



Ocala Historic Preservation Advisory Board Agenda

Thursday, July 2, 2026

Meeting Information

Location

Ocala City Hall
Council Chambers - Second Floor
110 SE Watula Avenue
Ocala, FL 34471

<https://ocalafl.gov/meetings>

Time

4:00 PM

Board Members

Carol Barber
Jane Cosand
Joshua DeMonte
Holland Drake
Rick Hugli, Vice Chairman
Tom McCullough, Chair
Noelle Smith

Staff

Breah Miller, Staff Liaison
Planner II
Growth Management Department

Jeff Shrum, AICP
Director
Growth Management Department

Janiece Lucky
Committee Secretary

In memory of
Ira Holmes
Chairman Emeritus

WELCOME!

Citizens are encouraged to participate in City of Ocala meetings. The City of Ocala encourages civility in public discourse and requests that speakers limit their comments to specific motions and direct their comments to the Council. Cell phones should be turned off or set to vibrate.

APPEALS

Any person who desires to appeal any decision at this meeting will need a record of the proceedings and for this purpose may need to ensure that a verbatim record of the proceedings is made that includes the testimony and evidence upon which the appeal is made.

ADA COMPLIANCE

If reasonable accommodations are needed for you to participate in this meeting, please call 352-629-8404 at least 48 hours in advance so arrangements can be made.

1. Call To Order
 - a. Roll Call
 2. Public Meeting Notice Acknowledgement

The Public notice for the Ocala Historic Preservation Board was posted on June 17, 2026.
 3. Approval of Minutes
 - a. [June 4, 2026 Meeting Minutes](#)
Attachments: [June 4, 2026 Meeting Minutes](#)
 4. Certificates of Appropriateness
 - a. [Case File #23; COA26-0007; 726 SE Third Street. A request to construct a new two-story garage addition in the rear yard of the property and a recommendation for approval of the associated setback reductions, including a reduction of the required side yard setback from eight feet to five feet and a reduction of the required rear yard setback from 25 feet to three feet.](#)
Presentation By: Charlita Whitehead
Attachments: [COA26-0007 Application Packet](#)
[Master Site File 726 SE 3rd Street](#)
 - b. [Case File #204; COA26-0023; 216 SE 13th Avenue. A request to construct a one-bedroom addition and two-car garage at the rear of the existing residence, including associated reroofing, replacement of existing windows and doors, removal of windows on the north elevation, demolition of the existing detached garage, and a recommendation to apply for a variance to reduce the required rear setback from 25 feet to six feet.](#)
Presentation By: Charlita Whitehead
Attachments: [COA26-0023 Application Packet](#)
[Master Site File 216 SE 13th Ave](#)
 - c. [Case File #136; COA26-0024; 722 NE Second Street. Construction of a rear addition, alter an existing rear window opening to accommodate French doors, and construction of a rear landing and steps](#)
Presentation By: Charlita Whitehead
Attachments: [COA26-0024 Application Packet](#)
[Master Site File 722 NE 2nd St](#)
 5. Affirmative Maintenance
 6. Public Commens
 7. Staff Comments
-

8. Board Comments
9. Next Meeting Date: August 6, 2026
10. Adjournment



Ocala

Legislation Text

110 SE Watula Avenue
Ocala, FL 34471

www.ocalafl.gov

File #: 2026-1687

Agenda Item #: a.

Submitted By: JaNiece Lucky

Department: Growth Management

FORMAL TITLE:

June 4, 2026 Meeting Minutes

OCALA'S RELEVANT STRATEGIC GOALS:

Operational Excellence

PROOF OF PUBLICATION:

N/A

BACKGROUND:

N/A



Ocala

Historic Preservation Advisory Board

Minutes

Thursday, June 4, 2026

4:00 PM

1. Call To Order

a. Roll Call

Present

Carol Barber
Jane Cosand
Rick Hugli
Tom McCullough
Noelle Smith

Absent

Joshua DeMonte

2. Public Meeting Notice Acknowledgement

The public notice for the Ocala Historic Preservation Board was posted on May 20, 2026.

3. Approval of Minutes

a. April 2, 2026 Meeting Minutes

Attachments: [April 2, 2026 Meeting Minutes](#)

Ms. Cosand made a motion to approve the minutes with the correction to change the name of "Carol Roberts" to "Carolyn Roberts." Mr. Hugli seconded that motion.

RESULT: APPROVED

MOVER: Rick Hugli

SECONDER: Carol Barber

b. May 14, 2026 Meeting Minutes

Attachments: [May 14, 2026 Meeting Minutes](#)

RESULT: APPROVED

MOVER: Rick Hugli

SECONDER: Carol Barber

4. Certificates of Appropriateness

a. Case File #136; COA26-0021; 706 SE 4th Street. Addition a four-foot-tall, three-railed black flat-top rake-bottom aluminum fence, with three gates along the front and side yard.

Attachments: [COA26-0021 Application](#)
[Master Site File 706 SE 4th Street](#)
[COA26-0021 Photos](#)
[COA26_0021_Aerial and Case Map](#)

Economic Development Project Coordinator, Charlita Whitehead, provided a brief overview of COA26-0021 a request to install a four-foot-tall, three-railed black flat-top rake-bottom aluminum fence, with three gates along the front and side yard.

Ms. Barber asked whether there were similar fences in the surrounding area. Charlita responded there were.

Ms. Cosand asked whether Planning staff considered the fence to be awkward in design. Charlita responded that the Planning staff is not tasked with determining whether a design is “awkward,” but rather whether it meets the applicable zoning requirements, including setbacks and height standards. Ms. Smith stated that if the fence complies with all City zoning requirements and is consistent with other fencing in the neighborhood, then it meets the applicable standards. She added that it is not staff’s role to determine whether the design is awkward. Ms. Cosand expressed her belief that it is the Board’s responsibility to ensure the proposal blends with the character of the neighborhood. Ms. Smith reiterated that if similar fencing exists within the neighborhood, the proposal is considered to be consistent with the surrounding area and compliance is based on code standards rather than subjective design opinions. Charlita responded that decisions regarding appropriateness should be based on the Secretary of the Interior’s Standards and the City’s historic preservation code, where applicable. She encouraged the Board to review the staff analysis, including the Secretary of the Interior’s Standards and the relevant code provisions, in making its determination.

Mr. McCullough stated that the fence meets the applicable standards and noted that there are many homes within the historic district with similar fencing.

Tim Creely, 605 SE Sanchez, Ocala, Florida, stated that there is an identical fence across the street from the property, as well as at his own residence.

Motion to approve COA26-0021 to install a four-foot-tall, three-railed black flat-top rake-bottom aluminum fence, with three gates along the front and side yard.

Ms. Cosand opposed the motion.

RESULT: APPROVED

MOVER: Carol Barber

SECONDER: Noelle Smith

- b. Case File #187; COA26-0022; 713 SE 2nd Street - Addition of an in-ground swimming pool with associated deck in the rear yard

Attachments: [COA26-0022 Application](#)
 [Master Site File 713 SE 2nd Street](#)
 [COA26-0022 Photos](#)
 [COA26_0022_Aerial and Case Map](#)

Economic Development Project Coordinator, Charlita Whitehead, provided a brief overview of COA26-0022 a request to install an in-ground swimming pool with associated deck in the rear yard.

Ms. Cosand asked what type of fencing is located in the backyard. Charlita responded that it is wood fencing.

Donna and Patrick Cress, 713 SE 2nd Street, Ocala, Florida, stated they were hopeful for approval from the Board.

Motion to approve COA26-0022 to install an in-ground swimming pool with associated deck in the rear yard.

RESULT: APPROVED

MOVER: Carol Barber

SECONDER: Rick Hugli

- c. Case File #68; COA26-0025; 906 E Fort King Street; Addition of two open-air pergola structures on the existing residence

Attachments: [COA26-0025 Application and Additional Information](#)
 [906 SE Ft King Street Master Site File](#)
 [COA26_0025_Aerial and Case Map](#)
 [COA26-0025 Photos](#)

Economic Development Project Coordinator, Charlita Whitehead, provided a brief overview of COA26-0025 a request to install two open-air pergola structures on the existing residence.

Stacey Harris, 906 E Fort King Street, Ocala, Florida, stated they are trying to be part of a solution rather than a problem. They explained they are seeking shade and additional covered areas, noting that the top of the carport is a large open space. They indicated they are looking to create an open covered porch. Ms. Harris stated they have worked with an architect who has provided renderings for the proposal and that they are open to any option that would provide additional coverage.

Ms. Cosand asked where access to the porch is located. Ms. Harris responded that access is through the back bathroom.

Motion to approve COA26-0025 to install two open-air pergola structures on the existing residence.

RESULT: APPROVED

MOVER: Rick Hugli

SECONDER: Jane Cosand

- d. Case File #105; COA26-0026; 723 E Fort King St. - Install an eight-foot by 14-foot prefabricated shed on an existing concrete slab.

Attachments: [COA26-0026 Application](#)
[Master Site File 723 SE Ft King Street](#)
[COA26-0026 Photos](#)
[COA26_0026 Aerial and Case Map](#)

Economic Development Project Coordinator, Charlita Whitehead, provided a brief overview of COA26-0026 a request to install an eight-foot by 14-foot prefabricated shed on an existing concrete slab.

Ms. Cosand asked how the architecture of the shed matches the home from a planning perspective. Charlita responded that she could not speak to the architectural compatibility from a planning perspective; however, the simple design of the shed was found to be conflicting. She noted the Board is welcome to make any assessment it deems appropriate, but stated that the materials and installation being subordinate are not particularly visible from the street.

Mr. McCullough stated the shed should be aesthetically consistent and should match the architecture and structure of the home.

Motion to deny COA26-0026 to install an eight-foot by 14-foot prefabricated shed on an existing concrete slab, due to architectural design not matching the house.

RESULT: DENIED

MOVER: Jane Cosand

SECONDER: Carol Barber

- e. Case File # 53; COA26-0029; 605 SE Sanchez Avenue. A request to add a 20-foot by 30-foot brick patio in the backyard.

Attachments: [COA26-0029 Application and Additional Information](#)
[605 SE Sanchez Ave Master Site File](#)
[COA26_0029 Aerial and Case Map](#)
[COA26-0029 Photos](#)

Economic Development Project Coordinator, Charlita Whitehead, provided a brief overview of COA26-0026 a request to install add a 20-foot by 30-foot brick patio in the backyard.

Tim Creely, 605 SE Sanchez Ave, Ocala, Florida, stated the slab is located approximately 10 feet from the house and includes a cutout. He noted the house is not plumb on both sides, with the right side approximately 10 feet and the left side slightly less than 10 feet. He described the area as a flat patio rather than a permanent concrete slab and stated it could be removed. He further stated the brick material matches the house and that the structure is intended to be temporary.

Motion to approve COA26-0029 to install a 20-foot by 30 foot brick patio in the backyard.

RESULT: APPROVED

MOVER: Jane Cosand

SECONDER: Rick Hugli

5. Affirmative Maintenance

None.

6. Public Comments

None.

7. Staff Comments

Charlita announced Ms. Rita Masters was appointed to the Ocala Historic Preservation Advisory Board by City Council at its May 19, 2026 meeting. Ms. Masters is expected to join the Board at the next meeting.

Charlita also provided an update on administratively approved COAs.

8. Board Comments

Mr. McCullough acknowledged Ms. Smith's anticipated departure from her position on the Board.

9. Next Meeting Date: July 2, 2026

10. Adjournment

Meeting adjourned at 4:54pm.



Ocala

Legislation Text

110 SE Watula Avenue
Ocala, FL 34471

www.ocalafl.gov

File #: 2026-1678

Agenda Item #: a.

Submitted By: Charlita Whitehead

Presentation By: Charlita Whitehead

Department: Growth Management

FORMAL TITLE:

Case File #23; COA26-0007; 726 SE Third Street. A request to construct a new two-story garage addition in the rear yard of the property and a recommendation for approval of the associated setback reductions, including a reduction of the required side yard setback from eight feet to five feet and a reduction of the required rear yard setback from 25 feet to three feet.

PROOF OF PUBLICATION:

N/A

BACKGROUND:

Petitioner/ Property Owner: Ladden Herrmann

Project Planner: Charlita Whitehead

Applicant Request: The applicant is requesting approval to construct a two-story attached garage addition in the rear yard of the property and a recommendation for the associated setback reductions, including a reduction of the required side yard setback from eight feet to five feet and a reduction of the required rear yard setback from 25 feet to three feet. This request is being submitted due to the expiration of COA22-45050.

Parcel Information:

Acres:	±0.22 acres
Parcel(s) #:	2820-029-004
Location:	726 SE 3rd Street
Future Land Use:	Neighborhood
Zoning District:	R-3: Multi-Family Residential
Existing Use:	Single-Family

Background:

The existing home, known as the Mary W. Phillips House, was constructed in 1895 using a Colonial Victorian building style. The home is a contributing structure to the Ocala Historic District.

The owner previously received approval through Certificate of Appropriateness COA22-45050 for construction of a two-story garage addition, pool, and driveway. The approval has since expired, and the

applicant has submitted this application to obtain current approval to proceed with construction of the previously approved garage. Portions of the previously approved site improvements, including the pool, garage pad, and foundation, have been completed. The proposed garage is also associated with previously approved variances, including VAR21-0001, which reduced the required side yard setback from eight feet to five feet, and VAR23-44733, which reduced the required rear yard setback from 25 feet to three feet to allow construction of the breezeway and two-story garage.

Previous Certificates of Appropriateness:

- COA20-0045 (2020) - Approved, construction of a two-story garage addition, pool, and driveway improvements. Garage design included materials to match the existing residence, including siding and roofing materials.
- COA20-0006 (2020) - Approved, exterior alterations; rear deck.
- COA06-0021 (2006) - Approved, reroof.
- COA18-0046 (2018) - Approved, reroof.
- COA19-0005 (2019) - Approved, window replacement.
- COA19-0024 (2019) - Approved, ordinary repair and maintenance of porch columns.
- COA19-0038 (2019) - Approved, fence and site improvements.
- COA22-44805 (2022) - Denied, request to install an 8-foot privacy wood fence in the rear yard.
- COA22-45050 (2022) - Approved, garage addition.
- COA25-0012 (2025) - Approved, fence.

Previous Variances:

- VAR21-0001 (2021) - Associated with COA20-0045; approved variance to reduce the side yard setback on the eastern property line from the required eight feet to five feet.
- VAR23-44733 (2023) - Approved variance to reduce the rear yard setback from 25 feet to three feet to allow construction of a breezeway and two-story garage. Approval included the condition that the applicant receive a Certificate of Appropriateness within two years and that improvements remain consistent with approved plans reviewed by the Ocala Historic Preservation Advisory Board.

FINDINGS AND CONCLUSIONS:

Staff Analysis

Certificate of Appropriateness Criteria for Decisions (Section 94-82(g)):

The Code states that the Board may issue a certificate of appropriateness for the reconstruction, alteration, new construction, non-permanent structures, demolition, partial demolition, or removal of any building or structure within a locally designated historic district or any designated local landmark, or any other activity for which a CA is required, if such action is not deemed contrary to the purposes of historic preservation and to the special character of districts, sites and resources as designated specifically. The board's decisions will be based on the

Secretary of the Interior's Standards, the city's Historic Preservation Design Guidelines, this chapter, and the following criteria:

1. Exterior alterations shall not diminish the architectural quality or historical character of the building or the building site.

Staff Comments: The proposed garage addition is located in the rear yard of the property and will not diminish the architectural quality or historical character of the contributing residence or building site. The proposed exterior materials, including wood lap siding and architectural shingles, are compatible with the existing historic structure. The proposed addition continues the design intent previously approved under COA20-0045 and maintains compatibility with the contributing Colonial Victorian residence.

2. Sandblasting of any materials except for iron is prohibited.

Staff Comments: Not applicable.

3. Only through very controlled conditions can most historic building material be abrasively cleaned of soil or paint without measurable damage to the surface or profile of the substrate. Decisions regarding the proper cleaning process for historic structures can be made only after careful analysis of the building fabric, and testing. Generally, wet abrasive cleaning of a historic structure should be conducted within the range of 20 to 100 psi at a range of three to 12 inches.

Staff Comments: Not applicable.

4. Landscaping, signs, parking and site development should be sensitive to the individual building and should be visually compatible with the buildings and environment with which they are visually related.

Staff Comments: The proposed garage is located within the rear yard of the property, consistent with the placement of accessory structures traditionally associated with historic residential properties. Although visible from the public right-of-way, the proposed addition is designed to be visually compatible with the buildings and environment with which it is visually related.

5. New construction shall be visually compatible with the buildings and environment with which the new construction is visually related. When an application involves new construction, the applicant may present conceptual plans to the board for review and comment before the application for a certificate of appropriateness is submitted and before construction drawings of the project are prepared. Aspects to be considered include:

- a. The height, volume, proportion between width and height of the facades, the proportions and relationship between doors and windows, the rhythm of solids and voids created by openings in the facades, the materials used in the facades, the texture inherent in the facades, the colors, pattern and trim used in the facades, and the design of the roof.

Staff Comments: The proposed garage design incorporates architectural elements compatible with the existing residence, including similar siding and roofing materials. The proposed height, scale, proportions, roof form, and exterior materials reflect the design intent previously approved through COA20-0045 and maintain compatibility with the existing historic residence.

- b. The existing rhythm created by existing building masses and spaces between them should be preserved.

Staff Comments: The proposed garage addition maintains the relationship between the primary residence and associated site elements by locating new construction in the rear yard.

- c. Landscape plans should be visually compatible with the buildings and environment with which the landscaping is visually related.

Staff Comments: Not applicable.

- d. Proportions of existing facades which are visually related shall be maintained when neighboring buildings have a dominant horizontal or vertical expression, that expression should be carried over in the new facade.

Staff Comments: The proposed garage addition is located in the rear yard and does not alter the primary façade of the historic residence. Although the proposed two-story garage will be visible from the public right-of-way, the design maintains the traditional relationship between the primary residence and accessory structures found on historic residential properties. The proposed garage incorporates a compatible height, scale, roof form, and exterior materials that relate to the existing Colonial Victorian residence and maintain compatibility with the surrounding historic environment.

- e. Architectural details should be incorporated as necessary to relate the new with the old and to preserve and enhance the inherent architectural characteristics of the area.

Staff Comments: The proposed garage incorporates compatible architectural details and materials intended to relate to the existing historic residence.

- f. Accessory structures shall be compatible with the scale, shape, roof form, materials, and detailing of the main structure to protect the historic integrity of the neighborhood. The accessory structure shall not exceed the maximum height allowed by the applicable zoning or the height of the existing primary structure.

Staff Comments: The proposed garage is compatible with the scale, shape, roof form, materials, and detailing of the primary historic residence. Although the proposed addition is two stories, its rear-yard placement, compatible architectural design, and use of similar materials maintain its relationship to the historic property and surrounding neighborhood. The design is consistent with the previously approved garage plans reviewed under COA22-45050.

Secretary of the Interior's Standards for the Treatment of Historic Properties

Standards for Rehabilitation:

- 9. New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work will be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment. (Standards for Rehabilitation p. 76)

Staff Comments: The proposed garage addition will not remove or alter significant historic materials or

architectural features of the existing contributing residence. The garage is located in the rear yard, maintaining the historic spatial relationship between the main residence and accessory structures. The proposed design uses compatible materials, including wood lap siding and architectural shingles, and follows the previously approved design reviewed under COA20-0045 while maintaining a distinction between the new construction and the historic residence.

10. New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired. (Standards for Rehabilitation p. 76)

Staff Comments: The construction of the proposed garage does not require alterations to the primary historic structure that would compromise its architectural integrity. If removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

Staff Recommendation:

Appropriate

FISCAL IMPACT:

N/A

PROCUREMENT REVIEW:

N/A

LEGAL REVIEW:

N/A

ALTERNATIVE:

- Appropriate
- Appropriate with Conditions
- Table
- Deny



City of Ocala
Growth Management Department
201 S.E. 3rd Street, 2nd Floor
352-629-8421 | www.ocalafl.org

Case File # 23
COA 26 - 0007
Meeting Date: _____
Product Approval # _____

Application for a Certificate of Appropriateness (COA)

As required by Section 94-82(g) of the City of Ocala Code of Ordinances, Ocala Historic Preservation Advisory Board (OHPAB) decisions on the COAs will be based on the Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings the Ocala Historic Preservation Design Guidelines, and the Ocala Historic Preservation Code.

COA Application Procedure:

1. Arrange an informal pre-application conference with Planning staff.
2. Fill out and submit COA application and required material to Planning staff 30 days prior to OHPAB meeting. Please email application packets: historic@ocalafl.org.
3. Attend OHPAB meeting or send a representative with a letter of authorization.
4. Meetings are held the 1st Thursday of each month at 4:00 p.m.
5. Meeting Location: City Council Chambers, 2nd floor of City Hall (110 SE Watula Ave.)

If applicant fails to notify staff and does not attend the meeting, the application may be tabled for one month. If applicant fails to notify staff and does not attend the next monthly meeting, the application may be denied without prejudice.

There is no application fee; however, if work is performed without an approved COA, a fee of \$100 will be assessed.

Parcel #:	<u>220-029-0001</u>	Property Address:	<u>726 SE 3rd St Ocala FL</u>
Owner:	<u>Wadden Herrmann</u>	Owner Address:	<u>726 SE 3rd St Ocala FL</u>
Owner Phone #:	<u>352-216-8635</u>	Owner Email:	<u>waddenherrmann@gmail.com</u>
Will there be an additional meeting representative? ☐ Yes ☒ No (If yes, representative will need a letter of authorization*) <u>maybe</u>			
If yes, name of representative:		<u>George Cunningham</u>	
Rep. Phone #:		<u>352-239-4601</u>	
Rep. Email:		<u>waddenherrmann@gmail.com</u>	

Project Type:	☒ Addition <u>Sheds</u>	☐ New Construction	☐ Site Work
	☐ Alteration	☐ Reroof	☐ Fence
	☐ Repair	☐ Relocation	☐ Other _____



City of Ocala
Growth Management Department
201 S.E. 3rd Street, 2nd Floor
352-629-8421 | www.ocalafl.org

Case File # 23
COA 26 -0007
Meeting Date: _____
Product Approval # _____

Describe, by list, specific changes you are requesting to do to your property. Include the types of materials to be used, as well as dimensions. A site plan must be provided for additions to buildings, new construction (including garages, sheds, other accessory buildings), fences and site work (including driveways, parking areas and other improvements). The site plan must show setbacks of the proposed new work items from property lines. Attach additional pages as necessary.

*See Attached uploads
setbacks have been Approved
for 3' side + 5' Rear*

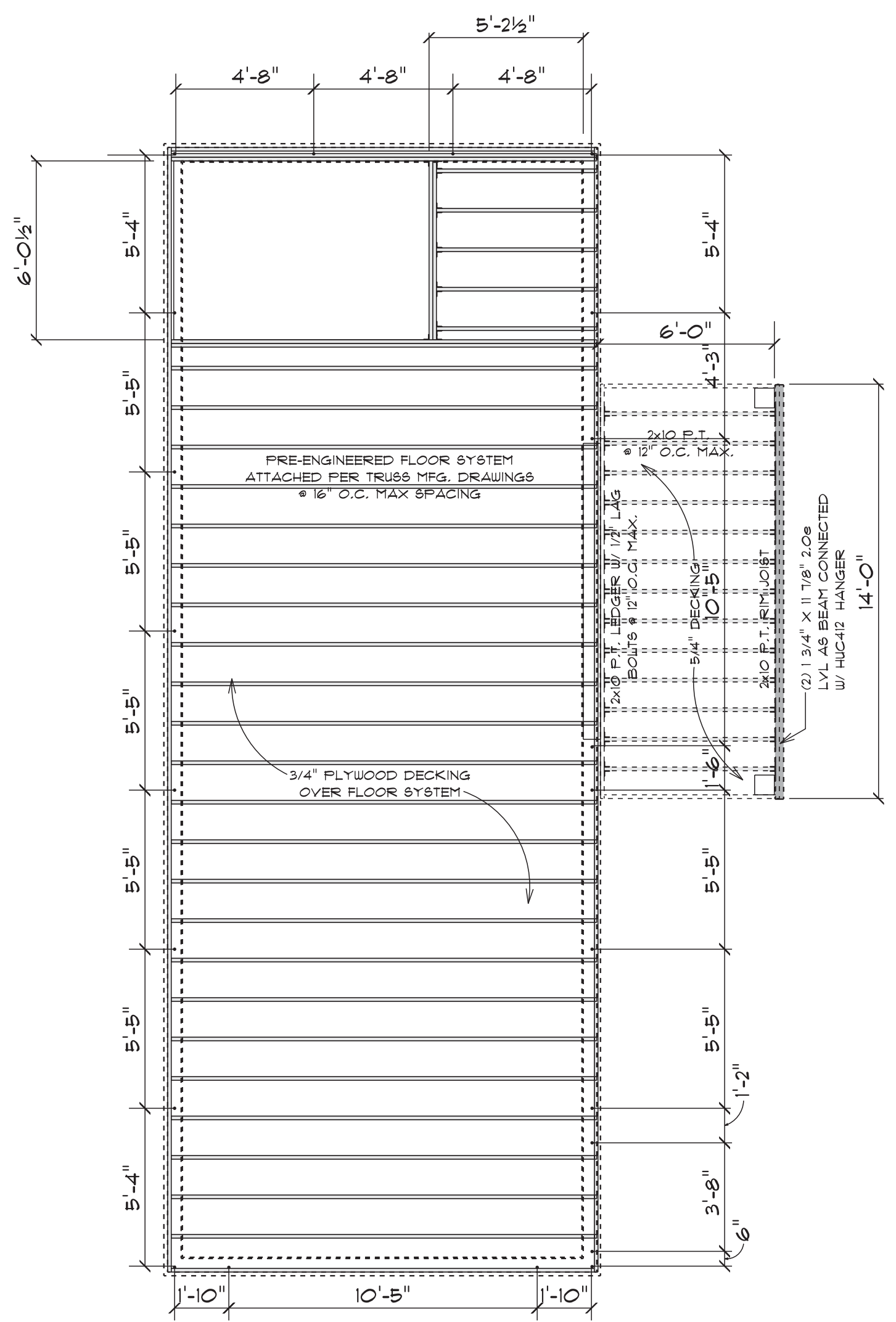
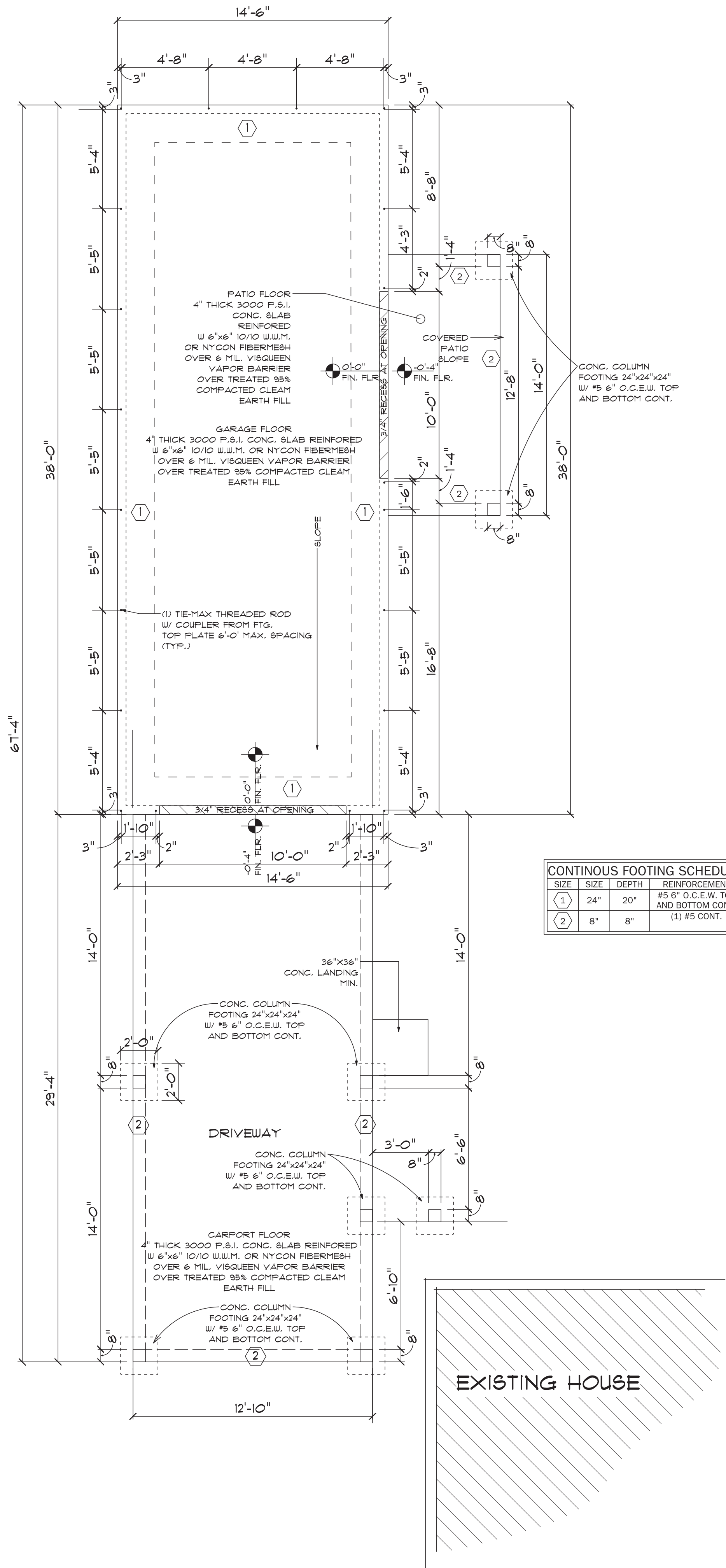
Required additional materials for submission:

- ☐ Completed and signed COA application
- ☐ Detailed drawings and specifications for all new materials – windows, doors, siding, roofing materials, fencing etc.
- ☐ Site plan
- ☐ Copy of property deed or proof of ownership
- ☐ Authorization letter for non-property owner representative*
- ☐ For New Construction: a set of building plans, no larger than 11 x 17, for structural changes or new construction. This includes all four elevations with drawn to scale dimensions. *
- ☐ Please list any additional attachments:

Applicant Signature

Date

Site Plan



DIGITAL SEAL

Florida Engineering, LLC



4157 TAMARITTE LANE, UNIT 101
PORT CHARLOTTE, FL 33982
TEL: 813-941-8795
FAX: 813-979-8195

FLORIDA ENGINEERING

HEREBY CERTIFY AS THE BUILDING DESIGN ENGINEER OF THIS PROJECT THAT THE DESIGN AND CONSTRUCTION OF THE PROJECT HAS BEEN COMPLETED IN ACCORDANCE WITH THE FLORIDA BUILDING CODE, WITH EDITIONS AND SUPPLEMENTS THEREIN, AND AS ACCOMPANIED BY DESIGN & SUPPORT DOCUMENTS, THIS CERTIFICATION DOES NOT INCLUDE ROOF TRUSSES OR ROOF DECKING. THE TRUSS DESIGN ENGINEER IS THE RESPONSIBLE PROFESSIONAL ENGINEER FOR THE ROOF TRUSSES. THIS PLAN HAS BEEN PREPARED IN COMPLIANCE WITH THE 2023 FLORIDA BUILDING CODE, WITH EDITIONS AND SUPPLEMENTS THEREIN.

ADVANCED DRAFTING OF OCALA



352-266-6900

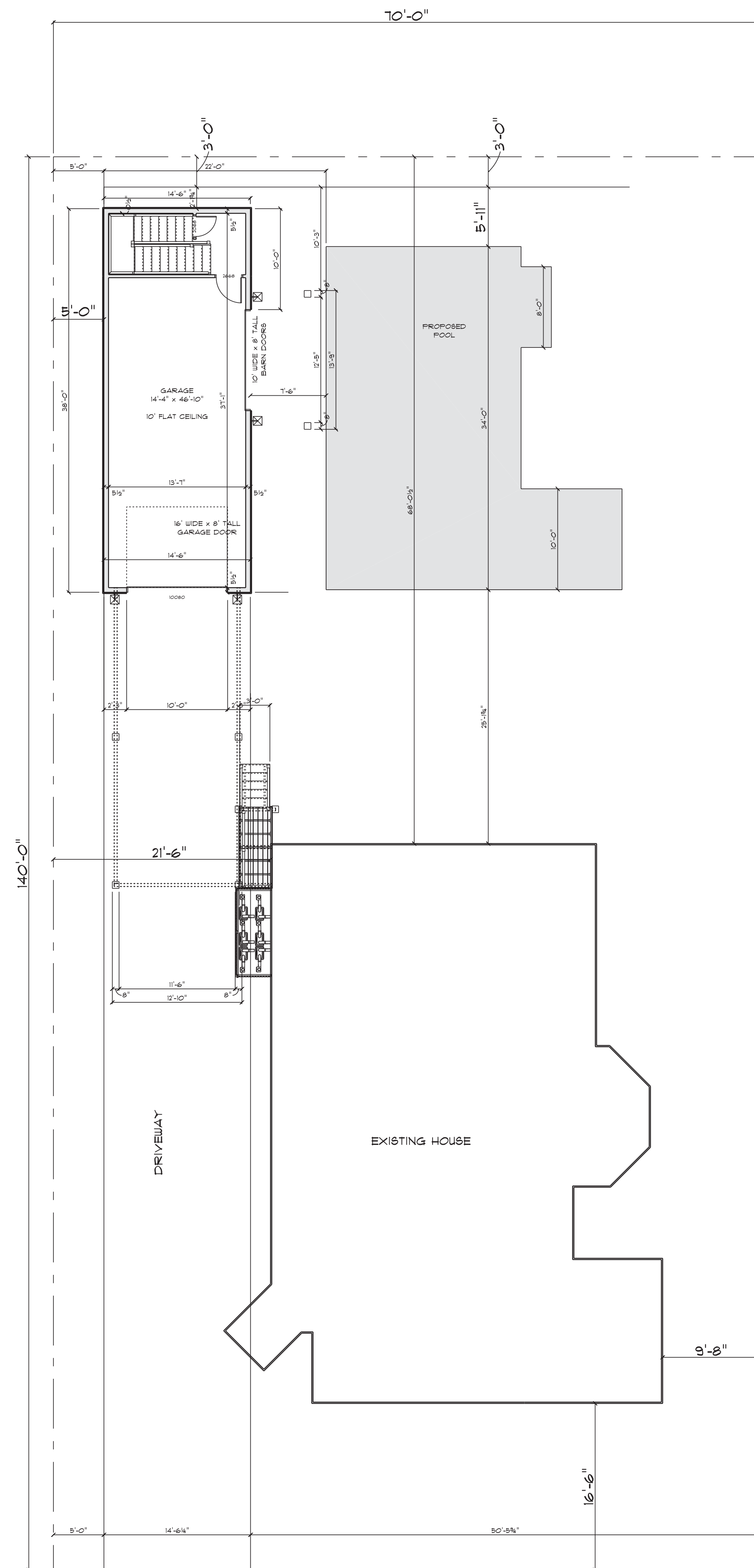
LADDEN HERRMANN

725 SE 3RD ST.
OCALA
FL 34471

Wednesday, December 3, 2025

S100

PAGE: 2 / 9



SITE PLAN PROPOSED
SCALE: 1/8" = 1'-0"

SCALE: 1/8" = 1'-0"

DIGITAL SEAL

Florida Engineering, LLC
4761 TAMAMITRAIL UNIT 101
P.O. BOX 3000
PINE CREST, FL 33952
PHONE 941-397-5000
FAX 941-979-9195

I HEREBY CERTIFY AS THE BUILDING DESIGN ENGINEER OF RECORD, THAT THE BUILDING DESIGN AS SHOWN ON THESE PLANS AND AS ACCOMPANIED BY DESIGN & SUPPORT DOCUMENTS CONFORMS TO THE LATEST EDITION OF THE FLORIDA BUILDING CODE. THIS CERTIFICATION DOES NOT INCLUDE ROOF TRUSS COMPONENTS OF WHICH THE TRUSS DESIGN ENGINEER IS THE ENGINEER OF RECORD.

THIS PLAN HAVE BEEN PREPARED IN COMPLIANCE WITH THE 2023 FLORIDA BUILDING CODE, 8TH EDITION WITH SUPPLEMENTS.

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ADVANCED DRAFTING
OF OCALA

LADDEN HERRMANN
726 SE 3RD ST.
OCALA
FL 34471

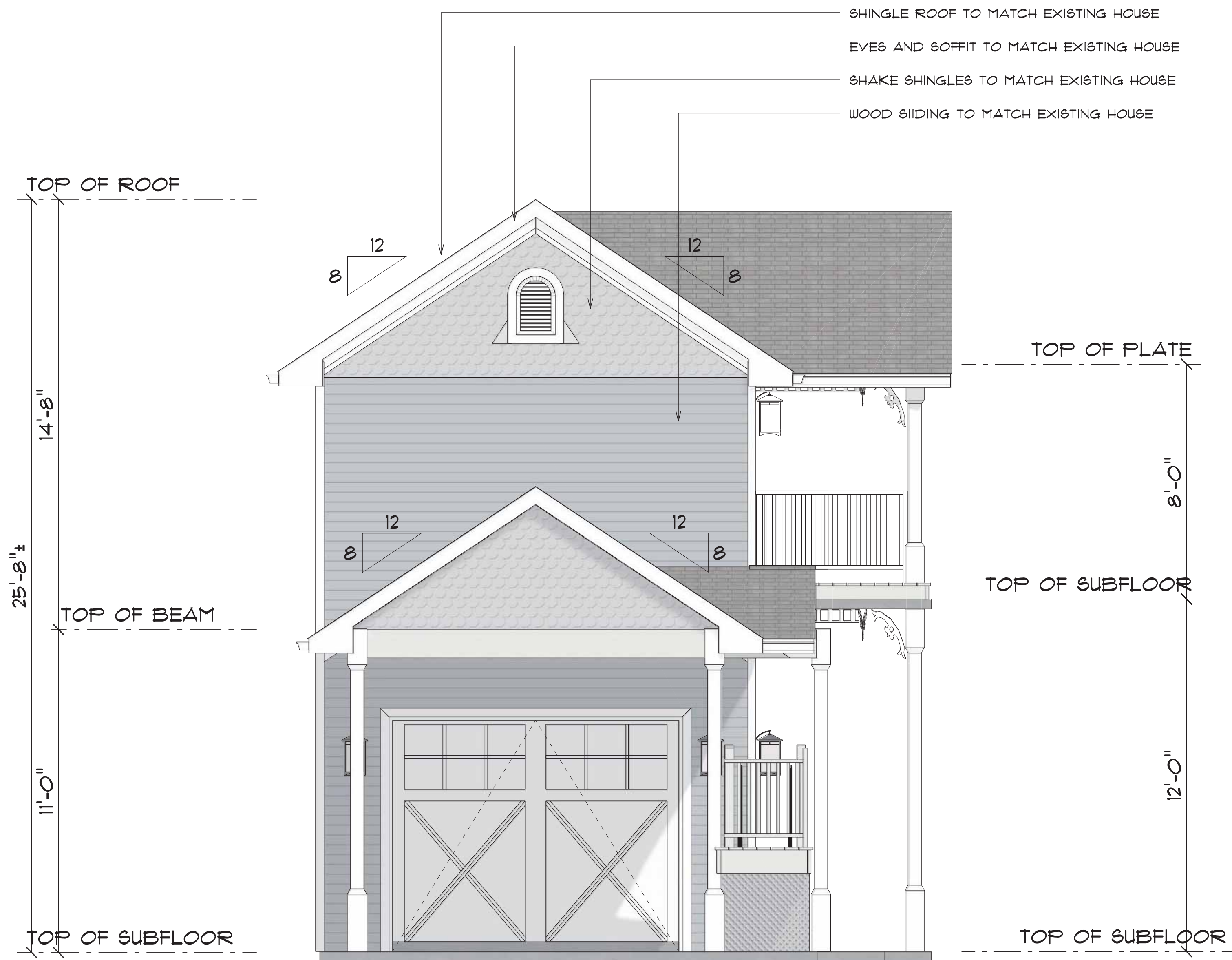
Wednesday, December 3, 2025

SITE PLAN

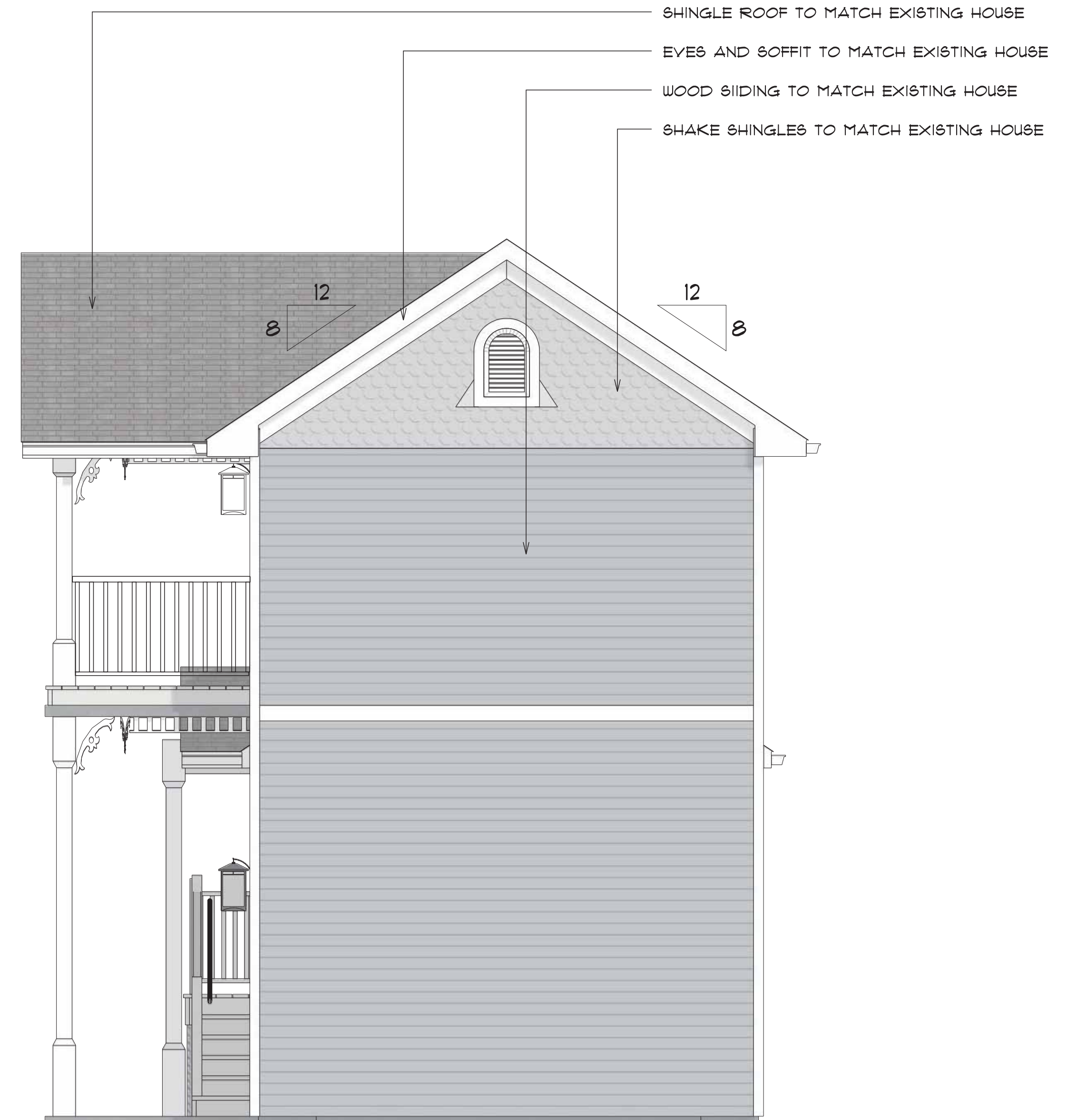
PAGE:

9 / 9

Elevations



FRONT ELEVATION
SCALE: 3/8" = 1'-0"



REAR ELEVATION
SCALE: 3/8" = 1'-0"

DIGITAL SEAL



Florida Engineering, LLC
101 EAST TAMARISSE LANE, UNIT 101
PORT CHARLOTTE, FL 33682
TEL: 813-941-8195
FAX: 813-941-8195

WARNING
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ADVANCED DRAFTING
OF OCALA

352-266-6900

LADDEN HERRMANN

726 SE 3RD ST.
OCALA
FL 34471

Wednesday, December 3, 2025

A300

PAGE:

5 / 9

Photos



Photo 1: SE 726 SE 3rd Street from SE 3d Street facing south



Photo 2: Proposed garage location facing south



Photo 3: Proposed garage location facing north

CA. 23 *exterior alteration*

✓ 12/88 (old parcel #)
new parcel # 7/89

STATE OF FLORIDA
DEPARTMENT OF STATE
Division of Archives, History
and Records Management
DS-HSP-3AAA Rev. 3-79

FLORIDA MASTER SITE FILE Site Inventory Form

FDAHRM 802 = =
1009 = =
820 = =
905 = =

Site Name Phillips, Mary W. House 830 = = Site No. 69-51813 Survey Date 1981
Address of Site: 726 S.E. 3rd St.
Instruction for locating Fourth house east of S.E. Sanchez Ave. on the south side
of S.E. 3rd St.
Location: Caldwells AD Ocala Com 210 Ft E & 70 Ft N of SW Cor Lot 29
subdivision name block no. lot no.
County: Marion - Thence E 70 Ft N 140 Ft W 70 Ft S 140 Ft
Owner of Site: Name: Hunt, Joyce J
Address: 726 SE 3rd St.
Ocala, FL 32670
Type of Ownership Private Recording Date
Recorder:

Name & Title: Withlacoochee Regional Planning Council, Joyce Cusick, Assoc.
Address: 1241 S.W. 10th St. Planner
Ocala, FL 32670

Condition of Site: Integrity of Site: Original Use Residence
Check One: Check One or More
☒ Excellent 863 = = ☐ Altered 858 = =
☐ Good 863 = = ☒ Unaltered 858 = =
☐ Fair 863 = = ☒ Original Site 858 = =
☐ Deteriorated 863 = = ☐ Restored () (Date:) 858 = =
☐ Moved () (Date:) 858 = =
Present Use Residence
Dates: Beginning CA: 1895
Culture/Phase American
Period
818 = =
838 = =
850 = =
844 = =
840 = =
845 = =

NR Classification Category: 916 = =

Threats to Site:

Check One or More
☐ Zoning () 878 = = ☐ Transportation () 878 = =
☒ Development () 878 = = ☐ Fill () 878 = =
☐ Deterioration () 878 = = ☐ Dredge () 878 = =
☐ Borrowing () 878 = =
☐ Other (See Remarks Below): 878 = =

Areas of Significance: Architecture 910 = =

Significance:

An example of a Victorian frame vernacular carpenter style house exhibiting Gothic (details) architectural influences. The house is in scale and character with its surroundings, a residential Victorian neighborhood which has evolved from the 1880's through the early 1900's.

911 = =



Ocala

Legislation Text

110 SE Watula Avenue
Ocala, FL 34471

www.ocalafl.gov

File #: 2026-1294

Agenda Item #: b.

Submitted By: Charlita Whithead

Presentation By: Charlita Whitehead

Department: Growth Management

FORMAL TITLE:

Case File #204; COA26-0023; 216 SE 13th Avenue. A request to construct a one-bedroom addition and two-car garage at the rear of the existing residence, including associated reroofing, replacement of existing windows and doors, removal of windows on the north elevation, demolition of the existing detached garage, and a recommendation to apply for a variance to reduce the required rear setback from 25 feet to six feet.

PROOF OF PUBLICATION:

N/A

BACKGROUND:

Petitioner/ Property Owner:	Chat Properties LLC
Project Planner:	Charlita Whitehead
Applicant Request:	To add a one-bedroom addition and two-car garage at the rear of the existing residence, including associated reroofing, replacement of existing windows and doors, removal of windows on the north elevation, demolition of the existing detached garage, and a recommendation to apply for a variance to reduce the required rear setback from 25 feet to six feet.

Parcel Information

Acres:	±0.17 acres
Parcel(s) #:	28372-009-00
Location:	216 SE 13 th Avenue
Future Land Use:	Neighborhood
Zoning District:	R-1, Single Family Residential
Existing Use:	Residential

Background:

The existing home was constructed in 1935 using a gable roofed, wood frame, vernacular building style. The home is a contributing structure to the Tuscawilla Historic District. The property has one prior Certificate of Appropriateness, COA19-0014, which approved reroofing.

Should this addition be approved by the Ocala Historic Preservation Advisory Board, the applicant will need to apply for a variance through the Board of Adjustment for a rear setback reduction of 25 feet to six feet.

FINDINGS AND CONCLUSIONS:

Staff Analysis

Certificate of Appropriateness Criteria for Decisions (Section 94-82(g)):

The Code states that the Board may issue a certificate of appropriateness for the reconstruction, alteration, new construction, non-permanent structures, demolition, partial demolition, or removal of any building or structure within a locally designated historic district or any designated local landmark, or any other activity for which a CA is required, if such action is not deemed contrary to the purposes of historic preservation and to the special character of districts, sites and resources as designated specifically. The board's decisions will be based on the Secretary of the Interior's Standards, the city's Historic Preservation Design Guidelines, this chapter, and the following criteria:

1. Exterior alterations shall not diminish the architectural quality or historical character of the building or the building site.

Staff Comments: The proposed alterations were reviewed to determine whether character-defining features of the contributing structure, including existing window openings and historic materials, would be diminished. Based on the submitted plans and materials, the proposed addition, garage, and associated improvements are not anticipated to diminish the architectural quality or historic character of the building or site.

2. Sandblasting of any materials except for iron is prohibited.

Staff Comments: Not applicable.

3. Only through very controlled conditions can most historic building material be abrasively cleaned of soil or paint without measurable damage to the surface or profile of the substrate. Decisions regarding the proper cleaning process for historic structures can be made only after careful analysis of the building fabric, and testing. Generally, wet abrasive cleaning of a historic structure should be conducted within the range of 20 to 100 psi at a range of three to 12 inches.

Staff Comments: Not applicable.

4. Landscaping, signs, parking and site development should be sensitive to the individual building and should be visually compatible with the buildings and environment with which they are visually related.

Staff Comments: Not applicable.

5. New construction shall be visually compatible with the buildings and environment with which the new construction is visually related. When an application involves new construction, the applicant may present conceptual plans to the board for review and comment before the application for a certificate of appropriateness is submitted and before construction drawings of the project are prepared. Aspects to be considered include:

- a. The height, volume, proportion between width and height of the facades, the proportions and relationship between doors and windows, the rhythm of solids and voids created by openings in the facades, the materials used in the facades, the texture inherent in the facades, the colors, pattern and trim used in the facades, and the design of the roof.

Staff Comments: The proposed addition and garage are located at the rear of the residence and

are designed with materials compatible with the existing structure, including siding intended to match the existing residence and a shingle roof. The proposed massing, roof form, and placement are designed to maintain the existing residence as the primary historic resource.

- b. The existing rhythm created by existing building masses and spaces between them should be preserved.

Staff Comments: The proposed rear addition maintains the existing front-facing character of the residence by locating new construction toward the rear of the property.

- c. Landscape plans should be visually compatible with the buildings and environment with which the landscaping is visually related.

Staff Comments: Not applicable.

- d. Proportions of existing facades which are visually related shall be maintained when neighboring buildings have a dominant horizontal or vertical expression, that expression should be carried over in the new facade.

Staff Comments: The design elements such as rooflines, materials, and proportions are consistent with the existing residence.

- e. Architectural details should be incorporated as necessary to relate the new with the old and to preserve and enhance the inherent architectural characteristics of the area.

Staff Comments: The proposed work incorporates compatible architectural elements, including traditional window and door configurations, roof materials, and exterior siding intended to relate the new construction to the existing residence.

- f. Accessory structures shall be compatible with the scale, shape, roof form, materials, and detailing of the main structure to protect the historic integrity of the neighborhood. The accessory structure shall not exceed the maximum height allowed by the applicable zoning or the height of the existing primary structure.

Staff Comments: Not applicable.

Sec. 94-83. - Demolition requests.

- a) On applications to demolish any buildings or structures within locally designated historic districts, or local landmarks, the board will approve or deny the request, or may suspend action to allow further study for a period not to exceed 90 calendar days; a suspension of action does not constitute a final decision by the board. A motion to deny such applications shall include the designation of a public notification of demolition period up to a maximum of 365 days. The length of the delay shall be determined by the board based upon the relative significance of the structure and the probable time required to arrange a possible alternative to demolition. Upon expiration of the public notification of demolition period set forth in an approved motion to deny an application, the applicant may demolish the building or structure without board approval.
- b) During the public notification period, the board may take such steps as it deems necessary to preserve the building or structure concerned, in accordance with the purposes of this chapter. Such steps may

include but shall not be limited to consultation with civic groups, public agencies and interested citizens, recommendations for acquisition of property by public or private bodies or agencies, and exploration of the possibility of moving the structure or building.

- c) In connection with any certificate of appropriateness for demolition, the board may request permission from the owner to salvage and preserve building materials, architectural details and ornaments, fixtures and the like for reuse in restoration of other historic properties. The board may also request from the owner permission to enter the building to record the dimensions and details before demolition. This record will include photographs and scaled architectural drawings.
- d) In addition to all other provisions of this chapter, the board shall consider the following criteria in evaluating applications for a certificate of appropriateness for demolition of designated properties in determining the length of the public notification of demolition period:
 - 1. The structure is of such interest or quality that it would reasonably meet national, state or local criteria for designation as a historic resource.
 - 2. The significance which the structure contributes to the historic character of a designated district.
- f) The board may consider development plans for a site when considering applications for certificates of appropriateness for demolition. The board may suspend action until a conceptual development plan is approved by the board.

Staff Comments: The applicant proposes demolition of the existing detached garage to accommodate construction of a new attached garage. The demolition of the existing garage will not adversely affect the historic character of the property or surrounding historic district.

Sec. 122-93. - Variances for historic property.

An applicant for a variance within a designated historic district or property need not demonstrate a practical difficulty but shall show only that the project is not detrimental to the public interest.

(Code 1961, § 22-19(3); Code 1985, § 7-622(c); Ord. No. 2275, § 8, 5-5-92)

Sec. 122-94. - Procedure for approval.

A variance from the terms of this chapter shall not be granted unless and until:

- 1. A written application for a variance is submitted demonstrating that:
 - a. Special conditions and circumstances exist which are peculiar to the land, structure or building involved and which are not applicable to other lands, structures or buildings in the same district.
 - b. Literal enforcement of the provisions of this chapter would deprive the applicant of rights commonly enjoyed by other properties in the same district under the terms of this chapter
 - c. The special conditions and circumstances mentioned in subsection (1)a of this section do not result from the action of the applicant.
 - d. Granting the variance requested will not confer on the applicant any special privilege that is denied by this chapter to other lands, structures or buildings in the same district.
 - e. No nonconforming use of neighboring lands, structures or buildings in the same district, and no permitted use of lands, structures or buildings in other districts, shall be considered grounds for the issuance of a variance.

2. Notice of public hearing on the variance shall be given in the manner prescribed in Section 122-113(2).
3. The public hearing shall be held. Any party may appear in person or by agent or attorney.
4. The board of adjustment shall make findings that the requirements of subsection (1) of this section have been met by the applicant.
5. The board of adjustment shall further make a finding that the reasons set forth in the application justify the granting of the variance, and that the variance is the minimum variance that will make possible the reasonable use of the land, building or structure.
6. The board of adjustment shall further make a finding that the granting of the variance will be in harmony with the general intent and purpose of this chapter, and will not be injurious to the neighborhood or otherwise detrimental to the public welfare.

Staff Comments: The proposed addition and garage require a reduction of the required rear setback from 25 feet to six feet. The applicant will be required to submit a separate variance application to the Board of Adjustment.

Secretary of the Interiors

Standard 6: Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence. (Standards for Rehabilitation p. 76)

Staff Comments: The applicant proposes replacement of existing windows with Pella Reserve Traditional wood windows (FL17769) with a traditional 3-over-3 grille pattern, ogee profile, and recessed muntin depth. The revised window specifications are intended to replicate the existing historic window character. The proposed replacement windows should maintain the existing window proportions, configuration, and visual depth to preserve the architectural character of the contributing structure.

Standard 9: New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work will be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment. (Standards for Rehabilitation p. 76)

Staff Comments: The proposed addition and garage are located at the rear of the residence, minimizing impacts to the primary façade and existing historic features. The proposed materials and architectural elements are compatible with the existing structure. Window replacement and removal of existing openings shall be completed in a manner that maintains the character-defining features of the contributing structure.

Standard 10: New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired. (Standards for Rehabilitation p. 76)

Staff Comments: The proposed addition and garage are located at the rear of the residence and are designed to allow the historic form and character of the original residence to remain identifiable. The placement and scale of the proposed work allow the essential form and integrity of the historic property to remain intact if the addition were removed in the future.

Staff Recommendation:**Appropriate with Conditions****Conditions:**

1. A separate variance approval from the Board of Adjustment is required prior to issuance of permits for the proposed addition and garage
2. Final window installation shall be consistent with the submitted Pella Reserve Traditional wood window specifications, including grille configuration, profile, and muntin depth. Any substantial modifications require additional review.

FISCAL IMPACT:

N/A

PROCUREMENT REVIEW:

N/A

LEGAL REVIEW:

N/A

ALTERNATIVE:

- Appropriate
- Appropriate with Conditions
- Table
- Deny



City of Ocala
Growth Management Department
201 S.E. 3rd Street, 2nd Floor
352-629-8421 | www.ocalafl.org

Case File # _____
COA _____ - _____
Meeting Date: _____
Product Approval # _____

Application for a Certificate of Appropriateness (COA)

As required by [Section 94-82\(g\)](#) of the City of Ocala Code of Ordinances, Ocala Historic Preservation Advisory Board (OHPAB) decisions on the COAs will be based on the [Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings](#) the [Ocala Historic Preservation Design Guidelines](#), and the [Ocala Historic Preservation Code](#).

COA Application Procedure:

1. Arrange an informal pre-application conference with Planning staff.
2. Fill out and submit COA application and required material to Planning staff 30 days prior to OHPAB meeting. Please email application packets: historic@ocalafl.org.
3. Attend OHPAB meeting or send a representative with a letter of authorization.
4. Meetings are held the 1st Thursday of each month at 4:00 p.m.
5. Meeting Location: City Council Chambers, 2nd floor of City Hall (110 SE Watula Ave.)

If applicant fails to notify staff and does not attend the meeting, the application may be tabled for one month. If applicant fails to notify staff and does not attend the next monthly meeting, the application may be denied without prejudice.

There is no application fee; however, if work is performed without an approved COA, a fee of \$100 will be assessed.

Parcel #:	28372-009-00	Property Address:	216 SE 13th St Ocala, FL 34471
Owner:	Chat Properties LLC	Owner Address:	10370 SW 51st St. Ocala, FL 34476
Owner Phone #:	352-572-0770	Owner Email:	ejones@brickcitytitle.net
Will there be an additional meeting representative? ☐ Yes ☐ No (If yes, representative will need a letter of authorization*)			
If yes, name of representative:			
Rep. Phone #:		Rep. Email:	

Project Type:	☒ Addition ☒ Alteration ☐ Repair	☐ New Construction ☐ Reroof ☐ Relocation	☐ Site Work ☐ Fence ☐ Other _____
---------------	---	---	--



City of Ocala
Growth Management Department
201 S.E. 3rd Street, 2nd Floor
352-629-8421 | www.ocalafl.org

Case File # _____
COA _____ - _____
Meeting Date: _____
Product Approval # _____

Describe, by list, specific changes you are requesting to do to your property. Include the types of materials to be used, as well as dimensions. A site plan must be provided for additions to buildings, new construction (including garages, sheds, other accessory buildings), fences and site work (including driveways, parking areas and other improvements). The site plan must show setbacks of the proposed new work items from property lines. Attach additional pages as necessary.

- Add a 1 bedroom additon to the rear of existing residence
- Add a 2 car garage to the rear of the residence
- Exterior siding will be similar to existing
- Replace roof
- Replace Windows
- Remove windows on north Side of house for utilites-Demo existing Garage
 - Proposed windows: Pella Reserve traditional wood FL17769
 - Grille/ Muttons will be a Traditional 3 over 3 style to match existing style on home
 - Grille Dimensions will be Ogee profiles in 5/8" with a recess depth approx. 3/8"
- Proposed Doors: Pella Reserve Out swing Traditional wood FL14293
 - Details will be the same as windows to match
- Roof materials: GAF Timberline shingles black/ Charcoal in color; FL10124-R36

Apply for associated variance to go from 25 ft in the rear to 6 ft

Required additional materials for submission:

- ☐ Completed and signed COA application
- ☐ Detailed drawings and specifications for all new materials – windows, doors, siding, roofing materials, fencing etc.
- ☐ Site plan
- ☐ Copy of property deed or proof of ownership
- ☐ Authorization letter for non-property owner representative*
- ☐ For New Construction: a set of building plans, no larger than 11 x 17, for structural changes or new construction. This includes all four elevations with drawn to scale dimensions. *
- ☐ Please list any additional attachments:

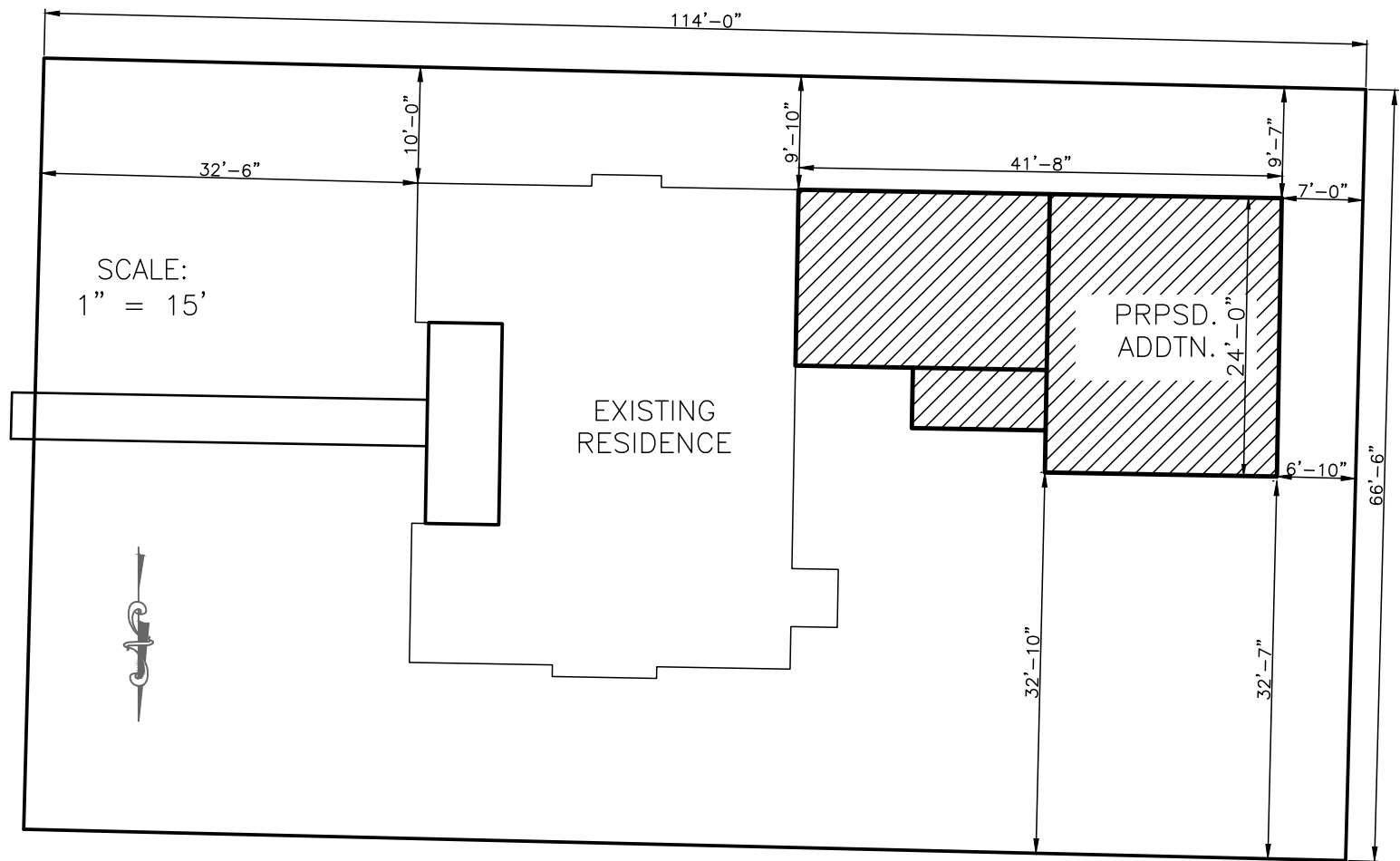
Applicant Signature

6/6/2026

Date

Site Plan

SE 13TH AVENUE



Elevations



Existing Front Elevation

SCALE: 1/4" = 1'-0"



Proposed Front Elevation

SCALE: 1/4" = 1'-0"



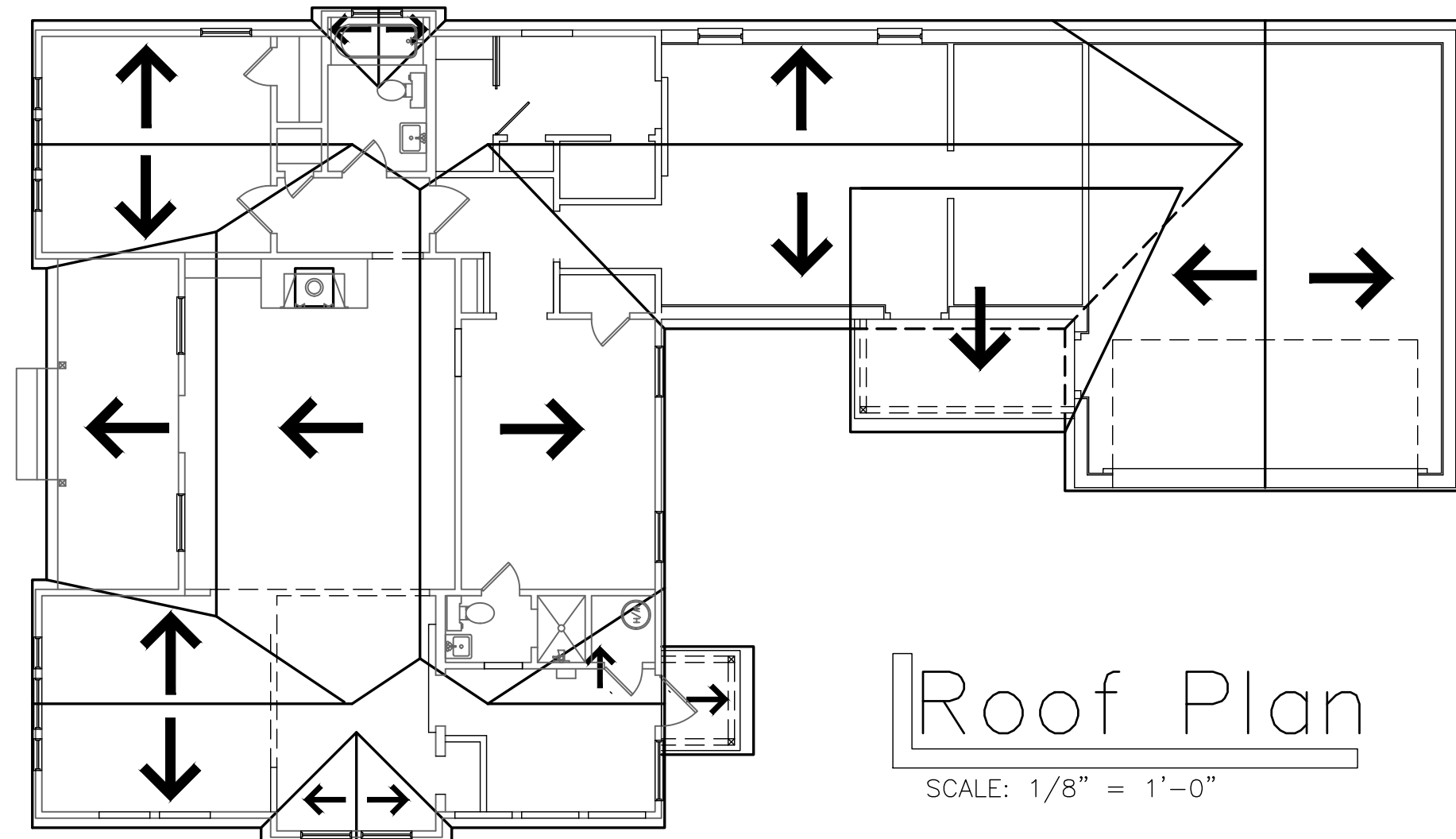
Existing Right Elevation

SCALE: 1/4" = 1'-0"



Proposed Right Elevation

SCALE: 1/4" = 1'-0"



Roof Plan

SCALE: 1/8" = 1'-0"

D. White Residence

216 SE 13th Ave, Ocala, FL 34471
Marion County

ELEVATIONS/ROOF PLAN


CALIBER DESIGN
& ENGINEERING LLC
2300 SE 17th STREET
UNIT 1002
OCALA, FL 34471
(352) 789-6298

SHEET NO.

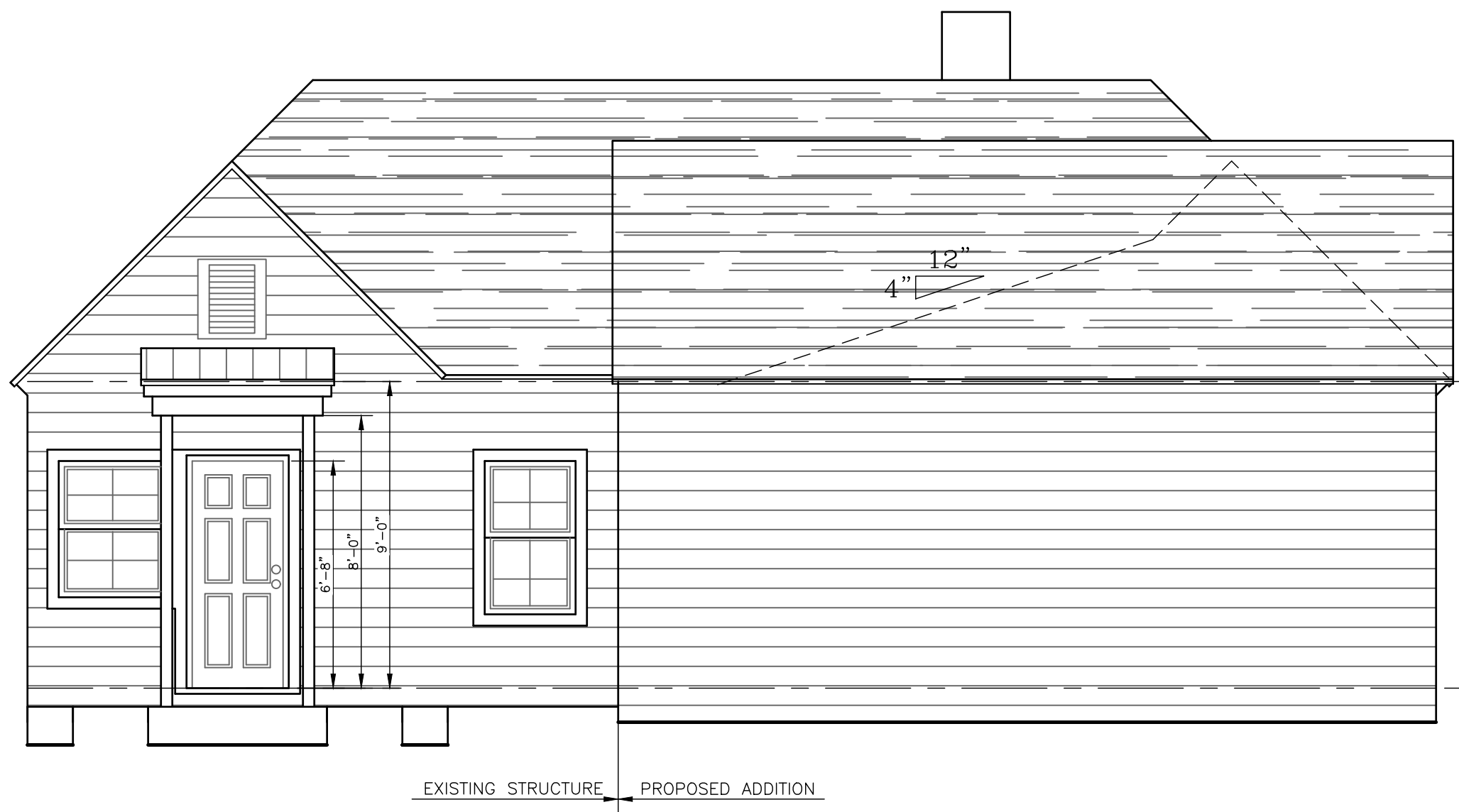
S6A

CLIENT	NBR	DESCRIPTION	DATE
D. White Construction LLC Phone: 352-234-3430 derek@whiteconst.com	1	ISSUE DATE	11/10/2025
P.I.D.: XXXXXXXX			
CDE PROJ. NO.: 509.25.001.01			
DESIGNED D.C.B.			
CHECKED J.E.B.			



Existing Rear Elevation

SCALE: 1/4" = 1'-0"



Proposed Rear Elevation

SCALE: 1/4" = 1'-0"



Existing Left Elevation

SCALE: 1/4" = 1'-0"



Proposed Left Elevation

SCALE: 1/4" = 1'-0"

CLIENT		NBR	DESCRIPTION	DATE
D. White Residence 216 SE 13th Ave, Ocala, FL 34471 Marion County		1	ISSUE DATE	11/10/2025
D. White Construction LLC Phone: 352-234-3430 derek@whiteconst.com		P.I.D.: XXXXXXXX		
		CDF PROJ. NO.: 509.25.001.01		
		DESIGNED D.C.B. CHECKED J.E.B.		
ELEVATIONS/ROOF PLAN				
SHEET NO.				
S6B				

Photos



From SE 13th Avenue facing west





Existing garage



Existing garage



Roofing Material Information



Timberline[®] NS
Natural Shadow[®] Lifetime[®] Shingles



Excellent performance and a natural shadow effect

Timberline[®] NS shingles deliver the rugged, dependable performance only a Timberline[®] roof can offer while creating a subtle, upscale aesthetic.



Timberline® NS Shingles

Benefits:

- **Great value** — Architecturally stylish and affordable
- **Attractive appearance** — Features a classic shadow effect. Lends any home a subtle, even-toned look with the warmth of wood in an asphalt shingle.
- **Highest fire rating** — Class A fire rating from Underwriters Laboratories
- **10-year StainGuard® Algae Protection Limited Warranty** against blue-green algae discoloration¹
- **DuraGrip™ Adhesive Seals shingles** tightly to help reduce the risk of shingle blow-offs. Eligible for up to a 130 mph limited wind warranty.³
- **Peace of mind** — Lifetime[†] Limited Warranty against manufacturing defects with Smart Choice® Protection period (non-prorated material and installation labor coverage) for the first ten years
- **A roof system** — Use TimberTex® premium ridge cap shingles, Master Flow™ vents and pipe boots, StormGuard® or WeatherWatch® leak barriers, and other premium GAF accessories found at gaf.com

Regionally Available Colors:



Product details:

Product/System Specifics

- Fiberglass asphalt construction
- **Dimensions (approx.):** 13 1/4" x 39 3/8" (337 x 1,000 mm)
- **Exposure:** 5 5/8" (143 mm)
- **Bundles/Square:** 3
- **Pieces/Square:** 64
- **StainGuard® Algae Protection¹** Limited Warranty
- **Hip/Ridge:** TimberTex®; TimberCrest®; Seal-A-Ridge®; Z®Ridge; Ridglass®
- **Starter:** Pro-Start®; QuickStart®; WeatherBlocker™

Applicable Standards & Protocols:

- UL Listed to ANSI/UL 790 Class A
- Florida Building Code Approved
- ICC-ES Evaluation Reports ESR-1475 and ESR-3267
- Meets the requirements of the Texas Department of Insurance.
- Classified by UL in accordance with ICC-ES AC438
- ASTM D3161, Class F
- ASTM D7158, Class H
- ASTM D3462²
- Miami-Dade County Product Control Approved

¹ Lifetime refers to the length of warranty coverage provided and means as long as the original individual owner(s) of a single-family detached residence (or eligible second owner(s)) owns the property where the qualifying GAF products are installed. For other owners/structures, Lifetime coverage is not applicable. Lifetime coverage on shingles requires the use of GAF Lifetime Shingles only. See the *GAF Shingle & Accessory Limited Warranty* for complete coverage and restrictions. Visit gaf.com/LRS for qualifying GAF products.

² 10-year StainGuard™ Algae Protection Limited Warranty against blue-green algae discoloration is available only on products sold in packages bearing the StainGuard™ logo. See *GAF Shingle & Accessory Limited Warranty* for complete coverage and restrictions.

³ Periodically tested by independent and internal labs to ensure compliance with ASTM D3462 at time of manufacture.

³ 15-year 130 mph wind warranty requires special installation with 6 nails per shingle and GAF Starter Strip Products installed at the eaves and rakes. With standard installation wind warranty is 110 mph.

Note: It is difficult to reproduce the color clarity and actual color blends of these products. Before selecting your color, please ask to see several full-size shingles.



We protect what matters most™



Wood Siding Material Information

Natural Wood Siding

Selection, Installation & Finishing



Western Wood Products Association



Contents

Grades	2
Pattern Selection	3
Moisture Content	3
Checklist for a Siding Specification	4
Priming and Prefinishing	4
Installation	5
Pattern & Installation (Nailing) Diagrams	6
Nails & Nailing	8
Finishing	9
Coverage Calculations	10
Checklist for High Performance Siding	11
Additional Information	11
Western Lumber Grade Reference Chart	back cover



Western Wood Products Association
522 SW Fifth Avenue, Suite 500
Portland, OR 97204-2122
503-224-3930 fax: 503-224-3934
e-mail: info@wwpa.org
website: www.wwpa.org

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Natural Wood Siding: Selection, Installation & Finishing

Natural Wood Siding

Solid wood has long been used as a siding material. Its natural beauty is timeless and the color and textures available are unmatched by other building products. Such properties make wood siding adaptable to a wide variety of regional preferences, architectural styles and climates.

When correctly installed and maintained, natural wood siding will last for decades and sometimes centuries. It is a prestige product that adds value to a home or commercial building, reflecting both quality materials and professional workmanship.

Grades

Building codes usually consider wood siding a non-structural material and place few restrictions on its use. In addition, model codes do not require that it be grade-stamped.

However, all Western species used for siding are listed under at least one industry-recognized grade rule published by an American Lumber Standard Committee, Inc. accredited rules-writing agency, such as Western Wood Products Association (WWPA).

Western species of the United States include Douglas Fir and Larch, Hemlock and the True Firs, Ponderosa Pine, Lodgepole Pine, Idaho White Pine, Sugar Pine, Engelmann Spruce, Sitka Spruce, White Spruce and the Western Cedars.

Cedar's weather resistance and dimensional stability make it particularly well suited to siding applications, with the added benefit that cedar's heartwood is naturally durable against decay. Clear Heart and Clear VG Heart grading rules include the heart designation. If heartwood is desired in other grades, and sapwood to be limited, then it must be so specified through buyer/seller agreement.

Siding products are generally categorized as either *premium* or *knotty* grades.

Premium grades have fewer characteristics such as knots, pitch streaks and so forth. The highest designations are reserved for clear wood free of characteristics. These grades are generally more expensive and usually sold kiln dried.

While some B&Btr is available, Select grades usually include C and D Select. (Equivalent grade designations in Idaho White Pine are Supreme, Choice and Quality.) Western Red Cedar may be graded as Selects or according to Cedar Rules where comparable grades are Clear Heart, A and B grades. Finish grades include Superior and Prime, and can be used for most Western species but are seldom used for the cedars and pines. Additional grades for bevel patterns are shown in *Table 1*. Specify exact grade desired, by grade rule book and paragraph number.

Knotty grades such as Common, Alternate Board, Select Knotty and Quality Knotty are more abundant as they include material with knots and other characteristics.

Knot size and quality are defined in the grading rules. Sound, tight knots will not adversely affect the performance of the siding. However, encased or unsound knots can become loose and may eventually fall out.

WWPA knotty grades include 1, 2 and 3 Common. (Equivalent grades in Idaho White Pine are Colonial, Sterling and Standard.) These grades are generally referenced as 2&Btr Common and 3&Btr Common for most Western species. (*Refer to notes under Table 1 for additional information.*)

The WCLIB knotty grades for Alternate Boards are Select Merchantable, Construction and Standard. Similar knotty grades for cedar siding are Select Knotty and Quality Knotty.

When selecting knotty siding in any species, specify the exact grade or paragraph number of the grade rule book from an ALSC-

accredited agency. (Paragraph numbers are included in Table 1.)

Some manufacturers market their siding under a variety of names such as STK (select tight knot or sound tight knot) or NPS (no prior selection). These names are helpful but it is important to understand that these are marketing terms and not grade designations from grading agencies.

There are no uniform standards for STK, NPS, etc. Consequently the products so-named may vary in quality from one source to another. STK cedar may be a combination of Select Knotty and Quality Knotty, with a percentage of the order in Quality Knotty.

Pattern Selection

Boards in standard dimensions can be readily used for such siding applications as board-and-batten or board-on-board. However, most siding products are milled or run to a pattern.

Standard patterns are published by the rules-writing agencies to encourage uniformity and to serve as a common reference throughout the industry. The popular patterns are bevel or bungalow, Dolly Varden and channel. (Refer to Figure 3 for profiles of these and other patterns. WWPA's Standard Patterns can be downloaded from www.wwpa.org.)

Patterns not only allow for different effects in design and

appearance but also affect performance. Patterns like tongued-and-grooved, which are primarily paneling patterns, should only be installed in exterior applications where the greatest degree of protection from climatic conditions can be provided. Tongued-and-grooved patterns allow for very little dimensional change as the siding acclimates to the environment, or as a result of seasonal dimensional adjustments. Climate, humidity levels, architectural detailing and exposure to prevailing weather conditions should all be considered when selecting a pattern.

As a rule of thumb, narrow patterns perform best because there is less dimensional change in the siding as the environment changes from wet to dry, or from the freezing conditions of winter to the blistering heat of late summer. Thicker patterns have less tendency to cup or split than do thinner patterns.

Siding surfaces are manufactured smooth, rough, or saw-textured. The type of surface and pattern, in combination with the finishing material, will affect performance. In general, saw-textured surfaces hold finishes longer than smooth surfaces.

Moisture Content

As wood loses or gains moisture, it will shrink or swell until it reaches equilibrium with the level of moisture in the air of its immediate surroundings. Because of its cell structure, wood shrinks primarily in thickness and width and very little in length.

Wood siding is no exception. It will shrink and swell regardless of pattern or material quality. Problems can occur after installation if the siding shrinks or swells unevenly or very rapidly, particularly if it has been improperly nailed and its natural movement has been restricted. However, problems such as twist, cup, warp, splits and checks can be minimized.

To avoid potential problems and to minimize dimensional change after installation, the moisture content of the siding should match the local climate as closely as possible at the time of installation.

Table 1: GRADES

General Categories (Note that there are additional grades for bevel pattern.)		GRADES ⁷			Grade Rule Paragraph Numbers for Reference & Specifying		
		WESTERN SPECIES		CEDAR Western & Canadian			
		Selects ¹	Finish		WWPA ²	WCLIB ³	NLGA ⁴
All Patterns	Premium Grades	C Select⁵ D Select⁵	Superior Prime	Clear Heart⁵ A Grade⁵	20.11 20.12 10.12 10.51 10.13 10.52 20.13	102-b 102-c — — — — 102-d	200a 200b — — — — 200c
				B Grade			
				Clear VG Heart⁵ A Bevel⁵	21.11 21.12 16.11 21.13 — 21.14	106-aa 106-a — 106-b — 106-c	201a 201b — 201c 201d 201e
				B Bevel Rustic C Bevel			
Additional Grades for Bevel Patterns	Premium		Superior Bevel				
	Knotty		Prime Bevel	Select Knotty⁶ Quality Knotty⁶	16.12 — —	— — —	— 205a 205b
All Patterns	Knotty Grades	Commons ¹	Alternate Boards	Select Knotty⁶ Quality Knotty⁶	30.12 — 30.13 —	118-a 111-e 118-b ⁸ 111-f 118-c ⁹	114a 204a 114b ⁸ 204b 114c ⁹
		2 Common	Select Merch. Construction				
		3 Common	Standard				

¹ Equivalent grades, under the same paragraph numbers in WWPA Rules, are available in Idaho White Pine. Refer to Western Lumber Grading Rules.

² Western Wood Products Association's Western Lumber Grading Rules.

³ West Coast Lumber Inspection Bureau's Standard Grading Rules for West Coast Lumber.

⁴ National Lumber Grades Authority's Standard Grading Rules for Canadian Lumber.

⁵ Some clear grades may be specified VG (vertical grain). Common practice is to ship orders as a combination of vertical and flat grain, unless specified otherwise.

⁶ The widely used marketing term, "STK" usually describes a combination of Select Knotty and Quality Knotty, sometimes marketed with approximately 15% of the order in Quality Knotty.

⁷ The grades listed in these three columns are arranged in order of highest to lowest appearance quality; Clear Heart is the highest and Standard and Quality Knotty are the lowest grades in this table.

⁸ Construction grade paragraph reference number.

⁹ Standard grade paragraph reference number.

The grade names in bold face type are the most widely available grades. These are often specified as a grade combination that includes some portion of material in the next higher grade; i.e. C&BTR Select, D&BTR Select, A&BTR Cedar, 2&BTR Common, 3&BTR Common or STAND&BTR (Standard & Better).

For instance, if the climate in a particular region causes wood to maintain 9% to 14% moisture content, then the moisture content of the siding should be within that range when installed.

Siding can be dried at the time of manufacturing to a variety of moisture content levels or it can be shipped from the mill unseasoned or green.

Unseasoned or green wood has a moisture content of more than 19%.

Dry wood will be at a maximum moisture content of 19% or 15%.

Dry siding will take less time to acclimate to the air of its final surroundings (*refer to Table 2*) and it will have less dimensional change, before and after installation, than unseasoned or green siding.

When ordering siding, specify the required moisture content level, but keep in mind the reality of the marketplace: premium grades of siding are readily available dry; some knotty grades are available dry. Remember too, **dry has a different meaning for the premium grades than it does for the knotty grades.**

Dry for the premium grades means that the siding has been dried to a maximum of 15% moisture content (MC 15). In addition, under WWPA rules, MC 15 means that at least 85% of the pieces in the order will be at a moisture content of 12% or less.

When knotty grades are dried at the mill, the siding is air- or kiln-dried so that it will not exceed 19% moisture content. Thus, **dry knotty siding** will have a moisture content of 19% or less and may be grade-

stamped “S-DRY” or “KD”.

However, knotty grades can be specified MC 15 or KD 15, and are available through a buyer/seller agreement, when a maximum moisture content of 15% is desired.

Method of Drying — Lumber may be air dried or kiln dried. These terms do not necessarily refer to a specific moisture content but refer instead to the method used for drying. **Air dried** lumber has been seasoned by exposure to the atmosphere, without artificial heat.

Kiln dried lumber has been seasoned in a chamber with the use of artificial heat. To assure compliance with a moisture content level, a moisture percentage should always be referenced.

Siding Storage — All siding may pick up or lose moisture in transit or storage so it is important to allow it to acclimate with the surrounding air of its final site prior to installation.

Stack the siding on evenly spaced, vertically aligned stickers (spacers between the layers) in an area where there will be good air flow through the stack. This should be done in an open garage or other area that is protected from the elements.

If stacked over concrete, use 2x4s or 2x6s on edge to elevate the first course of siding at least 3½ inches above the surface of the concrete. If the stack is over wet ground or wet concrete, lay down a vapor barrier so the wood doesn't pick up moisture from beneath the stack.

Allow air to flow through and around the stack for a week to 10 days for *dry* siding, prior to installation. Extend the time period to 30

days or longer, for *unseasoned* siding or if acclimating in exceptionally humid conditions.

Further precautions must be taken if *unseasoned* or *green* materials, with a moisture content of more than 19%, are to be used successfully:

- 1) Allow materials to acclimate, as described, over a longer period—at least 30 days and longer in damp or humid conditions—before installation.
- 2) Use patterns which allow for some shrinkage, such as bevel, channel or board-and-batten. These patterns have a profile that includes a gap that can more easily accommodate dimensional change.
- 3) Use as narrow a width as possible. Dimensional change is proportional; the wider the width, the greater the change.

Priming and Prefinishing

Often, material which has been properly seasoned, stored and handled will pick up moisture after installation but prior to finishing. Later, when the siding loses that moisture, joints may open up.

Research from the U.S. Forest Products Lab indicates that siding exposed to the elements for two

Checklist for a Siding Material Specification

- Select species suited to the project.
- List grade names, paragraph numbers and rules-writing agency. (*Refer to Table 1.*)
- Specify surface texture for exposed face.
- Specify moisture content suited to the project.
- If gradestamped, specify lumber be stamped on back or ends. (*WWPA's Lumber Specifying offers additional information.*)
- Specify VG (vertical grain) if appropriate and available. (*Refer to Table 1, footnote 5.*)
- Specify pattern and size. (*WWPA's Standard Patterns offers additional information.*)

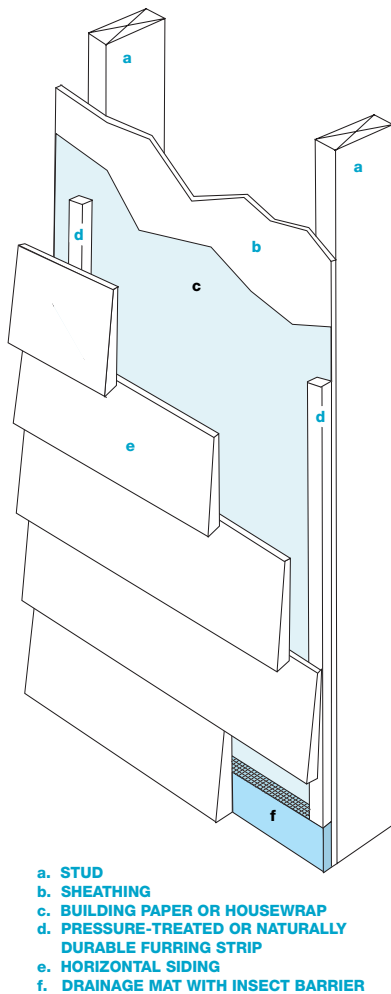
Table 2: MOISTURE CONTENT GUIDELINES

Use of Wood in Exterior	Recommended Moisture Content at Time of Installation					
	Most Areas of the U.S.		Dry, Southwestern States		Damp, Warm South-eastern Coastal Areas	
Siding, Trim and Sheathing	Average ¹	Individual Pieces	Average ¹	Individual Pieces	Average ¹	Individual Pieces
	12%	9-14%	9%	7-12%	12%	9-14%

¹To obtain a realistic average, test at least 10% of each item, i.e. 10% of the siding pieces, 10% of the trim pieces and random checks of the sheathing material. It is particularly important to check the sheathing prior to the siding application if it has become wet after installation.

Source: *Wood Handbook*, 1999, from Table 12-2.

Figure A: FURRING STRIPS AND DRAINAGE PLANE



weeks weathers enough to reduce the adhesion of film-forming finishes.

Priming or prefinishing the siding (all sides, edges and cut ends) **after** it has reached climatic balance but **before** it is installed can provide extra protection and often prevent adhesion problems and/or premature finish failure.

Back-priming the siding eliminates the leaching of chemical extractives, which have the potential to degrade sheathing wraps.

Prefinishing is recommended in all circumstances. Prefinishing will minimize objectionable unfinished lines where joints open up due to face-width shrinkage during exceptionally dry summers.

Make certain the prefinish is compatible with the final coat. For example, clear water repellents

should not be used if a bleaching oil is to be the final finish. (Refer to the *Finishing* section.)

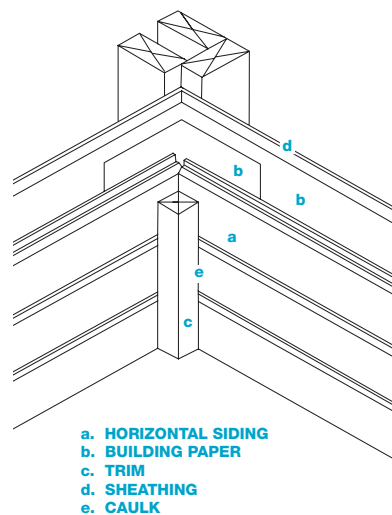
Installation

Natural wood siding should be installed over a weather-resistant barrier regardless of the sheathing material. A weather-resistant barrier is a vapor-permeable sheathing wrap that resists any liquid water that gets behind the siding, and acts as a drainage plane. There are three basic types of sheathing wrap: asphalt felt, Grade D building paper and plastic housewrap. In

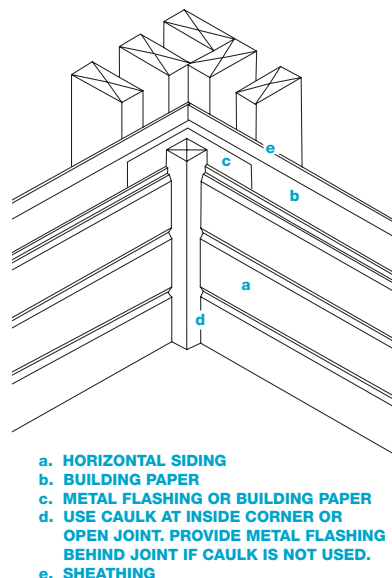
order to function as a drainage plane, a sheathing wrap should have an air gap between the wrap and the siding. (An appropriate vapor barrier, on the warm side of the insulation, should be used to reduce moisture movement from inside.) (See Figure A.)

Sometimes referred to as a “rain-screen” wall, the air space behind the exterior siding promotes drainage and ventilation, and allows the drainage plane surface to shed water back to the exterior rather than absorb it. Typically, a 1/8-in. to 1/2-in. air space between the

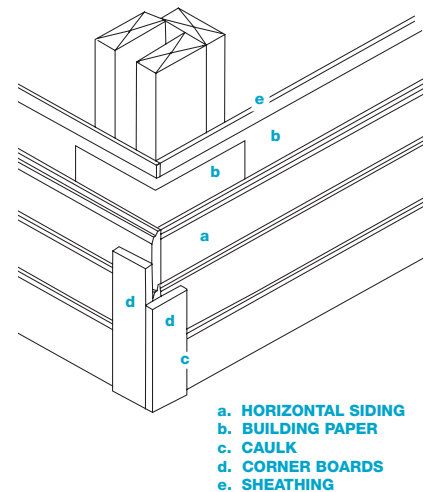
Figure B: CORNER DETAILS



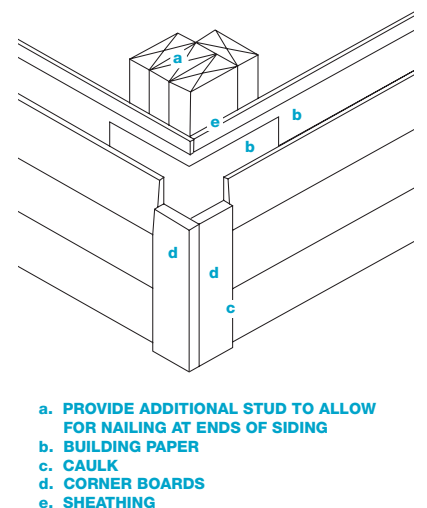
Inside Corner Detail-a



Inside Corner Detail-b



Outside Corner Detail-a



Outside Corner Detail-b

Figure C: SIDING PATTERNS, NOMINAL SIZES & RECOMMENDED NAILING

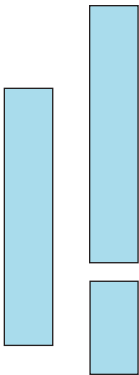
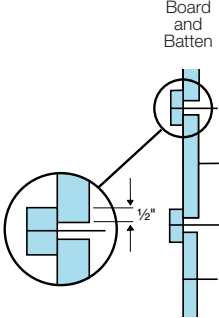
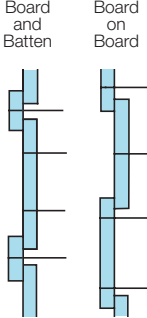
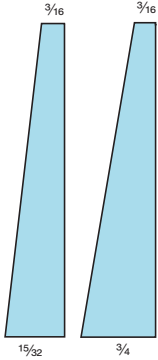
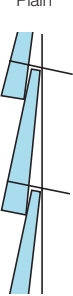
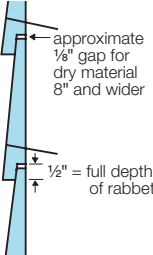
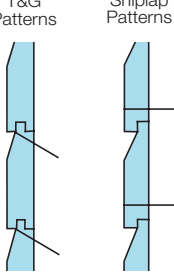
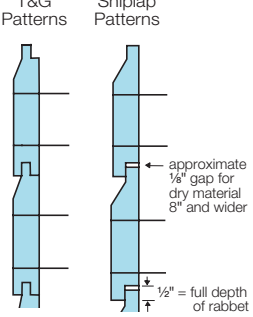
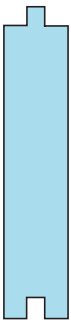
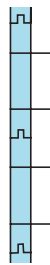
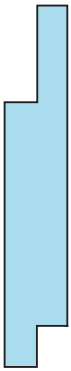
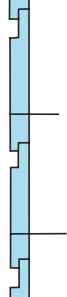
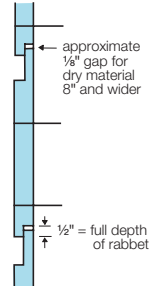
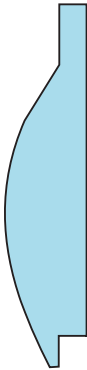
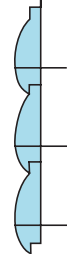
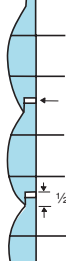
Siding Patterns	Nominal Sizes* Thickness & Width	Nailing 6" and Narrower	8" and Wider
 TRIM BOARD-ON-BOARD BOARD-AND-BATTEN Boards are surfaced smooth, rough or saw-textured. Rustic ranch-style appearance. Provide horizontal nailing members. Do not nail through overlapping pieces. Vertical applications only.	1 x 2 1 x 4 1 x 6 1 x 8 1 x 10 1 x 12 1 1/4 x 6 1 1/4 x 8 1 1/4 x 10 1 1/4 x 12	 Board and Batten	 Board and Batten Board on Board
 BEVEL or BUNGALOW Bungalow ("Colonial") is slightly thicker than Bevel. Either can be used with the smooth or saw-faced surface exposed. Patterns provide a traditional-style appearance. Recommend a 1" overlap. Do not nail through overlapping pieces. Horizontal applications only. Cedar Bevel is also available in 7/8 x 10, 12.	1/2 x 2 1/2 x 4 1/2 x 5 1/2 x 6 5/8 x 8 5/8 x 10 3/4 x 6 3/4 x 8 3/4 x 10	 Plain	 Plain
 DOLLY VARDEN Dolly Varden is thicker than Bevel and has a rabbeted edge. Surfaced smooth or saw-textured. Provides a traditional-style appearance. Allows for a 1/2" overlap, including an approximate 1/8" gap. Do not nail through overlapping pieces. Horizontal applications only. Cedar Dolly Varden is also available in 7/8 x 10, 12.	Standard Dolly Varden 3/4 x 6 3/4 x 8 3/4 x 10 Thick Dolly Varden 1 x 6 1 x 8 1 x 10 1 x 12	 Rabbeted Edge	 Rabbeted Edge
 DROP Drop siding is available in 13 patterns, in smooth, rough or saw-textured surfaces. Some are T&G, others shiplapped. Refer to <i>Standard Patterns</i> (G-16) for dimensional pattern profiles. A variety of looks can be achieved with the different patterns. Do not nail through overlapping pieces. Horizontal or vertical applications. Tongued edge up in horizontal applications	3/4 x 6 3/4 x 8 3/4 x 10	 T&G Patterns Shiplap Patterns	 T&G Patterns Shiplap Patterns

Figure C: SIDING PATTERNS, NOMINAL SIZES & RECOMMENDED NAILING

Siding Patterns	Nominal Sizes* Thickness & Width	Nailing 6" and Narrower	8" and Wider
 TONGUED & GROOVED Tongued & Grooved siding is available in a variety of patterns. T&G lends itself to different effects aesthetically. Refer to <i>Standard Patterns</i> (G-16) for pattern profiles. Sizes given here are for Plain Tongued & Grooved. Do not nail through overlapping pieces. Horizontal or vertical applications. Tongued edge up in horizontal applications.	1 x 4 1 x 6 1 x 8 1 x 10 1 x 12 Note: T&G patterns may be ordered with 1/4, 3/8, or 7/16" tongues. For wider widths, specify the longer tongue and pattern.	Plain  Use one casing nail per bearing to blind nail.	Plain  Use two siding or box nails 3-4" apart to face nail.
 CHANNEL RUSTIC Channel Rustic has a 1/2" overlap, including an approximate 1/8" gap, and a 1" to 1 1/4" channel when installed. The profile allows for maximum dimensional change without adversely affecting appearance in climates of highly variable moisture levels between seasons. Available smooth, rough or saw-textured. Do not nail through overlapping pieces. Horizontal or vertical applications.	3/4 x 6 3/4 x 8 3/4 x 10	 Use one siding or box nail to face nail once per bearing, 1" up from bottom edge.	 Use two siding or box nails 3-4" apart per bearing. approximate 1/8" gap for dry material 8" and wider 1/2" = full depth of rabbet
 LOG CABIN Log Cabin siding is 1 1/2" thick at the thickest point. Ideally suited to informal buildings in rustic settings. The pattern may be milled from appearance grades (Commons) or dimension grades (2x material). Allows for 1/2" overlap, including an approximate 1/8" gap. Do not nail through overlapping pieces. Horizontal or vertical applications.	1 1/2 x 6 1 1/2 x 8 1 1/2 x 10 1 1/2 x 12	 Use one siding or box nail to face nail once per bearing, 1 1/2" up from bottom edge.	 Use two siding or box nails, 3-4" apart, per bearing to face nail. approximate 1/8" gap for dry material 8" and wider 1/2" = full depth of rabbet

Siding Installation Tips

- Do not nail through overlapping pieces. Use stainless steel, high tensile strength aluminum, or hot-dipped galvanized nails with ring or spiral-threaded shanks. Use casing nails to blind nail; siding or box nails to face nail.
- Horizontal applications only for Bevel, Bungalow and Dolly Varden.
- Vertical applications only for Board-on-Board or Board-and-Batten; bevel cut ends of pieces and install so water is directed to outside.
- Horizontal or vertical applications for Tongued & Grooved, Channel Rustic, Log Cabin or Drop patterns. Tongued edge up in horizontal applications of Drop and T&G patterns.
- Read the section on *Nail Penetration and Spacing* to determine nail size.
- Read the sections on *Moisture Content* and *Priming and Prefinishing* before installing siding.

*Note: Refer to WWPA's *Standard Patterns* (G-16) for scale profiles and actual dimensions of run-to-pattern products.

sheathing wrap and siding is achieved by applying vertical furring strips over the wrap.

Should water find a way behind the siding, the vented space allows moisture to dissipate naturally, reducing premature finish failures and directing water downward and outward, away from moisture sensitive materials. Corrugated sheathing wraps and three-dimensional drainage fabrics also have been developed to provide drainage, even when siding is installed directly against the material.

When sheathing material or sheathing wrap surfaces become wet, allow surfaces to dry before the wood siding is nailed into position.

Many patterns may be installed horizontally or vertically. Pattern orientation should restrict the entrance of moisture and weather. Some patterns, such as board-and-batten, may be installed only in a vertical fashion. Others, such as bungalow, bevel and drop, may be installed only horizontally.

Where two pieces of siding meet—particularly in vertical applications—miter cut the ends at 45 degree angles to create an overlapping joint. Make sure the joints meet on studs, blocking or furring strips for secure nailing.

Use caulk where siding abuts openings or trim. Latex-silicone blends, polyurethane and polysulfide caulks should give satisfactory performance. Caulks made of 100% silicone are not recommended.

Theoretically, any pattern which can be installed in either direction, such as channel or tongued-and-grooved, can also be installed diagonally. However, diagonal installation tends to channel water directly into door jambs, window casings or other joinery details on a structure.

If siding is to be installed diagonally, the project must be designed from the outset to accommodate the direction of run-off.

When wood siding is installed over metal studs, concrete or masonry, provide 2x nailers of sufficient spacing and size to meet the nailing requirements. This procedure is sometimes used when wood siding is installed over foam sheathing. (Refer to *Nail Penetration and Spacing*.)

Nails and Nailing

Correct nails and nailing practices are essential in the proper application of wood siding. In general, siding and box nails are used for face nailing and casing nails are used for blind nailing. Nail locations are included with the individual patterns in *Figure C*.

Recommended Nails

Nails must be corrosion-resistant and preferably rust proof. Avoid using staples.

1. **Stainless steel.** The best choice.
2. **High tensile strength aluminum.** An economical choice. This nail is corrosion resistant and will not discolor or cause deterioration of the wood siding. However, aluminum nails will react with galvanized metal causing corrosion. Do not use aluminum nails on galvanized flashing (nor galvanized nails on aluminum flashing).
3. **Hot-dipped galvanized.** This nail is the least expensive, but may result in discoloration if precautions are not taken.

(a) Make certain the nails are of top quality, as the degree of protective coating varies with the hot-dip galvanization process.

(b) In some instances, the use of hot-dipped galvanized nails along with clear finishes on Western Red Cedar has resulted in stains around the nails. While this occurrence seems to be limited to the northeastern and north central regions of the country, **the combination of hot-dipped galvanized nails with clear finishes on Western Red Cedar is not recommended.**

(c) Plastic hammer-head covers can be used when driving hot-dipped galvanized nails. This will reduce the potential for chipping and the subsequent potential for corrosion.

4. **Other fasteners.** Other types of corrosion-resistant fasteners may perform satisfactorily. Before selecting an alternative fastener, check with the fastener manufacturer to determine whether or not it is suitable with the species

of wood used for the siding. Avoid fasteners that may result in stains. **Do not use staples or electro-plated nails. These fasteners often result in black iron stains which can be permanent.**

Copper nails are not suitable for Western Red Cedar as cedar's natural extractives will react with the copper, causing the nails to corrode and resulting in stains on the siding.

While budgets are always a consideration, high-quality nails for solid wood siding are a wise investment. The discoloration, streaking or staining that can occur with inappropriate nails ruins the appearance of the project and can be very difficult to remove.

Nail Shanks

Many nails have smooth shanks and will loosen as the siding expands and contracts under the extremes of seasonal changes in temperature and humidity. Ring or spiral-threaded nail shanks will increase the holding power. Both types of shanks are readily available.

Nail Points

The most commonly used nail points include:

Blunt — reduces splitting.

Diamond — most commonly used.

Needle — should be avoided as needle points tend to cause splitting.

Figure D: NAIL TYPES

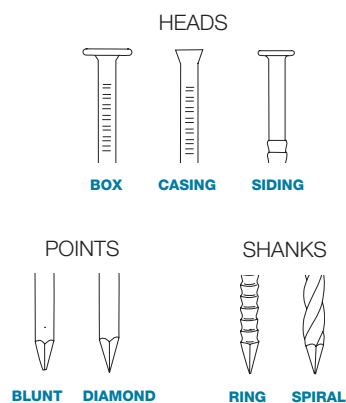


Table 3: NAIL LENGTHS

12d	3 1/4"
10d	3"
9d	2 3/4"
8d	2 1/2"
7d	2 1/4"
6d	2"
5d	1 3/4"
4d	1 1/2"
3d	1 1/4"
2d	1"

Nail Penetration and Spacing

Recommended penetration into studs or blocking, or into a combination of wood sheathing and these members, is 1 1/2". Penetration is 1 1/4" with ring shank nails.

Vertical siding, when applied over wood-based sheathing, should be nailed to horizontal blocking or other wood framing members not exceeding 36" on center when face-nailed, or 32" on center when blind-nailed.

Vertical siding, when installed without sheathing, should be nailed to wood framing or blocking members at 24" on center. Some building codes require 24" on center with or without sheathing; check your local code to verify requirements. Cut bevel (scarf) joints for vertical installations.

Horizontal and diagonal siding should be nailed to studs at 24" on center maximum when applied over wood-based, solid sheathing and 16" on center maximum when applied without sheathing.

The siding pattern will determine the exact nail size, placement and number of nails required. (*Refer to Figure C.*) Nails are placed to allow the wood to move, that is to shrink and swell, as well as to adequately hold the siding in place.

As a general rule, each piece of siding is nailed independently of its neighboring pieces. Do not nail through two overlapping pieces of siding with the same nail as this practice will restrict the natural movement of the siding and may cause unnecessary problems. Nail joints into the studs or blocking members.

Drive nails carefully. Hand nailing is preferred over pneumatic nailing because there is less control of placement and driving force with pneumatic nailers. Nails should be snug, but not overdriven. Nails that are overdriven can distort the wood and may cause excessive splitting. Overdriven nails also provide an avenue for moisture to collect and move through the piece. Predrilling near the ends will help reduce any splitting that can occur with thinner patterns.

For additional information regarding pneumatic nailing, contact the International Staple, Nail and Tool Association at www.isanta.org

Finishing

Natural wood siding can be finished with a variety of products to achieve just about any look desired. Finishes not only enhance the appearance of the wood, but also protect the siding against the detrimental effects of water, mildew and ultraviolet light.

Among the wide range of exterior finishing products available, most finishes fall into four general categories: clear water repellents, bleaching oils, stains and paints.

When choosing a particular finish, consider the desired appearance, preparation and maintenance requirements of the finish, location of the structure and current condition of the siding.

Some people prefer to leave natural wood siding unfinished, in hopes for a weathered appearance. This is not recommended. Siding without a finish can weather unevenly and is prone to surface mold, ultraviolet degradation and moisture-related problems such as cupping and splitting. With the correct type of finish, a natural weathered look can be achieved while providing protection for the siding to promote optimum performance over the years.

Clear Water Repellents

Clear water repellents are one way to achieve a natural look. These products do not add color to the siding and the natural colors and grain patterns can be seen

through the finish. These repellents are often used on cedar siding when a weathered, silvery-grey color is desired.

Clear water repellents will not maintain the brand new look of siding because they do not prevent the sun's ultraviolet rays from fading the wood. Instead, water repellents allow the wood to fade naturally according to the amount of exposure the wood receives. However, some water repellents do contain ultraviolet inhibitors or UV blockers that help minimize the effects of the sun.

Always choose a water repellent that is formulated for wood and contains a mildewcide to help prevent discoloration caused by mildew.

Water repellents are sometimes formulated with a preservative, such as zinc naphthanate, that offers additional protection against decay. These are particularly useful in areas where the siding is constantly subjected to high moisture.

Some copper-based preservatives, such as copper naphthanate, may not be desirable because they have a green tint.

When paint is to be the final finish, paintable clear water-repellent preservatives can also be applied prior to the prime coat to increase the service life of the top coats. Clear water repellents should not be used under a bleaching oil finish.

Clear water repellents can be expected to last from six months to two years, depending on the surface texture of the siding and the location and exposure of the structure.

Bleaching Oils and Bleaching Stains

Bleaching oils and bleaching stains, sometimes called *weathering stains*, are another way to achieve a grey weathered look, but the effect happens faster and the protection offered is longer-lived than with a clear water repellent.

Bleaching products are similar to semi-transparent stains but contain an added ingredient which causes the wood to bleach to a silver color within approximately six to 12

months. They are typically used on cedar siding.

Because of the pigmentation included in the formulation, bleaching oils and stains will color the wood grey upon application. Then, as the siding is exposed to sun and water, the bleaching oils begin to bleach the wood itself, resulting in a more uniform weathered look than can be achieved naturally.

Bleaching oils bring about a silvery-grey appearance that can last for many years. However, the protection offered by the oils may only last two or three years. Consequently, it is a good idea to periodically apply a clear water repellent to the siding, over the bleaching oil, to protect it but not alter the color. If siding color becomes uneven over time, simply reapply another coat of bleaching oil.

Stains

Stains are pigmented finishes that provide color and protection against ultraviolet rays. Many are also water repellents and may include mildewcides and preservatives as well.

When selecting a stain, make sure it is a water-repellent stain that contains at least a mildewcide. Stains are recommended for use on rough or saw-textured siding.

Stains are classified as semitransparent and opaque.

Semitransparent stains have a moderate amount of pigment, provide a fairly uniform color without hiding the wood grain. Oil-based, semi-transparent stains are recommended as they penetrate the wood surface more than water-based products.

As semitransparent stains do not form a film, they are not subject to peeling or blistering but do wear off gradually.

Semitransparent stains can be expected to last from two to five years, depending on the surface texture of the wood, the exposure conditions and the number of previous applications. For first-time applications on saw-textured siding, semitransparent stains may last two years. Subsequent applications

may last up to five years.

Semitransparent stains do not last as long on smooth sidings.

Opaque (solid or heavy-body) stains, have more pigment than semitransparent stains. Think of them as thin paints. Wood grain and color are not visible through opaque stains, but surface texture (roughness) is.

Opaque stains are available in oil- or water-based formulations; however, oil-based formulations are recommended for cedar siding. Opaque stains may form a thin film on the wood surface and some can be subject to flaking. Opaque stains are not recommended over smooth siding unless a compatible primer is used prior to staining.

Service life is typically three to seven years, depending on the surface texture, exposure of the building and number of previous applications.

Primers and Paint

A paint system, properly applied, will provide more protection and last longer than other finishes. Paints are film-forming finishes that resist moisture absorption and block ultraviolet rays. The variety of colors makes paint a popular finish; lighter colors are recommended over darker colors.

If good performance is to be expected, primers must be used. Primers are generally oil or water-based. Acrylic latex (water-based) primers are recommended for most wood species.

However, for woods naturally high in extractive content, such as Western Red Cedar, *stain-blocking (oil-based or latex) primers must be used* to help minimize discolorations that can occur when water interacts with the natural extractives, causing them to bleed through the surface of the primer. The primer must prevent the natural extractives in the wood from interacting with the water in subsequent finish coats.

Paints are formulated using either an oil (or alkyd) base or water base.

Oil-based paints are generally more effective at blocking moisture than are acrylic latex paints. However, oil-based paints tend to form

a more rigid film that can crack or blister if the wood moves excessively as a result of changes in humidity.

Acrylic latex paints are more flexible and will consequently shrink and expand with the wood, making them less prone to cracking.

The recommended application for most species is one brush coat of acrylic latex primer followed by two coats of 100% acrylic latex paint.

For species high in extractives such as Cedar, use an oil-based primer or stain-blocking latex primer, then two coats of acrylic latex paint.

To enhance the performance of a paint finish, prefinish the siding with one coat (or dip) of a paint-compatible water-repellent preservative prior to priming and painting. This can increase the life of the finish by up to 10 years.

Finishes to Avoid

Do not use varnishes, lacquers or other clear, film-forming finishes on exposed wood. These finishes become brittle, allow UV degradation, can crack and peel, and are difficult to remove. Also avoid pure linseed oil or linseed oil/turpentine mixtures. Such finishes attract dirt and are prone to mildew.

Application Methods

The best method for applying most finishes is with a brush (water repellents may be dipped). Brushing usually puts more finish on the wood surface, extending its service life. On rough-sawn siding, a brush serves to work the finish around the rough wood fibers.

All siding surfaces (face, edges, ends and back side) should have a coat of protection before installation.

When all surfaces are coated, moisture movement in and out of the siding is equalized and the potential for cupping and splitting is minimized.

Prefinishing also minimizes unfinished lines that can occur at joints and laps if the siding shrinks during exceptionally dry summers.

Coverage Calculations

Siding is usually sold either by the lineal (*running*) foot or by the board foot.

To simplify cost and coverage estimations, select the appropriate factor from *Table 4* according to how the siding is priced. The factors provided in *Table 4* can be used to calculate the amount of siding required either in lineal feet or in board feet.

In either case, the square footage of the area to be covered is calculated first, then multiplied by the appropriate factor.

Procedure:

- Calculate the square footage in walls:
length x width = sq. ft.
- Calculate and then subtract the square footage of openings. Now add 10% for trim and waste.
- Multiply the result by either the factor for lineal feet or the factor for board feet.
- Multiply the total footage required by price.

Additional Information

Technical information on Western lumber products manufactured by WWPA mills is available through the Association's Online Technical Guide at www.wwpa.org. Free registration is required. The Online Guide features sections on lumber grades, design values, specifications and properties of Western lumber.

For a full description of technical publications available for purchase or download, go to the Online Literature Store on the WWPA web site.

Table 4: COVERAGE ESTIMATOR

Pattern	Nominal Width	Width		Factor for Lineal Feet ¹	Factor for Board Feet ²
		Dressed	Exposed Face		
Bevel & Bungalow	4	3½	2½	4.8	1.60
	6	5½	4½	2.67	1.33
	8	7¼	6¼	1.92	1.28
	10	9¼	8¼	1.45	1.21
Dolly Varden	4	3½	3	4.0	1.33
	6	5½	5	2.4	1.2
	8	7¼	6¾	1.78	1.19
	10	9¼	8¾	1.37	1.14
	12	11¼	10¾	1.12	1.12
Drop, T&G and Channel Rustic	4	3⅝	3⅝	3.84	1.28
	6	5⅝	5⅝	2.34	1.17
	8	7⅝	6⅝	1.75	1.16
	10	9⅝	8⅝	1.35	1.13
Log Cabin	6	5⅞	4⅞	2.43	2.43
	8	7⅞	6⅞	1.81	2.42
	10	9⅞	8⅞	1.39	2.32
Boards	2	1½	The exposed face width will vary depending on size selected and on how the boards-and-battens or boards-on-boards are applied. Minimum overlap is ½". Determine the exposed face, then refer to footnotes to calculate factor.		
	4	3½			
	6	5½			
	8	7¼			
	10	9¼			

¹ Lineal Foot Factor is derived by dividing 12" by the exposed face width.

² Board Foot Factor is derived by dividing the nominal width by the exposed face width and is based on nominal 1" stock, except log cabin. Log cabin is based on 2" thickness. For nominal 1½" log cabin, multiply by .75.

Note: Factors do not include any allowance for trim or waste and do not apply to diagonal installations. A 10% allowance for trim and waste (25-30% for diagonal installations) should be added to the square footage required before the factors are used. Refer to *Procedure* at left.

Checklist for High Performance, Long-Lasting, Beautiful Natural Wood Siding

- Select climate- and design-appropriate patterns with surface textures appropriate for the desired finish.
- Specify species and grade compatible with budget.
- Allow siding to acclimate at job site.
- Prefinish all surfaces (sides, edges, ends) with:
 - water repellent that contains a mildewcide (and is compatible with the final finish), and/or*
 - stain or bleaching oil, if one of these is to be the final finish, or
 - primer, if paint is to be the final finish.
- Use an appropriate sheathing wrap. Make certain it is dry before applying siding.
- Allow for drainage between the sheathing wrap and the siding.
- Apply siding, using the right nails, in accordance with correct nailing procedures. Incorporate appropriate construction practices at corners.
- Provide additional coats of protective finish as required.

*While water repellents are not recommended for use under most stains, they can be used to coat the backside of siding when stain or bleaching oil will be applied to face, edges and ends.

Western Lumber Grades for Siding Products

General Categories <i>(Note that there are additional grades for bevel pattern.)</i>		GRADES ⁷			Grade Rule Paragraph Numbers for Reference & Specifying		
		WESTERN SPECIES		CEDAR			
		Selects ¹	Finish	Western & Canadian	WWPA ²	WCLIB ³	NLGA ⁴
All Patterns	Premium Grades	C Select⁵ D Select⁵	Superior Prime	Clear Heart⁵ A Grade⁵	20.11	102-b	200a
				B Grade	20.12	102-c	200b
					10.12	–	–
					10.51	–	–
					10.13	–	–
					10.52	–	–
					20.13	102-d	200c
Additional Grades for Bevel Patterns	Premium		Superior Bevel	Clear VG Heart⁵ A Bevel⁵	21.11	106-aa	201a
				B Bevel Rustic C Bevel	21.12	106-a	201b
					16.11	–	–
					21.13	106-b	201c
	Knotty		Prime Bevel	Select Knotty⁶ Quality Knotty⁶	–	–	201d
					21.14	106-c	201e
					16.12	–	–
All Patterns	Knotty Grades	Commons ¹	Alternate Boards	– Select Knotty⁶ Quality Knotty⁶	–	–	–
		2 Common	Select Merch. Construction		30.12	118-a	114a
		3 Common	Standard		–	111-e	204a
					30.13	118-b ⁸	114b ⁸
					–	111-f 118-c ⁹	204b 114c ⁹

1 Equivalent grades, under the same paragraph numbers in WWPA Rules, are available in Idaho White Pine. Refer to *Western Lumber Grading Rules*.

2 Western Wood Products Association's *Western Lumber Grading Rules*.

3 West Coast Lumber Inspection Bureau's *Standard Grading Rules for West Coast Lumber*.

4 National Lumber Grades Authority's *Standard Grading Rules for Canadian Lumber*.

5 Some clear grades may be specified VG (vertical grain). Common practice is to ship orders as a combination of vertical and flat grain, unless specified otherwise.

6 The widely used marketing term, "STK" usually describes a combination of Select Knotty and Quality Knotty, sometimes marketed with approximately 15% of the order in Quality Knotty.

7 The grades listed in these three columns are arranged in order of highest to lowest appearance quality; Clear Heart is the highest, and Standard and Quality Knotty are the lowest grades in this table.

8 Construction grade paragraph reference number.

9 Standard grade paragraph reference number.

The grade names in bold face type are the most widely available grades. These are often specified as a grade combination that includes some portion of material in the next higher grade; i.e. C&BTR Select, D&BTR Select, A&BTR Cedar, 2&BTR Common, 3&BTR Common or STAND&BTR (Standard & Better).

Photocopy this chart and post in a convenient place.



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Western Wood Products Association
 522 SW Fifth Avenue, Suite 500
 Portland, OR 97204-2122
 503-224-3930 fax: 503-224-3934
 e-mail: info@wwpa.org
 website: www.wwpa.org

TG-8/0717/Rev.7-07/5M

Door Material Information



Supporting Documents.....	OSD-2
Product Selection Guide	
Size and Performance Data.....	OSD-3
Sound Transmission Class and Outdoor-Indoor Transmission Class	OSD-3
Features and Options.....	OSD-5
Combination Assemblies.....	OSD-6

Pella Reserve Out-Swing Patio Door

Glazing Performance.....	OSD-7
Impact-Resistant Glazing	OSD-12
Grille Types	
Grille Profiles.....	OSD-13
Grille Pattern	OSD-14
Custom Shapes	OSD-15
Size Tables.....	OSD-16
Special Sizes and Dimensions	OSD-20
Design Data	OSD-21
Detailed Product Descriptions	
Clad	OSD-24
Wood	OSD-25
Unit Sections	
Clad	OSD-26
Wood	OSD-31
Handle Hardware Dimensions	OSD-35

Pella Reserve Commercial Out-Swing Door

Glazing Performance.....	OSD-36
Size Tables.....	OSD-38
Design Data	OSD-39
Hardware Parameters and Recommendations.....	OSD-40
Detailed Product Descriptions	
Clad	OSD-41
Wood	OSD-42
Unit Sections	
Clad	OSD-43
Wood	OSD-45

The information published in this document is believed to be accurate at the time of publication. However, because we are constantly working to improve our products, specifications are subject to change without notice. Consult your local Pella representative for up-to-date product information.



Supporting documents for this product:

Test Reports:

https://media.pella.com/professional/adm/CertificationReports/Test_Reports_PR-Clad.pdf

CSI Specs (readable using Microsoft Word or other text editing application):

https://media.pella.com/professional/adm/Wood-CSI_Specs/08551-R.rtf

AIA Masterspec

(readable using Microsoft Word or other text editing application):

[AIA Masterspec: https://media.pella.com/professional/adm/Wood-CSI_Specs/Masterspec/085200_fl.doc](https://media.pella.com/professional/adm/Wood-CSI_Specs/Masterspec/085200_fl.doc)

Detailed Product Description

(readable using Microsoft Word or other text editing application):

Clad: <https://media.pella.com/professional/adm/Clad-Wood/PR-OutSwingDoor-C.rtf>

Wood: <https://media.pella.com/professional/adm/Clad-Wood/PR-OutSwingDoor-W.rtf>

Size Tables (requires appropriate CAD software to read and use):

https://media.pella.com/professional/adm/Clad-Wood/ASR-OF-Elev_D.dwg

CAD cross sections (requires appropriate CAD software to read and use):

https://media.pella.com/professional/adm/Clad-Wood/ASR-OF-Details_D.dwg

3D & BIM (requires appropriate software to read and use):

<https://media.pella.com/professional/adm/RevitFiles/PR-Revit/Door-Out-Swing-Pella-Reserve-Traditional.zip>

Sketchup (requires appropriate software to read and use):

https://media.pella.com/professional/adm/Clad-Wood/PellaSKP_PellaReserve_Traditional_Hinged_Door_Out-Swing.zip

Combination Recommendations:

https://media.pella.com/professional/adm/Clad-Wood/D_Combinations.pdf

Installation Details:

https://media.pella.com/professional/adm/Clad-Wood/F_InstallationDetails.pdf

Impact-Resistant Out-Swing Door, Complete Product Information:

https://media.pella.com/professional/adm/Clad-Wood/Pella-ImpactResistant_OutSwingDoor.pdf

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Pella® Reserve™ Traditional Out-Swing Patio Door

Size and Performance Data

Residential

	Clad	Wood
Sizes		
Standard door sizes	●	●
Standard sidelight sizes	●	●
Standard transom sizes — fixed frame direct set	●	●
Fixed casement	●	●
Wide stile casement	●	●
Special sizes	●	●
Custom sizes and shapes	●	●
Single-Swing Door Width		
2' 2", 2' 6", 2' 10", 3' 0", 3' 2"	●	●
Double-Swing Door Width (Active-Passive or Passive-Active)		
4' 2", 5' 0", 5' 7", 6' 0", 6' 3"	●	●
Door Heights		
6' 7-1/2", 6' 10", 7' 2", 8' 0", 9' 0", 10' 0"	●	●

Commercial

	Clad	Wood
Sizes		
Standard sidelight sizes	●	●
3' 2" Single door widths	●	●
6' 0" Double door widths	●	●
7' 2" and 8' 0" door heights	●	●
Configurations		
Double-swing doors	●	●
Single-swing door (left- or right-hinged)	●	●
Performance¹		
Air Infiltration (cfm/ft ² of frame @ 1.57 psf wind pressure)	0.15	0.15
Water Resistance	0	0
Design Pressure	—	—

Sound Transmission Class / Outdoor-Indoor Transmission Class

Product	Frame Size Tested ₂	Glazing System				STC Rating	OITC Rating
		Overall Glazing Thickness	Exterior Glass Thickness	Interior Glass Thickness	Third Pane Thickness		
Clad Out-Swing	WITHOUT GRILLES						
	71-1/4" x 81-1/2"	13/16"	3 mm	3 mm	—	30	25
	71-1/4" x 81-1/2"	13/16"	3 mm	7.6 mm PVB	—	35	29
Clad Out-Swing with Impact-Resistant LaminatedGlass	WITHOUT GRILLES						
	71-1/4" x 81-1/2"	7/8"	8.6 mm PVB	4.7 mm	—	34	30

(—) = Not Applicable

(1) Maximum performance for single unit when glazed with the appropriate glass thickness. Doors supplied without latching hardware are not AAMA/WDMA performance certified. See Design Data pages in this section for specific product performance class and grade values.

(2) ASTM E 1425 defines standard sizes for acoustical testing. Ratings achieved at that size are representative of all sizes of the same configuration.



Pella® Reserve™ Traditional Out-Swing Patio Door

Size and Performance Data

		Clad	Wood
Performance data			
Doors 8' 0" Tall and Under	Standard Sill		
	Meets or Exceeds AAMA / WDMA Ratings ₁	LC70 Hallmark Certified	LC70 Hallmark Certified
	Air Infiltration (cfm / ft ² of frame @ 1.57 psf wind pressure)	0.15	0.15
	Water Resistance	10.66 psf	10.66 psf
	Design Pressure	70 psf	70 psf
	Low Profile Sill		
	Water Resistance	0 psf	0 psf
Doors over 8' Tall up to 10' 0"	Standard Sill		
	Meets or Exceeds AAMA / WDMA Ratings ₁	LC50 Hallmark Certified	LC50 Hallmark Certified
	Air Infiltration (cfm / ft ² of frame @ 1.57 psf wind pressure)	0.15	0.15
	Water Resistance	7.52 psf	7.52 psf
	Design Pressure	50 psf	50 psf
	Low Profile Sill		
	Water Resistance	0 psf	0 psf
Other Performance Criteria			
Forced Entry Resistance Level (Minimum Security Grade) ₂		40	40
Additional Performance data			
Doors 8' 0" Tall and Under	Products with Impact-Resistant Glass		
	Meets or Exceeds AAMA / WDMA Ratings ₁	LC70	LC70
	Air Infiltration (cfm / ft ² of frame @ 1.57 psf wind pressure)	0.15	0.15
	Water Resistance	10.66 psf	10.66 psf
	Design Pressure	70 psf	70 psf
Doors over 8' Tall up to 10' 0"	Products with Impact-Resistant Glass		
	Meets or Exceeds AAMA / WDMA Ratings ₁	LC50	LC50
	Air Infiltration (cfm / ft ² of frame @ 1.57 psf wind pressure)	0.15	0.15
	Water Resistance	7.52 psf	7.52 psf
	Design Pressure	50 psf	50 psf

(1) Maximum performance for single unit when glazed with the appropriate glass thickness. Doors supplied without latching hardware are not AAMA/WDMA performance certified. See Design Data pages in this section for specific product performance class and grade values.

(2) The higher the level, the greater the product's ability to resist forced entry. Valid only if Pella supplied locking system is used.



Pella® Reserve™ Traditional Out-Swing Patio Door

Features and Options

Standard	Options / Upgrades
Glazing	
Glazing Type	
Dual-Pane Insulating Glass	Triple-Pane Insulating Glass
Insulated Glass Options/Low-E Types	
Advanced Low-E	SunDefense™ Low-E
	SunDefense+ Low-E
	AdvancedComfort Low-E
	NaturalSun Low-E
	NaturalSun+ Low-E
	Clear (no Low-E coating)
Additional Glass Options	
Tempered Glass	Obscure Glass ¹
	Tinted Glass (Bronze, Gray and Green)
	Impact-Resistant Laminated Dual-Pane Insulating Glass (Residential only)
Gas Fill/High Altitude	
Argon	High altitude
Wood Types	
Pine	Mahogany, Douglas Fir
Exterior	
EnduraClad® protective finish	EnduraClad Plus protective finish
	Factory Primed Pine wood exterior
	Unfinished Mahogany wood exterior
Cladding Colors¹	
Standard colors	Feature Colors, Custom Colors
Interior	
Unfinished Wood	Factory primed ³ , Factory prefinished paint ³ , Factory prefinished stain
Hardware⁴	
White, Champagne, Brown, Matte Black	Satin Brass, Satin Nickel, Oil-Rubbed Bronze
Locking System	
Multi-Point	—
Key lock	—
Grilles	
Integral Light Technology® Grilles	
—	Traditional, Prairie, Top Row, Cross, New England, Victorian, Custom
Grilles-Between-the-Glass	
—	Traditional, Prairie, Top Row, Cross

(1) Contact your local Pella sales representative for current designs and color options.

(2) ADA sill finishes available in mill or bronze anodized only.

(3) Not available on Mahogany and Douglas Fir interiors.

(4) Operating hardware for commercial products is not included.

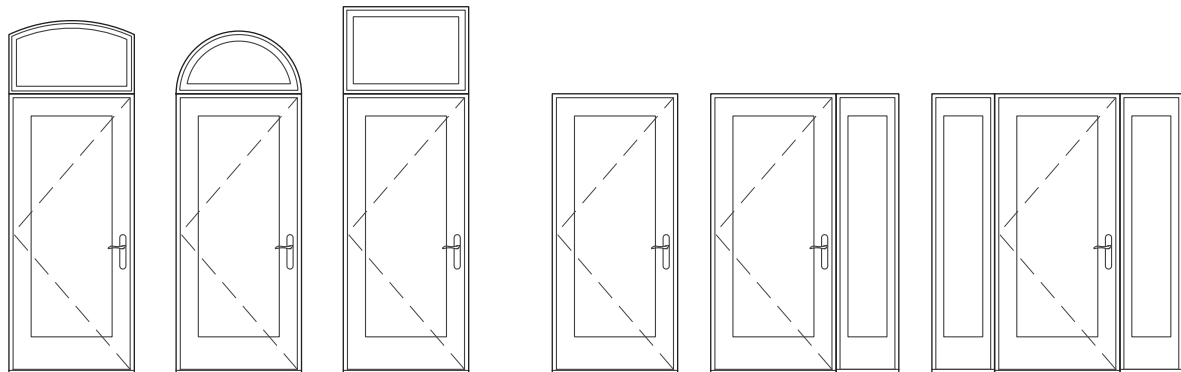


Combinations

Combinations are a great way to create visual interest in any project. A combination is an assembly formed by two or more separate windows or doors whose frames are mullioned together by a combination or reinforcing mullion.

Pella window combinations are available in an endless variety of arrangements. Below are examples of common configurations, see the Combinations Recommendations document for typical mullions, requirements and limitations.

Contact your local Pella sales representative for more information.



Arch Head over
Single

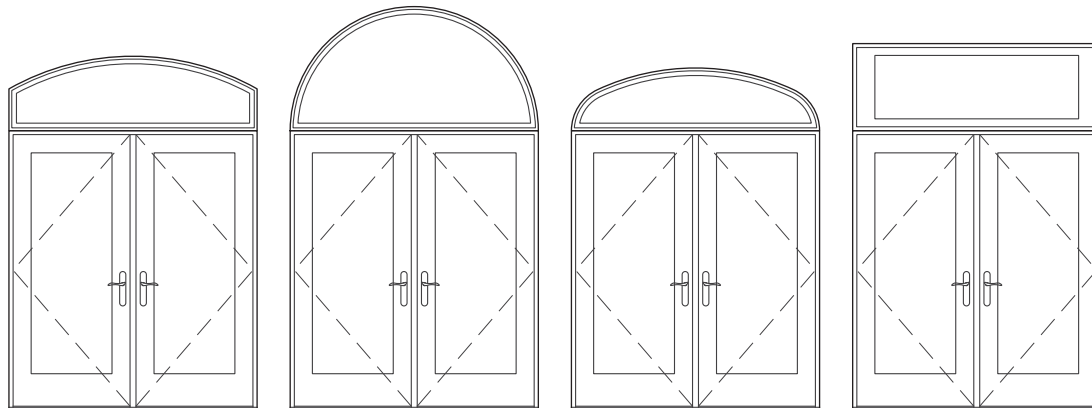
Half Circle over
Single

Transom over
Single¹

Single with
Left Sidelight

Single with
Right Sidelight

Single with
Double Sidelight

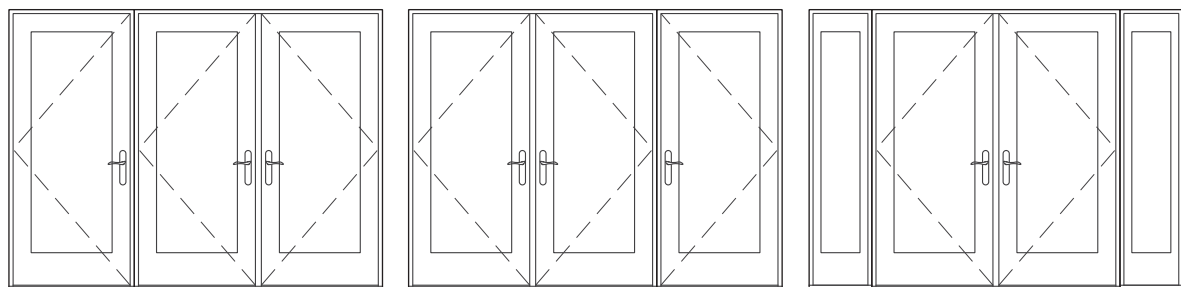


Arch Head over
Double

Half Circle over
Double

Elliptical over
Double

Transom over
Double



Double with
Single Left

Double with
Single Right

Double with
Double Sidelights

(1) Other rectangular profiles are also available as combination options.



Pella® Reserve™ Traditional Out-Swing Patio Door

Glazing Performance - Total Unit

Glazing Thickness	Type of Glazing	NFRC Certified Product #	Glass (mm)		Gap Fill	Performance Values ₁				Shaded Areas Meet ENERGY STAR® Performance Criteria in Zones Shown					
			Ext.	Int.		U-Factor	SHGC	VLT	CR	U. S.				Canada ₂	
										Zone				ER	Zone
Vent Dual-Pane Glazing - Aluminum-Clad Exterior										N	NC	SC	S	CA	
13/16"	Clear IG	PEL-N-212-06617-00001	3	3	Air	0.40	0.44	0.46	45						
	with grilles-between-the-glass	PEL-N-212-06618-00001				0.40	0.38	0.39	45						
	with integral grilles	PEL-N-212-06619-00001				0.40	0.38	0.39	45						
13/16"	Advanced Low-E IG	PEL-N-212-06649-00001	3	3	Argon	0.28	0.21	0.39	61			SC	S		
	with grilles-between-the-glass	PEL-N-212-06650-00001				0.28	0.19	0.33	61			SC	S		
	with integral grilles	PEL-N-212-06651-00001				0.28	0.19	0.33	61			SC	S		
13/16"	SunDefense™ Low-E IG	PEL-N-212-06625-00001	3	3	Argon	0.27	0.16	0.36	61			SC	S		
	with grilles-between-the-glass	PEL-N-212-06626-00001				0.27	0.14	0.31	61			SC	S		
	with integral grilles	PEL-N-212-06627-00001				0.28	0.14	0.31	61			SC	S		
13/16"	SunDefense+ Low-E IG	PEL-N-212-10237-00001	3	3	Argon	0.24	0.16	0.35	48	N	NC	SC	S		
	with grilles-between-the-glass	PEL-N-212-10238-00001				0.24	0.14	0.30	48	N	NC	SC	S		
	with integral grilles	PEL-N-212-10239-00001				0.25	0.14	0.30	48	N	NC	SC	S		
13/16"	AdvancedComfort Low-E IG	PEL-N-212-06633-00001	3	3	Argon	0.24	0.21	0.38	48	N	NC	SC	S		
	with grilles-between-the-glass	PEL-N-212-06634-00001				0.24	0.18	0.33	48	N	NC	SC	S		
	with integral grilles	PEL-N-212-06635-00001				0.25	0.18	0.33	48	N	NC	SC	S		
13/16"	NaturalSun Low-E IG	PEL-N-212-06641-00001	3	3	Argon	0.28	0.39	0.44	60						
	with grilles-between-the-glass	PEL-N-212-06642-00001				0.28	0.34	0.38	60						
	with integral grilles	PEL-N-212-06643-00001				0.29	0.34	0.38	60						
13/16"	NaturalSun+ Low-E IG	PEL-N-212-10205-00001	3	3	Argon	0.25	0.36	0.43	47	N	NC				
	with grilles-between-the-glass	PEL-N-212-10206-00001				0.25	0.31	0.37	47	N	NC				
	with integral grilles	PEL-N-212-10207-00001				0.26	0.31	0.37	47	N	NC				
Tinted Glazing															
13/16"	Bronze Advanced Low-E IG	PEL-N-212-06693-00001	5	3	Argon	0.27	0.19	0.25	62			SC	S		
	with integral grilles with grilles	PEL-N-212-06694-00001				0.27	0.17	0.22	62			SC	S		
	with integral grilles	PEL-N-212-06695-00001				0.28	0.17	0.22	62			SC	S		
13/16"	Gray Advanced Low-E IG	PEL-N-212-06701-00001	5	3	Argon	0.27	0.17	0.22	62			SC	S		
	with grilles-between-the-glass	PEL-N-212-06702-00001				0.27	0.15	0.19	62			SC	S		
	with integral grilles	PEL-N-212-06703-00001				0.28	0.15	0.19	62			SC	S		
13/16"	Green Advanced Low-E IG	PEL-N-212-06709-00001	5	3	Argon	0.27	0.21	0.34	62			SC	S		
	with grilles-between-the-glass	PEL-N-212-06710-00001				0.27	0.19	0.29	62			SC	S		
	with integral grilles	PEL-N-212-06711-00001				0.28	0.19	0.29	62			SC	S		
High Altitude Glazing															
13/16"	Advanced Low-E IG	PEL-N-212-06645-00001	3	3	Air	0.30	0.22	0.39	57						
	with grilles-between-the-glass	PEL-N-212-06646-00001				0.30	0.19	0.33	57						
	with integral grilles	PEL-N-212-06647-00001				0.31	0.19	0.33	58						
13/16"	SunDefense™ Low-E IG	PEL-N-212-06621-00001	3	3	Air	0.30	0.16	0.36	58						
	with grilles-between-the-glass	PEL-N-212-06622-00001				0.30	0.14	0.31	58						
	with integral grilles	PEL-N-212-06623-00001				0.30	0.14	0.31	58						
13/16"	SunDefense+ Low-E IG	PEL-N-212-10233-00001	3	3	Air	0.26	0.16	0.35	45	N	NC	SC	S		
	with grilles-between-the-glass	PEL-N-212-10234-00001				0.26	0.14	0.30	45	N	NC	SC	S		
	with integral grilles	PEL-N-212-10235-00001				0.27	0.14	0.30	45			SC	S		
13/16"	AdvancedComfort Low-E IG	PEL-N-212-06629-00001	3	3	Air	0.26	0.21	0.38	45	N	NC	SC	S		
	with grilles-between-the-glass	PEL-N-212-06630-00001				0.26	0.18	0.33	45	N	NC	SC	S		
	with integral grilles	PEL-N-212-06631-00001				0.27	0.18	0.33	45			SC	S		
13/16"	NaturalSun Low-E IG	PEL-N-212-06637-00001	3	3	Air	0.31	0.39	0.44	57						
	with grilles-between-the-glass	PEL-N-212-06638-00001				0.31	0.34	0.38	57						
	with integral grilles	PEL-N-212-06639-00001				0.31	0.34	0.38	57						
13/16"	NaturalSun+ Low-E IG	PEL-N-212-10201-00001	3	3	Air	0.27	0.36	0.43	44						
	with grilles-between-the-glass	PEL-N-212-10202-00001				0.27	0.31	0.37	44						
	with integral grilles	PEL-N-212-10203-00001				0.28	0.31	0.37	44						

R-Value = 1/U-Factor, SHGC = Solar Heat Gain Coefficient
VLT % = Visible Light Transmission, CR = Condensation Resistance
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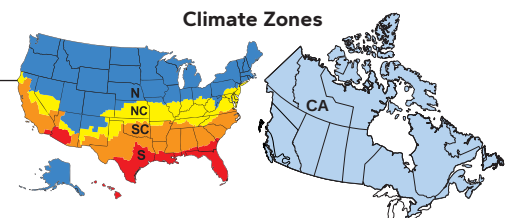
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U-Factor values shown are based on a standard sill and pine interior.

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Rev. 04/02/2024

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Pella® Reserve™ Traditional Out-Swing Patio Door

Glazing Performance - Total Unit

Glazing Thickness	Type of Glazing	NFRC Certified Product #	Glass (mm)			Gap Fill	Performance Values ₁				Shaded Areas Meet ENERGY STAR® Performance Criteria in Zones Shown					
			Ext.	Mid	Int.		U-Factor	SHGC	VLT	CR	U. S.				Canada ₂	
											Zone				ER	Zone
Vent Triple-Pane Glazing - Aluminum-Clad Exterior											N	NC	SC	S		CA
1"	Advanced Low-E IG	PEL-N-212-07005-00001	3	3	3	Argon	0.23	0.20	0.35	70	N	NC	SC	S		
	with grilles-between-the-glass	PEL-N-212-07006-00001					0.23	0.17	0.29	70	N	NC	SC	S		
	with integral grilles	PEL-N-212-07007-00001					0.23	0.17	0.29	70	N	NC	SC	S		
1"	SunDefense™ Low-E IG	PEL-N-212-07017-00001	3	3	3	Argon	0.22	0.15	0.32	70	N	NC	SC	S		
	with grilles-between-the-glass	PEL-N-212-07018-00001					0.23	0.13	0.27	70	N	NC	SC	S		
	with integral grilles	PEL-N-212-07019-00001					0.23	0.13	0.27	70	N	NC	SC	S		
1"	NaturalSun Low-E IG	PEL-N-212-06993-00001	3	3	3	Argon	0.23	0.32	0.39	70	N	NC				
	with grilles-between-the-glass	PEL-N-212-06994-00001					0.23	0.28	0.33	70	N	NC				
	with integral grilles	PEL-N-212-06995-00001					0.23	0.28	0.33	70	N	NC				
High Altitude Glazing																
1"	Advanced Low-E IG	PEL-N-212-07009-00001	3	3	3	Air	0.25	0.20	0.35	66	N	NC	SC	S		
	with grilles-between-the-glass	PEL-N-212-07010-00001					0.26	0.17	0.29	66	N	NC	SC	S		
	with integral grilles	PEL-N-212-07011-00001					0.26	0.17	0.29	66	N	NC	SC	S		
1"	SunDefense Low-E IG	PEL-N-212-07021-00001	3	3	3	Air	0.25	0.15	0.32	66	N	NC	SC	S		
	with grilles-between-the-glass	PEL-N-212-07022-00001					0.26	0.13	0.27	66	N	NC	SC	S		
	with integral grilles	PEL-N-212-07023-00001					0.26	0.13	0.27	66	N	NC	SC	S		
1"	NaturalSun Low-E IG	PEL-N-212-06997-00001	3	3	3	Air	0.25	0.32	0.39	66	N	NC				
	with grilles-between-the-glass	PEL-N-212-06998-00001					0.26	0.28	0.33	66	N	NC				
	with integral grilles	PEL-N-212-06999-00001					0.26	0.28	0.33	66	N	NC				

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SHGC = Solar Heat Gain Coefficient

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CR = Condensation Resistance

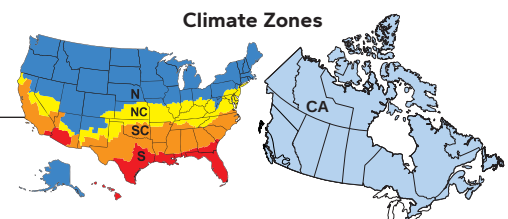
ER = Canadian Energy Rating

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Pella® Reserve™ Traditional Out-Swing Patio Door

Glazing Performance - Total Unit

Glazing Thickness	Type of Glazing	NFRC Certified Product #	Glass (mm)		Gap Fill	Performance Values ₁				Shaded Areas Meet ENERGY STAR® Performance Criteria in Zones Shown							
			Ext.	Int.		U-Factor	SHGC	VLT	CR	U. S.				Canada ₂			
										Zone				ER	Zone		
Vent Dual-Pane Glazing - Wood Exterior										N	NC	SC	S	CA			
13/16"	Clear IG	PEL-N-219-06521-00001	3	3	Air	0.39	0.45	0.46	46								
	with grilles-between-the-glass	PEL-N-219-06522-00001				0.39	0.38	0.39	46								
	with integral grilles	PEL-N-219-06523-00001				0.40	0.38	0.39	46								
13/16"	Advanced Low-E IG	PEL-N-219-06537-00001	3	3	Argon	0.27	0.22	0.39	62			SC	S				
	with grilles-between-the-glass	PEL-N-219-06538-00001				0.27	0.19	0.33	62			SC	S				
	with integral grilles	PEL-N-219-06539-00001				0.28	0.19	0.33	62			SC	S				
13/16"	SunDefense™ Low-E IG	PEL-N-219-06529-00001	3	3	Argon	0.27	0.16	0.36	62			SC	S				
	with grilles-between-the-glass	PEL-N-219-06530-00001				0.27	0.14	0.31	63			SC	S				
	with integral grilles	PEL-N-219-06531-00001				0.28	0.14	0.31	63			SC	S				
13/16"	SunDefense+ Low-E IG	PEL-N-219-08533-00001	3	3	Argon	0.24	0.16	0.35	39	N	NC	SC	S				
	with grilles-between-the-glass	PEL-N-219-08534-00001				0.24	0.14	0.30	39	N	NC	SC	S				
	with integral grilles	PEL-N-219-08535-00001				0.25	0.14	0.30	39	N	NC	SC	S				
13/16"	AdvancedComfort Low-E IG	PEL-N-219-06553-00001	3	3	Argon	0.24	0.21	0.38	49	N	NC	SC	S				
	with grilles-between-the-glass	PEL-N-219-06554-00001				0.24	0.18	0.33	49	N	NC	SC	S				
	with integral grilles	PEL-N-219-06555-00001				0.25	0.18	0.33	49	N	NC	SC	S				
13/16"	NaturalSun Low-E IG	PEL-N-219-06545-00001	3	3	Argon	0.28	0.39	0.44	61								
	with grilles-between-the-glass	PEL-N-219-06546-00001				0.28	0.34	0.38	61								
	with integral grilles	PEL-N-219-06547-00001				0.29	0.34	0.38	61								
13/16"	NaturalSun+ Low-E IG	PEL-N-219-08509-00001	3	3	Argon	0.25	0.36	0.43	49	N	NC						
	with grilles-between-the-glass	PEL-N-219-08510-00001				0.25	0.31	0.37	49	N	NC						
	with integral grilles	PEL-N-219-08511-00001				0.26	0.31	0.37	49	N	NC						
Tinted Glazing																	
13/16"	Bronze Advanced Low-E IG	PEL-N-219-06573-00002	5	3	Argon	0.27	0.19	0.25	62			SC	S				
	with grilles-between-the-glass	PEL-N-219-06574-00002				0.27	0.17	0.22	62			SC	S				
	with integral grilles	PEL-N-219-06575-00002				0.28	0.17	0.22	62			SC	S				
13/16"	Gray Advanced Low-E IG	PEL-N-219-06573-00003	5	3	Argon	0.27	0.18	0.22	62			SC	S				
	with grilles-between-the-glass	PEL-N-219-06574-00003				0.27	0.15	0.19	62			SC	S				
	with integral grilles	PEL-N-219-06575-00003				0.28	0.15	0.19	62			SC	S				
13/16"	Green Advanced Low-E IG	PEL-N-219-06573-00004	5	3	Argon	0.27	0.22	0.34	62			SC	S				
	with grilles-between-the-glass	PEL-N-219-06574-00004				0.27	0.19	0.29	62			SC	S				
	with integral grilles	PEL-N-219-06575-00004				0.28	0.19	0.29	62			SC	S				
High Altitude Glazing																	
13/16"	Advanced Low-E IG	PEL-N-219-06533-00001	3	3	Air	0.30	0.22	0.39	59								
	with grilles-between-the-glass	PEL-N-219-06534-00001				0.30	0.19	0.33	59								
	with integral grilles	PEL-N-219-06535-00001				0.30	0.19	0.33	59								
13/16"	SunDefense Low-E IG	PEL-N-219-06525-00001	3	3	Air	0.30	0.16	0.36	59								
	with grilles-between-the-glass	PEL-N-219-06526-00001				0.30	0.14	0.31	59								
	with integral grilles	PEL-N-219-06527-00001				0.30	0.14	0.31	59								
13/16"	SunDefense+ Low-E IG	PEL-N-219-08529-00001	3	3	Air	0.26	0.16	0.35	49	N	NC	SC	S				
	with grilles-between-the-glass	PEL-N-219-08530-00001				0.26	0.14	0.30	49	N	NC	SC	S				
	with integral grilles	PEL-N-219-08531-00001				0.27	0.14	0.30	52			SC	S				
13/16"	AdvancedComfort Low-E IG	PEL-N-219-06549-00001	3	3	Air	0.26	0.21	0.38	45	N	NC	SC	S				
	with grilles-between-the-glass	PEL-N-219-06550-00001				0.26	0.19	0.33	45	N	NC	SC	S				
	with integral grilles	PEL-N-219-06551-00001				0.27	0.19	0.33	45			SC	S				
13/16"	NaturalSun Low-E IG	PEL-N-219-06541-00001	3	3	Air	0.30	0.39	0.44	58								
	with grilles-between-the-glass	PEL-N-219-06542-00001				0.30	0.34	0.38	58								
	with integral grilles	PEL-N-219-06543-00001				0.31	0.34	0.38	58								
13/16"	NaturalSun+ Low-E IG	PEL-N-219-08505-00001	3	3	Air	0.26	0.36	0.43	41	N	NC						
	with grilles-between-the-glass	PEL-N-219-08506-00001				0.26	0.31	0.37	41	N	NC						
	with integral grilles	PEL-N-219-08507-00001				0.27	0.31	0.37	41								

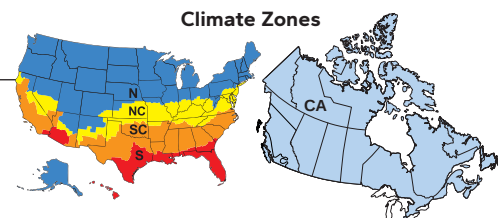
R-Value = 1/U-Factor, SHGC = Solar Heat Gain Coefficient
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U-Factor values shown are based on a standard sill and pine interior.

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Pella® Reserve™ Traditional Out-Swing Patio Door

Glazing Performance - Total Unit

Glazing Thickness	Type of Glazing	NFRC Certified Product #	Glass (mm)			Gap Fill	Performance Values ₁				Shaded Areas Meet ENERGY STAR® Performance Criteria in Zones Shown					
			Ext.	Mid	Int.		U-Factor	SHGC	VLT	CR	U. S.				Canada ₂	
											Zone				ER	Zone
Vent Triple-Pane Glazing - Wood Exterior											N	NC	SC	S		CA
1"	Advanced Low-E IG	PEL-N-219-06713-00001	3	3	3	Argon	0.22	0.20	0.35	70	N	NC	SC	S		
	with grilles-between-the-glass	PEL-N-219-06714-00001					0.23	0.17	0.29	70	N	NC	SC	S		
	with integral grilles	PEL-N-219-06715-00001					0.23	0.17	0.29	70	N	NC	SC	S		
1"	SunDefense™ Low-E IG	PEL-N-219-06725-00001	3	3	3	Argon	0.22	0.15	0.32	70	N	NC	SC	S		
	with grilles-between-the-glass	PEL-N-219-06726-00001					0.23	0.13	0.27	70	N	NC	SC	S		
	with integral grilles	PEL-N-219-06727-00001					0.23	0.13	0.27	70	N	NC	SC	S		
1"	NaturalSun Low-E IG	PEL-N-219-06701-00001	3	3	3	Argon	0.23	0.32	0.39	70	N	NC				
	with grilles-between-the-glass	PEL-N-219-06702-00001					0.23	0.28	0.33	70	N	NC				
	with integral grilles	PEL-N-219-06703-00001					0.23	0.28	0.33	70	N	NC				
High Altitude Glazing																
1"	Advanced Low-E IG	PEL-N-219-06709-00001	3	3	3	Air	0.25	0.20	0.35	67	N	NC	SC	S		
	with grilles-between-the-glass	PEL-N-219-06710-00001					0.26	0.17	0.29	67	N	NC	SC	S		
	with integral grilles	PEL-N-219-06711-00001					0.25	0.17	0.29	67	N	NC	SC	S		
1"	SunDefense Low-E IG	PEL-N-219-06721-00001	3	3	3	Air	0.25	0.15	0.32	67	N	NC	SC	S		
	with grilles-between-the-glass	PEL-N-219-06722-00001					0.25	0.13	0.27	67	N	NC	SC	S		
	with integral grilles	PEL-N-219-06723-00001					0.25	0.13	0.27	67	N	NC	SC	S		
1"	NaturalSun Low-E IG	PEL-N-219-06697-00001	3	3	3	Air	0.25	0.32	0.39	67	N	NC				
	with grilles-between-the-glass	PEL-N-219-06698-00001					0.26	0.28	0.33	67	N	NC				
	with integral grilles	PEL-N-219-06699-00001					0.26	0.28	0.33	67	N	NC				

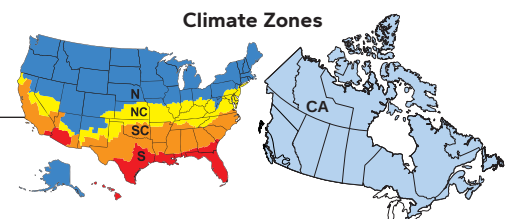
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Pella® Reserve™ Traditional Out-Swing Patio Door

Glazing Performance - Total Unit Impact-Resistant Glass

Glazing Thickness	Type of Glazing	NFRC Certified Product #	Glass (mm)		Gap Fill	Performance Values ₁				Shaded Areas Meet ENERGY STAR® Performance Criteria in Zones Shown					
			Ext.	Int.		U-Factor	SHGC	VLT	CR	U. S.				Canada ₂	
										Zone				ER	Zone
Dual-Pane Laminated Impact-Resistant Glazing - Aluminum-Clad Exterior										N	NC	SC	S		CA
7/8"	Clear IG PVB	PEL-N-212-06945-00001	8	5	air	0.41	0.39	0.44	44						
	with grilles-between-the-glass	PEL-N-212-06946-00001				0.41	0.33	0.38	44						
	with integral grilles	PEL-N-212-06947-00001				0.42	0.33	0.38	44						
7/8"	Advanced Low-E IG PVB	PEL-N-212-06949-00001	8	5	argon	0.29	0.21	0.38	59						
	with grilles-between-the-glass	PEL-N-212-06950-00001				0.30	0.19	0.33	59						
	with integral grilles	PEL-N-212-06951-00001				0.30	0.19	0.33	59						
7/8"	SunDefense™ Low-E IG	PEL-N-212-06953-00001	8	5	argon	0.28	0.17	0.35	59			SC	S		
	with grilles-between-the-glass	PEL-N-212-06954-00001				0.30	0.15	0.30	59						
	with integral grilles	PEL-N-212-06955-00001				0.30	0.15	0.30	59						
Dual-Pane Tinted Laminated Impact-Resistant Glazing - Aluminum-Clad Exterior															
7/8"	Bronze IG PVB	PEL-N-212-06957-00001	8	5	air	0.41	0.26	0.18	44						
	with grilles-between-the-glass	PEL-N-212-06958-00001				0.41	0.23	0.15	44						
	with integral grilles	PEL-N-212-06959-00001				0.40	0.23	0.15	44						
7/8"	Gray IG PVB	PEL-N-212-06961-00001	8	5	air	0.41	0.29	0.21	44						
	with grilles-between-the-glass	PEL-N-212-06962-00001				0.41	0.25	0.18	44						
	with integral grilles	PEL-N-212-06963-00001				0.40	0.25	0.18	44						
7/8"	Green IG PVB	PEL-N-212-06965-00001	8	5	air	0.41	0.35	0.36	44						
	with grilles-between-the-glass	PEL-N-212-06966-00001				0.41	0.30	0.31	44						
	with integral grilles	PEL-N-212-06967-00001				0.40	0.30	0.31	44						

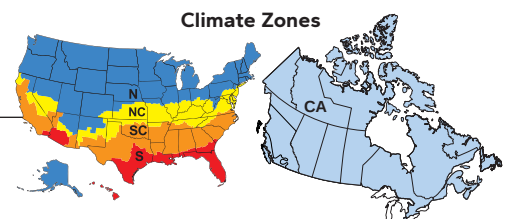
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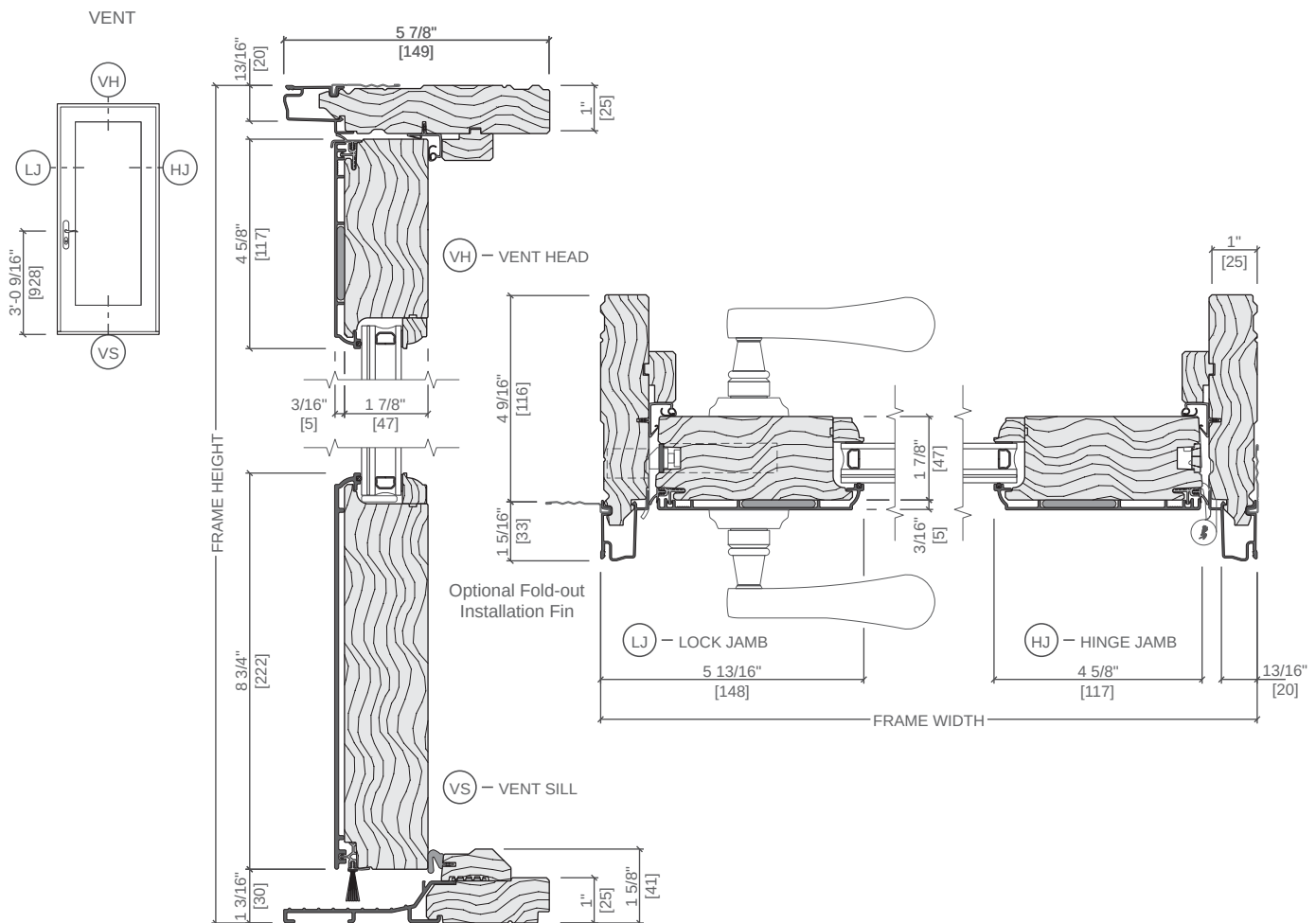


Pella® Reserve™ Traditional Out-Swing Patio Door

Impact-Resistant Glass

For a complete list of ratings, refer to the Impact-Resistant product section.

	Clad
	7/8" Insulated Glass PVB
Maximum Performance Grade ¹	
Vent units 6' 10" tall and under	+70 / -70
Vent units 8' tall and under	+70 / -70
Vent units over 8' tall up to 10' tall	+50 / -50
Fixed units 6' 10" tall and under	+70 / -70
Fixed units 8' tall and under	+70 / -70
Fixed units over 8' tall up to 10' tall	+50 / -50
Certification	
Hallmark	411-H-1188
FPAS	FL 14302



(-) = Not applicable

(1) Units are tested for air/water/structural and impact-resistance, and certified for wind zone 4, large missile rating D.

Transoms are not available with impact-resistant Glazing.

For clear opening, vent area, visible glass, and frame area, see clad Design Data pages.

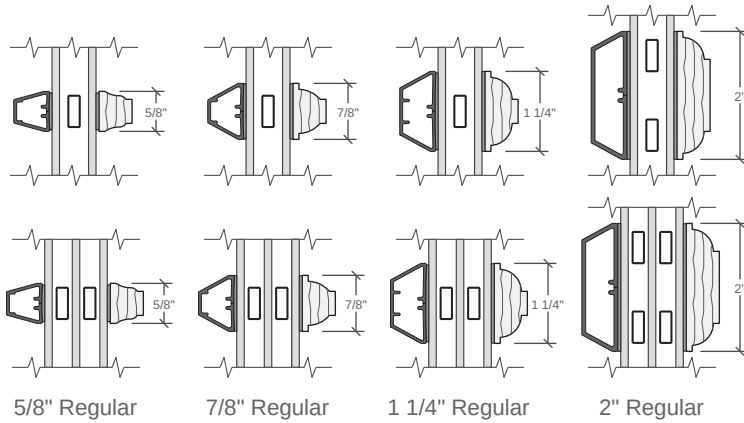
Doors with low profile sills, curved glass in rectangular panel, custom stiles and rails, and no-lock no-bore hardware options are not certified to above standards.



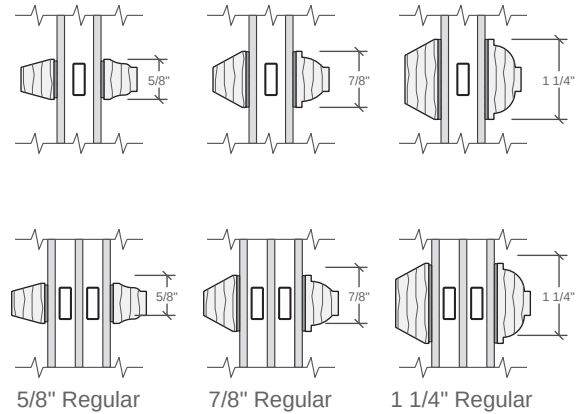
Grille Profiles

Traditional Style Collection - Integral Light Technology®

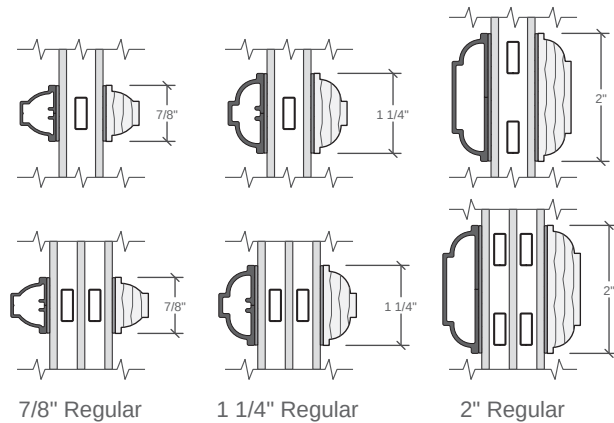
Putty Glaze and Ogee Grilles Clad Exterior - Wood Interior



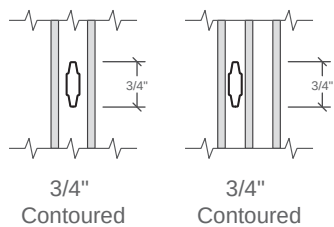
Putty Glaze and Ogee Grilles Wood Exterior - Wood Interior



Ogee Grilles Clad Exterior - Wood Interior



Grilles-Between-the-Glass



Interior wood ILT grilles available in Pine, Mahogany or Douglas Fir to match complete unit.

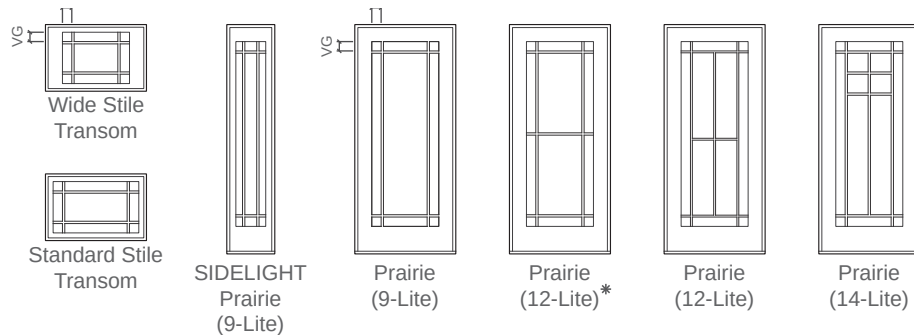
Exterior wood ILT grilles available in Pine or Mahogany to match complete unit.



Grille Patterns

Integral Light Technology® Grilles

Prairie Lite Patterns



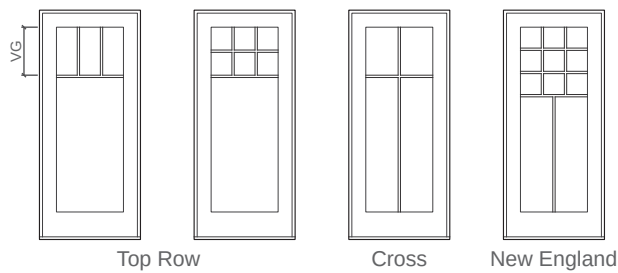
All sidelights and transoms will have 9 lights.

Standard corner lite dimension for Prairie patterns = 3-1/2" VG.

Integral Light Technology Grilles

- 9-Lite available in all standard and special sizes.
- 12-Lite available at 8' height; other heights available per custom drawing.
- 14-Lite available in units > 2' 1-1/2" width.

Other Available Patterns



Top Row

- Standard visible glass to separator bar = 14" or half of total visible glass height, whichever is smaller.

Cross

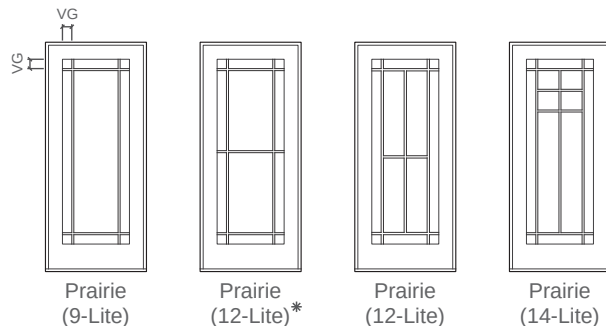
- Standard visible glass to separator bar = one-quarter of total visible glass height.

New England

- Standard visible glass to separator bar = half of total visible glass height.

Grilles-Between-the-Glass

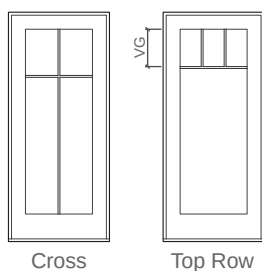
Prairie Lite Patterns



Prairie

- Standard corner lite dimension = 3-1/2" VG.
- 9-Lite available in units < 7' 0-3/4" height.
- * Prairie in heights > 7' 0-1/2" will have 12 lites.
- 12-Lite available in units ≤ 7' 2" height.

Other Available Patterns



Cross

- Horizontal bar is 1/4 of visible glass from the top in door panels.
- Not available in transoms.

Top Row

- Horizontal bar may be ordered 12", 14" or 16" from the top VG.
- Transoms with frame heights ≥ 21", the horizontal bar will be positioned at 1/2 the visible glass height.
- Top Row not available in transoms with frame height < 21".

For traditional patterns, see size tables.

VG = Visible Glass

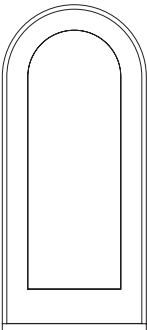
Lite dimensions noted can vary.

Custom configurations are available; for details contact your local Pella sales representative.

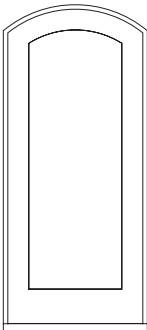


Custom Shapes

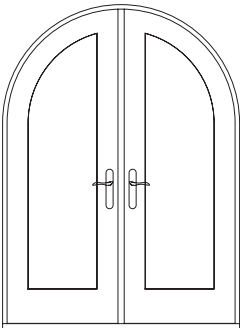
Pella Reserve Out-Swing French doors are available in custom shapes shown below, and additional shapes per drawing. For specifications, size limitations, and details on these units, contact your local Pella sales representative.



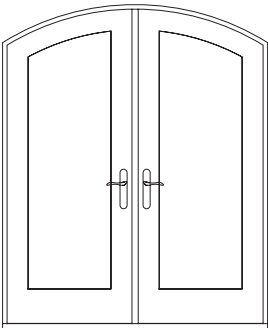
Full
Springline



Full
Arch Head



Full Springline



Full Arch Head

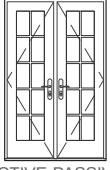


Size Tables

6' 7 1/2" Single Doors and Sidelight

	Opening	1' 6 3/4" (476)	2' 2 1/8" (664)	2' 6 3/4" (781)	2' 10 1/4" (870)	3' 0 3/4" (933)	3' 2 5/8" (981)
	Frame	1' 6" (457)	2' 1 3/8" (645)	2' 6" (762)	2' 9 1/2" (851)	3' 0" (914)	3' 1 7/8" (962)
(2 032) (2 019)	6' 8"						
	6' 7 1/2"	SIDELIGHT 1880	LEFT 2680	LEFT 3080	LEFT 3480	LEFT 3680	LEFT 3880

6' 7 1/2" Double-Swing Doors

	Opening	4' 2 3/4" (1 289)	5' 0" (1 524)	5' 7" (1 702)	6' 0" (1 829)	6' 3 3/4" (1 924)
	Frame	4' 2" (1 270)	4' 11 1/4" (1 505)	5' 6 1/4" (1 682)	5' 11 1/4" (1 810)	6' 3" (1 905)
(2 032) (2 019)	6' 8"					
	6' 7 1/2"	ACTIVE-PASSIVE 5080	ACTIVE-PASSIVE 6080	ACTIVE-PASSIVE 6780	ACTIVE-PASSIVE 7280	ACTIVE-PASSIVE 7580

Not to scale.

Traditional grille patterns shown. Refer to Clad/Wood Overview section for additional patterns and profiles.

All doors and sidelights are glazed with tempered glass.

For windows and patio doors with impact-resistant glass, see product instructions or refer to local building code requirements.

Single doors - Left-hand shown. Right-hand and fixed are available.

Double-swing doors - Active-Passive shown. Passive-Active also available.

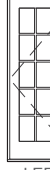
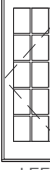
For Wood Units Only:
To determine masonry dimensions when using Pella 1-7/8" brickmould, add 1-5/8" to frame height and 3-1/8" to frame width. When using Pella 3-1/2" brickmould, add 6-3/8" to frame width and 3-1/4" to frame height.



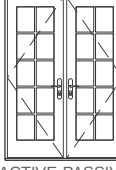
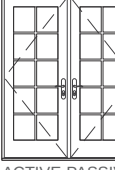
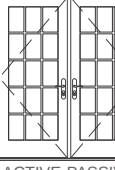
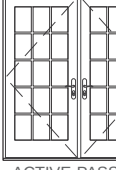
Pella® Reserve™ Traditional Out-Swing Patio Door

Size Tables

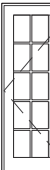
6' 10" Single Doors and Sidelight

(2 083) (2 070)	Opening	1' 6 3/4" (476)	2' 2 1/8" (664)	2' 6 3/4" (781)	2' 10 1/4" (870)	3' 0 3/4" (933)	3' 2 5/8" (981)
	Frame	1' 6" (457)	2' 1 3/8" (645)	2' 6" (762)	2' 9 1/2" (851)	3' 0" (914)	3' 1 7/8" (962)
		 SIDELIGHT 1882	 LEFT 2682	 LEFT 3082	 LEFT 3482	 LEFT 3682	 LEFT 3882

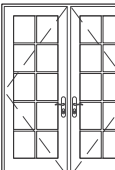
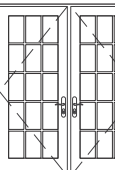
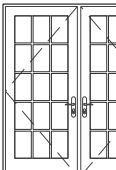
6' 10" Double-Swing Doors

(2 083) (2 070)	Opening	4' 2 3/4" (1 289)	5' 0" (1 524)	5' 7" (1 702)	6' 0" (1 829)	6' 3 3/4" (1 924)
	Frame	4' 2" (1 270)	4' 11 1/4" (1 505)	5' 6 1/4" (1 682)	5' 11 1/4" (1 810)	6' 3" (1 905)
		 ACTIVE-PASSIVE 5082	 ACTIVE-PASSIVE 6082	 ACTIVE-PASSIVE 6782	 ACTIVE-PASSIVE 7282	 ACTIVE-PASSIVE 7582

7' 2" Single Doors and Sidelight

(2 197) (2 184)	Opening	1' 6 3/4" (476)	2' 2 1/8" (664)	2' 6 3/4" (781)	2' 10 1/4" (870)	3' 0 3/4" (933)	3' 2 5/8" (981)
	Frame	1' 6" (457)	2' 1 3/8" (645)	2' 6" (762)	2' 9 1/2" (851)	3' 0" (914)	3' 1 7/8" (962)
		 SIDELIGHT 1886	 LEFT 2686	 LEFT 3086	 LEFT 3486	 LEFT 3686	 LEFT 3886

7' 2" Double-Swing Doors

(2 197) (2 184)	Opening	4' 2 3/4" (1 289)	5' 0" (1 524)	5' 7" (1 702)	6' 0" (1 829)	6' 3 3/4" (1 924)
	Frame	4' 2" (1 270)	4' 11 1/4" (1 505)	5' 6 1/4" (1 682)	5' 11 1/4" (1 810)	6' 3" (1 905)
		 ACTIVE-PASSIVE 5086	 ACTIVE-PASSIVE 6086	 ACTIVE-PASSIVE 6786	 ACTIVE-PASSIVE 7286	 ACTIVE-PASSIVE 7586

Not to scale.

Traditional grille patterns shown. Refer to Clad/Wood Overview section for additional patterns and profiles.

All doors and sidelights are glazed with tempered glass.

For windows and patio doors with impact-resistant glass, see product instructions or refer to local building code requirements.

Single doors - Left-hand shown. Right-hand and fixed are available.

Double-swing doors - Active-Passive shown. Passive-Active also available.

For Wood Units Only:

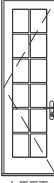
To determine masonry dimensions when using Pella 1-7/8" brickmould, add 1-5/8" to frame height and 3-1/8" to frame width. When using Pella 3-1/2" brickmould, add 6-3/8" to frame width and 3-1/4" to frame height.



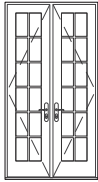
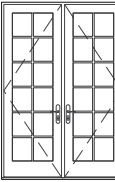
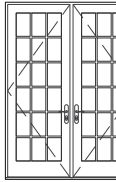
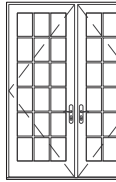
Pella® Reserve™ Traditional Out-Swing Patio Door

Size Tables

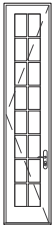
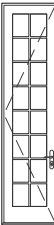
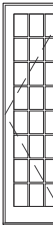
8' 0" Single Doors and Sidelight

	Opening					
	1' 6 3/4" (476)	2' 2 1/8" (664)	2' 6 3/4" (781)	2' 10 1/4" (870)	3' 0 3/4" (933)	3' 2 5/8" (981)
	Frame					
	1' 6" (457)	2' 1 3/8" (645)	2' 6" (762)	2' 9 1/2" (851)	3' 0" (914)	3' 1 7/8" (962)
(2 438) (2 426)	8' 0"	7' 11 1/2"				
						
	SIDELIGHT 1896	LEFT 2696	LEFT 3096	LEFT 3496	LEFT 3696	LEFT 3896

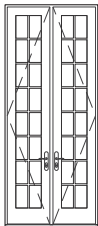
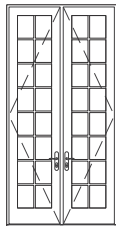
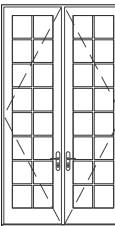
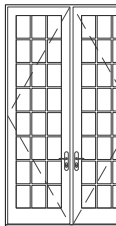
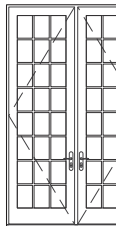
8' 0" Double-Swing Doors

	Opening				
	4' 2 3/4" (1 289)	5' 0" (1 524)	5' 7" (1 702)	6' 0" (1 829)	6' 3 3/4" (1 924)
	Frame				
	4' 2" (1 270)	4' 11 1/4" (1 505)	5' 6 1/4" (1 682)	5' 11 1/4" (1 810)	6' 3" (1 905)
(2 438) (2 426)	8' 0"	7' 11 1/2"			
					
	ACTIVE-PASSIVE 5096	ACTIVE-PASSIVE 6096	ACTIVE-PASSIVE 6796	ACTIVE-PASSIVE 7296	ACTIVE-PASSIVE 7596

10' 0" Single Doors

	Opening				
	2' 2 1/8" (664)	2' 6 3/4" (781)	2' 10 1/4" (870)	3' 0 3/4" (933)	3' 2 5/8" (981)
	Frame				
	2' 1 3/8" (645)	2' 6" (762)	2' 9 1/2" (851)	3' 0" (914)	3' 1 7/8" (962)
(3 048) (3 035)	10' 0"	9' 11 1/2"			
					
		LEFT 26120	LEFT 30120	LEFT 34120	LEFT 36120

10' 0" Double-Swing Doors

	Opening				
	4' 2 3/4" (1 289)	5' 0" (1 524)	5' 7" (1 702)	6' 0" (1 829)	6' 3 3/4" (1 924)
	Frame				
	4' 2" (1 270)	4' 11 1/4" (1 505)	5' 6 1/4" (1 682)	5' 11 1/4" (1 810)	6' 3" (1 905)
(3 048) (3 035)	10' 0"	9' 11 1/2"			
					
	ACTIVE-PASSIVE 50120	ACTIVE-PASSIVE 60120	ACTIVE-PASSIVE 67120	ACTIVE-PASSIVE 72120	ACTIVE-PASSIVE 75120

Not to scale.

Traditional grille patterns shown. Refer to Clad/Wood Overview section for additional patterns and profiles.

All doors and sidelights are glazed with tempered glass.

For windows and patio doors with impact-resistant glass, see product instructions or refer to local building code requirements.

Single doors - Left-hand shown. Right-hand and fixed are available.

Double-swing doors - Active-Passive shown. Passive-Active also available.

For Wood Units Only:

To determine masonry dimensions when using Pella 1-7/8" brickmould, add 1-5/8" to frame height and 3-1/8" to frame width. When using Pella 3-1/2" brickmould, add 6-3/8" to frame width and 3-1/4" to frame height.



Pella® Reserve™ Traditional Out-Swing Patio Door

Size Tables

Wide Stile Transoms for Single Doors

	Opening	2' 2 1/8" (664)	2' 6 3/4" (781)	2' 10 1/4" (870)	3' 0 3/4" (933)	3' 2 5/8" (981)
		Frame 2' 1 3/8" (645)	2' 6" (762)	2' 9 1/2" (851)	3' 0" (914)	3' 1 7/8" (962)
(451) (432)	2' 1 3/4" 1' 5 3/4"					
	2' 1"					

Standard Stile Transoms for Single Doors

(451) (432)	2' 1 3/4" 1' 5 3/4"					
	2' 1"					

Fixed Frame Direct Sets for Single Doors

(451) (432)	2' 1 3/4" 1' 5 3/4"					
	2' 1"					

Wide Stile Transoms for Double-Swing Doors

	Opening	4' 2 3/4" (1 289)	5' 0" (1 524)	5' 7" (1 702)	6' 0" (1 829)	6' 3 3/4" (1 924)
		Frame 4' 2" (1 270)	4' 11 1/4" (1 505)	5' 6 1/4" (1 682)	5' 11 1/4" (1 810)	6' 3" (1 905)
(451) (432)	2' 1 3/4" 1' 5 3/4"					
	2' 1"					

Standard Stile Transoms for Double-Swing Doors

(451) (432)	2' 1 3/4" 1' 5 3/4"					
	2' 1"					

Fixed Frame Direct Sets for Double-Swing Doors

(451) (432)	2' 1 3/4" 1' 5 3/4"					
	2' 1"					

Not to scale.

 Tempered glass is standard.

Traditional grille patterns shown. Refer to Clad/Wood Overview section for additional patterns and profiles.



Pella® Reserve™ Traditional Out-Swing Patio Door

Special Sizes and Dimensions

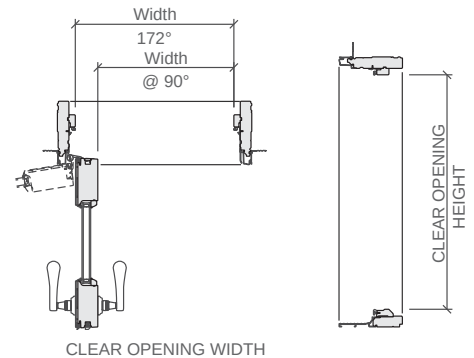
Special Size Frame Dimensions₁

Door Type	Non-Impact Glazing				Products with Impact-Resistant Glass ₂			
	Frame Width		Frame Height		Frame Width		Frame Height	
	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum
Transoms	25-3/8" (645)	75" (1 905)	14" (356)	25" (635)	25-3/8" (645)	75" (1 905)	14" (356)	25" (635)
Sidelights (Fixed)	18" (457)	65" (457)	36" (914)	119-1/2" (3 035)	12" (305)	42" (1 067)	48" (1 219)	96" (2 438)
Single Doors	18" (457)	48" (1 219)	36" (914)	119-1/2" (3 035)	24" (610)	37-7/8" (962)	76-3/8" (1 940)	119-1/2" (3 035)
Double Doors	36" (914)	96" (2 438)	36" (914)	119-1/2" (3 035)	48" (1 219)	75" (1 905)	73-3/8" (1 864)	119-1/2" (3 035)

Miscellaneous Formulas

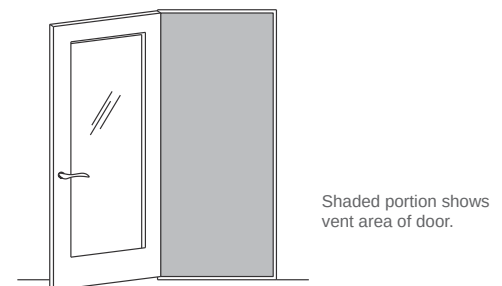
	Visible Glass		Actual Glass	
	Width	Height	Width	Height
Transoms — Fixed Frame Direct Set	FW - 3-1/4"	FH - 3-1/4"	FW - 2"	FH - 2"
Transoms — Fixed Casement	FW - 5-3/4"	FH - 5-3/4"	FW - 4-3/8"	FH - 4-3/8"
Transoms — Wide Stile Casement	FW - 11-5/8"		FW - 10-1/4"	
Sidelights (Fixed)	FW - 6-5/8"	FH - 15-3/4"	FW - 5-5/8"	FH - 4-3/8"
Single Doors	FW - 11-5/8"		FW - 10-5/8"	
Double Doors	(FW ÷ 2) - 11-1/4"		(FW ÷ 2) - 10-1/4"	

Clear Opening Schematic



Clad and Wood Clear Opening Dimensions

	Clad and Wood		
		Width	Height
Clear Opening (@ 90°)	Single Door	FW - 5-3/8"	FH - 3-1/16"
	Double Doors (Active/Single Panel)	(FW ÷ 2) - 5"	
	Double Doors (Both Panels)	(FW ÷ 2) - 7-7/16"	
Clear Opening (@ 172°)	Single Door	FW - 3-5/16"	FH - 3-1/16"
	Double Doors (Active/Single Panel)	(FW ÷ 2) - 2-15/16"	
	Double Doors (Both Panels)	(FW ÷ 2) - 3-15/16"	



FW = Frame Width, FH = Frame Height

(1) Available within size range shown.

(2) Rectangular Units Only.

Keep frame dimensions to the nearest 1/8" increment.



Design Data

Out-Swing Design Data											
	Unit		Clear Opening (Inches)				Vent Area Ft²	Vent Area (ADA) Ft²	Visible Glass Ft²	Standard Glass Thickness (mm) Tempered	Performance Class & Grade 3
			Width 1		Standard Sill Unit Height	ADA Sill Unit Height 2					
			170°	90°							
6' 7-1/2" Doors	2680	F	—	—	—	—	—	—	6.1	3	LC70
	3080	F	—	—	—	—	—	—	8.1	3	LC70
	3480	F	—	—	—	—	—	—	9.7	3	LC70
	3680	F	—	—	—	—	—	—	10.8	3	LC70
	3880	F	—	—	—	—	—	—	11.6	3	LC70
	2680	L/R	22-1/16	20	76-1/4	77-7/16	11.3	11.5	6.1	3	LC70
	3080	L/R	26-11/16	24-5/8	76-1/4	77-7/16	13.8	14.0	8.1	3	LC70
	3480	L/R	30-3/16	28-1/8	76-1/4	77-7/16	15.6	15.9	9.7	3	LC70
	3680	L/R	32-11/16	30-5/8	76-1/4	77-7/16	17.0	17.2	10.8	3	LC70
	3880	L/R	34-9/16	32-1/2	76-1/4	77-7/16	17.9	18.2	11.6	3	LC70
	5080	PA/AP	46-11/16 / 22-1/16	42-9/16 / 20	76-1/4	77-7/16	24.5	24.9	12.2	3	LC70
	6080	PA/AP	55-15/16 / 26-11/16	51-13/16 / 24-5/8	76-1/4	77-7/16	29.4	29.9	16.3	3	LC70
	6780	PA/AP	62-15/16 / 30-5/16	58-13/16 / 28-1/8	76-1/4	77-7/16	33.1	33.7	19.4	3	LC70
	7280	PA/AP	67-15/16 / 32-11/16	63-13/16 / 30-5/8	76-1/4	77-7/16	35.8	36.3	21.6	3	LC70
	7580	PA/AP	71-9/16 / 34-5/8	67-9/16 / 32-1/2	76-1/4	77-7/16	37.7	38.4	23.2	3	LC70
6' 10" Doors	3082	F	—	—	—	—	—	—	8.4	3	LC70
	3682	F	—	—	—	—	—	—	11.1	3	LC70
	2682	L/R	22-1/16	20	78-1/4	79-7/16	11.6	11.8	6.3	3	LC70
	3082	L/R	26-11/16	24-5/8	78-1/4	79-7/16	14.2	14.4	8.4	3	LC70
	3482	L/R	30-3/16	28-1/8	78-1/4	79-7/16	16.0	16.3	10.0	3	LC70
	3682	L/R	32-11/16	30-5/8	78-1/4	79-7/16	17.4	17.7	11.1	3	LC70
	3882	L/R	34-9/16	32-1/2	78-1/4	79-7/16	18.4	18.7	12.0	3	LC70
	5082	PA/AP	46-11/16 / 22-1/16	42-9/16 / 20	78-1/4	79-7/16	25.2	25.6	12.6	3	LC70
	6082	PA/AP	55-15/16 / 26-11/16	51-13/16 / 24-5/8	78-1/4	79-7/16	30.2	30.7	16.8	3	LC70
	6782	PA/AP	62-15/16 / 30-5/16	58-13/16 / 28-1/8	78-1/4	79-7/16	34.0	34.5	20.0	3	LC70
	7282	PA/AP	67-15/16 / 32-11/16	63-13/16 / 30-5/8	78-1/4	79-7/16	36.7	37.3	22.3	3	LC70
	7582	PA/AP	71-9/16 / 34-5/8	67-9/16 / 32-1/2	78-1/4	79-7/16	38.7	39.3	24.0	3	LC70

(—) = Not applicable

(1) All dimensions are approximate to the nearest 1/16". The second value, where shown, provides the clear opening for the active panel only.

(2) Water resistance is 0 psf for units with a low profile sill.

(3) Maximum performance when glazed with the appropriate glass thickness.

All doors and sidelights are glazed with tempered glass.



Pella® Reserve™ Traditional Out-Swing Patio Door

Design Data

Out-Swing Design Data											
Unit		Clear Opening (Inches)				Vent Area Ft²	Vent Area (ADA) Ft²	Visible Glass Ft²	Standard Glass Thickness (mm) Tempered	Performance Class & Grade ₃	
		Width ₁		Standard Sill Unit Height	ADA Sill Unit Height ₂						
		170°	90°								
7' 2" Doors	3086	F	—	—	—	—	—	9.0	3	LC70	
	3686	F	—	—	—	—	—	11.9	3	LC70	
	2686	L/R	22-1/16	20	82-3/4	83-15/16	12.3	12.5	6.7	3	LC70
	3086	L/R	26-11/16	24-5/8	82-3/4	83-15/16	15.0	15.2	9.0	3	LC70
	3486	L/R	30-3/16	28-1/8	82-3/4	83-15/16	17.0	17.2	10.7	3	LC70
	3686	L/R	32-11/16	30-5/8	82-3/4	83-15/16	18.4	18.7	11.9	3	LC70
	3886	L/R	34-9/16	32-1/2	82-3/4	83-15/16	19.5	19.8	12.8	3	LC70
	5086	PA/AP	46-11/16 / 22-1/16	42-9/16 / 20	82-3/4	83-15/16	26.6	27.0	13.4	3	LC70
	6086	PA/AP	55-15/16 / 26-11/16	51-13/16 / 24-5/8	82-3/4	83-15/16	31.9	32.4	17.9	3	LC70
	6786	PA/AP	62-15/16 / 30-5/16	58-13/16 / 28-1/8	82-3/4	83-15/16	36.0	36.5	21.3	3	LC70
	7286	PA/AP	67-15/16 / 32-11/16	63-13/16 / 30-5/8	82-3/4	83-15/16	38.8	39.4	23.8	3	LC70
	7586	PA/AP	71-9/16 / 34-5/8	67-9/16 / 32-1/2	82-3/4	83-15/16	41.0	41.6	25.6	3	LC70
8' 0" Doors	3096	F	—	—	—	—	—	10.2	3	LC70	
	3696	F	—	—	—	—	—	13.5	3	LC70	
	2696	L/R	22-1/16	20	92-1/4	93-7/16	13.7	13.9	7.6	3	LC70
	3096	L/R	26-11/16	24-5/8	92-1/4	93-7/16	16.7	16.9	10.2	3	LC70
	3496	L/R	30-3/16	28-1/8	92-1/4	93-7/16	18.9	19.2	12.1	3	LC70
	3696	L/R	32-11/16	30-5/8	92-1/4	93-7/16	20.5	20.8	13.5	3	LC70
	3896	L/R	34-9/16	32-1/2	92-1/4	93-7/16	21.7	22.0	14.5	3	LC70
	5096	PA/AP	46-11/16 / 22-1/16	42-9/16 / 20	92-1/4	93-7/16	29.7	30.1	15.2	3	LC70
	6096	PA/AP	55-15/16 / 26-11/16	51-13/16 / 24-5/8	92-1/4	93-7/16	35.6	36.1	20.4	3	LC70
	6796	PA/AP	62-15/16 / 30-5/16	58-13/16 / 28-1/8	92-1/4	93-7/16	40.1	40.6	24.2	3	LC70
	7296	PA/AP	67-15/16 / 32-11/16	63-13/16 / 30-5/8	92-1/4	93-7/16	43.3	43.9	27.0	3	LC70
	7596	PA/AP	71-9/16 / 34-5/8	67-9/16 / 32-1/2	92-1/4	93-7/16	45.7	46.3	29.1	3	LC70
10' 0" Doors	30120	F	—	—	—	—	—	13.2	5	LC50	
	36120	F	—	—	—	—	—	17.6	5	LC50	
	26120	L/R	22-1/16	20	116-1/4	117-7/16	17.3	17.5	9.9	5	LC50
	30120	L/R	26-11/16	24-5/8	116-1/4	117-7/16	21.0	21.3	13.2	5	LC50
	34120	L/R	30-3/16	28-1/8	116-1/4	117-7/16	23.9	24.1	15.8	5	LC50
	36120	L/R	32-11/16	30-5/8	116-1/4	117-7/16	25.9	26.2	17.6	5	LC50
	38120	L/R	34-9/16	32-1/2	116-1/4	117-7/16	27.4	27.7	18.9	5	LC50
	50120	PA/AP	46-11/16 / 22-1/16	42-9/16 / 20	116-1/4	117-7/16	37.5	37.9	19.8	5	LC50
	60120	PA/AP	55-15/16 / 26-11/16	51-13/16 / 24-5/8	116-1/4	117-7/16	44.9	45.4	26.5	5	LC50
	67120	PA/AP	62-15/16 / 30-5/16	58-13/16 / 28-1/8	116-1/4	117-7/16	50.5	51.1	31.5	5	LC50
	72120	PA/AP	67-15/16 / 32-11/16	63-13/16 / 30-5/8	116-1/4	117-7/16	54.6	55.2	35.1	5	LC50
	75120	PA/AP	71-9/16 / 34-5/8	67-9/16 / 32-1/2	116-1/4	117-7/16	57.6	58.2	37.8	5	LC50

(—) = Not applicable

(1) All dimensions are approximate to the nearest 1/16". The second value, where shown, provides the clear opening for the active panel only.

(2) Water resistance is 0 psf for units with a low profile sill.

(3) Maximum performance when glazed with the appropriate glass thickness.

All doors and sidelights are glazed with tempered glass.

To convert areas to square meters (m²), multiply square feet by 0.0929.



Pella® Reserve™ Traditional Out-Swing Patio Door

Design Data

Transoms — Fixed Frame Direct Set

Unit	Visible Glass Ft²	Standard Glass Thickness (mm)			Performance Class & Grade ₂
		Dual-Pane Glazing		Triple-Pane Glazing	
		Annealed	Tempered	Annealed or Tempered	
2617	2.1	3	3	3	CW90
2625	3.3	3	3	3	CW90
3017	2.6	3	3	3	CW90
3025	4.0	3	3	3	CW90
3417	2.9	3	3	3	CW90
3425	4.6	3	3	3	CW90
3617	3.1	3	3	3	CW90
3625	4.9	3	3	3	CW90
3817	3.3	3	3	3	CW90
3825	5.2	3	3	3	CW90
5017	4.5	3	3	3	CW90
5025	7.1	3	3	3	CW75
6017	5.3	3	3	3	CW90
6025	8.5	3	3	3	CW55
6717	6.0	3	3	3	CW60
6725	9.5	3	3	3	CW50
7217	6.5	3	3	3	CW60
7225	10.3	3	3	3	CW45
7517	6.8	3	3	3	CW60
7525	10.8	3	3	3	CW45

Transoms — Fixed Casement

2617	1.5	2.5	3	3	CW50
2625	2.6	2.5	3	3	CW50
3017	1.9	2.5	3	3	CW50
3025	3.2	2.5	3	3	CW50
3417	2.2	2.5	3	3	CW50
3425	3.7	2.5	3	3	CW50
3617	2.4	2.5	3	3	CW50
3625	4.0	2.5	3	3	CW50
3817	2.5	2.5	3	3	CW50
3825	4.3	2.5	3	3	CW50
5017	3.5	2.5	3	3	CW50
5025	5.9	2.5	3	3	CW50
6017	4.2	2.5	3	3	CW50
6025	7.2	2.5	3	3	CW45/CW50
6717	4.7	2.5	3	3	R15 ₁
6725	8.1	2.5	3	3	R15 ₁
7217	5.1	—	3	3	R15 ₁
7225	8.8	2.5	3	3	R15 ₁
7517	5.4	—	3	3	R15 ₁
7525	9.3	2.5	3	3	R15 ₁

Transoms — Wide Stile Casement

Unit	Visible Glass Ft²	Standard Glass Thickness (mm)			Performance Class & Grade ₂
		Dual-Pane Glazing		Triple-Pane Glazing	
		Annealed	Tempered	Annealed or Tempered	
2617	1.1	2.5	3	3	CW50
2625	1.8	2.5	3	3	CW50
3017	1.4	2.5	3	3	CW50
3025	2.5	2.5	3	3	CW50
3417	1.7	2.5	3	3	CW50
3425	2.9	2.5	3	3	CW50
3617	1.9	2.5	3	3	CW50
3625	3.3	2.5	3	3	CW50
3817	2.1	2.5	3	3	CW50
3825	3.5	2.5	3	3	CW50
5017	3.0	2.5	3	3	CW50
5025	5.1	2.5	3	3	CW50
6017	3.7	2.5	3	3	CW50
6025	6.4	2.5	3	3	CW50
6717	4.3	2.5	3	3	R15 ₁
6725	7.3	2.5	3	3	R15 ₁
7217	4.7	2.5	3	3	R15 ₁
7225	8.0	2.5	3	3	R15 ₁
7517	5.0	—	3	3	R15 ₁
7525	8.5	2.5	3	3	R15 ₁

Sidelights

1880	5.0	—	3	3	LC70
1882	5.2	—	3	3	LC70
1886	5.5	—	3	3	LC70
1896	6.3	—	3	3	LC70

(—) = Not applicable

(1) Units are not AAMA/WDMA performance certified. Units are engineered to meet the performance class and grade shown.

(2) Maximum performance when glazed with the appropriate glass thickness. Second number indicates Performance Upgrade Class and Grade. Performance upgrade requires specific installation methods to meet the stated performance.

All doors and sidelights are glazed with tempered glass.

To convert areas to square meters (m²), multiply square feet by 0.0929.



Detailed Product Descriptions - Aluminum-Clad Exterior

Frame

- Select softwood, immersion treated with Pella's EnduraGuard® wood protection formula in accordance with WDMA I.S.-4. The EnduraGuard formula includes three active ingredients for protection against the effects of moisture, decay, stains from mold and mildew. Plus, an additional ingredient adds protection against termite damage.
- Interior exposed surfaces are [clear pine] [mahogany] [douglas fir], edge-banded and veneered on straight members. Curved members may have finger-jointed surfaces.
- Exterior surfaces are clad with aluminum at the head and jambs.
- Components are assembled with screws, staples and concealed corner locks.
- Frame depth is 5-7/8" (149mm) for a wall depth of 4-9/16" (116mm).
- Jamb extensions available to adapt door to wall thickness between 4-9/16" (116mm) to 7" (178mm).
- Optional factory-applied EnduraClad® exterior trim.
- Solid extruded aluminum sill with [Mill] [Nickel] [Bronze] [Black] [anodized to match anodized cladding] finish. [Mahogany threshold for mahogany door] [[oak] [composite black] threshold for [pine] [douglas fir] door].
– or –
- Sill is 1/2" low profile. Material and finish is extruded aluminum with [mill] [bronze] [anodized to match anodized cladding] finish.

Door panels

- Select softwood, immersion treated with Pella's EnduraGuard® wood protection formula in accordance with WDMA I.S.-4. The EnduraGuard formula includes three active ingredients for protection against the effects of moisture, decay, stains from mold and mildew. Plus, an additional ingredient adds protection against termite damage.
- Interior exposed surfaces are veneered with [clear pine] [mahogany] [douglas fir] on straight members. Curved members may have finger-jointed surfaces.
- Exterior surfaces are clad with extruded aluminum.
- Panel stiles and rails are three-ply construction, randomly finger-jointed blocks laminated with water-resistant glue and veneered on both sides.
- Units over 8' height have panel stiles constructed with LVL core with finger-jointed edge bands on both sides and veneered on both faces.
- Corners are urethane-silicone hybrid sealed and secured with metal fasteners.
- Panel thickness is 2-1/16" (52mm).
- Panel exterior profile is [ogee] [putty glaze], interior profile is ogee.

Weatherstripping

- Dual-durometer extruded polymer along jambs, head and sill.
- Dual-durometer extruded polymer rainscreen along top and sides of panel.
- Bristle rainscreen along bottom of panel.

Glazing System

- Quality fully-tempered float glass complying with ASTM C 1048.
- Custom and high altitude glazing available.
- Silicone-glazed, 13/16" double-pane, dual-seal, insulating glass
 - [Clear] [Obscure] [Reflective Bronze] with air.
 - [Obscure Low-E with [argon][air]] [Advanced] [AdvancedComfort] [SunDefense™] [SunDefense+] [NaturalSun] [NaturalSun+] Low-E [with argon]].
 - [Bronze] [Gray] [Green] Advanced Low-E [with argon].
– or –
- Silicone-glazed, 13/16" double-pane, dual-seal, laminated, insulating glass
 - Clear with air.
 - [Advanced Low-E] [SunDefense™ Low-E] with argon.
 - [Bronze] [Gray] [Green] Advanced Low-E with argon.
– or –
- Silicone-glazed, 1" triple-pane, dual-seal, insulating glass
 - [Obscure Low-E [with argon]] [Advanced] [SunDefense™] [NaturalSun] Low-E [with argon].
– or –
- Silicone-glazed, 7/8" double-pane, dual-seal, impact-resistant, laminated, insulating glass
 - Clear with air.
 - [Bronze] [Gray] [Green] with air.
 - [Advanced] [SunDefense™] Low-E with argon.

Exterior

- Aluminum clad exteriors shall be finished with EnduraClad® protective finish, in a multi-step, baked-on finish.
 - Color is [Standard] [feature] [custom]¹.
– or –
- Aluminum clad exteriors shall be finished with EnduraClad Plus protective finish with 70% fluoropolymer resin in a multi-step, baked-on finish.
 - Color is [Standard] [feature] [custom]¹.

Interior

- [Unfinished, ready for site finishing] [factory primed with one coat acrylic latex] [factory prefinished [paint] [stain]¹].

Hardware

Hinges

- Adjustable hinges standard to assist in installation.
- Doors 6' 10" to 7' 0" frame height will have three (3) hinges.
- Doors over 7' 0" frame height up to and including 8' 0" frame height will have four (4) hinges.
- Doors over 8' 3" frame height up to and including 9' 0" frame height will have five (5) hinges.
- Doors over 9' 0" frame height will have six (6) hinges.
- Hinge color to match exterior cladding.

Locks

- Mortised and keyed multi-point locking system, center deadbolt and shoot-bolts at head and sill will engage simultaneously.
- Doors 8' 0" frame height and below will have one (1) strike at the head, one (1) strike at the sill and one (1) center deadbolt.
- Doors over 8' 0" frame height up to and including 10' 0" frame height will have one (1) strike at the head, one (1) strike at the sill and three (3) locking points at the stile.
- Solid brass handles and keylock with K-keyway cylinder.
- Key cylinder finish is [Brass] [Stainless Steel] [Matte Black].

Finish

- Hardware finish is (Handle, Hinges and Strike) [baked enamel [White] [Champagne] [Brown] [Matte Black]] [Satin Brass] [Satin Nickel]] [Oil-Rubbed Bronze] [Distressed Bronze] [Distressed Nickel] [Polished Nickel] [Polished Chrome].

Optional Products

Grilles

- Integral Light Technology® Grilles
 - Interior grilles are [5/8"] [7/8"] [1-1/4"] [2"] ogee profile that are solid [pine] [mahogany] [douglas fir]. Interior surfaces are [unfinished, ready for site finishing] [factory primed] [pine: factory prefinished [paint] [stain]¹].
 - Exterior grilles are [5/8" putty glaze profile] [7/8" putty glaze] [ogee profile] [1-1/4" putty glaze] [ogee profile] [2" ogee profile] that are extruded aluminum.
 - Patterns are [Traditional] [Prairie] [Top Row] [Cross] [New England] [Victorian].
 - Insulating glass contains non-glare spacer between the panes of glass.
 - Grilles are adhered to both sides of the insulating glass with VHB acrylic adhesive tape and aligned with spacer.
– or –
- Grilles-Between-the-Glass²
 - Insulating glass contains 3/4" contoured aluminum grilles permanently installed between two panes of glass (exterior air-space on triple-pane insulating glass).
 - Patterns are [Traditional] [Prairie] [Cross] [Top Row]
 - Interior color is [White] [Tan₃] [Brown₃] [Putty₃] [Black] [Ivory] [Harvest] [Cordovan] [Brickstone].
 - Exterior color⁴ is [Standard]¹.

(1) Contact your local Pella sales representative for current color options.

(2) Available in clear or Low-E insulating glass only.

(3) Tan, Brown or Putty Interior GBG colors are available in single-tone (Brown/Brown, Tan/Tan or Putty/Putty). Other interior colors are also available with Tan or Brown exterior.

(4) Appearance of exterior grille color will vary depending on Low-E coating on glass.



Detailed Product Descriptions - Wood Exterior

Frame

- Select softwood, immersion treated with Pella's EnduraGuard® wood protection formula in accordance with WDMA I.S.-4. The EnduraGuard formula includes three active ingredients for protection against the effects of moisture, decay, stains from mold and mildew. Plus, an additional ingredient adds protection against termite damage.
- Interior and exterior surfaces are [pine] [mahogany]. Any curved members may have visible finger-jointed surfaces.
- Exterior surfaces are [pine: primed] [mahogany: [primed] [ready to stain]]. Curved members may have finger jointed surfaces.
- Overall frame depth is 4-9/16" (116mm).
- Jamb extensions available to adapt door to wall thickness between 4-9/16" (116mm) to 7" (178mm).
- Solid extruded aluminum sill with [Mill] [Nickel] [Bronze] [Black] [anodized [Clear] [Light Bronze] [Dark Bronze] [Black] [Custom₃]] finish. [Mahogany threshold for mahogany door] [[oak] [composite black] threshold for [pine] [douglas fir] door].
– or –
- Sill is 1/2" low profile. Material and finish are extruded aluminum with [mill] [Bronze] [anodized [Clear] [Light Bronze] [Dark Bronze] [Black] [Custom₃]] finish.

Door panels

- Select softwood, immersion treated with Pella's EnduraGuard® wood protection formula in accordance with WDMA I.S.-4. The EnduraGuard formula includes three active ingredients for protection against the effects of moisture, decay, stains from mold and mildew. Plus, an additional ingredient adds protection against termite damage.
- Interior exposed surfaces are veneered with [pine] [mahogany]. Any curved members may have visible finger-jointed surfaces.
- Exterior surfaces are [wood composite: factory primed] [mahogany [factory primed] [unfinished, ready for site finishing]].
- Panel stiles and rails are five-ply construction, randomly finger-jointed blocks laminated with water-resistant glue and veneered on both sides.
- Corners are urethane-silicone hybrid sealed and secured with metal fasteners.
- Panel thickness is 2-1/16" (52mm).

Weatherstripping

- Dual-durometer extruded polymer along jambs, head and sill.
- Dual durometer extruded polymer rainscreen along top and sides of panel.
- Bristle rainscreen along bottom of panel.

Glazing System

- Quality fully-tempered float glass complying with ASTM C 1048.
- Custom and high altitude glazing available.
- Silicone-glazed, 13/16" double-pane, dual-seal, insulating glass
 - [Clear] [Obscure] [Reflective Bronze] with air.
 - [Obscure Low-E [with argon]] [Advanced] [AdvancedComfort] [SunDefense™] [SunDefense+] [NaturalSun] [NaturalSun+] Low-E [with argon]].
 - [Bronze] [Gray] [Green] Advanced Low-E [with argon].
– or –
- Silicone-glazed, 13/16" double-pane, dual-seal, laminated, insulating glass
 - Clear with air.
 - [Advanced] [SunDefense™] Low-E with argon.
 - [Bronze] [Gray] [Green] Advanced Low-E with argon.
– or –
- Silicone-glazed, 1" triple-pane, dual-seal, insulating glass
 - [Obscure Low-E [with argon]] [Advanced] [SunDefense™] [NaturalSun] Low-E [with argon]].

Exterior

- [Wood composite: primed with one coat acrylic latex] [mahogany: [primed with one coat acrylic latex] [Unfinished, ready for site finishing]].

Interior

- [Unfinished, ready for site finishing] [factory primed with one coat acrylic latex] [factory prefinished [paint] [stain]₃].

Hardware

Hinges

- Adjustable hinges standard to assist in installation.
- Doors 6' 10" to 7' 0" frame height will have three (3) hinges.
- Doors over 7' 0" frame height up to and including 8' 0" frame height will have four (4) hinges.
- Doors over 8' 3" frame height up to and including 9' 0" frame height will have five (5) hinges.
- Doors over 9' 0" frame height will have six (6) hinges.
- Hinge color is White on primed units, Brown on unfinished.

Locks

- Mortised and keyed multi-point locking system, center deadbolt and shoot-bolts at head and sill will engage simultaneously.
- Doors 8' 0" frame height and below will have one (1) strike at the head, one (1) strike at the sill and one (1) center deadbolt.
- Doors over 8' 0" frame height up to and including 10' 0" frame height will have one (1) strike at the head, one (1) strike at the sill and three (3) locking points at the stile.
- Solid brass handles and keylock with K-keyway cylinder.
- Key cylinder finish is [Brass] [Stainless Steel] [Matte Black].

Finish

- Hardware finish is (Handle, Hinges and Strike) [baked enamel [White] [Champagne] [Brown] [Matte Black]] [Satin Brass] [Satin Nickel]] [Oil-Rubbed Bronze] [Distressed Bronze] [Distressed Nickel] [Polished Nickel] [Polished Chrome].

Optional Products

Grilles

- Integral Light Technology® Grilles
 - Interior grilles are [5/8"] [7/8"] [1-1/4"] ogee profile that are solid [pine] [mahogany]. Interior surfaces are [unfinished, ready for site finishing] [factory primed] [pine: factory prefinished [paint] [stain]₃].
 - Exterior grilles are [5/8"] [7/8"] [1-1/4"] putty glaze profile that are solid [pine] [mahogany]. Exterior surfaces are water repellent, preservative-treated in accordance with WDMA I.S.-4, and are [unfinished, ready for site finishing] [factory primed].
 - Patterns are [Traditional] [Prairie] [Top Row] [Cross] [New England] [Victorian].
 - Insulating glass contains non-glare spacer between the panes of glass.
 - Grilles are adhered to both sides of the insulating glass with VHB acrylic adhesive tape and aligned with spacer.
– or –
- Grilles-Between-the-Glass₂
 - Insulating glass contains 3/4" contoured aluminum grilles permanently installed between two panes of glass (exterior air-space on triple-pane insulating glass).
 - Patterns are [Traditional] [Prairie] [Cross] [Top Row]
 - Interior color is [White] [Tan₂] [Brown₂] [Putty₂] [Black] [Ivory] [Harvest] [Cordovan] [Brickstone].
 - Exterior color₄ is [standard₃].

(1) Available in clear or Low-E insulating glass with argon, and obscure insulated glass.

(2) Tan, Brown or Putty Interior GBG colors are available in single-tone (Brown/Brown, Tan/Tan or Putty/Putty). Other interior colors are also available with Tan or Brown exterior.

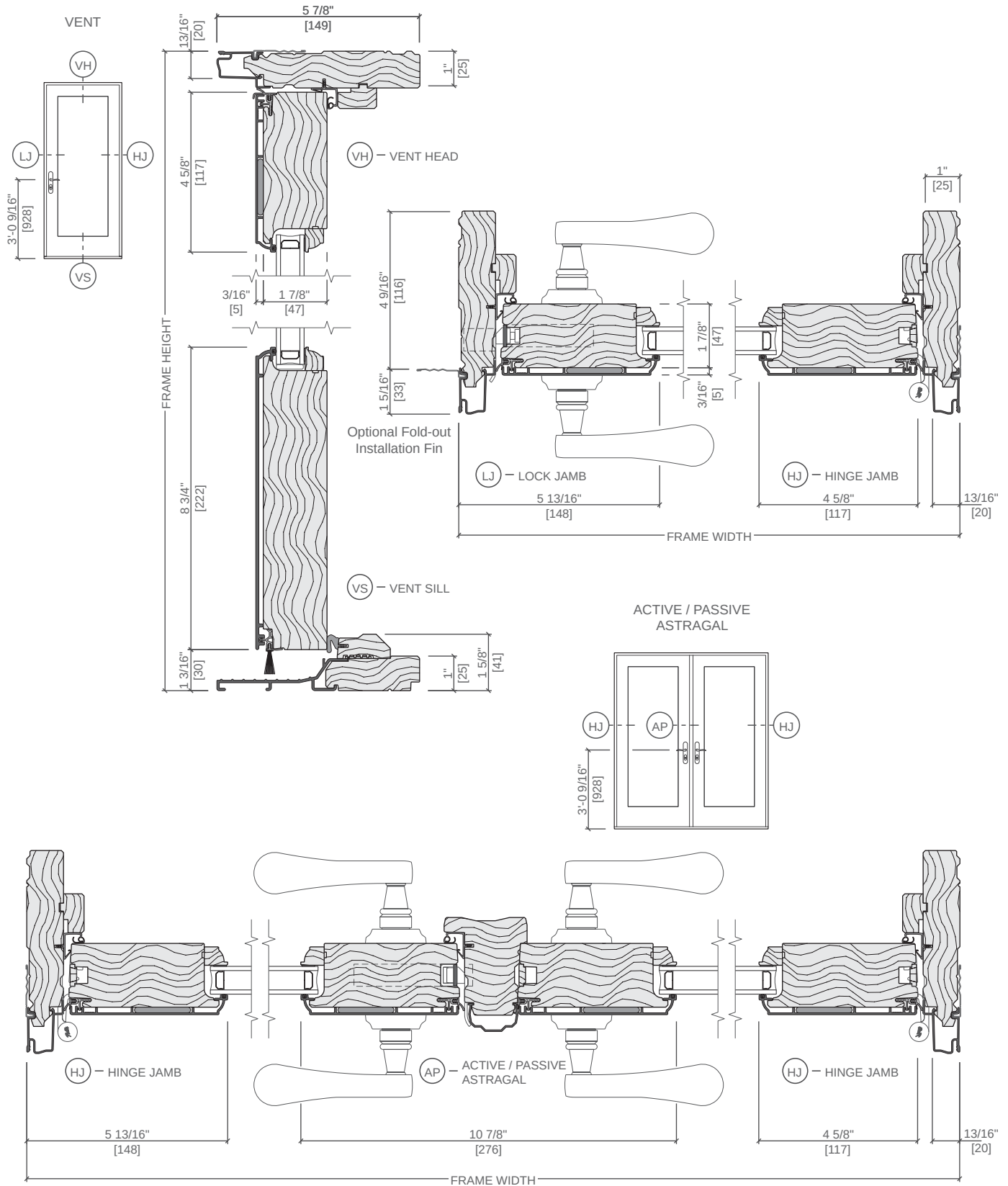
(3) Contact your local Pella sales representative for current color options.

(4) Appearance of exterior grille color will vary depending on Low-E coating on glass.



Pella® Reserve™ Traditional Out-Swing Patio Door

Unit Sections – Aluminum-Clad Exterior, Ogee Exterior Profile



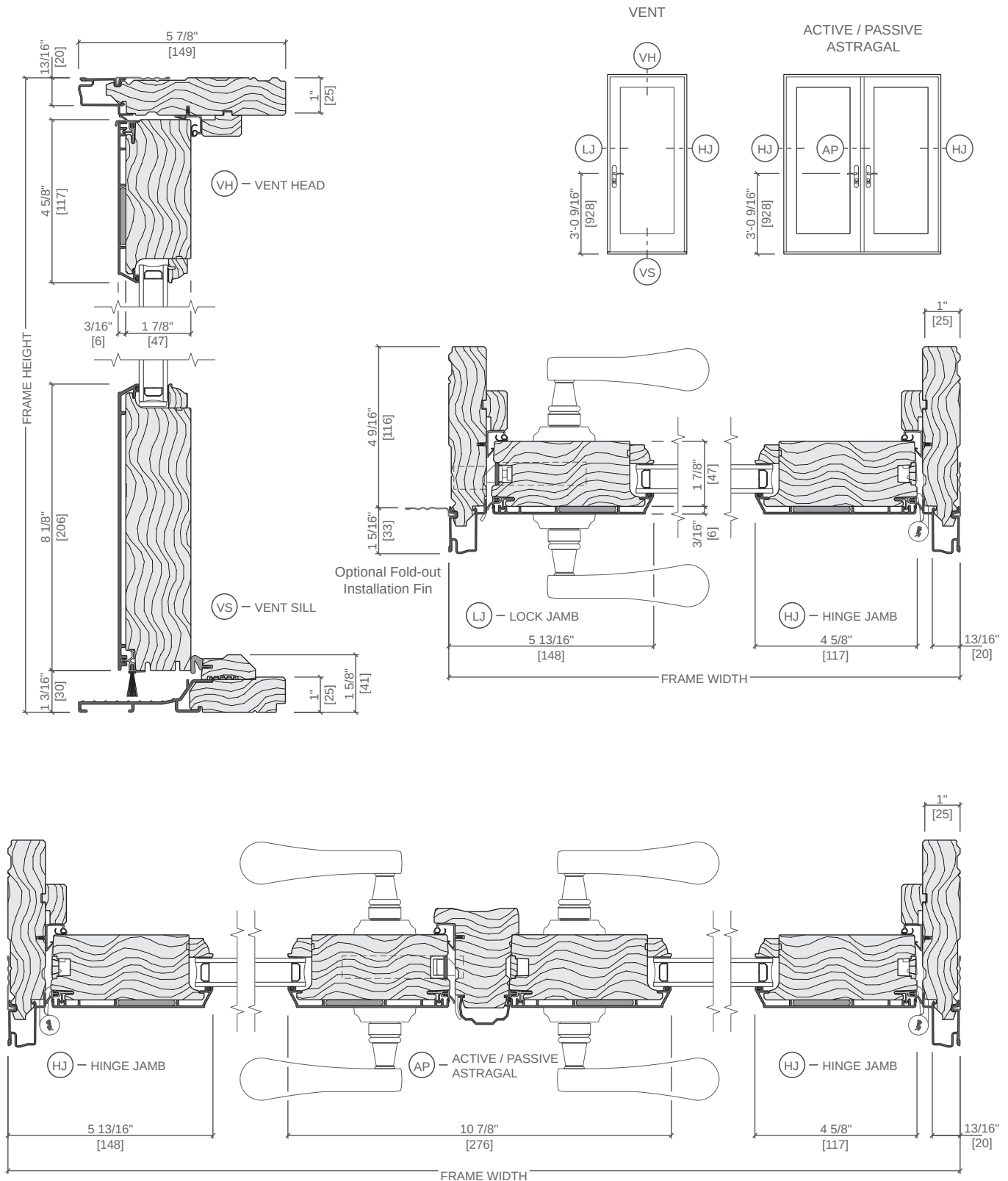
Scale 3" = 1' 0"

All dimensions are approximate.



Pella® Reserve™ Traditional Out-Swing Patio Door

Unit Sections – Aluminum-Clad Exterior, Putty Glaze Exterior Profile



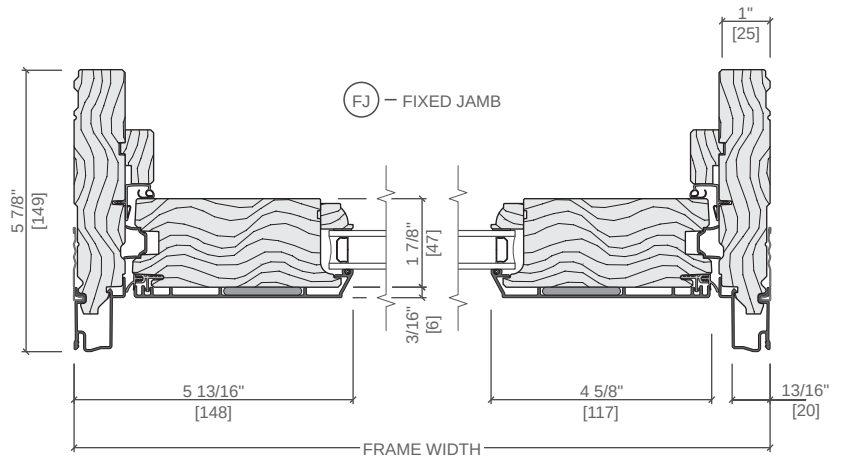
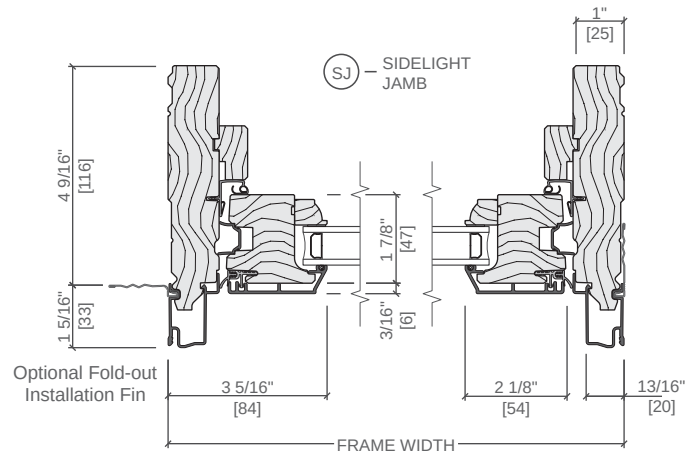
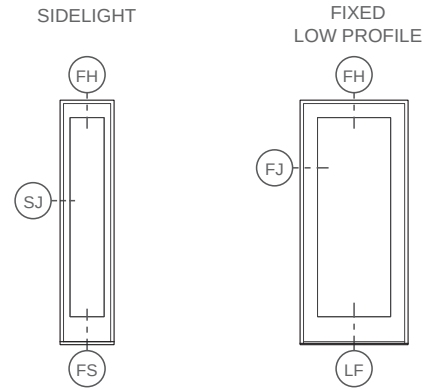
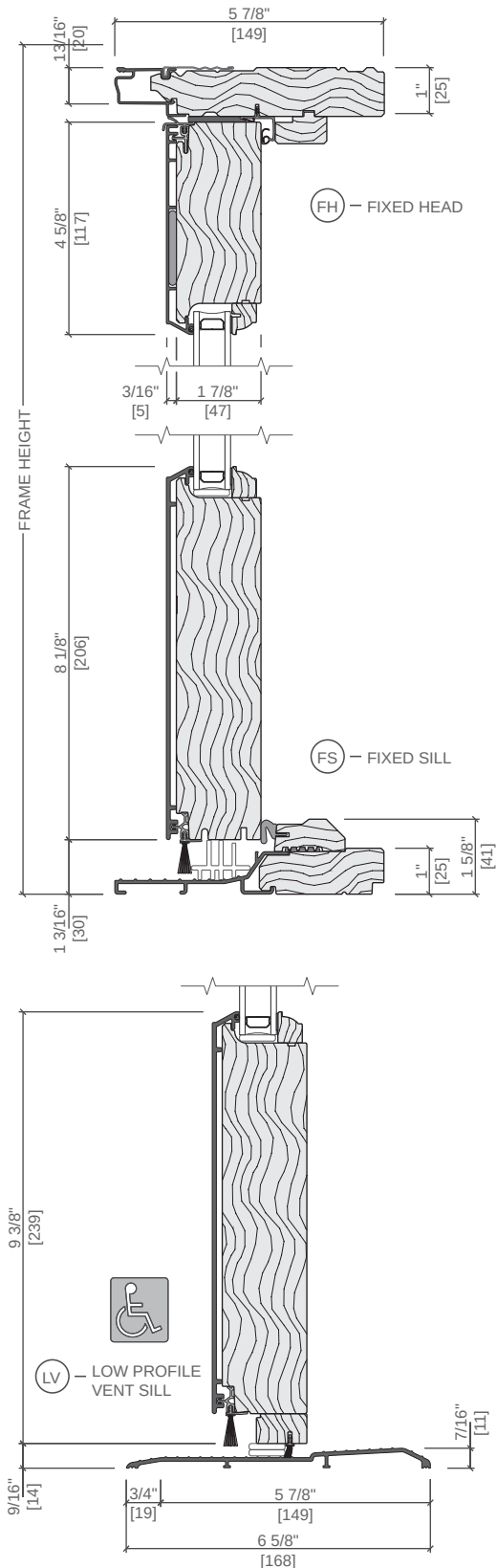
Scale 3" = 1' 0"

All dimensions are approximate.



Pella® Reserve™ Traditional Out-Swing Patio Door

Unit Sections – Aluminum-Clad Exterior, Putty Glaze Exterior Profile



Scale 3" = 1' 0"

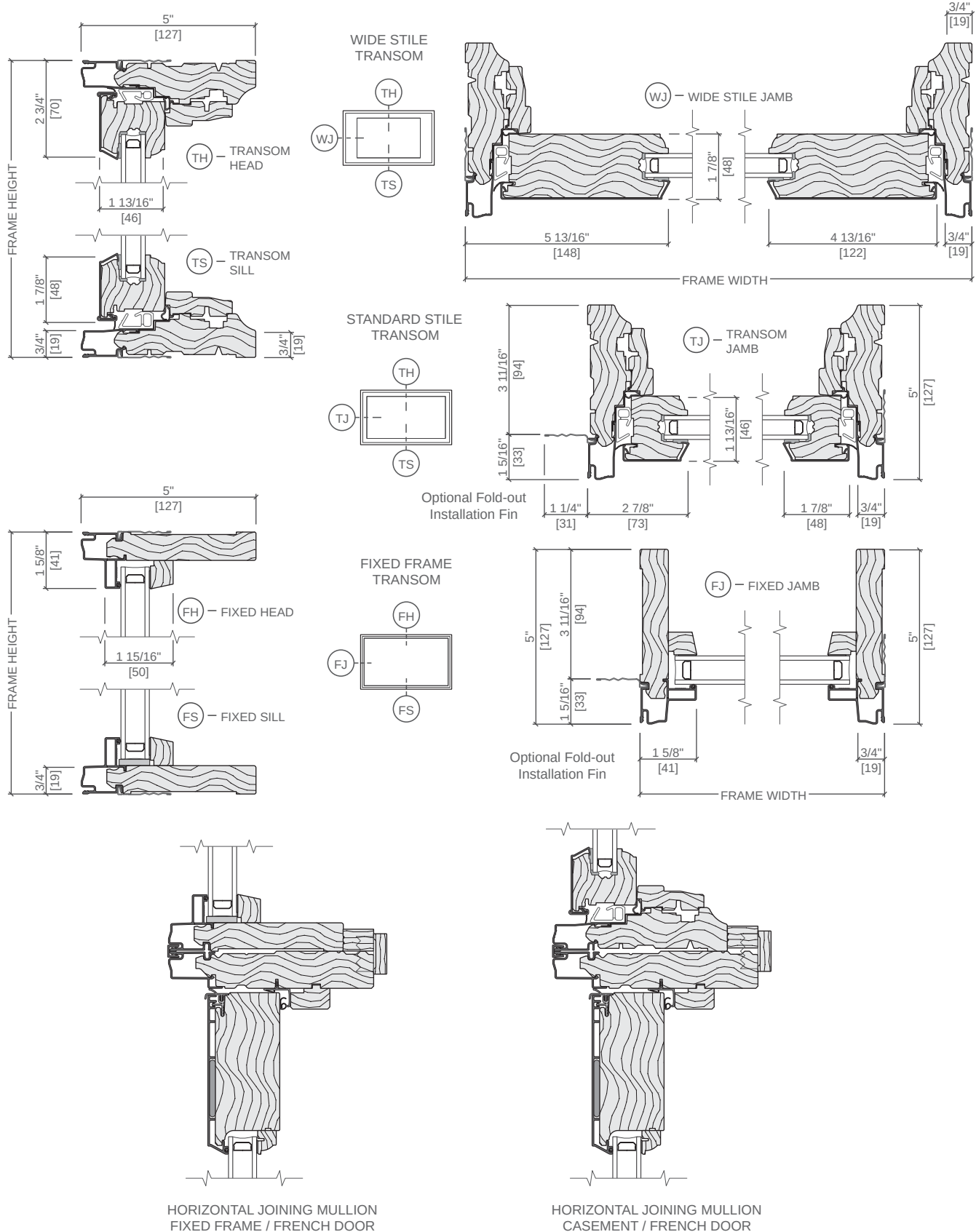
All dimensions are approximate.

Water resistance is 0 psf for units with a low profile sill.



Pella® Reserve™ Traditional Out-Swing Patio Door

Unit Sections – Aluminum-Clad Exterior, Putty Glaze Exterior Profile



Scale 3" = 1' 0"

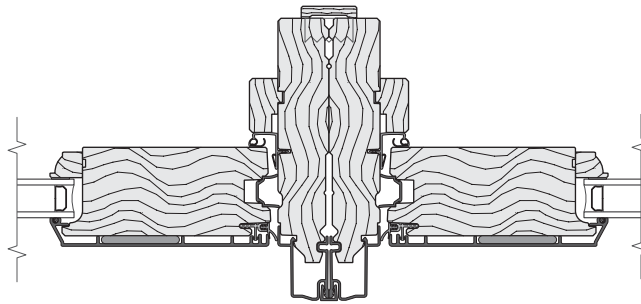
All dimensions are approximate.

See www.Pella.com for mullion limitations and reinforcing requirements.



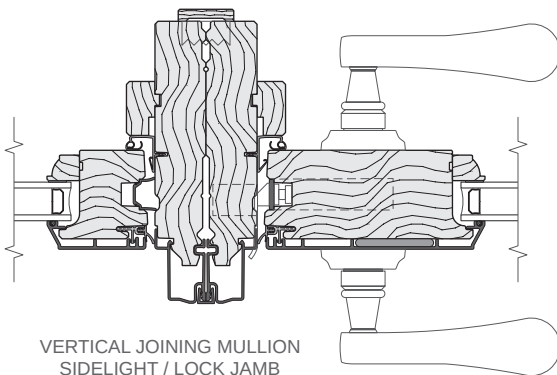
Pella® Reserve™ Traditional Out-Swing Patio Door

Unit Sections – Aluminum-Clad Exterior, Putty Glaze Exterior Profile

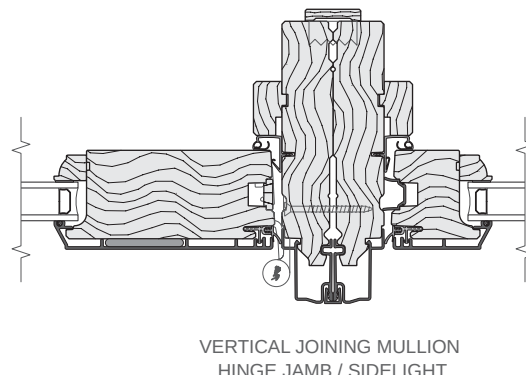


VERTICAL JOINING MULLION
FIXED PANELS

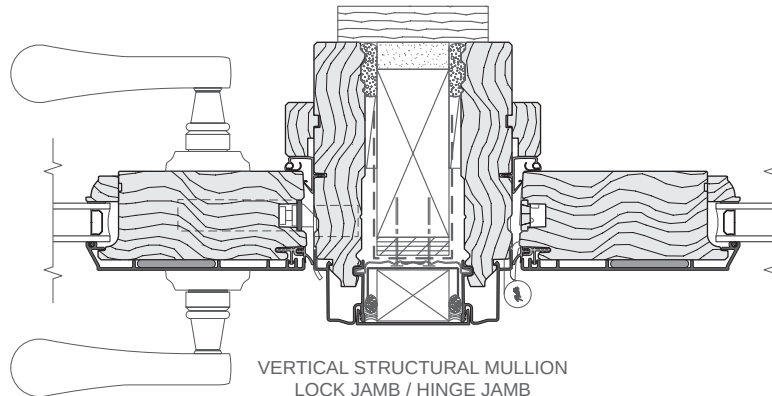
- Use standard joining mullions when joining fixed door panels.
- Sidelights or fixed panels may be joined directly to operable door panels. Composite must be installed with head drip fin and installation fins per standard installation instructions.
- Structural mullion must be used for all other combinations.



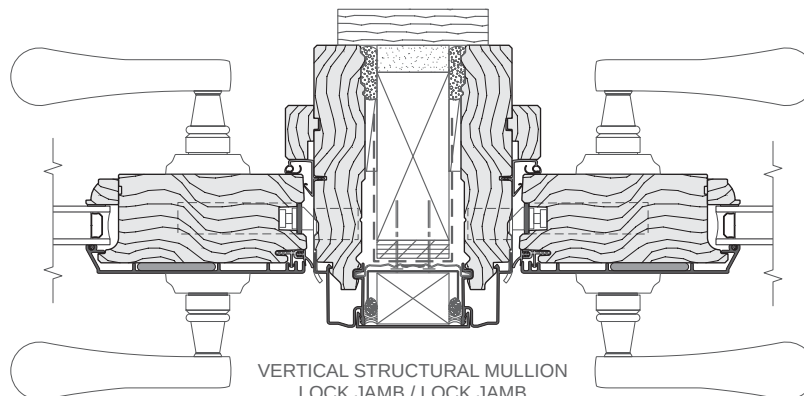
VERTICAL JOINING MULLION
SIDELIGHT / LOCK JAMB



VERTICAL JOINING MULLION
HINGE JAMB / SIDELIGHT



VERTICAL STRUCTURAL MULLION
LOCK JAMB / HINGE JAMB



VERTICAL STRUCTURAL MULLION
LOCK JAMB / LOCK JAMB

Scale 3" = 1' 0"

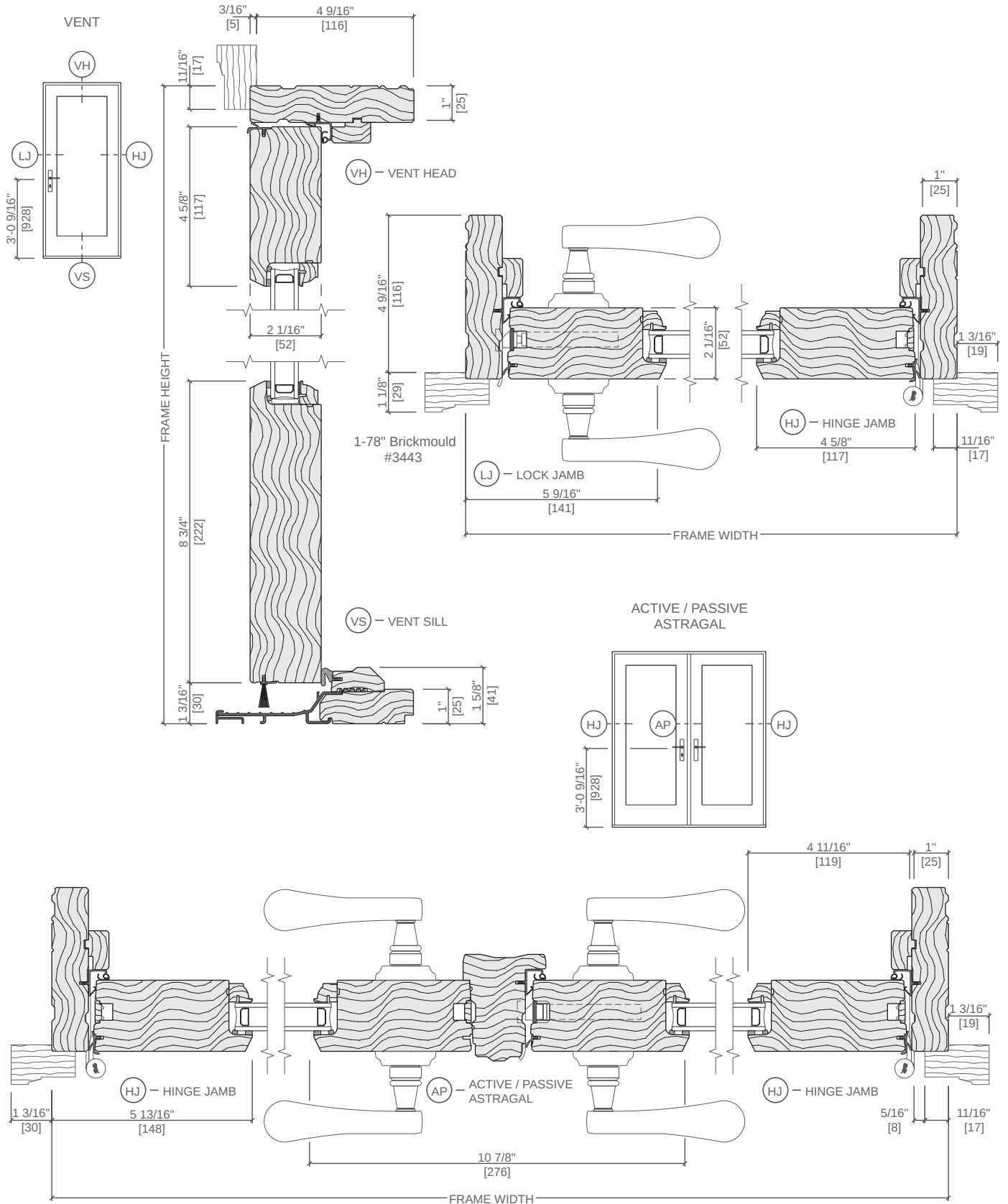
All dimensions are approximate.

See www.Pella.com for mullion limitations and reinforcing requirements.



Pella® Reserve™ Traditional Out-Swing Patio Door

Unit Sections – Wood Exterior, Putty Glaze Exterior Profile



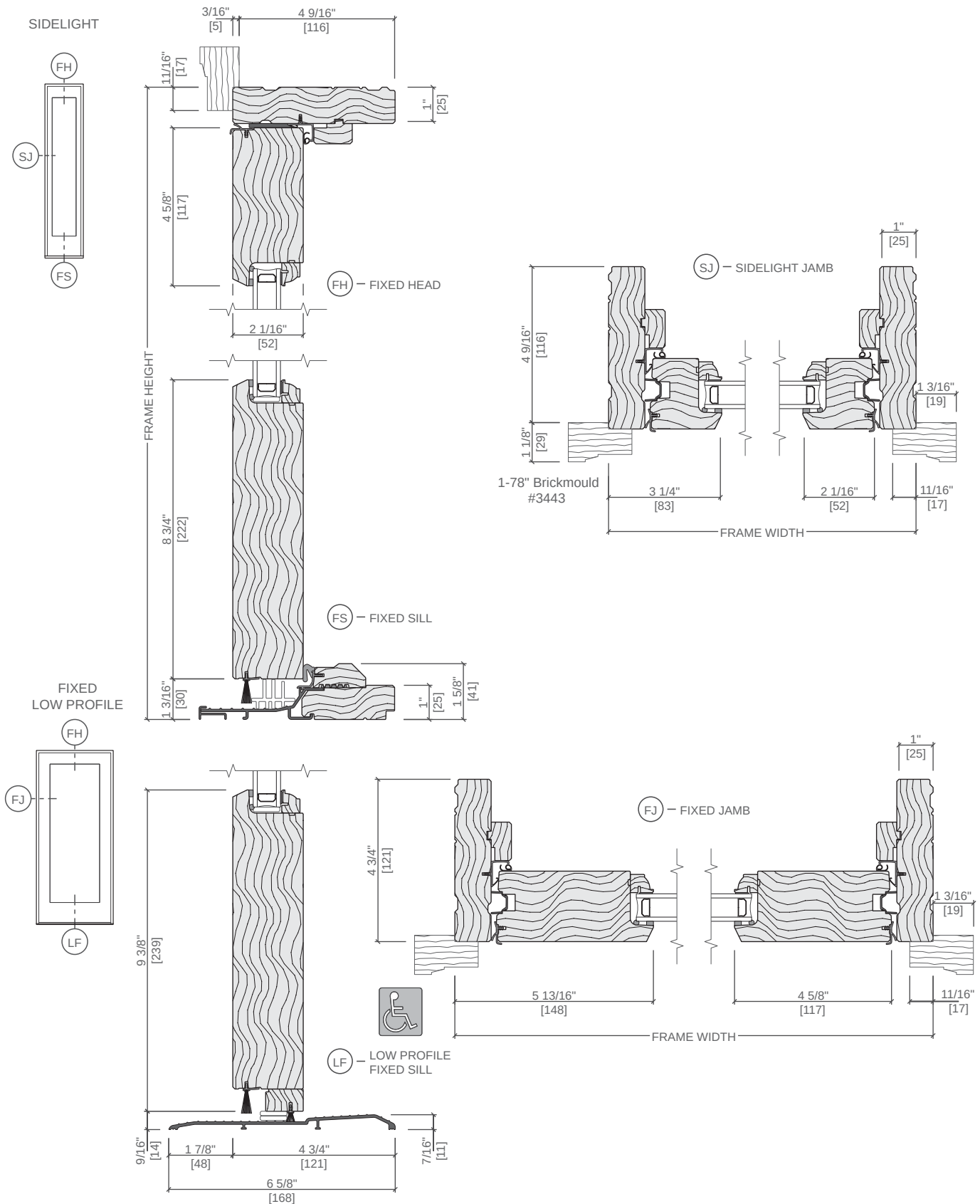
Scale 3" = 1' 0"

All dimensions are approximate.



Pella® Reserve™ Traditional Out-Swing Patio Door

Unit Sections – Wood Exterior, Putty Glaze Exterior Profile



Scale 3" = 1' 0"

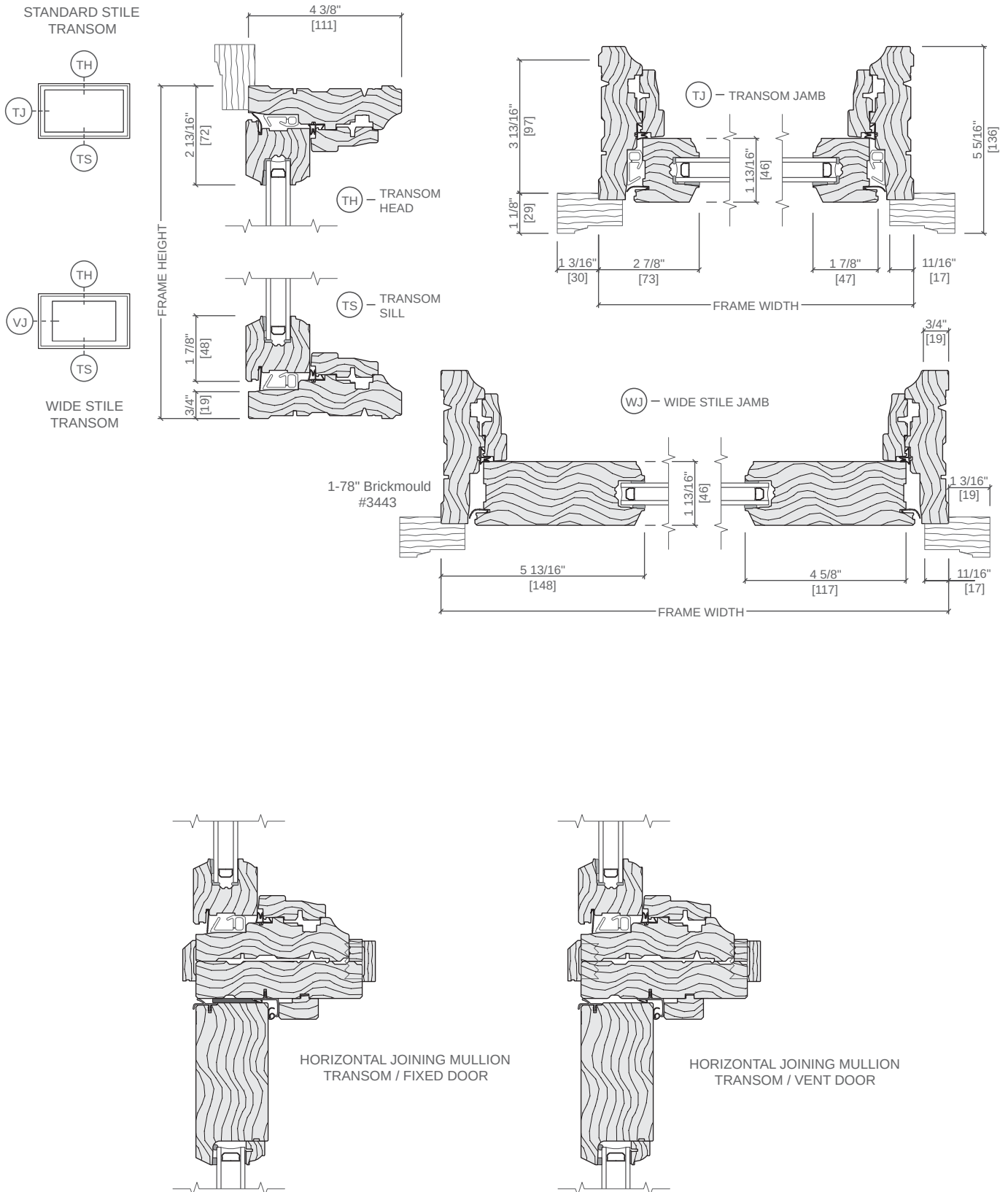
All dimensions are approximate.

Water resistance is 0 psf for units with a low profile sill.



Pella® Reserve™ Traditional Out-Swing Patio Door

Unit Sections – Wood Exterior, Putty Glaze Exterior Profile



Scale 3" = 1' 0"

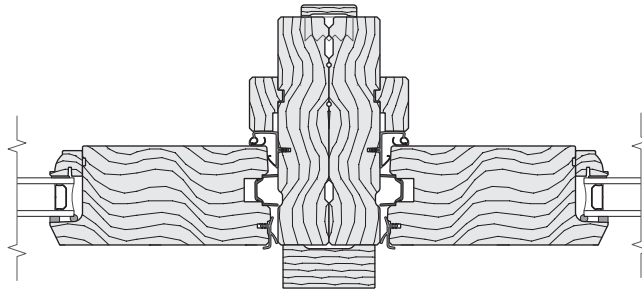
All dimensions are approximate.

See www.Pella.com for mullion limitations and reinforcing requirements.

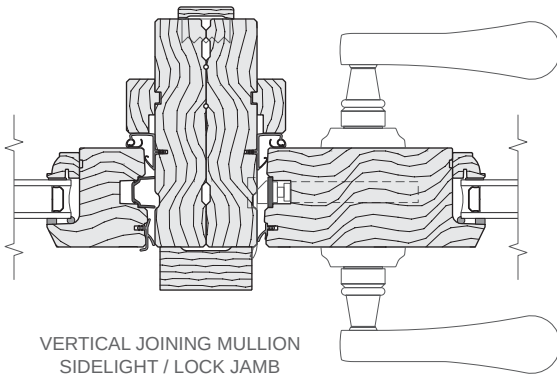


Pella® Reserve™ Traditional Out-Swing Patio Door

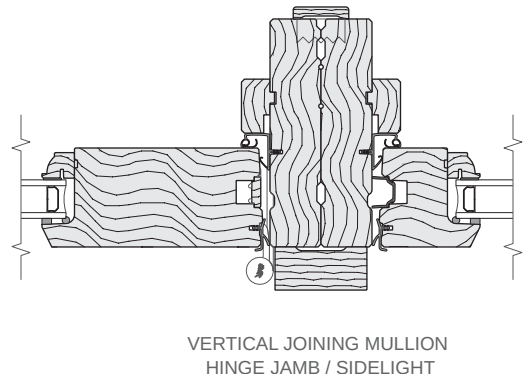
Unit Sections – Wood Exterior, Putty Glaze Exterior Profile



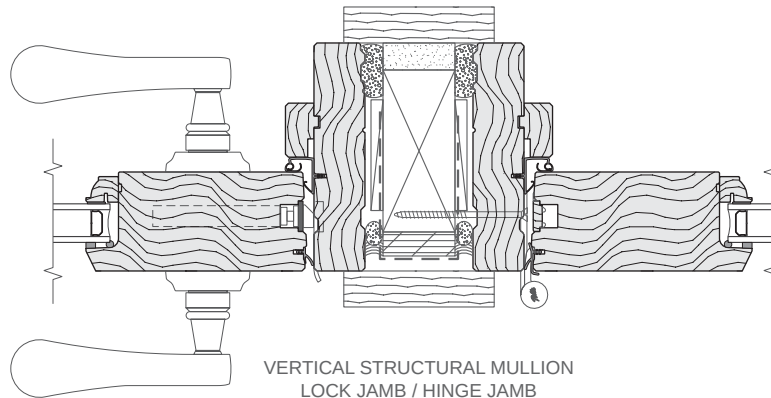
VERTICAL JOINING MULLION
FIXED PANELS



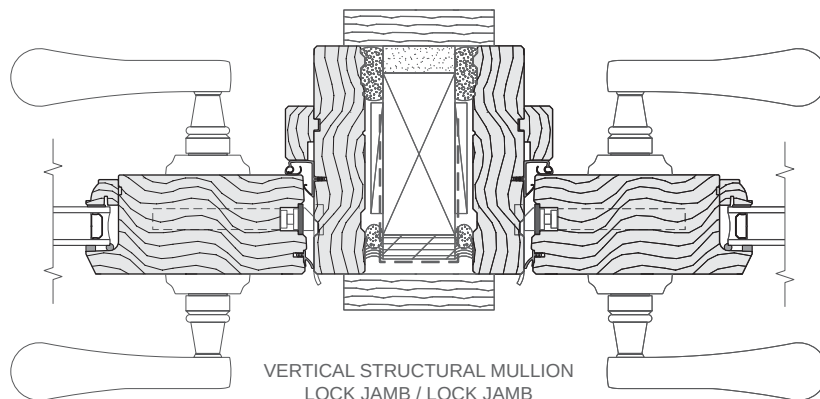
VERTICAL JOINING MULLION
SIDELIGHT / LOCK JAMB



VERTICAL JOINING MULLION
HINGE JAMB / SIDELIGHT



VERTICAL STRUCTURAL MULLION
LOCK JAMB / HINGE JAMB



VERTICAL STRUCTURAL MULLION
LOCK JAMB / LOCK JAMB

Scale 3" = 1' 0"

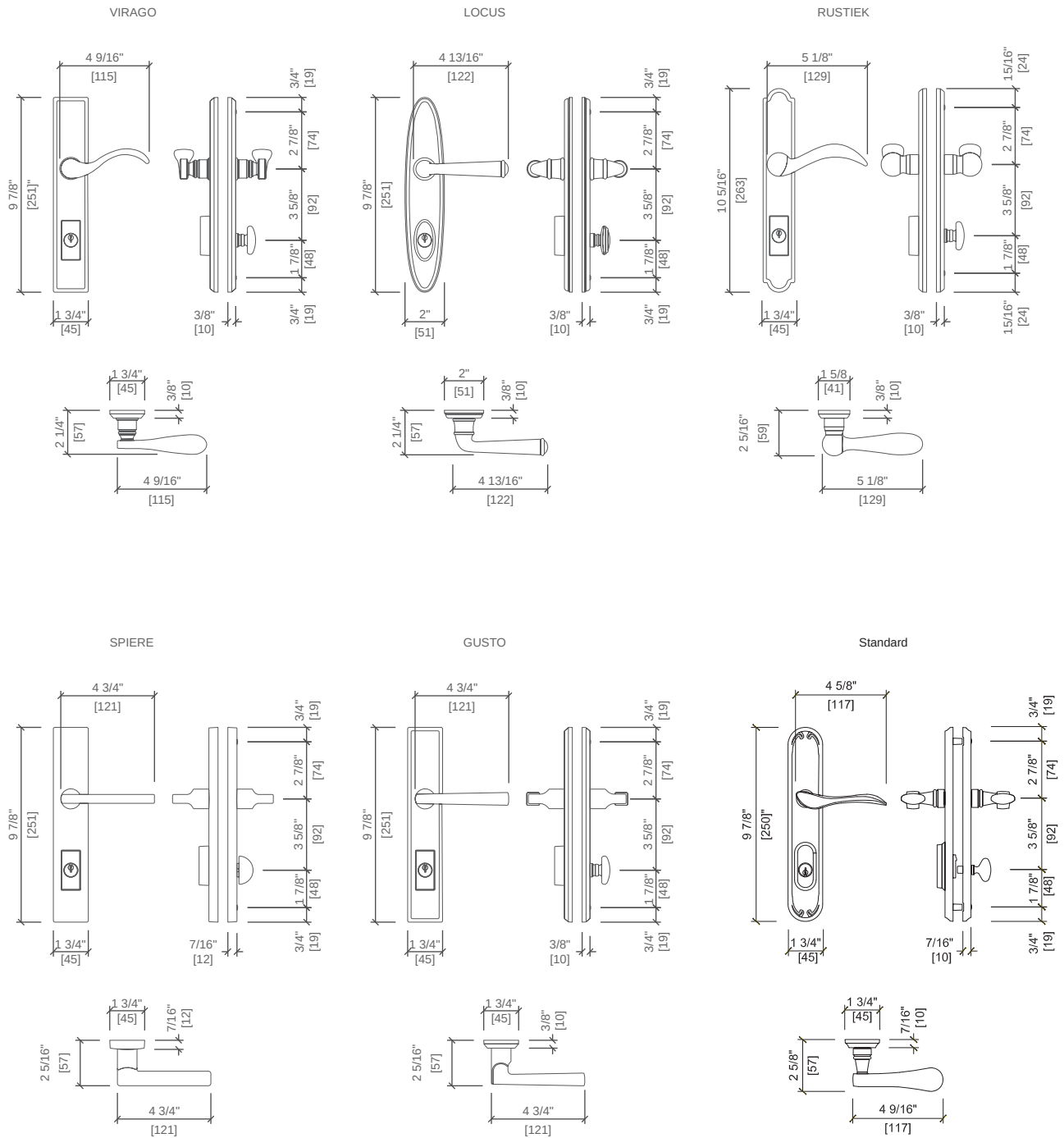
All dimensions are approximate.

See www.Pella.com for mullion limitations and reinforcing requirements.



Pella® Reserve™ Traditional Out-Swing Patio Door

Unit Sections – Handle Hardware Dimensions





Glazing Performance - Total Unit

Glazing Thickness	Type of Glazing	Glass (mm)		Gap Fill	Performance Values ¹			
		Ext.	Int.		U-Factor	SHGC	VLT	CR
Vent Dual-Pane Glazing - Aluminum-Clad Exterior								
13/16"	Clear IG	3	3	air	0.39	0.36	0.37	47
	with grilles-between-the-glass				0.39	0.31	0.31	47
	with integral grilles				0.40	0.31	0.31	47
13/16"	Advanced Low-E IG	3	3	argon	0.29	0.18	0.31	61
	with grilles-between-the-glass				0.29	0.15	0.26	61
	with integral grilles				0.30	0.15	0.26	61
13/16"	SunDefense™ Low-E IG	3	3	argon	0.29	0.13	0.29	62
	with grilles-between-the-glass				0.29	0.12	0.24	62
	with integral grilles				0.30	0.12	0.24	62
13/16"	AdvancedComfort Low-E IG	3	3	argon	0.27	0.17	0.31	48
	with grilles-between-the-glass				0.27	0.15	0.26	48
	with integral grilles				0.28	0.15	0.26	48
13/16"	NaturalSun Low-E IG	3	3	argon	0.30	0.32	0.36	60
	with grilles-between-the-glass				0.30	0.27	0.30	60
	with integral grilles				0.31	0.27	0.30	60
Tinted Glazing								
13/16"	Bronze Advanced Low-E IG	5	3	argon	0.29	0.16	0.20	62
	with integral grilles with grilles				0.29	0.14	0.17	62
	with integral grilles				0.30	0.14	0.17	62
13/16"	Gray Advanced Low-E IG	5	3	argon	0.29	0.15	0.17	62
	with grilles-between-the-glass				0.29	0.13	0.15	62
	with integral grilles				0.30	0.13	0.15	62
13/16"	Green Advanced Low-E IG	5	3	argon	0.29	0.18	0.28	62
	with grilles-between-the-glass				0.29	0.15	0.28	62
	with integral grilles				0.30	0.15	0.23	62
High Altitude Glazing								
13/16"	Advanced Low-E IG	3	3	air	0.31	0.18	0.31	58
	with grilles-between-the-glass				0.31	0.15	0.26	58
	with integral grilles				0.32	0.15	0.26	58
13/16"	SunDefense™ Low-E IG	3	3	air	0.31	0.14	0.29	58
	with grilles-between-the-glass				0.31	0.14	0.24	58
	with integral grilles				0.32	0.12	0.24	58
13/16"	AdvancedComfort Low-E IG	3	3	air	0.28	0.17	0.31	45
	with grilles-between-the-glass				0.28	0.15	0.26	45
	with integral grilles				0.29	0.15	0.26	45
13/16"	NaturalSun Low-E IG	3	3	air	0.32	0.32	0.36	57
	with grilles-between-the-glass				0.32	0.27	0.30	57
	with integral grilles				0.33	0.27	0.30	57

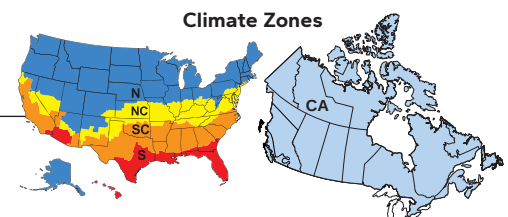
R-Value = 1/U-Factor
 SHGC = Solar Heat Gain Coefficient
 VLT % = Visible Light Transmission
 CR = Condensation Resistance
 ER = Canadian Energy Rating

(1) Glazing performance values are calculated based on NFRC 100, NFRC 200 and NFRC 500. ENERGY STAR® values are updated to 2023 (Version 7) criteria.

(2) The values shown are based on Canada's updated ENERGY STAR® 2020 initiative.

U-Factor values shown are based on a standard sill and pine interior.

Visit www.energystar.gov for Energy Star guidelines.





Glazing Performance - Total Unit

Glazing Thickness	Type of Glazing	Glass (mm)			Gap Fill	Performance Values ₁			
		Ext.	Mid	Int.		U-Factor	SHGC	VLT	CR
Vent Triple-Pane Glazing - Aluminum-Clad Exterior									
1"	Advanced Low-E IG	3	3	3	argon	0.25	0.16	0.28	62
	with grilles-between-the-glass					0.26	0.14	0.23	62
	with integral grilles					0.26	0.14	0.23	62
1"	SunDefense™ Low-E IG	3	3	3	argon	0.25	0.12	0.26	62
	with grilles-between-the-glass					0.26	0.11	0.21	62
	with integral grilles					0.26	0.11	0.21	62
1"	NaturalSun Low-E IG	3	3	3	argon	0.26	0.26	0.31	62
	with grilles-between-the-glass					0.26	0.22	0.26	62
	with integral grilles					0.26	0.22	0.26	62
High Altitude Glazing									
1"	Advanced Low-E IG	3	3	3	air	0.28	0.16	0.28	62
	with grilles-between-the-glass					0.28	0.14	0.23	62
	with integral grilles					0.28	0.14	0.23	62
1"	SunDefense Low-E IG	3	3	3	air	0.27	0.13	0.26	62
	with grilles-between-the-glass					0.27	0.11	0.21	62
	with integral grilles					0.28	0.11	0.21	62
1"	NaturalSun Low-E IG	3	3	3	air	0.28	0.26	0.31	62
	with grilles-between-the-glass					0.28	0.22	0.26	62
	with integral grilles					0.28	0.22	0.26	62

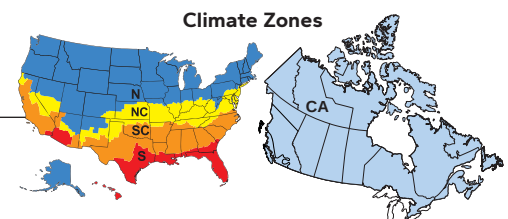
R-Value = 1/U-Factor
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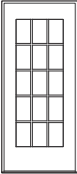
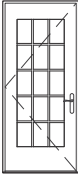
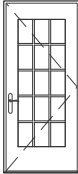
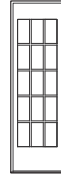
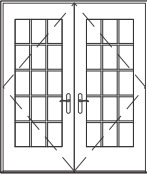
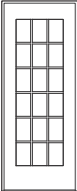
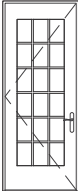
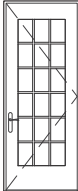
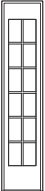
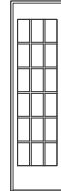
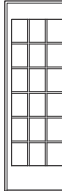
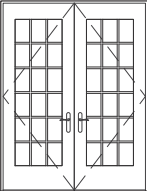




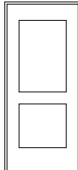
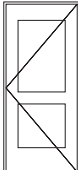
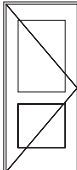
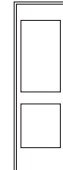
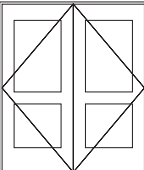
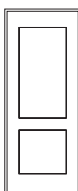
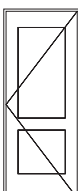
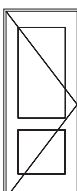
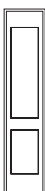
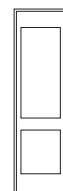
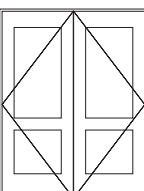
Pella® Reserve™ Commercial Out-Swing Door

Size Tables

7' 2" and 8' 0" Vent and Fixed Units - Clad

	Opening	(981) (962)	(981) (962)	(981) (962)	(540) (521)	(692) (673)	(845) (826)	(1 886) (1 867)
		3' 2 5/8"	3' 2 5/8"	3' 2 5/8"	1' 9 1/4"	2' 3 1/4"	2' 9 1/4"	6' 2 1/4"
	Frame	3' 1 7/8"	3' 1 7/8"	3' 1 7/8"	1' 8 1/2"	2' 2 1/2"	2' 8 1/2"	6' 1 1/2"
(2 197) (2 184)	7' 2 1/2"							
	7' 2"	FIXED 3886	LEFT 3886	RIGHT 3886	SIDELIGHT 2186	SIDELIGHT 2786	SIDELIGHT 3386	ACTIVE-ACTIVE 7486
(2 438) (2 426)	8' 0"							
	7' 11 1/2"	FIXED 3896	LEFT 3896	RIGHT 3896	SIDELIGHT 2196	SIDELIGHT 2796	SIDELIGHT 3396	ACTIVE-ACTIVE 7496

7' 2" and 8' 0" Vent and Fixed Units - Clad

	Opening	3' 2 5/8" (981)	3' 2 5/8" (981)	3' 2 5/8" (981)	1' 9 1/4" (540)	2' 3 1/4" (692)	2' 9 1/4" (845)	6' 2 1/4" (1 886)
		3' 1 7/8" (962)	3' 1 7/8" (962)	3' 1 7/8" (962)	1' 8 1/2" (521)	2' 2 1/2" (673)	2' 8 1/2" (826)	6' 1 1/2" (1 867)
(2 197) (2 184)	7' 2 1/2"							
	7' 2"	FIXED 3886	LEFT 3886	RIGHT 3886	SIDELIGHT 2186	SIDELIGHT 2786	SIDELIGHT 3386	ACTIVE-ACTIVE 7486
(2 438) (2 426)	8' 0"							
	7' 11 1/2"	FIXED 3896	LEFT 3896	RIGHT 3896	SIDELIGHT 2196	SIDELIGHT 2796	SIDELIGHT 3396	ACTIVE-ACTIVE 7496

Not to scale.

CL = Distance from bottom of door to center line of intermediate rail is 38".

Masonry dimensions are with Pella's 1-7/8" brickmould.

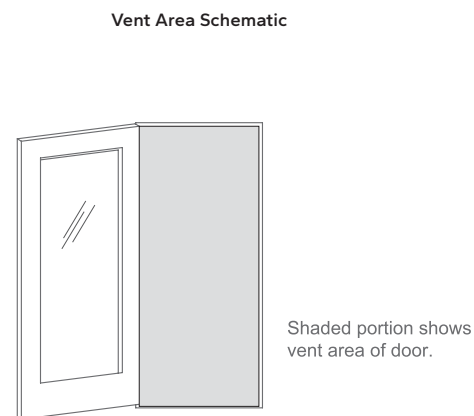
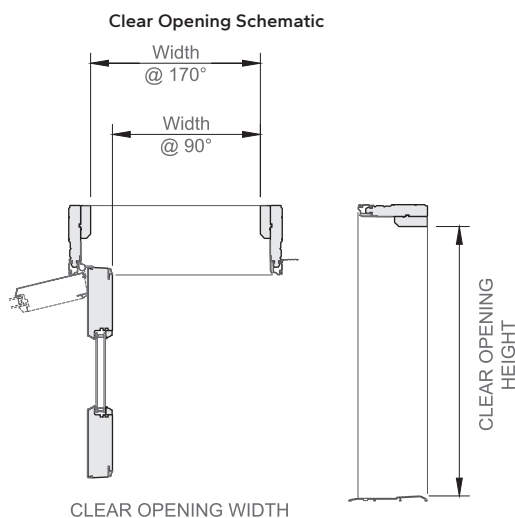
To determine masonry openings when using Pella's 3-1/2" brickmould, add an additional 3-1/4" to width and 1-5/8" to height.



Pella® Reserve™ Commercial Out-Swing Door

Design Data

Commercial Aluminum EnduraClad® Exterior Aluminum Cladding								
	Clad Units		Clear Opening (Inches)			Visible Glass Ft²		Standard Glass Thickness (mm) Tempered
			Width ¹		Height	Without Rail	With Rail	
			Open 170°	Open 90°				
7' 2" DOORS	3886	F	—	—	—	10.3	9.3	3
	3886	L/R	34	32-5/16	83-3/4	10.3	9.3	3
	7486	AA	70 / 34-15/16	65-7/8 / 32-7/8	83-3/4	20.6	18.7	3
8' 0" DOORS	3896	F	—	—	—	11.8	10.9	3
	3896	L/R	34	32-5/16	93-3/4	11.8	10.9	3
	7496	AA	70 / 34-15/16	65-7/8 / 32-7/8	93-3/4	23.7	21.8	3
SIDELIGHTS	2186	S/L	—	—	—	6.1	5.5	3
	2196	S/L	—	—	—	7.0	6.5	3
	2786	S/L	—	—	—	8.8	7.9	3
	2796	S/L	—	—	—	10.1	9.2	3
	3386	S/L	—	—	—	11.4	10.3	3
	3396	S/L	—	—	—	13.1	12.0	3



(—) = Not applicable

(1) All dimensions are approximate to the nearest 1/16". The second value, where shown, provides the clear opening for the active panel only.

All doors are glazed with 3mm tempered glass.

To convert areas to square meters (m²), multiply square feet by 0.0929.



Hardware Parameters and Recommendations

Pella Reserve Commercial Out-Swing Doors are not supplied with locking hardware, closers, panic hardware, push plates or kick plates. Use the following guidelines when selecting these hardware items from your hardware supplier.

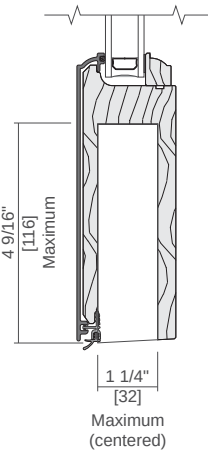
Mortise Locks: Maximum mortise rout dimensions are shown below for commercial doors with standard stile dimensions. Maximum height of the mortise rout is 10 inches. Routs should be sealed before the locks are installed for added moisture protection.

Cylinder Locks: Maximum diameter of cylinder lock bore is 2-1/8". Minimum backset is 2-3/8"; maximum backset is 2-3/4".

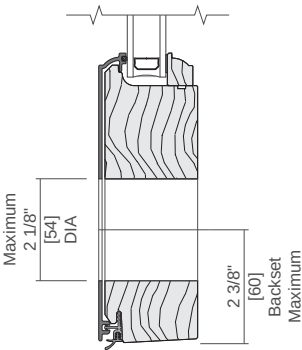
Door Closers: When door closers are being used, Pella recommends the use of surface applied door closers with mounting devices that anchor into the structural header of the rough opening. Devices that anchor to the door frame only are not approved for use on Pella doors. Concealed closers that are routed into the top of the door panel are not recommended.

Exit Devices: When exit devices are used, Pella recommends the use of surface mounted vertical rod hardware. Concealed vertical rod hardware is not recommended.

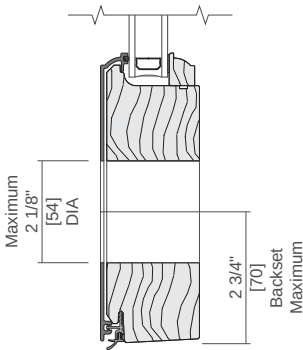
Kick plates and push plates: In commercial applications, Pella recommends the use of kick plates and push plates to protect the wood veneer.



6-1/16" STILE



4-5/8" STILE



6-1/16" STILE



Detailed Product Descriptions - Aluminum-Clad Exterior

Frame

- Select softwood, immersion treated with Pella's EnduraGuard® wood protection formula in accordance with WDMA I.S.-4. The EnduraGuard formula includes three active ingredients for protection against the effects of moisture, decay, stains from mold and mildew. Plus, an additional ingredient adds protection against termite damage.
- Interior exposed surfaces are [clear pine] [mahogany] [douglas fir], edge-banded and veneered.
- Exterior surfaces are clad with aluminum at the head and jambs.
- Components are assembled with screws, staples and concealed corner locks.
- Sill is 1/2" low profile. Extruded aluminum with [mill] [bronze] [anodized to match anodized cladding] finish.
- Frame depth is 5-7/8" (149mm) for a wall depth of 4-9/16" (116mm).
- Jamb extensions available to adapt door to wall thickness between 4-9/16" (116mm) to 7" (178mm).

Door panels

- Select softwood, immersion treated with Pella's EnduraGuard® wood protection formula in accordance with WDMA I.S.-4. The EnduraGuard formula includes three active ingredients for protection against the effects of moisture, decay, stains from mold and mildew. Plus, an additional ingredient adds protection against termite damage.
- Interior exposed surfaces are veneered with [clear pine] [mahogany] [douglas fir].
- Exterior surfaces are clad with extruded aluminum.
- Panel stiles and rails are five-ply construction, randomly finger-jointed blocks laminated with water-resistant glue and veneered on both sides.
- Panel lock stiles on all units and all stiles on units over 8' height are constructed with LVL core with finger-jointed edge bands on both sides and veneered on both faces.
- Corners are urethane-silicone hybrid sealed and secured with metal fasteners.
- Panel thickness is 2-1/16" (52mm).
- Panel exterior profile is [ogee] [putty glaze], interior profile is ogee.

Weatherstripping

- Dual-durometer extruded polymer along jambs, head and sill.
- Dual-durometer extruded polymer rainscreen along top and sides of panel.
- Bristle rainscreen along bottom of panel.

Glazing System

- Quality fully-tempered float glass complying with ASTM C 1048.
- Custom and high altitude glazing available.
- Silicone-glazed, 13/16" double-pane, dual-seal, insulating glass
 - [Clear] [Obscure] [Reflective Bronze] with air.
 - [Obscure Low-E [with argon]] [[Advanced] [[AdvancedComfort] [SunDefense™] [NaturalSun] Low-E [with argon]].
 - [Bronze] [Gray] [Green] Advanced Low-E [with argon].

- or -
- Silicone-glazed, 13/16" double-pane, dual-seal, laminated, insulating glass
 - Clear with air.
 - [Advanced] [SunDefense™] Low-E with argon.
 - [Bronze] [Gray] [Green] Advanced Low-E with argon.

- or -
- Silicone-glazed, 1" triple-pane, dual-seal, insulating glass
 - [Obscure Low-E [with argon]] [[Advanced] [SunDefense™] [NaturalSun] Low-E [with argon]].

Exterior

- Exterior aluminum surfaces are finished with EnduraClad® multi-step, baked-on finish.
 - Color is [Standard] [feature] [custom]₁.

- or -
- Exterior aluminum surfaces are finished with EnduraClad® Plus protective finish with 70% fluoropolymer resin, multi-step baked-on finish.
 - Color is [Standard] [feature] [custom]₁.

Interior

- [Unfinished, ready for site finishing] [factory primed with one coat acrylic latex] [factory prefinished [paint] [stain]₁].

Hardware

Hinges

- Ball-bearing hinges
 - Doors 6' 10" and under frame height will have three (3) ball-bearing hinges.
 - Doors over 6' 10" frame height up to and including 8' 0" frame height will have four (4) ball bearing hinges.
 - Hinge finish [Colonial Bronze (Light Bronze, Dark Bronze, Black anodized sill finishes)] [Satin Nickel (Mill or Clear anodized sill finishes)] to complement the finish of the sill.

- or -
- Adjustable hinges to assist in installation (not available with anodized cladding).
 - Doors 6' 10" to 7' 0" frame height will have three (3) hinges.
 - Doors over 7' 0" frame height up to and including 8' 0" frame height will have four (4) hinges.
 - Doors over 8' 3" frame height up to and including 9' 0" frame height will have five (5) hinges.
 - Doors over 9' 0" frame height will have six (6) hinges.
 - Hinge color to match exterior cladding.

Optional Products

Grilles

- Integral Light Technology® grilles
 - Interior grilles are [5/8"] [7/8"] [1-1/4"] [2"] ogee profile that are solid [pine] [mahogany] [douglas fir]. Interior surfaces are [unfinished, ready for site finishing] [factory primed] [pine: factory prefinished [paint] [stain]₁].
 - Exterior grilles are [5/8" putty glaze profile] [7/8" [putty glaze] [ogee] profile] [1-1/4" [putty glaze] [ogee] profile] [2" ogee profile] that are extruded aluminum.
 - Patterns are [Traditional] [Prairie] [Top Row] [Cross] [New England] [Victorian].
 - Insulating glass contains non-glare spacer between the panes of glass.
 - Grilles are adhered to both sides of the insulating glass with VHB acrylic adhesive tape and aligned with spacer.

- or -
- Grilles-Between-the-Glass₂
 - Insulating glass contains 3/4" contoured aluminum grilles permanently installed between two panes of glass (exterior air-space on triple-pane insulating glass).
 - Patterns are [Traditional] [Prairie] [Cross] [Top Row]
 - Interior color is [White] [Tan₃] [Brown₃] [Putty₃] [Black] [Ivory] [Harvest] [Cordovan] [Brickstone].
 - Exterior color₄ is [Standard₁].

Intermediate Rail and Flat Panel Options

- 6" Intermediate rail is three-ply construction, randomly finger-jointed blocks laminated with water-resistant glue and veneered on both sides.
- Clad Flat panel exterior is .080" Aluminum. Color is [Standard] [feature] [custom]₁.
- Flat panel is an LVL construction with Interior exposed surfaces are veneered with [pine] [mahogany] [douglas fir].
- Standard placement: 6" Intermediate Rail 38" OC from the bottom of the door sill.

(1) Contact your local Pella sales representative for current color options.

(2) Available in clear or Low-E insulating glass only.

(3) Tan, Brown and Putty Interior GBG colors are available in single-tone (Brown/Brown, Tan/Tan or Putty/Putty). Other interior colors are also available with Tan or Brown exterior.

(4) Appearance of exterior grille color will vary depending on Low-E coating on glass.



Detailed Product Descriptions - Wood Exterior

Frame

- Select softwood, immersion treated with Pella's EnduraGuard® wood protection formula in accordance with WDMA I.S.-4. The EnduraGuard formula includes three active ingredients for protection against the effects of moisture, decay, stains from mold and mildew. Plus, an additional ingredient adds protection against termite damage.
- Interior and exterior surfaces are [pine] [mahogany].
- Sill is 1/2" low profile. Material and finish are extruded aluminum with [mill] [Bronze] [anodized [Clear] [Light Bronze] [Dark Bronze] [Black] [Custom₁]] finish.
- Overall frame depth is 4-9/16" (116mm).
- Jamb extensions available to adapt door to wall thickness between 4-9/16" (116mm) to 7" (178mm).

Door panels

- Select softwood, immersion treated with Pella's EnduraGuard® wood protection formula in accordance with WDMA I.S.-4. The EnduraGuard formula includes three active ingredients for protection against the effects of moisture, decay, stains from mold and mildew. Plus, an additional ingredient adds protection against termite damage.
- Interior exposed surfaces are veneered with [pine] [mahogany].
- Panel stiles and rails are five-ply construction, randomly finger-jointed blocks laminated with water-resistant glue and veneered on both sides.
- Corners are urethane-silicone hybrid sealed and secured with metal fasteners.
- Panel thickness is 2-1/16" (52mm).

Weatherstripping

- Dual-durometer extruded polymer along jambs, head and sill.
- Panel extensions available to adapt door to wall thickness between 4-9/16" (116mm) to 7" (178mm).
- Bristle rainscreen along bottom of panel.

Glazing System

- Quality fully-tempered float glass complying with ASTM C 1048.
- Custom and high altitude glazing available.
- Silicone-glazed, 13/16" double-pane, dual-seal, insulating glass
 - [Clear] [Obscure] [Reflective Bronze] with air.
 - [Obscure Low-E [with argon]] [[Advanced] [[AdvancedComfort] [SunDefense™] [NaturalSun] Low-E [with argon]].
 - [Bronze] [Gray] [Green] Advanced Low-E [with argon].

- or -
- Silicone-glazed, 13/16" double-pane, dual-seal, laminated, insulating glass
 - Clear with air.
 - [Advanced] [SunDefense™] Low-E with argon.
 - [Bronze] [Gray] [Green] Advanced Low-E with argon.

- or -
- Silicone-glazed, 1" triple-pane, dual-seal, insulating glass
 - [Obscure Low-E [with argon]] [[Advanced] [SunDefense™] [NaturalSun] Low-E [with argon]].

Exterior

- [Wood composite: primed with one coat acrylic latex] [mahogany: [unfinished, ready for site finishing] [primed with one coat acrylic latex]].

Interior

- [Pine [primed with one coat acrylic latex] [Unfinished, ready for site finishing] [prefinished stained₁]] [mahogany: Unfinished, ready for site finishing].

Hardware

Hinges

- Ball-bearing hinges
 - Doors 6' 10" and under frame height will have three (3) ball-bearing hinges.
 - Doors over 6' 10" frame height up to and including 8' 0" frame height will have four (4) ball bearing hinges.
 - Hinge finish [Colonial Bronze (Light Bronze, Dark Bronze, Black anodized sill finishes)] [Satin Nickel (Mill or Clear anodized sill finishes)] to complement the finish of the sill.

- or -
- Adjustable hinges to assist in installation,
 - Doors 6' 10" to 7' 0" frame height will have three (3) hinges.
 - Doors over 7' 0" frame height up to and including 8' 0" frame height will have four (4) hinges.
 - Doors over 8' 3" frame height up to and including 9' 0" frame height will have five (5) hinges.
 - Doors over 9' 0" frame height will have six (6) hinges.

Optional Products

Grilles

- Integral Light Technology® grilles
 - Interior grilles are [5/8"] [7/8"] [1-1/4"] ogee profile that are solid [pine] [mahogany]. Interior surfaces are [unfinished, ready for site finishing] [factory primed] [pine: factory prefinished [paint] [stain]₁].
 - Exterior grilles are [5/8"] [7/8"] [1-1/4"] putty glaze profile that are solid [pine] [mahogany]. Exterior surfaces are water repellent, preservative-treated in accordance with WDMA I.S.-4, and are [unfinished, ready for site finishing] [factory primed].
 - Patterns are [Traditional] [Prairie] [Top Row] [Cross] [New England] [Victorian].
 - Insulating glass contains non-glare spacer between the panes of glass.
 - Grilles are adhered to both sides of the insulating glass with VHB acrylic adhesive tape and aligned with spacer.

- or -
- Grilles-Between-the-Glass₂
 - Insulating glass contains 3/4" contoured aluminum grilles permanently installed between two panes of glass (exterior air-space on triple-pane insulating glass).
 - Patterns are [Traditional] [Prairie] [Cross] [Top Row]
 - Interior color is [White] [Tan₃] [Brown₃] [Putty₃] [Black] [Ivory] [Harvest] [Cordovan] [Brickstone].
 - Exterior color₄ is [standard₁].

Intermediate Rail and Flat Panel Options

- 6" Intermediate rail is three-ply construction, randomly finger-jointed blocks laminated with water-resistant glue and veneered on both sides.
- Wood Flat panel exterior is an LVL construction with exposed surfaces that are veneered with [pine] [mahogany]. Exteriors are [pine: primed] [mahogany [primed] [unfinished, ready for site finishing]].
- Flat panel is an LVL construction with Interior exposed surfaces are veneered with [pine] [mahogany].
- Standard placement: 6" Intermediate Rail 38" OC from the bottom of the door sill.

(1) Contact your local Pella sales representative for current color options.

(2) Available in clear or Low-E insulating glass with argon, and obscure insulated glass.

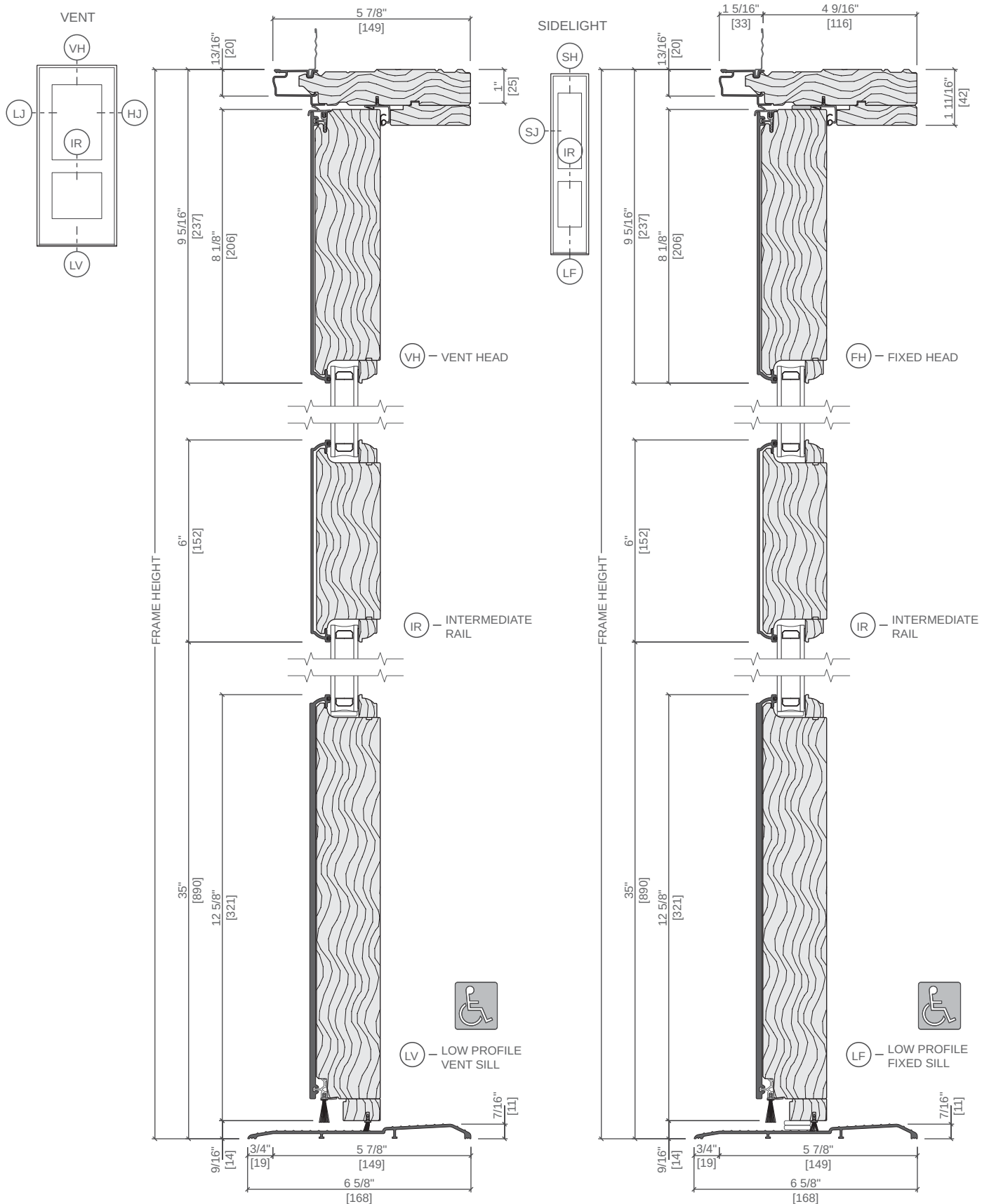
(3) Tan, Brown or Putty Interior GBG colors are available in single-tone (Brown/Brown, Tan/Tan or Putty/Putty). Other interior colors are also available with Tan or Brown exterior.

(4) Appearance of exterior grille color will vary depending on Low-E coating on glass.



Pella® Reserve™ Commercial Out-Swing Door

Unit Sections - Aluminum-Clad Exterior



Scale 3" = 1' 0"

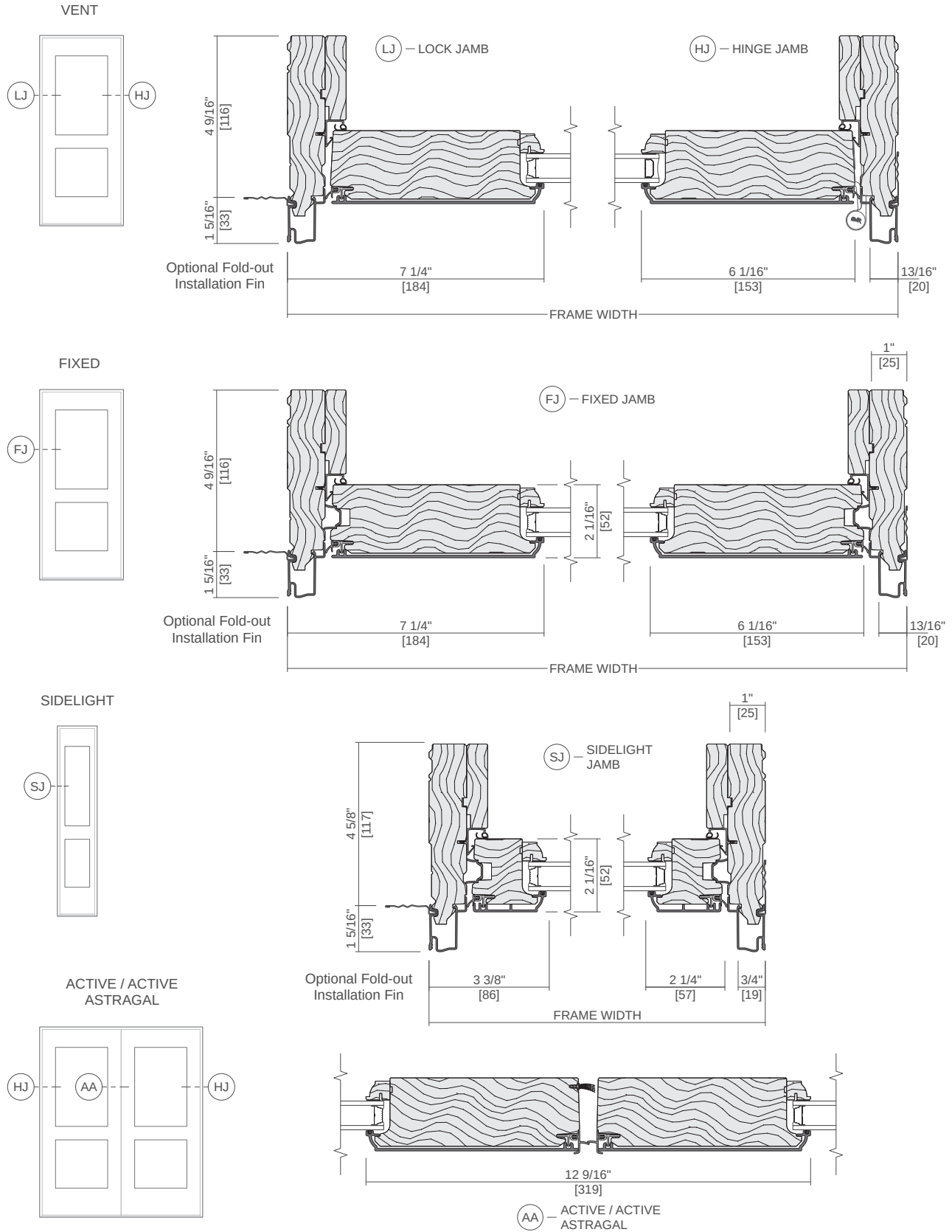
All dimensions are approximate.

Water resistance is 0 psf for units with a low profile sill.



Pella® Reserve™ Commercial Out-Swing Door

Unit Sections - Aluminum-Clad Exterior



Scale 3" = 1' 0"

All dimensions are approximate.

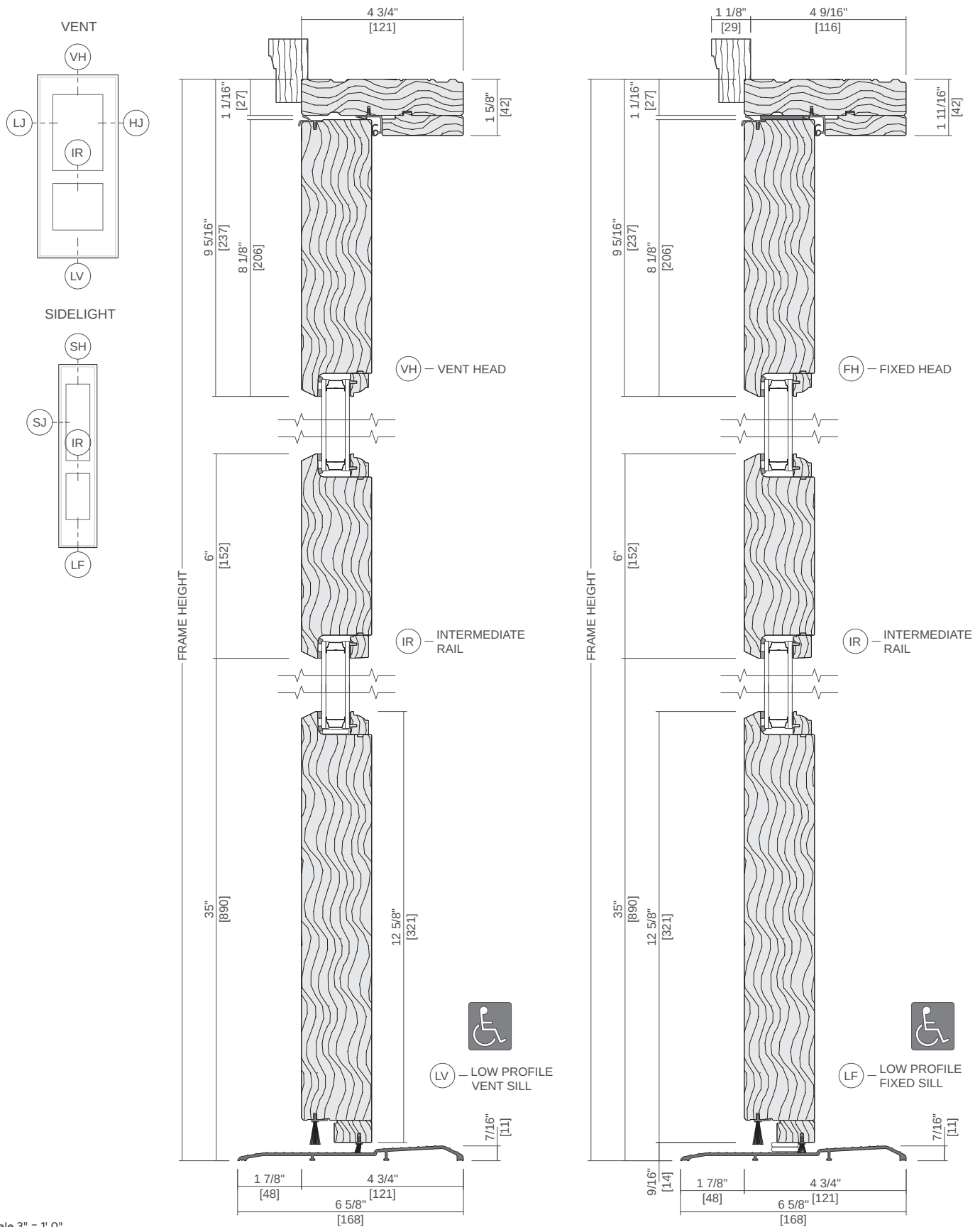
Rev. 07/17/2024

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Pella® Reserve™ Commercial Out-Swing Door

Unit Sections - Wood Exterior



Scale 3" = 1' 0"

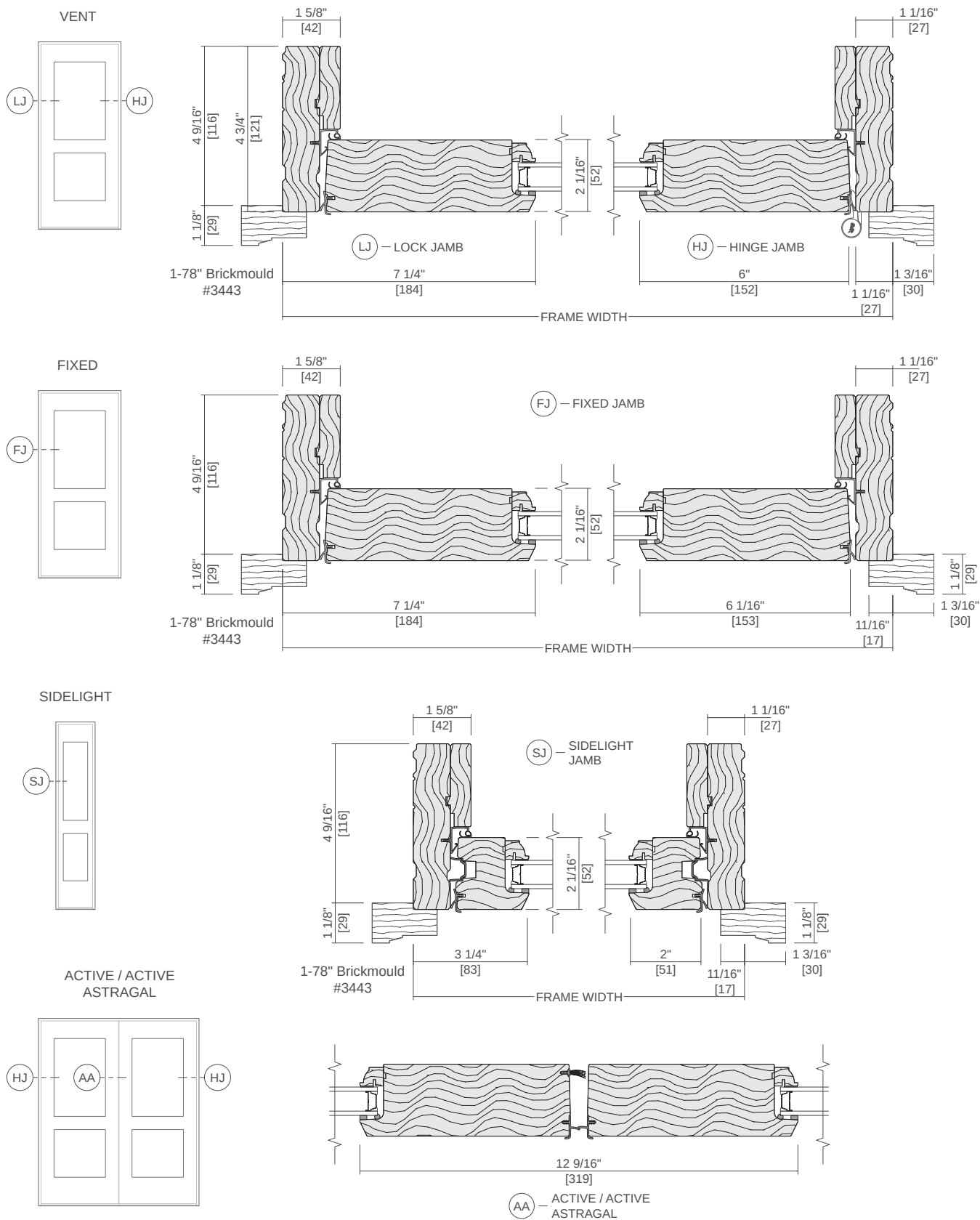
All dimensions are approximate.

Water resistance is 0 psf for units with a low profile sill.

Rev. 07/17/2024

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Unit Sections - Wood Exterior



Scale 3" = 1' 0"

All dimensions are approximate.

Rev. 07/17/2024

Window Material Information

Pella® Reserve™

Traditional Wood & Clad/Wood



Exquisitely designed windows and doors with unparalleled historical detailing.

Double-Hung Interior



Double-Hung Exterior



- **Easy-to-learn Pella Steady Set® interior installation system**

Pella Steady Set Interior Installation System is a revolutionary, award-winning and safer way to install new construction windows.¹ The simple system is the fastest, most labor efficient wood window installation system with uncompromising quality.² Available on select windows.

- **Historical Details**

Our most historically authentic line of wood windows and patio doors. Featuring through-stile construction, deliberate proportions and intricate profiles. Pella Reserve – Traditional products are the ideal choice for historical renovations and traditional building projects.

- **Authentic hardware**

Complement your project with historically authentic spoon-lock window hardware. Our Antiek casement window hardware is inspired by period furniture to deliver authentic traditional style.

- **Architectural interest**

Pella's Integral Light Technology® grille helps capture the look of true-divided-light without sacrificing energy performance. Further your aesthetic with the putty profile, recreated with historically accurate angles to provide meaningful depth and a realistic shadow. Pella Reserve products offer the industry's deepest sash dimension.

- **Virtually unlimited customization**

If you can dream it, we can build it with our most customizable product line. From extra tall to extra wide, Pella can craft unique windows that complement your aesthetic. Custom sizes, grille patterns and designs, finishes, wood types and glass options are available.

- **Tailor-made solutions**

From preliminary drawings to installation, Pella's expert team of architects, engineers, drafters and consultants can work to deliver custom window and door solutions for your project. Partner with Pella to achieve your unique vision without concessions.

- **Intentional innovation**

The award-winning Integrated Rolscreen® retractable screen preserves aesthetics and the view. It is a double- and single-hung screen that appears when you open the window and rolls away, out of sight, when you close it.

- **Durable interiors and extruded aluminum exteriors**

To help you save time on the jobsite, interior finish options are available in a variety of colors, or primed and ready-to-paint. To complement your exterior aesthetic, choose from our carefully curated color palette or define your own custom color for your project.

- **ENERGY STAR® certified³**

Pella wood products offer energy-efficient options that will meet or exceed ENERGY STAR guidelines in all 50 states.

- **Testing beyond requirements**

All wood products and testing are not created equal. Pella raises the bar on industry standard testing and beyond to deliver long-lasting products and reduced callbacks. Every Pella wood window and door passes 5, on average, quality checks before it arrives on the jobsite.

- **Best limited lifetime warranty⁴**

Pella Reserve products are covered by the best limited lifetime warranty in the business for wood windows and patio doors.⁴

Available in these window and patio door styles:



Special shape windows also available.

^{1,2,3,4} See back cover for disclosures

Product Specifications

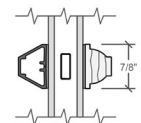
Window & Patio Door Styles	Min. Width	Min. Height	Max. Width	Max. Height	Performance Class & Grade	Performance Values			Frame / Install
						U-Factor	SHGC	STC	
Awning	13-¾"	13-¾"	59"	59"	LC30 – CW50	0.25-0.29	0.18-0.47	27-35	Pella Steady Set™; Fold-out Fin, Block Frame, EnduraClad Exterior Trim / Brickmould
Casement	13-¾"	13-¾"	47"	108"	R35-CW50	0.25-0.29	0.18-0.47	27-34	
Fixed Casement	10"	10"	144"	144"	R35-CW50	0.25-0.29	0.18-0.47	27-35	
Double-Hung	14"	24-3⁄8"	48"	96"	CW30-CW50	0.25-0.30	0.19-0.53	28-35	
Precision Fit Double-Hung	13-½"	23-¾"	48"	84"	CW40-CW50	0.25-0.31	0.19-0.53	26-30	Pocket Replacement
Monumental Hung	13-¾"	24"	72"	144"	LC25-CW50	0.25-0.30	0.17-0.47	29-34	Fold-out Fin, Block Frame, EnduraClad Exterior Trim / Brickmould
In-Swing Hinged Patio Door (Single)	18"	36"	48"	119-½"	LC40-LC55	0.25-0.29	0.14-0.40	31-35	
In-Swing Hinged Patio Door (Double)	36"	36"	96"	119-½"	LC40-LC55	0.25-0.29	0.14-0.40	31-35	
Out-Swing Hinged Patio Door (Single)	18"	36"	48"	119-½"	R50-LC70	0.25-0.30	0.14-0.39	30-36	
Out-Swing Hinged Patio Door (Double)	36"	36"	96"	119-½"	R50-LC70	0.25-0.30	0.14-0.39	30-36	
Sliding Patio Door (OX, XO)	60"	74"	120"	120"	R20-LC50	0.26-0.31	0.20-0.51	0.28-0.33	
Sliding Patio Door (OXO)	90"	74"	180"	120"	R20-LC35	0.26-0.31	0.20-0.51	—	For more info visit PellaADM.com
Sliding Patio Door (OXXO)	117"	74"	237"	120"	R20-LC35	0.26-0.31	0.20-0.51	—	
Multi-Slide Patio Door	40-¼"	50-½"	701-5⁄8"	119-½"	R15-LC25³	0.30-0.36	0.15-0.46	31	
Bifold Patio Door	31-¾"	55-½"	312"	119-½"	R15-LC25³	0.26-0.44	0.13-0.45	—	

Window sizes available in 1/8" increments
Special sizes available. For more information regarding performance, visit [pella.com/performance](#). For more information regarding frame and installation types, visit [PellaADM.com](#).

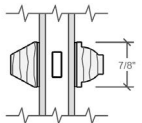
Grilles

Integral Light Technology®

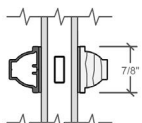
Choose the look of true divided light without sacrificing energy performance.



Putty Glaze Exterior with Ogee Interior⁴
7/8", 1-1/4" or 2"



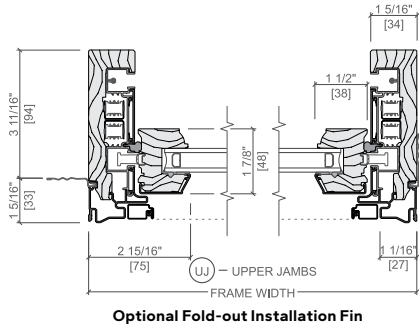
Putty Glaze Exterior with Ogee Interior⁴
7/8", 1-1/4" or 2"



Ogee Exterior with Ogee Interior⁴
7/8", 1-1/4" or 2"

Cross Sections

Cross Sections



The double-hung cross sections provide visual reference to the historic putty exterior profile and traditional, beveled Ogee interior that add architectural interest to your project.

³, ⁴ See back cover for disclosures.

Window Hardware

Classic Collection

Get a timeless look with authentic styles in classic finishes.



Fold-away Crank
Antiek



Spoon-Style Lock

Finishes:



Champagne



White



Brown



Matte Black



Oil-Rubbed Bronze



Satin Nickel



Satin Brass

Rustic Collection

Create a distinct and charming look with distressed finishes.

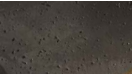


Fold-away Crank
Antiek



Spoon-Style Lock

Finishes:



Distressed Bronze



Distressed Nickel

Essential Collection

Select from popular designs and finishes to suit every style.



Fold-away Crank



Cam-Action Lock

Finishes:



Champagne



White



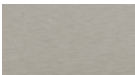
Brown



Matte Black



Oil-Rubbed Bronze



Satin Nickel



Satin Brass

Patio Door Hardware

Classic Collection

Choose timeless pieces, created in collaboration with Baldwin® Hardware, for a look that will never go out of style.

BALDWIN®



Hinged & Bifold Patio Door Handle
Virago

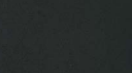


Sliding & Multi-Slide Patio Door Handle
Ambrose



Multi-Slide Patio Door Handle⁵, ⁶

Finishes:



Matte Black



Oil-Rubbed Bronze



Satin Nickel



Satin Brass

Essential Collection

Elevate your style and transform a home with elegant selections.



Hinged & Bifold Patio Door Handle
Standard

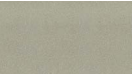


Sliding Patio Door Handle
Standard



Multi-Slide Patio Door Handle⁵, ⁶

Finishes:



Champagne



White



Brown



Matte Black



Oil-Rubbed Bronze



Satin Nickel



Satin Brass

Additional hardware collections available. Visit [PellaADM.com](#) for more information.

⁵, ⁶ See back cover for disclosures.

Colors

Wood Types

Choose the wood species that best complements your project's interior.

Custom solutions:



Pine



Douglas Fir



Mahogany



White Oak



Red Oak



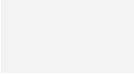
Cherry



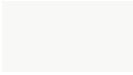
Maple

Prefinished Pine Interior Colors

Custom interior finishes, unfinished or primed and ready-to-paint are also available.



White



Bright White



Linen White



Natural



Golden Oak



Early American



Provincial



Dark Mahogany



Charcoal



Black

Extruded Aluminum-Clad Exterior Colors

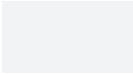
Our low-maintenance EnduraClad® exterior finish resists fading. Take durability one step further with EnduraClad Plus which also resists chalking and corrosion.⁷



Custom colors are also available.



Black



White



Brown



Fossil



Iron Ore



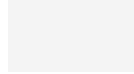
Portobello



Putty



Almond



Classic White



Brick Red



Hartford Green



Pearl Gray



Soft Linen



Satin Steel



Matte Gray



Wolf Gray



Spice Red



Sage



Frost Blue



Blue Ash

Screens

Rolscreen®

Rolscreen soft-closing retractable screens roll out of sight when not in use. Available on casement windows.

Integrated Rolscreen®

A concealed retractable screen that moves seamlessly with the sash of a single- or double-hung window – appearing when you open the window and rolling out of sight when you close it.

TuffScreen® by Phifer®

The TuffScreen® is 2.5x stronger than a standard screen.⁸ It is tear, puncture and damage resistant, standing up to pets, children and harsh weather. Available on sliding patio doors.

⁷All trademarks are property of their respective owners

Flat

InView™ screens are clearer than conventional screens and come standard.



The Best Limited Lifetime Warranty in the Industry
We know your reputation matters and you stake your reputation on quality, dependable products. That's why we have the best limited lifetime warranty in the industry for wood windows and patio doors.²

¹ Some Pella products may not meet ENERGY STAR® guidelines in Canada. For more information, contact your local Pella sales representative or go to energystar.gc.ca.

² Based on comparing written limited warranties of leading national wood window and wood patio door brands. See written limited warranty for details, including exceptions and limitations, at pella.com/warranty or contact Pella Customer Service.

³ Ratings are contingent on product configurations.

⁴ Color-matched to your product's interior and exterior color. Offering may vary by product type. See Pella sales representative for details.

⁵ Flush multi-slide handle is a Pella exclusive design.

⁶ Flush multi-slide handle is not available in Champagne.

⁷ EnduraClad Plus protective finish is not available with all colors. See your local Pella sales representative for availability.

⁸ Based on the composite results of a 5-panel strength analysis comparing TuffScreen and standard screening.



Product Selection Guide

Size and Performance Data.....	W-HG-2
Features and Options.....	W-HG-3
Combination Assemblies	W-HG-4
Glazing Performance	W-HG-6
Grille Types	
Grille Profiles.....	W-HG-10
Grille Patterns	W-HG-11
Size Tables for Double- and Single-Hung	W-HG-12
Cottage Sash Units.....	W-HG-14
Replacement Units.....	W-HG-15
Design Data	
Miscellaneous Formulas	W-HG-19
Double- and Single-Hung	W-HG-20
Replacement Units.....	W-HG-25
Detailed Product Descriptions.....	W-HG-30
Unit Sections	
Wood Collection	W-HG-32
Double-, and Single-Hung Clad.....	W-HG-33
Single- and Double-Hung Wood	W-HG-39

Document Navigation Tips:

Items listed in the table of contents above are active links that will take you to the corresponding page.

The Pella logo on each page is a link back to this table of contents.

Bookmarks are also included in this PDF document and are available as an additional navigation option.

Supporting documents for this product:

(Link path included for easy copy/paste sharing, click on links to open document or access by visiting Pella.com)

Test Reports:

https://media.pella.com/professional/adm/CertificationReports/Test_Reports_PR-Clad.pdf

CSI Specs

(readable using Microsoft Word or other text editing application):

https://media.pella.com/professional/adm/Wood-CSI_Specs/08552-R.rtf

AIA Masterspec

(readable using Microsoft Word or other text editing application):

https://media.pella.com/professional/adm/Wood-CSI_Specs/Masterspec/085200_fl.doc

Detailed Product Description

(readable using Microsoft Word or other text editing application):

Clad: <https://media.pella.com/professional/adm/Clad-Wood/PR-DoubleHung-C.rtf>

Wood: <https://media.pella.com/professional/adm/Clad-Wood/PR-DoubleHung-W.rtf>

Size Tables

(requires appropriate CAD software to read and use):

https://media.pella.com/professional/adm/Clad-Wood/ASCDHEV_D.dwg

CAD cross sections

(requires appropriate CAD software to read and use):

Clad: https://media.pella.com/professional/adm/Clad-Wood/ASRM5DH3_D.dwg

Wood: <https://media.pella.com/professional/adm/Clad-Wood/ASWM4DHRPT3b.dwg>

3D & BIM

(requires appropriate software to read and use):

https://media.pella.com/professional/adm/RevitFiles/PR-Revit/Window-Double_Hung-Pella-Reserve-Traditional.zip

Sketchup

(requires appropriate software to read and use):

https://media.pella.com/professional/adm/Clad-Wood/PellaSKP_PellaReserve_Traditional_Double-Hung.zip

Combination Recommendations:

https://media.pella.com/professional/adm/Clad-Wood/D_Combinations.pdf

Installation Details:

https://media.pella.com/professional/adm/Clad-Wood/F_InstallationDetails.pdf

Impact-Resistant Double-Hung, Complete Product Information:

https://media.pella.com/professional/adm/Clad-Wood/Pella-ImpactResistant_DoubleHung.pdf

Bay/Bow Details:

https://media.pella.com/professional/adm/Clad-Wood/Pella-Wood_BayBowWindows.pdf

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Pella® Reserve™ Traditional Hung Window

Size and Performance Data

Air/Water/Structural Performance ₁	
Meets or Exceeds AAMA / WDMA Ratings	H-CW30 - CW50 Hallmark Certified
Air Infiltration (cfm/ft ² of frame @ 1.57 psf wind pressure) ₂	0.11
Water Resistance	4.6 – 7.5 psf
Design Pressure	30 – 50 psf
Other Performance Criteria	
Forced Entry Resistance Level (Minimum Security Grade) ₃	10
Operating Force (lb) Initiate Motion / Maintain Motion (of Hallmark tested size and glazing) ₄	40/45

Sound Transmission Class / Outdoor-Indoor Transmission Class

Product	Frame Size Tested ₅	Glazing System				STC Rating	OITC Rating
		Overall Glazing Thickness	Exterior Glass Thickness	Interior Glass Thickness	Third Pane Thickness		
Clad Double-Hung Window	WITHOUT GRILLES						
	45" x 65"	11/16"	2.5mm	2.5mm	—	28	24
	47" x 59"	11/16"	5mm	3mm	—	31	27
	45" x 65"	11/16"	3mm	6mm PVB	—	33	28
Wood Double-Hung Window	WITHOUT GRILLES						
	45" x 65"	11/16"	2.5mm	2.5mm	—	26	22
	45" x 65"	11/16"	3mm	3mm	—	29	24

(—) = Not Available

(1) Maximum performance for single unit when glazed with the appropriate glass thickness. See Design Data pages in this section for specific product performance class and grade values.

(2) Published performance data for air infiltration is determined by testing a minimum of four (4) products of NFRC model size. Testing is conducted in accordance with ASTM E283. Air infiltration ratings for products will differ by size. The performance data does not apply to combination assemblies unless noted. Actual product performance may vary for a number of reasons including installation and product care.

(3) The higher the level, the greater the product's ability to resist forced entry.

(4) Glazing configurations may result in higher operational forces

(5) ASTM E 1425 defines standard sizes for acoustical testing. Ratings achieved at that size are representative of all sizes of the same configuration.



Pella® Reserve™ Traditional Hung Window

Features and Options

Standard	Options / Upgrades
Glazing	
Glazing Type	
Dual-Pane Insulating Glass	—
Insulated Glass Options/Low-E Types	
Advanced Low-E	SunDefense™ Low-E
	SunDefense+ Low-E
	AdvancedComfort Low-E
	NaturalSun Low-E
	NaturalSun+ Low-E
	Clear (no Low-E coating)
Additional Glass Options	
Annealed Glass	Tempered Glass
	Obscure Glass ₁
	Low-E Tinted Glass (Bronze, Gray and Green)
	Non-Impact Laminated Dual-Pane Insulating Glass
Gas Fill/High Altitude	
Argon	High altitude
Exterior	
Exterior Sash Profile	
Ogee	Putty Glaze
Exterior Finish	
EnduraClad® aluminum-clad exterior	EnduraClad Plus protective finish, Factory Primed Pine wood exterior, Unfinished Mahogany wood exterior
Cladding Colors	
Standard colors ₁	Feature Colors, Custom Colors ₁
Interior	
Unfinished wood	Factory primed
	Factory prefinished paint ₁
	Factory prefinished stain ₁
Wood Types	
Pine	Mahogany, Douglas Fir
Hardware	
Hardware Types	
Sash lifts, Cam-action lock	Simulated lock
	Air conditioner lock
	Historical spoon-style lock (surface mounted)
Hardware Finishes	
Champagne, White, Brown or Matte Black	Satin Brass, Satin Nickel, Oil-Rubbed Bronze, Distressed Bronze, Distressed Nickel ₄
Tilt-Wash Cleaning	
Tilt to interior on both sashes	—
Grilles	
Integral Light Technology® Grilles	
—	Traditional, Prairie, Top Row, Cross, New England, Victorian, Diamond, Custom
Grilles-Between-the-Glass	
—	Traditional, Prairie, Top Row ₁ , Cross, Custom-Equally Divided
Screens	
—	Integrated Rolscreen® - retractable screen, InView™ screens, in standard roll-form or premium extruded aluminum frame

(—) = Not Available

(1) Contact your local Pella sales representative for current designs and color options.

(2) Only available for Pella Reserve products with triple glazing. Not available with high altitude glazing.

(3) Available with Low-E argon-insulated glass only.

(4) Antique Brass, Distressed Nickel, Distressed Bronze finishes available for Historical spoon-style lock only.

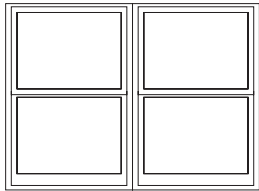


Combination Assemblies - Rectangular Units

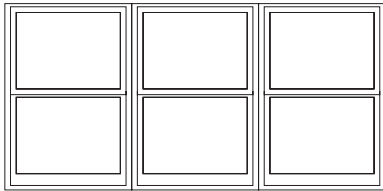
Combinations are a great way to create visual interest in any project. A combination is an assembly formed by two or more separate windows or doors whose frames are mullioned together by a combination or reinforcing mullion.

Pella window combinations are available in an endless variety of arrangements. Below are some examples of factory-assembled combinations. See the Combinations Recommendations document for typical mullions, requirements and limitations.

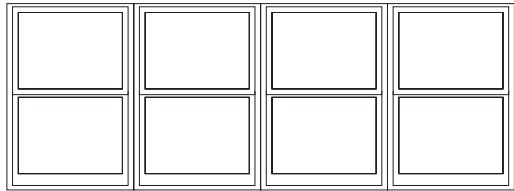
Contact your local Pella sales representative for more information.



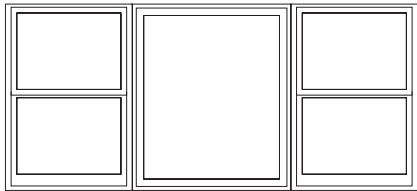
Two-Wide



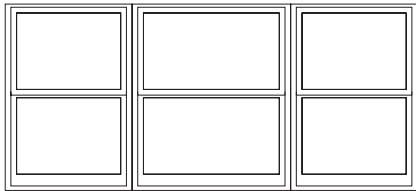
Three-Wide Equal



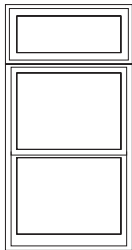
Four-Wide Equal



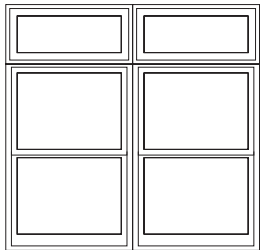
Center Fixed with Flankers



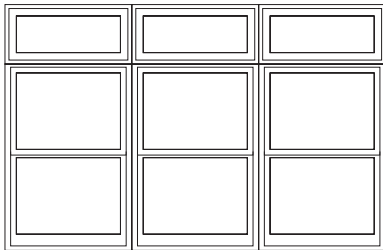
Three-Wide Unequal



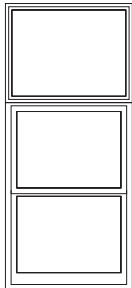
Transom over
Single



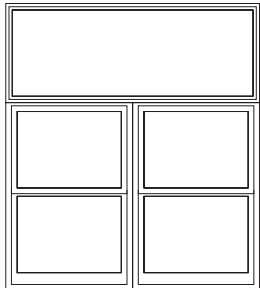
Two-Wide Transoms over
Two-Wide



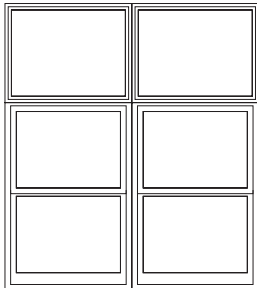
Three-Wide Transoms over
Three-Wide



Clad Frame over
Single



Single Clad Frame over
Two-Wide



Two Wide Clad Frame over
Two-Wide

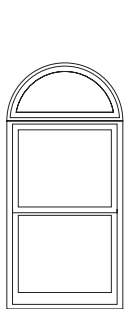


Combination Assemblies - Arch Top Units

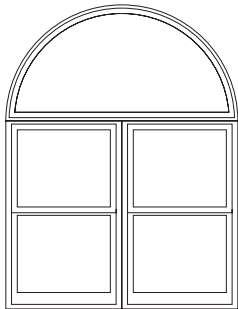
Combinations are a great way to create visual interest in any project. A combination is an assembly formed by two or more separate windows or doors whose frames are mulled together by a combination or reinforcing mullion.

Pella window combinations are available in an endless variety of arrangements, below are some examples. See the Combinations Recommendations document for typical mullions, requirements and limitations.

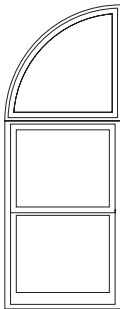
Contact your local Pella sales representative for more information.



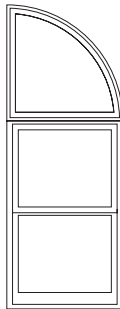
Half Circle over
Single



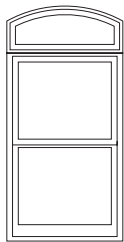
Half Circle over
Two-Wide



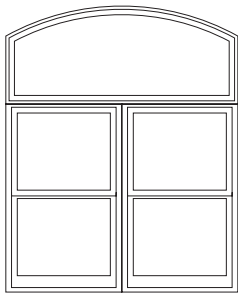
Left Quarter Circle
over Single



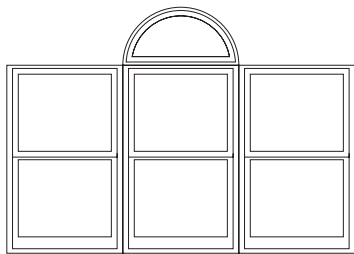
Right Quarter Circle
over Single



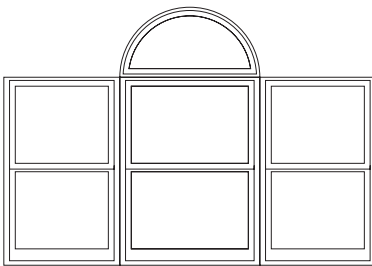
Arch Head over
Single



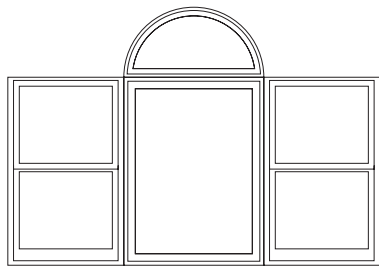
Arch Head over
Two-Wide



Half Circle centered on
Three-Wide Equal



Half Circle over
Three-Wide Unequal



Half Circle over
Center Fixed with Flankers



Pella® Reserve™ Traditional Hung Window

Glazing Performance - Total Unit

Glazing Thickness	Type of Glazing	NFRC Certified Product #	Glass (mm)		Gap Fill	Performance Values ₁				Shaded Areas Meet ENERGY STAR® Performance Criteria in Zones Shown					
			Ext.	Int.		U-Factor	SHGC	VLT	CR	U. S.				Canada ₂	
										Zone				ER	Zone
Vent Dual-Pane Glazing - Aluminum-Clad Exterior										N	NC	SC	S		CA
11/16"	Clear IG	PEL-N-232-01105-00001	2.5	2.5	air	0.46	0.60	0.62	44						
	with grilles-between-the-glass	PEL-N-232-01106-00001				0.46	0.53	0.55	44						
	with integral grilles	PEL-N-232-01107-00001				0.46	0.53	0.55	44						
11/16"	Clear IG	PEL-N-232-01109-00001	3	3	air	0.46	0.58	0.61	44						
	with grilles-between-the-glass	PEL-N-232-01110-00001				0.46	0.52	0.55	44						
	with integral grilles	PEL-N-232-01111-00001				0.46	0.52	0.55	44						
11/16"	Advanced Low-E IG	PEL-N-232-01141-00001	2.5	2.5	argon	0.29	0.28	0.53	60						
	with grilles-between-the-glass	PEL-N-232-01142-00001				0.29	0.25	0.47	60						
	with integral grilles	PEL-N-232-01143-00001				0.29	0.25	0.47	60						
11/16"	Advanced Low-E IG	PEL-N-232-01145-00001	3	3	argon	0.29	0.28	0.52	59						
	with grilles-between-the-glass	PEL-N-232-01146-00001				0.29	0.25	0.46	59						
	with integral grilles	PEL-N-232-01147-00001				0.29	0.25	0.46	59						
11/16"	SunDefense™ Low-E IG	PEL-N-232-01189-00001	2.5	2.5	argon	0.28	0.21	0.49	60			SC	S		
	with grilles-between-the-glass	PEL-N-232-01190-00001				0.28	0.19	0.43	60			SC	S		
	with integral grilles	PEL-N-232-01191-00001				0.29	0.19	0.43	60				S		
11/16"	SunDefense™ Low-E IG	PEL-N-232-01193-00001	3	3	argon	0.28	0.21	0.48	59			SC	S		
	with grilles-between-the-glass	PEL-N-232-01194-00001				0.28	0.19	0.43	59			SC	S		
	with integral grilles	PEL-N-232-01195-00001				0.29	0.19	0.43	59				S		
11/16"	SunDefense+ Low-E IG	PEL-N-232-01813-00001	2.5	2.5	argon	0.25	0.20	0.48	49		NC	SC	S		
	with grilles-between-the-glass	PEL-N-232-01814-00001				0.25	0.18	0.42	49		NC	SC	S		
	with integral grilles	PEL-N-232-01815-00001				0.25	0.18	0.42	49		NC	SC	S		
11/16"	SunDefense+ Low-E IG	PEL-N-232-01821-00001	3	3	argon	0.25	0.20	0.47	48		NC	SC	S		
	with grilles-between-the-glass	PEL-N-232-01822-00001				0.25	0.18	0.42	48		NC	SC	S		
	with integral grilles	PEL-N-232-01823-00001				0.26	0.18	0.42	48			SC	S		
11/16"	AdvancedComfort Low-E IG	PEL-N-232-01165-00001	2.5	2.5	argon	0.25	0.28	0.52	48		NC				
	with grilles-between-the-glass	PEL-N-232-01166-00001				0.25	0.25	0.46	48		NC				
	with integral grilles	PEL-N-232-01167-00001				0.26	0.25	0.46	48						
11/16"	AdvancedComfort Low-E IG	PEL-N-232-01169-00001	3	3	argon	0.25	0.27	0.51	47		NC				
	with grilles-between-the-glass	PEL-N-232-01170-00001				0.25	0.25	0.45	47		NC				
	with integral grilles	PEL-N-232-01171-00001				0.26	0.25	0.45	47						
11/16"	NaturalSun Low-E IG	PEL-N-232-01117-00001	2.5	2.5	argon	0.30	0.52	0.60	59						
	with grilles-between-the-glass	PEL-N-232-01118-00001				0.30	0.47	0.53	59						
	with integral grilles	PEL-N-232-01119-00001				0.30	0.47	0.53	59						
11/16"	NaturalSun Low-E IG	PEL-N-232-01121-00001	3	3	argon	0.30	0.52	0.59	58						
	with grilles-between-the-glass	PEL-N-232-01122-00001				0.30	0.46	0.53	58						
	with integral grilles	PEL-N-232-01123-00001				0.30	0.46	0.53	58						
11/16"	NaturalSun+ Low-E IG	PEL-N-232-01781-00001	2.5	2.5	argon	0.26	0.48	0.58	47	N				35	CA
	with grilles-between-the-glass	PEL-N-232-01782-00001				0.26	0.43	0.52	47	N					
	with integral grilles	PEL-N-232-01783-00001				0.27	0.43	0.52	47						
11/16"	NaturalSun+ Low-E IG	PEL-N-232-01789-00001	3	3	argon	0.26	0.47	0.58	46	N				34	CA
	with grilles-between-the-glass	PEL-N-232-01790-00001				0.26	0.42	0.51	46	N					
	with integral grilles	PEL-N-232-01791-00001				0.26	0.42	0.51	46	N					

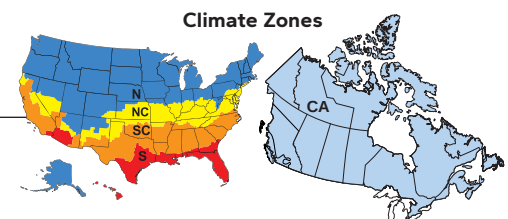
R-Value = 1/U-Factor
 SHGC = Solar Heat Gain Coefficient
 VLT % = Visible Light Transmission
 CR = Condensation Resistance
 ER = Canadian Energy Rating

(1) Glazing performance values are calculated for Pine using NFRC 100, NFRC 200 and NFRC 500. Thermal performance of other wood species may vary. ENERGY STAR® values are updated to 2023 (Version 7) criteria.

(2) The values shown are based on Canada's updated ENERGY STAR® 2020 initiative.

Visit www.energystar.gov for Energy Star guidelines.

Non Rectangular Unit thermal values will vary slightly.





Pella® Reserve™ Traditional Hung Window

Glazing Performance - Total Unit

Glazing Thickness	Type of Glazing	NFRC Certified Product #	Glass (mm)		Gap Fill	Performance Values ₁				Shaded Areas Meet ENERGY STAR® Performance Criteria in Zones Shown					
			Ext.	Int.		U-Factor	SHGC	VLT	CR	U. S.				Canada ₂	
										Zone				ER	Zone
Tinted Glazing										N	NC	SC	S	CA	
11/16"	Bronze Advanced Low-E IG	PEL-N-232-01225-00002	5	3	argon	0.29	0.25	0.34	58						
	with grilles-between-the-glass	PEL-N-232-01226-00002				0.31	0.23	0.30	58				S		
	with integral grilles	PEL-N-232-01227-00002				0.30	0.23	0.30	58				S		
11/16"	Gray Advanced Low-E IG	PEL-N-232-01225-00003	5	3	argon	0.29	0.23	0.29	58					S	
	with grilles-between-the-glass	PEL-N-232-01226-00003				0.31	0.21	0.26	58					S	
	with integral grilles	PEL-N-232-01227-00003				0.30	0.21	0.26	58					S	
11/16"	Green Advanced Low-E IG	PEL-N-232-01225-00004	5	3	argon	0.29	0.28	0.46	58						
	with grilles-between-the-glass	PEL-N-232-01226-00004				0.31	0.25	0.41	58						
	with integral grilles	PEL-N-232-01227-00004				0.30	0.25	0.41	58						
Vent Dual-Pane High Altitude Glazing - Aluminum-Clad Exterior															
11/16"	Advanced Low-E IG	PEL-N-232-01153-00001	2.5	2.5	air	0.32	0.28	0.53	56						
	with grilles-between-the-glass	PEL-N-232-01154-00001				0.32	0.25	0.47	56						
	with integral grilles	PEL-N-232-01155-00001				0.33	0.25	0.47	56						
11/16"	Advanced Low-E IG	PEL-N-232-01157-00001	3	3	air	0.32	0.28	0.52	55						
	with grilles-between-the-glass	PEL-N-232-01158-00001				0.32	0.25	0.46	55						
	with integral grilles	PEL-N-232-01159-00001				0.33	0.25	0.46	55						
11/16"	SunDefense™ Low-E IG	PEL-N-232-01201-00001	2.5	2.5	air	0.32	0.21	0.49	56					S	
	with grilles-between-the-glass	PEL-N-232-01202-00001				0.32	0.19	0.43	56					S	
	with integral grilles	PEL-N-232-01203-00001				0.33	0.19	0.43	56					S	
11/16"	SunDefense™ Low-E IG	PEL-N-232-01205-00001	3	3	air	0.32	0.21	0.48	55					S	
	with grilles-between-the-glass	PEL-N-232-01206-00001				0.32	0.19	0.43	55					S	
	with integral grilles	PEL-N-232-01207-00001				0.33	0.19	0.43	55						
11/16"	SunDefense+ Low-E IG	PEL-N-232-01809-00001	2.5	2.5	air	0.27	0.21	0.48	44				SC	S	
	with grilles-between-the-glass	PEL-N-232-01810-00001				0.27	0.19	0.42	44				SC	S	
	with integral grilles	PEL-N-232-01811-00001				0.28	0.19	0.42	44				SC	S	
11/16"	SunDefense+ Low-E IG	PEL-N-232-01817-00001	3	3	air	0.27	0.21	0.47	44				SC	S	
	with grilles-between-the-glass	PEL-N-232-01818-00001				0.27	0.19	0.42	44				SC	S	
	with integral grilles	PEL-N-232-01819-00001				0.28	0.19	0.42	43				SC	S	
11/16"	AdvancedComfort Low-E IG	PEL-N-232-01177-00001	2.5	2.5	air	0.27	0.28	0.52	44						
	with grilles-between-the-glass	PEL-N-232-01178-00001				0.27	0.25	0.46	44						
	with integral grilles	PEL-N-232-01179-00001				0.28	0.25	0.46	44						
11/16"	AdvancedComfort Low-E IG	PEL-N-232-01181-00001	3	3	air	0.28	0.27	0.51	43						
	with grilles-between-the-glass	PEL-N-232-01182-00001				0.28	0.25	0.45	43						
	with integral grilles	PEL-N-232-01183-00001				0.28	0.25	0.45	43						
11/16"	NaturalSun Low-E IG	PEL-N-232-01129-00001	2.5	2.5	air	0.33	0.52	0.60	56						
	with grilles-between-the-glass	PEL-N-232-01130-00001				0.33	0.47	0.53	56						
	with integral grilles	PEL-N-232-01131-00001				0.34	0.47	0.53	55						
11/16"	NaturalSun Low-E IG	PEL-N-232-01133-00001	3	3	air	0.33	0.51	0.59	55						
	with grilles-between-the-glass	PEL-N-232-01134-00001				0.33	0.46	0.52	55						
	with integral grilles	PEL-N-232-01135-00001				0.34	0.46	0.52	55						
11/16"	NaturalSun+ Low-E IG	PEL-N-232-01777-00001	2.5	2.5	air	0.28	0.48	0.58	43						
	with grilles-between-the-glass	PEL-N-232-01778-00001				0.28	0.43	0.52	43						
	with integral grilles	PEL-N-232-01779-00001				0.29	0.43	0.52	43						
11/16"	NaturalSun+ Low-E IG	PEL-N-232-01785-00001	3	3	air	0.28	0.47	0.58	43						
	with grilles-between-the-glass	PEL-N-232-01786-00001				0.28	0.42	0.51	43						
	with integral grilles	PEL-N-232-01787-00001				0.29	0.42	0.51	42						

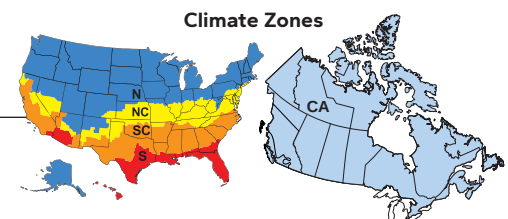
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(1) Glazing performance values are calculated for Pine using NFRC 100, NFRC 200 and NFRC 500. Thermal performance of other wood species may vary. ENERGY STAR® values are updated to 2023 (Version 7) criteria.

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Non Rectangular Unit thermal values will vary slightly.





Pella® Reserve™ Traditional Hung Window

Glazing Performance - Total Unit

Glazing Thickness	Type of Glazing	NFRC Certified Product #	Glass (mm)		Gap Fill	Performance Values ₁				Shaded Areas Meet ENERGY STAR® Performance Criteria in Zones Shown					
			Ext.	Int.		U-Factor	SHGC	VLT	CR	U. S.				Canada ₂	
										Zone				ER	Zone
Vent Dual-Pane Glazing - Wood Exterior										N	NC	SC	S		CA
11/16"	Clear IG	PEL-N-234-01105-00001	2.5	2.5	air	0.45	0.60	0.62	44						
	with grilles-between-the-glass	PEL-N-234-01106-00001				0.45	0.54	0.56	44						
	with integral grilles	PEL-N-234-01107-00001				0.45	0.54	0.56	44						
11/16"	Clear IG	PEL-N-234-01109-00001	3	3	air	0.45	0.59	0.62	43						
	with grilles-between-the-glass	PEL-N-234-01110-00001				0.45	0.53	0.55	43						
	with integral grilles	PEL-N-234-01111-00001				0.46	0.53	0.55	43						
11/16"	Advanced Low-E IG	PEL-N-234-01141-00001	2.5	2.5	argon	0.28	0.28	0.53	59						
	with grilles-between-the-glass	PEL-N-234-01142-00001				0.28	0.25	0.47	59						
	with integral grilles	PEL-N-234-01143-00001				0.29	0.25	0.47	59						
11/16"	Advanced Low-E IG	PEL-N-234-01145-00001	3	3	argon	0.28	0.28	0.52	58						
	with grilles-between-the-glass	PEL-N-234-01146-00001				0.28	0.25	0.47	58						
	with integral grilles	PEL-N-234-01147-00001				0.29	0.25	0.47	58						
11/16"	SunDefense™ Low-E IG	PEL-N-234-01189-00001	2.5	2.5	argon	0.28	0.21	0.49	60			SC	S		
	with grilles-between-the-glass	PEL-N-234-01190-00001				0.28	0.19	0.44	60			SC	S		
	with integral grilles	PEL-N-234-01191-00001				0.28	0.19	0.44	60			SC	S		
11/16"	SunDefense™ Low-E IG	PEL-N-234-01193-00001	3	3	argon	0.28	0.21	0.49	59			SC	S		
	with grilles-between-the-glass	PEL-N-234-01194-00001				0.28	0.19	0.43	59			SC	S		
	with integral grilles	PEL-N-234-01195-00001				0.28	0.19	0.43	59			SC	S		
11/16"	SunDefense+ Low-E IG	PEL-N-234-01813-00001	2.5	2.5	argon	0.24	0.21	0.48	49		NC	SC	S		
	with grilles-between-the-glass	PEL-N-234-01814-00001				0.24	0.19	0.43	49		NC	SC	S		
	with integral grilles	PEL-N-234-01815-00001				0.25	0.19	0.43	49		NC	SC	S		
11/16"	SunDefense+ Low-E IG	PEL-N-234-01821-00001	3	3	argon	0.24	0.21	0.47	47		NC	SC	S		
	with grilles-between-the-glass	PEL-N-234-01822-00001				0.24	0.19	0.42	47		NC	SC	S		
	with integral grilles	PEL-N-234-01823-00001				0.25	0.19	0.42	47		NC	SC	S		
11/16"	AdvancedComfort Low-E IG	PEL-N-234-01165-00001	2.5	2.5	argon	0.24	0.28	0.52	48		NC				
	with grilles-between-the-glass	PEL-N-234-01166-00001				0.24	0.25	0.46	48		NC				
	with integral grilles	PEL-N-234-01167-00001				0.25	0.25	0.46	48		NC				
11/16"	AdvancedComfort Low-E IG	PEL-N-234-01169-00001	3	3	argon	0.24	0.28	0.51	47		NC				
	with grilles-between-the-glass	PEL-N-234-01170-00001				0.24	0.25	0.46	47		NC				
	with integral grilles	PEL-N-234-01171-00001				0.25	0.25	0.46	47		NC				
11/16"	NaturalSun Low-E IG	PEL-N-234-01117-00001	2.5	2.5	argon	0.29	0.53	0.60	59					34	CA
	with grilles-between-the-glass	PEL-N-234-01118-00001				0.29	0.47	0.53	59						
	with integral grilles	PEL-N-234-01119-00001				0.30	0.47	0.53	59						
11/16"	NaturalSun Low-E IG	PEL-N-234-01121-00001	3	3	argon	0.29	0.52	0.59	58						
	with grilles-between-the-glass	PEL-N-234-01122-00001				0.29	0.46	0.53	58						
	with integral grilles	PEL-N-234-01123-00001				0.30	0.46	0.53	58						
11/16"	NaturalSun+ Low-E IG	PEL-N-234-01781-00001	2.5	2.5	argon	0.25	0.48	0.59	47	N				36	CA
	with grilles-between-the-glass	PEL-N-234-01782-00001				0.25	0.43	0.52	47	N					
	with integral grilles	PEL-N-234-01783-00001				0.26	0.43	0.52	47	N					
11/16"	NaturalSun+ Low-E IG	PEL-N-234-01789-00001	3	3	argon	0.25	0.47	0.58	46	N				35	CA
	with grilles-between-the-glass	PEL-N-234-01790-00001				0.25	0.42	0.52	46	N					
	with integral grilles	PEL-N-234-01791-00001				0.26	0.42	0.52	46	N					

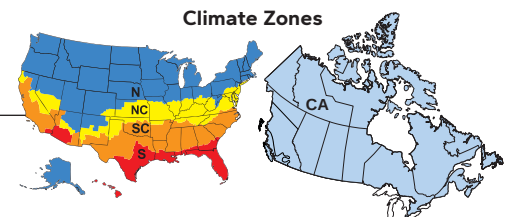
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Pella® Reserve™ Traditional Hung Window

Glazing Performance - Total Unit

Glazing Thickness	Type of Glazing	NFRC Certified Product #	Glass (mm)		Gap Fill	Performance Values ₁				Shaded Areas Meet ENERGY STAR® Performance Criteria in Zones Shown					
			Ext.	Int.		U-Factor	SHGC	VLT	CR	U. S.				Canada ₂	
										Zone				ER	Zone
Tinted Glazing										N	NC	SC	S	CA	
11/16"	Bronze Advanced Low-E IG	PEL-N-234-01225-00002	5	3	argon	0.29	0.25	0.34	57						
	with grilles-between-the-glass	PEL-N-234-01226-00002				0.30	0.23	0.30	57				S		
	with integral grilles	PEL-N-234-01227-00002				0.30	0.23	0.30	57				S		
11/16"	Gray Advanced Low-E IG	PEL-N-234-01225-00003	5	3	argon	0.29	0.23	0.29	57					S	
	with grilles-between-the-glass	PEL-N-234-01226-00003				0.30	0.21	0.26	57					S	
	with integral grilles	PEL-N-234-01227-00003				0.30	0.21	0.26	57					S	
11/16"	Green Advanced Low-E IG	PEL-N-234-01225-00004	5	3	argon	0.29	0.28	0.46	57						
	with grilles-between-the-glass	PEL-N-234-01226-00004				0.30	0.25	0.41	57						
	with integral grilles	PEL-N-234-01227-00004				0.30	0.25	0.41	57						
Vent Dual-Pane High Altitude Glazing - Wood Exterior															
11/16"	Advanced Low-E IG	PEL-N-234-01153-00001	2.5	2.5	air	0.31	0.28	0.53	56						
	with grilles-between-the-glass	PEL-N-234-01154-00001				0.31	0.26	0.47	56						
	with integral grilles	PEL-N-234-01155-00001				0.32	0.26	0.47	56						
11/16"	Advanced Low-E IG	PEL-N-234-01157-00001	3	3	air	0.32	0.28	0.52	55						
	with grilles-between-the-glass	PEL-N-234-01158-00001				0.32	0.26	0.47	55						
	with integral grilles	PEL-N-234-01159-00001				0.33	0.26	0.47	55						
11/16"	SunDefense™ Low-E IG	PEL-N-234-01201-00001	2.5	2.5	air	0.31	0.21	0.49	56					S	
	with grilles-between-the-glass	PEL-N-234-01202-00001				0.31	0.19	0.44	56					S	
	with integral grilles	PEL-N-234-01203-00001				0.32	0.19	0.44	56					S	
11/16"	SunDefense™ Low-E IG	PEL-N-234-01205-00001	3	3	air	0.31	0.21	0.49	55					S	
	with grilles-between-the-glass	PEL-N-234-01206-00001				0.31	0.19	0.43	55					S	
	with integral grilles	PEL-N-234-01207-00001				0.32	0.19	0.43	55					S	
11/16"	SunDefense+ Low-E IG	PEL-N-234-01809-00001	2.5	2.5	air	0.26	0.21	0.48	45				SC	S	
	with grilles-between-the-glass	PEL-N-234-01810-00001				0.26	0.19	0.43	45				SC	S	
	with integral grilles	PEL-N-234-01811-00001				0.27	0.19	0.43	45				SC	S	
11/16"	SunDefense+ Low-E IG	PEL-N-234-01817-00001	3	3	air	0.27	0.21	0.47	43				SC	S	
	with grilles-between-the-glass	PEL-N-234-01818-00001				0.27	0.19	0.42	43				SC	S	
	with integral grilles	PEL-N-234-01819-00001				0.28	0.19	0.42	43				SC	S	
11/16"	AdvancedComfort Low-E IG	PEL-N-234-01177-00001	2.5	2.5	air	0.27	0.28	0.52	44						
	with grilles-between-the-glass	PEL-N-234-01178-00001				0.27	0.25	0.46	44						
	with integral grilles	PEL-N-234-01179-00001				0.27	0.25	0.46	44						
11/16"	AdvancedComfort Low-E IG	PEL-N-234-01181-00001	3	3	air	0.27	0.28	0.51	43						
	with grilles-between-the-glass	PEL-N-234-01182-00001				0.27	0.25	0.46	43						
	with integral grilles	PEL-N-234-01183-00001				0.28	0.25	0.46	43						
11/16"	NaturalSun Low-E IG	PEL-N-234-01129-00001	2.5	2.5	air	0.32	0.53	0.60	55						
	with grilles-between-the-glass	PEL-N-234-01130-00001				0.32	0.47	0.53	55						
	with integral grilles	PEL-N-234-01131-00001				0.33	0.47	0.53	55						
11/16"	NaturalSun Low-E IG	PEL-N-234-01133-00001	3	3	air	0.33	0.52	0.59	54						
	with grilles-between-the-glass	PEL-N-234-01134-00001				0.33	0.46	0.53	54						
	with integral grilles	PEL-N-234-01135-00001				0.33	0.46	0.53	54						
11/16"	NaturalSun+ Low-E IG	PEL-N-234-01777-00001	2.5	2.5	air	0.27	0.48	0.59	44						
	with grilles-between-the-glass	PEL-N-234-01778-00001				0.27	0.43	0.52	44						
	with integral grilles	PEL-N-234-01779-00001				0.28	0.43	0.52	43						
11/16"	NaturalSun+ Low-E IG	PEL-N-234-01785-00001	3	3	air	0.28	0.47	0.58	42						
	with grilles-between-the-glass	PEL-N-234-01786-00001				0.28	0.42	0.52	42						
	with integral grilles	PEL-N-234-01787-00001				0.28	0.42	0.52	42						

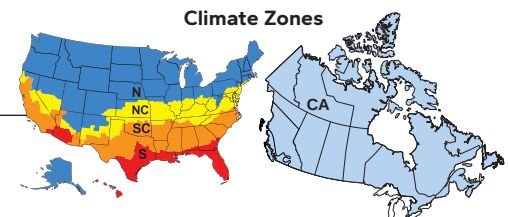
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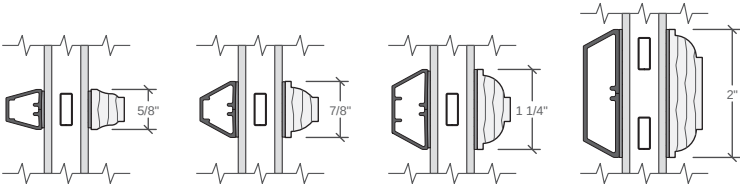




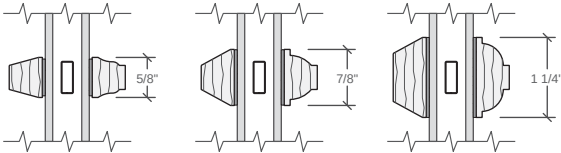
Grille Profiles

Traditional Style Collection - Integral Light Technology®

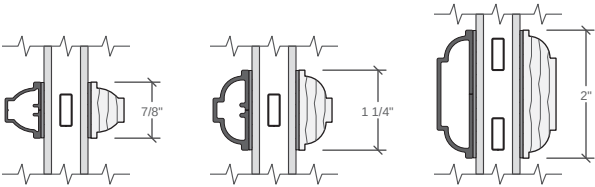
Putty Glaze and Ogee Grilles
Clad Exterior - Wood Interior



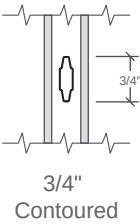
Putty Glaze and Ogee Grilles
Wood Exterior - Wood Interior



Ogee Grilles
Clad Exterior - Wood Interior



Grilles-Between-the-Glass



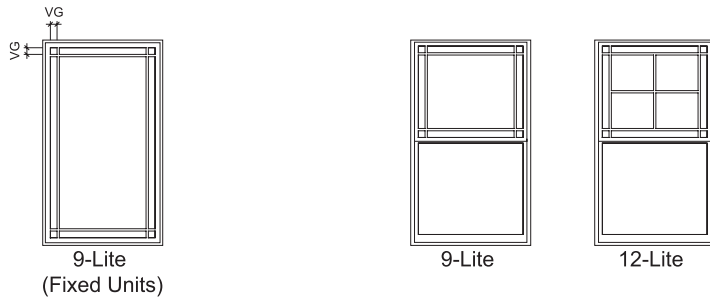
Interior wood ILT grilles available in Pine, Mahogany or Douglas Fir to match complete unit.
Exterior wood ILT grilles available in Pine or Mahogany to match complete unit.



Grille Patterns

Integral light technology® Grilles

Prairie Lite Patterns

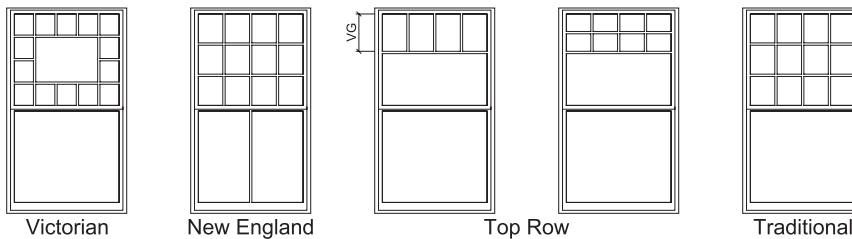


Standard corner lite dimension for Prairie patterns = 2-1/2" VG.

Available in transoms ≥ 1'3" height and width.

Available in all standard and special sizes.

Other Available Patterns

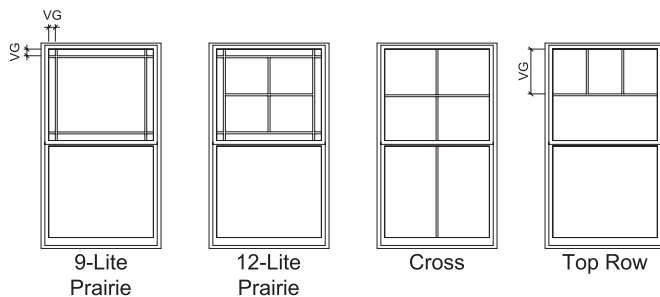


VG = Visible Glass

Lite dimensions noted can vary.

For size and pattern availability contact your local Pella sales representative.

Grilles-Between-the-Glass



Prairie

- Standard corner lite dimension for Prairie patterns = 2-1/2" VG.

- Available in transoms ≥ 1'3" height and width.

Cross

- Minimum DH frame height 35".

- Horizontal bar will be at 1/2" of the VG height of the top sash.

Top Row

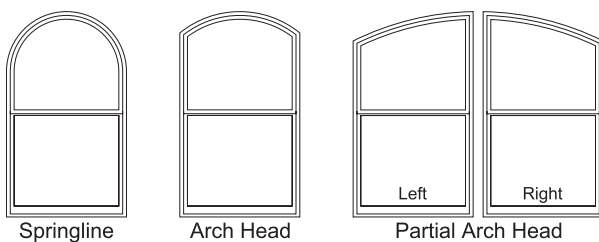
- Minimum DH frame height 35".

- Horizontal bar will be at 1/2" of the VG height of the top sash.

For traditional patterns, see size tables.

Custom shapes

Pella Reserve single-hung windows are available in custom shapes shown below, and additional shapes per drawing. For specifications, size limitations, and details on these units, contact your local Pella sales representative.





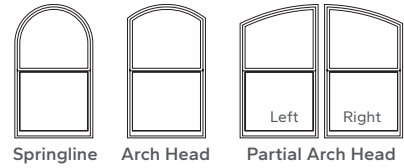
Pella® Reserve™ Traditional Hung Window

Size Tables - Equal Sash

Fixed Transoms									
		(552) (533)	(654) (635)	(756) (737)	(857) (838)	(959) (940)	(1 060) (1 041)	(1 162) (1 143)	(1 238) (1 219)
Opening		1' 9 3/4"	2' 1 3/4"	2' 5 3/4"	2' 9 3/4"	3' 1 3/4"	3' 5 3/4"	3' 9 3/4"	4' 0 3/4"
Frame		1' 9"	2' 1"	2' 5"	2' 9"	3' 1"	3' 5"	3' 9"	4' 0"
(654) (635)	2' 1 3/4" x 1' 2 3/4"	2114	2514	2914	3314	3714	4114	4514	4814
	2' 1 3/4" x 1' 5 3/4"	2117	2517	2917	3317	3717	4117	4517	4817
	2' 1 3/4" x 2' 1"	2125	2525	2925	3325	3725	4125	4525	4825
Vent Units									
(908) (889)	2' 11 3/4" x 2' 11"	2135	2535	2935	3335	3735	4135	4535	4835
	3' 5 3/4" x 3' 5"	2141	2541	2941	3341	3741	4141	4541	4841
	3' 11 3/4" x 3' 11"	2147	2547	2947	3347	3747	4147	4547	4847
(1 365) (1 346)	4' 5 3/4" x 4' 5"	2153	2553	2953	3353	3753	4153	4553	4853
	4' 9 3/4" x 4' 9"	2157	2557	2957	3357	3757	4157	4557	4857
	4' 11 3/4" x 4' 11"	2159	2559	2959	3359	3759	4159	4559	4859
(1 670) (1 651)	5' 5 3/4" x 5' 5"	2165	2565	2965	3365	3765	4165	4565	4865
	5' 11 3/4" x 5' 11"	2171	2571	2971	3371	3771	4171	4571	4871
	6' 5 3/4" x 6' 5"	2177	2577	2977	3377	3777	4177	4577	4877
(2 153) (2 134)	7' 0 3/4" x 7' 0"	2184	2584	2984	3384	3784	4184	4584	4884

Not to scale.

Traditional grille patterns shown. Refer to Grille Types section for additional patterns and profiles.



Pella Reserve single-hung windows are available in shapes shown above, and additional custom shapes per drawing. For specifications, size limitations, and details on these units, contact your local Pella sales representative.

Opening Dimensions

Clad Exterior Units:
Dimensions shown in standard size tables are rough opening dimensions.

Wood Exterior Units:
Use frame dimension plus dimensions below. This dimension includes the use of standard 1-1/8" wood subsill.

Frame	Rough		Masonry	
	Width	Height	Width	Height
STD	+ 3/4"	+1-7/8"	+ 3-1/8"	+ 3-1/8"
3-1/2"	+ 3/4"	+1-7/8"	+ 6-3/8"	+ 4-3/4"

For clad and wood units with impact-resistant glass, see the product installation instructions or refer to local building code requirements.

Egress Notes:

Check all applicable local codes for emergency egress requirements.

E = Window meets minimum clear opening of 24" height, 20" width, and 5.7 ft².

E1 = Window meets minimum clear opening of 24" height, 20" width, and 5.0 ft².

See Design Data pages in this section for clear opening dimensions.

Clear opening (egress) information does not take into consideration the addition of a Rolscreen (or any other accessory) to the product. Consult your local building code to ensure products with Rolcreens meet egress requirements.



Size Tables - Fixed

Fixed Units				
Opening	(1 060) (1 041)	(1 213) (1 194)	(1 365) (1 346)	(1 518) (1 499)
	3' 5 3/4"	3' 11 3/4"	4' 5 3/4"	4' 11 3/4"
Frame	3' 5"	3' 11"	4' 5"	4' 11"
(908) (889)	 4135	 4735	 5335	 5935
(1 060) (1 041)	 4141	 4741	 5341	 5941
(1 213) (1 194)	 4147	 4747	 5347	 5947
(1 365) (1 346)	 4153	 4753	 5353	 5953
(1 467) (1 448)	 4157	 4757	 5357	 5957
(1 518) (1 499)	 4159	 4759	 5359	 5959
(1 670) (1 651)	 4165	 4765	 5365	 5965
(1 822) (1 803)	 4171	 4771	 5371	 5971

Opening Dimensions

Clad Exterior Units:
Dimensions shown in standard size tables are rough opening dimensions.

Wood Exterior Units:
Use frame dimension plus dimensions below. This dimension includes the use of standard 1-1/8" wood subsill.

Frame	Rough		Masonry	
	Width	Height	Width	Height
STD	+ 3/4"	+1-7/8"	+ 3-1/8"	+ 3-1/8"
3-1/2"	+ 3/4"	+1-7/8"	+ 6-3/8"	+ 4-3/4"

For clad and wood units with impact-resistant glass, see the product installation instructions or refer to local building code requirements.

Not to scale.
Traditional grille patterns shown. Refer to Grille Types section for additional patterns and profiles.
Grille patterns will align with companion hung window with equal sash split.
5-lite high grille patterns may be ordered in 5'5" fixed units to match cottage sash vent units.
Grilles are equally-divided on fixed units with odd-number lites high.



Pella® Reserve™ Traditional Hung Window

Size Tables - Cottage Sash

VENT UNITS

	(552) (533)	(654) (635)	(756) (737)	(857) (838)	(959) (940)	(1 060) (1 041)	(1 162) (1 143)	(1 238) (1 219)
Opening	1' 9 3/4"	2' 1 3/4"	2' 5 3/4"	2' 9 3/4"	3' 1 3/4"	3' 5 3/4"	3' 9 3/4"	4' 0 3/4"
Frame	1' 9"	2' 1"	2' 5"	2' 9"	3' 1"	3' 5"	3' 9"	4' 0"
(1 060) (1 041)	 VG2141	 VG2541	 VG2941	 VG3341	 VG3741	 VG4141	 VG4541	 VG4841
(1 213) (1 194)	 VG2147	 VG2547	 VG2947	 VG3347	 VG3747	 VG4147	 VG4547	 VG4847
(1 365) (1 346)	 VG2153	 VG2553	 VG2953	 VG3353	 VG3753	 VG4153	 VG4553	 VG4853
(1 467) (1 448)	 VG2157	 VG2557	 VG2957	 VG3357	 VG3757	 VG4157	 VG4557	 VG4857
(1 518) (1 499)	 VG2159	 VG2559	 VG2959	 VG3359	 VG3759	 VG4159	 VG4559	 VG4859
(1 670) (1 651)	 VG2165	 VG2565	 VG2965	 VG3365	 VG3765	 VG4165	 VG4565	 VG4865
(1 822) (1 803)	 VG2171	 VG2571	 VG2971	 VG3371	 VG3771	 VG4171	 VG4571	 VG4871
(1 822) (1 803)	 VG2177	 VG2577	 VG2977	 VG3377	 VG3777	 VG4177	 VG4577	 VG4877

Egress Notes:

Check all applicable local codes for emergency egress requirements.

E = Window meets minimum clear opening of 24" height, 20" width, and 5.7 ft².

E1 = Window meets minimum clear opening of 24" height, 20" width, and 5.0 ft².

See Design Data pages in this section for clear opening dimensions.

Clear opening (egress) information does not take into consideration the addition of a Rolscreen (or any other accessory) to the product. Consult your local building code to ensure products with Rolcreens meet egress requirements.

Opening Dimensions

Clad Exterior Units:

Dimensions shown in standard size tables are rough opening dimensions.

Wood Exterior Units:

Use frame dimension plus dimensions below. This dimension includes the use of standard 1-1/8" wood subsill.

Frame	Rough		Masonry	
Brickmould	Width	Height	Width	Height
STD	+ 3/4"	+1-7/8"	+ 3-1/8"	+ 3-1/8"
3-1/2"	+ 3/4"	+1-7/8"	+ 6-3/8"	+ 4-3/4"

For clad and wood units with impact-resistant glass, see the product installation instructions or refer to local building code requirements.

Not to scale.

Traditional grille patterns shown. Refer to Grille Types section for additional patterns and profiles.

Cottage units have unequal sash split. Sash glass ratio is 40% upper sash to 60% Lower sash.

Vent variable units have unequal sash split. Sash glass ratio is determined by checkrail heights. See unit sections for dimension requirements.



Pella® Reserve™ Traditional Hung Window

Size Tables - Replacement Equal Sash Sizes

Transoms

	(616) (597)	(718) (699)	(762) (749)	(819) (800)	(921) (902)	(1 022) (1 003)	(1 073) (1 054)
Opening	2' 0 1/4"	2' 4 1/4"	2' 6 1/4"	2' 8 1/4"	3' 0 1/4"	3' 4 1/4"	3' 6 1/4"
Frame	1' 11 1/2"	2' 3 1/2"	2' 5 1/2"	2' 7 1/2"	2' 11 1/2"	3' 3 1/2"	3' 5 1/2"
(375) (356)	 23.5 x 14	 27.5 x 14	 29.5 x 14	 31.5 x 14	 35.5 x 14	 39.5 x 14	 41.5 x 14
(451) (432)	 23.5 x 17	 27.5 x 17	 29.5 x 17	 31.5 x 17	 35.5 x 17	 39.5 x 17	 41.5 x 17
(654) (635)	 23.5 x 25	 27.5 x 25	 29.5 x 25	 31.5 x 25	 35.5 x 25	 39.5 x 25	 41.5 x 25

Vent Units

(921) (902)	 23.5 x 35.5	 27.5 x 35.5	 29.5 x 35.5	 31.5 x 35.5	 35.5 x 35.5	 39.5 x 35.5	 41.5 x 35.5
(972) (953)	 23.5 x 37.5	 27.5 x 37.5	 29.5 x 37.5	 31.5 x 37.5	 35.5 x 37.5	 39.5 x 37.5	 41.5 x 37.5
(1 073) (1 054)	 23.5 x 41.5	 27.5 x 41.5	 29.5 x 41.5	 31.5 x 41.5	 35.5 x 41.5	 39.5 x 41.5	 41.5 x 41.5
(1 175) (1 156)	 23.5 x 45.5	 27.5 x 45.5	 29.5 x 45.5	 31.5 x 45.5	 35.5 x 45.5	 39.5 x 45.5	 41.5 x 45.5
(1 226) (1 206)	 23.5 x 47.5	 27.5 x 47.5	 29.5 x 47.5	 31.5 x 47.5	 35.5 x 47.5	 39.5 x 47.5	 41.5 x 47.5
(1 327) (1 308)	 23.5 x 51.5	 27.5 x 51.5	 29.5 x 51.5	 31.5 x 51.5	 35.5 x 51.5	 39.5 x 51.5	 41.5 x 51.5
(1 378) (1 359)	 23.5 x 53.5	 27.5 x 53.5	 29.5 x 53.5	 31.5 x 53.5	 35.5 x 53.5	 39.5 x 53.5	 41.5 x 53.5
(1 473) (1 461)	 23.5 x 57.5	 27.5 x 57.5	 29.5 x 57.5	 31.5 x 57.5	 35.5 x 57.5 E ₁	 39.5 x 57.5 E	 41.5 x 57.5 E

Egress Notes:

Check all applicable local codes for emergency egress requirements.

E = Window meets minimum clear opening of 24" height, 20" width, and 5.7 ft².

E₁ = Window meets minimum clear opening of 24" height, 20" width, and 5.0 ft².

See Design Data pages in this section for clear opening dimensions.

Clear opening (egress) information does not take into consideration the addition of a Rolscreen (or any other accessory) to the product. Consult your local building code to ensure products with Rolcreens meet egress requirements.

Not to scale.

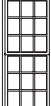
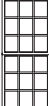
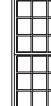
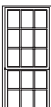
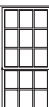
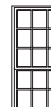
Traditional grille patterns shown. Refer to Grille Types section for additional patterns and profiles.



Pella® Reserve™ Traditional Hung Window

Size Tables - Replacement Sizes

Vent Units

		(616) (597)	(718) (699)	(762) (749)	(819) (800)	(921) (902)	(1 022) (1 003)	(1 073) (1 054)
Opening		2' 0 1/4"	2' 4 1/4"	2' 6"	2' 8 1/4"	3' 0 1/4"	3' 4 1/4"	3' 6 1/4"
Frame		1' 11 1/2"	2' 3 1/2"	2' 5 1/2"	2' 7 1/2"	2' 11 1/2"	3' 3 1/2"	3' 5 1/2"
(1 530) (1 511)	5' 0 1/4"					 E ₁	 E	 E
	4' 11 1/2"	23.5 x 59.5	27.5 x 59.5	29.5 x 59.5	31.5 x 59.5	35.5 x 59.5	39.5 x 59.5	41.5 x 59.5
	5' 2 1/4"				 E ₁	 E	 E	 E
	5' 1 1/2"	23.5 x 61.5	27.5 x 61.5	29.5 x 61.5	31.5 x 61.5	35.5 x 61.5	39.5 x 61.5	41.5 x 61.5
(1 683) (1 664)	5' 6 1/4"				 E ₁	 E	 E	 E
	5' 5 1/2"	23.5 x 65.5	27.5 x 65.5	29.5 x 65.5	31.5 x 65.5	35.5 x 65.5	39.5 x 65.5	41.5 x 65.5
(1 835) (1 816)	6' 0 1/4"				 E	 E	 E	 E
	5' 11 1/2"	23.5 x 71.5	27.5 x 71.5 E ₁	29.5 x 71.5 E ₁	31.5 x 71.5 E	35.5 x 71.5 E	39.5 x 71.5 E	41.5 x 71.5 E

Egress Notes:

Check all applicable local codes for emergency egress requirements.

E = Window meets minimum clear opening of 24" height, 20" width, and 5.7 ft².

E₁ = Window meets minimum clear opening of 24" height, 20" width, and 5.0 ft².

See Design Data pages in this section for clear opening dimensions.

Clear opening (egress) information does not take into consideration the addition of a Rolscreen (or any other accessory) to the product. Consult your local building code to ensure products with Rolcreens meet egress requirements.

Not to scale.

Traditional grille patterns shown. Refer to Grille Types section for additional patterns and profiles.



Pella® Reserve™ Traditional Hung Window

Size Tables - Replacement Cottage Sash Sizes

Cottage Vent Units

		(616) (597)	(718) (699)	(762) (749)	(819) (800)	(921) (902)	(1 022) (1 003)	(1 073) (1 054)
Opening		2' 0 1/4"	2' 4 1/4"	2' 6 1/4"	2' 8 1/4"	3' 0 1/4"	3' 4 1/4"	3' 6 1/4"
Frame		1' 11 1/2"	2' 3 1/2"	2' 5 1/2"	2' 7 1/2"	2' 11 1/2"	3' 3 1/2"	3' 5 1/2"
(1 073) (1 054)	3' 6 1/4"							
		23.5 x 41.5	27.5 x 41.5	29.5 x 41.5	31.5 x 41.5	35.5 x 41.5	39.5 x 41.5	41.5 x 41.5
(1 175) (1 156)	3' 10 1/4"							
		23.5 x 45.5	27.5 x 45.5	29.5 x 45.5	31.5 x 45.5	35.5 x 45.5	39.5 x 45.5	41.5 x 45.5
(1 226) (1 206)	4' 0 1/4"							
		23.5 x 47.5	27.5 x 47.5	29.5 x 47.5	31.5 x 47.5	35.5 x 47.5	39.5 x 47.5	41.5 x 47.5
(1 327) (1 308)	4' 4 1/4"							
		23.5 x 51.5	27.5 x 51.5	29.5 x 51.5	31.5 x 51.5	35.5 x 51.5	39.5 x 51.5	41.5 x 51.5
(1 378) (1 359)	4' 6 1/4"							
		23.5 x 53.5	27.5 x 53.5	29.5 x 53.5	31.5 x 53.5	35.5 x 53.5	39.5 x 53.5	41.5 x 53.5
(1 473) (1 461)	4' 10 1/4"							
		23.5 x 57.5	27.5 x 57.5	29.5 x 57.5	31.5 x 57.5	35.5 x 57.5	39.5 x 57.5	41.5 x 57.5
(1 530) (1 511)	5' 0 1/4"							
		23.5 x 59.5	27.5 x 59.5	29.5 x 59.5	31.5 x 59.5	35.5 x 59.5	39.5 x 59.5	41.5 x 59.5
(1 581) (1 561.5)	5' 2 1/4"							
		23.5 x 61.5	27.5 x 61.5	29.5 x 61.5	31.5 x 61.5	35.5 x 61.5	39.5 x 61.5	41.5 x 61.5
(1 683) (1 664)	5' 6 1/4"							
		23.5 x 65.5	27.5 x 65.5	29.5 x 65.5	31.5 x 65.5	35.5 x 65.5	39.5 x 65.5	41.5 x 65.5
(1 835) (1 816)	6' 0 1/4"							
		23.5 x 71.5	27.5 x 71.5	29.5 x 71.5	31.5 x 71.5	35.5 x 71.5	39.5 x 71.5	41.5 x 71.5

Egress Notes:

Check all applicable local codes for emergency egress requirements.

E = Window meets minimum clear opening of 24" height, 20" width, and 5.7 ft².

E1 = Window meets minimum clear opening of 24" height, 20" width, and 5.0 ft².

See Design Data pages in this section for clear opening dimensions.

Clear opening (egress) information does not take into consideration the addition of a Rolscreen (or any other accessory) to the product. Consult your local building code to ensure products with Rolcreens meet egress requirements.

Not to scale.

Traditional grille patterns shown. Refer to Grille Types section for additional patterns and profiles.



Size Tables - Replacement Fixed Sizes

Fixed Units		(1 060) (1 041)	(1 213) (1 194)	(1 365) (1 346)	(1 518) (1 499)	(1 060) (1 041)	(1 213) (1 194)	(1 365) (1 346)	(1 518) (1 499)
Opening		3' 5 ³ / ₄ "	3' 11 ³ / ₄ "	4' 5 ³ / ₄ "	4' 11 ³ / ₄ "	3' 5 ³ / ₄ "	3' 11 ³ / ₄ "	4' 5 ³ / ₄ "	4' 11 ³ / ₄ "
Frame		3' 5"	3' 11"	4' 5"	4' 11"	3' 5"	3' 11"	4' 5"	4' 11"
(1 473) (1 461)	3' 0 ¹ / ₄ "	(921) (902)				(1 530) (1 511)			
	3' 2 ¹ / ₄ "	(972) (953)							
	3' 6 ¹ / ₄ "	(1 073) (1 054)							
	3' 10 ¹ / ₄ "	(1 175) (1 156)							
	4' 0 ¹ / ₄ "	(1 226) (1 206)							
	4' 4 ¹ / ₄ "	(1 327) (1 308)							
	4' 6 ¹ / ₄ "	(1 378) (1 359)							
	4' 10 ¹ / ₄ "								
	4' 9 ¹ / ₂ "								
	2' 11 ¹ / ₂ "						4' 11 ¹ / ₂ "		
	3' 1 ¹ / ₂ "								
	3' 5 ¹ / ₂ "						5' 1 ¹ / ₂ "		
	3' 9 ¹ / ₂ "								
	3' 11 ¹ / ₂ "								
	4' 0 ¹ / ₂ "								
	4' 3 ¹ / ₂ "								
	4' 5 ¹ / ₂ "								
		41 x 35.5	47 x 35.5	53 x 35.5	59 x 35.5	41 x 59.5	47 x 59.5	53 x 59.5	59 x 59.5
		41 x 37.5	47 x 37.5	53 x 37.5	59 x 37.5	41 x 61.5	47 x 61.5	53 x 61.5	59 x 61.5
		41 x 41.5	47 x 41.5	53 x 41.5	59 x 41.5	41 x 61.5	47 x 61.5	53 x 61.5	59 x 61.5
		41 x 45.5	47 x 45.5	53 x 45.5	59 x 45.5	41 x 65.5	47 x 65.5	53 x 65.5	59 x 65.5
		41 x 47.5	47 x 47.5	53 x 47.5	59 x 47.5	41 x 65.5	47 x 65.5	53 x 65.5	59 x 65.5
		41 x 51.5	47 x 51.5	53 x 51.5	59 x 51.5	41 x 71.5	47 x 71.5	53 x 71.5	59 x 71.5
		41 x 53.5	47 x 53.5	53 x 53.5	59 x 53.5				
		41 x 57.5	47 x 57.5	53 x 57.5	59 x 57.5				

Not to scale.

Traditional grille patterns shown. Refer to Grille Types section for additional patterns and profiles.



Pella® Reserve™ Traditional Hung Window

Special Sizes and Dimensions

Special Size Frame Dimensions*

Sash configuration	Vent-Equal	Cottage	Fixed
Sash Glass Ratio Top % : Bottom %	50 : 50	40 : 60	NA
Shortest Unit Frame Size	24-3/8" (619)	40-1/4" (1 022)	17" (432)
Tallest Unit Frame Size	96" (2 438)	81" (2 057)	71" (1 803)
Unit Frame Width Range	14" to 48" (356 to 1 219)	14" to 48" (356 to 1 219)	17" to 59" (432 to 1 499)

Opening Dimensions

Clad Exterior Units:

Dimensions shown in standard size tables are rough opening dimensions.

Wood Exterior Units:

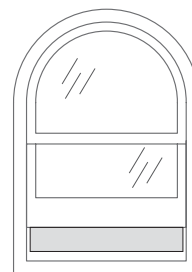
Use frame dimension plus dimensions below. This dimension includes the use of standard 1-1/8" wood subsill.

Frame	Rough		Masonry	
Brickmould	Width	Height	Width	Height
STD	+ 3/4"	+1-7/8"	+ 3-1/8"	+ 3-1/8"
3-1/2"	+ 3/4"	+1-7/8"	+ 6-3/8"	+ 4-3/4"

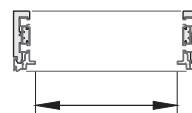
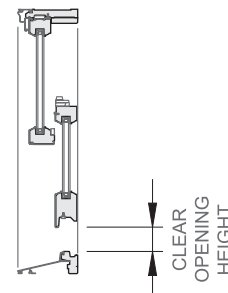
For clad and wood units with impact-resistant glass, see the product installation instructions or refer to local building code requirements.

Equal Sash Rectangular Only

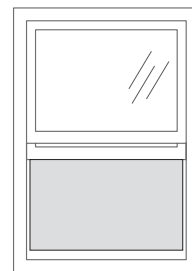
	Vent Units	Fixed and Transom Units
Visible Glass	Width = Frame - 5.647" Height = (Frame - 8.681") ÷ 2	Width = Frame - 5.75" Height = Frame - 5.75"
Actual Glass	Width = Frame - 4.375" Height = (Frame - 5.983") ÷ 2	Width = Frame - 4.375" Height = Frame - 4.375"
Clear Opening*	COW = Frame Width - 3.4375" COH = (Frame Height ÷ 2) - 4.4375"	— —
Vent Area Ft²	(COW x COH) ÷ 144	—



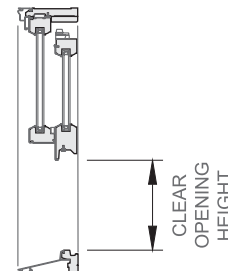
Shaded portion shows vent area.



CLEAR OPENING WIDTH



Shaded portion shows vent area.



Traditional grille patterns shown. Refer to Grille Types section for additional patterns and profiles.

* Some units with custom glazing may have limited travel. Integrated Rolscreen® is only available on sizes greater than or equal to 34" tall and 21" wide and less than or equal to 84" tall and 48" wide.

See your local Pella sales representative for specific size information.



Design Data

Vent Equal Sash for Single- and Double-Hung

Unit	Egress	Clear Opening (Inches)		Vent Area Ft ²	Visible Glass Ft ²	Standard Glass Thickness (mm)		Performance Class & Grade ¹	
		Width (Inches)	Height (Inches)			Annealed	Tempered	Clad	Wood
2135		17-5/16	13-1/16	1.6	2.8	2.5	3	CW50	CW45
2141		17-5/16	16-1/16	1.9	3.4	2.5	3	CW50	CW45
2147		17-5/16	19-1/16	2.3	4.1	2.5	3	CW50	CW45
2153		17-5/16	22-1/16	2.7	4.7	2.5	3	CW50	CW45
2157		17-5/16	24-1/16	2.9	5.2	2.5	3	CW50	CW45
2159		17-5/16	25-1/16	3.0	5.4	2.5	3	CW50	CW45
2165		17-5/16	28-1/16	3.4	6.0	2.5	3	CW50	CW45
2171		17-5/16	31-1/16	3.7	6.6	2.5	3	CW50	CW45
2177		17-5/16	34-1/16	4.1	7.3	2.5	3	CW50	CW45
2184		17-5/16	37-9/16	4.5	8.0	2.5	3	CW40	CW40
2535		21-5/16	13-1/16	1.9	3.5	2.5	3	CW50	CW45
2541		21-5/16	16-1/16	2.4	4.3	2.5	3	CW50	CW45
2547		21-5/16	19-1/16	2.8	5.1	2.5	3	CW50	CW45
2553		21-5/16	22-1/16	3.3	6.0	2.5	3	CW50	CW45
2557		21-5/16	24-1/16	3.6	6.5	2.5	3	CW50	CW45
2559		21-5/16	25-1/16	3.7	6.8	2.5	3	CW50	CW45
2565		21-5/16	28-1/16	4.2	7.6	2.5	3	CW50	CW45
2571		21-5/16	31-1/16	4.6	8.4	2.5	3	CW50	CW45
2577	E1	21-5/16	34-1/16	5.0	9.2	2.5	3	CW50	CW45
2584	E1	21-5/16	37-9/16	5.6	10.1	2.5	3	CW40	CW40
2935		25-5/16	13-1/16	2.3	4.3	2.5	3	CW50	CW45
2941		25-5/16	16-1/16	2.8	5.2	2.5	3	CW50	CW45
2947		25-5/16	19-1/16	3.4	6.2	2.5	3	CW50	CW45
2953		25-5/16	22-1/16	3.9	7.2	2.5	3	CW50	CW45
2957		25-5/16	24-1/16	4.2	7.8	2.5	3	CW50	CW45
2959		25-5/16	25-1/16	4.4	8.2	2.5	3	CW50	CW45
2965		25-5/16	28-1/16	4.9	9.1	2.5	3	CW50	CW45
2971	E1	25-5/16	31-1/16	5.5	10.1	2.5	3	CW50	CW45
2977	E	25-5/16	34-1/16	6.0	11.1	2.5	3	CW50	CW45
2984	E	25-5/16	37-9/16	6.6	12.2	2.5	3	CW40	CW40
3335		29-5/16	13-1/16	2.7	5.0	2.5	3	CW50	CW45
3341		29-5/16	16-1/16	3.3	6.1	2.5	3	CW50	CW45
3347		29-5/16	19-1/16	3.9	7.3	2.5	3	CW50	CW45
3353		29-5/16	22-1/16	4.5	8.4	2.5	3	CW50	CW45
3357		29-5/16	24-1/16	4.9	9.2	2.5	3	CW50	CW45
3359	E1	29-5/16	25-1/16	5.1	9.6	2.5	3	CW50	CW45
3365	E	29-5/16	28-1/16	5.7	10.7	2.5	3	CW50	CW45
3371	E	29-5/16	31-1/16	6.3	11.8	2.5	3	CW50	CW45
3377	E	29-5/16	34-1/16	6.9	13.0	2.5	3	CW50	CW45
3384	E	29-5/16	37-9/16	7.7	14.3	2.5	3	CW40	CW40

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Egress Notes:

Check all applicable local codes for emergency egress requirements.

E = Window meets minimum clear opening of 24" height, 20" width, and 5.7 ft².

E1 = Window meets minimum clear opening of 24" height, 20" width, and 5.0 ft².

(1) Maximum design pressure when glazed with appropriate glass thickness.

To convert area to square meters (m²), multiply square feet by 0.0929.



Pella® Reserve™ Traditional Hung Window

Design Data

Vent Equal Sash for Single- and Double-Hung

Unit	Egress	Clear Opening (Inches)		Vent Area Ft²	Visible Glass Ft²	Standard Glass Thickness (mm)		Performance Class & Grade ¹	
		Width (Inches)	Height (Inches)			Annealed	Tempered	Clad	Wood
3735		33-5/16	13-1/16	3.0	5.7	2.5	3	CW50	CW45
3741		33-5/16	16-1/16	3.7	7.0	2.5	3	CW50	CW45
3747		33-5/16	19-1/16	4.4	8.3	2.5	3	CW50	CW45
3753		33-5/16	22-1/16	5.1	9.6	2.5	3	CW50	CW45
3757	E ₁	33-5/16	24-1/16	5.6	10.5	2.5	3	CW50	CW45
3759	E	33-5/16	25-1/16	5.8	11.0	2.5	3	CW50	CW45
3765	E	33-5/16	28-1/16	6.5	12.3	2.5	3	CW50	CW45
3771	E	33-5/16	31-1/16	7.2	13.6	2.5	3	CW50	CW45
3777	E	33-5/16	34-1/16	7.9	14.9	2.5	3	CW50	CW45
3784	E	33-5/16	37-9/16	8.7	16.4	2.5	3	CW40	CW40
4135		37-5/16	13-1/16	3.4	6.5	2.5	3	CW50	CW45
4141		37-5/16	16-1/16	4.2	7.9	2.5	3	CW50	CW45
4147		37-5/16	19-1/16	4.9	9.4	2.5	3	CW50	CW45
4153		37-5/16	22-1/16	5.7	10.9	2.5	3	CW50	CW45
4157	E	37-5/16	24-1/16	6.2	11.9	2.5	3	CW50	CW45
4159	E	37-5/16	25-1/16	6.5	12.4	2.5	3	CW50	CW45
4165	E	37-5/16	28-1/16	7.3	13.8	2.5	3	CW50	CW45
4171	E	37-5/16	31-1/16	8.1	15.3	2.5	3	CW50	CW45
4177	E	37-5/16	34-1/16	8.8	16.8	2.5	3	CW45	CW45
4184	E	37-5/16	37-9/16	9.7	18.5	2.5	3	CW40	CW40
4535		41-5/16	13-1/16	3.7	7.2	2.5	3	CW50	CW45
4541		41-5/16	16-1/16	4.6	8.8	2.5	3	CW50	CW45
4547		41-5/16	19-1/16	5.5	10.5	2.5	3	CW50	CW45
4553		41-5/16	22-1/16	6.3	12.1	2.5	3	CW50	CW45
4557	E	41-5/16	24-1/16	6.9	13.2	2.5	3	CW50	CW45
4559	E	41-5/16	25-1/16	7.2	13.7	2.5	3	CW50	CW45
4565	E	41-5/16	28-1/16	8.1	15.4	2.5	3	CW50	CW45
4571	E	41-5/16	31-1/16	8.9	17.0	2.5	3	CW45	CW45
4577	E	41-5/16	34-1/16	9.8	18.7	2.5	3	CW45	CW45
4584	E	41-5/16	37-9/16	10.8	20.6	3	3	CW40	CW40
4835		44-5/16	13-1/16	4.0	7.7	2.5	3	CW50	CW45
4841		44-5/16	16-1/16	4.9	9.5	2.5	3	CW50	CW45
4847		44-5/16	19-1/16	5.9	11.3	2.5	3	CW50	CW45
4853		44-5/16	22-1/16	6.8	13.0	2.5	3	CW50	CW45
4857	E	44-5/16	24-1/16	7.4	14.2	2.5	3	CW50	CW45
4859	E	44-5/16	25-1/16	7.7	14.8	2.5	3	CW50	CW45
4865	E	44-5/16	28-1/16	8.6	16.6	2.5	3	CW45	CW45
4871	E	44-5/16	31-1/16	9.6	18.3	2.5	3	CW45	CW45
4877	E	44-5/16	34-1/16	10.5	20.1	3	3	CW45	CW45
4884	E	44-5/16	37-9/16	11.6	22.2	3	3	CW40	CW40

Egress Notes:

Check all applicable local codes for emergency egress requirements.

E = Window meets minimum clear opening of 24" height, 20" width, and 5.7 ft².

E₁ = Window meets minimum clear opening of 24" height, 20" width, and 5.0 ft².

(1) Maximum performance when glazed with the appropriate glass thickness.

To convert area to square meters (m²), multiply square feet by 0.0929.



Pella® Reserve™ Traditional Hung Window

Design Data

Fixed				
Unit	Visible Glass Ft²	Standard Glass Thickness (mm)		Performance Class & Grade ₁
		Annealed	Tempered	
4135	7.2	2.5	3	CW50
4141	8.6	2.5	3	CW50
4147	10.1	3	3	CW50
4153	11.6	3	3	CW50
4157	12.5	3	3	CW50
4165	14.5	3	3	CW50
4171	16.0	3	3	CW45/CW50
4735	8.4	2.5	3	CW50
4741	10.1	3	3	CW50
4747	11.8	3	3	CW50
4753	13.5	3	3	CW50
4757	14.7	3	3	CW50
4759	15.3	3	3	CW50
4765	17.0	3	3	CW45/CW50
4771	18.7	4	4	CW50
5335	9.6	2.5	3	CW45/CW50
5341	11.6	3	3	CW50
5347	13.5	3	3	CW50
5353	15.5	3	4	CW45/CW50
5357	16.8	3	4	CW45/CW50
5359	17.5	3	4	CW40/CW50
5365	19.4	4	4	CW50
5371	21.4	4	4	CW50
5935	10.8	3	3	CW50
5941	13.0	3	3	CW50
5953	17.5	3	4	CW40/CW50
5957	19.0	4	4	CW50
5959	19.7	4	4	CW50
5965	21.9	4	4	CW50
5971	24.1	4	4	CW45/CW50

Transoms				
Unit	Visible Glass Ft²	Standard Glass Thickness (mm)		Performance Class & Grade ₁
		Annealed	Tempered	
2114	0.9	2.5	3	CW50
2514	1.1	2.5	3	CW50
2914	1.3	2.5	3	CW50
3314	1.6	2.5	3	CW50
3714	1.8	2.5	3	CW50
4114	2.0	2.5	3	CW50
4514	2.2	2.5	3	CW50
4814	2.4	2.5	3	CW50
2117	1.2	2.5	3	CW50
2517	1.5	2.5	3	CW50
2917	1.8	2.5	3	CW50
3317	2.1	2.5	3	CW50
3717	2.4	2.5	3	CW50
4117	2.8	2.5	3	CW50
4517	3.1	2.5	3	CW50
4817	3.3	2.5	3	CW50
2125	2.0	2.5	3	CW50
2525	2.6	2.5	3	CW50
2925	3.1	2.5	3	CW50
3325	3.6	2.5	3	CW50
3725	4.2	2.5	3	CW50
4125	4.7	2.5	3	CW50
4525	5.2	2.5	3	CW50
4825	5.6	2.5	3	CW50

(1) Maximum design pressure when glazed with the appropriate glass thickness. Second number, where shown, requires tempered glass.



Design Data

Cottage Sash for Single- and Double-Hung

Unit	Egress	Clear Opening (Inches)		Vent Area Ft ²	Visible Glass Ft ²	Standard Glass Thickness (mm)		Performance Class & Grade ¹	
		Width	Height			Annealed	Tempered	Clad	Wood
VG2141		17-5/16	12-11/16	1.5	3.4	2.5	3	CW50	CW45
VG2147		17-5/16	15-1/16	1.8	4.1	2.5	3	CW50	CW45
VG2153		17-5/16	17-7/16	2.1	4.7	2.5	3	CW50	CW45
VG2157		17-5/16	19-1/16	2.3	5.2	2.5	3	CW50	CW45
VG2159		17-5/16	19-7/8	2.4	5.4	2.5	3	CW50	CW45
VG2165		17-5/16	22-1/4	2.7	6.0	2.5	3	CW50	CW45
VG2171		17-5/16	24-11/16	3.0	6.6	2.5	3	CW30	CW30
VG2541		21-5/16	12-11/16	1.9	4.3	2.5	3	CW50	CW45
VG2547		21-5/16	15-1/16	2.2	5.1	2.5	3	CW50	CW45
VG2553		21-5/16	17-7/16	2.6	6.0	2.5	3	CW50	CW45
VG2557		21-5/16	19-1/16	2.8	6.5	2.5	3	CW50	CW45
VG2559		21-5/16	19-7/8	2.9	6.8	2.5	3	CW50	CW45
VG2565		21-5/16	22-1/4	3.3	7.6	2.5	3	CW50	CW45
VG2571		21-5/16	24-11/16	3.7	8.4	2.5	3	CW30	CW30
VG2941		25-5/16	12-11/16	2.2	5.2	2.5	3	CW50	CW45
VG2947		25-5/16	15-1/16	2.7	6.2	2.5	3	CW50	CW45
VG2953		25-5/16	17-7/16	3.1	7.2	2.5	3	CW50	CW45
VG2957		25-5/16	19-1/16	3.4	7.8	2.5	3	CW50	CW45
VG2959		25-5/16	19-7/8	3.5	8.2	2.5	3	CW50	CW45
VG2965		25-5/16	22-1/4	3.9	9.1	2.5	3	CW50	CW45
VG2971		25-5/16	24-11/16	4.3	10.1	2.5	3	CW30	CW30
VG3341		29-5/16	12-11/16	2.6	6.1	2.5	3	CW50	CW45
VG3347		29-5/16	15-1/16	3.1	7.3	2.5	3	CW50	CW45
VG3353		29-5/16	17-7/16	3.6	8.4	2.5	3	CW50	CW45
VG3357		29-5/16	19-1/16	3.9	9.2	2.5	3	CW50	CW45
VG3359		29-5/16	19-7/8	4.1	9.6	2.5	3	CW50	CW45
VG3365		29-5/16	22-1/4	4.5	10.7	2.5	3	CW50	CW45
VG3371	E1	29-5/16	24-11/16	5.0	11.8	2.5	3	CW30	CW30

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Egress Notes:

Check all applicable local codes for emergency egress requirements.

E1 = Window meets minimum clear opening of 24" height, 20" width, and 5.0 ft².

(1) Maximum performance when glazed with the appropriate glass thickness.

To convert area to square meters (m²), multiply square feet by 0.0929.



Pella® Reserve™ Traditional Hung Window

Design Data

Cottage Sash for Single- and Double-Hung

Unit	Egress	Clear Opening (Inches)		Vent Area Ft²	Visible Glass Ft²	Standard Glass Thickness (mm)		Performance Class & Grade ¹	
		Width	Height			Annealed	Tempered	Clad	Wood
VG3741		33-5/16	12-11/16	2.9	7.0	2.5	3	CW50	CW45
VG3747		33-5/16	15-1/16	3.5	8.3	2.5	3	CW50	CW45
VG3753		33-5/16	17-7/16	4.0	9.6	2.5	3	CW50	CW45
VG3757		33-5/16	19-1/16	4.4	10.5	2.5	3	CW50	CW45
VG3759		33-5/16	19-7/8	4.6	11.0	2.5	3	CW50	CW45
VG3765		33-5/16	22-1/4	5.2	12.3	2.5	3	CW50	CW45
VG3771	E	33-5/16	24-11/16	5.7	13.6	2.5	3	CW30	CW30
VG4141		37-5/16	12-11/16	3.3	7.9	2.5	3	CW50	CW45
VG4147		37-5/16	15-1/16	3.9	9.4	2.5	3	CW50	CW45
VG4153		37-5/16	17-7/16	4.5	10.9	2.5	3	CW50	CW45
VG4157		37-5/16	19-1/16	4.9	11.9	2.5	3	CW50	CW45
VG4159		37-5/16	19-7/8	5.2	12.4	2.5	3	CW50	CW45
VG4165		37-5/16	22-1/4	5.8	13.8	2.5	3	CW45	CW45
VG4171	E	37-5/16	24-11/16	6.4	15.3	2.5	3	CW30	CW30
VG4541		41-5/16	12-11/16	3.6	8.8	2.5	3	CW50	CW45
VG4547		41-5/16	15-1/16	4.3	10.5	2.5	3	CW50	CW45
VG4553		41-5/16	17-7/16	5.0	12.1	2.5	3	CW50	CW45
VG4557		41-5/16	19-1/16	5.5	13.2	2.5	3	CW45	CW45
VG4559		41-5/16	19-7/8	5.7	13.8	2.5	3	CW45	CW45
VG4565		41-5/16	22-1/4	6.4	15.4	2.5	3	CW45	CW45
VG4571	E	41-5/16	24-11/16	7.1	17.0	3	3	CW30	CW30
VG4841		44-5/16	12-11/16	3.9	9.5	2.5	3	CW50	CW45
VG4847		44-5/16	15-1/16	4.6	11.3	2.5	3	CW50	CW45
VG4853		44-5/16	17-7/16	5.4	13.0	2.5	3	CW45	CW45
VG4857		44-5/16	19-1/16	5.9	14.2	2.5	3	CW45	CW45
VG4859		44-5/16	19-7/8	6.1	14.8	2.5	3	CW45	CW45
VG4865		44-5/16	22-1/4	6.9	16.6	3	3	CW45	CW45
VG4871	E	44-5/16	24-11/16	7.6	18.3	3	3	CW30	CW30

Egress Notes:

Check all applicable local codes for emergency egress requirements.

E = Window meets minimum clear opening of 24" height, 20" width, and 5.7 ft².

(1) Maximum performance when glazed with the appropriate glass thickness.

To convert area to square meters (m²), multiply square feet by 0.0929.



Pella® Reserve™ Traditional Hung Window

Design Data - Replacement Sizes

Replacement Equal Sash for Single- and Double-Hung

Unit	Egress	Clear Opening		Vent Area Ft²	Visible Glass Ft²	Standard Glass Thickness (mm)		Performance Class & Grade ¹	
		Width (Inches)	Height (Inches)			Annealed	Tempered	Clad	Wood
23.5 x 35.5		19-13/16	13-5/16	1.8	3.3	2.5	3	CW50	CW45
23.5 x 37.5		19-13/16	14-5/16	2.0	3.6	2.5	3	CW50	CW45
23.5 x 41.5		19-13/16	16-5/16	2.2	4.1	2.5	3	CW50	CW45
23.5 x 45.5		19-13/16	18-5/16	2.5	4.6	2.5	3	CW50	CW45
23.5 x 47.5		19-13/16	19-5/16	2.7	4.8	2.5	3	CW50	CW45
23.5 x 51.5		19-13/16	21-5/16	2.9	5.3	2.5	3	CW50	CW45
23.5 x 53.5		19-13/16	22-5/16	3.1	5.6	2.5	3	CW50	CW45
23.5 x 57.5		19-13/16	24-5/16	3.3	6.1	2.5	3	CW50	CW45
23.5 x 59.5		19-13/16	25-5/16	3.5	6.3	2.5	3	CW50	CW45
23.5 x 61.5		19-13/16	26-5/16	3.6	6.5	2.5	3	CW50	CW45
23.5 x 65.5		19-13/16	28-5/16	3.9	7.0	2.5	3	CW50	CW45
23.5 x 71.5		19-13/16	31-5/16	4.3	7.8	2.5	3	CW50	CW45
27.5 x 35.5		23-13/16	13-5/16	2.2	4.1	2.5	3	CW50	CW45
27.5 x 37.5		23-13/16	14-5/16	2.4	4.4	2.5	3	CW50	CW45
27.5 x 41.5		23-13/16	16-5/16	2.7	5.0	2.5	3	CW50	CW45
27.5 x 45.5		23-13/16	18-5/16	3.0	5.6	2.5	3	CW50	CW45
27.5 x 47.5		23-13/16	19-5/16	3.2	5.9	2.5	3	CW50	CW45
27.5 x 51.5		23-13/16	21-5/16	3.5	6.5	2.5	3	CW50	CW45
27.5 x 53.5		23-13/16	22-5/16	3.7	6.8	2.5	3	CW50	CW45
27.5 x 57.5		23-13/16	24-5/16	4.0	7.4	2.5	3	CW50	CW45
27.5 x 59.5		23-13/16	25-5/16	4.2	7.7	2.5	3	CW50	CW45
27.5 x 61.5		23-13/16	26-5/16	4.4	8.0	2.5	3	CW50	CW45
27.5 x 65.5		23-13/16	28-5/16	4.7	8.6	2.5	3	CW50	CW45
27.5 x 71.5	E1	23-13/16	31-5/16	5.2	9.5	2.5	3	CW50	CW45
29.5 x 35.5		25-13/16	13-5/16	2.4	4.4	2.5	3	CW50	CW45
29.5 x 37.5		25-13/16	14-5/16	2.6	4.8	2.5	3	CW50	CW45
29.5 x 41.5		25-13/16	16-5/16	2.9	5.4	2.5	3	CW50	CW45
29.5 x 45.5		25-13/16	18-5/16	3.3	6.1	2.5	3	CW50	CW45
29.5 x 47.5		25-13/16	19-5/16	3.5	6.4	2.5	3	CW50	CW45
29.5 x 51.5		25-13/16	21-5/16	3.8	7.1	2.5	3	CW50	CW45
29.5 x 53.5		25-13/16	22-5/16	4.0	7.4	2.5	3	CW50	CW45
29.5 x 57.5		25-13/16	24-5/16	4.4	8.1	2.5	3	CW50	CW45
29.5 x 59.5		25-13/16	25-5/16	4.5	8.4	2.5	3	CW50	CW45
29.5 x 61.5		25-13/16	26-5/16	4.7	8.7	2.5	3	CW50	CW45
29.5 x 65.5	E1	25-13/16	28-5/16	5.1	9.4	2.5	3	CW50	CW45
29.5 x 71.5	E1	25-13/16	31-5/16	5.6	10.4	2.5	3	CW50	CW45

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Egress Notes:

Check all applicable local codes for emergency egress requirements.

E1 = Window meets minimum clear opening of 24" height, 20" width, and 5.0 ft².

(1) Maximum performance when glazed with the appropriate glass thickness.

To convert area to square meters (m²), multiply square feet by 0.0929.



Pella® Reserve™ Traditional Hung Window

Design Data - Replacement Sizes

Replacement Equal Sash for Single- and Double-Hung

Unit	Egress	Clear Opening		Vent Area Ft²	Visible Glass Ft²	Standard Glass Thickness (mm)		Performance Class & Grade ¹	
		Width (Inches)	Height (Inches)			Annealed	Tempered	Clad	Wood
31.5 x 35.5		27-13/16	13-5/16	2.6	4.8	2.5	3	CW50	CW45
31.5 x 37.5		27-13/16	14-5/16	2.8	5.2	2.5	3	CW50	CW45
31.5 x 41.5		27-13/16	16-5/16	3.2	5.9	2.5	3	CW50	CW45
31.5 x 45.5		27-13/16	18-5/16	3.5	6.6	2.5	3	CW50	CW45
31.5 x 47.5		27-13/16	19-5/16	3.7	7.0	2.5	3	CW50	CW45
31.5 x 51.5		27-13/16	21-5/16	4.1	7.7	2.5	3	CW50	CW45
31.5 x 53.5		27-13/16	22-5/16	4.3	8.0	2.5	3	CW50	CW45
31.5 x 57.5		27-13/16	24-5/16	4.7	8.8	2.5	3	CW50	CW45
31.5 x 59.5		27-13/16	25-5/16	4.9	9.1	2.5	3	CW50	CW45
31.5 x 61.5	E1	27-13/16	26-5/16	5.1	9.5	2.5	3	CW50	CW45
31.5 x 65.5	E1	27-13/16	28-5/16	5.5	10.2	2.5	3	CW50	CW45
31.5 x 71.5	E	27-13/16	31-5/16	6.0	11.3	2.5	3	CW50	CW45
35.5 x 35.5		31-13/16	13-5/16	2.9	5.6	2.5	3	CW50	CW45
35.5 x 37.5		31-13/16	14-5/16	3.2	6.0	2.5	3	CW50	CW45
35.5 x 41.5		31-13/16	16-5/16	3.6	6.8	2.5	3	CW50	CW45
35.5 x 45.5		31-13/16	18-5/16	4.0	7.6	2.5	3	CW50	CW45
35.5 x 47.5		31-13/16	19-5/16	4.3	8.0	2.5	3	CW50	CW45
35.5 x 51.5		31-13/16	21-5/16	4.7	8.9	2.5	3	CW50	CW45
35.5 x 53.5		31-13/16	22-5/16	4.9	9.3	2.5	3	CW50	CW45
35.5 x 57.5	E1	31-13/16	24-5/16	5.4	10.1	2.5	3	CW50	CW45
35.5 x 59.5	E1	31-13/16	25-5/16	5.6	10.5	2.5	3	CW50	CW45
35.5 x 61.5	E	31-13/16	26-5/16	5.8	10.9	2.5	3	CW50	CW45
35.5 x 65.5	E	31-13/16	28-5/16	6.3	11.8	2.5	3	CW50	CW45
35.5 x 71.5	E	31-13/16	31-5/16	6.9	13.0	2.5	3	CW50	CW45
39.5 x 35.5		35-13/16	13-5/16	3.3	6.3	2.5	3	CW50	CW45
39.5 x 37.5		35-13/16	14-5/16	3.6	6.8	2.5	3	CW50	CW45
39.5 x 41.5		35-13/16	16-5/16	4.1	7.7	2.5	3	CW50	CW45
39.5 x 45.5		35-13/16	18-5/16	4.6	8.7	2.5	3	CW50	CW45
39.5 x 47.5		35-13/16	19-5/16	4.8	9.1	2.5	3	CW50	CW45
39.5 x 51.5		35-13/16	21-5/16	5.3	10.1	2.5	3	CW50	CW45
39.5 x 53.5		35-13/16	22-5/16	5.5	10.5	2.5	3	CW50	CW45
39.5 x 57.5	E	35-13/16	24-5/16	6.0	11.5	2.5	3	CW50	CW45
39.5 x 59.5	E	35-13/16	25-5/16	6.3	11.9	2.5	3	CW50	CW45
39.5 x 61.5	E	35-13/16	26-5/16	6.5	12.4	2.5	3	CW50	CW45
39.5 x 65.5	E	35-13/16	28-5/16	7.0	13.4	2.5	3	CW50	CW45
39.5 x 71.5	E	35-13/16	31-5/16	7.8	14.8	2.5	3	CW45	CW45
41.5 x 35.5		37-13/16	13-5/16	3.5	6.7	2.5	3	CW50	CW45
41.5 x 37.5		37-13/16	14-5/16	3.8	7.2	2.5	3	CW50	CW45
41.5 x 41.5		37-13/16	16-5/16	4.3	8.2	2.5	3	CW50	CW45
41.5 x 45.5		37-13/16	18-5/16	4.8	9.2	2.5	3	CW50	CW45
41.5 x 47.5		37-13/16	19-5/16	5.1	9.7	2.5	3	CW50	CW45
41.5 x 51.5		37-13/16	21-5/16	5.6	10.7	2.5	3	CW50	CW45
41.5 x 53.5		37-13/16	22-5/16	5.9	11.2	2.5	3	CW50	CW45
41.5 x 57.5	E	37-13/16	24-5/16	6.4	12.2	2.5	3	CW50	CW45
41.5 x 59.5	E	37-13/16	25-5/16	6.6	12.7	2.5	3	CW50	CW45
41.5 x 61.5	E	37-13/16	26-5/16	6.9	13.1	2.5	3	CW50	CW45
41.5 x 65.5	E	37-13/16	28-5/16	7.4	14.1	2.5	3	CW45	CW45
41.5 x 71.5	E	37-13/16	31-5/16	8.2	15.6	2.5	3	CW45	CW45

Egress Notes:

Check all applicable local codes for emergency egress requirements.

E = Window meets minimum clear opening of 24" height, 20" width, and 5.7 ft².

E1 = Window meets minimum clear opening of 24" height, 20" width, and 5.0 ft².

(1) Maximum performance when glazed with the appropriate glass thickness.

To convert area to square meters (m²), multiply square feet by 0.0929.



Pella® Reserve™ Traditional Hung Window

Design Data - Replacement Sizes

Replacement Fixed

Unit	Visible Glass Ft²	Standard Glass Thickness (mm)		Performance Class & Grade 1
		Annealed	Tempered	
41x35.5	7.3	2.5	3	CW50
41x37.5	7.8	2.5	3	CW50
41x41.5	8.8	2.5	3	CW50
41x45.5	9.7	2.5	3	CW45/CW50
41x47.5	10.2	3.0	3	CW50
41x51.5	11.2	3.0	3	CW50
41x53.5	11.7	3.0	3	CW50
41x57.5	12.7	3.0	3	CW50
41x59.5	13.2	3.0	3	CW50
41x61.5	13.6	3.0	3	CW50
41x65.5	14.6	3.0	3	CW50
41x71.5	16.1	3.0	3	CW45/CW50
47x35.5	8.5	2.5	3	CW50
47x37.5	9.1	2.5	3	CW50
47x41.5	10.2	3.0	3	CW50
47x45.5	11.4	3.0	3	CW50
47x47.5	12.0	3.0	3	CW50
47x51.5	13.1	3.0	3	CW50
47x53.5	13.7	3.0	3	CW50
47x57.5	14.8	3.0	3	CW50
47x59.5	15.4	3.0	3	CW45/CW50
47x61.5	16.0	3.0	3	CW45/CW50
47x65.5	17.1	3.0	3	CW45/CW50
47x71.5	18.8	4.0	4	CW50
53x35.5	9.8	2.5	3	CW45/CW50
53x37.5	10.4	3.0	3	CW50
53x41.5	11.7	3.0	3	CW50
53x45.5	13.0	3.0	3	CW50
53x47.5	13.7	3.0	3	CW50
53x51.5	15.0	3.0	4	CW50
53x53.5	15.7	3.0	4	CW45/CW50
53x57.5	17.0	3.0	4	CW45/CW50
53x59.5	17.6	4.0	4	CW50
53x61.5	18.3	4.0	4	CW50
53x65.5	19.6	4.0	4	CW50
53x71.5	21.6	4.0	4	CW50
59x35.5	11.0	3.0	3	CW50
59x37.5	11.7	3.0	3	CW50
59x41.5	13.2	3.0	3	CW50
59x45.5	14.7	3.0	3	CW50
59x47.5	15.4	3.0	3	CW45/CW50
59x51.5	16.9	3.0	4	CW45/CW50
59x53.5	17.7	4.0	4	CW50
59x57.5	19.1	4.0	4	CW50
59x59.5	19.9	4.0	4	CW50
59x61.5	20.6	4.0	4	CW50
59x65.5	22.1	4.0	4	CW50
59x71.5	24.3	4.0	4	CW45/CW50

Replacement Transoms

Unit	Visible Glass Ft²	Standard Glass Thickness (mm)		Performance Class & Grade 1
		Annealed	Tempered	
23.5x14	1.0	2.5	3	CW50
23.5x17	1.4	2.5	3	CW50
23.5x25	2.4	2.5	3	CW50
27.5x14	1.2	2.5	3	CW50
27.5x17	1.7	2.5	3	CW50
27.5x25	2.9	2.5	3	CW50
29.5x14	1.4	2.5	3	CW50
29.5x17	1.9	2.5	3	CW50
29.5x25	3.2	2.5	3	CW50
31.5x14	1.5	2.5	3	CW50
31.5x17	2.0	2.5	3	CW50
31.5x25	3.4	2.5	3	CW50
35.5x14	1.7	2.5	3	CW50
35.5x17	2.3	2.5	3	CW50
35.5x25	4.0	2.5	3	CW50
39.5x14	1.9	2.5	3	CW50
39.5x17	2.6	2.5	3	CW50
39.5x25	4.5	2.5	3	CW50
41.5x14	2.0	2.5	3	CW50
41.5x17	2.8	2.5	3	CW50
41.5x25	4.8	2.5	3	CW50

(1) Maximum performance when glazed with the appropriate glass thickness. Second number, where shown, requires tempered glass.



Pella® Reserve™ Traditional Hung Window

Design Data

Replacement Cottage Sash for Single- and Double-Hung

Unit	Egress	Clear Opening		Vent Area Ft²	Visible Glass Ft²	Standard Glass Thickness (mm)		Performance Class & Grade ¹	
		Width (Inches)	Height (Inches)			Annealed	Tempered	Clad	Wood
VG23.5 x 41.5		19-13/16	12-7/8	1.8	4.1	2.5	3	CW50	CW45
VG23.5 x 45.5		19-13/16	14-1/2	2.0	4.6	2.5	3	CW50	CW45
VG23.5 x 47.5		19-13/16	15-1/4	2.1	4.8	2.5	3	CW50	CW45
VG23.5 x 51.5		19-13/16	16-7/8	2.3	5.3	2.5	3	CW50	CW45
VG23.5 x 53.5		19-13/16	17-11/16	2.4	5.6	2.5	3	CW50	CW45
VG23.5 x 57.5		19-13/16	19-1/4	2.7	6.1	2.5	3	CW50	CW45
VG23.5 x 59.5		19-13/16	19-15/16	2.8	6.3	2.5	3	CW50	CW45
VG23.5 x 61.5		19-13/16	20-7/8	2.9	6.5	2.5	3	CW50	CW45
VG23.5 x 65.5		19-13/16	22-1/2	3.1	7.0	2.5	3	CW40	CW40
VG23.5 x 71.5		19-13/16	24-7/8	3.4	7.8	2.5	3	CW30	CW30
VG27.5 x 41.5		23-13/16	12-7/8	2.1	5.0	2.5	3	CW50	CW45
VG27.5 x 45.5		23-13/16	14-1/2	2.4	5.6	2.5	3	CW50	CW45
VG27.5 x 47.5		23-13/16	15-1/4	2.5	5.9	2.5	3	CW50	CW45
VG27.5 x 51.5		23-13/16	16-7/8	2.8	6.5	2.5	3	CW50	CW45
VG27.5 x 53.5		23-13/16	17-11/16	2.9	6.8	2.5	3	CW50	CW45
VG27.5 x 57.5		23-13/16	19-1/4	3.2	7.4	2.5	3	CW50	CW45
VG27.5 x 59.5		23-13/16	19-15/16	3.3	7.7	2.5	3	CW50	CW45
VG27.5 x 61.5		23-13/16	20-7/8	3.5	8.0	2.5	3	CW50	CW45
VG27.5 x 65.5		23-13/16	22-1/2	3.7	8.6	2.5	3	CW40	CW40
VG27.5 x 71.5		23-13/16	24-7/8	4.1	9.5	2.5	3	CW30	CW30
VG29.5 x 41.5		25-13/16	12-7/8	2.3	5.4	2.5	3	CW50	CW45
VG29.5 x 45.5		25-13/16	14-1/2	2.6	6.1	2.5	3	CW50	CW45
VG29.5 x 47.5		25-13/16	15-1/4	2.7	6.4	2.5	3	CW50	CW45
VG29.5 x 51.5		25-13/16	16-7/8	3.0	7.1	2.5	3	CW50	CW45
VG29.5 x 53.5		25-13/16	17-11/16	3.2	7.4	2.5	3	CW50	CW45
VG29.5 x 57.5		25-13/16	19-1/4	3.5	8.1	2.5	3	CW50	CW45
VG29.5 x 59.5		25-13/16	19-15/16	3.6	8.4	2.5	3	CW50	CW45
VG29.5 x 61.5		25-13/16	20-7/8	3.7	8.7	2.5	3	CW50	CW45
VG29.5 x 65.5		25-13/16	22-1/2	4.0	9.4	2.5	3	CW40	CW40
VG29.5 x 71.5		25-13/16	24-7/8	4.5	10.4	2.5	3	CW30	CW30
VG31.5 x 41.5		27-13/16	12-7/8	2.5	5.9	2.5	3	CW50	CW45
VG31.5 x 45.5		27-13/16	14-1/2	2.8	6.6	2.5	3	CW50	CW45
VG31.5 x 47.5		27-13/16	15-1/4	3.0	7.0	2.5	3	CW50	CW45
VG31.5 x 51.5		27-13/16	16-7/8	3.3	7.7	2.5	3	CW50	CW45
VG31.5 x 53.5		27-13/16	17-11/16	3.4	8.0	2.5	3	CW50	CW45
VG31.5 x 57.5		27-13/16	19-1/4	3.7	8.8	2.5	3	CW50	CW45
VG31.5 x 59.5		27-13/16	19-15/16	3.9	9.1	2.5	3	CW50	CW45
VG31.5 x 61.5		27-13/16	20-7/8	4.0	9.5	2.5	3	CW50	CW45
VG31.5 x 65.5		27-13/16	22-1/2	4.3	10.2	2.5	3	CW40	CW40
VG31.5 x 71.5		27-13/16	24-7/8	4.8	11.3	2.5	3	CW30	CW30

Continued on next page

(1) Maximum performance when glazed with the appropriate glass thickness.

To convert area to square meters (m²), multiply square feet by 0.0929.



Pella® Reserve™ Traditional Hung Window

Design Data

Replacement Cottage Sash for Single- and Double-Hung

Unit	Egress	Clear Opening		Vent Area Ft²	Visible Glass Ft²	Standard Glass Thickness (mm)		Performance Class & Grade ¹	
		Width (Inches)	Height (Inches)			Annealed	Tempered	Clad	Wood
VG35.5 x 41.5		31-13/16	12-7/8	2.8	6.8	2.5	3	CW50	CW45
VG35.5 x 45.5		31-13/16	14-1/2	3.2	7.6	2.5	3	CW50	CW45
VG35.5 x 47.5		31-13/16	15-1/4	3.4	8.0	2.5	3	CW50	CW45
VG35.5 x 51.5		31-13/16	16-7/8	3.7	8.9	2.5	3	CW50	CW45
VG35.5 x 53.5		31-13/16	17-11/16	3.9	9.3	2.5	3	CW50	CW45
VG35.5 x 57.5		31-13/16	19-1/4	4.3	10.1	2.5	3	CW50	CW45
VG35.5 x 59.5		31-13/16	19-15/16	4.4	10.5	2.5	3	CW50	CW45
VG35.5 x 61.5		31-13/16	20-7/8	4.6	11.0	2.5	3	CW50	CW45
VG35.5 x 65.5		31-13/16	22-1/2	5.0	11.8	2.5	3	CW40	CW40
VG35.5 x 71.5	E ₁	31-13/16	24-7/8	5.5	13.0	2.5	3	CW30	CW30
VG39.5 x 41.5		35-13/16	12-7/8	3.2	7.7	2.5	3	CW50	CW45
VG39.5 x 45.5		35-13/16	14-1/2	3.6	8.7	2.5	3	CW50	CW45
VG39.5 x 47.5		35-13/16	15-1/4	3.8	9.1	2.5	3	CW50	CW45
VG39.5 x 51.5		35-13/16	16-7/8	4.2	10.1	2.5	3	CW50	CW45
VG39.5 x 53.5		35-13/16	17-11/16	4.4	10.5	2.5	3	CW50	CW45
VG39.5 x 57.5		35-13/16	19-1/4	4.8	11.5	2.5	3	CW50	CW45
VG39.5 x 59.5		35-13/16	19-15/16	5.0	11.9	2.5	3	CW50	CW45
VG39.5 x 61.5		35-13/16	20-7/8	5.2	12.4	2.5	3	CW45	CW45
VG39.5 x 65.5		35-13/16	22-1/2	5.6	13.4	2.5	3	CW40	CW40
VG39.5 x 71.5	E	35-13/16	24-7/8	6.2	14.8	2.5	3	CW30	CW30
VG41.5 x 41.5		37-13/16	12-7/8	3.4	8.2	2.5	3	CW50	CW45
VG41.5 x 45.5		37-13/16	14-1/2	3.8	9.2	2.5	3	CW50	CW45
VG41.5 x 47.5		37-13/16	15-1/4	4.0	9.7	2.5	3	CW50	CW45
VG41.5 x 51.5		37-13/16	16-7/8	4.4	10.7	2.5	3	CW50	CW45
VG41.5 x 53.5		37-13/16	17-11/16	4.6	11.2	2.5	3	CW50	CW45
VG41.5 x 57.5		37-13/16	19-1/4	5.1	12.2	2.5	3	CW45	CW45
VG41.5 x 59.5		37-13/16	19-15/16	5.3	12.7	2.5	3	CW45	CW45
VG41.5 x 61.5		37-13/16	20-7/8	5.5	13.2	2.5	3	CW45	CW45
VG41.5 x 65.5		37-13/16	22-1/2	5.9	14.1	2.5	3	CW40	CW40
VG41.5 x 71.5	E	37-13/16	24-7/8	6.5	15.6	2.5	3	CW30	CW30

Egress Notes:

Check all applicable local codes for emergency egress requirements.

E = Window meets minimum clear opening of 24" height, 20" width, and 5.7 ft².

E₁ = Window meets minimum clear opening of 24" height, 20" width, and 5.0 ft².

(1) Maximum performance when glazed with the appropriate glass thickness.

To convert area to square meters (m²), multiply square feet by 0.0929.



Detailed Product Description - Aluminum-Clad Exterior

Frame

- Select softwood, immersion treated with Pella's EnduraGuard® wood protection formula in accordance with WDMA I.S.-4. The EnduraGuard formula includes three active ingredients for protection against the effects of moisture, decay, stains from mold and mildew. Plus, an additional ingredient adds protection against termite damage.
- Interior exposed surfaces are [clear pine] [mahogany] [douglas fir].
- Exterior surfaces are clad with aluminum.
- Components are assembled with screws, staples and concealed corner locks.
- Overall frame depth is 5" (127mm) for a wall depth of 3-11/16" (94mm).
- Optional factory applied jamb extensions available between 3-13/16" (97mm) and 9-3/16" (233mm).
- Vinyl jamb liner with wood / clad inserts.
- Optional factory installed fold-out installation fins with flexible fin corners.
- Optional factory-applied EnduraClad® exterior trim.
- Optional factory-installed Pella Steady Set Installation System.

Sash

- Select softwood, immersion treated with Pella's EnduraGuard® wood protection formula in accordance with WDMA I.S.-4. The EnduraGuard formula includes three active ingredients for protection against the effects of moisture, decay, stains from mold and mildew. Plus, an additional ingredient adds protection against termite damage.
- Interior exposed surfaces are [clear pine] [mahogany] [douglas fir]. Any curved member may have visible finger-jointed surfaces.
- Exterior surfaces are clad with extruded aluminum butt-jointed at all corners of the sash with through-stile construction and sealed.
- Corners mortised and tenoned, glued and secured with metal fasteners.
- Sash thickness is 1-7/8" (47mm).
- Double-Hung: Upper sash has surface-mounted wash locks for easy tilt-in cleaning] [Single-Hung: Fixed upper sash has surface-mounted wash locks] [Arch Head units have no wash locks].
- Lower sash has concealed wash locks in lower check rail allowing sash to tilt in for easy cleaning.
- Simulated-Hung units have non-operable upper and lower sashes.
- Sash exterior profile is [ogee] [putty glaze], interior profile is ogee.

Weatherstripping

- Water-stop santoprene-wrapped foam at head and sill.
- Thermoplastic elastomer bulb with slip-coating set into lower sash for tight contact at check rail.
- Kerf mounted bristle weatherstrip at sill.
- Vinyl-wrapped foam inserted into jamb liner to seal against sides of sash.

Glazing System

- Quality float glass complying with ASTM C 1036.
- Custom and high altitude glazing available.
- Silicone-glazed dual-pane 11/16" dual-seal insulating glass [[annealed] [tempered]], [[clear] [[Advanced] [SunDefense™] [SunDefense+] [NaturalSun] [NaturalSun+] [AdvancedComfort] Low-E [with argon]] [[bronze] [gray] [green] Advanced Low-E [with Argon]] [obscure] [Reflective Bronze].
– or –
- Silicone-glazed dual-pane 13/16" dual-seal [[annealed] [tempered]] non-impact laminated glass [[clear] [[Advanced] [SunDefense] Low-E [with Argon]] [[bronze] [gray] [green] Advanced Low-E [with argon]].

Exterior

- Aluminum-clad exteriors shall be finished with EnduraClad® protective finish, in a multi-step, baked-on finish.
 - Color is [standard] [feature] [custom]₁.
– or –
- Aluminum-clad exteriors shall be finished with EnduraClad Plus protective finish with 70% fluoropolymer resin in a multi-step, baked-on finish.
 - Color is [standard] [feature] [custom]₁.

Interior

- [Unfinished, ready for site finishing] [factory primed with one coat acrylic latex] [pine: factory prefinished [paint] [stain]₁].

Hardware

- Galvanized block-and-tackle balances are connected to self-locking balance shoes which are connected to the sashes using zinc die cast terminals and concealed within the frame.
- Sash lock is [standard (cam-action)] [historic spoon-style] [air-conditioner lock] [simulated lock (Single-piece lock ties upper and lower sash together. When removed lower sash becomes operable)]. Two sash locks on units with frame width 37" and greater.
- Optional sash lift furnished for field installation. Two lifts on units with frame width 37" and greater.
- Hardware finish is [baked enamel [Champagne] [White] [Brown] [Matte Black]] [Satin Brass] [Satin Nickel] [Oil-rubbed Bronze] [Distressed Bronze] [Distressed Nickel].

Optional Products

Sash

- Exterior sash lugs
 - Optional factory applied accessory. Exterior finish is [Standard]₁ [Custom]₁.

Grilles

- Integral Light Technology® grilles
 - Interior grilles are [5/8"] [7/8"] [1-1/4"] [2"] ogee profile that are solid [pine] [mahogany] [douglas fir]. Interior surfaces are [unfinished, ready for site finishing] [factory primed] [pine: factory prefinished [paint] [stain]₁].
 - Exterior grilles are [5/8" putty glaze profile] [7/8" [putty glaze] [ogee] profile] [1-1/4" [putty glaze] [ogee] profile] [2" ogee profile] that are extruded aluminum.
 - Patterns are [Traditional] [Prairie] [Top Row] [New England] [Victorian].
 - Insulating glass contains non-glare spacer between the panes of glass.
 - Grilles are adhered to both sides of the insulating glass with VHB acrylic adhesive tape and aligned with the non-glare spacer.
– or –
- Grilles-Between-the-Glass₂
 - Insulating glass contains 3/4" contoured aluminum grilles permanently installed between two panes of glass.
 - Patterns are [Traditional] [9-Lite Prairie] [Cross] [Top Row]
 - Interior color is [White] [Tan₃] [Brown₃] [Putty₃] [Black] [Ivory] [Harvest] [Cordovan] [Brickstone].
 - Exterior color₄ is [standard]₁.

Screens

- Integrated Rolscreen® (for rectangular units only)₆
 - Retractable screen integrated into [lower sash] [both upper and lower sash]. Screen rollers are fixed and concealed within the frame, screen is held to the sash by magnets which release when the bottom sash is tilted for cleaning, and when the upper sash is opened past 18".
 - InView Screen cloth, black vinyl-coated 18/18 mesh fiberglass screen cloth complying with ASTM D 3656 and the performance requirements of SMA 1201.
– or –
- InView™ screens
 - [Half-Size] [Full-Size₄] black vinyl-coated 18/18 mesh fiberglass screen cloth complying with the performance requirements of SMA 1201, set in a [standard roll-form] [premium extruded] aluminum frame fitted to outside of window, supplied complete with all necessary hardware.
 - Full screen spreader bar placed on units > 37" width or > 65" height.
 - Screen frame finish is [standard screen: baked enamel] [premium extruded: baked enamel], color to match window cladding.

Hardware

- Optional factory applied limited opening device available for vent units in stainless steel; nominal 3-3/4" opening. Limiting device concealed from view.
- Optional factory applied window opening control device. Device allows window to open less than 4" with normal operation, with a release mechanism that allows the sash to open completely. Complies with ASTM F2090-10.

(1) Contact your local Pella sales representative for current designs and color options.

(2) Available in clear or Low-E insulating glass only.

(3) Tan, Brown and Putty Interior GBG colors are available in single-tone (Brown/Brown, Tan/Tan or Putty/Putty). Other interior colors are also available with Tan or Brown exterior.

(4) Appearance of exterior grille color will vary depending on Low-E coating on glass.

(5) Full screens are available on units ≤ 96" height.

(6) Integrated Rolscreen only available on sizes ≥ 34" tall and 21" wide, and ≤ 84" tall and 48" wide.



Detailed Product Description - Wood Exterior

Frame

- Select softwood, immersion treated with Pella's EnduraGuard® wood protection formula in accordance with WDMA I.S.-4. The EnduraGuard formula includes three active ingredients for protection against the effects of moisture, decay, stains from mold and mildew. Plus, an additional ingredient adds protection against termite damage.
- Interior exposed surfaces are [clear pine] [mahogany] (standard rectangular windows only). Any curved member may have visible finger-jointed surfaces.
- Exterior surfaces are [pine] [mahogany].
- Overall frame depth is 4-3/8" (111mm) for a wall depth of 4-3/16" (106mm).
- Vinyl Jamb liner includes wood / clad inserts.
- Optional factory applied jamb extensions available between 4-5/16" (110mm) and 9-3/16" (233mm).

Sash

- Select softwood, immersion treated with Pella's EnduraGuard® wood protection formula in accordance with WDMA I.S.-4. The EnduraGuard formula includes three active ingredients for protection against the effects of moisture, decay, stains from mold and mildew. Plus, an additional ingredient adds protection against termite damage.
- Interior exposed surfaces are [clear pine] [mahogany] (standard rectangular windows only). Any curved member may have visible finger-jointed surfaces.
- Exterior surfaces are [pine] [mahogany].
- Sash exterior profile is putty glaze, interior profile is ogee.
- Corners [mortised and tenoned on rectangular units] [mitered on arch head units], glued and secured with metal fasteners.
- Sash thickness is 1-7/8" (47mm).
- [Double-Hung: Upper sash has surface-mounted wash locks] [Single-Hung: Fixed upper sash has surface-mounted wash locks] [Arch Head units have no wash locks].
- Lower sash has concealed wash locks in lower check rail.
- Sashes tilt in for easy cleaning.
- Simulated-Hung units have non-operable upper and lower sashes.

Weatherstripping

- Water-stop santoprene-wrapped foam at head and sill. Thermoplastic elastomer bulb with slip-coating set into lower sash for tight contact at check rail.
- Kerf mounted bristle weatherstrip at sill.
- Vinyl-wrapped foam inserted into jamb liner to seal against sides of sash.

Glazing System

- Quality float glass complying with ASTM C 1036.
- Custom and high altitude glazing available.
- Silicone-glazed 11/16" dual-seal insulating glass [[annealed] [tempered]] [[clear] [[Advanced] [SunDefense™] [SunDefense+] [AdvancedComfort] [NaturalSun] [NaturalSun+] Low-E [with argon]] [bronze] [gray] [green] Advanced Low-E with argon].

Exterior

- [Pine: factory primed with one coat acrylic latex] [Mahogany: [factory primed with one coat acrylic latex] [Unfinished, ready for site finishing]].

Interior

- [Unfinished, ready for site finishing] [factory primed with one coat acrylic latex] [pine: factory prefinished [paint] [stain]₁].

Hardware

- Galvanized block-and-tackle balances are connected to self-locking balance shoes which are connected to the sashes using zinc die cast terminals and concealed within the frame.
- Sash lock is [standard (cam-action)] [historic spoon-style] [air-conditioner lock] [simulated lock (Single-piece lock ties upper and lower sash together. When removed lower sash becomes operable)]. Two sash locks on units with frame width 37" and greater.
- Optional sash lift furnished for field installation. Two lifts on units with frame width 37" and greater.
- Hardware finish is [baked enamel [Champagne] [White] [Brown] [Matte Black]] [satin brass] [satin nickel] [oil-rubbed bronze] [distressed bronze] [distressed nickel].

Optional Products

Grilles

- Integral Light Technology® grilles
 - Interior grilles are solid [5/8"] [7/8"] [1-1/4"] ogee profile that are solid [pine] [mahogany]. Interior surfaces are [unfinished, ready for site finishing] [factory primed] [pine: factory prefinished [paint] [stain]₁].
 - Exterior grilles are solid [5/8"] [7/8"] [1-1/4"] putty glaze profile that are [pine] [mahogany]. Exterior surfaces are water repellent, preservative-treated in accordance with WDMA I.S.-4, and are [unfinished, ready for site finishing] [factory primed].
 - Patterns are [Traditional] [Prairie] [Top Row] [New England] [Victorian].
 - Insulating glass contains non-glare spacer between the panes of glass.
 - Grilles are adhered to both sides of the insulating glass with VHB acrylic adhesive tape and aligned with the non-glare spacer
– or –
- Grilles-Between-the-Glass₂
 - Insulating glass contains 3/4" contoured aluminum grilles permanently installed between two panes of glass.
 - Patterns are [Traditional] [9-Lite Prairie] [Cross] [Top Row]
 - Interior color is [White] [Tan₃] [Brown₃] [Putty₃] [Black] [Ivory] [Harvest] [Cordovan] [Brickstone].
 - Exterior color₅ is [standard]₁.

Screens

- InView™ Screens
 - [Half-Size] [Full-Size₄] black vinyl-coated 18/18 mesh fiberglass screen cloth complying with the performance requirements of SMA 1201, set in a [standard roll-form aluminum frame with 3/4" wide rails and stiles] [premium extruded aluminum frame with 1" wide rails and stiles] fitted to outside of window, supplied complete with all necessary hardware.
 - Full screen spreader bar placed on units > 37" width or > 65" height.
 - Insect screen frame finish is baked enamel.

Hardware

- Optional factory applied limited opening device available for vent units in stainless steel; nominal 3-3/4" opening. Limiting device concealed from view.
- Optional factory applied window opening control device. Device allows window to open less than 4" with normal operation, with a release mechanism that allows the sash to open completely. Complies with ASTM F2090-10.

(1) Contact your local Pella sales representative for current designs and color options.

(2) Available in clear or Low-E insulating glass with argon, and obscure insulated glass.

(3) Tan, Brown and Putty Interior GBG colors are available in single-tone (Brown/Brown, Tan/Tan or Putty/Putty). Other interior colors are also available with Tan or Brown exterior.

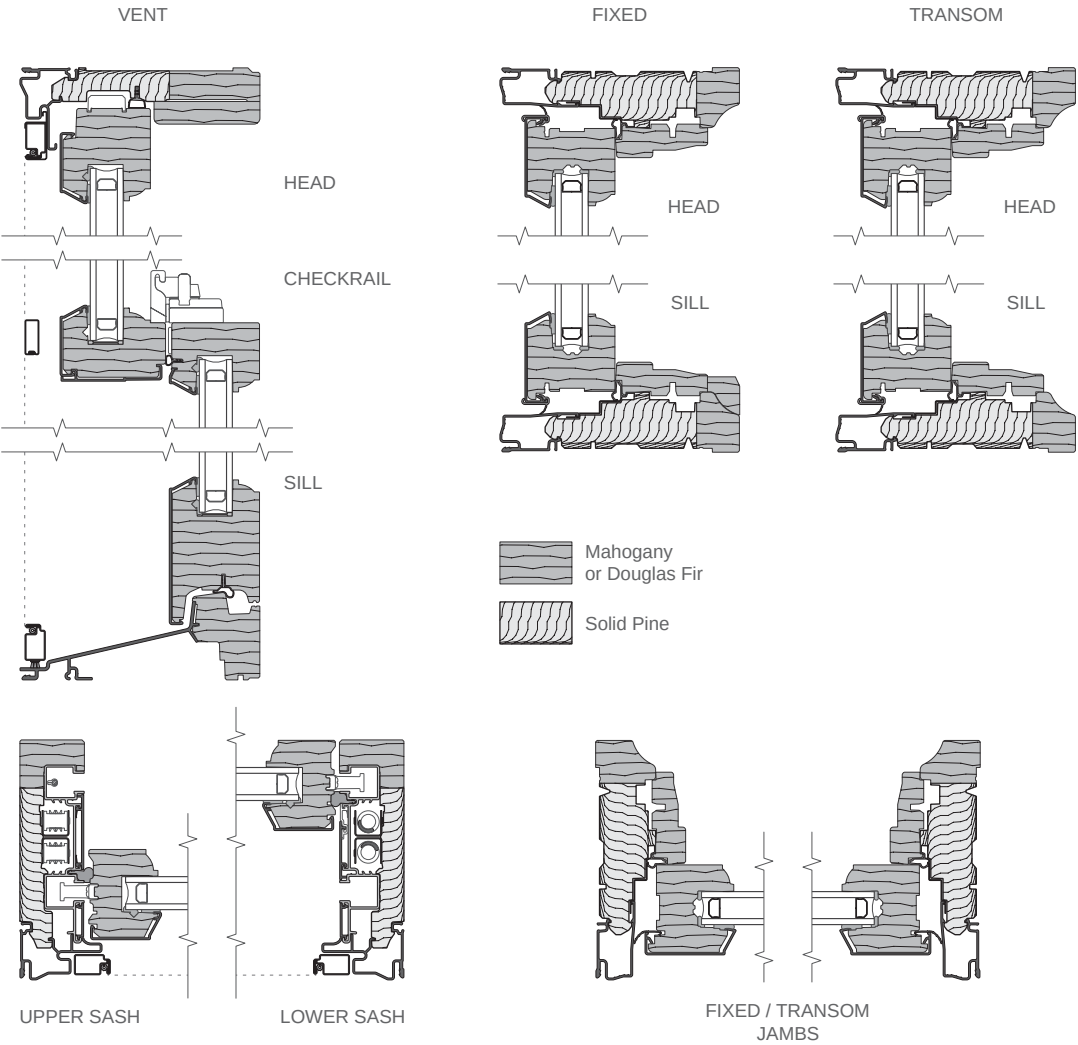
(4) Full screens are available on units ≤ 96" height.

(5) Appearance of exterior grille color will vary depending on Low-E coating on glass.



Pella® Reserve™ Traditional Hung Window

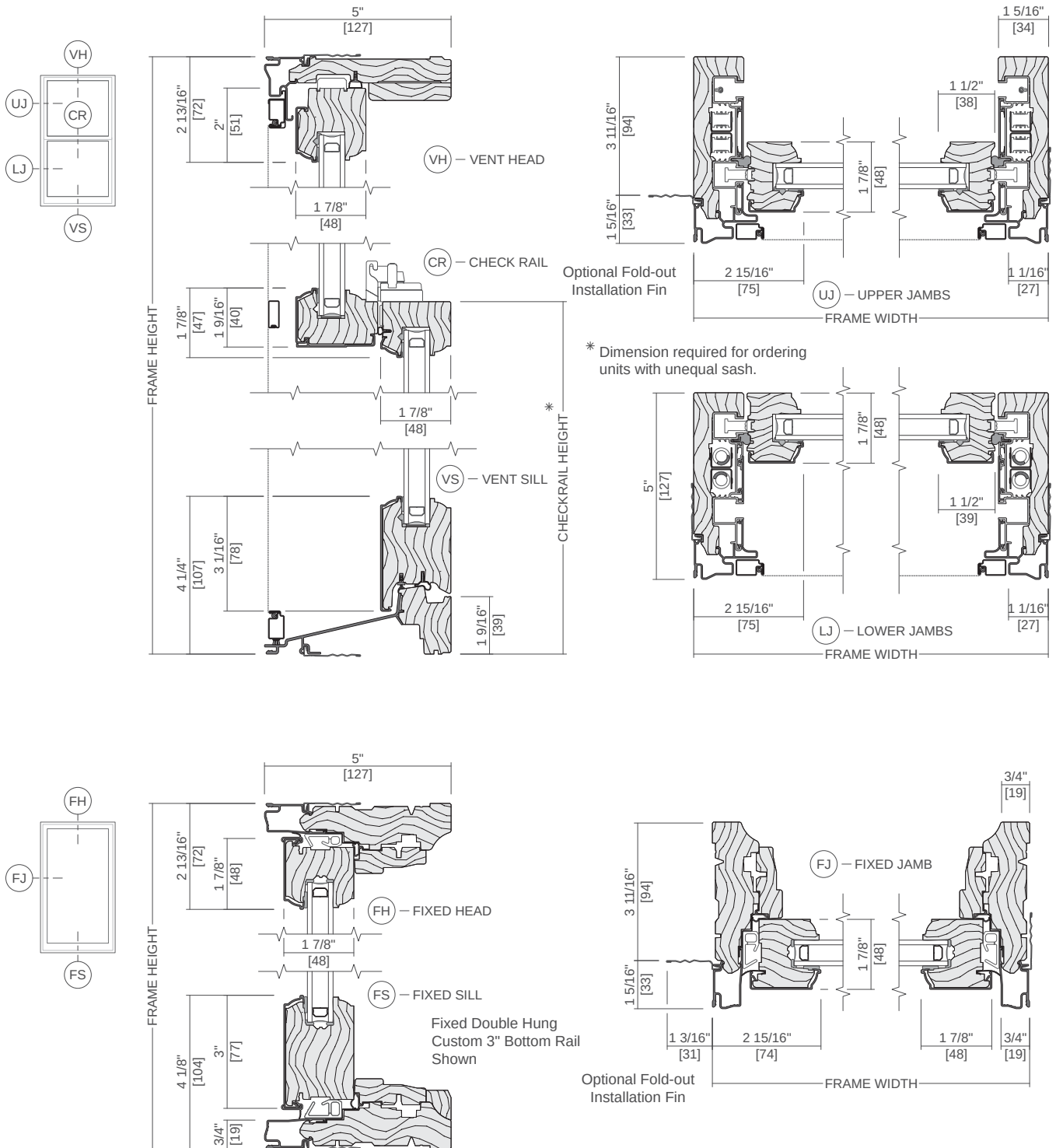
Unit Sections – Wood Collection





Pella® Reserve™ Traditional Hung Window

Unit Sections - Aluminum-Clad Ogee Exterior Glazing Profile



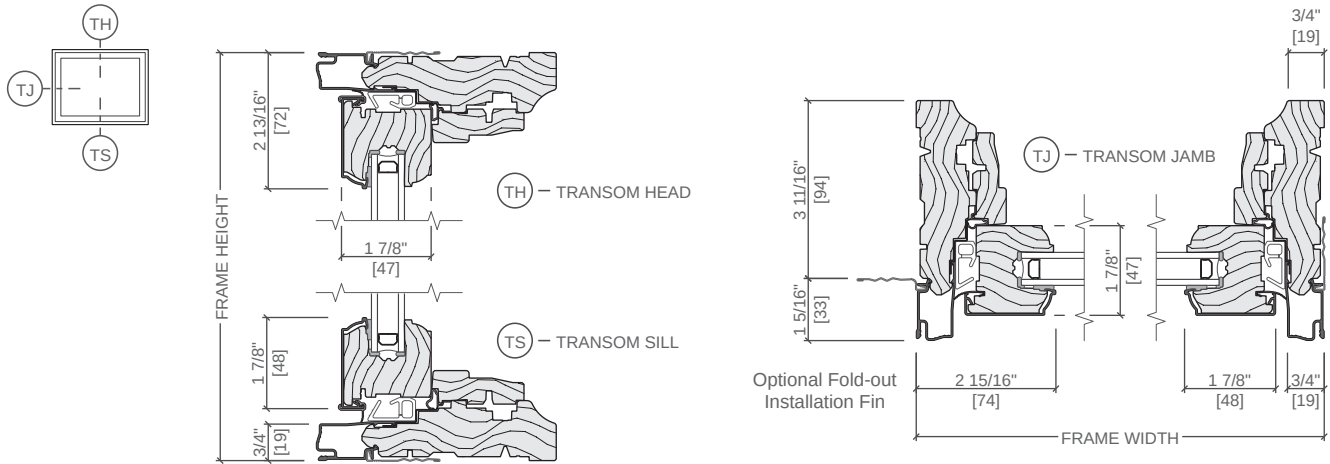
Scale 3" = 1' 0"

All dimensions are approximate.

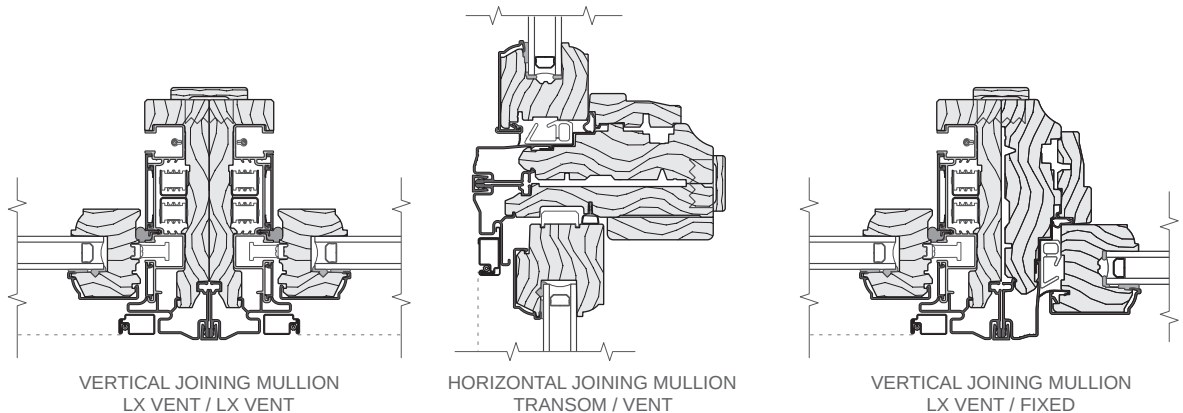


Pella® Reserve™ Traditional Hung Window

Unit Sections - Aluminum-Clad Ogee Exterior Glazing Profile



Typical Joining Mullions



Scale 3" = 1' 0"

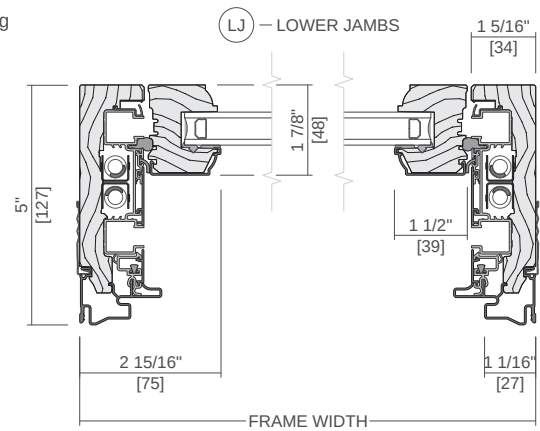
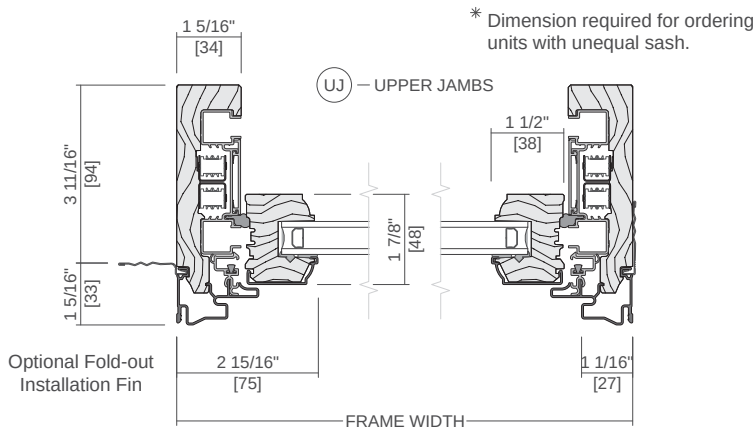
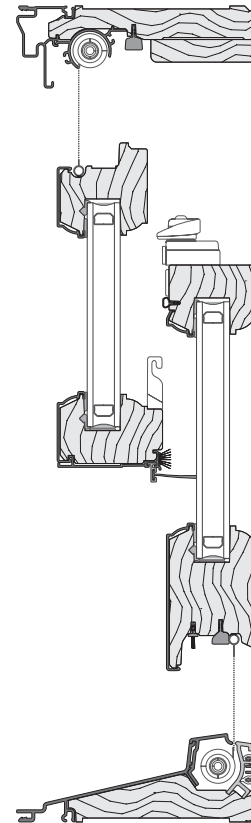
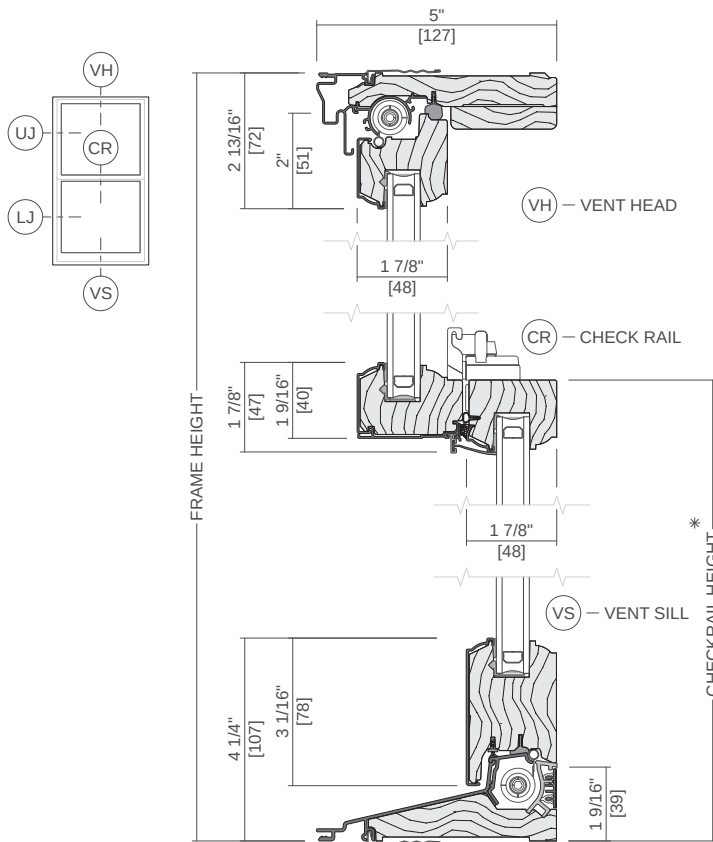
All dimensions are approximate.

See supporting document Combination Recommendations, for mullion limitations and reinforcing requirements.



Pella® Reserve™ Traditional Hung Window

Unit Sections - Aluminum-Clad Ogee Exterior Glazing Profile with Integrated Rolscreen®



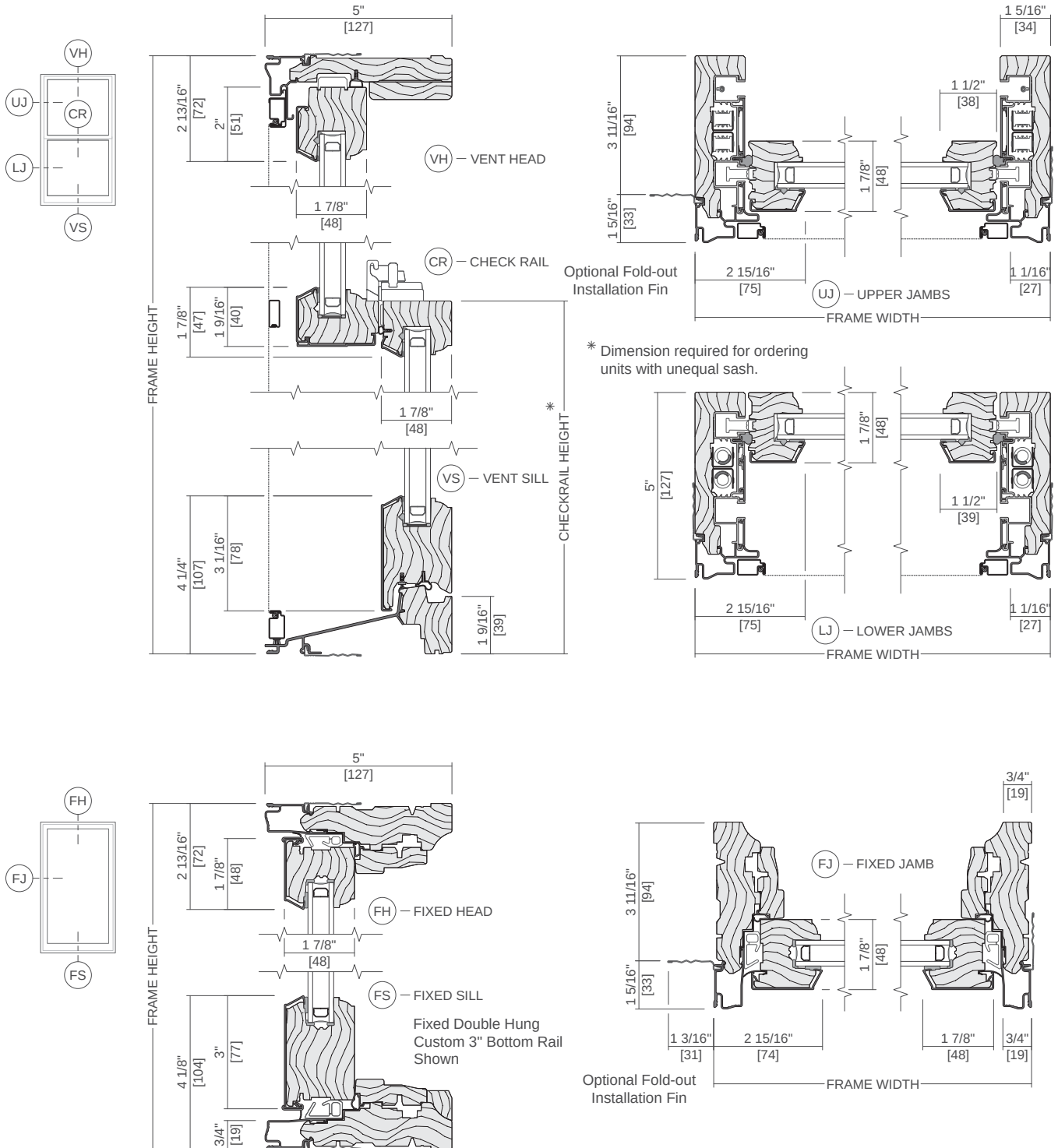
Scale 3" = 1' 0"

All dimensions are approximate.



Pella® Reserve™ Traditional Hung Window

Unit Sections - Aluminum-Clad Putty Glaze Exterior Profile



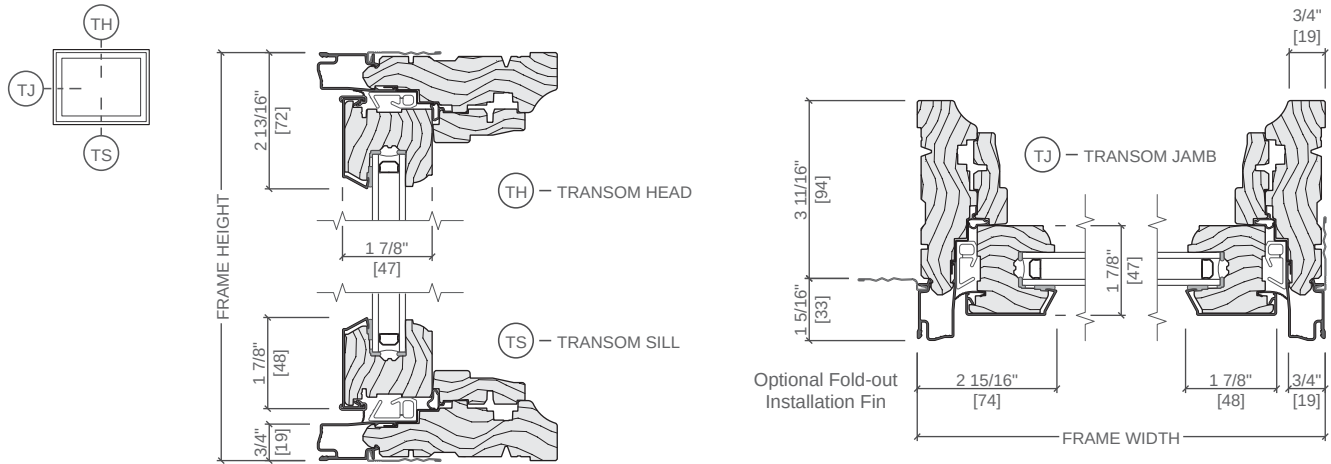
Scale 3" = 1' 0"

All dimensions are approximate.

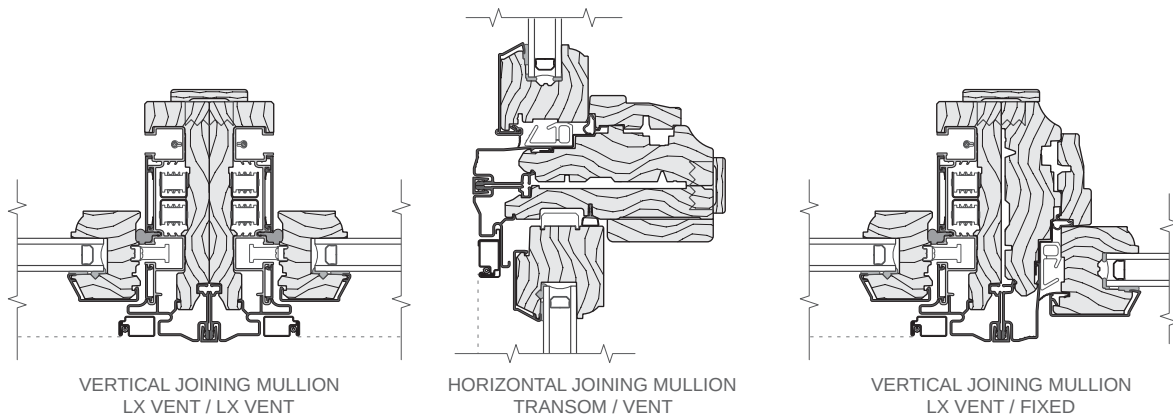


Pella® Reserve™ Traditional Hung Window

Unit Sections - Aluminum-Clad Putty Glaze Exterior Profile



Typical Joining Mullions



Scale 3" = 1' 0"

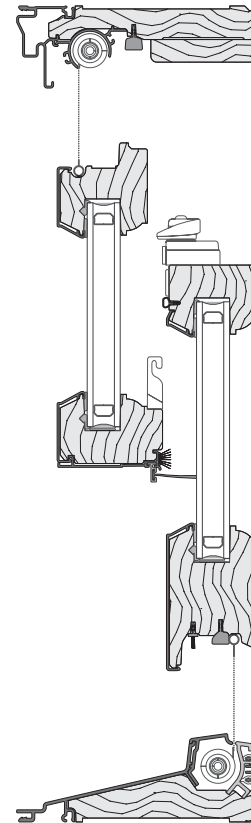
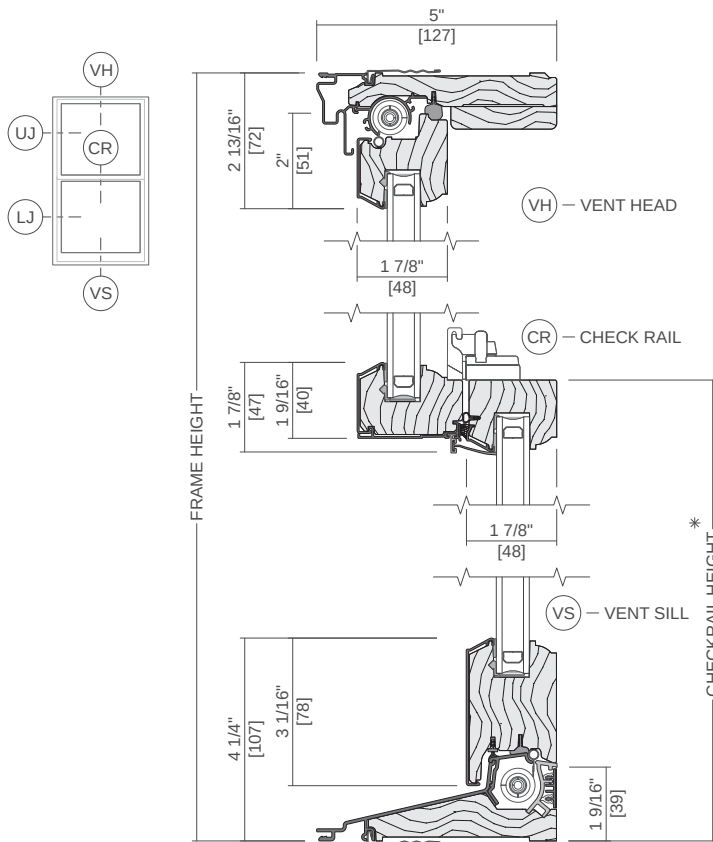
All dimensions are approximate.

See supporting document Combination Recommendations, for mullion limitations and reinforcing requirements.

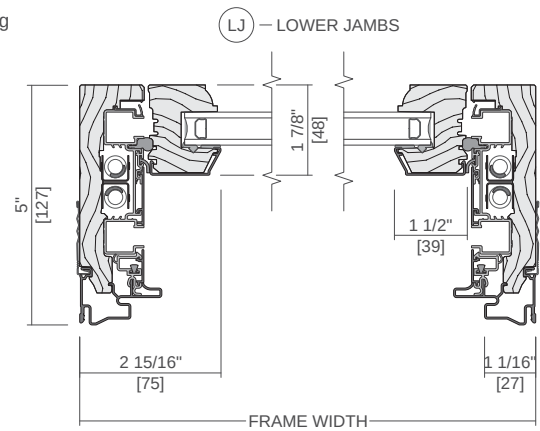
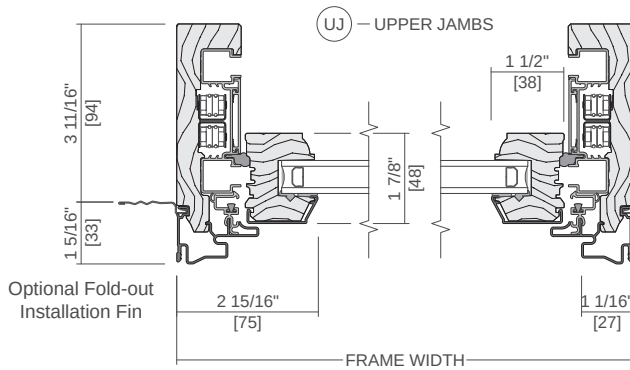


Pella® Reserve™ Traditional Hung Window

Unit Sections - Aluminum-Clad Putty Glaze Exterior Profile with Integrated Rolscreen®



* Dimension required for ordering units with unequal sash.



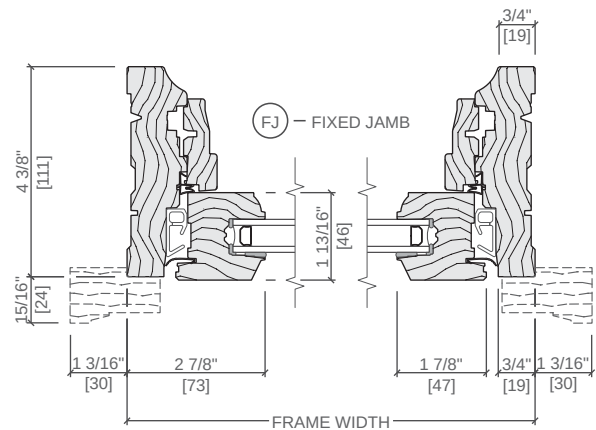
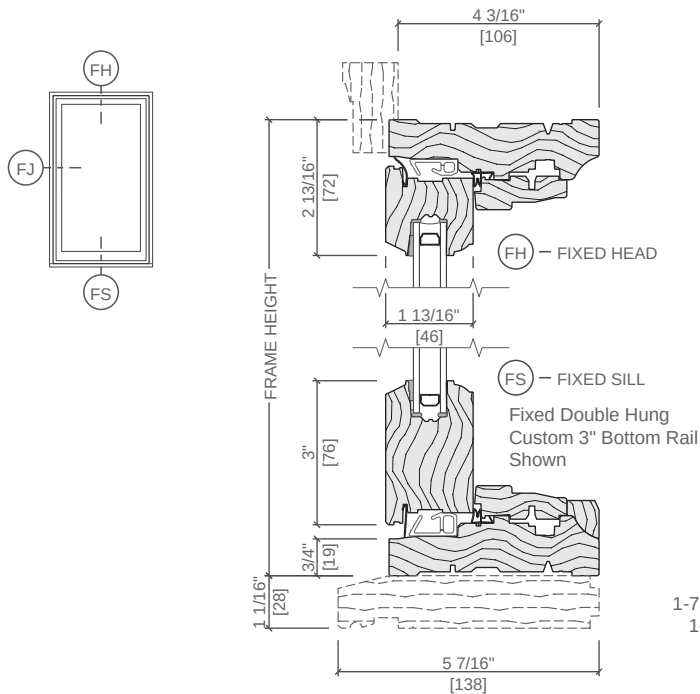
Scale 3" = 1' 0"

All dimensions are approximate.

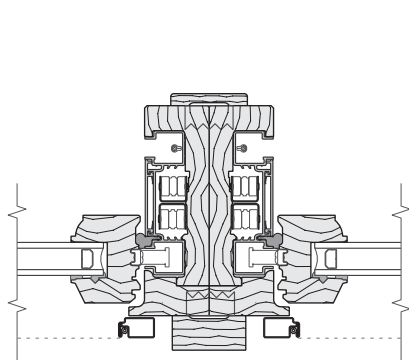
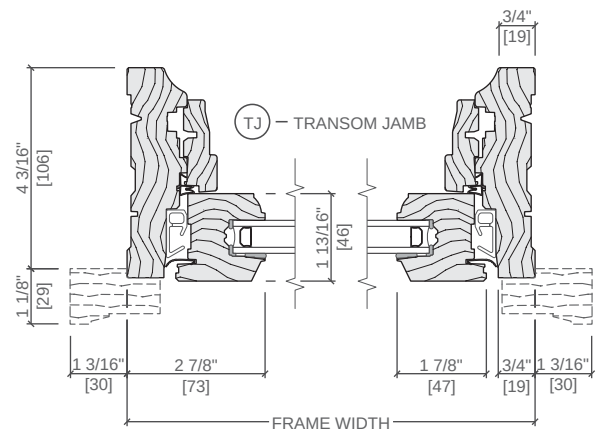
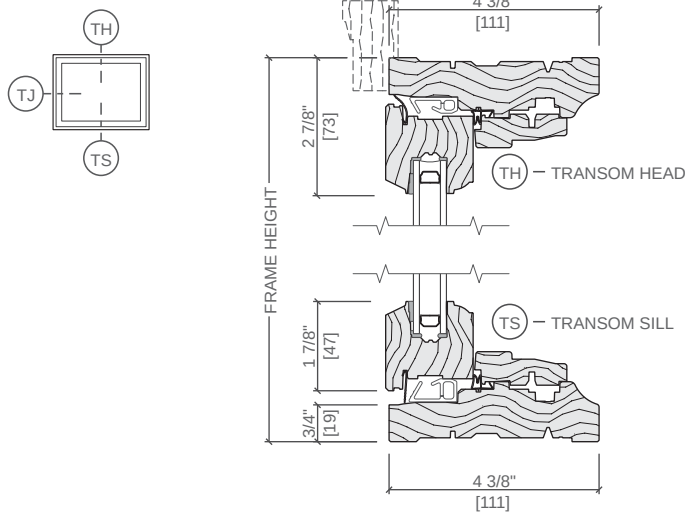


Pella® Reserve™ Traditional Hung Window

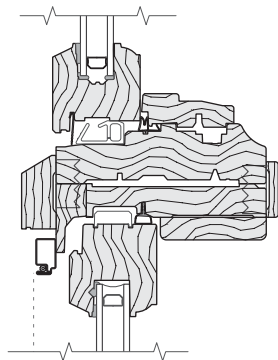
Unit Sections - Wood Exterior Putty Glaze Exterior Profile



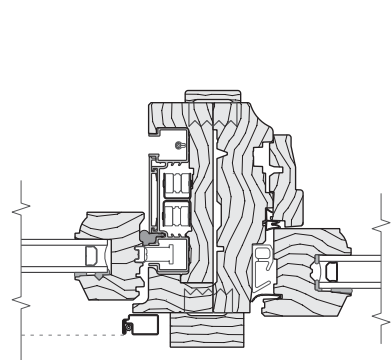
1-78" Brickmould #3443
1-1/8" Subsill #3544
Shown



VERTICAL JOINING MULLION
LX VENT / LX VENT



HORIZONTAL JOINING MULLION
TRANSOM / VENT



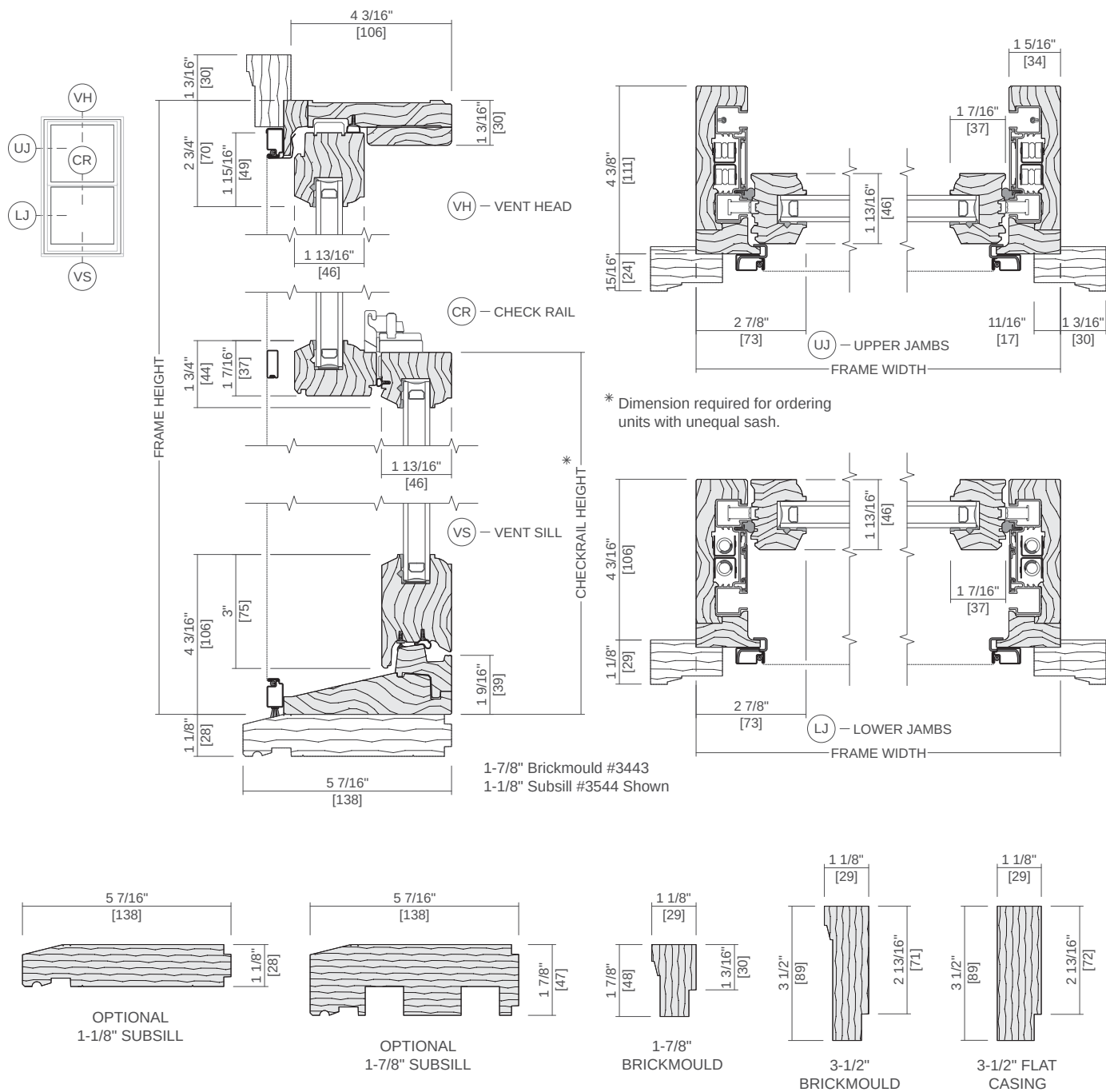
VERTICAL JOINING MULLION
LX VENT / FIXED

Scale 3" = 1' 0"

All dimensions are approximate.

See supporting document Combination Recommendations, for mullion limitations and reinforcing requirements.

Unit Sections - Wood Exterior Putty Glaze Exterior Profile



FLORIDA MASTER SITE FILE
Site Inventory Form

FDAHRM 802 = =
1009 = =
Site No. #52690 28372-009-00
Survey Date 8303 820 = =
905 = =

Site Name _____
Address of Site: 216 S.E. 13th Ave.
Instruction for locating 216 S.E. 13th Ave. 813 = =
Ocala, Fla. 32671 868 = =
Location: E. Ft. King N. 1/2 lots 9 & 10
subdivision name block no. lot no. 808 = =
County: Marion CORBETT, CINDY
Owner of Site: Name: Davis, Lloyd W.
Address: 216 S.E. 13th Ave. 902 = =
Ocala, Fla. 32671 832 = =
Type of Ownership Private 848 = = Recording Date _____
Recorder: Tate, Susan (Preservation ARchitect)
Name & Title: _____
Address: University of Florida - College of Architecture 818 = =
Gainesville, Fla. 32611 838 = =

Condition of Site: Integrity of Site: Original Use Residence 850 = =
Check One Check One or More
☐ Excellent 863 = = ☒ Altered 858 = =
☒ Good 863 = = ☐ Unaltered 858 = =
☐ Fair 863 = = ☒ Original Site 858 = =
☐ Deteriorated 863 = = ☐ Restored () (Date: X) 858 = =
☐ Moved () (Date: X) 858 = =
Present Use Residence 850 = =
Dates: Beginning C+ 1930 844 = =
Culture/Phase American 840 = =
Period 20th Century 845 = =

NR Classification Category: Building 916 = =
Threats to Site:
Check One or More
☒ Zoning (X) 878 = = ☐ Transportation (X) 878 = =
☒ Development (X) 878 = = ☐ Fill (X) 878 = =
☐ Deterioration (X) 878 = = ☐ Dredge (X) 878 = =
☐ Borrowing (X) 878 = =
☐ Other (See Remarks Below): 878 = =
910 = =

Areas of Significance: Architecture

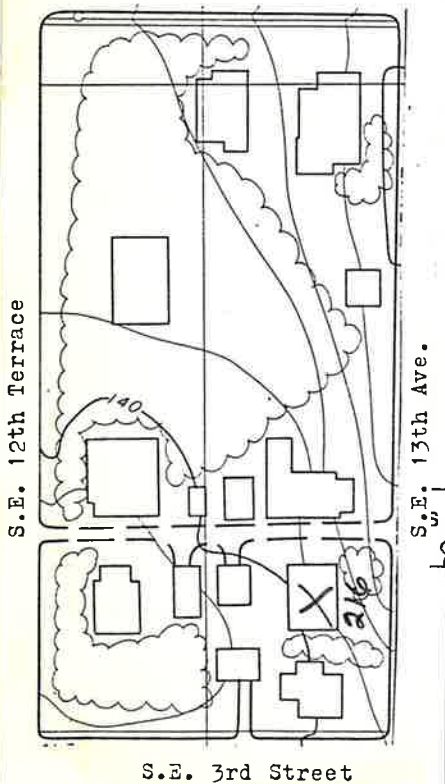
Significance:

This is a typical gable roofed wood frame residence built in 1930 according to the Property Record Cards at the Tax Assessor's Office. It is in East Ft. King platted in 1928.

911 = =

ARCHITECT _____ 872 = =
 BUILDER _____ 874 = =
 STYLE AND/OR PERIOD Frame vernacular 964 = =
 PLAN TYPE H shape 966 = =
 EXTERIOR FABRIC(S) Asbestos shingles 854 = =
 STRUCTURAL SYSTEM(S) _____ 856 = =
 PORCHES East facing front facade _____ 942 = =
 FOUNDATION: Brick piers 942 = =
 ROOF TYPE: Gable/hip 942 = =
 SECONDARY ROOF STRUCTURE(S): _____ 942 = =
 CHIMNEY LOCATION: Interior East slope 942 = =
 WINDOW TYPE: 6/6 SH wood, 4/4 DH wood 942 = =
 CHIMNEY: Brick 882 = =
 ROOF SURFACING: Asphalt composition shingles 882 = =
 ORNAMENT EXTERIOR: _____ 882 = =
 NO. OF CHIMNEYS One 952 = = NO. OF STORIES One 950 = =
 NO. OF DORMERS _____ 954 = =
 Map Reference (incl. scale & date) _____ 809 = =
 Latitude and Longitude: _____ 800 = =
 Site Size (Approx. Acreage of Property): _____ 833 = =

155 ✓
 LOCATION SKETCH OR MAP
 S.E. Fort King Street



N

Township	Range	Section
15S.	22E	SE1/4 17

UTM Coordinates:

Zone Easting Northing

890 = =



83N5216(25)



Ocala

Legislation Text

110 SE Watula Avenue
Ocala, FL 34471

www.ocalafl.gov

File #: 2026-1296

Agenda Item #: c.

Submitted By: Charlita Whitehead

Presentation By: Charlita Whitehead

Department: Growth Management

FORMAL TITLE:

Case File #136; COA26-0024; 722 NE Second Street. Construction of a rear addition, alter an existing rear window opening to accommodate French doors, and construction of a rear landing and steps

PROOF OF PUBLICATION:

N/A

BACKGROUND:

Petitioner/ Property Owner: Andrew and Samantha Harrison

Project Planner: Charlita Whitehead

Applicant Request:

- Construction of a one-bedroom, one-bathroom rear addition. The proposed addition measures approximately 14 feet by 21 feet, four inches and will utilize siding similar to the existing structure. The addition will incorporate GAF Timberline shingles in a charcoal color and Pella Reserve Traditional wood windows and doors.
- Alteration of an existing rear window opening to accommodate French doors. The proposed Pella Reserve Traditional wood French doors will include a New England grille pattern intended to match the existing architectural style of the residence.
- Construction of a rear landing and steps associated with the proposed addition.

Parcel Information

Acres: 0.14 acres

Parcel(s) #: 2820-046-003

Location: 722 NE 2nd St.

Future Land Use: High Intensity/Central Core

Zoning District: R-3: Multi-Family Residential

Existing Use: Residential

Background:

The home was constructed in 1940 using a frame vernacular building style. The home is a contributing structure to the Tusawilla Historic District.

Previous Certificate(s) of Appropriateness:

- COA26-0042 (2026) - Approved roof replacement on the residence. The applicant is currently in the process of applying for a Community Redevelopment Area (CRA) grant related to the approved reroofing project.

FINDINGS AND CONCLUSIONS:

Staff Analysis

Certificate of Appropriateness Criteria for Decisions (Section 94-82(g)):

The Code states that the Board may issue a certificate of appropriateness (CA) for the reconstruction, alteration, new construction, non-permanent structures, demolition, partial demolition, or removal of any building or structure within a locally designated historic district or any designated local landmark, or any other activity for which a CA is required, if such action is not deemed contrary to the purposes of historic preservation and to the special character of districts, sites and resources as designated specifically. The board's decisions will be based on the Secretary of the Interior's Standards, the city's Historic Preservation Design Guidelines, this chapter, and the following criteria:

1. Exterior alterations shall not diminish the architectural quality or historical character of the building or the building site.

Staff Comments: The proposed project includes a rear one-story addition, alteration of an existing rear window opening to accommodate French doors, and construction of a rear landing and steps. The proposed addition is located at the rear of the residence and is not visible from the public right-of-way. The addition incorporates compatible architectural elements, including similar siding, wood windows and doors, and a shingle roof consistent with the existing structure.

2. Sandblasting of any materials except for iron is prohibited.

Staff Comments: Not applicable.

3. Only through very controlled conditions can most historic building material be abrasively cleaned of soil or paint without measurable damage to the surface or profile of the substrate. Decisions regarding the proper cleaning process for historic structures can be made only after careful analysis of the building fabric, and testing. Generally, wet abrasive cleaning of a historic structure should be conducted within the range of 20 to 100 psi at a range of three to 12 inches.

Staff Comments: Not applicable.

4. Landscaping, signs, parking and site development should be sensitive to the individual building and should be visually compatible with the buildings and environment with which they are visually related.

Staff Comments: Not applicable.

5. New construction shall be visually compatible with the buildings and environment with which the new construction is visually related. When an application involves new construction, the applicant may present conceptual plans to the board for review and comment before the application for a certificate of appropriateness is submitted and before construction drawings of the project are prepared. Aspects to be considered include:

- a. The height, volume, proportion between width and height of the facades, the proportions and relationship between doors and windows, the rhythm of solids and voids created by openings in the facades, the materials used in the facades, the texture inherent in the facades, the colors, pattern and trim used in the facades, and the design of the roof.

Staff Comments: The proposed addition measures approximately 14-feet by 21-feet, four inches and is located at the rear of the residence. The proposed one-story addition continues the existing roof and incorporates compatible materials, including similar siding, roofing materials, as well as wooden windows and doors. The proposed scale and design are consistent with the existing residence.

- b. The existing rhythm created by existing building masses and spaces between them should be preserved.

Staff Comments: The proposed addition maintains the established rhythm of the existing building massing and is appropriately scaled as a subordinate rear addition.

- c. Landscape plans should be visually compatible with the buildings and environment with which the landscaping is visually related.

Staff Comments: Not applicable.

- d. Proportions of existing facades which are visually related shall be maintained when neighboring buildings have a dominant horizontal or vertical expression, that expression should be carried over in the new facade.

Staff Comments: The proposed design maintains consistency in rooflines, materials, and proportions with the existing residence.

- e. Architectural details should be incorporated as necessary to relate the new with the old and to preserve and enhance the inherent architectural characteristics of the area.

Staff Comments: The proposed addition incorporates architectural details intended to relate the new construction to the existing residence, including compatible siding, wood windows, French doors with matching grille patterns, and consistent exterior materials.

- f. Accessory structures shall be compatible with the scale, shape, roof form, materials, and detailing of the main structure to protect the historic integrity of the neighborhood. The accessory structure shall not exceed the maximum height allowed by the applicable zoning or the height of the existing primary structure.

Staff Comments: Not applicable.

Secretary of the Interior's Standards for the Treatment of Historic Properties:

Standards for Rehabilitation

- 9. New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work will be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment. (Standards for Rehabilitation p. 76)

Staff Comments: The proposed rear addition and related improvements are located on the rear elevation of the residence and minimize impacts to the primary architectural features of the historic structure. The addition is subordinate in scale and incorporates compatible materials, proportions, and design elements that relate to the existing residence. Although the proposed French doors alter an existing rear window opening, the change occurs on a non-primary elevation and incorporates materials and detailing compatible with the existing fenestration pattern.

- 10. New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired. (Standards for Rehabilitation p. 76)

Staff Comments: The proposed addition is designed as a compatible expansion of the existing residence. The location, scale, and design of the addition allow the historic character of the original structure to remain identifiable while providing additional living space in a manner that is compatible with the historic resource.

Staff Recommendation:

Appropriate - Final window installation shall be consistent with the submitted Pella Reserve Traditional wood window specifications, including grille configuration, profile, and muntin depth. Any substantial modifications to the approved design shall require additional review and approval prior to installation.

FISCAL IMPACT:

N/A

PROCUREMENT REVIEW:

N/A

LEGAL REVIEW:

N/A

ALTERNATIVE:

- Appropriate
- Appropriate with Conditions
- Table
- Deny



City of Ocala
Growth Management Department
201 S.E. 3rd Street, 2nd Floor
352-629-8421 | www.ocalafl.org

Case File # _____
COA _____ - _____
Meeting Date: _____
Product Approval # _____

Application for a Certificate of Appropriateness (COA)

As required by [Section 94-82\(g\)](#) of the City of Ocala Code of Ordinances, Ocala Historic Preservation Advisory Board (OHPAB) decisions on the COAs will be based on the [Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings](#) the [Ocala Historic Preservation Design Guidelines](#), and the [Ocala Historic Preservation Code](#).

COA Application Procedure:

1. Arrange an informal pre-application conference with Planning staff.
2. Fill out and submit COA application and required material to Planning staff 30 days prior to OHPAB meeting. Please email application packets: historic@ocalafl.org.
3. Attend OHPAB meeting or send a representative with a letter of authorization.
4. Meetings are held the 1st Thursday of each month at 4:00 p.m.
5. Meeting Location: City Council Chambers, 2nd floor of City Hall (110 SE Watula Ave.)

If applicant fails to notify staff and does not attend the meeting, the application may be tabled for one month. If applicant fails to notify staff and does not attend the next monthly meeting, the application may be denied without prejudice.

There is no application fee; however, if work is performed without an approved COA, a fee of \$100 will be assessed.

Parcel #:	2820-046-003	Property Address:	722 NE 2nd St. Ocala, FL 34470
Owner:	Andrew and Samantha Harrison	Owner Address:	722 NE 2nd St. Ocala, FL 34470
Owner Phone #:	954-850-6685	Owner Email:	andrew5180@me.com
Will there be an additional meeting representative? ☐ Yes ☐ No (If yes, representative will need a letter of authorization*)			
If yes, name of representative:			
Rep. Phone #:		Rep. Email:	

Project Type:	☒ Addition ☐ Alteration ☐ Repair	☐ New Construction ☐ Reroof ☐ Relocation	☐ Site Work ☐ Fence ☐ Other _____
---------------	--	---	--



City of Ocala
Growth Management Department
201 S.E. 3rd Street, 2nd Floor
352-629-8421 | www.ocalafl.org

Case File # _____
COA _____ - _____
Meeting Date: _____
Product Approval # _____

Describe, by list, specific changes you are requesting to do to your property. Include the types of materials to be used, as well as dimensions. A site plan must be provided for additions to buildings, new construction (including garages, sheds, other accessory buildings), fences and site work (including driveways, parking areas and other improvements). The site plan must show setbacks of the proposed new work items from property lines. Attach additional pages as necessary.

- Add a 1 bedroom and 1 bathroom additon to the rear of existing residence
- Exterior siding will be similar to existing
- Change a set of windows to a set of French doors on the rear of the house
- Add a deck to the rear of the house
- - Proposed windows: Pella Reserve traditional wood FL17769
 - Grille/ Muttons will be a New England style to match existing style on home
 - Grille Dimensions will be Ogee profiles in 5/8" with a recess depth approx. 3/8"
- Proposed Doors: Pella Reserve Out swing Traditional wood FL14293
 - Details will be the same as windows to match
- Roof materials: GAF Timberline shingles black/ Charcoal in color; FL10124-R36

Required additional materials for submission:

- ☐ Completed and signed COA application
- ☐ Detailed drawings and specifications for all new materials – windows, doors, siding, roofing materials, fencing etc.
- ☐ Site plan
- ☐ Copy of property deed or proof of ownership
- ☐ Authorization letter for non-property owner representative*
- ☐ For New Construction: a set of building plans, no larger than 11 x 17, for structural changes or new construction. This includes all four elevations with drawn to scale dimensions. *
- ☐ Please list any additional attachments:

Applicant Signature

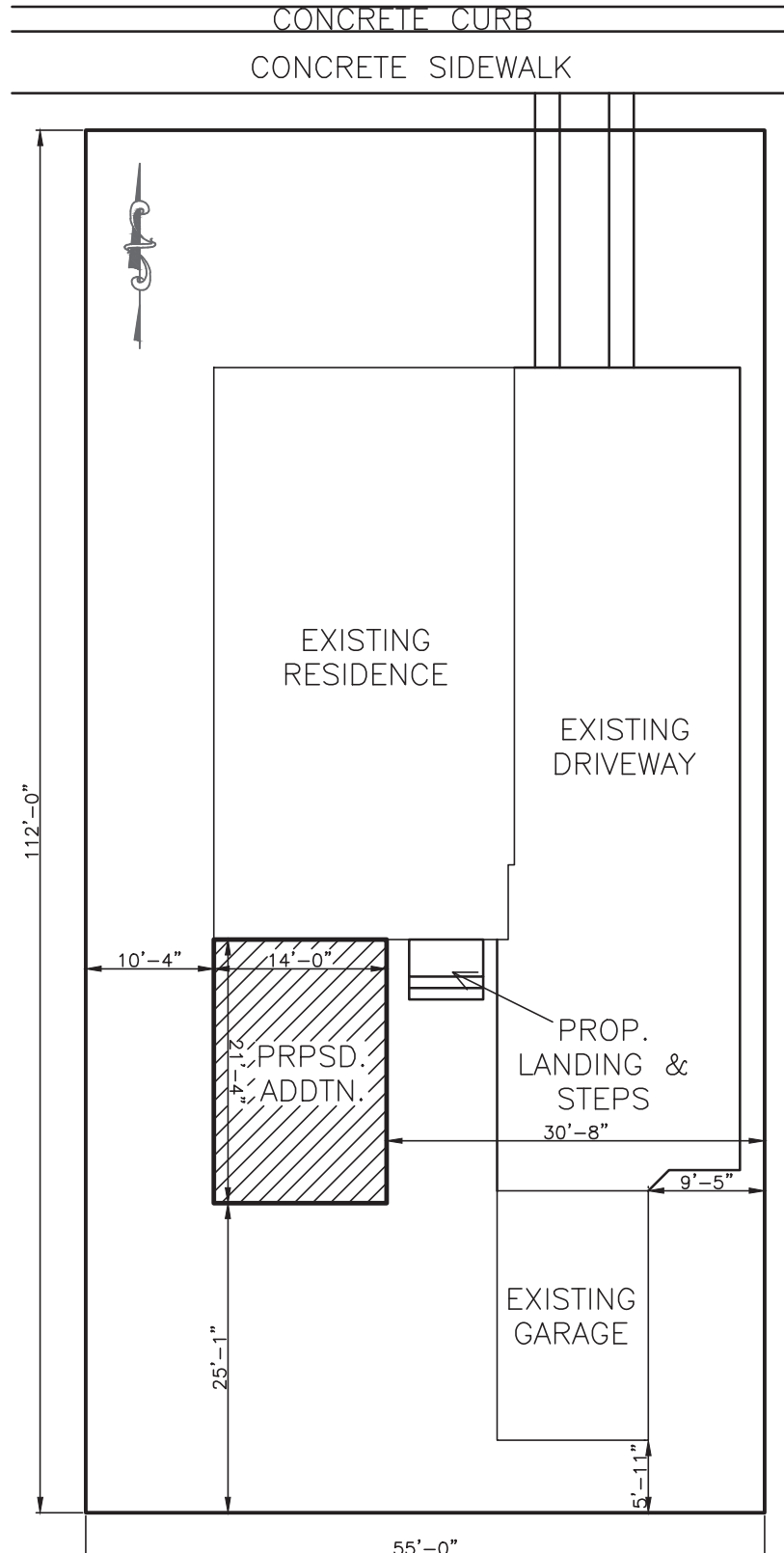
6/6/2026

Date

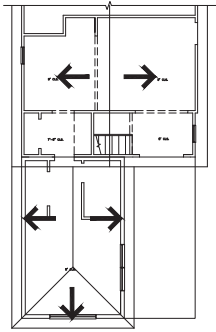
Site Plan

SCALE:
1" = 15'

NE 2ND STREET



Elevations



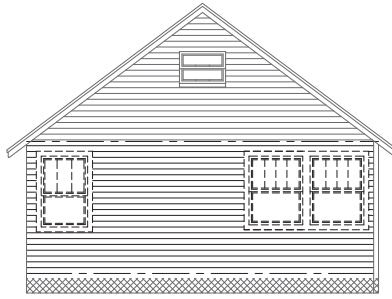
Roof Plan

SCALE: 1/8" = 1'-0"



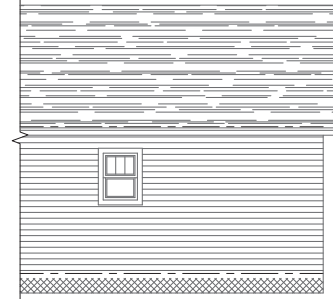
Demo Left Elevation

SCALE: 1/4" = 1'-0"



Demo Rear Elevation

SCALE: 1/4" = 1'-0"



Demo Right Elevation

SCALE: 1/4" = 1'-0"



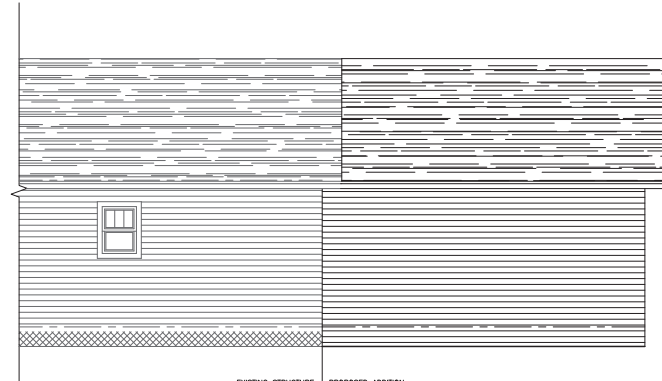
Prop. Left Elevation

SCALE: 1/4" = 1'-0"



Prop. Rear Elevation

SCALE: 1/4" = 1'-0"



Prop. Right Elevation

SCALE: 1/4" = 1'-0"

BUILDING IDENTIFICATION NOTE
MARION COUNTY ORDINANCE #2004-24, REQUIRES HOUSE NUMBERS INSTALLED AT LEAST 4" HIGH AND A COLOR THAT CONTRASTS WITH THE COLOR OF YOUR STRUCTURE. IF THE STRUCTURE IS 50' OR MORE FROM THE STREET, THE NUMBER SHALL BE ADDITIONALLY AFFIXED TO A PERMANENT FIXTURE.

CLIENT	DESCRIPTION	DATE
Harrison Residence	1	1/24/2026
772 NE 2nd Street, Ocala, FL 34470		
Marion County		
ELEVATIONS/ROOF PLAN		
D. White Construction LLC		
Phone: 352-234-3430		
dwhite@whiteconst.com		
P.I.D.: 2820-040-003		
CDE PROJ. NO.: 500.20.005		
DESIGNED R.J.B.	CHECKED J.E.B.	
CALIBER DESIGN & ENGINEERING LLC 2300 SE 17th STREET SUITE 1002 OCALA, FL 34471 (352) 769-6296		
SHEET NO.		
S5		

Photos





Window Material Information

Pella® Reserve™

Traditional Wood & Clad/Wood



Exquisitely designed windows and doors with unparalleled historical detailing.

Double-Hung Interior



Double-Hung Exterior



- **Easy-to-learn Pella Steady Set® interior installation system**

Pella Steady Set Interior Installation System is a revolutionary, award-winning and safer way to install new construction windows.¹ The simple system is the fastest, most labor efficient wood window installation system with uncompromising quality.² Available on select windows.

- **Historical Details**

Our most historically authentic line of wood windows and patio doors. Featuring through-stile construction, deliberate proportions and intricate profiles. Pella Reserve – Traditional products are the ideal choice for historical renovations and traditional building projects.

- **Authentic hardware**

Complement your project with historically authentic spoon-lock window hardware. Our Antiek casement window hardware is inspired by period furniture to deliver authentic traditional style.

- **Architectural interest**

Pella's Integral Light Technology® grille helps capture the look of true-divided-light without sacrificing energy performance. Further your aesthetic with the putty profile, recreated with historically accurate angles to provide meaningful depth and a realistic shadow. Pella Reserve products offer the industry's deepest sash dimension.

- **Virtually unlimited customization**

If you can dream it, we can build it with our most customizable product line. From extra tall to extra wide, Pella can craft unique windows that complement your aesthetic. Custom sizes, grille patterns and designs, finishes, wood types and glass options are available.

- **Tailor-made solutions**

From preliminary drawings to installation, Pella's expert team of architects, engineers, drafters and consultants can work to deliver custom window and door solutions for your project. Partner with Pella to achieve your unique vision without concessions.

- **Intentional innovation**

The award-winning Integrated Rolscreen® retractable screen preserves aesthetics and the view. It is a double- and single-hung screen that appears when you open the window and rolls away, out of sight, when you close it.

- **Durable interiors and extruded aluminum exteriors**

To help you save time on the jobsite, interior finish options are available in a variety of colors, or primed and ready-to-paint. To complement your exterior aesthetic, choose from our carefully curated color palette or define your own custom color for your project.

- **ENERGY STAR® certified³**

Pella wood products offer energy-efficient options that will meet or exceed ENERGY STAR guidelines in all 50 states.

- **Testing beyond requirements**

All wood products and testing are not created equal. Pella raises the bar on industry standard testing and beyond to deliver long-lasting products and reduced callbacks. Every Pella wood window and door passes 5, on average, quality checks before it arrives on the jobsite.

- **Best limited lifetime warranty⁴**

Pella Reserve products are covered by the best limited lifetime warranty in the business for wood windows and patio doors.⁴

Available in these window and patio door styles:



Special shape windows also available.

^{1,2,3,4} See back cover for disclosures

Product Specifications

Window & Patio Door Styles		Min. Width	Min. Height	Max. Width	Max. Height	Performance Values			Frame / Install
						U-Factor	SHGC	STC	
Awning		13-3/4"	13-3/4"	59"	59"	LC30 - CW50	0.25-0.29	0.18-0.47	27-35
Casement		13-3/4"	13-3/4"	47"	108"	R35-CW50	0.25-0.29	0.18-0.47	27-34
Fixed Casement		10"	10"	14-4"	144"	R35-CW50	0.25-0.29	0.18-0.47	27-35
Double-Hung		14"	24-3/8"	48"	96"	CW30-CW50	0.25-0.30	0.19-0.53	28-35
Precision Fit Double-Hung		13-3/2"	23-3/4"	48"	84"	CW40-CW50	0.25-0.31	0.19-0.53	26-30
Monumental Hung		13-3/4"	24"	72"	144"	LC25-CW50	0.25-0.30	0.17-0.47	29-34
In-Swing Hinged Patio Door (Single)		18"	36"	48"	119-1/2"	LC40-LC55	0.25-0.29	0.14-0.40	31-35
In-Swing Hinged Patio Door (Double)		36"	36"	96"	119-1/2"	LC40-LC55	0.25-0.29	0.14-0.40	31-35
Out-Swing Hinged Patio Door (Single)		18"	36"	48"	119-1/2"	R50-LC70	0.25-0.30	0.14-0.39	30-36
Out-Swing Hinged Patio Door (Double)		36"	36"	96"	119-1/2"	R50-LC70	0.25-0.30	0.14-0.39	30-36
Sliding Patio Door (OX, XO)		60"	74"	120"	120"	R20-LC50	0.26-0.31	0.20-0.51	0.28-0.33
Sliding Patio Door (OXO)		90"	74"	180"	120"	R20-LC35	0.26-0.31	0.20-0.51	—
Sliding Patio Door (OXXO)		117"	74"	237"	120"	R20-LC35	0.26-0.31	0.20-0.51	—
Multi-Slide Patio Door		40-3/4"	50-3/2"	701-3/8"	119-1/2"	R15-LC25 ¹	0.30-0.36	0.15-0.46	31
Bifold Patio Door		31-3/4"	55-1/2"	312"	119-1/2"	R15-LC25 ¹	0.26-0.44	0.13-0.45	—

Window sizes available in 1/8" increments
Special sizes available. For more information regarding performance, visit [Pella.com/performance](#). For more information regarding frame and installation types, visit [PellaADM.com](#).

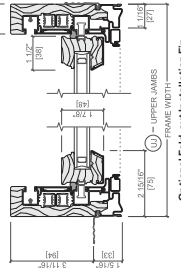
Grilles

Choose the look of true divided light without sacrificing energy performance.



Cross Sections

The double-hung cross sections provide visual reference to the historic putty exterior profile and traditional, beveled Ogee interior that add architectural interest to your project.



^{1,2} See back cover for disclosures.

Window Hardware

Classic Collection

Get a timeless look with authentic styles in classic finishes.

Finishes:

Champagne

White

Brown

Matte Black

Oh-Rubbed Bronze

Satin Nickel

Satin Brass

Rustic Collection

Create a distinct and charming look with distressed finishes.

Finishes:

Distressed Bronze

Distressed Nickel

Essential Collection

Select from popular designs and finishes to suit every style.

Finishes:

Champagne

White

Brown

Matte Black

Oh-Rubbed Bronze

Satin Nickel

Satin Brass

Patio Door Hardware

Choose timeless pieces, created in collaboration with Baldwin® Hardware, for a look that will never go out of style.

Finishes:

Matte Black

Oh-Rubbed Bronze

Satin Nickel

Satin Brass

Classic Collection

Elevate your style and transform a home with elegant selections.

Finishes:

Champagne

White

Brown

Matte Black

Oh-Rubbed Bronze

Satin Nickel

Satin Brass

Additional hardware collections available. Visit [PellaADM.com](#) for more information.

^{1,2} See back cover for disclosures.

Colors

Wood Types

Choose the wood species that best complements your project's interior.

Custom solutions:



Pine



Douglas Fir



Mahogany



White Oak



Red Oak



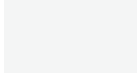
Cherry



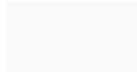
Maple

Prefinished Pine Interior Colors

Custom interior finishes, unfinished or primed and ready-to-paint are also available.



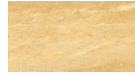
White



Bright White



Linen White



Natural



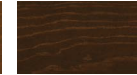
Golden Oak



Early American



Provincial



Dark Mahogany



Charcoal



Black

Extruded Aluminum-Clad Exterior Colors

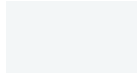
Our low-maintenance EnduraClad® exterior finish resists fading. Take durability one step further with EnduraClad Plus which also resists chalking and corrosion.⁷



Custom colors are also available.



Black



White



Brown



Fossil



Iron Ore



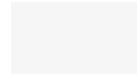
Portobello



Putty



Almond



Classic White



Brick Red



Hartford Green



Pearl Gray



Soft Linen



Satin Steel



Matte Gray



Wolf Gray



Spice Red



Sage



Frost Blue



Blue Ash

Screens

Rolscreen®

Rolscreen soft-closing retractable screens roll out of sight when not in use. Available on casement windows.

Integrated Rolscreen®

A concealed retractable screen that moves seamlessly with the sash of a single- or double-hung window – appearing when you open the window and rolling out of sight when you close it.

TuffScreen® by Phifer®

The TuffScreen® is 2.5x stronger than a standard screen.⁸ It is tear, puncture and damage resistant, standing up to pets, children and harsh weather. Available on sliding patio doors.

*All trademarks are property of their respective owners

Flat

InView™ screens are clearer than conventional screens and come standard.



The Best Limited Lifetime Warranty in the Industry

We know your reputation matters and you stake your reputation on quality, dependable products. That's why we have the best limited lifetime warranty in the industry for wood windows and patio doors.²

¹ Some Pella products may not meet ENERGY STAR® guidelines in Canada. For more information, contact your local Pella sales representative or go to energystar.gc.ca.

² Based on comparing written limited warranties of leading national wood window and wood patio door brands. See written limited warranty for details, including exceptions and limitations, at pella.com/warranty or contact Pella Customer Service.

³ Ratings are contingent on product configurations.

⁴ Color-matched to your product's interior and exterior color. Offering may vary by product type. See Pella sales representative for details.

⁵ Flush multi-slide handle is a Pella exclusive design.

⁶ Flush multi-slide handle is not available in Champagne.

⁷ EnduraClad Plus protective finish is not available with all colors. See your local Pella sales representative for availability.

⁸ Based on the composite results of a 5-panel strength analysis comparing TuffScreen and standard screening.

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170



Product Selection Guide

Size and Performance Data.....	W-HG-2
Features and Options.....	W-HG-3
Combination Assemblies	W-HG-4
Glazing Performance	W-HG-6
Grille Types	
Grille Profiles.....	W-HG-10
Grille Patterns	W-HG-11
Size Tables for Double- and Single-Hung	W-HG-12
Cottage Sash Units.....	W-HG-14
Replacement Units.....	W-HG-15
Design Data	
Miscellaneous Formulas	W-HG-19
Double- and Single-Hung	W-HG-20
Replacement Units.....	W-HG-25
Detailed Product Descriptions.....	W-HG-30
Unit Sections	
Wood Collection	W-HG-32
Double-, and Single-Hung Clad.....	W-HG-33
Single- and Double-Hung Wood	W-HG-39

Document Navigation Tips:

Items listed in the table of contents above are active links that will take you to the corresponding page.

The Pella logo on each page is a link back to this table of contents.

Bookmarks are also included in this PDF document and are available as an additional navigation option.

Supporting documents for this product:

(Link path included for easy copy/paste sharing, click on links to open document or access by visiting Pella.com)

Test Reports:

https://media.pella.com/professional/adm/CertificationReports/Test_Reports_PR-Clad.pdf

CSI Specs

(readable using Microsoft Word or other text editing application):

https://media.pella.com/professional/adm/Wood-CSI_Specs/08552-R.rtf

AIA Masterspec

(readable using Microsoft Word or other text editing application):

https://media.pella.com/professional/adm/Wood-CSI_Specs/Masterspec/085200_fl.doc

Detailed Product Description

(readable using Microsoft Word or other text editing application):

Clad: <https://media.pella.com/professional/adm/Clad-Wood/PR-DoubleHung-C.rtf>

Wood: <https://media.pella.com/professional/adm/Clad-Wood/PR-DoubleHung-W.rtf>

Size Tables

(requires appropriate CAD software to read and use):

https://media.pella.com/professional/adm/Clad-Wood/ASCDHEV_D.dwg

CAD cross sections

(requires appropriate CAD software to read and use):

Clad: https://media.pella.com/professional/adm/Clad-Wood/ASRM5DH3_D.dwg

Wood: <https://media.pella.com/professional/adm/Clad-Wood/ASWM4DHRPT3b.dwg>

3D & BIM

(requires appropriate software to read and use):

https://media.pella.com/professional/adm/RevitFiles/PR-Revit/Window-Double_Hung-Pella-Reserve-Traditional.zip

Sketchup

(requires appropriate software to read and use):

https://media.pella.com/professional/adm/Clad-Wood/PellaSKP_PellaReserve_Traditional_Double-Hung.zip

Combination Recommendations:

https://media.pella.com/professional/adm/Clad-Wood/D_Combinations.pdf

Installation Details:

https://media.pella.com/professional/adm/Clad-Wood/F_InstallationDetails.pdf

Impact-Resistant Double-Hung, Complete Product Information:

https://media.pella.com/professional/adm/Clad-Wood/Pella-ImpactResistant_DoubleHung.pdf

Bay/Bow Details:

https://media.pella.com/professional/adm/Clad-Wood/Pella-Wood_BayBowWindows.pdf

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Pella® Reserve™ Traditional Hung Window

Size and Performance Data

Air/Water/Structural Performance ₁	
Meets or Exceeds AAMA / WDMA Ratings	H-CW30 - CW50 Hallmark Certified
Air Infiltration (cfm/ft ² of frame @ 1.57 psf wind pressure) ₂	0.11
Water Resistance	4.6 – 7.5 psf
Design Pressure	30 – 50 psf
Other Performance Criteria	
Forced Entry Resistance Level (Minimum Security Grade) ₃	10
Operating Force (lb) Initiate Motion / Maintain Motion (of Hallmark tested size and glazing) ₄	40/45

Sound Transmission Class / Outdoor-Indoor Transmission Class

Product	Frame Size Tested ₅	Glazing System				STC Rating	OITC Rating
		Overall Glazing Thickness	Exterior Glass Thickness	Interior Glass Thickness	Third Pane Thickness		
Clad Double-Hung Window	WITHOUT GRILLES						
	45" x 65"	11/16"	2.5mm	2.5mm	—	28	24
	47" x 59"	11/16"	5mm	3mm	—	31	27
	45" x 65"	11/16"	3mm	6mm PVB	—	33	28
Wood Double-Hung Window	WITHOUT GRILLES						
	45" x 65"	11/16"	2.5mm	2.5mm	—	26	22
	45" x 65"	11/16"	3mm	3mm	—	29	24

(—) = Not Available

(1) Maximum performance for single unit when glazed with the appropriate glass thickness. See Design Data pages in this section for specific product performance class and grade values.

(2) Published performance data for air infiltration is determined by testing a minimum of four (4) products of NFRC model size. Testing is conducted in accordance with ASTM E283. Air infiltration ratings for products will differ by size. The performance data does not apply to combination assemblies unless noted. Actual product performance may vary for a number of reasons including installation and product care.

(3) The higher the level, the greater the product's ability to resist forced entry.

(4) Glazing configurations may result in higher operational forces

(5) ASTM E 1425 defines standard sizes for acoustical testing. Ratings achieved at that size are representative of all sizes of the same configuration.



Pella® Reserve™ Traditional Hung Window

Features and Options

Standard	Options / Upgrades
Glazing	
Glazing Type	
Dual-Pane Insulating Glass	—
Insulated Glass Options/Low-E Types	
Advanced Low-E	SunDefense™ Low-E
	SunDefense+ Low-E
	AdvancedComfort Low-E
	NaturalSun Low-E
	NaturalSun+ Low-E
	Clear (no Low-E coating)
Additional Glass Options	
Annealed Glass	Tempered Glass
	Obscure Glass ₁
	Low-E Tinted Glass (Bronze, Gray and Green)
	Non-Impact Laminated Dual-Pane Insulating Glass
Gas Fill/High Altitude	
Argon	High altitude
Exterior	
Exterior Sash Profile	
Ogee	Putty Glaze
Exterior Finish	
EnduraClad® aluminum-clad exterior	EnduraClad Plus protective finish, Factory Primed Pine wood exterior, Unfinished Mahogany wood exterior
Cladding Colors	
Standard colors ₁	Feature Colors, Custom Colors ₁
Interior	
Unfinished wood	Factory primed
	Factory prefinished paint ₁
	Factory prefinished stain ₁
Wood Types	
Pine	Mahogany, Douglas Fir
Hardware	
Hardware Types	
Sash lifts, Cam-action lock	Simulated lock
	Air conditioner lock
	Historical spoon-style lock (surface mounted)
Hardware Finishes	
Champagne, White, Brown or Matte Black	Satin Brass, Satin Nickel, Oil-Rubbed Bronze, Distressed Bronze, Distressed Nickel ₄
Tilt-Wash Cleaning	
Tilt to interior on both sashes	—
Grilles	
Integral Light Technology® Grilles	
—	Traditional, Prairie, Top Row, Cross, New England, Victorian, Diamond, Custom
Grilles-Between-the-Glass	
—	Traditional, Prairie, Top Row ₁ , Cross, Custom-Equally Divided
Screens	
—	Integrated Rolscreen® - retractable screen, InView™ screens, in standard roll-form or premium extruded aluminum frame

(—) = Not Available

(1) Contact your local Pella sales representative for current designs and color options.

(2) Only available for Pella Reserve products with triple glazing. Not available with high altitude glazing.

(3) Available with Low-E argon-insulated glass only.

(4) Antique Brass, Distressed Nickel, Distressed Bronze finishes available for Historical spoon-style lock only.

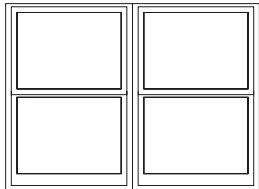


Combination Assemblies - Rectangular Units

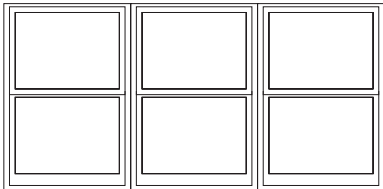
Combinations are a great way to create visual interest in any project. A combination is an assembly formed by two or more separate windows or doors whose frames are mullioned together by a combination or reinforcing mullion.

Pella window combinations are available in an endless variety of arrangements. Below are some examples of factory-assembled combinations. See the Combinations Recommendations document for typical mullions, requirements and limitations.

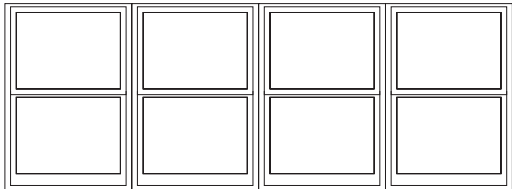
Contact your local Pella sales representative for more information.



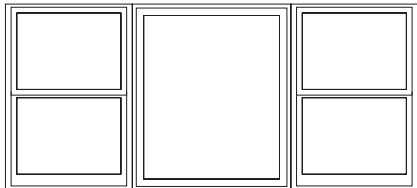
Two-Wide



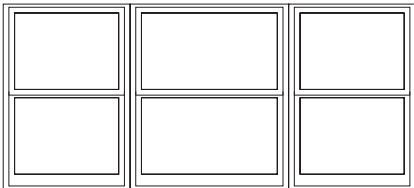
Three-Wide Equal



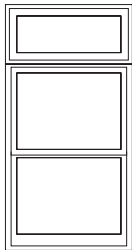
Four-Wide Equal



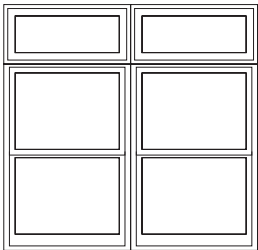
Center Fixed with Flankers



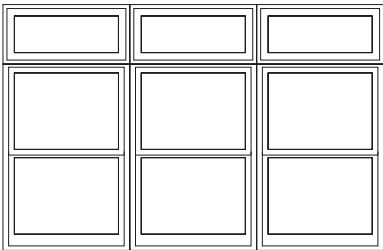
Three-Wide Unequal



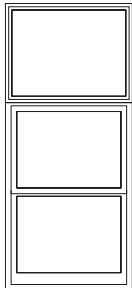
Transom over Single



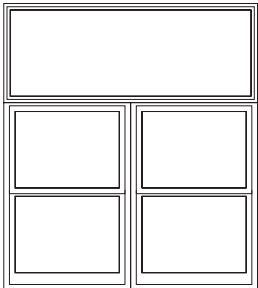
Two-Wide Transoms over Two-Wide



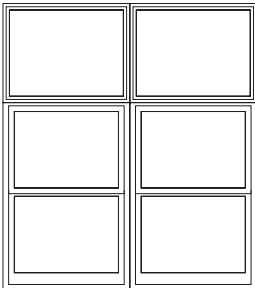
Three-Wide Transoms over Three-Wide



Clad Frame over Single



Single Clad Frame over Two-Wide



Two Wide Clad Frame over Two-Wide

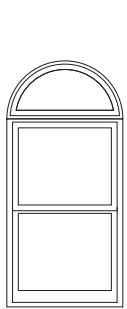


Combination Assemblies - Arch Top Units

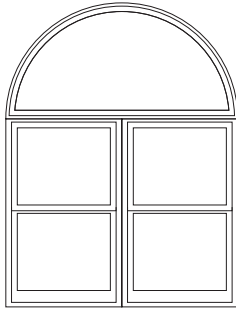
Combinations are a great way to create visual interest in any project. A combination is an assembly formed by two or more separate windows or doors whose frames are mulled together by a combination or reinforcing mullion.

Pella window combinations are available in an endless variety of arrangements, below are some examples. See the Combinations Recommendations document for typical mullions, requirements and limitations.

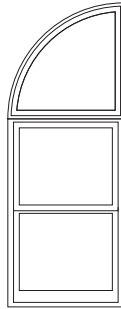
Contact your local Pella sales representative for more information.



Half Circle over
Single



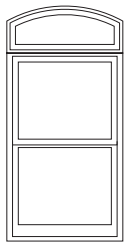
Half Circle over
Two-Wide



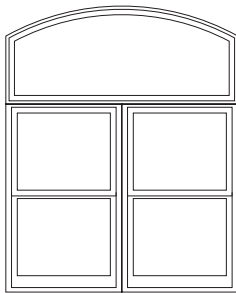
Left Quarter Circle
over Single



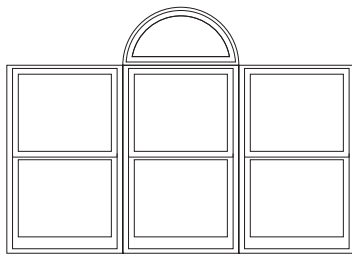
Right Quarter Circle
over Single



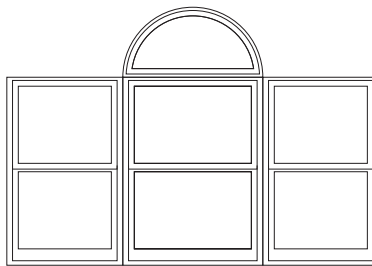
Arch Head over
Single



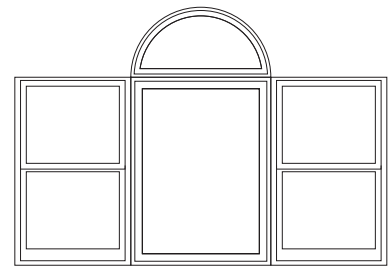
Arch Head over
Two-Wide



Half Circle centered on
Three-Wide Equal



Half Circle over
Three-Wide Unequal



Half Circle over
Center Fixed with Flankers



Pella® Reserve™ Traditional Hung Window

Glazing Performance - Total Unit

Glazing Thickness	Type of Glazing	NFRC Certified Product #	Glass (mm)		Gap Fill	Performance Values ₁				Shaded Areas Meet ENERGY STAR® Performance Criteria in Zones Shown					
			Ext.	Int.		U-Factor	SHGC	VLT	CR	U. S.				Canada ₂	
										Zone				ER	Zone
Vent Dual-Pane Glazing - Aluminum-Clad Exterior										N	NC	SC	S		CA
11/16"	Clear IG	PEL-N-232-01105-00001	2.5	2.5	air	0.46	0.60	0.62	44						
	with grilles-between-the-glass	PEL-N-232-01106-00001				0.46	0.53	0.55	44						
	with integral grilles	PEL-N-232-01107-00001				0.46	0.53	0.55	44						
11/16"	Clear IG	PEL-N-232-01109-00001	3	3	air	0.46	0.58	0.61	44						
	with grilles-between-the-glass	PEL-N-232-01110-00001				0.46	0.52	0.55	44						
	with integral grilles	PEL-N-232-01111-00001				0.46	0.52	0.55	44						
11/16"	Advanced Low-E IG	PEL-N-232-01141-00001	2.5	2.5	argon	0.29	0.28	0.53	60						
	with grilles-between-the-glass	PEL-N-232-01142-00001				0.29	0.25	0.47	60						
	with integral grilles	PEL-N-232-01143-00001				0.29	0.25	0.47	60						
11/16"	Advanced Low-E IG	PEL-N-232-01145-00001	3	3	argon	0.29	0.28	0.52	59						
	with grilles-between-the-glass	PEL-N-232-01146-00001				0.29	0.25	0.46	59						
	with integral grilles	PEL-N-232-01147-00001				0.29	0.25	0.46	59						
11/16"	SunDefense™ Low-E IG	PEL-N-232-01189-00001	2.5	2.5	argon	0.28	0.21	0.49	60			SC	S		
	with grilles-between-the-glass	PEL-N-232-01190-00001				0.28	0.19	0.43	60			SC	S		
	with integral grilles	PEL-N-232-01191-00001				0.29	0.19	0.43	60				S		
11/16"	SunDefense™ Low-E IG	PEL-N-232-01193-00001	3	3	argon	0.28	0.21	0.48	59			SC	S		
	with grilles-between-the-glass	PEL-N-232-01194-00001				0.28	0.19	0.43	59			SC	S		
	with integral grilles	PEL-N-232-01195-00001				0.29	0.19	0.43	59				S		
11/16"	SunDefense+ Low-E IG	PEL-N-232-01813-00001	2.5	2.5	argon	0.25	0.20	0.48	49		NC	SC	S		
	with grilles-between-the-glass	PEL-N-232-01814-00001				0.25	0.18	0.42	49		NC	SC	S		
	with integral grilles	PEL-N-232-01815-00001				0.25	0.18	0.42	49		NC	SC	S		
11/16"	SunDefense+ Low-E IG	PEL-N-232-01821-00001	3	3	argon	0.25	0.20	0.47	48		NC	SC	S		
	with grilles-between-the-glass	PEL-N-232-01822-00001				0.25	0.18	0.42	48		NC	SC	S		
	with integral grilles	PEL-N-232-01823-00001				0.26	0.18	0.42	48			SC	S		
11/16"	AdvancedComfort Low-E IG	PEL-N-232-01165-00001	2.5	2.5	argon	0.25	0.28	0.52	48		NC				
	with grilles-between-the-glass	PEL-N-232-01166-00001				0.25	0.25	0.46	48		NC				
	with integral grilles	PEL-N-232-01167-00001				0.26	0.25	0.46	48						
11/16"	AdvancedComfort Low-E IG	PEL-N-232-01169-00001	3	3	argon	0.25	0.27	0.51	47		NC				
	with grilles-between-the-glass	PEL-N-232-01170-00001				0.25	0.25	0.45	47		NC				
	with integral grilles	PEL-N-232-01171-00001				0.26	0.25	0.45	47						
11/16"	NaturalSun Low-E IG	PEL-N-232-01117-00001	2.5	2.5	argon	0.30	0.52	0.60	59						
	with grilles-between-the-glass	PEL-N-232-01118-00001				0.30	0.47	0.53	59						
	with integral grilles	PEL-N-232-01119-00001				0.30	0.47	0.53	59						
11/16"	NaturalSun Low-E IG	PEL-N-232-01121-00001	3	3	argon	0.30	0.52	0.59	58						
	with grilles-between-the-glass	PEL-N-232-01122-00001				0.30	0.46	0.53	58						
	with integral grilles	PEL-N-232-01123-00001				0.30	0.46	0.53	58						
11/16"	NaturalSun+ Low-E IG	PEL-N-232-01781-00001	2.5	2.5	argon	0.26	0.48	0.58	47	N				35	CA
	with grilles-between-the-glass	PEL-N-232-01782-00001				0.26	0.43	0.52	47	N					
	with integral grilles	PEL-N-232-01783-00001				0.27	0.43	0.52	47						
11/16"	NaturalSun+ Low-E IG	PEL-N-232-01789-00001	3	3	argon	0.26	0.47	0.58	46	N				34	CA
	with grilles-between-the-glass	PEL-N-232-01790-00001				0.26	0.42	0.51	46	N					
	with integral grilles	PEL-N-232-01791-00001				0.26	0.42	0.51	46	N					

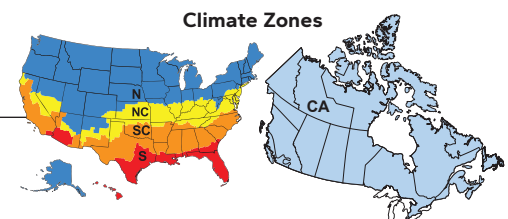
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 ER = Canadian Energy Rating

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Pella® Reserve™ Traditional Hung Window

Glazing Performance - Total Unit

Glazing Thickness	Type of Glazing	NFRC Certified Product #	Glass (mm)		Gap Fill	Performance Values ₁				Shaded Areas Meet ENERGY STAR® Performance Criteria in Zones Shown					
			Ext.	Int.		U-Factor	SHGC	VLT	CR	U. S.				Canada ₂	
										Zone				ER	Zone
Tinted Glazing										N	NC	SC	S	CA	
11/16"	Bronze Advanced Low-E IG	PEL-N-232-01225-00002	5	3	argon	0.29	0.25	0.34	58						
	with grilles-between-the-glass	PEL-N-232-01226-00002				0.31	0.23	0.30	58				S		
	with integral grilles	PEL-N-232-01227-00002				0.30	0.23	0.30	58				S		
11/16"	Gray Advanced Low-E IG	PEL-N-232-01225-00003	5	3	argon	0.29	0.23	0.29	58					S	
	with grilles-between-the-glass	PEL-N-232-01226-00003				0.31	0.21	0.26	58					S	
	with integral grilles	PEL-N-232-01227-00003				0.30	0.21	0.26	58					S	
11/16"	Green Advanced Low-E IG	PEL-N-232-01225-00004	5	3	argon	0.29	0.28	0.46	58						
	with grilles-between-the-glass	PEL-N-232-01226-00004				0.31	0.25	0.41	58						
	with integral grilles	PEL-N-232-01227-00004				0.30	0.25	0.41	58						
Vent Dual-Pane High Altitude Glazing - Aluminum-Clad Exterior															
11/16"	Advanced Low-E IG	PEL-N-232-01153-00001	2.5	2.5	air	0.32	0.28	0.53	56						
	with grilles-between-the-glass	PEL-N-232-01154-00001				0.32	0.25	0.47	56						
	with integral grilles	PEL-N-232-01155-00001				0.33	0.25	0.47	56						
11/16"	Advanced Low-E IG	PEL-N-232-01157-00001	3	3	air	0.32	0.28	0.52	55						
	with grilles-between-the-glass	PEL-N-232-01158-00001				0.32	0.25	0.46	55						
	with integral grilles	PEL-N-232-01159-00001				0.33	0.25	0.46	55						
11/16"	SunDefense™ Low-E IG	PEL-N-232-01201-00001	2.5	2.5	air	0.32	0.21	0.49	56					S	
	with grilles-between-the-glass	PEL-N-232-01202-00001				0.32	0.19	0.43	56					S	
	with integral grilles	PEL-N-232-01203-00001				0.33	0.19	0.43	56					S	
11/16"	SunDefense™ Low-E IG	PEL-N-232-01205-00001	3	3	air	0.32	0.21	0.48	55					S	
	with grilles-between-the-glass	PEL-N-232-01206-00001				0.32	0.19	0.43	55					S	
	with integral grilles	PEL-N-232-01207-00001				0.33	0.19	0.43	55						
11/16"	SunDefense+ Low-E IG	PEL-N-232-01809-00001	2.5	2.5	air	0.27	0.21	0.48	44				SC	S	
	with grilles-between-the-glass	PEL-N-232-01810-00001				0.27	0.19	0.42	44				SC	S	
	with integral grilles	PEL-N-232-01811-00001				0.28	0.19	0.42	44				SC	S	
11/16"	SunDefense+ Low-E IG	PEL-N-232-01817-00001	3	3	air	0.27	0.21	0.47	44				SC	S	
	with grilles-between-the-glass	PEL-N-232-01818-00001				0.27	0.19	0.42	44				SC	S	
	with integral grilles	PEL-N-232-01819-00001				0.28	0.19	0.42	43				SC	S	
11/16"	AdvancedComfort Low-E IG	PEL-N-232-01177-00001	2.5	2.5	air	0.27	0.28	0.52	44						
	with grilles-between-the-glass	PEL-N-232-01178-00001				0.27	0.25	0.46	44						
	with integral grilles	PEL-N-232-01179-00001				0.28	0.25	0.46	44						
11/16"	AdvancedComfort Low-E IG	PEL-N-232-01181-00001	3	3	air	0.28	0.27	0.51	43						
	with grilles-between-the-glass	PEL-N-232-01182-00001				0.28	0.25	0.45	43						
	with integral grilles	PEL-N-232-01183-00001				0.28	0.25	0.45	43						
11/16"	NaturalSun Low-E IG	PEL-N-232-01129-00001	2.5	2.5	air	0.33	0.52	0.60	56						
	with grilles-between-the-glass	PEL-N-232-01130-00001				0.33	0.47	0.53	56						
	with integral grilles	PEL-N-232-01131-00001				0.34	0.47	0.53	55						
11/16"	NaturalSun Low-E IG	PEL-N-232-01133-00001	3	3	air	0.33	0.51	0.59	55						
	with grilles-between-the-glass	PEL-N-232-01134-00001				0.33	0.46	0.52	55						
	with integral grilles	PEL-N-232-01135-00001				0.34	0.46	0.52	55						
11/16"	NaturalSun+ Low-E IG	PEL-N-232-01777-00001	2.5	2.5	air	0.28	0.48	0.58	43						
	with grilles-between-the-glass	PEL-N-232-01778-00001				0.28	0.43	0.52	43						
	with integral grilles	PEL-N-232-01779-00001				0.29	0.43	0.52	43						
11/16"	NaturalSun+ Low-E IG	PEL-N-232-01785-00001	3	3	air	0.28	0.47	0.58	43						
	with grilles-between-the-glass	PEL-N-232-01786-00001				0.28	0.42	0.51	43						
	with integral grilles	PEL-N-232-01787-00001				0.29	0.42	0.51	42						

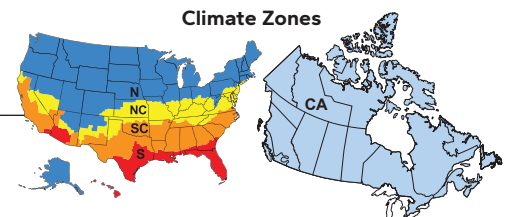
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Pella® Reserve™ Traditional Hung Window

Glazing Performance - Total Unit

Glazing Thickness	Type of Glazing	NFRC Certified Product #	Glass (mm)		Gap Fill	Performance Values ₁				Shaded Areas Meet ENERGY STAR® Performance Criteria in Zones Shown					
			Ext.	Int.		U-Factor	SHGC	VLT	CR	U. S.				Canada ₂	
										Zone				ER	Zone
Vent Dual-Pane Glazing - Wood Exterior										N	NC	SC	S		CA
11/16"	Clear IG	PEL-N-234-01105-00001	2.5	2.5	air	0.45	0.60	0.62	44						
	with grilles-between-the-glass	PEL-N-234-01106-00001				0.45	0.54	0.56	44						
	with integral grilles	PEL-N-234-01107-00001				0.45	0.54	0.56	44						
11/16"	Clear IG	PEL-N-234-01109-00001	3	3	air	0.45	0.59	0.62	43						
	with grilles-between-the-glass	PEL-N-234-01110-00001				0.45	0.53	0.55	43						
	with integral grilles	PEL-N-234-01111-00001				0.46	0.53	0.55	43						
11/16"	Advanced Low-E IG	PEL-N-234-01141-00001	2.5	2.5	argon	0.28	0.28	0.53	59						
	with grilles-between-the-glass	PEL-N-234-01142-00001				0.28	0.25	0.47	59						
	with integral grilles	PEL-N-234-01143-00001				0.29	0.25	0.47	59						
11/16"	Advanced Low-E IG	PEL-N-234-01145-00001	3	3	argon	0.28	0.28	0.52	58						
	with grilles-between-the-glass	PEL-N-234-01146-00001				0.28	0.25	0.47	58						
	with integral grilles	PEL-N-234-01147-00001				0.29	0.25	0.47	58						
11/16"	SunDefense™ Low-E IG	PEL-N-234-01189-00001	2.5	2.5	argon	0.28	0.21	0.49	60			SC	S		
	with grilles-between-the-glass	PEL-N-234-01190-00001				0.28	0.19	0.44	60			SC	S		
	with integral grilles	PEL-N-234-01191-00001				0.28	0.19	0.44	60			SC	S		
11/16"	SunDefense™ Low-E IG	PEL-N-234-01193-00001	3	3	argon	0.28	0.21	0.49	59			SC	S		
	with grilles-between-the-glass	PEL-N-234-01194-00001				0.28	0.19	0.43	59			SC	S		
	with integral grilles	PEL-N-234-01195-00001				0.28	0.19	0.43	59			SC	S		
11/16"	SunDefense+ Low-E IG	PEL-N-234-01813-00001	2.5	2.5	argon	0.24	0.21	0.48	49		NC	SC	S		
	with grilles-between-the-glass	PEL-N-234-01814-00001				0.24	0.19	0.43	49		NC	SC	S		
	with integral grilles	PEL-N-234-01815-00001				0.25	0.19	0.43	49		NC	SC	S		
11/16"	SunDefense+ Low-E IG	PEL-N-234-01821-00001	3	3	argon	0.24	0.21	0.47	47		NC	SC	S		
	with grilles-between-the-glass	PEL-N-234-01822-00001				0.24	0.19	0.42	47		NC	SC	S		
	with integral grilles	PEL-N-234-01823-00001				0.25	0.19	0.42	47		NC	SC	S		
11/16"	AdvancedComfort Low-E IG	PEL-N-234-01165-00001	2.5	2.5	argon	0.24	0.28	0.52	48		NC				
	with grilles-between-the-glass	PEL-N-234-01166-00001				0.24	0.25	0.46	48		NC				
	with integral grilles	PEL-N-234-01167-00001				0.25	0.25	0.46	48		NC				
11/16"	AdvancedComfort Low-E IG	PEL-N-234-01169-00001	3	3	argon	0.24	0.28	0.51	47		NC				
	with grilles-between-the-glass	PEL-N-234-01170-00001				0.24	0.25	0.46	47		NC				
	with integral grilles	PEL-N-234-01171-00001				0.25	0.25	0.46	47		NC				
11/16"	NaturalSun Low-E IG	PEL-N-234-01117-00001	2.5	2.5	argon	0.29	0.53	0.60	59					34	CA
	with grilles-between-the-glass	PEL-N-234-01118-00001				0.29	0.47	0.53	59						
	with integral grilles	PEL-N-234-01119-00001				0.30	0.47	0.53	59						
11/16"	NaturalSun Low-E IG	PEL-N-234-01121-00001	3	3	argon	0.29	0.52	0.59	58						
	with grilles-between-the-glass	PEL-N-234-01122-00001				0.29	0.46	0.53	58						
	with integral grilles	PEL-N-234-01123-00001				0.30	0.46	0.53	58						
11/16"	NaturalSun+ Low-E IG	PEL-N-234-01781-00001	2.5	2.5	argon	0.25	0.48	0.59	47	N				36	CA
	with grilles-between-the-glass	PEL-N-234-01782-00001				0.25	0.43	0.52	47	N					
	with integral grilles	PEL-N-234-01783-00001				0.26	0.43	0.52	47	N					
11/16"	NaturalSun+ Low-E IG	PEL-N-234-01789-00001	3	3	argon	0.25	0.47	0.58	46	N				35	CA
	with grilles-between-the-glass	PEL-N-234-01790-00001				0.25	0.42	0.52	46	N					
	with integral grilles	PEL-N-234-01791-00001				0.26	0.42	0.52	46	N					

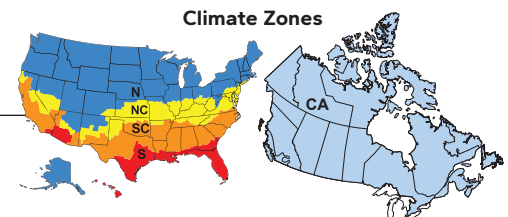
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Non Rectangular Unit thermal values will vary slightly.





Pella® Reserve™ Traditional Hung Window

Glazing Performance - Total Unit

Glazing Thickness	Type of Glazing	NFRC Certified Product #	Glass (mm)		Gap Fill	Performance Values ₁				Shaded Areas Meet ENERGY STAR® Performance Criteria in Zones Shown					
			Ext.	Int.		U-Factor	SHGC	VLT	CR	U. S.				Canada ₂	
										Zone				ER	Zone
Tinted Glazing										N	NC	SC	S	CA	
11/16"	Bronze Advanced Low-E IG	PEL-N-234-01225-00002	5	3	argon	0.29	0.25	0.34	57						
	with grilles-between-the-glass	PEL-N-234-01226-00002				0.30	0.23	0.30	57				S		
	with integral grilles	PEL-N-234-01227-00002				0.30	0.23	0.30	57				S		
11/16"	Gray Advanced Low-E IG	PEL-N-234-01225-00003	5	3	argon	0.29	0.23	0.29	57				S		
	with grilles-between-the-glass	PEL-N-234-01226-00003				0.30	0.21	0.26	57				S		
	with integral grilles	PEL-N-234-01227-00003				0.30	0.21	0.26	57				S		
11/16"	Green Advanced Low-E IG	PEL-N-234-01225-00004	5	3	argon	0.29	0.28	0.46	57						
	with grilles-between-the-glass	PEL-N-234-01226-00004				0.30	0.25	0.41	57						
	with integral grilles	PEL-N-234-01227-00004				0.30	0.25	0.41	57						
Vent Dual-Pane High Altitude Glazing - Wood Exterior															
11/16"	Advanced Low-E IG	PEL-N-234-01153-00001	2.5	2.5	air	0.31	0.28	0.53	56						
	with grilles-between-the-glass	PEL-N-234-01154-00001				0.31	0.26	0.47	56						
	with integral grilles	PEL-N-234-01155-00001				0.32	0.26	0.47	56						
11/16"	Advanced Low-E IG	PEL-N-234-01157-00001	3	3	air	0.32	0.28	0.52	55						
	with grilles-between-the-glass	PEL-N-234-01158-00001				0.32	0.26	0.47	55						
	with integral grilles	PEL-N-234-01159-00001				0.33	0.26	0.47	55						
11/16"	SunDefense™ Low-E IG	PEL-N-234-01201-00001	2.5	2.5	air	0.31	0.21	0.49	56				S		
	with grilles-between-the-glass	PEL-N-234-01202-00001				0.31	0.19	0.44	56				S		
	with integral grilles	PEL-N-234-01203-00001				0.32	0.19	0.44	56				S		
11/16"	SunDefense™ Low-E IG	PEL-N-234-01205-00001	3	3	air	0.31	0.21	0.49	55				S		
	with grilles-between-the-glass	PEL-N-234-01206-00001				0.31	0.19	0.43	55				S		
	with integral grilles	PEL-N-234-01207-00001				0.32	0.19	0.43	55				S		
11/16"	SunDefense+ Low-E IG	PEL-N-234-01809-00001	2.5	2.5	air	0.26	0.21	0.48	45			SC	S		
	with grilles-between-the-glass	PEL-N-234-01810-00001				0.26	0.19	0.43	45			SC	S		
	with integral grilles	PEL-N-234-01811-00001				0.27	0.19	0.43	45			SC	S		
11/16"	SunDefense+ Low-E IG	PEL-N-234-01817-00001	3	3	air	0.27	0.21	0.47	43			SC	S		
	with grilles-between-the-glass	PEL-N-234-01818-00001				0.27	0.19	0.42	43			SC	S		
	with integral grilles	PEL-N-234-01819-00001				0.28	0.19	0.42	43			SC	S		
11/16"	AdvancedComfort Low-E IG	PEL-N-234-01177-00001	2.5	2.5	air	0.27	0.28	0.52	44						
	with grilles-between-the-glass	PEL-N-234-01178-00001				0.27	0.25	0.46	44						
	with integral grilles	PEL-N-234-01179-00001				0.27	0.25	0.46	44						
11/16"	AdvancedComfort Low-E IG	PEL-N-234-01181-00001	3	3	air	0.27	0.28	0.51	43						
	with grilles-between-the-glass	PEL-N-234-01182-00001				0.27	0.25	0.46	43						
	with integral grilles	PEL-N-234-01183-00001				0.28	0.25	0.46	43						
11/16"	NaturalSun Low-E IG	PEL-N-234-01129-00001	2.5	2.5	air	0.32	0.53	0.60	55						
	with grilles-between-the-glass	PEL-N-234-01130-00001				0.32	0.47	0.53	55						
	with integral grilles	PEL-N-234-01131-00001				0.33	0.47	0.53	55						
11/16"	NaturalSun Low-E IG	PEL-N-234-01133-00001	3	3	air	0.33	0.52	0.59	54						
	with grilles-between-the-glass	PEL-N-234-01134-00001				0.33	0.46	0.53	54						
	with integral grilles	PEL-N-234-01135-00001				0.33	0.46	0.53	54						
11/16"	NaturalSun+ Low-E IG	PEL-N-234-01777-00001	2.5	2.5	air	0.27	0.48	0.59	44						
	with grilles-between-the-glass	PEL-N-234-01778-00001				0.27	0.43	0.52	44						
	with integral grilles	PEL-N-234-01779-00001				0.28	0.43	0.52	43						
11/16"	NaturalSun+ Low-E IG	PEL-N-234-01785-00001	3	3	air	0.28	0.47	0.58	42						
	with grilles-between-the-glass	PEL-N-234-01786-00001				0.28	0.42	0.52	42						
	with integral grilles	PEL-N-234-01787-00001				0.28	0.42	0.52	42						

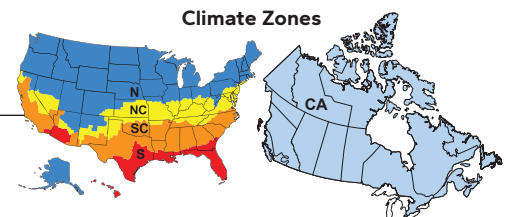
R-Value = 1/U-Factor
 SHGC = Solar Heat Gain Coefficient
 VLT % = Visible Light Transmission
 CR = Condensation Resistance
 ER = Canadian Energy Rating

(1) Glazing performance values are calculated for Pine using NFRC 100, NFRC 200 and NFRC 500. Thermal performance of other wood species may vary. ENERGY STAR® values are updated to 2023 (Version 7) criteria.

(2) The values shown are based on Canada's updated ENERGY STAR® 2020 initiative.

Visit www.energystar.gov for Energy Star guidelines.

Non Rectangular Unit thermal values will vary slightly.

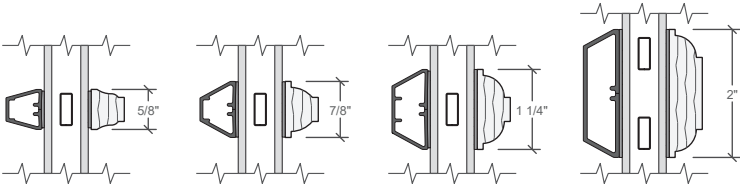




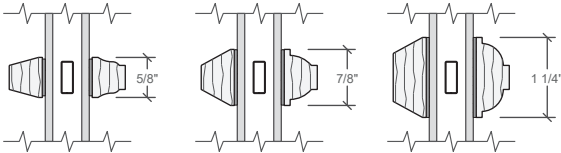
Grille Profiles

Traditional Style Collection - Integral Light Technology®

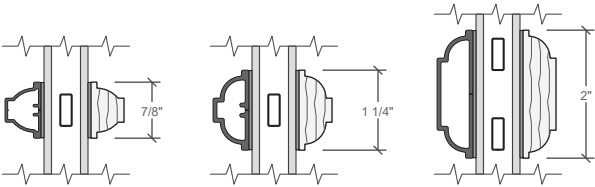
Putty Glaze and Ogee Grilles
Clad Exterior - Wood Interior



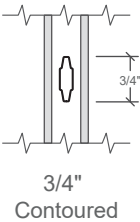
Putty Glaze and Ogee Grilles
Wood Exterior - Wood Interior



Ogee Grilles
Clad Exterior - Wood Interior



Grilles-Between-the-Glass



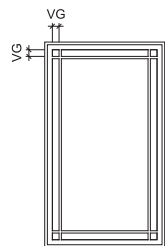
Interior wood ILT grilles available in Pine, Mahogany or Douglas Fir to match complete unit.
Exterior wood ILT grilles available in Pine or Mahogany to match complete unit.



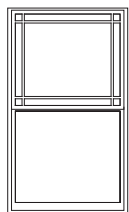
Grille Patterns

Integral light technology® Grilles

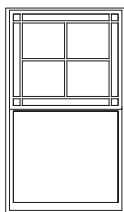
Prairie Lite Patterns



9-Lite
(Fixed Units)



9-Lite



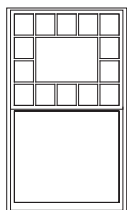
12-Lite

Standard corner lite dimension for Prairie patterns = 2-1/2" VG.

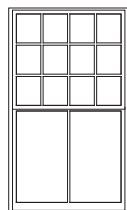
Available in transoms ≥ 1'3" height and width.

Available in all standard and special sizes.

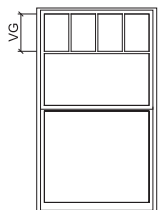
Other Available Patterns



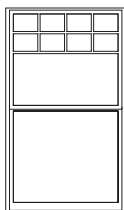
Victorian



New England



Top Row



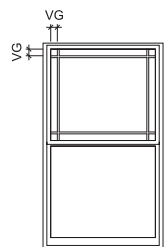
Traditional

VG = Visible Glass

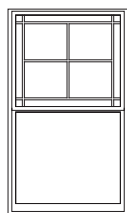
Lite dimensions noted can vary.

For size and pattern availability contact your local Pella sales representative.

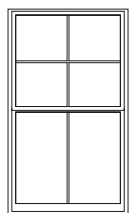
Grilles-Between-the-Glass



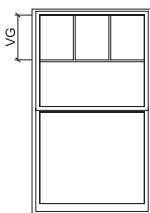
9-Lite
Prairie



12-Lite
Prairie



Cross



Top Row

Prairie

- Standard corner lite dimension for Prairie patterns = 2-1/2" VG.

- Available in transoms ≥ 1'3" height and width.

Cross

- Minimum DH frame height 35".

- Horizontal bar will be at 1/2" of the VG height of the top sash.

Top Row

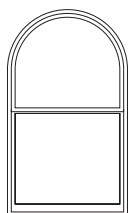
- Minimum DH frame height 35".

- Horizontal bar will be at 1/2" of the VG height of the top sash.

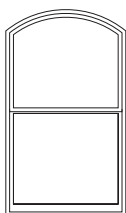
For traditional patterns, see size tables.

Custom shapes

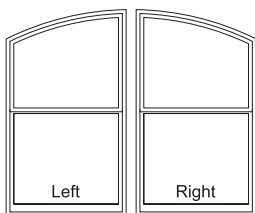
Pella Reserve single-hung windows are available in custom shapes shown below, and additional shapes per drawing. For specifications, size limitations, and details on these units, contact your local Pella sales representative.



Springline



Arch Head



Partial Arch Head



Pella® Reserve™ Traditional Hung Window

Size Tables - Equal Sash

Fixed Transoms

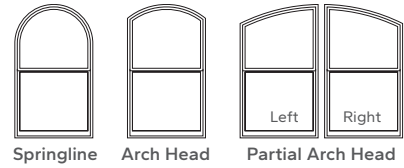
	(552) (533)	(654) (635)	(756) (737)	(857) (838)	(959) (940)	(1 060) (1 041)	(1 162) (1 143)	(1 238) (1 219)
Opening	1' 9 3/4"	2' 1 3/4"	2' 5 3/4"	2' 9 3/4"	3' 1 3/4"	3' 5 3/4"	3' 9 3/4"	4' 0 3/4"
Frame	1' 9"	2' 1"	2' 5"	2' 9"	3' 1"	3' 5"	3' 9"	4' 0"
1' 2"	2114	2514	2914	3314	3714	4114	4514	4814
1' 5"	2117	2517	2917	3317	3717	4117	4517	4817
2' 1"	2125	2525	2925	3325	3725	4125	4525	4825

Vent Units

	(908) (889)	(1 060) (1 041)	(1 213) (1 194)	(1 365) (1 346)	(1 467) (1 448)	(1 518) (1 499)	(1 670) (1 651)	(1 822) (1 803)	(1 975) (1 956)	(2 153) (2 134)
Opening	2' 11 3/4"	3' 5 3/4"	3' 11 3/4"	4' 5 3/4"	4' 9 3/4"	4' 11 3/4"	5' 5 3/4"	5' 11 3/4"	6' 5 3/4"	7' 0 3/4"
Frame	2' 11"	3' 5"	3' 11"	4' 5"	4' 9"	4' 11"	5' 5"	5' 11"	6' 5"	7' 0"
2' 11"	2135	2535	2935	3335	3735	4135	4535	4835		
3' 5"	2141	2541	2941	3341	3741	4141	4541	4841		
3' 11"	2147	2547	2947	3347	3747	4147	4547	4847		
4' 5"	2153	2553	2953	3353	3753	4153	4553	4853		
4' 9"	2157	2557	2957	3357	3757	4157	4557	4857		
4' 11"	2159	2559	2959	3359	3759	4159	4559	4859		
5' 5"	2165	2565	2965	3365	3765	4165	4565	4865		
5' 11"	2171	2571	2971	3371	3771	4171	4571	4871		
6' 5"	2177	2577	2977	3377	3777	4177	4577	4877		
7' 0"	2184	2584	2984	3384	3784	4184	4584	4884		

Not to scale.

Traditional grille patterns shown. Refer to Grille Types section for additional patterns and profiles.



Pella Reserve single-hung windows are available in shapes shown above, and additional custom shapes per drawing. For specifications, size limitations, and details on these units, contact your local Pella sales representative.

Opening Dimensions

Clad Exterior Units:

Dimensions shown in standard size tables are rough opening dimensions.

Wood Exterior Units:

Use frame dimension plus dimensions below. This dimension includes the use of standard 1-1/8" wood subsill.

Frame	Rough		Masonry	
Brickmould	Width	Height	Width	Height
STD	+ 3/4"	+1-7/8"	+ 3-1/8"	+ 3-1/8"
3-1/2"	+ 3/4"	+1-7/8"	+ 6-3/8"	+ 4-3/4"

For clad and wood units with impact-resistant glass, see the product installation instructions or refer to local building code requirements.

Egress Notes:

Check all applicable local codes for emergency egress requirements.

E = Window meets minimum clear opening of 24" height, 20" width, and 5.7 ft².

E1 = Window meets minimum clear opening of 24" height, 20" width, and 5.0 ft².

See Design Data pages in this section for clear opening dimensions.

Clear opening (egress) information does not take into consideration the addition of a Rolscreen (or any other accessory) to the product. Consult your local building code to ensure products with Rolcreens meet egress requirements.



Size Tables - Fixed

Fixed Units

		(1 060) (1 041)	(1 213) (1 194)	(1 365) (1 346)	(1 518) (1 499)
Opening		3' 5 ³ / ₄ "	3' 11 ³ / ₄ "	4' 5 ³ / ₄ "	4' 11 ³ / ₄ "
Frame		3' 5"	3' 11"	4' 5"	4' 11"
(908) (889)	2' 11 ³ / ₄ "	 4135	 4735	 5335	 5935
(1 060) (1 041)	3' 5 ³ / ₄ "	 4141	 4741	 5341	 5941
(1 213) (1 194)	3' 11 ³ / ₄ "	 4147	 4747	 5347	 5947
(1 365) (1 346)	4' 5 ³ / ₄ "	 4153	 4753	 5353	 5953
(1 467) (1 448)	4' 9 ³ / ₄ "	 4157	 4757	 5357	 5957
(1 518) (1 499)	4' 11 ³ / ₄ "	 4159	 4759	 5359	 5959
(1 670) (1 651)	5' 5 ³ / ₄ "	 4165	 4765	 5365	 5965
(1 822) (1 803)	5' 11 ³ / ₄ "	 4171	 4771	 5371	 5971

Opening Dimensions

Clad Exterior Units:
Dimensions shown in standard size tables are rough opening dimensions.

Wood Exterior Units:
Use frame dimension plus dimensions below. This dimension includes the use of standard 1-1/8" wood subsill.

Frame	Rough		Masonry	
	Width	Height	Width	Height
STD	+ 3/4"	+1-7/8"	+ 3-1/8"	+ 3-1/8"
3-1/2"	+ 3/4"	+1-7/8"	+ 6-3/8"	+ 4-3/4"

For clad and wood units with impact-resistant glass, see the product installation instructions or refer to local building code requirements.

Not to scale.
Traditional grille patterns shown. Refer to Grille Types section for additional patterns and profiles.
Grille patterns will align with companion hung window with equal sash split.
5-lite high grille patterns may be ordered in 5'5" fixed units to match cottage sash vent units.
Grilles are equally-divided on fixed units with odd-number lites high.



Pella® Reserve™ Traditional Hung Window

Size Tables - Cottage Sash

VENT UNITS

	(552) (533)	(654) (635)	(756) (737)	(857) (838)	(959) (940)	(1 060) (1 041)	(1 162) (1 143)	(1 238) (1 219)
Opening	1' 9 3/4"	2' 1 3/4"	2' 5 3/4"	2' 9 3/4"	3' 1 3/4"	3' 5 3/4"	3' 9 3/4"	4' 0 3/4"
Frame	1' 9"	2' 1"	2' 5"	2' 9"	3' 1"	3' 5"	3' 9"	4' 0"
(1 060) (1 041)								
(1 213) (1 194)								
(1 365) (1 346)								
(1 467) (1 448)								
(1 518) (1 499)								
(1 670) (1 651)								
(1 822) (1 803)								
(1 822) (1 803)								

Egress Notes:

Check all applicable local codes for emergency egress requirements.

E = Window meets minimum clear opening of 24" height, 20" width, and 5.7 ft².

E1 = Window meets minimum clear opening of 24" height, 20" width, and 5.0 ft².

See Design Data pages in this section for clear opening dimensions.

Clear opening (egress) information does not take into consideration the addition of a Rolscreen (or any other accessory) to the product. Consult your local building code to ensure products with Rolcreens meet egress requirements.

Opening Dimensions

Clad Exterior Units:

Dimensions shown in standard size tables are rough opening dimensions.

Wood Exterior Units:

Use frame dimension plus dimensions below. This dimension includes the use of standard 1-1/8" wood sub sill.

Frame	Rough		Masonry	
Brickmould	Width	Height	Width	Height
STD	+ 3/4"	+1-7/8"	+ 3-1/8"	+ 3-1/8"
3-1/2"	+ 3/4"	+1-7/8"	+ 6-3/8"	+ 4-3/4"

For clad and wood units with impact-resistant glass, see the product installation instructions or refer to local building code requirements.

Not to scale.

Traditional grille patterns shown. Refer to Grille Types section for additional patterns and profiles.

Cottage units have unequal sash split. Sash glass ratio is 40% upper sash to 60% Lower sash.

Vent variable units have unequal sash split. Sash glass ratio is determined by checkrail heights. See unit sections for dimension requirements.



Pella® Reserve™ Traditional Hung Window

Size Tables - Replacement Equal Sash Sizes

Transoms

	(616) (597)	(718) (699)	(762) (749)	(819) (800)	(921) (902)	(1 022) (1 003)	(1 073) (1 054)
Opening	2' 0 1/4"	2' 4 1/4"	2' 6 1/4"	2' 8 1/4"	3' 0 1/4"	3' 4 1/4"	3' 6 1/4"
Frame	1' 11 1/2"	2' 3 1/2"	2' 5 1/2"	2' 7 1/2"	2' 11 1/2"	3' 3 1/2"	3' 5 1/2"
(375) (356)	 23.5 x 14	 27.5 x 14	 29.5 x 14	 31.5 x 14	 35.5 x 14	 39.5 x 14	 41.5 x 14
(451) (432)	 23.5 x 17	 27.5 x 17	 29.5 x 17	 31.5 x 17	 35.5 x 17	 39.5 x 17	 41.5 x 17
(654) (635)	 23.5 x 25	 27.5 x 25	 29.5 x 25	 31.5 x 25	 35.5 x 25	 39.5 x 25	 41.5 x 25

Vent Units

(921) (902)	 23.5 x 35.5	 27.5 x 35.5	 29.5 x 35.5	 31.5 x 35.5	 35.5 x 35.5	 39.5 x 35.5	 41.5 x 35.5
(972) (953)	 23.5 x 37.5	 27.5 x 37.5	 29.5 x 37.5	 31.5 x 37.5	 35.5 x 37.5	 39.5 x 37.5	 41.5 x 37.5
(1 073) (1 054)	 23.5 x 41.5	 27.5 x 41.5	 29.5 x 41.5	 31.5 x 41.5	 35.5 x 41.5	 39.5 x 41.5	 41.5 x 41.5
(1 175) (1 156)	 23.5 x 45.5	 27.5 x 45.5	 29.5 x 45.5	 31.5 x 45.5	 35.5 x 45.5	 39.5 x 45.5	 41.5 x 45.5
(1 226) (1 206)	 23.5 x 47.5	 27.5 x 47.5	 29.5 x 47.5	 31.5 x 47.5	 35.5 x 47.5	 39.5 x 47.5	 41.5 x 47.5
(1 327) (1 308)	 23.5 x 51.5	 27.5 x 51.5	 29.5 x 51.5	 31.5 x 51.5	 35.5 x 51.5	 39.5 x 51.5	 41.5 x 51.5
(1 378) (1 359)	 23.5 x 53.5	 27.5 x 53.5	 29.5 x 53.5	 31.5 x 53.5	 35.5 x 53.5	 39.5 x 53.5	 41.5 x 53.5
(1 473) (1 461)	 23.5 x 57.5	 27.5 x 57.5	 29.5 x 57.5	 31.5 x 57.5	 35.5 x 57.5 E1	 39.5 x 57.5 E	 41.5 x 57.5 E

Egress Notes:

Check all applicable local codes for emergency egress requirements.

E = Window meets minimum clear opening of 24" height, 20" width, and 5.7 ft².

E1 = Window meets minimum clear opening of 24" height, 20" width, and 5.0 ft².

See Design Data pages in this section for clear opening dimensions.

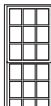
Clear opening (egress) information does not take into consideration the addition of a Rolscreen (or any other accessory) to the product. Consult your local building code to ensure products with Rolcreens meet egress requirements.

Not to scale.

Traditional grille patterns shown. Refer to Grille Types section for additional patterns and profiles.



Size Tables - Replacement Sizes

Vent Units		(616) (597)	(718) (699)	(762) (749)	(819) (800)	(921) (902)	(1 022) (1 003)	(1 073) (1 054)
Opening		2' 0 1/4"	2' 4 1/4"	2' 6"	2' 8 1/4"	3' 0 1/4"	3' 4 1/4"	3' 6 1/4"
Frame		1' 11 1/2"	2' 3 1/2"	2' 5 1/2"	2' 7 1/2"	2' 11 1/2"	3' 3 1/2"	3' 5 1/2"
(1 530) (1 511)	5' 0 1/4"					 E ₁	 E	 E
	4' 11 1/2"	23.5 x 59.5	27.5 x 59.5	29.5 x 59.5	31.5 x 59.5	35.5 x 59.5	39.5 x 59.5	41.5 x 59.5
	5' 2 1/4"				 E ₁	 E	 E	 E
	5' 1 1/2"	23.5 x 61.5	27.5 x 61.5	29.5 x 61.5	31.5 x 61.5	35.5 x 61.5	39.5 x 61.5	41.5 x 61.5
(1 581) (1 562)	5' 6 1/4"				 E ₁	 E	 E	 E
(1 683) (1 664)	5' 5 1/2"	23.5 x 65.5	27.5 x 65.5	29.5 x 65.5	31.5 x 65.5	35.5 x 65.5	39.5 x 65.5	41.5 x 65.5
(1 835) (1 816)	6' 0 1/4"		 E ₁	 E ₁	 E	 E	 E	 E
	5' 11 1/2"	23.5 x 71.5	27.5 x 71.5	29.5 x 71.5	31.5 x 71.5	35.5 x 71.5	39.5 x 71.5	41.5 x 71.5

Egress Notes:

Check all applicable local codes for emergency egress requirements.

E = Window meets minimum clear opening of 24" height, 20" width, and 5.7 ft².

E₁ = Window meets minimum clear opening of 24" height, 20" width, and 5.0 ft².

See Design Data pages in this section for clear opening dimensions.

Clear opening (egress) information does not take into consideration the addition of a Rolscreen (or any other accessory) to the product. Consult your local building code to ensure products with Rolcreens meet egress requirements.

Not to scale.

Traditional grille patterns shown. Refer to Grille Types section for additional patterns and profiles.



Pella® Reserve™ Traditional Hung Window

Size Tables - Replacement Cottage Sash Sizes

Cottage Vent Units

		(616) (597)	(718) (699)	(762) (749)	(819) (800)	(921) (902)	(1 022) (1 003)	(1 073) (1 054)
Opening		2' 0 1/4"	2' 4 1/4"	2' 6 1/4"	2' 8 1/4"	3' 0 1/4"	3' 4 1/4"	3' 6 1/4"
Frame		1' 11 1/2"	2' 3 1/2"	2' 5 1/2"	2' 7 1/2"	2' 11 1/2"	3' 3 1/2"	3' 5 1/2"
(1 073) (1 054)	3' 5 1/2"	 23.5 x 41.5	 27.5 x 41.5	 29.5 x 41.5	 31.5 x 41.5	 35.5 x 41.5	 39.5 x 41.5	 41.5 x 41.5
	3' 9 1/2"	 23.5 x 45.5	 27.5 x 45.5	 29.5 x 45.5	 31.5 x 45.5	 35.5 x 45.5	 39.5 x 45.5	 41.5 x 45.5
	3' 11 1/2"	 23.5 x 47.5	 27.5 x 47.5	 29.5 x 47.5	 31.5 x 47.5	 35.5 x 47.5	 39.5 x 47.5	 41.5 x 47.5
	4' 3 1/2"	 23.5 x 51.5	 27.5 x 51.5	 29.5 x 51.5	 31.5 x 51.5	 35.5 x 51.5	 39.5 x 51.5	 41.5 x 51.5
	4' 5 1/2"	 23.5 x 53.5	 27.5 x 53.5	 29.5 x 53.5	 31.5 x 53.5	 35.5 x 53.5	 39.5 x 53.5	 41.5 x 53.5
	4' 9 1/2"	 23.5 x 57.5	 27.5 x 57.5	 29.5 x 57.5	 31.5 x 57.5	 35.5 x 57.5	 39.5 x 57.5	 41.5 x 57.5
	4' 11 1/2"	 23.5 x 59.5	 27.5 x 59.5	 29.5 x 59.5	 31.5 x 59.5	 35.5 x 59.5	 39.5 x 59.5	 41.5 x 59.5
	5' 1 1/2"	 23.5 x 61.5	 27.5 x 61.5	 29.5 x 61.5	 31.5 x 61.5	 35.5 x 61.5	 39.5 x 61.5	 41.5 x 61.5
(1 683) (1 664)	5' 5 1/2"	 23.5 x 65.5	 27.5 x 65.5	 29.5 x 65.5	 31.5 x 65.5	 35.5 x 65.5	 39.5 x 65.5	 41.5 x 65.5
	5' 11 1/2"	 23.5 x 71.5	 27.5 x 71.5	 29.5 x 71.5	 31.5 x 71.5	 35.5 x 71.5	 39.5 x 71.5	 41.5 x 71.5

Egress Notes:

Check all applicable local codes for emergency egress requirements.

E = Window meets minimum clear opening of 24" height, 20" width, and 5.7 ft².

E1 = Window meets minimum clear opening of 24" height, 20" width, and 5.0 ft².

See Design Data pages in this section for clear opening dimensions.

Clear opening (egress) information does not take into consideration the addition of a Rolscreen (or any other accessory) to the product. Consult your local building code to ensure products with Rolcreens meet egress requirements.

Not to scale.

Traditional grille patterns shown. Refer to Grille Types section for additional patterns and profiles.



Size Tables - Replacement Fixed Sizes

Fixed Units		(1 060) (1 041)	(1 213) (1 194)	(1 365) (1 346)	(1 518) (1 499)	(1 060) (1 041)	(1 213) (1 194)	(1 365) (1 346)	(1 518) (1 499)		
Opening		3' 5 ³ / ₄ "	3' 11 ³ / ₄ "	4' 5 ³ / ₄ "	4' 11 ³ / ₄ "	3' 5 ³ / ₄ "	3' 11 ³ / ₄ "	4' 5 ³ / ₄ "	4' 11 ³ / ₄ "		
Frame		3' 5"	3' 11"	4' 5"	4' 11"	3' 5"	3' 11"	4' 5"	4' 11"		
(921) (902) (972) (953) (1 073) (1 054) (1 175) (1 156) (1 226) (1 206) (1 327) (1 308) (1 378) (1 359) (1 473) (1 461)	3' 0 ¹ / ₄ "					(1 530) (1 511) (1 581) (1 562) (1 683) (1 664) (1 835) (1 816)	5' 0 ¹ / ₄ "				
	3' 2 ¹ / ₄ "						5' 2 ¹ / ₄ "				
	3' 6 ¹ / ₄ "						5' 4 ¹ / ₄ "				
	3' 10 ¹ / ₄ "						5' 6 ¹ / ₄ "				
	4' 0 ¹ / ₄ "						5' 8 ¹ / ₄ "				
	4' 4 ¹ / ₄ "						5' 10 ¹ / ₄ "				
	4' 6 ¹ / ₄ "						5' 12 ¹ / ₄ "				
	4' 9 ¹ / ₂ "										
		41 x 35.5	47 x 35.5	53 x 35.5	59 x 35.5			41 x 59.5	47 x 59.5	53 x 59.5	59 x 59.5
		41 x 37.5	47 x 37.5	53 x 37.5	59 x 37.5			41 x 61.5	47 x 61.5	53 x 61.5	59 x 61.5
	41 x 41.5	47 x 41.5	53 x 41.5	59 x 41.5		41 x 65.5	47 x 65.5	53 x 65.5	59 x 65.5		
	41 X 45.5	47 X 45.5	53 X 45.5	59 X 45.5		41 x 65.5	47 x 65.5	53 x 65.5	59 x 65.5		
	41 X 47.5	47 X 47.5	53 X 47.5	59 X 47.5		41 x 71.5	47 x 71.5	53 x 71.5	59 x 71.5		
	41 x 51.5	47 x 51.5	53 x 51.5	59 x 51.5							
	41 x 53.5	47 x 53.5	53 x 53.5	59 x 53.5							
	41 x 57.5	47 x 57.5	53 x 57.5	59 x 57.5							

Not to scale.

Traditional grille patterns shown. Refer to Grille Types section for additional patterns and profiles.



Pella® Reserve™ Traditional Hung Window

Special Sizes and Dimensions

Special Size Frame Dimensions*

Sash configuration	Vent-Equal	Cottage	Fixed
Sash Glass Ratio Top % : Bottom %	50 : 50	40 : 60	NA
Shortest Unit Frame Size	24-3/8" (619)	40-1/4" (1 022)	17" (432)
Tallest Unit Frame Size	96" (2 438)	81" (2 057)	71" (1 803)
Unit Frame Width Range	14" to 48" (356 to 1 219)	14" to 48" (356 to 1 219)	17" to 59" (432 to 1 499)

Opening Dimensions

Clad Exterior Units:

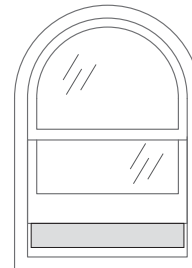
Dimensions shown in standard size tables are rough opening dimensions.

Wood Exterior Units:

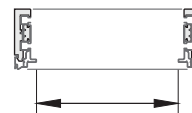
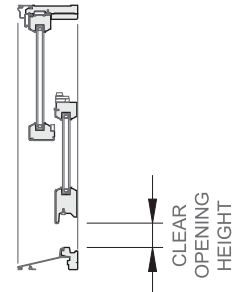
Use frame dimension plus dimensions below. This dimension includes the use of standard 1-1/8" wood subsill.

Frame	Rough		Masonry	
Brickmould	Width	Height	Width	Height
STD	+ 3/4"	+1-7/8"	+ 3-1/8"	+ 3-1/8"
3-1/2"	+ 3/4"	+1-7/8"	+ 6-3/8"	+ 4-3/4"

For clad and wood units with impact-resistant glass, see the product installation instructions or refer to local building code requirements.



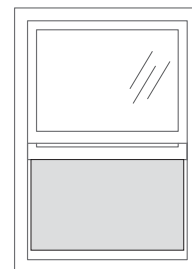
Shaded portion shows vent area.



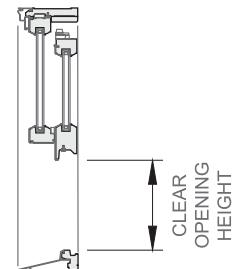
CLEAR OPENING
WIDTH

Equal Sash Rectangular Only

	Vent Units	Fixed and Transom Units
Visible Glass	Width = Frame - 5.647" Height = (Frame - 8.681") ÷ 2	Width = Frame - 5.75" Height = Frame - 5.75"
Actual Glass	Width = Frame - 4.375" Height = (Frame - 5.983") ÷ 2	Width = Frame - 4.375" Height = Frame - 4.375"
Clear Opening*	COW = Frame Width - 3.4375" COH = (Frame Height ÷ 2) - 4.4375"	— —
Vent Area Ft²	(COW x COH) ÷ 144	—



Shaded portion shows vent area.



Traditional grille patterns shown. Refer to Grille Types section for additional patterns and profiles.

* Some units with custom glazing may have limited travel. Integrated Rolscreen® is only available on sizes greater than or equal to 34" tall and 21" wide and less than or equal to 84" tall and 48" wide.

See your local Pella sales representative for specific size information.



Design Data

Vent Equal Sash for Single- and Double-Hung

Unit	Egress	Clear Opening (Inches)		Vent Area Ft ²	Visible Glass Ft ²	Standard Glass Thickness (mm)		Performance Class & Grade ¹	
		Width (Inches)	Height (Inches)			Annealed	Tempered	Clad	Wood
2135		17-5/16	13-1/16	1.6	2.8	2.5	3	CW50	CW45
2141		17-5/16	16-1/16	1.9	3.4	2.5	3	CW50	CW45
2147		17-5/16	19-1/16	2.3	4.1	2.5	3	CW50	CW45
2153		17-5/16	22-1/16	2.7	4.7	2.5	3	CW50	CW45
2157		17-5/16	24-1/16	2.9	5.2	2.5	3	CW50	CW45
2159		17-5/16	25-1/16	3.0	5.4	2.5	3	CW50	CW45
2165		17-5/16	28-1/16	3.4	6.0	2.5	3	CW50	CW45
2171		17-5/16	31-1/16	3.7	6.6	2.5	3	CW50	CW45
2177		17-5/16	34-1/16	4.1	7.3	2.5	3	CW50	CW45
2184		17-5/16	37-9/16	4.5	8.0	2.5	3	CW40	CW40
2535		21-5/16	13-1/16	1.9	3.5	2.5	3	CW50	CW45
2541		21-5/16	16-1/16	2.4	4.3	2.5	3	CW50	CW45
2547		21-5/16	19-1/16	2.8	5.1	2.5	3	CW50	CW45
2553		21-5/16	22-1/16	3.3	6.0	2.5	3	CW50	CW45
2557		21-5/16	24-1/16	3.6	6.5	2.5	3	CW50	CW45
2559		21-5/16	25-1/16	3.7	6.8	2.5	3	CW50	CW45
2565		21-5/16	28-1/16	4.2	7.6	2.5	3	CW50	CW45
2571		21-5/16	31-1/16	4.6	8.4	2.5	3	CW50	CW45
2577	E1	21-5/16	34-1/16	5.0	9.2	2.5	3	CW50	CW45
2584	E1	21-5/16	37-9/16	5.6	10.1	2.5	3	CW40	CW40
2935		25-5/16	13-1/16	2.3	4.3	2.5	3	CW50	CW45
2941		25-5/16	16-1/16	2.8	5.2	2.5	3	CW50	CW45
2947		25-5/16	19-1/16	3.4	6.2	2.5	3	CW50	CW45
2953		25-5/16	22-1/16	3.9	7.2	2.5	3	CW50	CW45
2957		25-5/16	24-1/16	4.2	7.8	2.5	3	CW50	CW45
2959		25-5/16	25-1/16	4.4	8.2	2.5	3	CW50	CW45
2965		25-5/16	28-1/16	4.9	9.1	2.5	3	CW50	CW45
2971	E1	25-5/16	31-1/16	5.5	10.1	2.5	3	CW50	CW45
2977	E	25-5/16	34-1/16	6.0	11.1	2.5	3	CW50	CW45
2984	E	25-5/16	37-9/16	6.6	12.2	2.5	3	CW40	CW40
3335		29-5/16	13-1/16	2.7	5.0	2.5	3	CW50	CW45
3341		29-5/16	16-1/16	3.3	6.1	2.5	3	CW50	CW45
3347		29-5/16	19-1/16	3.9	7.3	2.5	3	CW50	CW45
3353		29-5/16	22-1/16	4.5	8.4	2.5	3	CW50	CW45
3357		29-5/16	24-1/16	4.9	9.2	2.5	3	CW50	CW45
3359	E1	29-5/16	25-1/16	5.1	9.6	2.5	3	CW50	CW45
3365	E	29-5/16	28-1/16	5.7	10.7	2.5	3	CW50	CW45
3371	E	29-5/16	31-1/16	6.3	11.8	2.5	3	CW50	CW45
3377	E	29-5/16	34-1/16	6.9	13.0	2.5	3	CW50	CW45
3384	E	29-5/16	37-9/16	7.7	14.3	2.5	3	CW40	CW40

Continued on next page

Egress Notes:

Check all applicable local codes for emergency egress requirements.

E = Window meets minimum clear opening of 24" height, 20" width, and 5.7 ft².

E1 = Window meets minimum clear opening of 24" height, 20" width, and 5.0 ft².

(1) Maximum design pressure when glazed with appropriate glass thickness.

To convert area to square meters (m²), multiply square feet by 0.0929.



Design Data

Vent Equal Sash for Single- and Double-Hung

Unit	Egress	Clear Opening (Inches)		Vent Area Ft²	Visible Glass Ft²	Standard Glass Thickness (mm)		Performance Class & Grade ¹	
		Width (Inches)	Height (Inches)			Annealed	Tempered	Clad	Wood
3735		33-5/16	13-1/16	3.0	5.7	2.5	3	CW50	CW45
3741		33-5/16	16-1/16	3.7	7.0	2.5	3	CW50	CW45
3747		33-5/16	19-1/16	4.4	8.3	2.5	3	CW50	CW45
3753		33-5/16	22-1/16	5.1	9.6	2.5	3	CW50	CW45
3757	E1	33-5/16	24-1/16	5.6	10.5	2.5	3	CW50	CW45
3759	E	33-5/16	25-1/16	5.8	11.0	2.5	3	CW50	CW45
3765	E	33-5/16	28-1/16	6.5	12.3	2.5	3	CW50	CW45
3771	E	33-5/16	31-1/16	7.2	13.6	2.5	3	CW50	CW45
3777	E	33-5/16	34-1/16	7.9	14.9	2.5	3	CW50	CW45
3784	E	33-5/16	37-9/16	8.7	16.4	2.5	3	CW40	CW40
4135		37-5/16	13-1/16	3.4	6.5	2.5	3	CW50	CW45
4141		37-5/16	16-1/16	4.2	7.9	2.5	3	CW50	CW45
4147		37-5/16	19-1/16	4.9	9.4	2.5	3	CW50	CW45
4153		37-5/16	22-1/16	5.7	10.9	2.5	3	CW50	CW45
4157	E	37-5/16	24-1/16	6.2	11.9	2.5	3	CW50	CW45
4159	E	37-5/16	25-1/16	6.5	12.4	2.5	3	CW50	CW45
4165	E	37-5/16	28-1/16	7.3	13.8	2.5	3	CW50	CW45
4171	E	37-5/16	31-1/16	8.1	15.3	2.5	3	CW50	CW45
4177	E	37-5/16	34-1/16	8.8	16.8	2.5	3	CW45	CW45
4184	E	37-5/16	37-9/16	9.7	18.5	2.5	3	CW40	CW40
4535		41-5/16	13-1/16	3.7	7.2	2.5	3	CW50	CW45
4541		41-5/16	16-1/16	4.6	8.8	2.5	3	CW50	CW45
4547		41-5/16	19-1/16	5.5	10.5	2.5	3	CW50	CW45
4553		41-5/16	22-1/16	6.3	12.1	2.5	3	CW50	CW45
4557	E	41-5/16	24-1/16	6.9	13.2	2.5	3	CW50	CW45
4559	E	41-5/16	25-1/16	7.2	13.7	2.5	3	CW50	CW45
4565	E	41-5/16	28-1/16	8.1	15.4	2.5	3	CW50	CW45
4571	E	41-5/16	31-1/16	8.9	17.0	2.5	3	CW45	CW45
4577	E	41-5/16	34-1/16	9.8	18.7	2.5	3	CW45	CW45
4584	E	41-5/16	37-9/16	10.8	20.6	3	3	CW40	CW40
4835		44-5/16	13-1/16	4.0	7.7	2.5	3	CW50	CW45
4841		44-5/16	16-1/16	4.9	9.5	2.5	3	CW50	CW45
4847		44-5/16	19-1/16	5.9	11.3	2.5	3	CW50	CW45
4853		44-5/16	22-1/16	6.8	13.0	2.5	3	CW50	CW45
4857	E	44-5/16	24-1/16	7.4	14.2	2.5	3	CW50	CW45
4859	E	44-5/16	25-1/16	7.7	14.8	2.5	3	CW50	CW45
4865	E	44-5/16	28-1/16	8.6	16.6	2.5	3	CW45	CW45
4871	E	44-5/16	31-1/16	9.6	18.3	2.5	3	CW45	CW45
4877	E	44-5/16	34-1/16	10.5	20.1	3	3	CW45	CW45
4884	E	44-5/16	37-9/16	11.6	22.2	3	3	CW40	CW40

Egress Notes:

Check all applicable local codes for emergency egress requirements.

E = Window meets minimum clear opening of 24" height, 20" width, and 5.7 ft².

E1 = Window meets minimum clear opening of 24" height, 20" width, and 5.0 ft².

(1) Maximum performance when glazed with the appropriate glass thickness.

To convert area to square meters (m²), multiply square feet by 0.0929.



Pella® Reserve™ Traditional Hung Window

Design Data

Fixed				
Unit	Visible Glass Ft²	Standard Glass Thickness (mm)		Performance Class & Grade ¹
		Annealed	Tempered	
4135	7.2	2.5	3	CW50
4141	8.6	2.5	3	CW50
4147	10.1	3	3	CW50
4153	11.6	3	3	CW50
4157	12.5	3	3	CW50
4165	14.5	3	3	CW50
4171	16.0	3	3	CW45/CW50
4735	8.4	2.5	3	CW50
4741	10.1	3	3	CW50
4747	11.8	3	3	CW50
4753	13.5	3	3	CW50
4757	14.7	3	3	CW50
4759	15.3	3	3	CW50
4765	17.0	3	3	CW45/CW50
4771	18.7	4	4	CW50
5335	9.6	2.5	3	CW45/CW50
5341	11.6	3	3	CW50
5347	13.5	3	3	CW50
5353	15.5	3	4	CW45/CW50
5357	16.8	3	4	CW45/CW50
5359	17.5	3	4	CW40/CW50
5365	19.4	4	4	CW50
5371	21.4	4	4	CW50
5935	10.8	3	3	CW50
5941	13.0	3	3	CW50
5953	17.5	3	4	CW40/CW50
5957	19.0	4	4	CW50
5959	19.7	4	4	CW50
5965	21.9	4	4	CW50
5971	24.1	4	4	CW45/CW50

Transoms				
Unit	Visible Glass Ft²	Standard Glass Thickness (mm)		Performance Class & Grade ¹
		Annealed	Tempered	
2114	0.9	2.5	3	CW50
2514	1.1	2.5	3	CW50
2914	1.3	2.5	3	CW50
3314	1.6	2.5	3	CW50
3714	1.8	2.5	3	CW50
4114	2.0	2.5	3	CW50
4514	2.2	2.5	3	CW50
4814	2.4	2.5	3	CW50
2117	1.2	2.5	3	CW50
2517	1.5	2.5	3	CW50
2917	1.8	2.5	3	CW50
3317	2.1	2.5	3	CW50
3717	2.4	2.5	3	CW50
4117	2.8	2.5	3	CW50
4517	3.1	2.5	3	CW50
4817	3.3	2.5	3	CW50
2125	2.0	2.5	3	CW50
2525	2.6	2.5	3	CW50
2925	3.1	2.5	3	CW50
3325	3.6	2.5	3	CW50
3725	4.2	2.5	3	CW50
4125	4.7	2.5	3	CW50
4525	5.2	2.5	3	CW50
4825	5.6	2.5	3	CW50

(1) Maximum design pressure when glazed with the appropriate glass thickness. Second number, where shown, requires tempered glass.



Pella® Reserve™ Traditional Hung Window

Design Data

Cottage Sash for Single- and Double-Hung

Unit	Egress	Clear Opening (Inches)		Vent Area Ft ²	Visible Glass Ft ²	Standard Glass Thickness (mm)		Performance Class & Grade ¹	
		Width	Height			Annealed	Tempered	Clad	Wood
VG2141		17-5/16	12-11/16	1.5	3.4	2.5	3	CW50	CW45
VG2147		17-5/16	15-1/16	1.8	4.1	2.5	3	CW50	CW45
VG2153		17-5/16	17-7/16	2.1	4.7	2.5	3	CW50	CW45
VG2157		17-5/16	19-1/16	2.3	5.2	2.5	3	CW50	CW45
VG2159		17-5/16	19-7/8	2.4	5.4	2.5	3	CW50	CW45
VG2165		17-5/16	22-1/4	2.7	6.0	2.5	3	CW50	CW45
VG2171		17-5/16	24-11/16	3.0	6.6	2.5	3	CW30	CW30
VG2541		21-5/16	12-11/16	1.9	4.3	2.5	3	CW50	CW45
VG2547		21-5/16	15-1/16	2.2	5.1	2.5	3	CW50	CW45
VG2553		21-5/16	17-7/16	2.6	6.0	2.5	3	CW50	CW45
VG2557		21-5/16	19-1/16	2.8	6.5	2.5	3	CW50	CW45
VG2559		21-5/16	19-7/8	2.9	6.8	2.5	3	CW50	CW45
VG2565		21-5/16	22-1/4	3.3	7.6	2.5	3	CW50	CW45
VG2571		21-5/16	24-11/16	3.7	8.4	2.5	3	CW30	CW30
VG2941		25-5/16	12-11/16	2.2	5.2	2.5	3	CW50	CW45
VG2947		25-5/16	15-1/16	2.7	6.2	2.5	3	CW50	CW45
VG2953		25-5/16	17-7/16	3.1	7.2	2.5	3	CW50	CW45
VG2957		25-5/16	19-1/16	3.4	7.8	2.5	3	CW50	CW45
VG2959		25-5/16	19-7/8	3.5	8.2	2.5	3	CW50	CW45
VG2965		25-5/16	22-1/4	3.9	9.1	2.5	3	CW50	CW45
VG2971		25-5/16	24-11/16	4.3	10.1	2.5	3	CW30	CW30
VG3341		29-5/16	12-11/16	2.6	6.1	2.5	3	CW50	CW45
VG3347		29-5/16	15-1/16	3.1	7.3	2.5	3	CW50	CW45
VG3353		29-5/16	17-7/16	3.6	8.4	2.5	3	CW50	CW45
VG3357		29-5/16	19-1/16	3.9	9.2	2.5	3	CW50	CW45
VG3359		29-5/16	19-7/8	4.1	9.6	2.5	3	CW50	CW45
VG3365		29-5/16	22-1/4	4.5	10.7	2.5	3	CW50	CW45
VG3371	E1	29-5/16	24-11/16	5.0	11.8	2.5	3	CW30	CW30

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Egress Notes:

Check all applicable local codes for emergency egress requirements.

E1 = Window meets minimum clear opening of 24" height, 20" width, and 5.0 ft².

(1) Maximum performance when glazed with the appropriate glass thickness.

To convert area to square meters (m²), multiply square feet by 0.0929.



Pella® Reserve™ Traditional Hung Window

Design Data

Cottage Sash for Single- and Double-Hung

Unit	Egress	Clear Opening (Inches)		Vent Area Ft²	Visible Glass Ft²	Standard Glass Thickness (mm)		Performance Class & Grade ¹	
		Width	Height			Annealed	Tempered	Clad	Wood
VG3741		33-5/16	12-11/16	2.9	7.0	2.5	3	CW50	CW45
VG3747		33-5/16	15-1/16	3.5	8.3	2.5	3	CW50	CW45
VG3753		33-5/16	17-7/16	4.0	9.6	2.5	3	CW50	CW45
VG3757		33-5/16	19-1/16	4.4	10.5	2.5	3	CW50	CW45
VG3759		33-5/16	19-7/8	4.6	11.0	2.5	3	CW50	CW45
VG3765		33-5/16	22-1/4	5.2	12.3	2.5	3	CW50	CW45
VG3771	E	33-5/16	24-11/16	5.7	13.6	2.5	3	CW30	CW30
VG4141		37-5/16	12-11/16	3.3	7.9	2.5	3	CW50	CW45
VG4147		37-5/16	15-1/16	3.9	9.4	2.5	3	CW50	CW45
VG4153		37-5/16	17-7/16	4.5	10.9	2.5	3	CW50	CW45
VG4157		37-5/16	19-1/16	4.9	11.9	2.5	3	CW50	CW45
VG4159		37-5/16	19-7/8	5.2	12.4	2.5	3	CW50	CW45
VG4165		37-5/16	22-1/4	5.8	13.8	2.5	3	CW45	CW45
VG4171	E	37-5/16	24-11/16	6.4	15.3	2.5	3	CW30	CW30
VG4541		41-5/16	12-11/16	3.6	8.8	2.5	3	CW50	CW45
VG4547		41-5/16	15-1/16	4.3	10.5	2.5	3	CW50	CW45
VG4553		41-5/16	17-7/16	5.0	12.1	2.5	3	CW50	CW45
VG4557		41-5/16	19-1/16	5.5	13.2	2.5	3	CW45	CW45
VG4559		41-5/16	19-7/8	5.7	13.8	2.5	3	CW45	CW45
VG4565		41-5/16	22-1/4	6.4	15.4	2.5	3	CW45	CW45
VG4571	E	41-5/16	24-11/16	7.1	17.0	3	3	CW30	CW30
VG4841		44-5/16	12-11/16	3.9	9.5	2.5	3	CW50	CW45
VG4847		44-5/16	15-1/16	4.6	11.3	2.5	3	CW50	CW45
VG4853		44-5/16	17-7/16	5.4	13.0	2.5	3	CW45	CW45
VG4857		44-5/16	19-1/16	5.9	14.2	2.5	3	CW45	CW45
VG4859		44-5/16	19-7/8	6.1	14.8	2.5	3	CW45	CW45
VG4865		44-5/16	22-1/4	6.9	16.6	3	3	CW45	CW45
VG4871	E	44-5/16	24-11/16	7.6	18.3	3	3	CW30	CW30

Egress Notes:

Check all applicable local codes for emergency egress requirements.

E = Window meets minimum clear opening of 24" height, 20" width, and 5.7 ft².

(1) Maximum performance when glazed with the appropriate glass thickness.

To convert area to square meters (m²), multiply square feet by 0.0929.



Pella® Reserve™ Traditional Hung Window

Design Data - Replacement Sizes

Replacement Equal Sash for Single- and Double-Hung

Unit	Egress	Clear Opening		Vent Area Ft²	Visible Glass Ft²	Standard Glass Thickness (mm)		Performance Class & Grade ¹	
		Width (Inches)	Height (Inches)			Annealed	Tempered	Clad	Wood
23.5 x 35.5		19-13/16	13-5/16	1.8	3.3	2.5	3	CW50	CW45
23.5 x 37.5		19-13/16	14-5/16	2.0	3.6	2.5	3	CW50	CW45
23.5 x 41.5		19-13/16	16-5/16	2.2	4.1	2.5	3	CW50	CW45
23.5 x 45.5		19-13/16	18-5/16	2.5	4.6	2.5	3	CW50	CW45
23.5 x 47.5		19-13/16	19-5/16	2.7	4.8	2.5	3	CW50	CW45
23.5 x 51.5		19-13/16	21-5/16	2.9	5.3	2.5	3	CW50	CW45
23.5 x 53.5		19-13/16	22-5/16	3.1	5.6	2.5	3	CW50	CW45
23.5 x 57.5		19-13/16	24-5/16	3.3	6.1	2.5	3	CW50	CW45
23.5 x 59.5		19-13/16	25-5/16	3.5	6.3	2.5	3	CW50	CW45
23.5 x 61.5		19-13/16	26-5/16	3.6	6.5	2.5	3	CW50	CW45
23.5 x 65.5		19-13/16	28-5/16	3.9	7.0	2.5	3	CW50	CW45
23.5 x 71.5		19-13/16	31-5/16	4.3	7.8	2.5	3	CW50	CW45
27.5 x 35.5		23-13/16	13-5/16	2.2	4.1	2.5	3	CW50	CW45
27.5 x 37.5		23-13/16	14-5/16	2.4	4.4	2.5	3	CW50	CW45
27.5 x 41.5		23-13/16	16-5/16	2.7	5.0	2.5	3	CW50	CW45
27.5 x 45.5		23-13/16	18-5/16	3.0	5.6	2.5	3	CW50	CW45
27.5 x 47.5		23-13/16	19-5/16	3.2	5.9	2.5	3	CW50	CW45
27.5 x 51.5		23-13/16	21-5/16	3.5	6.5	2.5	3	CW50	CW45
27.5 x 53.5		23-13/16	22-5/16	3.7	6.8	2.5	3	CW50	CW45
27.5 x 57.5		23-13/16	24-5/16	4.0	7.4	2.5	3	CW50	CW45
27.5 x 59.5		23-13/16	25-5/16	4.2	7.7	2.5	3	CW50	CW45
27.5 x 61.5		23-13/16	26-5/16	4.4	8.0	2.5	3	CW50	CW45
27.5 x 65.5		23-13/16	28-5/16	4.7	8.6	2.5	3	CW50	CW45
27.5 x 71.5	E1	23-13/16	31-5/16	5.2	9.5	2.5	3	CW50	CW45
29.5 x 35.5		25-13/16	13-5/16	2.4	4.4	2.5	3	CW50	CW45
29.5 x 37.5		25-13/16	14-5/16	2.6	4.8	2.5	3	CW50	CW45
29.5 x 41.5		25-13/16	16-5/16	2.9	5.4	2.5	3	CW50	CW45
29.5 x 45.5		25-13/16	18-5/16	3.3	6.1	2.5	3	CW50	CW45
29.5 x 47.5		25-13/16	19-5/16	3.5	6.4	2.5	3	CW50	CW45
29.5 x 51.5		25-13/16	21-5/16	3.8	7.1	2.5	3	CW50	CW45
29.5 x 53.5		25-13/16	22-5/16	4.0	7.4	2.5	3	CW50	CW45
29.5 x 57.5		25-13/16	24-5/16	4.4	8.1	2.5	3	CW50	CW45
29.5 x 59.5		25-13/16	25-5/16	4.5	8.4	2.5	3	CW50	CW45
29.5 x 61.5		25-13/16	26-5/16	4.7	8.7	2.5	3	CW50	CW45
29.5 x 65.5	E1	25-13/16	28-5/16	5.1	9.4	2.5	3	CW50	CW45
29.5 x 71.5	E1	25-13/16	31-5/16	5.6	10.4	2.5	3	CW50	CW45

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Egress Notes:

Check all applicable local codes for emergency egress requirements.

E1 = Window meets minimum clear opening of 24" height, 20" width, and 5.0 ft².

(1) Maximum performance when glazed with the appropriate glass thickness.

To convert area to square meters (m²), multiply square feet by 0.0929.



Pella® Reserve™ Traditional Hung Window

Design Data - Replacement Sizes

Replacement Equal Sash for Single- and Double-Hung									
Unit	Egress	Clear Opening		Vent Area Ft²	Visible Glass Ft²	Standard Glass Thickness (mm)		Performance Class & Grade ¹	
		Width (Inches)	Height (Inches)			Annealed	Tempered	Clad	Wood
31.5 x 35.5		27-13/16	13-5/16	2.6	4.8	2.5	3	CW50	CW45
31.5 x 37.5		27-13/16	14-5/16	2.8	5.2	2.5	3	CW50	CW45
31.5 x 41.5		27-13/16	16-5/16	3.2	5.9	2.5	3	CW50	CW45
31.5 x 45.5		27-13/16	18-5/16	3.5	6.6	2.5	3	CW50	CW45
31.5 x 47.5		27-13/16	19-5/16	3.7	7.0	2.5	3	CW50	CW45
31.5 x 51.5		27-13/16	21-5/16	4.1	7.7	2.5	3	CW50	CW45
31.5 x 53.5		27-13/16	22-5/16	4.3	8.0	2.5	3	CW50	CW45
31.5 x 57.5		27-13/16	24-5/16	4.7	8.8	2.5	3	CW50	CW45
31.5 x 59.5		27-13/16	25-5/16	4.9	9.1	2.5	3	CW50	CW45
31.5 x 61.5	E ₁	27-13/16	26-5/16	5.1	9.5	2.5	3	CW50	CW45
31.5 x 65.5	E ₁	27-13/16	28-5/16	5.5	10.2	2.5	3	CW50	CW45
31.5 x 71.5	E	27-13/16	31-5/16	6.0	11.3	2.5	3	CW50	CW45
35.5 x 35.5		31-13/16	13-5/16	2.9	5.6	2.5	3	CW50	CW45
35.5 x 37.5		31-13/16	14-5/16	3.2	6.0	2.5	3	CW50	CW45
35.5 x 41.5		31-13/16	16-5/16	3.6	6.8	2.5	3	CW50	CW45
35.5 x 45.5		31-13/16	18-5/16	4.0	7.6	2.5	3	CW50	CW45
35.5 x 47.5		31-13/16	19-5/16	4.3	8.0	2.5	3	CW50	CW45
35.5 x 51.5		31-13/16	21-5/16	4.7	8.9	2.5	3	CW50	CW45
35.5 x 53.5		31-13/16	22-5/16	4.9	9.3	2.5	3	CW50	CW45
35.5 x 57.5	E ₁	31-13/16	24-5/16	5.4	10.1	2.5	3	CW50	CW45
35.5 x 59.5	E ₁	31-13/16	25-5/16	5.6	10.5	2.5	3	CW50	CW45
35.5 x 61.5	E	31-13/16	26-5/16	5.8	10.9	2.5	3	CW50	CW45
35.5 x 65.5	E	31-13/16	28-5/16	6.3	11.8	2.5	3	CW50	CW45
35.5 x 71.5	E	31-13/16	31-5/16	6.9	13.0	2.5	3	CW50	CW45
39.5 x 35.5		35-13/16	13-5/16	3.3	6.3	2.5	3	CW50	CW45
39.5 x 37.5		35-13/16	14-5/16	3.6	6.8	2.5	3	CW50	CW45
39.5 x 41.5		35-13/16	16-5/16	4.1	7.7	2.5	3	CW50	CW45
39.5 x 45.5		35-13/16	18-5/16	4.6	8.7	2.5	3	CW50	CW45
39.5 x 47.5		35-13/16	19-5/16	4.8	9.1	2.5	3	CW50	CW45
39.5 x 51.5		35-13/16	21-5/16	5.3	10.1	2.5	3	CW50	CW45
39.5 x 53.5		35-13/16	22-5/16	5.5	10.5	2.5	3	CW50	CW45
39.5 x 57.5	E	35-13/16	24-5/16	6.0	11.5	2.5	3	CW50	CW45
39.5 x 59.5	E	35-13/16	25-5/16	6.3	11.9	2.5	3	CW50	CW45
39.5 x 61.5	E	35-13/16	26-5/16	6.5	12.4	2.5	3	CW50	CW45
39.5 x 65.5	E	35-13/16	28-5/16	7.0	13.4	2.5	3	CW50	CW45
39.5 x 71.5	E	35-13/16	31-5/16	7.8	14.8	2.5	3	CW45	CW45
41.5 x 35.5		37-13/16	13-5/16	3.5	6.7	2.5	3	CW50	CW45
41.5 x 37.5		37-13/16	14-5/16	3.8	7.2	2.5	3	CW50	CW45
41.5 x 41.5		37-13/16	16-5/16	4.3	8.2	2.5	3	CW50	CW45
41.5 x 45.5		37-13/16	18-5/16	4.8	9.2	2.5	3	CW50	CW45
41.5 x 47.5		37-13/16	19-5/16	5.1	9.7	2.5	3	CW50	CW45
41.5 x 51.5		37-13/16	21-5/16	5.6	10.7	2.5	3	CW50	CW45
41.5 x 53.5		37-13/16	22-5/16	5.9	11.2	2.5	3	CW50	CW45
41.5 x 57.5	E	37-13/16	24-5/16	6.4	12.2	2.5	3	CW50	CW45
41.5 x 59.5	E	37-13/16	25-5/16	6.6	12.7	2.5	3	CW50	CW45
41.5 x 61.5	E	37-13/16	26-5/16	6.9	13.1	2.5	3	CW50	CW45
41.5 x 65.5	E	37-13/16	28-5/16	7.4	14.1	2.5	3	CW45	CW45
41.5 x 71.5	E	37-13/16	31-5/16	8.2	15.6	2.5	3	CW45	CW45

Egress Notes:

Check all applicable local codes for emergency egress requirements.

E = Window meets minimum clear opening of 24" height, 20" width, and 5.7 ft².

E₁ = Window meets minimum clear opening of 24" height, 20" width, and 5.0 ft².

(1) Maximum performance when glazed with the appropriate glass thickness.

To convert area to square meters (m²), multiply square feet by 0.0929.



Pella® Reserve™ Traditional Hung Window

Design Data - Replacement Sizes

Replacement Fixed

Unit	Visible Glass Ft²	Standard Glass Thickness (mm)		Performance Class & Grade ¹
		Annealed	Tempered	
41x35.5	7.3	2.5	3	CW50
41x37.5	7.8	2.5	3	CW50
41x41.5	8.8	2.5	3	CW50
41x45.5	9.7	2.5	3	CW45/CW50
41x47.5	10.2	3.0	3	CW50
41x51.5	11.2	3.0	3	CW50
41x53.5	11.7	3.0	3	CW50
41x57.5	12.7	3.0	3	CW50
41x59.5	13.2	3.0	3	CW50
41x61.5	13.6	3.0	3	CW50
41x65.5	14.6	3.0	3	CW50
41x71.5	16.1	3.0	3	CW45/CW50
47x35.5	8.5	2.5	3	CW50
47x37.5	9.1	2.5	3	CW50
47x41.5	10.2	3.0	3	CW50
47x45.5	11.4	3.0	3	CW50
47x47.5	12.0	3.0	3	CW50
47x51.5	13.1	3.0	3	CW50
47x53.5	13.7	3.0	3	CW50
47x57.5	14.8	3.0	3	CW50
47x59.5	15.4	3.0	3	CW45/CW50
47x61.5	16.0	3.0	3	CW45/CW50
47x65.5	17.1	3.0	3	CW45/CW50
47x71.5	18.8	4.0	4	CW50
53x35.5	9.8	2.5	3	CW45/CW50
53x37.5	10.4	3.0	3	CW50
53x41.5	11.7	3.0	3	CW50
53x45.5	13.0	3.0	3	CW50
53x47.5	13.7	3.0	3	CW50
53x51.5	15.0	3.0	4	CW50
53x53.5	15.7	3.0	4	CW45/CW50
53x57.5	17.0	3.0	4	CW45/CW50
53x59.5	17.6	4.0	4	CW50
53x61.5	18.3	4.0	4	CW50
53x65.5	19.6	4.0	4	CW50
53x71.5	21.6	4.0	4	CW50
59x35.5	11.0	3.0	3	CW50
59x37.5	11.7	3.0	3	CW50
59x41.5	13.2	3.0	3	CW50
59x45.5	14.7	3.0	3	CW50
59x47.5	15.4	3.0	3	CW45/CW50
59x51.5	16.9	3.0	4	CW45/CW50
59x53.5	17.7	4.0	4	CW50
59x57.5	19.1	4.0	4	CW50
59x59.5	19.9	4.0	4	CW50
59x61.5	20.6	4.0	4	CW50
59x65.5	22.1	4.0	4	CW50
59x71.5	24.3	4.0	4	CW45/CW50

Replacement Transoms

Unit	Visible Glass Ft²	Standard Glass Thickness (mm)		Performance Class & Grade ¹
		Annealed	Tempered	
23.5x14	1.0	2.5	3	CW50
23.5x17	1.4	2.5	3	CW50
23.5x25	2.4	2.5	3	CW50
27.5x14	1.2	2.5	3	CW50
27.5x17	1.7	2.5	3	CW50
27.5x25	2.9	2.5	3	CW50
29.5x14	1.4	2.5	3	CW50
29.5x17	1.9	2.5	3	CW50
29.5x25	3.2	2.5	3	CW50
31.5x14	1.5	2.5	3	CW50
31.5x17	2.0	2.5	3	CW50
31.5x25	3.4	2.5	3	CW50
35.5x14	1.7	2.5	3	CW50
35.5x17	2.3	2.5	3	CW50
35.5x25	4.0	2.5	3	CW50
39.5x14	1.9	2.5	3	CW50
39.5x17	2.6	2.5	3	CW50
39.5x25	4.5	2.5	3	CW50
41.5x14	2.0	2.5	3	CW50
41.5x17	2.8	2.5	3	CW50
41.5x25	4.8	2.5	3	CW50

(1) Maximum performance when glazed with the appropriate glass thickness. Second number, where shown, requires tempered glass.



Pella® Reserve™ Traditional Hung Window

Design Data

Replacement Cottage Sash for Single- and Double-Hung

Unit	Egress	Clear Opening		Vent Area Ft²	Visible Glass Ft²	Standard Glass Thickness (mm)		Performance Class & Grade ¹	
		Width (Inches)	Height (Inches)			Annealed	Tempered	Clad	Wood
VG23.5 x 41.5		19-13/16	12-7/8	1.8	4.1	2.5	3	CW50	CW45
VG23.5 x 45.5		19-13/16	14-1/2	2.0	4.6	2.5	3	CW50	CW45
VG23.5 x 47.5		19-13/16	15-1/4	2.1	4.8	2.5	3	CW50	CW45
VG23.5 x 51.5		19-13/16	16-7/8	2.3	5.3	2.5	3	CW50	CW45
VG23.5 x 53.5		19-13/16	17-11/16	2.4	5.6	2.5	3	CW50	CW45
VG23.5 x 57.5		19-13/16	19-1/4	2.7	6.1	2.5	3	CW50	CW45
VG23.5 x 59.5		19-13/16	19-15/16	2.8	6.3	2.5	3	CW50	CW45
VG23.5 x 61.5		19-13/16	20-7/8	2.9	6.5	2.5	3	CW50	CW45
VG23.5 x 65.5		19-13/16	22-1/2	3.1	7.0	2.5	3	CW40	CW40
VG23.5 x 71.5		19-13/16	24-7/8	3.4	7.8	2.5	3	CW30	CW30
VG27.5 x 41.5		23-13/16	12-7/8	2.1	5.0	2.5	3	CW50	CW45
VG27.5 x 45.5		23-13/16	14-1/2	2.4	5.6	2.5	3	CW50	CW45
VG27.5 x 47.5		23-13/16	15-1/4	2.5	5.9	2.5	3	CW50	CW45
VG27.5 x 51.5		23-13/16	16-7/8	2.8	6.5	2.5	3	CW50	CW45
VG27.5 x 53.5		23-13/16	17-11/16	2.9	6.8	2.5	3	CW50	CW45
VG27.5 x 57.5		23-13/16	19-1/4	3.2	7.4	2.5	3	CW50	CW45
VG27.5 x 59.5		23-13/16	19-15/16	3.3	7.7	2.5	3	CW50	CW45
VG27.5 x 61.5		23-13/16	20-7/8	3.5	8.0	2.5	3	CW50	CW45
VG27.5 x 65.5		23-13/16	22-1/2	3.7	8.6	2.5	3	CW40	CW40
VG27.5 x 71.5		23-13/16	24-7/8	4.1	9.5	2.5	3	CW30	CW30
VG29.5 x 41.5		25-13/16	12-7/8	2.3	5.4	2.5	3	CW50	CW45
VG29.5 x 45.5		25-13/16	14-1/2	2.6	6.1	2.5	3	CW50	CW45
VG29.5 x 47.5		25-13/16	15-1/4	2.7	6.4	2.5	3	CW50	CW45
VG29.5 x 51.5		25-13/16	16-7/8	3.0	7.1	2.5	3	CW50	CW45
VG29.5 x 53.5		25-13/16	17-11/16	3.2	7.4	2.5	3	CW50	CW45
VG29.5 x 57.5		25-13/16	19-1/4	3.5	8.1	2.5	3	CW50	CW45
VG29.5 x 59.5		25-13/16	19-15/16	3.6	8.4	2.5	3	CW50	CW45
VG29.5 x 61.5		25-13/16	20-7/8	3.7	8.7	2.5	3	CW50	CW45
VG29.5 x 65.5		25-13/16	22-1/2	4.0	9.4	2.5	3	CW40	CW40
VG29.5 x 71.5		25-13/16	24-7/8	4.5	10.4	2.5	3	CW30	CW30
VG31.5 x 41.5		27-13/16	12-7/8	2.5	5.9	2.5	3	CW50	CW45
VG31.5 x 45.5		27-13/16	14-1/2	2.8	6.6	2.5	3	CW50	CW45
VG31.5 x 47.5		27-13/16	15-1/4	3.0	7.0	2.5	3	CW50	CW45
VG31.5 x 51.5		27-13/16	16-7/8	3.3	7.7	2.5	3	CW50	CW45
VG31.5 x 53.5		27-13/16	17-11/16	3.4	8.0	2.5	3	CW50	CW45
VG31.5 x 57.5		27-13/16	19-1/4	3.7	8.8	2.5	3	CW50	CW45
VG31.5 x 59.5		27-13/16	19-15/16	3.9	9.1	2.5	3	CW50	CW45
VG31.5 x 61.5		27-13/16	20-7/8	4.0	9.5	2.5	3	CW50	CW45
VG31.5 x 65.5		27-13/16	22-1/2	4.3	10.2	2.5	3	CW40	CW40
VG31.5 x 71.5		27-13/16	24-7/8	4.8	11.3	2.5	3	CW30	CW30

Continued on next page

(1) Maximum performance when glazed with the appropriate glass thickness.

To convert area to square meters (m²), multiply square feet by 0.0929.



Pella® Reserve™ Traditional Hung Window

Design Data

Replacement Cottage Sash for Single- and Double-Hung

Unit	Egress	Clear Opening		Vent Area Ft²	Visible Glass Ft²	Standard Glass Thickness (mm)		Performance Class & Grade ¹	
		Width (Inches)	Height (Inches)			Annealed	Tempered	Clad	Wood
VG35.5 x 41.5		31-13/16	12-7/8	2.8	6.8	2.5	3	CW50	CW45
VG35.5 x 45.5		31-13/16	14-1/2	3.2	7.6	2.5	3	CW50	CW45
VG35.5 x 47.5		31-13/16	15-1/4	3.4	8.0	2.5	3	CW50	CW45
VG35.5 x 51.5		31-13/16	16-7/8	3.7	8.9	2.5	3	CW50	CW45
VG35.5 x 53.5		31-13/16	17-11/16	3.9	9.3	2.5	3	CW50	CW45
VG35.5 x 57.5		31-13/16	19-1/4	4.3	10.1	2.5	3	CW50	CW45
VG35.5 x 59.5		31-13/16	19-15/16	4.4	10.5	2.5	3	CW50	CW45
VG35.5 x 61.5		31-13/16	20-7/8	4.6	11.0	2.5	3	CW50	CW45
VG35.5 x 65.5		31-13/16	22-1/2	5.0	11.8	2.5	3	CW40	CW40
VG35.5 x 71.5	E ₁	31-13/16	24-7/8	5.5	13.0	2.5	3	CW30	CW30
VG39.5 x 41.5		35-13/16	12-7/8	3.2	7.7	2.5	3	CW50	CW45
VG39.5 x 45.5		35-13/16	14-1/2	3.6	8.7	2.5	3	CW50	CW45
VG39.5 x 47.5		35-13/16	15-1/4	3.8	9.1	2.5	3	CW50	CW45
VG39.5 x 51.5		35-13/16	16-7/8	4.2	10.1	2.5	3	CW50	CW45
VG39.5 x 53.5		35-13/16	17-11/16	4.4	10.5	2.5	3	CW50	CW45
VG39.5 x 57.5		35-13/16	19-1/4	4.8	11.5	2.5	3	CW50	CW45
VG39.5 x 59.5		35-13/16	19-15/16	5.0	11.9	2.5	3	CW50	CW45
VG39.5 x 61.5		35-13/16	20-7/8	5.2	12.4	2.5	3	CW45	CW45
VG39.5 x 65.5		35-13/16	22-1/2	5.6	13.4	2.5	3	CW40	CW40
VG39.5 x 71.5	E	35-13/16	24-7/8	6.2	14.8	2.5	3	CW30	CW30
VG41.5 x 41.5		37-13/16	12-7/8	3.4	8.2	2.5	3	CW50	CW45
VG41.5 x 45.5		37-13/16	14-1/2	3.8	9.2	2.5	3	CW50	CW45
VG41.5 x 47.5		37-13/16	15-1/4	4.0	9.7	2.5	3	CW50	CW45
VG41.5 x 51.5		37-13/16	16-7/8	4.4	10.7	2.5	3	CW50	CW45
VG41.5 x 53.5		37-13/16	17-11/16	4.6	11.2	2.5	3	CW50	CW45
VG41.5 x 57.5		37-13/16	19-1/4	5.1	12.2	2.5	3	CW45	CW45
VG41.5 x 59.5		37-13/16	19-15/16	5.3	12.7	2.5	3	CW45	CW45
VG41.5 x 61.5		37-13/16	20-7/8	5.5	13.2	2.5	3	CW45	CW45
VG41.5 x 65.5		37-13/16	22-1/2	5.9	14.1	2.5	3	CW40	CW40
VG41.5 x 71.5	E	37-13/16	24-7/8	6.5	15.6	2.5	3	CW30	CW30

Egress Notes:

Check all applicable local codes for emergency egress requirements.

E = Window meets minimum clear opening of 24" height, 20" width, and 5.7 ft².

E₁ = Window meets minimum clear opening of 24" height, 20" width, and 5.0 ft².

(1) Maximum performance when glazed with the appropriate glass thickness.

To convert area to square meters (m²), multiply square feet by 0.0929.



Detailed Product Description - Aluminum-Clad Exterior

Frame

- Select softwood, immersion treated with Pella's EnduraGuard® wood protection formula in accordance with WDMA I.S.-4. The EnduraGuard formula includes three active ingredients for protection against the effects of moisture, decay, stains from mold and mildew. Plus, an additional ingredient adds protection against termite damage.
- Interior exposed surfaces are [clear pine] [mahogany] [douglas fir].
- Exterior surfaces are clad with aluminum.
- Components are assembled with screws, staples and concealed corner locks.
- Overall frame depth is 5" (127mm) for a wall depth of 3-11/16" (94mm).
- Optional factory applied jamb extensions available between 3-13/16" (97mm) and 9-3/16" (233mm).
- Vinyl jamb liner with wood / clad inserts.
- Optional factory installed fold-out installation fins with flexible fin corners.
- Optional factory-applied EnduraClad® exterior trim.
- Optional factory-installed Pella Steady Set Installation System.

Sash

- Select softwood, immersion treated with Pella's EnduraGuard® wood protection formula in accordance with WDMA I.S.-4. The EnduraGuard formula includes three active ingredients for protection against the effects of moisture, decay, stains from mold and mildew. Plus, an additional ingredient adds protection against termite damage.
- Interior exposed surfaces are [clear pine] [mahogany] [douglas fir]. Any curved member may have visible finger-jointed surfaces.
- Exterior surfaces are clad with extruded aluminum butt-jointed at all corners of the sash with through-stile construction and sealed.
- Corners mortised and tenoned, glued and secured with metal fasteners.
- Sash thickness is 1-7/8" (47mm).
- Double-Hung: Upper sash has surface-mounted wash locks for easy tilt-in cleaning] [Single-Hung: Fixed upper sash has surface-mounted wash locks] [Arch Head units have no wash locks].
- Lower sash has concealed wash locks in lower check rail allowing sash to tilt in for easy cleaning.
- Simulated-Hung units have non-operable upper and lower sashes.
- Sash exterior profile is [ogee] [putty glaze], interior profile is ogee.

Weatherstripping

- Water-stop santoprene-wrapped foam at head and sill.
- Thermoplastic elastomer bulb with slip-coating set into lower sash for tight contact at check rail.
- Kerf mounted bristle weatherstrip at sill.
- Vinyl-wrapped foam inserted into jamb liner to seal against sides of sash.

Glazing System

- Quality float glass complying with ASTM C 1036.
- Custom and high altitude glazing available.
- Silicone-glazed dual-pane 11/16" dual-seal insulating glass [[annealed] [tempered]], [[clear] [[Advanced] [SunDefense™] [SunDefense+] [NaturalSun] [NaturalSun+] [AdvancedComfort] Low-E [with argon]] [[bronze] [gray] [green] Advanced Low-E [with Argon]] [obscure] [Reflective Bronze].
– or –
- Silicone-glazed dual-pane 13/16" dual-seal [[annealed] [tempered]] non-impact laminated glass [[clear] [[Advanced] [SunDefense] Low-E [with Argon]] [[bronze] [gray] [green] Advanced Low-E [with argon]].

Exterior

- Aluminum-clad exteriors shall be finished with EnduraClad® protective finish, in a multi-step, baked-on finish.
 - Color is [standard] [feature] [custom]₁.
– or –
- Aluminum-clad exteriors shall be finished with EnduraClad Plus protective finish with 70% fluoropolymer resin in a multi-step, baked-on finish.
 - Color is [standard] [feature] [custom]₁.

Interior

- [Unfinished, ready for site finishing] [factory primed with one coat acrylic latex] [pine: factory prefinished [paint] [stain]₁].

Hardware

- Galvanized block-and-tackle balances are connected to self-locking balance shoes which are connected to the sashes using zinc die cast terminals and concealed within the frame.
- Sash lock is [standard (cam-action)] [historic spoon-style] [air-conditioner lock] [simulated lock (Single-piece lock ties upper and lower sash together. When removed lower sash becomes operable)]. Two sash locks on units with frame width 37" and greater.
- Optional sash lift furnished for field installation. Two lifts on units with frame width 37" and greater.
- Hardware finish is [baked enamel [Champagne] [White] [Brown] [Matte Black]] [Satin Brass] [Satin Nickel] [Oil-rubbed Bronze] [Distressed Bronze] [Distressed Nickel].

Optional Products

Sash

- Exterior sash lugs
 - Optional factory applied accessory. Exterior finish is [Standard]₁ [Custom]₁.

Grilles

- Integral Light Technology® grilles
 - Interior grilles are [5/8"] [7/8"] [1-1/4"] [2"] ogee profile that are solid [pine] [mahogany] [douglas fir]. Interior surfaces are [unfinished, ready for site finishing] [factory primed] [pine: factory prefinished [paint] [stain]₁].
 - Exterior grilles are [5/8" putty glaze profile] [7/8" [putty glaze] [ogee] profile] [1-1/4" [putty glaze] [ogee] profile] [2" ogee profile] that are extruded aluminum.
 - Patterns are [Traditional] [Prairie] [Top Row] [New England] [Victorian].
 - Insulating glass contains non-glare spacer between the panes of glass.
 - Grilles are adhered to both sides of the insulating glass with VHB acrylic adhesive tape and aligned with the non-glare spacer.
– or –
- Grilles-Between-the-Glass₂
 - Insulating glass contains 3/4" contoured aluminum grilles permanently installed between two panes of glass.
 - Patterns are [Traditional] [9-Lite Prairie] [Cross] [Top Row]
 - Interior color is [White] [Tan₃] [Brown₃] [Putty₃] [Black] [Ivory] [Harvest] [Cordovan] [Brickstone].
 - Exterior color₄ is [standard]₁.

Screens

- Integrated Rolscreen® (for rectangular units only)₆
 - Retractable screen integrated into [lower sash] [both upper and lower sash]. Screen rollers are fixed and concealed within the frame, screen is held to the sash by magnets which release when the bottom sash is tilted for cleaning, and when the upper sash is opened past 18".
 - InView Screen cloth, black vinyl-coated 18/18 mesh fiberglass screen cloth complying with ASTM D 3656 and the performance requirements of SMA 1201.
– or –
- InView™ screens
 - [Half-Size] [Full-Size₄] black vinyl-coated 18/18 mesh fiberglass screen cloth complying with the performance requirements of SMA 1201, set in a [standard roll-form] [premium extruded] aluminum frame fitted to outside of window, supplied complete with all necessary hardware.
 - Full screen spreader bar placed on units > 37" width or > 65" height.
 - Screen frame finish is [standard screen: baked enamel] [premium extruded: baked enamel], color to match window cladding.

Hardware

- Optional factory applied limited opening device available for vent units in stainless steel; nominal 3-3/4" opening. Limiting device concealed from view.
- Optional factory applied window opening control device. Device allows window to open less than 4" with normal operation, with a release mechanism that allows the sash to open completely. Complies with ASTM F2090-10.

(1) Contact your local Pella sales representative for current designs and color options.

(2) Available in clear or Low-E insulating glass only.

(3) Tan, Brown and Putty Interior GBG colors are available in single-tone (Brown/Brown, Tan/Tan or Putty/Putty). Other interior colors are also available with Tan or Brown exterior.

(4) Appearance of exterior grille color will vary depending on Low-E coating on glass.

(5) Full screens are available on units ≤ 96" height.

(6) Integrated Rolscreen only available on sizes ≥ 34" tall and 21" wide, and ≤ 84" tall and 48" wide.



Detailed Product Description - Wood Exterior

Frame

- Select softwood, immersion treated with Pella's EnduraGuard® wood protection formula in accordance with WDMA I.S.-4. The EnduraGuard formula includes three active ingredients for protection against the effects of moisture, decay, stains from mold and mildew. Plus, an additional ingredient adds protection against termite damage.
- Interior exposed surfaces are [clear pine] [mahogany] (standard rectangular windows only). Any curved member may have visible finger-jointed surfaces.
- Exterior surfaces are [pine] [mahogany].
- Overall frame depth is 4-3/8" (111mm) for a wall depth of 4-3/16" (106mm).
- Vinyl Jamb liner includes wood / clad inserts.
- Optional factory applied jamb extensions available between 4-5/16" (110mm) and 9-3/16" (233mm).

Sash

- Select softwood, immersion treated with Pella's EnduraGuard® wood protection formula in accordance with WDMA I.S.-4. The EnduraGuard formula includes three active ingredients for protection against the effects of moisture, decay, stains from mold and mildew. Plus, an additional ingredient adds protection against termite damage.
- Interior exposed surfaces are [clear pine] [mahogany] (standard rectangular windows only). Any curved member may have visible finger-jointed surfaces.
- Exterior surfaces are [pine] [mahogany].
- Sash exterior profile is putty glaze, interior profile is ogee.
- Corners [mortised and tenoned on rectangular units] [mitered on arch head units], glued and secured with metal fasteners.
- Sash thickness is 1-7/8" (47mm).
- [Double-Hung: Upper sash has surface-mounted wash locks] [Single-Hung: Fixed upper sash has surface-mounted wash locks] [Arch Head units have no wash locks].
- Lower sash has concealed wash locks in lower check rail.
- Sashes tilt in for easy cleaning.
- Simulated-Hung units have non-operable upper and lower sashes.

Weatherstripping

- Water-stop santoprene-wrapped foam at head and sill. Thermoplastic elastomer bulb with slip-coating set into lower sash for tight contact at check rail.
- Kerf mounted bristle weatherstrip at sill.
- Vinyl-wrapped foam inserted into jamb liner to seal against sides of sash.

Glazing System

- Quality float glass complying with ASTM C 1036.
- Custom and high altitude glazing available.
- Silicone-glazed 11/16" dual-seal insulating glass [[annealed] [tempered]] [[clear] [[Advanced] [SunDefense™] [SunDefense+] [AdvancedComfort] [NaturalSun] [NaturalSun+] Low-E [with argon]] [bronze] [gray] [green] Advanced Low-E with argon].

Exterior

- [Pine: factory primed with one coat acrylic latex] [Mahogany: [factory primed with one coat acrylic latex] [Unfinished, ready for site finishing]].

Interior

- [Unfinished, ready for site finishing] [factory primed with one coat acrylic latex] [pine: factory prefinished [paint] [stain]₁].

Hardware

- Galvanized block-and-tackle balances are connected to self-locking balance shoes which are connected to the sashes using zinc die cast terminals and concealed within the frame.
- Sash lock is [standard (cam-action)] [historic spoon-style] [air-conditioner lock] [simulated lock (Single-piece lock ties upper and lower sash together. When removed lower sash becomes operable)]. Two sash locks on units with frame width 37" and greater.
- Optional sash lift furnished for field installation. Two lifts on units with frame width 37" and greater.
- Hardware finish is [baked enamel [Champagne] [White] [Brown] [Matte Black]] [satin brass] [satin nickel] [oil-rubbed bronze] [distressed bronze] [distressed nickel].

Optional Products

Grilles

- Integral Light Technology® grilles
 - Interior grilles are solid [5/8"] [7/8"] [1-1/4"] ogee profile that are solid [pine] [mahogany]. Interior surfaces are [unfinished, ready for site finishing] [factory primed] [pine: factory prefinished [paint] [stain]₁].
 - Exterior grilles are solid [5/8"] [7/8"] [1-1/4"] putty glaze profile that are [pine] [mahogany]. Exterior surfaces are water repellent, preservative-treated in accordance with WDMA I.S.-4, and are [unfinished, ready for site finishing] [factory primed].
 - Patterns are [Traditional] [Prairie] [Top Row] [New England] [Victorian].
 - Insulating glass contains non-glare spacer between the panes of glass.
 - Grilles are adhered to both sides of the insulating glass with VHB acrylic adhesive tape and aligned with the non-glare spacer
– or –
- Grilles-Between-the-Glass₂
 - Insulating glass contains 3/4" contoured aluminum grilles permanently installed between two panes of glass.
 - Patterns are [Traditional] [9-Lite Prairie] [Cross] [Top Row]
 - Interior color is [White] [Tan₃] [Brown₃] [Putty₃] [Black] [Ivory] [Harvest] [Cordovan] [Brickstone].
 - Exterior color₅ is [standard]₁.

Screens

- InView™ Screens
 - [Half-Size] [Full-Size₄] black vinyl-coated 18/18 mesh fiberglass screen cloth complying with the performance requirements of SMA 1201, set in a [standard roll-form aluminum frame with 3/4" wide rails and stiles] [premium extruded aluminum frame with 1" wide rails and stiles] fitted to outside of window, supplied complete with all necessary hardware.
 - Full screen spreader bar placed on units > 37" width or > 65" height.
 - Insect screen frame finish is baked enamel.

Hardware

- Optional factory applied limited opening device available for vent units in stainless steel; nominal 3-3/4" opening. Limiting device concealed from view.
- Optional factory applied window opening control device. Device allows window to open less than 4" with normal operation, with a release mechanism that allows the sash to open completely. Complies with ASTM F2090-10.

(1) Contact your local Pella sales representative for current designs and color options.

(2) Available in clear or Low-E insulating glass with argon, and obscure insulated glass.

(3) Tan, Brown and Putty Interior GBG colors are available in single-tone (Brown/Brown, Tan/Tan or Putty/Putty). Other interior colors are also available with Tan or Brown exterior.

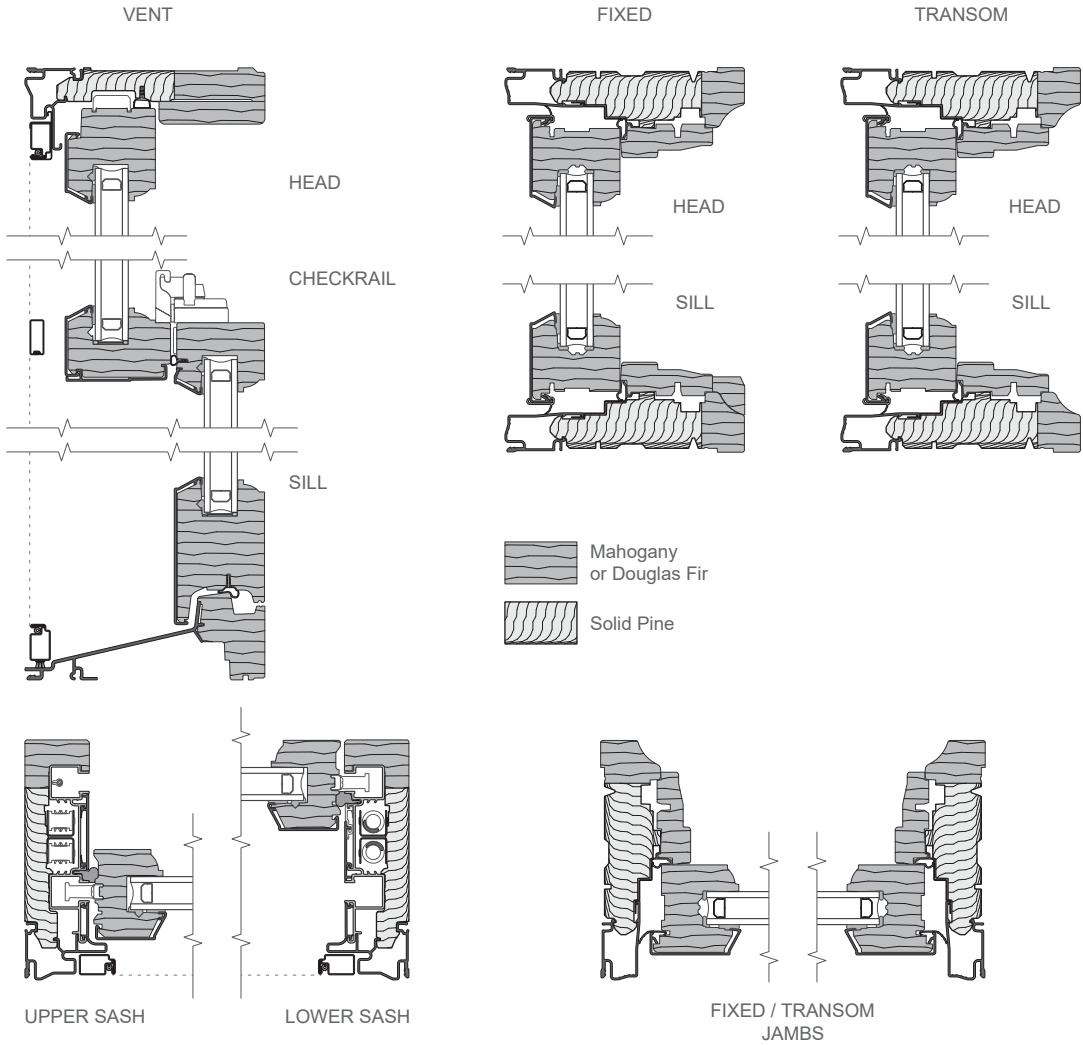
(4) Full screens are available on units ≤ 96" height.

(5) Appearance of exterior grille color will vary depending on Low-E coating on glass.



Pella® Reserve™ Traditional Hung Window

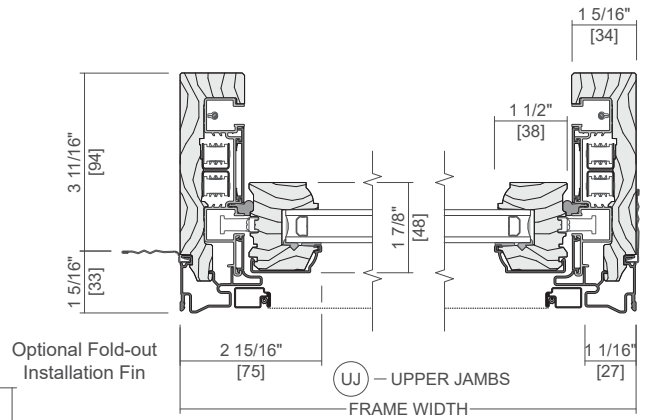
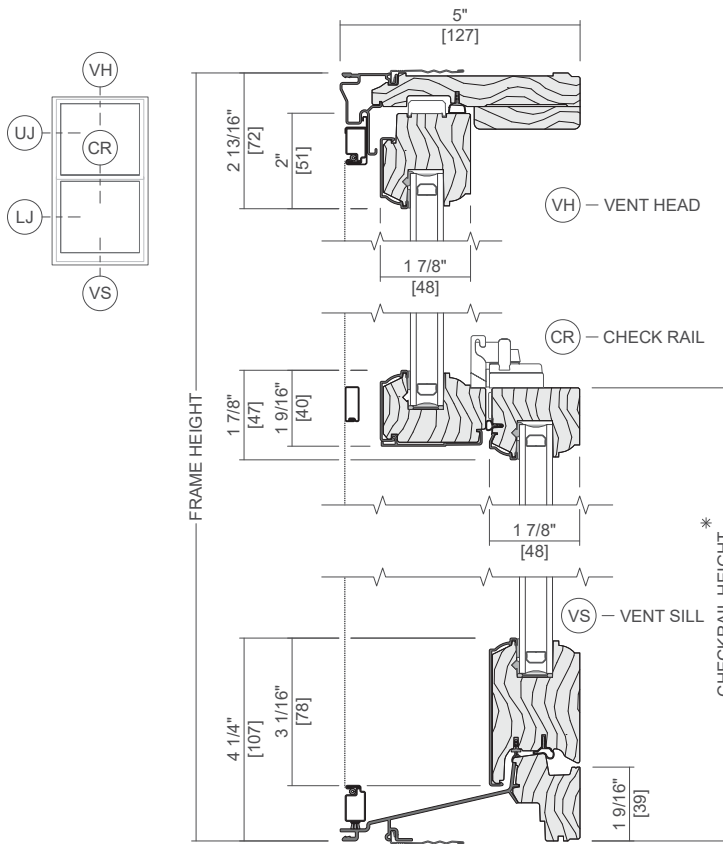
Unit Sections – Wood Collection



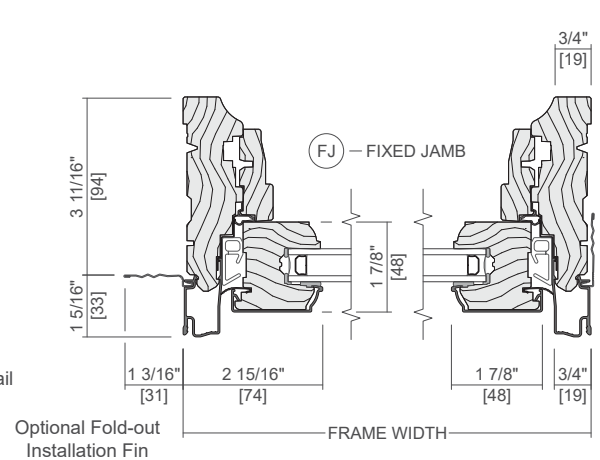
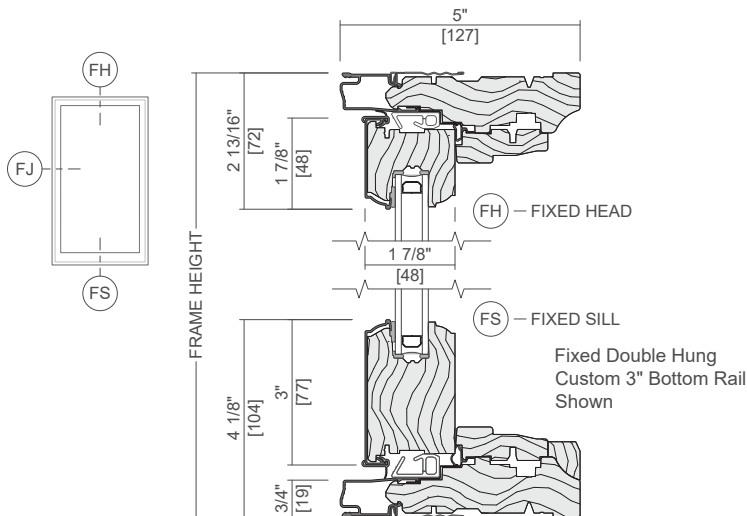
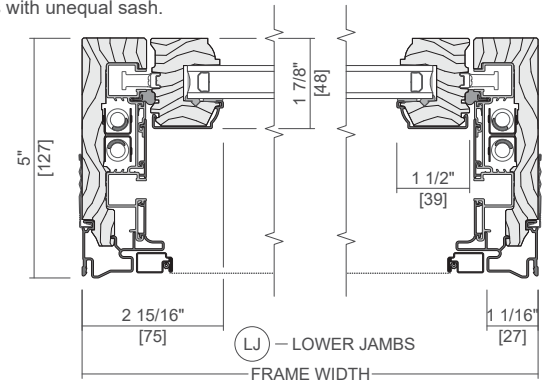


Pella® Reserve™ Traditional Hung Window

Unit Sections - Aluminum-Clad Ogee Exterior Glazing Profile



* Dimension required for ordering units with unequal sash.



Scale 3" = 1' 0"

All dimensions are approximate.

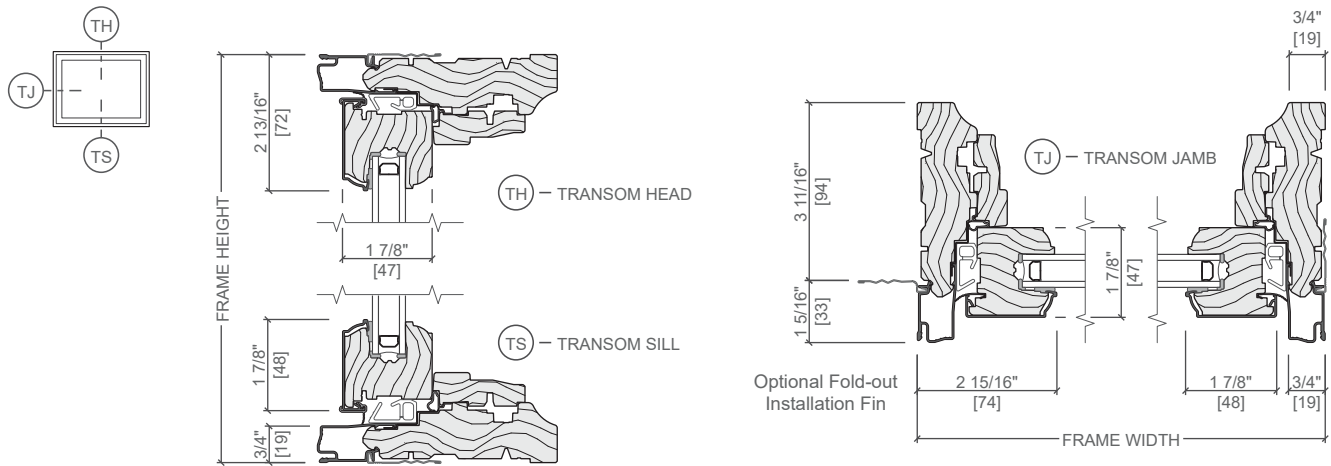
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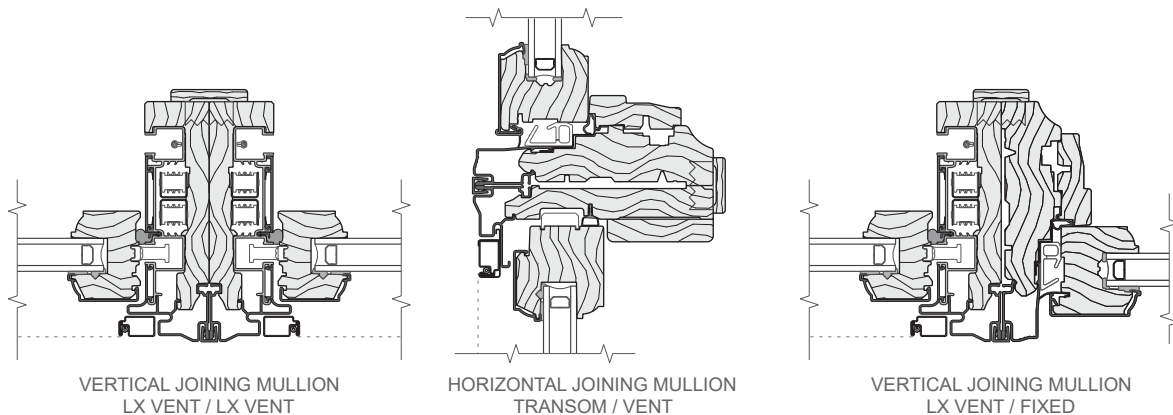


Pella® Reserve™ Traditional Hung Window

Unit Sections - Aluminum-Clad Ogee Exterior Glazing Profile



Typical Joining Mullions



Scale 3" = 1' 0"

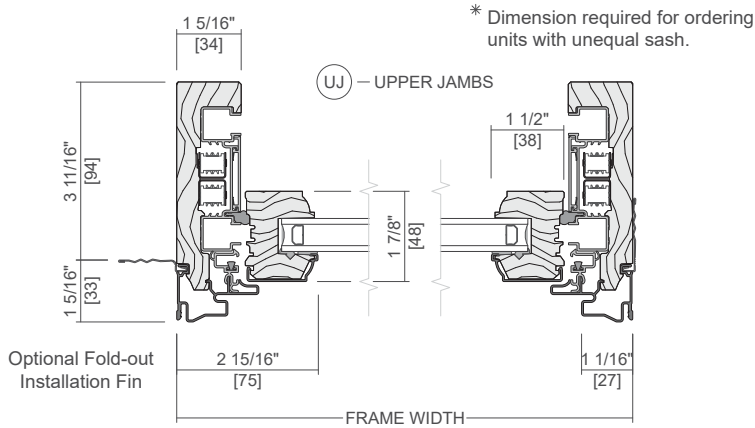
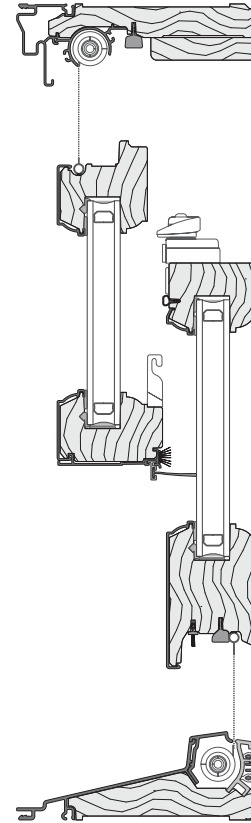
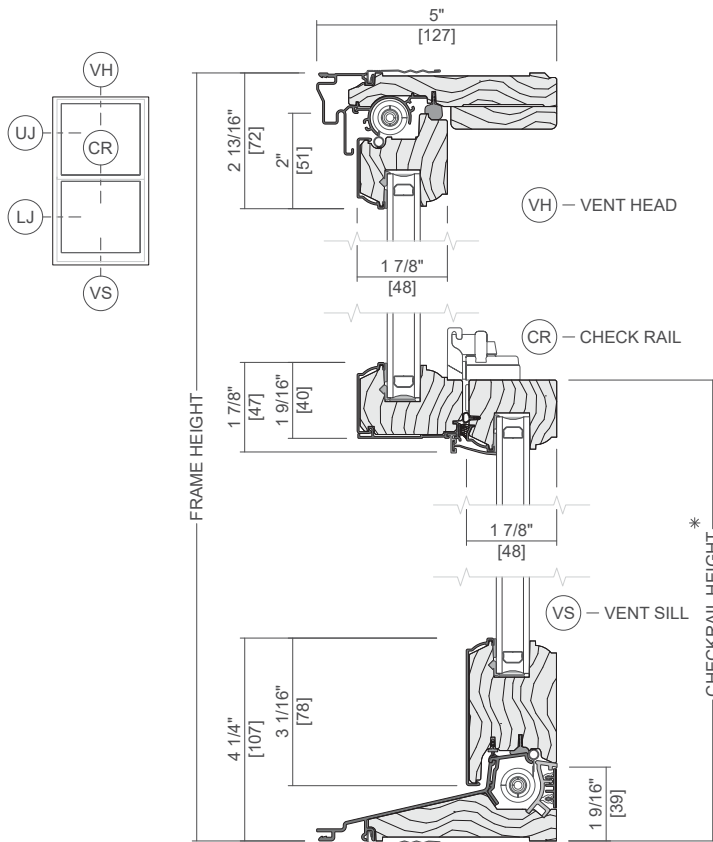
All dimensions are approximate.

See supporting document Combination Recommendations, for mullion limitations and reinforcing requirements.

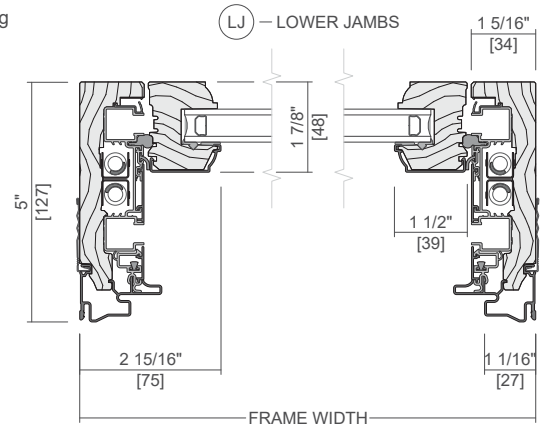


Pella® Reserve™ Traditional Hung Window

Unit Sections - Aluminum-Clad Ogee Exterior Glazing Profile with Integrated Rolscreen®



* Dimension required for ordering units with unequal sash.



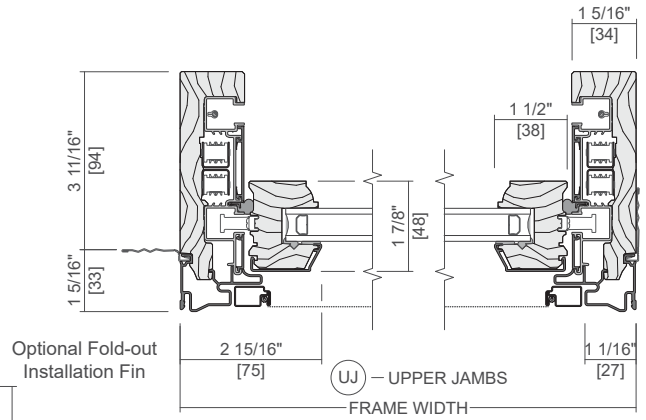
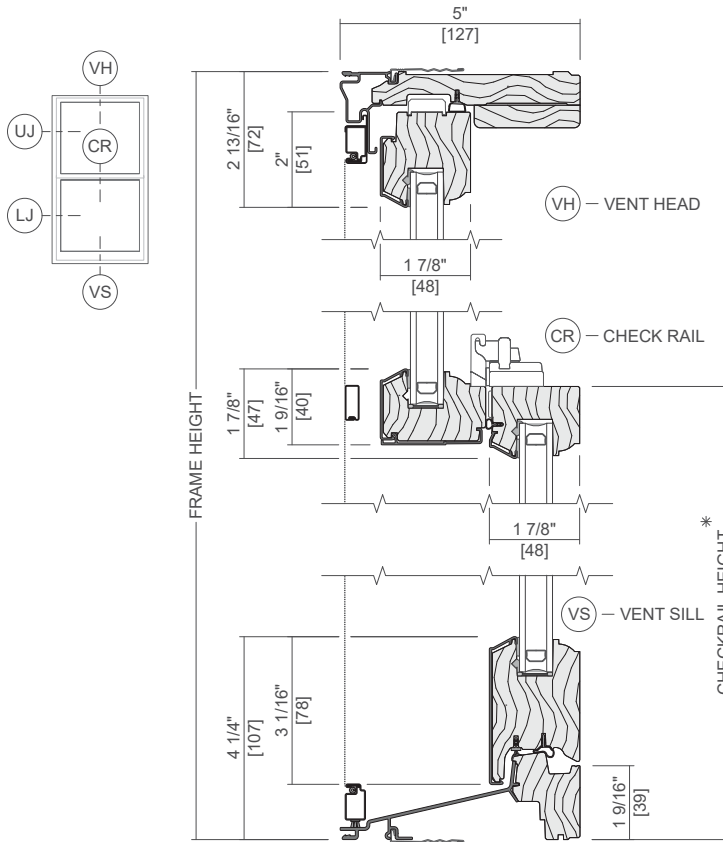
Scale 3" = 1' 0"

All dimensions are approximate.

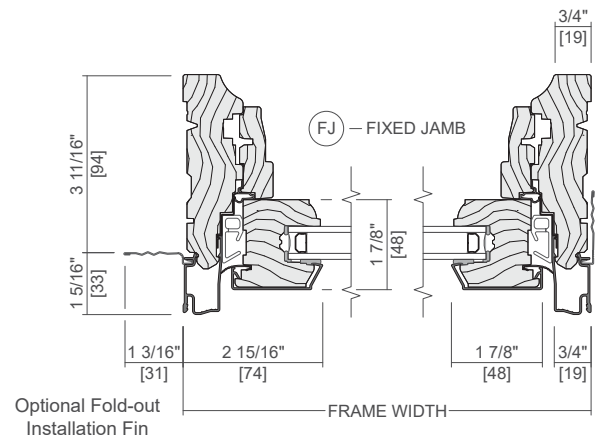
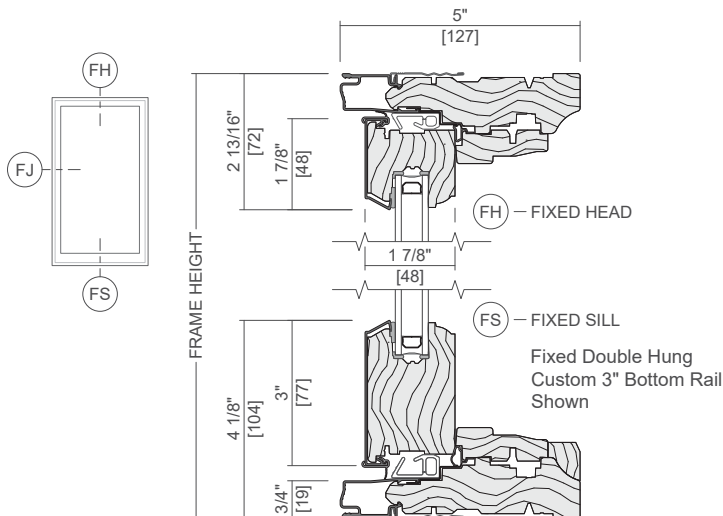
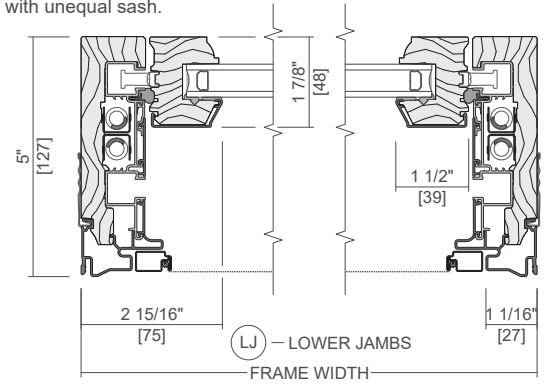


Pella® Reserve™ Traditional Hung Window

Unit Sections - Aluminum-Clad Putty Glaze Exterior Profile



* Dimension required for ordering units with unequal sash.



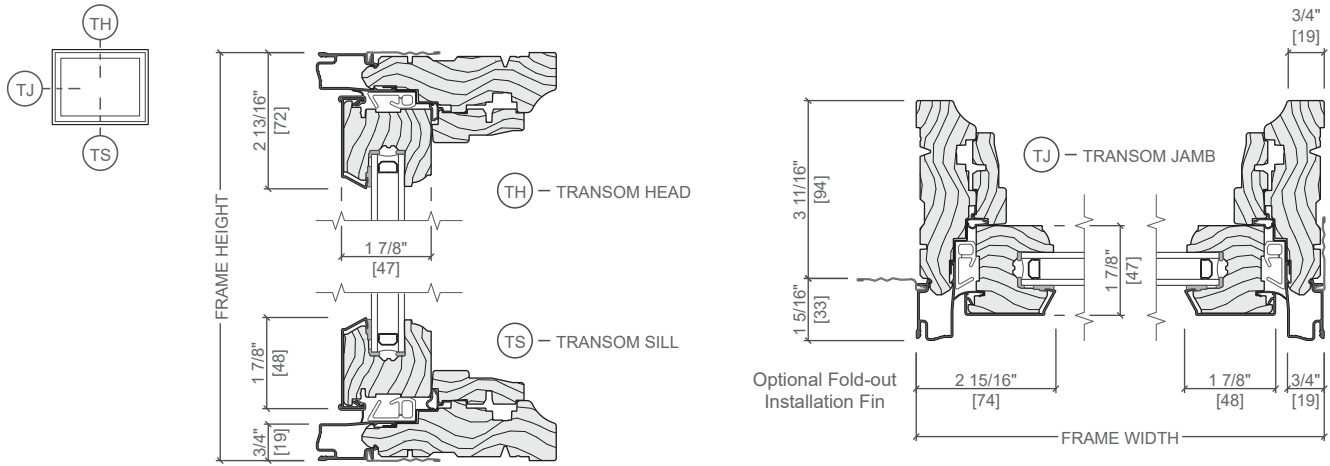
Scale 3" = 1' 0"

All dimensions are approximate.

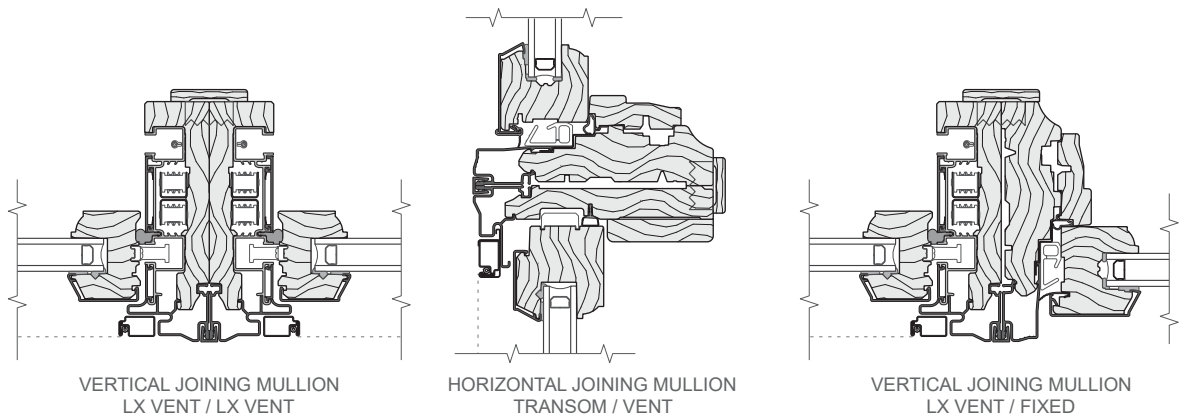


Pella® Reserve™ Traditional Hung Window

Unit Sections - Aluminum-Clad Putty Glaze Exterior Profile



Typical Joining Mullions



Scale 3" = 1' 0"

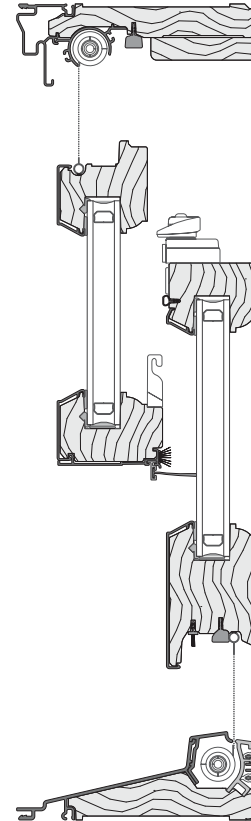
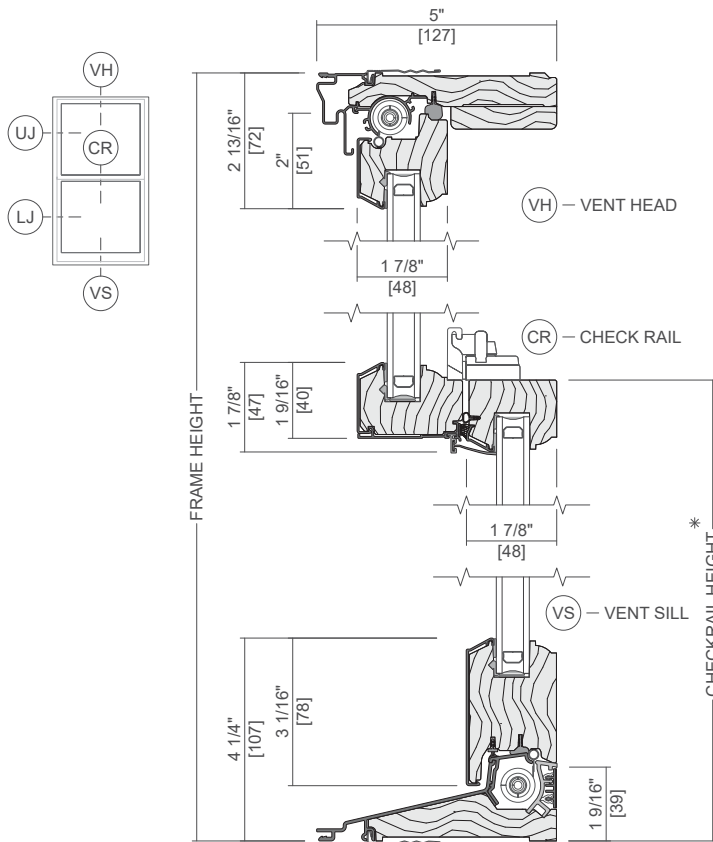
All dimensions are approximate.

See supporting document Combination Recommendations, for mullion limitations and reinforcing requirements.

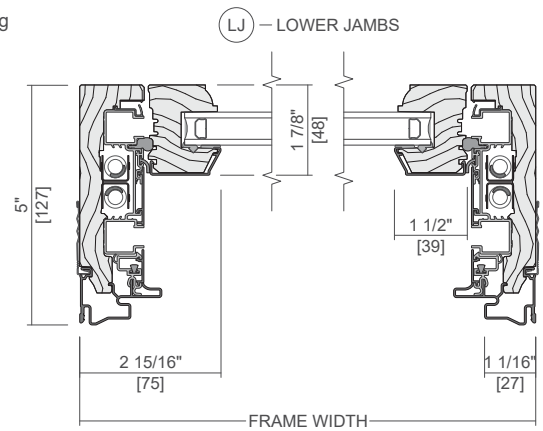
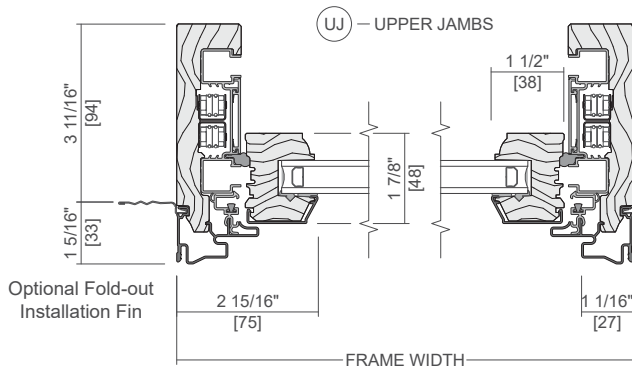


Pella® Reserve™ Traditional Hung Window

Unit Sections - Aluminum-Clad Putty Glaze Exterior Profile with Integrated Rolscreen®



* Dimension required for ordering units with unequal sash.



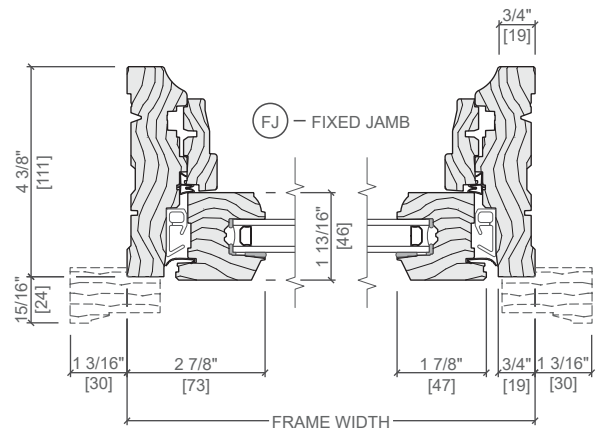
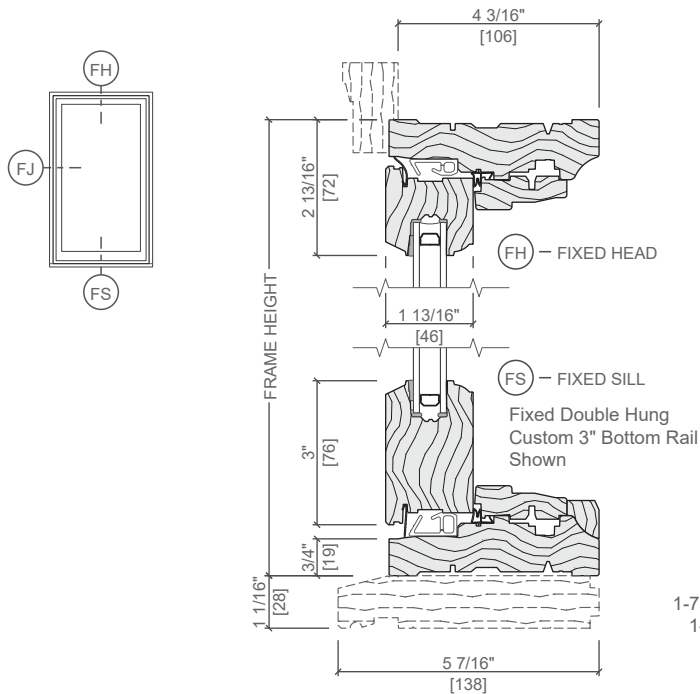
Scale 3" = 1' 0"

All dimensions are approximate.

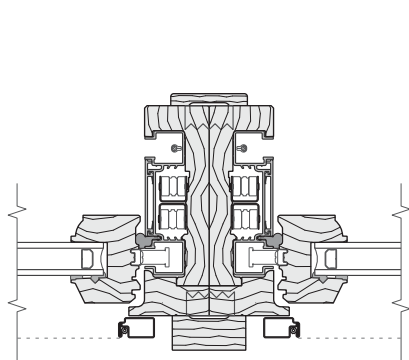
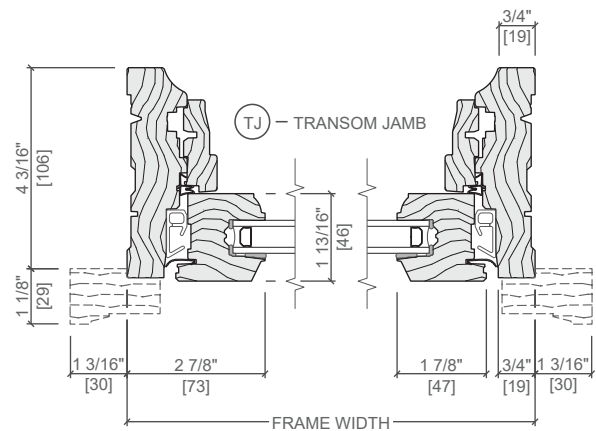
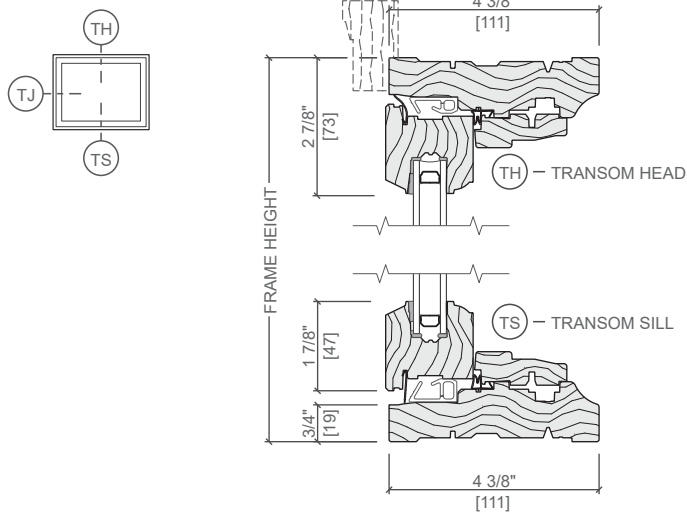


Pella® Reserve™ Traditional Hung Window

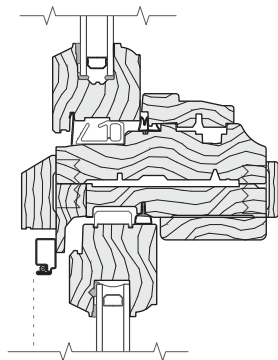
Unit Sections - Wood Exterior Putty Glaze Exterior Profile



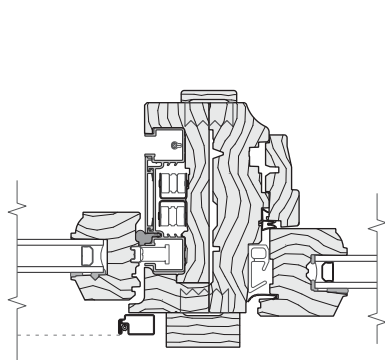
1-78" Brickmould #3443
1-1/8" Subsill #3544
Shown



VERTICAL JOINING MULLION
LX VENT / LX VENT



HORIZONTAL JOINING MULLION
TRANSOM / VENT



VERTICAL JOINING MULLION
LX VENT / FIXED

Scale 3" = 1' 0"

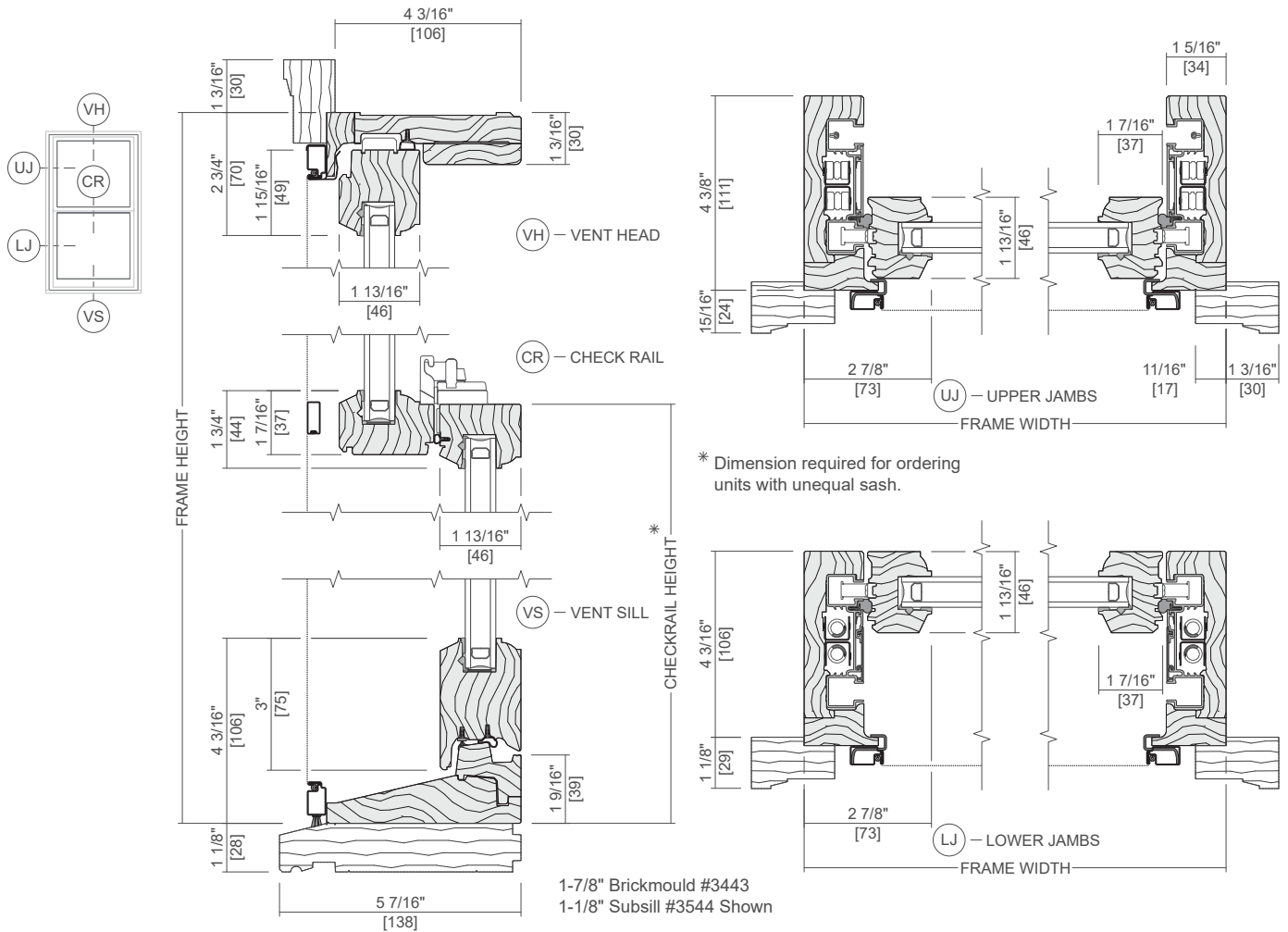
All dimensions are approximate.

See supporting document Combination Recommendations, for mullion limitations and reinforcing requirements.

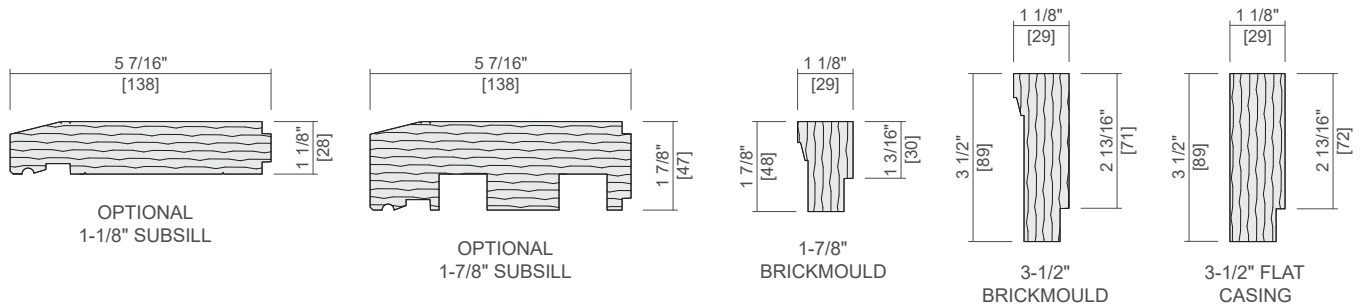


Pella® Reserve™ Traditional Hung Window

Unit Sections - Wood Exterior Putty Glaze Exterior Profile



* Dimension required for ordering units with unequal sash.



Scale 3" = 1' 0"

All dimensions are approximate.

Door Material Information



Supporting Documents.....	OSD-2
Product Selection Guide	
Size and Performance Data.....	OSD-3
Sound Transmission Class and Outdoor-Indoor Transmission Class	OSD-3
Features and Options.....	OSD-5
Combination Assemblies.....	OSD-6

Pella Reserve Out-Swing Patio Door

Glazing Performance.....	OSD-7
Impact-Resistant Glazing	OSD-12
Grille Types	
Grille Profiles.....	OSD-13
Grille Pattern	OSD-14
Custom Shapes	OSD-15
Size Tables.....	OSD-16
Special Sizes and Dimensions	OSD-20
Design Data	OSD-21
Detailed Product Descriptions	
Clad	OSD-24
Wood	OSD-25
Unit Sections	
Clad	OSD-26
Wood	OSD-31
Handle Hardware Dimensions	OSD-35

Pella Reserve Commercial Out-Swing Door

Glazing Performance.....	OSD-36
Size Tables.....	OSD-38
Design Data	OSD-39
Hardware Parameters and Recommendations.....	OSD-40
Detailed Product Descriptions	
Clad	OSD-41
Wood	OSD-42
Unit Sections	
Clad	OSD-43
Wood	OSD-45

The information published in this document is believed to be accurate at the time of publication. However, because we are constantly working to improve our products, specifications are subject to change without notice. Consult your local Pella representative for up-to-date product information.



Supporting documents for this product:

Test Reports:

https://media.pella.com/professional/adm/CertificationReports/Test_Reports_PR-Clad.pdf

CSI Specs (readable using Microsoft Word or other text editing application):

https://media.pella.com/professional/adm/Wood-CSI_Specs/08551-R.rtf

AIA Masterspec

(readable using Microsoft Word or other text editing application):

[AIA Masterspec: https://media.pella.com/professional/adm/Wood-CSI_Specs/Masterspec/085200_fl.doc](https://media.pella.com/professional/adm/Wood-CSI_Specs/Masterspec/085200_fl.doc)

Detailed Product Description

(readable using Microsoft Word or other text editing application):

Clad: <https://media.pella.com/professional/adm/Clad-Wood/PR-OutSwingDoor-C.rtf>

Wood: <https://media.pella.com/professional/adm/Clad-Wood/PR-OutSwingDoor-W.rtf>

Size Tables (requires appropriate CAD software to read and use):

https://media.pella.com/professional/adm/Clad-Wood/ASR-OF-Elev_D.dwg

CAD cross sections (requires appropriate CAD software to read and use):

https://media.pella.com/professional/adm/Clad-Wood/ASR-OF-Details_D.dwg

3D & BIM (requires appropriate software to read and use):

<https://media.pella.com/professional/adm/RevitFiles/PR-Revit/Door-Out-Swing-Pella-Reserve-Traditional.zip>

Sketchup (requires appropriate software to read and use):

https://media.pella.com/professional/adm/Clad-Wood/PellaSKP_PellaReserve_Traditional_Hinged_Door_Out-Swing.zip

Combination Recommendations:

https://media.pella.com/professional/adm/Clad-Wood/D_Combinations.pdf

Installation Details:

https://media.pella.com/professional/adm/Clad-Wood/F_InstallationDetails.pdf

Impact-Resistant Out-Swing Door, Complete Product Information:

https://media.pella.com/professional/adm/Clad-Wood/Pella-ImpactResistant_OutSwingDoor.pdf

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Pella® Reserve™ Traditional Out-Swing Patio Door

Size and Performance Data

Residential

	Clad	Wood
Sizes		
Standard door sizes	●	●
Standard sidelight sizes	●	●
Standard transom sizes — fixed frame direct set	●	●
Fixed casement	●	●
Wide stile casement	●	●
Special sizes	●	●
Custom sizes and shapes	●	●
Single-Swing Door Width		
2' 2", 2' 6", 2' 10", 3' 0", 3' 2"	●	●
Double-Swing Door Width (Active-Passive or Passive-Active)		
4' 2", 5' 0", 5' 7", 6' 0", 6' 3"	●	●
Door Heights		
6' 7-1/2", 6' 10", 7' 2", 8' 0", 9' 0", 10' 0"	●	●

Commercial

	Clad	Wood
Sizes		
Standard sidelight sizes	●	●
3' 2" Single door widths	●	●
6' 0" Double door widths	●	●
7' 2" and 8' 0" door heights	●	●
Configurations		
Double-swing doors	●	●
Single-swing door (left- or right-hinged)	●	●
Performance¹		
Air Infiltration (cfm/ft ² of frame @ 1.57 psf wind pressure)	0.15	0.15
Water Resistance	0	0
Design Pressure	—	—

Sound Transmission Class / Outdoor-Indoor Transmission Class

Product	Frame Size Tested ₂	Glazing System				STC Rating	OITC Rating
		Overall Glazing Thickness	Exterior Glass Thickness	Interior Glass Thickness	Third Pane Thickness		
Clad Out-Swing	WITHOUT GRILLES						
	71-1/4" x 81-1/2"	13/16"	3 mm	3 mm	—	30	25
	71-1/4" x 81-1/2"	13/16"	3 mm	7.6 mm PVB	—	35	29
Clad Out-Swing with Impact-Resistant LaminatedGlass	WITHOUT GRILLES						
	71-1/4" x 81-1/2"	7/8"	8.6 mm PVB	4.7 mm	—	34	30

(—) = Not Applicable

(1) Maximum performance for single unit when glazed with the appropriate glass thickness. Doors supplied without latching hardware are not AAMA/WDMA performance certified. See Design Data pages in this section for specific product performance class and grade values.

(2) ASTM E 1425 defines standard sizes for acoustical testing. Ratings achieved at that size are representative of all sizes of the same configuration.



Pella® Reserve™ Traditional Out-Swing Patio Door

Size and Performance Data

		Clad	Wood
Performance data			
Doors 8' 0" Tall and Under	Standard Sill		
	Meets or Exceeds AAMA / WDMA Ratings ¹	LC70 Hallmark Certified	LC70 Hallmark Certified
	Air Infiltration (cfm / ft ² of frame @ 1.57 psf wind pressure)	0.15	0.15
	Water Resistance	10.66 psf	10.66 psf
	Design Pressure	70 psf	70 psf
	Low Profile Sill		
	Water Resistance	0 psf	0 psf
Doors over 8' Tall up to 10' 0"	Standard Sill		
	Meets or Exceeds AAMA / WDMA Ratings ¹	LC50 Hallmark Certified	LC50 Hallmark Certified
	Air Infiltration (cfm / ft ² of frame @ 1.57 psf wind pressure)	0.15	0.15
	Water Resistance	7.52 psf	7.52 psf
	Design Pressure	50 psf	50 psf
	Low Profile Sill		
	Water Resistance	0 psf	0 psf
Other Performance Criteria			
Forced Entry Resistance Level (Minimum Security Grade) ²		40	40
Additional Performance data			
Doors 8' 0" Tall and Under	Products with Impact-Resistant Glass		
	Meets or Exceeds AAMA / WDMA Ratings ¹	LC70	LC70
	Air Infiltration (cfm / ft ² of frame @ 1.57 psf wind pressure)	0.15	0.15
	Water Resistance	10.66 psf	10.66 psf
	Design Pressure	70 psf	70 psf
Doors over 8' Tall up to 10' 0"	Products with Impact-Resistant Glass		
	Meets or Exceeds AAMA / WDMA Ratings ¹	LC50	LC50
	Air Infiltration (cfm / ft ² of frame @ 1.57 psf wind pressure)	0.15	0.15
	Water Resistance	7.52 psf	7.52 psf
	Design Pressure	50 psf	50 psf

(1) Maximum performance for single unit when glazed with the appropriate glass thickness. Doors supplied without latching hardware are not AAMA/WDMA performance certified. See Design Data pages in this section for specific product performance class and grade values.

(2) The higher the level, the greater the product's ability to resist forced entry. Valid only if Pella supplied locking system is used.



Pella® Reserve™ Traditional Out-Swing Patio Door

Features and Options

Standard	Options / Upgrades
Glazing	
Glazing Type	
Dual-Pane Insulating Glass	Triple-Pane Insulating Glass
Insulated Glass Options/Low-E Types	
Advanced Low-E	SunDefense™ Low-E
	SunDefense+ Low-E
	AdvancedComfort Low-E
	NaturalSun Low-E
	NaturalSun+ Low-E
	Clear (no Low-E coating)
Additional Glass Options	
Tempered Glass	Obscure Glass ¹
	Tinted Glass (Bronze, Gray and Green)
	Impact-Resistant Laminated Dual-Pane Insulating Glass (Residential only)
Gas Fill/High Altitude	
Argon	High altitude
Wood Types	
Pine	Mahogany, Douglas Fir
Exterior	
EnduraClad® protective finish	EnduraClad Plus protective finish
	Factory Primed Pine wood exterior
	Unfinished Mahogany wood exterior
Cladding Colors¹	
Standard colors	Feature Colors, Custom Colors
Interior	
Unfinished Wood	Factory primed ³ , Factory prefinished paint ³ , Factory prefinished stain
Hardware⁴	
White, Champagne, Brown, Matte Black	Satin Brass, Satin Nickel, Oil-Rubbed Bronze
Locking System	
Multi-Point	—
Key lock	—
Grilles	
Integral Light Technology® Grilles	
—	Traditional, Prairie, Top Row, Cross, New England, Victorian, Custom
Grilles-Between-the-Glass	
—	Traditional, Prairie, Top Row, Cross

(1) Contact your local Pella sales representative for current designs and color options.

(2) ADA sill finishes available in mill or bronze anodized only.

(3) Not available on Mahogany and Douglas Fir interiors.

(4) Operating hardware for commercial products is not included.

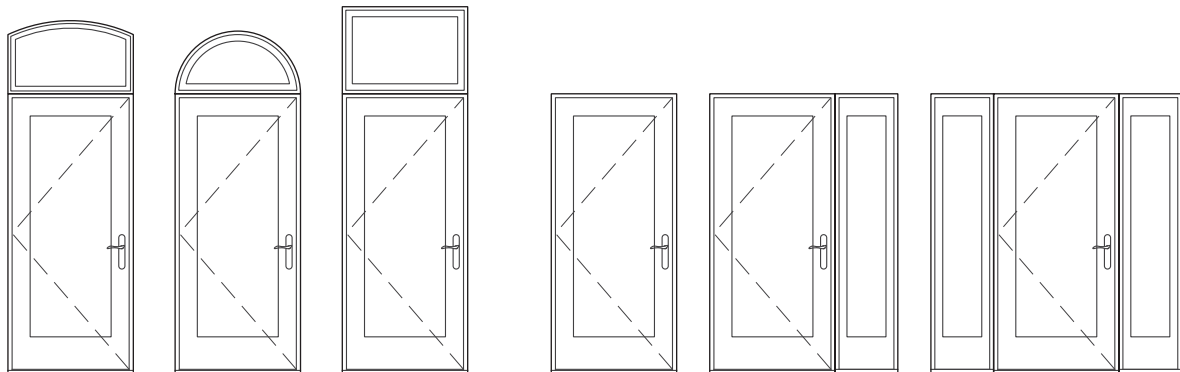


Combinations

Combinations are a great way to create visual interest in any project. A combination is an assembly formed by two or more separate windows or doors whose frames are mullioned together by a combination or reinforcing mullion.

Pella window combinations are available in an endless variety of arrangements. Below are examples of common configurations, see the Combinations Recommendations document for typical mullions, requirements and limitations.

Contact your local Pella sales representative for more information.



Arch Head over
Single

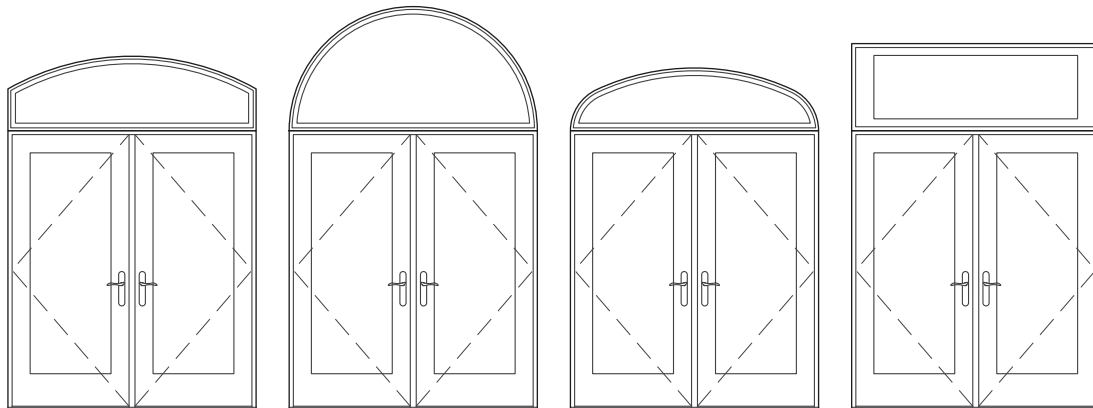
Half Circle over
Single

Transom over
Single¹

Single with
Left Sidelight

Single with
Right Sidelight

Single with
Double Sidelight

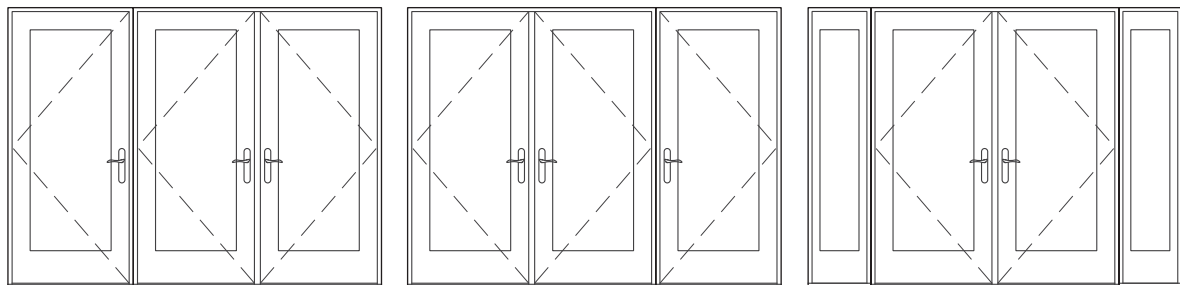


Arch Head over
Double

Half Circle over
Double

Elliptical over
Double

Transom over
Double



Double with
Single Left

Double with
Single Right

Double with
Double Sidelights

(1) Other rectangular profiles are also available as combination options.



Pella® Reserve™ Traditional Out-Swing Patio Door

Glazing Performance - Total Unit

Glazing Thickness	Type of Glazing	NFRC Certified Product #	Glass (mm)		Gap Fill	Performance Values ₁				Shaded Areas Meet ENERGY STAR® Performance Criteria in Zones Shown					
			Ext.	Int.		U-Factor	SHGC	VLT	CR	U. S.				Canada ₂	
										Zone				ER	Zone
Vent Dual-Pane Glazing - Aluminum-Clad Exterior										N	NC	SC	S	CA	
13/16"	Clear IG	PEL-N-212-06617-00001	3	3	Air	0.40	0.44	0.46	45						
	with grilles-between-the-glass	PEL-N-212-06618-00001				0.40	0.38	0.39	45						
	with integral grilles	PEL-N-212-06619-00001				0.40	0.38	0.39	45						
13/16"	Advanced Low-E IG	PEL-N-212-06649-00001	3	3	Argon	0.28	0.21	0.39	61			SC	S		
	with grilles-between-the-glass	PEL-N-212-06650-00001				0.28	0.19	0.33	61			SC	S		
	with integral grilles	PEL-N-212-06651-00001				0.28	0.19	0.33	61			SC	S		
13/16"	SunDefense™ Low-E IG	PEL-N-212-06625-00001	3	3	Argon	0.27	0.16	0.36	61			SC	S		
	with grilles-between-the-glass	PEL-N-212-06626-00001				0.27	0.14	0.31	61			SC	S		
	with integral grilles	PEL-N-212-06627-00001				0.28	0.14	0.31	61			SC	S		
13/16"	SunDefense+ Low-E IG	PEL-N-212-10237-00001	3	3	Argon	0.24	0.16	0.35	48	N	NC	SC	S		
	with grilles-between-the-glass	PEL-N-212-10238-00001				0.24	0.14	0.30	48	N	NC	SC	S		
	with integral grilles	PEL-N-212-10239-00001				0.25	0.14	0.30	48	N	NC	SC	S		
13/16"	AdvancedComfort Low-E IG	PEL-N-212-06633-00001	3	3	Argon	0.24	0.21	0.38	48	N	NC	SC	S		
	with grilles-between-the-glass	PEL-N-212-06634-00001				0.24	0.18	0.33	48	N	NC	SC	S		
	with integral grilles	PEL-N-212-06635-00001				0.25	0.18	0.33	48	N	NC	SC	S		
13/16"	NaturalSun Low-E IG	PEL-N-212-06641-00001	3	3	Argon	0.28	0.39	0.44	60						
	with grilles-between-the-glass	PEL-N-212-06642-00001				0.28	0.34	0.38	60						
	with integral grilles	PEL-N-212-06643-00001				0.29	0.34	0.38	60						
13/16"	NaturalSun+ Low-E IG	PEL-N-212-10205-00001	3	3	Argon	0.25	0.36	0.43	47	N	NC				
	with grilles-between-the-glass	PEL-N-212-10206-00001				0.25	0.31	0.37	47	N	NC				
	with integral grilles	PEL-N-212-10207-00001				0.26	0.31	0.37	47	N	NC				
Tinted Glazing															
13/16"	Bronze Advanced Low-E IG	PEL-N-212-06693-00001	5	3	Argon	0.27	0.19	0.25	62			SC	S		
	with integral grilles with grilles	PEL-N-212-06694-00001				0.27	0.17	0.22	62			SC	S		
	with integral grilles	PEL-N-212-06695-00001				0.28	0.17	0.22	62			SC	S		
13/16"	Gray Advanced Low-E IG	PEL-N-212-06701-00001	5	3	Argon	0.27	0.17	0.22	62			SC	S		
	with grilles-between-the-glass	PEL-N-212-06702-00001				0.27	0.15	0.19	62			SC	S		
	with integral grilles	PEL-N-212-06703-00001				0.28	0.15	0.19	62			SC	S		
13/16"	Green Advanced Low-E IG	PEL-N-212-06709-00001	5	3	Argon	0.27	0.21	0.34	62			SC	S		
	with grilles-between-the-glass	PEL-N-212-06710-00001				0.27	0.19	0.29	62			SC	S		
	with integral grilles	PEL-N-212-06711-00001				0.28	0.19	0.29	62			SC	S		
High Altitude Glazing															
13/16"	Advanced Low-E IG	PEL-N-212-06645-00001	3	3	Air	0.30	0.22	0.39	57						
	with grilles-between-the-glass	PEL-N-212-06646-00001				0.30	0.19	0.33	57						
	with integral grilles	PEL-N-212-06647-00001				0.31	0.19	0.33	58						
13/16"	SunDefense™ Low-E IG	PEL-N-212-06621-00001	3	3	Air	0.30	0.16	0.36	58						
	with grilles-between-the-glass	PEL-N-212-06622-00001				0.30	0.14	0.31	58						
	with integral grilles	PEL-N-212-06623-00001				0.30	0.14	0.31	58						
13/16"	SunDefense+ Low-E IG	PEL-N-212-10233-00001	3	3	Air	0.26	0.16	0.35	45	N	NC	SC	S		
	with grilles-between-the-glass	PEL-N-212-10234-00001				0.26	0.14	0.30	45	N	NC	SC	S		
	with integral grilles	PEL-N-212-10235-00001				0.27	0.14	0.30	45			SC	S		
13/16"	AdvancedComfort Low-E IG	PEL-N-212-06629-00001	3	3	Air	0.26	0.21	0.38	45	N	NC	SC	S		
	with grilles-between-the-glass	PEL-N-212-06630-00001				0.26	0.18	0.33	45	N	NC	SC	S		
	with integral grilles	PEL-N-212-06631-00001				0.27	0.18	0.33	45			SC	S		
13/16"	NaturalSun Low-E IG	PEL-N-212-06637-00001	3	3	Air	0.31	0.39	0.44	57						
	with grilles-between-the-glass	PEL-N-212-06638-00001				0.31	0.34	0.38	57						
	with integral grilles	PEL-N-212-06639-00001				0.31	0.34	0.38	57						
13/16"	NaturalSun+ Low-E IG	PEL-N-212-10201-00001	3	3	Air	0.27	0.36	0.43	44						
	with grilles-between-the-glass	PEL-N-212-10202-00001				0.27	0.31	0.37	44						
	with integral grilles	PEL-N-212-10203-00001				0.28	0.31	0.37	44						

R-Value = 1/U-Factor, SHGC = Solar Heat Gain Coefficient
VLT % = Visible Light Transmission, CR = Condensation Resistance
ER = Canadian Energy Rating

(1) Glazing performance values are calculated based on NFRC 100, NFRC 200 and NFRC 500. ENERGY STAR® values are updated to 2023 (Version 7) criteria.

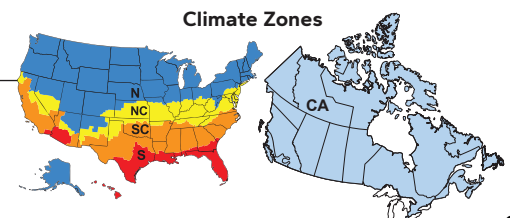
(2) The values shown are based on Canada's updated ENERGY STAR® 2020 initiative.

U-Factor values shown are based on a standard sill and pine interior.

Visit www.energystar.gov for Energy Star guidelines.

Rev. 04/02/2024

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Pella® Reserve™ Traditional Out-Swing Patio Door

Glazing Performance - Total Unit

Glazing Thickness	Type of Glazing	NFRC Certified Product #	Glass (mm)			Gap Fill	Performance Values ₁				Shaded Areas Meet ENERGY STAR® Performance Criteria in Zones Shown					
			Ext.	Mid	Int.		U-Factor	SHGC	VLT	CR	U. S.				Canada ₂	
											Zone				ER	Zone
Vent Triple-Pane Glazing - Aluminum-Clad Exterior											N	NC	SC	S		CA
1"	Advanced Low-E IG	PEL-N-212-07005-00001	3	3	3	Argon	0.23	0.20	0.35	70	N	NC	SC	S		
	with grilles-between-the-glass	PEL-N-212-07006-00001					0.23	0.17	0.29	70	N	NC	SC	S		
	with integral grilles	PEL-N-212-07007-00001					0.23	0.17	0.29	70	N	NC	SC	S		
1"	SunDefense™ Low-E IG	PEL-N-212-07017-00001	3	3	3	Argon	0.22	0.15	0.32	70	N	NC	SC	S		
	with grilles-between-the-glass	PEL-N-212-07018-00001					0.23	0.13	0.27	70	N	NC	SC	S		
	with integral grilles	PEL-N-212-07019-00001					0.23	0.13	0.27	70	N	NC	SC	S		
1"	NaturalSun Low-E IG	PEL-N-212-06993-00001	3	3	3	Argon	0.23	0.32	0.39	70	N	NC				
	with grilles-between-the-glass	PEL-N-212-06994-00001					0.23	0.28	0.33	70	N	NC				
	with integral grilles	PEL-N-212-06995-00001					0.23	0.28	0.33	70	N	NC				
High Altitude Glazing																
1"	Advanced Low-E IG	PEL-N-212-07009-00001	3	3	3	Air	0.25	0.20	0.35	66	N	NC	SC	S		
	with grilles-between-the-glass	PEL-N-212-07010-00001					0.26	0.17	0.29	66	N	NC	SC	S		
	with integral grilles	PEL-N-212-07011-00001					0.26	0.17	0.29	66	N	NC	SC	S		
1"	SunDefense Low-E IG	PEL-N-212-07021-00001	3	3	3	Air	0.25	0.15	0.32	66	N	NC	SC	S		
	with grilles-between-the-glass	PEL-N-212-07022-00001					0.26	0.13	0.27	66	N	NC	SC	S		
	with integral grilles	PEL-N-212-07023-00001					0.26	0.13	0.27	66	N	NC	SC	S		
1"	NaturalSun Low-E IG	PEL-N-212-06997-00001	3	3	3	Air	0.25	0.32	0.39	66	N	NC				
	with grilles-between-the-glass	PEL-N-212-06998-00001					0.26	0.28	0.33	66	N	NC				
	with integral grilles	PEL-N-212-06999-00001					0.26	0.28	0.33	66	N	NC				

R-Value = 1/U-Factor

SHGC = Solar Heat Gain Coefficient

VLT % = Visible Light Transmission

CR = Condensation Resistance

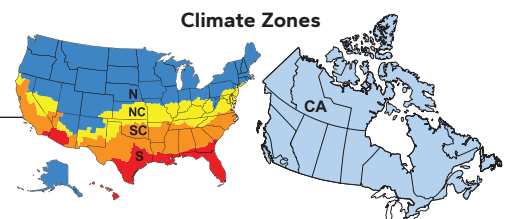
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(1) Glazing performance values are calculated based on NFRC 100, NFRC 200 and NFRC 500. ENERGY STAR® values are updated to 2023 (Version 7) criteria.

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Pella® Reserve™ Traditional Out-Swing Patio Door

Glazing Performance - Total Unit

Glazing Thickness	Type of Glazing	NFRC Certified Product #	Glass (mm)		Gap Fill	Performance Values ₁				Shaded Areas Meet ENERGY STAR® Performance Criteria in Zones Shown						
			Ext.	Int.		U-Factor	SHGC	VLT	CR	U. S.				Canada ₂		
										Zone				ER	Zone	
Vent Dual-Pane Glazing - Wood Exterior											N	NC	SC	S	CA	
13/16"	Clear IG	PEL-N-219-06521-00001	3	3	Air	0.39	0.45	0.46	46							
	with grilles-between-the-glass	PEL-N-219-06522-00001				0.39	0.38	0.39	46							
	with integral grilles	PEL-N-219-06523-00001				0.40	0.38	0.39	46							
13/16"	Advanced Low-E IG	PEL-N-219-06537-00001	3	3	Argon	0.27	0.22	0.39	62			SC	S			
	with grilles-between-the-glass	PEL-N-219-06538-00001				0.27	0.19	0.33	62			SC	S			
	with integral grilles	PEL-N-219-06539-00001				0.28	0.19	0.33	62			SC	S			
13/16"	SunDefense™ Low-E IG	PEL-N-219-06529-00001	3	3	Argon	0.27	0.16	0.36	62			SC	S			
	with grilles-between-the-glass	PEL-N-219-06530-00001				0.27	0.14	0.31	63			SC	S			
	with integral grilles	PEL-N-219-06531-00001				0.28	0.14	0.31	63			SC	S			
13/16"	SunDefense+ Low-E IG	PEL-N-219-08533-00001	3	3	Argon	0.24	0.16	0.35	39	N	NC	SC	S			
	with grilles-between-the-glass	PEL-N-219-08534-00001				0.24	0.14	0.30	39	N	NC	SC	S			
	with integral grilles	PEL-N-219-08535-00001				0.25	0.14	0.30	39	N	NC	SC	S			
13/16"	AdvancedComfort Low-E IG	PEL-N-219-06553-00001	3	3	Argon	0.24	0.21	0.38	49	N	NC	SC	S			
	with grilles-between-the-glass	PEL-N-219-06554-00001				0.24	0.18	0.33	49	N	NC	SC	S			
	with integral grilles	PEL-N-219-06555-00001				0.25	0.18	0.33	49	N	NC	SC	S			
13/16"	NaturalSun Low-E IG	PEL-N-219-06545-00001	3	3	Argon	0.28	0.39	0.44	61							
	with grilles-between-the-glass	PEL-N-219-06546-00001				0.28	0.34	0.38	61							
	with integral grilles	PEL-N-219-06547-00001				0.29	0.34	0.38	61							
13/16"	NaturalSun+ Low-E IG	PEL-N-219-08509-00001	3	3	Argon	0.25	0.36	0.43	49	N	NC					
	with grilles-between-the-glass	PEL-N-219-08510-00001				0.25	0.31	0.37	49	N	NC					
	with integral grilles	PEL-N-219-08511-00001				0.26	0.31	0.37	49	N	NC					
Tinted Glazing																
13/16"	Bronze Advanced Low-E IG	PEL-N-219-06573-00002	5	3	Argon	0.27	0.19	0.25	62			SC	S			
	with grilles-between-the-glass	PEL-N-219-06574-00002				0.27	0.17	0.22	62			SC	S			
	with integral grilles	PEL-N-219-06575-00002				0.28	0.17	0.22	62			SC	S			
13/16"	Gray Advanced Low-E IG	PEL-N-219-06573-00003	5	3	Argon	0.27	0.18	0.22	62			SC	S			
	with grilles-between-the-glass	PEL-N-219-06574-00003				0.27	0.15	0.19	62			SC	S			
	with integral grilles	PEL-N-219-06575-00003				0.28	0.15	0.19	62			SC	S			
13/16"	Green Advanced Low-E IG	PEL-N-219-06573-00004	5	3	Argon	0.27	0.22	0.34	62			SC	S			
	with grilles-between-the-glass	PEL-N-219-06574-00004				0.27	0.19	0.29	62			SC	S			
	with integral grilles	PEL-N-219-06575-00004				0.28	0.19	0.29	62			SC	S			
High Altitude Glazing																
13/16"	Advanced Low-E IG	PEL-N-219-06533-00001	3	3	Air	0.30	0.22	0.39	59							
	with grilles-between-the-glass	PEL-N-219-06534-00001				0.30	0.19	0.33	59							
	with integral grilles	PEL-N-219-06535-00001				0.30	0.19	0.33	59							
13/16"	SunDefense Low-E IG	PEL-N-219-06525-00001	3	3	Air	0.30	0.16	0.36	59							
	with grilles-between-the-glass	PEL-N-219-06526-00001				0.30	0.14	0.31	59							
	with integral grilles	PEL-N-219-06527-00001				0.30	0.14	0.31	59							
13/16"	SunDefense+ Low-E IG	PEL-N-219-08529-00001	3	3	Air	0.26	0.16	0.35	49	N	NC	SC	S			
	with grilles-between-the-glass	PEL-N-219-08530-00001				0.26	0.14	0.30	49	N	NC	SC	S			
	with integral grilles	PEL-N-219-08531-00001				0.27	0.14	0.30	52			SC	S			
13/16"	AdvancedComfort Low-E IG	PEL-N-219-06549-00001	3	3	Air	0.26	0.21	0.38	45	N	NC	SC	S			
	with grilles-between-the-glass	PEL-N-219-06550-00001				0.26	0.19	0.33	45	N	NC	SC	S			
	with integral grilles	PEL-N-219-06551-00001				0.27	0.19	0.33	45			SC	S			
13/16"	NaturalSun Low-E IG	PEL-N-219-06541-00001	3	3	Air	0.30	0.39	0.44	58							
	with grilles-between-the-glass	PEL-N-219-06542-00001				0.30	0.34	0.38	58							
	with integral grilles	PEL-N-219-06543-00001				0.31	0.34	0.38	58							
13/16"	NaturalSun+ Low-E IG	PEL-N-219-08505-00001	3	3	Air	0.26	0.36	0.43	41	N	NC					
	with grilles-between-the-glass	PEL-N-219-08506-00001				0.26	0.31	0.37	41	N	NC					
	with integral grilles	PEL-N-219-08507-00001				0.27	0.31	0.37	41							

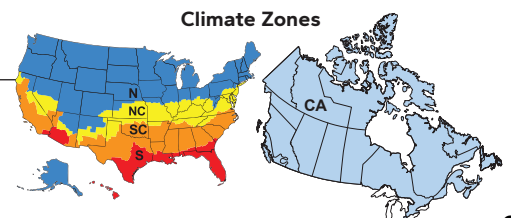
R-Value = 1/U-Factor, SHGC = Solar Heat Gain Coefficient
VLT % = Visible Light Transmission, CR = Condensation Resistance
ER = Canadian Energy Rating

(1) Glazing performance values are calculated based on NFRC 100, NFRC 200 and NFRC 500.
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U-Factor values shown are based on a standard sill and pine interior.

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Pella® Reserve™ Traditional Out-Swing Patio Door

Glazing Performance - Total Unit

Glazing Thickness	Type of Glazing	NFRC Certified Product #	Glass (mm)			Gap Fill	Performance Values ₁				Shaded Areas Meet ENERGY STAR® Performance Criteria in Zones Shown					
			Ext.	Mid	Int.		U-Factor	SHGC	VLT	CR	U. S.				Canada ₂	
											Zone				ER	Zone
Vent Triple-Pane Glazing - Wood Exterior											N	NC	SC	S		CA
1"	Advanced Low-E IG	PEL-N-219-06713-00001	3	3	3	Argon	0.22	0.20	0.35	70	N	NC	SC	S		
	with grilles-between-the-glass	PEL-N-219-06714-00001					0.23	0.17	0.29	70	N	NC	SC	S		
	with integral grilles	PEL-N-219-06715-00001					0.23	0.17	0.29	70	N	NC	SC	S		
1"	SunDefense™ Low-E IG	PEL-N-219-06725-00001	3	3	3	Argon	0.22	0.15	0.32	70	N	NC	SC	S		
	with grilles-between-the-glass	PEL-N-219-06726-00001					0.23	0.13	0.27	70	N	NC	SC	S		
	with integral grilles	PEL-N-219-06727-00001					0.23	0.13	0.27	70	N	NC	SC	S		
1"	NaturalSun Low-E IG	PEL-N-219-06701-00001	3	3	3	Argon	0.23	0.32	0.39	70	N	NC				
	with grilles-between-the-glass	PEL-N-219-06702-00001					0.23	0.28	0.33	70	N	NC				
	with integral grilles	PEL-N-219-06703-00001					0.23	0.28	0.33	70	N	NC				
High Altitude Glazing																
1"	Advanced Low-E IG	PEL-N-219-06709-00001	3	3	3	Air	0.25	0.20	0.35	67	N	NC	SC	S		
	with grilles-between-the-glass	PEL-N-219-06710-00001					0.26	0.17	0.29	67	N	NC	SC	S		
	with integral grilles	PEL-N-219-06711-00001					0.25	0.17	0.29	67	N	NC	SC	S		
1"	SunDefense Low-E IG	PEL-N-219-06721-00001	3	3	3	Air	0.25	0.15	0.32	67	N	NC	SC	S		
	with grilles-between-the-glass	PEL-N-219-06722-00001					0.25	0.13	0.27	67	N	NC	SC	S		
	with integral grilles	PEL-N-219-06723-00001					0.25	0.13	0.27	67	N	NC	SC	S		
1"	NaturalSun Low-E IG	PEL-N-219-06697-00001	3	3	3	Air	0.25	0.32	0.39	67	N	NC				
	with grilles-between-the-glass	PEL-N-219-06698-00001					0.26	0.28	0.33	67	N	NC				
	with integral grilles	PEL-N-219-06699-00001					0.26	0.28	0.33	67	N	NC				

R-Value = 1/U-Factor

SHGC = Solar Heat Gain Coefficient

VLT % = Visible Light Transmission

CR = Condensation Resistance

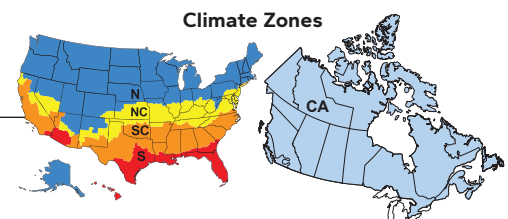
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Pella® Reserve™ Traditional Out-Swing Patio Door

Glazing Performance - Total Unit Impact-Resistant Glass

Glazing Thickness	Type of Glazing	NFRC Certified Product #	Glass (mm)		Gap Fill	Performance Values ¹				Shaded Areas Meet ENERGY STAR® Performance Criteria in Zones Shown					
			Ext.	Int.		U-Factor	SHGC	VLT	CR	U. S.				Canada ²	
										Zone				ER	Zone
Dual-Pane Laminated Impact-Resistant Glazing - Aluminum-Clad Exterior										N	NC	SC	S	CA	
7/8"	Clear IG PVB	PEL-N-212-06945-00001	8	5	air	0.41	0.39	0.44	44						
	with grilles-between-the-glass	PEL-N-212-06946-00001				0.41	0.33	0.38	44						
	with integral grilles	PEL-N-212-06947-00001				0.42	0.33	0.38	44						
7/8"	Advanced Low-E IG PVB	PEL-N-212-06949-00001	8	5	argon	0.29	0.21	0.38	59						
	with grilles-between-the-glass	PEL-N-212-06950-00001				0.30	0.19	0.33	59						
	with integral grilles	PEL-N-212-06951-00001				0.30	0.19	0.33	59						
7/8"	SunDefense™ Low-E IG	PEL-N-212-06953-00001	8	5	argon	0.28	0.17	0.35	59			SC	S		
	with grilles-between-the-glass	PEL-N-212-06954-00001				0.30	0.15	0.30	59						
	with integral grilles	PEL-N-212-06955-00001				0.30	0.15	0.30	59						
Dual-Pane Tinted Laminated Impact-Resistant Glazing - Aluminum-Clad Exterior															
7/8"	Bronze IG PVB	PEL-N-212-06957-00001	8	5	air	0.41	0.26	0.18	44						
	with grilles-between-the-glass	PEL-N-212-06958-00001				0.41	0.23	0.15	44						
	with integral grilles	PEL-N-212-06959-00001				0.40	0.23	0.15	44						
7/8"	Gray IG PVB	PEL-N-212-06961-00001	8	5	air	0.41	0.29	0.21	44						
	with grilles-between-the-glass	PEL-N-212-06962-00001				0.41	0.25	0.18	44						
	with integral grilles	PEL-N-212-06963-00001				0.40	0.25	0.18	44						
7/8"	Green IG PVB	PEL-N-212-06965-00001	8	5	air	0.41	0.35	0.36	44						
	with grilles-between-the-glass	PEL-N-212-06966-00001				0.41	0.30	0.31	44						
	with integral grilles	PEL-N-212-06967-00001				0.40	0.30	0.31	44						

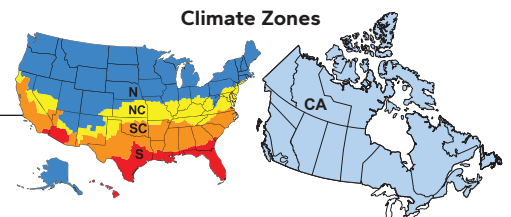
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 SHGC = Solar Heat Gain Coefficient
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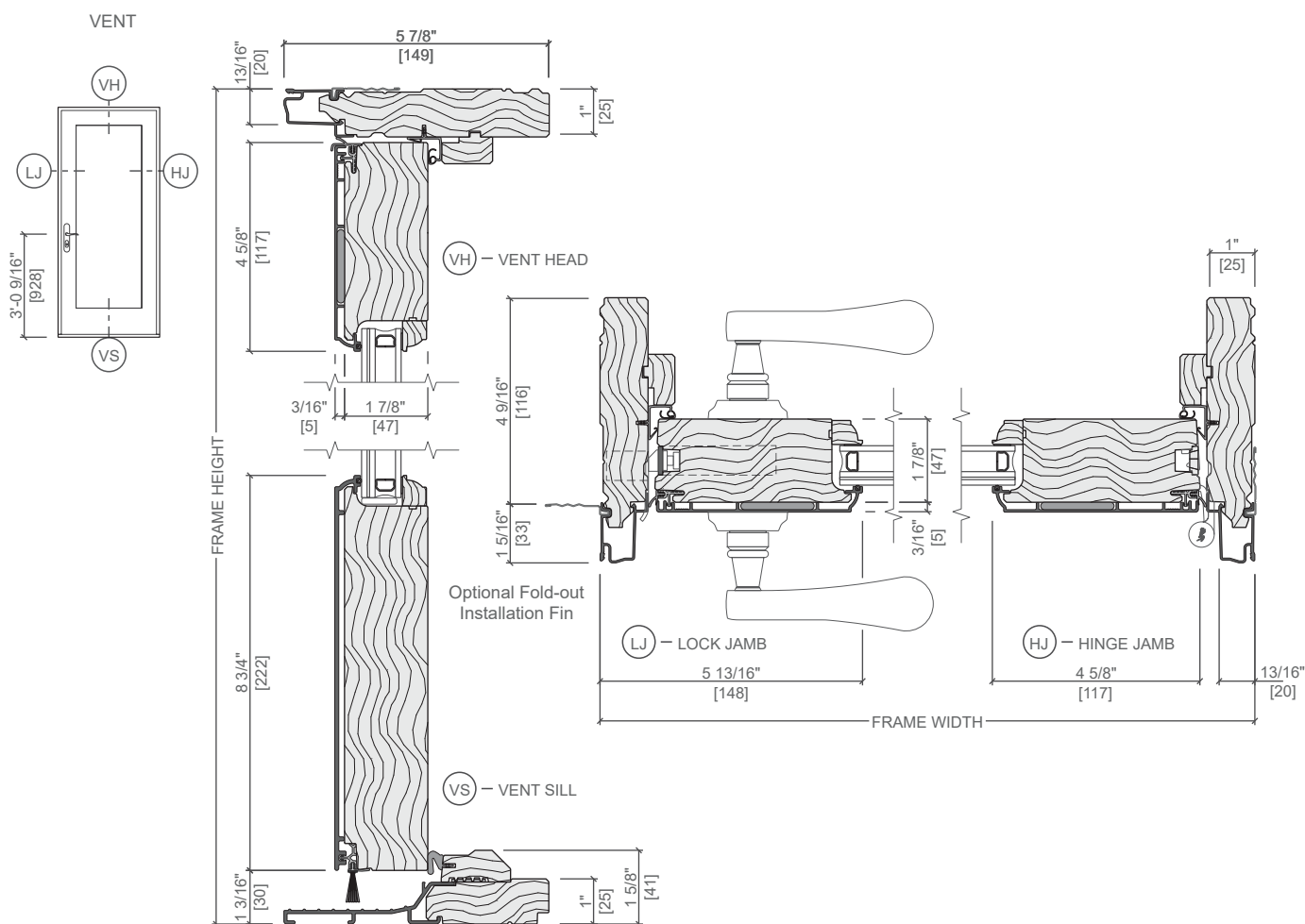
Visit www.energystar.gov for Energy Star guidelines.



Impact-Resistant Glass

For a complete list of ratings, refer to the Impact-Resistant product section.

	Clad
	7/8" Insulated Glass PVB
Maximum Performance Grade ₁	
Vent units 6' 10" tall and under	+70 / -70
Vent units 8' tall and under	+70 / -70
Vent units over 8' tall up to 10' tall	+50 / -50
Fixed units 6' 10" tall and under	+70 / -70
Fixed units 8' tall and under	+70 / -70
Fixed units over 8' tall up to 10' tall	+50 / -50
Certification	
Hallmark	411-H-1188
FPAS	FL 14302



(—) = Not applicable

(1) Units are tested for air/water/structural and impact-resistance, and certified for wind zone 4, large missile rating D.

Transoms are not available with impact-resistant Glazing.

For clear opening, vent area, visible glass, and frame area, see clad Design Data pages.

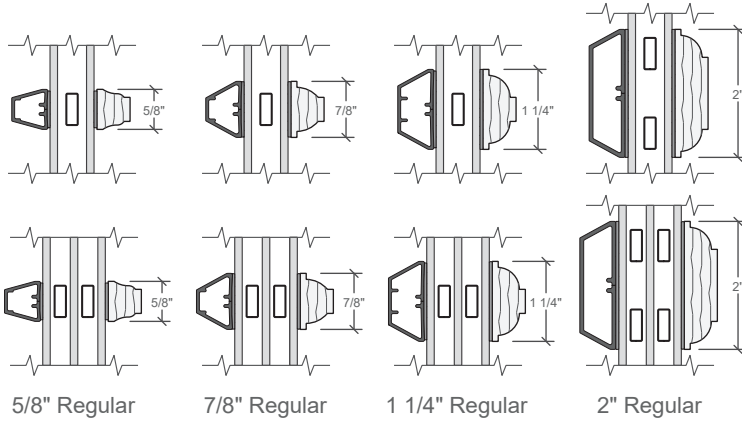
Doors with low profile sills, curved glass in rectangular panel, custom stiles and rails, and no-lock no-bore hardware options are not certified to above standards.



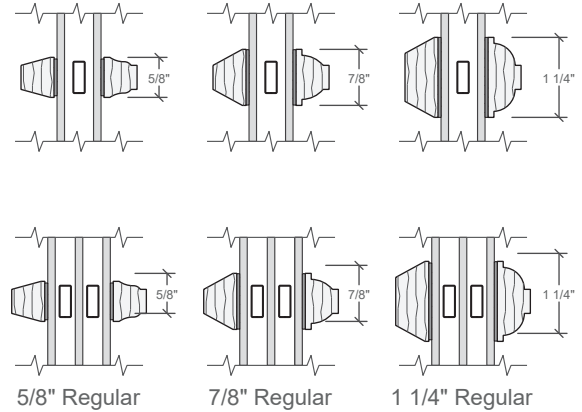
Grille Profiles

Traditional Style Collection - Integral Light Technology®

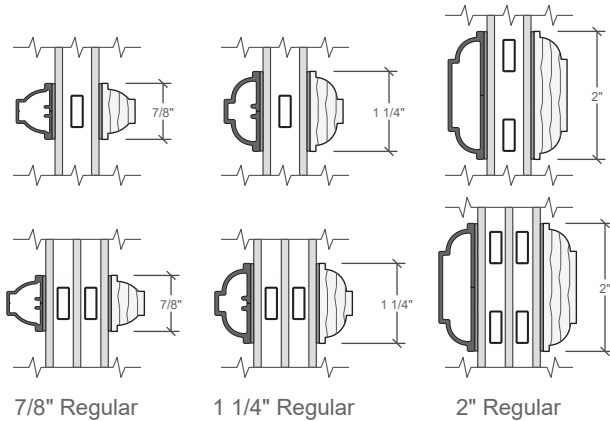
Putty Glaze and Ogee Grilles Clad Exterior - Wood Interior



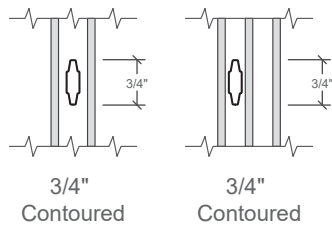
Putty Glaze and Ogee Grilles Wood Exterior - Wood Interior



Ogee Grilles Clad Exterior - Wood Interior



Grilles-Between-the-Glass



Interior wood ILT grilles available in Pine, Mahogany or Douglas Fir to match complete unit.

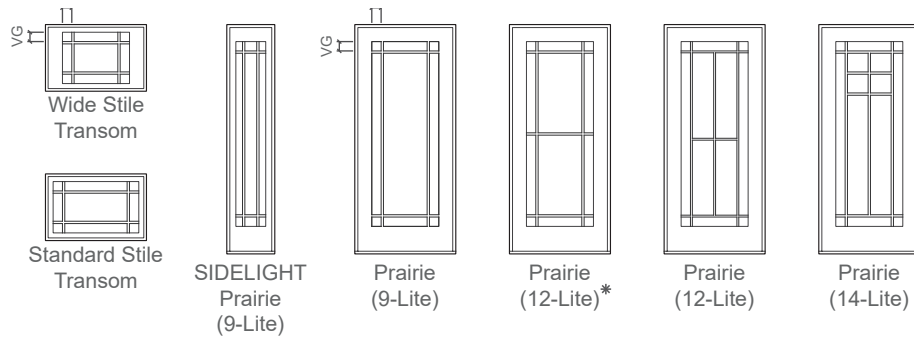
Exterior wood ILT grilles available in Pine or Mahogany to match complete unit.



Grille Patterns

Integral Light Technology® Grilles

Prairie Lite Patterns



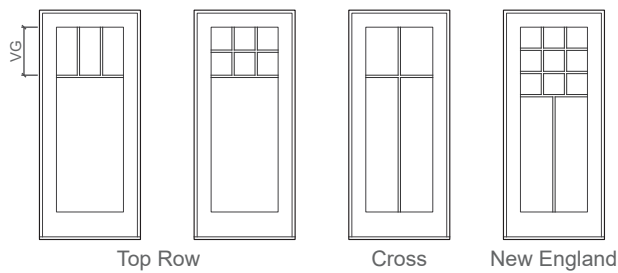
All sidelights and transoms will have 9 lights.

Standard corner lite dimension for Prairie patterns = 3-1/2" VG.

Integral Light Technology Grilles

- 9-Lite available in all standard and special sizes.
- 12-Lite available at 8' height; other heights available per custom drawing.
- 14-Lite available in units > 2' 1-1/2" width.

Other Available Patterns



Top Row

- Standard visible glass to separator bar = 14" or half of total visible glass height, whichever is smaller.

Cross

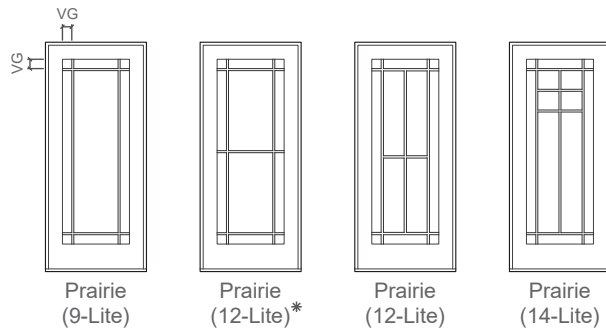
- Standard visible glass to separator bar = one-quarter of total visible glass height.

New England

- Standard visible glass to separator bar = half of total visible glass height.

Grilles-Between-the-Glass

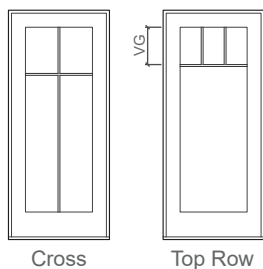
Prairie Lite Patterns



Prairie

- Standard corner lite dimension = 3-1/2" VG.
- 9-Lite available in units < 7' 0-3/4" height.
- * Prairie in heights > 7' 0-1/2" will have 12 lites.
- 12-Lite available in units ≤ 7' 2" height.

Other Available Patterns



Cross

- Horizontal bar is 1/4 of visible glass from the top in door panels.
- Not available in transoms.

Top Row

- Horizontal bar may be ordered 12", 14" or 16" from the top VG.
- Transoms with frame heights ≥ 21", the horizontal bar will be positioned at 1/2 the visible glass height.
- Top Row not available in transoms with frame height < 21".

For traditional patterns, see size tables.

VG = Visible Glass

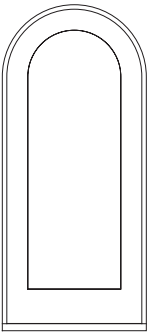
Lite dimensions noted can vary.

Custom configurations are available; for details contact your local Pella sales representative.

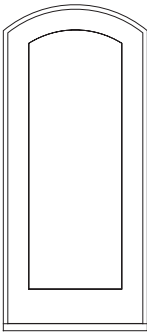


Custom Shapes

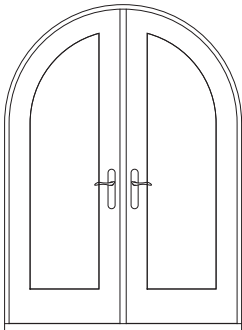
Pella Reserve Out-Swing French doors are available in custom shapes shown below, and additional shapes per drawing. For specifications, size limitations, and details on these units, contact your local Pella sales representative.



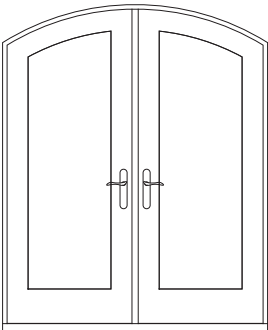
Full
Springline



Full
Arch Head



Full Springline



Full Arch Head

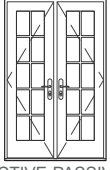


Size Tables

6' 7 1/2" Single Doors and Sidelight

	Opening	1' 6 3/4" (476)	2' 2 1/8" (664)	2' 6 3/4" (781)	2' 10 1/4" (870)	3' 0 3/4" (933)	3' 2 5/8" (981)
	Frame	1' 6" (457)	2' 1 3/8" (645)	2' 6" (762)	2' 9 1/2" (851)	3' 0" (914)	3' 1 7/8" (962)
(2 032) (2 019)	6' 8"						
	6' 7 1/2"	SIDELIGHT 1880	LEFT 2680	LEFT 3080	LEFT 3480	LEFT 3680	LEFT 3880

6' 7 1/2" Double-Swing Doors

	Opening	4' 2 3/4" (1 289)	5' 0" (1 524)	5' 7" (1 702)	6' 0" (1 829)	6' 3 3/4" (1 924)
	Frame	4' 2" (1 270)	4' 11 1/4" (1 505)	5' 6 1/4" (1 682)	5' 11 1/4" (1 810)	6' 3" (1 905)
(2 032) (2 019)	6' 8"					
	6' 7 1/2"	ACTIVE-PASSIVE 5080	ACTIVE-PASSIVE 6080	ACTIVE-PASSIVE 6780	ACTIVE-PASSIVE 7280	ACTIVE-PASSIVE 7580

Not to scale.

Traditional grille patterns shown. Refer to Clad/Wood Overview section for additional patterns and profiles.

All doors and sidelights are glazed with tempered glass.

For windows and patio doors with impact-resistant glass, see product instructions or refer to local building code requirements.

Single doors - Left-hand shown. Right-hand and fixed are available.

Double-swing doors - Active-Passive shown. Passive-Active also available.

For Wood Units Only:

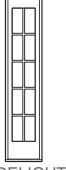
To determine masonry dimensions when using Pella 1-7/8" brickmould, add 1-5/8" to frame height and 3-1/8" to frame width. When using Pella 3-1/2" brickmould, add 6-3/8" to frame width and 3-1/4" to frame height.



Pella® Reserve™ Traditional Out-Swing Patio Door

Size Tables

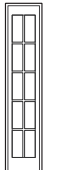
6' 10" Single Doors and Sidelight

	Opening	1' 6 3/4" (476)	2' 2 1/8" (664)	2' 6 3/4" (781)	2' 10 1/4" (870)	3' 0 3/4" (933)	3' 2 5/8" (981)
	Frame	1' 6" (457)	2' 1 3/8" (645)	2' 6" (762)	2' 9 1/2" (851)	3' 0" (914)	3' 1 7/8" (962)
(2 083) (2 070)	6' 10"						
	6' 9 1/2"	SIDELIGHT 1882	LEFT 2682	LEFT 3082	LEFT 3482	LEFT 3682	LEFT 3882

6' 10" Double-Swing Doors

	Opening	4' 2 3/4" (1 289)	5' 0" (1 524)	5' 7" (1 702)	6' 0" (1 829)	6' 3 3/4" (1 924)
	Frame	4' 2" (1 270)	4' 11 1/4" (1 505)	5' 6 1/4" (1 682)	5' 11 1/4" (1 810)	6' 3" (1 905)
(2 083) (2 070)	6' 10"					
	6' 9 1/2"	ACTIVE-PASSIVE 5082	ACTIVE-PASSIVE 6082	ACTIVE-PASSIVE 6782	ACTIVE-PASSIVE 7282	ACTIVE-PASSIVE 7582

7' 2" Single Doors and Sidelight

	Opening	1' 6 3/4" (476)	2' 2 1/8" (664)	2' 6 3/4" (781)	2' 10 1/4" (870)	3' 0 3/4" (933)	3' 2 5/8" (981)
	Frame	1' 6" (457)	2' 1 3/8" (645)	2' 6" (762)	2' 9 1/2" (851)	3' 0" (914)	3' 1 7/8" (962)
(2 197) (2 184)	7' 2 1/2"						
	7' 2"	SIDELIGHT 1886	LEFT 2686	LEFT 3086	LEFT 3486	LEFT 3686	LEFT 3886

7' 2" Double-Swing Doors

	Opening	4' 2 3/4" (1 289)	5' 0" (1 524)	5' 7" (1 702)	6' 0" (1 829)	6' 3 3/4" (1 924)
	Frame	4' 2" (1 270)	4' 11 1/4" (1 505)	5' 6 1/4" (1 682)	5' 11 1/4" (1 810)	6' 3" (1 905)
(2 197) (2 184)	7' 2 1/2"					
	7' 2"	ACTIVE-PASSIVE 5086	ACTIVE-PASSIVE 6086	ACTIVE-PASSIVE 6786	ACTIVE-PASSIVE 7286	ACTIVE-PASSIVE 7586

Not to scale.

Traditional grille patterns shown. Refer to Clad/Wood Overview section for additional patterns and profiles.

All doors and sidelights are glazed with tempered glass.

For windows and patio doors with impact-resistant glass, see product instructions or refer to local building code requirements.

Single doors - Left-hand shown. Right-hand and fixed are available.

Double-swing doors - Active-Passive shown. Passive-Active also available.

For Wood Units Only:

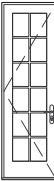
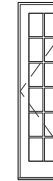
To determine masonry dimensions when using Pella 1-7/8" brickmould, add 1-5/8" to frame height and 3-1/8" to frame width. When using Pella 3-1/2" brickmould, add 6-3/8" to frame width and 3-1/4" to frame height.



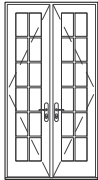
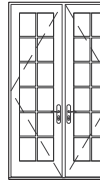
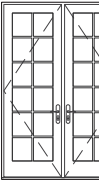
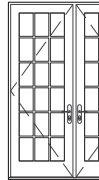
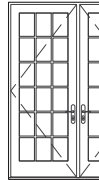
Pella® Reserve™ Traditional Out-Swing Patio Door

Size Tables

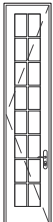
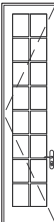
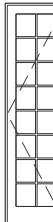
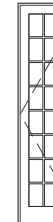
8' 0" Single Doors and Sidelight

	Opening	1' 6 3/4" (476)	2' 2 1/8" (664)	2' 6 3/4" (781)	2' 10 1/4" (870)	3' 0 3/4" (933)	3' 2 5/8" (981)
	Frame	1' 6" (457)	2' 1 3/8" (645)	2' 6" (762)	2' 9 1/2" (851)	3' 0" (914)	3' 1 7/8" (962)
(2 438) (2 426)	8' 0"						
		SIDELIGHT 1896	LEFT 2696	LEFT 3096	LEFT 3496	LEFT 3696	LEFT 3896

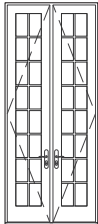
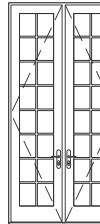
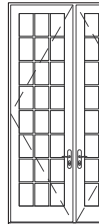
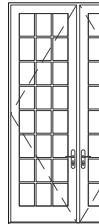
8' 0" Double-Swing Doors

	Opening	4' 2 3/4" (1 289)	5' 0" (1 524)	5' 7" (1 702)	6' 0" (1 829)	6' 3 3/4" (1 924)
	Frame	4' 2" (1 270)	4' 11 1/4" (1 505)	5' 6 1/4" (1 682)	5' 11 1/4" (1 810)	6' 3" (1 905)
(2 438) (2 426)	8' 0"					
		ACTIVE-PASSIVE 5096	ACTIVE-PASSIVE 6096	ACTIVE-PASSIVE 6796	ACTIVE-PASSIVE 7296	ACTIVE-PASSIVE 7596

10' 0" Single Doors

	Opening	2' 2 1/8" (664)	2' 6 3/4" (781)	2' 10 1/4" (870)	3' 0 3/4" (933)	3' 2 5/8" (981)
	Frame	2' 1 3/8" (645)	2' 6" (762)	2' 9 1/2" (851)	3' 0" (914)	3' 1 7/8" (962)
(3 048) (3 035)	10' 0"					
		LEFT 26120	LEFT 30120	LEFT 34120	LEFT 36120	LEFT 38120

10' 0" Double-Swing Doors

	Opening	4' 2 3/4" (1 289)	5' 0" (1 524)	5' 7" (1 702)	6' 0" (1 829)	6' 3 3/4" (1 924)
	Frame	4' 2" (1 270)	4' 11 1/4" (1 505)	5' 6 1/4" (1 682)	5' 11 1/4" (1 810)	6' 3" (1 905)
(3 048) (3 035)	10' 0"					
		ACTIVE-PASSIVE 50120	ACTIVE-PASSIVE 60120	ACTIVE-PASSIVE 67120	ACTIVE-PASSIVE 72120	ACTIVE-PASSIVE 75120

Not to scale.

Traditional grille patterns shown. Refer to Clad/Wood Overview section for additional patterns and profiles.

All doors and sidelights are glazed with tempered glass.

For windows and patio doors with impact-resistant glass, see product instructions or refer to local building code requirements.

Single doors - Left-hand shown. Right-hand and fixed are available.

Double-swing doors - Active-Passive shown. Passive-Active also available.

For Wood Units Only:

To determine masonry dimensions when using Pella 1-7/8" brickmould, add 1-5/8" to frame height and 3-1/8" to frame width. When using Pella 3-1/2" brickmould, add 6-3/8" to frame width and 3-1/4" to frame height.



Pella® Reserve™ Traditional Out-Swing Patio Door

Size Tables

Wide Stile Transoms for Single Doors

	Opening		2' 2 1/8" (664)		2' 6 3/4" (781)		2' 10 1/4" (870)		3' 0 3/4" (933)		3' 2 5/8" (981)	
	Frame		2' 1 3/8" (645)		2' 6" (762)		2' 9 1/2" (851)		3' 0" (914)		3' 1 7/8" (962)	
(451) (432)	2' 1 3/4" 1' 5 3/4"	1' 5"		2617		3017		3417		3617		3817
		2' 1"		2625		3025		3425		3625		3825

Standard Stile Transoms for Single Doors

(451) (432)	2' 1 3/4" 1' 5 3/4"	1' 5"		2617		3017		3417		3617		3817
		2' 1"		2625		3025		3425		3625		3825

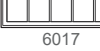
Fixed Frame Direct Sets for Single Doors

(451) (432)	2' 1 3/4" 1' 5 3/4"	1' 5"		2617		3017		3417		3617		3817
		2' 1"		2625		3025		3425		3625		3825

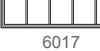
Wide Stile Transoms for Double-Swing Doors

	Opening		4' 2 3/4" (1 289)		5' 0" (1 524)		5' 7" (1 702)		6' 0" (1 829)		6' 3 3/4" (1 924)	
	Frame		4' 2" (1 270)		4' 11 1/4" (1 505)		5' 6 1/4" (1 682)		5' 11 1/4" (1 810)		6' 3" (1 905)	
(451) (432)	2' 1 3/4" 1' 5 3/4"	1' 5"		5017		6017		6717		7217		7517
		2' 1"		5025		6025		6725		7225		7525

Standard Stile Transoms for Double-Swing Doors

(451) (432)	2' 1 3/4" 1' 5 3/4"	1' 5"		5017		6017		6717		7217		7517
		2' 1"		5025		6025		6725		7225		7525

Fixed Frame Direct Sets for Double-Swing Doors

(451) (432)	2' 1 3/4" 1' 5 3/4"	1' 5"		5017		6017		6717		7217		7517
		2' 1"		5025		6025		6725		7225		7525

Not to scale.

 Tempered glass is standard.

Traditional grille patterns shown. Refer to Clad/Wood Overview section for additional patterns and profiles.



Special Sizes and Dimensions

Special Size Frame Dimensions₁

Door Type	Non-Impact Glazing				Products with Impact-Resistant Glass ₂			
	Frame Width		Frame Height		Frame Width		Frame Height	
	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum
Transoms	25-3/8" (645)	75" (1 905)	14" (356)	25" (635)	25-3/8" (645)	75" (1 905)	14" (356)	25" (635)
Sidelights (Fixed)	18" (457)	65" (457)	36" (914)	119-1/2" (3 035)	12" (305)	42" (1 067)	48" (1 219)	96" (2 438)
Single Doors	18" (457)	48" (1 219)	36" (914)	119-1/2" (3 035)	24" (610)	37-7/8" (962)	76-3/8" (1 940)	119-1/2" (3 035)
Double Doors	36" (914)	96" (2 438)	36" (914)	119-1/2" (3 035)	48" (1 219)	75" (1 905)	73-3/8" (1 864)	119-1/2" (3 035)

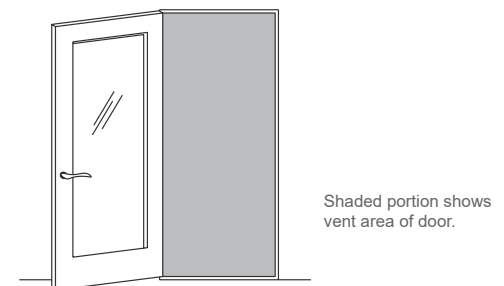
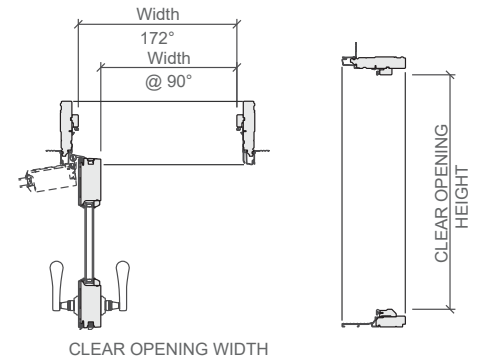
Miscellaneous Formulas

	Visible Glass		Actual Glass	
	Width	Height	Width	Height
Transoms — Fixed Frame Direct Set	FW - 3-1/4"	FH - 3-1/4"	FW - 2"	FH - 2"
Transoms — Fixed Casement	FW - 5-3/4"	FH - 5-3/4"	FW - 4-3/8"	FH - 4-3/8"
Transoms — Wide Stile Casement	FW - 11-5/8"		FW - 10-1/4"	
Sidelights (Fixed)	FW - 6-5/8"	FH - 15-3/4"	FW - 5-5/8"	FH - 4-3/8"
Single Doors	FW - 11-5/8"		FW - 10-5/8"	
Double Doors	(FW ÷ 2) - 11-1/4"		(FW ÷ 2) - 10-1/4"	

Clad and Wood Clear Opening Dimensions

	Clad and Wood		
		Width	Height
Clear Opening (@ 90°)	Single Door	FW - 5-3/8"	FH - 3-1/16"
	Double Doors (Active/Single Panel)	(FW ÷ 2) - 5"	
	Double Doors (Both Panels)	(FW ÷ 2) - 7-7/16"	
Clear Opening (@ 172°)	Single Door	FW - 3-5/16"	FH - 3-1/16"
	Double Doors (Active/Single Panel)	(FW ÷ 2) - 2-15/16"	
	Double Doors (Both Panels)	(FW ÷ 2) - 3-15/16"	

Clear Opening Schematic



FW = Frame Width, FH = Frame Height

(1) Available within size range shown.

(2) Rectangular Units Only.

Keep frame dimensions to the nearest 1/8" increment.



Design Data

Out-Swing Design Data											
	Unit		Clear Opening (Inches)				Vent Area Ft²	Vent Area (ADA) Ft²	Visible Glass Ft²	Standard Glass Thickness (mm) Tempered	Performance Class & Grade 3
			Width 1		Standard Sill Unit Height	ADA Sill Unit Height 2					
			170°	90°							
6' 7-1/2" Doors	2680	F	—	—	—	—	—	—	6.1	3	LC70
	3080	F	—	—	—	—	—	—	8.1	3	LC70
	3480	F	—	—	—	—	—	—	9.7	3	LC70
	3680	F	—	—	—	—	—	—	10.8	3	LC70
	3880	F	—	—	—	—	—	—	11.6	3	LC70
	2680	L/R	22-1/16	20	76-1/4	77-7/16	11.3	11.5	6.1	3	LC70
	3080	L/R	26-11/16	24-5/8	76-1/4	77-7/16	13.8	14.0	8.1	3	LC70
	3480	L/R	30-3/16	28-1/8	76-1/4	77-7/16	15.6	15.9	9.7	3	LC70
	3680	L/R	32-11/16	30-5/8	76-1/4	77-7/16	17.0	17.2	10.8	3	LC70
	3880	L/R	34-9/16	32-1/2	76-1/4	77-7/16	17.9	18.2	11.6	3	LC70
	5080	PA/AP	46-11/16 / 22-1/16	42-9/16 / 20	76-1/4	77-7/16	24.5	24.9	12.2	3	LC70
	6080	PA/AP	55-15/16 / 26-11/16	51-13/16 / 24-5/8	76-1/4	77-7/16	29.4	29.9	16.3	3	LC70
	6780	PA/AP	62-15/16 / 30-5/16	58-13/16 / 28-1/8	76-1/4	77-7/16	33.1	33.7	19.4	3	LC70
	7280	PA/AP	67-15/16 / 32-11/16	63-13/16 / 30-5/8	76-1/4	77-7/16	35.8	36.3	21.6	3	LC70
	7580	PA/AP	71-9/16 / 34-5/8	67-9/16 / 32-1/2	76-1/4	77-7/16	37.7	38.4	23.2	3	LC70
6' 10" Doors	3082	F	—	—	—	—	—	—	8.4	3	LC70
	3682	F	—	—	—	—	—	—	11.1	3	LC70
	2682	L/R	22-1/16	20	78-1/4	79-7/16	11.6	11.8	6.3	3	LC70
	3082	L/R	26-11/16	24-5/8	78-1/4	79-7/16	14.2	14.4	8.4	3	LC70
	3482	L/R	30-3/16	28-1/8	78-1/4	79-7/16	16.0	16.3	10.0	3	LC70
	3682	L/R	32-11/16	30-5/8	78-1/4	79-7/16	17.4	17.7	11.1	3	LC70
	3882	L/R	34-9/16	32-1/2	78-1/4	79-7/16	18.4	18.7	12.0	3	LC70
	5082	PA/AP	46-11/16 / 22-1/16	42-9/16 / 20	78-1/4	79-7/16	25.2	25.6	12.6	3	LC70
	6082	PA/AP	55-15/16 / 26-11/16	51-13/16 / 24-5/8	78-1/4	79-7/16	30.2	30.7	16.8	3	LC70
	6782	PA/AP	62-15/16 / 30-5/16	58-13/16 / 28-1/8	78-1/4	79-7/16	34.0	34.5	20.0	3	LC70
	7282	PA/AP	67-15/16 / 32-11/16	63-13/16 / 30-5/8	78-1/4	79-7/16	36.7	37.3	22.3	3	LC70
	7582	PA/AP	71-9/16 / 34-5/8	67-9/16 / 32-1/2	78-1/4	79-7/16	38.7	39.3	24.0	3	LC70

(—) = Not applicable

(1) All dimensions are approximate to the nearest 1/16". The second value, where shown, provides the clear opening for the active panel only.

(2) Water resistance is 0 psf for units with a low profile sill.

(3) Maximum performance when glazed with the appropriate glass thickness.

All doors and sidelights are glazed with tempered glass.



Design Data

Out-Swing Design Data											
Unit		Clear Opening (Inches)				Vent Area Ft²	Vent Area (ADA) Ft²	Visible Glass Ft²	Standard Glass Thickness (mm) Tempered	Performance Class & Grade ₃	
		Width ₁		Standard Sill Unit Height	ADA Sill Unit Height ₂						
		170°	90°								
7' 2" Doors	3086	F	—	—	—	—	—	9.0	3	LC70	
	3686	F	—	—	—	—	—	11.9	3	LC70	
	2686	L/R	22-1/16	20	82-3/4	83-15/16	12.3	12.5	6.7	3	LC70
	3086	L/R	26-11/16	24-5/8	82-3/4	83-15/16	15.0	15.2	9.0	3	LC70
	3486	L/R	30-3/16	28-1/8	82-3/4	83-15/16	17.0	17.2	10.7	3	LC70
	3686	L/R	32-11/16	30-5/8	82-3/4	83-15/16	18.4	18.7	11.9	3	LC70
	3886	L/R	34-9/16	32-1/2	82-3/4	83-15/16	19.5	19.8	12.8	3	LC70
	5086	PA/AP	46-11/16 / 22-1/16	42-9/16 / 20	82-3/4	83-15/16	26.6	27.0	13.4	3	LC70
	6086	PA/AP	55-15/16 / 26-11/16	51-13/16 / 24-5/8	82-3/4	83-15/16	31.9	32.4	17.9	3	LC70
	6786	PA/AP	62-15/16 / 30-5/16	58-13/16 / 28-1/8	82-3/4	83-15/16	36.0	36.5	21.3	3	LC70
	7286	PA/AP	67-15/16 / 32-11/16	63-13/16 / 30-5/8	82-3/4	83-15/16	38.8	39.4	23.8	3	LC70
	7586	PA/AP	71-9/16 / 34-5/8	67-9/16 / 32-1/2	82-3/4	83-15/16	41.0	41.6	25.6	3	LC70
8' 0" Doors	3096	F	—	—	—	—	—	10.2	3	LC70	
	3696	F	—	—	—	—	—	13.5	3	LC70	
	2696	L/R	22-1/16	20	92-1/4	93-7/16	13.7	13.9	7.6	3	LC70
	3096	L/R	26-11/16	24-5/8	92-1/4	93-7/16	16.7	16.9	10.2	3	LC70
	3496	L/R	30-3/16	28-1/8	92-1/4	93-7/16	18.9	19.2	12.1	3	LC70
	3696	L/R	32-11/16	30-5/8	92-1/4	93-7/16	20.5	20.8	13.5	3	LC70
	3896	L/R	34-9/16	32-1/2	92-1/4	93-7/16	21.7	22.0	14.5	3	LC70
	5096	PA/AP	46-11/16 / 22-1/16	42-9/16 / 20	92-1/4	93-7/16	29.7	30.1	15.2	3	LC70
	6096	PA/AP	55-15/16 / 26-11/16	51-13/16 / 24-5/8	92-1/4	93-7/16	35.6	36.1	20.4	3	LC70
	6796	PA/AP	62-15/16 / 30-5/16	58-13/16 / 28-1/8	92-1/4	93-7/16	40.1	40.6	24.2	3	LC70
	7296	PA/AP	67-15/16 / 32-11/16	63-13/16 / 30-5/8	92-1/4	93-7/16	43.3	43.9	27.0	3	LC70
	7596	PA/AP	71-9/16 / 34-5/8	67-9/16 / 32-1/2	92-1/4	93-7/16	45.7	46.3	29.1	3	LC70
10' 0" Doors	30120	F	—	—	—	—	—	13.2	5	LC50	
	36120	F	—	—	—	—	—	17.6	5	LC50	
	26120	L/R	22-1/16	20	116-1/4	117-7/16	17.3	17.5	9.9	5	LC50
	30120	L/R	26-11/16	24-5/8	116-1/4	117-7/16	21.0	21.3	13.2	5	LC50
	34120	L/R	30-3/16	28-1/8	116-1/4	117-7/16	23.9	24.1	15.8	5	LC50
	36120	L/R	32-11/16	30-5/8	116-1/4	117-7/16	25.9	26.2	17.6	5	LC50
	38120	L/R	34-9/16	32-1/2	116-1/4	117-7/16	27.4	27.7	18.9	5	LC50
	50120	PA/AP	46-11/16 / 22-1/16	42-9/16 / 20	116-1/4	117-7/16	37.5	37.9	19.8	5	LC50
	60120	PA/AP	55-15/16 / 26-11/16	51-13/16 / 24-5/8	116-1/4	117-7/16	44.9	45.4	26.5	5	LC50
	67120	PA/AP	62-15/16 / 30-5/16	58-13/16 / 28-1/8	116-1/4	117-7/16	50.5	51.1	31.5	5	LC50
	72120	PA/AP	67-15/16 / 32-11/16	63-13/16 / 30-5/8	116-1/4	117-7/16	54.6	55.2	35.1	5	LC50
	75120	PA/AP	71-9/16 / 34-5/8	67-9/16 / 32-1/2	116-1/4	117-7/16	57.6	58.2	37.8	5	LC50

(—) = Not applicable

(1) All dimensions are approximate to the nearest 1/16". The second value, where shown, provides the clear opening for the active panel only.

(2) Water resistance is 0 psf for units with a low profile sill.

(3) Maximum performance when glazed with the appropriate glass thickness.

All doors and sidelights are glazed with tempered glass.

To convert areas to square meters (m²), multiply square feet by 0.0929.



Pella® Reserve™ Traditional Out-Swing Patio Door

Design Data

Transoms — Fixed Frame Direct Set

Unit	Visible Glass Ft²	Standard Glass Thickness (mm)			Performance Class & Grade ₂
		Dual-Pane Glazing		Triple-Pane Glazing	
		Annealed	Tempered	Annealed or Tempered	
2617	2.1	3	3	3	CW90
2625	3.3	3	3	3	CW90
3017	2.6	3	3	3	CW90
3025	4.0	3	3	3	CW90
3417	2.9	3	3	3	CW90
3425	4.6	3	3	3	CW90
3617	3.1	3	3	3	CW90
3625	4.9	3	3	3	CW90
3817	3.3	3	3	3	CW90
3825	5.2	3	3	3	CW90
5017	4.5	3	3	3	CW90
5025	7.1	3	3	3	CW75
6017	5.3	3	3	3	CW90
6025	8.5	3	3	3	CW55
6717	6.0	3	3	3	CW60
6725	9.5	3	3	3	CW50
7217	6.5	3	3	3	CW60
7225	10.3	3	3	3	CW45
7517	6.8	3	3	3	CW60
7525	10.8	3	3	3	CW45

Transoms — Fixed Casement

2617	1.5	2.5	3	3	CW50
2625	2.6	2.5	3	3	CW50
3017	1.9	2.5	3	3	CW50
3025	3.2	2.5	3	3	CW50
3417	2.2	2.5	3	3	CW50
3425	3.7	2.5	3	3	CW50
3617	2.4	2.5	3	3	CW50
3625	4.0	2.5	3	3	CW50
3817	2.5	2.5	3	3	CW50
3825	4.3	2.5	3	3	CW50
5017	3.5	2.5	3	3	CW50
5025	5.9	2.5	3	3	CW50
6017	4.2	2.5	3	3	CW50
6025	7.2	2.5	3	3	CW45/CW50
6717	4.7	2.5	3	3	R15 ₁
6725	8.1	2.5	3	3	R15 ₁
7217	5.1	—	3	3	R15 ₁
7225	8.8	2.5	3	3	R15 ₁
7517	5.4	—	3	3	R15 ₁
7525	9.3	2.5	3	3	R15 ₁

Transoms — Wide Stile Casement

Unit	Visible Glass Ft²	Standard Glass Thickness (mm)			Performance Class & Grade ₂
		Dual-Pane Glazing		Triple-Pane Glazing	
		Annealed	Tempered	Annealed or Tempered	
2617	1.1	2.5	3	3	CW50
2625	1.8	2.5	3	3	CW50
3017	1.4	2.5	3	3	CW50
3025	2.5	2.5	3	3	CW50
3417	1.7	2.5	3	3	CW50
3425	2.9	2.5	3	3	CW50
3617	1.9	2.5	3	3	CW50
3625	3.3	2.5	3	3	CW50
3817	2.1	2.5	3	3	CW50
3825	3.5	2.5	3	3	CW50
5017	3.0	2.5	3	3	CW50
5025	5.1	2.5	3	3	CW50
6017	3.7	2.5	3	3	CW50
6025	6.4	2.5	3	3	CW50
6717	4.3	2.5	3	3	R15 ₁
6725	7.3	2.5	3	3	R15 ₁
7217	4.7	2.5	3	3	R15 ₁
7225	8.0	2.5	3	3	R15 ₁
7517	5.0	—	3	3	R15 ₁
7525	8.5	2.5	3	3	R15 ₁

Sidelights

1880	5.0	—	3	3	LC70
1882	5.2	—	3	3	LC70
1886	5.5	—	3	3	LC70
1896	6.3	—	3	3	LC70

(—) = Not applicable

(1) Units are not AAMA/WDMA performance certified. Units are engineered to meet the performance class and grade shown.

(2) Maximum performance when glazed with the appropriate glass thickness. Second number indicates Performance Upgrade Class and Grade. Performance upgrade requires specific installation methods to meet the stated performance.

All doors and sidelights are glazed with tempered glass.

To convert areas to square meters (m²), multiply square feet by 0.0929.



Detailed Product Descriptions - Aluminum-Clad Exterior

Frame

- Select softwood, immersion treated with Pella's EnduraGuard® wood protection formula in accordance with WDMA I.S.-4. The EnduraGuard formula includes three active ingredients for protection against the effects of moisture, decay, stains from mold and mildew. Plus, an additional ingredient adds protection against termite damage.
- Interior exposed surfaces are [clear pine] [mahogany] [douglas fir], edge-banded and veneered on straight members. Curved members may have finger-jointed surfaces.
- Exterior surfaces are clad with aluminum at the head and jambs.
- Components are assembled with screws, staples and concealed corner locks.
- Frame depth is 5-7/8" (149mm) for a wall depth of 4-9/16" (116mm).
- Jamb extensions available to adapt door to wall thickness between 4-9/16" (116mm) to 7" (178mm).
- Optional factory-applied EnduraClad® exterior trim.
- Solid extruded aluminum sill with [Mill] [Nickel] [Bronze] [Black] [anodized to match anodized cladding] finish. [Mahogany threshold for mahogany door] [[oak] [composite black] threshold for [pine] [douglas fir] door].
– or –
- Sill is 1/2" low profile. Material and finish is extruded aluminum with [mill] [bronze] [anodized to match anodized cladding] finish.

Door panels

- Select softwood, immersion treated with Pella's EnduraGuard® wood protection formula in accordance with WDMA I.S.-4. The EnduraGuard formula includes three active ingredients for protection against the effects of moisture, decay, stains from mold and mildew. Plus, an additional ingredient adds protection against termite damage.
- Interior exposed surfaces are veneered with [clear pine] [mahogany] [douglas fir] on straight members. Curved members may have finger-jointed surfaces.
- Exterior surfaces are clad with extruded aluminum.
- Panel stiles and rails are three-ply construction, randomly finger-jointed blocks laminated with water-resistant glue and veneered on both sides.
- Units over 8' height have panel stiles constructed with LVL core with finger-jointed edge bands on both sides and veneered on both faces.
- Corners are urethane-silicone hybrid sealed and secured with metal fasteners.
- Panel thickness is 2-1/16" (52mm).
- Panel exterior profile is [ogee] [putty glaze], interior profile is ogee.

Weatherstripping

- Dual-durometer extruded polymer along jambs, head and sill.
- Dual-durometer extruded polymer rainscreen along top and sides of panel.
- Bristle rainscreen along bottom of panel.

Glazing System

- Quality fully-tempered float glass complying with ASTM C 1048.
- Custom and high altitude glazing available.
- Silicone-glazed, 13/16" double-pane, dual-seal, insulating glass
 - [Clear] [Obscure] [Reflective Bronze] with air.
 - [Obscure Low-E with [argon][air]] [Advanced] [AdvancedComfort] [SunDefense™] [SunDefense+] [NaturalSun] [NaturalSun+] Low-E [with argon]].
 - [Bronze] [Gray] [Green] Advanced Low-E [with argon].
– or –
- Silicone-glazed, 13/16" double-pane, dual-seal, laminated, insulating glass
 - Clear with air.
 - [Advanced Low-E] [SunDefense™ Low-E] with argon.
 - [Bronze] [Gray] [Green] Advanced Low-E with argon.
– or –
- Silicone-glazed, 1" triple-pane, dual-seal, insulating glass
 - [Obscure Low-E [with argon]] [Advanced] [SunDefense™] [NaturalSun] Low-E [with argon].
– or –
- Silicone-glazed, 7/8" double-pane, dual-seal, impact-resistant, laminated, insulating glass
 - Clear with air.
 - [Bronze] [Gray] [Green] with air.
 - [Advanced] [SunDefense™] Low-E with argon.

Exterior

- Aluminum clad exteriors shall be finished with EnduraClad® protective finish, in a multi-step, baked-on finish.
 - Color is [Standard] [feature] [custom]¹.
– or –
- Aluminum clad exteriors shall be finished with EnduraClad Plus protective finish with 70% fluoropolymer resin in a multi-step, baked-on finish.
 - Color is [Standard] [feature] [custom]¹.

Interior

- [Unfinished, ready for site finishing] [factory primed with one coat acrylic latex] [factory prefinished [paint] [stain]¹].

Hardware

Hinges

- Adjustable hinges standard to assist in installation.
- Doors 6' 10" to 7' 0" frame height will have three (3) hinges.
- Doors over 7' 0" frame height up to and including 8' 0" frame height will have four (4) hinges.
- Doors over 8' 3" frame height up to and including 9' 0" frame height will have five (5) hinges.
- Doors over 9' 0" frame height will have six (6) hinges.
- Hinge color to match exterior cladding.

Locks

- Mortised and keyed multi-point locking system, center deadbolt and shoot-bolts at head and sill will engage simultaneously.
- Doors 8' 0" frame height and below will have one (1) strike at the head, one (1) strike at the sill and one (1) center deadbolt.
- Doors over 8' 0" frame height up to and including 10' 0" frame height will have one (1) strike at the head, one (1) strike at the sill and three (3) locking points at the stile.
- Solid brass handles and keylock with K-keyway cylinder.
- Key cylinder finish is [Brass] [Stainless Steel] [Matte Black].

Finish

- Hardware finish is (Handle, Hinges and Strike) [baked enamel [White] [Champagne] [Brown] [Matte Black]] [Satin Brass] [Satin Nickel]] [Oil-Rubbed Bronze] [Distressed Bronze] [Distressed Nickel] [Polished Nickel] [Polished Chrome].

Optional Products

Grilles

- Integral Light Technology® Grilles
 - Interior grilles are [5/8"] [7/8"] [1-1/4"] [2"] ogee profile that are solid [pine] [mahogany] [douglas fir]. Interior surfaces are [unfinished, ready for site finishing] [factory primed] [pine: factory prefinished [paint] [stain]¹].
 - Exterior grilles are [5/8" putty glaze profile] [7/8" putty glaze] [ogee profile]] [1-1/4" putty glaze] [ogee profile] [2" ogee profile] that are extruded aluminum.
 - Patterns are [Traditional] [Prairie] [Top Row] [Cross] [New England] [Victorian].
 - Insulating glass contains non-glare spacer between the panes of glass.
 - Grilles are adhered to both sides of the insulating glass with VHB acrylic adhesive tape and aligned with spacer.
– or –
- Grilles-Between-the-Glass²
 - Insulating glass contains 3/4" contoured aluminum grilles permanently installed between two panes of glass (exterior air-space on triple-pane insulating glass).
 - Patterns are [Traditional] [Prairie] [Cross] [Top Row]
 - Interior color is [White] [Tan₃] [Brown₃] [Putty₃] [Black] [Ivory] [Harvest] [Cordovan] [Brickstone].
 - Exterior color⁴ is [Standard]¹.

(1) Contact your local Pella sales representative for current color options.

(2) Available in clear or Low-E insulating glass only.

(3) Tan, Brown or Putty Interior GBG colors are available in single-tone (Brown/Brown, Tan/Tan or Putty/Putty). Other interior colors are also available with Tan or Brown exterior.

(4) Appearance of exterior grille color will vary depending on Low-E coating on glass.



Detailed Product Descriptions - Wood Exterior

Frame

- Select softwood, immersion treated with Pella's EnduraGuard® wood protection formula in accordance with WDMA I.S.-4. The EnduraGuard formula includes three active ingredients for protection against the effects of moisture, decay, stains from mold and mildew. Plus, an additional ingredient adds protection against termite damage.
- Interior and exterior surfaces are [pine] [mahogany]. Any curved members may have visible finger-jointed surfaces.
- Exterior surfaces are [pine: primed] [mahogany: [primed] [ready to stain]]. Curved members may have finger jointed surfaces.
- Overall frame depth is 4-9/16" (116mm).
- Jamb extensions available to adapt door to wall thickness between 4-9/16" (116mm) to 7" (178mm).
- Solid extruded aluminum sill with [Mill] [Nickel] [Bronze] [Black] [anodized [Clear] [Light Bronze] [Dark Bronze] [Black] [Custom₃]] finish. [Mahogany threshold for mahogany door] [[oak] [composite black] threshold for [pine] [douglas fir] door].
– or –
- Sill is 1/2" low profile. Material and finish are extruded aluminum with [mill] [Bronze] [anodized [Clear] [Light Bronze] [Dark Bronze] [Black] [Custom₃]] finish.

Door panels

- Select softwood, immersion treated with Pella's EnduraGuard® wood protection formula in accordance with WDMA I.S.-4. The EnduraGuard formula includes three active ingredients for protection against the effects of moisture, decay, stains from mold and mildew. Plus, an additional ingredient adds protection against termite damage.
- Interior exposed surfaces are veneered with [pine] [mahogany]. Any curved members may have visible finger-jointed surfaces.
- Exterior surfaces are [wood composite: factory primed] [mahogany [factory primed] [unfinished, ready for site finishing]].
- Panel stiles and rails are five-ply construction, randomly finger-jointed blocks laminated with water-resistant glue and veneered on both sides.
- Corners are urethane-silicone hybrid sealed and secured with metal fasteners.
- Panel thickness is 2-1/16" (52mm).

Weatherstripping

- Dual-durometer extruded polymer along jambs, head and sill.
- Dual durometer extruded polymer rainscreen along top and sides of panel.
- Bristle rainscreen along bottom of panel.

Glazing System

- Quality fully-tempered float glass complying with ASTM C 1048.
- Custom and high altitude glazing available.
- Silicone-glazed, 13/16" double-pane, dual-seal, insulating glass
 - [Clear] [Obscure] [Reflective Bronze] with air.
 - [Obscure Low-E [with argon]] [Advanced] [AdvancedComfort] [SunDefense™] [SunDefense+] [NaturalSun] [NaturalSun+] Low-E [with argon]].
 - [Bronze] [Gray] [Green] Advanced Low-E [with argon].
– or –
- Silicone-glazed, 13/16" double-pane, dual-seal, laminated, insulating glass
 - Clear with air.
 - [Advanced] [SunDefense™] Low-E with argon.
 - [Bronze] [Gray] [Green] Advanced Low-E with argon.
– or –
- Silicone-glazed, 1" triple-pane, dual-seal, insulating glass
 - [Obscure Low-E [with argon]] [Advanced] [SunDefense™] [NaturalSun] Low-E [with argon]].

Exterior

- [Wood composite: primed with one coat acrylic latex] [mahogany: [primed with one coat acrylic latex] [Unfinished, ready for site finishing]].

Interior

- [Unfinished, ready for site finishing] [factory primed with one coat acrylic latex] [factory prefinished [paint] [stain]₃].

Hardware

Hinges

- Adjustable hinges standard to assist in installation.
- Doors 6' 10" to 7' 0" frame height will have three (3) hinges.
- Doors over 7' 0" frame height up to and including 8' 0" frame height will have four (4) hinges.
- Doors over 8' 3" frame height up to and including 9' 0" frame height will have five (5) hinges.
- Doors over 9' 0" frame height will have six (6) hinges.
- Hinge color is White on primed units, Brown on unfinished.

Locks

- Mortised and keyed multi-point locking system, center deadbolt and shoot-bolts at head and sill will engage simultaneously.
- Doors 8' 0" frame height and below will have one (1) strike at the head, one (1) strike at the sill and one (1) center deadbolt.
- Doors over 8' 0" frame height up to and including 10' 0" frame height will have one (1) strike at the head, one (1) strike at the sill and three (3) locking points at the stile.
- Solid brass handles and keylock with K-keyway cylinder.
- Key cylinder finish is [Brass] [Stainless Steel] [Matte Black].

Finish

- Hardware finish is (Handle, Hinges and Strike) [baked enamel [White] [Champagne] [Brown] [Matte Black]] [Satin Brass] [Satin Nickel]] [Oil-Rubbed Bronze] [Distressed Bronze] [Distressed Nickel] [Polished Nickel] [Polished Chrome].

Optional Products

Grilles

- Integral Light Technology® Grilles
 - Interior grilles are [5/8"] [7/8"] [1-1/4"] ogee profile that are solid [pine] [mahogany]. Interior surfaces are [unfinished, ready for site finishing] [factory primed] [pine: factory prefinished [paint] [stain]₃].
 - Exterior grilles are [5/8"] [7/8"] [1-1/4"] putty glaze profile that are solid [pine] [mahogany]. Exterior surfaces are water repellent, preservative-treated in accordance with WDMA I.S.-4, and are [unfinished, ready for site finishing] [factory primed].
 - Patterns are [Traditional] [Prairie] [Top Row] [Cross] [New England] [Victorian].
 - Insulating glass contains non-glare spacer between the panes of glass.
 - Grilles are adhered to both sides of the insulating glass with VHB acrylic adhesive tape and aligned with spacer.
– or –
- Grilles-Between-the-Glass₂
 - Insulating glass contains 3/4" contoured aluminum grilles permanently installed between two panes of glass (exterior air-space on triple-pane insulating glass).
 - Patterns are [Traditional] [Prairie] [Cross] [Top Row]
 - Interior color is [White] [Tan₂] [Brown₂] [Putty₂] [Black] [Ivory] [Harvest] [Cordovan] [Brickstone].
 - Exterior color₄ is [standard₃].

(1) Available in clear or Low-E insulating glass with argon, and obscure insulated glass.

(2) Tan, Brown or Putty Interior GBG colors are available in single-tone (Brown/Brown, Tan/Tan or Putty/Putty). Other interior colors are also available with Tan or Brown exterior.

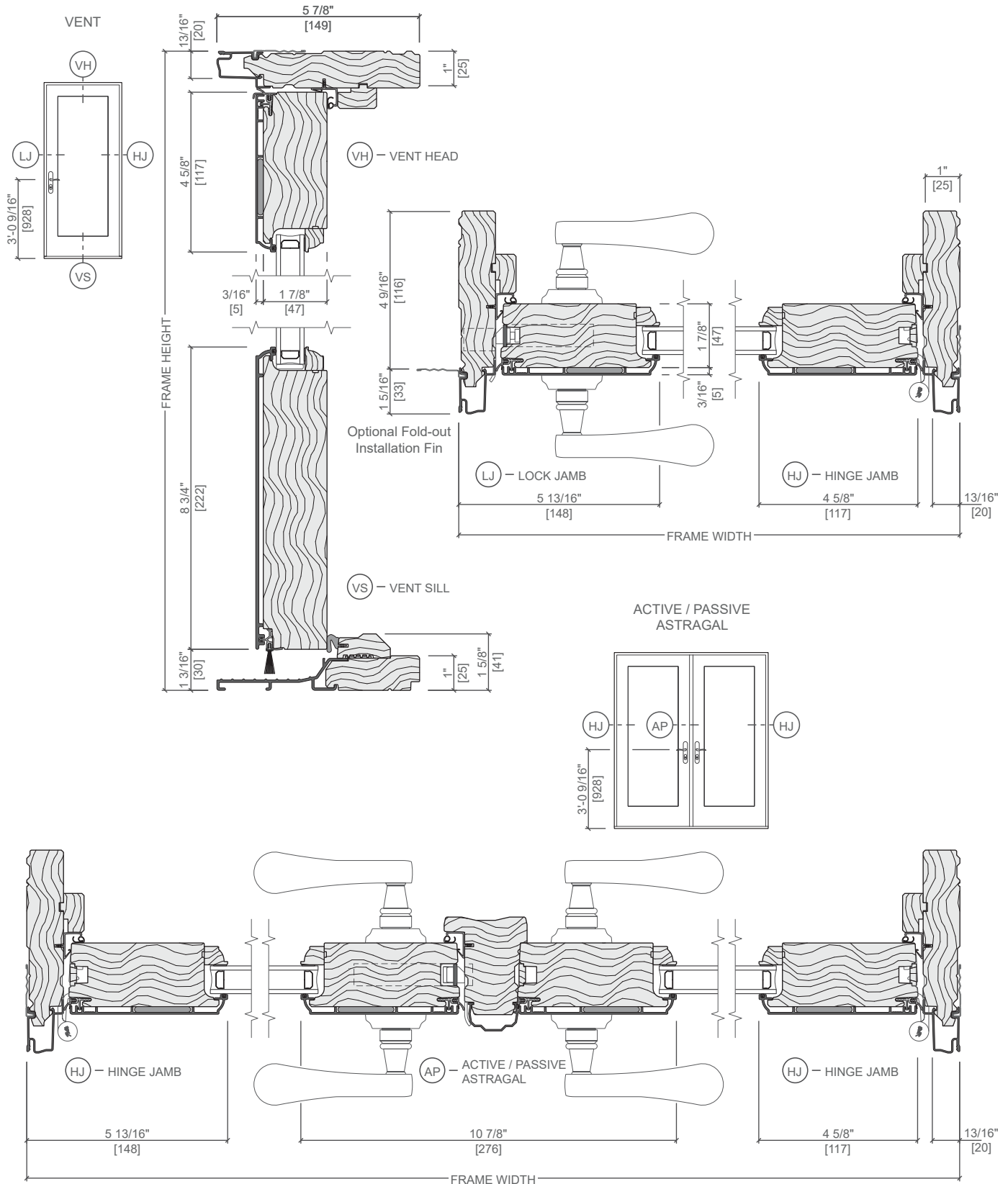
(3) Contact your local Pella sales representative for current color options.

(4) Appearance of exterior grille color will vary depending on Low-E coating on glass.



Pella® Reserve™ Traditional Out-Swing Patio Door

Unit Sections – Aluminum-Clad Exterior, Ogee Exterior Profile



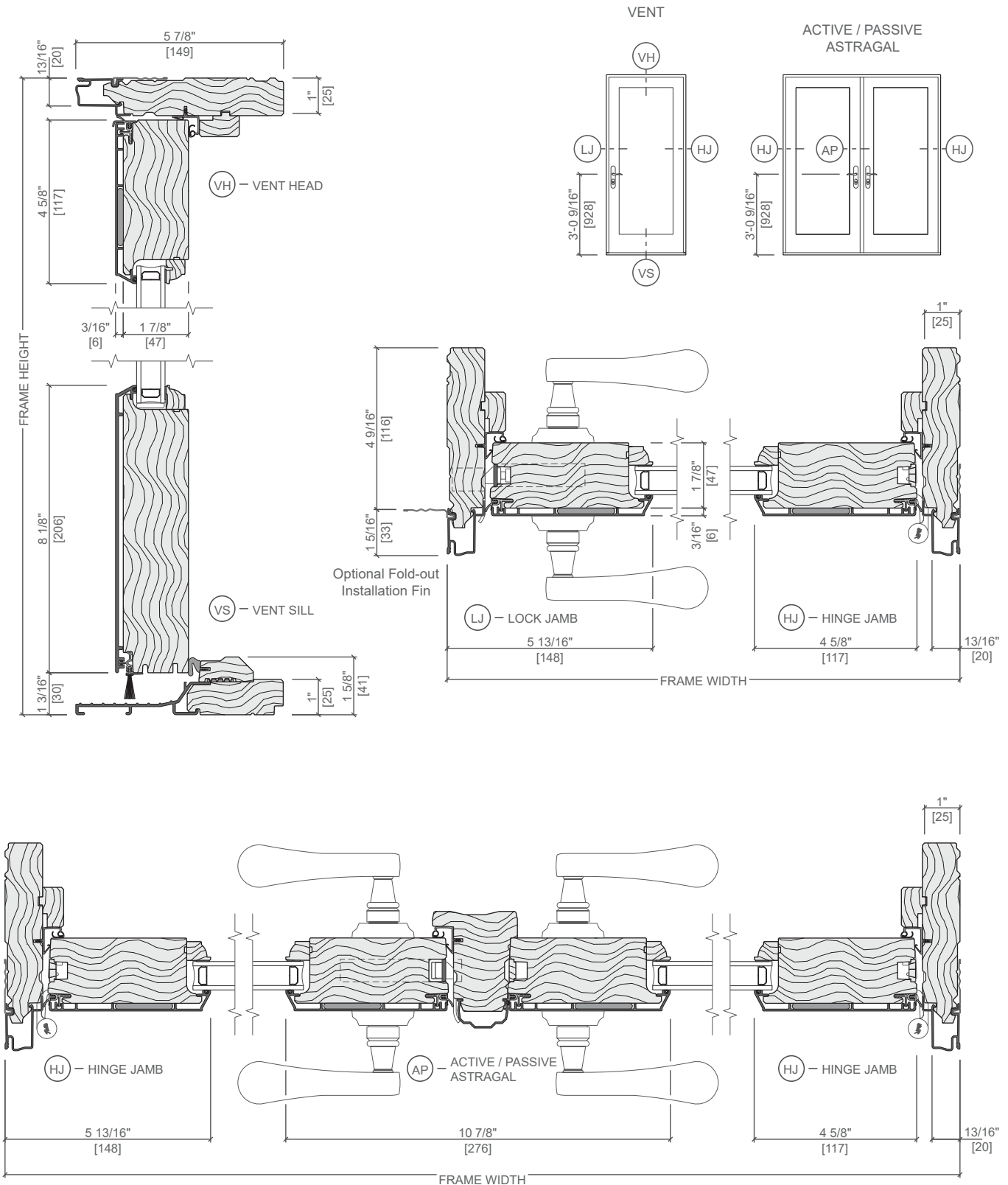
Scale 3" = 1' 0"

All dimensions are approximate.



Pella® Reserve™ Traditional Out-Swing Patio Door

Unit Sections – Aluminum-Clad Exterior, Putty Glaze Exterior Profile



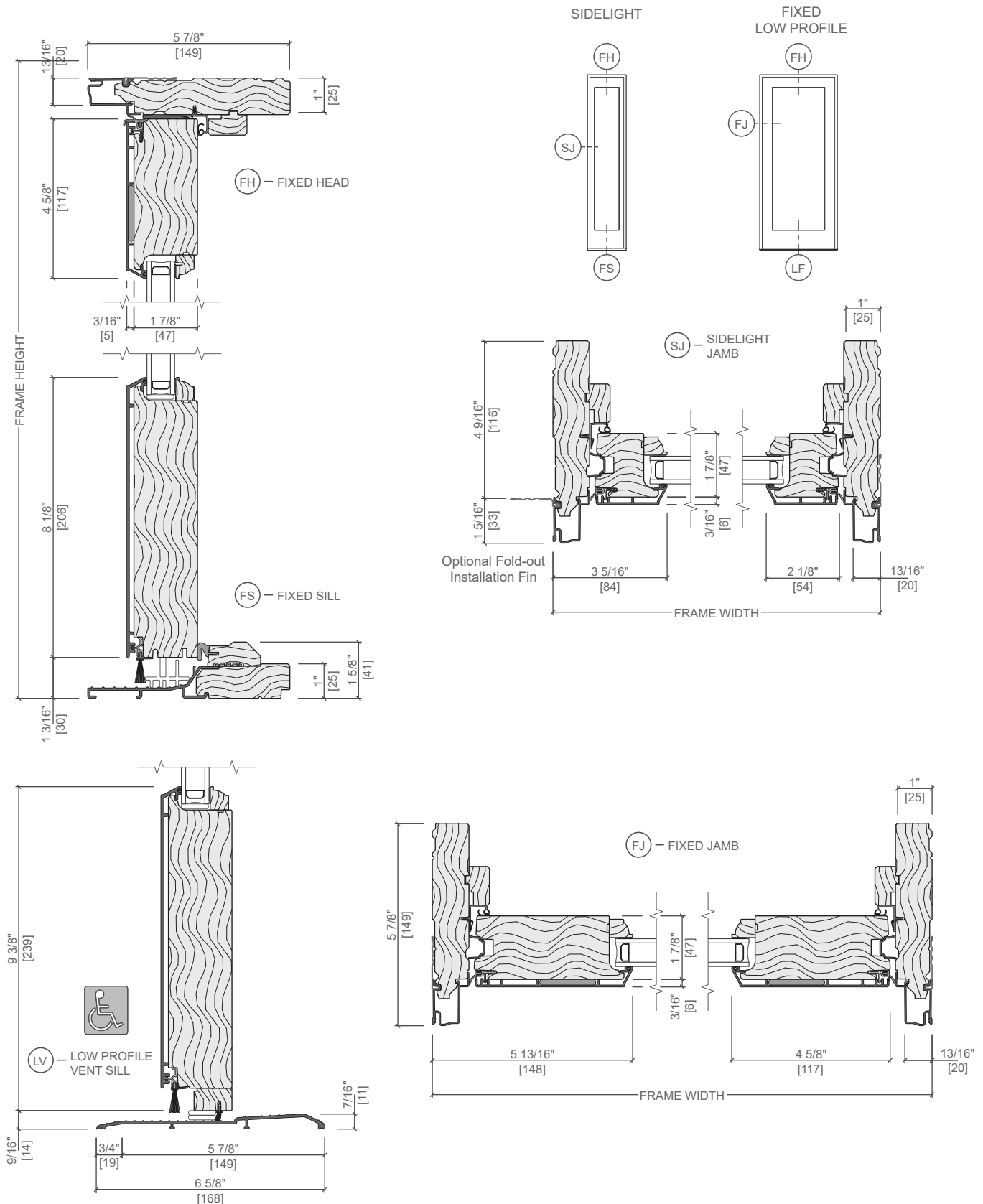
Scale 3" = 1' 0"

All dimensions are approximate.



Pella® Reserve™ Traditional Out-Swing Patio Door

Unit Sections – Aluminum-Clad Exterior, Putty Glaze Exterior Profile



Scale 3" = 1' 0"

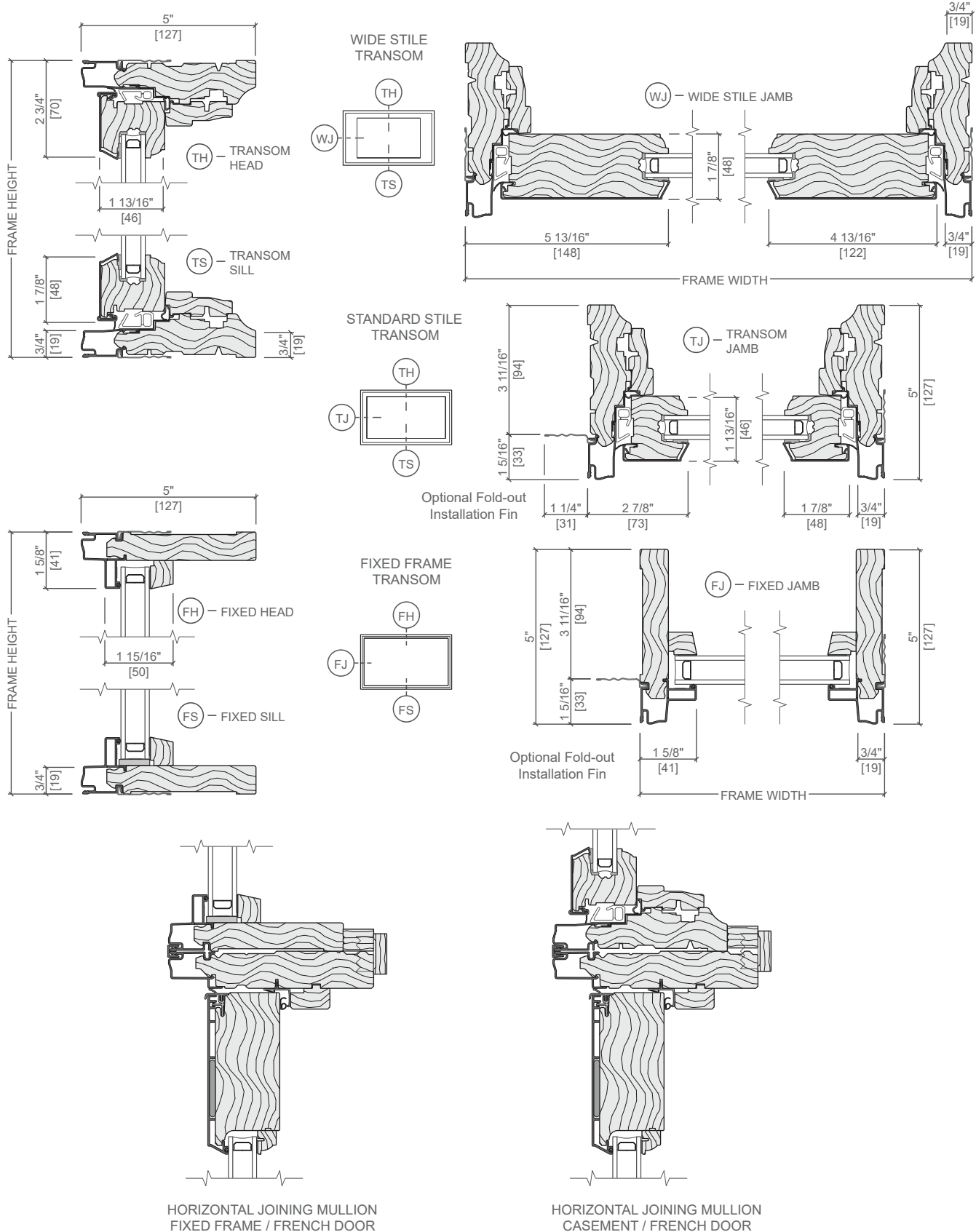
All dimensions are approximate.

Water resistance is 0 psf for units with a low profile sill.



Pella® Reserve™ Traditional Out-Swing Patio Door

Unit Sections – Aluminum-Clad Exterior, Putty Glaze Exterior Profile



Scale 3" = 1' 0"

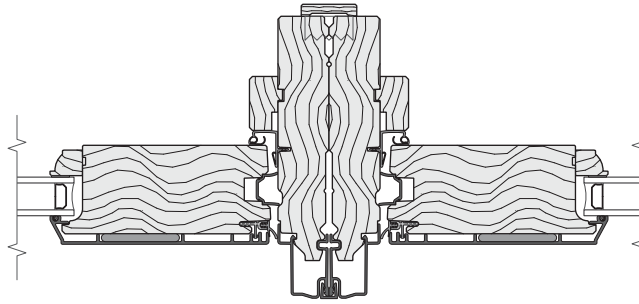
All dimensions are approximate.

See www.Pella.com for mullion limitations and reinforcing requirements.



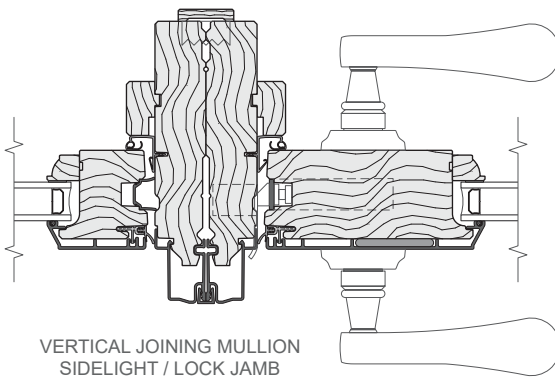
Pella® Reserve™ Traditional Out-Swing Patio Door

Unit Sections – Aluminum-Clad Exterior, Putty Glaze Exterior Profile

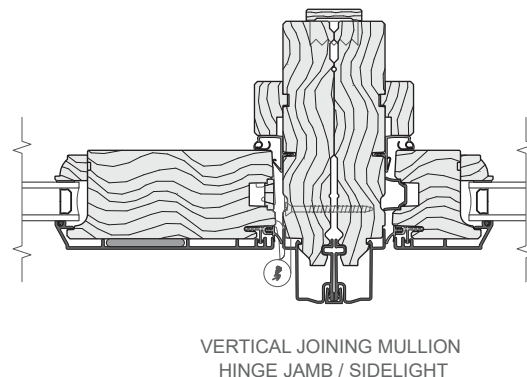


VERTICAL JOINING MULLION
FIXED PANELS

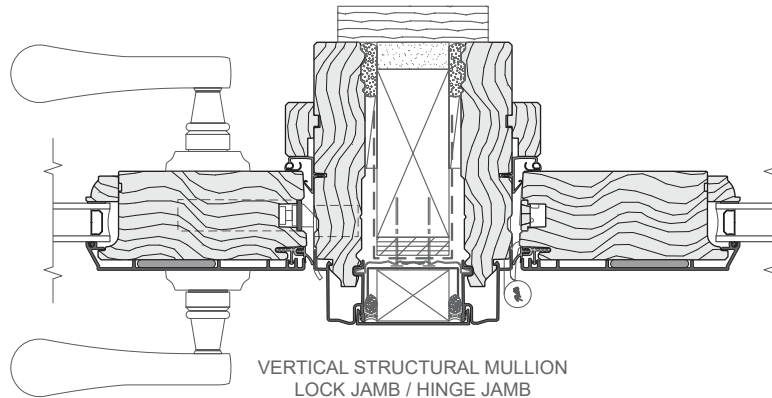
- Use standard joining mullions when joining fixed door panels.
- Sidelights or fixed panels may be joined directly to operable door panels. Composite must be installed with head drip fin and installation fins per standard installation instructions.
- Structural mullion must be used for all other combinations.



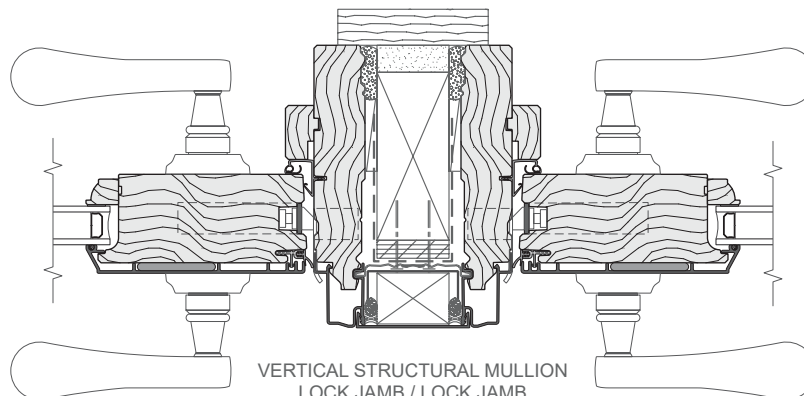
VERTICAL JOINING MULLION
SIDELIGHT / LOCK JAMB



VERTICAL JOINING MULLION
HINGE JAMB / SIDELIGHT



VERTICAL STRUCTURAL MULLION
LOCK JAMB / HINGE JAMB



VERTICAL STRUCTURAL MULLION
LOCK JAMB / LOCK JAMB

Scale 3" = 1' 0"

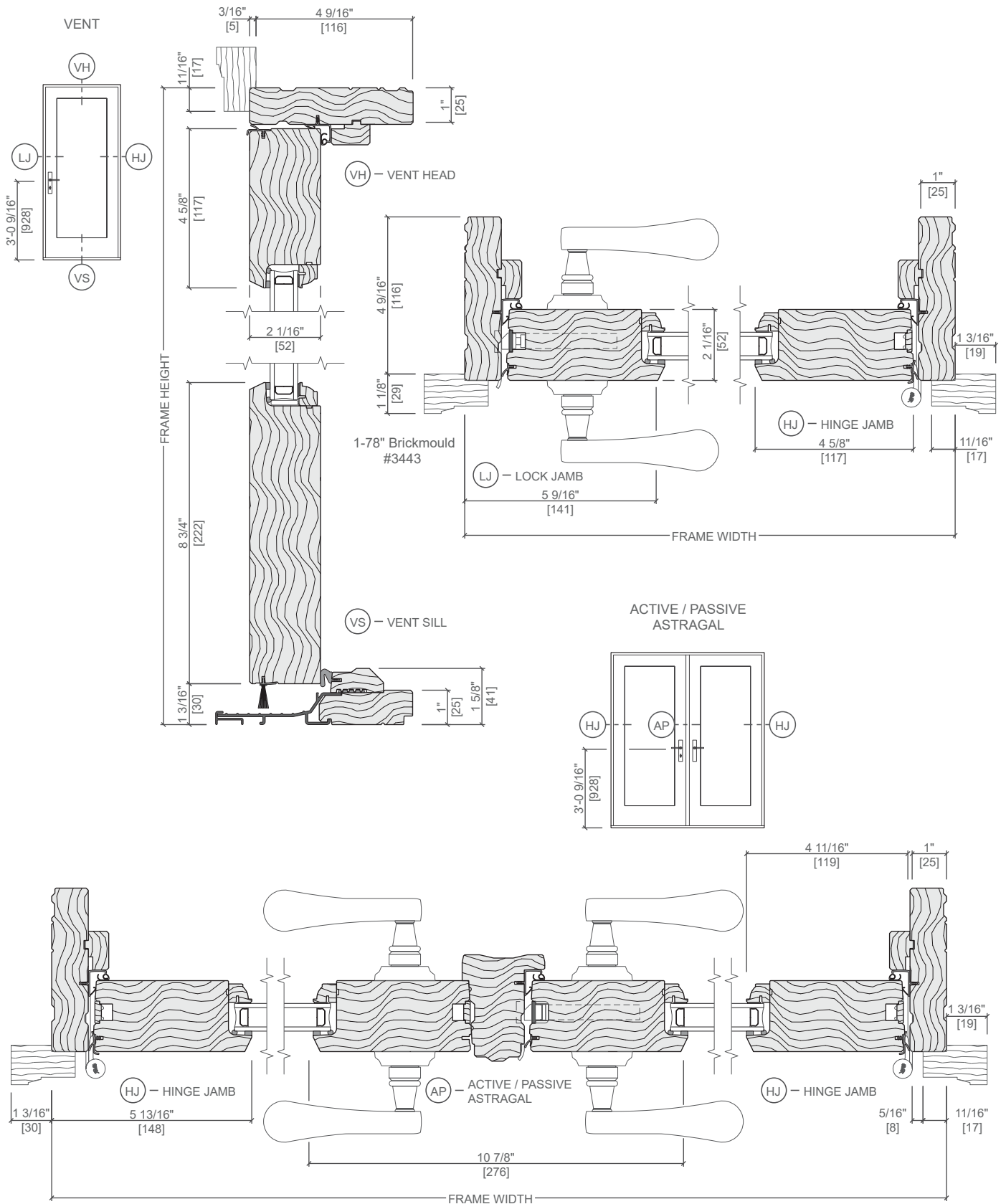
All dimensions are approximate.

See www.Pella.com for mullion limitations and reinforcing requirements.



Pella® Reserve™ Traditional Out-Swing Patio Door

Unit Sections – Wood Exterior, Putty Glaze Exterior Profile



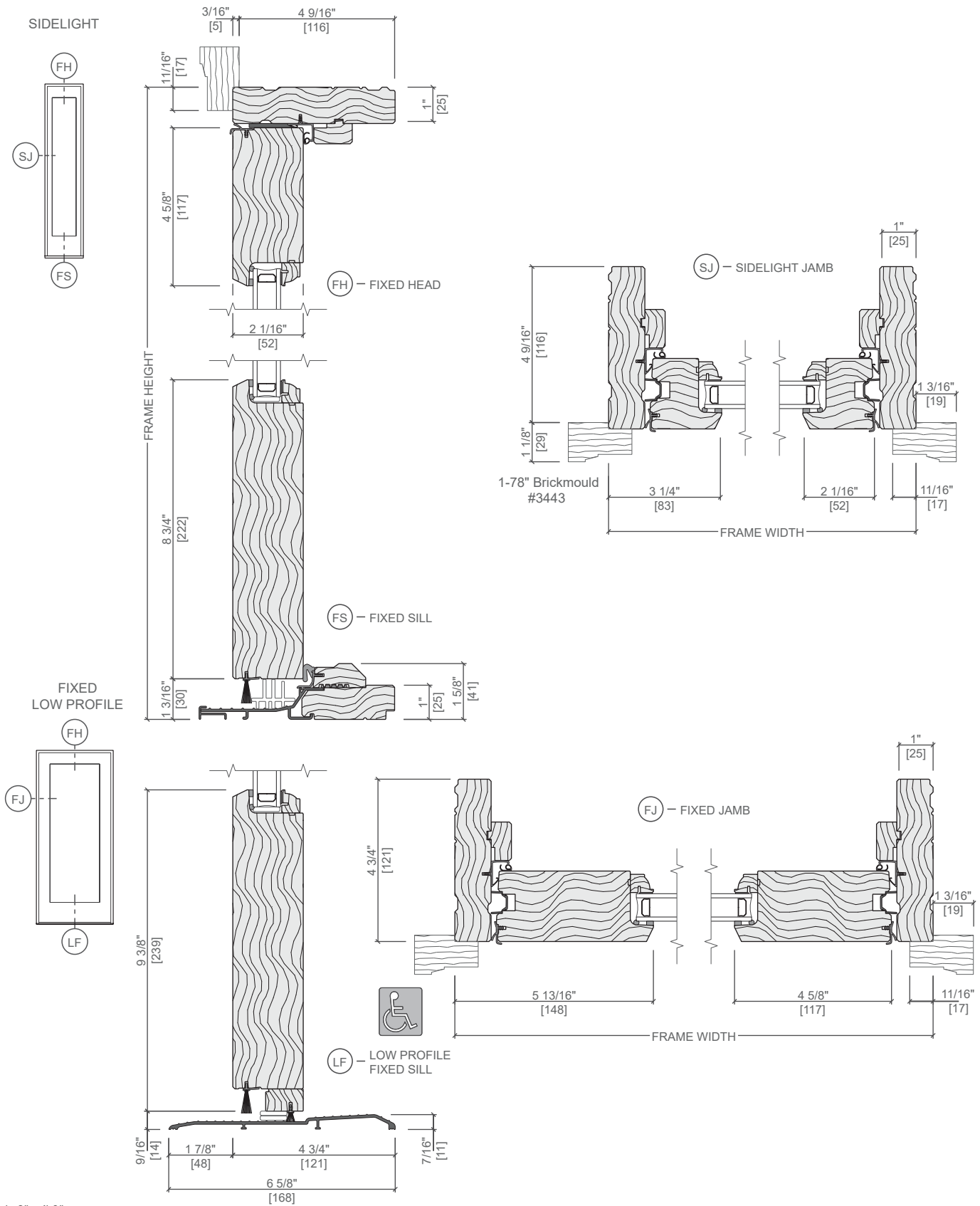
Scale 3" = 1' 0"

All dimensions are approximate.



Pella® Reserve™ Traditional Out-Swing Patio Door

Unit Sections – Wood Exterior, Putty Glaze Exterior Profile



Scale 3" = 1' 0"

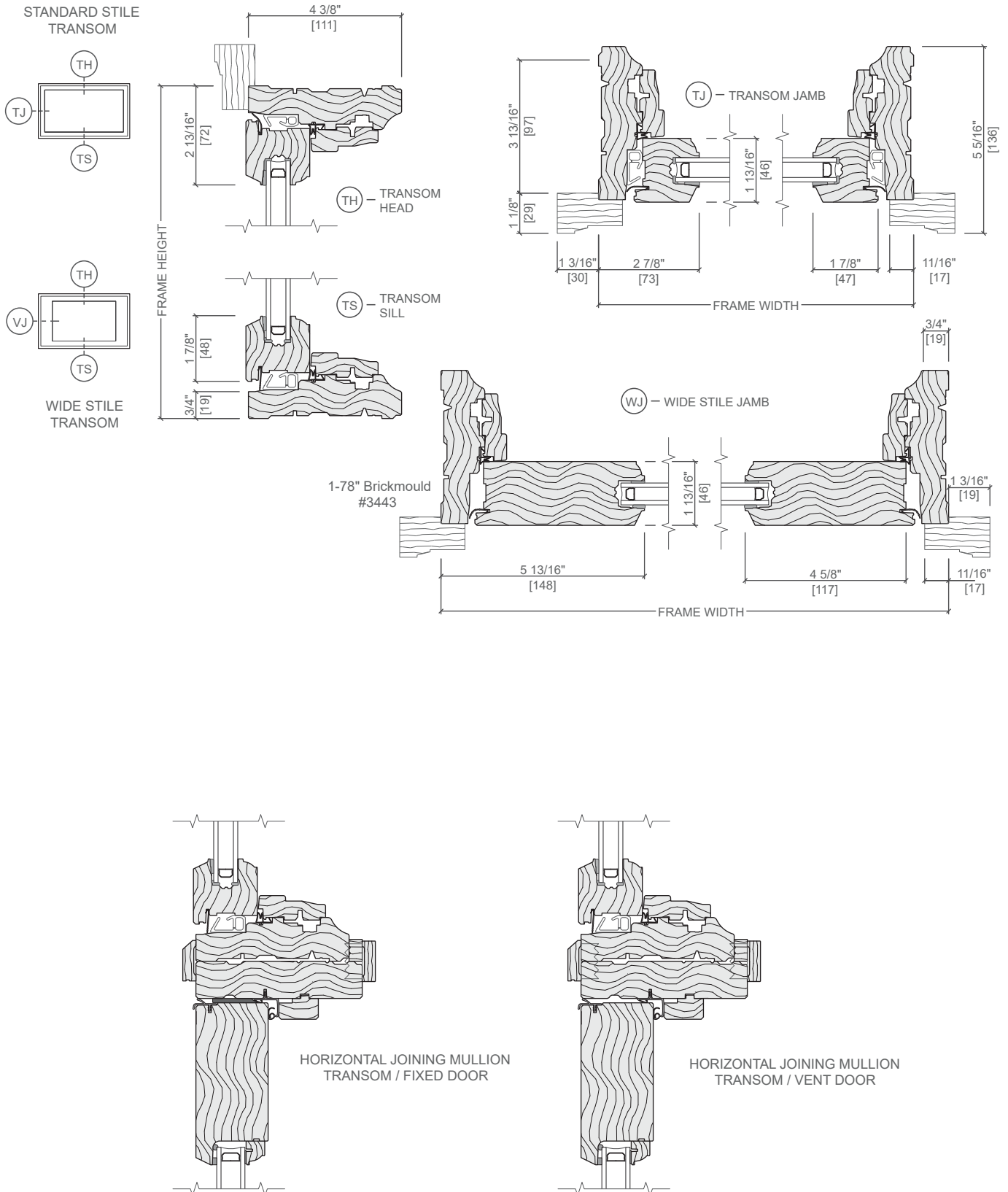
All dimensions are approximate.

Water resistance is 0 psf for units with a low profile sill.



Pella® Reserve™ Traditional Out-Swing Patio Door

Unit Sections – Wood Exterior, Putty Glaze Exterior Profile



Scale 3" = 1' 0"

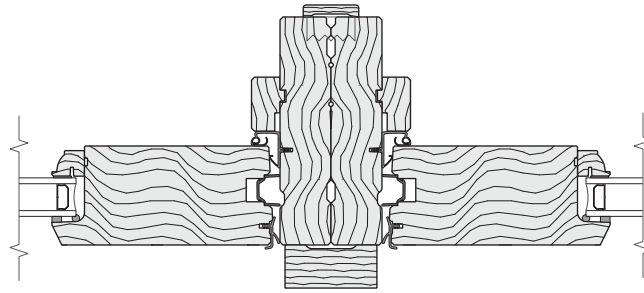
All dimensions are approximate.

See www.Pella.com for mullion limitations and reinforcing requirements.

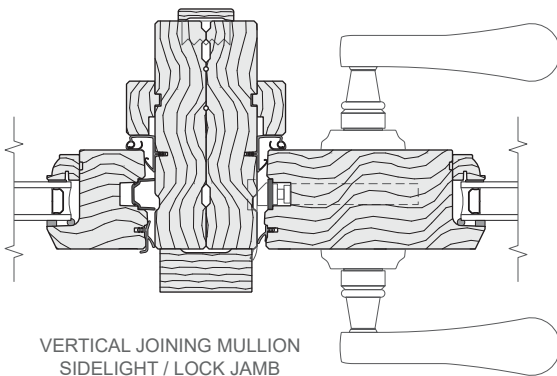


Pella® Reserve™ Traditional Out-Swing Patio Door

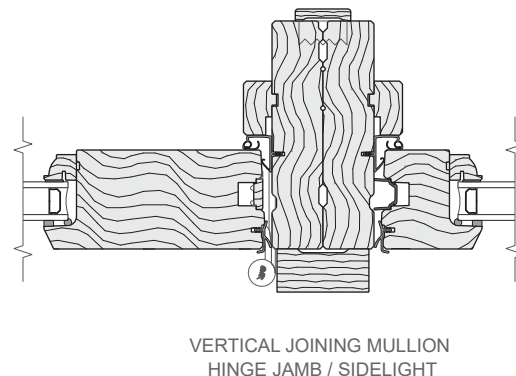
Unit Sections – Wood Exterior, Putty Glaze Exterior Profile



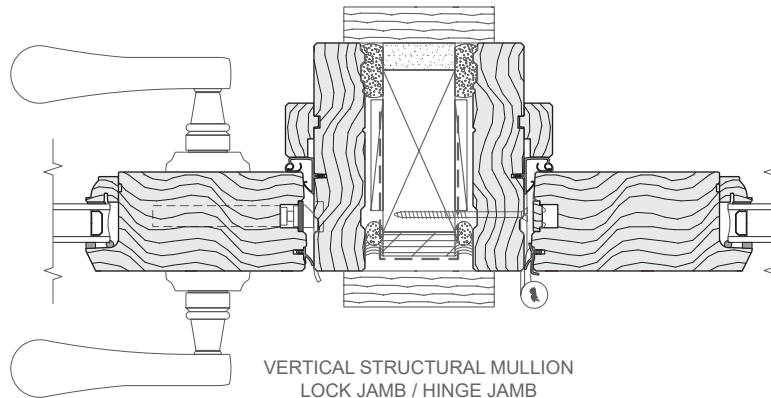
VERTICAL JOINING MULLION
FIXED PANELS



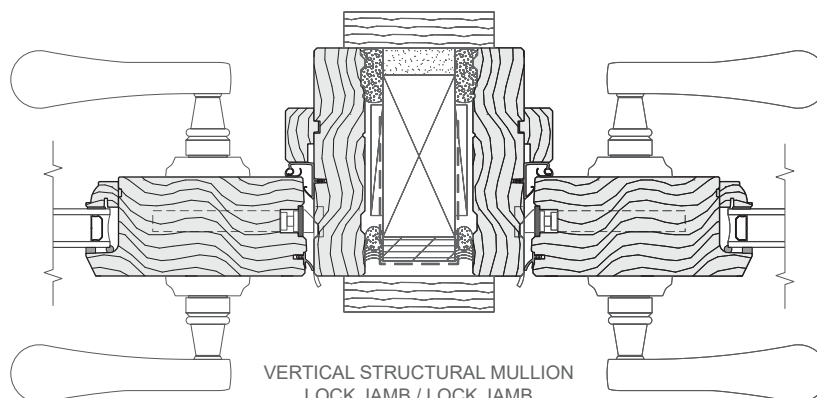
VERTICAL JOINING MULLION
SIDELIGHT / LOCK JAMB



VERTICAL JOINING MULLION
HINGE JAMB / SIDELIGHT



VERTICAL STRUCTURAL MULLION
LOCK JAMB / HINGE JAMB



VERTICAL STRUCTURAL MULLION
LOCK JAMB / LOCK JAMB

Scale 3" = 1' 0"

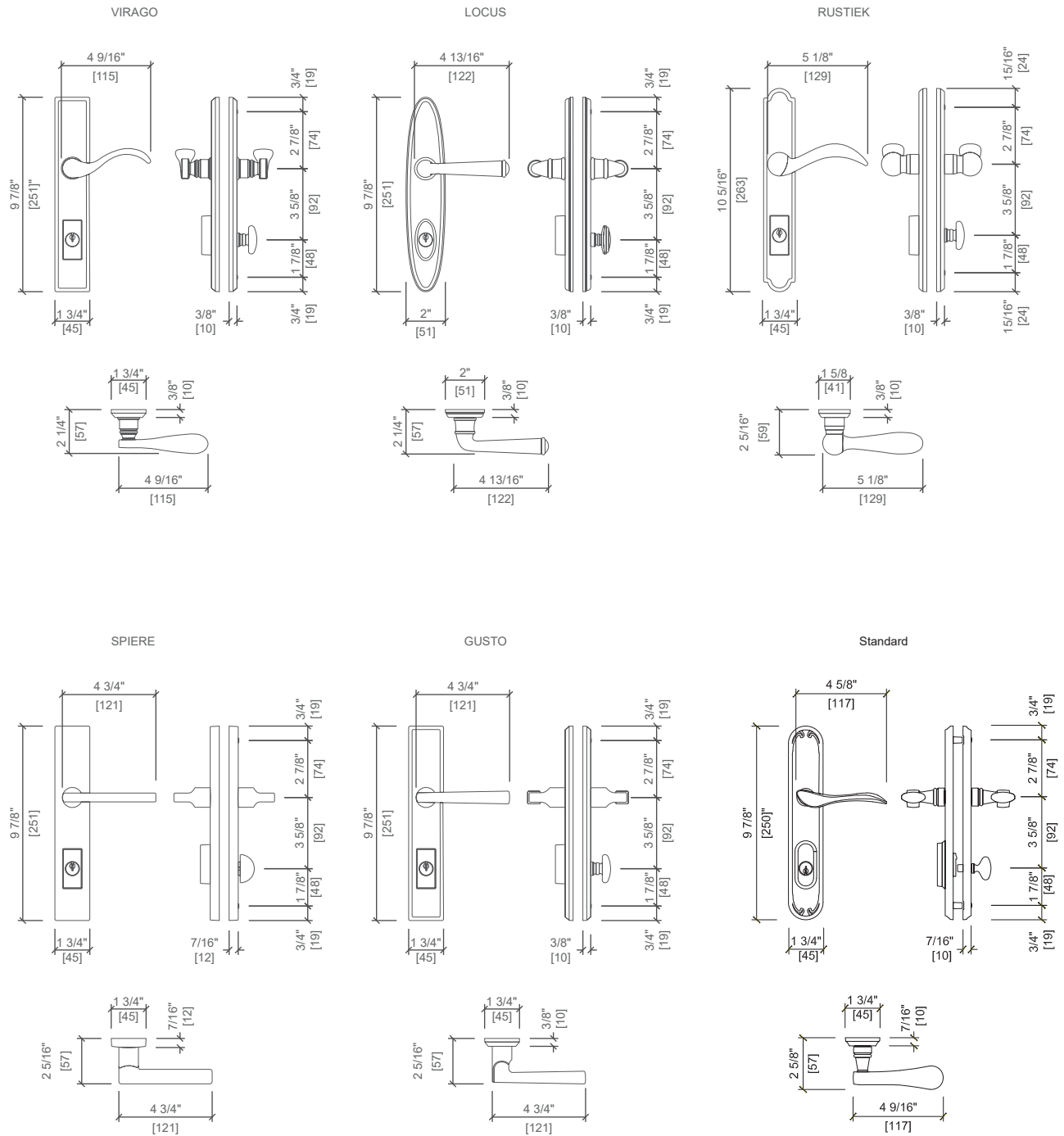
All dimensions are approximate.

See www.Pella.com for mullion limitations and reinforcing requirements.



Pella® Reserve™ Traditional Out-Swing Patio Door

Unit Sections – Handle Hardware Dimensions





Glazing Performance - Total Unit

Glazing Thickness	Type of Glazing	Glass (mm)		Gap Fill	Performance Values ¹			
		Ext.	Int.		U-Factor	SHGC	VLT	CR
Vent Dual-Pane Glazing - Aluminum-Clad Exterior								
13/16"	Clear IG	3	3	air	0.39	0.36	0.37	47
	with grilles-between-the-glass				0.39	0.31	0.31	47
	with integral grilles				0.40	0.31	0.31	47
13/16"	Advanced Low-E IG	3	3	argon	0.29	0.18	0.31	61
	with grilles-between-the-glass				0.29	0.15	0.26	61
	with integral grilles				0.30	0.15	0.26	61
13/16"	SunDefense™ Low-E IG	3	3	argon	0.29	0.13	0.29	62
	with grilles-between-the-glass				0.29	0.12	0.24	62
	with integral grilles				0.30	0.12	0.24	62
13/16"	AdvancedComfort Low-E IG	3	3	argon	0.27	0.17	0.31	48
	with grilles-between-the-glass				0.27	0.15	0.26	48
	with integral grilles				0.28	0.15	0.26	48
13/16"	NaturalSun Low-E IG	3	3	argon	0.30	0.32	0.36	60
	with grilles-between-the-glass				0.30	0.27	0.30	60
	with integral grilles				0.31	0.27	0.30	60
Tinted Glazing								
13/16"	Bronze Advanced Low-E IG	5	3	argon	0.29	0.16	0.20	62
	with integral grilles with grilles				0.29	0.14	0.17	62
	with integral grilles				0.30	0.14	0.17	62
13/16"	Gray Advanced Low-E IG	5	3	argon	0.29	0.15	0.17	62
	with grilles-between-the-glass				0.29	0.13	0.15	62
	with integral grilles				0.30	0.13	0.15	62
13/16"	Green Advanced Low-E IG	5	3	argon	0.29	0.18	0.28	62
	with grilles-between-the-glass				0.29	0.15	0.28	62
	with integral grilles				0.30	0.15	0.23	62
High Altitude Glazing								
13/16"	Advanced Low-E IG	3	3	air	0.31	0.18	0.31	58
	with grilles-between-the-glass				0.31	0.15	0.26	58
	with integral grilles				0.32	0.15	0.26	58
13/16"	SunDefense™ Low-E IG	3	3	air	0.31	0.14	0.29	58
	with grilles-between-the-glass				0.31	0.14	0.24	58
	with integral grilles				0.32	0.12	0.24	58
13/16"	AdvancedComfort Low-E IG	3	3	air	0.28	0.17	0.31	45
	with grilles-between-the-glass				0.28	0.15	0.26	45
	with integral grilles				0.29	0.15	0.26	45
13/16"	NaturalSun Low-E IG	3	3	air	0.32	0.32	0.36	57
	with grilles-between-the-glass				0.32	0.27	0.30	57
	with integral grilles				0.33	0.27	0.30	57

R-Value = 1/U-Factor

SHGC = Solar Heat Gain Coefficient

VLT % = Visible Light Transmission

CR = Condensation Resistance

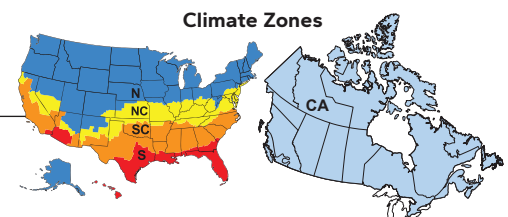
ER = Canadian Energy Rating

(1) Glazing performance values are calculated based on NFRC 100, NFRC 200 and NFRC 500. ENERGY STAR® values are updated to 2023 (Version 7) criteria.

(2) The values shown are based on Canada's updated ENERGY STAR® 2020 initiative.

U-Factor values shown are based on a standard sill and pine interior.

Visit www.energystar.gov for Energy Star guidelines.





Glazing Performance - Total Unit

Glazing Thickness	Type of Glazing	Glass (mm)			Gap Fill	Performance Values ₁			
		Ext.	Mid	Int.		U-Factor	SHGC	VLT	CR
Vent Triple-Pane Glazing - Aluminum-Clad Exterior									
1"	Advanced Low-E IG	3	3	3	argon	0.25	0.16	0.28	62
	with grilles-between-the-glass					0.26	0.14	0.23	62
	with integral grilles					0.26	0.14	0.23	62
1"	SunDefense™ Low-E IG	3	3	3	argon	0.25	0.12	0.26	62
	with grilles-between-the-glass					0.26	0.11	0.21	62
	with integral grilles					0.26	0.11	0.21	62
1"	NaturalSun Low-E IG	3	3	3	argon	0.26	0.26	0.31	62
	with grilles-between-the-glass					0.26	0.22	0.26	62
	with integral grilles					0.26	0.22	0.26	62
High Altitude Glazing									
1"	Advanced Low-E IG	3	3	3	air	0.28	0.16	0.28	62
	with grilles-between-the-glass					0.28	0.14	0.23	62
	with integral grilles					0.28	0.14	0.23	62
1"	SunDefense Low-E IG	3	3	3	air	0.27	0.13	0.26	62
	with grilles-between-the-glass					0.27	0.11	0.21	62
	with integral grilles					0.28	0.11	0.21	62
1"	NaturalSun Low-E IG	3	3	3	air	0.28	0.26	0.31	62
	with grilles-between-the-glass					0.28	0.22	0.26	62
	with integral grilles					0.28	0.22	0.26	62

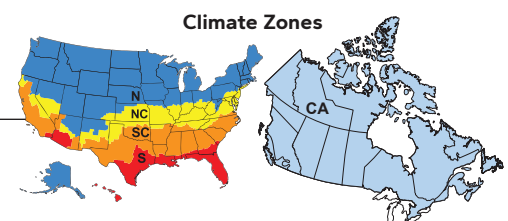
R-Value = 1/U-Factor
 SHGC = Solar Heat Gain Coefficient
 VLT % = Visible Light Transmission
 CR = Condensation Resistance
 ER = Canadian Energy Rating

(1) Glazing performance values are calculated based on NFRC 100, NFRC 200 and NFRC 500. ENERGY STAR® values are updated to 2023 (Version 7) criteria.

(2) The values shown are based on Canada's updated ENERGY STAR® 2020 initiative.

U-Factor values shown are based on a standard sill and pine interior.

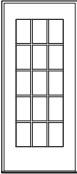
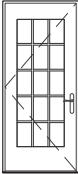
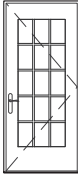
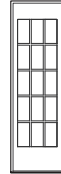
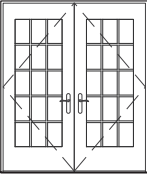
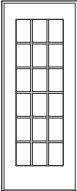
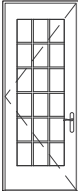
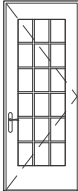
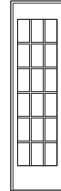
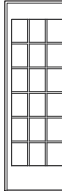
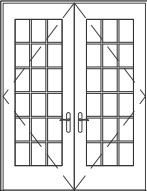
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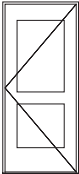
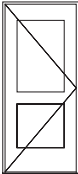
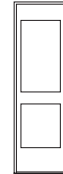
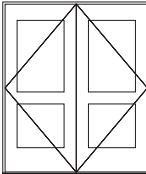
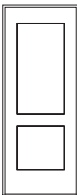
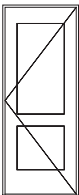
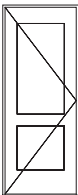
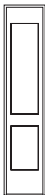
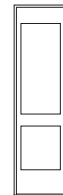
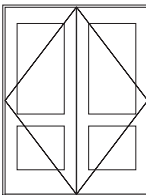


Size Tables

7' 2" and 8' 0" Vent and Fixed Units - Clad

		(981) (962)	(981) (962)	(981) (962)	(540) (521)	(692) (673)	(845) (826)	(1 886) (1 867)
Opening		3' 2 5/8"	3' 2 5/8"	3' 2 5/8"	1' 9 1/4"	2' 3 1/4"	2' 9 1/4"	6' 2 1/4"
Frame		3' 1 7/8"	3' 1 7/8"	3' 1 7/8"	1' 8 1/2"	2' 2 1/2"	2' 8 1/2"	6' 1 1/2"
(2 197) (2 184)	7' 2 1/2"							
	7' 2"	FIXED 3886	LEFT 3886	RIGHT 3886	SIDELIGHT 2186	SIDELIGHT 2786	SIDELIGHT 3386	ACTIVE-ACTIVE 7486
(2 438) (2 426)	8' 0"							
	7' 11 1/2"	FIXED 3896	LEFT 3896	RIGHT 3896	SIDELIGHT 2196	SIDELIGHT 2796	SIDELIGHT 3396	ACTIVE-ACTIVE 7496

7' 2" and 8' 0" Vent and Fixed Units - Clad

Opening		3' 2 5/8" (981)	3' 2 5/8" (981)	3' 2 5/8" (981)	1' 9 1/4" (540)	2' 3 1/4" (692)	2' 9 1/4" (845)	6' 2 1/4" (1 886)
Frame		3' 1 7/8" (962)	3' 1 7/8" (962)	3' 1 7/8" (962)	1' 8 1/2" (521)	2' 2 1/2" (673)	2' 8 1/2" (826)	6' 1 1/2" (1 867)
(2 197) (2 184)	7' 2 1/2"							
	7' 2"	FIXED 3886	LEFT 3886	RIGHT 3886	SIDELIGHT 2186	SIDELIGHT 2786	SIDELIGHT 3386	ACTIVE-ACTIVE 7486
(2 438) (2 426)	8' 0"							
	7' 11 1/2"	FIXED 3896	LEFT 3896	RIGHT 3896	SIDELIGHT 2196	SIDELIGHT 2796	SIDELIGHT 3396	ACTIVE-ACTIVE 7496

Not to scale.

CL = Distance from bottom of door to center line of intermediate rail is 38".

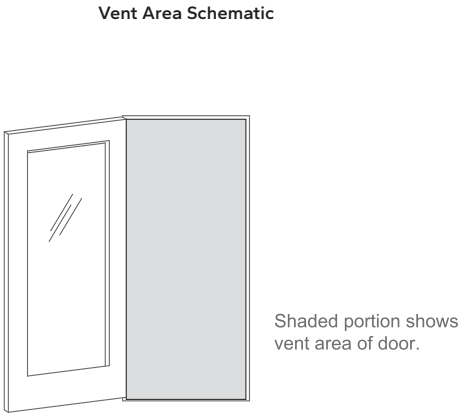
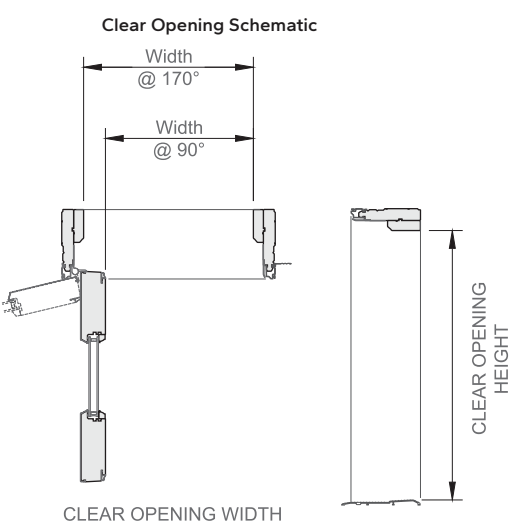
Masonry dimensions are with Pella's 1-7/8" brickmould.

To determine masonry openings when using Pella's 3-1/2" brickmould, add an additional 3-1/4" to width and 1-5/8" to height.



Design Data

Commercial Aluminum EnduraClad® Exterior Aluminum Cladding								
	Clad Units		Clear Opening (Inches)			Visible Glass Ft²		Standard Glass Thickness (mm) Tempered
			Width ¹		Height	Without Rail	With Rail	
			Open 170°	Open 90°				
	7' 2" DOORS	3886	F	—	—	—	10.3	9.3
3886		L/R	34	32-5/16	83-3/4	10.3	9.3	3
7486		AA	70 / 34-15/16	65-7/8 / 32-7/8	83-3/4	20.6	18.7	3
8' 0" DOORS	3896	F	—	—	—	11.8	10.9	3
	3896	L/R	34	32-5/16	93-3/4	11.8	10.9	3
	7496	AA	70 / 34-15/16	65-7/8 / 32-7/8	93-3/4	23.7	21.8	3
SIDELIGHTS	2186	S/L	—	—	—	6.1	5.5	3
	2196	S/L	—	—	—	7.0	6.5	3
	2786	S/L	—	—	—	8.8	7.9	3
	2796	S/L	—	—	—	10.1	9.2	3
	3386	S/L	—	—	—	11.4	10.3	3
	3396	S/L	—	—	—	13.1	12.0	3



(—) = Not applicable

(1) All dimensions are approximate to the nearest 1/16". The second value, where shown, provides the clear opening for the active panel only.

All doors are glazed with 3mm tempered glass.

To convert areas to square meters (m²), multiply square feet by 0.0929.



Hardware Parameters and Recommendations

Pella Reserve Commercial Out-Swing Doors are not supplied with locking hardware, closers, panic hardware, push plates or kick plates. Use the following guidelines when selecting these hardware items from your hardware supplier.

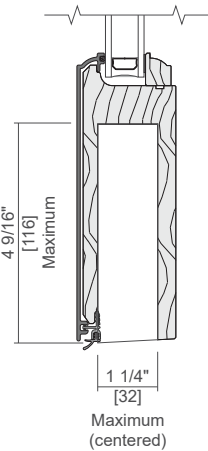
Mortise Locks: Maximum mortise rout dimensions are shown below for commercial doors with standard stile dimensions. Maximum height of the mortise rout is 10 inches. Routs should be sealed before the locks are installed for added moisture protection.

Cylinder Locks: Maximum diameter of cylinder lock bore is 2-1/8". Minimum backset is 2-3/8"; maximum backset is 2-3/4".

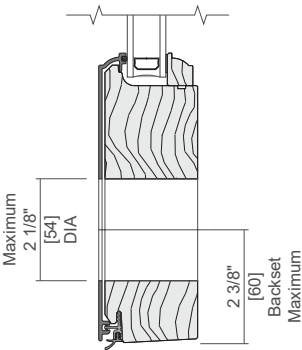
Door Closers: When door closers are being used, Pella recommends the use of surface applied door closers with mounting devices that anchor into the structural header of the rough opening. Devices that anchor to the door frame only are not approved for use on Pella doors. Concealed closers that are routed into the top of the door panel are not recommended.

Exit Devices: When exit devices are used, Pella recommends the use of surface mounted vertical rod hardware. Concealed vertical rod hardware is not recommended.

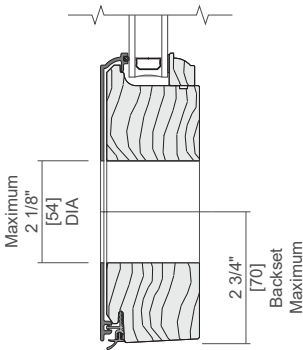
Kick plates and push plates: In commercial applications, Pella recommends the use of kick plates and push plates to protect the wood veneer.



6-1/16" STILE



4-5/8" STILE



6-1/16" STILE



Detailed Product Descriptions - Aluminum-Clad Exterior

Frame

- Select softwood, immersion treated with Pella's EnduraGuard® wood protection formula in accordance with WDMA I.S.-4. The EnduraGuard formula includes three active ingredients for protection against the effects of moisture, decay, stains from mold and mildew. Plus, an additional ingredient adds protection against termite damage.
- Interior exposed surfaces are [clear pine] [mahogany] [douglas fir], edge-banded and veneered.
- Exterior surfaces are clad with aluminum at the head and jambs.
- Components are assembled with screws, staples and concealed corner locks.
- Sill is 1/2" low profile. Extruded aluminum with [mill] [bronze] [anodized to match anodized cladding] finish.
- Frame depth is 5-7/8" (149mm) for a wall depth of 4-9/16" (116mm).
- Jamb extensions available to adapt door to wall thickness between 4-9/16" (116mm) to 7" (178mm).

Door panels

- Select softwood, immersion treated with Pella's EnduraGuard® wood protection formula in accordance with WDMA I.S.-4. The EnduraGuard formula includes three active ingredients for protection against the effects of moisture, decay, stains from mold and mildew. Plus, an additional ingredient adds protection against termite damage.
- Interior exposed surfaces are veneered with [clear pine] [mahogany] [douglas fir].
- Exterior surfaces are clad with extruded aluminum.
- Panel stiles and rails are five-ply construction, randomly finger-jointed blocks laminated with water-resistant glue and veneered on both sides.
- Panel lock stiles on all units and all stiles on units over 8' height are constructed with LVL core with finger-jointed edge bands on both sides and veneered on both faces.
- Corners are urethane-silicone hybrid sealed and secured with metal fasteners.
- Panel thickness is 2-1/16" (52mm).
- Panel exterior profile is [ogee] [putty glaze], interior profile is ogee.

Weatherstripping

- Dual-durometer extruded polymer along jambs, head and sill.
- Dual-durometer extruded polymer rainscreen along top and sides of panel.
- Bristle rainscreen along bottom of panel.

Glazing System

- Quality fully-tempered float glass complying with ASTM C 1048.
- Custom and high altitude glazing available.
- Silicone-glazed, 13/16" double-pane, dual-seal, insulating glass
 - [Clear] [Obscure] [Reflective Bronze] with air.
 - [Obscure Low-E [with argon]] [[Advanced] [[AdvancedComfort] [SunDefense™] [NaturalSun] Low-E [with argon]].
 - [Bronze] [Gray] [Green] Advanced Low-E [with argon].

- or -
- Silicone-glazed, 13/16" double-pane, dual-seal, laminated, insulating glass
 - Clear with air.
 - [Advanced] [SunDefense™] Low-E with argon.
 - [Bronze] [Gray] [Green] Advanced Low-E with argon.

- or -
- Silicone-glazed, 1" triple-pane, dual-seal, insulating glass
 - [Obscure Low-E [with argon]] [[Advanced] [SunDefense™] [NaturalSun] Low-E [with argon]].

Exterior

- Exterior aluminum surfaces are finished with EnduraClad® multi-step, baked-on finish.
 - Color is [Standard] [feature] [custom]₁.

- or -
- Exterior aluminum surfaces are finished with EnduraClad® Plus protective finish with 70% fluoropolymer resin, multi-step baked-on finish.
 - Color is [Standard] [feature] [custom]₁.

Interior

- [Unfinished, ready for site finishing] [factory primed with one coat acrylic latex] [factory prefinished [paint] [stain]₁].

Hardware

Hinges

- Ball-bearing hinges
 - Doors 6' 10" and under frame height will have three (3) ball-bearing hinges.
 - Doors over 6' 10" frame height up to and including 8' 0" frame height will have four (4) ball bearing hinges.
 - Hinge finish [Colonial Bronze (Light Bronze, Dark Bronze, Black anodized sill finishes)] [Satin Nickel (Mill or Clear anodized sill finishes)] to complement the finish of the sill.

- or -
- Adjustable hinges to assist in installation (not available with anodized cladding).
 - Doors 6' 10" to 7' 0" frame height will have three (3) hinges.
 - Doors over 7' 0" frame height up to and including 8' 0" frame height will have four (4) hinges.
 - Doors over 8' 3" frame height up to and including 9' 0" frame height will have five (5) hinges.
 - Doors over 9' 0" frame height will have six (6) hinges.
 - Hinge color to match exterior cladding.

Optional Products

Grilles

- Integral Light Technology® grilles
 - Interior grilles are [5/8"] [7/8"] [1-1/4"] [2"] ogee profile that are solid [pine] [mahogany] [douglas fir]. Interior surfaces are [unfinished, ready for site finishing] [factory primed] [pine: factory prefinished [paint] [stain]₁].
 - Exterior grilles are [5/8" putty glaze profile] [7/8" [putty glaze] [ogee] profile] [1-1/4" [putty glaze] [ogee] profile] [2" ogee profile] that are extruded aluminum.
 - Patterns are [Traditional] [Prairie] [Top Row] [Cross] [New England] [Victorian].
 - Insulating glass contains non-glare spacer between the panes of glass.
 - Grilles are adhered to both sides of the insulating glass with VHB acrylic adhesive tape and aligned with spacer.

- or -
- Grilles-Between-the-Glass₂
 - Insulating glass contains 3/4" contoured aluminum grilles permanently installed between two panes of glass (exterior air-space on triple-pane insulating glass).
 - Patterns are [Traditional] [Prairie] [Cross] [Top Row]
 - Interior color is [White] [Tan₃] [Brown₃] [Putty₃] [Black] [Ivory] [Harvest] [Cordovan] [Brickstone].
 - Exterior color₄ is [Standard₁].

Intermediate Rail and Flat Panel Options

- 6" Intermediate rail is three-ply construction, randomly finger-jointed blocks laminated with water-resistant glue and veneered on both sides.
- Clad Flat panel exterior is .080" Aluminum. Color is [Standard] [feature] [custom]₁.
- Flat panel is an LVL construction with Interior exposed surfaces are veneered with [pine] [mahogany] [douglas fir].
- Standard placement: 6" Intermediate Rail 38" OC from the bottom of the door sill.

(1) Contact your local Pella sales representative for current color options.

(2) Available in clear or Low-E insulating glass only.

(3) Tan, Brown and Putty Interior GBG colors are available in single-tone (Brown/Brown, Tan/Tan or Putty/Putty). Other interior colors are also available with Tan or Brown exterior.

(4) Appearance of exterior grille color will vary depending on Low-E coating on glass.



Detailed Product Descriptions - Wood Exterior

Frame

- Select softwood, immersion treated with Pella's EnduraGuard® wood protection formula in accordance with WDMA I.S.-4. The EnduraGuard formula includes three active ingredients for protection against the effects of moisture, decay, stains from mold and mildew. Plus, an additional ingredient adds protection against termite damage.
- Interior and exterior surfaces are [pine] [mahogany].
- Sill is 1/2" low profile. Material and finish are extruded aluminum with [mill] [Bronze] [anodized [Clear] [Light Bronze] [Dark Bronze] [Black] [Custom₁]] finish.
- Overall frame depth is 4-9/16" (116mm).
- Jamb extensions available to adapt door to wall thickness between 4-9/16" (116mm) to 7" (178mm).

Door panels

- Select softwood, immersion treated with Pella's EnduraGuard® wood protection formula in accordance with WDMA I.S.-4. The EnduraGuard formula includes three active ingredients for protection against the effects of moisture, decay, stains from mold and mildew. Plus, an additional ingredient adds protection against termite damage.
- Interior exposed surfaces are veneered with [pine] [mahogany].
- Panel stiles and rails are five-ply construction, randomly finger-jointed blocks laminated with water-resistant glue and veneered on both sides.
- Corners are urethane-silicone hybrid sealed and secured with metal fasteners.
- Panel thickness is 2-1/16" (52mm).

Weatherstripping

- Dual-durometer extruded polymer along jambs, head and sill.
- Dual-durometer extruded polymer rainscreen along top and sides of panel.
- Bristle rainscreen along bottom of panel.

Glazing System

- Quality fully-tempered float glass complying with ASTM C 1048.
- Custom and high altitude glazing available.
- Silicone-glazed, 13/16" double-pane, dual-seal, insulating glass
 - [Clear] [Obscure] [Reflective Bronze] with air.
 - [Obscure Low-E [with argon]] [[Advanced] [[AdvancedComfort] [SunDefense™] [NaturalSun] Low-E [with argon]].
 - [Bronze] [Gray] [Green] Advanced Low-E [with argon].
 - or -
- Silicone-glazed, 13/16" double-pane, dual-seal, laminated, insulating glass
 - Clear with air.
 - [Advanced] [SunDefense™] Low-E with argon.
 - [Bronze] [Gray] [Green] Advanced Low-E with argon.
 - or -
- Silicone-glazed, 1" triple-pane, dual-seal, insulating glass
 - [Obscure Low-E [with argon]] [[Advanced] [SunDefense™] [NaturalSun] Low-E [with argon]].

Exterior

- [Wood composite: primed with one coat acrylic latex] [mahogany: [unfinished, ready for site finishing] [primed with one coat acrylic latex]].

Interior

- [Pine [primed with one coat acrylic latex] [Unfinished, ready for site finishing] [prefinished stained₁]] [mahogany: Unfinished, ready for site finishing].

Hardware

Hinges

- Ball-bearing hinges
 - Doors 6' 10" and under frame height will have three (3) ball-bearing hinges.
 - Doors over 6' 10" frame height up to and including 8' 0" frame height will have four (4) ball bearing hinges.
 - Hinge finish [Colonial Bronze (Light Bronze, Dark Bronze, Black anodized sill finishes)] [Satin Nickel (Mill or Clear anodized sill finishes)] to complement the finish of the sill.
 - or -
- Adjustable hinges to assist in installation,
 - Doors 6' 10" to 7' 0" frame height will have three (3) hinges.
 - Doors over 7' 0" frame height up to and including 8' 0" frame height will have four (4) hinges.
 - Doors over 8' 3" frame height up to and including 9' 0" frame height will have five (5) hinges.
 - Doors over 9' 0" frame height will have six (6) hinges.

Optional Products

Grilles

- Integral Light Technology® grilles
 - Interior grilles are [5/8"] [7/8"] [1-1/4"] ogee profile that are solid [pine] [mahogany]. Interior surfaces are [unfinished, ready for site finishing] [factory primed] [pine: factory prefinished [paint] [stain]₁].
 - Exterior grilles are [5/8"] [7/8"] [1-1/4"] putty glaze profile that are solid [pine] [mahogany]. Exterior surfaces are water repellent, preservative-treated in accordance with WDMA I.S.-4, and are [unfinished, ready for site finishing] [factory primed].
 - Patterns are [Traditional] [Prairie] [Top Row] [Cross] [New England] [Victorian].
 - Insulating glass contains non-glare spacer between the panes of glass.
 - Grilles are adhered to both sides of the insulating glass with VHB acrylic adhesive tape and aligned with spacer.
 - or -
- Grilles-Between-the-Glass₂
 - Insulating glass contains 3/4" contoured aluminum grilles permanently installed between two panes of glass (exterior air-space on triple-pane insulating glass).
 - Patterns are [Traditional] [Prairie] [Cross] [Top Row]
 - Interior color is [White] [Tan₃] [Brown₃] [Putty₃] [Black] [Ivory] [Harvest] [Cordovan] [Brickstone].
 - Exterior color₄ is [standard₁].

Intermediate Rail and Flat Panel Options

- 6" Intermediate rail is three-ply construction, randomly finger-jointed blocks laminated with water-resistant glue and veneered on both sides.
- Wood Flat panel exterior is an LVL construction with exposed surfaces that are veneered with [pine] [mahogany]. Exteriors are [pine: primed] [mahogany [primed] [unfinished, ready for site finishing]].
- Flat panel is an LVL construction with Interior exposed surfaces are veneered with [pine] [mahogany].
- Standard placement: 6" Intermediate Rail 38" OC from the bottom of the door sill.

(1) Contact your local Pella sales representative for current color options.

(2) Available in clear or Low-E insulating glass with argon, and obscure insulated glass.

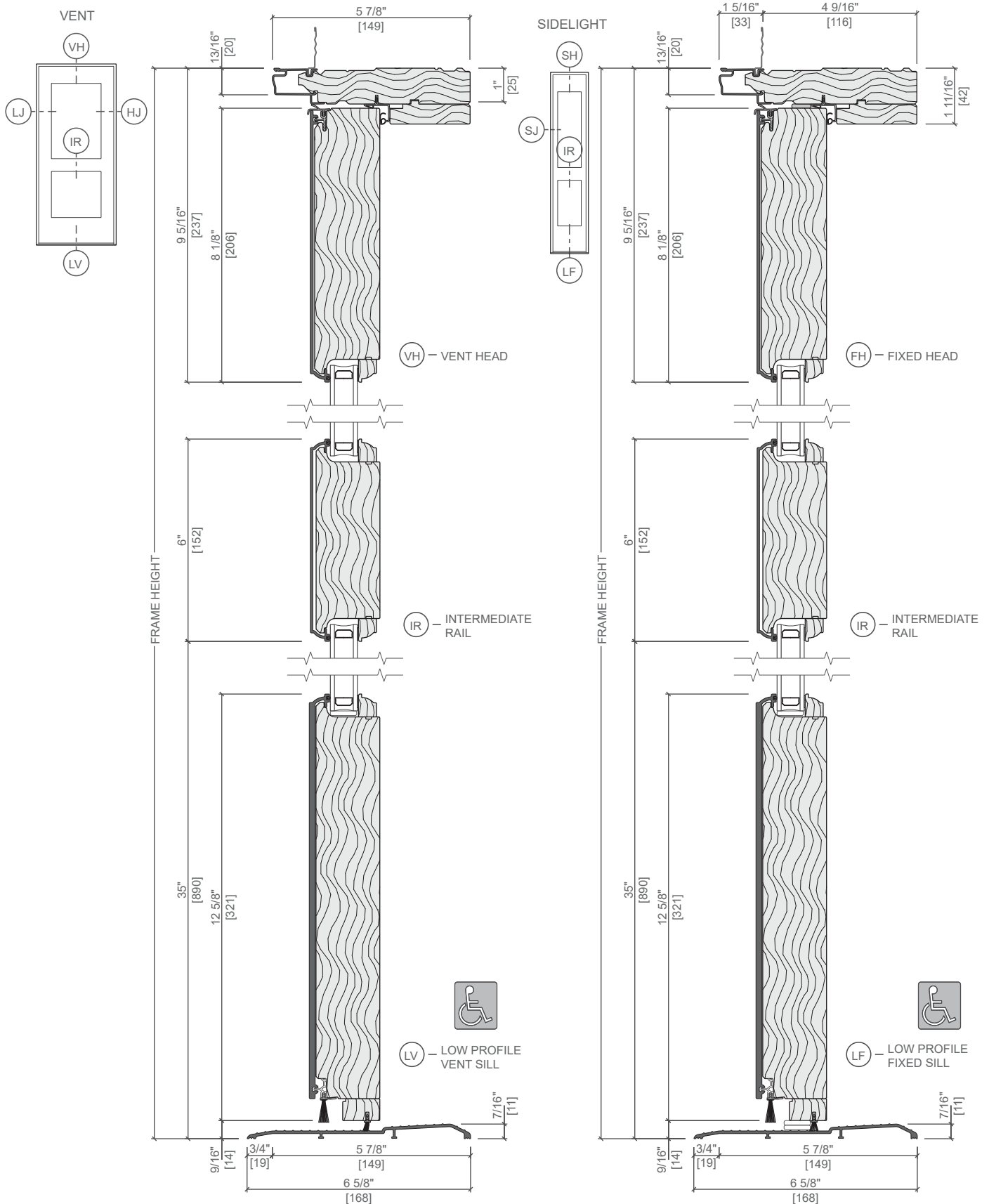
(3) Tan, Brown or Putty Interior GBG colors are available in single-tone (Brown/Brown, Tan/Tan or Putty/Putty). Other interior colors are also available with Tan or Brown exterior.

(4) Appearance of exterior grille color will vary depending on Low-E coating on glass.



Pella® Reserve™ Commercial Out-Swing Door

Unit Sections - Aluminum-Clad Exterior



Scale 3" = 1' 0"

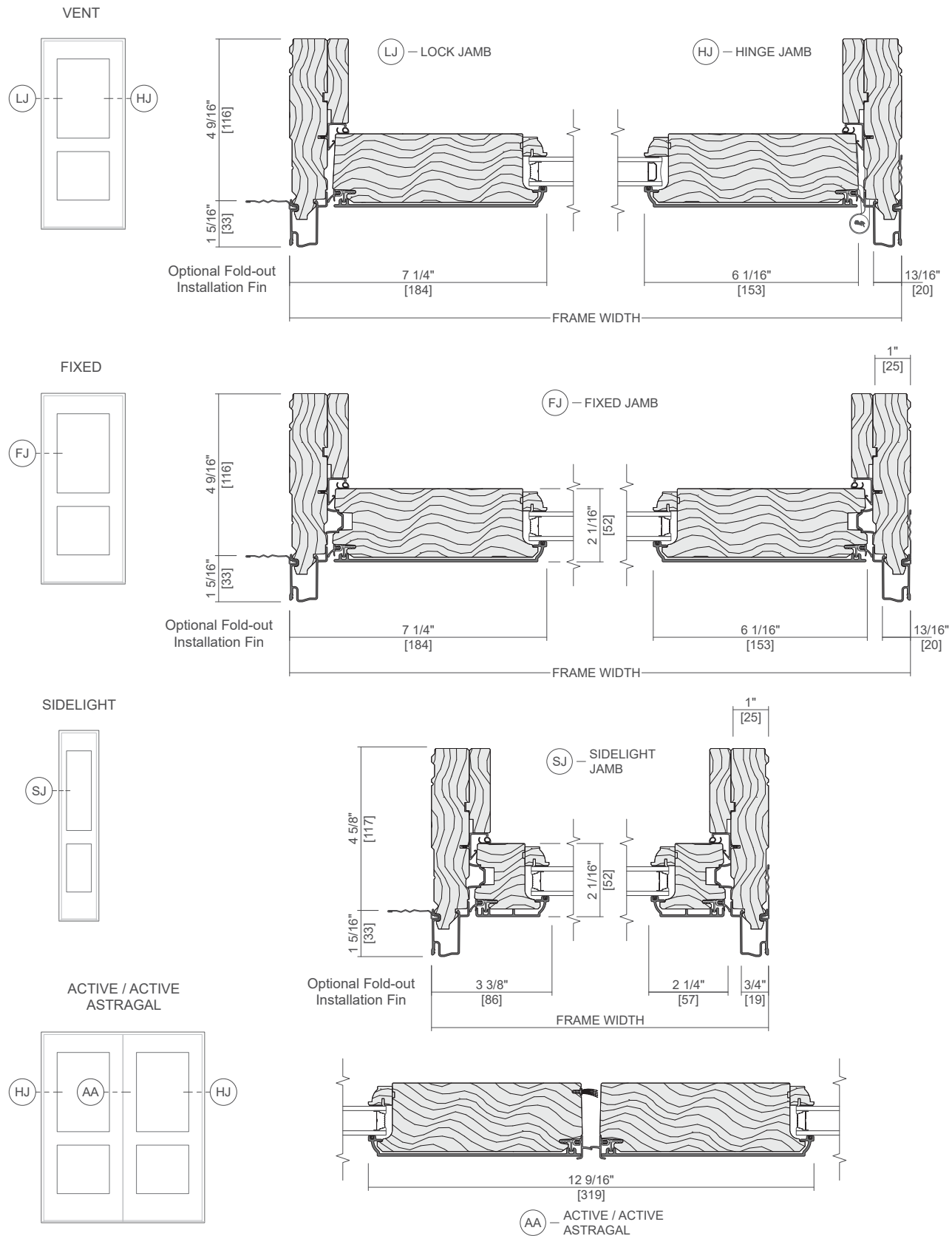
All dimensions are approximate.

Water resistance is 0 psf for units with a low profile sill.



Pella® Reserve™ Commercial Out-Swing Door

Unit Sections - Aluminum-Clad Exterior



Scale 3" = 1' 0"

All dimensions are approximate.

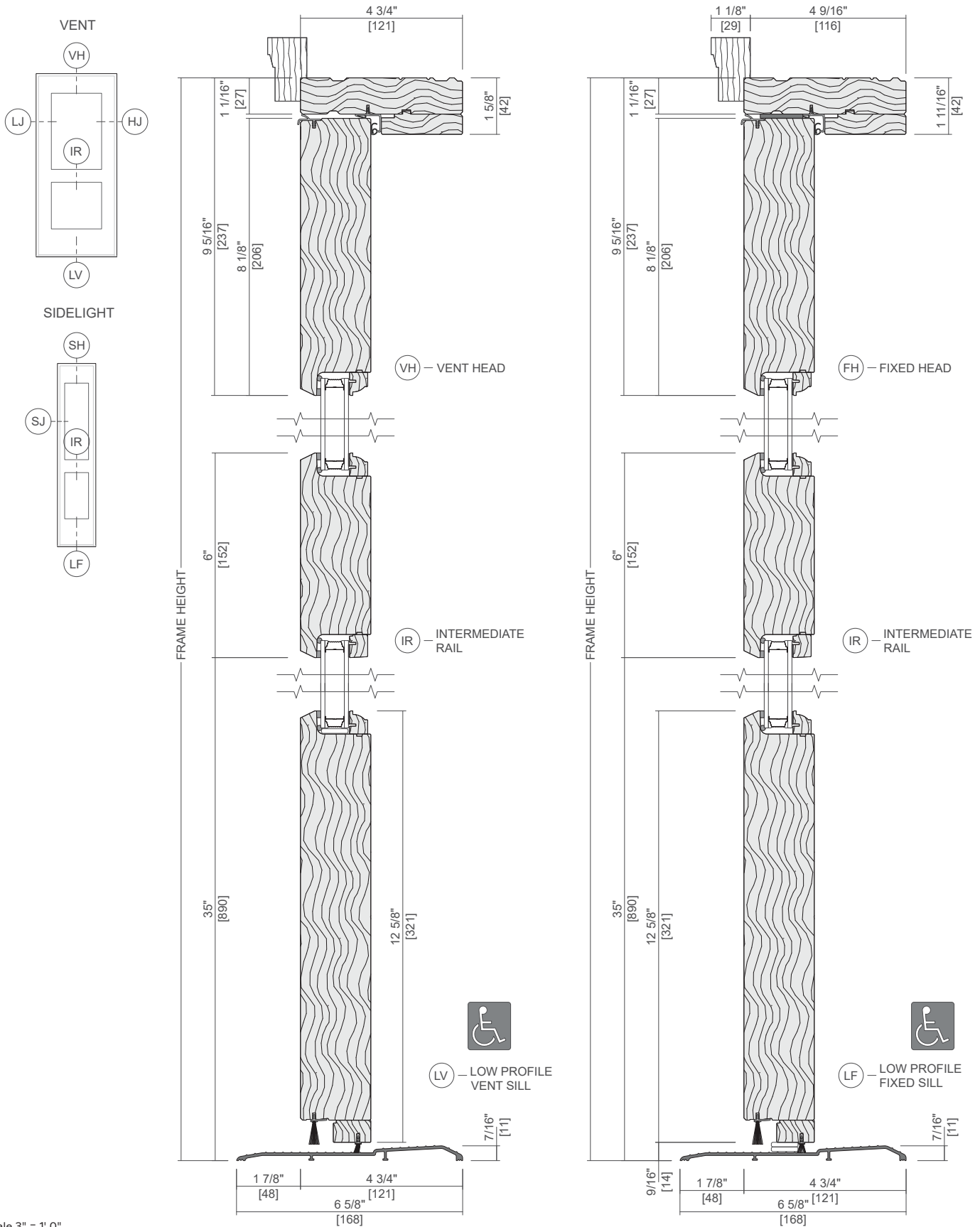
Rev. 07/17/2024

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Pella® Reserve™ Commercial Out-Swing Door

Unit Sections - Wood Exterior



Scale 3" = 1' 0"

All dimensions are approximate.

Water resistance is 0 psf for units with a low profile sill.

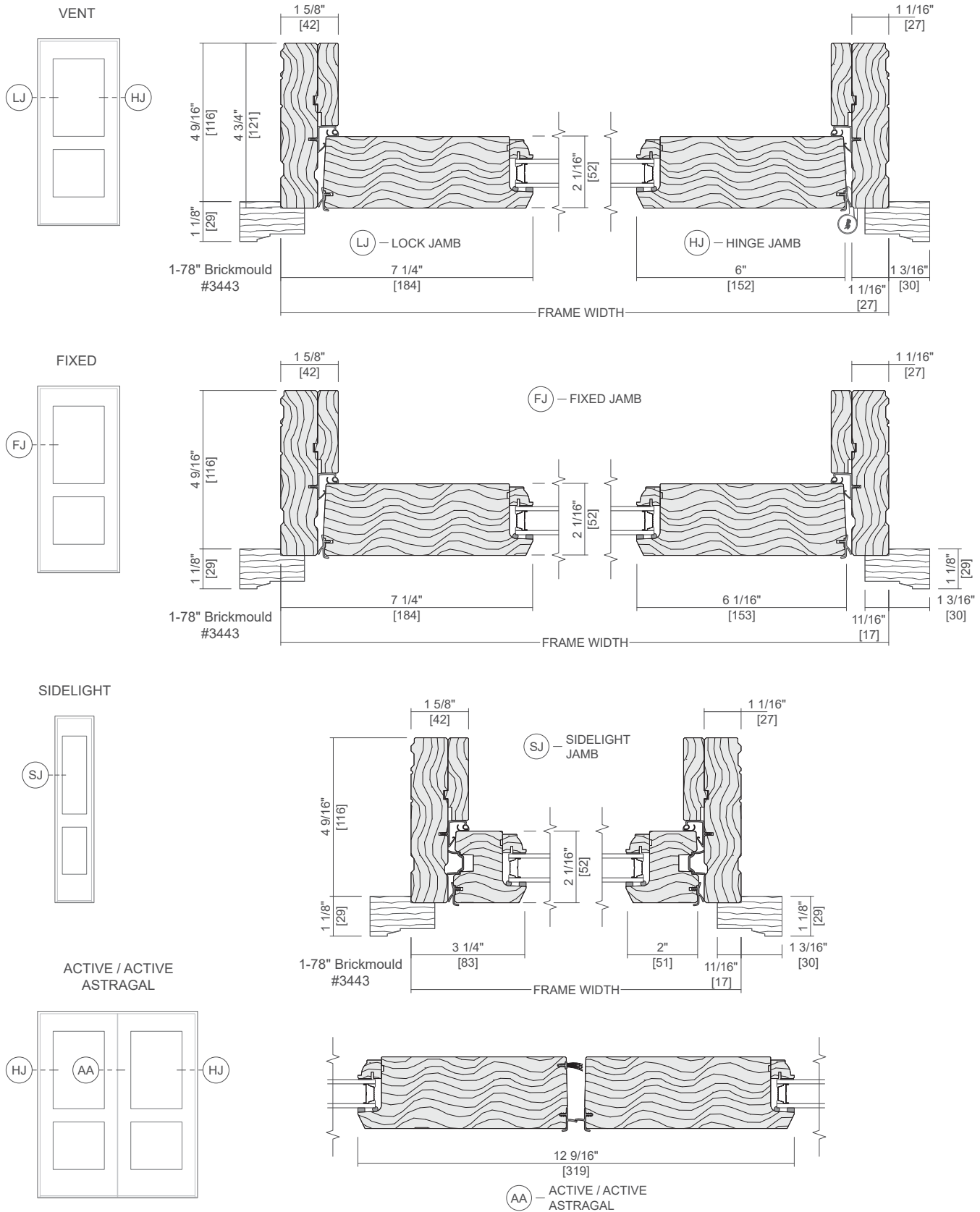
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Pella® Reserve™ Commercial Out-Swing Door

Unit Sections - Wood Exterior



Scale 3" = 1' 0"

All dimensions are approximate.

Rev. 07/17/2024

Landing Material Information

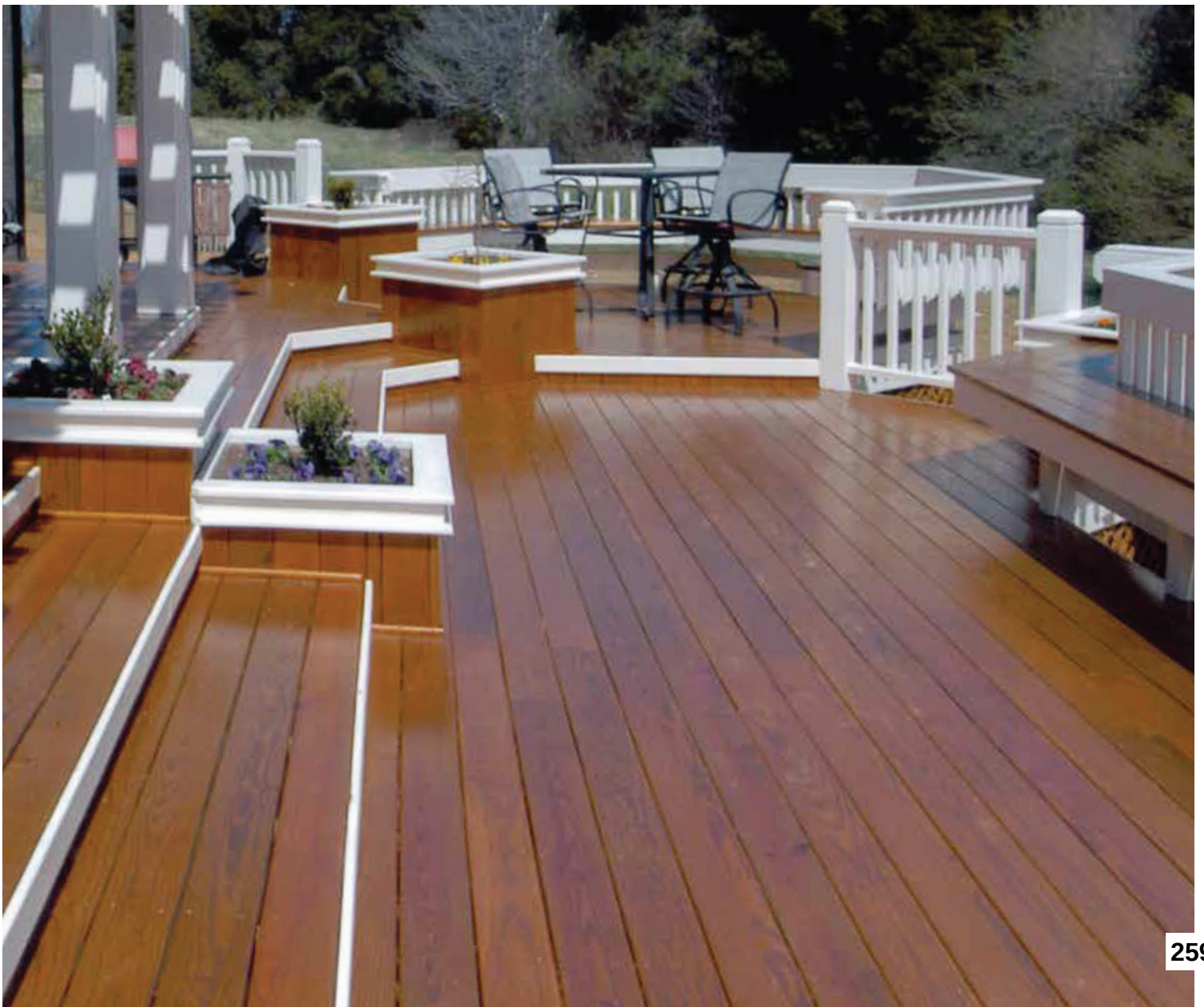


SOUTHERN YELLOW PINE DECKS



BEAUTIFUL—DURABLE—RENEWABLE

AmericanSoftwoods.com



CONTENTS

2	Quality
3	Safety first
4	Design considerations
5	Choosing your decking
6-7	Building a deck
8-9	Getting the structure right
10	Weathering and surface finishes
11	The Green choice

QUALITY

Naturally good-looking, durable, easy to construct and environmentally-friendly, there's nothing like a timber deck to extend your living space outdoors. Southern Yellow Pine, the most popular choice for decking in America, is the natural choice in Europe too, where plentiful supplies of this beautiful, pressure-treated, certified timber are available.

Exposed to the elements, decks are external structural floors that must be able to support the loads placed on them for many years. Careful material selection, good design and installation practice, together with periodic maintenance, will ensure a timber deck provides a long and safe service life.

Quality

All Southern Yellow Pine decking components are manufactured in accordance with an independent, national quality scheme. This scheme not only ensures that the components themselves are manufactured consistently but that the level of preservative protection given to the component is appropriate to its end use. For example, posts to be embedded in the ground need a higher level of preservative protection than components such as deck boards that are out of ground contact. Under the Southern Yellow Pine quality scheme, every component must be either ink stamped or labelled to identify its quality and source. These marks are your reassurance that you are buying a quality material that is fit for purpose.



SAFETY FIRST



As with other construction materials, always put safety first when working with any kind of wood – treated or untreated. Avoid prolonged inhalation of sawdust. Use a dust mask and eye protection when sawing, sanding or machining wood. Wear gloves. After working with wood, wash exposed areas of skin thoroughly. Wash work garments separately from other clothing before reuse.

Treated wood should not be burned on open fires, in wood-burning stoves, fireplaces or residential boilers. Never use treated wood on barbecues. Dispose of off-cuts responsibly at your local authority's recycling facility.

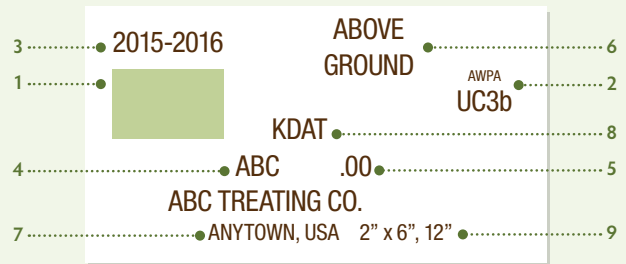
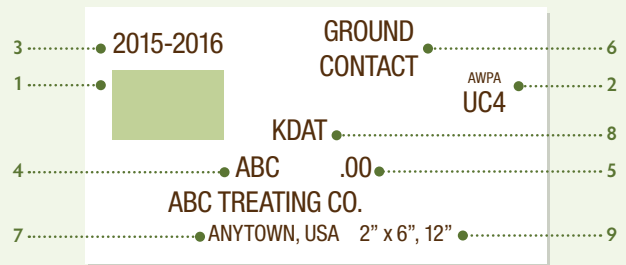
Inspect your deck periodically

Inspect the condition of the deck surface, structural connections and balustrade railings at least once a year. Wood is a natural material and seasonal wetting and drying can cause fixings to loosen. Tighten any loose fixing and hammer home any nail heads that may have started to protrude.

Preservatives

Southern Yellow Pine is particularly suitable for pressure treatment, providing predictable long-term durability and resistance to decay and insect attack. The latest generation of preservatives is approved for use by government agencies in the USA, UK and all major wood-using markets worldwide as safe for use in every construction environment, including contact with people, plants and pets. For more information please refer to Pressure-Treated Southern Yellow Pine at www.SouthernPineGlobal.com/publications

Typical quality marks for treated timber
(plastic and stamp or ink stamp)



1. ALSC inspection agency mark
2. AWPACategory
3. Year of treatment, if required
4. Preservative used for treatment
5. Preservative retention
6. Exposure category
7. Treating company and location
8. DRY or KDAT (Kiln-dried after treatment), if applicable
9. Length and/or class

Tip:

Make sure the wood is suitably treated for its intended exposure. Check plastic end tags or ink stamps for 'above ground' or 'ground contact'.

DESIGN CONSIDERATIONS

The location and design of a deck can be influenced by several factors:

- How it will be used (for sunbathing, large parties, family relaxation, outdoor cooking)
- How it relates to the existing structure (compatibility with function, environment, style)
- Sunlight (sun or shade)
- Privacy (screen certain areas, avoid street noise, landscaping)
- Terrain (elevated deck, ground level, split level)
- Access to and from the home (adjoining kitchen, dining room, living room or bedroom)

Once the basic size, shape and location of the deck are determined, check with your Local Authority to find out if planning or building control consent is required prior to work commencing. Local Authority requirements may vary from one region to another so it's advisable not to purchase any materials or start work until you know that your deck is permitted.

It's important to locate the deck so as to avoid obstructing access to any buried electricity cables or manhole covers. If in doubt, contact utility providers before any digging begins to determine the exact location of buried cables or pipes to which access may be required in the future. Create a hatch in the deck to permit access to manhole covers if necessary.



Tip:

Where board ends abut one another, install an additional length of joist (measuring at least the width of three boards) to provide adequate support for fixings.



Photo © Manchester Deck Co.

CHOOSING YOUR DECKING

Southern Yellow Pine decking is produced in a variety of profiles and grades, along with water-repellent and kiln-dried after treatment (KDAT) options. See Table 1. Please note that Southern Yellow Pine decking components are manufactured in Imperial sizes only. Conversions to metric dimensions should be considered as approximate only.

Use the right preservative treatment

Make sure the wood is treated for its intended exposure. Check plastic end tags or stamps fixed to the timber for 'above ground' or 'ground contact'. Do not use timber marked 'above ground' for ground contact applications.



Photo © Manchester Deck Co.

Table 1. Southern Yellow Pine decking selection guide¹

Decking option	Grade	Nominal size	Actual Size	Lengths	Water-repellent ⁴ Kiln-dried after treatment (KDAT) ⁴
Radius edge ²	Premium	32 x 152mm (5/4" x 6")	25 x 140mm (1" x 5 1/2")	2.4m (8')	Check supplier
	Standard			3.0m (10')	
Dimension	No.1	51 x 102mm (2" x 4")	38 x 89mm (1 1/2" x 3 1/2")	3.65m (12')	
	No.2	51 x 152mm (2" x 6")	38 x 140mm (1 1/2" x 5 1/2")	4.27m (14')	
Patio ³	Patio 1	32 x 152mm (5/4" x 6")	29 x 140mm (1 1/2" x 5 1/2")	4.87m (16')	
	Patio 2				

¹ Consult your timber supplier to source the specific Southern Yellow Pine components you require.

² Radius Edge Decking (R.E.D.) is typically manufactured 6mm (1/4") round on all four edges, but may be offered 6mm (1/4") round on the top two edges only.

³ Patio typically manufactured 10mm (3/8") round on all four edges.

⁴ Built-in water repellent and kiln drying options improve decking performance by minimizing defects caused by the natural expansion and shrinkage that wood experiences over the seasons.



Dimension 51 x 102mm (2" x 4")



Patio decking



Radius edge decking



Dimension 51 x 152mm (2" x 6")

Deck layout

Plan the layout of your deck carefully; planning saves time and money, reducing cutting and waste. For example, no cuts are required if the width of your deck is designed to match a typical decking board length (e.g. 8', 10', 12', 14', 16' – or roughly 2.4m, 3.0m, 3.65m, 4.27m, 4.87m).

Tip:

Where deck boards have visible growth rings in an arc pattern, lay the boards with the top of the arc uppermost, 'bark side up', to help reduce cupping.

BUILDING A DECK

A deck is made up of many components – foundations, posts, beams, bracing, joists, decking, wall plates/ledger boards, edge boards, newel posts, balustrades and stairs – all requiring proper connections.

There are two common methods for supporting a deck. One is to attach the deck directly to a property with a wall plate, sometimes referred to as a ledger board. The proper installation of this wall plate is critical, to avoid bridging damp courses. The alternative method is to construct a non-ledger deck adjacent to the house, supported on all corners by vertical posts. The joists of the deck should be at least 25mm (1") away from the brickwork damp course.

Ground-level decks

Site preparation is important for ground-level decks. Prepare an area approximately 300mm (2 ft) larger than the footprint of the proposed deck. Remove any vegetation, turf or soil to a depth of 600mm (2" or 3") and backfill with ballast, crushed limestone or gravel to prevent water from collecting beneath the deck. Be sure the excavated ground slopes slightly to direct any runoff away from the deck and home. To prevent weeds and unwanted vegetation from growing beneath the deck, spread perforated black garden paper or geotextile membrane over the area. Secure the sheeting in place with proprietary clips or with gravel. At the exposed edges, cover with gravel, pebbles, or other decorative edging such as bark.

Figure 1:
Deck supported
by a ledger attached
to the house

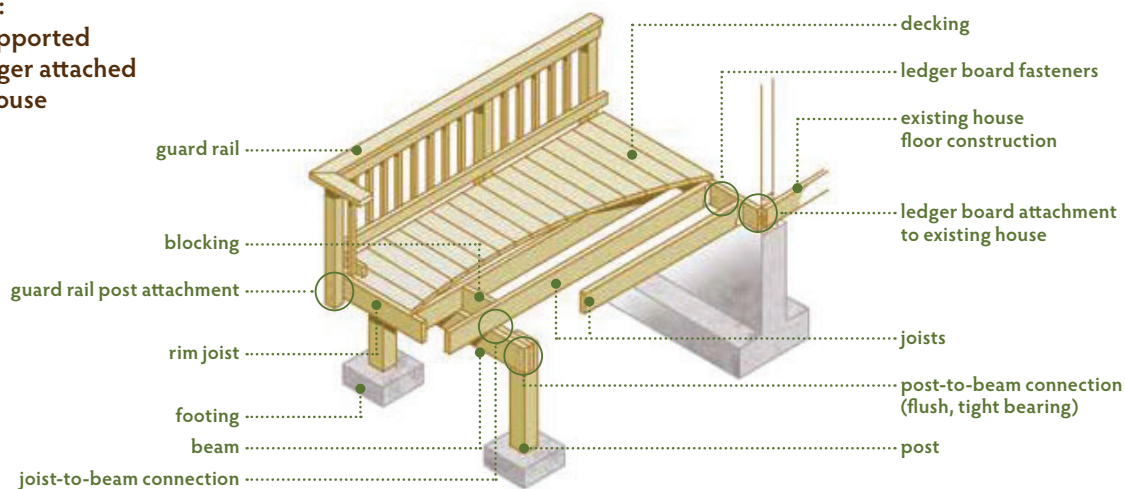
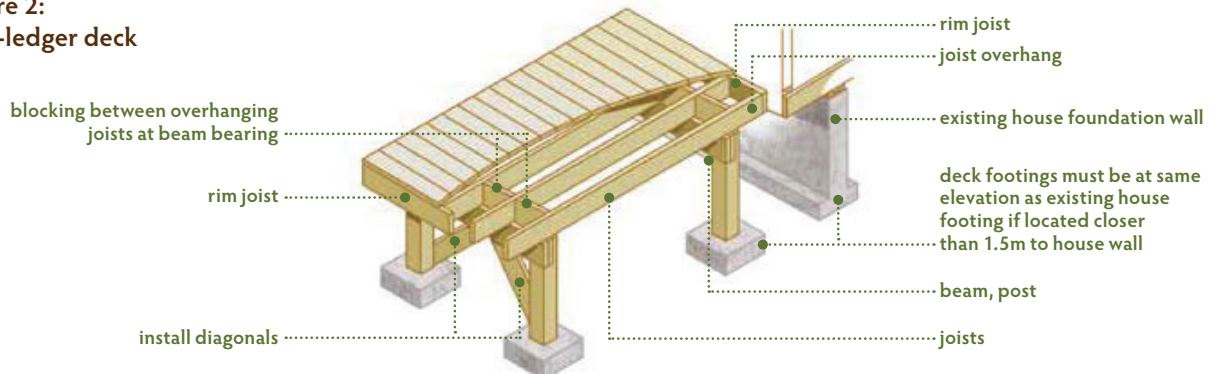


Figure 2:
Non-ledger deck





Posts

Posts for ground floor decks should be a minimum of 100mm x 100mm (4" x 4"). Posts for all other decks should be a minimum of 150mm x 150mm (6" x 6"). Use Southern Yellow Pine No.1 or No.2 grades in solid or laminated timber made from three sections of 50mm x 150mm (2" x 6"). The maximum installation height of posts is 3.65m (14') or the height of the first floor. For decks higher than 600mm (2') above the ground, diagonal bracing is recommended. Posts must be pressure-treated for ground contact use – check the grade stamps or end-tags for confirmation.

Support posts can be notched to accommodate a housing for the beam. However, this may expose untreated wood to decay if it is not re-treated on site. It also reduces the cross-section of the post, which may reduce its strength. To avoid notching, use a post cap metal connector to attach the beam directly to the top of the post. If high lateral loads are anticipated (e.g. wind), notching is not recommended.

Posts, and the foundations that secure them, transfer loads from the deck beam and framing to the ground and should be securely anchored to resist uplift in a strong wind. There are a number of ways posts may be secured. Details of deck posts that conform with UK practice can be found on The Timber Decking and Cladding Association (TDCA) website (www.tda.org.uk).

Ledger boards

When installing ledger boards (timber wall plates) on structural masonry walls, a minimum 15mm (½") gap should be allowed to permit water running down the wall to drain freely. The TDCA publishes details on fixing wall plates to structural walls. On timber frame properties, follow the recommendations for ledger board fixing given in the **Prescriptive Residential Wood Deck Construction Guide** (available at www.awc.org).

Connections

The proper selection and installation of decking fasteners is essential to long-term performance. The most common fixings are nails, screws or hidden fasteners. All hardware used with pressure treated wood in outdoor applications must be corrosion-resistant. Stainless steel or high performance coated fasteners are best. Hot-dipped galvanized fixings and connectors offer the minimum acceptable corrosion resistance. Do not use standard steel, brass, electro-plated or aluminium fixings and connectors. Always fix connectors using nails or screws made from the same metal to prevent galvanic corrosion. Much of the **Prescriptive Residential Wood Deck Construction Guide** is devoted to proper connection details and includes guidance for the following:

- Footing-to-post connections
- Post-to-beam connections
- Joist-to-beam connections
- Decking-to-joist connections
- Rim joist connections
- Bracing attachments
- Ledger board attachments
- Freestanding deck attachment to house
- Guard details and attachments
- Guard post attachments
- Stair details and attachment



Tip:

When attaching fixings near the ends of decking, pre-drill holes to help prevent splitting.

GETTING THE STRUCTURE RIGHT

Joists and beams

The span of a joist is measured from the centre of the post at one end of the joist to the centre of the post at the other end of the joist and does not include the length of any overhang. Use Table 2 to determine the joist span based on timber size and joist spacing. Refer to Table 3 for deck beam spans. Joists may rest on the beam and extend past the beam centre line up to $L_j/4$, or the joists may attach to the side of the beam using joist hangers. However, joists should not be attached to opposite sides of the same beam. Refer to the **Prescriptive Residential Wood Deck Construction Guide** for joist-to-beam connection details, plus beam assembly details where two or more members are used.

Spans

Southern Yellow Pine decking and 50 x 150mm (2" x 6") timber used for decking are both rated to span up to 600mm (24") between joist centres when installed perpendicular to the joist system (N.B. boards must span across at least three joists). However, limiting the joist centres to 400mm (16") reduces board deflection (bounce). When installing decking diagonally, always space joists at 400mm (16") centres.

Do not exceed maximum spans for structural deck components, such as joists and beams. Consult maximum span tables in the **Prescriptive Residential Wood Deck Construction Guide**.

Table 2. Southern Yellow Pine maximum joist spans (L_j)¹

Size	Joist Spacing (o.c.)					
	Allowable Span (L_j)			Allowable Overhang (L_o) ²		
	300mm (12")	400mm (16")	600mm (24")	300mm (12")	400mm (16")	600mm (24")
50 x 200mm (2" x 8")	3.99m (13' 1")	3.61m (11' 10")	2.95m (9' 8")	560mm (1' 10")	600mm (2' 0")	710mm (2' 4")
50 x 250mm (2" x 10")	4.93m (16' 2")	4.27m (14' 0")	3.48m (11' 5")	940mm (3' 1")	1.04m (3' 5")	864mm (2' 10")
50 x 300mm (2" x 12")	5.49m (18' 0") ³	4.88m (16' 6")	4.45m (13' 6")	1.37m (4' 6")	1.27m (4' 2")	1.02mm (3' 4")

¹ Assumes 1.915 kN/m² live load, 0.479 kN/m² dead load, L/360 deflection, No. 2 grade and wet service conditions.

² Maximum allowable overhang cannot exceed L/4 or ¼ of actual main span. Assumes cantilever length/180 deflection with 100 kg point load.

³ Joist length prescriptively limited to 5.49 metres for footing design.

Table 3. Southern Yellow Pine deck beam spans (L_B)¹

Size ²	Joist Spans (L_j) less than or equal to:						
	1.83m (6')	2.44m (8')	3.05m (10')	3.66m (12')	4.27m (14')	4.88m (16')	5.49m (18')
(2) 50 x 150mm (2" x 6")	2.03m (6' 8")	1.73m (5' 8")	1.55m (5' 1")	1.40m (4' 7")	1.30m (4' 3")	1.22m (4' 0")	1.14m (3' 9")
(2) 50 x 200mm (2" x 8")	2.59m (8' 6")	2.23m (7' 4")	1.98m (6' 6")	1.80m (5' 11")	1.68m (5' 6")	1.55m (5' 1")	1.45m (4' 9")
(2) 50 x 250mm (2" x 10")	3.07m (10' 1")	2.67m (8' 9")	2.36m (7' 9")	2.16m (7' 1")	1.98m (6' 6")	1.85m (6' 1")	1.75m (5' 9")
(2) 50 x 300mm (2" x 12")	3.63m (11' 11")	3.15m (10' 4")	2.79m (9' 2")	2.54m (8' 4")	2.36m (7' 9")	2.21m (7' 3")	2.06m (6' 9")
(3) 50 x 150mm (2" x 6")	2.41m (7' 11")	2.18m (7' 2")	1.96m (6' 5")	1.78m (5' 10")	1.65m (5' 5")	1.52m (5' 0")	1.45m (4' 9")
(3) 50 x 200mm (2" x 8")	3.23m (10' 7")	2.82m (9' 3")	2.51m (8' 3")	2.29m (7' 6")	2.11m (6' 11")	1.96m (6' 5")	1.85m (6' 1")
(3) 50 x 250mm (2" x 10")	3.89m (12' 9")	3.25m (11' 0")	2.97m (9' 9")	2.67m (8' 9")	2.51m (8' 3")	2.34m (7' 8")	2.21m (7' 3")
(3) 50 x 300mm (2" x 12")	4.57m (15' 0")	3.96m (13' 0")	3.53m (11' 7")	3.20m (10' 6")	2.97m (9' 9")	2.77m (9' 1")	2.62m (8' 7")

¹ Assumes 1.915 kN/m² live load, 0.479 kN/m² dead load, L/360 simple span beam deflection limit, L/180 cantilever deflection limit, No. 2 stress grade and wet service conditions. Deck beam spans (L_B) can extend past the post centre line up to $L_B/4$.

² Beam depth must be equal to, or greater than, the joist depth if joist hangers are used.



Photo © Manchester Deck Co.

Parapets and balustrade rails

Under UK building regulations, any deck platform more than 600mm (24") above ground level must have a safety parapet/guard rail at least 1100mm (43") in height. Newel posts must be a minimum of 100 x 100mm (4" x 4"). Guard rails fitted to stairs must include a graspable handrail on at least one side.

Parapets must include a balustrade infill that prevents the passage of a 100mm (4") sphere. The TDCA (www.tda.org.uk) publishes a guide to safety parapets where compliance with UK building regulations is required. If a deck is under 600mm high, balustrades are considered decorative and need only be 900mm high.

All safety parapets (newel posts, horizontal rails, balusters) should be installed as an independent system. Do not incorporate ground support posts as part of the guard rail system. Guard rail posts should be properly connected to the rim joist using bolts.

Spacing boards

The width of pressure-treated Southern Yellow Pine decking may vary due to moisture contact, so spacing between boards should be adjusted at installation to compensate for shrinkage as the wood dries.

Most Southern Yellow Pine deck boards have either been air or kiln-dried after treatment to a moisture content of 18%, plus or minus 2%. This is the ideal condition for laying at any time of year in the UK, minimizing potential defects caused by shrinkage. A gap should always be left between one deck board and another to help ventilate the under deck area, facilitate drainage and allow for any change of dimensions in the board as its moisture content increases and decreases with each season. A minimum of 5mm ($\frac{1}{4}$ ") to a maximum of 10mm ($\frac{3}{8}$ ") is recommended. Leave a gap of 5mm ($\frac{1}{4}$ ") where a board end abuts a post.

Tip:

Upper ends of railing posts should be covered with caps or cut at an angle to shed water.

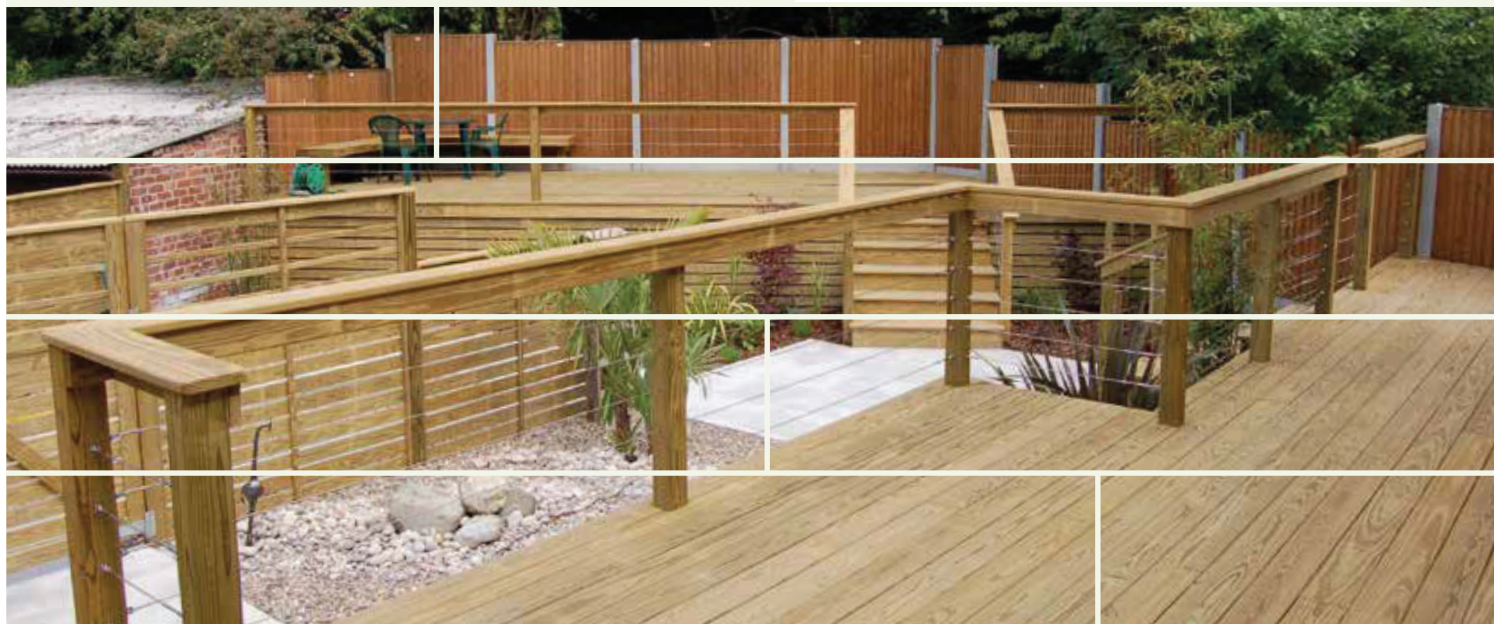


Photo © Manchester Deck Co.

WEATHERING AND SURFACE FINISHES

Horizontal deck surfaces are often directly exposed to sun and moisture, weathering rapidly. As repeated cycles of wetting and drying occur, surface checks (small cracks) can develop and exposed end-grain surfaces may begin to retain moisture.

With changes in its moisture content, wood used outdoors shrinks and swells continuously, subjecting any finishes to excessive stress. Although treated wood is protected against decay and insect attack, the application of a water-repellent sealer to all exposed surfaces is recommended when construction is complete. This sealer will help control surface checking (splitting or cracking) and help to maintain an attractive appearance. Over time, re-application of a sealer is recommended, perhaps every year or two.

Over several months, pressure-treated Southern Yellow Pine will weather naturally to an attractive silver-grey. Should you decide to paint or stain the treated material, you will find that it will accept a finish as readily as untreated Southern Yellow Pine. Most importantly, treated Southern Yellow Pine should be dry before any type of finish is applied.

Stain and paint manufacturers typically recommend a waiting period of between a week and two months from construction of a treated wood deck and applying a paint or stain. If the project was built with Southern Yellow Pine that was kiln-dried after treatment, the finish can be applied right away. When using paint, most manufacturers recommend two coats of an acrylic paint for best results on treated Southern Yellow Pine. Unless specifically manufactured for decking decoration, solid-colour stains should never be used on deck boards or stair treads as these will not withstand the wear of foot traffic.

For best results, always follow the manufacturer's application instructions.



Photo © Manchester Deck Co.

Maintenance

On weathered decks, the original colour of the wood can be restored (and surface mildew and mould removed) using a proprietary deck cleaner, brightener or restorer. If a pressure washer is used to clean a deck surface, care should be taken not to remove any of the wood itself.



Photo © Manchester Deck Co.

Tip:

The splash test

Regardless of a deck's age, when should you apply (or reapply) a finish? Here's the simple test:

First, be sure the wood surface is thoroughly dry. Splash water and observe its dispersion.

A. Water droplets form on contact when:

1. for newly constructed decks, the timber is not yet sufficiently dry to accept a finish, OR
2. for existing decks, the finish is performing satisfactorily.

B. If droplets do not form and water is absorbed into the wood, it's time to apply or reapply a sealer or stain.



A. Finish is OK



B. Time to reapply

THE GREEN CHOICE

Wood products are the most environmentally responsible building material available. Naturally renewable, wood acts as a carbon store and comes from forests that act as carbon sinks. In the US, forests are

widely recognized as stable and well-managed. Today, they cover about the same area as a century ago, and the growing stock has actually increased by 11% from 74,913 million m³ in 1990 to 82,941 million m³ in 2010.⁹

Wood products are the only major building products with a third-party certification system in place to verify their origination from sustainably managed resources.



Sustainable resources

Wood products are produced from trees, a naturally renewable resource. More wood is grown each year in the U.S. than is harvested.



Responsible manufacturing

Waste is virtually eliminated when trees are used to make wood products. Bark, trims and sawdust are used as an energy source to help power wood production facilities. It takes far less energy and fossil fuels to produce wood products than to manufacture concrete and steel.



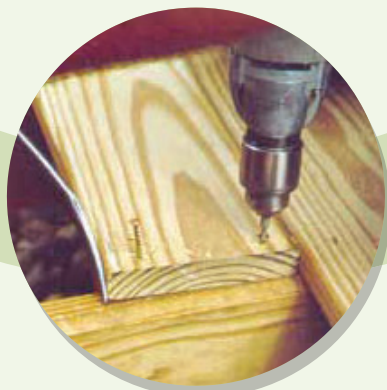
Quality construction

As a building material, wood offers a unique combination of benefits, including strength, affordability, ease-of-use and environmental superiority.



Recycle, renew

At the end of their initial service life, wood products are easily recycled for other uses. Wood contributes fewer greenhouse gas emissions than recycled steel and concrete.



Renovation, upgrade

The flexibility of wood makes renovating a home easy and affordable. Wood is builder-friendly, as well as environmentally friendly. Wood also enhances the aesthetic value of a home when used as flooring, cabinetry, furniture and moulding.



Long service life

The durability of wood products contributes to the long life of a home. Wood products also store carbon, reducing the amount of carbon in the atmosphere.

⁹ Global Forest Resources Assessment, FAO, 2010



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AmericanSoftwoods.com

Contact us

This brochure is published by American Softwoods, which exists to promote the quality and benefits of pressure-treated Southern Yellow Pine to markets worldwide. American Softwoods is a member of The Timber Decking and Cladding Association (TDCA), an organization established to promote quality decking materials and best practice in the UK.

A wide range of UK-specific information, ranging from compliance with Local Authority planning and building control requirements to the TDCA's Code of Practice, is available from www.tda.org.uk. A free PDF download of the American Wood Council's **Prescriptive Residential Wood Deck Construction Guide** is available at www.awc.org.

Southern Forest Products Association's global representatives are ready to assist with product or technical information.

Find regional contacts at www.SouthernPineGlobal.com

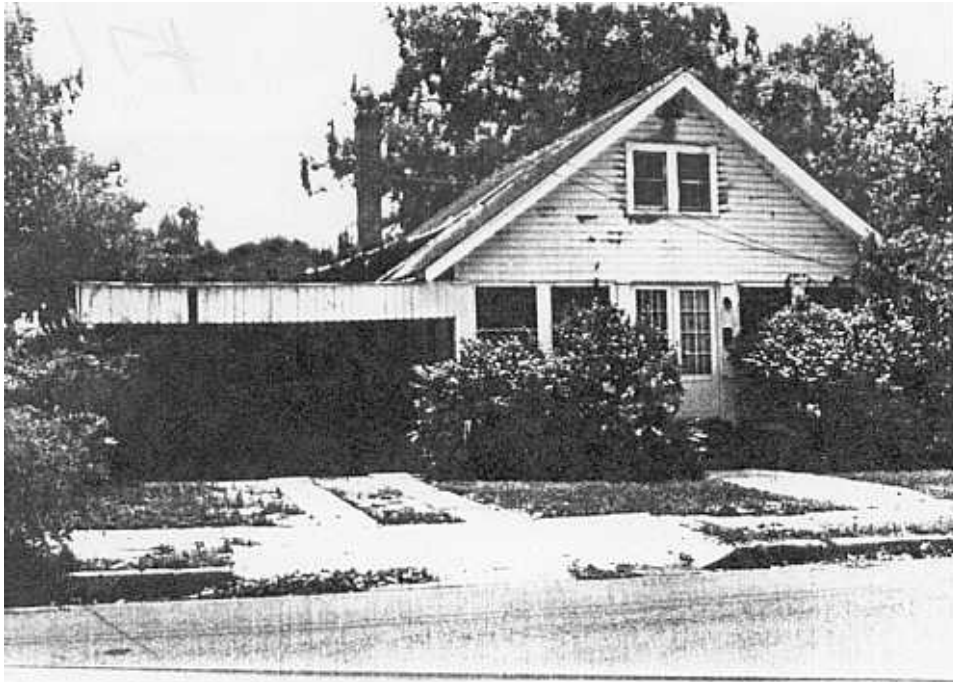
Certified Southern Yellow Pine is widely available.
Visit www.SouthernPineGlobal.com/product-locator for suppliers.

The conditions under which timber is used in construction may vary widely, as does the quality of workmanship. Neither American Softwoods nor the organizations behind it have knowledge of the quality of workmanship or construction methods used on any construction project and, accordingly, do not warrant the design or performance of the timber in completed structures.

Southern Forest Products Association
6660 Riverside Drive, Suite 212
Metairie, LA 70003 USA

Tel: 001-501-443-4464
www.SouthernPineGlobal.com
Email: mail@sfpa.org





722 NE 2nd Street

Architect:
 Builder:
 Style and/or Period: **Frame Vernacular**
 Plan Type: **Rectangular**
 Exterior Fabric(s): **Wood: drop siding**
 Structural System(s): **Wood: balloon**
 No. of Dormers: **None**
 No. of Stories: **1**
 Porches: **None**
 Orientation: **North**
 Window Type: **Double hung sash, four-over-one, wooden paired windows**
 Foundation: **Brick piers with pierced brick infill**
 Roof Type: **Gable**
 Roof Surfacing: **Composition diamond shingles**
 Secondary Roof Structure: **None**
 Chimney Location: **East end, exterior, lateral slope**
 Chimney: **Brick**
 No. of Chimneys: **1**
 Ornament Exterior: **None**
 Surroundings:
 Site Size (approx. acreage) **Less Than 1 Acre**

Township 15
UTM ZONE

Range 22
UTM EASTING

Section 17
UTM NORTHING

FLORIDA MASTER SITE FILE
Site inventory Form

SITE NO.

SITE NAME: 722 NE 2nd Street
ADDRESS: 722 NE 2nd Street
INSTRUCTIONS TO LOCATE:

SURVEY DATE: 06/30/86

LOCATION:	Caldwells	46
	Subdivision Name	Block No. Lot No.

COUNTY: Marion

DISTRICT NAME IF APPLICABLE:

OWNER OF SITE: NAME: Elliott, W. Russell IV

ADDRESS: P. O. Box 1476

ADDRESS: Dunnellow, FL 32630

TYPE OF OWNERSHIP: Private

RECORDING DATE: / /

RECORDED: NAME & TITLE: Historic Property Associates

ADDRESS: P. O. Box 1002

St. Augustine, FL 32085

CONDITION OF SITE: INTEGRITY OF SITE:
Check One Check one or more

GREEN USE		GREEN USE OF MOBILE		ORIGINAL USE residence
EXCELLENT	x	ALTERED		PRESENT USE abandoned
GOOD		UNALTERED		DATES c. +1930
FAIR	x	ORIGINAL SITE		CULTURE/PHASE American
x DETERIORATED		RESTORED: / /		PERIOD: Twentieth
		MOVED: / /		

NR CLASSIFICATION CATEGORY: DATE LISTED ON NR: / /

THREATS TO SITE: Check one or more

	ZONING	TRANSPORTATION
	DEVELOPMENT	FILL
x	DETERIORATION	DREDGE
	BORROWING	

OTHER (See Remarks Below)

AREAS OF SIGNIFICANCE: Architecture

SIGNIFICANCE

See Continuation Sheet