

# Town of Brunswick, Maine

## DEPARTMENT OF PLANNING AND DEVELOPMENT

---

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

---

**PROJECT NAME:** 108-110 Maine Street; Bank of America Windows

**CASE NUMBER:** VRB 25-013

**LOCATION:** Map U13, Lot 38; 108-110 Maine Street

**APPLICANT:**  
Christian Klein  
Approach Architects  
54 Newport Street  
Arlington, MA 02476

**OWNER:**  
Fleet Bank of Maine  
c/o Bank of America  
PO Box 32547  
Charlotte, NC 28232

**REVIEW DATE:** June 17, 2025

---

#### PROJECT SUMMARY

The applicant is requesting a Certificate of Appropriateness for Alterations to replace all of the (19) first story windows in the Bank of America building at 108-110 Maine Street with new Pella Reserve aluminum-clad wood windows. The style of the new windows will match the existing as closely as possible; they will feature low-E insulated glass and integrated grilles with 7/8" aluminum-clad muntin bars on the exterior. The existing window trim will remain and be repainted. The neo-classical building is a contributing structure in the VRO and was constructed in 1917.

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

##### (1) General Standard

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

There is no proposed change in size to the window openings and therefore the modifications to the property do not require a building permit.

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

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

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

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

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

The applicant proposes to use Pella Reserve Series Traditional Clad Monumental Hung and Traditional Clad Picture windows. Eleven of the new monumental windows will match the existing 10 over 15-light double-hung windows; one of these windows will match an existing 6 over 9-light window. The seven fixed windows will be replaced with 20-light picture windows that also closely match the existing.

The Pella website boasts that the Reserve series products have been approved for use by the National Park Service for use on projects with historic tax credits on a case by case basis. As noted, the windows will remain the same size and in the same configuration as the existing windows.

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

The proposed revisions do not affect the existing streetscape.

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

No significant features are to be concealed. It is unclear if any of the existing windows are original to the building.

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

Not applicable.

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

Not applicable.

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

have been satisfied.

- i. **Where practicable, new off-street parking shall be located to the rear of the principal building and shall be accessed from a secondary street. In cases where off-street parking currently exists in a front or side yard, the parking area shall be screened from the public right-of-way with landscaping or fencing.**

Not applicable.

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

Not applicable.

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

Not applicable.

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

Not applicable.

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

Not applicable.

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

Not applicable.

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

Not applicable.

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

Not applicable.

- ix. **No building on Maine Street shall have more than 15 feet horizontally of windowless wall.**  
Not applicable.
- x. **All new buildings and additions on Maine Street shall be built to the front property line. This may be waived if at least 60 percent of the building's front facade is on the property line, and the area in front of the setback is developed as a pedestrian space.**  
Not applicable.
- xi. **If adding more than 50 percent new floor area to a structure located on Maine Street, the addition shall be at least two (2) stories high and/or not less than 20 feet tall at the front property line.**  
Not applicable.
- xii. **The first-floor facade of any portion of a building that is visible from Maine Street shall include a minimum of 50 percent glass. Upper floors shall have a higher percentage of solid wall, between 15 percent and 40 percent glass.**  
Not applicable.

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

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

### **(3) Signs**

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

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

### **(4) Demolition and Relocation**

- a. **Demolition or partial demolition or relocation of a contributing or, if visible from a public right-of-way, a noncontributing resource, excluding incidental or noncontributing accessory buildings and structures located on the same property, shall be prohibited unless the application satisfies at least one of the following criteria.**
  - i. **The structure poses an imminent threat to public health or safety. An application must be accompanied by a report from a qualified structural engineer for review by the Codes Enforcement Officer and photographs depicting the current condition of the building.**

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

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

Not applicable.

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

Not applicable.

**DRAFT MOTIONS**  
**MAP U13 LOT 38 (108-110 MAINE STREET)**  
**REQUEST FOR A CERTIFICATE OF APPROPRIATENESS FOR ALTERATIONS**  
**VILLAGE REVIEW BOARD**  
**REVIEW DATE: JUNE 17, 2025**

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

Motion:                      Second:                      Vote:

**Draft Motion 2:** That the Board approves the **Certificate of Appropriateness for Alterations** to replace all (19) of the windows on the first story of the property located at Map U13, Lot 38; 108-110 Maine Street, as outlined in the application and as satisfied by Subsection 5.2.8.C with the following condition:

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

Motion:                      Second:                      Vote:

U13-38

## HISTORIC PRESERVATION SURVEY

Cumberland

Brunswick

106/108/110 Maine

County

City/Town

Street Address and Number

historic: First National Bank  
Name of Building/site: common: Maine National Bank  
Common and/or Historic

Approximate Date: 1917 Style: Neo-Classical

Type of Structure:

 Residential  Commercial  Industrial  Other:
Condition:  Good  Fair  PoorEndangered:  No  Yes

Surveyor: J. Goff Organization: Penobscot Regional Survey

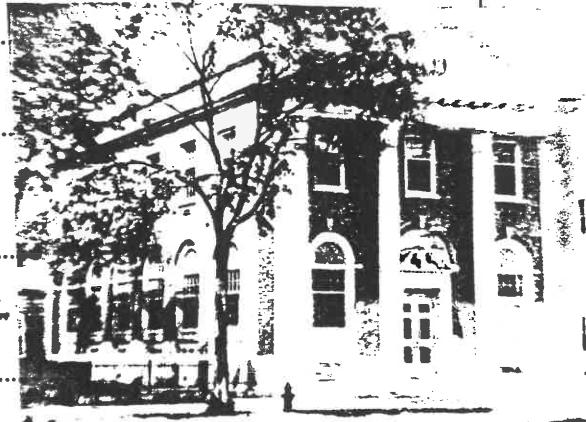
Rating:

Historic Significance to the Community:

Earlier Buildings on site: 1874 Benjamin Greene res. here until 1905 move to 259 Me.  
 Pastime Theatre on corner property before First National Bank, also.  
 1794 Lemuel Swift ("Forsaith") estate stood on site of #106 until razed in 1967.

(For Additional Information — Use Reverse Side)

(Note: Front and side "Federal" fanlight windows removed before 1980 top photo.)



106-110 MAIN

Maps: 1910 #106=Forsaith Est.  
 corner property-no # =W.O. Gould

Deeds:

Newspaper: Brunswick Record 4/28/1955 "For a few years the Pastime theatre was located on the lot then the present building of the First National Bank was built during World War I."

Other: Shipman p. 10 "Swift-Forsaith house...built for Lemuel Swift in 1794...taken down in 1967"



1874 views of 1874 Benj. Greene residence (left), 1794 Swift-Forsaith house on property

Received: \_\_\_\_\_  
By: \_\_\_\_\_

VRB Case #: \_\_\_\_\_

**VILLAGE REVIEW OVERLAY  
CERTIFICATE OF APPROPRIATENESS  
APPLICATION**

1. Project Applicant:

Name: Christian Klein / Approach Architects  
Address: 54 Newport Street  
Arlington, MA 02476  
Phone Number: 617-962-3464  
Email Address: cklein@approach3.com

2. Project Property Owner:

Name: Fleet Bank of Maine (CC#79444) c/o Bank of America  
Address: P.O. Box 32547  
Charlotte, NC 28232  
Phone Number: 857-343-2774  
Email Address: Carlos.Raduenz@cbre.com

3. Authorized Representative: (If different than applicant)

Name: Carlos Raduenz / CBRE - Turner & Townsend  
Address: 100 Federal Street  
Boston, MA 01810  
Phone Number: 857-343-2774  
Email Address: Carlos.Raduenz@cbre.com

4. Physical Location of Property Being Affected:

Address: 108-110 Maine Street, Brunswick, ME

5. Tax Assessor's Map # U13 Lot # 38 of subject property.

6. Underlying Zoning District GM6

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

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

8. Describe the location and nature of the proposed change(s), including a brief description of the proposed construction, reconstruction, alteration, demolition, proposed re-use, or other change (use separate sheet if necessary): Removal and replacement of existing first floor windows (19 total) with new aluminum clad wood windows to match existing windows as closely as possible. Existing exterior trim to be repainted.

New windows to be Pella Reserve Traditional Clad Monumental Hung Windows and Pella Reserve Traditional Clad Picture Windows with aluminum clad sash exteriors, painted wood sash interiors, Low-E insulated glass with integrated grilles featuring 7/8" clad muntin bars on the exterior and 7/8" painted wood muntin bars on the interior.

Applicant Name (printed): Christian Klein

Applicant Signature: \_\_\_\_\_

Property Owner Name (printed): Carlos Raduenz

Property Owner Signature: \_\_\_\_\_

Revised 12/17/2024

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

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

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

This application was certified as being complete on 6/3/25 (date) by  
Julie Brown of the Department of Planning and Development.

**THIS APPLICATION WAS:**

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

Applicable Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Signature of Department Staff Reviewing Application

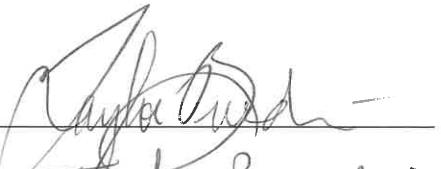
## COMPLIANCE WITH ZONING STANDARDS

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

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

Christian Klein, relating to property designated on Assessors Tax Map #W13 and  
Lot # 38 has been reviewed by the Codes Enforcement Officer and has been found to be in  
compliance with all applicable zoning standards:

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Signed:  Date: 6-12-25  
Print: Taylor Bradin  
Code Enforcement Officer





## Fixed Sash In Frame – General Information

|  |         |
|--|---------|
| Supporting Documents .....   | W-FW-2  |
| Product Selection Guide  |         |
| Sound Transmission Class and Outdoor-Indoor Transmission Class ..... | W-FW-3  |
| Size and Performance Data.....                                       | W-FW-3  |
| Features and Options.....  | W-FW-4  |
| Mitered Corner Sizes and Dimensions.....                             | W-FW-5  |
| Glazing Performance.....   | W-FW-6  |
| Grille Types.....  | W-FW-12 |
| Typical Grille Patterns  |         |
| Curved Shapes.....   | W-FW-13 |
| Arch Heads .....   | W-FW-14 |
| Interior Glazed – Curved Shapes .....                                | W-FW-15 |
| Interior Glazed – Angled Shapes .....                                | W-FW-16 |
| Exterior Glazed Size and Glazing Options .....                       | W-FW-17 |
| Impact-Resistant Glass .....   | W-FW-18 |
| Design Data - Design Pressure Performance                            |         |
| Clad Curved.....   | W-FW-19 |
| Advanced Clad Curved .....   | W-FW-20 |
| Detailed Product Descriptions  |         |
| Interior Glazed .....  | W-FW-21 |
| Exterior Glazed .....  | W-FW-22 |
| Unit Sections  |         |
| Curved Interior Glazed .....   | W-FW-23 |
| Curved Interior Glazed - Impact-Resistant.....                       | W-FW-24 |
| Rectangular and Angled Interior Glazed .....                         | W-FW-25 |
| Rectangular Interior Glazed - Impact-Resistant.....                  | W-FW-26 |
| Rectangular Exterior Glazed.....                                     | W-FW-27 |
| Mitered Corner .....   | W-FW-28 |

### 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:

#### Test Reports:

[https://media.pella.com/professional/adm/CertificationReports/Test\\_Reports\\_FFDS.pdf?utm\\_source=pdfdoc](https://media.pella.com/professional/adm/CertificationReports/Test_Reports_FFDS.pdf?utm_source=pdfdoc)

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

[https://media.pella.com/professional/adm/Wood-CSI\\_Specs/08553.rtf?utm\\_source=pdfdoc](https://media.pella.com/professional/adm/Wood-CSI_Specs/08553.rtf?utm_source=pdfdoc)

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

[https://media.pella.com/professional/adm/Wood-CSI\\_Specs/08554.rtf?utm\\_source=pdfdoc](https://media.pella.com/professional/adm/Wood-CSI_Specs/08554.rtf?utm_source=pdfdoc)

#### Impact-Resistant Rectangular CSI Specs (readable using Microsoft Word or other text editing application):

[https://media.pella.com/professional/adm/Wood-CSI\\_Specs/08553-HIG.rtf?utm\\_source=pdfdoc](https://media.pella.com/professional/adm/Wood-CSI_Specs/08553-HIG.rtf?utm_source=pdfdoc)

#### Impact-Resistant Curved Shapes CSI Specs (readable using Microsoft Word or other text editing application):

[https://media.pella.com/professional/adm/Wood-CSI\\_Specs/08554-HIG.rtf?utm\\_source=pdfdoc](https://media.pella.com/professional/adm/Wood-CSI_Specs/08554-HIG.rtf?utm_source=pdfdoc)

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

[https://media.pella.com/professional/adm/Wood-CSI\\_Specs/Masterspec/085200\\_fl.doc?utm\\_source=pdfdoc](https://media.pella.com/professional/adm/Wood-CSI_Specs/Masterspec/085200_fl.doc?utm_source=pdfdoc)

#### Interior Glazed (Rectangular and Shapes) Detailed Product Description (readable using Microsoft Word or other text editing application):

[https://media.pella.com/professional/adm/Clad-Wood/FFDS-INTGL.rtf?utm\\_source=pdfdoc](https://media.pella.com/professional/adm/Clad-Wood/FFDS-INTGL.rtf?utm_source=pdfdoc)

#### Exterior Glazed (Rectangular Only) Detailed Product Description (readable using Microsoft Word or other text editing application):

[https://media.pella.com/professional/adm/Clad-Wood/FFDS-EXTGL.rtf?utm\\_source=pdfdoc](https://media.pella.com/professional/adm/Clad-Wood/FFDS-EXTGL.rtf?utm_source=pdfdoc)

#### CAD cross sections (interior and exterior glazed, rectangular and curved shapes) (requires appropriate CAD software to read and use):

[https://media.pella.com/professional/adm/Clad-Wood/PellaClad-FxdFrm-Details\\_D.dwg?utm\\_source=pdfdoc](https://media.pella.com/professional/adm/Clad-Wood/PellaClad-FxdFrm-Details_D.dwg?utm_source=pdfdoc)

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

[https://media.pella.com/professional/adm/Clad-Wood/PR-MiterCorner-Detail\\_D.dwg?utm\\_source=pdfdoc](https://media.pella.com/professional/adm/Clad-Wood/PR-MiterCorner-Detail_D.dwg?utm_source=pdfdoc)

#### Rectangular Revit - 3D & BIM (requires appropriate software to read and use):

[https://media.pella.com/professional/adm/RevitFiles/Window-Fixed-Pella-Clad-Rectangular.zip?utm\\_source=pdfdoc](https://media.pella.com/professional/adm/RevitFiles/Window-Fixed-Pella-Clad-Rectangular.zip?utm_source=pdfdoc)

#### Curved Shapes Revit - 3D & BIM (requires appropriate software to read and use):

[https://media.pella.com/professional/adm/RevitFiles/Window-Fixed-Pella-Clad-Shapes.zip?utm\\_source=pdfdoc](https://media.pella.com/professional/adm/RevitFiles/Window-Fixed-Pella-Clad-Shapes.zip?utm_source=pdfdoc)

#### Rectangular Sketchup (requires appropriate software to read and use):

[https://media.pella.com/professional/adm/Clad-Wood/PellaSKP\\_Fixed\\_DirectSet-Rectangular.zip?utm\\_source=pdfdoc](https://media.pella.com/professional/adm/Clad-Wood/PellaSKP_Fixed_DirectSet-Rectangular.zip?utm_source=pdfdoc)

#### Curved Shapes Sketchup (requires appropriate software to read and use):

[https://media.pella.com/professional/adm/Clad-Wood/PellaSKP\\_Fixed\\_DirectSet-shapes.zip?utm\\_source=pdfdoc](https://media.pella.com/professional/adm/Clad-Wood/PellaSKP_Fixed_DirectSet-shapes.zip?utm_source=pdfdoc)

#### Combination Recommendations:

[https://media.pella.com/professional/adm/Clad-Wood/D\\_Combinations.pdf?utm\\_source=pdfdoc](https://media.pella.com/professional/adm/Clad-Wood/D_Combinations.pdf?utm_source=pdfdoc)

#### Installation Details:

[https://media.pella.com/professional/adm/Clad-Wood/F\\_InstallationDetails.pdf?utm\\_source=pdfdoc](https://media.pella.com/professional/adm/Clad-Wood/F_InstallationDetails.pdf?utm_source=pdfdoc)

#### Impact-Resistant Casement, Complete Product Information:

[https://media.pella.com/professional/adm/Clad-Wood/Pella-ImpactResistant\\_Casement.pdf?utm\\_source=pdfdoc](https://media.pella.com/professional/adm/Clad-Wood/Pella-ImpactResistant_Casement.pdf?utm_source=pdfdoc)

#### Casement Shapes, Complete Product Information:

[https://media.pella.com/professional/adm/Clad-Wood/Pella-Reserve\\_CasementShapes.pdf?utm\\_source=pdfdoc](https://media.pella.com/professional/adm/Clad-Wood/Pella-Reserve_CasementShapes.pdf?utm_source=pdfdoc)

Microsoft and Microsoft Word are registered trademarks of Microsoft Corp.

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.



## Clad-Wood Fixed Frame Direct Set Windows

### Size and Performance Data

|   | Shapes<br>Other Curved                | Rectangular /<br>Angled Shapes        |
|---|---------------------------------------|---------------------------------------|
| <b>Sizes</b>  |                                       |                                       |
| Custom shapes and sizes made to order   | ●                                     | ●                                     |
| <b>Interior Glazed Unit Performance<sup>1, 2</sup></b>                        |                                       |                                       |
| Meets or exceeds AAMA/WDMA ratings – Fin Installation                         | F-CW40 – F-AW50<br>Hallmark Certified | F-CW40 – F-AW50<br>Hallmark Certified |
| Meets or exceeds AAMA/WDMA ratings - Clip or Screw-through-frame Installation | F-CW60 – AW90<br>Hallmark Certified   | F-CW60 – F-AW90<br>Hallmark Certified |
| Air Infiltration<br>(cfm/ft <sup>2</sup> of frame @ 6.24 psf wind pressure)   | 0.05                                  | 0.05                                  |
| Water Resistance  | 9.2 - 15.05 psf                       | 9.2 - 15.05 psf                       |
| Products with Impact-Resistant Glass  | Up to F-CW90<br>Hallmark Certified    | UP TO F-CW90<br>Hallmark Certified    |

### Sound Transmission Class /Outdoor-Indoor Transmission Class

| Product   | Frame Size<br>Tested <sup>3</sup>               | Glazing System                   |                                |                           |                                | STC Rating | OITC Rating |
|---|---|----------------------------------|--------------------------------|---------------------------|--------------------------------|------------|-------------|
|   |   | Overall Glazing<br>Thickness     | Exterior<br>Glass<br>Thickness | Center Glass<br>Thickness | Interior<br>Glass<br>Thickness |            |             |
| Rectangular and<br>Angled Shaped<br>Clad Window | 47" x 59"                                       | <b>Fixed Double-Pane Glazing</b> |                                |                           |                                |            |             |
|   |   | 13/16"                           | 3mm                            | —                         | 3mm                            | 27         | 22          |
|   |   | 13/16"                           | 4mm                            | —                         | 4mm                            | 28         | 24          |
|   |   | 13/16"                           | 5mm                            | —                         | 3mm                            | 31         | 26          |
|   |   | 1"                               | 4mm                            | —                         | 6mm                            | 34         | 28          |
|   |   | 1"                               | 6mm                            | —                         | 6mm                            | 31         | 26          |
|   |   | 1"                               | 4mm                            | —                         | 7mm PVB                        | 34         | 29          |
|   | <b>Fixed Impact-Resistant Laminated Glazing</b> | 1-1/4"                           | 6mm                            | —                         | 12mm PVB                       | 38         | 34          |
|   |   | 1"                               | 11.7mm PVB                     | —                         | 5mm                            | 36         | 32          |
|   |   | 1"                               | 11.7mm SGP                     | —                         | 5mm                            | 35         | 31          |
|   | <b>Fixed Triple-Pane Glazing</b>                | 1-1/4"                           | 13.6mm SGP                     | —                         | 6mm                            | 37         | 31          |
|   |   | 1-1/4"                           | 5mm                            | 5mm                       | 5mm                            | 31         | 26          |

(—) = 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) AAMA/WDMA AW performance class attainable with EnduraClad Plus finish. Contact Pella Representative for details.

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

Not all sizes are Hallmark Certified.



# Clad-Wood Fixed Frame Direct Set Windows

## Features and Options

|   | Curved Shapes  | Rectangular / Angled Shapes |
|---|----------------|-----------------------------|
| <b>Glazing</b>  |                |                             |
| <b>Glazing Type</b>                                   |                |                             |
| Dual-Pane Insulating Glass                            | S              | S                           |
| Triple-Pane Insulating Glass                          | O              | O                           |
| Clad panel with hardboard core <sub>1</sub>           | —              | O                           |
| <b>Insulated Glass Options / Low-E Types</b>          |                |                             |
| Advanced Low-E  | S              | S                           |
| SunDefense™ Low-E                                     | O              | O                           |
| SunDefense+ Low-E                                     | O              | O                           |
| AdvancedComfort Low-E                                 | O              | O                           |
| NaturalSun Low-E                                      | O              | O                           |
| NaturalSun+ Low-E                                     | O              | O                           |
| Clear (no Low-E coating)                              | O              | O                           |
| <b>Additional Glass Options</b>                       |                |                             |
| Annealed Glass  | S              | S                           |
| Tempered Glass  | O              | O                           |
| Obscure Glass <sub>2</sub>                            | O              | O                           |
| Tinted Glass (Bronze, Gray and Green)                 | O              | O                           |
| Spandrel Glass  | O              | O                           |
| Non-Impact Laminated Dual-Pane Insulating Glass       | O              | O                           |
| Impact-Resistant Laminated Dual-Pane Insulating Glass | O              | O                           |
| <b>Gas Fill/High Altitude</b>                         |                |                             |
| Argon   | S              | S                           |
| High altitude   | O              | O                           |
| <b>Exterior</b>                                       |                |                             |
| EnduraClad® aluminum-clad exterior                    | S              | S                           |
| EnduraClad Plus aluminum-clad exterior                | O              | O                           |
| <b>Cladding Colors</b>                                |                |                             |
| Standard colors <sub>2</sub>                          | S              | S                           |
| Feature Colors, Custom colors <sub>1</sub>            | O              | O                           |
| <b>Interior Finish</b>                                |                |                             |
| Factory primed interior                               | O              | O                           |
| Factory prefinished paint <sub>1</sub>                | O              | O                           |
| Factory prefinished stain <sub>1</sub>                | O              | O                           |
| <b>Wood Types</b>                                     |                |                             |
| Pine  | S              | S                           |
| Mahogany  | O              | O                           |
| Douglas Fir   | O              | O                           |
| <b>Grilles</b>  |                |                             |
| <b>Integral Light Technology® Grilles</b>             |                |                             |
| Traditional   | O              | O <sub>4</sub>              |
| Sunburst  | O              | —                           |
| Custom  | O              | —                           |
| <b>Simulated Divided Light Grilles</b>                |                |                             |
| Traditional, Prairie, Cross, Top Row                  | O <sub>3</sub> | O                           |
| Sunburst, Starburst                                   | O              | —                           |
| <b>Grilles-Between-the-Glass</b>                      |                |                             |
| Traditional, Prairie, Cross, Top Row                  | O <sub>3</sub> | O                           |
| Sunburst  | O              | —                           |

S = Standard; O = Optional; (—) = Not Available

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

(2) Pella Lifestyle Series is limited to color options within that product offering. Contact your local Pella sales representative for current color options.

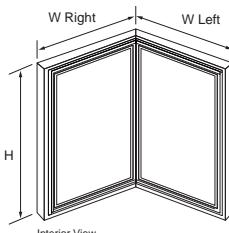
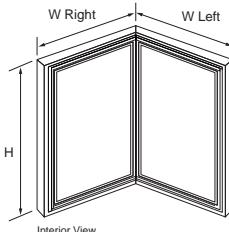
(3) In select shapes. Cross and Top Row not available in curved units.

(4) Only available in Contemporary rectangular and angle shape units with square grille profile.



## Clad-Wood Fixed Frame Direct Set Windows

### Mitered Corner Sizes and Dimensions

| Mitered Corner  | Minimum        | Maximum | Restrictions   |
|---|----------------|---------|--|
| <b>Fixed Frame Direct Set</b>   |                |         |  |
|  | W Left<br>12"  | 4' 0"   | Max Frame area of each side cannot be > 54.5 sq ft.<br>Max Glass Area of each side cannot be > 48 sq ft. |
|   | W Right<br>12" | 4' 0"   |  |
|   | Height<br>12"  | 6' 1"   | See Fixed Frame Direct Set product section for features and options                                      |
| <b>Fixed Sash in Frame (Casement)</b>   |                |         |  |
|  | W Left<br>12"  | 4' 0"   | Max Frame area of each side cannot be > 54.5 sq ft.<br>Max Glass Area of each side cannot be > 48 sq ft. |
|   | W Right<br>12" | 4' 0"   |  |
|   | Height<br>12"  | 6' 1"   |  |

See Casement sections for standard sizes and performance information, corner unit casements included here for comparison purposes.



# Clad-Wood Fixed Frame Direct Set Windows

## Glazing Performance - Total Units

| 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 |    |    |   |    |
| Rectangular And Curved Shapes |                                |                          |            |      |          |                      |      |       |    |  | N        | NC | SC | S | CA |
| 13/16"                        | Clear IG                       | PEL-N-18-04004-00001     | 3          | 3    | Air      | 0.47                 | 0.69 | 0.72  | 43 |  |          |    |    |   |    |
|                               | with grilles-between-the-glass | PEL-N-18-04005-00001     |            |      |          | 0.47                 | 0.62 | 0.65  | 43 |  |          |    |    |   |    |
|                               | with integral grilles          | PEL-N-18-04006-00001     |            |      |          | 0.47                 | 0.62 | 0.65  | 43 |  |          |    |    |   |    |
| 13/16"                        | Clear IG                       | PEL-N-18-04008-00001     | 4          | 4    | Air      | 0.47                 | 0.67 | 0.72  | 42 |  |          |    |    |   |    |
|                               | with grilles-between-the-glass | PEL-N-18-04009-00001     |            |      |          | 0.47                 | 0.61 | 0.65  | 42 |  |          |    |    |   |    |
|                               | with integral grilles          | PEL-N-18-04010-00001     |            |      |          | 0.47                 | 0.61 | 0.65  | 42 |  |          |    |    |   |    |
| 13/16"                        | Clear IG                       | PEL-N-18-04020-00001     | 5          | 5    | Air      | 0.47                 | 0.66 | 0.71  | 42 |  |          |    |    |   |    |
|                               | with grilles-between-the-glass | PEL-N-18-04021-00001     |            |      |          | 0.47                 | 0.60 | 0.64  | 42 |  |          |    |    |   |    |
|                               | with integral grilles          | PEL-N-18-04022-00001     |            |      |          | 0.47                 | 0.60 | 0.64  | 42 |  |          |    |    |   |    |
| 13/16"                        | Advanced Low-E IG              | PEL-N-18-04208-00001     | 3          | 3    | Argon    | 0.28                 | 0.32 | 0.62  | 57 |  |          |    |    |   |    |
|                               | with grilles-between-the-glass | PEL-N-18-04209-00001     |            |      |          | 0.28                 | 0.29 | 0.55  | 57 |  |          |    |    |   |    |
|                               | with integral grilles          | PEL-N-18-04210-00001     |            |      |          | 0.29                 | 0.29 | 0.55  | 57 |  |          |    |    |   |    |
| 13/16"                        | Advanced Low-E IG              | PEL-N-18-04216-00001     | 4          | 4    | Argon    | 0.28                 | 0.32 | 0.61  | 57 |  |          |    |    |   |    |
|                               | with grilles-between-the-glass | PEL-N-18-04217-00001     |            |      |          | 0.28                 | 0.29 | 0.55  | 57 |  |          |    |    |   |    |
|                               | with integral grilles          | PEL-N-18-04218-00001     |            |      |          | 0.28                 | 0.29 | 0.55  | 57 |  |          |    |    |   |    |
| 13/16"                        | Advanced Low-E IG              | PEL-N-18-04240-00001     | 5          | 5    | Argon    | 0.27                 | 0.32 | 0.60  | 56 |  |          |    |    |   |    |
|                               | with grilles-between-the-glass | PEL-N-18-04241-00001     |            |      |          | 0.27                 | 0.29 | 0.54  | 56 |  |          |    |    |   |    |
|                               | with integral grilles          | PEL-N-18-04242-00001     |            |      |          | 0.28                 | 0.29 | 0.54  | 56 |  |          |    |    |   |    |
| 13/16"                        | SunDefense™ Low-E IG           | PEL-N-18-04376-00001     | 3          | 3    | Argon    | 0.28                 | 0.24 | 0.57  | 57 |  |          |    |    |   |    |
|                               | with grilles-between-the-glass | PEL-N-18-04377-00001     |            |      |          | 0.28                 | 0.22 | 0.51  | 57 |  | SC       | S  |    |   |    |
|                               | with integral grilles          | PEL-N-18-04378-00001     |            |      |          | 0.28                 | 0.22 | 0.51  | 57 |  | SC       | S  |    |   |    |
| 13/16"                        | SunDefense™ Low-E IG           | PEL-N-18-04384-00001     | 4          | 4    | Argon    | 0.27                 | 0.24 | 0.57  | 57 |  |          |    |    |   |    |
|                               | with grilles-between-the-glass | PEL-N-18-04385-00001     |            |      |          | 0.27                 | 0.22 | 0.51  | 57 |  | SC       | S  |    |   |    |
|                               | with integral grilles          | PEL-N-18-04386-00001     |            |      |          | 0.28                 | 0.22 | 0.51  | 57 |  | SC       | S  |    |   |    |
| 13/16"                        | SunDefense™ Low-E IG           | PEL-N-18-04408-00001     | 5          | 5    | Argon    | 0.27                 | 0.24 | 0.56  | 56 |  |          |    |    |   |    |
|                               | with grilles-between-the-glass | PEL-N-18-04409-00001     |            |      |          | 0.27                 | 0.22 | 0.50  | 56 |  | SC       | S  |    |   |    |
|                               | with integral grilles          | PEL-N-18-04410-00001     |            |      |          | 0.28                 | 0.22 | 0.50  | 56 |  | SC       | S  |    |   |    |
| 13/16"                        | SunDefense+ Low-E IG           | PEL-N-18-04424-00001     | 3          | 3    | Argon    | 0.23                 | 0.24 | 0.56  | 46 | NC   |          |    |    |   |    |
|                               | with grilles-between-the-glass | PEL-N-18-04425-00001     |            |      |          | 0.23                 | 0.21 | 0.50  | 46 | NC   | SC       | S  |    |   |    |
|                               | with integral grilles          | PEL-N-18-04426-00001     |            |      |          | 0.24                 | 0.21 | 0.50  | 46 | NC   | SC       | S  |    |   |    |
| 13/16"                        | SunDefense+ Low-E IG           | PEL-N-18-04432-00001     | 4          | 4    | Argon    | 0.23                 | 0.24 | 0.55  | 45 | NC   |          |    |    |   |    |
|                               | with grilles-between-the-glass | PEL-N-18-04433-00001     |            |      |          | 0.23                 | 0.22 | 0.50  | 45 | NC   | SC       | S  |    |   |    |
|                               | with integral grilles          | PEL-N-18-04434-00001     |            |      |          | 0.23                 | 0.22 | 0.50  | 45 | NC   | SC       | S  |    |   |    |
| 13/16"                        | SunDefense+ Low-E IG           | PEL-N-18-04456-00001     | 5          | 5    | Argon    | 0.23                 | 0.24 | 0.55  | 44 | NC   |          |    |    |   |    |
|                               | with grilles-between-the-glass | PEL-N-18-04457-00001     |            |      |          | 0.23                 | 0.22 | 0.49  | 44 | NC   | SC       | S  |    |   |    |
|                               | with integral grilles          | PEL-N-18-04458-00001     |            |      |          | 0.23                 | 0.22 | 0.49  | 44 | NC   | SC       | S  |    |   |    |
| 13/16"                        | AdvancedComfort Low-E IG       | PEL-N-18-04328-00001     | 3          | 3    | Argon    | 0.23                 | 0.32 | 0.60  | 45 | NC   |          |    |    |   |    |
|                               | with grilles-between-the-glass | PEL-N-18-04329-00001     |            |      |          | 0.23                 | 0.29 | 0.54  | 45 | NC   |          |    |    |   |    |
|                               | with integral grilles          | PEL-N-18-04330-00001     |            |      |          | 0.24                 | 0.29 | 0.54  | 45 | NC   |          |    |    |   |    |
| 13/16"                        | AdvancedComfort Low-E IG       | PEL-N-18-04336-00001     | 4          | 4    | Argon    | 0.23                 | 0.31 | 0.59  | 45 | NC   |          |    |    |   |    |
|                               | with grilles-between-the-glass | PEL-N-18-04337-00001     |            |      |          | 0.23                 | 0.29 | 0.53  | 45 | NC   |          |    |    |   |    |
|                               | with integral grilles          | PEL-N-18-04338-00001     |            |      |          | 0.24                 | 0.29 | 0.53  | 45 | NC   |          |    |    |   |    |
| 13/16"                        | AdvancedComfort Low-E IG       | PEL-N-18-04360-00001     | 5          | 5    | Argon    | 0.23                 | 0.31 | 0.59  | 44 | NC   |          |    |    |   |    |
|                               | with grilles-between-the-glass | PEL-N-18-04361-00001     |            |      |          | 0.23                 | 0.28 | 0.53  | 44 | NC   |          |    |    |   |    |
|                               | with integral grilles          | PEL-N-18-04362-00001     |            |      |          | 0.24                 | 0.28 | 0.53  | 44 | NC   |          |    |    |   |    |

R-Value = 1/U-Factor

SHGC = Solar Heat Gain Coefficient

VLT % = Visible Light Transmission

CR = Condensation Resistance

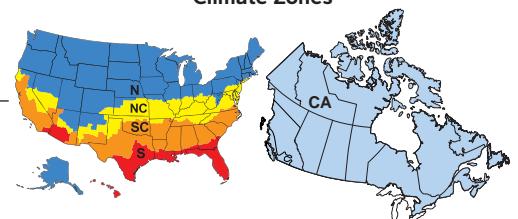
ER = Canadian Energy Rating

(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.

See the Product Performance section for more detailed information or visit [www.energystar.gov](http://www.energystar.gov) for Energy Star guidelines.

### Climate Zones





# Clad-Wood Fixed Frame Direct Set Windows

## Glazing Performance - Total Units

| Glazing Thickness             | Type of Glazing                | NFRC Certified Product # | Glass (mm) |      | Gap Fill | Performance Values <sup>1</sup> |      |       |    | Shaded Areas Meet ENERGY STAR® Performance Criteria in Zones Shown |                     |    |   |    |       |
|-------------------------------|--------------------------------|--------------------------|------------|------|----------|---------------------------------|------|-------|----|--|---------------------|----|---|----|-------|
|                               |                                |                          | Ext.       | Int. |          | U-Factor                        | SHGC | VLT % | CR | U.S.   | Canada <sup>2</sup> |    |   |    |       |
| Rectangular And Curved Shapes |                                |                          |            |      |          |                                 |      |       |    | N  | NC                  | SC | S | CA |       |
| 13/16"                        | NaturalSun Low-E IG            | PEL-N-18-04112-00001     | 3          | 3    | Argon    | 0.29                            | 0.61 | 0.70  | 57 |  |                     |    |   |    | 39 CA |
|                               | with grilles-between-the-glass | PEL-N-18-04113-00001     |            |      |          | 0.29                            | 0.55 | 0.63  | 57 |  |                     |    |   |    | 35 CA |
|                               | with integral grilles          | PEL-N-18-04114-00001     |            |      |          | 0.30                            | 0.55 | 0.63  | 57 |  |                     |    |   |    | 34 CA |
| 13/16"                        | NaturalSun Low-E IG            | PEL-N-18-04120-00001     | 4          | 4    | Argon    | 0.29                            | 0.59 | 0.69  | 56 |  |                     |    |   |    | 38 CA |
|                               | with grilles-between-the-glass | PEL-N-18-04121-00001     |            |      |          | 0.29                            | 0.54 | 0.62  | 56 |  |                     |    |   |    | 35 CA |
|                               | with integral grilles          | PEL-N-18-04122-00001     |            |      |          | 0.30                            | 0.54 | 0.62  | 56 |  |                     |    |   |    | 34 CA |
| 13/16"                        | NaturalSun Low-E IG            | PEL-N-18-04144-00001     | 5          | 5    | Argon    | 0.28                            | 0.58 | 0.69  | 55 |  |                     |    |   |    | 38 CA |
|                               | with grilles-between-the-glass | PEL-N-18-04145-00001     |            |      |          | 0.28                            | 0.53 | 0.62  | 55 |  |                     |    |   |    | 36 CA |
|                               | with integral grilles          | PEL-N-18-04146-00001     |            |      |          | 0.30                            | 0.53 | 0.62  | 55 |  |                     |    |   |    |       |
| 13/16"                        | NaturalSun+ Low-E IG           | PEL-N-18-04160-00001     | 3          | 3    | Argon    | 0.24                            | 0.55 | 0.68  | 45 | N  |                     |    |   |    | 42 CA |
|                               | with grilles-between-the-glass | PEL-N-18-04161-00001     |            |      |          | 0.24                            | 0.50 | 0.61  | 45 | N  |                     |    |   |    | 39 CA |
|                               | with integral grilles          | PEL-N-18-04162-00001     |            |      |          | 0.25                            | 0.50 | 0.61  | 45 | N  |                     |    |   |    | 38 CA |
| 13/16"                        | NaturalSun+ Low-E IG           | PEL-N-18-04168-00001     | 4          | 4    | Argon    | 0.24                            | 0.54 | 0.68  | 44 | N  |                     |    |   |    | 41 CA |
|                               | with grilles-between-the-glass | PEL-N-18-04169-00001     |            |      |          | 0.24                            | 0.48 | 0.61  | 44 | N  |                     |    |   |    | 38 CA |
|                               | with integral grilles          | PEL-N-18-04170-00001     |            |      |          | 0.24                            | 0.48 | 0.61  | 44 | N  |                     |    |   |    | 38 CA |
| 13/16"                        | NaturalSun+ Low-E IG           | PEL-N-18-04192-00001     | 5          | 5    | Argon    | 0.24                            | 0.53 | 0.67  | 43 | N  |                     |    |   |    | 41 CA |
|                               | with grilles-between-the-glass | PEL-N-18-04193-00001     |            |      |          | 0.24                            | 0.48 | 0.60  | 43 | N  |                     |    |   |    | 38 CA |
|                               | with integral grilles          | PEL-N-18-04194-00001     |            |      |          | 0.24                            | 0.48 | 0.60  | 43 | N  |                     |    |   |    | 38 CA |
| 1"                            | Advanced Low-E IG              | PEL-N-18-04248-00001     | 6          | 6    | Argon    | 0.28                            | 0.31 | 0.59  | 56 |  |                     |    |   |    |       |
|                               | with grilles-between-the-glass | PEL-N-18-04249-00001     |            |      |          | 0.28                            | 0.29 | 0.53  | 56 |  |                     |    |   |    |       |
|                               | with integral grilles          | PEL-N-18-04250-00001     |            |      |          | 0.28                            | 0.29 | 0.53  | 56 |  |                     |    |   |    |       |
| 1"                            | SunDefense™ Low-E IG           | PEL-N-18-04416-00001     | 6          | 6    | Argon    | 0.27                            | 0.24 | 0.55  | 56 |  |                     |    |   |    |       |
|                               | with grilles-between-the-glass | PEL-N-18-04417-00001     |            |      |          | 0.27                            | 0.22 | 0.50  | 56 |  | SC                  | S  |   |    |       |
|                               | with integral grilles          | PEL-N-18-04418-00001     |            |      |          | 0.28                            | 0.22 | 0.50  | 56 |  | SC                  | S  |   |    |       |
| 1"                            | SunDefense+ Low-E IG           | PEL-N-18-04464-00001     | 6          | 6    | Argon    | 0.23                            | 0.23 | 0.54  | 45 | NC   | SC                  | S  |   |    |       |
|                               | with grilles-between-the-glass | PEL-N-18-04465-00001     |            |      |          | 0.23                            | 0.21 | 0.48  | 45 | NC   | SC                  | S  |   |    |       |
|                               | with integral grilles          | PEL-N-18-04466-00001     |            |      |          | 0.23                            | 0.21 | 0.48  | 45 | NC   | SC                  | S  |   |    |       |
| 1"                            | AdvancedComfort Low-E IG       | PEL-N-18-04368-00001     | 6          | 6    | Argon    | 0.23                            | 0.31 | 0.58  | 44 | NC   |                     |    |   |    |       |
|                               | with grilles-between-the-glass | PEL-N-18-04369-00001     |            |      |          | 0.23                            | 0.28 | 0.52  | 44 | NC   |                     |    |   |    |       |
|                               | with integral grilles          | PEL-N-18-04370-00001     |            |      |          | 0.24                            | 0.28 | 0.52  | 44 | NC   |                     |    |   |    |       |
| 1"                            | NaturalSun Low-E IG            | PEL-N-18-04152-00001     | 6          | 6    | Argon    | 0.29                            | 0.57 | 0.68  | 55 |  |                     |    |   |    | 37 CA |
|                               | with grilles-between-the-glass | PEL-N-18-04153-00001     |            |      |          | 0.29                            | 0.51 | 0.61  | 55 |  |                     |    |   |    |       |
|                               | with integral grilles          | PEL-N-18-04154-00001     |            |      |          | 0.30                            | 0.51 | 0.61  | 55 |  |                     |    |   |    |       |
| 1"                            | NaturalSun+ Low-E IG           | PEL-N-18-04200-00001     | 6          | 6    | Argon    | 0.24                            | 0.51 | 0.66  | 43 | N  |                     |    |   |    | 39 CA |
|                               | with grilles-between-the-glass | PEL-N-18-04201-00001     |            |      |          | 0.24                            | 0.46 | 0.59  | 43 | N  |                     |    |   |    | 37 CA |
|                               | with integral grilles          | PEL-N-18-04202-00001     |            |      |          | 0.24                            | 0.46 | 0.59  | 43 | N  |                     |    |   |    | 37 CA |

R-Value = 1/U-Factor

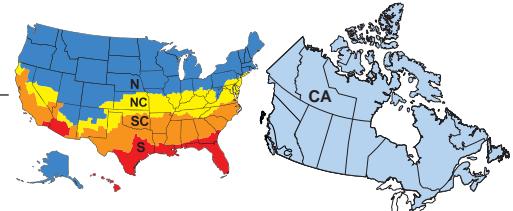
SHGC = Solar Heat Gain Coefficient

VLT % = Visible Light Transmission

CR = Condensation Resistance

ER = Canadian Energy Rating

### Climate Zones



(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.

See the Product Performance section for more detailed information or visit [www.energystar.gov](http://www.energystar.gov) for Energy Star guidelines.



# Clad-Wood Fixed Frame Direct Set Windows

## Glazing Performance - Total Units

| Glazing Thickness                                 | Type of Glazing                | NFRC Certified Product # | Glass (mm) |      | Gap Fill | Performance Values <sup>1</sup> |      |       |    | Shaded Areas Meet ENERGY STAR® Performance Criteria in Zones Shown |                     |    |   |    |  |
|---|--------------------------------|--------------------------|------------|------|----------|---------------------------------|------|-------|----|--|---------------------|----|---|----|--|
|   |                                |                          | Ext.       | Int. |          | U-Factor                        | SHGC | VLT % | CR | U.S.   | Canada <sup>2</sup> |    |   |    |  |
| Rectangular And Curved Shapes With Tinted Glazing |                                |                          |            |      |          |                                 |      |       |    | N  | NC                  | SC | S | CA |  |
| 13/16"  | Bronze Advanced Low-E IG       | PEL-N-18-04256-00001     | 5          | 3    | Argon    | 0.27                            | 0.29 | 0.40  | 58 |  |                     |    |   |    |  |
|   | with grilles-between-the-glass | PEL-N-18-04257-00001     |            |      |          | 0.27                            | 0.26 | 0.36  | 58 |  |                     |    |   |    |  |
|   | with integral grilles          | PEL-N-18-04258-00001     |            |      |          | 0.29                            | 0.26 | 0.36  | 58 |  |                     |    |   |    |  |
| 13/16"  | Gray Advanced Low-E IG         | PEL-N-18-04280-00001     | 5          | 3    | Argon    | 0.27                            | 0.26 | 0.34  | 58 |  |                     |    |   |    |  |
|   | with grilles-between-the-glass | PEL-N-18-04281-00001     |            |      |          | 0.27                            | 0.24 | 0.31  | 58 |  |                     |    |   |    |  |
|   | with integral grilles          | PEL-N-18-04282-00001     |            |      |          | 0.29                            | 0.24 | 0.31  | 58 |  |                     |    |   |    |  |
| 13/16"  | Green Advanced Low-E IG        | PEL-N-18-04304-00001     | 5          | 3    | Argon    | 0.27                            | 0.33 | 0.54  | 58 |  |                     |    |   |    |  |
|   | with grilles-between-the-glass | PEL-N-18-04305-00001     |            |      |          | 0.27                            | 0.30 | 0.49  | 58 |  |                     |    |   |    |  |
|   | with integral grilles          | PEL-N-18-04306-00001     |            |      |          | 0.29                            | 0.30 | 0.49  | 58 |  |                     |    |   |    |  |
| 13/16"  | Reflective Bronze IG           | PEL-N-18-04028-00001     | 5          | 5    | Air      | 0.47                            | 0.30 | 0.18  | 42 |  |                     |    |   |    |  |
|   | with grilles-between-the-glass | PEL-N-18-04029-00001     |            |      |          | 0.47                            | 0.27 | 0.16  | 42 |  |                     |    |   |    |  |
|   | with integral grilles          | PEL-N-18-04030-00001     |            |      |          | 0.47                            | 0.27 | 0.16  | 42 |  |                     |    |   |    |  |
| 1"  | Bronze Advanced Low-E IG       | PEL-N-18-04272-00001     | 6          | 6    | Argon    | 0.28                            | 0.27 | 0.35  | 56 |  |                     |    |   |    |  |
|   | with grilles-between-the-glass | PEL-N-18-04273-00001     |            |      |          | 0.28                            | 0.24 | 0.32  | 56 |  |                     |    |   |    |  |
|   | with integral grilles          | PEL-N-18-04274-00001     |            |      |          | 0.29                            | 0.24 | 0.32  | 56 |  |                     |    |   |    |  |
| 1"  | Gray Advanced Low-E IG         | PEL-N-18-04296-00001     | 6          | 6    | Argon    | 0.28                            | 0.24 | 0.30  | 56 |  |                     |    |   |    |  |
|   | with grilles-between-the-glass | PEL-N-18-04297-00001     |            |      |          | 0.28                            | 0.22 | 0.27  | 56 |  |                     | SC | S |    |  |
|   | with integral grilles          | PEL-N-18-04298-00001     |            |      |          | 0.29                            | 0.22 | 0.27  | 56 |  |                     |    | S |    |  |
| 1"  | Green Advanced Low-E IG        | PEL-N-18-04320-00001     | 6          | 6    | Argon    | 0.28                            | 0.31 | 0.52  | 56 |  |                     |    |   |    |  |
|   | with grilles-between-the-glass | PEL-N-18-04321-00001     |            |      |          | 0.28                            | 0.28 | 0.46  | 56 |  |                     |    |   |    |  |
|   | with integral grilles          | PEL-N-18-04322-00001     |            |      |          | 0.29                            | 0.28 | 0.46  | 56 |  |                     |    |   |    |  |
| 1"  | Reflective Bronze IG           | PEL-N-18-04036-00001     | 6          | 6    | Air      | 0.46                            | 0.27 | 0.16  | 42 |  |                     |    |   |    |  |
|   | with grilles-between-the-glass | PEL-N-18-04037-00001     |            |      |          | 0.46                            | 0.25 | 0.15  | 42 |  |                     |    |   |    |  |
|   | with integral grilles          | PEL-N-18-04038-00001     |            |      |          | 0.47                            | 0.25 | 0.15  | 42 |  |                     |    |   |    |  |
| 1"  | Reflective Gray IG             | PEL-N-18-04048-00001     | 6          | 6    | Argon    | 0.44                            | 0.24 | 0.13  | 44 |  |                     |    |   |    |  |
|   | with grilles-between-the-glass | PEL-N-18-04049-00001     |            |      |          | 0.44                            | 0.22 | 0.12  | 44 |  |                     |    |   |    |  |
|   | with integral grilles          | PEL-N-18-04050-00001     |            |      |          | 0.45                            | 0.22 | 0.12  | 44 |  |                     |    |   |    |  |

R-Value = 1/U-Factor

SHGC = Solar Heat Gain Coefficient

VLT % = Visible Light Transmission

CR = Condensation Resistance

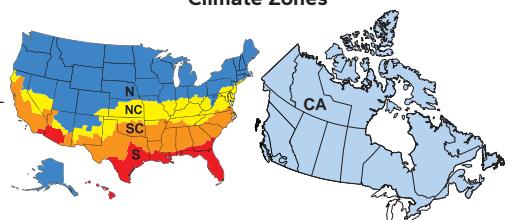
ER = Canadian Energy Rating

(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.

See the Product Performance section for more detailed information or visit [www.energystar.gov](http://www.energystar.gov) for Energy Star guidelines.

### Climate Zones





# Clad-Wood Fixed Frame Direct Set Windows

## Glazing Performance - Total Units

| Glazing Thickness                                     | Type of Glazing                | NFRC Certified Product # | Glass (mm) |      | Gap Fill | Performance Values <sup>1</sup> |      |       |    | Shaded Areas Meet ENERGY STAR® Performance Criteria in Zones Shown |                     |    |    |    |  |
|---|--------------------------------|--------------------------|------------|------|----------|---------------------------------|------|-------|----|--|---------------------|----|----|----|--|
|   |                                |                          | Ext.       | Int. |          | U-Factor                        | SHGC | VLT % | CR | U.S.   | Canada <sup>2</sup> |    |    |    |  |
| Rectangular And Curved Shapes - High Altitude Glazing |                                |                          |            |      |          |                                 |      |       |    | N  | NC                  | SC | S  | CA |  |
| 13/16"  | Advanced Low-E IG              | PEL-N-18-04204-00001     | 3          | 3    | Air      | 0.32                            | 0.33 | 0.62  | 54 |  |                     |    |    |    |  |
|   | with grilles-between-the-glass | PEL-N-18-04205-00001     |            |      |          | 0.32                            | 0.30 | 0.55  | 54 |  |                     |    |    |    |  |
|   | with integral grilles          | PEL-N-18-04206-00001     |            |      |          | 0.33                            | 0.30 | 0.55  | 54 |  |                     |    |    |    |  |
| 13/16"  | Advanced Low-E IG              | PEL-N-18-04212-00001     | 4          | 4    | Air      | 0.32                            | 0.32 | 0.61  | 53 |  |                     |    |    |    |  |
|   | with grilles-between-the-glass | PEL-N-18-04213-00001     |            |      |          | 0.32                            | 0.29 | 0.55  | 53 |  |                     |    |    |    |  |
|   | with integral grilles          | PEL-N-18-04214-00001     |            |      |          | 0.32                            | 0.29 | 0.55  | 53 |  |                     |    |    |    |  |
| 13/16"  | Advanced Low-E IG              | PEL-N-18-04236-00001     | 5          | 5    | Air      | 0.32                            | 0.32 | 0.60  | 52 |  |                     |    |    |    |  |
|   | with grilles-between-the-glass | PEL-N-18-04237-00001     |            |      |          | 0.32                            | 0.29 | 0.54  | 52 |  |                     |    |    |    |  |
|   | with integral grilles          | PEL-N-18-04238-00001     |            |      |          | 0.32                            | 0.29 | 0.54  | 52 |  |                     |    |    |    |  |
| 13/16"  | SunDefense Low-E IG            | PEL-N-18-04372-00001     | 3          | 3    | Air      | 0.32                            | 0.24 | 0.57  | 54 |  |                     |    |    |    |  |
|   | with grilles-between-the-glass | PEL-N-18-04373-00001     |            |      |          | 0.32                            | 0.22 | 0.51  | 54 |  |                     |    | S  |    |  |
|   | with integral grilles          | PEL-N-18-04374-00001     |            |      |          | 0.32                            | 0.22 | 0.51  | 54 |  |                     |    | S  |    |  |
| 13/16"  | SunDefense Low-E IG            | PEL-N-18-04380-00001     | 4          | 4    | Air      | 0.31                            | 0.25 | 0.57  | 54 |  |                     |    |    |    |  |
|   | with grilles-between-the-glass | PEL-N-18-04381-00001     |            |      |          | 0.31                            | 0.22 | 0.51  | 54 |  |                     |    | S  |    |  |
|   | with integral grilles          | PEL-N-18-04382-00001     |            |      |          | 0.32                            | 0.22 | 0.51  | 54 |  |                     |    | S  |    |  |
| 13/16"  | SunDefense Low-E IG            | PEL-N-18-04404-00001     | 5          | 5    | Air      | 0.31                            | 0.25 | 0.56  | 53 |  |                     |    |    |    |  |
|   | with grilles-between-the-glass | PEL-N-18-04405-00001     |            |      |          | 0.31                            | 0.22 | 0.50  | 53 |  |                     |    | S  |    |  |
|   | with integral grilles          | PEL-N-18-04406-00001     |            |      |          | 0.32                            | 0.22 | 0.50  | 53 |  |                     |    | S  |    |  |
| 13/16"  | SunDefense+ Low-E IG           | PEL-N-18-04420-00001     | 3          | 3    | Air      | 0.26                            | 0.24 | 0.56  | 42 |  |                     |    |    |    |  |
|   | with grilles-between-the-glass | PEL-N-18-04421-00001     |            |      |          | 0.26                            | 0.22 | 0.50  | 42 |  |                     |    | SC | S  |  |
|   | with integral grilles          | PEL-N-18-04422-00001     |            |      |          | 0.26                            | 0.22 | 0.50  | 42 |  |                     |    | SC | S  |  |
| 13/16"  | SunDefense+ Low-E IG           | PEL-N-18-04428-00001     | 4          | 4    | Air      | 0.25                            | 0.24 | 0.55  | 42 |  | NC                  |    |    |    |  |
|   | with grilles-between-the-glass | PEL-N-18-04429-00001     |            |      |          | 0.25                            | 0.22 | 0.50  | 42 |  | NC                  | SC | S  |    |  |
|   | with integral grilles          | PEL-N-18-04430-00001     |            |      |          | 0.26                            | 0.22 | 0.50  | 42 |  |                     | SC | S  |    |  |
| 13/16"  | SunDefense+ Low-E IG           | PEL-N-18-04452-00001     | 5          | 5    | Air      | 0.26                            | 0.24 | 0.55  | 41 |  |                     |    |    |    |  |
|   | with grilles-between-the-glass | PEL-N-18-04453-00001     |            |      |          | 0.26                            | 0.22 | 0.49  | 41 |  |                     |    | SC | S  |  |
|   | with integral grilles          | PEL-N-18-04454-00001     |            |      |          | 0.26                            | 0.22 | 0.49  | 41 |  |                     |    | SC | S  |  |
| 13/16"  | AdvancedComfort Low-E IG       | PEL-N-18-04324-00001     | 3          | 3    | Air      | 0.26                            | 0.32 | 0.60  | 42 |  |                     |    |    |    |  |
|   | with grilles-between-the-glass | PEL-N-18-04325-00001     |            |      |          | 0.26                            | 0.29 | 0.54  | 42 |  |                     |    |    |    |  |
|   | with integral grilles          | PEL-N-18-04326-00001     |            |      |          | 0.27                            | 0.29 | 0.54  | 42 |  |                     |    |    |    |  |
| 13/16"  | AdvancedComfort Low-E IG       | PEL-N-18-04332-00001     | 4          | 4    | Air      | 0.26                            | 0.32 | 0.59  | 42 |  |                     |    |    |    |  |
|   | with grilles-between-the-glass | PEL-N-18-04333-00001     |            |      |          | 0.26                            | 0.29 | 0.53  | 42 |  |                     |    |    |    |  |
|   | with integral grilles          | PEL-N-18-04334-00001     |            |      |          | 0.26                            | 0.29 | 0.53  | 42 |  |                     |    |    |    |  |
| 13/16"  | AdvancedComfort Low-E IG       | PEL-N-18-04356-00001     | 5          | 5    | Air      | 0.26                            | 0.31 | 0.59  | 40 |  |                     |    |    |    |  |
|   | with grilles-between-the-glass | PEL-N-18-04357-00001     |            |      |          | 0.26                            | 0.28 | 0.53  | 40 |  |                     |    |    |    |  |
|   | with integral grilles          | PEL-N-18-04358-00001     |            |      |          | 0.27                            | 0.28 | 0.53  | 40 |  |                     |    |    |    |  |

R-Value = 1/U-Factor

SHGC = Solar Heat Gain Coefficient

VLT % = Visible Light Transmission

CR = Condensation Resistance

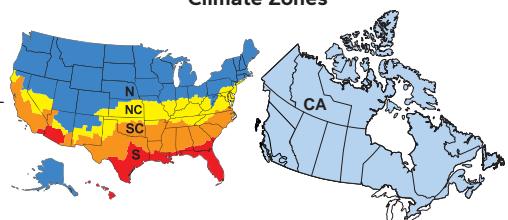
ER = Canadian Energy Rating

(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.

See the Product Performance section for more detailed information or visit [www.energystar.gov](http://www.energystar.gov) for Energy Star guidelines.

### Climate Zones





## Clad-Wood Fixed Frame Direct Set Windows

| Glazing Thickness                                     | Type of Glazing                | NFRC Certified Product # | Glass (mm) |      | Gap Fill | Performance Values <sup>1</sup> |      |       |    | Shaded Areas Meet ENERGY STAR® Performance Criteria in Zones Shown |                     |    |   |       |
|---|--------------------------------|--------------------------|------------|------|----------|---------------------------------|------|-------|----|--|---------------------|----|---|-------|
|   |                                |                          | Ext.       | Int. |          | U-Factor                        | SHGC | VLT % | CR | U. S.  | Canada <sup>2</sup> |    |   |       |
| Rectangular And Curved Shapes - High Altitude Glazing |                                |                          |            |      |          |                                 |      |       |    | N  | NC                  | SC | S | CA    |
| 13/16"  | NaturalSun Low-E IG            | PEL-N-18-04108-00001     | 3          | 3    | Air      | 0.33                            | 0.60 | 0.70  | 53 |  |                     |    |   | 34 CA |
|   | with grilles-between-the-glass | PEL-N-18-04109-00001     |            |      |          | 0.33                            | 0.55 | 0.63  | 53 |  |                     |    |   |       |
|   | with integral grilles          | PEL-N-18-04110-00001     |            |      |          | 0.34                            | 0.55 | 0.63  | 53 |  |                     |    |   |       |
| 13/16"  | NaturalSun Low-E IG            | PEL-N-18-04116-00001     | 4          | 4    | Air      | 0.32                            | 0.59 | 0.69  | 53 |  |                     |    |   | 34 CA |
|   | with grilles-between-the-glass | PEL-N-18-04117-00001     |            |      |          | 0.32                            | 0.54 | 0.62  | 53 |  |                     |    |   |       |
|   | with integral grilles          | PEL-N-18-04118-00001     |            |      |          | 0.33                            | 0.54 | 0.62  | 53 |  |                     |    |   |       |
| 13/16"  | NaturalSun Low-E IG            | PEL-N-18-04140-00001     | 5          | 5    | Air      | 0.33                            | 0.58 | 0.69  | 52 |  |                     |    |   |       |
|   | with grilles-between-the-glass | PEL-N-18-04141-00001     |            |      |          | 0.33                            | 0.53 | 0.62  | 52 |  |                     |    |   |       |
|   | with integral grilles          | PEL-N-18-04142-00001     |            |      |          | 0.34                            | 0.53 | 0.62  | 52 |  |                     |    |   |       |
| 13/16"  | NaturalSun+ Low-E IG           | PEL-N-18-04156-00001     | 3          | 3    | Air      | 0.27                            | 0.55 | 0.68  | 41 |  |                     |    |   | 38 CA |
|   | with grilles-between-the-glass | PEL-N-18-04157-00001     |            |      |          | 0.27                            | 0.50 | 0.61  | 41 |  |                     |    |   | 35 CA |
|   | with integral grilles          | PEL-N-18-04158-00001     |            |      |          | 0.27                            | 0.50 | 0.61  | 41 |  |                     |    |   | 35 CA |
| 13/16"  | NaturalSun+ Low-E IG           | PEL-N-18-04164-00001     | 4          | 4    | Air      | 0.26                            | 0.53 | 0.68  | 41 | N  |                     |    |   | 38 CA |
|   | with grilles-between-the-glass | PEL-N-18-04165-00001     |            |      |          | 0.26                            | 0.48 | 0.61  | 41 | N  |                     |    |   | 35 CA |
|   | with integral grilles          | PEL-N-18-04166-00001     |            |      |          | 0.27                            | 0.48 | 0.61  | 41 |  |                     |    |   | 34 CA |
| 13/16"  | NaturalSun+ Low-E IG           | PEL-N-18-04188-00001     | 5          | 5    | Air      | 0.27                            | 0.52 | 0.67  | 40 |  |                     |    |   | 36 CA |
|   | with grilles-between-the-glass | PEL-N-18-04189-00001     |            |      |          | 0.27                            | 0.47 | 0.60  | 40 |  |                     |    |   |       |
|   | with integral grilles          | PEL-N-18-04190-00001     |            |      |          | 0.27                            | 0.47 | 0.60  | 40 |  |                     |    |   |       |
| 1"  | Clear IG                       | PEL-N-18-04024-00001     | 6          | 6    | Air      | 0.46                            | 0.64 | 0.70  | 42 |  |                     |    |   |       |
|   | with grilles-between-the-glass | PEL-N-18-04025-00001     |            |      |          | 0.46                            | 0.58 | 0.63  | 42 |  |                     |    |   |       |
|   | with integral grilles          | PEL-N-18-04026-00001     |            |      |          | 0.47                            | 0.58 | 0.63  | 42 |  |                     |    |   |       |
| 1"  | Advanced Low-E IG              | PEL-N-18-04244-00001     | 6          | 6    | Air      | 0.32                            | 0.32 | 0.59  | 53 |  |                     |    |   |       |
|   | with grilles-between-the-glass | PEL-N-18-04245-00001     |            |      |          | 0.32                            | 0.29 | 0.53  | 53 |  |                     |    |   |       |
|   | with integral grilles          | PEL-N-18-04246-00001     |            |      |          | 0.32                            | 0.29 | 0.53  | 53 |  |                     |    |   |       |
| 1"  | SunDefense™ Low-E IG           | PEL-N-18-04412-00001     | 6          | 6    | Air      | 0.31                            | 0.24 | 0.55  | 53 |  |                     |    |   |       |
|   | with grilles-between-the-glass | PEL-N-18-04413-00001     |            |      |          | 0.31                            | 0.22 | 0.50  | 53 |  |                     |    | S |       |
|   | with integral grilles          | PEL-N-18-04414-00001     |            |      |          | 0.32                            | 0.22 | 0.50  | 53 |  |                     |    | S |       |
| 1"  | SunDefense+ Low-E IG           | PEL-N-18-04460-00001     | 6          | 6    | Air      | 0.25                            | 0.24 | 0.54  | 41 | NC   |                     |    |   |       |
|   | with grilles-between-the-glass | PEL-N-18-04461-00001     |            |      |          | 0.25                            | 0.22 | 0.48  | 41 | NC   | SC                  | S  |   |       |
|   | with integral grilles          | PEL-N-18-04462-00001     |            |      |          | 0.26                            | 0.22 | 0.48  | 41 |  | SC                  | S  |   |       |
| 1"  | AdvancedComfort Low-E IG       | PEL-N-18-04364-00001     | 6          | 6    | Air      | 0.26                            | 0.31 | 0.58  | 41 |  |                     |    |   |       |
|   | with grilles-between-the-glass | PEL-N-18-04365-00001     |            |      |          | 0.26                            | 0.28 | 0.52  | 41 |  |                     |    |   |       |
|   | with integral grilles          | PEL-N-18-04366-00001     |            |      |          | 0.26                            | 0.28 | 0.52  | 41 |  |                     |    |   |       |
| 1"  | NaturalSun Low-E IG            | PEL-N-18-04148-00001     | 6          | 6    | Air      | 0.33                            | 0.57 | 0.68  | 52 |  |                     |    |   |       |
|   | with grilles-between-the-glass | PEL-N-18-04149-00001     |            |      |          | 0.33                            | 0.51 | 0.61  | 52 |  |                     |    |   |       |
|   | with integral grilles          | PEL-N-18-04150-00001     |            |      |          | 0.33                            | 0.51 | 0.61  | 52 |  |                     |    |   |       |
| 1"  | NaturalSun+ Low-E IG           | PEL-N-18-04196-00001     | 6          | 6    | Air      | 0.26                            | 0.51 | 0.66  | 41 | N  |                     |    |   | 37 CA |
|   | with grilles-between-the-glass | PEL-N-18-04197-00001     |            |      |          | 0.26                            | 0.46 | 0.59  | 41 | N  |                     |    |   | 34 CA |
|   | with integral grilles          | PEL-N-18-04198-00001     |            |      |          | 0.27                            | 0.46 | 0.59  | 41 |  |                     |    |   |       |

R-Value = 1/U-Factor

SHGC = Solar Heat Gain Coefficient

VLT % = Visible Light Transmission

CR = Condensation Resistance

ER = Canadian Energy Rating

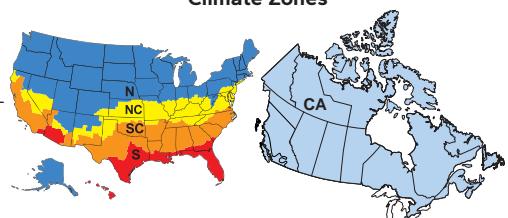
(1) Glazing performance values are calculated based on NFRC 100, NFRC 200 and NFRC 500.

ENERGY STAR® values are updated to 2023 (Version 7) criteria.

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

See the Product Performance section for more detailed information or visit [www.energystar.gov](http://www.energystar.gov) for Energy Star guidelines.

### Climate Zones





# Clad-Wood Fixed Frame Direct Set Windows

## Glazing Performance - Total Units

| Glazing Thickness                               | Type of Glazing                | NFRC Certified Product # | Glass (mm) |      |      | Gap Fill | Performance Values <sup>1</sup> |      |       |    | Shaded Areas Meet ENERGY STAR® Performance Criteria in Zones Shown |    |                     |   |       |
|---|--------------------------------|--------------------------|------------|------|------|----------|---------------------------------|------|-------|----|--|----|---------------------|---|-------|
|   |                                |                          | Ext.       | Mid. | Int. |          | U-Factor                        | SHGC | VLT % | CR | U. S.  |    | Canada <sup>2</sup> |   |       |
|   |                                |                          | Zone       |      | ER   |          | N                               |      | NC    | SC | S  | CA |                     |   |       |
| <b>Interior Glazed With Triple-Pane Glazing</b> |                                |                          |            |      |      |          |                                 |      |       |    |  |    |                     |   |       |
| 1-1/8"  | Decorative Glass (3)           | PEL-N-18-04620-00001     | 3          | 3    | 3    | Air      | 0.34                            | 0.62 | 0.66  | 55 |  |    |                     |   |       |
| 1-1/8"  | Advanced Low-E IG              | PEL-N-18-04661-00001     | 3          | 3    | 3    | Argon    | 0.18                            | 0.29 | 0.54  | 69 | N  | NC |                     |   | 34 CA |
|   | with grilles-between-the-glass | PEL-N-18-04662-00001     |            |      |      |          | 0.18                            | 0.27 | 0.49  | 69 | N  | NC |                     |   | 33 CA |
|   | with integral grilles          | PEL-N-18-04663-00001     |            |      |      |          | 0.18                            | 0.27 | 0.49  | 69 | N  | NC |                     |   | 33 CA |
| 1-1/4"  | Advanced Low-E IG              | PEL-N-18-04673-00001     | 4          | 4    | 4    | Argon    | 0.18                            | 0.29 | 0.53  | 68 | N  | NC |                     |   | 34 CA |
|   | with grilles-between-the-glass | PEL-N-18-04674-00001     |            |      |      |          | 0.18                            | 0.26 | 0.48  | 68 | N  | NC |                     |   | 32 CA |
|   | with integral grilles          | PEL-N-18-04675-00001     |            |      |      |          | 0.18                            | 0.26 | 0.48  | 68 | N  | NC |                     |   | 32 CA |
| 1-3/8"  | Advanced Low-E IG              | PEL-N-18-04685-00001     | 5          | 5    | 5    | Argon    | 0.18                            | 0.29 | 0.53  | 68 | N  | NC |                     |   | 34 CA |
|   | with grilles-between-the-glass | PEL-N-18-04686-00001     |            |      |      |          | 0.18                            | 0.26 | 0.47  | 68 | N  | NC |                     |   | 32 CA |
|   | with integral grilles          | PEL-N-18-04687-00001     |            |      |      |          | 0.18                            | 0.26 | 0.47  | 68 | N  | NC |                     |   | 32 CA |
| 1-1/8"  | SunDefense™ Low-E IG           | PEL-N-18-04697-00001     | 3          | 3    | 3    | Argon    | 0.18                            | 0.22 | 0.50  | 69 | N  | NC | SC                  | S | 30 CA |
|   | with grilles-between-the-glass | PEL-N-18-04698-00001     |            |      |      |          | 0.18                            | 0.20 | 0.45  | 69 | N  | NC | SC                  | S | 29 CA |
|   | with integral grilles          | PEL-N-18-04699-00001     |            |      |      |          | 0.18                            | 0.20 | 0.45  | 69 | N  | NC | SC                  | S | 29 CA |
| 1-1/4"  | SunDefense™ Low-E IG           | PEL-N-18-04709-00001     | 4          | 4    | 4    | Argon    | 0.18                            | 0.22 | 0.50  | 68 | N  | NC | SC                  | S | 30 CA |
|   | with grilles-between-the-glass | PEL-N-18-04710-00001     |            |      |      |          | 0.18                            | 0.20 | 0.45  | 68 | N  | NC | SC                  | S | 29 CA |
|   | with integral grilles          | PEL-N-18-04711-00001     |            |      |      |          | 0.18                            | 0.20 | 0.45  | 68 | N  | NC | SC                  | S | 29 CA |
| 1-3/8"  | SunDefense™ Low-E IG           | PEL-N-18-04721-00001     | 5          | 5    | 5    | Argon    | 0.18                            | 0.22 | 0.49  | 68 | N  | NC | SC                  | S | 30 CA |
|   | with grilles-between-the-glass | PEL-N-18-04722-00001     |            |      |      |          | 0.18                            | 0.20 | 0.44  | 68 | N  | NC | SC                  | S | 29 CA |
|   | with integral grilles          | PEL-N-18-04723-00001     |            |      |      |          | 0.18                            | 0.20 | 0.44  | 68 | N  | NC | SC                  | S | 29 CA |
| 1-1/8"  | NaturalSun Low-E IG            | PEL-N-18-04625-00001     | 3          | 3    | 3    | Argon    | 0.18                            | 0.49 | 0.61  | 68 | N  |    |                     |   | 46 CA |
|   | with grilles-between-the-glass | PEL-N-18-04626-00001     |            |      |      |          | 0.19                            | 0.45 | 0.55  | 68 | N  |    |                     |   | 42 CA |
|   | with integral grilles          | PEL-N-18-04627-00001     |            |      |      |          | 0.19                            | 0.45 | 0.55  | 68 | N  |    |                     |   | 42 CA |
| 1-1/4"  | NaturalSun Low-E IG            | PEL-N-18-04637-00001     | 4          | 4    | 4    | Argon    | 0.18                            | 0.48 | 0.61  | 68 | N  |    |                     |   | 45 CA |
|   | with grilles-between-the-glass | PEL-N-18-04638-00001     |            |      |      |          | 0.19                            | 0.43 | 0.55  | 68 | N  |    |                     |   | 41 CA |
|   | with integral grilles          | PEL-N-18-04639-00001     |            |      |      |          | 0.19                            | 0.43 | 0.55  | 68 | N  |    |                     |   | 41 CA |
| 1-3/8"  | NaturalSun Low-E IG            | PEL-N-18-04649-00001     | 5          | 5    | 5    | Argon    | 0.18                            | 0.47 | 0.60  | 67 | N  |    |                     |   | 45 CA |
|   | with grilles-between-the-glass | PEL-N-18-04650-00001     |            |      |      |          | 0.18                            | 0.43 | 0.54  | 67 | N  |    |                     |   | 42 CA |
|   | with integral grilles          | PEL-N-18-04651-00001     |            |      |      |          | 0.19                            | 0.43 | 0.54  | 67 | N  |    |                     |   | 41 CA |

R-Value = 1/U-Factor

SHGC = Solar Heat Gain Coefficient

VLT % = Visible Light Transmission

CR = Condensation Resistance

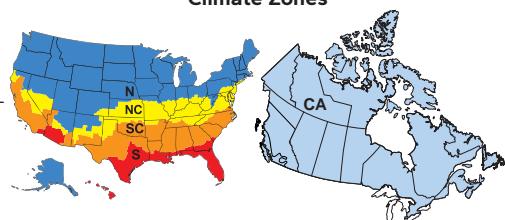
ER = Canadian Energy Rating

(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.

See the Product Performance section for more detailed information or visit [www.energystar.gov](http://www.energystar.gov) for Energy Star guidelines.

### Climate Zones





# Clad-Wood Fixed Frame Direct Set Windows

## Glazing Performance - Total Units

| Glazing Thickness                                 | Type of Glazing                | NFRC Certified Product # | Glass (mm) |      |      | Gap Fill | Performance Values <sup>1</sup> |      |       |    | Shaded Areas Meet ENERGY STAR® Performance Criteria in Zones Shown |                     |    |   |       |
|---|--------------------------------|--------------------------|------------|------|------|----------|---------------------------------|------|-------|----|--|---------------------|----|---|-------|
|   |                                |                          | Ext.       | Mid. | Int. |          | U-Factor                        | SHGC | VLT % | CR | U. S.  | Canada <sup>2</sup> |    |   |       |
| Interior Glazed Triple-Pane High Altitude Glazing |                                |                          |            |      |      |          |                                 |      |       |    | N  | NC                  | SC | S | CA    |
| 1-1/8"  | Advanced Low-E IG              | PEL-N-18-04657-00001     | 3          | 3    | 3    | Air      | 0.22                            | 0.30 | 0.54  | 65 | N  | NC                  |    |   |       |
|   | with grilles-between-the-glass | PEL-N-18-04658-00001     |            |      |      |          | 0.22                            | 0.27 | 0.49  | 65 | N  | NC                  |    |   |       |
|   | with integral grilles          | PEL-N-18-04659-00001     |            |      |      |          | 0.22                            | 0.27 | 0.49  | 65 | N  | NC                  |    |   |       |
| 1-1/4"  | Advanced Low-E IG              | PEL-N-18-04669-00001     | 4          | 4    | 4    | Air      | 0.21                            | 0.29 | 0.53  | 65 | N  | NC                  |    |   | 30 CA |
|   | with grilles-between-the-glass | PEL-N-18-04670-00001     |            |      |      |          | 0.22                            | 0.26 | 0.48  | 65 | N  | NC                  |    |   |       |
|   | with integral grilles          | PEL-N-18-04671-00001     |            |      |      |          | 0.22                            | 0.26 | 0.48  | 65 | N  | NC                  |    |   |       |
| 1-3/8"  | Advanced Low-E IG              | PEL-N-18-04681-00001     | 5          | 5    | 5    | Air      | 0.21                            | 0.29 | 0.53  | 65 | N  | NC                  |    |   | 30 CA |
|   | with grilles-between-the-glass | PEL-N-18-04682-00001     |            |      |      |          | 0.22                            | 0.26 | 0.47  | 65 | N  | NC                  |    |   |       |
|   | with integral grilles          | PEL-N-18-04683-00001     |            |      |      |          | 0.22                            | 0.26 | 0.47  | 65 | N  | NC                  |    |   |       |
| 1-1/8"  | SunDefense Low-E IG            | PEL-N-18-04693-00001     | 3          | 3    | 3    | Air      | 0.21                            | 0.22 | 0.50  | 65 | N  | NC                  | SC | S | 26 CA |
|   | with grilles-between-the-glass | PEL-N-18-04694-00001     |            |      |      |          | 0.22                            | 0.20 | 0.45  | 65 | N  | NC                  | SC | S |       |
|   | with integral grilles          | PEL-N-18-04695-00001     |            |      |      |          | 0.22                            | 0.20 | 0.45  | 65 | N  | NC                  | SC | S |       |
| 1-1/4"  | SunDefense Low-E IG            | PEL-N-18-04705-00001     | 4          | 4    | 4    | Air      | 0.21                            | 0.22 | 0.50  | 65 | N  | NC                  | SC | S | 26 CA |
|   | with grilles-between-the-glass | PEL-N-18-04706-00001     |            |      |      |          | 0.22                            | 0.20 | 0.45  | 65 | N  | NC                  | SC | S |       |
|   | with integral grilles          | PEL-N-18-04707-00001     |            |      |      |          | 0.22                            | 0.20 | 0.45  | 65 | N  | NC                  | SC | S |       |
| 1-3/8"  | SunDefense Low-E IG            | PEL-N-18-04717-00001     | 5          | 5    | 5    | Air      | 0.21                            | 0.22 | 0.49  | 65 | N  | NC                  | SC | S | 26 CA |
|   | with grilles-between-the-glass | PEL-N-18-04718-00001     |            |      |      |          | 0.22                            | 0.20 | 0.44  | 65 | N  | NC                  | SC | S |       |
|   | with integral grilles          | PEL-N-18-04719-00001     |            |      |      |          | 0.22                            | 0.20 | 0.44  | 65 | N  | NC                  | SC | S |       |
| 1-1/8"  | NaturalSun Low-E IG            | PEL-N-18-04621-00001     | 3          | 3    | 3    | Air      | 0.22                            | 0.49 | 0.61  | 65 | N  |                     |    |   | 41 CA |
|   | with grilles-between-the-glass | PEL-N-18-04622-00001     |            |      |      |          | 0.22                            | 0.45 | 0.55  | 65 | N  |                     |    |   | 38 CA |
|   | with integral grilles          | PEL-N-18-04623-00001     |            |      |      |          | 0.22                            | 0.45 | 0.55  | 65 | N  |                     |    |   | 38 CA |
| 1-1/4"  | NaturalSun Low-E IG            | PEL-N-18-04633-00001     | 4          | 4    | 4    | Air      | 0.22                            | 0.48 | 0.61  | 65 | N  |                     |    |   | 40 CA |
|   | with grilles-between-the-glass | PEL-N-18-04634-00001     |            |      |      |          | 0.22                            | 0.43 | 0.55  | 65 | N  |                     |    |   | 37 CA |
|   | with integral grilles          | PEL-N-18-04635-00001     |            |      |      |          | 0.22                            | 0.43 | 0.55  | 65 | N  |                     |    |   | 37 CA |
| 1-3/8"  | NaturalSun Low-E IG            | PEL-N-18-04645-00001     | 5          | 5    | 5    | Air      | 0.22                            | 0.47 | 0.60  | 64 | N  |                     |    |   | 40 CA |
|   | with grilles-between-the-glass | PEL-N-18-04646-00001     |            |      |      |          | 0.22                            | 0.43 | 0.54  | 64 | N  |                     |    |   | 37 CA |
|   | with integral grilles          | PEL-N-18-04647-00001     |            |      |      |          | 0.22                            | 0.43 | 0.54  | 64 | N  |                     |    |   | 37 CA |

R-Value = 1/U-Factor

SHGC = Solar Heat Gain Coefficient

VLT % = Visible Light Transmission

CR = Condensation Resistance

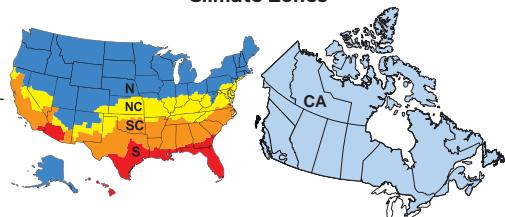
ER = Canadian Energy Rating

(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.

See the Product Performance section for more detailed information or visit [www.energystar.gov](http://www.energystar.gov) for Energy Star guidelines.

### Climate Zones





# Clad-Wood Fixed Frame Direct Set Windows

## Glazing Performance - Total Unit

| Glazing Thickness   | Type of Glazing                | NFRC Certified Product # | Glass (mm) |      | Gap Fill | Performance Values <sup>1</sup> |      |       |    | Shaded Areas Meet ENERGY STAR® Performance Criteria in Zones Shown |    |                     |    |    |  |
|---|--------------------------------|--------------------------|------------|------|----------|---------------------------------|------|-------|----|--|----|---------------------|----|----|--|
|   |                                |                          | Ext.       | Int. |          | U-Factor                        | SHGC | VLT % | CR | U. S.  |    | Canada <sup>2</sup> |    |    |  |
|   |                                |                          |            |      |          |                                 |      |       |    | Zone   | ER | Zone                | CA | SC |  |
| <b>Interior Glazed Laminated Impact-Resistant Glass</b>                     |                                |                          |            |      |          |                                 |      |       |    |  |    |                     |    |    |  |
| 1"  | PVB clear laminated IG         | PEL-N-18-04060-00001     | 12         | 5    | air      | 0.46                            | 0.56 | 0.68  | 43 |  |    |                     |    |    |  |
|   | with grilles-between-the-glass | PEL-N-18-04061-00001     |            |      |          | 0.47                            | 0.51 | 0.61  | 43 |  |    |                     |    |    |  |
|   | with integral grilles          | PEL-N-18-04062-00001     |            |      |          | 0.47                            | 0.51 | 0.61  | 43 |  |    |                     |    |    |  |
| 1"  | PVB Advanced Low-E IG          | PEL-N-18-04596-00001     | 12         | 5    | argon    | 0.27                            | 0.31 | 0.57  | 56 |  |    |                     |    |    |  |
|   | with grilles-between-the-glass | PEL-N-18-04597-00001     |            |      |          | 0.29                            | 0.28 | 0.51  | 56 |  |    |                     |    |    |  |
|   | with integral grilles          | PEL-N-18-04598-00001     |            |      |          | 0.28                            | 0.28 | 0.51  | 56 |  |    |                     |    |    |  |
| 1"  | PVB SunDefense™ Low-E IG       | PEL-N-18-04608-00001     | 12         | 5    | argon    | 0.27                            | 0.24 | 0.53  | 57 |  |    |                     |    |    |  |
|   | with grilles-between-the-glass | PEL-N-18-04609-00001     |            |      |          | 0.28                            | 0.22 | 0.48  | 57 |  |    | SC                  | S  |    |  |
|   | with integral grilles          | PEL-N-18-04610-00001     |            |      |          | 0.28                            | 0.22 | 0.48  | 57 |  |    | SC                  | S  |    |  |
| 1"  | SGP clear laminated IG         | PEL-N-18-04064-00001     | 12         | 5    | air      | 0.46                            | 0.57 | 0.69  | 43 |  |    |                     |    |    |  |
|   | with grilles-between-the-glass | PEL-N-18-04065-00001     |            |      |          | 0.47                            | 0.51 | 0.62  | 43 |  |    |                     |    |    |  |
|   | with integral grilles          | PEL-N-18-04066-00001     |            |      |          | 0.47                            | 0.51 | 0.62  | 43 |  |    |                     |    |    |  |
| 1"  | SGP Advanced Low-E IG          | PEL-N-18-04600-00001     | 12         | 5    | argon    | 0.27                            | 0.31 | 0.58  | 57 |  |    |                     |    |    |  |
|   | with grilles-between-the-glass | PEL-N-18-04601-00001     |            |      |          | 0.28                            | 0.28 | 0.52  | 57 |  |    |                     |    |    |  |
|   | with integral grilles          | PEL-N-18-04602-00001     |            |      |          | 0.28                            | 0.28 | 0.52  | 57 |  |    |                     |    |    |  |
| 1"  | SGP SunDefense™ Low-E IG       | PEL-N-18-04612-00001     | 12         | 5    | argon    | 0.27                            | 0.25 | 0.54  | 57 |  |    |                     |    |    |  |
|   | with grilles-between-the-glass | PEL-N-18-04613-00001     |            |      |          | 0.28                            | 0.22 | 0.49  | 57 |  |    | SC                  | S  |    |  |
|   | with integral grilles          | PEL-N-18-04614-00001     |            |      |          | 0.28                            | 0.22 | 0.49  | 57 |  |    | SC                  | S  |    |  |
| 1-1/4"  | SGP clear laminated IG         | PEL-N-18-04068-00001     | 14         | 6    | air      | 0.44                            | 0.54 | 0.67  | 45 |  |    |                     |    |    |  |
|   | with grilles-between-the-glass | PEL-N-18-04069-00001     |            |      |          | 0.44                            | 0.49 | 0.60  | 45 |  |    |                     |    |    |  |
|   | with integral grilles          | PEL-N-18-04070-00001     |            |      |          | 0.44                            | 0.49 | 0.60  | 45 |  |    |                     |    |    |  |
| 1-1/4"  | SGP Advanced Low-E IG          | PEL-N-18-04604-00001     | 14         | 6    | argon    | 0.26                            | 0.30 | 0.57  | 58 |  |    |                     |    |    |  |
|   | with grilles-between-the-glass | PEL-N-18-04605-00001     |            |      |          | 0.26                            | 0.27 | 0.51  | 58 |  |    |                     |    |    |  |
|   | with integral grilles          | PEL-N-18-04606-00001     |            |      |          | 0.27                            | 0.27 | 0.51  | 58 |  |    |                     |    |    |  |
| 1-1/4"  | SGP SunDefense Low-E IG        | PEL-N-18-04616-00001     | 14         | 6    | argon    | 0.26                            | 0.24 | 0.53  | 58 |  |    |                     |    |    |  |
|   | with grilles-between-the-glass | PEL-N-18-04617-00001     |            |      |          | 0.26                            | 0.22 | 0.47  | 58 |  |    | SC                  | S  |    |  |
|   | with integral grilles          | PEL-N-18-04618-00001     |            |      |          | 0.26                            | 0.22 | 0.47  | 58 |  |    | SC                  | S  |    |  |
| <b>Interior Glazed Laminated Impact-Resistant Glass With Tinted Glazing</b> |                                |                          |            |      |          |                                 |      |       |    |  |    |                     |    |    |  |
| 1"  | Bronze PVB laminated IG        | PEL-N-18-04072-00001     | 12         | 5    | air      | 0.46                            | 0.38 | 0.28  | 43 |  |    |                     |    |    |  |
| 1"  | Gray PVB laminated IG          | PEL-N-18-04084-00001     | 12         | 5    | air      | 0.46                            | 0.43 | 0.35  | 43 |  |    |                     |    |    |  |
| 1"  | Green PVB laminated IG         | PEL-N-18-04096-00001     | 12         | 5    | air      | 0.46                            | 0.51 | 0.56  | 43 |  |    |                     |    |    |  |
| 1"  | Bronze SGP laminated IG        | PEL-N-18-04076-00001     | 12         | 5    | air      | 0.46                            | 0.39 | 0.28  | 43 |  |    |                     |    |    |  |
| 1"  | Gray SGP laminated IG          | PEL-N-18-04088-00001     | 12         | 5    | air      | 0.46                            | 0.43 | 0.35  | 43 |  |    |                     |    |    |  |
| 1"  | Green SGP laminated IG         | PEL-N-18-04100-00001     | 12         | 5    | air      | 0.46                            | 0.51 | 0.56  | 43 |  |    |                     |    |    |  |
| 1-1/4"  | Bronze SGP laminated IG        | PEL-N-18-04080-00001     | 14         | 6    | air      | 0.44                            | 0.37 | 0.27  | 45 |  |    |                     |    |    |  |
| 1-1/4"  | Gray SGP laminated IG          | PEL-N-18-04092-00001     | 14         | 6    | air      | 0.44                            | 0.41 | 0.34  | 45 |  |    |                     |    |    |  |
| 1-1/4"  | Green SGP laminated IG         | PEL-N-18-04104-00001     | 14         | 6    | air      | 0.44                            | 0.49 | 0.54  | 45 |  |    |                     |    |    |  |

R-Value = 1/U-Factor

SHGC = Solar Heat Gain Coefficient

VLT % = Visible Light Transmission

CR = Condensation Resistance

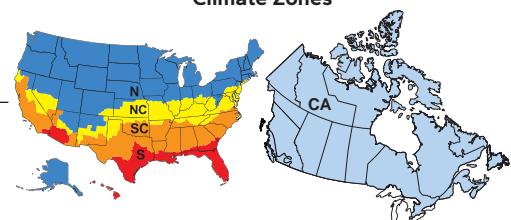
ER = Canadian Energy Rating

(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.

See the Product Performance section for more detailed information or visit [www.energystar.gov](http://www.energystar.gov) for Energy Star guidelines.

### Climate Zones





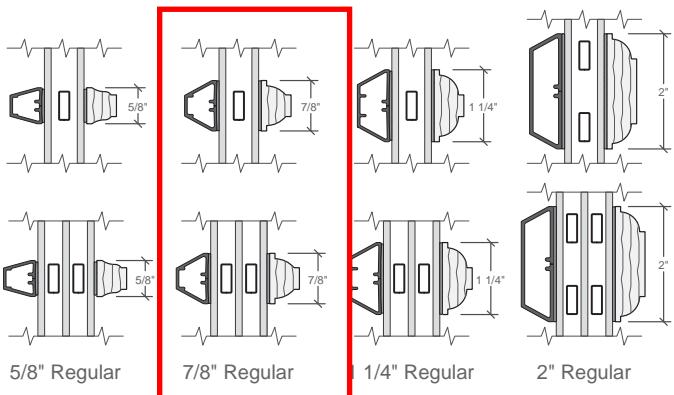
## Clad-Wood Fixed Frame Direct Set Windows

### Grille Profiles

#### Traditional Style Collection - Integral Light Technology®

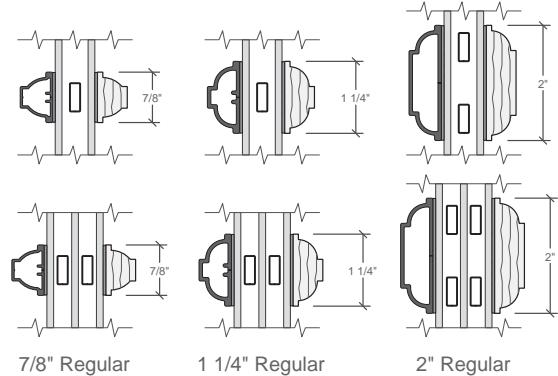
##### Putty Glaze and Ogee Grilles

Clad Exterior - Wood Interior



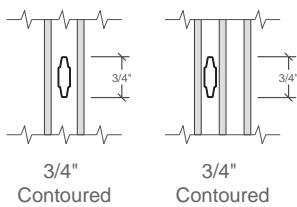
##### Ogee Grilles

Clad Exterior - Wood Interior



(Ogee ILT Grilles are available for Rectangle and Radius Shapes,  
Putty Glaze ILT grilles are available for rectangle only.)

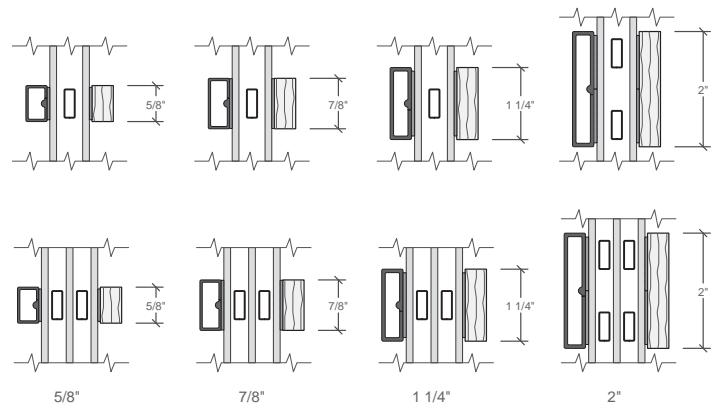
#### Grilles-Between-the-Glass



#### Contemporary Style Collection - Integral Light Technology®

##### Square Grilles

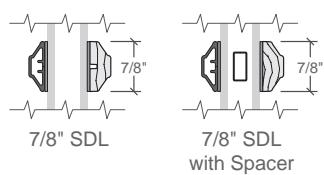
Clad Exterior - Wood Interior



(Square ILT Grilles are available for Contemporary Style Rectangular and Angle Shapes only)

#### Simulated-Divided-Light-Grilles

##### Simulated Divided Light



(1) Available in Pine, Mahogany, or Douglas Fir to match complete unit.

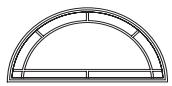
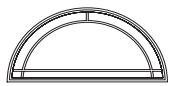
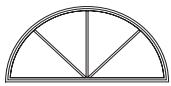


## Clad-Wood Fixed Frame Direct Set Windows

### Grille Patterns - Curved Shapes

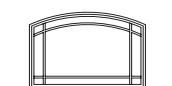
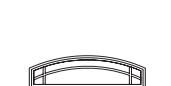
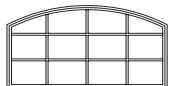
Below are examples of typical combination assemblies showing grille alignment of half circles and quarter circles over casements, hung, hinged and sliding doors. For specific information contact your local Pella sales representative.

#### Typical Grille Patterns

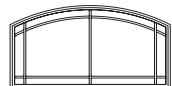


FW ≤ 71"

FW > 71"

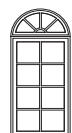


SHORT SIDE 8"

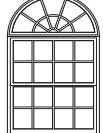


FW > 47"

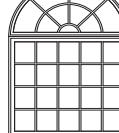
#### Half and Quarter Circle



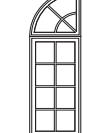
Casement



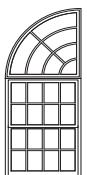
Double-Hung



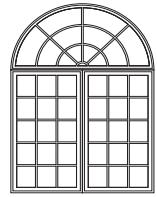
Large Fixed



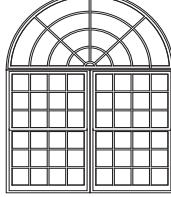
Casement



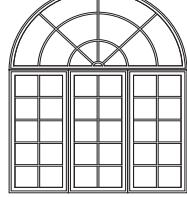
Double-Hung



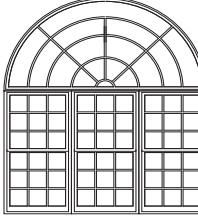
2-Wide Casement



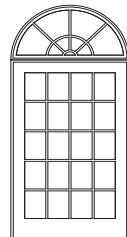
2-Wide Double-Hung



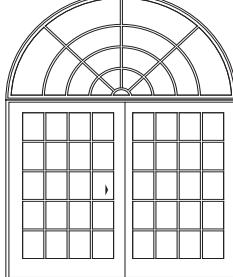
3-Wide Casement



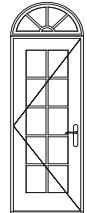
3-Wide Double-Hung



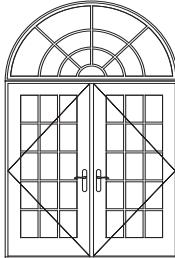
Fixed Door



Sliding Patio Door



Hinged Door



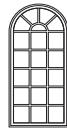
2-Panel Hinged Door

#### Elliptical



Elliptical

#### Springline



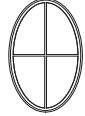
Springline

#### Full Circle

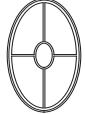


Circle

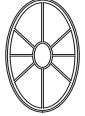
#### Ovals



4-Lite Traditional



5-Lite with Rays



9-Lite with Sunburst



17-Lite with Sunburst

Not all pattern scenarios are shown above. Actual pattern may differ depending on size, shape and grille spacing. See Pella sales representative for actual patterns.

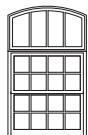


## Clad-Wood Fixed Frame Direct Set Windows

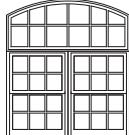
### Grille Patterns - Arch Head Curved Shapes

Below are examples of typical combination assemblies showing grille alignment of arch heads over casements, hung, and hinged doors. For specific information contact your local Pella sales representative.

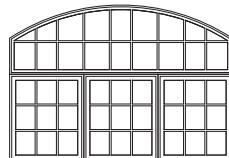
#### Full Arch Heads



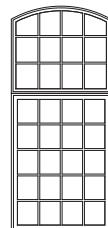
Double-Hung



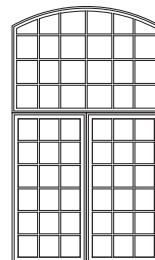
2-Wide Double-Hung



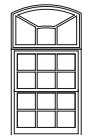
3-Wide Double-Hung



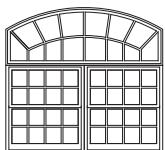
Large Fixed



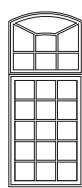
2-Wide Large Fixed



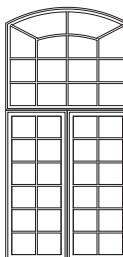
Double-Hung



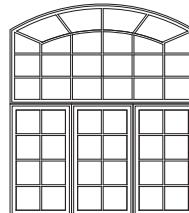
2-Wide Double-Hung



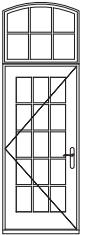
Fixed



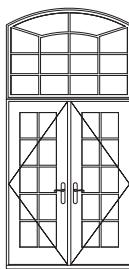
2-Wide Fixed



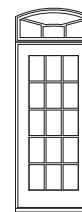
3-Wide Fixed



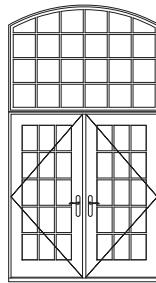
Single Panel Hinged Door



2-Panel Hinged Door



Fixed Panel



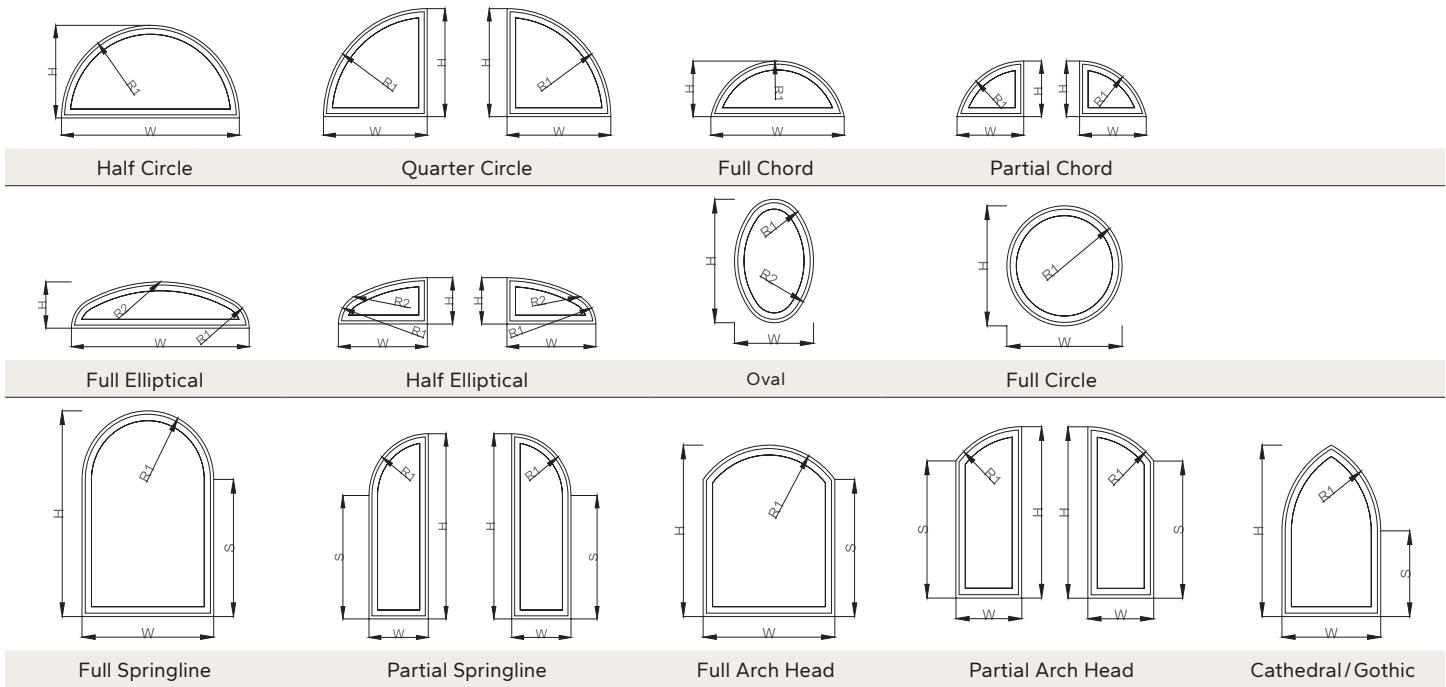
2-Panel Hinged Door

Not all pattern scenarios are shown above. Actual pattern may differ depending on size, shape and grille spacing. See Pella sales representative for actual patterns.



## Clad-Wood Fixed Frame Direct Set Windows

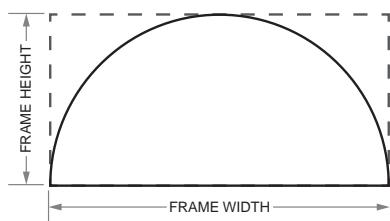
### Interior Glazed Curved Shape Sizes and Dimensions



| Description                     | Frame Radius   |           | Width |      | Height     |          |        |          | Min. Unit Frame Angle | Max. Unit Frame Angle | Max. Sq. Ft. |
|---------------------------------|--|-----------|-------|------|------------|----------|--------|----------|-----------------------|-----------------------|--------------|
|                                 | Min.   | Max.      | Min.  | Max. | Min.       | Max.     | Min. S | Other    |                       |                       |              |
| Half Circle                     | 12"  | 60"       | 24"   | 120" | 24"        | 120"     | —      | —        | —                     | —                     | 48           |
| Quarter Circle                  | 12"  | 85"       | 12"   | 85"  | 12"        | 85"      | —      | —        | —                     | —                     | 48           |
| Full Springline                 | 12"  | 54"       | 24"   | 108" | R + 4.25"  | 120"     | 4.25"  | —        | —                     | —                     | 48           |
| Partial Springline              | 12"  | 96"       | 12"   | 85"  | FW + 4.25" | 120"     | 4.25"  | —        | 40°                   | 90°                   | 48           |
| Full Chord                      | 12"  | 500"      | 24"   | 120" | 10.5"      | (W÷2)-1" | —      | > 0.24 W | 40°                   | < 90°                 | 48           |
| Partial Chord <sub>2</sub>      | 12"  | 500"      | 9"    | 120" | 10.5"      | 85.125"  | —      | > 0.48 W | 40°                   | < 90°                 | 48           |
| Full Elliptical <sub>1</sub>    | R1 = 12"   | R1 = 150" | 32.5" | 120" | R1+1.25"   | < (W÷2)  | —      | —        | —                     | —                     | 48           |
| Partial Elliptical <sub>1</sub> | R1 = 12"   | R1 = 150" | 14"   | 120  | R1+1.25"   | 60"      | —      | —        | 40°                   | 90°                   | 48           |
| Full Arch Head                  | 12"  | 500"      | 9"    | 120" | 9"         | 120"     | 4.25"  | —        | 90°                   | 160°                  | 48           |
| Partial Arch Head               | 12"  | 500"      | 9"    | 120" | 9"         | 120"     | 4.25"  | —        | 40°                   | 160°                  | 48           |
| Gothic Springline               | 12"  | 500"      | 9"    | 108" | 14         | 120"     | 4.25"  | —        | 40°                   | —                     | 48           |
| Full Circle <sub>3</sub>        | 12"  | 36"       | 24"   | 72"  | —          | —        | —      | —        | —                     | —                     | —            |
| Oval <sub>3</sub>               | Standard sizes only. 24" W x 36" H, 30" W x 48" H or 36" W x 60" H |           |       |      |            |          |        |          |                       |                       |              |

### Miscellaneous Formulas

| Glass Dimension | Formula   |
|-----------------|---|
| Visible Glass   | Width = Frame - 3-1/4"<br>Height = Frame - 3-1/4" |
| Actual Glass    | Width = Frame - 2"<br>Height = Frame - 2"         |



For all shapes, calculate the area as if it were a rectangle.

(-) = Not applicable

(1) Minor radius must begin at the baseline of the frame.

(2) Project shape to full chord, using full chord width (W), calculate minimum height restrictions using full chord parameters.

(3) Tempered glass is required for any units where glass dimensions exceed 48"

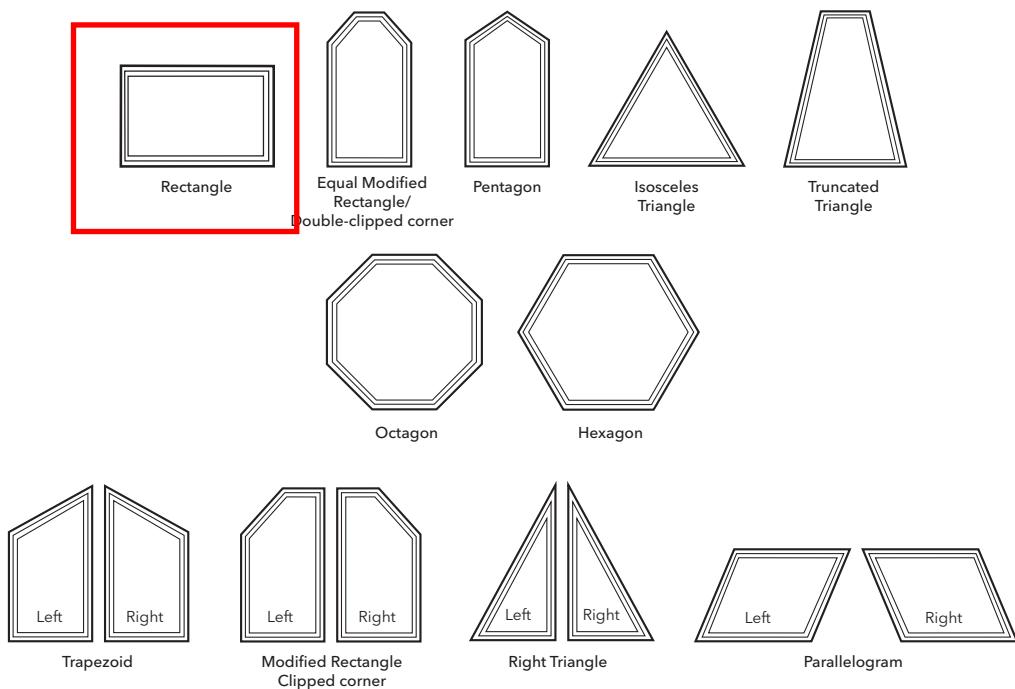
To convert areas to square meters (m<sup>2</sup>), multiply square feet by 0.0929.



## Clad-Wood Fixed Frame Direct Set Windows

### Interior Glazed Angled Shape Sizes and Dimensions

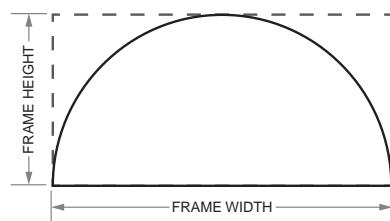
Pella angled and rectangular fixed frame direct set windows are available in custom shapes shown below. These windows may be installed in any orientation. For specifications, size limitations, and details on these units, contact your local Pella sales representative.



| Glazing Type                                     | Frame Dimension        |  | Panel Dimension        |                             |
|--|------------------------|--|------------------------|-----------------------------|
|  | Minimum Size           | Maximum Size <sup>1</sup>  | Minimum Size           | Maximum Size                |
| Glass  | 8" x 8"<br>(203 x 203) | 12' 0" <sup>2</sup> or 76 ft <sup>2</sup><br>(3 658) or (7.06 m <sup>2</sup> ) | —                      | —                           |
| Clad Panel (Available In Rectangular Units Only) | 8" x 8"<br>(203 x 203) | 4' 2" x 8' 2"<br>(1270 x 2 489)  | 6" x 6"<br>(152 x 152) | 48" x 96"<br>(1219 x 2 438) |

### Miscellaneous Formulas for Rectangular Units

| Glass Dimension | Formula  |
|-----------------|--|
| Visible Glass   | Visible Glass Width = Frame Width - 3-1/4"<br>Visible Glass Height = Frame Height - 3-1/4" |
| Actual Glass    | Actual Glass Width = Frame Width - 2"<br>Actual Glass Height = Frame Height - 2"           |



For all shapes, calculate the area as if it were a rectangle.

(—) = Not applicable

• Keep frame dimension to the nearest 1/8".

• See Performance Grade chart for size limitations.

• Glass width to height ratio maximums: annealed glass 1 to 5, tempered glass 1 to 10.

(1) For all shapes, calculate the area of the unit as if it were rectangular.

(2) Maximum dimension in one direction with frame area as specified (subject to glass availability).

Corner angles for all shapes are minimum 20° and maximum 160°.

144" slope for triangles and parallelograms.

Not all sizes are Hallmark Certified.



## Clad-Wood Fixed Frame Direct Set Windows

### Exterior Glazed Rectangular Shape Sizes and Dimensions

Consult with your local Pella sales representative for current availability, limitations may apply.

Exterior glazed windows are available as rectangles only.

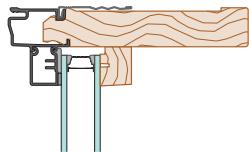
| Glazing Type | Frame Dimension        |   | Panel Dimension                |                              |
|--------------|------------------------|---|--------------------------------|------------------------------|
|              | Minimum Size           | Maximum Size <sup>1</sup>                                       | Minimum Size                   | Maximum Size                 |
| Glass        | 8" x 8"<br>(203 x 203) | 8' 0" or 38.0 ft <sup>2</sup><br>(2 438) (3.53 m <sup>2</sup> ) | —                              | —                            |
| Clad Panel   | 8" x 8"<br>(203 x 203) | 4' 2-3/8" x 8' 2-3/8"<br>(1 280 x 2 499)                        | 5-5/8" x 5-5/8"<br>(143 x 143) | 48" x 96"<br>(1 219 x 2 438) |

### Miscellaneous Formulas

| Glass Dimension | Formula  |
|-----------------|--|
| Visible Glass   | Visible Glass Width = Frame Width - 3-1/4"<br>Visible Glass Height = Frame Height - 3-1/4" |
| Actual Glass    | Actual Glass Width = Frame Width - 2"<br>Actual Glass Height = Frame Height - 2"           |

Designed for applications where exterior reglazing is necessary due to inaccessibility from the interior. Is not intended for initial field glazing.

| Glazing Options | Standard | Special | Custom <sup>2</sup> |
|-----------------|----------|---------|---------------------|
|-----------------|----------|---------|---------------------|



Clear or Advanced Low-E  
Insulated Glass with Argon  
or Natural Sun

Bronze, Gray, Green, Obscure  
Advanced Comfort, Sun Defense

Spandrel

(—) = Not applicable

(1) In one direction with frame area as specified (subject to glass availability).

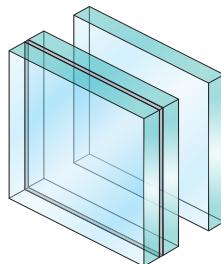
(2) Consult your Pella representative for parameters and availability of custom glazings.



## Clad-Wood Fixed Frame Direct Set Windows

### Design Data - Impact-Resistant Glass

#### Double-Pane Laminated Insulating Glass



|  | SGP IG    | PVB IG    |
|--|-----------|-----------|
| <b>Maximum Performance Grade<sup>1</sup></b> |           |           |
| Max sizes: 55x55, 39x79, 79x39               | —         | 60        |
| Max sizes: 35x73, 73x35                      | 90        | —         |
| Larger Sizes                                 | 60        | —         |
| <b>Certification<sup>1</sup></b>             |           |           |
| Hallmark                                     | 411-H-670 | 411-H-670 |
| FPAS <sup>2</sup>                            | FL20349   | FL20349   |
| TDI <sup>2</sup>                             | WIN-478   | WIN-478   |

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

(—) Not Applicable

(1) Maximum design pressure limited by unit testing or ASTM E 1300-04(H) and ASTM E 1300-04(D)

All interior glazed units with Impact glazing are certified for wind zone 4, large missile rating D.

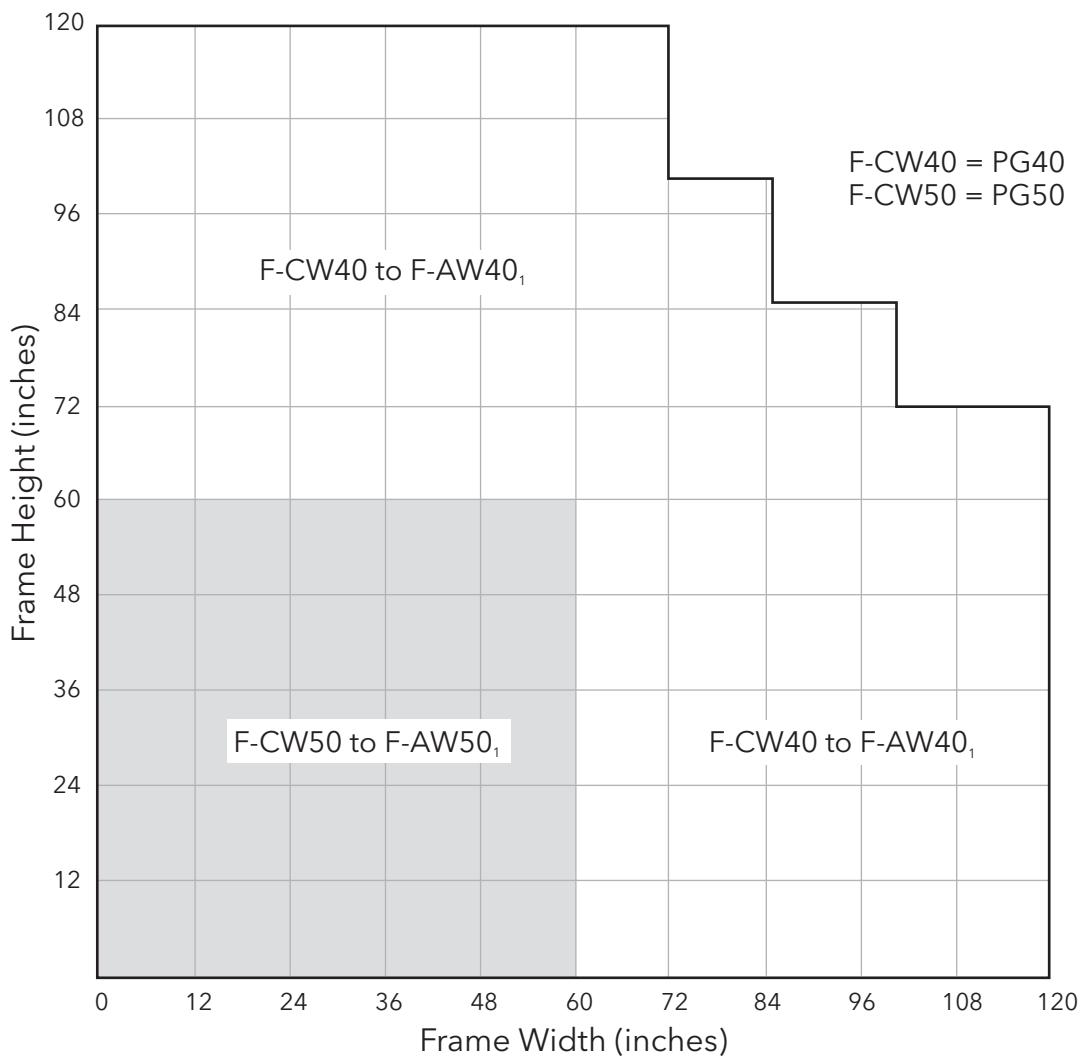
(2) Some size exclusions apply.



## Clad-Wood Fixed Frame Direct Set Windows

### Interior Glazed Standard Fin-Installed Performance

- The use of fixed frame direct set windows is limited by product performance rating, design pressure load chart, installation method, mullion strength and glass thickness or type. See mullion limitation and glass charts in the Combinations section at PellaADM.com.
- Fixed Frames are available up to a maximum frame area of 76 ft<sup>2</sup> (7.06 m<sup>2</sup>). Angled and Curved frames are measured as a rectangle.
- IMPORTANT:** Glass must meet requirements of the glass charts and comply with the load chart. This chart below shows the maximum performance class and grade of the frame only when glazed with the appropriate glass thickness.



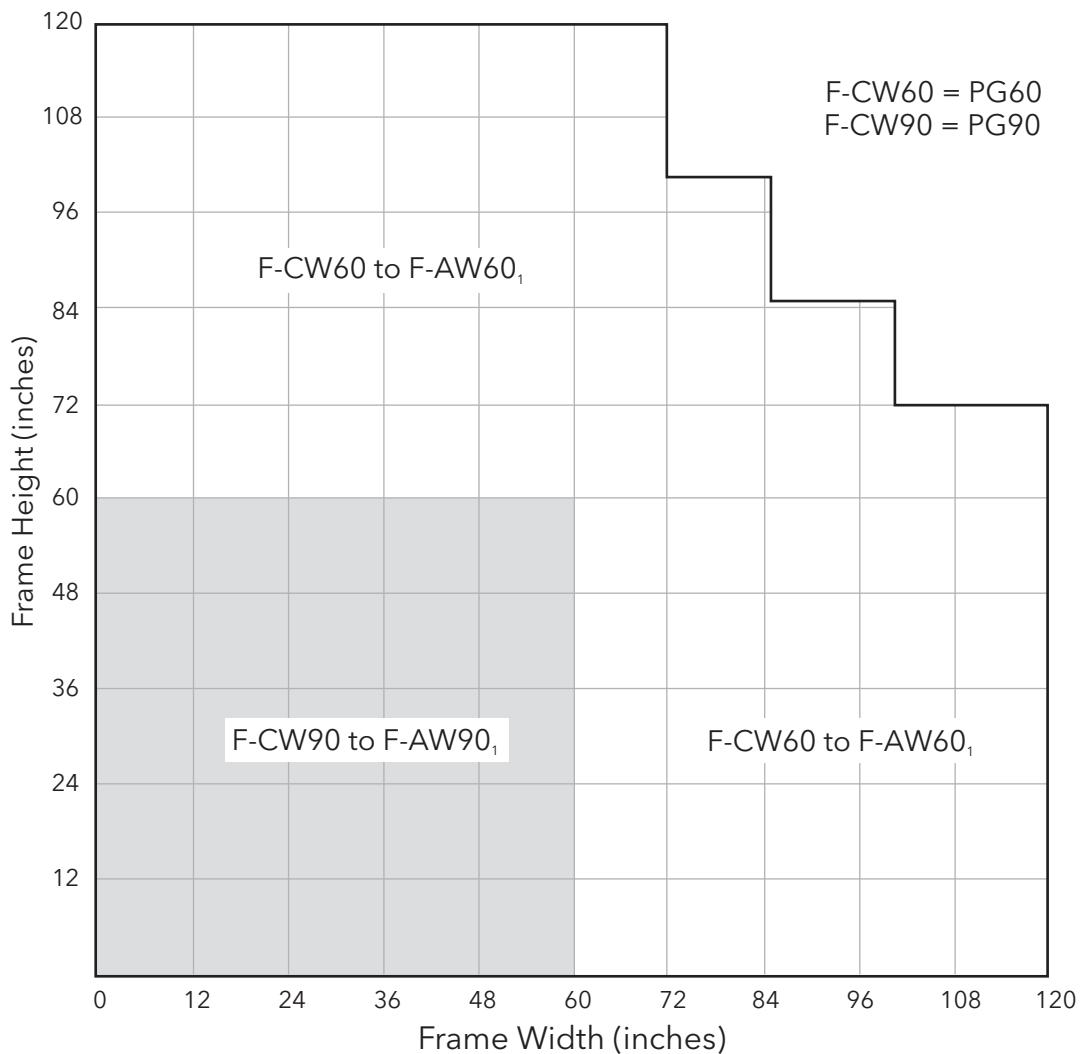
(1) AAMA/WDMA F-AW rating can be obtained with the EnduraClad Plus protective finish with 70% fluoropolymer resin in a multi-step finish system.



## Clad-Wood Fixed Frame Direct Set Windows

### Interior Glazed Standard Clip or Screw-Through Frame Install Advanced Performance

- The use of fixed frame direct set windows is limited by product performance rating, design pressure load chart, installation method, mullion strength and glass thickness or type. See mullion limitation and glass charts in the Combinations section at PellaADM.com.
- Fixed Frames are available up to a maximum frame area of 76 ft<sup>2</sup> (7.06 m<sup>2</sup>). Angled and Curved frames are measured as a rectangle.
- IMPORTANT:** Glass must meet requirements of the glass charts and comply with the load chart. This chart below shows the maximum performance class and grade of the frame only when glazed with the appropriate glass thickness.



(1) AAMA/WDMA F-AW rating can be obtained with the EnduraClad Plus protective finish with 70% fluoropolymer resin in a multi-step finish. AW rating is not applicable to impact product.



# Clad-Wood Fixed Frame Direct Set Windows

## Interior Glazed Detailed Product Description

### 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 extruded aluminum.
- Components are assembled with screws, staples, and concealed corner locks.
- Curved glass stops are segmented.
- Curved head assembly shall be mitered at end where joined to non- curved frame members, screwed and sealed.
- Curved head assembly consists of solid wood core blocks bonded to stabilized wood fiber with water-resistant glue. Two sheets are laminated with veneers at interior.
- Overall frame depth is 5" (127mm) for a wall depth of 3-11/16" (94mm).
- Optional factory-applied jamb extensions available.
- Optional factory-applied EnduraClad® exterior trim.
- Optional factory-installed Pella Steady Set Installation System (rectangle only).

### Glazing System<sup>1</sup>

- Quality float glass complying with ASTM C 1036.
- Custom and high altitude glazing available.
- Urethane-glazed [13/16"] [1"] dual-seal insulating glass [[annealed] [tempered] [[clear] [Advanced] [SunDefense™] [SunDefense+] [AdvancedComfort] [NaturalSun] [NaturalSun+] Low-E [with argon]] [[bronze] [gray] [green] [obscure] Advanced Low-E with argon].  
- or -
- Urethane-glazed [1-1/8"] [1-1/4"] [1-3/8"] triple-seal insulating glass [[annealed] [tempered]] [[Advanced] [SunDefense™] [NaturalSun] Low-E [with Argon]].  
- or -
- Impact-Resistant
  - Urethane-glazed 1" dual-seal impact-resistant insulating glass<sub>1</sub> [1" [SGP] [PVB]] [1-1/4" SGP]. [[tempered] [annealed]] Laminated exterior light is [[Advanced Low-E with Argon] [SunDefense Low-E] [clear] [bronze] [gray] [green]]. Clear tempered interior light.

### Exterior

- Extruded aluminum clad exteriors shall be finished with EnduraClad® protective finish, in a multi-step, baked-on finish.
  - Color is [standard] [feature] [custom]<sub>2</sub>  
- or -
- Extruded 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]<sub>2</sub>

### Interior

- [Unfinished, ready for site finishing] [factory primed with one coat acrylic latex] [factory prefinished [paint] [stain]<sub>2</sub>].

### Optional Products

#### Grilles<sup>5</sup>

- Integral Light Technology® grilles – Traditional Style Collection
  - Interior grilles are [5/8" putty profile] [7/8" [ogee] [putty] profile] [1-1/4" [ogee] [putty] profile] [2" [ogee] [putty] profile (traditional pattern only)] that are solid [pine] [mahogany] [douglas fir]. Interior surfaces are [unfinished, ready for site finishing] [factory primed] [pine: factory prefinished [paint]<sub>2</sub> [stain]<sub>2</sub> to match interior finish]. Curved grilles may have visible finger joints.
  - Exterior grilles are [5/8" putty profile] [7/8" [ogee] [putty] profile] [1-1/4" [ogee] [putty] profile] [2" [ogee] [putty] profile (traditional pattern only)] that are extruded aluminum, color matched to exterior cladding.
  - 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.
  - Grille pattern is [Traditional] [Prairie] [Top Row] [Cross] [Sunburst] [Starburst].
- or -
- Integral Light Technology® grilles – Contemporary Style Collection (rectangular and angled shapes only)
  - Interior grilles are [5/8"] [7/8"] [1-1/4"] [2"] square profile that are solid [pine] [mahogany] [douglas fir]. Interior surfaces are [unfinished, ready for site finishing] [factory primed] [pine: factory prefinished [paint] [stain]<sub>2</sub> to match interior finish].
  - Exterior grilles are [5/8"] [7/8"] [1-1/4"] [2"] square profile that are extruded aluminum, color matched to exterior cladding.
  - 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.
  - Grille pattern is [Traditional] [Prairie] [Top Row] [Cross].
- or -
- Simulated-Divided-Light grilles [with optional spacer]
  - Interior grilles are 7/8" regular profile that are solid pine. Curved grilles may have visible finger joints. Interior surfaces are [unfinished, ready for site finishing] [factory prefinished [paint] [stain]<sub>2</sub> to match interior finish].
  - Exterior grilles are 7/8" regular profile extruded aluminum, color matched to exterior cladding.
  - Grilles permanently bonded to the interior and exterior of glass with VHB acrylic adhesive tape and are aligned with the optional spacer between the panes of insulating glass.
  - Grille Pattern is [Traditional] [Prairie] [Top Row] [Cross] [Sunburst] [Starburst]
  - Available only on units glazed with Low-E insulated glass with Argon.
- or -
- Grilles-Between-the-Glass<sup>3</sup>
  - Insulating glass contains 3/4" contoured aluminum grilles permanently installed between two panes of glass.
  - Interior color is [White] [Black] [Tan<sub>4</sub>] [Brown<sub>4</sub>] [Putty<sub>4</sub>] [Ivory] [Brickstone] [Harvest] [Cordovan].
  - Exterior color<sub>6</sub> is [standard] [feature]<sub>2</sub>.
  - Grille pattern is [Traditional] [Prairie] [Cross] [Top Row] [Sunburst].

(1) Insulating glass with Argon is Low-E coated (except high altitude). All other insulating glass (including high altitude Low-E) is Air-filled.

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

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

(4) Tan, Brown and Putty GBG colors are available in single-tone only (Brown/Brown, Tan/Tan or Putty/Putty), other interior/exterior color restrictions may apply.

(5) Certain grille types and patterns may have restrictions depending on unit size and shape, contact your local Pella sales representative for details.

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



# Clad-Wood Fixed Frame Direct Set Windows

## Exterior Glazed Detailed Product Description

Consult with your local Pella sales representative for current availability, limitations may apply.

### 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.

### Glazing System<sub>1</sub>

- Quality float glass complying with ASTM C 1036.
- Custom and high altitude glazing available.
- Urethane-glazed clear single-light with removable aluminum stops.
  - or –
- Urethane-glazed dual-seal insulating glass [[annealed] [tempered]] [[[clear] [[Advanced] [SunDefense™] [AdvancedComfort] [NaturalSun] Low-E [with Argon]] [[bronze] [gray] [green] Advanced Low-E with Argon] with removable aluminum stops.

### Exterior

- Aluminum clad exteriors shall be finished with EnduraClad® protective finish, in a multi-step, baked-on finish.
  - Color is [standard] [feature] [custom]<sub>2</sub>.
  - 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]<sub>2</sub>.

### Interior

- [Unfinished, ready for site finishing] [factory primed with one coat acrylic latex] [factory prefinished [paint] [stain]<sub>2</sub>].

### Optional Products

#### Grilles

- Grilles-Between-the-Glass
  - Insulating glass contains 3/4" contoured aluminum grilles permanently installed between two panes of glass.
  - Patterns are [Traditional] [Prairie] [Cross] [Top Row] [Custom – Equally Divided].
  - Interior color is [White] [Black] [Tan<sub>3</sub>] [Brown<sub>3</sub>] [Putty<sub>3</sub>] [Ivory] [Brickstone] [Harvest] [Cordovan].
  - Exterior color<sub>4</sub> is [standard<sub>2</sub>].

(1) Insulating glass with Argon is Low-E coated (except high altitude). All other insulating glass (including high altitude Low-E) is Air-filled.

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

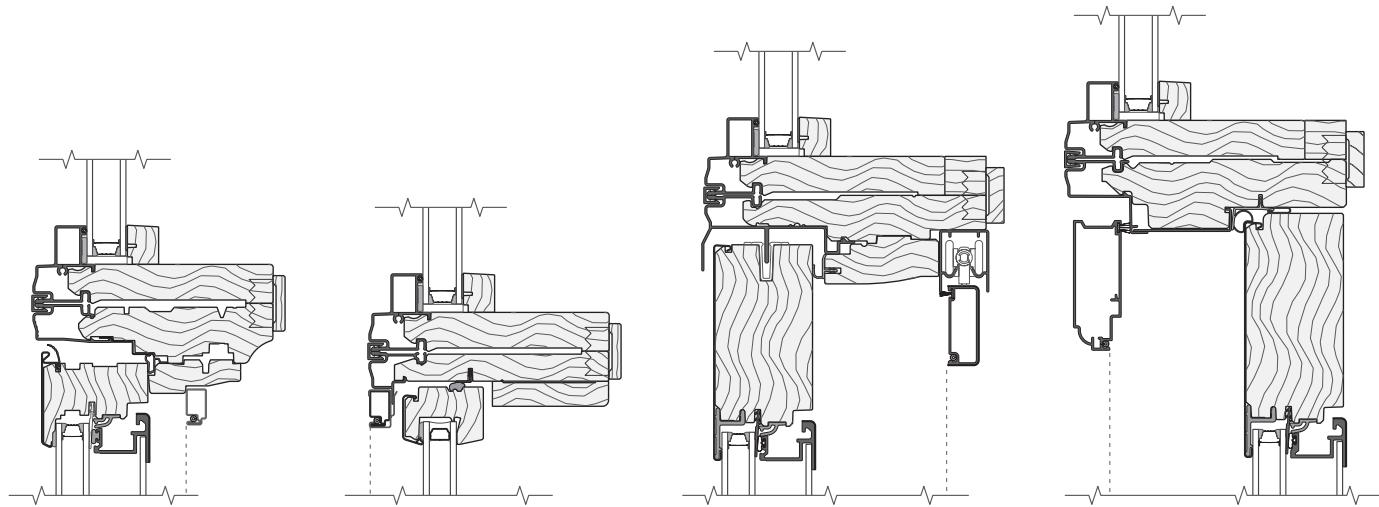
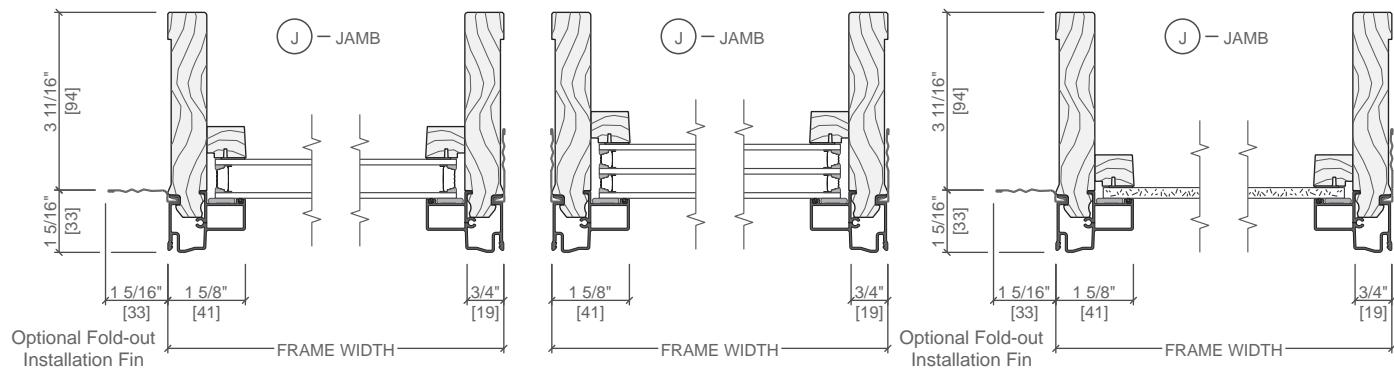
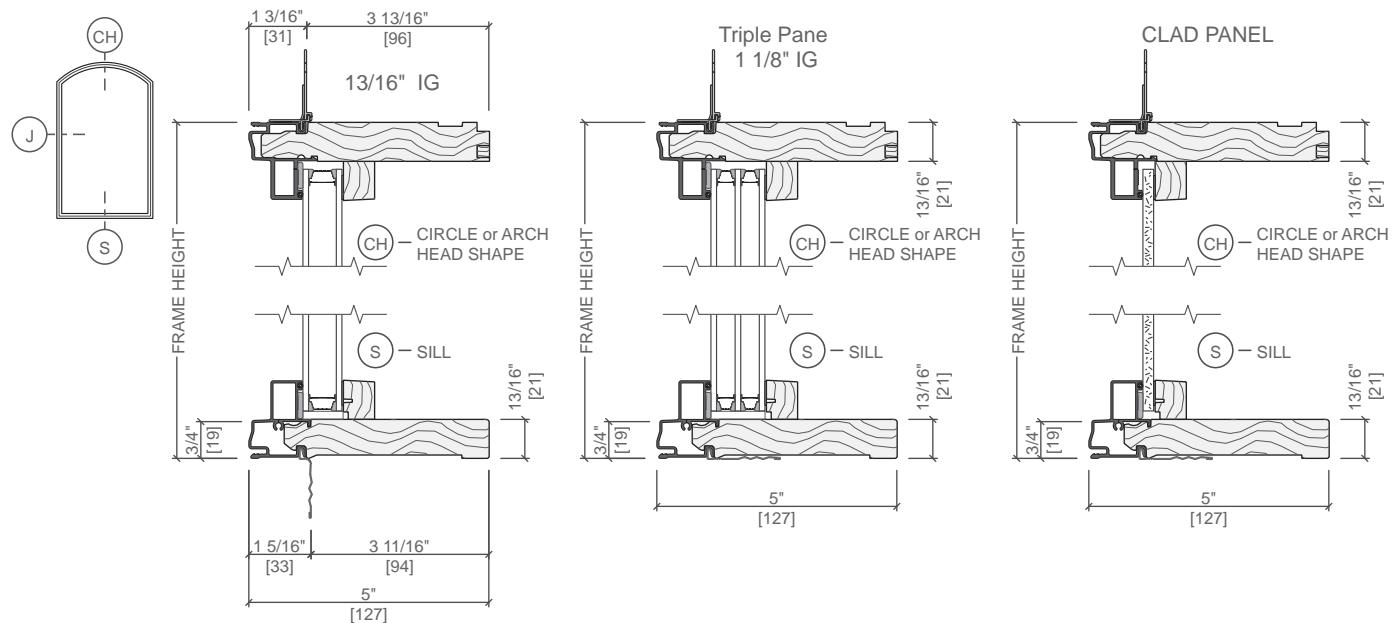
(3) Tan, Brown and Putty GBG colors are available in single-tone only (Brown/Brown, Tan/Tan or Putty/Putty) (Putty mono), other interior/exterior color restrictions may apply.

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



## Clad-Wood Fixed Frame Direct Set Windows

### Unit Sections - Interior Glazed Curved Shapes



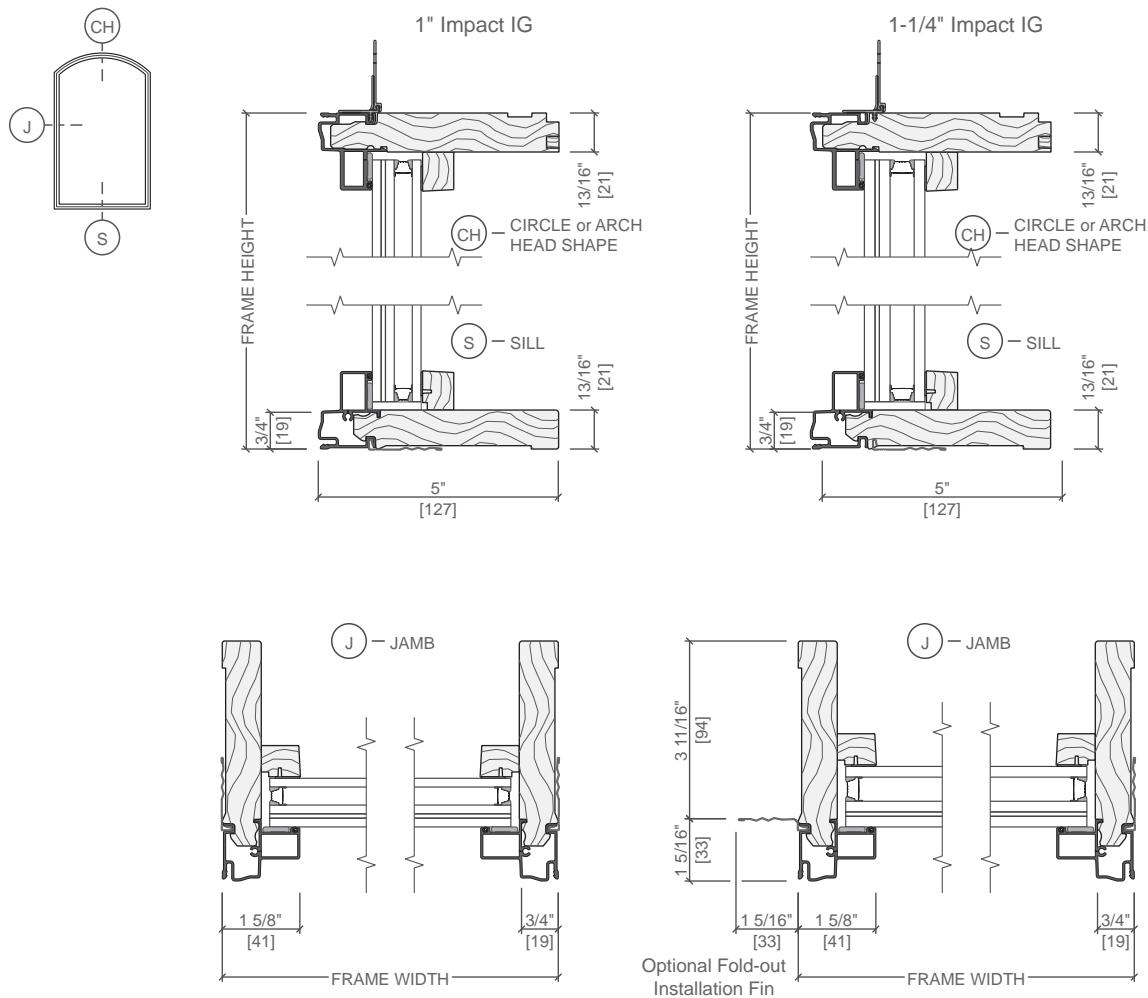
Scale 3" = 1' 0"

All dimensions are approximate.



## Clad-Wood Fixed Frame Direct Set Windows

### Unit Sections - Interior Glazed Curved Shapes w/Impact-Resistant Glass



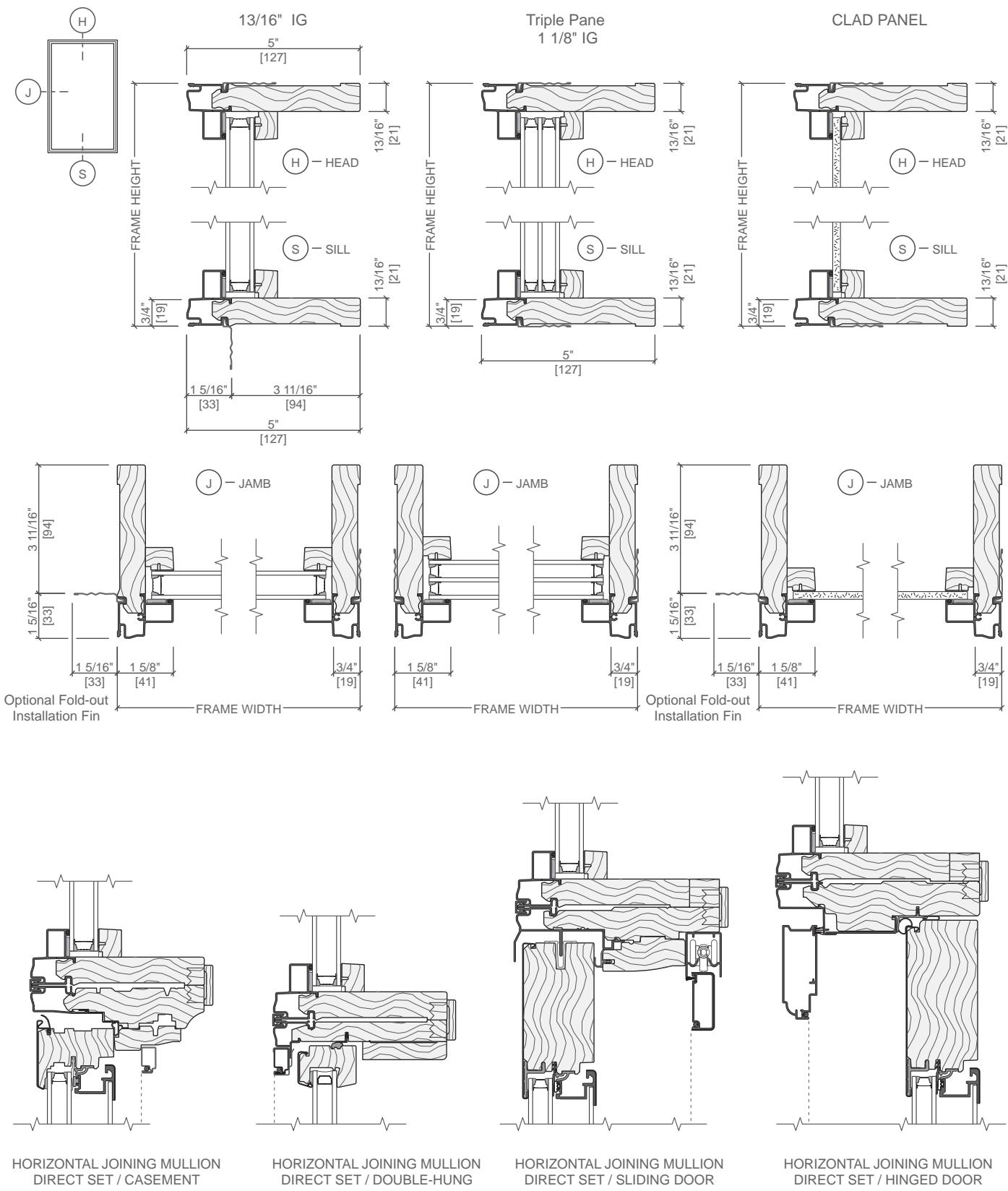
Scale 3" = 1' 0"

All dimensions are approximate.



## Clad-Wood Fixed Frame Direct Set Windows

### Unit Sections - Interior Glazed Rectangular and Angled Shapes



Scale 3" = 1' 0"

All dimensions are approximate.

See [www.PellaADM.com](http://www.PellaADM.com) for mullion limitations and reinforcing requirements.

Rev. 08/30/21

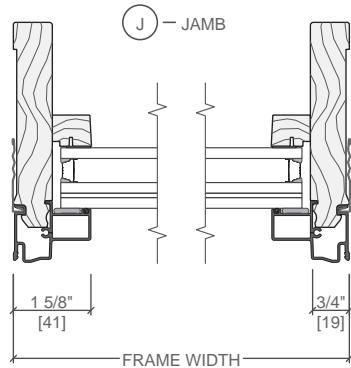
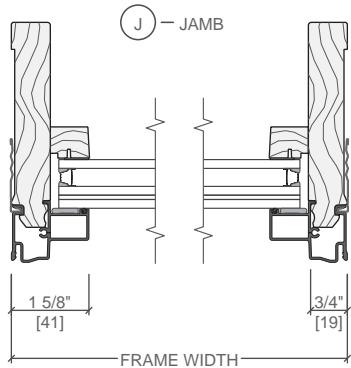
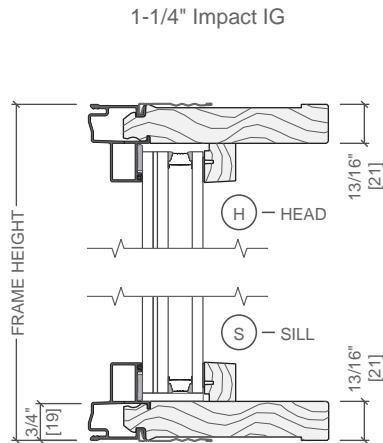
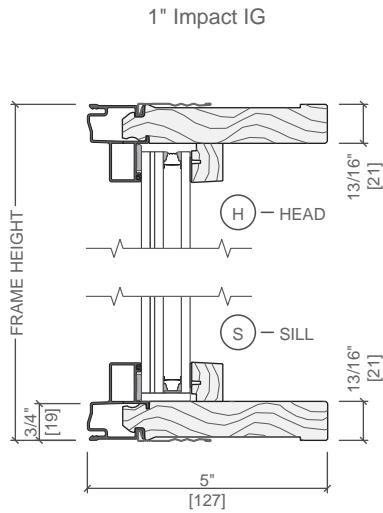
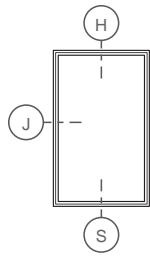
Pella 2025 Architectural Design Manual | Division 08 – Openings | Windows and Doors | [www.Pella.com](http://www.Pella.com)

W-FW-27



## Clad-Wood Fixed Frame Direct Set Windows

### Unit Sections - Interior Glazed Rectangular and Angled Shapes w/Impact-Resistant Glass



Scale 3" = 1' 0"

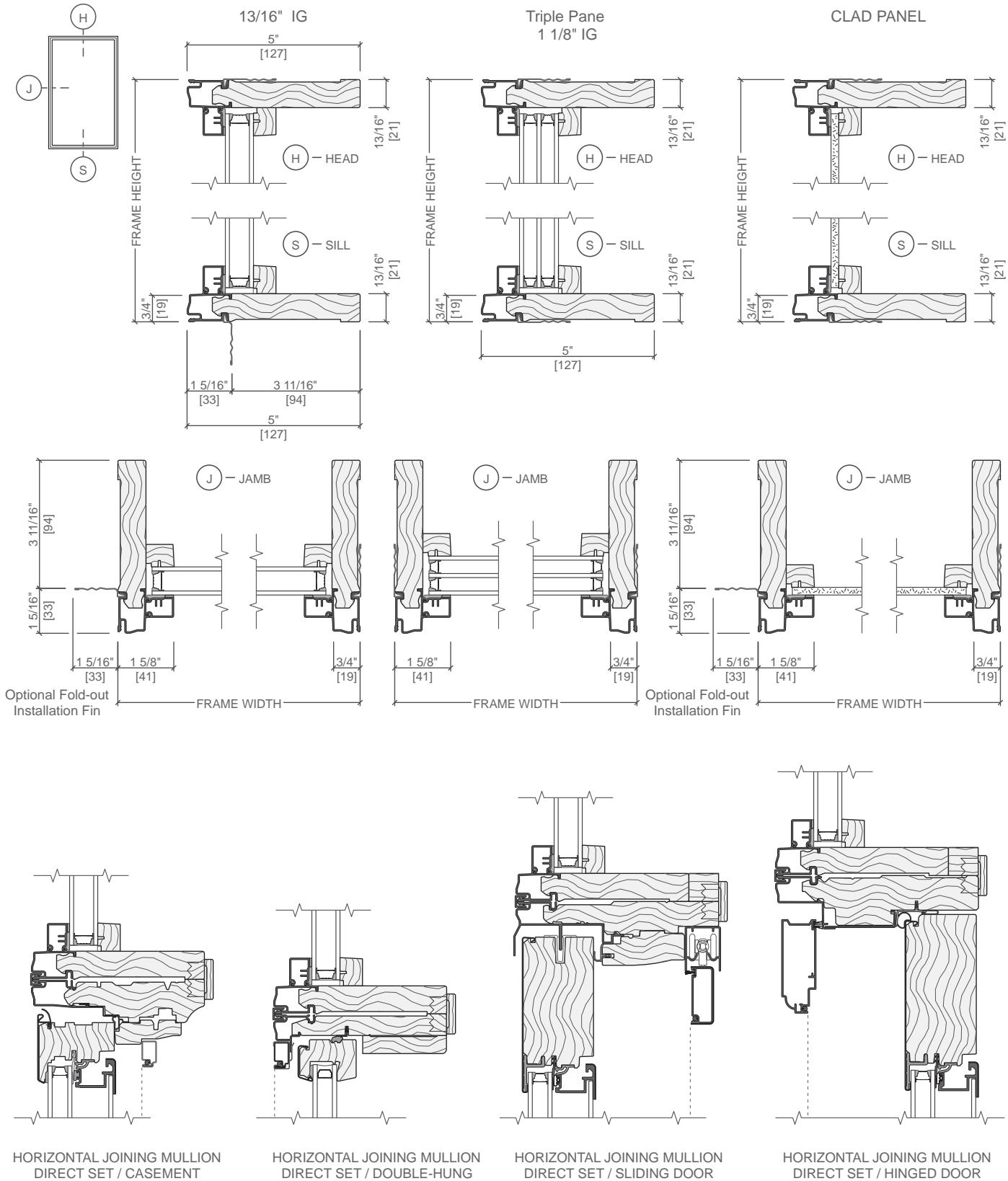
All dimensions are approximate.



## Clad-Wood Fixed Frame Direct Set Windows

### Unit Sections - Exterior Glazed Rectangular

Consult with your local Pella sales representative for current availability, limitations may apply.



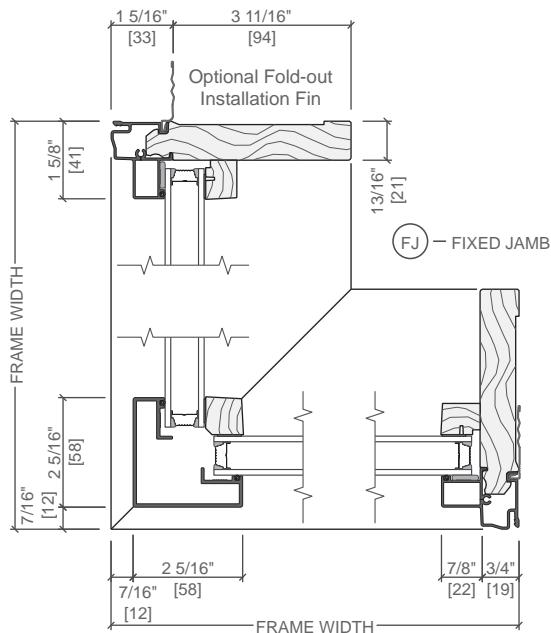
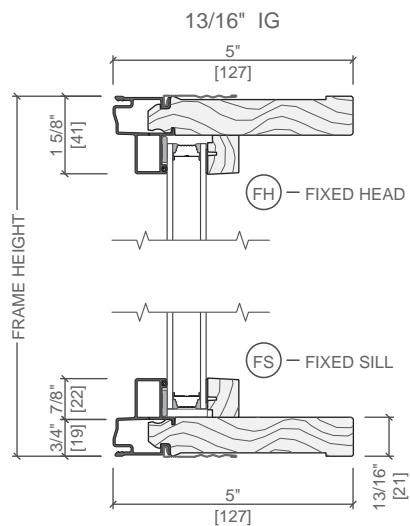
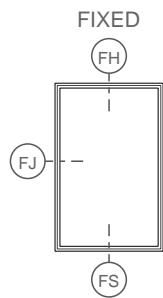
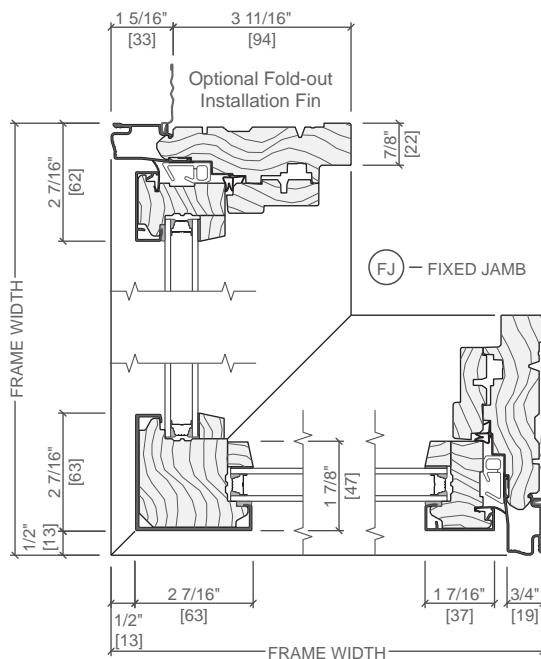
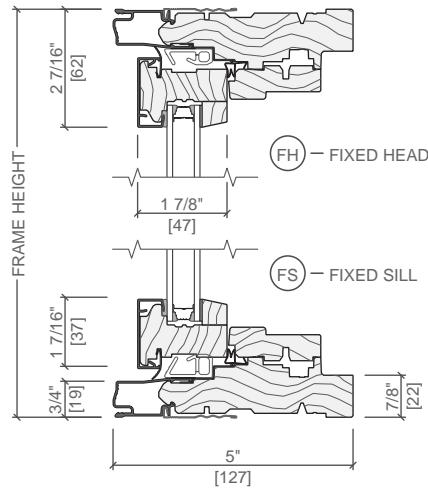
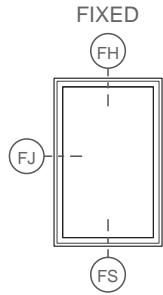
Scale 3" = 1' 0"

All dimensions are approximate.



## Clad-Wood Fixed Frame Direct Set Windows

### Unit Sections - Mitered Corner



Reserve Contemporary fixed casement mitered corner shown for comparison purposes. See Casement section or contact your local Pella sales representative for product details  
Scale 3" = 1' 0"

All dimensions are approximate.



## Product Selection Guide

|   |         |
|---|---------|
| Size and Performance Data.....          | W-MH-2  |
| Sound Transmission Class.....           | W-MH-2  |
| Features and Options.....               | W-MH-3  |
| Glazing Performance.....                | W-MH-4  |
| Combination Assemblies.....             | W-MH-8  |
| Grille Types                            |         |
| Grille Profiles.....                    | W-MH-10 |
| Grille Patterns .....                   | W-MH-11 |
| Design Data and Performance Class ..... | W-MH-12 |
| Custom Shapes .....                     | W-MH-13 |
| Detailed Product Descriptions           |         |
| Clad.....                               | W-MH-14 |
| Wood .....                              | W-MH-15 |
| Unit Sections                           |         |
| Clad.....                               | W-MH-16 |
| Wood .....                              | W-MH-21 |

### 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:

#### Test Reports:

[https://media.pella.com/professional/adm/CertificationReports/Test\\_Reports\\_AS-Clad.pdf](https://media.pella.com/professional/adm/CertificationReports/Test_Reports_AS-Clad.pdf)

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

[https://media.pella.com/professional/adm/Wood-CSI\\_Specs/08556.rtf](https://media.pella.com/professional/adm/Wood-CSI_Specs/08556.rtf)

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

[https://media.pella.com/professional/adm/Wood-CSI\\_Specs/Masterspec/085200\\_f1.doc](https://media.pella.com/professional/adm/Wood-CSI_Specs/Masterspec/085200_f1.doc)

#### Detailed Product Description (readable using Microsoft Word or other text editing application):

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

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

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

[https://media.pella.com/professional/adm/Clad-Wood/AS-RES-M6DH-Detail\\_D.dwg](https://media.pella.com/professional/adm/Clad-Wood/AS-RES-M6DH-Detail_D.dwg)

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

[https://media.pella.com/professional/adm/RevitFiles/PR-Revit/Window-Monumental\\_Hung-Pella-Reserve-Traditional.zip](https://media.pella.com/professional/adm/RevitFiles/PR-Revit/Window-Monumental_Hung-Pella-Reserve-Traditional.zip)

#### Combination Recommendations:

[https://media.pella.com/professional/adm/Clad-Wood/D\\_Combinations.pdf](https://media.pella.com/professional/adm/Clad-Wood/D_Combinations.pdf)

#### Installation Details:

[https://media.pella.com/professional/adm/Clad-Wood/F\\_InstallationDetails.pdf](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](https://media.pella.com/professional/adm/Clad-Wood/Pella-ImpactResistant_DoubleHung.pdf)

---

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.

Microsoft and Microsoft Word are registered trademarks of Microsoft Corp.



# Pella® Reserve™ Traditional Monumental-Hung Window

## Size and Performance Data

|   | Clad                                | Wood                                |
|---|-------------------------------------|-------------------------------------|
| <b>Sizes</b>  |                                     |                                     |
| Special sizes only—<br>Built-to-order in 1/8" increments<br>(Includes transoms, egress sizes, arch heads, contemporary sash split, cottage sash split, variable sash split) | •                                   | •                                   |
| <b>Performance<sup>1</sup></b>  |                                     |                                     |
| Meets or Exceeds AAMA/WDMA Ratings  | H-LC25 - CW50<br>Hallmark Certified | H-LC25 - CW50<br>Hallmark Certified |
| Air Infiltration<br>(cfm/ft <sup>2</sup> of frame @ 1.57 psf wind pressure)   | 0.11                                | 0.11                                |
| Water Resistance  | 3.76 - 7.52 psf                     | 3.76 - 7.52 psf                     |
| Design Pressure   | 25 - 50 psf                         | 25 - 50 psf                         |
| Structural Test Pressure  | 37.5 - 75 psf                       | 37.5 - 75 psf                       |
| <b>Other Performance Criteria</b>   |                                     |                                     |
| Forced Entry Resistance Level<br>(Minimum Security Grade) <sup>2</sup>  | Grade 10                            | Grade 10                            |
| Operating Force (lb) Maintain Motion<br>(of Hallmark tested size and glazing) <sup>3</sup>  | 45                                  | 45                                  |
| CW  |                                     |                                     |
| LC  | 40                                  | 40                                  |

| Sound Transmission Class / Outdoor-Indoor Transmission Class |                                   |                              |                             |                             |                         |               |                |
|--|-----------------------------------|------------------------------|-----------------------------|-----------------------------|-------------------------|---------------|----------------|
| Product  | Frame Size<br>Tested <sup>4</sup> | Glazing System               |                             |                             |                         | STC<br>Rating | OITC<br>Rating |
|  |                                   | Overall Glazing<br>Thickness | Exterior<br>Glass Thickness | Interior<br>Glass Thickness | Third Pane<br>Thickness |               |                |
| <b>WITHOUT GRILLES</b>                                       |                                   |                              |                             |                             |                         |               |                |
| Clad Monumental<br>Single- and<br>Double-Hung                | 48" x 60"                         | 13/16"                       | 3mm                         | 3mm                         | -                       | 29            | 24             |
|  | 48" x 60"                         | 1-1/16"                      | 2.5mm                       | 3mm                         | 2.5mm                   | 29            | 24             |
|  | 47" x 59"                         | 13/16"                       | 5mm                         | 3mm                         | -                       | 32            | 27             |
|  | 48" x 60"                         | 13/16"                       | 3mm                         | 7.6mm PVB                   | -                       | 33            | 29             |
|  | 48" x 60"                         | 13/16"                       | 3mm                         | 6mm laminated               | -                       | 33            | 28             |
| <b>WITHOUT GRILLES</b>                                       |                                   |                              |                             |                             |                         |               |                |
| Wood Monumental<br>Single- and<br>Double-Hung                | 48" x 60"                         | 13/16"                       | 3mm                         | 3mm                         | -                       | 32            | 28             |

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

(3) Glazing configurations with sash weights over 121 lbs will result in operation forces over these values. Therefore, these units do not meet the operational force requirements for CW rated (45 lbs) or LC rated (40 lbs) hung windows.

(4) 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.



## Pella® Reserve™ Traditional Monumental-Hung Window

### Features and Options

| Standard                                   | Options / Upgrades  |
|--|---|
| <b>Glazing</b>                             |   |
| <b>Glazing Type</b>                        |   |
| Dual-Pane Insulating Glass                 | Triple-pane Insulating Glass  |
| <b>Insulated Glass Options/Low-E Types</b> |   |
|  | SunDefense™ Low-E   |
|  | SunDefense+ Low-E   |
| Advanced Low-E                             | AdvancedComfort Low-E   |
|  | NaturalSun Low-E  |
|  | NaturalSun+ Low-E   |
|  | Clear (no Low-E coating)  |
| <b>Additional Glass Options</b>            |   |
|  | Tempered Glass  |
|  | Obscure Glass <sup>1</sup>  |
|  | Tinted Glass (Bronze, Gray and Green)   |
| Annealed Glass                             | Noise reduction glass (STC 3mm/5mm or 4mm/6mm combination)  |
|  | Noise reduction laminated glass (non-impact)  |
|  | Reflective Bronze, Reflective Grey  |
|  | Spandrel  |
| <b>Gas Fill/High Altitude</b>              |   |
| Argon                                      | High altitude   |
| <b>Wood types</b>                          |   |
| Pine                                       | Mahogany (clad and wood), Douglas Fir (clad only)   |
| <b>Exterior<sup>1</sup></b>                |   |
|  | EnduraClad Plus protective finish   |
| EnduraClad® protective finish              | Factory Primed Pine wood exterior   |
|  | Unfinished Mahogany wood exterior   |
| <b>Cladding Colors<sup>1</sup></b>         |   |
| Standard colors                            | Feature Colors, Custom Colors   |
| <b>Interior</b>                            |   |
| Unfinished Wood                            | Factory primed <sup>1</sup> , Factory prefinished paint <sup>1</sup> , Factory prefinished stain <sup>1</sup>           |
| <b>Hardware</b>                            |   |
| <b>Hardware Finish</b>                     |   |
| Champagne, White, Brown or<br>Matte Black  | Satin Brass, Satin Nickel, Oil-Rubbed Bronze, Distressed Bronze, Distressed Nickel                                      |
| <b>Sash Locks</b>                          |   |
| Cam-action lock                            | Simulated lock, Air conditioner lock, Historical spoon-style lock (surface mounted), Head, sill, or stool mounted locks |
| <b>Tilt-Wash Cleaning</b>                  |   |
| Tilt to interior on both sashes            | —   |
| <b>Other Hardware</b>                      |   |
| —  | Sash lifts  |
| <b>Grilles</b>                             |   |
| <b>Integral Light Technology® Grilles</b>  |   |
| —  | Traditional, Prairie, Top Row, Cross, New England, Victorian, Diamond, Custom   |
| <b>Grilles-Between-the-Glass</b>           |   |
| —  | Traditional, Prairie, Top Row <sup>1</sup> , Cross or Custom-Equally Divided  |
| <b>Screens<sup>2</sup></b>                 |   |
| —  | Full-Height or Half-Height InView™ screens, available with extruded aluminum screen frame                               |

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

(2) Size/Weight restrictions apply, see Design Data pages for details.



# Pella® Reserve™ Traditional Monumental-Hung Window

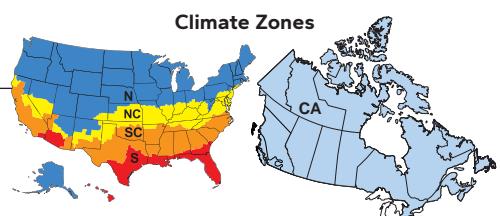
## Glazing Performance - Total Unit

| Glazing Thickness                       | Type of Glazing                | NFRC Certified Product # | Glass (mm) |      | Gap Fill | Performance Values <sup>1</sup> |      |      |    | Shaded Areas Meet ENERGY STAR® Performance Criteria in Zones Shown |    |                     |   |    |  |
|---|--------------------------------|--------------------------|------------|------|----------|---------------------------------|------|------|----|--|----|---------------------|---|----|--|
|   |                                |                          | Ext.       | Int. |          | U-Factor                        | SHGC | VLT  | CR | U. S.  |    | Canada <sup>2</sup> |   |    |  |
|   |                                |                          |            |      |          |                                 |      |      |    | N  | NC | SC                  | S | CA |  |
| <b>Clad Exterior, Dual-Pane Glazing</b> |                                |                          |            |      |          |                                 |      |      |    |  |    |                     |   |    |  |
| 13/16"                                  | Clear IG with 3mm glass        | PEL-N-235-02441-00001    | 3          | 3    | Air      | 0.44                            | 0.54 | 0.56 | 44 |  |    |                     |   |    |  |
|   | with grilles-between-the-glass | PEL-N-235-02442-00001    |            |      |          | 0.44                            | 0.48 | 0.50 | 44 |  |    |                     |   |    |  |
|   | with integral grilles          | PEL-N-235-02443-00001    |            |      |          | 0.44                            | 0.48 | 0.50 | 44 |  |    |                     |   |    |  |
| 13/16"                                  | Advanced Low-E IG              | PEL-N-235-02469-00001    | 3          | 3    | Argon    | 0.28                            | 0.25 | 0.48 | 59 |  |    |                     |   |    |  |
|   | with grilles-between-the-glass | PEL-N-235-02470-00001    |            |      |          | 0.28                            | 0.23 | 0.42 | 59 |  |    | SC                  | S |    |  |
|   | with integral grilles          | PEL-N-235-02471-00001    |            |      |          | 0.29                            | 0.23 | 0.42 | 59 |  |    |                     | S |    |  |
| 13/16"                                  | SunDefense™ Low-E IG           | PEL-N-235-02565-00001    | 3          | 3    | Argon    | 0.28                            | 0.19 | 0.44 | 60 |  |    | SC                  | S |    |  |
|   | with grilles-between-the-glass | PEL-N-235-02566-00001    |            |      |          | 0.28                            | 0.17 | 0.39 | 60 |  |    | SC                  | S |    |  |
|   | with integral grilles          | PEL-N-235-02567-00001    |            |      |          | 0.29                            | 0.17 | 0.39 | 60 |  |    |                     | S |    |  |
| 13/16"                                  | SunDefense+ Low-E IG           | PEL-N-235-04437-00001    | 3          | 3    | Argon    | 0.24                            | 0.19 | 0.43 | 49 |  | NC | SC                  | S |    |  |
|   | with grilles-between-the-glass | PEL-N-235-04438-00001    |            |      |          | 0.24                            | 0.17 | 0.38 | 49 |  | NC | SC                  | S |    |  |
|   | with integral grilles          | PEL-N-235-04439-00001    |            |      |          | 0.25                            | 0.17 | 0.38 | 49 |  | NC | SC                  | S |    |  |
| 13/16"                                  | AdvancedComfort Low-E IG       | PEL-N-235-02517-00001    | 3          | 3    | Argon    | 0.25                            | 0.25 | 0.47 | 48 |  | NC |                     |   |    |  |
|   | with grilles-between-the-glass | PEL-N-235-02518-00001    |            |      |          | 0.25                            | 0.22 | 0.41 | 48 |  | NC | SC                  | S |    |  |
|   | with integral grilles          | PEL-N-235-02519-00001    |            |      |          | 0.25                            | 0.22 | 0.41 | 48 |  | NC | SC                  | S |    |  |
| 13/16"                                  | NaturalSun Low-E IG            | PEL-N-235-02613-00001    | 3          | 3    | Argon    | 0.29                            | 0.47 | 0.54 | 59 |  |    |                     |   |    |  |
|   | with grilles-between-the-glass | PEL-N-235-02614-00001    |            |      |          | 0.29                            | 0.42 | 0.48 | 59 |  |    |                     |   |    |  |
|   | with integral grilles          | PEL-N-235-02615-00001    |            |      |          | 0.30                            | 0.42 | 0.48 | 59 |  |    |                     |   |    |  |
| 13/16"                                  | NaturalSun+ Low-E IG           | PEL-N-235-04389-00001    | 3          | 3    | Argon    | 0.25                            | 0.43 | 0.53 | 47 | N  |    |                     |   |    |  |
|   | with grilles-between-the-glass | PEL-N-235-04390-00001    |            |      |          | 0.25                            | 0.38 | 0.47 | 47 |  | NC |                     |   |    |  |
|   | with integral grilles          | PEL-N-235-04391-00001    |            |      |          | 0.26                            | 0.38 | 0.47 | 47 |  |    |                     |   |    |  |
| <b>Tinted Glazing</b>                   |                                |                          |            |      |          |                                 |      |      |    |  |    |                     |   |    |  |
| 13/16"                                  | Bronze Advanced Low-E IG       | PEL-N-235-02661-00001    | 5          | 3    | Argon    | 0.28                            | 0.23 | 0.31 | 59 |  |    | SC                  | S |    |  |
|   | with grilles-between-the-glass | PEL-N-235-02662-00001    |            |      |          | 0.28                            | 0.20 | 0.27 | 59 |  |    | SC                  | S |    |  |
|   | with integral grilles          | PEL-N-235-02663-00001    |            |      |          | 0.29                            | 0.20 | 0.27 | 59 |  |    | S                   |   |    |  |
| 13/16"                                  | Gray Advanced Low-E IG         | PEL-N-235-02677-00001    | 5          | 3    | Argon    | 0.28                            | 0.21 | 0.27 | 59 |  |    | SC                  | S |    |  |
|   | with grilles-between-the-glass | PEL-N-235-02678-00001    |            |      |          | 0.28                            | 0.19 | 0.24 | 59 |  |    | SC                  | S |    |  |
|   | with integral grilles          | PEL-N-235-02679-00001    |            |      |          | 0.29                            | 0.19 | 0.24 | 59 |  |    | S                   |   |    |  |
| 13/16"                                  | Green Advanced Low-E IG        | PEL-N-235-02693-00001    | 5          | 3    | Argon    | 0.28                            | 0.26 | 0.42 | 59 |  |    |                     |   |    |  |
|   | with grilles-between-the-glass | PEL-N-235-02694-00001    |            |      |          | 0.28                            | 0.23 | 0.37 | 59 |  |    | SC                  | S |    |  |
|   | with integral grilles          | PEL-N-235-02695-00001    |            |      |          | 0.29                            | 0.23 | 0.37 | 59 |  |    | S                   |   |    |  |
| <b>High Altitude Glazing</b>            |                                |                          |            |      |          |                                 |      |      |    |  |    |                     |   |    |  |
| 13/16"                                  | Advanced Low-E IG              | PEL-N-235-02465-00001    | 3          | 3    | Air      | 0.31                            | 0.26 | 0.48 | 56 |  |    |                     |   |    |  |
|   | with grilles-between-the-glass | PEL-N-235-02466-00001    |            |      |          | 0.31                            | 0.23 | 0.42 | 56 |  |    | S                   |   |    |  |
|   | with integral grilles          | PEL-N-235-02467-00001    |            |      |          | 0.32                            | 0.23 | 0.42 | 56 |  |    | S                   |   |    |  |
| 13/16"                                  | SunDefense™ Low-E IG           | PEL-N-235-02561-00001    | 3          | 3    | Air      | 0.31                            | 0.19 | 0.44 | 56 |  |    |                     | S |    |  |
|   | with grilles-between-the-glass | PEL-N-235-02562-00001    |            |      |          | 0.31                            | 0.17 | 0.39 | 56 |  |    | S                   |   |    |  |
|   | with integral grilles          | PEL-N-235-02563-00001    |            |      |          | 0.32                            | 0.17 | 0.39 | 56 |  |    | S                   |   |    |  |
| 13/16"                                  | SunDefense+ Low-E IG           | PEL-N-235-04433-00001    | 3          | 3    | Air      | 0.27                            | 0.19 | 0.43 | 45 |  |    | SC                  | S |    |  |
|   | with grilles-between-the-glass | PEL-N-235-04434-00001    |            |      |          | 0.27                            | 0.17 | 0.38 | 45 |  |    | SC                  | S |    |  |
|   | with integral grilles          | PEL-N-235-04435-00001    |            |      |          | 0.27                            | 0.17 | 0.38 | 45 |  |    | SC                  | S |    |  |
| 13/16"                                  | AdvancedComfort Low-E IG       | PEL-N-235-02513-00001    | 3          | 3    | Air      | 0.27                            | 0.25 | 0.47 | 44 |  |    |                     |   |    |  |
|   | with grilles-between-the-glass | PEL-N-235-02514-00001    |            |      |          | 0.27                            | 0.23 | 0.41 | 44 |  |    | SC                  | S |    |  |
|   | with integral grilles          | PEL-N-235-02515-00001    |            |      |          | 0.28                            | 0.23 | 0.41 | 44 |  |    | SC                  | S |    |  |
| 13/16"                                  | NaturalSun Low-E IG            | PEL-N-235-02609-00001    | 3          | 3    | Air      | 0.32                            | 0.47 | 0.54 | 55 |  |    |                     |   |    |  |
|   | with grilles-between-the-glass | PEL-N-235-02610-00001    |            |      |          | 0.32                            | 0.42 | 0.48 | 55 |  |    |                     |   |    |  |
|   | with integral grilles          | PEL-N-235-02611-00001    |            |      |          | 0.33                            | 0.42 | 0.48 | 55 |  |    |                     |   |    |  |
| 13/16"                                  | NaturalSun+ Low-E IG           | PEL-N-235-04385-00001    | 3          | 3    | Air      | 0.27                            | 0.43 | 0.53 | 38 |  |    |                     |   |    |  |
|   | with grilles-between-the-glass | PEL-N-235-04386-00001    |            |      |          | 0.27                            | 0.38 | 0.47 | 38 |  |    |                     |   |    |  |
|   | with integral grilles          | PEL-N-235-04387-00001    |            |      |          | 0.28                            | 0.38 | 0.47 | 38 |  |    |                     |   |    |  |

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.

Non Rectangular Unit thermal values will vary slightly.

Visit [www.energystar.gov](http://www.energystar.gov) for Energy Star guidelines.



# Pella® Reserve™ Traditional Monumental-Hung Window

## Glazing Performance - Total Unit

| Glazing Thickness                  | Type of Glazing                | NFRC Certified Product # | Glass (mm) |      |      | Gap Fill | Performance Values <sup>1</sup> |      |      |    | Shaded Areas Meet ENERGY STAR® Performance Criteria in Zones Shown |    |    |                     |    |    |
|------------------------------------|--------------------------------|--------------------------|------------|------|------|----------|---------------------------------|------|------|----|--|----|----|---------------------|----|----|
|                                    |                                |                          | Ext.       | Mid. | Int. |          | U-Factor                        | SHGC | VLT  | CR | U. S.  |    |    | Canada <sup>2</sup> |    |    |
| Clad Exterior, Triple-Pane Glazing |                                |                          |            |      |      |          |                                 |      |      |    |  |    |    |                     |    |    |
| 1-1/16"                            | Advanced Low-E IG              | PEL-N-235-02925-00001    | 2.5        | 3    | 2.5  | Argon    | 0.21                            | 0.23 | 0.43 | 72 | N  | NC | SC | S                   | 27 | CA |
|                                    | with grilles-between-the-glass | PEL-N-235-02926-00001    |            |      |      |          | 0.21                            | 0.21 | 0.38 | 72 | N  | NC | SC | S                   | 25 | CA |
|                                    | with integral grilles          | PEL-N-235-02927-00001    |            |      |      |          | 0.21                            | 0.21 | 0.38 | 72 | N  | NC | SC | S                   | 25 | CA |
| 1-1/16"                            | SunDefense™ Low-E IG           | PEL-N-235-02961-00001    | 2.5        | 3    | 2.5  | Argon    | 0.20                            | 0.17 | 0.39 | 72 | N  | NC | SC | S                   | 24 | CA |
|                                    | with grilles-between-the-glass | PEL-N-235-02962-00001    |            |      |      |          | 0.21                            | 0.16 | 0.35 | 72 |  | NC | SC | S                   |    |    |
|                                    | with integral grilles          | PEL-N-235-02963-00001    |            |      |      |          | 0.21                            | 0.16 | 0.35 | 72 |  | NC | SC | S                   |    |    |
| 1-1/16"                            | NaturalSun Low-E IG            | PEL-N-235-02889-00001    | 2.5        | 3    | 2.5  | Argon    | 0.21                            | 0.39 | 0.48 | 71 | N  | NC |    |                     | 36 | CA |
|                                    | with grilles-between-the-glass | PEL-N-235-02890-00001    |            |      |      |          | 0.21                            | 0.35 | 0.43 | 71 | N  | NC |    |                     | 34 | CA |
|                                    | with integral grilles          | PEL-N-235-02891-00001    |            |      |      |          | 0.21                            | 0.35 | 0.43 | 71 | N  | NC |    |                     | 34 | CA |
| High Altitude Glazing              |                                |                          |            |      |      |          |                                 |      |      |    |  |    |    |                     |    |    |
| 1-1/16"                            | Advanced Low-E IG              | PEL-N-235-02921-00001    | 2.5        | 3    | 2.5  | Air      | 0.23                            | 0.23 | 0.43 | 68 |  | NC | SC | S                   |    |    |
|                                    | with grilles-between-the-glass | PEL-N-235-02922-00001    |            |      |      |          | 0.24                            | 0.21 | 0.38 | 68 |  | NC | SC | S                   |    |    |
|                                    | with integral grilles          | PEL-N-235-02923-00001    |            |      |      |          | 0.24                            | 0.21 | 0.38 | 68 |  | NC | SC | S                   |    |    |
| 1-1/16"                            | SunDefense Low-E IG            | PEL-N-235-02957-00001    | 2.5        | 3    | 2.5  | Air      | 0.23                            | 0.18 | 0.39 | 68 |  | NC | SC | S                   |    |    |
|                                    | with grilles-between-the-glass | PEL-N-235-02958-00001    |            |      |      |          | 0.24                            | 0.16 | 0.35 | 68 |  | NC | SC | S                   |    |    |
|                                    | with integral grilles          | PEL-N-235-02959-00001    |            |      |      |          | 0.23                            | 0.16 | 0.35 | 68 |  | NC | SC | S                   |    |    |
| 1-1/16"                            | NaturalSun Low-E IG            | PEL-N-235-02885-00001    | 2.5        | 3    | 2.5  | Air      | 0.24                            | 0.39 | 0.48 | 68 | N  | NC |    |                     |    |    |
|                                    | with grilles-between-the-glass | PEL-N-235-02886-00001    |            |      |      |          | 0.24                            | 0.35 | 0.43 | 68 | N  | NC |    |                     |    |    |
|                                    | with integral grilles          | PEL-N-235-02887-00001    |            |      |      |          | 0.24                            | 0.35 | 0.43 | 68 | N  | NC |    |                     |    |    |

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.

Non Rectangular Unit thermal values will vary slightly.

Visit [www.energystar.gov](http://www.energystar.gov) for Energy Star guidelines.





# Pella® Reserve™ Traditional Monumental-Hung Window

## Glazing Performance - Total Unit

| Glazing Thickness                | Type of Glazing                | NFRC Certified Product # | Glass (mm) |      | Gap Fill | Performance Values <sup>1</sup> |      |      |    | Shaded Areas Meet ENERGY STAR® Performance Criteria in Zones Shown |                     |    |      |    |
|----------------------------------|--------------------------------|--------------------------|------------|------|----------|---------------------------------|------|------|----|--|---------------------|----|------|----|
|                                  |                                |                          | Ext.       | Int. |          | U-Factor                        | SHGC | VLT  | CR | U.S.   | Canada <sup>2</sup> | ER | Zone |    |
| Wood Exterior, Dual-Pane Glazing |                                |                          |            |      |          |                                 |      |      |    |  |                     |    | N    | CA |
| 13/16"                           | Clear IG with 3mm glass        | PEL-N-236-02433-00001    | 3          | 3    | Air      | 0.43                            | 0.54 | 0.57 | 44 |  |                     |    |      |    |
|                                  | with grilles-between-the-glass | PEL-N-236-02434-00001    |            |      |          | 0.43                            | 0.48 | 0.50 | 44 |  |                     |    |      |    |
|                                  | with integral grilles          | PEL-N-236-02435-00001    |            |      |          | 0.43                            | 0.48 | 0.50 | 44 |  |                     |    |      |    |
| 13/16"                           | Advanced Low-E IG              | PEL-N-236-02461-00001    | 3          | 3    | Argon    | 0.28                            | 0.26 | 0.48 | 59 |  |                     |    |      |    |
|                                  | with grilles-between-the-glass | PEL-N-236-02462-00001    |            |      |          | 0.28                            | 0.23 | 0.43 | 59 |  |                     | SC | S    |    |
|                                  | with integral grilles          | PEL-N-236-02463-00001    |            |      |          | 0.28                            | 0.23 | 0.43 | 59 |  |                     | SC | S    |    |
| 13/16"                           | SunDefense™ Low-E IG           | PEL-N-236-02557-00001    | 3          | 3    | Argon    | 0.27                            | 0.19 | 0.45 | 59 |  |                     | SC | S    |    |
|                                  | with grilles-between-the-glass | PEL-N-236-02558-00001    |            |      |          | 0.27                            | 0.17 | 0.40 | 59 |  |                     | SC | S    |    |
|                                  | with integral grilles          | PEL-N-236-02559-00001    |            |      |          | 0.28                            | 0.17 | 0.40 | 59 |  |                     | SC | S    |    |
| 13/16"                           | SunDefense+ Low-E IG           | PEL-N-236-04429-00001    | 3          | 3    | Argon    | 0.24                            | 0.19 | 0.44 | 49 |  | NC                  | SC | S    |    |
|                                  | with grilles-between-the-glass | PEL-N-236-04430-00001    |            |      |          | 0.24                            | 0.17 | 0.39 | 49 |  | NC                  | SC | S    |    |
|                                  | with integral grilles          | PEL-N-236-04431-00001    |            |      |          | 0.24                            | 0.17 | 0.39 | 49 |  | NC                  | SC | S    |    |
| 13/16"                           | AdvancedComfort Low-E IG       | PEL-N-236-02509-00001    | 3          | 3    | Argon    | 0.24                            | 0.25 | 0.47 | 48 |  | NC                  |    |      |    |
|                                  | with grilles-between-the-glass | PEL-N-236-02510-00001    |            |      |          | 0.24                            | 0.23 | 0.42 | 48 |  | NC                  | SC | S    |    |
|                                  | with integral grilles          | PEL-N-236-02511-00001    |            |      |          | 0.25                            | 0.23 | 0.42 | 48 |  | NC                  | SC | S    |    |
| 13/16"                           | NaturalSun Low-E IG            | PEL-N-236-02605-00001    | 3          | 3    | Argon    | 0.28                            | 0.48 | 0.55 | 58 |  |                     |    |      |    |
|                                  | with grilles-between-the-glass | PEL-N-236-02606-00001    |            |      |          | 0.28                            | 0.43 | 0.48 | 58 |  |                     |    |      |    |
|                                  | with integral grilles          | PEL-N-236-02607-00001    |            |      |          | 0.29                            | 0.43 | 0.48 | 58 |  |                     |    |      |    |
| 13/16"                           | NaturalSun+ Low-E IG           | PEL-N-236-04381-00001    | 3          | 3    | Argon    | 0.25                            | 0.43 | 0.53 | 47 | N  |                     |    |      |    |
|                                  | with grilles-between-the-glass | PEL-N-236-04382-00001    |            |      |          | 0.25                            | 0.39 | 0.47 | 47 |  | NC                  |    |      |    |
|                                  | with integral grilles          | PEL-N-236-04383-00001    |            |      |          | 0.25                            | 0.39 | 0.47 | 47 |  | NC                  |    |      |    |
| Tinted Glazing                   |                                |                          |            |      |          |                                 |      |      |    |  |                     |    |      |    |
| 13/16"                           | Bronze Advanced Low-E IG       | PEL-N-236-02653-00001    | 5          | 3    | Argon    | 0.27                            | 0.23 | 0.31 | 59 |  |                     | SC | S    |    |
|                                  | with grilles-between-the-glass | PEL-N-236-02654-00001    |            |      |          | 0.27                            | 0.21 | 0.28 | 59 |  |                     | SC | S    |    |
|                                  | with integral grilles          | PEL-N-236-02655-00001    |            |      |          | 0.28                            | 0.21 | 0.28 | 59 |  |                     | SC | S    |    |
| 13/16"                           | Gray Advanced Low-E IG         | PEL-N-236-02669-00001    | 5          | 3    | Argon    | 0.27                            | 0.21 | 0.27 | 59 |  |                     | SC | S    |    |
|                                  | with grilles-between-the-glass | PEL-N-236-02670-00001    |            |      |          | 0.27                            | 0.19 | 0.24 | 59 |  |                     | SC | S    |    |
|                                  | with integral grilles          | PEL-N-236-02671-00001    |            |      |          | 0.28                            | 0.19 | 0.24 | 59 |  |                     | SC | S    |    |
| 13/16"                           | Green Advanced Low-E IG        | PEL-N-236-02685-00001    | 5          | 3    | Argon    | 0.27                            | 0.26 | 0.42 | 59 |  |                     |    |      |    |
|                                  | with grilles-between-the-glass | PEL-N-236-02686-00001    |            |      |          | 0.27                            | 0.23 | 0.38 | 59 |  |                     | SC | S    |    |
|                                  | with integral grilles          | PEL-N-236-02687-00001    |            |      |          | 0.28                            | 0.23 | 0.38 | 59 |  |                     | SC | S    |    |
| High Altitude Glazing            |                                |                          |            |      |          |                                 |      |      |    |  |                     |    |      |    |
| 13/16"                           | Advanced Low-E IG              | PEL-N-236-02457-00001    | 3          | 3    | Air      | 0.31                            | 0.26 | 0.48 | 55 |  |                     |    |      |    |
|                                  | with grilles-between-the-glass | PEL-N-236-02458-00001    |            |      |          | 0.31                            | 0.23 | 0.43 | 55 |  |                     | S  |      |    |
|                                  | with integral grilles          | PEL-N-236-02459-00001    |            |      |          | 0.31                            | 0.23 | 0.43 | 55 |  |                     | S  |      |    |
| 13/16"                           | SunDefense™ Low-E IG           | PEL-N-236-02553-00001    | 3          | 3    | Air      | 0.30                            | 0.19 | 0.45 | 56 |  |                     |    | S    |    |
|                                  | with grilles-between-the-glass | PEL-N-236-02554-00001    |            |      |          | 0.30                            | 0.17 | 0.40 | 56 |  |                     | S  |      |    |
|                                  | with integral grilles          | PEL-N-236-02555-00001    |            |      |          | 0.31                            | 0.17 | 0.40 | 56 |  |                     | S  |      |    |
| 13/16"                           | SunDefense+ Low-E IG           | PEL-N-236-04425-00001    | 3          | 3    | Air      | 0.26                            | 0.19 | 0.44 | 45 |  |                     | SC | S    |    |
|                                  | with grilles-between-the-glass | PEL-N-236-04426-00001    |            |      |          | 0.26                            | 0.17 | 0.39 | 45 |  |                     | SC | S    |    |
|                                  | with integral grilles          | PEL-N-236-04427-00001    |            |      |          | 0.27                            | 0.17 | 0.39 | 45 |  |                     | SC | S    |    |
| 13/16"                           | AdvancedComfort Low-E IG       | PEL-N-236-02505-00001    | 3          | 3    | Air      | 0.26                            | 0.25 | 0.47 | 44 |  |                     |    |      |    |
|                                  | with grilles-between-the-glass | PEL-N-236-02506-00001    |            |      |          | 0.26                            | 0.23 | 0.42 | 44 |  |                     | SC | S    |    |
|                                  | with integral grilles          | PEL-N-236-02507-00001    |            |      |          | 0.27                            | 0.23 | 0.42 | 44 |  |                     | SC | S    |    |
| 13/16"                           | NaturalSun Low-E IG            | PEL-N-236-02601-00001    | 3          | 3    | Air      | 0.31                            | 0.48 | 0.55 | 55 |  |                     |    |      |    |
|                                  | with grilles-between-the-glass | PEL-N-236-02602-00001    |            |      |          | 0.31                            | 0.42 | 0.48 | 55 |  |                     |    |      |    |
|                                  | with integral grilles          | PEL-N-236-02603-00001    |            |      |          | 0.32                            | 0.42 | 0.48 | 55 |  |                     |    |      |    |
| 13/16"                           | NaturalSun+ Low-E IG           | PEL-N-236-04377-00001    | 3          | 3    | Air      | 0.27                            | 0.43 | 0.53 | 44 |  |                     |    |      |    |
|                                  | with grilles-between-the-glass | PEL-N-236-04378-00001    |            |      |          | 0.27                            | 0.39 | 0.47 | 44 |  |                     |    |      |    |
|                                  | with integral grilles          | PEL-N-236-04379-00001    |            |      |          | 0.27                            | 0.39 | 0.47 | 44 |  |                     |    |      |    |

R-Value = 1/U-Factor, SHGC = Solar Heat Gain Coefficient

VLT % = Visible Light Transmission, CR = Condensation Resistance

ER = Canadian Energy Rating

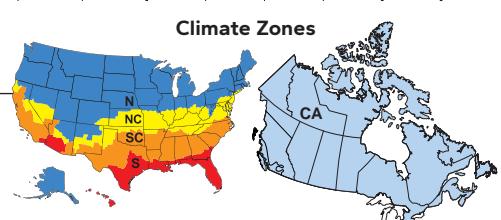
(1) Glazing performance values are calculated for Pine using NFRC 100, NFRC 200 and NFRC 500. Thermal performance of other wood species may vary. ENERGY STAR® values are updated to 2023 (Version 7) criteria.

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

Non Rectangular Unit thermal values will vary slightly.

Visit [www.energystar.gov](http://www.energystar.gov) for Energy Star guidelines.

### Climate Zones





# Pella® Reserve™ Traditional Monumental-Hung Window

## Glazing Performance - Total Unit

| Glazing Thickness                  | Type of Glazing                | NFRC Certified Product # | Glass (mm) |      |      | Gap Fill | Performance Values <sub>1</sub> |      |      |    | Shaded Areas Meet ENERGY STAR® Performance Criteria in Zones Shown |    |                     |   |    |    |
|------------------------------------|--------------------------------|--------------------------|------------|------|------|----------|---------------------------------|------|------|----|--|----|---------------------|---|----|----|
|                                    |                                |                          | Ext.       | Mid. | Int. |          | U-Factor                        | SHGC | VLT  | CR | U. S.  |    | Canada <sub>2</sub> |   |    |    |
| Wood Exterior, Triple-Pane Glazing |                                |                          |            |      |      |          |                                 |      |      |    |  |    |                     |   |    |    |
| 1-1/16 <sup>'''</sup>              | Advanced Low-E IG              | PEL-N-236-02917-00001    | 2.5        | 3    | 2.5  | Argon    | 0.20                            | 0.24 | 0.43 | 71 | N  | NC | SC                  | S | 28 | CA |
|                                    | with grilles-between-the-glass | PEL-N-236-02918-00001    |            |      |      |          | 0.20                            | 0.21 | 0.38 | 71 | N  | NC | SC                  | S | 27 | CA |
|                                    | with integral grilles          | PEL-N-236-02919-00001    |            |      |      |          | 0.20                            | 0.21 | 0.38 | 71 | N  | NC | SC                  | S | 27 | CA |
| 1-1/16"                            | SunDefense™ Low-E IG           | PEL-N-236-02953-00001    | 2.5        | 3    | 2.5  | Argon    | 0.20                            | 0.17 | 0.40 | 72 | N  | NC | SC                  | S | 24 | CA |
|                                    | with grilles-between-the-glass | PEL-N-236-02954-00001    |            |      |      |          | 0.20                            | 0.16 | 0.35 | 71 | NC   | SC | S                   | S | 24 | CA |
|                                    | with integral grilles          | PEL-N-236-02955-00001    |            |      |      |          | 0.20                            | 0.16 | 0.35 | 71 | NC   | SC | S                   | S | 24 | CA |
| 1-1/16"                            | NaturalSun Low-E IG            | PEL-N-236-02881-00001    | 2.5        | 3    | 2.5  | Argon    | 0.20                            | 0.40 | 0.49 | 71 | N  | NC |                     |   | 38 | CA |
|                                    | with grilles-between-the-glass | PEL-N-236-02882-00001    |            |      |      |          | 0.20                            | 0.35 | 0.43 | 71 | N  | NC |                     |   | 35 | CA |
|                                    | with integral grilles          | PEL-N-236-02883-00001    |            |      |      |          | 0.20                            | 0.35 | 0.43 | 71 | N  | NC |                     |   | 35 | CA |
| High Altitude Glazing              |                                |                          |            |      |      |          |                                 |      |      |    |  |    |                     |   |    |    |
| 1-1/16"                            | Advanced Low-E IG              | PEL-N-236-02913-00001    | 2.5        | 3    | 2.5  | Air      | 0.23                            | 0.24 | 0.43 | 68 | NC   |    |                     |   |    |    |
|                                    | with grilles-between-the-glass | PEL-N-236-02914-00001    |            |      |      |          | 0.23                            | 0.21 | 0.38 | 68 | NC   | SC | S                   |   |    |    |
|                                    | with integral grilles          | PEL-N-236-02915-00001    |            |      |      |          | 0.23                            | 0.21 | 0.38 | 68 | NC   | SC | S                   |   |    |    |
| 1-1/16"                            | SunDefense Low-E IG            | PEL-N-236-02949-00001    | 2.5        | 3    | 2.5  | Air      | 0.22                            | 0.18 | 0.40 | 68 | N  | NC | SC                  | S |    |    |
|                                    | with grilles-between-the-glass | PEL-N-236-02950-00001    |            |      |      |          | 0.23                            | 0.16 | 0.35 | 68 | NC   | SC | S                   |   |    |    |
|                                    | with integral grilles          | PEL-N-236-02951-00001    |            |      |      |          | 0.23                            | 0.16 | 0.35 | 68 | NC   | SC | S                   |   |    |    |
| 1-1/16"                            | NaturalSun Low-E IG            | PEL-N-236-02877-00001    | 2.5        | 3    | 2.5  | Air      | 0.23                            | 0.40 | 0.49 | 67 | N  | NC |                     |   | 34 | CA |
|                                    | with grilles-between-the-glass | PEL-N-236-02878-00001    |            |      |      |          | 0.23                            | 0.35 | 0.43 | 67 | N  | NC |                     |   |    |    |
|                                    | with integral grilles          | PEL-N-236-02879-00001    |            |      |      |          | 0.23                            | 0.35 | 0.43 | 67 | N  | NC |                     |   |    |    |

R-Value = 1/U-Factor

SHGC = Solar Heat Gain Coefficient

VLT % = Visible Light Transmission

CR = Condensation Resistance

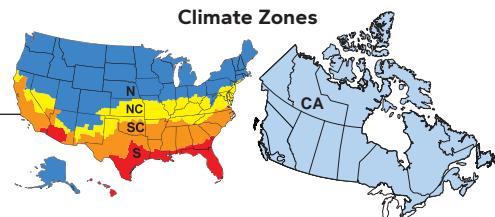
ER = Canadian Energy Rating

(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.

Non Rectangular Unit thermal values will vary slightly.

Visit [www.energystar.gov](http://www.energystar.gov) for Energy Star guidelines.





## Pella® Reserve™ Traditional Monumental-Hung Window

### Combination Assemblies

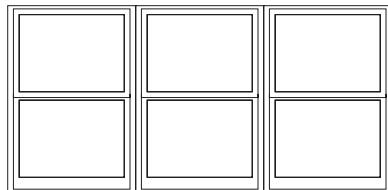
Combinations are a great way to create visual interest in any project. A combination is an assembly formed by two or more separate windows or doors whose frames are milled together by a combination or reinforcing mullion.

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

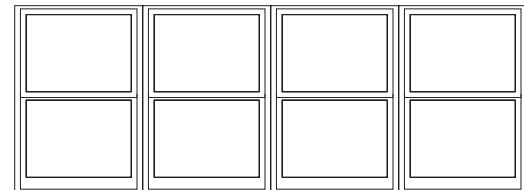
Contact your local Pella sales representative for more information.



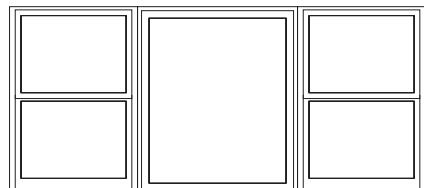
Two-Wide



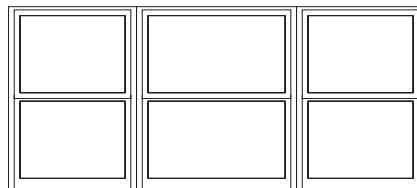
Three-Wide Equal



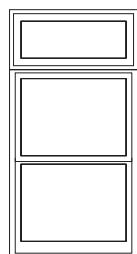
Four-Wide Equal



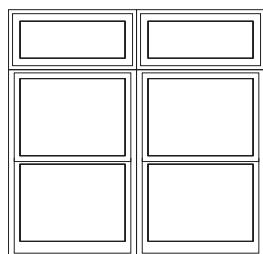
Center Fixed with Flankers



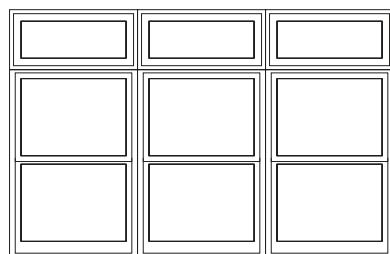
Three-Wide Unequal



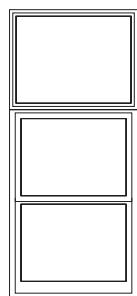
Transom over Single



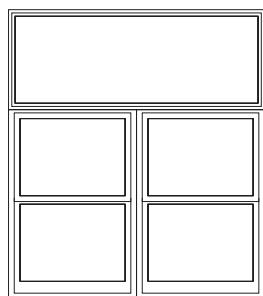
Two-Wide Transoms over Two-Wide



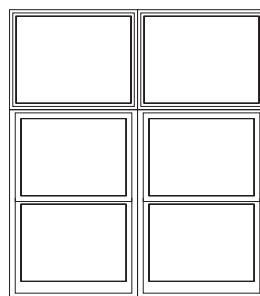
Three-Wide Transoms over Three-Wide



Clad Frame over Single



Single Clad Frame over Two-Wide



Two Wide Clad Frame over Two-Wide

When Sash is Shipped Separate factory assembled combinations are not available.

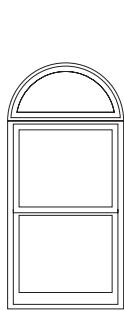


### Combination Assemblies

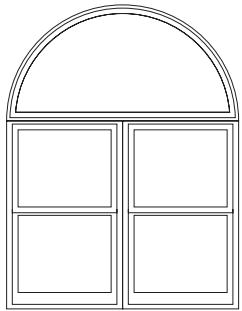
Combinations are a great way to create visual interest in any project. A combination is an assembly formed by two or more separate windows or doors whose frames are milled together by a combination or reinforcing mullion.

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

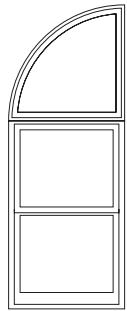
Contact your local Pella sales representative for more information.



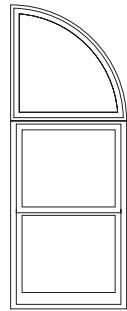
Half Circle over  
Single



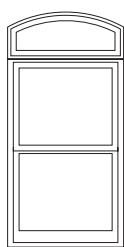
Half Circle over  
Two-Wide



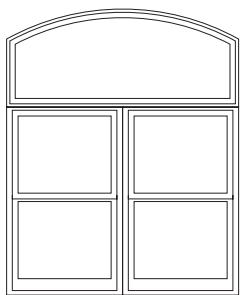
Left Quarter Circle  
over Single



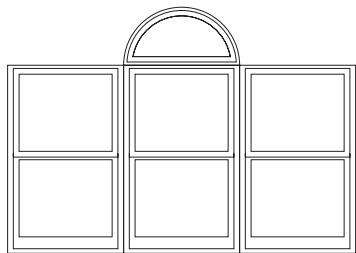
Right Quarter Circle  
over Single



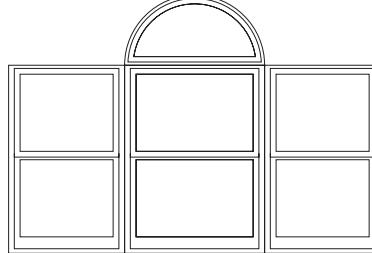
Arch Head over  
Single



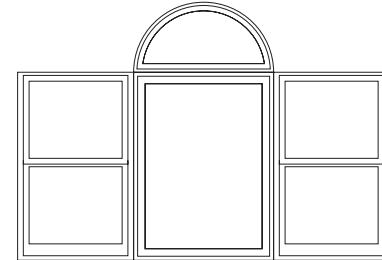
Arch Head over  
Two-Wide



Half Circle centered on  
Three-Wide Equal



Half Circle over  
Three-Wide Unequal



Half Circle over  
Center Fixed with Flankers

---

When Sash is Shipped Separate factory assembled combinations are not available.

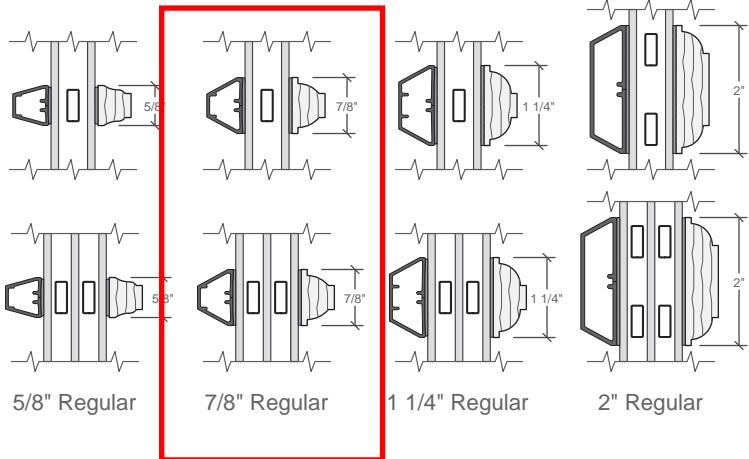


## Pella® Reserve™ Traditional Monumental-Hung Window

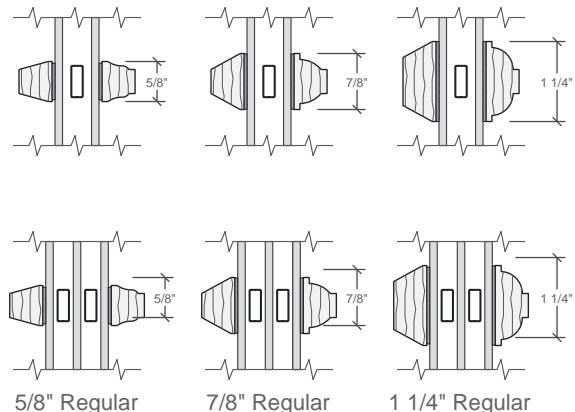
### Grille Profiles

#### Traditional Style Collection - Integral Light Technology®

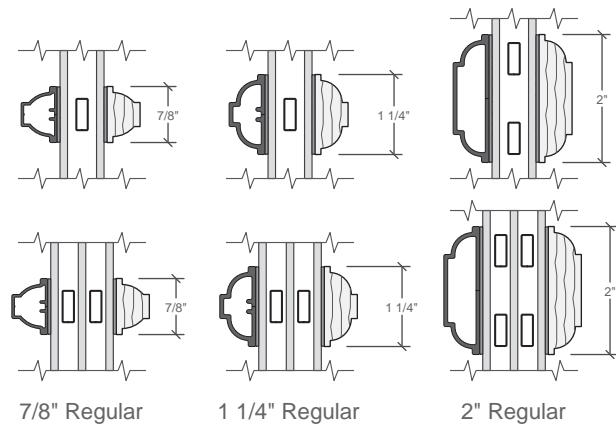
Putty Glaze and Ogee Grilles  
Clad Exterior - Wood Interior



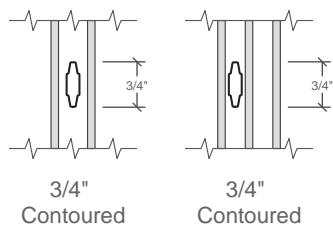
Putty Glaze and Ogee Grilles  
Wood Exterior - Wood Interior



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.

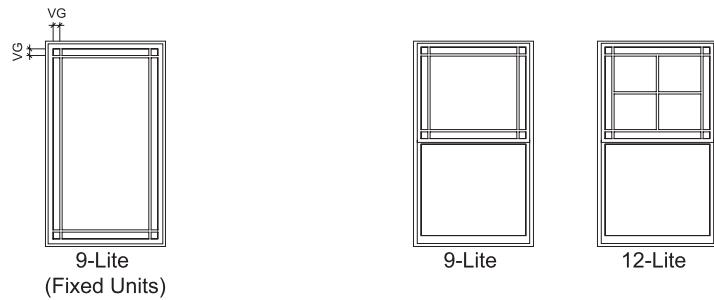


## Pella® Reserve™ Traditional Monumental-Hung Window

### Grille Patterns

#### Integral Light Technology® Grilles

##### Prairie Lite Patterns

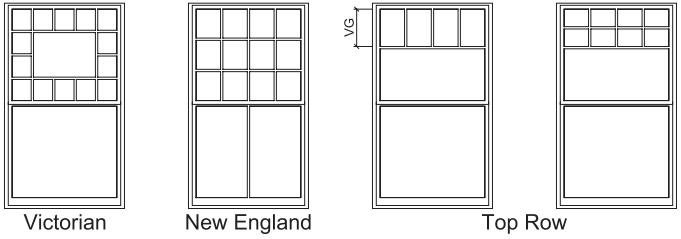


Standard corner lite dimension for Prairie patterns = 2-1/2" VG.

Available in transoms  $\geq 1'3"$  height and width.

Available in all standard and special sizes.

##### Other Available Patterns

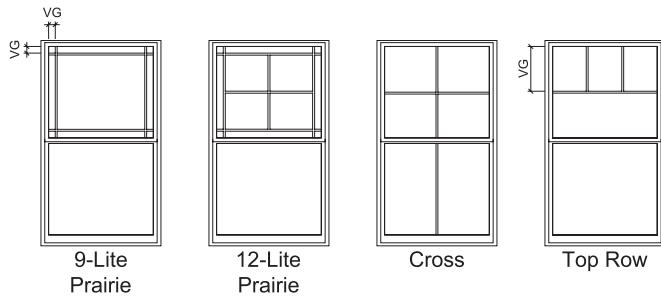


VG = Visible Glass

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  $\geq 1'3"$  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".

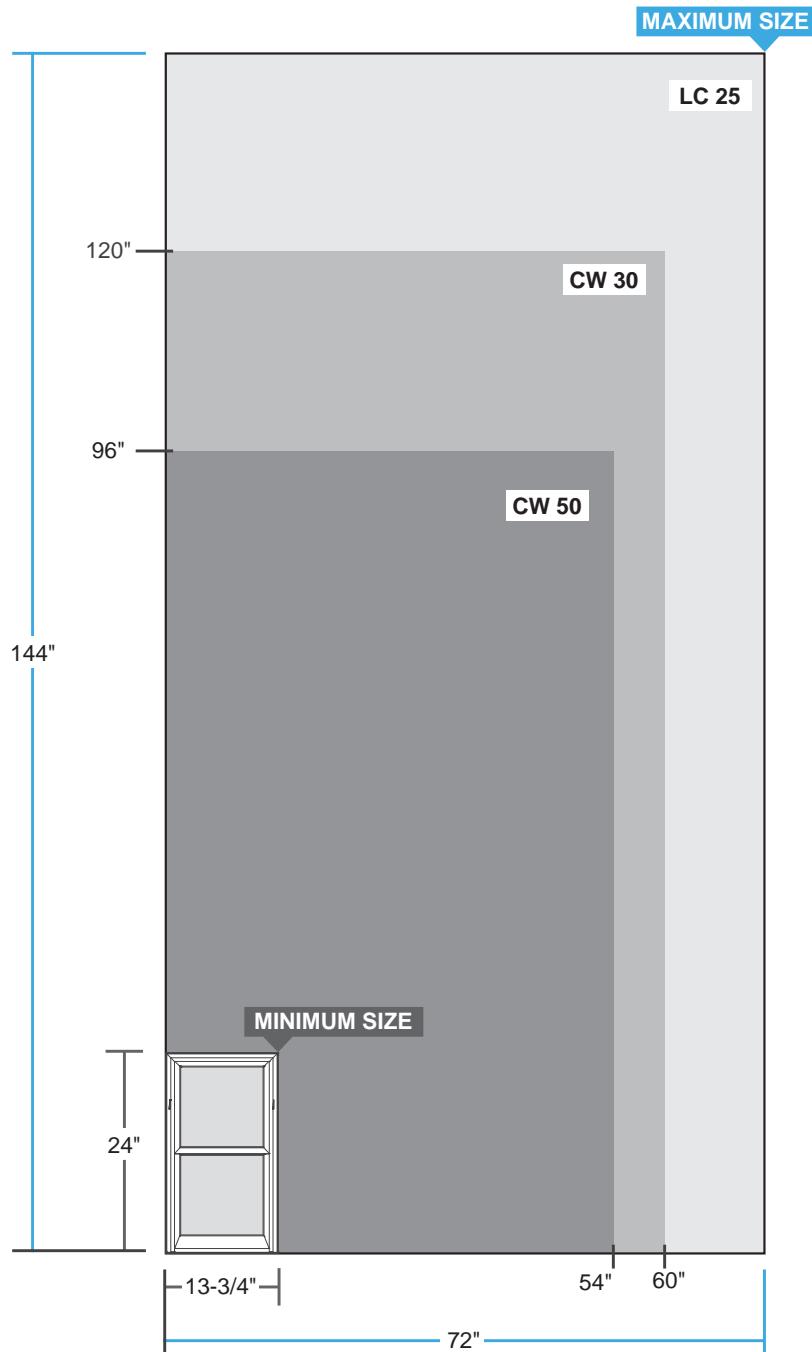
- Horizontal bar will be at 1/2" of the VG height of the top sash.

For traditional patterns, see size tables.



## Pella® Reserve™ Traditional Monumental-Hung Window

### Design Data and Performance Class



Maximum performance when glazed with the appropriate glass thickness.



## Pella® Reserve™ Traditional Monumental-Hung Window

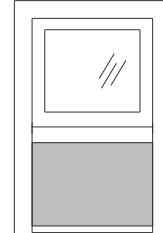
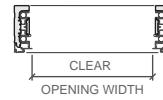
### Sizes and Dimensions

#### Miscellaneous Formulas

| Frame           | Minimum                             | Maximum                            |
|-----------------|-------------------------------------|------------------------------------|
| Rectangular     | 13-3/4" W x 24" H<br>(349 x 610 mm) | 72" W x 144" H<br>(1829 x 3658 mm) |
| Non-rectangular | 13-3/4" W x 24" H<br>(349 x 610 mm) | 60" W x 120" H<br>(1524 x 3048 mm) |

#### Vent - Equal Sash Only

|                              |  |
|------------------------------|--|
| Visible Glass (inches)       | Width = Frame - 7.594  |
|                              | Height = $(\text{Frame} - 10.572) \div 2$  |
| Actual Glass (inches)        | Width = Frame - 6.245  |
|                              | Height = $(\text{Frame} - 7.874) \div 2$   |
| Clear Opening* (inches)      | $\text{COW} = \text{Frame} - 4.928$<br>Standard Balances: $\text{COH} = \text{AGH} - 1.313$<br>Upgraded Balances: $\text{COH} = \text{AGH} - 8.688$<br>If Frame Height is >120", then Clear Opening Height is limited to 24" |
| Vent area (ft <sup>2</sup> ) | $(\text{COW} \times \text{COH}) \div 144$  |



Shaded portion shows vent area.

\* Addition of Sash Lug will reduce Clear Opening width and height by 1.25"

- Units > 120" will have limited sash travel.
- Sash is shipped out of unit when Frame Height > 106" or Individual Sash Weight > 92 lbs or Frame Width > 60".
- Units will be single hung only when frame height > 120".
- Maximum sash weight is 200 lbs.
- Standard balance not available when sash weight > 70 lbs or if Frame Height > 96".
- When sash weight > 92 lbs sash will not have tilt in cleaning feature.
- Full Screen not available when Frame Height > 120".
- Units with sash weights over 121 lbs will result in operation forces that do not meet the operational force requirements for CW rated (45 lbs) or LC rated (40 lbs) hung windows.

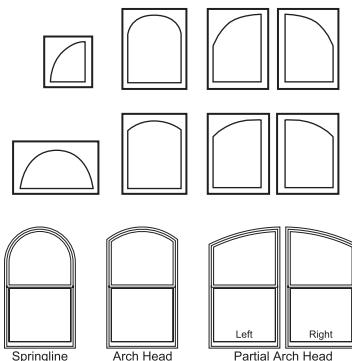
#### Custom Options

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.

#### Glass Shapes

##### The following additional options are available:

- Special Wood Types.
- Custom Grille Types and Patterns.
- Custom Glazing.
- Custom Width and height rectangular units.
- Custom Width sash stiles and rails.
- Curved Top Glass in rectangular sash.
- Shape vent and fixed windows.
- Specialty Windows - See the Specialty Windows section.





## 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, curved members may have visible finger joints] [mahogany] [douglas fir].
- Exterior surfaces are clad with aluminum.
- Components are assembled with screws, staples and concealed corner locks.
- Vinyl Jamb liner includes wood/clad inserts.
- Overall frame depth is 5-7/8" (149mm) for a wall depth of 4-9/16" (116mm).
- Optional factory applied jamb extensions available from 4-9/16" (116mm) and 7-3/16" (183 mm) wall depths.
- Optional factory installed fold-out installation fins with flexible fin corners.
- Optional factory-applied EnduraClad® exterior trim.

### 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, curved members may have visible finger joints] [mahogany (not available if sash weight > 200 lbs.)] [douglas fir].
- Exterior surfaces are clad with extruded aluminum and sealed.
- Corners mortised and tenoned, glued and secured with metal fasteners.
- Sash thickness is 2-1/4" (57mm).
- Exterior sash profile is [ogee] [putty glaze], interior profile is ogee.
- Double-hung upper sash (if sash weight ≤ 92 lbs.) has surface-mounted wash locks for tilt-in cleaning.
- Double-hung and single-hung lower sash (if sash weight ≤ 92 lbs.) has concealed wash locks in lower check rail for tilt-in cleaning.

### Weatherstripping

- Santoprene-wrapped foam at head and sill.
- Full length glass filled polypropylene interlocker with integrated slip-coated thermoplastic elastomer leaf.
- Secondary nylon bristle rainstrip on lower sash at sill.
- Vinyl-wrapped foam with secondary nylon bristle rainstrip 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 13/16" 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] [Reflective Gray].  
- or -
- Silicone-glazed dual-pane 13/16" dual-seal tempered spandrel glass [Lava Bronze] [Amber] [Black] [Ford Blue] [Symmetry Bronze] [Symmetry Gray] [Symmetry Green].  
- 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]].  
- or -
- Silicone-glazed triple-pane 1-1/16" dual-seal insulating glass (not available if sash weight > 200 lbs.) [[annealed] [tempered]] [[Advanced Low-E] [SunDefense™ Low-E] [NaturalSun Low-E] [with argon]] [Obscure [standard] [fern]].

### Exterior

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

### Interior

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

### Hardware

- Galvanized block-and-tackle balances are attached to self-locking balance shoes connected to the sashes using zinc die cast terminals concealed within the frame.
  - or -
- Class 5 hybrid balance attached to [locking] [non-locking] balance shoes connected to the sashes using zinc die cast terminals and concealed within the frame.
  - or -
- Galvanized block-and-tackle balances combined with a Class 5 hybrid balance attached to non-locking balance shoes connected to the sashes using zinc die cast terminals and concealed within the frame.
- All balances comply with AAMA 902 specification
- Lock hardware is [standard lock (cam-action)] [spoon-style lock] [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.
- 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
  - Factory applied, color to match exterior cladding.

#### 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 prefabricated [paint] [stain]].
  - Exterior grilles are [5/8" putty 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] [Cross] [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-Glass<sub>2</sub>
  - 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] [Tan<sub>3</sub>] [Brown<sub>3</sub>] [Putty<sub>3</sub>] [Black] [Ivory] [Harvest] [Cordovan] [Brickstone].
  - Exterior color<sub>4</sub> is [standard<sub>1</sub>].

#### Screens

- InView™ Screens
  - [Full-screen (not available on units > 120" tall)] [half-screen] black Vinyl-coated 18/18 mesh fiberglass screen cloth complying with the performance requirements of SMA 1201, set in a [extruded (optional on clad exterior units < 84" height, standard on wood exterior units or clad exterior units >84")] [standard] 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 sash lift furnished for field installation. Finish matches lock hardware. Two lifts on units having frame width 37" or greater.
- Optional factory applied limited opening device for venting units; nominal 3-3/4" opening. Limiting device concealed from view.
- Optional factory applied window opening control device for venting units. Sash mounted device allows window to open less than 4" with normal operation, with a release mechanism that allows the sash to open completely. Finish matches lock hardware. Complies with ASTM F2090-10.
- Optional [head, sill, stool locks].

#### Sensors

- Optional factory installed integrated security sensors available in vent units.

(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.



## Detailed Product Description - Wood Exterior

### Frame

- Select wood, 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] curved members may have visible finger joints.
- Exterior surfaces are [pine] [mahogany].
- Vinyl Jamb liner includes wood inserts.
- Overall frame depth is 5-5/8" (143mm) for a wall depth of 5-7/16" (138mm).
- Optional factory applied jamb extensions available from 5-7/16" (138mm) and 7-3/16" (183mm) wall depths.
- Optional factory installed fold-out installation fins with flexible fin corners.
- Optional factory-applied pine [1-7/8"] [3-1/2"] brickmould and [1-1/8"] [1-7/8"] subsl.

### Sash

- Select wood, 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, curved members may have visible finger joints] [mahogany (not available if sash weight > 200 lbs.)].
- Exterior surfaces are [pine] [mahogany].
- Corners mortised and tenoned, glued and secured with metal fasteners.
- Sash thickness is 2-1/4" (57mm).
- Exterior sash profile is putty glaze, interior sash profile ogee.
- Double-hung upper sash (if sash weight ≤ 92 lbs.) has surface-mounted wash locks for tilt-in cleaning.
- Double-hung and single-hung lower sash (if sash weight ≤ 92 lbs.) has concealed wash locks in lower check rail for tilt-in cleaning.

### Weatherstripping

- Santoprene-wrapped foam at head and sill.
- Full length glass filled polypropylene interlocker with integrated slip-coated thermoplastic elastomer leaf.
- Secondary nylon bristle rain strip on lower sash at sill.
- Vinyl-wrapped foam with secondary nylon bristle rain strip 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 13/16" 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] [Reflective Gray].  
- or -
- Silicone-glazed dual-pane 13/16" dual-seal tempered spandrel glass [Lava Bronze Amber] [Black] [Ford Blue] [Symmetry Bronze] [Symmetry Gray] [Symmetry Green].  
- 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]].  
- or -
- Silicone-glazed triple-pane 1-1/16" dual-seal insulating glass (not available if sash weight > 200 lbs.) [[annealed] [tempered]] [[Advanced Low-E] [SunDefense™ Low-E] [NaturalSun Low-E] [with argon]] [Obscure [standard] [fern]].

### 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 prefabricated [paint] [stain] ].

### Hardware

- Galvanized block-and-tackle balances are attached to self-locking balance shoes connected to the sashes using zinc die cast terminals concealed within the frame.  
- or -
- Class 5 hybrid balance attached to [locking] [non-locking] balance shoes connected to the sashes using zinc die cast terminals and concealed within the frame.  
- or -
- Galvanized block-and-tackle balances combined with a Class 5 hybrid balance attached to non-locking balance shoes connected to the sashes using zinc die cast terminals and concealed within the frame.
- All balances comply with AAMA 902 specification
- 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.
- 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 [5/8"] [7/8"] [1-1/4"] [2"] ogee profile that are solid [pine] [mahogany]. Interior surfaces are [unfinished, ready for site finishing] [factory primed] [pine: factory prefabricated [paint] [stain] ].
  - Exterior grilles are solid [5/8"] [7/8"] [1-1/4"] [2"] 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] [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 the non-glare spacer.

- or -

- Grilles-Between-the-Glass<sub>2</sub>
  - 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] [Tan<sub>3</sub>] [Brown<sub>3</sub>] [Putty<sub>3</sub>] [Black] [Ivory] [Harvest] [Cordovan] [Brickstone].
  - Exterior color<sub>4</sub> is [standard].

#### Screens

- InView™ Screens
  - [Full-screen (not available on units > 120" tall)] [half-screen] black Vinyl-coated 18/18 mesh fiberglass screen cloth complying with the performance requirements of SMA 1201, set in 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 sash lift furnished for field installation. Finish matches lock hardware. Two lifts on units having frame width 37" or greater.
- Optional factory applied limited opening device available for venting units; nominal 3-3/4" opening. Limiting device concealed from view.
- Optional factory applied window opening control device for venting units. Sash mounted device allows window to open less than 4" with normal operation, with a release mechanism that allows the sash to open completely. Finish matches lock hardware. Complies with ASTM F2090-10.
- Optional [head, sill, stool locks].

#### Sensors

- Optional factory installed integrated security sensors available in vent units.

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

(2) Available in clear or Low-E Insulating Glass only.

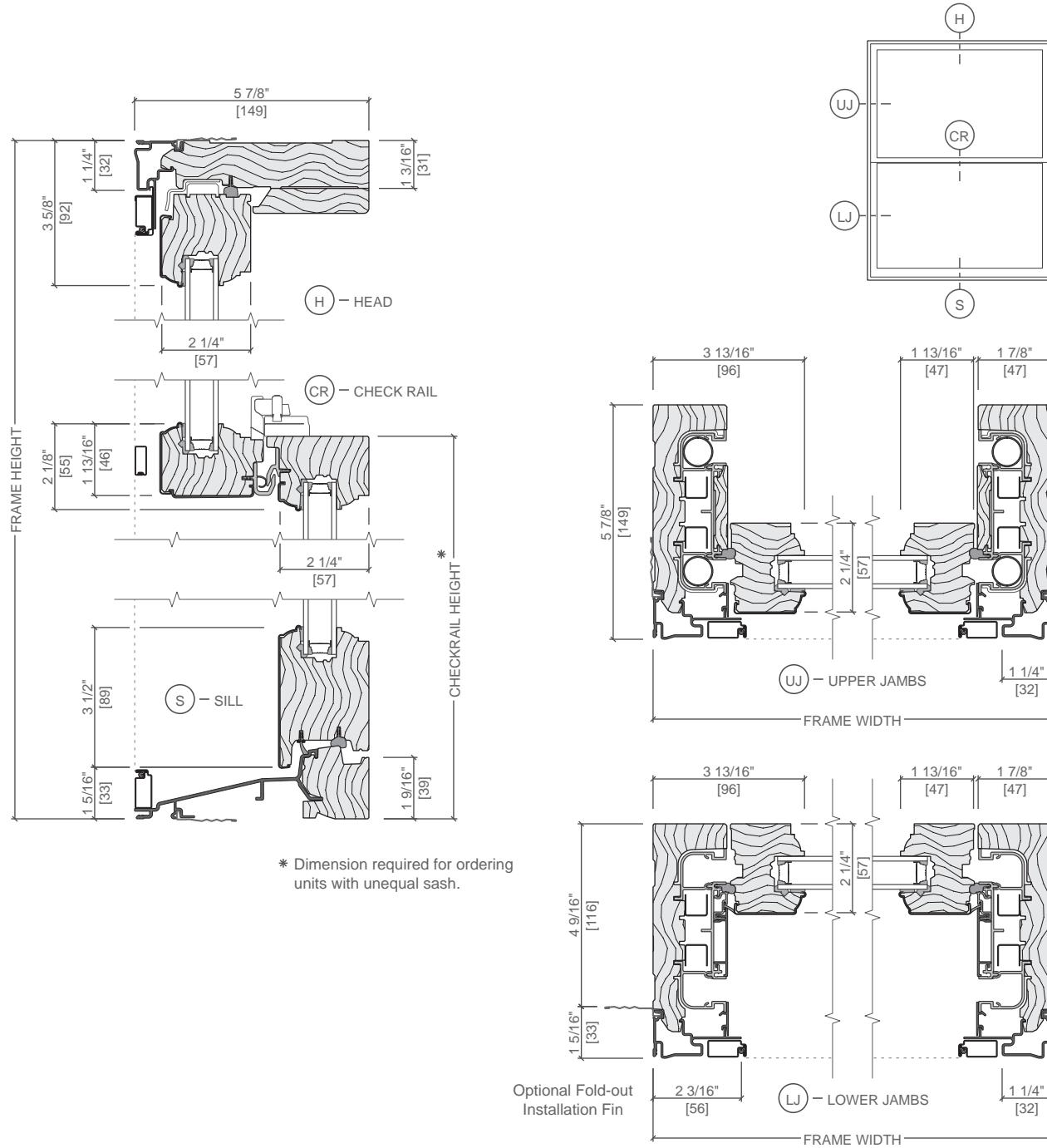
(3) Tan, Brown and Putty Interior GBG colors are available in single-tone (Brown/Brown, Tan/Tan or Putty/Putty). Other interior colors are also available with Tan or Brown exterior.

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



## Pella® Reserve™ Traditional Monumental-Hung Window

### Unit Sections - Aluminum-Clad Exterior, Dual-Pane Double-Hung



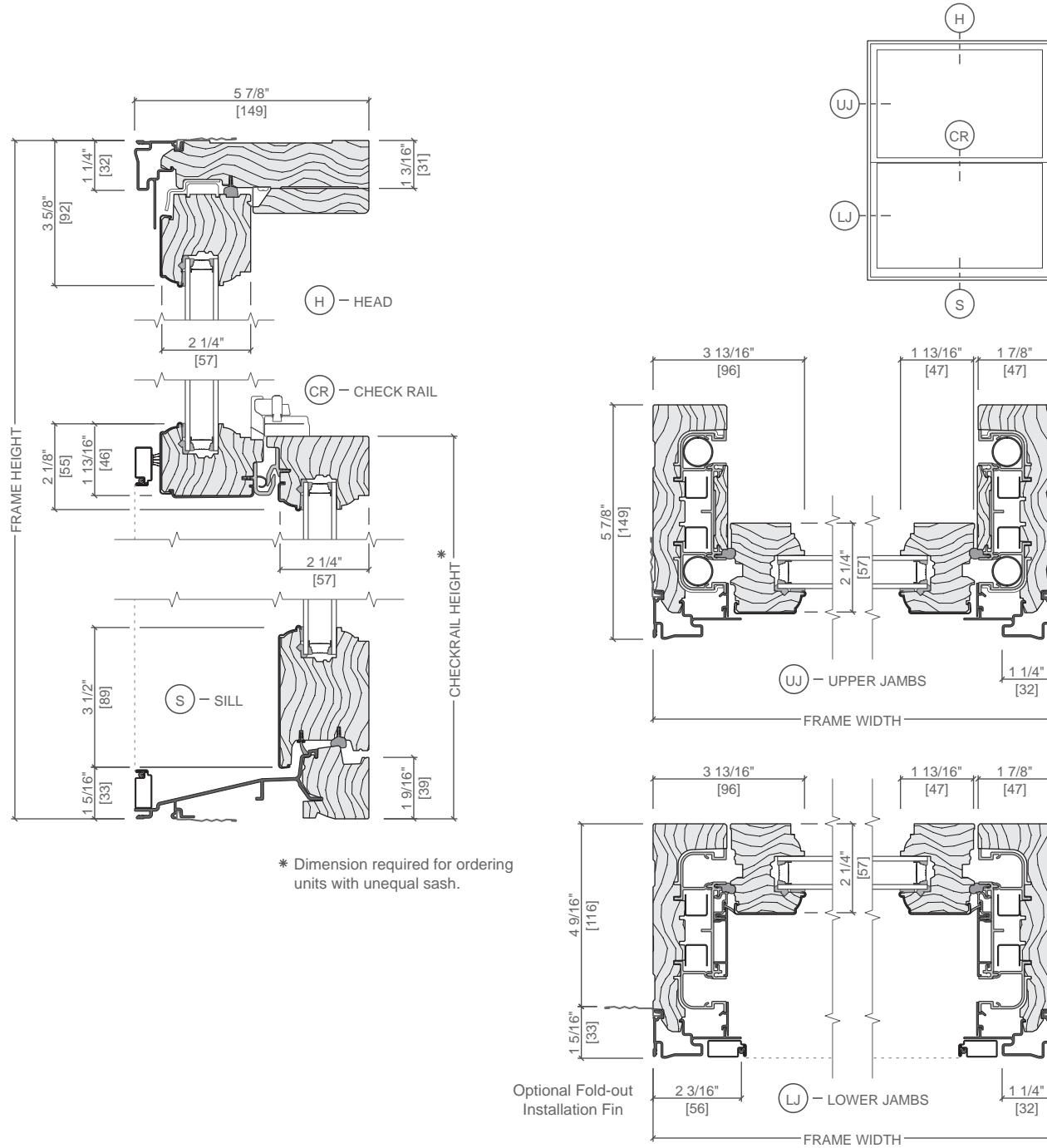
Scale 3" = 1' 0"

All dimensions are approximate.



## Pella® Reserve™ Traditional Monumental-Hung Window

### Unit Sections - Aluminum-Clad Exterior, Dual-Pane Single-Hung



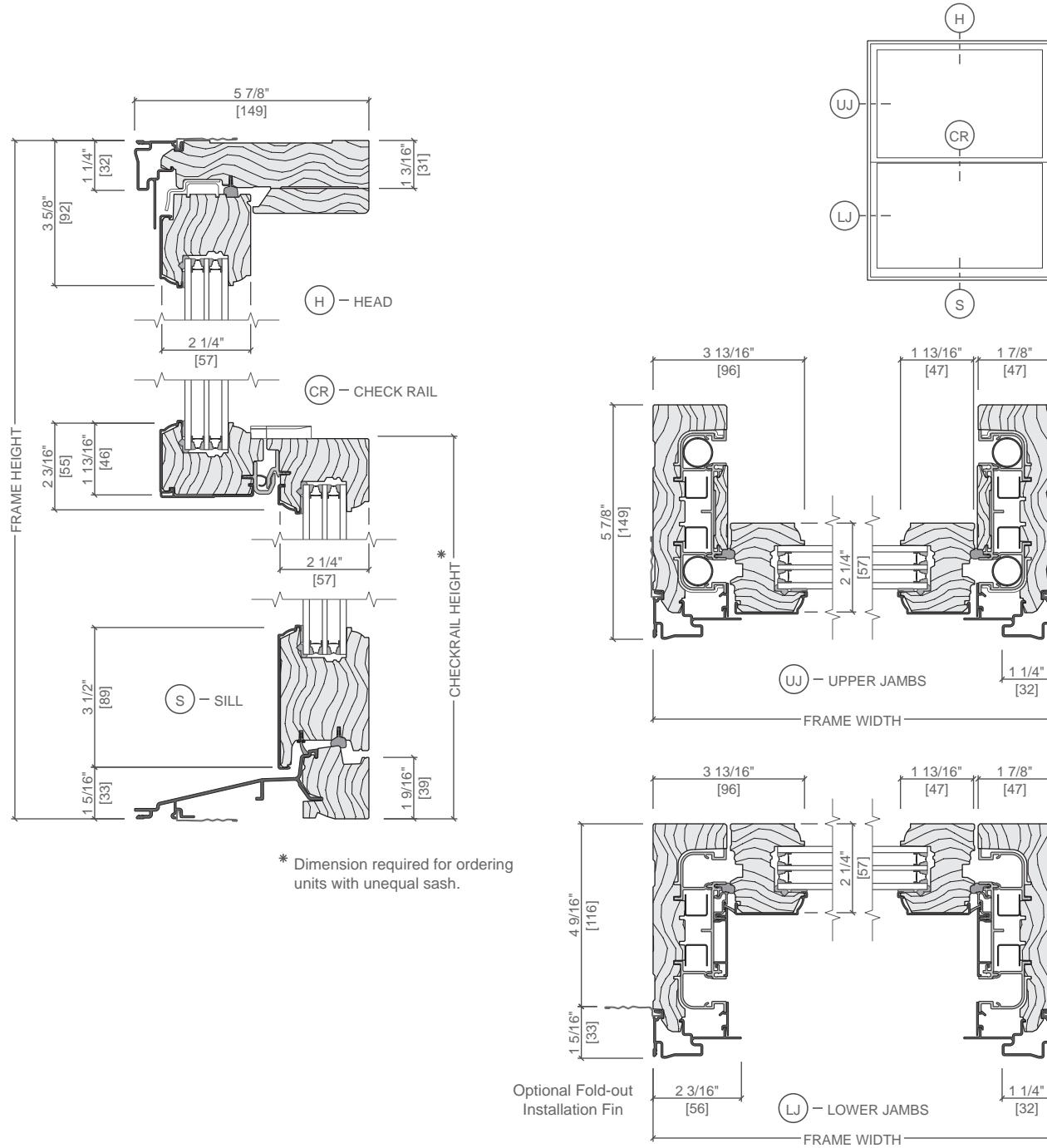
Scale 3" = 1' 0"

All dimensions are approximate.



## Pella® Reserve™ Traditional Monumental-Hung Window

### Unit Sections - Aluminum-Clad Exterior, Triple-Pane Simulated-Hung



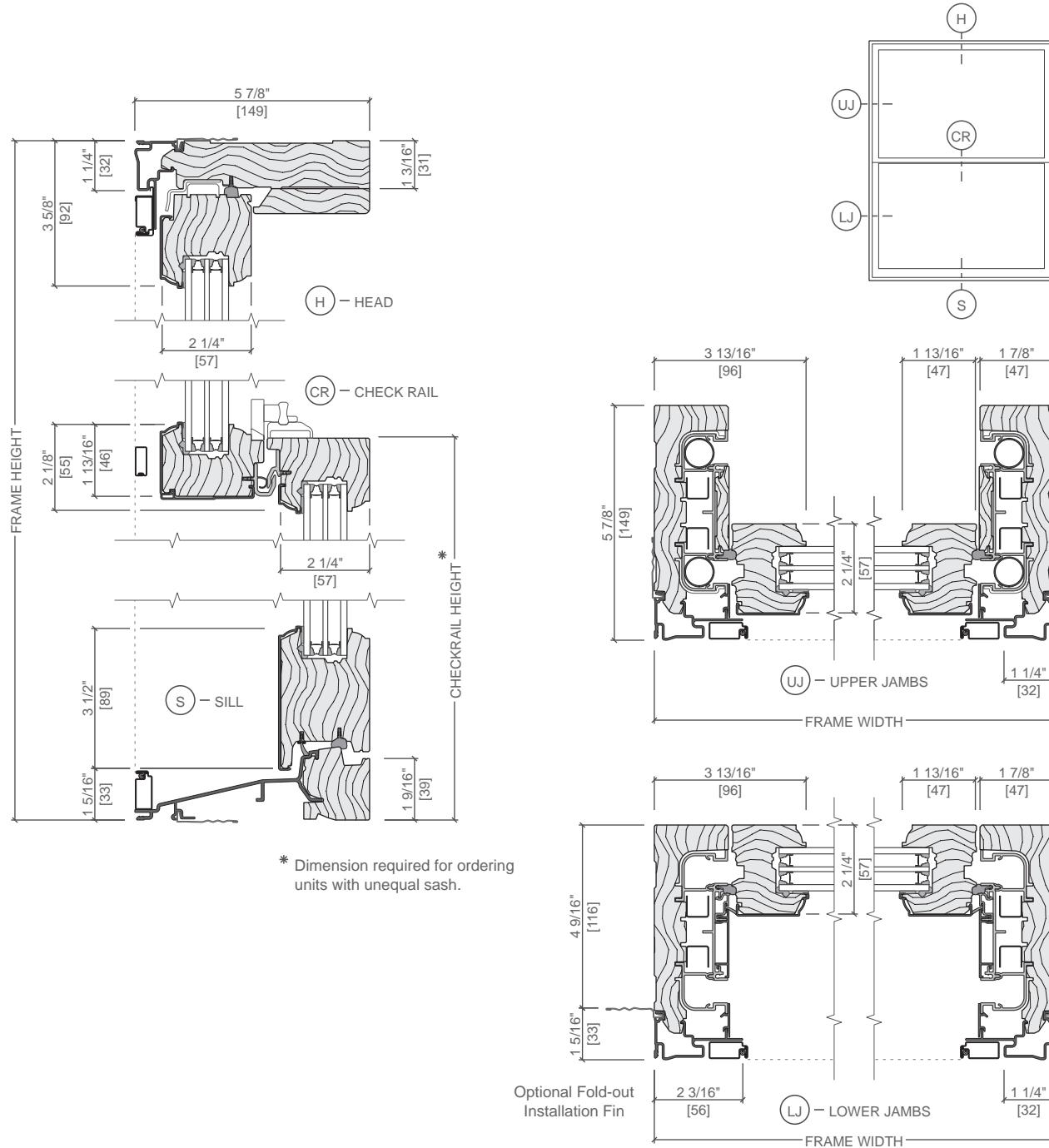
Scale 3" = 1' 0"

All dimensions are approximate.



## Pella® Reserve™ Traditional Monumental-Hung Window

### Unit Sections - Aluminum-Clad Exterior, Triple-Pane Double-Hung



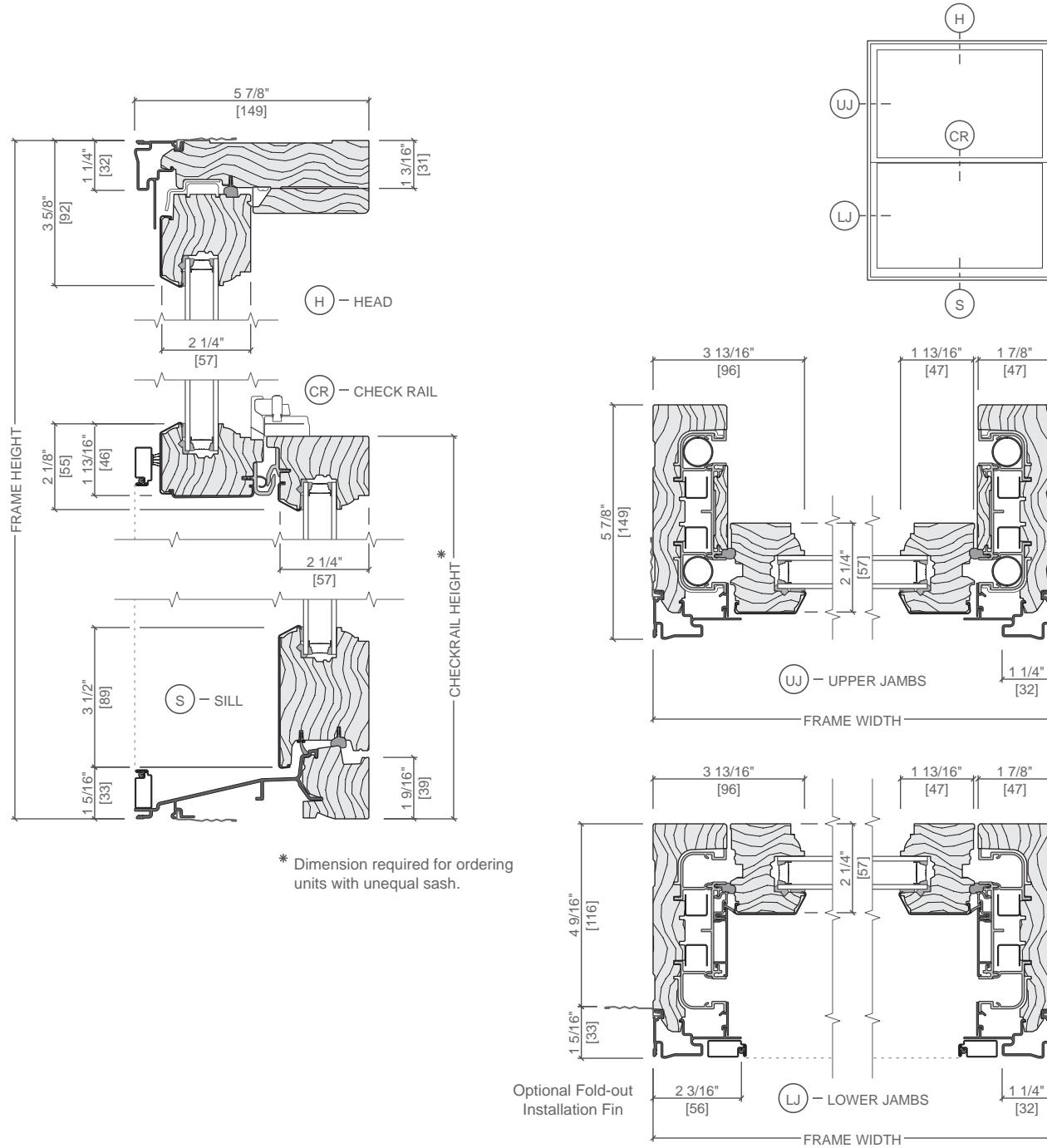
Scale 3" = 1' 0"

All dimensions are approximate.



## Pella® Reserve™ Traditional Monumental-Hung Window

### Unit Sections - Aluminum-Clad Exterior, Dual-Pane Putty Glaze Profile



Scale 3" = 1' 0"

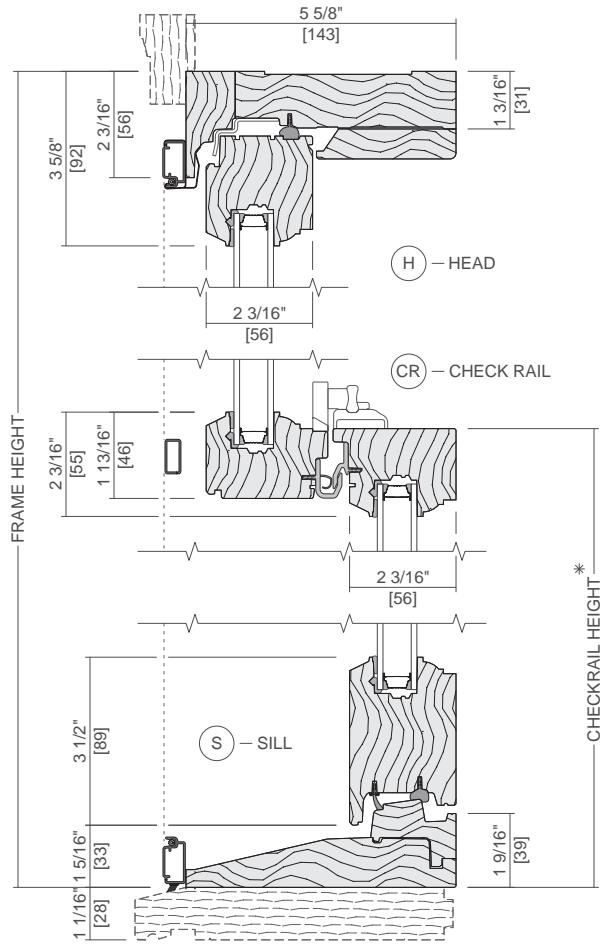
All dimensions are approximate.



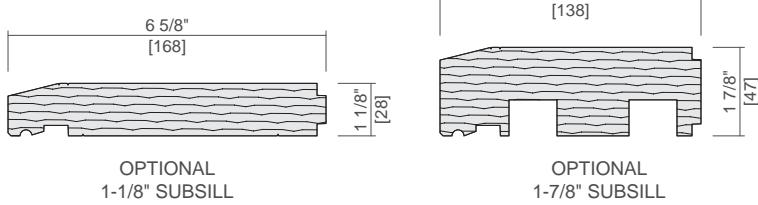
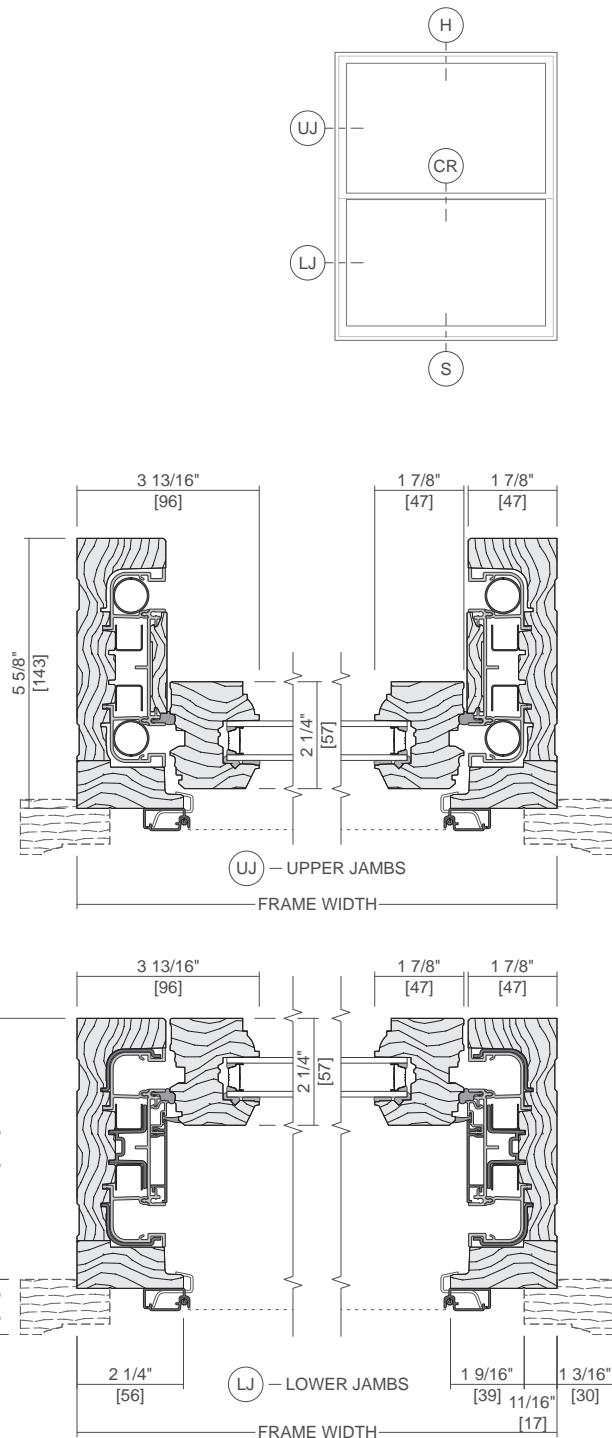
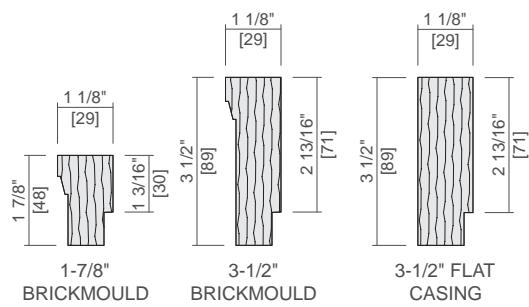
## Pella® Reserve™ Traditional Monumental-Hung Window

### Unit Sections - Wood Exterior, Dual-Pane Double-Hung

Optional  
1-7/8" Brickmould #3443  
1-1/8" Subsill #3544  
Shown



\* Dimension required for ordering units with unequal sash.



Scale 3" = 1' 0"

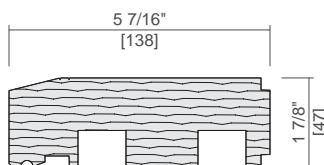
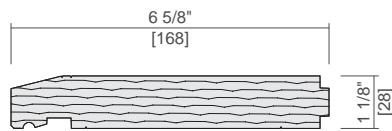
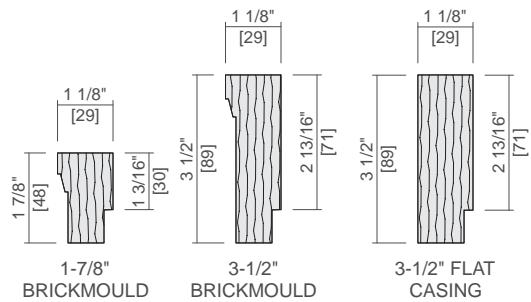
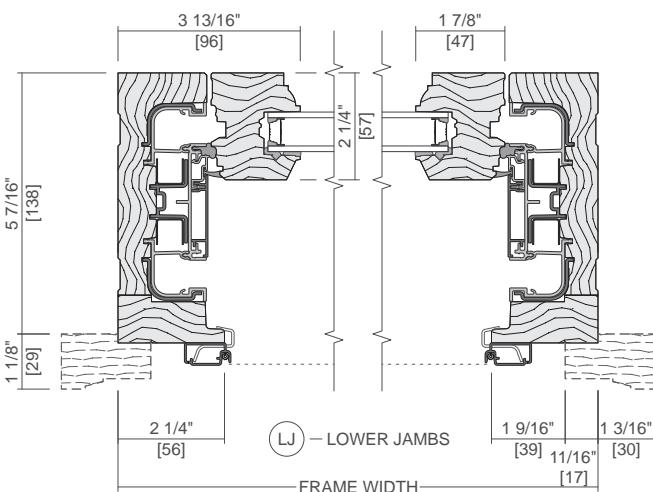
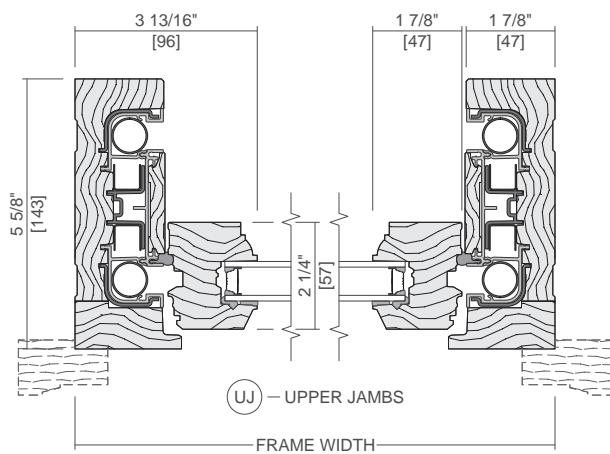
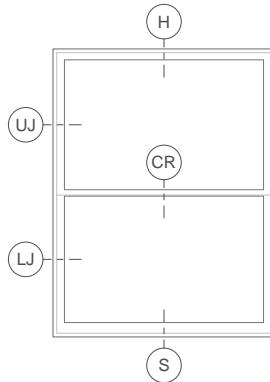
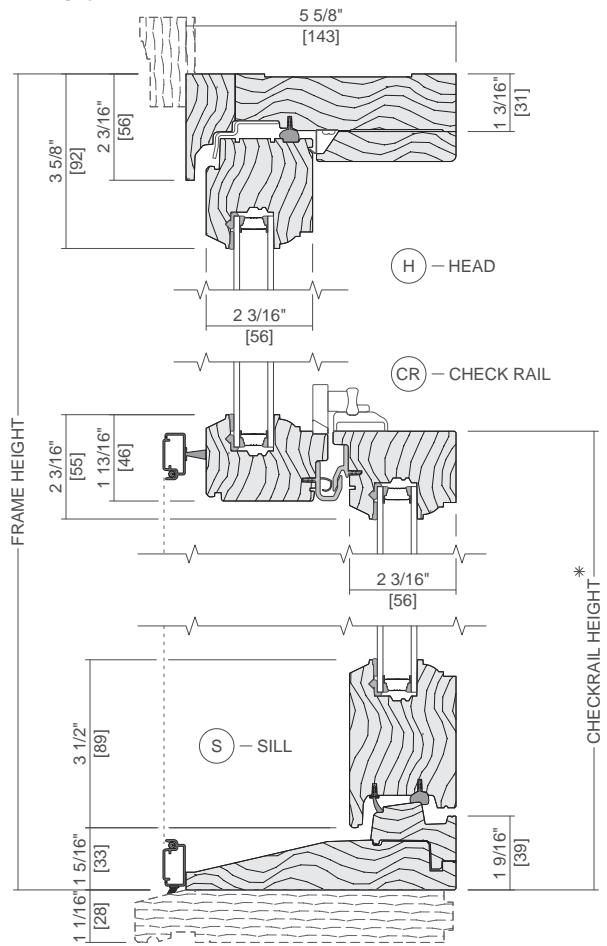
All dimensions are approximate.



## Pella® Reserve™ Traditional Monumental-Hung Window

### Unit Sections - Wood Exterior, Dual-Pane Single-Hung

Optional  
1-7/8" Brickmould #3443  
1-1/8" Subsill #3544  
Shown



Scale 3" = 1' 0"

All dimensions are approximate.

Rev. 12/10/2024

Pella 2024 Architectural Design Manual | Division 08 – Openings | Windows and Doors | [www.Pella.com](http://www.Pella.com)

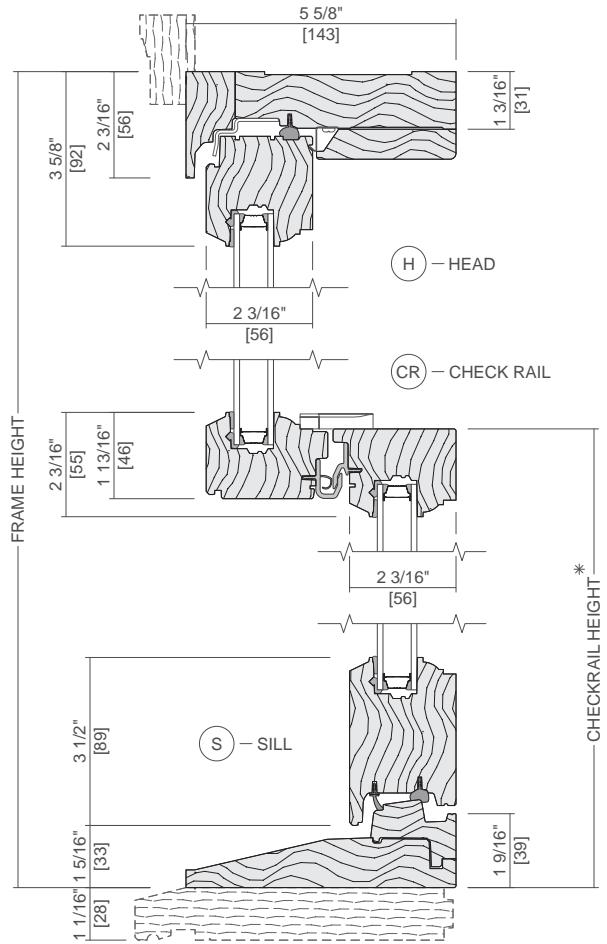
W-MH-22



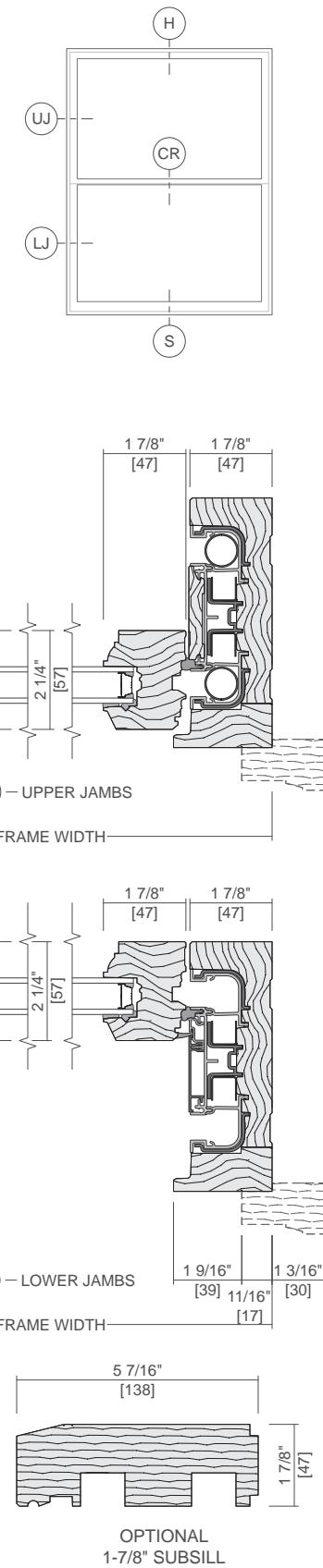
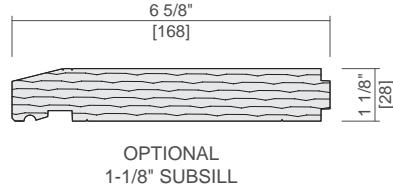
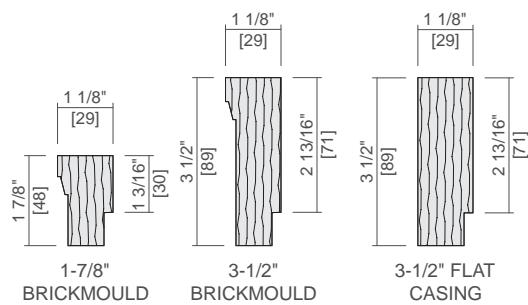
## Pella® Reserve™ Traditional Monumental-Hung Window

### Unit Sections - Wood Exterior, Dual-Pane Simulated-Hung

Optional  
1-7/8" Brickmould #3443  
1-1/8" Subsill #3544  
Shown



\* Dimension required for ordering units with unequal sash.



Scale 3" = 1' 0"

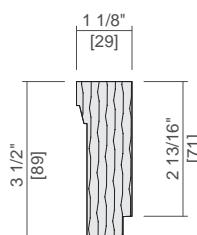
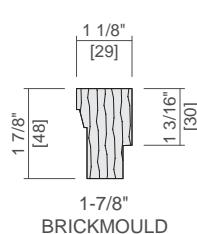
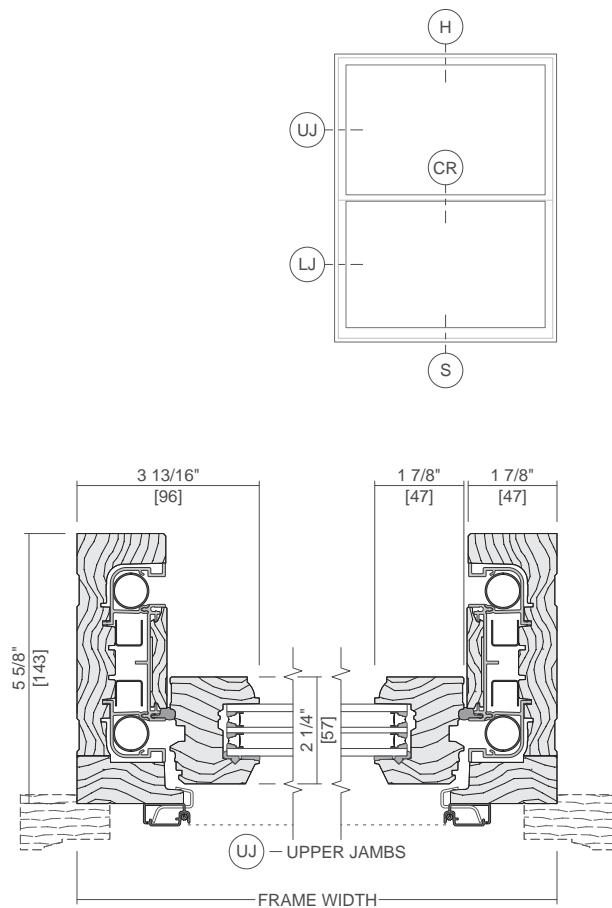
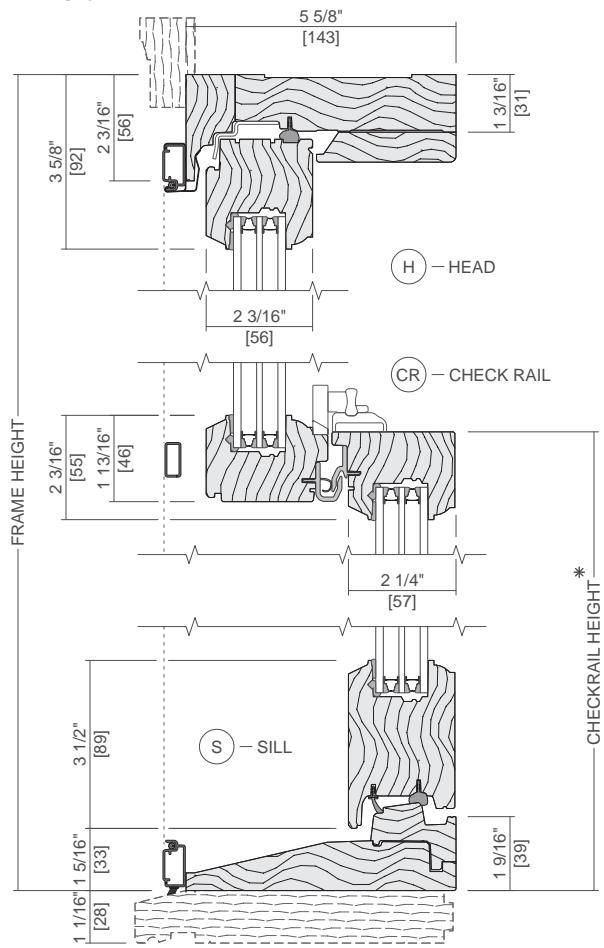
All dimensions are approximate.



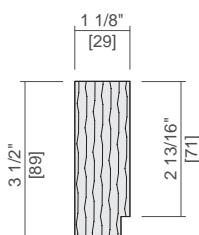
# Pella® Reserve™ Traditional Monumental-Hung Window

## Unit Sections - Wood Exterior, Triple-Pane Double-Hung

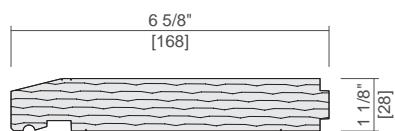
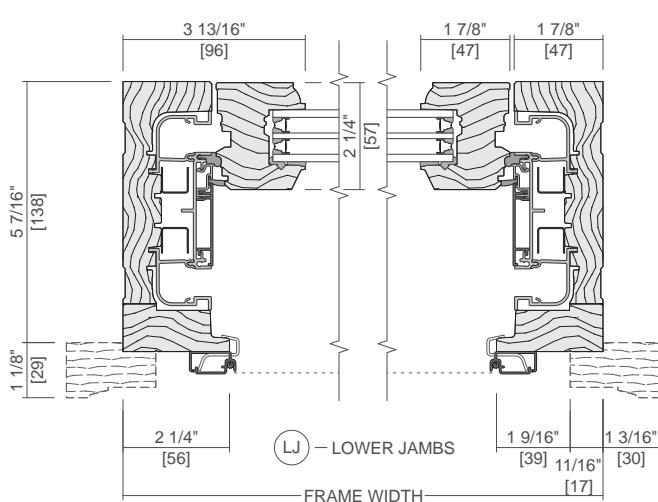
Optional  
1-7/8" Brickmould #3443  
1-1/8" Subsill #3544  
Shown



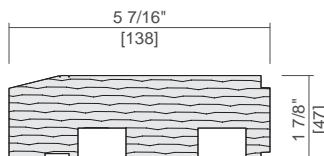
3-1/2" BRICKMOULD



3-1/2" FLAT CASING



OPTIONAL  
1-1/8" SUBSILL



OPTIONAL  
1-7/8" SUBSILL

Scale 3" = 1' 0"

All dimensions are approximate.

Rev. 12/10/2024

Pella 2024 Architectural Design Manual | Division 08 – Openings | Windows and Doors | [www.Pella.com](http://www.Pella.com)

W-MH-24

## WINDOW SCHEDULE

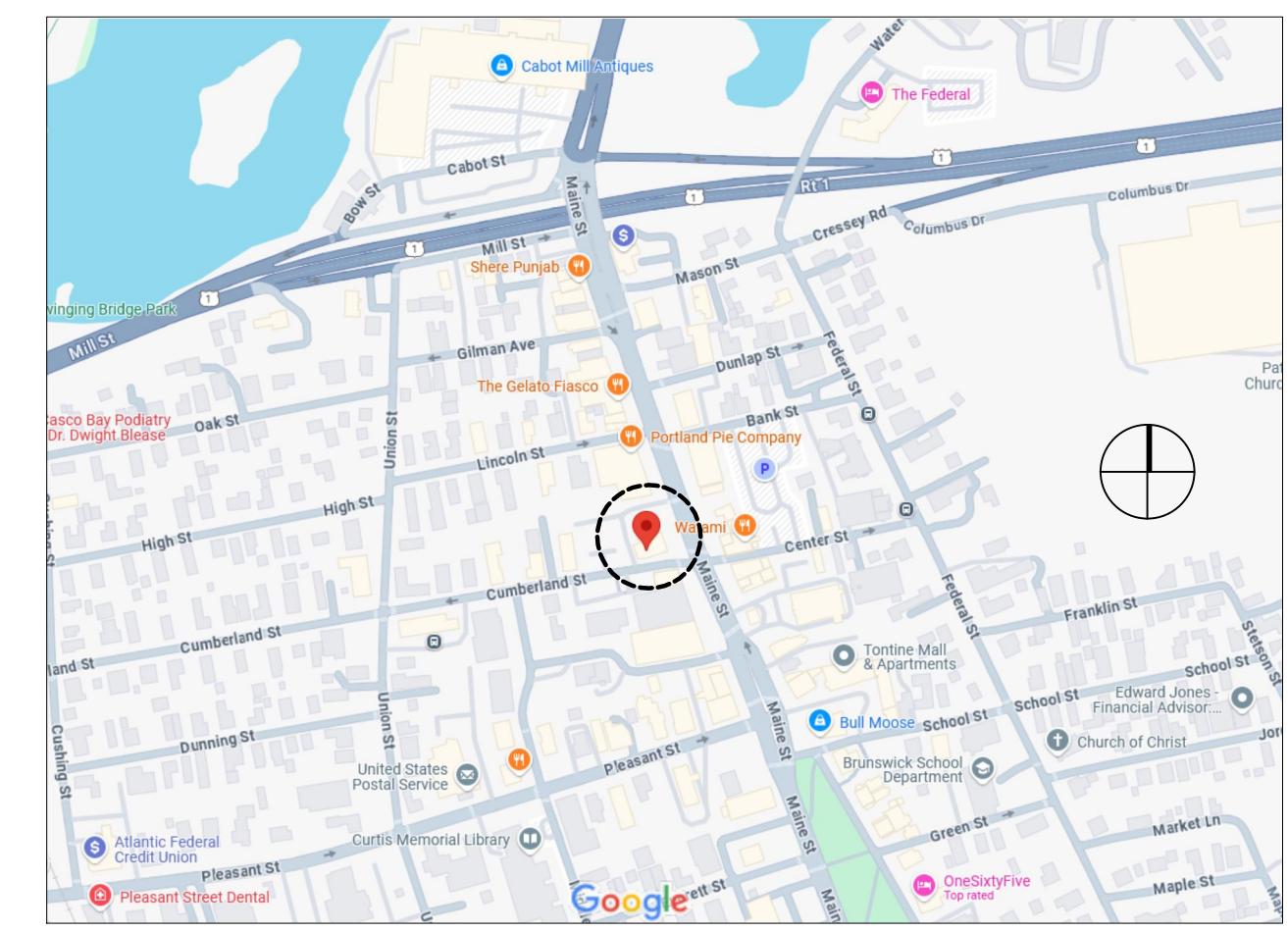
| ASSEMBLY NUMBER | STYLE       | WINDOW                   |         |           |          | FRAME  |           |        | DETAILS |      |      | REMARKS                                    |  |
|-----------------|-------------|--------------------------|---------|-----------|----------|--------|-----------|--------|---------|------|------|--|--|
|                 |             | SASH OPENING DIMENSIONS* |         |           | MATERIAL | FINISH | MATERIAL  | FINISH | HEAD    | JAMB | SILL |  |  |
|                 |             | WIDTH                    | HEIGHT  | THICKNESS |          |        |           |        |         |      |      |  |  |
| 101             | DOUBLE-HUNG | 57 1/2"                  | 78 1/2" | 2 1/4"    | 7/8"     | WOOD   | ALUM CLAD | WOOD   | PAINTED |      |      | PELLA MONUMENTAL CLAD DOUBLE HUNG OR EQUAL |  |
| 102             | DOUBLE-HUNG | 57 1/2"                  | 78 1/2" | 2 1/4"    | 7/8"     | WOOD   | ALUM CLAD | WOOD   | PAINTED |      |      | PELLA MONUMENTAL CLAD DOUBLE HUNG OR EQUAL |  |
| 103             | DOUBLE-HUNG | 57 1/2"                  | 78 1/2" | 2 1/4"    | 7/8"     | WOOD   | ALUM CLAD | WOOD   | PAINTED |      |      | PELLA MONUMENTAL CLAD DOUBLE HUNG OR EQUAL |  |
| 104             | DOUBLE-HUNG | 57 1/2"                  | 78 1/2" | 2 1/4"    | 7/8"     | WOOD   | ALUM CLAD | WOOD   | PAINTED |      |      | PELLA MONUMENTAL CLAD DOUBLE HUNG OR EQUAL |  |
| 105             | DOUBLE-HUNG | 57 1/2"                  | 78 1/2" | 2 1/4"    | 7/8"     | WOOD   | ALUM CLAD | WOOD   | PAINTED |      |      | PELLA MONUMENTAL CLAD DOUBLE HUNG OR EQUAL |  |
| 106             | DOUBLE-HUNG | 57 1/2"                  | 78 1/2" | 2 1/4"    | 7/8"     | WOOD   | ALUM CLAD | WOOD   | PAINTED |      |      | PELLA MONUMENTAL CLAD DOUBLE HUNG OR EQUAL |  |
| 107             | DOUBLE-HUNG | 57 1/2"                  | 78 1/2" | 2 1/4"    | 7/8"     | WOOD   | ALUM CLAD | WOOD   | PAINTED |      |      | PELLA MONUMENTAL CLAD DOUBLE HUNG OR EQUAL |  |
| 108             | DOUBLE-HUNG | 57 1/2"                  | 78 1/2" | 2 1/4"    | 7/8"     | WOOD   | ALUM CLAD | WOOD   | PAINTED |      |      | PELLA MONUMENTAL CLAD DOUBLE HUNG OR EQUAL |  |
| 109             | DOUBLE-HUNG | 57"                      | 80 3/4" | 2 1/4"    | 7/8"     | WOOD   | ALUM CLAD | WOOD   | PAINTED |      |      | PELLA MONUMENTAL CLAD DOUBLE HUNG OR EQUAL |  |
| 110             | DOUBLE-HUNG | 35 1/4"                  | 80 3/4" | 2 1/4"    | 7/8"     | WOOD   | ALUM CLAD | WOOD   | PAINTED |      |      | PELLA MONUMENTAL CLAD DOUBLE HUNG OR EQUAL |  |
| 111             | DOUBLE-HUNG | 57"                      | 80 3/4" | 2 1/4"    | 7/8"     | WOOD   | ALUM CLAD | WOOD   | PAINTED |      |      | PELLA MONUMENTAL CLAD DOUBLE HUNG OR EQUAL |  |
| 112             | DOUBLE-HUNG | 57"                      | 80 3/4" | 2 1/4"    | 7/8"     | WOOD   | ALUM CLAD | WOOD   | PAINTED |      |      | PELLA MONUMENTAL CLAD DOUBLE HUNG OR EQUAL |  |
| 113             | FIXED       | 62 1/2"                  | 62 1/2" | 2 1/4"    | 7/8"     | WOOD   | ALUM CLAD | WOOD   | PAINTED |      |      | PELLA RESERVE CLAD FIXED WINDOW OR EQUAL   |  |
| 114             | FIXED       | 62 1/2"                  | 62 1/2" | 2 1/4"    | 7/8"     | WOOD   | ALUM CLAD | WOOD   | PAINTED |      |      | PELLA RESERVE CLAD FIXED WINDOW OR EQUAL   |  |
| 115             | FIXED       | 62 1/2"                  | 62 1/2" | 2 1/4"    | 7/8"     | WOOD   | ALUM CLAD | WOOD   | PAINTED |      |      | PELLA RESERVE CLAD FIXED WINDOW OR EQUAL   |  |
| 116             | FIXED       | 62 1/2"                  | 62 1/2" | 2 1/4"    | 7/8"     | WOOD   | ALUM CLAD | WOOD   | PAINTED |      |      | PELLA RESERVE CLAD FIXED WINDOW OR EQUAL   |  |
| 117             | FIXED       | 62 1/2"                  | 62 1/2" | 2 1/4"    | 7/8"     | WOOD   | ALUM CLAD | WOOD   | PAINTED |      |      | PELLA RESERVE CLAD FIXED WINDOW OR EQUAL   |  |
| 118             | FIXED       | 62 1/2"                  | 62 1/2" | 2 1/4"    | 7/8"     | WOOD   | ALUM CLAD | WOOD   | PAINTED |      |      | PELLA RESERVE CLAD FIXED WINDOW OR EQUAL   |  |
| 119             | FIXED       | 62 1/2"                  | 62 1/2" | 2 1/4"    | 7/8"     | WOOD   | ALUM CLAD | WOOD   | PAINTED |      |      | PELLA RESERVE CLAD FIXED WINDOW OR EQUAL   |  |

\* DIMENSIONS PROVIDED ARE FOR PRICING ONLY AND ARE TO BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO ORDERING.

## IECC 2021 SUMMARY

| MAINE (IECC 2021)                |                          |
|----------------------------------|--------------------------|
| COMMERCIAL CONSTRUCTION          |                          |
| BUILDING ENVELOPE REQUIREMENTS   |                          |
| CLIMATE ZONE                     | 6A                       |
| Vertical fenestration - Fixed    |                          |
| U-factor                         | 0.34                     |
| SHGC                             | 0.38                     |
| Vertical fenestration - Operable |                          |
| U-factor                         | 0.42                     |
| SHGC                             | 0.34                     |
| Insulation                       |                          |
| Ceiling R-Value                  | 49                       |
| Wood Frame Wall R-Value          | 20+3.8ci, or<br>13+7.5ci |
| Mass Wall R-Value                | 13.3ci                   |
| Floor R-Value                    | 38                       |
| Basement Wall R-Value            | 10ci                     |
| Slab R-Value                     | 20ci, 2 ft min.          |

## AREA MAP

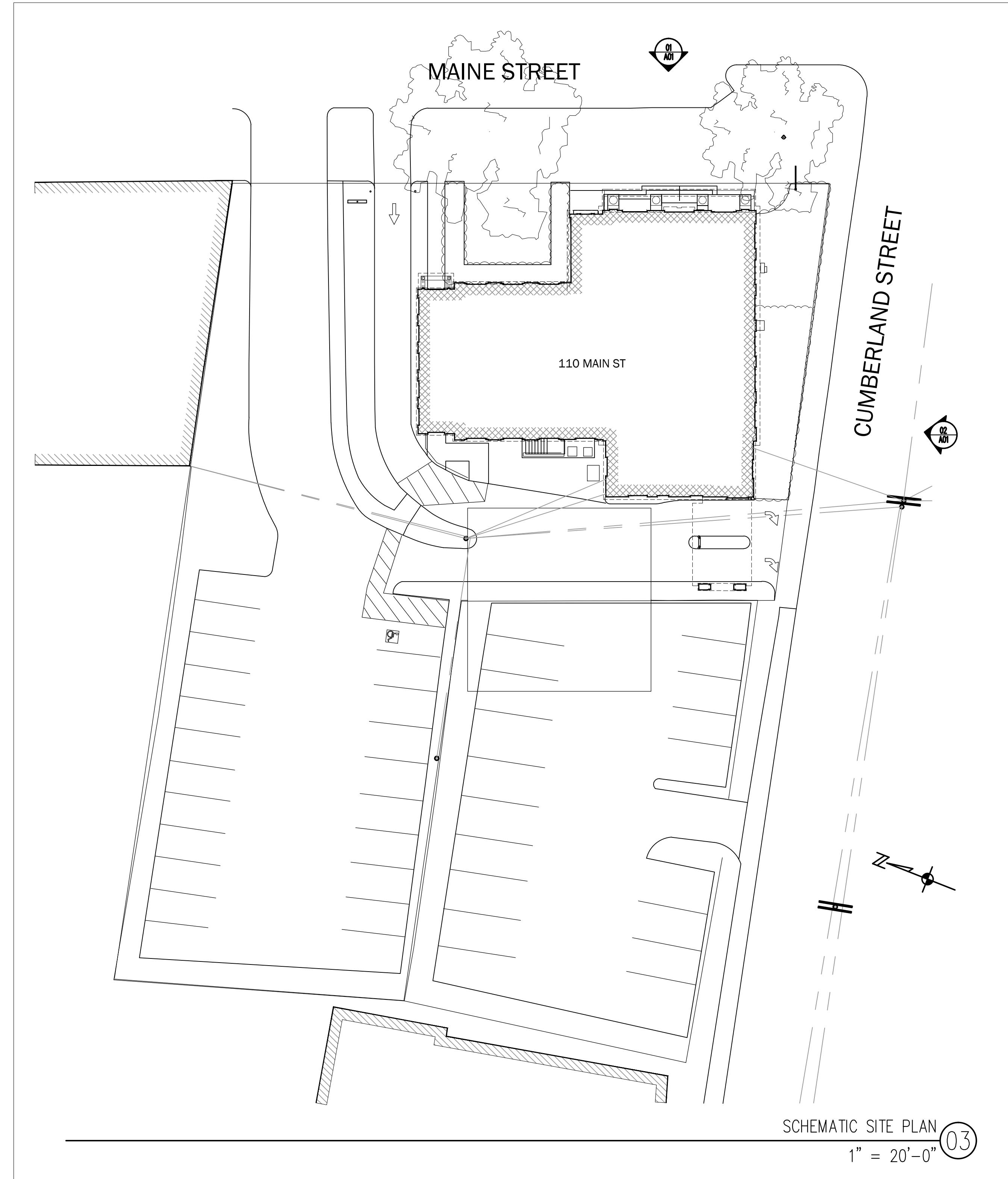
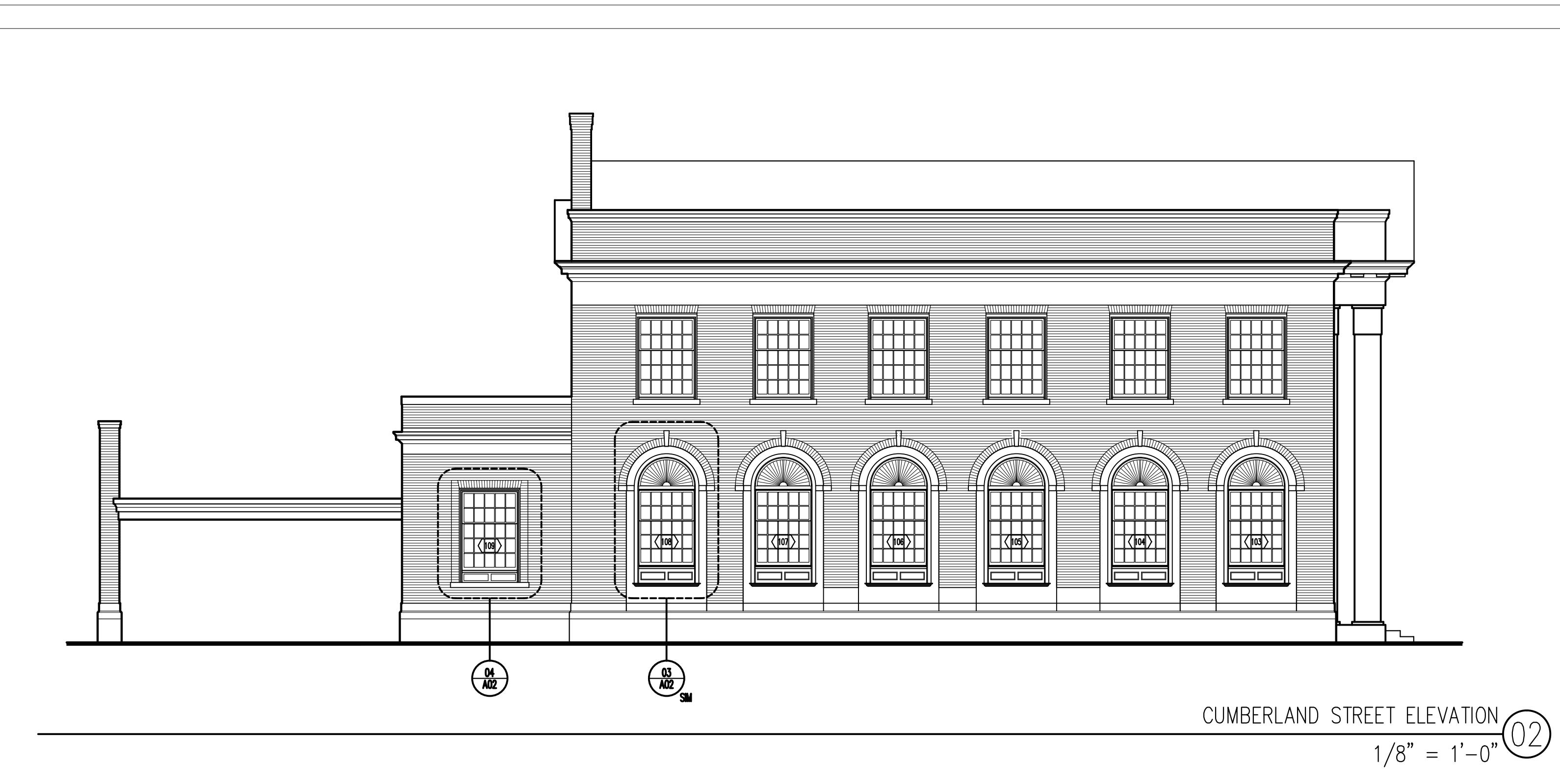


Brunswick, ME

BAU-Windows

108-110 MAINE STREET  
BRUNSWICK, ME 04011MHID: ME1-115  
FOID:  
ONEVIEW: 02819P4D71CC  
KAHUA: K1011479APPROACH<sup>3</sup>

ARCHITECTURE CONSULTING REAL ESTATE

A: 50 PINECLIFF DRIVE  
MARBLEHEAD, MA 01945  
O: 617.688.2407  
T: WWW.APROACH3.COM

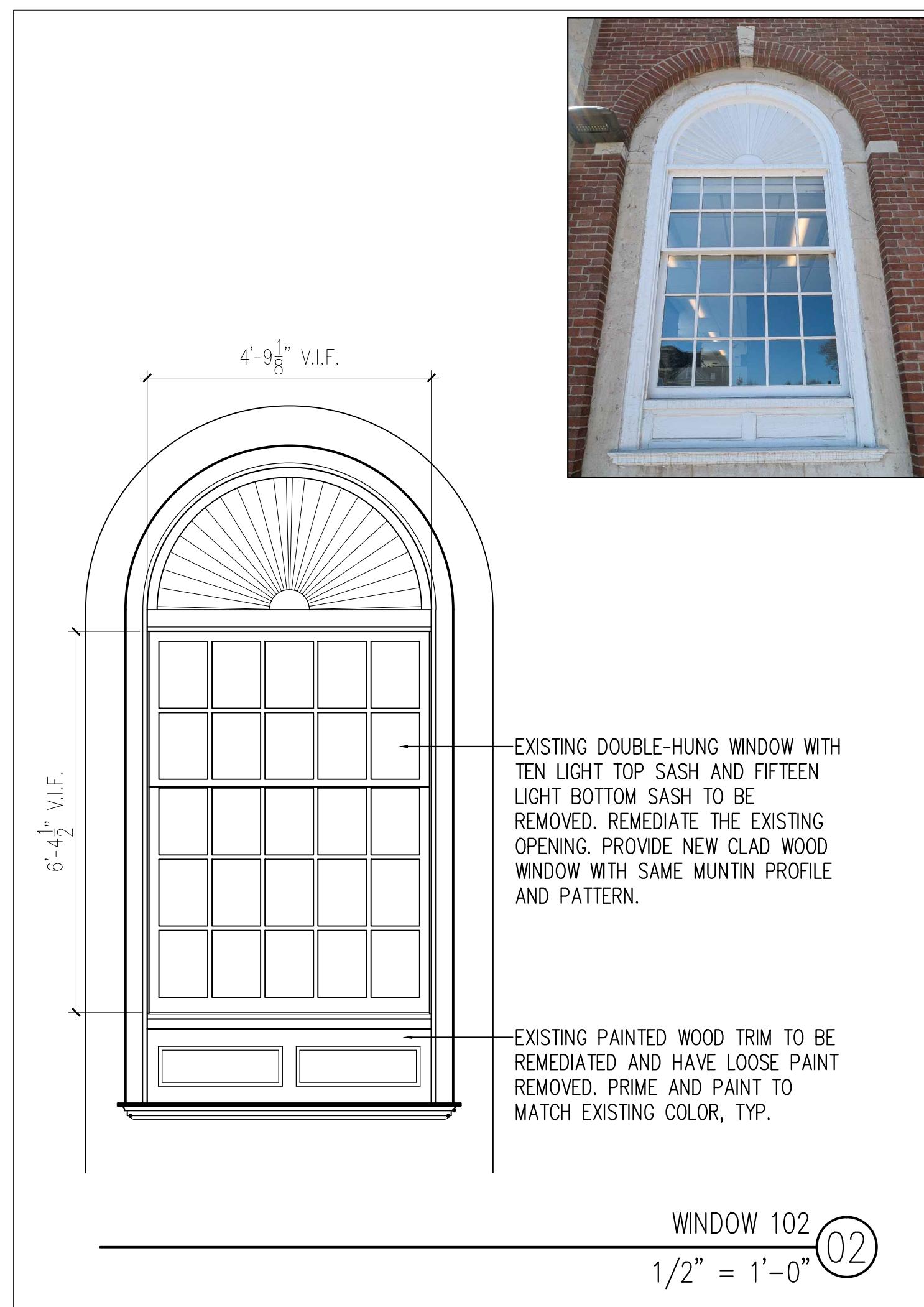
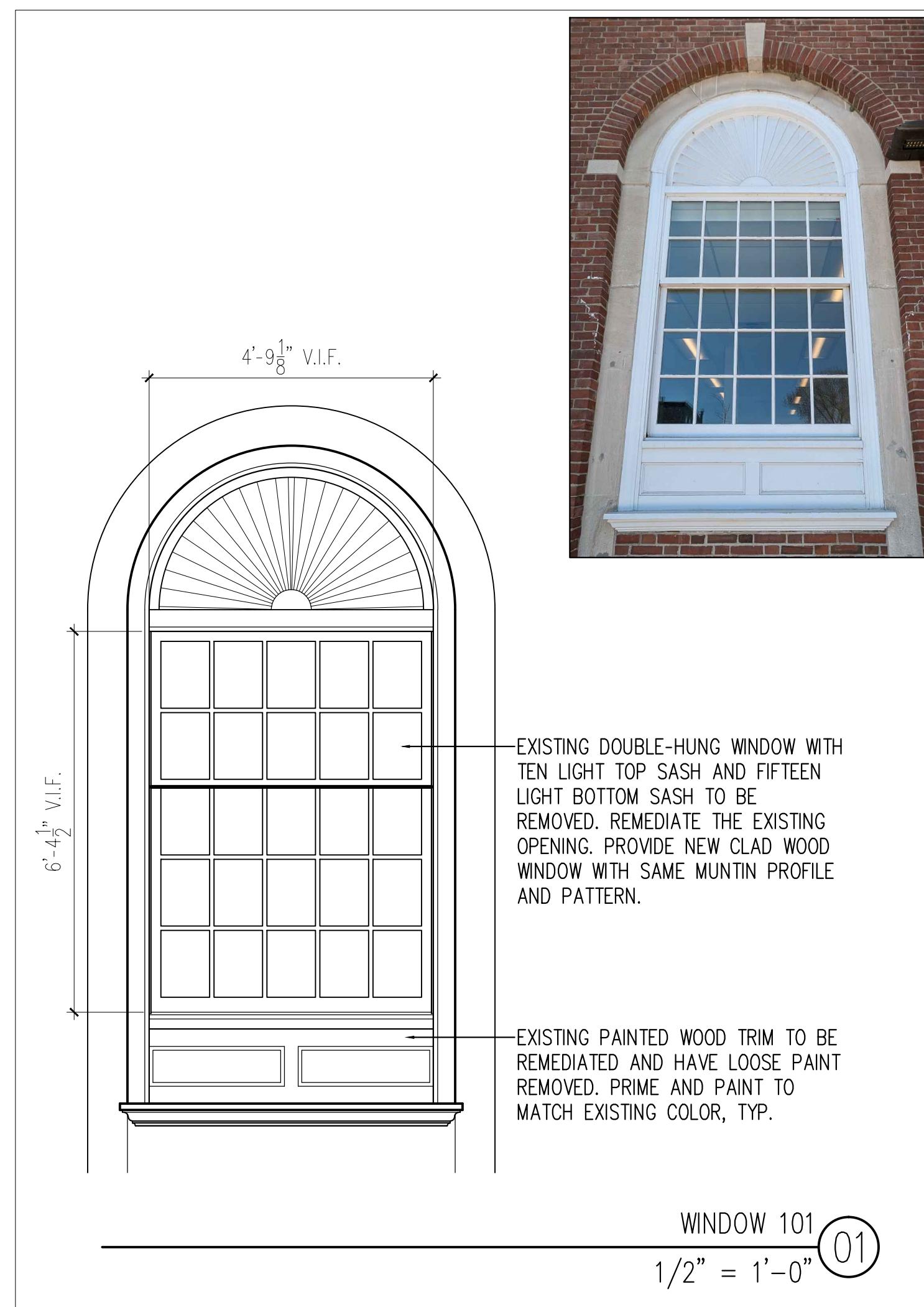
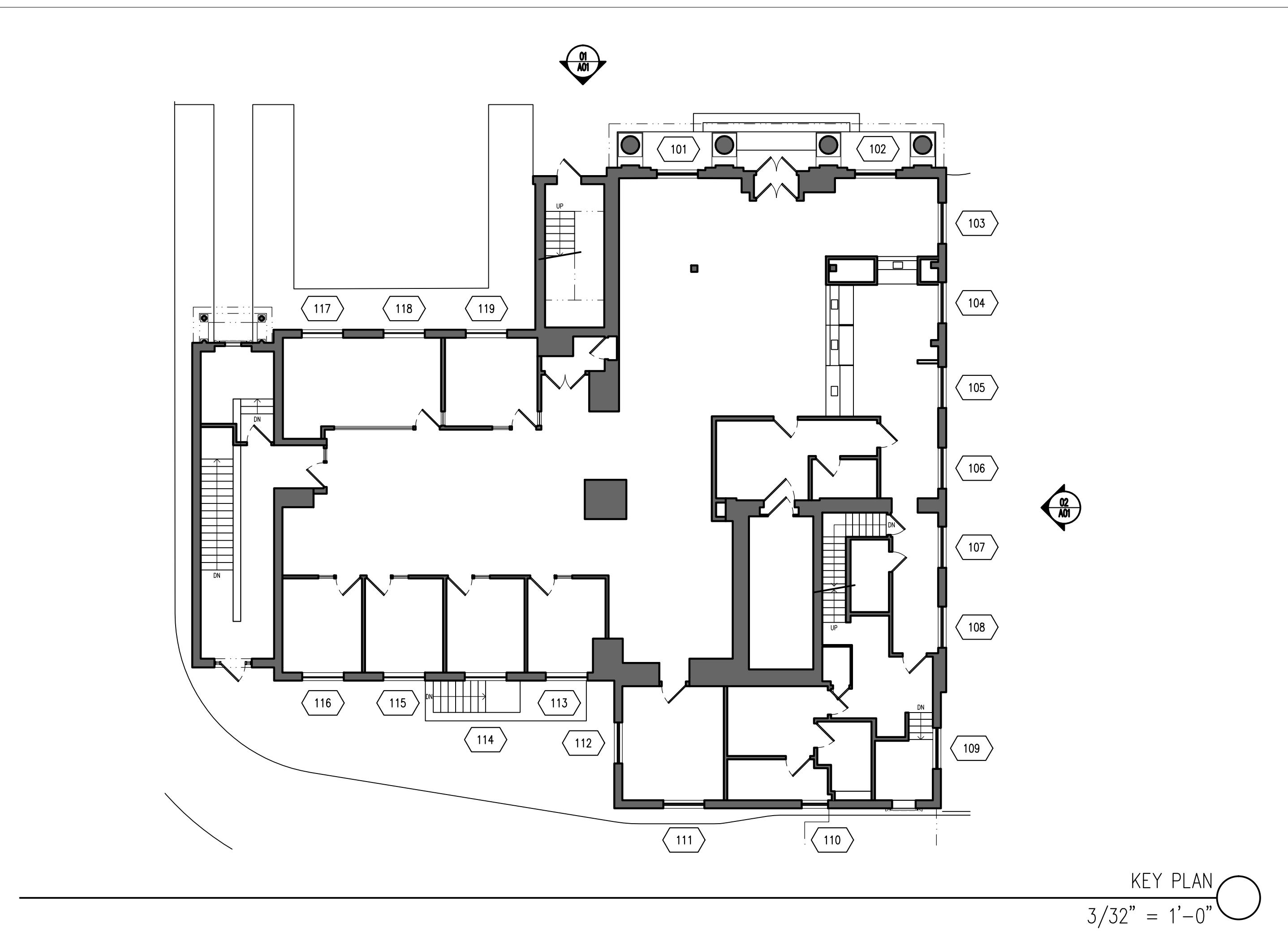
Date & Issue Description By Check  
 -- 05/27/25 CMK --  
 -- SCOPE REVIEW --  
 -- 06/02/25 CMK BDP  
 RELEASED FOR HEARING

Architect Project Number  
2505  
Architect  
CMK  
Seal/Signature

Project Name  
BANK OF AMERICA  
BRUNSWICK WINDOW REPLACEMENT  
CAD File Name  
/2505/Drawings/Brunswick-Windows  
Description  
SITE PLAN  
BUILDING EXTERIOR ELEVATIONS

Scale  
AS SHOWN

A01



Date & Issue Description By Check  
-- 05/27/25 CMK --  
-- 06/02/25 CMK BDP  
RELEASED FOR HEARING

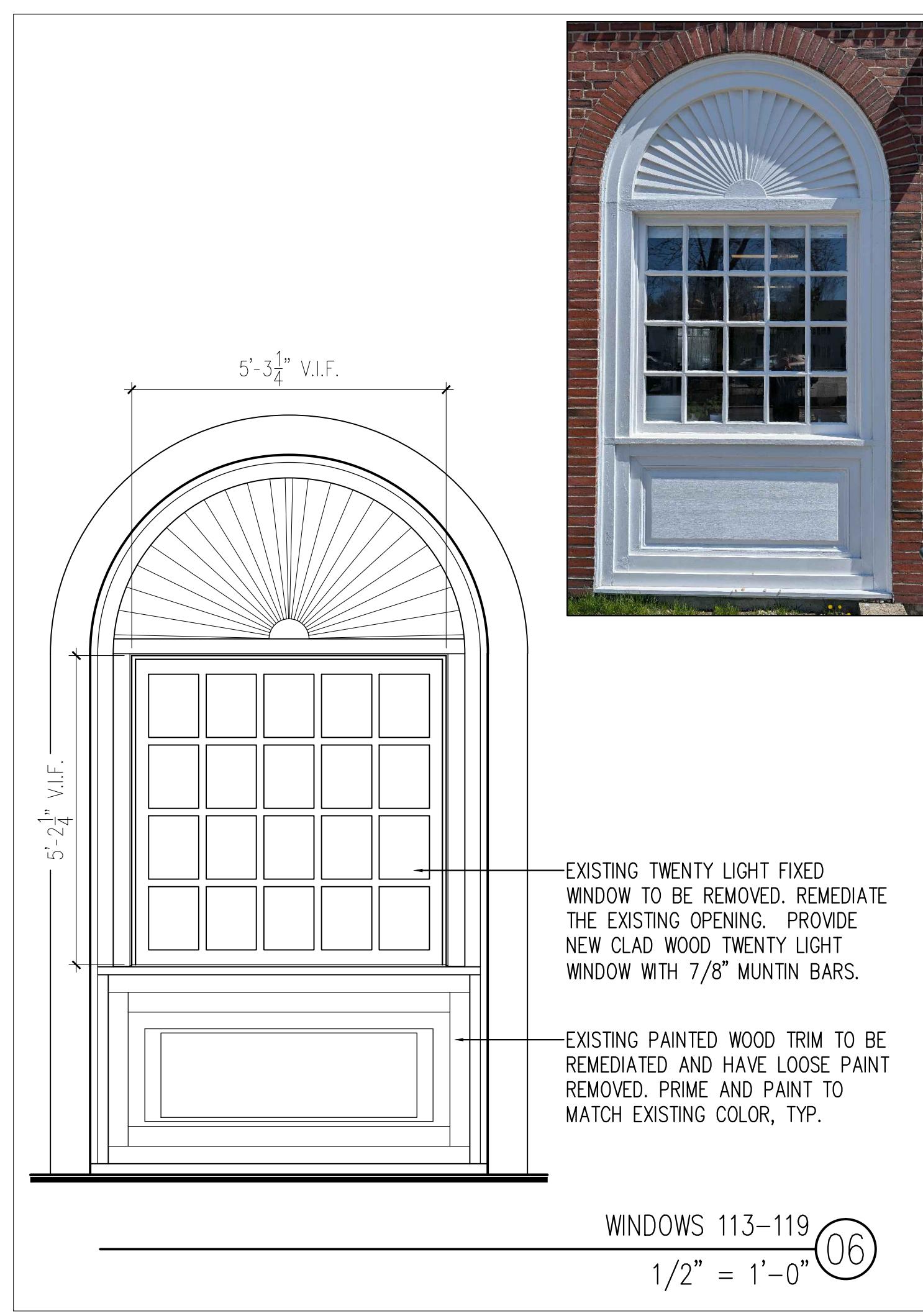
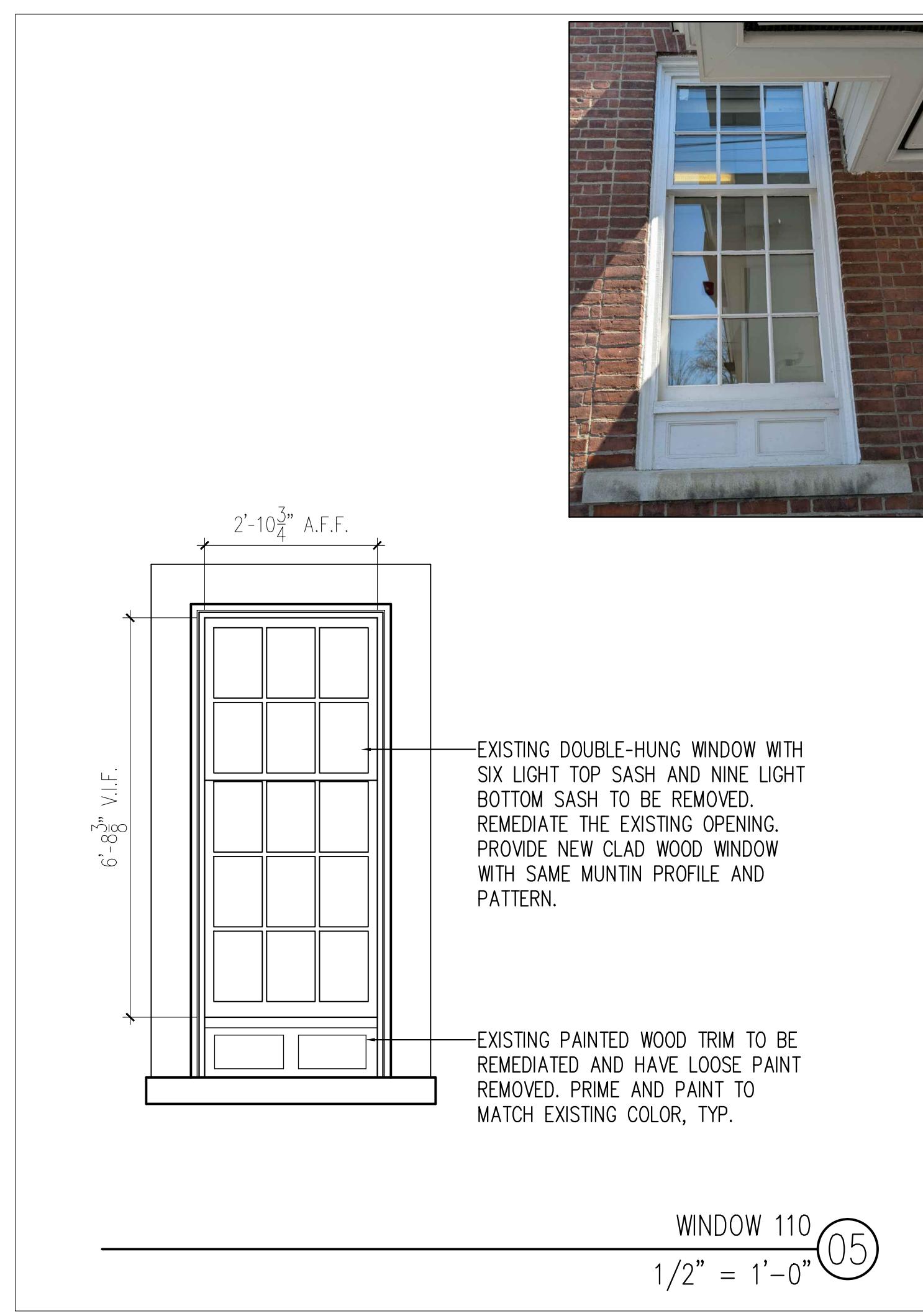
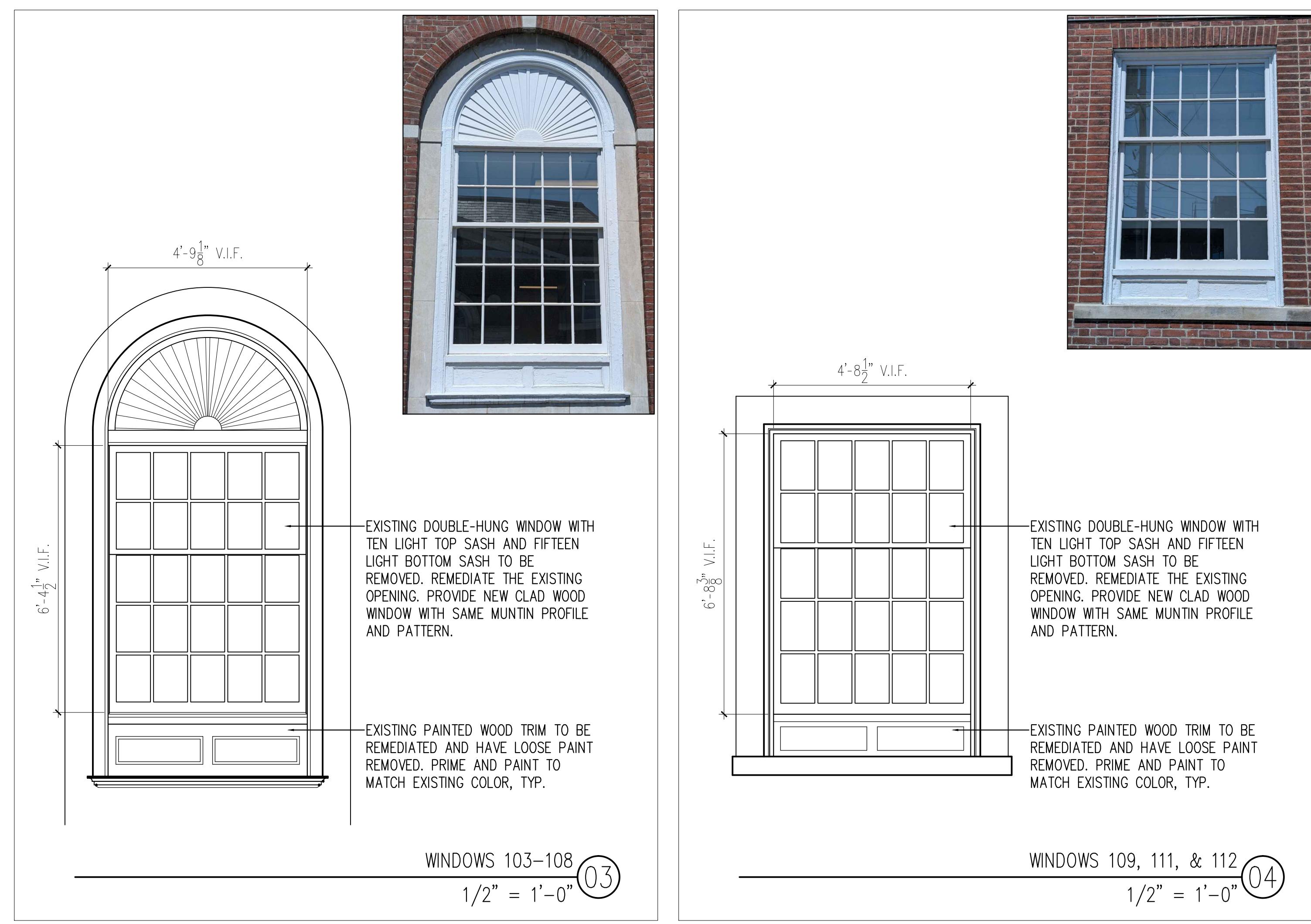
Architect Project Number  
2505  
Architect  
CMK  
Seal/Signature

Project Name  
BANK OF AMERICA  
BRUNSWICK WINDOW REPLACEMENT  
CAD File Name  
/2505/Drawings/Brunswick-Windows

Description  
KEY PLAN  
WINDOW DETAILS

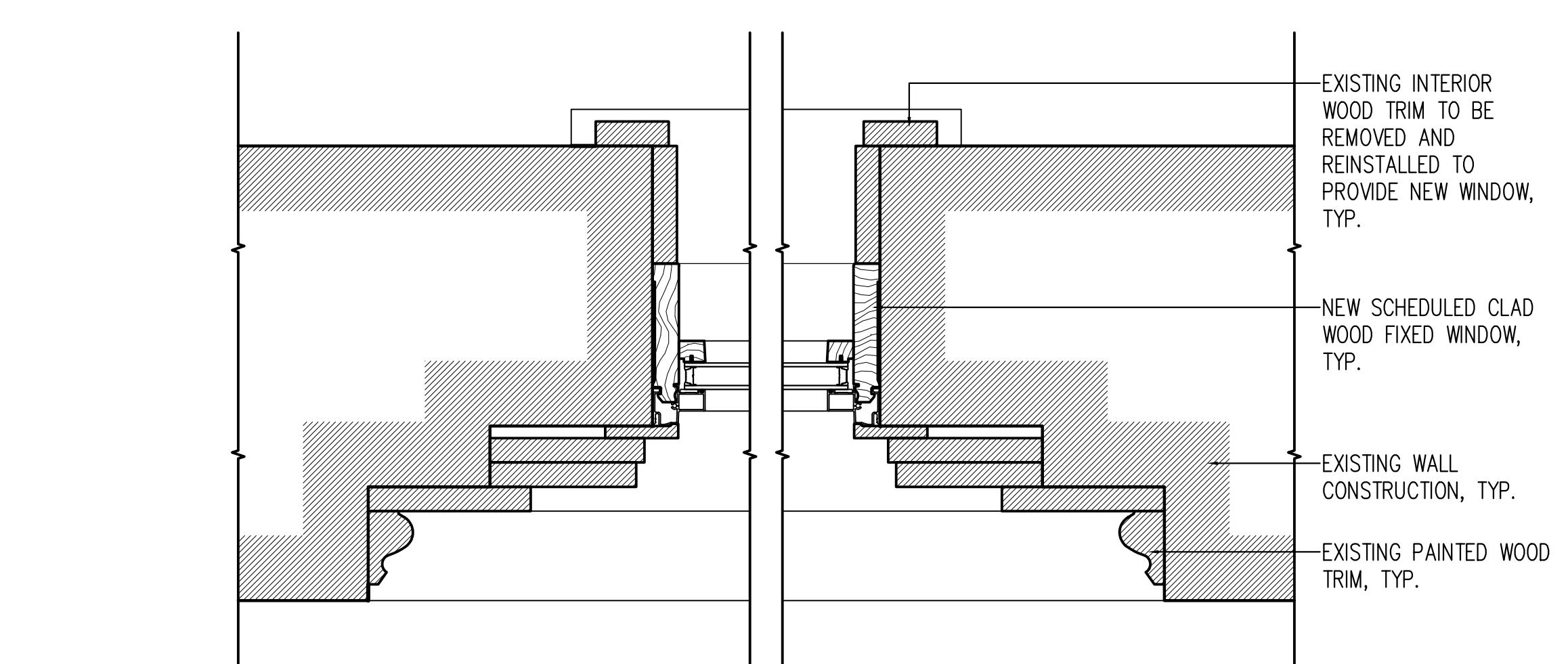
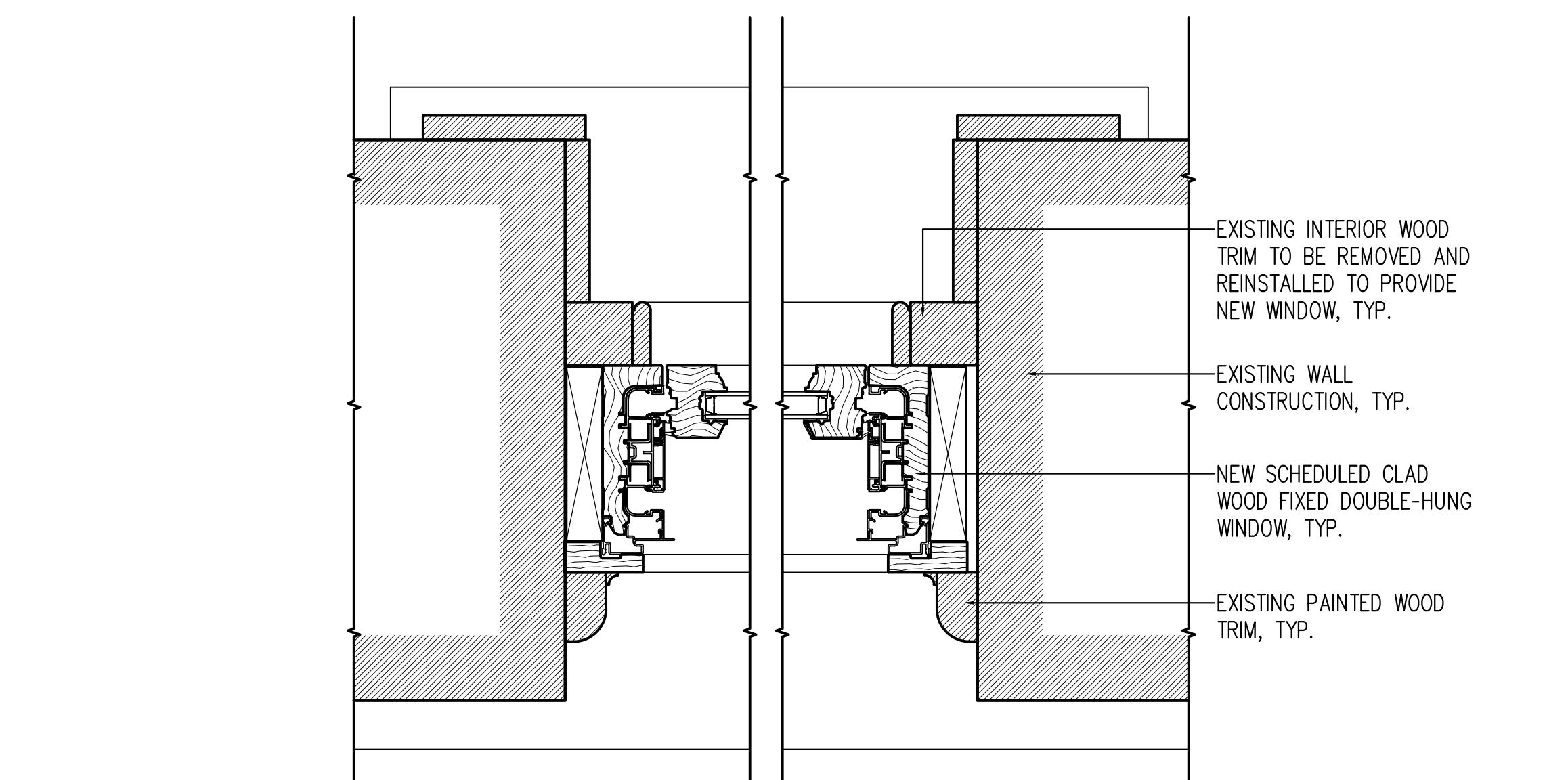
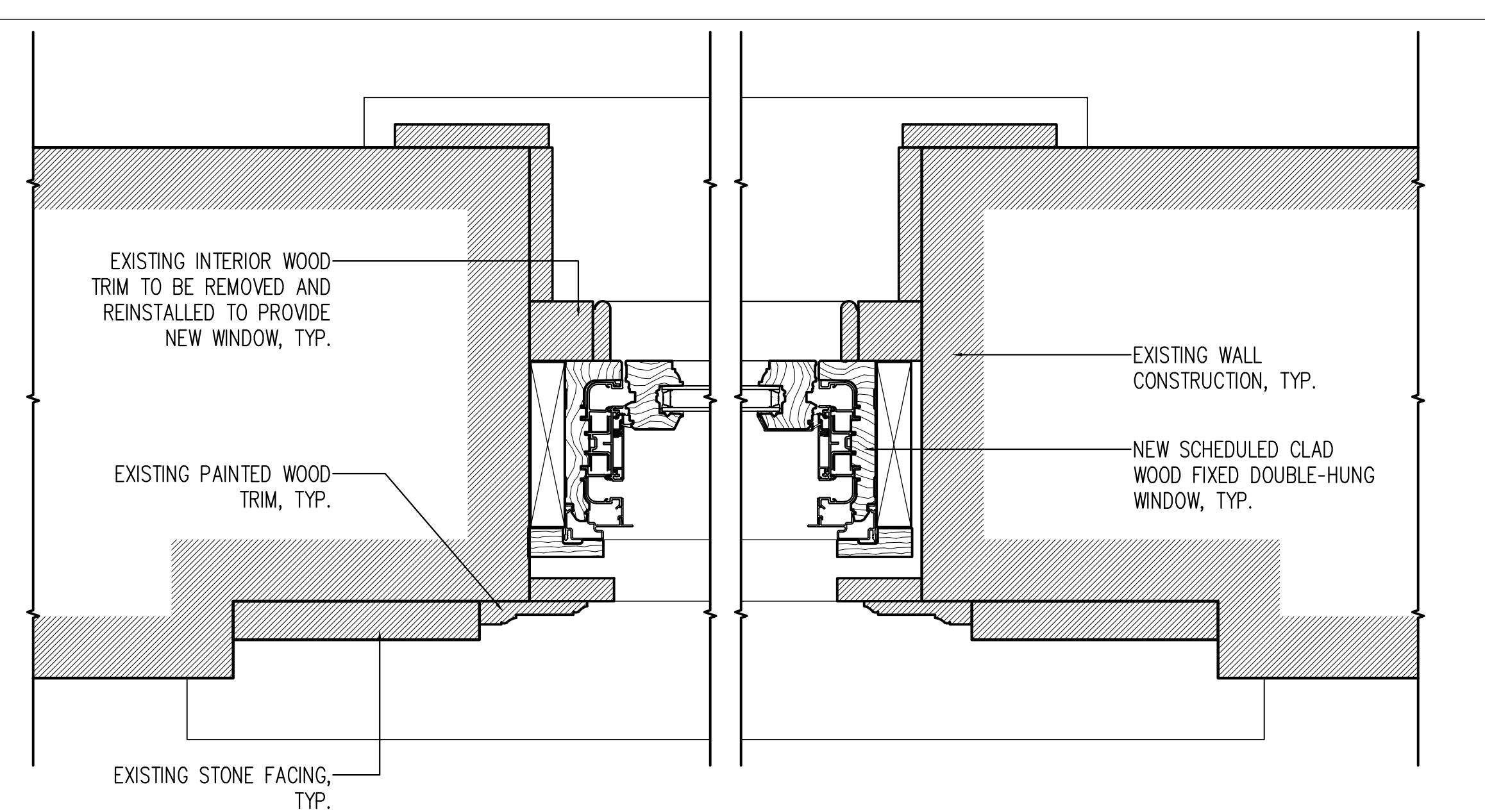
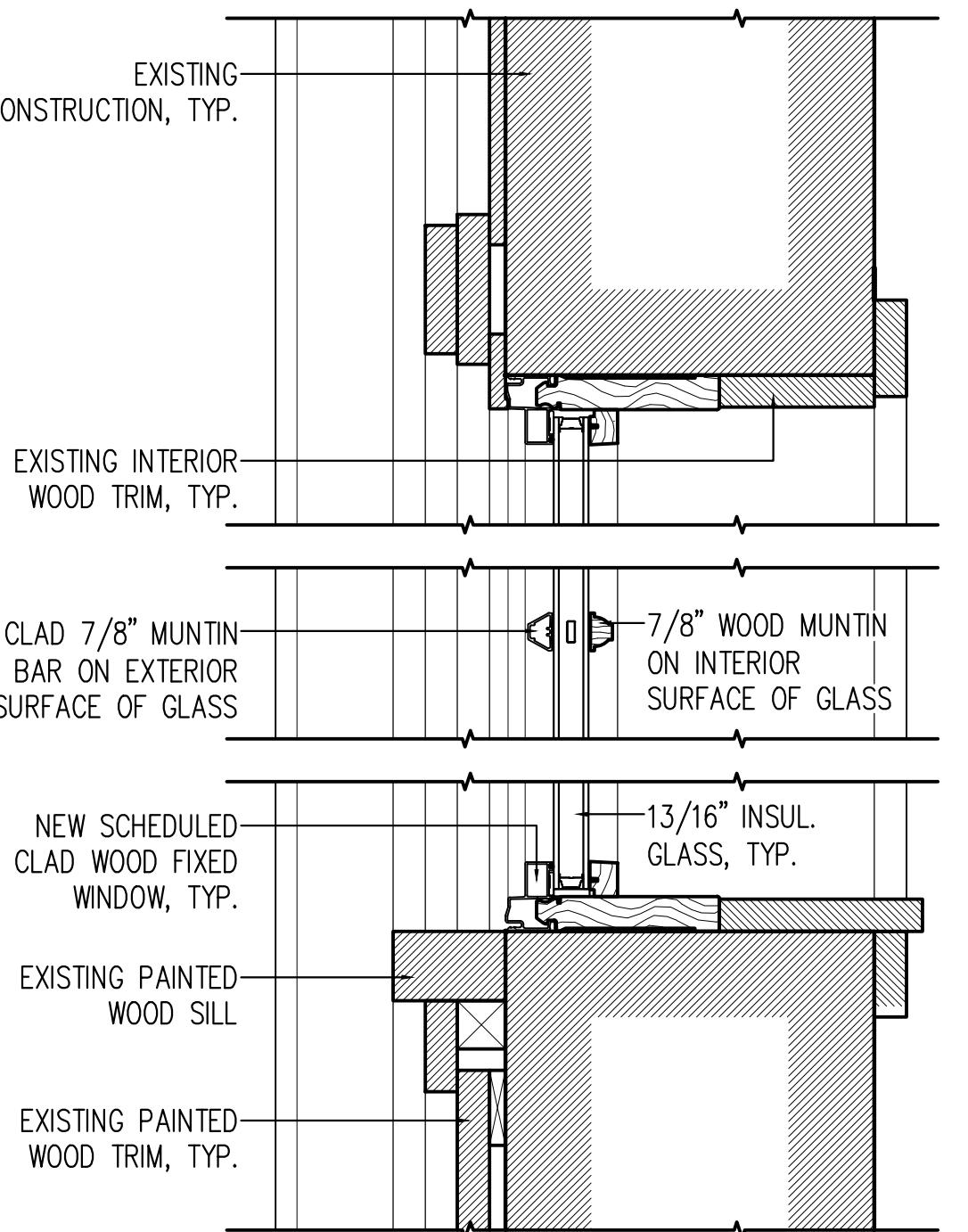
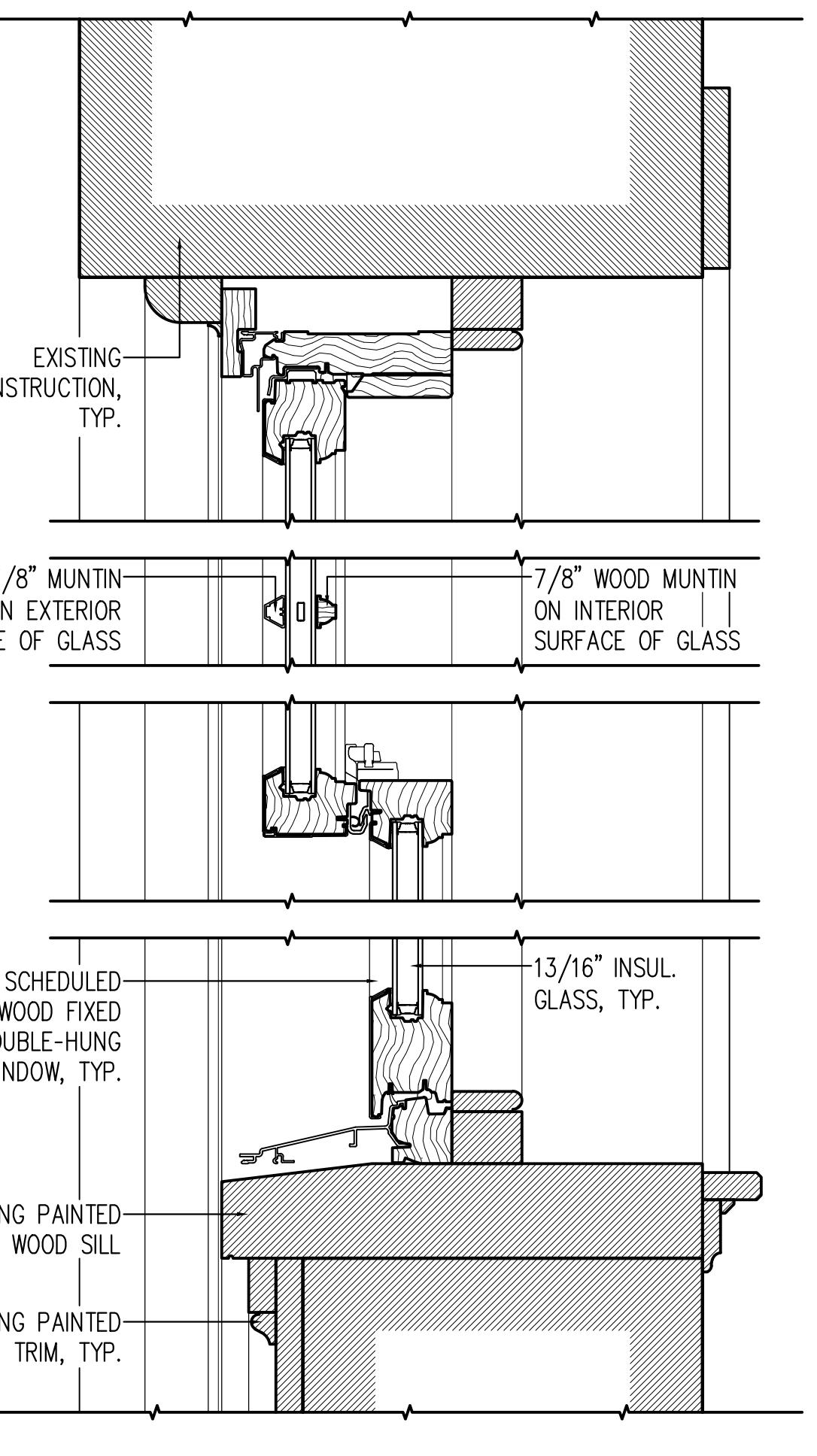
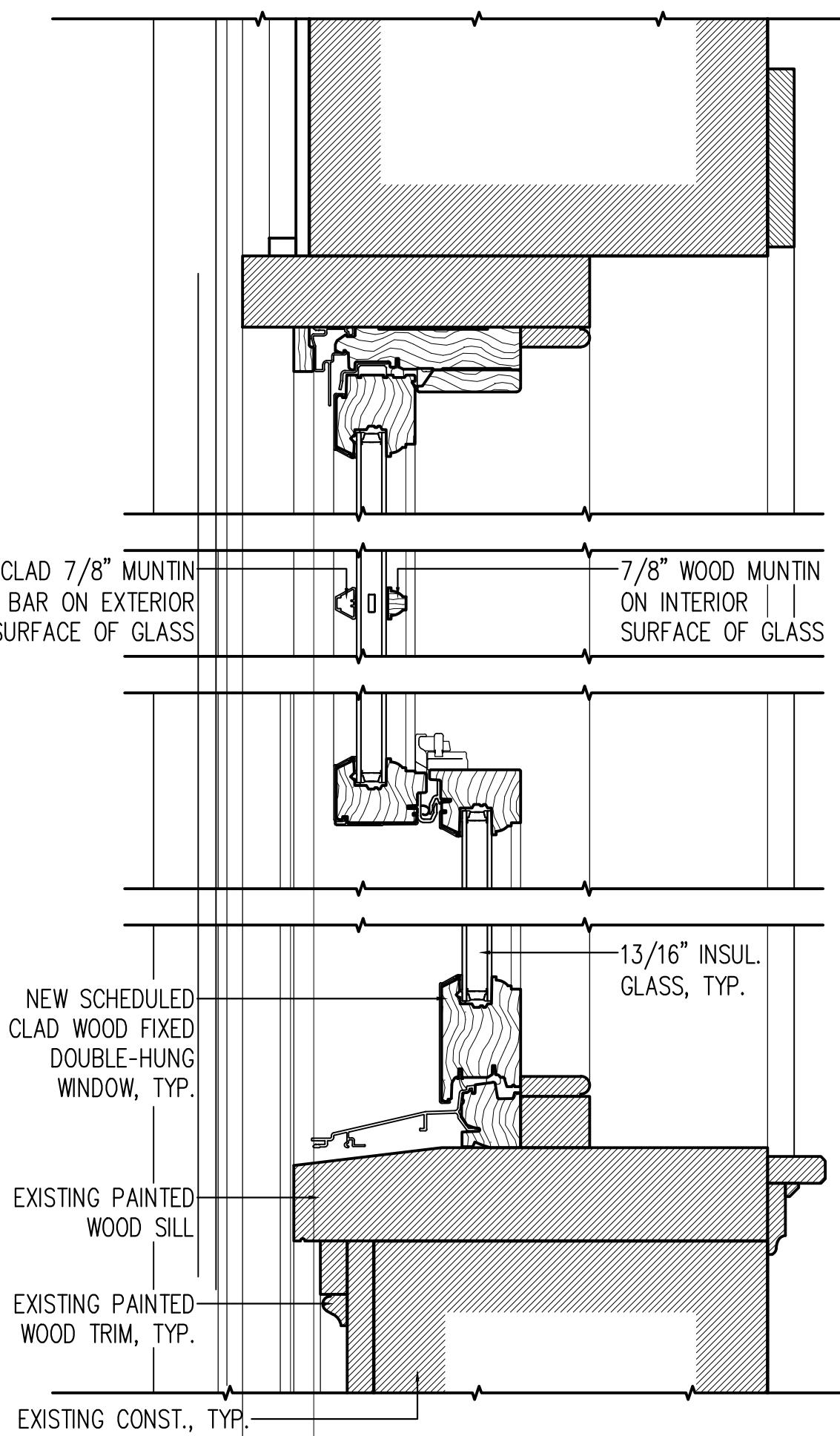
Scale  
AS SHOWN

A02



## ENVIRONMENTAL REPORT SUMMARY

| Material Type                          | Primary Color | Texture | Material Description    | Asbestos Result                      | Floor | Rooms      | Location | Condition |
|--|---------------|---------|-------------------------|--------------------------------------|-------|------------|----------|-----------|
| M - Window Glazing/Putty (Interior)    | White         | Smooth  | Window Glazing          | ACCM (California only), <1% or Trace | B, 2  | Throughout | Other    | Good      |
| M - Exterior - Window Caulk            | White         | Smooth  | Window Caulk            | ACM Non-Friable (>1%)                | E     | Throughout | Other    | Good      |
| M - Exterior - Window Caulk            | White         | Smooth  | Exterior Window Caulk   | ACM Non-Friable (>1%)                | E     | Exterior   | Wall     | Good      |
| M - Exterior - Window Glazing Compound | White         | Smooth  | Exterior Window Glazing | ACM Non-Friable (>1%)                | E     | Exterior   | Wall     | Good      |



A03



Date & Issue Description By Check  
-- 05/27/25 CMK --  
-- 06/02/25 CMK BDP  
RELEASED FOR HEARING

Architect Project Number  
2505  
Architect  
CMK  
Seal/Signature

Project Name  
BANK OF AMERICA  
BRUNSWICK WINDOW REPLACEMENT  
CAD File Name  
/2505/Drawings/Brunswick-Windows  
Description  
CONSTRUCTION DETAILS

Scale  
AS SHOWN