0/1-6	3-6/1-6	4-0/1-6
2' 0"	(610)	(597)	(699)	(749)	(800)	(902)	(1 054)	(1 207)
2' 0"	1-6/2-0	2-0/2-0	2-4/2-0	2-6/2-0	2-8/2-0	3-0/2-0	3-6/2-0	4-0/2-0

## Vent Units

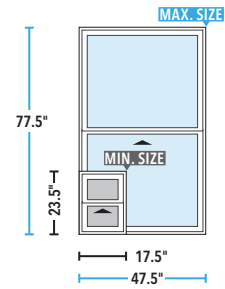
2' 0"	(610)	(597)	(699)	(749)	(800)	(902)	(1 054)	(1 207)
2' 0"	1-6/2-0	2-0/2-0	2-4/2-0	2-6/2-0	2-8/2-0	3-0/2-0	3-6/2-0	4-0/2-0
2' 6"	(762)	(749)	(800)	(902)	(1 054)	(1 207)	(1 359)	(1 511)
2' 6"	1-6/2-6	2-0/2-6	2-4/2-6	2-6/2-6	2-8/2-6	3-0/2-6	3-6/2-6	4-0/2-6
3' 0"	(914)	(902)	(1 054)	(1 207)	(1 359)	(1 511)	(1 664)	(1 816)
3' 0"	1-6/3-0	2-0/3-0	2-4/3-0	2-6/3-0	2-8/3-0	3-0/3-0	3-6/3-0	4-0/3-0
3' 6"	(1 067)	(1 054)	(1 207)	(1 359)	(1 511)	(1 664)	(1 816)	(1 969)
3' 6"	1-6/3-6	2-0/3-6	2-4/3-6	2-6/3-6	2-8/3-6	3-0/3-6	3-6/3-6	4-0/3-6
4' 0"	(1 219)	(1 207)	(1 359)	(1 511)	(1 664)	(1 816)	(1 969)	(2 121)
4' 0"	1-6/4-0	2-0/4-0	2-4/4-0	2-6/4-0	2-8/4-0	3-0/4-0	3-6/4-0	4-0/4-0
4' 6"	(1 372)	(1 359)	(1 511)	(1 664)	(1 816)	(1 969)	(2 121)	(2 273)
4' 6"	1-6/4-6	2-0/4-6	2-4/4-6	2-6/4-6	2-8/4-6	3-0/4-6	3-6/4-6	4-0/4-6
5' 0"	(1 524)	(1 511)	(1 664)	(1 816)	(1 969)	(2 121)	(2 273)	(2 425)
5' 0"	1-6/5-0	2-0/5-0	2-4/5-0	2-6/5-0	2-8/5-0	3-0/5-0	3-6/5-0	4-0/5-0
5' 6"	(1 676)	(1 664)	(1 816)	(1 969)	(2 121)	(2 273)	(2 425)	(2 577)
5' 6"	1-6/5-6	2-0/5-6	2-4/5-6	2-6/5-6	2-8/5-6	3-0/5-6	3-6/5-6	4-0/5-6
6' 0"	(1 829)	(1 816)	(1 969)	(2 121)	(2 273)	(2 425)	(2 577)	(2 729)
6' 0"	1-6/6-0	2-0/6-0	2-4/6-0	2-6/6-0	2-8/6-0	3-0/6-0	3-6/6-0	4-0/6-0
6' 6"	(1 981)	(1 969)	(2 121)	(2 273)	(2 425)	(2 577)	(2 729)	(2 881)
6' 6"	1-6/6-6	2-0/6-6	2-4/6-6	2-6/6-6	2-8/6-6	3-0/6-6	3-6/6-6	4-0/6-6

Transoms and Companion fixed windows available for combinations or single units. See Fixed Window section for availability.

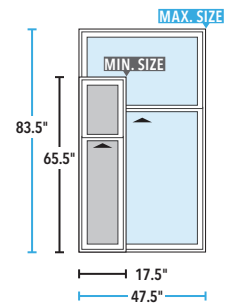
# Special Sizes

Special sizes are available in 1/8" increments.

## Vent (Equal Sash)



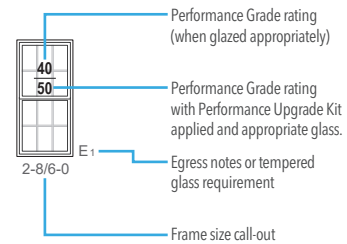
## Vent (Cottage /Contemporary Sash)



Other sash splits available. Size limitations apply.

Min Frame Height for 24" lower sash is 53.5".

See online ADM for performance and sizes (including available standard sizes) of Cottage sash, Contemporary sash, and 2- and 3-wide composites.



### Egress Notes:

E = Window meets minimum clear opening of 24" height, 20" width, and 5.7 ft<sup>2</sup>.

E1 = Window meets minimum clear opening of 24" height, 20" width, and 5.0 ft<sup>2</sup>.

Check all applicable local codes for emergency egress requirements.

(1) Does not meet egress with High Performance sill adapter kit installed.

(2) Unit meets E1 with High Performance sill adapter kit installed.

Check all applicable local codes for emergency egress requirements.







Pella®  
Impervia®

Sliding  
Window



**Air, Water,  
& Structural  
Performance**

Performance Class & Grade Rating	Water Penetration Resistance	Air Infiltration	Design Pressure	Forced Entry
SW - LC30 - SW-LC50	4.5 - 7.5 psf	0.10	25 - 50 psf	40

**Thermal  
Performance**

1 1/16" overall glass thickness  
2.5mm and 3mm Dual-Pane;  
optional foam

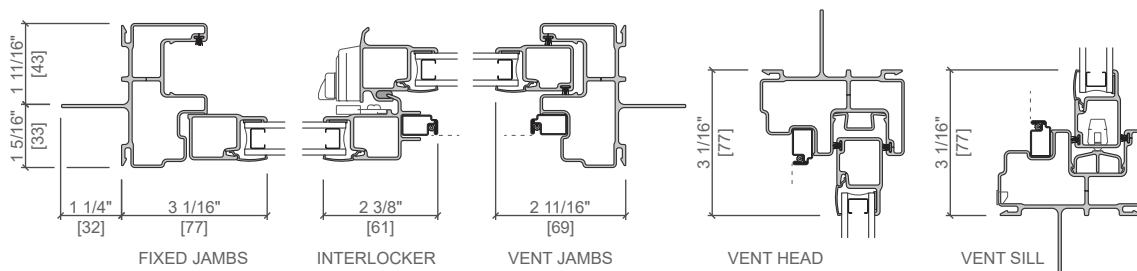
Type of Glazing (Argon fill)	U - Factor	SHGC	VLT %	CR	Energy Star® Capable
Advanced Low-E IG	0.27 - 0.33	0.25 - 0.29	0.47 - 0.53	55 - 58	-
SunDefense™ Low-E IG	0.26 - 0.33	0.19 - 0.21	0.43 - 0.49	55 - 59	S
SunDefense+ Low-E IG	0.24 - 0.31	0.19 - 0.21	0.42 - 0.48	42 - 47	NC, SC, S
AdvancedComfort Low-E IG	0.23 - 0.29	0.25 - 0.28	0.46 - 0.52	42 - 46	NC
NaturalSun Low-E IG	0.28 - 0.34	0.47 - 0.53	0.53 - 0.60	54 - 58	CA
NaturalSun+ Low-E IG	0.25 - 0.31	0.42 - 0.48	0.52 - 0.59	41 - 46	CA, N

**Sound  
Performance**

Frame Size Tested	Type of Glazing	STC	OITC
2-Panel OX, XO 59-1/2" x 47-1/2"	2.5mm / 2.5mm glass	26	23
	3mm / 5mm glass	31	27
	3mm / 6mm lam glass	33	29
	4mm / 7mm lam glass	33	30
Three-Panel XOX 59-1/2" x 47-1/2"	2.5mm / 2.5mm glass	26	22
	3mm / 5mm glass	31	28
	3mm / 6mm lam glass	32	28
	4mm / 7mm lam glass	32	30

Code Approvals: Hallmark Certified; FPAS#:OX/XO/XOX=FL12604; TDI#: OX/XO/XOX=WIN-1653

Performance varies based on actual product attributes. See the Performance section earlier in this manual to learn more about performance standards and ratings.



Other frame types are available.

Not to scale. All dimensions are approximate.

## Standard Sizes

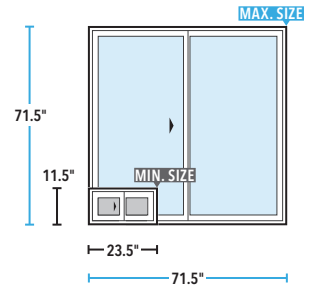
Vent-Fixed Units (XO)	Opening	(610)	(762)	(914)	(1 219)	(1 524)	(1 829)
		(597)	(749)	(902)	(1 207)	(1 511)	(1 816)
	Frame	2' 0"	2' 6"	3' 0"	4' 0"	5' 0"	6' 0"
1' 6"	1' 11 1/2"	2-0/1-6	2-6/1-6	3-0/1-6	4-0/1-6	5-0/1-6	6-0/1-6
2' 0"	1' 11 1/2"	2-0/2-0	2-6/2-0	3-0/2-0	4-0/2-0	5-0/2-0	6-0/2-0
2' 6"	2' 5 1/2"	2-0/2-6	2-6/2-6	3-0/2-6	4-0/2-6	5-0/2-6	6-0/2-6
3' 0"	2' 11 1/2"	2-0/3-0	2-6/3-0	3-0/3-0	4-0/3-0	5-0/3-0	6-0/3-0
3' 6"	3' 5 1/2"	2-0/3-6	2-6/3-6	3-0/3-6	4-0/3-6	5-0/3-6	6-0/3-6
4' 0"	3' 11 1/2"	2-0/4-0	3-0/4-0	4-0/4-0	5-0/4-0	6-0/4-0	
4' 6"	4' 5 1/2"	2-6/4-6	3-0/4-6	4-0/4-6	5-0/4-6	6-0/4-6	
5' 0"	4' 11 1/2"		3-0/5-0	4-0/5-0	5-0/5-0	6-0/5-0	
6' 0"	5' 11 1/2"			4-0/6-0	5-0/6-0	6-0/6-0	

Vent-Fixed-Vent Units (XOX) — One Third Vent Units	Opening	(1 829)	(2 134)	(2 438)	(2 743)
		(1 816)	(2 121)	(2 426)	(2 731)
	Frame	6' 0"	7' 0"	8' 0"	9' 0"
1' 6"	5' 11 1/2"	6-0/1-6	7-0/1-6	8-0/1-6	9-0/1-6
2' 0"	1' 11 1/2"	6-0/2-0	7-0/2-0	8-0/2-0	9-0/2-0
2' 6"	2' 5 1/2"	6-0/2-6	7-0/2-6	8-0/2-6	9-0/2-6
3' 0"	2' 11 1/2"	6-0/3-0	7-0/3-0	8-0/3-0	9-0/3-0
3' 6"	3' 5 1/2"	6-0/3-6	7-0/3-6	8-0/3-6	9-0/3-6
4' 0"	3' 11 1/2"	6-0/4-0	7-0/4-0	8-0/4-0	9-0/4-0
4' 6"	4' 5 1/2"	6-0/4-6	7-0/4-6	8-0/4-6	9-0/4-6
5' 0"	4' 11 1/2"	6-0/5-0	7-0/5-0	8-0/5-0	9-0/5-0

## Special Sizes

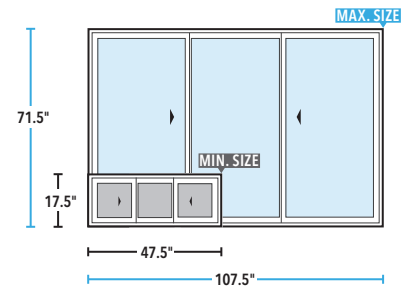
Special sizes are available in 1/8" increments.

### Equal Vent (OX or XO)

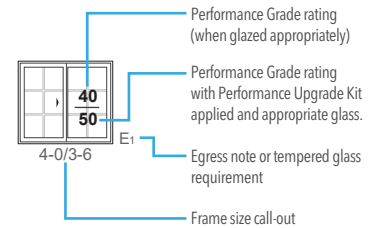


Other sash splits available in standard and special sizes: 12" Vent, Quarter Vent, One-Third Vent. Size limitations may apply.

### One-Third Vent (XOX)



Quarter Vent and One-Third Vent sash splits available in standard and special sizes. Size limitations apply.



### Egress Notes:

- E = Window meets minimum clear opening of 24" height, 20" width, and 5.7 ft<sup>2</sup>.
- E1 = Window meets minimum clear opening of 24" height, 20" width, and 5.0 ft<sup>2</sup>.

Check all applicable local codes for emergency egress requirements.

(1) Unit meets E1 if high performance sill adapter is installed.

Not to scale.

Traditional grille patterns shown.





Pella®  
Impervia®

Sliding  
Patio Door



**Air, Water,  
& Structural  
Performance**

Performance Class & Grade Rating	Water Penetration Resistance	Air Infiltration	Design Pressure	Forced Entry
SD-LC35 – SD-LC50	7.5 psf	0.15	35 – 50 psf	40 / 10

**Thermal  
Performance**

1" overall glass thickness, 3mm, Dual-Pane, optional foam insulation;

Range includes performance upgrade option

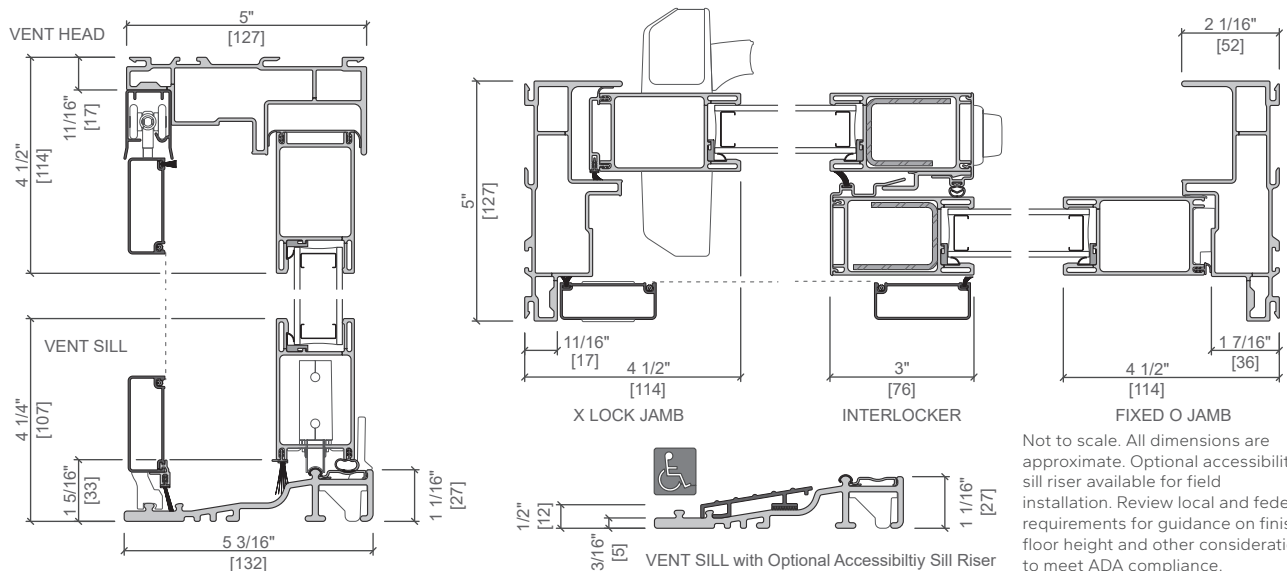
Type of Glazing (Argon fill)	U – Factor	SHGC	VLT %	CR	Energy Star® Capable
Advanced Low-E IG	0.29 – 0.35	0.25 – 0.28	0.46	55 – 60	–
SunDefense™ Low-E IG	0.28 – 0.35	0.19 – 0.21	0.43	56 – 61	SC, S
SunDefense+ Low-E IG	0.23 – 0.29	0.18 – 0.21	0.42 - 0.48	45 – 50	N, NC, SC, S
AdvancedComfort Low-E IG	0.24 – 0.30	0.24 – 0.28	0.45	45 – 49	N, NC
NaturalSun Low-E IG	0.29 – 0.36	0.46 – 0.52	0.52	55 – 60	–
NaturalSun+ Low-E IG	0.24 – 0.30	0.42 – 0.48	0.51 - 0.58	44 - 48	CA, N, NC

**Sound  
Performance**

Frame Size Tested	Type of Glazing	STC	OITC
Vent-Fixed XO 71-1/2" x 81-1/2"	3mm / 3mm glass	29	24
	5mm / 3mm glass	31	27
	3mm / 3mm / 3mm glass	29	24
	3mm / 7mm lam glass	33	27

Code Approvals: Hallmark Certified; FPAS#: FL39352; TDI#: DR-1204

See the Performance section earlier in this manual to learn more about performance standards and ratings. Performance varies based on actual product attributes.



# Standard Sizes

Fixed

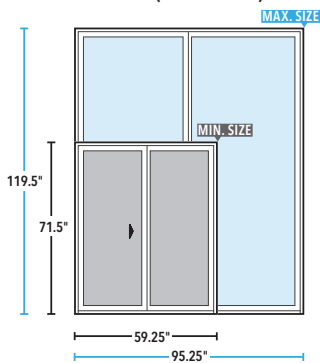
2-Panel (XO)

	(854) (829)	(1 006) (981)	(1 159) (1 133)	(1 311) (1 286)	(1 518) (1 505)	(1 822) (1 810)	(2 042) (2 029)	(2 127) (2 115)	(2 432) (2 419)
Opening	2' 9 5/8"	3' 3 5/8"	3' 9 5/8"	4' 3 5/8"	4' 11 3/4"	5' 11 3/4"	6' 8 3/8"	6' 11 3/4"	7' 11 3/4"
Frame	32 5/8"	38 5/8"	44 5/8"	50 5/8"	59 1/4"	71 1/4"	79 7/8"	83 1/4"	95 1/4"
6' 8" (2 032)									
6' 10" (2 083)									
8' 0" (2 438)									
9' 0" (2 743)									
10' 0" (3 048)									

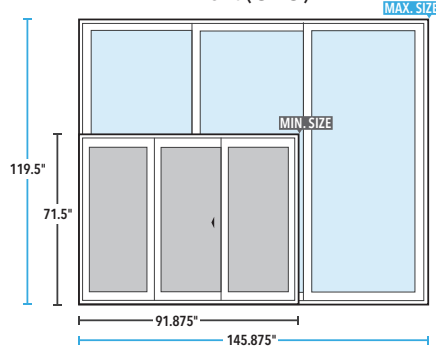
# Special Sizes

Special sizes are available in 1/8" increments.

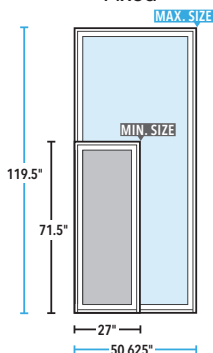
Vent (OX or XO)



Vent (OXO)

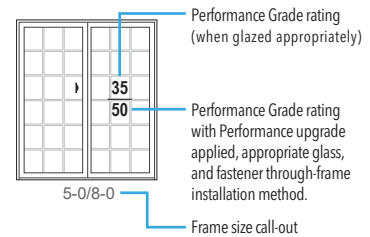


Fixed



Impact-Resistant products are limited to Two-Panel (OX, XO) and Fixed Panel (O) units.

- Max frame height: 95-1/2"
- XO, OX Max frame width: 95-1/4"
- O Max frame width: 50-5/8"



\* Two panel doors: Vent-Fixed (XO), left panel opens, right panel is fixed. Units open in the direction of the arrows as viewed from the exterior. Fixed-Vent (OX) doors are also available.

Traditional grille patterns shown.

Not to scale.

All doors are glazed with tempered glass.

All vent sizes and glass types are tested for air/water/structural and impact-resistance, and are certified for wind zone 2, large missile rating C (Non-HVHZ).

View the online ADM or consult your local Pella sales representative for three-panel standard sizes and performance.

