

Town of Brunswick, Maine

DEPARTMENT OF PLANNING AND DEVELOPMENT

DRAFT FINDINGS OF FACT REQUEST FOR CERTIFICATE OF APPROPRIATENESS FOR ADDITIONS AND ALTERATIONS VILLAGE REVIEW BOARD

PROJECT NAME: 13 Market Lane Windows and Entry

CASE NUMBER: VRB 25-007

LOCATION: Map U08, Lot 71; 13 Market Lane

**OWNER &
APPLICANT:** Lucas Lincoln
13 Market Lane
Brunswick, ME 04011

REVIEW DATE: May 20, 2025

PROJECT SUMMARY

The applicant is requesting a Certificate of Appropriateness for Alterations to replace (and relocate) an existing second floor window with an egress window, add an additional window and opening on the second floor, and relocate and replace the side porch entrance. The existing second story window is disrepair and also requires an update to meet fire code. The two proposed Andersen 400 Series windows will match the windows on the west side of the house in size, style and placement. In addition, the applicant intends to match the original mouldings. The porch entrance is proposed to be moved from the south to the east side of the porch facing the driveway. The proposed entrance, a wooden 2-lite four panel entry door with sidelights, will require the removal of three existing first story windows. An Andersen 400 WDH2832 double hung window is proposed to replace the former storm door. The home is a contributing colonial-style structure constructed circa 1800 and we have no historical survey on file for the property.

REVIEW STANDARDS, SECTION 5.2.8.C, TOWN OF BRUNSWICK ZONING ORDINANCE

(1) General Standard

- a. **All Certificates of Appropriateness for new construction, additions, alterations, relocations or demolition shall be in accordance with applicable requirements of this Ordinance.**

The proposed modifications to the property require a building permit in addition to a Certificate of Appropriateness as there are structural changes to the building.

- b. **In meeting the standards of this Ordinance, the applicant may obtain additional guidance from the *U.S. Secretary of Interior's Standards for Rehabilitating Historic Buildings* and the *Village Review Zone Design Guidelines*.**

The Village Review Overlay District Design Guidelines encourage repair of original windows over replacement. For replacement windows, the guidelines state that “the first and best option to maintain historic character is to look for a replacement in kind – a window that matches the size, material, muntin configuration, and detail of the existing window.”

(2) New Construction and Additions and Alterations to Existing Structures

- a. In approving applications for a Certificate of Appropriateness for new construction, additions or alterations to contributing resources, the reviewing entity shall make findings that the following standards have been satisfied:**

- i. Any additions or alterations shall be designed in a manner to minimize the overall effect on the historic integrity of the contributing resource.**

The applicant proposes to use Andresen 400 series casement windows with a two over one grid pattern to match the existing windows. As noted, the windows will remain the same size and will match the configuration of the windows on the west side of the house. The applicant intends to match the original window mouldings that are on the west side.

- ii. Alterations shall remain visually compatible with the existing streetscape.**

The proposed revisions are no less compatible with the existing streetscape.

- iii. Concealing of distinctive historic or architectural character-defining features is prohibited. If needed, the applicant may replace any significant features with in-kind replacement and/or accurate reproductions.**

The east side of the house that the applicant is altering has seen changes previously and the first-floor porch is not original to the structure. There is no concealing of character-defining features proposed. The applicant proposes recreating the window mouldings on the upstairs windows to match the original windows on the west side.

- iv. New construction or additions shall be visually compatible with existing mass, scale and materials of the surrounding contributing resources.**

Not applicable.

- v. When constructing additions, the applicant shall maintain the structural integrity of existing structures.**

Not applicable.

- b. In approving applications for a Certificate of Appropriateness for new construction of, or additions to commercial, multi-family and other non-residential structures, the Village Review Board shall make findings that the following additional standards have been satisfied.**

- i. Where practicable, new off-street parking shall be located to the rear of the principal building and shall be accessed from a secondary street. In cases**

where off-street parking currently exists in a front or side yard, the parking area shall be screened from the public right-of-way with landscaping or fencing.

Not applicable.

- ii. Site plans shall identify pedestrian ways and connections from parking areas to public rights-of-way.**

Not applicable.

- iii. All dumpsters and mechanical equipment shall be located no less than 25 feet away from a public right-of-way, unless required by a public utility, and shall be screened from public view.**

Not applicable.

- iv. Roof-top mounted heating, ventilation, air conditioning and energy producing equipment shall be screened from the view of any public right-of-way or incorporated into the structural design to the extent that either method does not impede functionality. Parapets, projecting cornices, awnings or decorative roof hangs are encouraged. Flat roofs without cornices are prohibited.**

Not applicable.

- v. The use of cinder block, concrete and concrete block is prohibited on any portion of a structure that is visible from the building's exterior, with the exception of use in the building's foundation.**

Not applicable.

- vi. The use of vinyl, aluminum or other non-wood siding is permitted as illustrated in the Village Review Board Design Guidelines. Asphalt and asbestos siding are prohibited.**

Not applicable.

- vii. Buildings with advertising icon images built into their design ("trademark buildings") are prohibited.**

Not applicable.

- viii. No building on Maine Street shall have a horizontal expanse of more than 40 feet without a pedestrian entry.**

Not applicable.

- ix. No building on Maine Street shall have more than 15 feet horizontally of windowless wall.**

Not applicable.

- x. **All new buildings and additions on Maine Street shall be built to the front property line. This may be waived if at least 60 percent of the building's front facade is on the property line, and the area in front of the setback is developed as a pedestrian space.**

Not applicable.

- xi. **If adding more than 50 percent new floor area to a structure located on Maine Street, the addition shall be at least two (2) stories high and/or not less than 20 feet tall at the front property line.**

Not applicable.

- xii. **The first-floor facade of any portion of a building that is visible from Maine Street shall include a minimum of 50 percent glass. Upper floors shall have a higher percentage of solid wall, between 15 percent and 40 percent glass.**

Not applicable.

- c. **Proposed additions or alterations to noncontributing resources shall be designed to enhance or improve the structure's compatibility with nearby contributing resources as compared to the existing noncontributing resources.**

The building is a contributing structure and therefore this standard is not applicable.

(3) Signs

Signs shall comply with the requirements of Section 4.13 (Signs) with consideration given to the Village Review Zone Design Guidelines.

No new signage is proposed as part of this project; not applicable.

(4) Demolition and Relocation

- a. **Demolition or partial demolition or relocation of a contributing or, if visible from a public right-of-way, a noncontributing resource, excluding incidental or noncontributing accessory buildings and structures located on the same property, shall be prohibited unless the application satisfies at least one of the following criteria.**

- i. **The structure poses an imminent threat to public health or safety. An application must be accompanied by a report from a qualified structural engineer for review by the Codes Enforcement Officer and photographs depicting the current condition of the building.**

There is no demolition proposed and therefore this standard is not applicable.

- ii. **The condition of the structure is such that it cannot be adapted for any other**

permitted use, whether by the current owner or by a purchaser, resulting in a reasonable economic return, regardless of whether that return represents the most profitable return possible, provided that the applicant can document he/she has not contributed significantly to the deterioration of the structure. An opinion shall be provided from an architect, licensed engineer, developer, real estate consultant or appraiser or from a professional experienced in historic rehabilitation, as to the economic feasibility for restoration, renovation, or rehabilitation of the contributing resource versus demolition or relocation of same.

Not applicable.

- b. Demo, partial demolition or relocation of a noncontributing resource visible from a public right-of-way, shall be approved by the Village Review Board if it is determined that the proposed replacement structure or reuse of the property is deemed more appropriate and compatible with the surrounding contributing resources than the resource proposed for demolition.**

Not applicable.

DRAFT MOTIONS
MAP U08, LOT 71 (13 MARKET LANE)
REQUEST FOR A CERTIFICATE OF APPROPRIATENESS FOR ALTERATIONS
VILLAGE REVIEW BOARD
REVIEW DATE: MAY 20, 2025

Draft Motion 1: That the Certificate of Appropriateness application is deemed complete.

Motion: Second: Vote:

Draft Motion 2: That the Board approves the **Certificate of Appropriateness for Alterations** to replace and relocate a second story window and the side porch entrance, as well as add a new window location in the single-family home located at Map U08, Lot 71; 13 Market Lane, as outlined in the application and as satisfied by Subsection 5.2.8.C with the following condition:

1. That the Board's review and approval does hereby refer to these findings of fact, the plans and materials submitted by the applicant and the written and oral comments of the applicant, his representatives, reviewing officials, and members of the public as reflected in the public record. Any changes to the approved plan not called for in these conditions of approval or otherwise approved by the Director of Planning and Development as a minor modification, shall require further review and approval in accordance with the Brunswick Zoning Ordinance.

Motion: Second: Vote:

Received: _____
By: _____

VRB Case #: _____

**VILLAGE REVIEW OVERLAY
CERTIFICATE OF APPROPRIATENESS
APPLICATION**

1. Project Applicant:

Name: Lucas Lincoln
Address: 13 Market Lane
04011 Brunswick ME
Phone Number: 207-504-4946
Email Address: lucas.lincoln@gmail.com

2. Project Property Owner:

Name: _____
Address: SAME
Phone Number: _____
Email Address: _____

3. Authorized Representative: (If different than applicant)

Name: _____
Address: _____
Phone Number: _____
Email Address: _____

4. Physical Location of Property Being Affected:

Address: 13 Market Lane

5. Tax Assessor's Map # U08 Lot # 71 of subject property.

6. Underlying Zoning District GR7

7. Type of Activity (check all that apply):

- ☐ Additions and New Construction
☒ Structural Alteration
☐ Demolition/Moving of Structure
☐ Sign Permit

8. Describe the location and nature of the proposed change(s), including a brief description of the proposed construction, reconstruction, alteration, demolition, proposed re-use, or other change (use separate sheet if necessary):

See attached

Applicant Name (printed): Lucas Lincoln

Applicant Signature: _____

Property Owner Name (printed): _____

Property Owner Signature: _____

**VILLAGE REVIEW OVERLAY
APPLICATION FOR CERTIFICATE OF COMPLIANCE
APPLICATION CHECK-LIST**

This checklist will be completed by the Department of Planning and Development. The Department requires that all application materials be submitted in BOTH hard copy and digital format. In addition, for Major Review applications, EIGHT (8) HARD COPIES are required after your application is considered complete by Department staff. Your project will not be placed on the Village Review Board's agenda until this determination is made. For assistance, please contact the Department of Planning and Development at (207)725-6660.

- ☒ Completed application form
- N/A ☒ A copy of the building survey prepared by the Pejepscot Historical Society pertaining to the structure under review (provided by Department Staff).
- ☒ A drawing showing the design, texture, and location of any construction, alteration, demolition for which a certificate is required. The drawing shall include plans and exterior elevations drawn to scale, with sufficient detail to show their relations to exterior appearances and the architectural design of the building. Drawings need not be prepared by an architect or engineer, but shall be clear, complete, and specific.
- ☒ A site plan or photographs showing the relationship of the changes to the surroundings.
- N/A ☐ If architectural features are to be removed or replaced (including but not limited to original windows, siding, roofing material and other design elements), provide photographic documentation or a written assessment from a preservation professional or contractor explaining the condition of the material and reason for removal/replacement.
- ☒ Photographs of the building(s) involved, its context, and detailed photos of immediate area.
- ☒ List all proposed materials and products, and clearly identify their location on the drawings. Indicate texture of material, if applicable.
- ☒ Provide manufacturer's product information and, if possible, bring material samples to the meeting.
- ☒ Provide information such as dimensions, photographs or source for salvaged or reused materials.
- ☐ For demolition applications, provide detailed information addressing standards contained in Subsections 5.2.8.C (4) of the Brunswick Zoning Ordinance.

This application was certified as being complete on 5/6/25 (date) by LUE DREXLER of the Department of Planning and Development.

THIS APPLICATION WAS:

- ☐ Granted
- ☐ Granted With Conditions
- ☐ Denied
- ☒ Forwarded to Village Review Board
- ☒ Building Permit Required
- ☐ Building Permit NOT Required

Applicable Comments: _____

Signature of Department Staff Reviewing Application

COMPLIANCE WITH ZONING STANDARDS

Notice: *This form is to be completed by the Codes Enforcement Officer
and filed with the application.*

This is to certify that the application for Certificate of Appropriateness submitted by

LUCAS LINCOLN, relating to property designated on Assessors Tax Map # U08 and

Lot # 71 has been reviewed by the Codes Enforcement Officer and has been found to be in
compliance with all applicable zoning standards:

Comments: _____

Signed: _____

Date: 5-15-25

Print: _____

Taylor Burdin
Code Enforcement Officer

Lucas Lincoln
13 Market Ln
Brunswick, ME 0401

Ms Julie Erdman
Director of Planning and Development
Town of Brunswick, Maine
85 Union Street
Brunswick, Maine 04011

May 05, 2025

RE 13 Market Ln Village Design Review

Dear Ms. Erdman

Please accept this application packet for a Village Review Board Certificate of Appropriateness. I am proposing the following changes to my property:

- The replacement of an existing window with an egress window on the 2nd floor,
- The introduction of a new window and opening on the 2nd floor.
- Moving the enclosed-porch entrance from the south side to the east side of the porch.

The two windows will be located in the 2nd story, east facing wall of the house, overlooking the driveway.

At present, the east wall has one window on the 2nd story, offset from center. This window is in disrepair and requires replacement – the frame has rotted away at the sill and the sashes no longer fit in the frame (which also exhibits damage).

The windows are to be casement windows of the Anderson 400 series (CW135) to match the size and style of the house while simultaneously satisfying fire department egress requirements. They will have a simulated meeting rail with a split top pane. The windows mirror the 2 windows on the 2nd-story west wall of the house, both in terms of size, style, and placement. This proposed change will give our house a symmetry between the east and west walls, and a symmetry on the east wall. A tour of Brunswick and Topsham demonstrates such an arrangement – with 2 windows on each gabled end at the 2nd story – is prevalent for high-posted colonial capes such as ours.

Regarding the 1st floor changes: Currently, entrance to the enclosed porch is done through a storm-door on the south side. We are requesting to move this entrance to the east side, with the introduction of a wooden entry door with sidelights. Photos of the proposed door are attached. The current storm door entry would be removed and an Anderson 400 WDH2832 double-hung installed in it's place.

The entire east side porch and gable end will be re-sided with new replacement shakes during this improvement, with renewal of shakes on all sides coming thereafter.

I have attached the relevant documentation for the changes, including photos of the site; drawings of the intended differences, and renderings which show the changes in question.

I appreciate your consideration and review.
Sincerely,

Lucas Lincoln





Figure 1: West Gable – view from Market Ln



Figure 2: East Gable – view from Market Ln



Figure 3: East side



Figure 4: West side



Figure 5: Window sill has rotted away under storm window flashing



Figure 6: Rot on opposite bottom corner



Figure 7: Window condition



Figure 8: Window condition



Figure 9: Site Plan: Lot 71 is 13 Market Lane. House is structure on left of lot.



Figure 10: Looking west on Market Ln, past 13 Market Ln mid-right



Figure 11: Looking east on Market Ln, past 13 Market Ln mid-left



Figure 12: View from 13 Market Ln, facing east on Market Ln

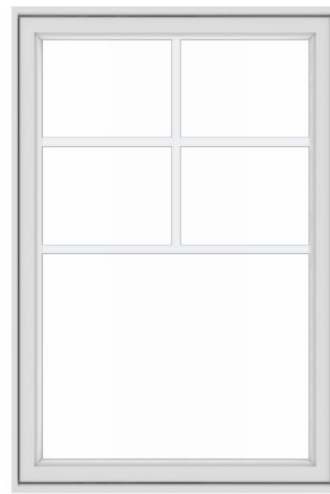


Figure 13: View from 13 Market Ln, facing west on Market Ln

400 SERIES CASEMENT WINDOW



Interior



Exterior

Summary

Product ID#	CW135
Unit Width	28 3/8"
Unit Height	40 13/16"

Figure 14: Window example - Note the grille proposed differs from photo. Proposed is to include a simulated meeting bar and is 2/1 with vertical split (rather than 4/1 as in photo).

Existing 2nd floor windows are also 28" x 40"



Figure 15: 36" Entry door – wood, with sidelights



CASEMENT & AWNING WINDOWS

Alignment Grid	22-23
Tables of Sizes	24-28
Specifications	29-32
Custom Sizes	33
Grille Patterns	34
Window Details	35-36
Joining Details	36
Combination Designs	181
Product Performance	197

CUSTOM SIZING
in 1/8" (3) increments



Dimensions in parentheses are in millimeters.

CASEMENT & AWNING WINDOWS

FEATURES

FRAME

- A** A seamless one-piece, rigid vinyl frame cover is secured to the exterior of the frame to protect the wood frame from moisture and maintain an attractive appearance while minimizing maintenance.
 - B** The seamless rigid vinyl cover extends 1 3/8" (35) around the perimeter of the unit, creating a flange to help seal the unit to the structure.
 - C** Wood frame members are treated with a water-repellent preservative for long-lasting protection and performance.
 - D** Interior stops are unfinished pine. Low-maintenance prefinished white, dark bronze and black** interiors are also available.
- SASH**
- E** Rigid vinyl encases the entire sash – a vinyl weld protects each sash corner for superior weathertightness. It maintains an attractive appearance and minimizes maintenance.
 - F** Wood core members provide excellent structural stability and energy efficiency.
 - G** Vinyl closed-cell foam weatherstrip is factory installed on the perimeter of the sash.

GLASS

- H** In addition to stainless steel glass spacers, black or white glass spacers are now available to allow the spacer to blend in with the unit color.
- I** A glazing bead and silicone provide superior weathertightness and durability.
- J** High-Performance options include:
 - Low-E4® glass
 - Low-E4 HeatLock® glass
 - Low-E4 SmartSun™ glass
 - Low-E4 SmartSun HeatLock glass
 - Low-E4 Sun glass

Tempered and other glass options are available. Contact your Andersen supplier.

A removable translucent film helps shield the glass from damage during delivery and construction, and simplifies finishing at the job site.

Patterned Glass

Patterned glass options are available. See page 12 for more details.



HARDWARE

Smooth Control Hardware System



The smooth control hardware system employs a worm gear drive for easy operation. Units with a wash mode have hinges that move the sash away from the frame to provide easier glass

cleaning. CXW15, CXW155, CXW16 and CXW25 sizes not available with wash mode. Hardware option and finish must be specified. Operator handle and cover sold separately.

Single-Actuation Casement Lock



On casement windows, a single-actuation lock easily releases all locking points on the casement sash while the reach-out action eliminates binding when closing. The lock handle is offered in finishes that coordinate with your specified hardware option.

Awning Sash Locks



Awning sash locks provide an added measure of security and weathertightness. Hardware style and finish options are compatible with Andersen® casement windows to ensure consistency in appearance when used in window combination designs.

StormWATCH[®] PROTECTION

400 Series casement and awning windows are available with Stormwatch® Protection. For more details, visit andersenwindows.com/coastal.

Performance Grade (PG) Upgrades

Performance upgrades are available for select sizes of standard, non-impact casement and awning windows,

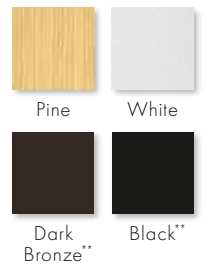
allowing these units to achieve higher performance ratings. Performance Grade (PG) ratings are more comprehensive than Design Pressure (DP) ratings for measuring product performance. Visit andersenwindows.com for up-to-date performance information of individual products. Contact your Andersen supplier for availability.

EXTERIOR & INTERIOR OPTIONS

EXTERIOR COLORS



INTERIOR OPTIONS



HARDWARE OPTIONS Sold Separately



CONTEMPORARY FOLDING

Black | Bright Brass | Gold Dust
Oil Rubbed Bronze | **Satin Nickel**
Stone | White



TRADITIONAL FOLDING

Antique Brass | Black | Bright Brass
Distressed Bronze | Distressed Nickel
Gold Dust | Oil Rubbed Bronze
Satin Nickel | Stone | White

Folding handles avoid interference with window treatments.



CLASSIC SERIES™

Stone | White



ESTATE™

Antique Brass | Bright Brass
Brushed Chrome | Distressed Bronze
Distressed Nickel | Oil Rubbed Bronze
Polished Chrome | Satin Nickel

HARDWARE FINISHES



Naturally occurring variations in grain, color and texture of wood make each window one of a kind. All wood interiors are unfinished unless a finish is specified. Distressed bronze and oil rubbed bronze are "living" finishes that will change with time and use.

*Visit andersenwindows.com/warranty for details.

**Products with dark bronze and black interiors have matching exteriors.

Dimensions in parentheses are in millimeters.

Printing limitations prevent exact replication of colors and finishes.

See your Andersen supplier for actual color and finish samples.

ACCESSORIES Sold Separately

FRAME

Extension Jamb



Standard jamb depth is 2 7/8" (73). Extension jambs are available in unfinished pine or prefinished white, dark bronze and black. Some sizes may be veneered.

Factory-applied and non-applied interior extension jambs are available in 1/16" (1.5) increments between 4 9/16" (116) and 7 1/8" (181). Extension jambs can be factory applied to either three sides (stool and apron application) or four sides (picture frame casing).

Thick Replacement Extension Jambs

To help preserve original alignment of trim and paint lines in replacement situations, special 1 1/8" (29) thick replacement extension jambs are available. Factory-applied and non-applied extension jambs are available in 1/16" (1.5) increments between 4 9/16" (116) and 7 1/8" (181). Non-applied extension jambs are available in 12" (3658) lineals. Detail on page 34.

Drywall Return Bead



A drywall return bead is available in a narrow or wide dimension with unfinished pine or prefinished white, dark bronze and black interiors. Can be ordered factory applied or in non-applied lineals. Detail on page 34.

HARDWARE

Corrosion-Resistant Components



Corrosion-resistant hinge and operator arm hardware is designed for applications in harsh and corrosive environments such as heavy industrial or coastal areas.

Window Opening Control Device



A window opening control device is available, which limits sash travel to less than 4" (102) when the window is first opened. Available factory applied, or as a field-applied kit in white, stone and black.

Power Operator for Awning Windows



Awning windows can be ordered with an operator enhanced by PowerAssist™ technology that opens and closes the window with the touch of a button. Easy to install, the 24-volt system features a concealed window power drive, battery backup in case of a power outage and a moisture sensor that automatically closes the window when it rains. A wireless remote control is available (sold separately).

The PowerAssist system is controlled by a wall-mounted console, which includes a power box, battery, touch pad and mounting bracket. Windows can be ordered factory prepped to save time, or they can be ordered as a field kit. Power driver requires field installation. PowerAssist technology eliminates the need for sash locks. Available for windows up to 5' (1524) wide. Not available for units with Stormwatch® Protection or performance upgrades.

SPECIAL USE OPERATOR HANDLES

Available in Classic Series™ design only.

Compact Operator Handle



Specially designed for use in situations where blinds or other window treatments interfere with standard operator handle. Available in white or stone finish.

Easy-Grip Handle

Larger knob makes it easier to grip and operate. Available in white or stone finish.



Operator Spline Cover



An operator spline cover is an attractive cap that covers the roto operator stud when the handle has been removed to control access or operation of the window. The operator spline cover should not be used on any window designated or intended for emergency escape or rescue. Please consult your local building code official for local egress code requirements.

Metal T-Handle



Our smallest operator handle, the metal T-handle, may make it more difficult for young children (5 and under) to open the window. For more information on child safety, write:

Andersen Corporation
LookOut For Kids® Program
100 Fourth Avenue North
Bayport, MN 55003
Call 800-313-8889 or email
lofk@andersencorp.com.

GLASS

Andersen® Art Glass

Andersen art glass panels come in a variety of original patterns. See art glass section starting on page 173 for more information or visit andersenwindows.com/artglass.

INSECT SCREENS

TruScene® Insect Screens



Andersen TruScene insect screens let in over 25% more fresh air** and provide 50% greater clarity than conventional Andersen insect screens, all while keeping out unwanted small insects. For casement and awning windows, frames are available in white, stone, dark bronze and black, or with pine veneer frame interiors to blend with the wood interior of the window.

Conventional Insect Screens

Conventional insect screens have charcoal powder-coated aluminum screen mesh. Available with frames in white, stone, dark bronze and black.

GRILLES

Grilles are available in a variety of configurations and widths. For casement and awning window grille patterns, see page 34.

EXTERIOR TRIM

Available with Andersen exterior trim. See exterior trim section starting on page 175.

CAUTION:

- Painting and staining may cause damage to rigid vinyl.
- 400 Series windows in Terratone color may be painted any color lighter than Terratone color using quality oil-based or latex paint.
- Do not paint 400 Series windows in white, canvas, Sandtone, dark bronze, forest green or black exterior colors.
- Andersen does not warrant the adhesion or performance of homeowner-applied paint over vinyl or other factory-coated surfaces.
- For vinyl painting instructions and preparation, contact your Andersen supplier.
- Do not paint weatherstrip.
- Creosote-based stains should not come in contact with Andersen products.
- Abrasive cleaners or solutions containing corrosive solvents should not be used on Andersen products.

*Visit andersenwindows.com/warranty for details.

**TruScene insect screens let in over 25% more fresh air than standard Andersen fiberglass insect screens.

Dimensions in parentheses are in millimeters.

CASEMENT & AWNING WINDOWS

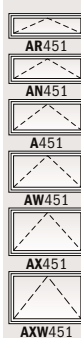
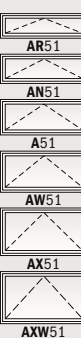
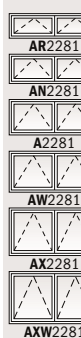
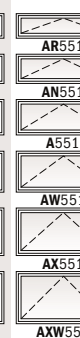
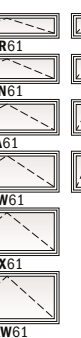
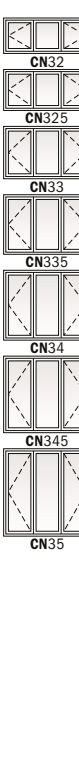
Alignment Grid for Standard-Size Casement, Awning, Picture, Transom, Half Circle, Quarter Circle and Arch Windows

	1'-5"	1'-8 1/2"	2'-0 1/8"	2'-4 3/8"	2'-7 1/2"	2'-9 3/4"	2'-11 15/16"	3'-4 3/4"	3'-4 13/16"	4'-0"		
Specialty	(432)	(521)	(613)	(721)	(800)	(857)	(913)	(1035)	(1037)	(1219)		
See the specialty window section starting on page 117 for these and other specialty shapes and sizes.			   	   	 		   			  		
Transom												
1'-0" (305)	 CTR1510	 CTR1810	 CTR2010	 CTR2410	 CTR2810	 CTR2910	 CTR3010	 PTR3010	 CTR3410  CTR21810	 PTR3510	 CTR4010  CTR22010	 PTR4010
Awning												
1'-5" (432)												
1'-8 1/2" (521)												
2'-0 1/8" (613)												
2'-4 3/8" (721)												
2'-7 1/2" (800)												
2'-11 15/16" (913)												
3'-4 3/4" (1035)												
Casement, Awning and Picture												
2'-0 1/8" (613)												
2'-4 3/8" (721)												
2'-11 15/16" (913)												
3'-4 13/16" (1037)												
4'-0" (1219)			 				 			 	 	
4'-4 13/16" (1341)												
4'-11 7/8" (1521)							 		 			
5'-4 13/16" (1646)												
5'-11 7/8" (1826)			 				   		 			

*Dimensions in parentheses are in millimeters.

*Actual height of 4'-11 13/16" (1519).

**Actual height of 5'-11 5/8" (1819).

4'-4 13/16" (1341)	4'-8 1/2" (1435)   CTCW2	4'-11 7/8" (1521)	5'-1" (1549)	5'-2 3/4" (1594)  CTCX2	5'-4 13/16" (1646)	5'-11 5/8" (1819)	5'-11 7/8" (1826)  CTC3	7'-0 5/8" (2149)
 PTR4510	 CTR4810 CTR22410	 PTR5010	 CTR5110 CTR31810	 CTR5210 CTR22810	 PTR5510	 CTR51110 CTR23010	 CTR6010 CTR32010	 PTR6010 CTR7010 CTR32410
 AR451 AN451 A451 AW451 AX451 AXW451	 AR2251 AN2251 A2251 AW2251 AX2251	 AR51 AN51 A51 AW51 AX51 AXW51	 AR2281 AN2281 A2281 AW2281 AX2281 AXW2281	 AR551 AN551 A551 AW551 AX551 AXW551	 AR231 AN231 A231 AW231 AX231 AXW231	 AR61 AN61 A61 AW61 AX61 AXW61	 AR321 AN321 A321 AW321 AX321 AXW321	 AR3251 AN3251 A3251 AW3251 AX3251
	 CW22 CW225 CW23 CW235 CW24 CW245 CW25 CW255 CW26		 CN32 CN325 CN33 CN335 CN34 CN345 CN35	 CX23 CX235 CX24 CX245 CX25	 P5530 P5535 P5540 P5545 P5550	 CXW23 CXW235 CXW24 CXW245 CXW25	 C32 C325 C33 C335 C34 C345 C35	 CW32 CW325 CW33 CW335 CW34 CW345 CW35

* Dimensions in parentheses are in millimeters.

Similar jamb profiles enable these standard-size windows to be combined in multiple combinations. Custom-size windows are also available.

Window widths and heights shown. See individual size charts for additional dimensions.

In addition to venting configurations shown, other standard configurations are available.

CASEMENT & AWNING WINDOWS

Table of Casement and Transom Window Sizes

Scale 1/8" (3) = 1'-0" (305) – 1:96

Window Dimension	1'-5"	1'-8 1/2"	2'-0 1/8"	2'-4 3/8"	2'-7 1/2"	2'-11 15/16"	2'-9 3/4"	3'-4 3/4"	4'-0"	4'-8 1/2"
	(432)	(521)	(613)	(721)	(800)	(913)	(857)	(1035)	(1219)	(1435)
Minimum Rough Opening	1'-5 1/2"	1'-9"	2'-0 5/8"	2'-4 7/8"	2'-8"	3'-0 1/2"	2'-10 1/4"	3'-5 1/4"	4'-0 1/2"	4'-9"
	(445)	(533)	(625)	(733)	(813)	(927)	(870)	(1048)	(1232)	(1448)
Unobstructed Glass (casement, single sash only)	12 5/8"	16 1/8"	19 3/4"	24"	27 1/8"	31 9/16"	12 5/8"	16 1/8"	19 3/4"	24"
	(321)	(410)	(502)	(610)	(689)	(802)	(321)	(410)	(502)	(610)
Unobstructed Glass (transom, single sash only)	12 3/16"	15 11/16"	19 5/16"	23 9/16"	26 11/16"	31 1/8"	28 15/16"	35 15/16"	43 3/16"	51 11/16"
	(310)	(398)	(491)	(599)	(678)	(791)	(735)	(913)	(1097)	(1313)
CUSTOM WIDTHS – 17" to 84 5/8"										
1'-0"										
	CTR1510	CTR1810	CTR2010	CTR2410	CTR2810	CTR3010	CTR2910	CTR3410	CTR4010	CTR4810
1'-0 1/2"										
	CTR21810						CTR21810	CTR22010	CTR22410	
CUSTOM WIDTHS – 17" to 35 15/16"										
2'-0 1/8"										
	CR12	CN12	C12	CW12*			CN22	C22	CW22*	
2'-4 3/8"										
	CR125	CN125	C125	CW125*	CX125		CN225	C225	CW225*	
2'-11 15/16"										
	CR13	CN13	C13	CW13*	CX13	CXW13	CR23	CN23	C23	CW23*
3'-4 13/16"										
	CR135	CN135	C135	CW135*	CX135*	CXW135*	CR235	CN235	C235	CW235*
4'-0"										
	CR14	CN14	C14	CW14*	CX14*	CXW14*	CR24	CN24	C24	CW24*
4'-4 13/16"										
	CR145	CN145	C145	CW145*	CX145*	CXW145*	CR245	CN245	C245	CW245*
4'-11 7/8"										
	CR15	CN15	C15	CW15*	CX15*	CXW15*	CR25	CN25	C25	CW25*
5'-4 13/16"										
	CR155	CN155	C155	CW155*	CX155*	CXW155*	CR255	CN255	C255	CW255*
5'-11 7/8"										
	CR16	CN16	C16	CW16*	CX16*	CXW16*	CR26	CN26	C26	CW26*

*"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 pages 210-211 for more details.

• Dimensions in parentheses are in millimeters.

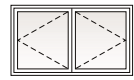
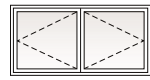
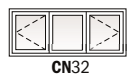
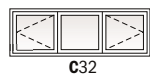
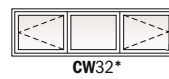
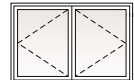
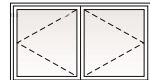
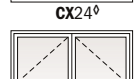
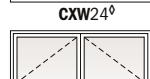
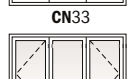
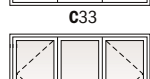
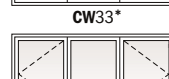
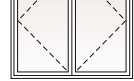
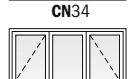
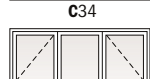
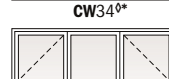
ØMeet or exceed clear opening area of 5.7 sq. ft. or 0.53 m², clear opening width of 20" (508) and clear opening height of 24" (610) with appropriate hinge specified. See tables on pages 29-30.

*Meet clear opening width of 20" (508) using hinge with wash mode and control bracket (bracket can be pivoted for cleaning position) and meet clear opening width of 22" (559) using hinge for widest clear opening.

**Available with straight-arm operators (hinged for widest clear opening) only.

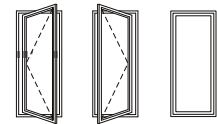
5'-2 3/4" (1594)	5'-11 5/8" (1819)	5'-1" (1549)	5'-11 7/8" (1826)	7'-0 5/8" (2149)
5'-3 1/4" (1607)	6'-0 1/8" (1832)	5'-1 1/2" (1562)	6'-0 3/8" (1838)	7'-1 1/8" (2162)
27 1/8" (689)	31 9/16" (802)	16 1/8" (410)	19 3/4" (502)	24" (610)
57 15/16" (1472)	66 13/16" (1697)	56 3/16" (1427)	67 1/16" (1703)	79 13/16" (2027)

 CTR5210	 CTR51110	 CTR5110	 CTR6010	 CTR7010
 CTR22810	 CTR23010	 CTR31810	 CTR32010	 CTR32410

 CX23	 CXW23	 CN32	 C32	 CW32*
 CX235°	 CXW235°	 CN325	 C325	 CW325*
 CX24°	 CXW24°	 CN33	 C33	 CW33*
 CX245°	 CXW245°	 CN335	 C335	 CW335**
 CX25°	 CXW25°	 CN34	 C34	 CW34°*
 CX25°	 CXW25°	 CN345	 C345	 CW345°*
 CX25°	 CXW25°	 CN35	 C35	 CW35°*



Custom-size windows are available in 1/8" (3) increments. Windows can also be custom sized to match standard sizes ending in a sixteenth of an inch. **Single windows only.** See page 33 for custom sizes and specifications.



Left Right Stationary

Choose left, right or stationary as viewed from the exterior. In addition to venting shown in table, other standard configurations are available for single, twin and triple windows. Transom (CTR) windows are stationary only.

Twin and triple windows shown have one continuous outer frame.

Transom (CTR) windows can be used over casement or awning windows, and may be rotated 90° and used as a sidelight with casement, awning or picture windows.

Grille patterns shown on page 34.

*"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 pages 210-211 for more details.

• Dimensions in parentheses are in millimeters.

◊ Meet or exceed 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) with appropriate hinge specified. See tables on pages 29-30.

*Meet clear opening width of 20" (508) using hinge with wash mode and control bracket (bracket can be pivoted for cleaning position) and meet clear opening width of 22" (559) using hinge for widest clear opening.

**Available with straight-arm operators (hinged for widest clear opening) only.

CASEMENT & AWNING WINDOWS

Table of Awning Window Sizes

Scale 1/8" (3) = 1'-0" (305) – 1:96

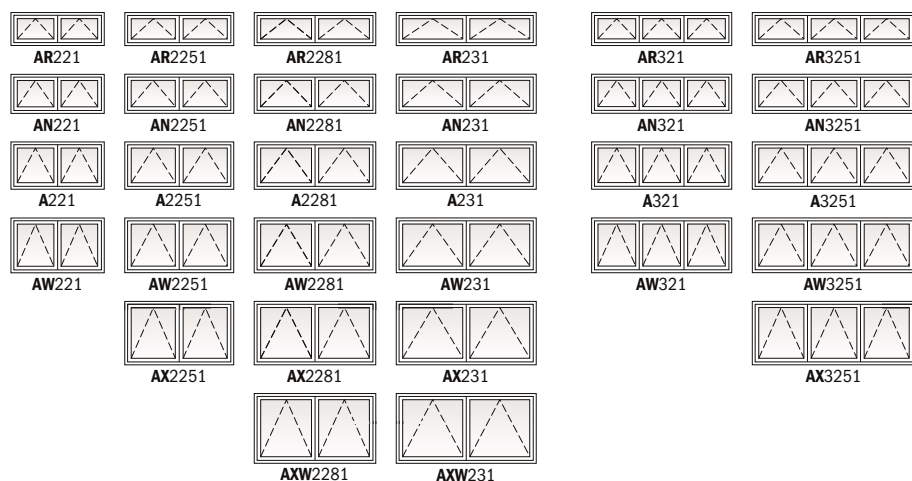
Window Dimension	2'-0 1/8" (613)	2'-4 3/8" (721)	2'-7 1/2" (800)	2'-11 15/16" (913)	3'-4 13/16" (1037)	4'-0" (1219)	4'-4 13/16" (1341)	4'-11 7/8" (1521)	5'-4 13/16" (1646)	5'-11 7/8" (1819)
Minimum Rough Opening	2'-0 5/8" (625)	2'-4 7/8" (733)	2'-8" (813)	3'-0 1/2" (927)	3'-5 3/8" (1051)	4'-0 1/2" (1232)	4'-5 3/8" (1356)	5'-0 3/8" (1534)	5'-5 3/8" (1660)	6'-0 3/8" (1832)
Unobstructed Glass (single sash only)	19 5/16" (491)	23 9/16" (598)	26 11/16" (678)	31 1/8" (791)	36" (914)	43 3/16" (1097)	48" (1219)	55 1/16" (1399)	60" (1524)	67 1/16" (1703)

1'-5" (432)	1'-8 1/2" (521)	2'-0 1/8" (613)	2'-4 3/8" (721)	2'-7 1/2" (800)	2'-11 15/16" (913)	3'-4 13/16" (1037)	4'-0" (1219)	4'-4 13/16" (1341)	4'-11 7/8" (1521)	5'-4 13/16" (1646)	5'-11 7/8" (1819)
1'-5 1/2" (445)	1'-9" (553)	2'-0 3/8" (625)	2'-4 7/8" (733)	2'-8" (813)	3'-0 1/2" (927)	3'-5 3/8" (1051)	4'-0 1/2" (1232)	4'-5 3/8" (1356)	5'-0 3/8" (1534)	5'-5 3/8" (1660)	6'-0 3/8" (1832)
12 5/8" (321)	16 1/8" (410)	19 3/4" (502)	24" (610)	27 1/8" (689)	31 9/16" (802)	36" (914)	43 3/16" (1097)	48" (1219)	55 1/16" (1399)	60" (1524)	67 1/16" (1703)

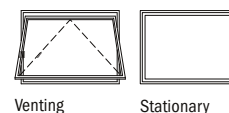
CUSTOM WIDTHS – 24 1/8" to 71 7/8"	AR21	AR251	AR281	AR31	AR351	AR41	AR451	AR51	AR551	AR61
	AN21	AN251	AN281	AN31	AN351	AN41	AN451	AN51	AN551	AN61
	A21	A251	A281	A31	A351	A41	A451	A51	A551	A61
	AW21	AW251	AW281	AW31	AW351	AW41	AW451	AW51	AW551	AW61
		AX251	AX281	AX31	AX351	AX41	AX451	AX51	AX551	AX61

- "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 pages 210-211 for more details.
- Dimensions in parentheses are in millimeters.

4'-0"	4'-8 1/2"	5'-2 3/4"	5'-11 5/8"	5'-11 7/8"	7'-0 5/8"
(1219)	(1435)	(1594)	(1826)	(1826)	(2149)
4'-0 1/2"	4'-9"	5'-3 1/4"	6'-0 1/8"	6'-0 3/8"	7'-1 1/8"
(1232)	(1448)	(1607)	(1832)	(1838)	(2162)
19 5/16"	23 9/16"	26 11/16"	31 1/8"	19 5/16"	23 9/16"
(491)	(598)	(678)	(1703)	(491)	(598)



Custom-size windows are available in 1/8" (3) increments. Windows can also be custom sized to match standard sizes ending in a sixteenth of an inch. **Single windows only.** See page 33 for custom sizes and specifications.



Choose venting or stationary. **AXW551** and **AXW61** windows are stationary only. In addition to venting shown in table, other standard configurations are available for twin, triple and stacked windows.

Twin, triple and stacked windows shown have one continuous outer frame.

Awning windows must be installed to vent as shown, and should not be rotated and used as a hopper.

Transom (CTR) windows (shown on pages 24-25) can be used over casement or awning windows, and may be rotated 90° and used as a sidelight with casement, awning or picture windows.

Grille patterns shown on page 34.

• "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 pages 210-211 for more details.
 • Dimensions in parentheses are in millimeters.

CASEMENT & AWNING WINDOWS

Table of Picture and Transom Window Sizes

Scale 1/8" (3) = 1'-0" (305) – 1:96

Unit Dimension	2'-11 15/16" (913)	3'-4 13/16" (1037)	4'-0" (1219)	4'-4 13/16" (1341)	4'-11 7/8" (1521)	5'-4 13/16" (1646)	5'-11 7/8" (1826)
Minimum Rough Opening	3'-0 1/2" (927)	3'-5 3/8" (1051)	4'-0 1/2" (1232)	4'-5 3/8" (1356)	5'-0 3/8" (1534)	5'-5 3/8" (1660)	6'-0 3/8" (1838)
Unobstructed Glass	31 1/8" (791)	36" (914)	43 3/16" (1097)	48" (1219)	55 1/16" (1399)	60" (1524)	67 1/16" (1703)

Unit Dimension	CUSTOM WIDTHS – 36" to 71 7/8"						
	PTR3010	PTR3510	PTR4010	PTR4510	PTR5010	PTR5510	PTR6010
1'-0" (305)							
1'-0 1/2" (318)							
7 3/16" (183)							
2'-11 15/16" (913)							
3'-0 1/2" (927)							
3'-4 13/16" (1037)							
3'-5 3/8" (1051)							
36" (914)							
4'-0" (1219)							
4'-0 1/2" (1232)							
43 3/16" (1097)							
4'-4 13/16" (1341)							
4'-5 3/8" (1356)							
48" (1219)							
4'-11 7/8" (1521)							
5'-0 3/8" (1534)							
55 1/16" (1399)							
5'-4 13/16" (1646)							
5'-5 3/8" (1660)							
60" (1524)							
5'-11 7/8" (1826)							
6'-0 3/8" (1838)							
67 1/16" (1703)							

Unit Dimension	CUSTOM WIDTHS – 35 15/16" to 59 7/8"					CUSTOM WIDTHS – 60" to 71 7/8"	
	P3030	P3530	P4030	P4530	P5030	P5530	P6030
1'-0" (305)							
1'-0 1/2" (318)							
7 3/16" (183)							
2'-11 15/16" (913)							
3'-0 1/2" (927)							
3'-4 13/16" (1037)							
3'-5 3/8" (1051)							
36" (914)							
4'-0" (1219)							
4'-0 1/2" (1232)							
43 3/16" (1097)							
4'-4 13/16" (1341)							
4'-5 3/8" (1356)							
48" (1219)							
4'-11 7/8" (1521)							
5'-0 3/8" (1534)							
55 1/16" (1399)							
5'-4 13/16" (1646)							
5'-5 3/8" (1660)							
60" (1524)							
5'-11 7/8" (1826)							
6'-0 3/8" (1838)							
67 1/16" (1703)							

Unit Dimension	CUSTOM HEIGHTS – 35 15/16" to 71 7/8"					CUSTOM HEIGHTS – 35 15/16" to 59 7/8"	
	P3035	P3535	P4035	P4535	P5035	P5535	P6035
1'-0" (305)							
1'-0 1/2" (318)							
7 3/16" (183)							
2'-11 15/16" (913)							
3'-0 1/2" (927)							
3'-4 13/16" (1037)							
3'-5 3/8" (1051)							
36" (914)							
4'-0" (1219)							
4'-0 1/2" (1232)							
43 3/16" (1097)							
4'-4 13/16" (1341)							
4'-5 3/8" (1356)							
48" (1219)							
4'-11 7/8" (1521)							
5'-0 3/8" (1534)							
55 1/16" (1399)							
5'-4 13/16" (1646)							
5'-5 3/8" (1660)							
60" (1524)							
5'-11 7/8" (1826)							
6'-0 3/8" (1838)							
67 1/16" (1703)							

Unit Dimension	CUSTOM HEIGHTS – 35 15/16" to 71 7/8"					CUSTOM HEIGHTS – 35 15/16" to 59 7/8"	
	P3040	P3540	P4040	P4540	P5040	P5540	P6040
1'-0" (305)							
1'-0 1/2" (318)							
7 3/16" (183)							
2'-11 15/16" (913)							
3'-0 1/2" (927)							
3'-4 13/16" (1037)							
3'-5 3/8" (1051)							
36" (914)							
4'-0" (1219)							
4'-0 1/2" (1232)							
43 3/16" (1097)							
4'-4 13/16" (1341)							
4'-5 3/8" (1356)							
48" (1219)							
4'-11 7/8" (1521)							
5'-0 3/8" (1534)							
55 1/16" (1399)							
5'-4 13/16" (1646)							
5'-5 3/8" (1660)							
60" (1524)							
5'-11 7/8" (1826)							
6'-0 3/8" (1838)							
67 1/16" (1703)							

Unit Dimension	CUSTOM HEIGHTS – 35 15/16" to 71 7/8"					CUSTOM HEIGHTS – 35 15/16" to 59 7/8"	
	P3045	P3545	P4045	P4545	P5045	P5545	P6045
1'-0" (305)							
1'-0 1/2" (318)							
7 3/16" (183)							
2'-11 15/16" (913)							
3'-0 1/2" (927)							
3'-4 13/16" (1037)							
3'-5 3/8" (1051)							
36" (914)							
4'-0" (1219)							
4'-0 1/2" (1232)							
43 3/16" (1097)							
4'-4 13/16" (1341)							
4'-5 3/8" (1356)							
48" (1219)							
4'-11 7/8" (1521)							
5'-0 3/8" (1534)							
55 1/16" (1399)							
5'-4 13/16" (1646)							
5'-5 3/8" (1660)							
60" (1524)							
5'-11 7/8" (1826)							
6'-0 3/8" (1838)							
67 1/16" (1703)							

Unit Dimension	CUSTOM HEIGHTS – 35 15/16" to 71 7/8"					CUSTOM HEIGHTS – 35 15/16" to 59 7/8"	
	P3050	P3550	P4050	P4550	P5050	P5550	P6050
1'-0" (305)							
1'-0 1/2" (318)							
7 3/16" (183)							
2'-11 15/16" (913)							
3'-0 1/2" (927)							
3'-4 13/16" (1037)							
3'-5 3/8" (1051)							
36" (914)							
4'-0" (1219)							
4'-0 1/2" (1232)							
43 3/16" (1097)							
4'-4 13/16" (1341)							
4'-5 3/8" (1356)							
48" (1219)							
4'-11 7/8" (1521)							
5'-0 3/8" (1534)							
55 1/16" (1399)							
5'-4 13/16" (1646)							
5'-5 3/8" (1660)							
60" (1524)							
5'-11 7/8" (1826)							
6'-0 3/8" (1838)							
67 1/16" (1703)							

Unit Dimension	CUSTOM HEIGHTS – 35 15/16" to 71 7/8"					CUSTOM HEIGHTS – 35 15/16" to 59 7/8"	
	P3055	P3555	P4055	P4555	P5055	P5555	P6055
1'-0" (305)							
1'-0 1/2" (318)							
7 3/16" (183)							
2'-11 15/16" (913)							
3'-0 1/2" (927)							
3'-4 13/16" (1037)							
3'-5 3/8" (1051)							
36" (914)							
4'-0" (1219)							
4'-0 1/2" (1232)							
43 3/16" (1097)							
4'-4 13/16" (1341)							
4'-5 3/8" (1356)							
48" (1219)							
4'-11 7/8" (1521)							
5'-0 3/8" (1534)							
55 1/16" (1399)							
5'-4 13/16" (1646)							
5'-5 3/8" (1660)							
60" (1524)							
5'-11 7/8" (1826)							
6'-0 3/8" (1838)							
67 1/16" (1703)							

Unit Dimension	CUSTOM HEIGHTS – 35 15/16" to 71 7/8"					CUSTOM HEIGHTS – 35 15/16" to 59 7/8"	
	P3060	P3560	P4060	P4560	P5060		
1'-0" (305)							
1'-0 1/2" (318)							
7 3/16" (183)							
2'-11 15/16" (913)							
3'-0 1/2" (927)							
3'-4 13/16" (1037)							
3'-5 3/8" (1051)							
36" (914)							
4'-0" (1219)							
4'-0 1/2" (1232)							
43 3/16" (1097)							
4'-4 13/16" (1341)							
4'-5 3/8" (1356)							
48" (1219)							
4'-11 7/8" (1521)							
5'-0 3/8" (1534)							
55 1/16" (1399)							
5'-4 13/16" (1646)							
5'-5 3/8" (1660)							
60" (1524)							
5'-11 7/8" (1826)							
6'-0 3/8" (1838)							
67 1/16" (1703)							

Custom-size windows are available in 1/8" (3) increments. Windows can also be custom sized to match standard sizes ending in a sixteenth of an inch. See page 33 for custom sizes and specifications.

Picture (P) and transom (PTR) windows may be rotated 90° to align with casement or awning windows.

Grille patterns shown on page 34.

* "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 pages 210-211 for more details.

* Dimensions in parentheses are in millimeters.

Casement Window Opening and Area Specifications

Window Number	Clear Opening Area		Clear Opening in Full Open Position			Glass Area Sq. Ft./ (m ²)	Vent Area		Top of Subfloor to Top of Inside Sill Stop Inches/ (mm)	Overall Window Area Sq. Ft./ (m ²)
	Hinge for Widest Clear Opening Sq. Ft./ (m ²)	Hinge with Wash Mode Sq. Ft./ (m ²)	Hinge for Widest Clear Opening Inches/ (mm)	Hinge with Wash Mode Inches/ (mm)	Height Inches/ (mm)		Hinge for Widest Clear Opening Sq. Ft./ (m ²)	Hinge with Wash Mode Sq. Ft./ (m ²)		
CR12	—	1.0 (0.09)	—	7 5/16" (186)	19 1/4" (489)	1.7 (0.16)	—	1.5 (0.14)	60 9/16" (1538)	2.8 (0.26)
CR125	—	1.2 (0.11)	—	7 5/16" (186)	23 1/16" (595)	2.0 (0.19)	—	1.8 (0.17)	56 3/8" (1432)	3.3 (0.31)
CR13	—	1.6 (0.15)	—	7 5/16" (186)	31 1/16" (789)	2.7 (0.25)	—	2.4 (0.22)	48 3/4" (1238)	4.2 (0.39)
CR135	—	1.8 (0.17)	—	7 5/16" (186)	35 15/16" (913)	3.1 (0.29)	—	2.7 (0.25)	43 7/8" (1114)	4.8 (0.45)
CR14	—	2.2 (0.20)	—	7 5/16" (186)	43 1/8" (1095)	3.8 (0.35)	—	3.3 (0.31)	36 11/16" (932)	5.7 (0.53)
CR145	—	2.4 (0.22)	—	7 5/16" (186)	47 15/16" (1218)	4.2 (0.39)	—	3.6 (0.33)	31 1/8" (810)	6.2 (0.58)
CR15	—	2.8 (0.26)	—	7 5/16" (186)	55" (1397)	4.8 (0.45)	—	4.2 (0.39)	24 13/16" (630)	7.1 (0.66)
CR155	—	3.1 (0.29)	—	7 5/16" (186)	59 15/16" (1522)	5.2 (0.48)	—	4.5 (0.42)	19 1/8" (505)	7.7 (0.72)
CR16	—	3.4 (0.32)	—	7 5/16" (186)	67" (1702)	5.9 (0.55)	—	5.1 (0.47)	12 12 1/16" (325)	8.5 (0.79)
CR23	—	1.6 (0.15)	—	7 5/16" (186)	31 1/16" (789)	5.4 (0.50)	—	4.7 (0.44)	48 3/4" (1238)	8.4 (0.78)
CR235	—	1.8 (0.17)	—	7 5/16" (186)	35 15/16" (913)	6.3 (0.59)	—	5.4 (0.50)	43 7/8" (1114)	9.6 (0.89)
CR24	—	2.2 (0.20)	—	7 5/16" (186)	43 1/8" (1095)	7.6 (0.71)	—	6.5 (0.60)	36 11/16" (932)	11.3 (1.05)
CR245	—	2.4 (0.22)	—	7 5/16" (186)	47 15/16" (1218)	8.4 (0.78)	—	7.3 (0.68)	31 7/8" (810)	12.4 (1.15)
CR25	—	2.8 (0.26)	—	7 5/16" (186)	55" (1397)	9.6 (0.89)	—	8.3 (0.77)	24 13/16" (630)	14.2 (1.32)
CR255	—	3.1 (0.29)	—	7 5/16" (186)	59 15/16" (1522)	10.5 (0.98)	—	9.1 (0.85)	19 1/8" (505)	15.4 (1.43)
CR26	—	3.4 (0.32)	—	7 5/16" (186)	67" (1702)	11.7 (1.09)	—	10.2 (0.95)	12 13/16" (325)	17.0 (1.58)
CN12	—	1.5 (0.14)	—	10 13/16" (275)	19 1/4" (489)	2.2 (0.20)	—	1.9 (0.18)	60 9/16" (1538)	3.4 (0.32)
CN125	—	1.8 (0.17)	—	10 13/16" (275)	23 1/16" (595)	2.6 (0.24)	—	2.3 (0.21)	56 3/8" (1432)	4.0 (0.37)
CN13	—	2.3 (0.21)	—	10 13/16" (275)	31 1/16" (789)	3.5 (0.33)	—	3.1 (0.29)	48 3/4" (1238)	5.1 (0.47)
CN135	—	2.7 (0.25)	—	10 13/16" (275)	35 15/16" (913)	4.0 (0.37)	—	3.6 (0.33)	43 7/8" (1114)	5.8 (0.54)
CN14	—	3.2 (0.30)	—	10 13/16" (275)	43 1/8" (1095)	4.8 (0.45)	—	4.3 (0.40)	36 11/16" (932)	6.8 (0.63)
CN145	—	3.6 (0.33)	—	10 13/16" (275)	47 15/16" (1218)	5.4 (0.50)	—	4.8 (0.45)	31 1/8" (810)	7.5 (0.70)
CN15	—	4.1 (0.38)	—	10 13/16" (275)	55" (1397)	6.2 (0.58)	—	5.5 (0.51)	24 13/16" (630)	8.5 (0.79)
CN155	—	4.5 (0.42)	—	10 13/16" (275)	59 15/16" (1522)	6.7 (0.62)	—	6.0 (0.56)	19 1/8" (505)	9.2 (0.86)
CN16	—	5.0 (0.47)	—	10 13/16" (275)	67" (1702)	7.5 (0.70)	—	6.7 (0.62)	12 13/16" (325)	10.2 (0.95)
CN22	—	1.5 (0.14)	—	10 13/16" (275)	19 1/4" (489)	4.4 (0.41)	—	3.8 (0.35)	60 9/16" (1538)	6.8 (0.63)
CN225	—	1.8 (0.17)	—	10 13/16" (275)	23 1/16" (595)	5.2 (0.48)	—	4.6 (0.43)	56 3/16" (1432)	8.0 (0.74)
CN23	—	2.3 (0.21)	—	10 13/16" (275)	31 1/16" (789)	7.0 (0.65)	—	6.2 (0.58)	48 3/4" (1238)	10.2 (0.95)
CN235	—	2.7 (0.25)	—	10 13/16" (275)	35 15/16" (913)	8.0 (0.74)	—	7.2 (0.67)	43 7/8" (1114)	11.5 (1.07)
CN24	—	3.2 (0.30)	—	10 13/16" (275)	43 1/8" (1095)	9.7 (0.90)	—	8.6 (0.80)	36 11/16" (932)	13.6 (1.26)
CN245	—	3.6 (0.33)	—	10 13/16" (275)	47 15/16" (1218)	10.7 (0.99)	—	9.6 (0.89)	31 1/8" (810)	15.0 (1.39)
CN25	—	4.1 (0.38)	—	10 13/16" (275)	55" (1397)	12.3 (1.14)	—	11.0 (1.02)	24 13/16" (630)	16.9 (1.57)
CN255	—	4.5 (0.42)	—	10 13/16" (275)	59 15/16" (1522)	13.4 (1.25)	—	12.0 (1.12)	19 1/8" (505)	18.4 (1.71)
CN26	—	5.0 (0.47)	—	10 13/16" (275)	67" (1702)	15.0 (1.39)	—	13.4 (1.25)	12 13/16" (325)	20.3 (1.89)
CN32	—	1.5 (0.14)	—	10 13/16" (275)	19 1/4" (489)	6.6 (0.61)	—	3.8 (0.35)	60 9/16" (1538)	10.2 (0.95)
CN325	—	1.8 (0.17)	—	10 13/16" (275)	23 1/16" (595)	7.8 (0.73)	—	4.6 (0.43)	56 3/8" (1432)	12.0 (1.12)
CN33	—	2.3 (0.21)	—	10 13/16" (275)	31 1/16" (789)	10.5 (0.98)	—	6.2 (0.58)	48 3/4" (1238)	15.3 (1.42)
CN335	—	2.7 (0.25)	—	10 13/16" (275)	35 15/16" (913)	12.0 (1.12)	—	7.2 (0.67)	43 7/8" (1114)	17.4 (1.62)
CN34	—	3.2 (0.30)	—	10 13/16" (275)	43 1/8" (1095)	14.4 (1.34)	—	8.6 (0.80)	36 11/16" (932)	20.4 (1.90)
CN345	—	3.6 (0.33)	—	10 13/16" (275)	47 15/16" (1218)	16.2 (1.51)	—	9.6 (0.89)	31 1/8" (810)	22.5 (2.09)
CN35	—	4.1 (0.38)	—	10 13/16" (275)	55" (1397)	18.6 (1.73)	—	11.0 (1.02)	24 13/16" (630)	25.5 (2.37)
CN355	—	4.5 (0.42)	—	10 13/16" (275)	59 15/16" (1522)	20.1 (1.87)	—	12.0 (1.11)	19 1/8" (505)	27.6 (2.57)
CN36	—	5.0 (0.47)	—	10 13/16" (275)	67" (1702)	22.5 (2.09)	—	13.4 (1.24)	12 13/16" (325)	30.6 (2.84)
C12	2.5 (0.23)	1.9 (0.18)	18 5/16" (465)	14 7/16" (367)	19 1/4" (489)	2.6 (0.24)	2.5 (0.23)	2.4 (0.22)	60 9/16" (1538)	4.0 (0.37)
C125	3.0 (0.28)	2.4 (0.22)	18 5/16" (465)	14 7/16" (367)	23 1/16" (595)	3.2 (0.30)	3.0 (0.28)	2.9 (0.27)	56 3/8" (1432)	4.7 (0.44)
C13	4.0 (0.37)	3.1 (0.29)	18 5/16" (465)	14 7/16" (367)	31 1/16" (789)	4.3 (0.40)	4.0 (0.37)	3.9 (0.36)	48 3/4" (1238)	6.0 (0.56)
C135	4.6 (0.43)	3.6 (0.33)	18 5/16" (465)	14 7/16" (367)	35 15/16" (913)	4.9 (0.46)	4.6 (0.43)	4.5 (0.42)	43 7/8" (1114)	6.8 (0.63)
C14	5.5 (0.51)	4.3 (0.40)	18 5/16" (465)	14 7/16" (367)	43 1/8" (1095)	5.9 (0.55)	5.5 (0.51)	5.4 (0.50)	36 11/16" (932)	8.0 (0.74)
C145	6.1 (0.57)	4.8 (0.45)	18 5/16" (465)	14 7/16" (367)	47 15/16" (1218)	6.6 (0.61)	6.1 (0.57)	6.0 (0.56)	31 1/8" (810)	8.8 (0.82)
C15	7.0 (0.65)	5.5 (0.51)	18 5/16" (465)	14 7/16" (367)	55" (1397)	7.5 (0.70)	7.0 (0.65)	6.9 (0.64)	24 13/16" (630)	10.0 (0.93)
C155	7.6 (0.71)	6.0 (0.56)	18 5/16" (465)	14 7/16" (367)	59 15/16" (1522)	8.2 (0.76)	7.6 (0.71)	7.5 (0.70)	19 1/8" (505)	10.9 (1.01)
C16	8.5 (0.79)	6.7 (0.62)	18 5/16" (465)	14 7/16" (367)	67" (1702)	9.2 (0.86)	8.5 (0.79)	8.4 (0.78)	12 13/16" (325)	12.0 (1.12)
C22	2.5 (0.23)	1.9 (0.18)	18 5/16" (465)	14 7/16" (367)	19 1/4" (489)	5.2 (0.48)	5.0 (0.46)	4.8 (0.45)	60 9/16" (1538)	8.0 (0.74)
C225	3.0 (0.28)	2.4 (0.22)	18 5/16" (465)	14 7/16" (367)	23 1/16" (595)	6.4 (0.59)	6.0 (0.56)	5.8 (0.54)	56 3/8" (1432)	9.4 (0.87)
C23	4.0 (0.37)	3.1 (0.29)	18 5/16" (465)	14 7/16" (367)	31 1/16" (789)	8.5 (0.79)	7.9 (0.73)	7.8 (0.73)	48 3/4" (1238)	12.0 (1.12)
C235	4.6 (0.43)	3.6 (0.33)	18 5/16" (465)	14 7/16" (367)	35 15/16" (913)	9.9 (0.92)	9.2 (0.86)	9.0 (0.84)	43 7/8" (1114)	13.6 (1.26)
C24	5.5 (0.51)	4.3 (0.40)	18 5/16" (465)	14 7/16" (367)	43 1/8" (1095)	11.8 (1.10)	11.0 (1.02)	10.8 (1.00)	36 11/16" (932)	16.0 (1.49)
C245	6.1 (0.57)	4.8 (0.45)	18 5/16" (465)	14 7/16" (367)	47 15/16" (1218)	13.1 (1.22)	12.2 (1.13)	12.0 (1.12)	31 1/8" (810)	17.6 (1.64)
C25	7.0 (0.65)	5.5 (0.51)	18 5/16" (465)	14 7/16" (367)	55" (1397)	15.1 (1.40)	14.0 (1.30)	13.8 (1.28)	24 13/16" (630)	20.0 (1.86)

* "Top of Subfloor to Top of Inside Sill Stop" is calculated based upon a structural header height of 6'-10 1/2" (2096).
 • Dimensions in parentheses are in millimeters or square meters.

continued on next page

CASEMENT & AWNING WINDOWS

Casement Window Opening and Area Specifications (continued)

Window Number	Clear Opening Area		Clear Opening in Full Open Position				Glass Area Sq. Ft./ (m ²)	Vent Area		Top of Subfloor to Top of Inside Sill Stop Inches/(mm)	Overall Window Area Sq. Ft./ (m ²)
	Hinge for Widest Clear Opening Sq. Ft./ (m ²)	Hinge with Wash Mode Sq. Ft./ (m ²)	Hinge for Widest Clear Opening Inches/(mm)	Hinge with Wash Mode Inches/(mm)	Height Inches/(mm)	Hinge for Widest Clear Opening Sq. Ft./ (m ²)		Hinge with Wash Mode Sq. Ft./ (m ²)			
C255	7.6 (0.71)	6.0 (0.56)	18 5/16" (465)	14 7/16" (367)	59 15/16" (1522)	16.4 (1.52)	15.3 (1.42)	15.0 (1.39)	19 7/8" (505)	21.6 (2.01)	
C26	8.5 (0.79)	6.7 (0.62)	18 5/16" (465)	14 7/16" (367)	67" (1702)	18.4 (1.71)	17.1 (1.59)	16.8 (1.56)	12 13/16" (325)	24.0 (2.23)	
C32	2.5 (0.23)	1.9 (0.18)	18 5/16" (465)	14 7/16" (367)	19 1/4" (489)	7.8 (0.73)	5.0 (0.46)	4.8 (0.45)	60 9/16" (1538)	12.0 (1.12)	
C325	3.0 (0.28)	2.4 (0.22)	18 5/16" (465)	14 7/16" (367)	23 7/16" (595)	9.6 (0.89)	6.0 (0.56)	5.8 (0.54)	56 3/8" (1432)	14.1 (1.31)	
C33	4.0 (0.37)	3.1 (0.29)	18 5/16" (465)	14 7/16" (367)	31 1/16" (789)	12.8 (1.19)	7.9 (0.73)	7.8 (0.73)	48 3/4" (1238)	17.9 (1.66)	
C335	4.6 (0.43)	3.6 (0.33)	18 5/16" (465)	14 7/16" (367)	35 15/16" (913)	14.8 (1.38)	9.2 (0.86)	9.0 (0.84)	43 7/8" (1114)	20.4 (1.90)	
C34	5.5 (0.51)	4.3 (0.40)	18 5/16" (465)	14 7/16" (367)	43 1/8" (1095)	17.7 (1.64)	11.0 (1.02)	10.8 (1.00)	36 11/16" (932)	24.0 (2.23)	
C345	6.1 (0.57)	4.8 (0.45)	18 5/16" (465)	14 7/16" (367)	47 15/16" (1218)	19.7 (1.83)	12.2 (1.13)	12.0 (1.12)	31 7/8" (810)	26.4 (2.45)	
C35	7.0 (0.65)	5.5 (0.51)	18 5/16" (465)	14 7/16" (367)	55" (1397)	22.6 (2.10)	14.0 (1.30)	13.8 (1.28)	24 13/16" (630)	29.9 (2.78)	
CW12*	3.0 (0.28)	2.5 (0.23)	22 9/16" (573)	18 11/16" (475)	19 1/4" (489)	3.2 (0.30)	3.0 (0.28)	3.0 (0.28)	60 9/16" (1538)	4.8 (0.45)	
CW125*	3.7 (0.34)	3.0 (0.28)	22 9/16" (573)	18 11/16" (475)	23 7/16" (595)	3.9 (0.36)	3.7 (0.34)	3.6 (0.33)	56 3/8" (1432)	5.6 (0.52)	
CW13*	4.9 (0.46)	4.0 (0.37)	22 9/16" (573)	18 11/16" (475)	31 1/16" (789)	5.2 (0.48)	4.9 (0.46)	4.8 (0.45)	48 3/4" (1238)	7.1 (0.66)	
CW135 0*	5.7 (0.53)	5.1 (0.47)	22 9/16" (573)	20" (508)	36 3/8" (924)	6.0 (0.56)	5.7 (0.53)	5.5 (0.51)	43 7/8" (1114)	8.0 (0.74)	
CW14 0*	6.8 (0.63)	6.0 (0.56)	22 9/16" (573)	20" (508)	43 1/8" (1095)	7.2 (0.67)	6.8 (0.63)	6.6 (0.61)	36 11/16" (932)	9.5 (0.88)	
CW145 0*	7.5 (0.70)	6.7 (0.62)	22 9/16" (573)	20" (508)	47 15/16" (1218)	8.0 (0.74)	7.5 (0.70)	7.3 (0.68)	31 7/8" (810)	10.4 (0.97)	
CW15 0*	8.6 (0.80)	7.6 (0.71)	22 9/16" (573)	20" (508)	55" (1397)	9.2 (0.86)	8.6 (0.80)	8.4 (0.78)	24 13/16" (630)	11.8 (1.10)	
CW155 0*	9.4 (0.87)	8.3 (0.77)	22 9/16" (573)	20" (508)	59 15/16" (1522)	10.0 (0.93)	9.4 (0.87)	9.1 (0.85)	19 7/8" (505)	12.8 (1.19)	
CW16 0*	10.5 (0.98)	9.3 (0.86)	22 9/16" (573)	20" (508)	67" (1702)	11.2 (1.04)	10.5 (0.98)	10.2 (0.95)	12 13/16" (325)	14.2 (1.32)	
CW22*	3.0 (0.28)	2.5 (0.23)	22 9/16" (573)	18 11/16" (475)	19 1/4" (489)	6.4 (0.59)	6.0 (0.56)	6.0 (0.56)	60 9/16" (1538)	9.6 (0.89)	
CW225*	3.7 (0.34)	3.0 (0.28)	22 9/16" (573)	18 11/16" (475)	23 7/16" (595)	7.8 (0.72)	7.4 (0.69)	7.2 (0.67)	56 3/8" (1432)	11.2 (1.04)	
CW23*	4.9 (0.46)	4.0 (0.37)	22 9/16" (573)	18 11/16" (475)	31 1/16" (789)	10.4 (0.97)	9.8 (0.91)	9.6 (0.89)	48 3/4" (1238)	14.1 (1.31)	
CW235 0*	5.7 (0.53)	5.1 (0.47)	22 9/16" (573)	20" (508)	36 3/8" (924)	12.0 (1.12)	11.4 (1.06)	11.1 (1.03)	43 7/8" (1114)	16.0 (1.49)	
CW24 0*	6.8 (0.63)	6.0 (0.56)	22 9/16" (573)	20" (508)	43 1/8" (1095)	14.4 (1.34)	13.5 (1.25)	13.1 (1.22)	36 11/16" (932)	18.8 (1.75)	
CW245 0*	7.5 (0.70)	6.7 (0.62)	22 9/16" (573)	20" (508)	47 15/16" (1218)	16.0 (1.49)	15.0 (1.39)	14.6 (1.36)	31 7/8" (810)	20.8 (1.93)	
CW25 0*	8.6 (0.80)	7.6 (0.71)	22 9/16" (573)	20" (508)	55" (1397)	18.3 (1.70)	17.3 (1.61)	16.7 (1.55)	24 13/16" (630)	23.5 (2.18)	
CW255 0*	9.4 (0.87)	8.3 (0.77)	22 9/16" (573)	20" (508)	59 15/16" (1522)	20.0 (1.86)	18.8 (1.75)	18.2 (1.69)	19 7/8" (505)	25.6 (2.38)	
CW26 0*	10.5 (0.98)	9.3 (0.86)	22 9/16" (573)	20" (508)	67" (1702)	22.3 (2.07)	21.0 (1.95)	20.4 (1.90)	12 13/16" (325)	28.2 (2.62)	
CW32*	3.0 (0.28)	2.5 (0.23)	22 9/16" (573)	18 11/16" (475)	19 1/4" (489)	9.6 (0.89)	6.0 (0.56)	6.0 (0.56)	60 9/16" (1538)	14.4 (1.34)	
CW325*	3.7 (0.34)	3.0 (0.28)	22 9/16" (573)	18 11/16" (475)	23 7/16" (595)	11.7 (1.09)	7.4 (0.69)	7.2 (0.67)	56 3/8" (1432)	16.8 (1.56)	
CW33*	4.9 (0.46)	4.0 (0.37)	22 9/16" (567)	18 11/16" (475)	31 1/16" (789)	15.6 (1.45)	9.8 (0.91)	9.6 (0.89)	48 3/4" (1238)	21.1 (1.96)	
CW335 0*	5.7 (0.53)	5.1 (0.47)	22 9/16" (567)	20" (508)	36 3/8" (924)	18.0 (1.67)	11.4 (1.06)	11.1 (1.03)	43 7/8" (1114)	24.0 (2.23)	
CW34 0*	6.8 (0.63)	6.0 (0.56)	22 9/16" (567)	20" (508)	43 1/8" (1095)	21.6 (2.01)	13.6 (1.26)	13.1 (1.22)	36 11/16" (932)	28.2 (2.62)	
CW345 0*	7.5 (0.70)	6.7 (0.62)	22 9/16" (567)	20" (508)	47 15/16" (1218)	24.0 (2.23)	15.0 (1.39)	14.6 (1.36)	31 7/8" (810)	31.0 (2.88)	
CW35 0*	8.6 (0.80)	7.6 (0.71)	22 9/16" (567)	20" (508)	55" (1397)	27.6 (2.56)	17.2 (1.60)	16.7 (1.55)	24 13/16" (630)	35.2 (3.27)	
CX125	4.2 (0.39)	3.5 (0.33)	25 11/16" (653)	21 13/16" (554)	23 7/16" (595)	4.4 (0.41)	4.2 (0.39)	4.1 (0.38)	56 3/8" (1432)	6.2 (0.58)	
CX13	5.5 (0.52)	4.7 (0.44)	25 11/16" (653)	21 13/16" (554)	31 1/16" (789)	5.9 (0.54)	5.5 (0.52)	5.4 (0.51)	48 3/4" (1238)	7.9 (0.73)	
CX135 0	6.4 (0.60)	5.4 (0.51)	25 11/16" (653)	21 13/16" (554)	35 15/16" (913)	6.8 (0.63)	6.4 (0.60)	6.3 (0.59)	43 7/8" (1114)	8.9 (0.83)	
CX14 0	7.7 (0.72)	6.5 (0.61)	25 11/16" (653)	21 13/16" (554)	43 1/8" (1095)	8.1 (0.76)	7.7 (0.72)	7.6 (0.70)	36 11/16" (932)	10.5 (0.98)	
CX145 0	8.6 (0.80)	7.3 (0.67)	25 11/16" (653)	21 13/16" (554)	47 15/16" (1218)	9.0 (0.84)	8.6 (0.80)	8.4 (0.78)	31 7/8" (810)	11.6 (1.07)	
CX15 0	9.8 (0.91)	8.3 (0.77)	25 11/16" (653)	21 13/16" (554)	55" (1397)	10.4 (0.96)	9.8 (0.91)	9.7 (0.90)	24 13/16" (630)	13.1 (1.22)	
CX155 0	10.7 (0.99)	9.1 (0.84)	25 11/16" (653)	21 13/16" (554)	59 15/16" (1522)	11.3 (1.05)	10.7 (0.99)	10.5 (0.98)	19 7/8" (505)	14.2 (1.32)	
CX16 0	12.0 (1.11)	10.1 (0.94)	25 11/16" (653)	21 13/16" (554)	67" (1702)	12.6 (1.17)	12.0 (1.11)	11.8 (1.09)	12 13/16" (325)	15.7 (1.46)	
CX23	5.5 (0.52)	4.7 (0.44)	25 11/16" (653)	21 13/16" (554)	31 1/16" (789)	11.7 (1.09)	11.1 (1.03)	10.9 (1.01)	48 3/4" (1238)	15.7 (1.46)	
CX235 0	6.4 (0.60)	5.4 (0.51)	25 11/16" (653)	21 13/16" (554)	35 15/16" (913)	13.6 (1.26)	12.8 (1.19)	12.6 (1.17)	43 7/8" (1114)	17.8 (1.65)	
CX24 0	7.7 (0.72)	6.5 (0.61)	25 11/16" (653)	21 13/16" (554)	43 1/8" (1095)	16.3 (1.51)	15.4 (1.43)	15.1 (1.41)	36 11/16" (932)	20.9 (1.94)	
CX245 0	8.6 (0.80)	7.3 (0.67)	25 11/16" (653)	21 13/16" (554)	47 15/16" (1218)	18.1 (1.68)	17.1 (1.59)	16.8 (1.56)	31 7/8" (810)	23.0 (2.14)	
CX25 0	9.8 (0.91)	8.3 (0.77)	25 11/16" (653)	21 13/16" (554)	55" (1397)	20.7 (1.93)	19.6 (1.82)	19.3 (1.79)	24 13/16" (630)	26.1 (2.42)	
CXW13 0	6.5 (0.60)	5.6 (0.53)	30 1/8" (765)	26 1/4" (667)	31 1/16" (789)	6.8 (0.63)	6.5 (0.60)	6.1 (0.57)	48 3/4" (1238)	9.0 (0.84)	
CXW135 0	7.5 (0.70)	6.6 (0.61)	30 1/8" (765)	26 1/4" (667)	35 15/16" (913)	7.9 (0.73)	7.5 (0.70)	7.0 (0.65)	43 7/8" (1114)	10.2 (0.95)	
CXW14 0	9.0 (0.84)	7.9 (0.73)	30 1/8" (765)	26 1/4" (667)	43 1/8" (1095)	9.5 (0.88)	9.0 (0.84)	8.4 (0.78)	36 11/16" (932)	12.0 (1.12)	
CXW145 0	10.0 (0.93)	8.8 (0.82)	30 1/8" (765)	26 1/4" (667)	47 15/16" (1218)	10.5 (0.98)	10.0 (0.93)	9.4 (0.87)	31 7/8" (810)	13.2 (1.23)	
CXW15 0**	11.5 (1.07)	—	30 1/8" (765)	—	55" (1397)	12.1 (1.12)	11.5 (1.07)	—	24 13/16" (630)	14.9 (1.38)	
CXW155 0**	12.6 (1.17)	—	30 1/8" (765)	—	59 15/16" (1522)	13.1 (1.22)	12.6 (1.17)	—	19 7/8" (505)	16.2 (1.51)	
CXW16 0**	14.0 (1.30)	—	30 1/8" (765)	—	67" (1702)	14.7 (1.37)	14.0 (1.30)	—	12 13/16" (325)	17.9 (1.66)	
CXW23	6.5 (0.60)	5.6 (0.53)	30 1/8" (765)	26 1/4" (667)	31 1/16" (789)	13.6 (1.26)	13.0 (1.21)	12.2 (0.57)	48 3/4" (1238)	17.9 (1.66)	
CXW235 0	7.5 (0.70)	6.5 (0.61)	30 1/8" (765)	26 1/4" (667)	35 15/16" (913)	15.8 (1.47)	15.0 (1.39)	14.0 (0.57)	43 7/8" (1114)	20.3 (1.89)	
CXW24 0	9.0 (0.84)	7.9 (0.73)	30 1/8" (765)	26 1/4" (667)	43 1/8" (1059)	19.0 (1.77)	18.0 (1.67)	16.8 (0.57)	36 11/16" (932)	23.9 (2.22)	
CXW245 0	10.0 (0.93)	8.7 (0.81)	30 1/8" (765)	26 1/4" (667)	47 15/16" (1218)	21.0 (1.95)	20.0 (1.86)	18.8 (0.57)	31 7/8" (810)	26.3 (2.44)	
CXW25 0**	11.5 (1.07)	—	30 1/8" (765)	—	55" (1397)	24.2 (2.25)	23.0 (2.14)	—	24 13/16" (630)	29.8 (2.77)	

*Top of Subfloor to Top of Inside Sill Stop" is calculated based upon a structural header height of 6'-10 1/2" (2096).
*Dimensions in parentheses are in millimeters or square meters.
0Meet or exceed 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) with appropriate hinge specified.
*Meet clear opening width of 20" (508) using hinge with wash mode and control bracket (bracket can be pivoted for cleaning position) and meet clear opening width of 22" (559) using hinge for widest clear opening.
**Available with straight-arm operators (hinged for widest clear opening) only.

Awning Window Opening and Area Specifications

Window Number	Clear Opening Area Sq. Ft./ (m ²)	Clear Opening in Full Open Position		Glass Area Sq. Ft./ (m ²)	Vent Area Sq. Ft./ (m ²)	Top of Subfloor to Top of Inside Sill Stop Inches/(mm)	Overall Window Area Sq. Ft./ (m ²)
		Width Inches/(mm)	Depth Inches/(mm)				
AR21	0.9 (0.08)	19 1/2" (495)	6 3/8" (162)	1.7 (0.16)	0.9 (0.08)	67 7/16" (1713)	2.8 (0.26)
AR251	1.1 (0.10)	23 3/4" (603)	6 3/8" (162)	2.0 (0.19)	1.1 (0.10)	67 7/16" (1713)	3.3 (0.31)
AR281	1.2 (0.11)	26 7/8" (683)	6 3/8" (162)	2.3 (0.21)	1.2 (0.11)	67 7/16" (1713)	3.7 (0.34)
AR31	1.4 (0.13)	31 5/16" (795)	6 3/8" (162)	2.7 (0.25)	1.4 (0.13)	67 7/16" (1713)	4.2 (0.39)
AR351	1.6 (0.15)	36 3/16" (919)	6 3/8" (162)	3.1 (0.29)	1.6 (0.15)	67 7/16" (1713)	4.8 (0.45)
AR41	1.9 (0.18)	43 3/8" (1102)	6 3/8" (162)	3.8 (0.35)	1.9 (0.18)	67 7/16" (1713)	5.7 (0.53)
AR451	2.1 (0.20)	48 3/16" (1224)	6 3/8" (162)	4.2 (0.39)	2.1 (0.20)	67 7/16" (1713)	6.2 (0.58)
AR51	2.5 (0.23)	55 1/2" (1410)	6 3/8" (162)	4.8 (0.45)	2.5 (0.23)	67 7/16" (1713)	7.1 (0.66)
AR551	2.7 (0.25)	60 3/16" (1529)	6 3/8" (162)	5.2 (0.48)	2.7 (0.25)	67 7/16" (1713)	7.7 (0.72)
AR61	3.0 (0.28)	67 1/2" (1715)	6 3/8" (162)	5.9 (0.55)	3.0 (0.28)	67 7/16" (1713)	8.5 (0.79)
AR221	0.9 (0.08)	19 1/2" (495)	6 3/8" (162)	3.4 (0.32)	1.7 (0.16)	67 7/16" (1713)	5.6 (0.52)
AR2251	1.1 (0.10)	23 3/4" (603)	6 3/8" (162)	4.0 (0.37)	2.1 (0.20)	67 7/16" (1713)	6.6 (0.61)
AR2281	1.2 (0.11)	26 7/8" (683)	6 3/8" (162)	4.6 (0.43)	2.4 (0.22)	67 7/16" (1713)	7.4 (0.69)
AR231	1.4 (0.13)	31 5/16" (795)	6 3/8" (162)	5.4 (0.50)	2.8 (0.26)	67 7/16" (1713)	8.4 (0.78)
AR321	0.9 (0.08)	19 1/2" (495)	6 3/8" (162)	5.1 (0.47)	2.6 (0.24)	67 7/16" (1713)	8.4 (0.78)
AR3251	1.1 (0.10)	23 3/4" (603)	6 3/8" (162)	6.0 (0.56)	3.2 (0.29)	67 7/16" (1713)	9.9 (0.92)
AN21	0.9 (0.08)	19 1/2" (495)	6 7/16" (164)	2.2 (0.20)	0.9 (0.08)	63 15/16" (1624)	3.4 (0.32)
AN251	1.1 (0.10)	23 3/4" (603)	6 7/16" (164)	2.6 (0.24)	1.1 (0.10)	63 15/16" (1624)	4.0 (0.37)
AN281	1.2 (0.11)	26 7/8" (683)	6 7/16" (164)	3.0 (0.28)	1.2 (0.11)	63 15/16" (1624)	4.5 (0.42)
AN31	1.4 (0.13)	31 5/16" (795)	6 7/16" (164)	3.5 (0.33)	1.4 (0.13)	63 15/16" (1624)	5.1 (0.47)
AN351	1.6 (0.15)	36 3/16" (919)	6 7/16" (164)	4.0 (0.37)	1.6 (0.15)	63 15/16" (1624)	5.8 (0.54)
AN41	1.9 (0.18)	43 3/8" (1102)	6 7/16" (164)	4.8 (0.45)	1.9 (0.18)	63 15/16" (1624)	6.8 (0.63)
AN451	2.2 (0.20)	48 3/16" (1224)	6 7/16" (164)	5.4 (0.50)	2.2 (0.20)	63 15/16" (1624)	7.5 (0.70)
AN51	2.5 (0.23)	55 1/2" (1410)	6 7/16" (164)	6.2 (0.58)	2.5 (0.23)	63 15/16" (1624)	8.5 (0.79)
AN551	2.7 (0.25)	60 3/16" (1529)	6 7/16" (164)	6.7 (0.62)	2.7 (0.25)	63 15/16" (1624)	9.2 (0.86)
AN61	3.0 (0.28)	67 1/2" (1715)	6 7/16" (164)	7.5 (0.70)	3.0 (0.28)	63 15/16" (1624)	10.2 (0.95)
AN221	0.9 (0.08)	19 1/2" (495)	6 7/16" (164)	4.4 (0.41)	1.7 (0.16)	63 15/16" (1624)	6.8 (0.63)
AN2251	1.1 (0.10)	23 3/4" (603)	6 7/16" (164)	5.2 (0.48)	2.1 (0.20)	63 15/16" (1624)	8.0 (0.74)
AN2281	1.2 (0.11)	26 7/8" (683)	6 7/16" (164)	6.0 (0.56)	2.4 (0.22)	63 15/16" (1624)	9.0 (0.84)
AN231	1.4 (0.13)	31 5/16" (795)	6 7/16" (164)	7.0 (0.65)	2.8 (0.26)	63 15/16" (1624)	10.2 (0.95)
AN321	0.9 (0.08)	19 1/2" (495)	6 7/16" (164)	6.6 (0.61)	2.6 (0.24)	63 15/16" (1624)	10.2 (0.95)
AN3251	1.1 (0.10)	23 3/4" (603)	6 7/16" (164)	7.8 (0.73)	3.2 (0.30)	63 15/16" (1624)	12.0 (1.12)
A21	0.9 (0.08)	19 1/2" (495)	6 1/2" (165)	2.6 (0.24)	0.9 (0.08)	60 5/16" (1532)	4.0 (0.37)
A251	1.1 (0.10)	23 3/4" (603)	6 1/2" (165)	3.2 (0.30)	1.1 (0.10)	60 5/16" (1532)	4.8 (0.45)
A281	1.2 (0.11)	26 7/8" (683)	6 1/2" (165)	3.7 (0.34)	1.2 (0.11)	60 5/16" (1532)	5.3 (0.49)
A31	1.4 (0.13)	31 5/16" (795)	6 1/2" (165)	4.3 (0.40)	1.4 (0.13)	60 5/16" (1532)	6.0 (0.56)
A351	1.6 (0.15)	36 3/16" (919)	6 1/2" (165)	4.9 (0.46)	1.6 (0.15)	60 5/16" (1532)	6.8 (0.63)
A41	2.0 (0.18)	43 3/8" (1102)	6 1/2" (165)	5.9 (0.55)	2.0 (0.18)	60 5/16" (1532)	8.0 (0.74)
A451	2.2 (0.20)	48 3/16" (1224)	6 1/2" (165)	6.6 (0.61)	2.2 (0.20)	60 5/16" (1532)	8.8 (0.82)
A51	2.5 (0.23)	55 1/2" (1410)	6 1/2" (165)	7.5 (0.70)	2.5 (0.23)	60 5/16" (1532)	10.0 (0.93)
A551	2.7 (0.25)	60 3/16" (1529)	6 1/2" (165)	8.2 (0.76)	2.7 (0.25)	60 5/16" (1532)	10.9 (1.01)
A61	3.0 (0.28)	67 1/2" (1715)	6 1/2" (165)	9.2 (0.86)	3.0 (0.28)	60 5/16" (1532)	12.0 (1.12)
A221	0.9 (0.08)	19 1/2" (495)	6 1/2" (165)	5.2 (0.48)	1.8 (0.16)	60 5/16" (1532)	8.0 (0.74)
A2251	1.1 (0.10)	23 3/4" (603)	6 1/2" (165)	6.4 (0.60)	2.1 (0.20)	60 5/16" (1532)	9.6 (0.89)
A2281	1.2 (0.11)	26 7/8" (683)	6 1/2" (165)	7.4 (0.69)	2.4 (0.23)	60 5/16" (1532)	10.6 (0.99)
A231	1.4 (0.13)	31 5/16" (795)	6 1/2" (165)	8.6 (0.80)	2.8 (0.26)	60 5/16" (1532)	12.0 (1.12)
A321	0.9 (0.08)	19 1/2" (495)	6 1/2" (165)	7.8 (0.73)	2.6 (0.25)	60 5/16" (1532)	12.0 (1.12)
A3251	1.1 (0.10)	23 3/4" (603)	6 1/2" (165)	9.6 (0.89)	3.2 (0.30)	60 5/16" (1532)	14.4 (1.34)
AW21	0.9 (0.08)	19 1/2" (495)	6 1/2" (165)	3.2 (0.30)	0.9 (0.08)	56 1/16" (1424)	4.8 (0.45)
AW251	1.1 (0.10)	23 3/4" (603)	6 1/2" (165)	3.9 (0.36)	1.1 (0.10)	56 1/16" (1424)	5.6 (0.52)
AW281	1.2 (0.11)	26 7/8" (683)	6 1/2" (165)	4.4 (0.41)	1.2 (0.11)	56 1/16" (1424)	6.2 (0.58)
AW31	1.4 (0.13)	31 5/16" (795)	6 1/2" (165)	5.2 (0.48)	1.4 (0.13)	56 1/16" (1424)	7.1 (0.66)
AW351	1.6 (0.15)	36 3/16" (919)	6 1/2" (165)	6.0 (0.56)	1.6 (0.15)	56 1/16" (1424)	8.0 (0.74)
AW41	2.0 (0.18)	43 3/8" (1102)	6 1/2" (165)	7.2 (0.67)	2.0 (0.18)	56 1/16" (1424)	9.5 (0.88)
AW451	2.2 (0.20)	48 3/16" (1224)	6 1/2" (165)	8.0 (0.74)	2.2 (0.20)	56 1/16" (1424)	10.4 (0.97)
AW51	2.5 (0.23)	55 1/2" (1410)	6 1/2" (165)	9.2 (0.86)	2.5 (0.23)	56 1/16" (1424)	11.8 (1.10)
AW551	2.7 (0.25)	60 3/16" (1529)	6 1/2" (165)	10.0 (0.93)	2.7 (0.25)	56 1/16" (1424)	12.8 (1.19)
AW61	3.0 (0.28)	67 1/2" (1715)	6 1/2" (165)	11.2 (1.04)	3.0 (0.28)	56 1/16" (1424)	14.2 (1.32)
AW221	0.9 (0.08)	19 1/2" (495)	6 1/2" (165)	6.4 (0.60)	1.8 (0.16)	56 1/16" (1424)	9.6 (0.89)
AW2251	1.1 (0.10)	23 3/4" (603)	6 1/2" (165)	7.8 (0.73)	2.1 (0.20)	56 1/16" (1424)	11.2 (1.04)

* "Top of Subfloor to Top of Inside Sill Stop" is calculated based upon a structural header height of 6'-10 1/2" (2096).
 * Dimensions in parentheses are in millimeters or square meters.

continued on next page

Picture Window Area Specifications

Window Number	Glass Area Sq. Ft./ (m ²)	Overall Window Area Sq. Ft./ (m ²)
P3030	6.8 (0.63)	9.0 (0.84)
P3035	7.8 (0.73)	10.2 (0.95)
P3040	9.4 (0.87)	12.0 (1.12)
P3045	10.4 (0.97)	13.2 (1.23)
P3050	12.0 (1.12)	14.9 (1.38)
P3055	13.0 (1.21)	16.2 (1.51)
P3060	14.6 (1.36)	17.9 (1.66)
P3530	7.8 (0.73)	10.2 (0.95)
P3535	9.0 (0.84)	11.6 (1.08)
P3540	10.8 (1.00)	13.6 (1.26)
P3545	12.1 (1.12)	15.0 (1.39)
P3550	13.8 (1.28)	17.0 (1.58)
P3555	15.1 (1.40)	18.4 (1.71)
P3560	16.8 (1.56)	20.4 (1.90)
P4030	9.4 (0.87)	12.0 (1.12)
P4035	10.8 (1.00)	13.6 (1.26)
P4040	13.0 (1.21)	16.0 (1.49)
P4045	14.5 (1.35)	17.6 (1.64)
P4050	16.6 (1.54)	20.0 (1.86)
P4055	18.1 (1.68)	21.6 (2.01)
P4060	20.2 (1.88)	24.0 (2.23)
P4530	10.4 (0.97)	13.2 (1.23)
P4535	12.1 (1.12)	15.0 (1.39)
P4540	14.5 (1.35)	17.6 (1.64)
P4545	16.1 (1.50)	19.4 (1.80)
P4550	18.4 (1.71)	22.0 (2.04)
P4555	20.1 (1.87)	23.8 (2.21)
P4560	22.4 (2.08)	26.4 (2.45)
P5030	12.0 (1.12)	14.9 (1.38)
P5035	13.8 (1.28)	17.0 (1.58)
P5040	16.6 (1.54)	20.0 (1.86)
P5045	18.4 (1.71)	22.0 (2.04)
P5050	21.1 (1.96)	24.9 (2.31)
P5055	23.0 (2.14)	26.9 (2.50)
P5060	25.7 (2.39)	29.9 (2.78)
P5530	13.0 (1.21)	16.2 (1.51)
P5535	15.1 (1.40)	18.4 (1.71)
P5540	18.1 (1.68)	21.6 (2.01)
P5545	20.1 (1.87)	23.8 (2.21)
P5550	23.0 (2.14)	26.9 (2.50)
P6030	14.6 (1.36)	17.9 (1.66)
P6035	16.8 (1.56)	20.4 (1.90)
P6040	20.2 (1.88)	24.0 (2.23)
P6045	22.4 (2.08)	26.4 (2.45)
P6050	25.7 (2.39)	29.9 (2.78)

* Dimensions in parentheses are in square meters.

CASEMENT & AWNING WINDOWS

Awning Window Opening and Area Specifications (continued)

Window Number	Clear Opening Area Sq. Ft./ (m²)		Clear Opening in Full Open Position		Glass Area Sq. Ft./ (m²)	Vent Area Sq. Ft./ (m²)	Top of Subfloor to Top of Inside Sill Stop Inches/(mm)	Overall Window Area Sq. Ft./ (m²)
			Width Inches/(mm)	Depth Inches/(mm)				
AW2281	1.2	(0.11)	26 7/8" (683)	6 1/2" (165)	8.8 (0.82)	2.4 (0.23)	56 1/16" (1424)	12.4 (1.15)
AW231	1.4	(0.13)	31 5/16" (795)	6 1/2" (165)	10.4 (0.97)	2.8 (0.26)	56 1/16" (1424)	14.2 (1.32)
AW321	0.9	(0.08)	19 1/2" (495)	6 1/2" (165)	9.6 (0.89)	2.6 (0.25)	56 1/16" (1424)	14.4 (1.34)
AW3251	1.1	(0.10)	23 3/4" (603)	6 1/2" (165)	11.7 (1.09)	3.2 (0.30)	56 1/16" (1424)	16.8 (1.56)
AX251	1.1	(0.10)	23 3/4" (603)	6 1/2" (165)	4.4 (0.41)	1.1 (0.10)	53 15/16" (1370)	6.2 (0.58)
AX281	1.2	(0.11)	26 7/8" (683)	6 1/2" (165)	5.0 (0.47)	1.2 (0.11)	53 15/16" (1370)	6.9 (0.64)
AX31	1.4	(0.13)	31 5/16" (795)	6 1/2" (165)	5.9 (0.54)	1.4 (0.13)	53 15/16" (1370)	7.9 (0.73)
AX351	1.6	(0.15)	36 3/16" (919)	6 1/2" (165)	6.8 (0.63)	1.6 (0.15)	53 15/16" (1370)	8.9 (0.83)
AX41	2.0	(0.18)	43 3/8" (1102)	6 1/2" (165)	8.1 (0.76)	2.0 (0.18)	53 15/16" (1370)	10.5 (0.98)
AX451	2.2	(0.20)	48 3/16" (1224)	6 1/2" (165)	9.0 (0.84)	2.2 (0.20)	53 15/16" (1370)	11.6 (1.07)
AX51	2.5	(0.23)	55 1/2" (1410)	6 1/2" (165)	10.4 (0.96)	2.5 (0.23)	53 15/16" (1370)	13.1 (1.22)
AX551	2.7	(0.25)	60 3/16" (1529)	6 1/2" (165)	11.3 (1.05)	2.7 (0.25)	53 15/16" (1370)	14.2 (1.32)
AX61	3.0	(0.28)	67 1/2" (1715)	6 1/2" (165)	12.6 (1.17)	3.0 (0.28)	53 15/16" (1370)	15.7 (1.46)
AX2251	1.1	(0.10)	23 3/4" (603)	6 1/2" (165)	8.9 (0.82)	2.1 (0.20)	53 15/16" (1370)	12.4 (1.15)
AX2281	1.2	(0.11)	26 7/8" (683)	6 1/2" (165)	10.0 (0.93)	2.4 (0.23)	53 15/16" (1370)	13.8 (1.28)
AX231	1.4	(0.13)	31 5/16" (795)	6 1/2" (165)	11.7 (1.09)	2.8 (0.26)	53 15/16" (1370)	15.7 (1.46)
AX3251	1.1	(0.10)	23 3/4" (603)	6 1/2" (165)	13.3 (1.24)	3.2 (0.30)	53 15/16" (1370)	18.6 (1.73)
AXW281	1.2	(0.11)	26 7/8" (683)	6 1/2" (165)	5.8 (0.54)	1.2 (0.11)	48 1/2" (1232)	7.9 (0.73)
AXW31	1.4	(0.13)	31 5/16" (795)	6 1/2" (165)	6.8 (0.63)	1.4 (0.13)	48 1/2" (1232)	9.0 (0.84)
AXW351	1.6	(0.15)	36 3/16" (919)	6 1/2" (165)	7.9 (0.73)	1.6 (0.15)	48 1/2" (1232)	10.2 (0.95)
AXW41	2.0	(0.18)	43 3/8" (1102)	6 1/2" (165)	9.5 (0.88)	2.0 (0.18)	48 1/2" (1232)	12.0 (1.12)
AXW451	2.2	(0.20)	48 3/16" (1224)	6 1/2" (165)	10.5 (0.98)	2.2 (0.20)	48 1/2" (1232)	13.2 (1.23)
AXW51	2.5	(0.23)	55 1/2" (1410)	6 1/2" (165)	12.1 (1.12)	2.5 (0.23)	48 1/2" (1232)	14.9 (1.38)
AXW551	2.7	(0.25)	60 3/16" (1529)	6 1/2" (165)	13.1 (1.22)	2.7 (0.25)	48 1/2" (1232)	16.2 (1.51)
AXW61	3.0	(0.28)	67 1/2" (1715)	6 1/2" (165)	14.7 (1.37)	3.0 (0.28)	48 1/2" (1232)	17.9 (1.66)
AXW2281	1.2	(0.11)	26 7/8" (683)	6 1/2" (165)	11.6 (1.08)	2.4 (0.23)	48 1/2" (1232)	15.8 (1.47)
AXW231	1.4	(0.13)	31 5/8" (795)	6 1/2" (165)	13.6 (1.26)	2.8 (0.26)	48 1/2" (1232)	18.0 (1.67)
A335*	1.4	(0.13)	31 5/16" (795)	6 1/2" (165)	7.0 (0.65)	1.3 (0.12)	43 11/16" (1110)	10.2 (0.95)
A3535	1.6	(0.14)	36 3/16" (943)	6 1/2" (165)	8.1 (0.75)	1.6 (0.15)	43 11/16" (1110)	11.5 (1.07)
AP32V	1.4	(0.12)	31 5/16" (795)	6 1/2" (165)	9.4 (0.87)	1.4 (0.13)	36 7/16" (926)	12.0 (1.12)
AP352V	1.6	(0.14)	36 3/16" (919)	6 1/2" (165)	10.9 (1.01)	1.6 (0.15)	36 7/16" (926)	13.6 (1.26)
AP42V	2.0	(0.17)	43 3/8" (1102)	6 1/2" (165)	13.1 (1.22)	2.0 (0.18)	36 7/16" (926)	16.0 (1.49)
A212	0.9	(0.08)	19 1/2" (495)	6 1/2" (165)	5.2 (0.48)	1.8 (0.16)	60 5/16" (1532)	8.0 (0.74)
A213	0.9	(0.08)	19 1/2" (495)	6 1/2" (165)	7.8 (0.73)	2.6 (0.25)	60 5/16" (1532)	12.0 (1.12)
A312	1.4	(0.13)	31 5/16" (795)	6 1/2" (165)	8.6 (0.80)	2.8 (0.26)	60 5/16" (1532)	12.0 (1.12)
A313	1.4	(0.13)	31 5/16" (795)	6 1/2" (165)	12.9 (1.20)	4.2 (0.39)	60 5/16" (1532)	18.0 (1.67)
PA3050**	1.4	(0.13)	31 5/16" (795)	6 1/2" (165)	4.3 (0.40)	1.4 (0.13)	60 5/16" (1532)	6.0 (0.56)
PA3060**	1.4	(0.13)	31 5/16" (795)	6 1/2" (165)	4.3 (0.40)	1.4 (0.13)	60 5/16" (1532)	6.0 (0.56)
PA3550**	1.6	(0.15)	36 3/16" (919)	6 1/2" (165)	4.9 (0.46)	1.6 (0.15)	60 5/16" (1532)	6.8 (0.63)
PA3560**	1.6	(0.15)	36 3/16" (919)	6 1/2" (165)	4.9 (0.46)	1.6 (0.15)	60 5/16" (1532)	6.8 (0.63)
PA4060**	2.0	(0.18)	43 3/8" (1102)	6 1/2" (165)	5.9 (0.55)	2.0 (0.18)	60 5/16" (1532)	8.0 (0.74)
AXW312	1.4	(0.13)	31 1/3" (795)	6 1/2" (165)	13.6 (1.26)	2.8 (0.26)	48 1/2" (1232)	18.0 (1.67)

*"Top of Subfloor to Top of Inside Sill Stop" is calculated based upon a structural header height of 6'-10 1/2" (2096).
* Dimensions in parentheses are in millimeters or square meters.
* Clear opening area of 5.8 sq. ft. or 0.54 m² and clear opening height of 26 1/2" (673) can be obtained by detaching operator from sash.
**Dimensions and calculations are for bottom venting sash.

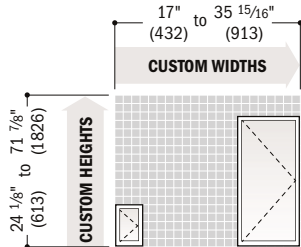
Transom Window Area Specifications

Window Number	Glass Area Sq. Ft./ (m²)	Overall Window Area Sq. Ft./ (m²)
CTR1510	0.7 (0.07)	1.4 (0.13)
CTR1810	0.8 (0.07)	1.7 (0.16)
CTR21810	1.7 (0.16)	3.4 (0.32)
CTR31810	2.6 (0.24)	5.1 (0.47)
CTR2010	1.0 (0.09)	2.0 (0.19)
CTR22010	2.1 (0.19)	4.0 (0.37)
CTR32010	3.1 (0.29)	6.0 (0.56)
CTR2410	1.2 (0.11)	2.4 (0.22)
CTR22410	2.5 (0.24)	4.7 (0.44)
CTR32410	3.8 (0.35)	7.1 (0.66)
CTR2810	1.4 (0.13)	2.6 (0.24)
CTR22810	2.9 (0.27)	5.2 (0.49)
CTR3010	1.6 (0.15)	3.0 (0.28)
CTR23010	3.3 (0.31)	6.0 (0.55)
CTR5110	2.8 (0.26)	5.1 (0.47)
CTR2910	1.5 (0.14)	2.8 (0.26)
CTR3410	1.8 (0.17)	3.4 (0.32)
CTR4010	2.2 (0.20)	4.0 (0.37)
CTR4810	2.6 (0.24)	4.7 (0.44)
CTR5210	2.9 (0.27)	5.2 (0.48)
CTR51110	3.4 (0.32)	6.0 (0.56)
CTR6010	3.4 (0.32)	6.0 (0.56)
CTR7010	4.0 (0.37)	7.1 (0.66)
PTR3010	1.6 (0.15)	3.0 (0.28)
PTR3510	1.8 (0.17)	3.4 (0.32)
PTR4010	2.2 (0.20)	4.0 (0.37)
PTR4510	2.4 (0.22)	4.4 (0.41)
PTR5010	2.8 (0.26)	5.0 (0.47)
PTR5510	3.0 (0.28)	5.4 (0.50)
PTR6010	3.4 (0.32)	6.0 (0.56)

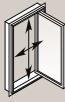
*Dimensions in parentheses are in square meters.

Custom Sizes and Specification Formulas

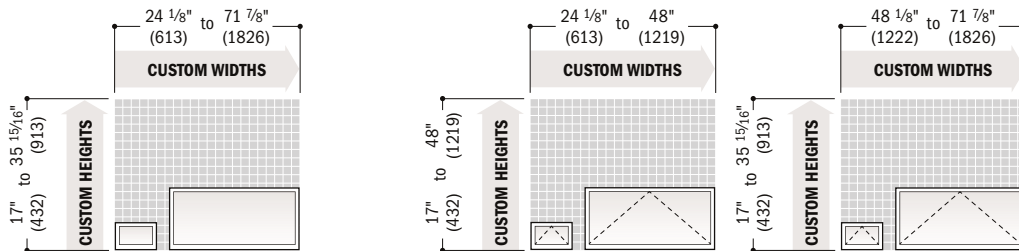
Casement Windows (stationary and venting)

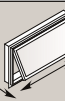


Available in 1/8" (3) increments between minimum and maximum widths and heights. Windows can also be custom sized to match standard sizes ending in a sixteenth of an inch. Some restrictions apply; contact your Andersen supplier. Custom sizing is available for single windows only. To achieve custom-size 2- or 3-wide combinations, join custom-size single windows. For minimum rough opening dimensions for joined windows, see specific joining instruction guides. Measurement guide for custom-size windows can be found at andersenwindows.com/measure.

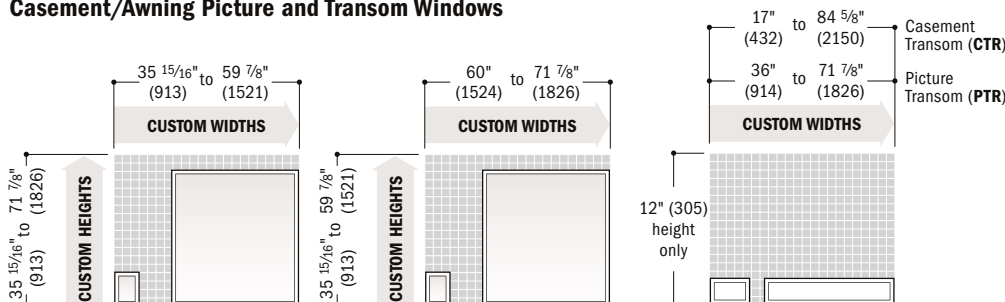
Clear Opening 	Width = window width – 5.81" (148) = (window width – 9.66" (245)) x 1.07 = window width – 9.70" (246) Height = window height – 4.43" (113) = window height – 4.85" (123)	Min. R.O. 	Width = window width + 1/2" (13) Height = window height + 1/2" (13)
Vent Opening 	Width = window width – 5.81" (148) = window width – 6.10" (155) Height = window height – 4.43" (113) = window height – 4.85" (123)	Unobst. Gls. 	Width = window width – 4.40" (112) Height = window height – 4.95" (126)

Awning Windows (stationary and venting)



Clear Opening 	Width = window width – 4.53" (115) Depth = 6.38" (162) = 6.44" (164) = 6.50" (165)	Min. R.O. 	Width = window width + 1/2" (13) Height = window height + 1/2" (13)
Vent Opening 	Width = window width – 4.53" (115) Depth = 6.38" (162) = 6.44" (164) = 6.50" (165)	Unobst. Gls. 	Width = window width – 4.81" (122) Height = window height – 4.51" (115)

Casement/Awning Picture and Transom Windows



Min. R.O. 	Width = window width – 1/2" (13) Height = window height – 1/2" (13)
Unobst. Gls. 	Width = window width – 4.80" (122) Height = window height – 4.80" (122)

- Dimensions in parentheses are in millimeters.
- **Clear Opening** formulas provide dimensions for determining area available for egress. **Vent Opening** formulas provide dimensions for determining area available for passage of air. **Min. R.O.** (minimum rough opening) formulas provide minimum rough opening width and height dimensions. **Unobst. Gls.** (unobstructed glass) formulas provide dimensions for determining area available for passage of light.
- Refer to andersenwindows.com/measure for detailed instructions on how to properly measure for custom-size windows.

CASEMENT & AWNING WINDOWS

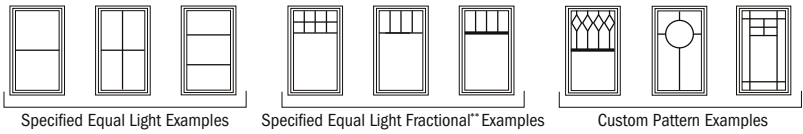
Grille Patterns

	Diamond*	Prairie A	Specified Equal Light with Simulated Meeting Rail	Colonial	Modified Colonial	Modified Colonial with Simulated Meeting Rail	Tall Fractional	Tall Fractional with Simulated Meeting Rail	Short Fractional	Short Fractional with Simulated Meeting Rail	Victorian
Casement											
Awning											
Picture											
Transom											

*Available only in Simulated Divided Light (SDL) configuration and only in 3/4" (19) and 7/8" (22) widths.

Number of lights and overall pattern varies with window size.

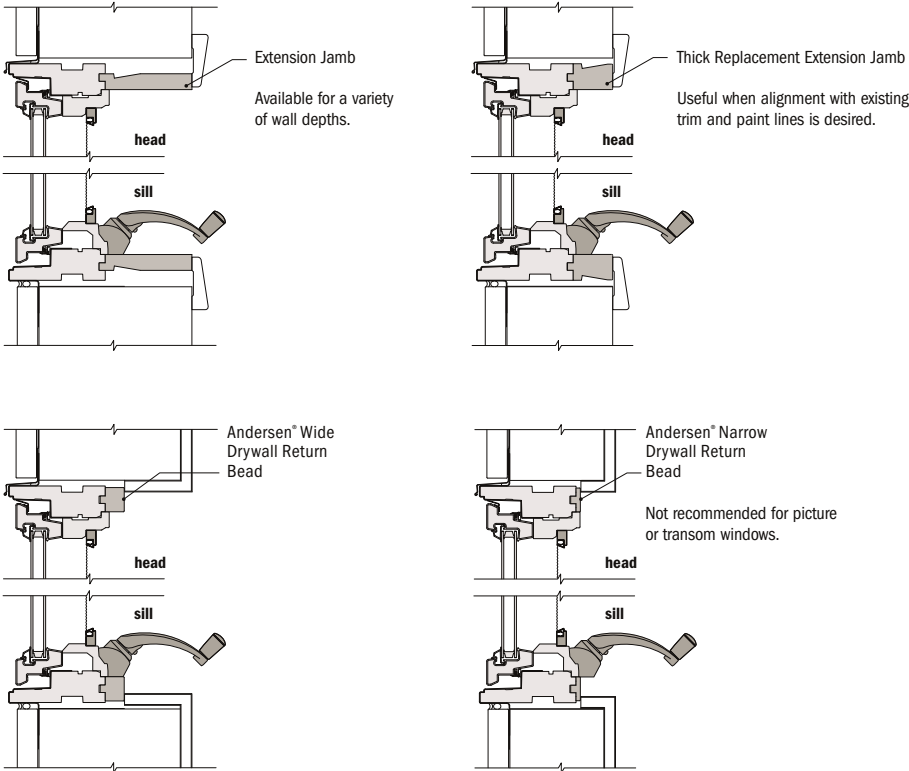
Patterns not available in all configurations. Specified equal light and custom patterns are also available. For more grille options, see page 14 or visit andersenwindows.com/grilles.



**Daylight opening dimensions are available at 8" (203), 10" (254), 12" (305), center and custom dimensions.

Interior Trim Options

Extension jamb and drywall return bead applications shown. See page 21 for more information.



* Light-colored areas are parts included with window. Dark-colored areas are additional Andersen® parts required to complete window assembly as shown.
* Dimensions in parentheses are in millimeters.
* Details are for illustration only and are not intended to represent product installation methods or materials. Refer to product installation guides at andersenwindows.com.

Julie Erdman

From: Lucas Lincoln <lucas.lincoln@gmail.com>
Sent: Monday, May 12, 2025 1:45 PM
To: Julie Erdman
Subject: Re: VRB Application - 13 Market Lane

CAUTION: This email originated from outside the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Julie,

Thank you for following up. Yes, we would be trying to match the moulding "crowns" as on the west side and as exists currently on the single east window.

The plan is for a pair of matching casements on the east side, with mirrored openings (both opening from house center outward).

Best,
Lucas

On Mon, May 12, 2025, 13:37 Julie Erdman <jerdman@brunswickme.gov> wrote:

Hi Lucas,

I am wrapping up the VRB findings for 13 Market and wondering if you have any intention to match the mouldings on the east side of the house to the west side? Specifically, I'm thinking about the lintel moulding over the windows. It appears that the same moulding still exists on the second story east side window currently. I could see the board wanting to maintain that, at least for the second story windows.

Are both of the new windows going to be casements?

Thanks!

Julie