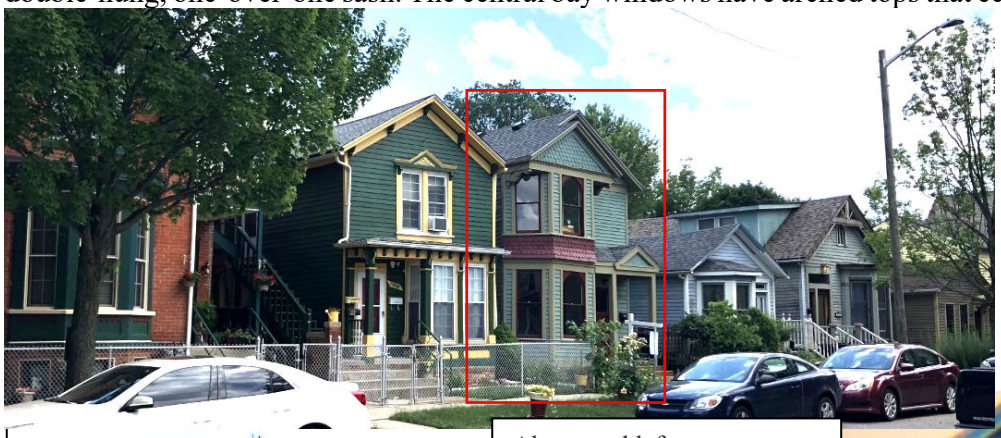
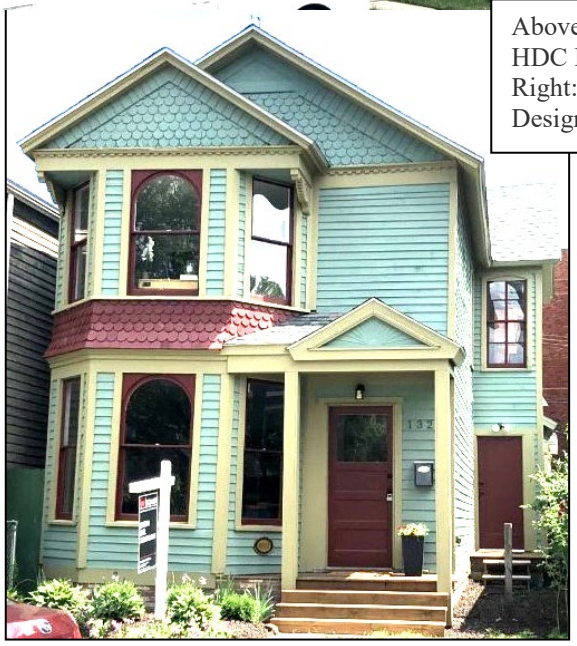
STAFF REPORT: OCTOBER 13, 2021 MEETING **PREPARED BY**: A. DYE
APPLICATION NUMBER: 21-7526 **VIOLATION NUMBER:** 21-466
ADDRESS: 1321 LABROSSE
HISTORIC DISTRICT: CORKTOWN
APPLICANT: JOHN BIGGAR, STUDIOZONE, LLC.
PROPERTY OWNER: STEPHEN PECK
DATE OF PROVISIONALLY COMPLETE APPLICATION: 10-06-2021
DATE OF STAFF SITE VISIT: 06-28-2021

SCOPE: WINDOW AND DOOR REPLACEMENT* (WORK DONE WITHOUT APPROVAL)

EXISTING CONDITIONS

The two-story house at 1321 Labrosse sits mid-block on the south side of the street amongst an intact streetscape filled with a mixture of two-story and single-story historic residential structures. Constructed in 1900, the house fills the width of the lot and is within feet of the neighboring houses. Victorian in styling, the steeply pitched front-gabled roof is reinforced by a small projected front-gable roof that covers a two-story bay. Clapboard siding is the dominant cladding material. The triangular portions of the gable walls are covered with fishscale siding; this siding is also used on the flared wall separating the two bay windows. The windows on the house are mostly wood, double-hung, one-over-one sash. The central bay windows have arched tops that echo the fishscale siding pattern.





Above and left:
HDC Photos, June 28, 2021
Right:
Designation photo, HDAB

PROPOSAL

The applicant proposes the following:

Front Elevation – Second Floor (Window E)

- Reopen previously enclosed and boarded over window opening. A 4/4 wood double-hung window will be fabricated from salvaged historic wood sash (which had been removed from other openings – top sash will have an arch like the historic windows in situ); wood sash to be painted red.

Front Elevation – First Floor (Window F)

- Retain removed and boarded over small window opening adjacent the front door.

West Side Elevation – Second Floor (Window A)

- Remove 1/1vinyl single-hung window; install one Anderson A-series 1/1 wood fiberglass-clad double-hung unit, fiberglass cladding to be painted red.

Rear Elevation – Second Floor (Window B)

- Remove1/1 vinyl single-hung window, install one Anderson A-series 1/1 wood fiberglass-clad double-hung unit, fiberglass cladding to be painted red.

Rear Elevation – Second Floor (Window D)

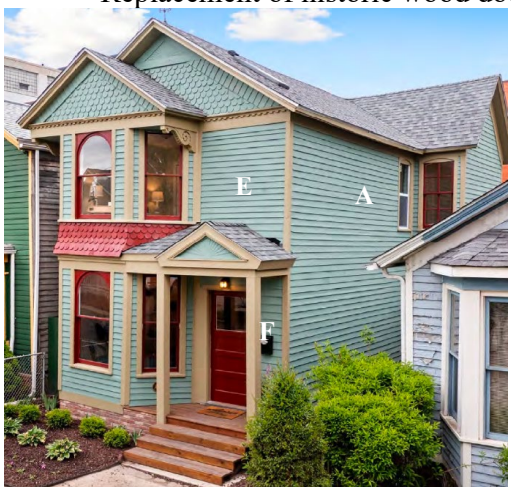
- Removal of one historic, 1/1 wood double-hung window (far right), installation of glass block to remain.

Rear Elevation – First Floor (Window C)

- Removal of one historic, 1/1 wood double-hung window, reduction of opening size, and installation of one vinyl awning window to remain, clear glass, vinyl sash to be painted red.

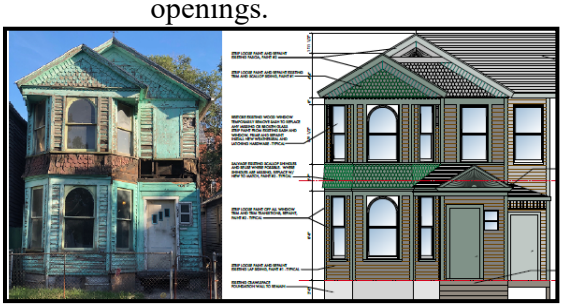
Front Elevation – Recessed Porch Entrance

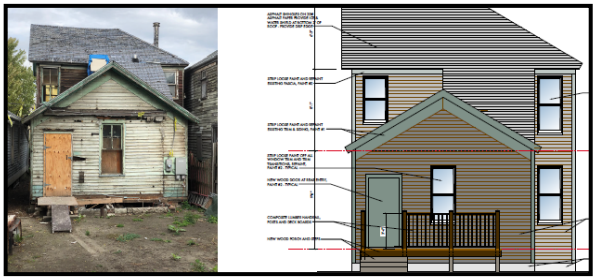
- Replacement of historic wood door with new solid panel door.



STAFF OBSERVATIONS AND RESEARCH

- The Corktown Historic District was established in 1984.
- In 2019, HDC staff issued a Certificate of Appropriateness for the rehabilitation of the house, which included the repair of the existing wood windows as well as exterior painting. (#19-6555)
    - As shown on the applicant's renderings below, the boarded-up window opening on the front elevation was to be re-opened and the small window opening adjacent the front door was to be retained. On the rear elevation, double-hung windows were to be retained in the window openings.





- While reviewing the photographs of 1321 Labrosse's front elevation, it is staff's opinion the double-hung replacement window unit adjacent the front door caused this opening to seem slightly out of place and therefore possibly not a historic/original opening. However, staff understands a single, smaller-sized window (often holding a fixed decorative sash) adjacent a front entrance is a common design feature for this style/era of house. Staff observed that this detail was used on other Queen Anne/Victorian houses located in the Corktown Historic District.

The houses below are similar in design to 1321 Labrosse -- two-story bay windows culminating with front-facing gables, and a single window opening above a covered front entrance porch -- and each has a small window opening adjacent the front door.

The house at 1664 Leverette displays this relationship most prominently due to the intact historic diamond-paned window and ample space between the window and door. The narrower front entrances at 1301 and 1317 Bagley, similar to 1321 Labrosse, still employed this decorative feature but required the window and door to almost be framed out as one opening. Therefore, it is staff's opinion, the small window opening that was removed was a character-defining feature of the house.

1301 Bagley

1309 – 1317 Bagley

1664 Leverette

- According to the National Park Service's document *Replacement Windows that meet the Standards*:
  - Replacement windows on primary, street-facing or any highly visible elevations of buildings of three stories or less must match the historic windows in all their details and in material (wood for wood and metal for metal).

- Replacement windows on secondary elevations that have limited visibility must match the historic windows in size, configuration and general characteristics, though finer details may not need to be duplicated and substitute materials may be considered.
- While it may be theoretically possible to match all the significant characteristics of a historic window in a substitute material, in actuality, finish, profiles, dimensions and details are all affected by a change in material.

- Anderson A Series window sash and frames are constructed of solid wood; fiberglass and Fibrex material are used for the exterior frame and sash. Fibrex is a combination of reclaimed wood fiber and PVC polymer, a type of plastic. This window series offers simulated divided-lights as a muntin option.
- The 2019-approved drawings did not indicate a railing at the front and recessed front entries.

ISSUES

- It is staff's opinion, the historic window openings and wood sash are character-defining features due to their placement, visibility, materiality, function, dimensionality, and wood window trim, all of which help identify the age of the house.
- The new unit for window opening E (side elevation shown below) is proposed to be a 1/1 double-hung sash, while the adjacent historic window is 4/4.
- The dimensions and details of the proposed replacement window does not closely match the historic wood windows, as discussed below.

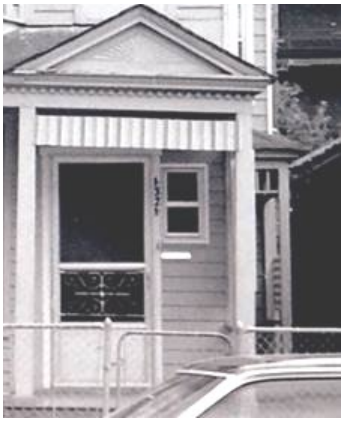
COMPARISON OF EXISTING AND PROPOSED

	Existing	Proposed	Difference
Outer Sash			
--Top Rail	2"	1 5/16"	¾" or 37% decrease of new frame
--Bottom Rail	2"	2 11/16"	¾" or 37% increase of new frame
--Stiles	2"	1 5/16"	¾" or 37 % increase of new frame
Meeting Rail	1 ¼"	2 3/16"	1" or 80% increase of new frame
Vertical Muntins	1 ½"	¾", 7/8", 1 1/8"*	
Horizontal Muntins	¾"		

Staff notes the following issues with the proposed replacement units:

- The historic sash has an even outer frame; the top/bottom rails and stiles are each 2" deep.
- The dimensions of the replacement window's frame varies; the bottom rail is twice the dimension of the top rail and stiles, creating a bottom-heavy look for the new window unit.
- The bottom rail of the replacement window is also 37% taller than the historic window's bottom rail, creating a further visual disruption between the old and new window units.
- The historic double-hung unit has wide vertical muntin bars and narrow horizontal muntin bars.
- The selected Anderson window offers different dimensions for simulated divided lights, closely matching the dimensions of the historic muntins. However, the replacement window muntins have deep profile, while the historic vertical muntins are relatively flat. Also, it isn't clear if Anderson can fabricate differently dimensioned vertical and horizontal muntins within the same sash.

- Another component of the 2019 rehabilitation was the reconstruction of the side entry porch and restoration of the historic-era door. Current photos show the porch hasn't been rebuilt and a new panel door was installed. The applicant recently stated the wood door was beyond repair, causing a new door to be installed, and that the porch will be constructed soon by the contractor hired to build the new wood window (as discussed earlier in this report). No documentation for the door repair/deterioration was provided.




Above photos and drawing supplied by applicant HDC staff photo, 6/28/21

- The historic windows on the rear elevation, due to their wood sash and double-hung operation, offered a level of uniformity to the otherwise asymmetrical rear elevation. As the windows are now different operations, sizes and materials, a discordant appearance to the rear elevation has been created.


Before and after photos supplied by applicant

- During the time between the submittal of this application and completion of the staff report, it has been reported that the owner continues doing work at the property without HDC approval. Projects include: the construction of a new rear deck (same height as shown above, but the footprint looks to have been expanded), rear yard privacy fence, and handrails at the two front porches.




RECOMMENDATION

Section 21-2-78, Determination of Historic District Commission

It is staff's opinion the removal of the window opening adjacent the front door, the removal of historic wood windows and installation of replacement windows (consisting of wood Fibrex-clad or vinyl sash, or glass block), and the installation of a solid panel replacement door at the recessed front porch will alter the features and spaces that characterize the property. Staff therefore recommends the Commission deny a Certificate of Appropriateness for the work as proposed because it does not meet the Secretary of the Interior Standards for Rehabilitation and the Elements of Design for the district, especially Standards:

> *2) A property shall be used for its historic purpose or be placed in a new use that requires minimal change to the defining characteristics of the building and its site and environment.*
>
> *5) Distinctive features, finishes, and construction techniques or examples of craftsmanship that characterize a historic property shall be preserved*
>
> *6) Deteriorated historic features shall be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature shall match the old in design, color, texture, and other visual qualities and, where possible, materials. Replacement of missing features shall be substantiated by documentary, physical, or pictorial evidence*
>
> *9) New additions, exterior alterations, or related new construction shall not destroy historic materials that characterize the property. The new work shall be differentiated from the old and shall be compatible with the massing, size, scale, and architectural features to protect the historic integrity of the property and its environment.*

Section 21-2-78, Determinations of Historic District Commission (Reopening of front elevation window opening

It is staff's opinion that the proposal to reopen the front elevation, second floor window opening, and install a rebuilt wood double-hung window (using historic sash reclaimed from other original openings should qualify for a Certificate of Appropriateness. Staff recommends the Commission approve a COA for the proposed application, as it meets the Secretary of the Interior's Standards and the district's Elements of Design.

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August 3, 2021 REVISED September 17, 2021

Audra Dye
City of Detroit Historic Commission
2 Woodward Avenue
Detroit, Michigan 48226

RE: 1321 Labrosse Street – Application Number 19-6555
Resubmission of previously approved project

Dear Audra:

Please accept the information detailed below, the attached supporting information, photographs, plans and elevations plus the completed HDC application with regards to the denial of the windows by the City of Detroit Historic Commission.

Detailed Photographs: See attached photographs.

Description of Existing Conditions:

Identified on the Elevations are (3) windows, A, B, C, D, E, and F which differ from the original, proposed reuse of the existing windows in the Approved Certificate of Appropriateness.

Window A – This is on the 2nd Floor, on the side of the house, facing west, towards the west neighbors side of the house. **This window was not included in the original COA approval. We propose the existing window currently installed will be removed and replace with an Andersen A series wood, double hung window, with a 4 over 4 muntin pattern on the sashes. The exterior side of the sash will be painted the same color "red" as the original windows on the house.**

Window B - This is on the 2nd Floor bedroom at the top of the stairs, facing the rear of the property. **The original COA approval had the existing window to be repaired. This repairs could not be done to the homeowner's satisfaction We propose the existing window currently installed will be removed and replace with an Andersen A series wood, double hung window, with a 4 over 4 muntin pattern on the sashes. The exterior side of the sash will be painted the same color "red" as the original windows on the house.**

Window C – This is on the rear of the house, 1st Floor in what was the kitchen. The only item that remained were an upper sash and part of the window frame. This window had experience an extreme amount of wood rot. The height of the existing window above the floor was too low and would have place the window below the countertop height, behind the base cabinets in the kitchen. We replaced the double-hung with a single window, placing the bottom of the window right above the countertop and the top of the window generally matches the top of the adjacent door. **We will paint the white of the current sash the same color "red" as the original windows on the house.**

Window D – **There was not enough of the sashes of the original window left to restore. The homeowner did not wish to have a window at the end of the bathtub/shower in the bathroom. We propose this window opening remain glass block as this window opening is one end of the shower/bathtub.**

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Window E – This opening was boarded over the interior and exterior of the house. When the plywood was removed on the exterior and the finishes on the interior, whatever window opening may have been there at one time is long since gone. The opening had been framed and infilled, there were not any window frames or any other elements of the window left. Instead of putting plywood back, we used the same wood siding to frame over the entire face of the house. **We propose to salvage sashes of the existing double hung wood windows that was removed from the A & B window openings and install it in the Window E location. See the attached photo of the two, salvaged sashes proposed to be reused.**

Window F – The former, small aluminum "sidelite" window was removed as it was not original to the house and did not contribute to the historic significance of the house. **We propose to keep the siding in place as is.**

Description of the Project: This is a resubmission for an originally approved COA for the project. These windows were part of a much, larger renovation of the existing house. The existing house was in horrible condition, even without a furnace relying on a wood stove for heat. The house interior had significant structural damage including a large hole in the floor and framing in what is now the dining room as well as a large hole in the floor in the kitchen below what is referred to as window C. Additionally, the house did not have foundations below the frost line causing structural issues. All of these structural repairs were made. The front of the house was faithfully restored to include extensive rehabilitation of the existing windows. Missing scallops on the façade were replaced and the front porch rebuilt.

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June 21, 2021 REV July 5, 2021, REV July 8, 2021, REV October 4, 2021

Updated information in this document can be found in the red box on page two (relating to Windows E & F, rear porch and side porch.

Audra Dye / Jennifer Ross
City of Detroit Historic Commission
2 Woodward Avenue
Detroit, Michigan 48226

RE: 1321 Labrosse Street – Application Number 19-6555

Dear Ms. Dye:

Please accept the information detailed below, the attached supporting information, photographs, plans and elevations plus the completed HDC application with regards to (3) windows which are different from the original Certificate of Appropriateness granted on December 4, 2019.

Detailed Photographs: See attached photographs.

Description of Existing Conditions:

Identified on the Plans and Elevations are (3) windows, A, B, and C which differ from the original, proposed reuse of the existing windows.

It should be noted, that parts and pieces from Windows A & B were salvaged and used to replace missing parts for the windows and sashes at the front of the house facing the street so the house could present a true historic presence on the street. Ultimately, there were (2) windows openings, identified as A & B which did have sashes that fit the window frames and there were not enough components left to try and recreate the sashes so they would fit properly.

Window A – This is on the 2nd Floor, on the side of the house, facing west, towards the neighbors side of the house. The sash did not match the frame. It appears someone replaced the sash in the existing window frame at some point. We were unable to obtain a "weather-tight" condition due to the sloppiness between the sash and frame to the homeowner's satisfaction. A replacement window was purchased and installed in the window opening. **We are proposing to remove the Renewal by Andersen window currently installed and purchase a new, double hung, wood window with insulated glass and applied muntins as a replacement. The dimensions of the new windows would be determined by the existing opening size.**

Window B - This is on the 2nd Floor bedroom at the top of the stairs, facing the rear of the property. The same conditions apply. The sash did not match the frame. It appears someone replaced the sash in the existing window frame at some point. We were unable to obtain a "weather-tight" condition due to the sloppiness between the sash and frame to the homeowner's satisfaction. A replacement window was purchased and installed in the window opening. **We are proposing to remove the Renewal by Andersen window currently installed and purchase a new, double hung, wood window with insulated glass and applied muntins as a replacement. The dimensions of the new windows would be determined by the existing opening size.**

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Window C – This is on the rear of the house, 1st Floor in what was the kitchen. The only item that remained were an upper sash and part of the window frame. This window had experience an extreme amount of wood rot. The height of the existing window above the floor was too low and would have place the window below the countertop height, behind the base cabinets in the kitchen. We replaced the double-hung with a single window, placing the bottom of the window right above the countertop and the top of the window generally matches the top of the adjacent door.

Window D – This window is on the rear of the house, in the bathroom at the shower/bathtub. The window was severely deteriorated from the moisture of the bathroom and the homeowner did not want to have a vision window into the house. She requested it be changed to glass block.

Window E – This opening was boarded over the interior and exterior of the house. When the plywood was removed on the exterior and the finishes on the interior, whatever window opening may have been there at one time is long since gone. The opening had been framed and infilled, there were not any window frames or any other elements of the window left. Instead of putting plywood back, we used the same wood siding to frame over the entire face of the house. **We had an upper and lower sash salvaged from the set of original windows to the house. See the photos and dimensions provided for the original sash. We are proposing to reuse the existing sashes, the rectangular lower and the curved head upper and to build a new window frame to accept these salvaged sashes. The revised drawings we have submitted for review and approval show the reuse of the existing upper and lower sash in a new window opening to be created above the front porch.**

Window F – This was the former window installed next to the door. The original idea was to put this window back but after reviewing the window, an aluminum, single lite (non-insulated" window that was not historic to the original windows, we decided to not reinstall this window. The damaged caused to the interior sill by the sweating of the window was repaired, the exterior boarded over with the wood siding and the interior covered with gypsum board and painted.

Rear Porch – The rear porch as is now built is the same size as shown on Sheet A5.11 "Rear Elevation" which was part of the original Certificate of Appropriateness for the project dated December 14, 2019. The intent has always been to reuse the existing foundations at the rear of the house that had previously supported a porch/deck at the rear of the house. This was noted in the last item of the COA approval of 12/14/19. The Approved drawing A5.11 for the COA shows the deck sitting on posts sitting on the original foundation. As was discovered in the field during construction, the height between the rear door and grade was less than was shown on the COA approved A5.11 drawing so wood posts were not required between the deck structure and foundation were not needed. The deck structure is supported directly by the foundation. The lower height also eliminated the need for a handrail system and the building official signed off on this revision.

Side Porch – The side porch roof is to be completed when the carpenter returns for the window installation. The existing door was extremely rotted at the bottom and was replaced with a sold door. We respectfully request the door be accepted as is.

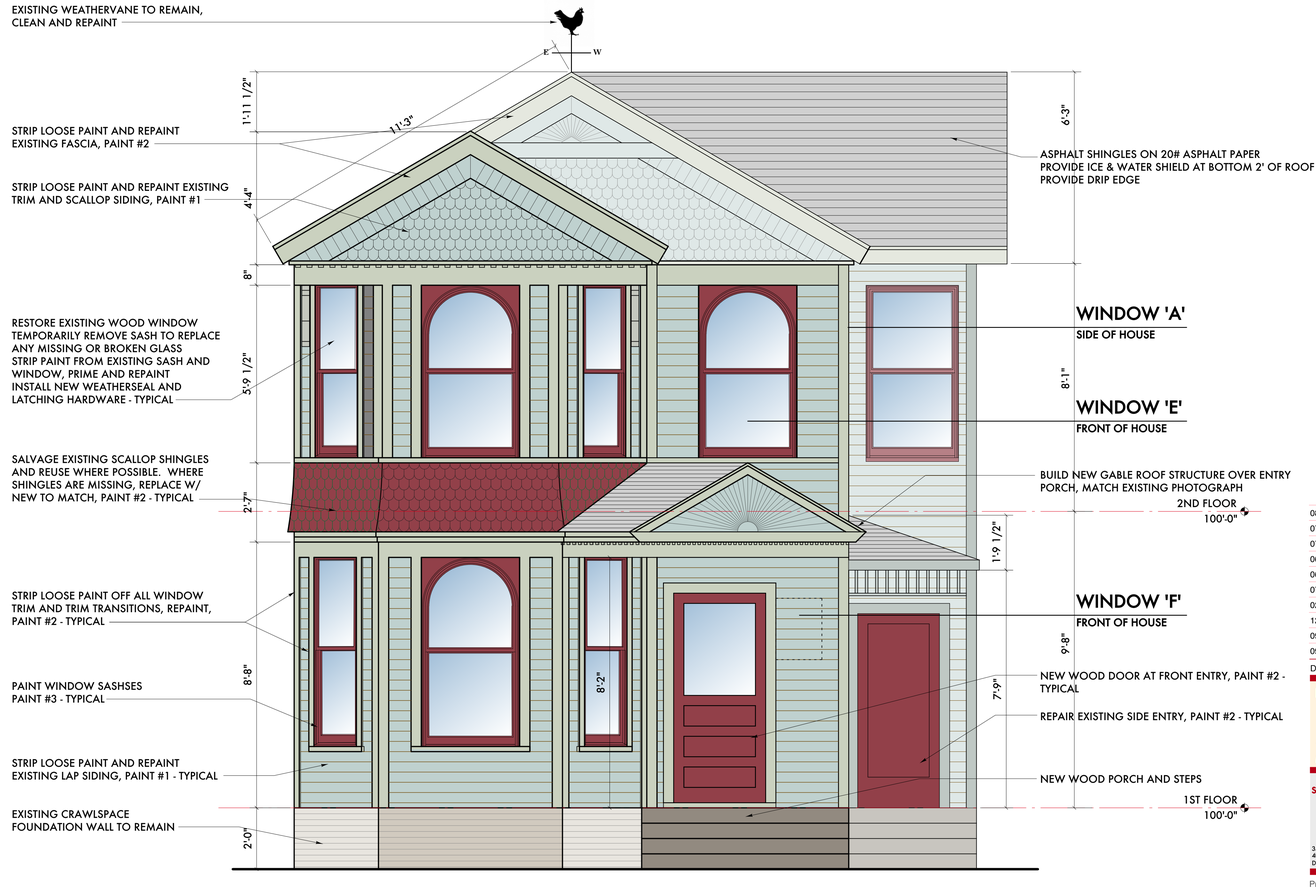
Description of the Project: These windows were part of a much, larger renovation of the existing house. The existing house was in horrible condition, even without a furnace relying on a wood stove for heat. The house interior had significant structural damage including a large hole in the floor and framing in what is now the dining room as well as a large hole in the floor in the kitchen below what is referred to as window C. Additionally, the house did not have foundations below

the frost line causing structural issues. All of these structural repairs were made. The front of the house was faithfully restored to include extensive rehabilitation of the existing windows. Missing scallops on the façade were replaced and the front porch rebuilt.


1319

B **EXISTING LABROSSE ELEVATION**
SCALE: 1/2" = 1'-0"

0' 5' 10' 20' 40'



A **PROPOSED LABROSSE ELEVATION**
SCALE: 1/2" = 1'-0"

0' 5' 10' 20' 40'

PAINT SCHEDULE:

PAINT #1 - B:10 GRAYISH GREEN, MS: 10G 5/2
PAINT #2 - B:16 LIGHT GRAYISH OLIVE, MS: 75Y 6/2
PAINT #3 - A:9 MODERATE REDDISH BROWN

NOTE: ALL COLORS REFERENCED ARE CITY OF DETROIT HISTORIC COMMISSION "COLOR SYSTEM 'B'" MS = MUNSELL STANDARD

Date:	Issued For:
08/02/21	Historic Commission
07/19/21	Historic Commission Hearing
07/08/21	Historic Commission Hearing
06/21/20	Historic Commission Hearing
06/03/20	Historic Commission
07/31/20	Paint Revision
02/12/20	Permit Revisions
12/03/19	Permits
09/24/19	Historic Commission Hearing
09/23/19	Historic Commission

Labrosse Residence

1321 Labrosse Street
Detroit, Michigan 48226

studiozONE : DETROIT
architectural urban interior DESIGN
350 Madison Avenue
4th Floor
Detroit, Michigan 48226
313 549 2790 [p]
jpb@ware-house.com
studiozonedetroit.com

Project Number: 2019-

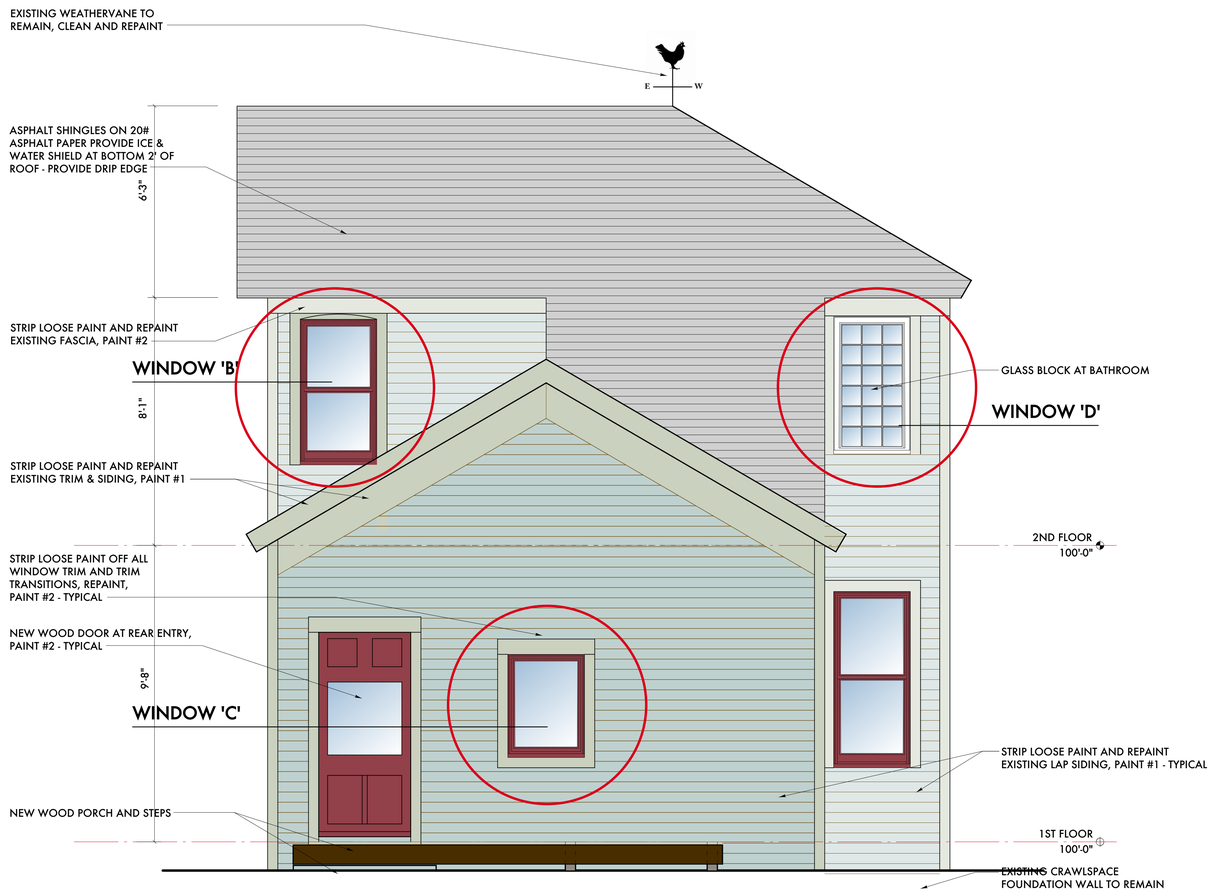
Sheet Title:
ELEVATION

Sheet Number:
A5.10

D EXISTING REAR ELEVATION

SCALE: 1/2" = 1'-0"

0' 5' 10' 20' 40'



NOTE: REUSE EXISTING FOUNDATIONS AT FORMER PORCH

C PROPOSED REAR ELEVATION

SCALE: 1/2" = 1'-0"

0' 5' 10' 20' 40'

PAINT SCHEDULE:

PAINT #1 - B:10 GRAYISH GREEN, MS: 10G 5/2
PAINT #2 - B:16 LIGHT GRAYISH OLIVE, MS: 75Y 6/2

NOTE; ALL COLORS REFERENCED ARE CITY OF DETROIT HISTORIC COMMISSION "COLOR SYSTEM 'B'"
MS = MUNSELL STANDARD

08/02/21	Historic Commission
07/19/21	Historic Commission Hearing
07/05/21	Historic Commission Hearing
06/21/21	Historic Commission Hearing
06/03/21	Historic Commission
12/03/19	Permits
11/12/19	Historic Commission
Date:	Issued For:

Labrosse Residence

1321 Labrosse Street
Detroit, Michigan 48226

studiozONE : DETROIT
architectural urban interior DESIGN
350 Madison Avenue
4th Floor
Detroit, Michigan 48226
313 549 2790 [p]
jgb@ware-house.com
studiozonedetroit.com

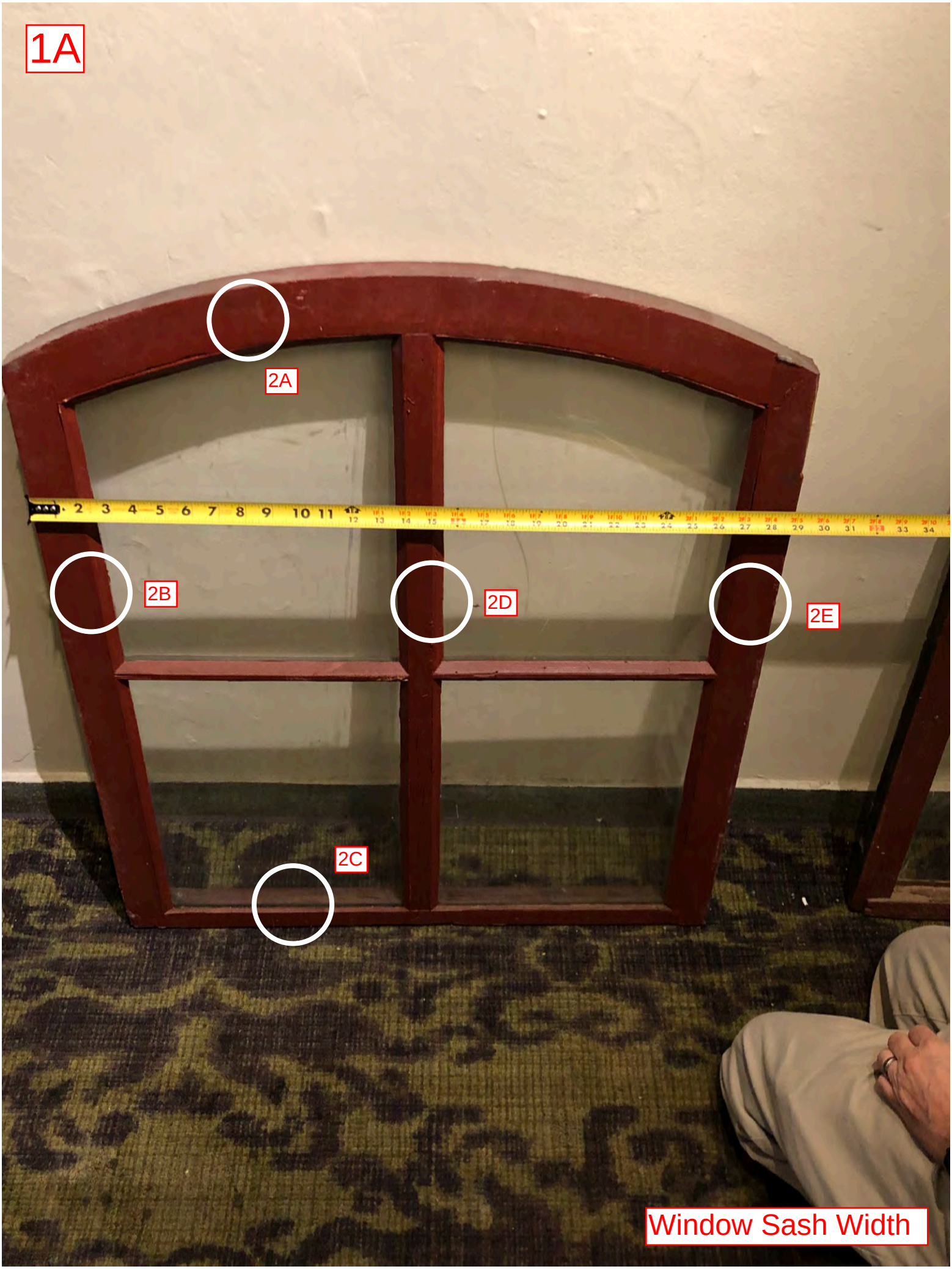
Project Number: 2019-

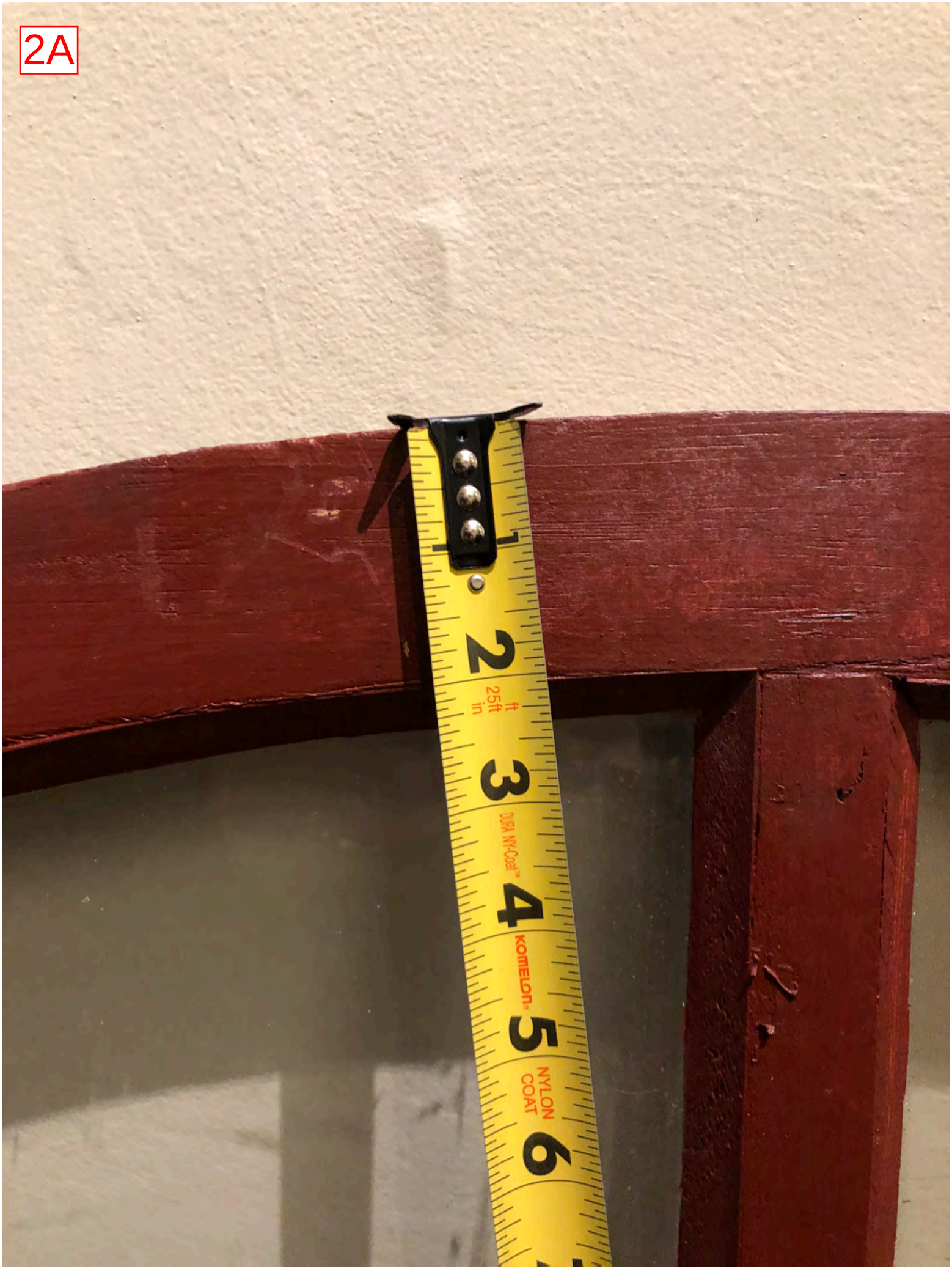
Sheet Title:

REAR ELEVATION

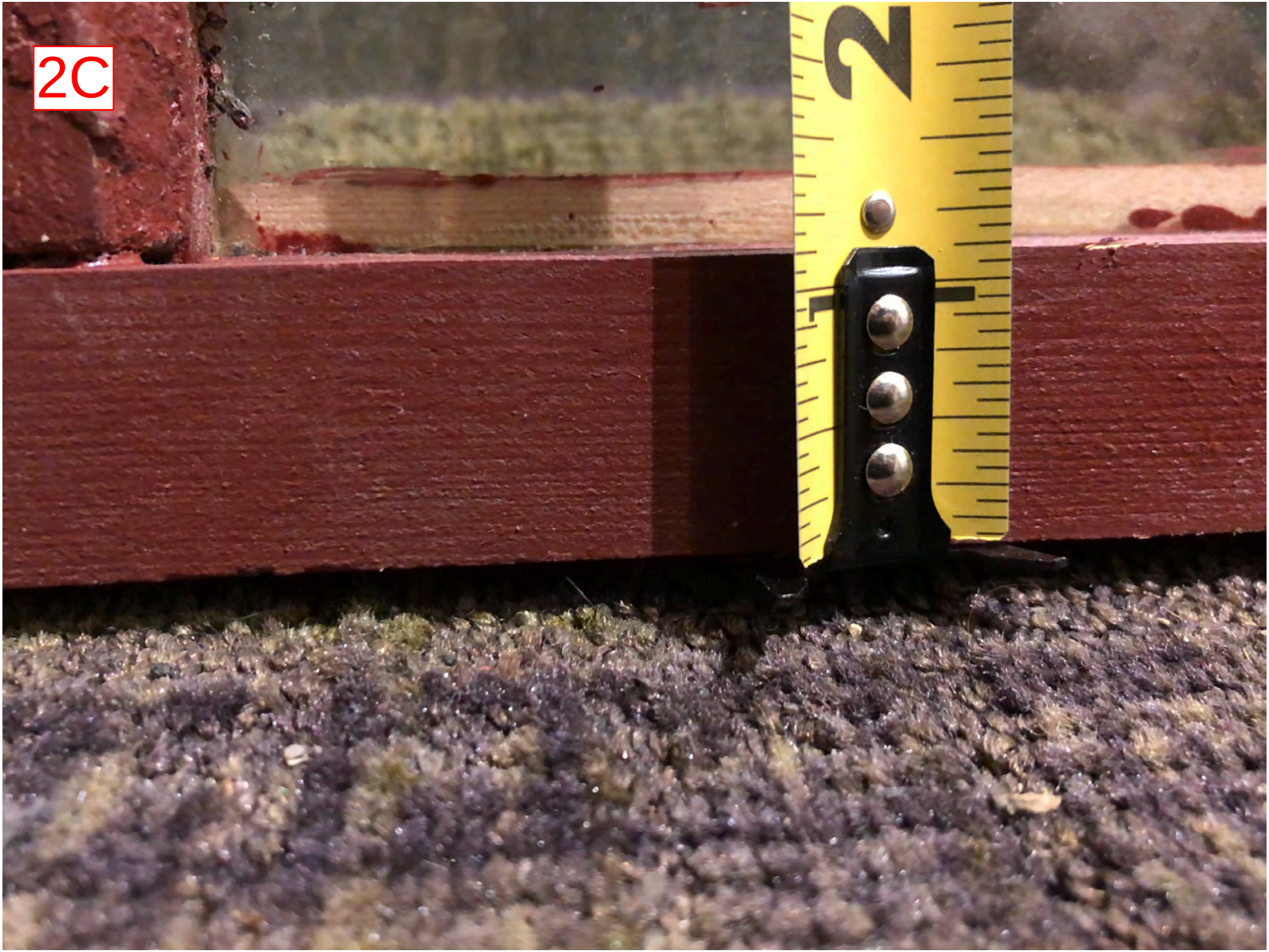
Sheet Number:

A5.11


1A
2A
2B
2C
2D
2E
Window Sash Width

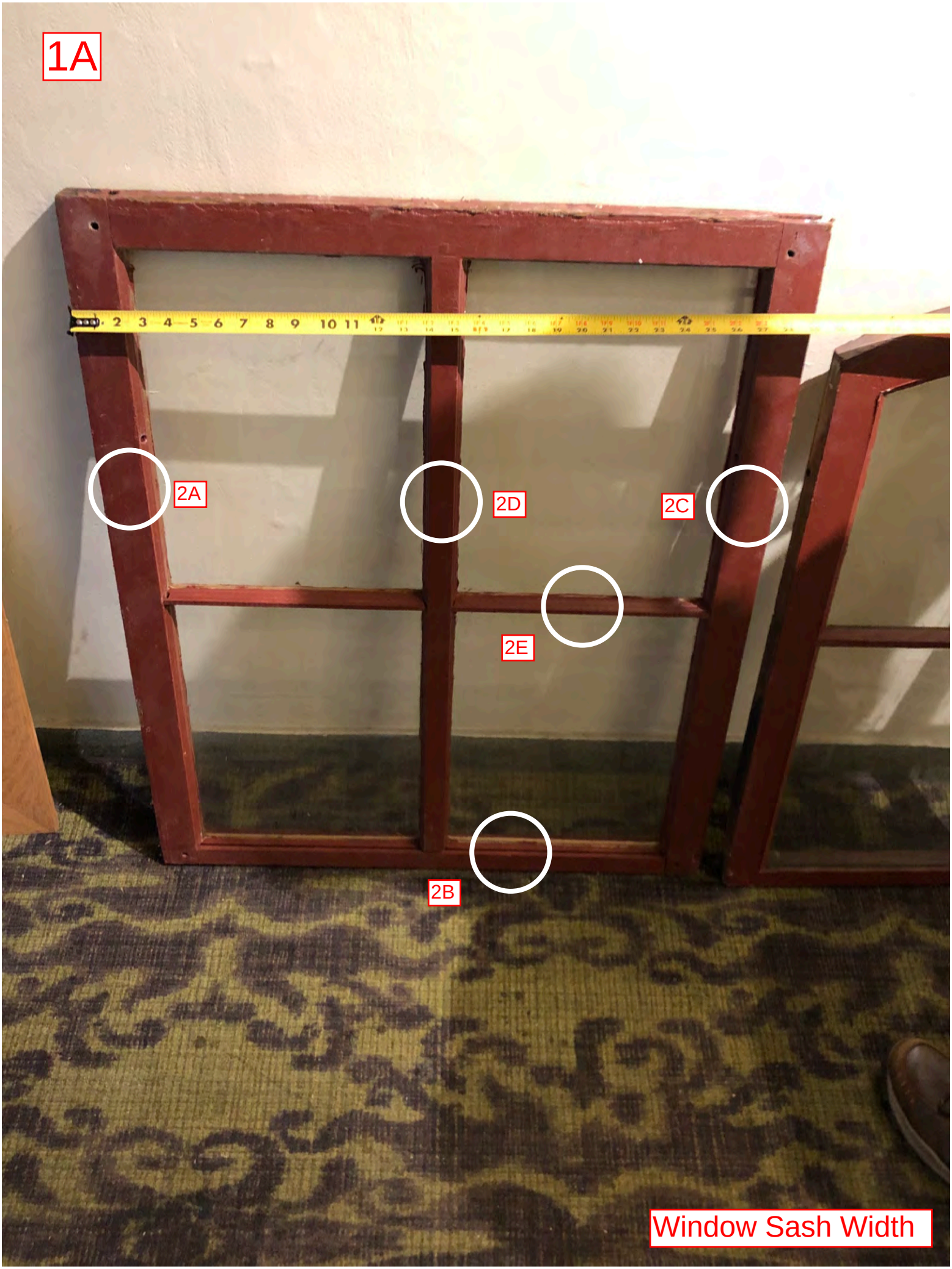

2A
ft
25ft
in
DURA NY-Coat™
KOMELON®
NYLON
COAT


2B
1
2
ft
25ft
in
3
DURA NY-Coat™
4


2C
2


2D
1
2
ft
25ft
in
3
DURA NY-Coat™
4
KOMELON
5


2E
1
2
ft
25ft
in


1A
2A
2D
2C
2E
2B
Window Sash Width


1B
2F 4
2F 5
2F 6
28
29
30
Window Sash Width
Close-Up


2A
1
2
ft
25ft
in
Width of Left
Side of Sash


2B
DURA NY-Coat™
ft
25ft
in
Width of
Bottom of


2C
2F 2
26
2F 3
27
2F 4
28
2F 5
29
2F 6
30
2F 7
31
2F 8
32
Width of Right
Side of Sash


2D
1
2
ft
25ft
in
3
DURA
Width of Center
Vertical Muntin

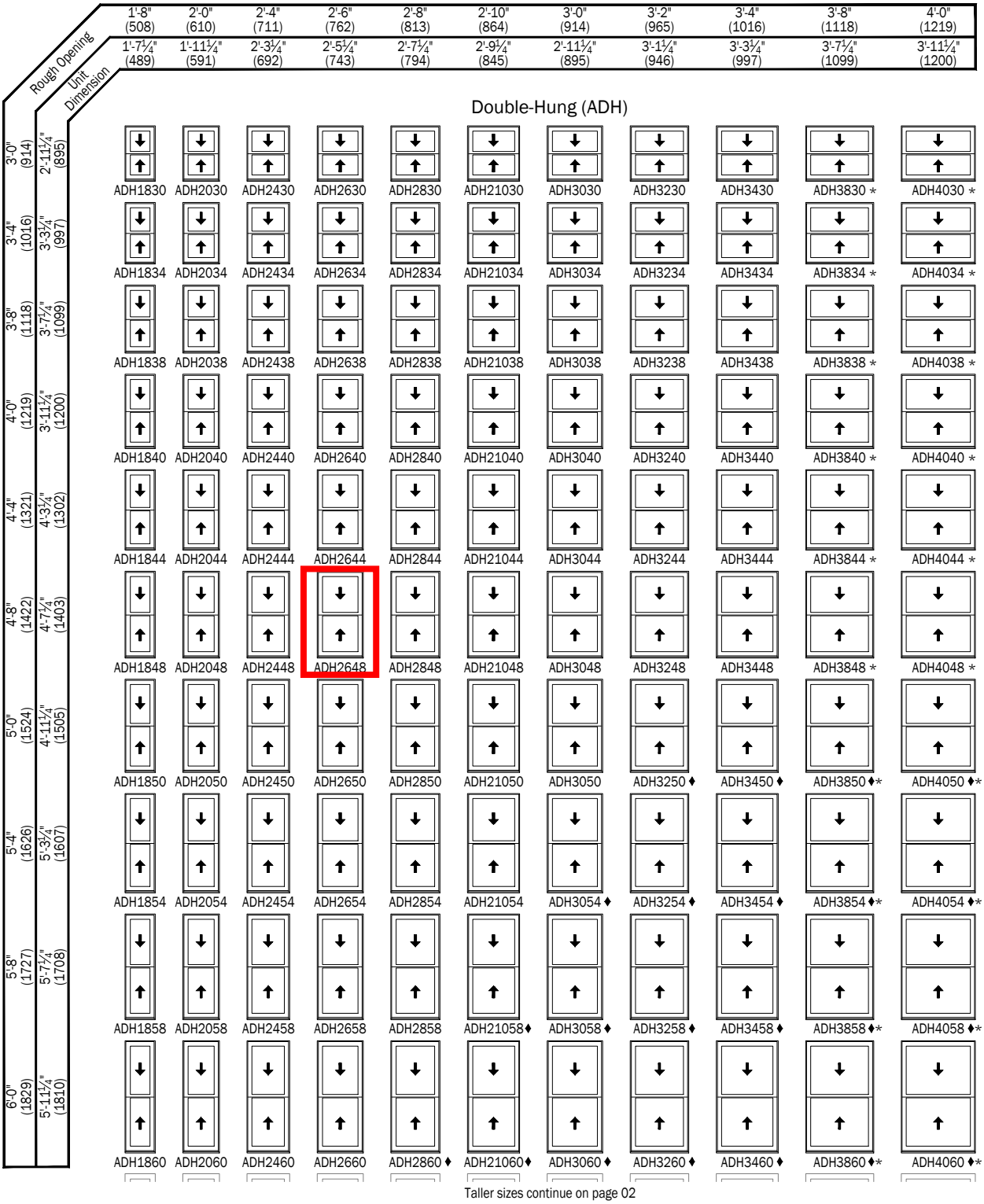

2E
Horizontal Muntin Width


Distance to Horizontal
Muntin from top of sash

A-Series

Andersen WINDOWS • DOORS

Double-Hung

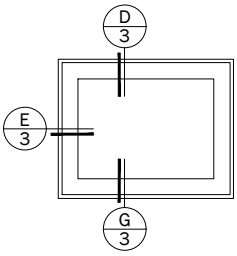


Taller sizes continue on page 02

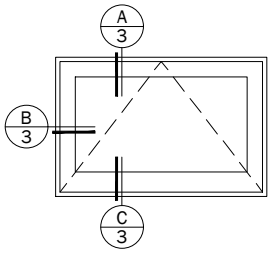
Notes:

"Unit Dimension" always refers to outside frame to frame dimension.
"Rough Opening" dimensions may need to be increased to allow for use of building wraps, flashing, sill panning, brackets, fasteners or other items.
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) & clear opening height of 24" (610).
*Two locks are standard.

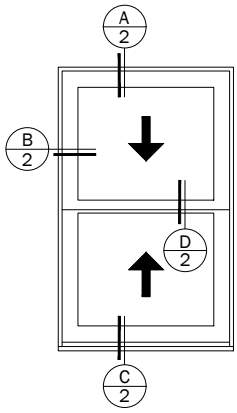
Date: 11/07/16
Scale: 1/8" (3) = 1' (305)



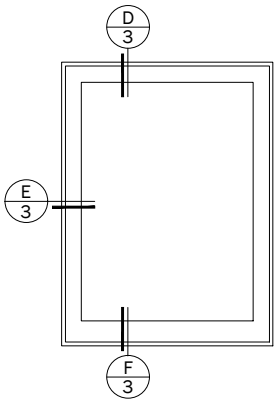
Transom Fixed



Transom Venting



Double-Hung

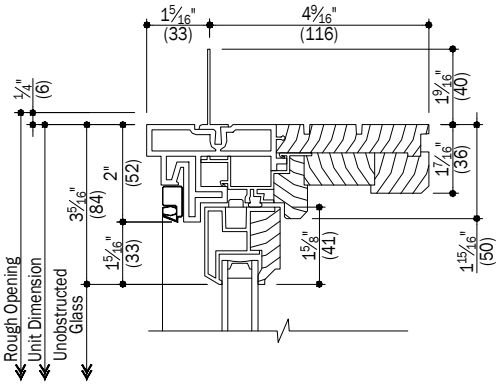


Picture

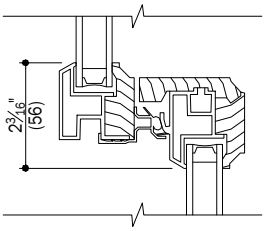
Notes:

Details have been optimized for use in architectural software and do not match manufacturing specifications.
Dimensions in parentheses are in millimeters.

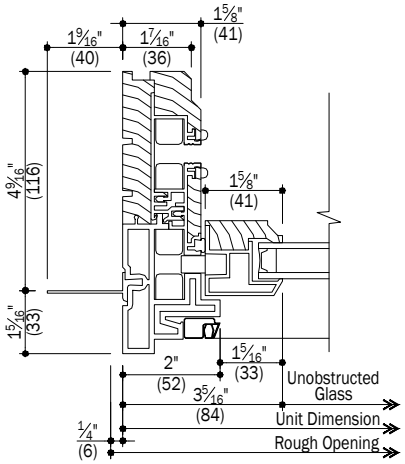
See Pages 4 Thru 6 for Accessories



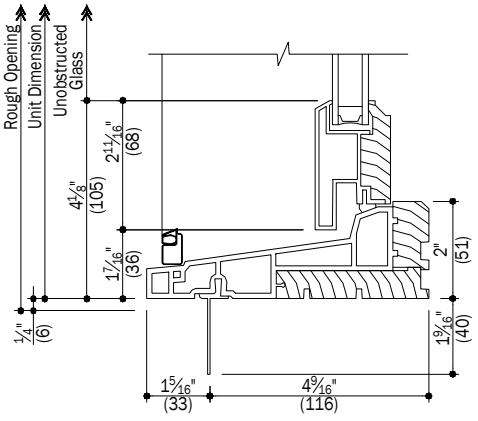
A 2 Head
Operating



D 2 Check Rail
Operating



B 2 Jamb
Operating



C 2 Sill
Operating

Notes:

Details have been optimized for use in architectural software and do not match manufacturing specifications.
Dimensions in parentheses are in millimeters.

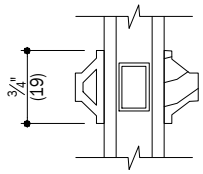
See Pages 4 Thru 6 for Accessories

Date: 03/29/16
Scale: 3" (76) = 1' (305)

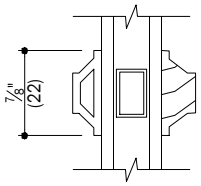
A-Series

Andersen WINDOWS • DOORS AW

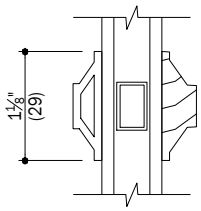
Double-Hung Windows
Accessories



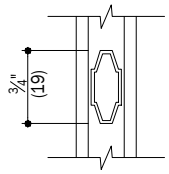
A 6 — ¾" Full Divided Light



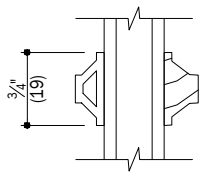
E 6 — ⅞" Full Divided Light



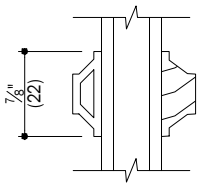
J 6 — 1 ⅛" Full Divided Light



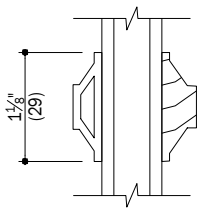
M 6 — ¾" Finelight



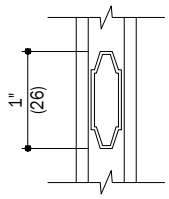
B 6 — ¾" Simulated Divided Light
Removable interior is available



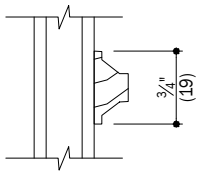
F 6 — ⅞" Simulated Divided Light
Removable interior is available



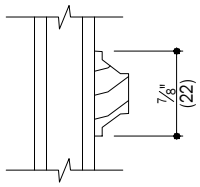
K 6 — 1 ⅛" Simulated Divided Light
Removable interior is available



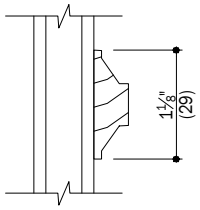
N 6 — 1" Finelight



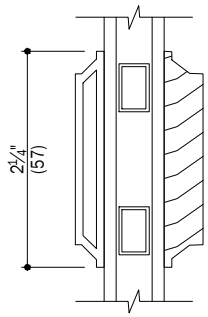
C 6 — ¾" Removable Interior Grille



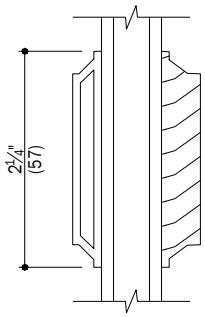
G 6 — ⅞" Removable Interior Grille



L 6 — 1 ⅛" Removable Interior Grille



D 5 — 2 ¼" Full Divided Light
Simulated check rail
Only available on picture units



H 5 — 2 ¼" Simulated Divided Light
Simulated check rail
Only available on picture units

Notes:

Details have been optimized for use in architectural software and do not match manufacturing specifications.
Dimensions in parentheses are in millimeters.

Date: 03/29/16
Scale: 6" (152) = 1' (305)

ANDERSEN™
WINDOWS & DOORS

A-SERIES
WINDOWS & DOORS

Architectural Authenticity. Unparalleled Performance.

2019 PRODUCT GUIDE FOR PROFESSIONALS

CONTENTS

A-SERIES

The MOST RECOGNIZED, TRUSTED and RECOMMENDED* brand of windows and patio doors.

MOST USED BRAND BY BUILDERS FOR 20 YEARS hanleywood

Hanley Wood Builder Brand Use Study
1998-2018
Windows – Wood & Clad-Wood Category

MOST USED BRAND BY REMODELERS SINCE 2006 hanleywood

Hanley Wood Remodeling Brand Use Study
2006, 2010, 2013, 2015, 2017
Windows – Wood & Clad-Wood Category

READERS' CHOICE 2018 GREEN BUILDER

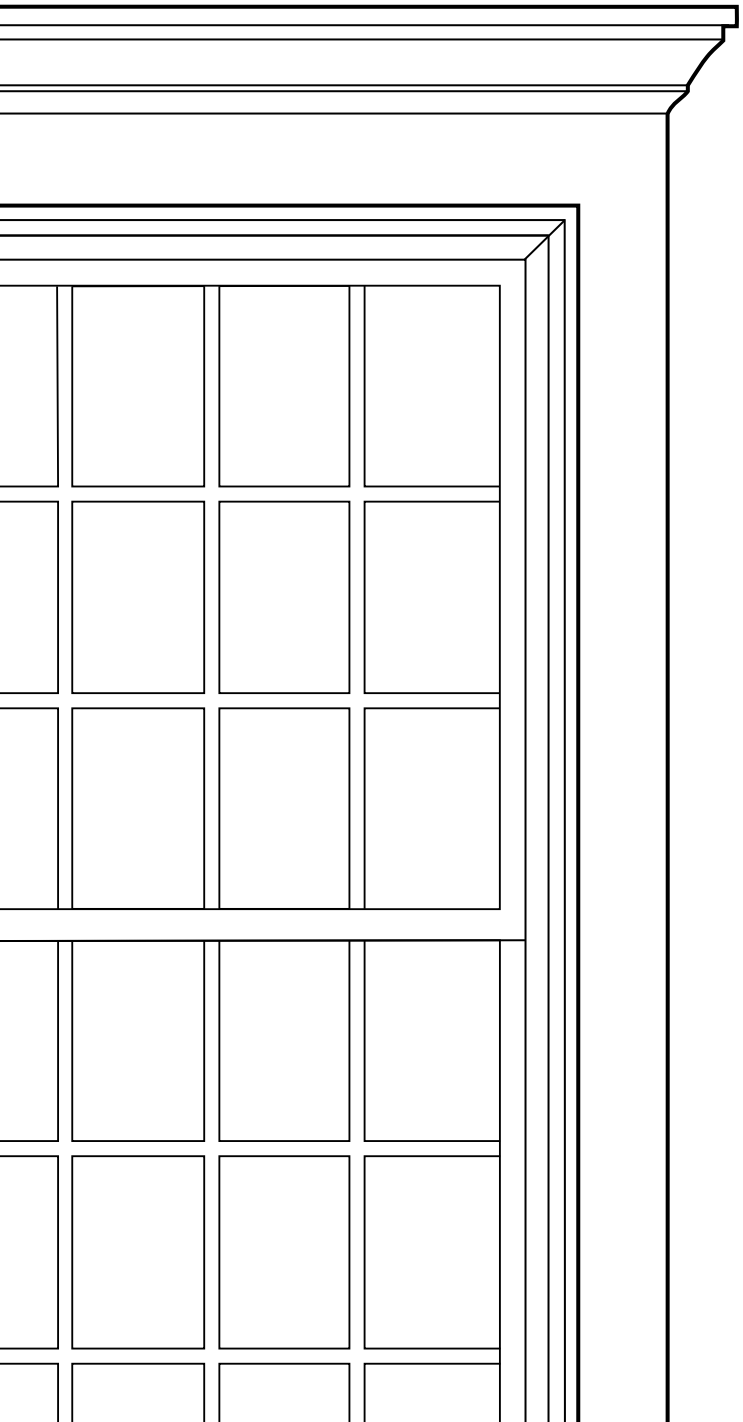
Awarded Most Environmentally Friendly Windows 7 years running
2011-2018

ENERGY STAR AWARD 2018 PARTNER OF THE YEAR Sustained Excellence

Andersen Corporation, including its subsidiaries, has been named a 2018 ENERGY STAR® Partner of the Year – Sustained Excellence Award winner, the highest honor given by ENERGY STAR for continued leadership in protecting the environment through superior energy efficiency achievements.**

*2018 U.S. Homeowner Brand Study of Andersen and Renewal by Andersen brands vs. competitive brands.
**"ENERGY STAR" is a registered trademark of the U.S. Environmental Protection Agency.

ANDERSEN™
WINDOWS & DOORS



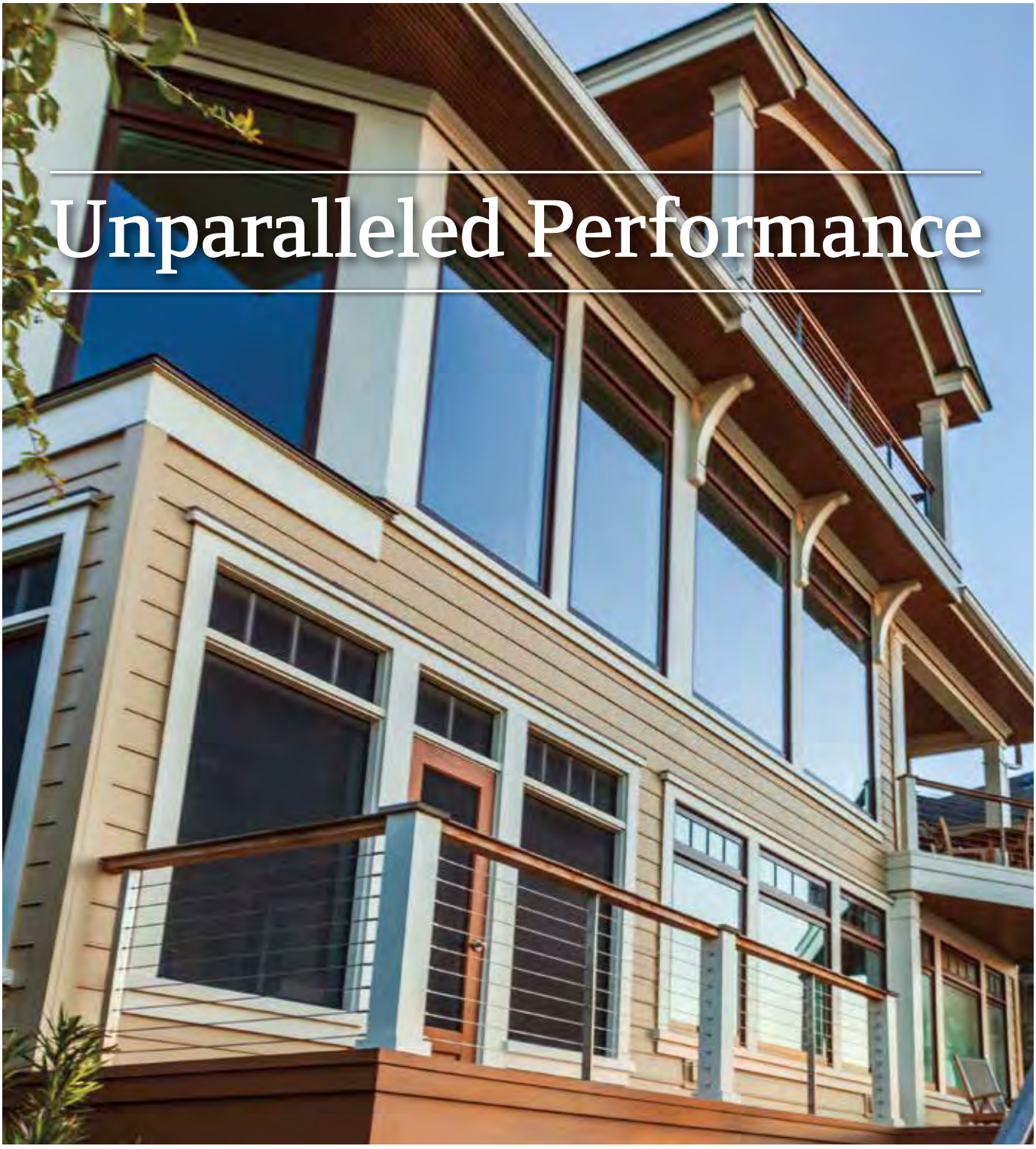
Create Distinction.

A-SERIES WINDOWS & PATIO DOORS

Whether you're looking for traditional or contemporary style, performance or innovation, you'll find it in the Andersen® Architectural Collection.

Our A-Series windows and doors, as part of the Architectural Collection, were designed in tandem with architects to provide authentic architectural style. They share features such as sight lines, glass setback, interfaces and size grid, so they're easy to work with and easy to specify. And you can do so knowing you're choosing the best-performing, most energy-efficient windows and doors Andersen has ever offered.

For more information, visit **andersenwindows.com/a-series**.



Unparalleled Performance

Our Best-Performing, Most Energy-Efficient Products.

The beauty of A-Series products goes beyond their looks and authentic architectural style. They're also the best-performing, most energy-efficient windows and doors we've ever offered. At Andersen, we believe our job is to do more than just make windows and doors. It's also to make you look good to your customers today and for years to come.

ENERGY-SAVING GLASS AND DESIGN

Andersen makes windows and doors with options that make them ENERGY STAR® v. 6.0 certified throughout the United States.

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

ASK ABOUT ENERGY STAR

VIRTUALLY MAINTENANCE-FREE EXTERIORS

Exteriors of A-Series windows and doors never need painting. They won't flake, rot, blister, peel, pit or corrode.†† Plus they're **warranted against corrosion for the life of the products,‡ with no washing or waxing required.††**

WINDOWS AND DOORS WITH StormWATCH PROTECTION

Andersen A-Series products are available with impact-resistant glass and structural upgrades to meet the tough building codes of coastal areas. Visit **andersenwindows.com/coastal** or refer to the *Andersen® Coastal Product Guide* for more information. See your local building code official for specific requirements.

PG70‡‡ PERFORMANCE
FWHID33100HP Impact DPUP +65/-70
(AAMA/WDMA/CSA 101/I.S.2/A440-08 & -11)

RIGOROUSLY TESTED

A-Series products have withstood testing that has taken them from temperatures as cold as Alaskan winters to the heat of Death Valley summers. They've stood up to hurricane-force winds and prolonged exposure to sea air.*

A-Series products feature the following ratings:

(Ratings vary by product performance and unit size. See the performance section for specific unit performance. For up-to-date performance values, visit andersenwindows.com.)

Windows	PG50 (DP50)
Gliding Patio Doors	PG50 (DP50)**
Hinged Patio Doors	PG45 (DP45)

PG50† PERFORMANCE
FWHID33100HP +50/-50
(AAMA/WDMA/CSA 101/I.S.2/A440-08 & -11)

OWNER2OWNER® LIMITED WARRANTY

Our renowned Owner-2-Owner® limited warranty is fully transferrable and not prorated, making it one of the best coverage plans available — which means it can add resale value for your customers. It's also supported by the industry's largest service network.††

SEALS OUT THE WEATHER

Weather-resistant seals stand up to eight inches of rain per hour and hurricane-force winds.* Double-hung windows feature a dual-bulb seal, and casement windows use refrigerator-type gaskets to help keep air and water out.

BUILT STRONG

We use solid wood in interior door panels and window sash and frames, plus fiberglass on outer door frames and window sash exteriors, to provide an unmatched combination of strength, insulation, versatility and beauty. Additionally, our Fibrex® composite material used in window frames and trim components delivers twice the strength and rigidity of vinyl.

WATER MANAGEMENT THAT WORKS

These features work together to direct water away from buildings:

- Hermetically sealed corner keys keep frames tight
- Sloped sill on double-hung windows
- Sill on patio doors channels water away from the home
- Innovative trim attachment flange secures trim independent of the window or door's water management system

FIBERGLASS JOINING SYSTEM

Reinforced joining options using innovative 4 9/16" fiberglass joining plates, provide enhanced performance, design flexibility and the ultimate in job site conveniences. See page 24 to learn more.

* Tested to AAMA/WDMA/CSA 101/I.S.2/A440-08 & -11 PG50.
** Three- and four-panel gliding doors 8' height units PG40.
† FWHID33100HP +50/-50 (AAMA/WDMA/CSA 101/I.S.2/A440-08 & -11). For more information, visit andersenwindows.com/a-series.
†† Visit andersenwindows.com/warranty for details.
‡ Hardware excluded.
‡‡ FWHID33100HP Impact DPUP +65/-70 (AAMA/WDMA/CSA 101/I.S.2/A440-08 & -11). For more information, visit andersenwindows.com/coastal.
"ENERGY STAR" is a registered trademark of the U.S. Environmental Protection Agency.

CRAFTSMAN BUNGALOW

Shown with quintessential Andersen® A-Series window and door combinations.

An Authentic Innovation for Authentic Style.

For a home to be authentic to an architectural style, its windows and doors must be authentic to the style as well. Not only the type of windows and doors, but also their exterior trim, color palettes, grille patterns, hardware, wood species and interior finish.

That's why Andersen has created the Home Style Library. A first in the industry, the style library shows how easily you can use A-Series products and their innovative system of options to make architectural authenticity not only possible, but also easy to achieve.

Industrial Modern

THE HOME STYLE LIBRARY

Years of research have culminated in a powerful tool we call our Home Style Library that makes it easier than ever for you to create homes in a wide variety of architectural styles.

CREATING A COMMON LANGUAGE WITH HOMEOWNERS

Our Home Style Library gives you, your clients and your customers a shared vocabulary that makes it easy to discuss style preferences and architectural details.

THE ELEMENTS OF STYLE

Each home featured in our Home Style Library contains suggested combinations of Andersen® A-Series windows, doors, hardware, exterior trim and color palettes that are authentic to that home's architectural style.

The A-Series product combinations shown here were selected with the help of leading architects to create the Craftsman Bungalow home shown to the left.

A-SERIES STYLE RECOMMENDATIONS

EXTERIOR COLOR

Prairie Grass/Dark Bronze

INTERIOR STAIN

Espresso

HARDWARE

Window:
Traditional Folding Handle

Patio Door:
Albany

Finish:
Black

HOME STYLE LIBRARY PREVIEW

The Home Style Library includes classically recognized architectural styles. To view our complete Home Style Library, or to share it with your customers, visit **andersenwindows.com/stylelibrary**.

French Eclectic

American Farmhouse

Georgian/Federal

Cape Cod

Tudor

Queen Anne

Prairie

Exterior Options to Match Any Style.

A-Series products are available in a wide range of exterior colors and exterior trim choices. Even in harsh conditions, they're virtually maintenance-free, hold their original vibrant colors, never need painting and won't flake, rot, blister, peel, pit or corrode.*

Select any combination of colors shown here for your exterior frame, sash and trim.

EXTERIOR COLORS

White
Canvas
Sandtone
Terratone
Dark Bronze
Forest Green
Dove Gray
Prairie Grass
Red Rock
Cocoa Bean
Black

* Visit andersenwindows.com/warranty for details.
Printing limitations prevent exact duplication of colors. See your Andersen supplier for actual color samples.

EXTERIOR TRIM THAT FITS WINDOWS, PATIO DOORS AND YOUR VISION

Exterior trim adds a finishing touch to your windows or doors and is often essential in achieving authentic architectural style.

- Trim is available to complement a wide range of architectural styles
- Trim is low maintenance and never needs painting
- Trim can be ordered as pre-assembled surrounds, in precut kits or as individual components
- Innovative trim attachment flange on A-Series windows allows pre-assembled exterior trim surrounds to be installed in seconds
- Installed independent of the window or door's water management system

EXTERIOR TRIM STYLE OPTIONS

2" (51) Brick Mould
shown in Canvas

3 ½" (89) or 4 ½" (114) Flat
shown in Terratone

3 ½" (89) or 4 ½" (114) Flat with extended head
shown in Red Rock

3 ½" (89) or 4 ½" (114) Flat with decorative drip cap
shown in Forest Green

3 ½" (89) or 4 ½" (114) Flat with 2" (51) cornice head
shown in Prairie Grass

3 ½" (89) or 4 ½" (114) Flat with 3 ⅝" (92) cornice head
shown in White

EXTERIOR TRIM SILL OPTIONS

2" (51) Brick Mould with extended sill nose
shown in Terratone

3 ½" (89) or 4 ½" (114) Flat
shown in Sandtone

3 ½" (89) or 4 ½" (114) Flat with extended sill
shown in White

3 ½" (89) or 4 ½" (114) Flat with extended sill nose
shown in Prairie Grass

Dimensions in parentheses are in millimeters.
Printing limitations prevent exact duplication of colors.
See your Andersen supplier for actual color samples.

Inner Beauty

Interior Options to Match Any Vision.

With six natural wood species, a variety of painted interiors and six, rich factory-finished stain options, the A-Series products provide the flexibility you need to create interiors that please both you and your customers.

INTERIOR WOOD SPECIES OPTIONS


Pine


Maple


Oak


Cherry


Mahogany*


Vertical Grain Douglas Fir

STAINED INTERIOR OPTIONS

Shown on pine. Available on pine, maple and oak only.


Clear Coat


Honey


Cinnamon


Russet


Mocha


Espresso

PAINTED INTERIOR OPTIONS

Available on pine.

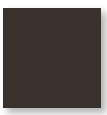

White

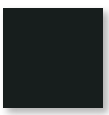

Birch Bark


Primed (for paint)


Canvas


Sandtone


Dark Bronze


Black

Additional colors to match all 11 exterior colors are also available, contact your Andersen supplier.

* Actual wood species is either Sapele or Sipo, both non-endangered species grown in Africa, with color and characteristics similar to Central American mahoganies.
Naturally occurring variations in grain, color and texture of wood make each window one of a kind.
We cannot guarantee consistency in wood grain and/or color within a particular species, product or project.
Printing limitations prevent exact replication of colors and finishes. See your Andersen supplier for actual color and finish samples.

Beauty in the Details.*

The hardware for our A-Series windows is created exclusively for Andersen and is made of forged metal for added strength. A range of available finishes makes it easy for customers to coordinate their window hardware with their cabinet hardware, faucets and other room décor.

Also available with VeriLock® Security Sensors, one of the most advanced technologies in the industry. For more information, see pages 16-17 or visit **andersenwindows.com/connect.**

The tilt-in feature of A-Series double-hung windows allows one-hand operation for easier cleaning.

DOUBLE-HUNG HARDWARE

TRADITIONAL

Lock & Keeper

Hand Lift

Bar Lift

Finger Lift

Bold name denotes finish shown.

Antique Brass
Black
Bright Brass
Brushed Chrome
Distressed Bronze
Distressed Nickel
Gold Dust
Oil Rubbed Bronze
Polished Chrome
Satin Nickel
Stone
White

CASEMENT AND AWNING HARDWARE

TRADITIONAL FOLDING

CONTEMPORARY FOLDING

Folding handle avoids interference with window treatments.

Bold name denotes finish shown.

Antique Brass
Black
Bright Brass
Brushed Chrome
Distressed Bronze
Distressed Nickel
Gold Dust
Oil Rubbed Bronze
Polished Chrome
Satin Nickel
Stone
White

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

Casement locking mechanism

WINDOW HARDWARE FINISH OPTIONS

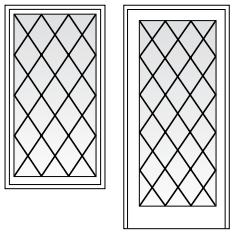
Antique Brass | Black | Bright Brass | Brushed Chrome | Distressed Bronze | Distressed Nickel | Gold Dust | Oil Rubbed Bronze | Polished Chrome | Satin Nickel | Stone | White

* Hardware sold separately except double-hung lock and keeper.
Distressed bronze and oil rubbed bronze are "living" finishes that will change with time and use.
Printing limitations prevent exact replication of finishes. See your Andersen supplier for actual finish samples.

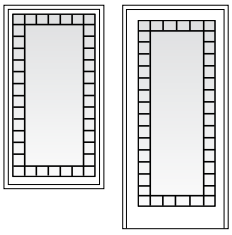
A-Series Grilles for Every Home.

Andersen® A-Series windows and doors offer a variety of architecturally authentic grille types and standard grille patterns. We'll also work with you to provide your customers with custom grille designs for a signature look.

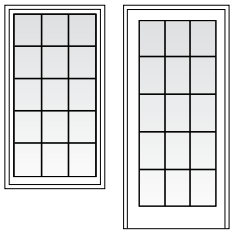
To see all the standard patterns available for a specific window or door, refer to the detailed sections of this book for each product or contact your Andersen supplier.



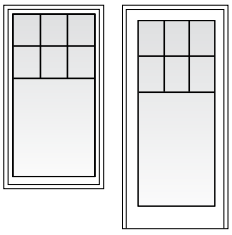
Diamond



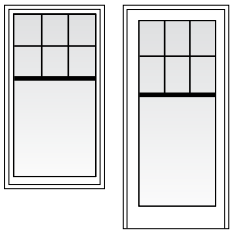
Queen Anne



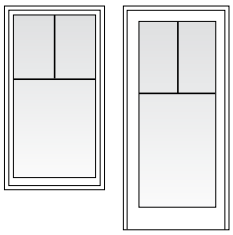
Colonial



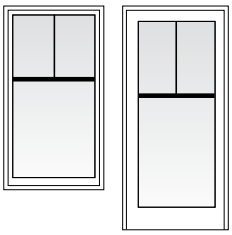
Modified Colonial



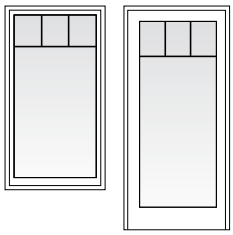
Modified Colonial with 2 ¼" (57) rail*



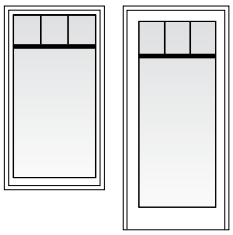
Tall Fractional



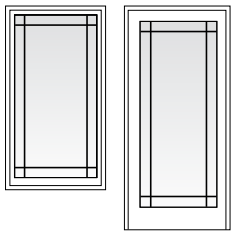
Tall Fractional with 2 ¼" (57) rail*



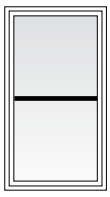
Short Fractional



Short Fractional with 2 ¼" (57) rail*

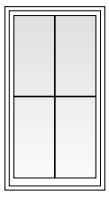


Prairie A

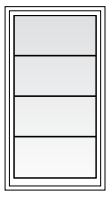


Simulated Double-Hung

Our 2¼-inch-wide grille can make a casement window look like a double-hung.

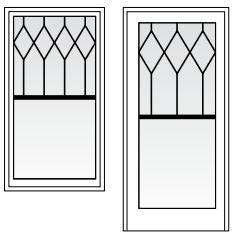


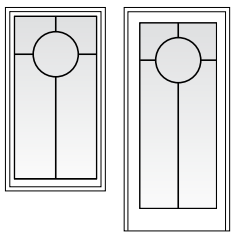
2 x 2

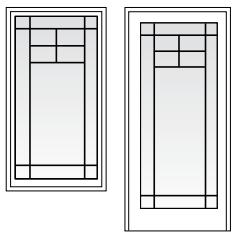


1 x 4

Specified Equal Light**







Custom Patterns

* Simulated check rails are also available in ⅞" (22) and 1⅛" (29) widths.
** Specify number of same-size rectangles wide or high. Some restrictions may apply.
Some grille patterns not available in all configurations and products. Dimensions in parentheses are in millimeters.

GRILLE WIDTHS (ACTUAL SIZE SHOWN)

Shown: Cross sections of grilles showing standard widths and profiles.

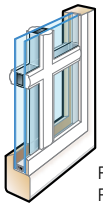
¾" (19) ⅞" (22) 1 ⅛" (29) 2 ¼" (57)

Our 2 ¼"(57) width grille can be positioned horizontally across the center of a casement window to simulate the look of a double-hung window.

GRILLE CONFIGURATIONS

FULL DIVIDED LIGHT

For an authentic look, Full Divided Light grilles are permanently applied to the interior and the exterior of the window with a spacer between the glass.



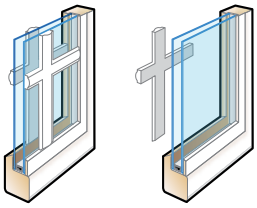
Permanent Exterior
Permanent Interior with Spacer

Spacer Option for Greater Energy Efficiency

The Energy Spacer option is available to help A-Series products with full divided lights and SmartSun™ glass be ENERGY STAR® certified in the Northern climate zone. Its narrow design creates a 3-millimeter gap around the spacer, helping to lower U-Factor values.

SIMULATED DIVIDED LIGHT

Simulated Divided Light offers permanent grilles on the exterior and interior with no spacer between the glass. We also offer permanent exterior grilles with removable interior grilles, available in natural wood or prefinished white.

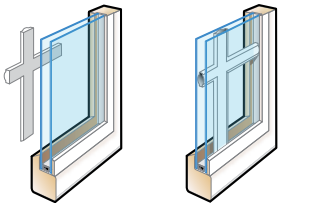


Permanent Exterior
Permanent Interior

Permanent Exterior
Removable Interior

CONVENIENT CLEANING OPTIONS

Removable interior grilles come off for easy cleaning. Andersen® Finelight™ grilles are installed between the glass panes and feature a contoured 1" (25) or ¾" (19) profile.



Removable
Interior Grille

Finelight Grilles–
Between-the-Glass*

* ⅞" (22), 1⅛" (29) and 2¼" (57) not available in Finelight grilles-between-the-glass.
Dimensions in parentheses are in millimeters.

Best-in-Class Glass.

ASK ABOUT ENERGY STAR

Choose from a variety of high-performance glass options, including new triple-pane glass and HeatLock® technology for even greater energy efficiency.

TRIPLE-PANE GLASS

Three panes of glass combine with either argon gas blend or air and Low-E coatings to provide enhanced energy performance. Adding triple-pane glass to one of our windows or doors results in a lower U-Factor value than using regular dual-pane glass.

HEATLOCK® TECHNOLOGY

Our HeatLock coating can increase the energy efficiency of any A-Series window or door with Low-E4® or SmartSun™ glass. Applied to the room-side glass surface, it reflects heat back into the home for improved performance.

Additional glass options are also available. Visit **andersenwindows.com** or see your Andersen supplier. See your local supplier for actual glass samples.

LOW-E4® SMARTSUN™ GLASS

It helps shield your home from the sun's heat, filtering out 95% of harmful UV rays while letting sunlight shine through, plus it provides all the benefits of Low-E4 glass.

LOW-E4 GLASS

Outstanding thermal performance for climates where both heating and cooling costs are a concern. It comes standard on all A-Series products and is up to 57% more energy efficient than ordinary dual-pane glass.*

LOW-E4 SUN GLASS

Outstanding thermal performance in southern climates where less solar heat gain is desired. It's tinted for maximum protection from the effects of intense sunlight while providing all the benefits of Low-E4 glass.

PERFORMANCE COMPARISON OF ANDERSEN® A-SERIES GLASS OPTIONS

GLASS	ENERGY		LIGHT	
	U-FACTOR How well a product prevents heat from escaping.	SOLAR HEAT GAIN COEFFICIENT How well a product blocks heat caused by sunlight.	VISIBLE LIGHT TRANSMITTANCE How much visible light comes through a product.	UV PROTECTION How well a product blocks ultraviolet rays.
SmartSun	●●●○	●●●●	●●◐○	●●●●
SmartSun with HeatLock® Coating	●●●◐	●●●●	●●○○	●●●●
Low-E4	●●●○	●●●○	●●●○	●●●○
Low-E4 with HeatLock® Coating	●●●◐	●●●○	●●◐○	●●●○
Sun	●●●○	●●●●	●○○○	●●●○
PassiveSun*	●●◐○	●○○○	●●●○	●●●○
Triple-Pane with Low-E coatings on two surfaces	●●●●	●●●○	●●◐○	●●●●
Clear Dual-Pane	●○○○	○○○○	●●●●	○○○○

Center of glass performance only. Ratings based on glass options as of January 2018. Visit andersenwindows.com/energystar for ENERGY STAR® map and NFRC total unit performance data.

TIME-SAVING TRANSLUCENT FILM

We help protect all of our products during delivery and construction with a translucent film on the glass. It also minimizes time spent masking on the job site, then peels away for a virtually spotless window. For details, contact your Andersen supplier.

PATTERNED GLASS

Patterned glass lets in light while obscuring vision and adds a unique decorative touch to your home.

Cascade

Fern

Obscure

Reed

Cascade and Reed patterns can be ordered with either a vertical or horizontal orientation.

* Summer values are based on comparison of Andersen A-Series double-hung window SHGC to the SHGC for clear dual-pane glass non-metal frame default values from the 2006, 2009, 2012, 2015 and 2018 International Energy Conservation Code "Glazed Fenestration" Default Tables.

Our Insect Screens Come in Different Types. Just Like Insects Do.

ANDERSEN INNOVATION

Optional insect screens are available for all A-Series products. Patio doors feature Andersen® fiberglass insect screens. For windows, choose aluminum insect screens or TruScene® insect screens for a more unobstructed view.

TRUSCENE® INSECT SCREENS

Made with a micro-fine stainless steel mesh, exclusive Andersen TruScene insect screens provide 50% greater clarity than our conventional insect screens. They let more fresh air and sunlight in, while doing a better job of keeping out small insects. Exterior TruScene insect screen frames are available in all standard colors. Interior insect screens are available with prefinished wood veneer frames as well as all interior painted options.

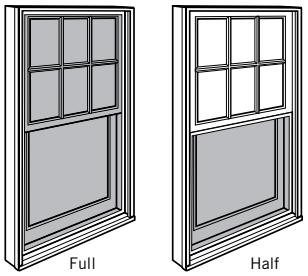
TruScene insect screens are not available on patio doors.
All comparisons are made to Andersen aluminum-mesh insect screens.

PREFINISHED WOOD FRAME OPTIONS

Casement and awning frames with TruScene insect screens are available in six wood veneers and six stain colors to match the interior finish. Pine frame with clear finish is shown.

WINDOW CONFIGURATIONS

Full insect screens are available for all operating A-Series windows. Our double-hung windows also have the option of insect screens that cover only the lower sash.



FRAME OPTIONS FOR ALUMINUM INSECT SCREENS

For casement and awning windows, aluminum insect screen frames are available in Stone, White or Gold Dust, shown below from the interior, as well as all interior painted options — Sandtone, Canvas, Dark Bronze and Black. Insect screen frames for all other windows are installed on the exterior of the window and match the unit's exterior color.

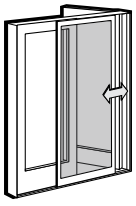

Stone

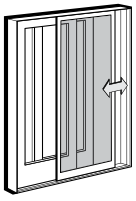

White

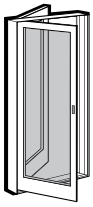

Gold Dust

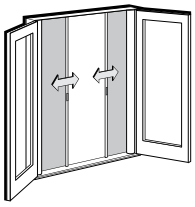
PATIO DOOR INSECT SCREEN CONFIGURATIONS

A-Series patio door insect screens are available in several styles, including a premium top-hung gliding design for gliding and hinged doors.


Premium top-hung gliding design allows for smooth and effortless operation without the interference of dust and debris. Shown on an inswing door and also available for two- and four-panel gliding doors.


Conventional gliding shown on gliding door, has bottom rollers with self-contained leveling adjusters. Also available for four-panel gliding and two-panel inswing doors.


Hinged shown on inswing door. Also available for two-panel inswing doors.


Retractable shown on outswing door neatly retracts into small canister. Also available for single-panel door. Retractable also available for gliding doors.

Uncommon Precision

COMMON SIZE GRID

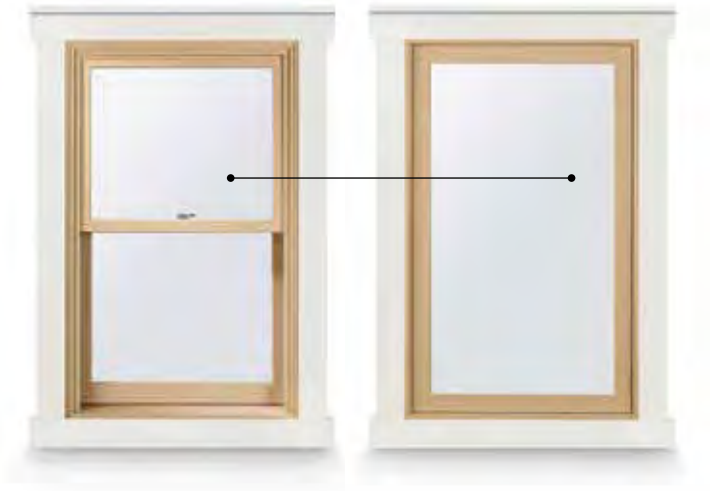
Common sizes in four-inch increments are based on the rough opening to simplify framing and specifying. Even-inch sizes eliminate fractions and reduce jobsite errors. A ¾-inch (19) gap horizontally and vertically leaves room for shims, insulation and sill flashing.

CUSTOM SIZING

All Andersen® A-Series windows and doors can be ordered in ⅛-inch (3) increments, providing flexibility for replacement, remodeling, new construction or light commercial projects.

COMMON GLASS SETBACK

A common glass setback on A-Series windows and patio doors delivers noticeably clean shadow lines both inside and out.

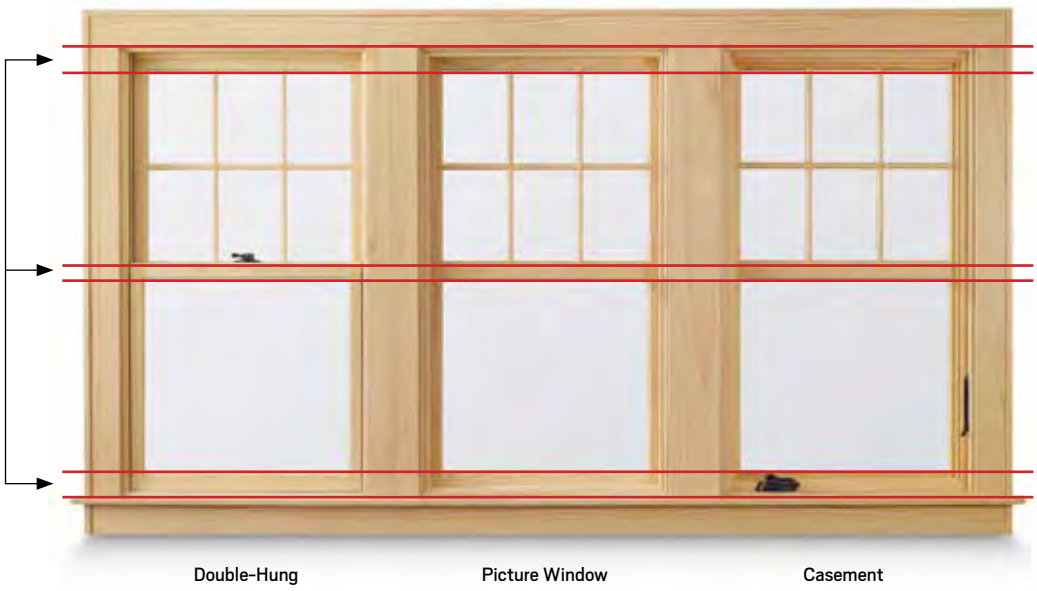


The upper sash of double-hung windows align perfectly with casement windows, awning windows, picture windows, patio doors and transoms.

Dimensions in parentheses are in millimeters.

COMPLETE ALIGNMENT

Common sight lines allow you to specify any combination of window styles and still have them match and align perfectly.

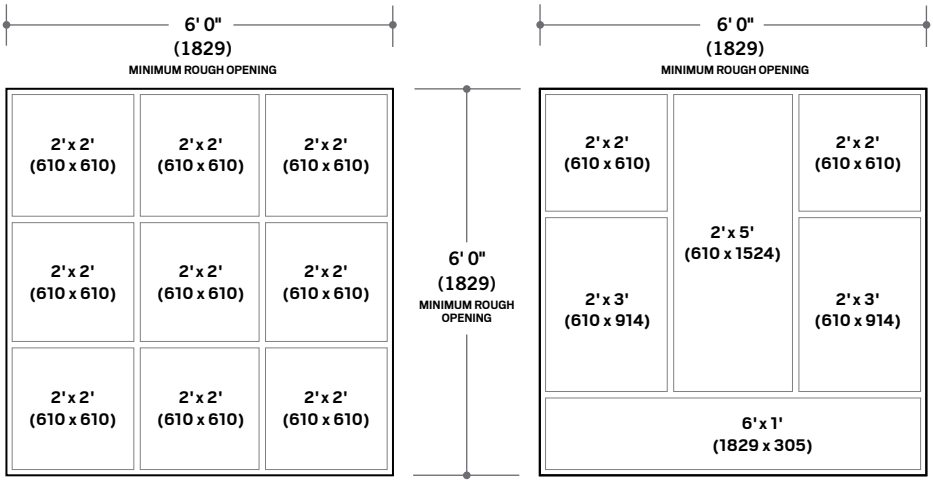


Double-Hung Picture Window Casement

Windows share the same sash design, grille profiles and frame depth for consistent beauty with classic appeal.

EASY MATH

The A-Series window and door system simplifies selection and installation of multiple windows within a single rough opening. ¾-inch (19) horizontal and vertical joins keep sizing consistent no matter how many or what size windows you combine.



The spacing in these illustrations is exaggerated for demonstration purposes.

Dimensions in parentheses are in millimeters.

WINDOWS

CUSTOM SIZING
in 1/8" (3) increments

SECTION REFERENCE

Dimensions in parentheses are in millimeters.

FEATURES

CASEMENT & AWNING

Frame

Ⓐ Frame constructed with a wood core and a Fibrex® composite material exterior. This construction produces a rigid frame and a low-maintenance, durable exterior.

Ⓑ Wood members are treated with a water-repellent preservative for long-lasting* protection and performance.

Ⓒ The weatherstripping system combines an exterior watershed design and a foam weatherstrip seal between the sash and frame, providing a long-lasting,* energy-efficient barrier against wind, water and dust.

Ⓓ A factory-applied rigid vinyl flange helps seal the unit to the structure. Available in a standard design or in a trim flange design (shown). The trim flange allows for Andersen® exterior trim surrounds to be applied in seconds after window installation.

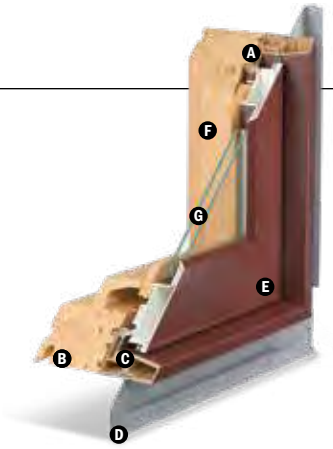
Sash

Ⓔ Fiberglass construction provides durable, strong and long-lasting* performance. Finished with a Flexacron® paint system. This stabilized polyester paint is electrostatically applied for maximum protection and a lustrous, low-maintenance finish.

Traditional architectural style:

- Classic chamfer detailing
- The look of mortise-and-tenon joinery
- Tall bottom rail on casement window aligns with double-hung and picture windows for common sight lines

Ⓕ Natural wood interiors are treated with a water-repellent preservative for long-lasting* protection and performance. Interior stops are fastened using a compression fit system so there are no nail holes to fill.



Ⓖ Glass

See page 27 for details.

Hardware

Smooth Control Hardware System

Smooth operation provided by a worm gear drive design makes opening and closing almost effortless regardless of unit size. Also available with an optional split-arm operator that moves the sash away from the frame for easier glass cleaning (not available on all sizes). Hardware option and finish must be specified. Operator handle and cover sold separately.

Single-Action Casement Lock

Single-action lock easily releases all locking points on 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 Lock

Awning windows feature dual sash locks. Hardware style and finish options are compatible with Andersen casement windows to ensure consistency in appearance when used in combination designs.

DOUBLE-HUNG

Frame

Ⓐ Frame constructed with a wood core and a Fibrex composite material exterior. This construction produces a rigid frame and a low-maintenance, durable exterior.

Ⓑ Wood members are treated with a water-repellent preservative for long-lasting* protection and performance.

Ⓒ The dual weatherstripping system utilizes a double foam-filled design that creates a pressure equalization chamber, knocking down driving rain and delivering a long-lasting,* energy-efficient barrier against wind, water and dust.

Ⓓ Traditional sloped sill design.

Ⓔ For units with White exterior, exterior jamb liner is White. For all other exterior colors, the exterior jamb liner is Sandtone. All double-hung windows include lower jamb liner cover/inserts that match the window exterior color.

Ⓕ A factory-applied rigid vinyl flange helps seal the unit to the structure. Available in a standard design or in a trim flange design (shown). The trim flange allows for Andersen exterior trim surrounds to be applied in seconds after window installation.

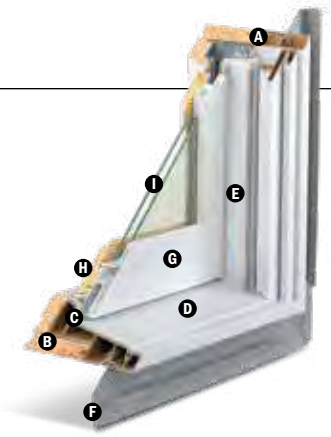
Sash

Ⓖ Fiberglass construction provides durable, strong and long-lasting* performance. Finished with a Flexacron paint system. This stabilized polyester paint is electrostatically applied for maximum protection and a lustrous, low-maintenance finish.

Traditional architectural style:

- Classic chamfer detailing
- The look of mortise-and-tenon joinery
- Tall bottom rail on double-hung window aligns with casement and picture windows for common sight lines

Ⓗ Natural wood interiors are treated with a water-repellent preservative for long-lasting* protection and performance. Interior stops are fastened from behind so there are no nail holes to fill.



Ⓘ Glass

See page 27 for details.

Hardware

Sash Lock

Traditional spoon lock design has an integrated *Tilt to Clean* feature.

Sash Options**

Cottage Style Reverse Cottage Style

* Visit andersenwindows.com/warranty for details.
** Shown on 400 Series Tilt-Wash double-hung full-frame windows.
"Flexacron" is a registered trademark of PPG Industries, Inc.

PICTURE & FIXED TRANSOM

Frame

Frame constructed with a wood core and fiberglass exterior. This construction produces a rigid frame and a low-maintenance, durable exterior.

Wood members are treated with a water-repellent preservative for long-lasting* protection and performance.

A factory-applied rigid vinyl flange helps seal the unit to the structure. Available in a standard design or in a trim flange design. The trim flange allows for Andersen® exterior trim surrounds to be applied in seconds after window installation.

Fiberglass construction provides durable, strong and long-lasting* performance. Finished with a Flexacron® paint system. This stabilized polyester paint is electrostatically applied for maximum protection and a lustrous, low-maintenance finish.

Traditional architectural style:

- Classic chamfer detailing
- The look of mortise-and-tenon joinery
- Tall bottom rail on picture window aligns with casement and double-hung windows for common sight lines
- Shorter bottom rail on fixed transom provides an attractive sight line when joined above other A-Series windows or patio doors

Interior stops are fastened using a compression fit system so there are no nail holes to fill.

Glass

See this page.

VENTING TRANSOM

Frame

Frame constructed with a wood core and a Fibrex® composite material exterior. This construction produces a rigid frame and a low-maintenance, durable exterior.

Wood members are treated with a water-repellent preservative for long-lasting* protection and performance.

The weatherstripping system combines an exterior watershed design and a foam weatherstrip seal between the sash and frame, providing a long-lasting,* energy-efficient barrier against wind, water and dust.

A factory-applied rigid vinyl flange helps seal the unit to the structure. Available in a standard design or in a trim flange design. The trim flange allows for Andersen exterior trim surrounds to be applied in seconds after window installation.

Sash

Fiberglass construction provides durable, strong and long-lasting* performance. Finished with a Flexacron paint system. This stabilized polyester paint is electrostatically applied for maximum protection and a lustrous, low-maintenance finish.

Traditional architectural style:

- Classic chamfer detailing
- The look of mortise-and-tenon joinery
- Shorter bottom rail provides an attractive sight line when joined above other A-Series windows or patio doors

Natural wood interiors are treated with a water-repellent preservative for long-lasting* protection and performance. Interior stops are fastened using a compression fit system so there are no nail holes to fill.

Glass

See this page.

Hardware

Smooth operation provided by a worm gear drive design makes opening and closing almost effortless regardless of unit size.

Venting transoms feature dual sash locks. Hardware style and finish options are compatible with Andersen casement windows to ensure consistency in appearance when used in combination designs.

COMMON FEATURES

Glass

¾" (19) dual-pane glass construction provides exceptional energy performance.

High-Performance glass options include:

- Low-E4® glass
- Low-E4 HeatLock® glass
- Low-E4 Sun glass
- Low-E4 SmartSun™ glass
- Low-E4 SmartSun HeatLock glass

For even greater energy performance, 1" (25) triple-pane glass is available in these options:

- Low-E4 glass
- Low-E4 Enhanced glass
- Low-E4 Enhanced HeatLock glass
- Low-E4 SmartSun glass
- Low-E4 SmartSun Enhanced glass
- Low-E4 SmartSun Enhanced HeatLock glass

Tempered glass 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 also simplifies finishing at the jobsite.

Patterned Glass

Patterned glass options are available. See page 18 for more details.

StormWATCH PROTECTION

A-Series windows are available with Stormwatch® protection. For a copy of the *Andersen® Coastal Product Guide*, go to **andersenwindows.com/coastal** or contact your Andersen supplier.

* Visit andersenwindows.com/warranty for details.
"Flexacron" is a registered trademark of PPG Industries, Inc.
Dimensions in parentheses are in millimeters.

WINDOWS

EXTERIOR

White | Canvas | Sandtone | Terratone | Forest Green | Dark Bronze | Dove Gray | Prairie Grass | Red Rock | Cocoa Bean | Black

INTERIOR

WOOD SPECIES

Pine | Maple | Oak | Cherry | Mahogany* | Vertical Grain Douglas Fir

FACTORY-FINISHED INTERIORS

Shown on pine. Available on pine, maple and oak only.

Clear Coat | Honey | Cinnamon | Russet | Mocha | Espresso

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.

PAINTED OPTIONS

Available on pine.

White | Birch Bark | Primed (for paint) | Canvas

Sandtone | Dark Bronze | Black

Additional colors to match all 11 exterior colors are also available, contact your Andersen supplier.

HARDWARE FINISHES

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

Distressed bronze and oil rubbed bronze are "living" finishes that will change with time and use.

HARDWARE

Casement, Awning & Venting Transom Options**

TRADITIONAL FOLDING

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

CONTEMPORARY FOLDING

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

Folding handle avoids interference with window treatments.

Bold name denotes finish shown.

Double-Hung

TRADITIONAL

Lock & Keeper

Double-Hung Lift Options**

Bar Lift | Hand Lift | Finger Lift

Antique Brass | Black | Bright Brass | Brushed Chrome
Distressed Bronze | Distressed Nickel | Gold Dust | Oil Rubbed Bronze
Polished Chrome | **Satin Nickel** | Stone | White

Bold name denotes finish shown.

* Actual wood species is either Sapele or Sipo, both non-endangered species grown in Africa, with color and characteristics similar to Central American mahoganies.
** Hardware sold separately.
Printing limitations prevent exact duplication of colors and finishes. See your Andersen supplier for actual color and finish samples.

ACCESSORIES Sold Separately

Frame

Extension Jambs

Extension jambs are available in pine, maple, oak, cherry, mahogany* and vertical grain douglas fir, precut to fit your unit. Available in 1/16" (1.5) increments up to 7 1/8" (181) and can be prefinished in six stain colors as well as all interior painted options to match the interior of the unit. This option is also available factory applied.

Stools for Double-Hung Windows

Available in all six wood species and all prefinished options. Stools are available for 4 9/16" (116), 5 1/4" (133), 6 9/16" (167) and 7 1/8" (181) wall depths.

Hardware

Corrosion-Resistant Components

Corrosion-resistant hinge and operator arm hardware on casement, awning and venting transom windows is designed for applications in harsh and corrosive environments such as heavy industrial or coastal areas.** Shown on a 400 Series casement window.

Window Opening Control Device Kit

A Window Opening Control Device Kit is available for all A-Series venting windows, which limits opening the sash to less than 4" (102) when the window is first opened. Available factory-applied, check with your Andersen supplier. Shown on an A-Series casement window.

Vent Limiter

A vent limiter is available for most A-Series venting windows, which prevents opening the sash more than 4" (102).

Power Operator for Awning Windows

Awning windows can now 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 back-up in case of a power outage and a moisture sensor that automatically closes the window when it rains. A wireless remote is 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 ordered as a field kit. Power driver requires field installation.

PowerAssist technology eliminates the need for sash locks. Available for windows up to five feet wide. Not available with Stormwatch® protection or PG upgrades.

Glass

Andersen® Art Glass

Andersen art glass panels come in a variety of original patterns. See pages 14-15 for details on Andersen art glass. Visit **andersenwindows.com/artglass** for details and pattern information.

Security Sensors

VeriLock® Sensors

VeriLock sensors are available in five colors. See page 16-17 for details.

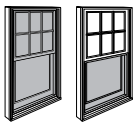
Open/Closed Sensors

Wireless open/closed sensors are available in four colors. See page 16-17 for details.

Insect Screens

Full or Half Window Insect Screens

Full insect screens are available for all venting windows. Andersen also offers the option of half insect screens for the lower sash of our double-hung windows.



Full Half

Conventional Insect Screens

Aluminum insect screens are available with frames finished in White, Stone, Gold Dust and in all interior painted options for casement, awning and venting transom windows. Insect screens for double-hung windows match product exterior.

TruScene® Insect Screen

Exclusive Andersen TruScene® insect screens provide over 50% more clarity than our conventional insect screens for a beautiful unobstructed view. They allow more fresh air and sunlight in, while doing a better job of keeping out small insects. For casement, awning and venting transom windows, frames are available in White, Stone or Gold Dust as well as all interior painted options, six wood veneers and six stain colors to match the interior finish. Insect screens for double-hung windows are installed on the exterior of the window and frames match product exterior.

Grilles

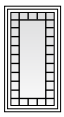
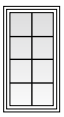
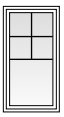
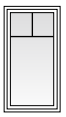
Grilles are available in a variety of configurations and widths. See pages 12-13 for details.

Exterior Trim

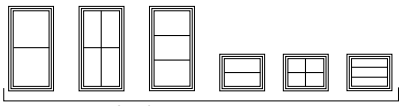
This product is available with Andersen Exterior Trim. See pages 173–178 for details.

* Actual wood species is either Sapele or Sipo, both non-endangered species grown in Africa, with color and characteristics similar to Central American mahoganies.
** Visit andersenwindows.com/warranty for details.
Dimensions in parentheses are in millimeters.

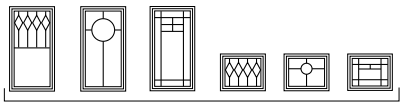
Grille Patterns

	Queen Anne	Diamond	Prairie A	Specified Equal Light with Simulated Check Rail	Colonial	Modified* Colonial	Modified* Colonial with Simulated Check Rail	Tall Fractional	Tall Fractional with Simulated Check Rail	Short Fractional	Short Fractional with Simulated Check Rail
Casement											
Awning											

*Location from top of window to bottom of divided light pattern is available at 8" (203), 10" (254), 12" (305), center and at custom dimensions.



Specified Equal Light Examples

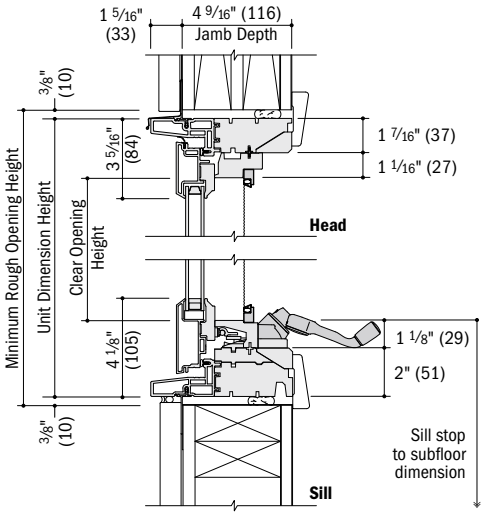


Custom Pattern Examples

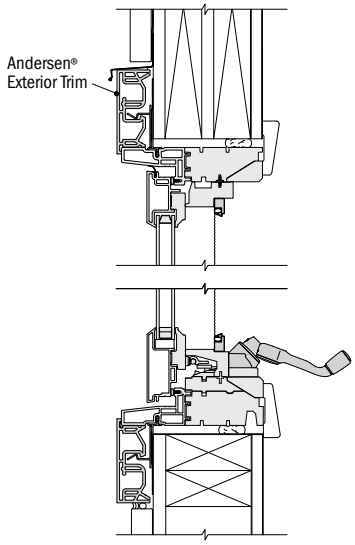
Number of lights and overall pattern varies with window size. Patterns shown may not be available for all sizes. Specified equal light and custom patterns are also available. For more information on divided light, see pages 12-13 or visit **andersenwindows.com/grilles**.

Awning Window Details

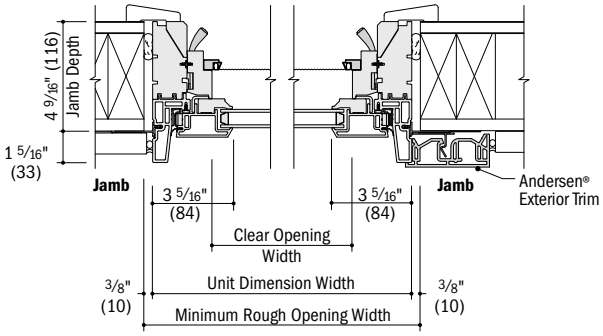
Scale 1 1/2" (38) = 1'-0" (305) – 1:8



Vertical Section



Vertical Section



Horizontal Section

See pages 64-66 for horizontal and vertical joining details.

- 4 9/16" (116) jamb depth measurement is from backside of installation flange.
- 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.
- **Rough openings may need to be increased to allow for use of building wraps, flashing, sill panning, brackets, fasteners or other items. See installation information on pages 236-237.**
- Details are for illustration only and are not intended to represent product installation methods or materials. Refer to product installation guides at andersenwindows.com.

DOUBLE-HUNG WINDOWS

Table of Double-Hung Window Sizes

Scale ⅛" (3) = 1'-0" (305) – 1:96

Notes on the next page also apply to this page.

Unit Dimension	1'-7 1/4" (489)	1'-11 1/4" (591)	2'-3 1/4" (692)	2'-5 1/4" (743)	2'-7 1/4" (794)	2'-9 1/4" (845)	2'-11 1/4" (895)	3'-1 1/4" (946)	3'-3 1/4" (997)	3'-7 1/4" (1099)	3'-11 1/4" (1200)
Minimum Rough Opening	1'-8" (508)	2'-0" (610)	2'-4" (711)	2'-6" (762)	2'-8" (813)	2'-10" (864)	3'-0" (914)	3'-2" (965)	3'-4" (1016)	3'-8" (1118)	4'-0" (1219)
Unobstructed Glass (lower sash only)	12 5/8" (321)	16 5/8" (422)	20 5/8" (524)	22 5/8" (575)	24 5/8" (625)	26 5/8" (676)	28 5/8" (727)	30 5/8" (778)	32 5/8" (829)	36 5/8" (930)	40 5/8" (1032)

CUSTOM WIDTHS – 15 1/4" to **47 1/4"**

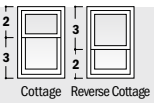
CUSTOM HEIGHTS – 27 1/4" to **95 1/4"**

2'-11 1/4" (895)	3'-0" (914)	12 13/16" (325)	**ADH**1830	**ADH**2030	**ADH**2430	**ADH**2630	**ADH**2830	**ADH**21030	**ADH**3030	**ADH**3230	**ADH**3430	**ADH**3830*	**ADH**4030*
3'-3 1/4" (997)	3'-4" (1016)	14 13/16" (376)	**ADH**1834	**ADH**2034	**ADH**2434	**ADH**2634	**ADH**2834	**ADH**21034	**ADH**3034	**ADH**3234	**ADH**3434	**ADH**3834*	**ADH**4034*
3'-7 1/4" (1099)	3'-8" (1118)	16 13/16" (427)	**ADH**1838	**ADH**2038	**ADH**2438	**ADH**2638	**ADH**2838	**ADH**21038	**ADH**3038	**ADH**3238	**ADH**3438	**ADH**3838*	**ADH**4038*
3'-11 1/4" (1200)	4'-0" (1219)	18 13/16" (478)	**ADH**1840	**ADH**2040	**ADH**2440	**ADH**2640	**ADH**2840	**ADH**21040	**ADH**3040	**ADH**3240	**ADH**3440	**ADH**3840*	**ADH**4040*
4'-3 1/4" (1302)	4'-4" (1321)	20 13/16" (529)	**ADH**1844	**ADH**2044	**ADH**2444	**ADH**2644	**ADH**2844	**ADH**21044	**ADH**3044	**ADH**3244	**ADH**3444	**ADH**3844*	**ADH**4044*
4'-7 1/4" (1403)	4'-8" (1422)	22 13/16" (579)	**ADH**1848	**ADH**2048	**ADH**2448	**ADH**2648	**ADH**2848	**ADH**21048	**ADH**3048	**ADH**3248	**ADH**3448	**ADH**3848*	**ADH**4048*
4'-11 1/4" (1505)	5'-0" (1524)	24 13/16" (630)	**ADH**1850	**ADH**2050	**ADH**2450	**ADH**2650	**ADH**2850	**ADH**21050	**ADH**3050	**ADH**3250◊	**ADH**3450◊	**ADH**3850◊*	**ADH**4050◊*
5'-3 1/4" (1607)	5'-4" (1626)	26 13/16" (681)	**ADH**1854	**ADH**2054	**ADH**2454	**ADH**2654	**ADH**2854	**ADH**21054	**ADH**3054◊	**ADH**3254◊	**ADH**3454◊	**ADH**3854◊*	**ADH**4054◊*
5'-7 1/4" (1708)	5'-8" (1727)	28 13/16" (732)	**ADH**1858	**ADH**2058	**ADH**2458	**ADH**2658	**ADH**2858	**ADH**21058◊	**ADH**3058◊	**ADH**3258◊	**ADH**3458◊	**ADH**3858◊*	**ADH**4058◊*
5'-11 1/4" (1810)	6'-0" (1829)	30 13/16" (783)	**ADH**1860	**ADH**2060	**ADH**2460	**ADH**2660	**ADH**2860◊	**ADH**21060◊	**ADH**3060◊	**ADH**3260◊	**ADH**3460◊	**ADH**3860◊*	**ADH**4060◊*
6'-3 1/4" (1911)	6'-4" (1930)	32 13/16" (833)	**ADH**1864	**ADH**2064	**ADH**2464	**ADH**2664◊	**ADH**2864◊	**ADH**21064◊	**ADH**3064◊	**ADH**3264◊	**ADH**3464◊	**ADH**3864◊*	**ADH**4064◊◆*

2:3 cottage or 3:2 reverse cottage sash ratio available for all standard widths and heights up to 6'-7 1/4" (2013).

CUSTOM WIDTHS – 15 1/4" to 47 1/4"

CUSTOM HEIGHTS – 31 3/4" to 80 7/8"



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DOUBLE-HUNG WINDOWS

Double-Hung Window Opening and Area Specifications

Window Number	Clear Opening Area Sq. Ft./(m^2)	Clear Opening in Full Open Position Width Inches/(mm)	Clear Opening in Full Open Position Height Inches/(mm)	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)
ADH1830	1.37 (0.13)	15 3/16" (386)	13" (330)	2.24 (0.21)	1.46 (0.14)	48 7/8" (1242)	4.71 (0.44)
ADH1834	1.58 (0.15)	15 3/16" (386)	15" (380)	2.59 (0.24)	1.67 (0.16)	44 7/8" (1140)	5.25 (0.49)
ADH1838	1.79 (0.17)	15 3/16" (386)	17" (431)	2.94 (0.27)	1.88 (0.17)	40 7/8" (1039)	5.78 (0.54)
ADH1840	2.00 (0.19)	15 3/16" (386)	19" (482)	3.29 (0.31)	2.09 (0.19)	36 7/8" (937)	6.32 (0.59)
ADH1844	2.21 (0.21)	15 3/16" (386)	21" (533)	3.64 (0.34)	2.30 (0.21)	32 7/8" (836)	6.85 (0.64)
ADH1848	2.42 (0.23)	15 3/16" (386)	23" (584)	3.99 (0.37)	2.51 (0.23)	28 7/8" (734)	7.39 (0.69)
ADH1850	2.64 (0.24)	15 3/16" (386)	25" (634)	4.34 (0.40)	2.72 (0.25)	24 7/8" (632)	7.92 (0.74)
ADH1854	2.85 (0.26)	15 3/16" (386)	27" (685)	4.69 (0.44)	2.94 (0.27)	20 7/8" (531)	8.46 (0.79)
ADH1858	3.06 (0.28)	15 3/16" (386)	29" (736)	5.04 (0.47)	3.15 (0.29)	16 7/8" (429)	8.99 (0.84)
ADH1860	3.27 (0.30)	15 3/16" (386)	31" (787)	5.39 (0.50)	3.36 (0.31)	12 7/8" (328)	9.52 (0.88)
ADH1864	3.48 (0.32)	15 3/16" (386)	33" (838)	5.74 (0.53)	3.56 (0.33)	8 7/8" (226)	10.06 (0.93)
ADH1868	3.69 (0.34)	15 3/16" (386)	35" (889)	6.09 (0.57)	3.78 (0.35)	* *	10.59 (0.98)
ADH1874	4.11 (0.38)	15 3/16" (386)	39" (991)	6.79 (0.63)	4.20 (0.39)	* *	11.66 (1.08)
ADH1880	4.53 (0.42)	15 3/16" (386)	43" (1092)	7.49 (0.70)	4.62 (0.43)	* *	12.73 (1.18)
ADH2030	1.73 (0.16)	19 3/16" (488)	13" (330)	2.95 (0.27)	1.84 (0.17)	48 7/8" (1242)	5.69 (0.53)
ADH2034	2.00 (0.19)	19 3/16" (488)	15" (380)	3.41 (0.32)	2.11 (0.20)	44 7/8" (1140)	6.34 (0.59)
ADH2038	2.26 (0.21)	19 3/16" (488)	17" (431)	3.87 (0.36)	2.38 (0.22)	40 7/8" (1039)	6.98 (0.65)
ADH2040	2.53 (0.24)	19 3/16" (488)	19" (482)	4.33 (0.40)	2.64 (0.25)	36 7/8" (937)	7.63 (0.71)
ADH2044	2.80 (0.26)	19 3/16" (488)	21" (533)	4.80 (0.45)	2.91 (0.27)	32 7/8" (836)	8.27 (0.77)
ADH2048	3.06 (0.28)	19 3/16" (488)	23" (584)	5.26 (0.49)	3.18 (0.29)	28 7/8" (734)	8.92 (0.83)
ADH2050	3.33 (0.31)	19 3/16" (488)	25" (634)	5.72 (0.53)	3.44 (0.32)	24 7/8" (632)	9.57 (0.89)
ADH2054	3.60 (0.33)	19 3/16" (488)	27" (685)	6.18 (0.57)	3.71 (0.34)	20 7/8" (531)	10.21 (0.95)
ADH2058	3.86 (0.36)	19 3/16" (488)	29" (736)	6.64 (0.62)	3.98 (0.37)	16 7/8" (429)	10.86 (1.01)
ADH2060	4.13 (0.38)	19 3/16" (488)	31" (787)	7.10 (0.66)	4.24 (0.39)	12 7/8" (328)	11.50 (1.07)
ADH2064	4.40 (0.41)	19 3/16" (488)	33" (838)	7.56 (0.70)	4.50 (0.42)	8 7/8" (226)	12.15 (1.13)
ADH2068	4.66 (0.43)	19 3/16" (488)	35" (889)	8.02 (0.75)	4.77 (0.44)	* *	12.80 (1.19)
ADH2074	5.20 (0.48)	19 3/16" (488)	39" (991)	8.95 (0.83)	5.30 (0.49)	* *	14.09 (1.31)
ADH2080	5.73 (0.53)	19 3/16" (488)	43" (1092)	9.87 (0.92)	5.84 (0.54)	* *	15.38 (1.43)
ADH2430	2.09 (0.19)	23 3/16" (589)	13" (330)	3.66 (0.34)	2.23 (0.21)	48 7/8" (1242)	6.67 (0.62)
ADH2434	2.41 (0.22)	23 3/16" (589)	15" (380)	4.24 (0.39)	2.55 (0.24)	44 7/8" (1140)	7.43 (0.69)
ADH2438	2.73 (0.25)	23 3/16" (589)	17" (431)	4.81 (0.45)	2.87 (0.27)	40 7/8" (1039)	8.18 (0.76)
ADH2440	3.06 (0.28)	23 3/16" (589)	19" (482)	5.38 (0.50)	3.19 (0.30)	36 7/8" (937)	8.94 (0.83)
ADH2444	3.38 (0.31)	23 3/16" (589)	21" (533)	5.95 (0.55)	3.51 (0.33)	32 7/8" (836)	9.70 (0.90)
ADH2448	3.70 (0.34)	23 3/16" (589)	23" (584)	6.52 (0.61)	3.84 (0.36)	28 7/8" (734)	10.46 (0.97)
ADH2450	4.02 (0.37)	23 3/16" (589)	25" (634)	7.10 (0.66)	4.16 (0.39)	24 7/8" (632)	11.21 (1.04)
ADH2454	4.35 (0.40)	23 3/16" (589)	27" (685)	7.67 (0.71)	4.48 (0.42)	20 7/8" (531)	11.97 (1.11)
ADH2458	4.67 (0.43)	23 3/16" (589)	29" (736)	8.24 (0.77)	4.80 (0.45)	16 7/8" (429)	12.73 (1.18)
ADH2460	4.99 (0.46)	23 3/16" (589)	31" (787)	8.81 (0.82)	5.13 (0.48)	12 7/8" (328)	13.48 (1.25)
ADH2464	5.31 (0.49)	23 3/16" (589)	33" (838)	9.39 (0.87)	5.44 (0.51)	8 7/8" (226)	14.24 (1.32)
ADH2468	5.63 (0.52)	23 3/16" (589)	35" (889)	9.96 (0.93)	5.76 (0.54)	* *	15.00 (1.39)
ADH2474 ◊	6.28 (0.58)	23 3/16" (589)	39" (991)	11.10 (1.03)	6.41 (0.60)	* *	16.51 (1.53)
ADH2480 ◊	6.92 (0.64)	23 3/16" (589)	43" (1092)	12.25 (1.14)	7.05 (0.66)	* *	18.02 (1.67)
ADH2630	2.27 (0.21)	25 3/16" (640)	13" (330)	4.02 (0.37)	2.42 (0.22)	48 7/8" (1242)	7.16 (0.67)
ADH2634	2.62 (0.24)	25 3/16" (640)	15" (380)	4.65 (0.43)	2.77 (0.26)	44 7/8" (1140)	7.97 (0.74)
ADH2638	2.97 (0.28)	25 3/16" (640)	17" (431)	5.27 (0.49)	3.12 (0.29)	40 7/8" (1039)	8.79 (0.82)
ADH2640	3.32 (0.31)	25 3/16" (640)	19" (482)	5.90 (0.55)	3.47 (0.32)	36 7/8" (937)	9.60 (0.89)
ADH2644	3.67 (0.34)	25 3/16" (640)	21" (533)	6.53 (0.61)	3.82 (0.35)	32 7/8" (836)	10.41 (0.97)
ADH2648	4.02 (0.37)	25 3/16" (640)	23" (584)	7.16 (0.66)	4.17 (0.39)	28 7/8" (734)	11.22 (1.04)
ADH2650	4.37 (0.41)	25 3/16" (640)	25" (634)	7.79 (0.72)	4.52 (0.42)	24 7/8" (632)	12.04 (1.12)
ADH2654	4.72 (0.44)	25 3/16" (640)	27" (685)	8.41 (0.78)	4.87 (0.45)	20 7/8" (531)	12.85 (1.19)
ADH2658	5.07 (0.47)	25 3/16" (640)	29" (736)	9.04 (0.84)	5.22 (0.48)	16 7/8" (429)	13.66 (1.27)
ADH2660	5.42 (0.50)	25 3/16" (640)	31" (787)	9.67 (0.90)	5.57 (0.52)	12 7/8" (328)	14.47 (1.34)
ADH2664 ◊	5.77 (0.54)	25 3/16" (640)	33" (838)	10.30 (0.96)	5.91 (0.55)	8 7/8" (226)	15.29 (1.42)
ADH2668 ◊	6.12 (0.57)	25 3/16" (640)	35" (889)	10.92 (1.01)	6.26 (0.58)	* *	16.10 (1.50)
ADH2674 ◊	6.82 (0.63)	25 3/16" (640)	39" (991)	12.18 (1.13)	6.96 (0.65)	* *	17.72 (1.65)
ADH2680 ◊	7.52 (0.70)	25 3/16" (640)	43" (1092)	13.44 (1.25)	7.66 (0.71)	* *	19.35 (1.80)
ADH2830	2.45 (0.23)	27 3/16" (691)	13" (330)	4.37 (0.41)	2.61 (0.24)	48 7/8" (1242)	7.65 (0.71)
ADH2834	2.83 (0.26)	27 3/16" (691)	15" (380)	5.06 (0.47)	2.99 (0.28)	44 7/8" (1140)	8.52 (0.79)

• "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.
◊Meet or exceed clear opening area of 5.7 sq.ft. or 0.53 m^2, clear opening width of 20" (508) and clear opening height of 24" (610).
*Dimension varies depending on header height.

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For cottage and reverse cottage sash opening specifications, visit **andersenwindows.com/openingspecs**.

Double-Hung Window Opening and Area Specifications *(continued)*

Window Number	Clear Opening Area Sq. Ft./(m²)	Clear Opening in Full Open Position Width Inches/(mm)	Clear Opening in Full Open Position Height Inches/(mm)	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)
ADH2838	3.21 (0.30)	27 3/16" (691)	17" (431)	5.74 (0.53)	3.37 (0.31)	40 7/8" (1039)	9.39 (0.87)
ADH2840	3.58 (0.33)	27 3/16" (691)	19" (482)	6.42 (0.60)	3.74 (0.35)	36 7/8" (937)	10.25 (0.95)
ADH2844	3.96 (0.37)	27 3/16" (691)	21" (533)	7.11 (0.66)	4.12 (0.38)	32 7/8" (836)	11.12 (1.03)
ADH2848	4.34 (0.40)	27 3/16" 691)	23" (584)	7.79 (0.72)	4.50 (0.42)	28 7/8" (734)	11.99 (1.11)
ADH2850	4.72 (0.44)	27 3/16" (691)	25" (634)	8.47 (0.79)	4.88 (0.45)	24 7/8" (632)	12.86 (1.19)
ADH2854	5.10 (0.47)	27 3/16" (691)	27" (685)	9.16 (0.85)	5.25 (0.49)	20 7/8" (531)	13.73 (1.28)
ADH2858	5.47 (0.51)	27 3/16" (691)	29" (736)	9.84 (0.91)	5.63 (0.52)	16 7/8" (429)	14.59 (1.36)
ADH2860 ◊	5.85 (0.54)	27 3/16" (691)	31" (787)	10.52 (0.98)	6.01 (0.56)	12 7/8" (328)	15.46 (1.44)
ADH2864 ◊	6.23 (0.58)	27 3/16" (691)	33" (838)	11.21 (1.04)	6.38 (0.59)	8 7/8" (226)	16.33 (1.52)
ADH2868 ◊	6.61 (0.61)	27 3/16" (691)	35" (889)	11.89 (1.10)	6.76 (0.63)	* *	17.20 (1.60)
ADH2874 ◊	7.36 (0.68)	27 3/16" (691)	39" (991)	13.26 (1.23)	7.51 (0.70)	* *	18.93 (1.76)
ADH2880 ◊	8.12 (0.75)	27 3/16" (691)	43" (1092)	14.62 (1.36)	8.27 (0.77)	* *	20.67 (1.92)
ADH21030	2.63 (0.24)	29 3/16" (742)	13" (330)	4.73 (0.44)	2.80 (0.26)	48 7/8" (1242)	8.14 (0.76)
ADH21034	3.04 (0.28)	29 3/16" (742)	15" (380)	5.47 (0.51)	3.21 (0.30)	44 7/8" (1140)	9.06 (0.84)
ADH21038	3.44 (0.32)	29 3/16" (742)	17" (431)	6.21 (0.58)	3.61 (0.34)	40 7/8" (1039)	9.99 (0.93)
ADH21040	3.85 (0.36)	29 3/16" (742)	19" (482)	6.95 (0.65)	4.02 (0.37)	36 7/8" (937)	10.91 (1.01)
ADH21044	4.25 (0.40)	29 3/16" (742)	21" (533)	7.69 (0.71)	4.42 (0.41)	32 7/8" (836)	11.83 (1.10)
ADH21048	4.66 (0.43)	29 3/16" (742)	23" (584)	8.42 (0.78)	4.83 (0.45)	28 7/8" (734)	12.76 (1.19)
ADH21050	5.06 (0.47)	29 3/16" (742)	25" (634)	9.16 (0.85)	5.24 (0.49)	24 7/8" (632)	13.68 (1.27)
ADH21054	5.47 (0.51)	29 3/16" (742)	27" (685)	9.90 (0.92)	5.64 (0.52)	20 7/8" (531)	14.60 (1.36)
ADH21058 ◊	5.88 (0.55)	29 3/16" (742)	29" (736)	10.64 (0.99)	6.05 (0.56)	16 7/8" (429)	15.53 (1.44)
ADH21060 ◊	6.28 (0.58)	29 3/16" (742)	31" (787)	11.38 (1.06)	6.45 (0.60)	12 7/8" (328)	16.45 (1.53)
ADH21064 ◊	6.69 (0.62)	29 3/16" (742)	33" (838)	12.12 (1.13)	6.85 (0.64)	8 7/8" (226)	17.38 (1.61)
ADH21068 ◊	7.09 (0.66)	29 3/16" (742)	35" (889)	12.86 (1.19)	7.25 (0.67)	* *	18.30 (1.70)
ADH21074 ◊	7.90 (0.73)	29 3/16" (742)	39" (991)	14.34 (1.33)	8.07 (0.75)	* *	20.15 (1.87)
ADH21080 ◊	8.71 (0.81)	29 3/16" (742)	43" (1092)	15.81 (1.47)	8.88 (0.82)	* *	21.99 (2.04)
ADH3030	2.81 (0.26)	31 3/16" (792)	13" (330)	5.09 (0.47)	2.99 (0.28)	48 7/8" (1242)	8.63 (0.80)
ADH3034	3.25 (0.30)	31 3/16" (792)	15" (380)	5.88 (0.55)	3.43 (0.32)	44 7/8" (1140)	9.61 (0.89)
ADH3038	3.68 (0.34)	31 3/16" (792)	17" (431)	6.67 (0.62)	3.86 (0.36)	40 7/8" (1039)	10.59 (0.98)
ADH3040	4.11 (0.38)	31 3/16" (792)	19" (482)	7.47 (0.69)	4.29 (0.40)	36 7/8" (937)	11.57 (1.07)
ADH3044	4.54 (0.42)	31 3/16" (792)	21" (533)	8.26 (0.77)	4.73 (0.44)	32 7/8" (836)	12.55 (1.17)
ADH3048	4.98 (0.46)	31 3/16" (792)	23" (584)	9.06 (0.84)	5.16 (0.48)	28 7/8" (734)	13.52 (1.26)
ADH3050	5.41 (0.50)	31 3/16" (792)	25" (634)	9.85 (0.92)	5.59 (0.52)	24 7/8" (632)	14.50 (1.35)
ADH3054 ◊	5.84 (0.54)	31 3/16" (792)	27" (685)	10.65 (0.99)	6.03 (0.56)	20 7/8" (531)	15.48 (1.44)
ADH3058 ◊	6.28 (0.58)	31 3/16" (792)	29" (736)	11.44 (1.06)	6.46 (0.60)	16 7/8" (429)	16.46 (1.53)
ADH3060 ◊	6.71 (0.62)	31 3/16" (792)	31" (787)	12.24 (1.14)	6.89 (0.64)	12 7/8" (328)	17.44 (1.62)
ADH3064 ◊	7.14 (0.66)	31 3/16" (792)	33" (838)	13.03 (1.21)	7.32 (0.68)	8 7/8" (226)	18.42 (1.71)
ADH3068 ◊	7.58 (0.70)	31 3/16" (792)	35" (889)	13.82 (1.28)	7.75 (0.72)	* *	19.40 (1.80)
ADH3074 ◊	8.44 (0.78)	31 3/16" (792)	39" (991)	15.41 (1.43)	8.62 (0.80)	* *	21.36 (1.98)
ADH3080 ◊	9.31 (0.86)	31 3/16" (792)	43" (1092)	17.00 (1.58)	9.48 (0.88)	* *	23.32 (2.17)
ADH3230	2.99 (0.28)	33 3/16" (843)	13" (330)	5.44 (0.51)	3.19 (0.30)	48 7/8" (1242)	9.12 (0.85)
ADH3234	3.45 (0.32)	33 3/16" (843)	15" (380)	6.29 (0.58)	3.65 (0.34)	44 7/8" (1140)	10.15 (0.94)
ADH3238	3.91 (0.36)	33 3/16" (843)	17" (431)	7.14 (0.66)	4.11 (0.38)	40 7/8" (1039)	11.19 (1.04)
ADH3240	4.38 (0.41)	33 3/16" (843)	19" (482)	7.99 (0.74)	4.57 (0.42)	36 7/8" (937)	12.22 (1.14)
ADH3244	4.84 (0.45)	33 3/16" (843)	21" (533)	8.84 (0.82)	5.03 (0.47)	32 7/8" (836)	13.26 (1.23)
ADH3248	5.30 (0.49)	33 3/16" (843)	23" (584)	9.69 (0.90)	5.49 (0.51)	28 7/8" (734)	14.29 (1.33)
ADH3250 ◊	5.76 (0.53)	33 3/16" (843)	25" (634)	10.54 (0.98)	5.95 (0.55)	24 7/8" (632)	15.33 (1.42)
ADH3254 ◊	6.22 (0.58)	33 3/16" (843)	27" (685)	11.39 (1.06)	6.41 (0.60)	20 7/8" (531)	16.36 (1.52)
ADH3258 ◊	6.68 (0.62)	33 3/16" (843)	29" (736)	12.24 (1.14)	6.87 (0.64)	16 7/8" (429)	17.40 (1.62)
ADH3260 ◊	7.14 (0.66)	33 3/16" (843)	31" (787)	13.09 (1.22)	7.34 (0.68)	12 7/8" (328)	18.43 (1.71)
ADH3264 ◊	7.60 (0.71)	33 3/16" (843)	33" (838)	13.94 (1.30)	7.79 (0.72)	8 7/8" (226)	19.47 (1.81)
ADH3268 ◊	8.06 (0.75)	33 3/16" (843)	35" (889)	14.79 (1.37)	8.25 (0.77)	* *	20.50 (1.90)
ADH3274 ◊	8.99 (0.83)	33 3/16" (843)	39" (991)	16.49 (1.53)	9.17 (0.85)	* *	22.57 (2.10)
ADH3280 ◊	9.91 (0.92)	33 3/16" (843)	43" (1092)	18.19 (1.69)	10.09 (0.94)	* *	24.64 (2.29)
ADH3430	3.17 (0.29)	35 3/16" (894)	13" (330)	5.80 (0.54)	3.38 (0.31)	48 7/8" (1242)	9.61 (0.89)
ADH3434	3.66 (0.34)	35 3/16" (894)	15" (380)	6.70 (0.62)	3.87 (0.36)	44 7/8" (1140)	10.70 (0.99)
ADH3438	4.15 (0.39)	35 3/16" (894)	17" (431)	7.61 (0.71)	4.36 (0.40)	40 7/8" (1039)	11.79 (1.10)
ADH3440	4.64 (0.43)	35 3/16" (894)	19" (482)	8.51 (0.79)	4.84 (0.45)	36 7/8" (937)	12.88 (1.20)

• "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.
◊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).
*Dimension varies depending on header height.

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DOUBLE-HUNG WINDOWS

Double-Hung Window Opening and Area Specifications *(continued)*

Window Number	Clear Opening Area Sq. Ft./(m²)	Clear Opening in Full Open Position Width Inches/(mm)	Clear Opening in Full Open Position Height Inches/(mm)	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)
ADH3444	5.13 (0.48)	35 3/16" (894)	21" (533)	9.42 (0.87)	5.33 (0.50)	32 7/8" (836)	13.97 (1.30)
ADH3448	5.62 (0.52)	35 3/16" (894)	23" (584)	10.32 (0.96)	5.82 (0.54)	28 7/8" (734)	15.06 (1.40)
ADH3450 ◊	6.11 (0.57)	35 3/16" (894)	25" (634)	11.23 (1.04)	6.31 (0.59)	24 7/8" (632)	16.15 (1.50)
ADH3454 ◊	6.59 (0.61)	35 3/16" (894)	27" (685)	12.14 (1.13)	6.80 (0.63)	20 7/8" (531)	17.24 (1.60)
ADH3458 ◊	7.08 (0.66)	35 3/16" (894)	29" (736)	13.04 (1.21)	7.29 (0.68)	16 7/8" (429)	18.33 (1.70)
ADH3460 ◊	7.57 (0.70)	35 3/16" (894)	31" (787)	13.95 (1.30)	7.78 (0.72)	12 7/8" (328)	19.42 (1.80)
ADH3464 ◊	8.06 (0.75)	35 3/16" (894)	33" (838)	14.85 (1.38)	8.26 (0.77)	8 7/8" (226)	20.51 (1.91)
ADH3468 ◊	8.55 (0.79)	35 3/16" (894)	35" (889)	15.76 (1.46)	8.74 (0.81)	* *	21.60 (2.01)
ADH3474 ◊	9.53 (0.89)	35 3/16" (894)	39" (991)	17.57 (1.63)	9.72 (0.90)	* *	23.78 (2.21)
ADH3480 ◊	10.50 (0.98)	35 3/16" (894)	43" (1092)	19.38 (1.80)	10.70 (0.99)	* *	25.96 (2.41)
ADH3830	3.53 (0.33)	39 3/16" (996)	13" (330)	6.51 (0.60)	3.76 (0.35)	48 7/8" (1242)	10.59 (0.98)
ADH3834	4.08 (0.38)	39 3/16" (996)	15" (380)	7.52 (0.70)	4.31 (0.40)	44 7/8" (1140)	11.79 (1.10)
ADH3838	4.62 (0.43)	39 3/16" (996)	17" (431)	8.54 (0.79)	4.85 (0.45)	40 7/8" (1039)	12.99 (1.21)
ADH3840	5.17 (0.48)	39 3/16" (996)	19" (482)	9.56 (0.89)	5.40 (0.50)	36 7/8" (937)	14.19 (1.32)
ADH3844	5.71 (0.53)	39 3/16" (996)	21" (533)	10.57 (0.98)	5.94 (0.55)	32 7/8" (836)	15.39 (1.43)
ADH3848	6.25 (0.58)	39 3/16" (996)	23" (584)	11.59 (1.08)	6.48 (0.60)	28 7/8" (734)	16.59 (1.54)
ADH3850 ◊	6.80 (0.63)	39 3/16" (996)	25" (634)	12.61 (1.17)	7.03 (0.65)	24 7/8" (632)	17.80 (1.65)
ADH3854 ◊	7.34 (0.68)	39 3/16" (996)	27" (685)	13.62 (1.27)	7.57 (0.70)	20 7/8" (531)	19.00 (1.76)
ADH3858 ◊	7.89 (0.73)	39 3/16" (996)	29" (736)	14.64 (1.36)	8.12 (0.75)	16 7/8" (429)	20.20 (1.88)
ADH3860 ◊	8.43 (0.78)	39 3/16" (996)	31" (787)	15.66 (1.45)	8.66 (0.80)	12 7/8" (328)	21.40 (1.99)
ADH3864 ◊	8.98 (0.83)	39 3/16" (996)	33" (838)	16.67 (1.55)	9.19 (0.85)	8 7/8" (226)	22.60 (2.10)
ADH3868 ◊	9.52 (0.88)	39 3/16" (996)	35" (889)	17.69 (1.64)	9.74 (0.90)	* *	23.80 (2.21)
ADH3874 ◊	10.61 (0.99)	39 3/16" (996)	39" (991)	19.72 (1.83)	10.83 (1.01)	* *	26.21 (2.43)
ADH3880 ◊	11.70 (1.09)	39 3/16" (996)	43" (1092)	21.76 (2.02)	11.92 (1.11)	* *	28.61 (2.66)
ADH4030	3.89 (0.36)	43 3/16" (1097)	13" (330)	7.22 (0.67)	4.15 (0.39)	48 7/8" (1242)	11.57 (1.07)
ADH4034	4.49 (0.42)	43 3/16" (1097)	15" (380)	8.35 (0.78)	4.75 (0.44)	44 7/8" (1140)	12.88 (1.20)
ADH4038	5.09 (0.47)	43 3/16" (1097)	17" (431)	9.47 (0.88)	5.35 (0.50)	40 7/8" (1039)	14.19 (1.32)
ADH4040	5.69 (0.53)	43 3/16" (1097)	19" (482)	10.60 (0.98)	5.95 (0.55)	36 7/8" (937)	15.50 (1.44)
ADH4044	6.29 (0.58)	43 3/16" (1097)	21" (533)	11.73 (1.09)	6.55 (0.61)	32 7/8" (836)	16.82 (1.56)
ADH4048	6.89 (0.64)	43 3/16" (1097)	23" (584)	12.86 (1.19)	7.15 (0.66)	28 7/8" (734)	18.13 (1.68)
ADH4050 ◊	7.49 (0.70)	43 3/16" (1097)	25" (634)	13.99 (1.30)	7.75 (0.72)	24 7/8" (632)	19.44 (1.81)
ADH4054 ◊	8.09 (0.75)	43 3/16" (1097)	27" (685)	15.11 (1.40)	8.35 (0.78)	20 7/8" (531)	20.75 (1.93)
ADH4058 ◊	8.69 (0.81)	43 3/16" (1097)	29" (736)	16.24 (1.51)	8.95 (0.83)	16 7/8" (429)	22.07 (2.05)
ADH4060 ◊	9.29 (0.86)	43 3/16" (1097)	31" (787)	17.37 (1.61)	9.55 (0.89)	12 7/8" (328)	23.38 (2.17)
ADH4064 ◊	9.89 (0.92)	43 3/16" (1097)	33" (838)	18.50 (1.72)	10.13 (0.94)	8 7/8" (226)	24.96 (2.29)
ADH4068 ◊	10.49 (0.97)	43 3/16" (1097)	35" (889)	19.62 (1.82)	10.73 (1.00)	* *	26.00 (2.42)
ADH4074 ◊	11.69 (1.09)	43 3/16" (1097)	39" (991)	21.88 (2.03)	11.93 (1.11)	* *	28.63 (2.66)
ADH4080 ◊	12.89 (1.20)	43 3/16" (1097)	43" (1092)	24.14 (2.24)	13.13 (1.22)	* *	31.25 (2.90)

- "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.

◊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).

*Dimension varies depending on header height.

For cottage and reverse cottage sash opening specifications, visit **andersenwindows.com/openingspecs**.

IMPROVING THE VIEW OUTSIDE

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Andersen products are certified under the National Fenestration Rating Council's voluntary third-party certification program designed to ensure accurate energy performance ratings and labeling.

FSC www.fsc.org FSC® C016636 The mark of responsible forestry

Andersen was one of the first U.S. window manufacturers to receive Forest Stewardship Council® (FSC®) Chain-of-Custody certification (FSC-CO16636). This certification is awarded to companies that meet FSC standards for traceability in their wood supply chain.

WINDOW & DOOR MANUFACTURERS ASSOCIATION WDMA

The Window & Door Manufacturers Association (WDMA) Hallmark Certification program includes product testing and quality-control process audits to verify that Andersen windows and doors are produced in conformance with the industry standards for air, water resistance and structural performance.

ENERGY STAR PARTNER

Andersen Corporation is proud to be an ENERGY STAR® partner. For over 100 years, Andersen has built a reputation for environmental stewardship and energy-efficient products. In fact, Andersen has been part of the ENERGY STAR program since it started and was the first window manufacturer to be named an ENERGY STAR National Window Partner of the Year in 1999.

* Visit andersenwindows.com/warranty for details.

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

As a charter member of the U.S. Green Building Council, we are active supporters of certified green buildings. Our products can help customers in pursuing green building programs, such as Leadership in Energy and Environmental Design (LEED®), the National Green Building Standard, Green Globes, GreenStar and more.

Below is an overview of how our products may assist project teams with pursuing LEED v4 or the NAHB National Green Building Standard rating systems. More detailed credit summaries, as well as information about how Andersen products can support earlier versions of LEED certification (e.g., **LEED v3** or **LEED 2008**), are available at **andersenwindows.com.**

LEED v4 FOR BUILDING DESIGN AND CONSTRUCTION: NEW CONSTRUCTION AND MAJOR RENOVATIONS

Integrative Process Credit:

Energy & Atmosphere

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

Materials & Resources

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

Indoor Environmental Quality

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

LEED v4 FOR BUILDING DESIGN AND CONSTRUCTION: HOMES AND MULTI-FAMILY MIDRISES

Energy & Atmosphere

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

Materials & Resources

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

Indoor Environmental Quality

- Ventilation prerequisite
- Low-emitting products credit

ANSI ICC/ASHRAE 700-2015 NATIONAL GREEN BUILDING STANDARD

NGBS section numbers are referenced in parentheses.

Resource Efficiency

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

Energy Efficiency

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

Indoor Environmental Quality

- Wood materials (901.4)
- Interior architectural coatings (901.9)
- Interior adhesives & sealants (901.10)
- Operable windows & sliding glass doors (902.1.5)

Energy Efficient

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

INSTALLATION ACCESSORIES

Listed are optional accessories available for the installation of Andersen® windows and doors. You'll also find key considerations regarding the use and installation of every Andersen product. Keep the instruction guidelines and safety information in mind when considering the installation and use of any Andersen product. Should you have any questions, contact your local Andersen supplier. Thank you for considering and using Andersen products.

COIL STOCK

Andersen aluminum coil stock can be ordered to match any of our 11 trim colors. Made from .018-thick aluminum, coil stock is available in 24" (610) x 50' (15240) rolls. Color-matched 1 1/4" (32) stainless steel trim nails are also available and can be ordered in 1 lb or .454 kg boxes.

FIBREX® TRIM BOARD

Andersen offers a 3 1/2" (89) wide by 3/4" (19) thick cellular Fibrex trim board in 10' (3048) lengths. Available in the same 11 colors as the exterior trim system, this solid trim board can be cut or ripped to size and can be fastened using nails or screws.

CONTINUOUS DRIP CAP

Included on A-Series with vertical (ribbon) joins. Heavy 24-gauge corrosion-resistant aluminum construction. Available in 6' (1829), 10' (3048) and 12'–7 1/2" (3848) lengths and in any of the 11 trim colors.

VINYL CHANNELS AND LAMINATED BOARD

Rigid vinyl "J," "h" and "H" channel and vinyl laminated board.

EXTENSION JAMBS

Available for most Andersen products. See individual sections for details.

COLOR-MATCHED SEALANT

Color-matched sealant is available in Andersen exterior colors. This high-quality sealant can be used during the installation of all Andersen products.

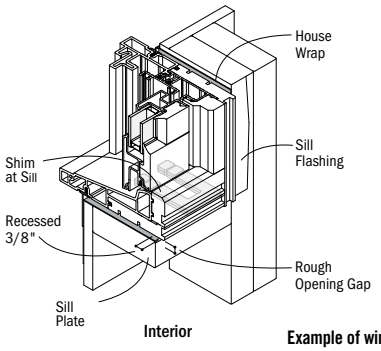
	COLOR	LENGTH	DEPTH	WIDTH
Fibrex® Trim Board	11 colors	120" (3048)	3/4" (19)	3 1/2" (89)
Vinyl Laminated Board	W,S,T	96" (2438)	1/2" (13)	24" (610)
	W	96" (2438) & 120 (3048)	1/2" (13)	48" (1219)
Rigid Vinyl "H" Channel	W	84" (2134) & 150" (3810)	3/4" (19)	1" (25)
	S,T	84" (2134) & 150" (3810)	3/4" (19)	3/4" (19)
Rigid Vinyl "h" Channel	W,S,T	150" (3810)	1/2" (13)	1" (25)
Rigid Vinyl "J" Channel	W,S,T	150" (3810)	1/2" (13)	3/4" (19)

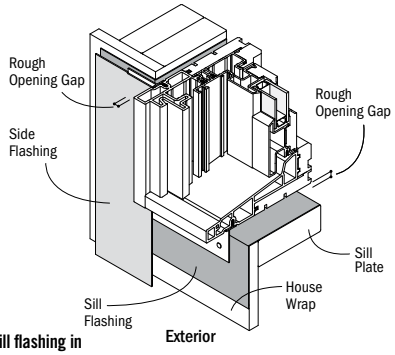
INSTALLATION INFORMATION

ROUGH OPENINGS

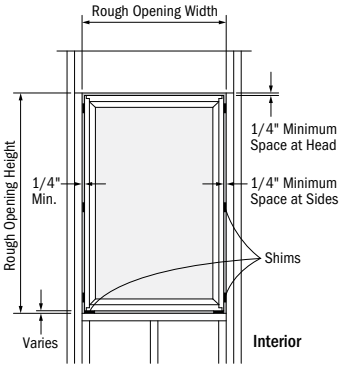
The purpose of a rough opening is to allow for proper spacing between the window or patio door unit and the building structure. The space is required for locating, leveling and squaring the unit during installation and to provide an area for insulation. A rough opening that is incorrectly sized may affect unit operation and may not allow for adequate fastening of the unit to the building structure. Andersen rough opening dimensions are provided as a guideline to help determine the minimum amount of space needed between the window or patio door and the building structure. See appropriate product sections for rough opening guidelines for each product.

Keep in mind that rough opening dimensions may need to be altered from published guidelines, depending on installation methods, joining methods, replacement methods, etc. For example, flashing systems can reduce the amount of available rough opening space and should be factored in when calculating rough opening dimensions. The use of support or joining materials will encroach on the rough opening and may require additional rough opening space between the unit and the building structure, depending on the thickness of the flashing system and joining materials used. To facilitate drainage, the sill plate should never slope toward the interior. For challenging environments and other information, refer to EEBA's (Energy and Environmental Building Association) Water Management Guide (**www.eeba.org**).

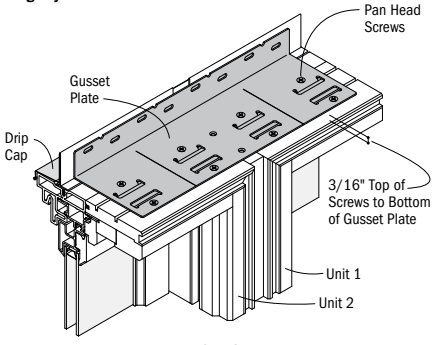




Example of window sill flashing in a membrane drainage system.



Example of window unit installed using Andersen published minimum rough opening dimensions.



Example of two units joined together with the use of gusset plates and pan head screws that will require additional rough opening space.

IMPORTANCE OF PROPER INSTALLATION

Proper installation and maintenance of Andersen products is essential to attain optimum performance and operation. Installation instructions that provide guidelines for proper installation are typically provided with Andersen products. They are also available by visiting **andersenwindows.com.** Remember that every installation is different, and Andersen strongly recommends consultation with the local supplier or an experienced contractor, architect or structural engineer prior to the installation of any Andersen product. The method of attachment for Andersen products, fastener selection and code compliance is the responsibility of the architect, building owner, contractor, installer and/or consumer. For more complete installation details, visit **andersenwindows.com** or see your Andersen supplier.

Dimensions in parentheses are in millimeters.

GENERAL NOTES

When ordering, make certain you specify, then verify, the exact product, unit dimensions, configuration requirements, color and options you desire on each window or patio door. Before installing the product, we suggest you verify that it includes the features and options you ordered. Visit **andersenwindows.com** for product installation and joining guides. Printing limitations prohibit exact color duplication of products. View actual samples for building specifications. Andersen Corporation reserves the right to change details, specifications or sizes without notice. The customer assumes all risk of alterations made to Andersen® products.

CODES

Appropriate selection of Andersen products that conform to all applicable laws, ordinances, building codes and safety requirements is the sole responsibility of the architect, designer, building owner and/or contractor. Check with your local building code officials for specific information. Unit wind load, performance grade and energy performance information is provided on pages 206-233. For up-to-date product performance information, visit **andersenwindows.com**. The performance of any building system depends on the design and construction of the building system in its entirety, which should meet building code requirements, as well as address product and material limitations and local environment and climate.

DRIP CAPS

Drip caps are a specific type of flashing or trim that is used at the head of a window or door to direct water from the drainage plane out beyond the face of the unit.

FLASHING

Flashing is an important element in a building's water management system. It is used to shed and direct water to the building exterior or to the drainage plane. Flashing materials are typically applied starting from the bottom and working upward, with each successive layer overlapping the previous one in shingle fashion. Water infiltration problems in any type of building can be reduced by properly flashing and/or sealing around all building openings, including windows and doors.

USE OF SHIMS

Shims are used along the side jambs of windows and doors to center the unit in the rough opening and to position it plumb, level and square. In addition, shims are always required for windows only under the sill at the side jambs to lift it off the sill plate. Shims also enable a straight frame for proper weatherstrip contact and unit operation. If not placed properly, unit performance and operation can be affected. Use waterproof shims capable of supporting the weight of the product. When using tapered shims, use them in pairs with the tapers opposing each other to avoid tilting the unit or twisting (rotating) of the jambs.

SEALANTS

Sealants are elastic materials used to block the passage of water and/or air while allowing movement between the two sides of the joint. A sealant should bond tightly and be able to expand and contract to accommodate joint movement without cracking or tearing away from the substrate. Surfaces must be clean, dry and sound for adequate sealant adhesion. Choose a sealant that is compatible with, and that will adhere adequately to, all building materials used in the window and patio door area. Proper sealant joint design is based upon the expected movement of adjacent materials and the movement capability of the sealant. A general rule of thumb is that the depth of the sealant joint should be equal to half the width (D= W/2), but generally not less than 1/4" (6) or more than 1/2" (13). Foam-plastic backer rod can be used to limit the depth of the sealant joint, to provide a backstop for tooling the sealant without damage to the bond. It also acts as a bond breaker to help minimize stress in the sealant. Sealants should be maintained seasonally and repaired and/or replaced as needed.

GENERAL INSTALLATION GUIDELINES

1. Read and follow the installation guide in its entirety.
2. Decide whether you are integrating to a surface barrier or a membrane drainage system before installing the product. The appropriate method for your installation may vary based on building design, application and industry practices.
3. Make certain the drainage plane is continuous (proper overlaps to shed water, taped seams, etc.).
4. Andersen products should be installed only in the vertical position.
5. Check the rough opening to make sure it is sized properly, is square and is level.
6. Install the window plumb.
7. Install the window level.
8. Install the window square. Diagonal measurements should be within 1/8" (3).
9. Follow installation instructions to properly locate shims and to make sure that units are plumb, level and square. Shims are always required under the window jambs at the sill and along the jambs on the sides.
10. Check for squareness of unit before final anchoring of the product into the wall.
11. Anchor window as directed with appropriate fasteners.
12. Integrate the window into the drainage plane of the wall using quality flashing and sealing materials. All flashing materials should be properly overlapped to shed water.
13. Allow 1/4" (6) minimum space for a sealant joint around perimeter of unit between exterior finish materials and unit.
14. Insulate and seal the interior cavity between the window frame and the rough opening.
15. Check unit operation before application of interior trim.
16. Stain and/or seal all unfinished wood surfaces promptly to minimize moisture absorption.

EXTERIOR PAINTING/SEALING OF ANDERSEN® PRODUCTS

The exterior of some Andersen products may be painted or stained. However, improper painting and staining may cause damage to vinyl, aluminum and other exterior materials.

CAUTIONS

1. Do not apply any type of film to insulating glass. Thermal stress and glass damage can result. Andersen Corporation is not responsible for product performance when films are applied to Andersen products.
2. The use of removable insulating materials such as insulated window coverings, shutters and other shading devices may also cause thermal stress conditions and/or deformation of protective vinyl. In addition, excessive condensation may result, which can have a deteriorating effect on the window or patio door unit(s) involved. Andersen Corporation is not responsible for product performance when these kinds of materials or devices are applied to or used in conjunction with Andersen products.
3. In wall construction utilizing brick facades, leave adequate clearance between sill, jambs and brick for sealing and dimensional change of framework.
4. Acid solutions commonly used to wash brick and other masonry materials will damage glass, fasteners, hardware and metal flashing. Protect unit and follow cleaning product instructions carefully. Damage caused by acid solution is not covered under the Andersen limited warranty.
5. Andersen windows may be combined in almost unlimited ribbons or stacks if each unit is positively secured to structural elements on opposing sides and if the proper joining system is used. See page 206 for more information.

SAFETY GLASS

Unless specifically ordered, Andersen windows are not made with safety glass and, if broken, the glass could fragment, causing injury. Andersen windows may be ordered with tempered glass which may reduce the likelihood of injury when broken. All Andersen patio doors are made with tempered glass. Differences in appearance between tempered and non-tempered glass can be expected. Slight visual distortions may be noticeable and occur normally as a result of the tempering process. Building codes require safety glass in locations adjacent to or near doors and other locations.

WINDOW AND PATIO DOOR SAFETY

Windows may provide a secondary avenue of escape or rescue in an emergency, such as a fire. Every family should develop an escape plan and make sure family members know how to escape from the home in an emergency. In your plan, include two ways to escape from every room in case one way is blocked by fire or smoke, and make sure you have a designated meeting place outside. A window or a door is an alternate means of escape or rescue. Practice your plan until each member of the family understands it and is able to escape without assistance. Remember, you may not be able to reach children during a fire emergency. Teach children – even very young children – that they must escape from a fire in the home and never hide from the fire or from emergency personnel.

LOOKOUT FOR KIDS® PROGRAM

The Consumer Product Safety Commission has said: "Keep children away from open windows to prevent falls. Don't depend on insect screens to keep the child from falling out of the window. They are designed to keep insects out, not children in. Avoid placing furniture near windows to keep children from climbing to a window seat or sill." In an effort to educate consumers about the potential for child falls from windows, Andersen Corporation created the LookOut For Kids Program. It combines a window and door safety brochure and specific product instructions to help make window and door safety an important priority for consumers. For more information on child safety, write:

Andersen Corporation
LookOut For Kids Program
100 Fourth Avenue North
Bayport, MN 55003

LOOK OUT! for kids®

Call: 1-800-313-8889 Email: **lofk@andersencorp.com**

Dimensions in parentheses are in millimeters.