



HISTORIC DISTRICT COMMISSION

APPLICATION FOR WORK APPROVAL

City of Detroit - Planning & Development Department
2 Woodward Avenue, Suite 808
Detroit, Michigan 48226

APPLICATION ID

HDC2025-00269

PROPERTY INFORMATION

ADDRESS(ES): 3928 Porter Street

HISTORIC DISTRICT: Hubbard Farms

SCOPE OF WORK: (Check ALL that apply)

- | | | | | | |
|---|---|--|---|---|--------------------------------|
| ☒ Windows/
Doors | ☐ Walls/
Siding | ☐ Painting | ☐ Roof/Gutters/
Chimney | ☐ Porch/Deck/Balcony | ☐ Other |
| ☐ Demolition | ☐ Signage | ☐ New
Building | ☐ Addition | ☐ Site Improvements
(landscape, trees, fences,
patios, etc.) | |

BRIEF PROJECT DESCRIPTION:

Replacement of eight (8) windows at the front facade of townhouse. Replacements are required due to the unauthorized exterior modifications to these windows that resulted in all eight (8) windows being irreparably damaged. The eight (8) exterior windows were modified by Tunesi Contracting LLC, who also performed exterior modifications to 3916 Porter, the townhouse at the east corner of our shared building known as "The Victoria." The owner of 3916 Porter Street, Motor City Oz Holdings LLC, hired Tunesi Contracting LLC to make exterior changes to their unit at 3916 Porter. Motor City Oz Holdings neglected to submit an Application for Work Approval (AWA) for their unit prior to hiring Tunesi Contracting LLC, and due to this negligence, Tunesi Contracting LLC not only damaged our original windows irreparably, but performed the same unauthorized work at 3916 Porter. We did not hire Tunesi Contracting LLC nor are we affiliated with the owner of 3916 Porter.

APPLICANT IDENTIFICATION

TYPE OF APPLICANT: Property Owner/Homeowner

NAME: Eric Hensley and Khanh Tran

COMPANY NAME: n/a

ADDRESS: 3928 Porter Street

CITY: Detroit

STATE: MI

ZIP: 48216

PHONE: +1 (917) 855-5753

EMAIL: eric.hensley@nyu.edu

I AGREE TO AND AFFIRM THE FOLLOWING:

- ☒ I understand that the failure to upload all required documentation may result in extended review times for my project and/or a denied application.
- ☒ I understand that the review of this application by the Historic District Commission does not waive my responsibility to comply with any other applicable ordinances including obtaining appropriate permits (building, sign, etc.) or other department approvals prior to beginning the work.
- ☒ I hereby certify that I am the legal owner and occupant of the subject property and that the information on this application is true and correct.

Signed by:

Eric Hensley and Khanh Tran

n/a

Eric Hensley and Khanh Tran

05/13/2025

SIGNATURE

DATE

3928 Porter Street

Detroit

MI

48216

+1 (917) 855-5753

eric.hensley@nyu.edu

Questions? Contact us at hdc@detroitmi.gov or (313)224-1762

NOTE: Based on the scope of work, additional documentation may be required. See www.detroitmi.gov/hdc for scope-specific requirements.

PROJECT DETAILS – TELL US ABOUT YOUR PROJECT

Instructions: Add project details using the text box in each section. If your details exceed the space provided, attach the details via the attachment icon for that section.

ePLANS PERMIT NUMBER:

(only applicable if you've already applied for permits through ePLANS)

n/a

GENERAL

1. DESCRIPTION OF EXISTING CONDITION

Please tell us about the current appearance and conditions of the areas you want to change. You may use a few sentences or attach a separate prepared document on the right. (For example, "existing roof on my garage is covered in gray asphalt shingles in poor condition.")

As a result of unauthorized exterior modifications to our original 7 windows (dating 1900) and 1 non-original window at the top right, all windows at the front facade are irreparably damaged due to the haphazard work performed by Tunesi Contracting LLC. See attached assessment provided by Jamie Perez, the owner of Time Tool, in which he determined that the unauthorized work performed by Tunesi Contracting LLC resulted in all windows being non-restorable. See attached photos demonstrating work performed by Tunesi Contracting LLC. Please note, that prior to that unauthorized work, our original windows had no aluminum trim, no caulking, and no nails in the wood. As a result of this unauthorized work, I self reported to HDC and BSEED and our unit and 3916 were issued violations.



2. PHOTOGRAPHS

Help us understand your project. Please attach photographs of all areas where work is proposed.



3. DESCRIPTION OF PROJECT

In this box, tell us about what you want to do at the areas described above in box #1. (For example, Install new asphalt shingle roofing at garage.)

Install 8 replacement windows at the front facade — 7 MARVIN Double Hung Windows, and 1 glass block window at basement level (diamond pattern glass block). Please see attached details.



4. DETAILED SCOPE OF WORK

In this box, please describe all steps necessary to complete the work described in box #3. (For example, "remove existing shingles, replace wood deck as necessary, replace wood eaves, install roof vents, replace rotted fascia boards, paint, clean worksite.")

Remove existing 8 windows in their entirety, clean and remove caulk and paint as necessary, and replace with aforementioned windows as described in Section 3 and as indicated in the attached MARVIN and DOWNRIVER GLASS BLOCK quotes. Please note that the extensive damage to the exterior caused by Tunesi Contracting LLC, negates the necessity to attach interior window photos.

5. BROCHURES/CUT SHEETS

Please provide information on the products or materials you are proposing to install. For example, a brochure on the brand and color of the shingles proposed.

ADDITIONAL DETAILS

6. WINDOWS/DOORS Detailed photographs of window(s) and/or door(s) proposed for replacement showing the condition of the interior and exterior of the window(s) and/or door(s)	



Jamie Perez

5/2/25

313 699 1180
timeandtool313@gmail.com

BILL TO
Eric Hensley
3928 Porter
Detroit, MI

SITE / LOCATION
Porter

DESCRIPTION		TOTAL
MATERIALS & LABOR		
Window Assessment		\$180

Other		

- Poor quality aluminum trim installation with many mistakes jeopardizes brick mold and window jamb.
- Polyurethane sealant/caulking was applied and is adhered tenaciously to the brick. Likely to damage mortar and leave staining upon removal.
- Sealant applied to storm windows covering screws and access points for removal of storm windows. This has effectively rendered the windows inaccessible, as many storm windows are in a non-functional condition. Broken panes in multiple sashes are now inaccessible for repair without full removal of the sash from the interior. Simply cleaning the windows is now an impossible task for the homeowner.
- Tub/Tile enamel has been applied to the windows, which is an inappropriate choice for any wood or exterior work. The workmanship of the painters is strikingly poor. Old glazing on the panes and paint on the sashes were not repaired/prepped prior to painting, creating a prohibitively difficult process to restore the window without breaking the glass. Workmanship and choice of paint demonstrate a clear lack of competency from the contractor.
- Excessive nails have been driven through the aluminum trim that was applied to all brick molding and exterior sills. Removal of this aluminum trim would likely damage the original wood beyond repair. Old wood rot was not remediated prior to applying aluminum, and the lack of air exposure caused by the application of aluminum will exacerbate rot issues.
- Restoration of old windows is made easier by weathering. Over many years of weathering, glazing and paint are made weak by the elements. Stripping back layers and preparing glazing are the most important steps in historic window restoration. The previous contractor's failure to adhere to this procedure has created a much more expensive, difficult, and in many ways impossible restoration process for these windows.











Hensley, Eric

Marvin Windows (Front Elevation)

Quote #: 3MSCHAP

A Proposal for Window and Door Products prepared for:

Shipping Address:
LAURENCE SMITH-BLOOMFIELD
3605 S HURON RD
BAY CITY, MI 48706-2043

Featuring products from:



MARVIN
DESIGN GALLERY

a complete window and door showroom
CHRIS CASWELL
LAURENCE SMITH-BLOOMFIELD
3605 S HURON RD
BAY CITY, MI 48706-2043
Phone: (248) 333-9085

Email:
ccaswell@windowanddoorcenter.com

This report was generated on 4/21/2025 11:49:33 AM using the Marvin Order Management System, version 0004.14.01 (Current). Price in USD. Unit availability and price are subject to change. Dealer terms and conditions may apply.

UNIT SUMMARY

The following is a schedule of the windows and doors for this project. For additional unit details, please see Line Item Quotes.
Additional charges, tax or Terms and Conditions may apply. Detail pricing is per unit.

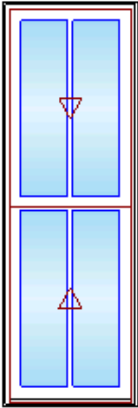
NUMBER OF LINES: 6		TOTAL UNIT QTY: 8		EXT NET PRICE: USD		14,228.09
LINE	MARK UNIT	PRODUCT LINE	ITEM	NET PRICE	QTY	EXTENDED NET PRICE
1	Parlor	Elevate	Double Hung Insert IO 24 1/8" X 69 3/4" Entered as FS 23 3/4" X 69 1/2"	905.15	2	1,810.30
2	Parlor	Elevate	Double Hung Insert IO 30 5/8" X 69 3/4" Entered as FS 30 1/4" X 69 1/2"	975.07	1	975.07
6	Bedroom 1	Elevate	Double Hung Insert IO 24 3/8" X 64 1/4" Entered as FS 24" X 64"	922.43	2	1,844.86
7	Bedroom 1	Elevate	Double Hung Insert IO 30 3/8" X 64 1/4" Entered as FS 30" X 64"	992.36	1	992.36
8	Bedroom 1	Elevate	Double Hung Insert IO 22 1/8" X 38 1/4" Entered as FS 21 3/4" X 38"	720.50	1	720.50
12	Labor / Custom Stain	Non-Marvin	Labor Install Includes Removal and Haul Away of Old Units, Exterior Trim, Solar Seal #900 Caulk, OSI Spray Foam Insulation, 5 Year Product Labor Warranty, Lifetime Craftsmanship Warranty.	7,885.00	1	7,885.00

LINE ITEM QUOTES

The following is a schedule of the windows and doors for this project. For additional unit details, please see Line Item Quotes. Additional charges, tax or Terms and Conditions may apply. Detail pricing is per unit.

Line #1	Mark Unit: Parlor	Net Price:		905.15
Qty: 2		Ext. Net Price:	USD	1,810.30

MARVIN



As Viewed From The Exterior

Entered As: FS
Egress Information
Width: 20 3/32" Height: 29 17/64"
Net Clear Opening: 4.08 SqFt

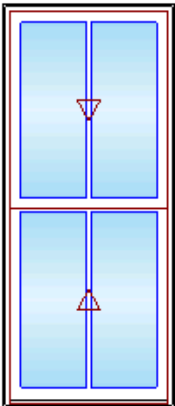
- Ebony Exterior
- Bare Pine Interior
- Elevate Double Hung Insert
- Frame Size 23 3/4" X 69 1/2"
- Inside Opening 24 1/8" X 69 3/4"
- 8 Degree Frame Bevel
- Top Sash
- Ebony Exterior
- Bare Pine Interior
- IG
- Low E2 w/Argon
- Stainless Perimeter and Spacer Bar
- 7/8" SDL - With Spacer Bar - Stainless
- Rectangular 2W1H
- Ebony Ext - Bare Int
- Bottom Sash
- Ebony Exterior
- Bare Pine Interior
- IG
- Low E2 w/Argon
- Stainless Perimeter and Spacer Bar
- 7/8" SDL - With Spacer Bar - Stainless
- Rectangular 2W1H
- Ebony Ext - Bare Int
- Beige Weather Strip Package
- 1 Almond Frost Sash Lock
- Exterior Aluminum Screen
- Ebony Surround
- Bright View Mesh
- 3 1/4" Jambs
- Thru Jamb Installation
- Existing Sill Angle 0

Is the existing Sill Angle of 0 degrees correct?
***Note: Divided lite cut alignment may not be accurately represented in the OMS drawing. Please consult your local representative for exact specifications.
***Note: Frame Size shown is measured from the exterior of the unit.
***Note: Unit Availability and Price is Subject to Change

Line #2	Mark Unit: Parlor	Net Price:		975.07
Qty: 1		Ext. Net Price:	USD	975.07

MARVIN

- Ebony Exterior
- Bare Pine Interior
- Elevate Double Hung Insert
- Frame Size 30 1/4" X 69 1/2"
- Inside Opening 30 5/8" X 69 3/4"
- 8 Degree Frame Bevel
- Top Sash
- Ebony Exterior
- Bare Pine Interior
- IG
- Low E2 w/Argon
- Stainless Perimeter and Spacer Bar
- 7/8" SDL - With Spacer Bar - Stainless
- Rectangular 2W1H
- Ebony Ext - Bare Int
- Bottom Sash
- Ebony Exterior



As Viewed From The Exterior

Entered As: FS

Egress Information

Width: 26 19/32" Height: 29 17/64"
Net Clear Opening: 5.40 SqFt

- Bare Pine Interior
- IG
- Low E2 w/Argon
- Stainless Perimeter and Spacer Bar
- 7/8" SDL - With Spacer Bar - Stainless
- Rectangular 2W1H
- Ebony Ext - Bare Int
- Beige Weather Strip Package
- 1 Almond Frost Sash Lock
- Exterior Aluminum Screen
- Ebony Surround
- Bright View Mesh
- 3 1/4" Jambs
- Thru Jamb Installation
- Existing Sill Angle 0

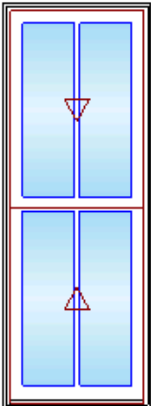
Is the existing Sill Angle of 0 degrees correct?

***Note: Divided lite cut alignment may not be accurately represented in the OMS drawing. Please consult your local representative for exact specifications.

***Note: Frame Size shown is measured from the exterior of the unit.

***Note: Unit Availability and Price is Subject to Change

Line #6	Mark Unit: Bedroom 1	Net Price:		922.43
Qty: 2		Ext. Net Price:	USD	1,844.86



As Viewed From The Exterior

Entered As: FS

Egress Information

Width: 20 11/32" Height: 26 33/64"
Net Clear Opening: 3.75 SqFt
Sash Limiters and Window Opening Control
Devices, when engaged, may reduce the egress
opening dimensions of windows.

- Ebony Exterior
- Bare Pine Interior
- Elevate Double Hung Insert
- Frame Size 24" X 64"
- Inside Opening 24 3/8" X 64 1/4"
- 8 Degree Frame Bevel
- Top Sash
- Ebony Exterior
- Bare Pine Interior
- IG
- Low E2 w/Argon
- Stainless Perimeter and Spacer Bar
- 7/8" SDL - With Spacer Bar - Stainless
- Rectangular 2W1H
- Ebony Ext - Bare Int
- Bottom Sash
- Ebony Exterior
- Bare Pine Interior
- IG
- Low E2 w/Argon
- Stainless Perimeter and Spacer Bar
- 7/8" SDL - With Spacer Bar - Stainless
- Rectangular 2W1H
- Ebony Ext - Bare Int
- Beige Weather Strip Package
- 1 Almond Frost Sash Lock
- Beige Window Opening Control Device

The selected Opening Device color does not match the selected Lock color.

- Exterior Aluminum Screen
- Ebony Surround
- Bright View Mesh

- 3 1/4" Jambs
- Thru Jamb Installation
- Existing Sill Angle 0

Is the existing Sill Angle of 0 degrees correct?

***Note: Divided lite cut alignment may not be accurately represented in the OMS drawing. Please consult your local representative for exact specifications.

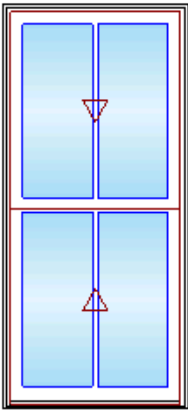
***Note: Frame Size shown is measured from the exterior of the unit.

***Note: Unit Availability and Price is Subject to Change

Line #7	Mark Unit: Bedroom 1	Net Price:		992.36
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Qty: 1		Ext. Net Price:	USD	992.36
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MARVIN 



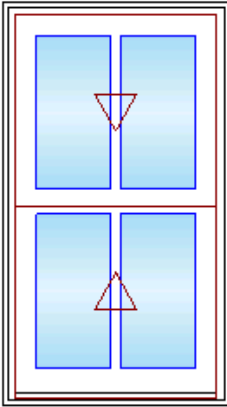
As Viewed From The Exterior

Entered As: FS
Egress Information
Width: 26 11/32" Height: 26 33/64"
Net Clear Opening: 4.85 SqFt
Sash Limiters and Window Opening Control
Devices, when engaged, may reduce the egress
opening dimensions of windows.

Ebony Exterior
Bare Pine Interior
Elevate Double Hung Insert
Frame Size 30" X 64"
Inside Opening 30 3/8" X 64 1/4"
8 Degree Frame Bevel
Top Sash
Ebony Exterior
Bare Pine Interior
IG
Low E2 w/Argon
Stainless Perimeter and Spacer Bar
7/8" SDL - With Spacer Bar - Stainless
Rectangular 2W1H
Ebony Ext - Bare Int
Bottom Sash
Ebony Exterior
Bare Pine Interior
IG
Low E2 w/Argon
Stainless Perimeter and Spacer Bar
7/8" SDL - With Spacer Bar - Stainless
Rectangular 2W1H
Ebony Ext - Bare Int
Beige Weather Strip Package
1 Almond Frost Sash Lock
Beige Window Opening Control Device
The selected Opening Device color does not match the selected Lock color.
Exterior Aluminum Screen
Ebony Surround
Bright View Mesh
3 1/4" Jamb
Thru Jamb Installation
Existing Sill Angle 0
Is the existing Sill Angle of 0 degrees correct?
***Note: Divided lite cut alignment may not be accurately represented in the
OMS drawing. Please consult your local representative for exact specifications.
***Note: Frame Size shown is measured from the exterior of the unit.
*****Note: Unit Availability and Price is Subject to Change**

Line #8	Mark Unit: Bedroom 1	Net Price:		720.50
Qty: 1		Ext. Net Price:	USD	720.50

MARVIN 



As Viewed From The Exterior

Entered As: FS
Egress Information
Width: 18 3/32" Height: 13 33/64"

Ebony Exterior
Bare Pine Interior
Elevate Double Hung Insert
Frame Size 21 3/4" X 38"
Inside Opening 22 1/8" X 38 1/4"
8 Degree Frame Bevel
Top Sash
Ebony Exterior
Bare Pine Interior
IG
Low E2 w/Argon
Stainless Perimeter and Spacer Bar
7/8" SDL - With Spacer Bar - Stainless
Rectangular 2W1H
Ebony Ext - Bare Int
Bottom Sash
Ebony Exterior
Bare Pine Interior
IG
Low E2 w/Argon
Stainless Perimeter and Spacer Bar
7/8" SDL - With Spacer Bar - Stainless
Rectangular 2W1H
Ebony Ext - Bare Int

Net Clear Opening: 1.70 SqFt

- Beige Weather Strip Package
- 1 Almond Frost Sash Lock
- Exterior Aluminum Screen
- Ebony Surround
- Bright View Mesh
- 3 1/4" Jamb
- Thru Jamb Installation
- Existing Sill Angle 0

Is the existing Sill Angle of 0 degrees correct?
***Note: Divided lite cut alignment may not be accurately represented in the OMS drawing. Please consult your local representative for exact specifications.
***Note: Frame Size shown is measured from the exterior of the unit.
***Note: Unit Availability and Price is Subject to Change

Line #12	Mark Unit: Labor / Custom Stain	Net Price:		7,885.00
Qty: 1		Ext. Net Price:	USD	7,885.00

Labor Install Includes Removal and Haul Away of Old Units, Exterior Trim, Solar Seal #900 Caulk, OSI Spray
Foam Insulation, 5 Year Product Labor Warranty, Lifetime Craftsmanship Warranty.

Project Subtotal Net Price: USD	6,343.09
Non-Taxable Labor: USD	7,885.00
6.000% Sales Tax: USD	380.59
Project Total Net Price: USD	14,608.68

TERMS AND CONDITIONS

MARVIN DESIGN GALLERY PROPOSES TO FURNISH MATERIAL AND, WHEN APPLICABLE, LABOR IN ACCORDANCE WITH THE SPECIFICATIONS OUTLINED AND FOR THE AMOUNT INDICATED WITHIN. ALL PRODUCTS ARE CONSIDERED CUSTOM ORDER AND SPECIFIC TO YOUR PROJECT SPECIFICATIONS. MARVIN DESIGN GALLERY REQUIRES A MINIMUM DEPOSIT OF 75% OF THE TOTAL COST WITH THE REMAINING BALANCE DUE: 1) PRIOR TO PRODUCT DELIVERY OR 2) ON THE LAST DAY OF SUBSTANTIAL COMPLETION OF INSTALLATION IF AND ONLY IF MARVIN DESIGN GALLERY IS RESPONSIBLE FOR PRODUCT INSTALLATION.

RETURNS &/OR CHANGES: DUE TO THE CUSTOM NATURE OF THIS BUSINESS, EACH INDIVIDUAL SALE IS UNIQUE TO YOUR PROJECT SPECIFICATIONS. THE RETURN OF ANY MERCHANDISE IS PROHIBITED. CHANGES WILL BE ACCEPTED ONLY IF THE PRODUCT MANUFACTURER WILL ALLOW. IN THE EVENT A CHANGE IS ALLOWED, A CHANGE ORDER FEE MAY BE INCURRED. ANY COST ASSOCIATED WITH A CHANGE ORDER WILL BE THE RESPONSIBILITY OF THE PURCHASER. ALL CHANGE ORDER REQUESTS MUST BE IN WRITING AND SIGNED BY PURCHASER. WHERE SUCH ADDITIONAL WORK IS ADDED TO THIS CONTRACT, IT IS AGREED THAT THE TOTAL PRICE OF THIS CONTRACT SHALL BE INCREASED BY THE PRICE OF THE ADDITIONAL WORK AND THAT ALL TERMS AND CONDITIONS OF THIS CONTRACT SHALL APPLY EQUALLY TO SUCH ADDITIONAL WORK.

EXCEPT AS PROVIDED HEREIN, MARVIN DESIGN GALLERY MAKES NO OTHER WARRANTY OF ANY KIND WHATSOEVER, EXPRESS OR IMPLIED, AND ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE WHICH EXCEED THE FOREGOING ARE HEREBY DISCLAIMED BY MARVIN DESIGN GALLERY AND EXCLUDED FROM THIS CONTRACT. CUSTOMER ACKNOWLEDGES THAT MARVIN DESIGN GALLERY IN ITS SOLE RESPONSIBILITY HEREUNDER, SHALL BE TO PROVIDE REPLACEMENT MATERIAL/ITEM FOR ANY MATERIAL/ITEM THAT IS DEFECTIVE. SELLER SHALL HAVE NO RESPONSIBILITY FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE SALE OF MATERIAL OR FOR LOSSES INCURRED BY ACTS OF GOD, STRIKES, OR OCCURRENCES BEYOND THE CONTROL OF MARVIN DESIGN GALLERY.

MARVIN DESIGN GALLERY SHALL NOT BE LIABLE FOR DELAYS IN PERFORMANCE RESULTING FROM WEATHER CONDITIONS, STRIKES, LOCK-OUTS, MATERIAL OR LABOR SHORTAGES, MANUFACTURING DELAYS, FIRES, CHANGE ORDERS REQUESTED BY PURCHASER, FAILURE OF PURCHASER TO PROMPTLY PAY FOR ANY WORK OR EXTRA WORK AS AUTHORIZED OR OTHER CAUSES BEYOND THE CONTROL OF MARVIN DESIGN GALLERY. ALL DELIVERY DATES AND SUGGESTED INSTALLATION DATES ARE APPROXIMATE AND CANNOT BE GUARANTEED.

MARVIN DESIGN GALLERY AGREES TO COMPLETE THE WORK IN A WORKMANLIKE MANNER. HOWEVER MARVIN DESIGN GALLERY IS NOT RESPONSIBLE FOR FAILURES OR DEFECTS THAT RESULT FROM WORK DONE BY OTHERS PRIOR TO, AT THE TIME OF, OR SUBSEQUENT TO WORK DONE UNDER THIS AGREEMENT. MARVIN DESIGN GALLERY IS NOT RESPONSIBLE FOR ANY PREPARATION WORK. ALL PREPARATION WORK TO BE PERFORMED BY OTHERS.

UNLESS OTHERWISE NOTED IN THE AGREEMENT, THE PRICE QUOTED DOES NOT INCLUDE FILLING NAIL HOLES, PAINTING, STAINING OR PERMITS. IF PLASTER WALLS DEVELOP SMALL CRACKS, MARVIN DESIGN GALLERY WILL BE HELD HARMLESS. AT ITS SOLE DISCRETION, MARVIN DESIGN GALLERY MAY SPACKLE, BUT NOT PAINT. MARVIN DESIGN GALLERY WILL PERFORM SIMPLE DISCONNECTION OF ALARM SYSTEMS WHERE POSSIBLE. PURCHASER IS RESPONSIBLE FOR HAVING SECURITY COMPANY RE-CONNECT THE ALARM SYSTEM AFTER COMPLETION OF WORK. IT IS MUTUALLY AGREED THAT THIS CONTRACT CONTAINS THE ENTIRE AGREEMENT BETWEEN THE PARTIES HERETO, THAT NO AGENT, REPRESENTATIVE, SALESMAN, OR OFFICER OF THE PARTIES HERETO HAS AUTHORITY TO MAKE OR HAD MADE ANY STATEMENT, REPRESENTATION OR AGREEMENT, ORAL OR WRITTEN, IN CONNECTION HEREWITH THAT MODIFIES, ADDS TO OR CHANGES THE TERMS OF THIS CONTRACT.

IN THE EVENT PURCHASER IS IN DEFAULT IN ANY OF THE TERMS OF THIS CONTRACT, MARVIN DESIGN GALLERY MAY, IN

ADDITION TO ANY OTHER REMEDIES PROVIDED BY LAW, ENFORCE THE TERMS OF THIS CONTRACT AND SHOULD COLLECTION OF ANY SUM DUE ON THIS CONTRACT BE REQUIRED, PURCHASER AGREES TO PAY TO MARVIN DESIGN GALLERY ALL OF ITS COSTS, INCLUDING ACTUAL ATTORNEY FEES AND INTEREST AT THE RATE OF TWO PERCENT (2%) PER MONTH OR AT THE HIGHEST RATE PERMITTED BY LAW, FROM THE DATE PAYMENT WAS DUE UNTIL COLLECTED IN FULL BY MARVIN DESIGN GALLERY.

MARVIN DESIGN GALLERY SHALL BE CONSIDERED TO HAVE COMPLETELY AND SATISFACTORILY PERFORMED UNDER THIS AGREEMENT, AND SHALL BE ENTITLED TO IMMEDIATE, FULL AND FINAL PAYMENT FROM PURCHASER, UNLESS, WITHIN FIVE (5) DAYS AFTER PURCHASER HAS RECEIVED PRODUCT OR SUBSTANTIAL INSTALLATION IS COMPLETE, PURCHASER NOTIFIES, IN WRITING, MARVIN DESIGN GALLERY AT THE ADDRESS LISTED BELOW, THAT PURCHASER DISPUTES THE WORK HAS BEEN COMPLETELY AND / OR SATISFACTORILY PERFORMED. IN THE EVENT THE PURCHASER CLAIMS ANY WARRANTY AND/OR WORKMANSHIP DEFECTS, PURCHASER MAY RETAIN UP TO 5% OF THE REMAINING BALANCE DUE ON THE CONTRACT (NOT TO EXCEED \$500) UNTIL CORRECTIONS HAVE BEEN MADE.

** 2.0% Credit Card Convenience Fee will be applied to all credit card transactions. Please initial: _____

I/WE HAVE READ AND UNDERSTAND THE FOREGOING TERMS AND CONDITIONS OF THIS CONTRACT AND AGREE TO ABIDE BY THEM. MARVIN DESIGN GALLERY IS AUTHORIZED TO ORDER THE PRODUCTS IDENTIFIED HEREIN.

CUSTOMER SIGNATURE (PURCHASER) : _____ DATE: _____

2350 FRANKLIN RD. STE. 115 – BLOOMFIELD HILLS, MI 48302 PH: 248-333-9085 FAX: 248-333-9095
www.WindowAndDoorCenter.com

CONDITIONAL SALES CONTRACT

SALES ORDER

18510 Dix Road
Melvindale, MI 48122
dgblock88@yahoo.com

**DOWNRIVER
GLASS BLOCK**



Date: 5-1-25
Tel. (313) 928-3888
Fax (313) 928-4414
www.downriverglassblock.com

Name Eric
Address 3928 Porter
City Detroit Phone 917-855-5753
Email Eric.Hensley@nyu.edu Phone _____

Description of Work: REMOVE

WINDOWS

- ☐ REPLACE WITH GLASS BLOCK. PRICE INCLUDES ALL CLEAN-UP AND DEBRIS HAULED AWAY.
☐ NO INTERIOR OR EXTERIOR TRIM INCLUDED.
☐ INSTALLATION TIMES ARE EITHER A.M. OR P.M. DUE TO UNCERTAINTIES OF LENGTHS OF JOBS, WE CANNOT SPECIFY EXACT ARRIVAL TIMES OF OUR INSTALLATION CREWS.
☐ CUSTOMER TO ALLOW A CLEAR PATH TO ALL WINDOWS ON THE INSIDE AS WELL AS THE OUTSIDE OF HOME.
☐ ALL RETURNED CHECKS \$40.00 CHARGE.
☐ DUE TO LIABILITY REASONS, DRYER VENTS WILL NOT BE HOOKED UP BY INSTALLERS.
☐ \$40.00 SERVICE CHARGE IF CUSTOMER IS NOT PREPARED UPON INSTALLERS ARRIVAL.
☐ NOT RESPONSIBLE FOR WIRES AROUND OR THROUGH WINDOWS.
Due to weather and climate installations are subject to reschedule.

Acceptance of Sales Contract _____

QTY.		
	<u>1 Front Window</u>	<u>460.00</u>
	F.A.V.	
	D.V.	
	ADDITIONAL	
	ADDITIONAL	
	TAX	<u>13.80</u>
	TOTAL	<u>473.80</u>
	DEPOSIT	
	BALANCE	

Customer's Signature _____

GLASS STYLE
Diamond

Pay Installer Upon
Completion of Job.
A 3.0% Fee Will Be
Added to All Credit
Card Transactions.

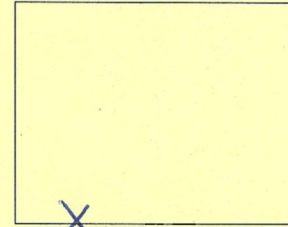
WARRANTY ON BACK Not Responsible For Shrubby, Etc.

Thank You! Salesman Eric

Downriver Glass Block is a licensed residential builder in the State of Michigan, License No. 2104094980

INSTALLATION DATE _____

WINDOW LOCATION



Brick
FRONT OF HOUSE

JOB SPECIFICS

WINDOW SIZE

- | | |
|-------------------|-----------|
| 1. <u>34 x 28</u> | 7. _____ |
| 2. _____ | 8. _____ |
| 3. _____ | 9. _____ |
| 4. _____ | 10. _____ |
| 5. _____ | 11. _____ |
| 6. _____ | 12. _____ |

INSTALLATION OF GLASS BLOCK COMPLETED TO CUSTOMER'S SATISFACTION

Date _____ Signature _____



TECHNICAL
SPECIFICATIONS

ELEVATE

MARVIN ELEVATE® COLLECTION



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ORDERING

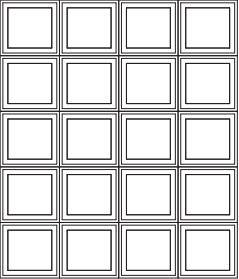
Each product section offers product codes for ordering under each unit. Codes do not necessarily indicate product size.
Metric millimeter measurements are in parentheses.

You'll notice four measurements for each window or door: masonry opening, rough opening, frame size and day light opening size.
The masonry opening (MO) is for a home built with brick or stone; rough openings (RO) are for houses with wood, vinyl or metal siding. Frame size (FS) measures from edge to edge of the unit; Daylight Opening (DLO) indicates the dimensions of the total visible area in a single sash or panel.

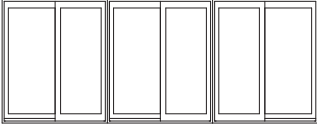
MO (mm)	2-0 1/2 (622)	2-4 1/2 (724)	2-8 1/2 (826)	3-0 1/2 (927)	4-0 1/2 (1232)
RO (mm)	2-1 (635)	2-5 (737)	2-9 (838)	3-1 (940)	4-1 (1245)
FS (mm)	2-0 (610)	2-4 (711)	2-8 (813)	3-0 (914)	4-0 (1219)
DLO (mm)	1-6 25/32 (477)	1-10 25/32 (579)	2-2 25/32 (680)	2-6 25/32 (782)	3-6 25/32 (1087)
1-7 3/8 (492)					
1-7 5/8 (498)					
1-7 1/8 (486)					
1-1 29/32 (353)	ELAWN2519	ELAWN2919	ELAWN3319	ELAWN3719	ELAWN4919

Mulling Options - A variety of factory mulled combinations are available,
See Page 67 for certified mull chart.
Field mulling kits available to create your own unique multiple assemblies.
Please contact your local Marvin representative for more information.

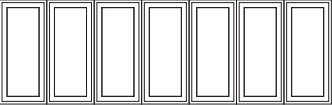
Examples of Possible Configurations



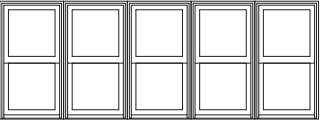
Casement Picture
4 Wide 5 High



Glider
3 Wide 1 High



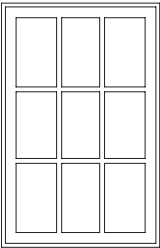
Casement
7 Wide 1 High



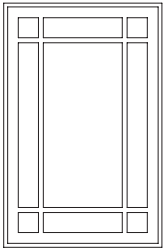
Double Hung
5 Wide 1 High

LITE CUTS

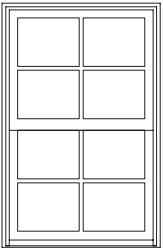
Windows



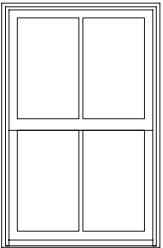
Rectangular
Available as GBG and SDL*



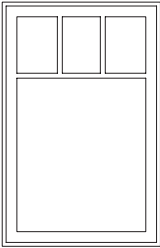
Prairie
Available as GBG and SDL*



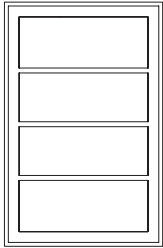
2w2h
Available as GBG and SDL*



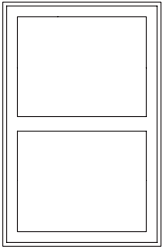
2w1h
Available as GBG and SDL*



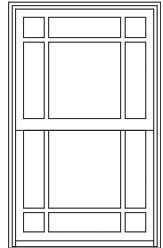
Cottage
Available as GBG and SDL*



Equal Lite
Available as GBG and SDL*

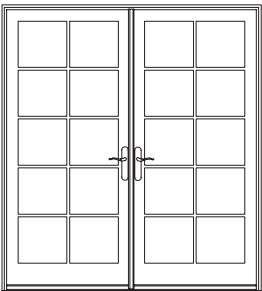


Simulated Checkrail
Available as SDL**

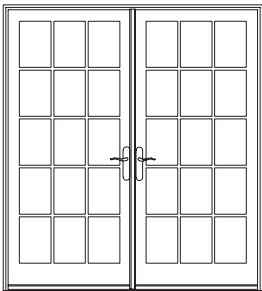


6 Lite Prairie
Available as GBG and SDL*

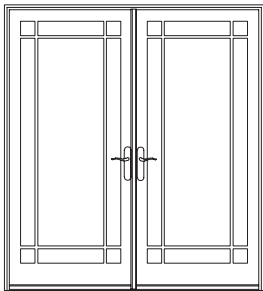
Doors



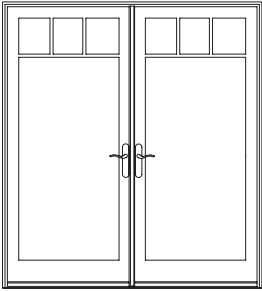
10/12 Lite
One vertical bar per panel available as GBG and SDL*



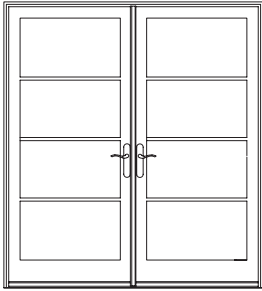
15/18 Lite
Two vertical bars per panel available as GBG and SDL*



Prairie
Available as GBG and SDL*



Cottage
Available as GBG and SDL*



Equal Lite
Available as GBG and SDL*

* SDL available with or without Spacer Bar.
** 2 11/32" (59) Simulated Checkrail available with or without spacer bar. Compatible with SDL and SDL with spacer bar. Horizontal bar only. Vertical location can be specified. Available on Casement, Awning, Glider, Direct Glaze Rectangles and Double Hung Picture units.

Cottage lite cut not available on Double Hung.
Equal lite allows for the number of horizontal and vertical lites to be specified for a custom appearance.
Lite cuts are dependent on product type and size. Please consult your local Marvin representative for details and availability.

CASEMENT

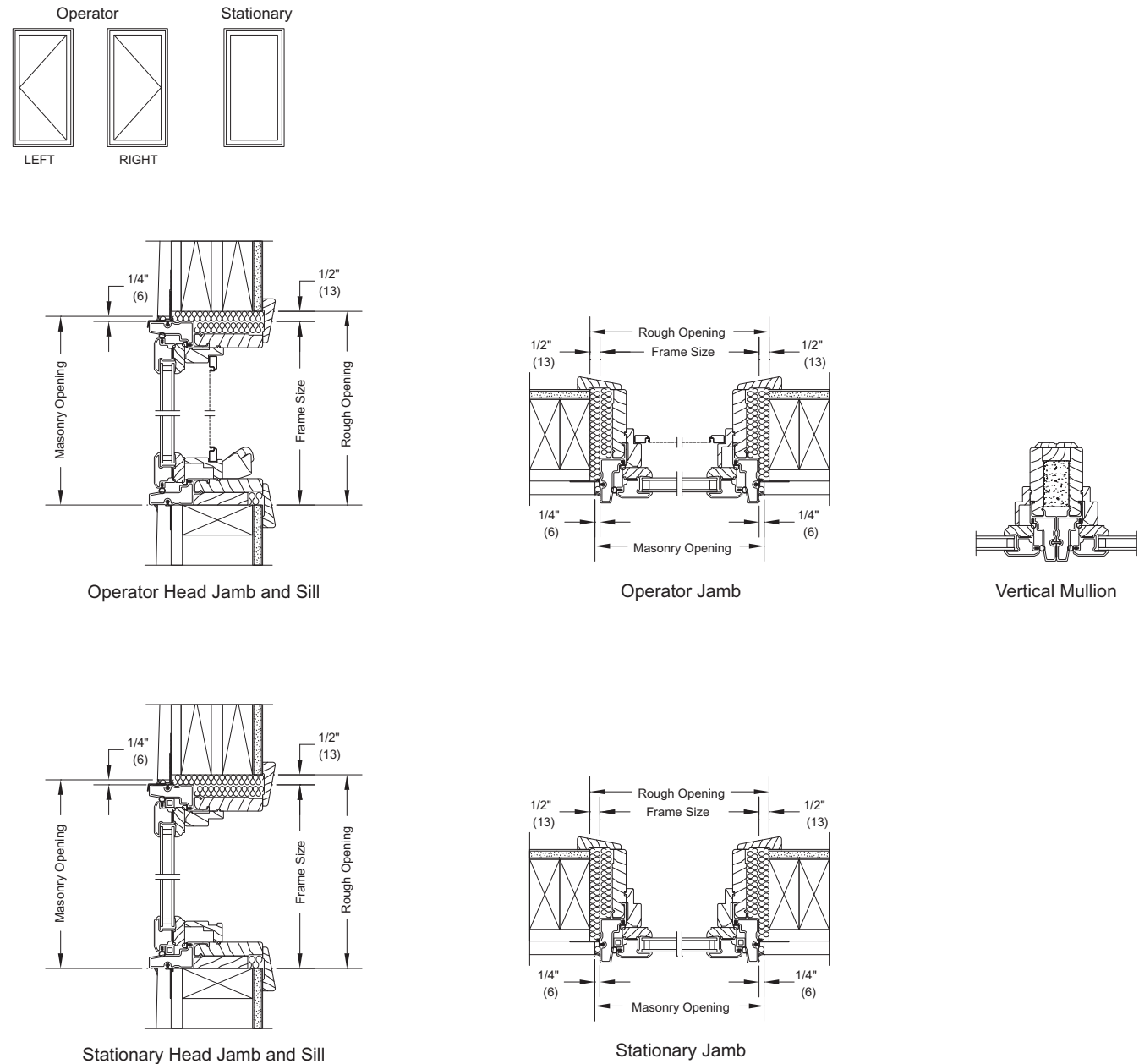
MO (mm)	1-4 1/2 (419)	1-8 1/2 (521)	2-0 1/2 (622)	2-4 1/2 (724)	2-8 1/2 (826)	3-0 1/2 (927)
RO (mm)	1-5 (432)	1-9 (533)	2-1 (635)	2-5 (737)	2-9 (838)	3-1 (940)
FS (mm)	1-4 (406)	1-8 (508)	2-0 (610)	2-4 (711)	2-8 (813)	3-0 (914)
DLO (mm)	0-10 25/32 (274)	1-2 25/32 (376)	1-6 25/32 (477)	1-10 25/32 (579)	2-2 25/32 (680)	2-6 25/32 (782)
2-7 3/8 (797)						
2-7 5/8 (803)	ELCA1731	ELCA2131	ELCA2531	ELCA2931	ELCA3331	ELCA3731
2-11 3/8 (898)						
2-11 5/8 (905)	ELCA1735	ELCA2135	ELCA2535	ELCA2935	ELCA3335	ELCA3735 E*
2-11 1/8 (892)						
2-5 29/32 (760)	ELCA1739	ELCA2139	ELCA2539	ELCA2939	ELCA3339	ELCA3739 E*
3-3 3/8 (1000)						
3-3 5/8 (1006)	ELCA1743	ELCA2143	ELCA2543	ELCA2943 E	ELCA3343 E	ELCA3743 E
3-3 1/8 (994)						
2-9 29/32 (861)	ELCA1747	ELCA2147	ELCA2547	ELCA2947 E	ELCA3347 E	ELCA3747 E
3-7 1/2 (1105)						
3-7 3/4 (1111)	ELCA1755	ELCA2155	ELCA2555	ELCA2955 E	ELCA3355 E	ELCA3755 E
3-7 1/4 (1099)						
3-2 1/32 (966)	ELCA1759	ELCA2159	ELCA2559	ELCA2959 E	ELCA3359 E	ELCA3759 E
3-11 3/8 (1203)						
3-11 5/8 (1210)	ELCA1763	ELCA2163	ELCA2563	ELCA2963 E	ELCA3363 E	ELCA3763 E
3-11 1/8 (1197)						
3-5 29/32 (1065)	ELCA1771 T	ELCA2171 T	ELCA2571 T	ELCA2971 ET	ELCA3371 ET	ELCA3771 ET
4-7 3/8 (1406)						
4-7 5/8 (1413)	ELCA1771 T	ELCA2171 T	ELCA2571 T	ELCA2971 ET	ELCA3371 ET	ELCA3771 ET
4-7 1/8 (1400)						
4-1 29/32 (1288)	ELCA1771 T	ELCA2171 T	ELCA2571 T	ELCA2971 ET	ELCA3371 ET	ELCA3771 ET
4-11 3/8 (1508)						
4-11 5/8 (1514)	ELCA1771 T	ELCA2171 T	ELCA2571 T	ELCA2971 ET	ELCA3371 ET	ELCA3771 ET
4-11 1/8 (1502)						
4-5 29/32 (1369)	ELCA1771 T	ELCA2171 T	ELCA2571 T	ELCA2971 ET	ELCA3371 ET	ELCA3771 ET
5-3 3/8 (1610)						
5-3 5/8 (1616)	ELCA1771 T	ELCA2171 T	ELCA2571 T	ELCA2971 ET	ELCA3371 ET	ELCA3771 ET
5-3 1/8 (1603)						
4-9 29/32 (1471)	ELCA1771 T	ELCA2171 T	ELCA2571 T	ELCA2971 ET	ELCA3371 ET	ELCA3771 ET
5-11 3/8 (1813)						
5-11 5/8 (1819)	ELCA1771 T	ELCA2171 T	ELCA2571 T	ELCA2971 ET	ELCA3371 ET	ELCA3771 ET
5-11 1/8 (1807)						
5-5 29/32 (1674)	ELCA1771 T	ELCA2171 T	ELCA2571 T	ELCA2971 ET	ELCA3371 ET	ELCA3771 ET

CASEMENT

Construction Details

Casements available as an operator or stationary.

L or R handing determined from exterior.



Details and Elevations not to scale.

Special sized units available within product size matrix. See your Marvin retailer.

E = These windows meet National Egress Codes for fire evacuation. Local codes may differ.

T = Standard Tempered

Optional Casement GBGs and SDLs are available in a standard Rectangular cut shown.

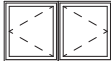
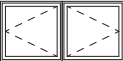
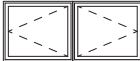
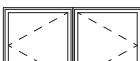
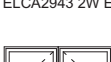
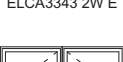
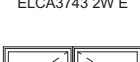
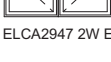
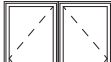
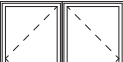
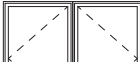
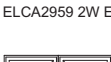
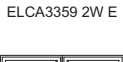
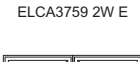
Other available lite cuts shown on page 3.

* 3735 and 3739 meet Egress if installed at proper height from floor.

For further details and drawings visit the 'Technical Specifications' section at Marvin.com.

CASEMENT

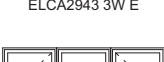
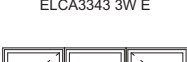
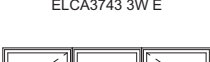
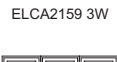
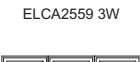
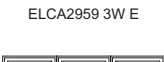
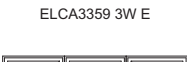
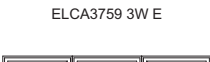
2 Wide

MO (mm)	2-8 1/2 (826)	3-4 1/2 (1029)	4-0 1/2 (1232)	4-8 1/2 (1435)	5-4 1/2 (1638)	6-0 1/2 (1842)
RO (mm)	2-9 (838)	3-5 (1041)	4-1 (1245)	4-9 (1448)	5-5 (1651)	6-1 (1854)
FS (mm)	2-8 (813)	3-4 (1016)	4-0 (1219)	4-8 (1422)	5-4 (1626)	6-0 (1829)
2-7 3/8 (797) 2-7 5/8 (803) 2-7 1/8 (791)	 ELCA1731 2W	 ELCA2131 2W	 ELCA2531 2W	 ELCA2931 2W	 ELCA3331 2W	 ELCA3731 2W
2-11 3/8 (898) 2-11 5/8 (905) 2-11 1/8 (892)	 ELCA1735 2W	 ELCA2135 2W	 ELCA2535 2W	 ELCA2935 2W	 ELCA3335 2W	 ELCA3735 2W E*
3-3 3/8 (1000) 3-3 5/8 (1006) 3-3 1/8 (994)	 ELCA1739 2W	 ELCA2139 2W	 ELCA2539 2W	 ELCA2939 2W	 ELCA3339 2W	 ELCA3739 2W E*
3-7 1/2 (1105) 3-7 3/4 (1111) 3-7 1/4 (1099)	 ELCA1743 2W	 ELCA2143 2W	 ELCA2543 2W	 ELCA2943 2W E	 ELCA3343 2W E	 ELCA3743 2W E
3-11 3/8 (1203) 3-11 5/8 (1210) 3-11 1/8 (1197)	 ELCA1747 2W	 ELCA2147 2W	 ELCA2547 2W	 ELCA2947 2W E	 ELCA3347 2W E	 ELCA3747 2W E
4-7 3/8 (1406) 4-7 5/8 (1413) 4-7 1/8 (1400)	 ELCA1755 2W	 ELCA2155 2W	 ELCA2555 2W	 ELCA2955 2W E	 ELCA3355 2W E	 ELCA3755 2W E
4-11 3/8 (1508) 4-11 5/8 (1514) 4-11 1/8 (1502)	 ELCA1759 2W	 ELCA2159 2W	 ELCA2559 2W	 ELCA2959 2W E	 ELCA3359 2W E	 ELCA3759 2W E
5-3 3/8 (1610) 5-3 5/8 (1616) 5-3 1/8 (1603)	 ELCA1763 2W	 ELCA2163 2W	 ELCA2563 2W	 ELCA2963 2W E	 ELCA3363 2W E	 ELCA3763 2W E
5-11 3/8 (1813) 5-11 5/8 (1819) 5-11 1/8 (1807)	 ELCA1771 2W T	 ELCA2171 2W T	 ELCA2571 2W T	 ELCA2971 2W ET	 ELCA3371 2W ET	 ELCA3771 2W ET

Details and Elevations not to scale.
Special sized units available within product size matrix. See your Marvin retailer.
E = These windows meet National Egress Codes for fire evacuation. Local codes may differ.
T = Standard Tempered
* 3735 and 3739 meet Egress if installed at proper height from floor.
Any unit in these combinations can be operating or stationary. Operating sash are viewed from the exterior.
For further details and drawings visit the 'Technical Specifications' section at Marvin.com.

CASEMENT

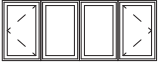
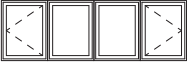
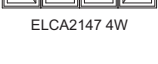
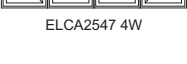
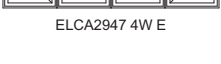
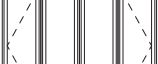
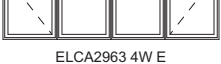
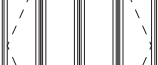
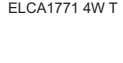
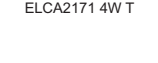
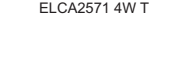
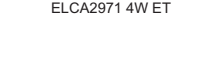
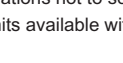
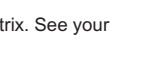
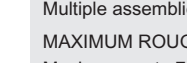
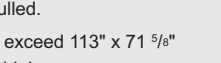
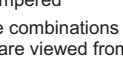
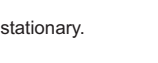
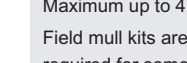
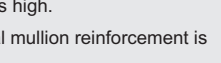
3 Wide

MO (mm)	4-0 1/2 (1232)	5-0 1/2 (1537)	6-0 1/2 (1842)	7-0 1/2 (2146)	8-0 1/2 (2451)	9-0 1/2 (2756)
RO (mm)	4-1 (1245)	5-1 (1549)	6-1 (1854)	7-1 (2159)	8-1 (2464)	9-1 (2769)
FS (mm)	4-0 (1219)	5-0 (1524)	6-0 (1829)	7-0 (2134)	8-0 (2438)	9-0 (2743)
2-7 3/8 (797) 2-7 5/8 (803) 2-7 1/8 (791)	 ELCA1731 3W	 ELCA2131 3W	 ELCA2531 3W	 ELCA2931 3W	 ELCA3331 3W	 ELCA3731 3W
2-11 3/8 (898) 2-11 5/8 (905) 2-11 1/8 (892)	 ELCA1735 3W	 ELCA2135 3W	 ELCA2535 3W	 ELCA2935 3W	 ELCA3335 3W	 ELCA3735 3W E*
3-3 3/8 (1000) 3-3 5/8 (1006) 3-3 1/8 (994)	 ELCA1739 3W	 ELCA2139 3W	 ELCA2539 3W	 ELCA2939 3W	 ELCA3339 3W	 ELCA3739 3W E*
3-7 1/2 (1105) 3-7 3/4 (1111) 3-7 1/4 (1099)	 ELCA1743 3W	 ELCA2143 3W	 ELCA2543 3W	 ELCA2943 3W E	 ELCA3343 3W E	 ELCA3743 3W E
3-11 3/8 (1203) 3-11 5/8 (1210) 3-11 1/8 (1197)	 ELCA1747 3W	 ELCA2147 3W	 ELCA2547 3W	 ELCA2947 3W E	 ELCA3347 3W E	 ELCA3747 3W E
4-7 3/8 (1406) 4-7 5/8 (1413) 4-7 1/8 (1400)	 ELCA1755 3W	 ELCA2155 3W	 ELCA2555 3W	 ELCA2955 3W E	 ELCA3355 3W E	 ELCA3755 3W E
4-11 3/8 (1508) 4-11 5/8 (1514) 4-11 1/8 (1502)	 ELCA1759 3W	 ELCA2159 3W	 ELCA2559 3W	 ELCA2959 3W E	 ELCA3359 3W E	 ELCA3759 3W E
5-3 3/8 (1610) 5-3 5/8 (1616) 5-3 1/8 (1603)	 ELCA1763 3W	 ELCA2163 3W	 ELCA2563 3W	 ELCA2963 3W E	 ELCA3363 3W E	 ELCA3763 3W E
5-11 3/8 (1813) 5-11 5/8 (1819) 5-11 1/8 (1807)	 ELCA1771 3W T	 ELCA2171 3W T	 ELCA2571 3W T	 ELCA2971 3W ET	 ELCA3371 3W ET	 ELCA3771 3W ET

MULTIPLE ASSEMBLIES
Multiple assemblies can be factory mullied.
MAXIMUM ROUGH OPENING not to exceed 113" x 71 5/8"
Maximum up to 7 units wide by 1 unit high.
MAXIMUM ROUGH OPENING not to exceed 85" x 94 3/4"
Maximum up to 4 units wide by 5 units high.
Field mull kits are available. Structural mullion reinforcement is required for some assemblies.
Please consult your local Marvin representative for more information.

CASEMENT

4 Wide

MO (mm)	5-4 1/2 (1638)		6-8 1/2 (2045)		8-0 1/2 (2451)		9-4 1/2 (2858)	
RO (mm)	5-5 (1651)		6-9 (2057)		8-1 (2464)		9-5 (2870)	
FS (mm)	5-4 (1626)		6-8 (2032)		8-0 (2438)		9-4 (2845)	
2-7 3/8 (797)								
2-7 5/8 (803)	ELCA1731 4W		ELCA2131 4W		ELCA2531 4W		ELCA2931 4W	
2-7 7/8 (791)								
2-11 3/8 (898)	ELCA1735 4W		ELCA2135 4W		ELCA2535 4W		ELCA2935 4W	
2-11 5/8 (905)								
2-11 7/8 (892)	ELCA1739 4W		ELCA2139 4W		ELCA2539 4W		ELCA2939 4W	
3-3 3/8 (1000)								
3-3 5/8 (1006)	ELCA1743 4W		ELCA2143 4W		ELCA2543 4W		ELCA2943 4W E	
3-3 1/8 (994)								
3-7 1/2 (1105)	ELCA1747 4W		ELCA2147 4W		ELCA2547 4W		ELCA2947 4W E	
3-7 3/4 (1111)								
3-7 1/4 (1099)	ELCA1755 4W		ELCA2155 4W		ELCA2555 4W		ELCA2955 4W E	
3-11 3/8 (1203)								
3-11 5/8 (1210)	ELCA1759 4W		ELCA2159 4W		ELCA2559 4W		ELCA2959 4W E	
3-11 1/8 (1197)								
3-11 3/8 (1203)	ELCA1763 4W		ELCA2163 4W		ELCA2563 4W		ELCA2963 4W E	
4-7 3/8 (1406)								
4-7 5/8 (1413)	ELCA1771 4W T		ELCA2171 4W T		ELCA2571 4W T		ELCA2971 4W ET	
4-7 1/8 (1400)								
4-11 3/8 (1508)	ELCA1771 4W T		ELCA2171 4W T		ELCA2571 4W T		ELCA2971 4W ET	
4-11 5/8 (1514)								
4-11 1/8 (1502)	ELCA1771 4W T		ELCA2171 4W T		ELCA2571 4W T		ELCA2971 4W ET	
5-3 3/8 (1610)								
5-3 5/8 (1616)	ELCA1771 4W T		ELCA2171 4W T		ELCA2571 4W T		ELCA2971 4W ET	
5-3 1/8 (1603)								
5-11 3/8 (1813)	ELCA1771 4W T		ELCA2171 4W T		ELCA2571 4W T		ELCA2971 4W ET	
5-11 5/8 (1819)								
5-11 1/8 (1807)	ELCA1771 4W T		ELCA2171 4W T		ELCA2571 4W T		ELCA2971 4W ET	

Details and Elevations not to scale.

Special sized units available within product size matrix. See your Marvin retailer.

E = These windows meet National Egress Codes for fire evacuation. Local codes may differ.

T = Standard Tempered

Any unit in these combinations can be operating or stationary. Operating sash are viewed from the exterior.

For further details and drawings visit the 'Technical Specifications' section at Marvin.com.

MULTIPLE ASSEMBLIES

Multiple assemblies can be factory mullied.

MAXIMUM ROUGH OPENING not to exceed 113" x 71 5/8"

Maximum up to 7 units wide by 1 unit high.

MAXIMUM ROUGH OPENING not to exceed 85" x 94 3/4"

Maximum up to 4 units wide by 5 units high.

Field mull kits are available. Structural mullion reinforcement is required for some assemblies.

Please consult your local Marvin representative for more information.

CASEMENT PICTURE

MO (mm)	1-4 1/2 (419)	1-8 1/2 (521)	2-0 1/2 (622)	2-4 1/2 (724)	2-8 1/2 (826)	3-0 1/2 (927)	3-4 1/2 (1029)	4-0 1/2 (1232)	4-8 1/2 (1435)	6-0 1/2 (1842)
RO (mm)	1-5 (432)	1-9 (533)	2-1 (635)	2-5 (737)	2-9 (838)	3-1 (940)	3-5 (1041)	4-1 (1245)	4-9 (1448)	6-1 (1854)
FS (mm)	1-4 (406)	1-8 (508)	2-0 (610)	2-4 (711)	2-8 (813)	3-0 (914)	3-4 (1016)	4-0 (1219)	4-8 (1422)	6-0 (1829)
DLO (mm)	0-10 25/32 (274)	1-2 25/32 (376)	1-6 25/32 (477)	1-10 25/32 (579)	2-2 25/32 (680)	2-6 25/32 (782)	2-10 25/32 (884)	3-6 25/32 (1087)	4-2 25/32 (1290)	5-6 25/32 (1696)
1-7 3/8 (492)										
1-7 5/8 (498)	ELCAP1719	ELCAP2119	ELCAP2519	ELCAP2919	ELCAP3319	ELCAP3719	ELCAP4119	ELCAP4919	ELCAP5719	ELCAP7319
1-11 3/8 (594)										
1-11 5/8 (600)	ELCAP1723	ELCAP2123	ELCAP2523	ELCAP2923	ELCAP3323	ELCAP3723	ELCAP4123	ELCAP4923	ELCAP5723	ELCAP7323
1-11 1/8 (587)										
1-7 1/8 (486)	ELCAP1727	ELCAP2127	ELCAP2527	ELCAP2927	ELCAP3327	ELCAP3727	ELCAP4127	ELCAP4927	ELCAP5727	ELCAP7327
2-3 3/8 (695)										
2-3 5/8 (702)	ELCAP1731	ELCAP2131	ELCAP2531	ELCAP2931	ELCAP3331	ELCAP3731	ELCAP4131	ELCAP4931	ELCAP5731	ELCAP7331
2-3 1/8 (689)										
1-9 25/32 (655)	ELCAP1735	ELCAP2135	ELCAP2535	ELCAP2935	ELCAP3335	ELCAP3735	ELCAP4135	ELCAP4935	ELCAP5735	ELCAP7335
2-7 5/8 (803)										
2-7 1/8 (791)	ELCAP1739	ELCAP2139	ELCAP2539	ELCAP2939	ELCAP3339	ELCAP3739	ELCAP4139	ELCAP4939	ELCAP5739	ELCAP7339
2-1 29/32 (658)										
2-1 29/32 (658)	ELCAP1743	ELCAP2143	ELCAP2543	ELCAP2943	ELCAP3343	ELCAP3743	ELCAP4143	ELCAP4943	ELCAP5743	ELCAP7343
2-11 3/8 (899)										
2-11 5/8 (905)	ELCAP1747	ELCAP2147	ELCAP2547	ELCAP2947	ELCAP3347	ELCAP3747	ELCAP4147	ELCAP4947	ELCAP5747	ELCAP7347
2-11 1/8 (892)										
2-9 29/32 (760)	ELCAP1755	ELCAP2155	ELCAP2555	ELCAP2955	ELCAP3355	ELCAP3755	ELCAP4155	ELCAP4955	ELCAP5755	ELCAP7355
2-9 29/32 (760)										
2-9 29/32 (760)	ELCAP1759	ELCAP2159	ELCAP2559	ELCAP2959	ELCAP3359	ELCAP3759	ELCAP4159	ELCAP4959	ELCAP5759	ELCAP7359 T
4-1 29/32 (1268)										
5-3 3/8 (1610)	ELCAP1763	ELCAP2163	ELCAP2563	ELCAP2963	ELCAP3363	ELCAP3763	ELCAP4163	ELCAP4963	ELCAP5763	
5-3 5/8 (1616)										
5-11 3/8 (1813)	ELCAP1771 T	ELCAP2171 T	ELCAP2571 T	ELCAP2971 T	ELCAP3371 T	ELCAP3771 T	ELCAP4171 T	ELCAP4971 T	ELCAP5771 T	
5-11 5/8 (1819)										
5-11 1/8 (1807)	ELCAP1771 T	ELCAP2171 T	ELCAP2571 T	ELCAP2971 T	ELCAP3371 T	ELCAP3771 T	ELCAP4171 T	ELCAP4971 T	ELCAP5771 T	
5-5 29/32 (1674)										
5-5 29/32 (1674)	ELCAP1771 T	ELCAP2171 T	ELCAP2571 T	ELCAP2971 T	ELCAP3371 T	ELCAP3771 T	ELCAP4171 T	ELCAP4971 T	ELCAP5771 T	

CASEMENT TRANSOM

MO (mm)	1-4 1/2 (419)	1-8 1/2 (521)	2-0 1/2 (622)	2-4 1/2 (724)	2-8 1/2 (826)	3-0 1/2 (927)	3-4 1/2 (1029)	4-0 1/2 (1232)	4-8 1/2 (1435)	6-0 1/2 (1842)
RO (mm)	1-5 (432)	1-9 (533)	2-1 (635)	2-5 (737)	2-9 (838)	3-1 (940)	3-5 (1041)	4-1 (1245)	4-9 (1448)	6-1 (1854)
FS (mm)	1-4 (406)	1-8 (508)	2-0 (610)	2-4 (711)	2-8 (813)	3-0 (914)	3-4 (1016)	4-0 (1219)	4-8 (1422)	6-0 (1829)
DLO (mm)	0-10 25/32 (274)	1-2 25/32 (376)	1-6 25/32 (477)	1-10 25/32 (579)	2-2 25/32 (680)	2-6 25/32 (782)	2-10 25/32 (884)	3-6 25/32 (1087)	4-2 25/32 (1290)	5-6 25/32 (1696)
1-4 (406) 1-4 1/4 (413) 1-7 5/8 (498) 1-3 3/4 (400) 0-10 17/32 (268)										
1-7 3/8 (492) 1-7 5/8 (498) 1-7 1/8 (486) 1-1 29/32 (353)										

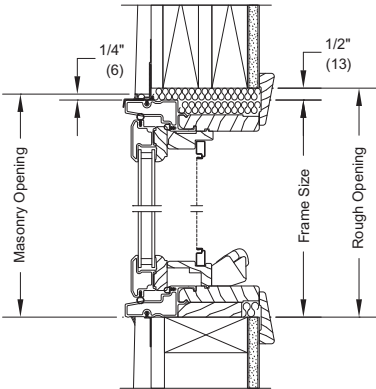
Multiple Assemblies/Casement
Flankers with Center Picture

MO (mm)	8-0 1/2 (2451)
RO (mm)	8-1 (2464)
FS (mm)	8-0 (2438)
3-3 3/8 (1000) 3-3 5/8 (1006) 3-3 1/8 (994)	  
3-7 1/2 (1105) 3-7 3/4 (1111) 3-7 1/4 (1099)	  
3-11 3/8 (1203) 3-11 5/8 (1210) 3-11 1/8 (1197)	  
4-7 3/8 (1406) 4-7 5/8 (1413) 4-7 1/8 (1400)	  
4-11 3/8 (1508) 4-11 5/8 (1514) 4-11 1/8 (1502)	  

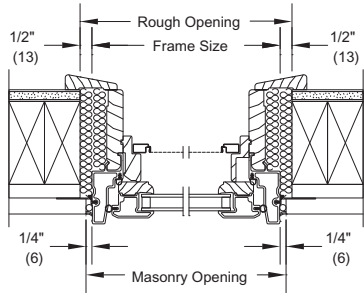
Direct Glaze

MO (mm)	6-0 1/2 (1842)
RO (mm)	6-1 (1854)
FS (mm)	6-0 (1829)
DLO (mm)	5-8 1/16 (1729)
1-4 (406) 1-4 1/4 (413) 1-3 3/4 (400) 0-11 5/8 (295)	

Construction Details



Operator Head Jamb and Sill



Operator Jamb

Details and Elevations not to scale.

Special sized units available within product size matrix. See your Marvin retailer.

Optional picture GBGs and SDLs are available in a standard Rectangular cut shown.
Also available in Prairie lite cuts shown on page 3.

Any ELCA unit in these combinations can be operating or stationary. Operating sash are viewed from the exterior.

Unequal lite cuts on Direct Glaze. GBG and SDL in an ELDG 7316 will line up over a 25-3W ELCA only.

Direct Glaze Rectangles also available, see Direct Glaze, pages 36-46.

For further details and drawings visit the 'Technical Specifications' section at Marvin.com.

AWNING

MO (mm)	2-0 1/2 (622)	2-4 1/2 (724)	2-8 1/2 (826)	3-0 1/2 (927)	3-4 1/2 (1029)	4-0 1/2 (1232)
RO (mm)	2-1 (635)	2-5 (737)	2-9 (838)	3-1 (940)	3-5 (1041)	4-1 (1245)
FS (mm)	2-0 (610)	2-4 (711)	2-8 (813)	3-0 (914)	3-4 (1016)	4-0 (1219)
DLO (mm)	1-6 25/32 (477)	1-10 25/32 (579)	2-2 25/32 (680)	2-6 25/32 (782)	2-10 25/32 (884)	3-6 25/32 (1087)
1-7 3/8 (492) 1-7 5/8 (498) 1-7 1/8 (486) 1-1 29/32 (353)						
1-11 3/8 (594) 1-11 5/8 (600) 1-11 1/8 (587) 1-5 29/32 (455)						
2-3 3/8 (695) 2-3 5/8 (702) 2-3 1/8 (689) 1-9 29/32 (657)						
2-11 3/8 (899) 2-11 5/8 (905) 2-11 1/8 (892) 2-5 29/32 (760)						
3-3 3/8 (1000) 3-3 5/8 (1006) 3-3 1/8 (994) 2-9 29/32 (861)						
3-11 3/8 (1203) 3-11 5/8 (1210) 3-11 1/8 (1197) 3-5 29/32 (1065)						

MULTIPLE ASSEMBLIES

Multiple assemblies can be factory mulled.

MAXIMUM ROUGH OPENING not to exceed 113" x 71 5/8"
Maximum up to 7 units wide by 1 unit high.

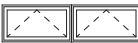
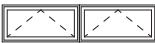
MAXIMUM ROUGH OPENING not to exceed 85" x 94 3/4"
Maximum up to 4 units wide by 5 units high.

Field mull kits are available. Structural mullion reinforcement is required for some assemblies.

Please consult your local Marvin representative for more information.

AWNING

2 Wide

MO (mm)	4-0 1/2 (1232)	4-8 1/2 (1435)	5-4 1/2 (1638)	6-0 1/2 (1842)	6-8 1/2 (2057)	8-0 1/2 (2451)
RO (mm)	4-1 (1245)	4-9 (1448)	5-5 (1651)	6-1 (1854)	6-9 (2051)	8-1 (2464)
FS (mm)	4-0 (1219)	4-8 (1422)	5-4 (1626)	6-0 (1829)	6-8 (2032)	8-0 (2438)
1-7 3/8 (492) 1-7 5/8 (498) 1-7 1/8 (486)	 ELAWN2519 2W	 ELAWN2919 2W	 ELAWN3319 2W	 ELAWN3719 2W	 ELAWN4119 2W	 ELAWN4919 2W
1-11 3/8 (594) 1-11 5/8 (600) 1-11 1/8 (587)	 ELAWN2523 2W	 ELAWN2923 2W	 ELAWN3323 2W	 ELAWN3723 2W	 ELAWN4123 2W	 ELAWN4923 2W
2-3 3/8 (695) 2-3 5/8 (702) 2-3 1/8 (689)	 ELAWN2527 2W	 ELAWN2927 2W	 ELAWN3327 2W	 ELAWN3727 2W	 ELAWN4127 2W	 ELAWN4927 2W
2-11 3/8 (699) 2-11 5/8 (705) 2-11 1/8 (692)	 ELAWN2535 2W	 ELAWN2935 2W	 ELAWN3335 2W	 ELAWN3735 2W	 ELAWN4135 2W	 ELAWN4935 2W
3-3 3/8 (1000) 3-3 5/8 (1006) 3-3 1/8 (994)	 ELAWN2539 2W	 ELAWN2939 2W	 ELAWN3339 2W	 ELAWN3739 2W	 ELAWN4139 2W	 ELAWN4939 2W
3-11 3/8 (1203) 3-11 5/8 (1210) 3-11 1/8 (1197)	 ELAWN2547 2W	 ELAWN2947 2W	 ELAWN3347 2W	 ELAWN3747 2W	 ELAWN4147 2W	 ELAWN4947 2W

Details and Elevations not to scale.

Special sized units available within product size matrix. See your Marvin retailer.

Any unit in these combinations can be operating or stationary. Operating sash are viewed from the exterior.

For further details and drawings visit the 'Technical Specifications' section at Marvin.com.

AWNING

3 Wide

MO (mm)	6-0 1/2 (1842)	7-0 1/2 (2146)	8-0 1/2 (2451)	9-0 1/2 (2756)
RO (mm)	6-1 (1854)	7-1 (2159)	8-1 (2464)	9-1 (2769)
FS (mm)	6-0 (1829)	7-0 (2134)	8-0 (2438)	9-0 (2743)
1-7 3/8 (492) 1-7 5/8 (498) 1-7 1/8 (486)	 ELAWN2519 3W	 ELAWN2919 3W	 ELAWN3319 3W	 ELAWN3719 3W
1-11 3/8 (594) 1-11 5/8 (600) 1-11 1/8 (587)	 ELAWN2523 3W	 ELAWN2923 3W	 ELAWN3323 3W	 ELAWN3723 3W
2-3 3/8 (695) 2-3 5/8 (702) 2-3 1/8 (689)	 ELAWN2527 3W	 ELAWN2927 3W	 ELAWN3327 3W	 ELAWN3727 3W
2-11 3/8 (699) 2-11 5/8 (705) 2-11 1/8 (692)	 ELAWN2535 3W	 ELAWN2935 3W	 ELAWN3335 3W	 ELAWN3735 3W
3-3 3/8 (1000) 3-3 5/8 (1006) 3-3 1/8 (994)	 ELAWN2539 3W	 ELAWN2939 3W	 ELAWN3339 3W	 ELAWN3739 3W
3-11 3/8 (1203) 3-11 5/8 (1210) 3-11 1/8 (1197)	 ELAWN2547 3W	 ELAWN2947 3W	 ELAWN3347 3W	 ELAWN3747 3W

MULTIPLE ASSEMBLIES

Multiple assemblies can be factory mullied.

MAXIMUM ROUGH OPENING not to exceed 113" x 71 5/8"

Maximum up to 7 units wide by 1 unit high.

MAXIMUM ROUGH OPENING not to exceed 85" x 94 3/4"

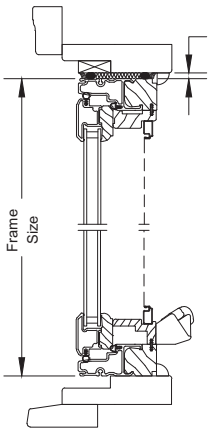
Maximum up to 4 units wide by 5 units high.

Field mull kits are available. Structural mullion reinforcement is required for some assemblies.

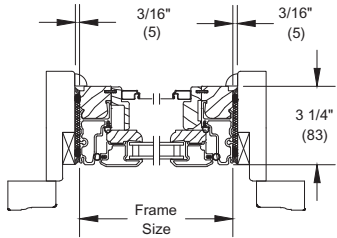
Please consult your local Marvin representative for more information.

CASEMENT + AWNING NARROW FRAME

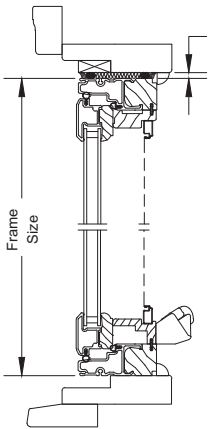
Construction Details



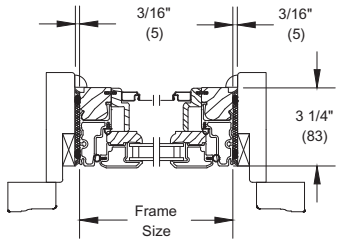
Elevate Casement Operator Head Jamb and Sill



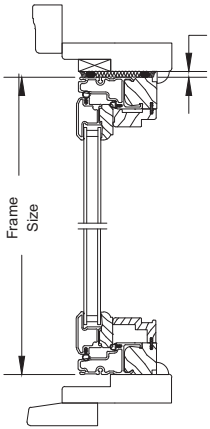
Elevate Casement Operator Jamb



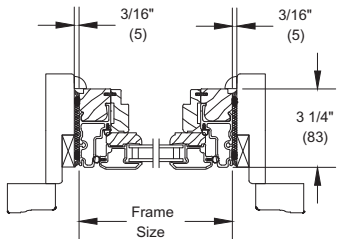
Elevate Awning Operator Head Jamb and Sill



Elevate Awning Operator Jamb



Transom and Picture Head Jamb and Sill



Transom and Picture Jamb

Details and Elevations not to scale.
Special sized units available within product size matrix.
See your Marvin retailer.
Optional Casement GBGs and SDLs are available in a standard Rectangular cut.
Available lite cuts shown on page 3.
For further details and drawings visit the 'Technical Specifications' section at Marvin.com.

MULTIPLE ASSEMBLIES

Multiple assemblies can be factory mulled.
MAXIMUM ROUGH OPENING not to exceed 113" x 71 5/8"
Maximum up to 7 units wide by 1 unit high.
MAXIMUM ROUGH OPENING not to exceed 85" x 94 3/4"
Maximum up to 4 unit wide by 5 units high.
Field mull kits are available.
Please consult your local Marvin representative for more information.

DOUBLE HUNG

MO (mm)	1-10 (559)	2-2 (660)	2-6 (762)	2-8 (813)	2-10 (864)
RO (mm)	1-10 1/2 (572)	2-2 1/2 (673)	2-6 1/2 (775)	2-8 1/2 (826)	2-10 1/2 (876)
FS (mm)	1-9 1/2 (546)	2-1 1/2 (648)	2-5 1/2 (749)	2-7 1/2 (800)	2-9 1/2 (851)
DLO (mm)	1-3 11/16 (398)	1-7 11/16 (500)	1-11 11/16 (602)	2-1 11/16 (652)	2-3 11/16 (703)
3-0 (914)	(S.O. 1-8 x 2-10)	(S.O. 2-0 x 2-10)	(S.O. 2-4 x 2-10)	(S.O. 2-6 x 2-10)	(S.O. 2-8 x 2-10)
3-0 1/4 (921)	ELDH2236	ELDH2636	ELDH3036	ELDH3236	ELDH3436
3-4 (1016)	(S.O. 1-8 x 3-2)	(S.O. 2-0 x 3-2)	(S.O. 2-4 x 3-2)	(S.O. 2-6 x 3-2)	(S.O. 2-8 x 3-2)
3-4 1/4 (1022)	ELDH2240	ELDH2640	ELDH3040	ELDH3240	ELDH3440
3-8 1/4 (1124)	(S.O. 1-8 x 3-6)	(S.O. 2-0 x 3-6)	(S.O. 2-4 x 3-6)	(S.O. 2-6 x 3-6)	(S.O. 2-8 x 3-6)
3-8 3/4 (1111)	ELDH2244	ELDH2644	ELDH3044	ELDH3244	ELDH3444
3-7 3/4 (1070)	(S.O. 1-8 x 3-10)	(S.O. 2-0 x 3-10)	(S.O. 2-4 x 3-10)	(S.O. 2-6 x 3-10)	(S.O. 2-8 x 3-10)
3-3 3/4 (1010)	ELDH2248	ELDH2648	ELDH3048	ELDH3248	ELDH3448
1-3 11/16 (398)	(S.O. 1-8 x 4-2)	(S.O. 2-0 x 4-2)	(S.O. 2-4 x 4-2)	(S.O. 2-6 x 4-2)	(S.O. 2-8 x 4-2)
1-5 11/16 (449)	ELDH2252	ELDH2652	ELDH3052	ELDH3252	ELDH3452
1-7 11/16 (500)	(S.O. 1-8 x 4-6)	(S.O. 2-0 x 4-6)	(S.O. 2-4 x 4-6)	(S.O. 2-6 x 4-6)	(S.O. 2-8 x 4-6)
4-0 (1219)	ELDH2256	ELDH2656	ELDH3056	ELDH3256	ELDH3456
4-0 1/4 (1226)	(S.O. 1-8 x 4-10)	(S.O. 2-0 x 4-10)	(S.O. 2-4 x 4-10)	(S.O. 2-6 x 4-10)	(S.O. 2-8 x 4-10)
3-11 3/4 (1213)	ELDH2260	ELDH2660	ELDH3060	ELDH3260	ELDH3460
1-7 11/16 (500)	(S.O. 1-8 x 5-2)	(S.O. 2-0 x 5-2)	(S.O. 2-4 x 5-2)	(S.O. 2-6 x 5-2)	(S.O. 2-8 x 5-2)
4-4 (1321)	ELDH2264	ELDH2664	ELDH3064	ELDH3264	ELDH3464
4-4 1/4 (1327)	(S.O. 1-8 x 5-6)	(S.O. 2-0 x 5-6)	(S.O. 2-4 x 5-6)	(S.O. 2-6 x 5-6)	(S.O. 2-8 x 5-6)
4-8 1/4 (1429)	ELDH2268	ELDH2668	ELDH3068	ELDH3268 E	ELDH3468 E
4-3 3/4 (1314)	(S.O. 1-8 x 5-10)	(S.O. 2-0 x 5-10)	(S.O. 2-4 x 5-10)	(S.O. 2-6 x 5-10)	(S.O. 2-8 x 5-10)
4-3 3/4 (1314)	ELDH2272	ELDH2672	ELDH3072	ELDH3272 E	ELDH3472 E
1-9 11/16 (551)	(S.O. 1-8 x 6-2)	(S.O. 2-0 x 6-2)	(S.O. 2-4 x 6-2)	(S.O. 2-6 x 6-2)	(S.O. 2-8 x 6-2)
1-11 11/16 (602)	ELDH2276	ELDH2676	ELDH3076 E	ELDH3276 E	ELDH3476 E
5-0 (1524)	(S.O. 1-8 x 6-2)	(S.O. 2-0 x 6-2)	(S.O. 2-4 x 6-2)	(S.O. 2-6 x 6-2)	(S.O. 2-8 x 6-2)
5-0 1/4 (1530)	ELDH2276	ELDH2676	ELDH3076 E	ELDH3276 E	ELDH3476 E
4-11 3/4 (1518)	(S.O. 1-8 x 6-2)	(S.O. 2-0 x 6-2)	(S.O. 2-4 x 6-2)	(S.O. 2-6 x 6-2)	(S.O. 2-8 x 6-2)
2-1 11/16 (652)	ELDH2276	ELDH2676	ELDH3076 E	ELDH3276 E	ELDH3476 E
5-4 (1626)	(S.O. 1-8 x 6-2)	(S.O. 2-0 x 6-2)	(S.O. 2-4 x 6-2)	(S.O. 2-6 x 6-2)	(S.O. 2-8 x 6-2)
5-4 1/4 (1632)	ELDH2276	ELDH2676	ELDH3076 E	ELDH3276 E	ELDH3476 E
5-3 3/4 (1619)	(S.O. 1-8 x 6-2)	(S.O. 2-0 x 6-2)	(S.O. 2-4 x 6-2)	(S.O. 2-6 x 6-2)	(S.O. 2-8 x 6-2)
2-3 11/16 (703)	ELDH2276	ELDH2676	ELDH3076 E	ELDH3276 E	ELDH3476 E
5-8 (1727)	(S.O. 1-8 x 6-2)	(S.O. 2-0 x 6-2)	(S.O. 2-4 x 6-2)	(S.O. 2-6 x 6-2)	(S.O. 2-8 x 6-2)
5-8 1/4 (1734)	ELDH2276	ELDH2676	ELDH3076 E	ELDH3276 E	ELDH3476 E
5-7 3/4 (1721)	(S.O. 1-8 x 6-2)	(S.O. 2-0 x 6-2)	(S.O. 2-4 x 6-2)	(S.O. 2-6 x 6-2)	(S.O. 2-8 x 6-2)
2-5 11/16 (754)	ELDH2276	ELDH2676	ELDH3076 E	ELDH3276 E	ELDH3476 E
6-0 (1829)	(S.O. 1-8 x 6-2)	(S.O. 2-0 x 6-2)	(S.O. 2-4 x 6-2)	(S.O. 2-6 x 6-2)	(S.O. 2-8 x 6-2)
6-0 1/4 (1835)	ELDH2276	ELDH2676	ELDH3076 E	ELDH3276 E	ELDH3476 E
5-11 3/4 (1822)	(S.O. 1-8 x 6-2)	(S.O. 2-0 x 6-2)	(S.O. 2-4 x 6-2)	(S.O. 2-6 x 6-2)	(S.O. 2-8 x 6-2)
2-7 11/16 (805)	ELDH2276	ELDH2676	ELDH3076 E	ELDH3276 E	ELDH3476 E
6-4 (1930)	(S.O. 1-8 x 6-2)	(S.O. 2-0 x 6-2)	(S.O. 2-4 x 6-2)	(S.O. 2-6 x 6-2)	(S.O. 2-8 x 6-2)
6-4 1/4 (1937)	ELDH2276	ELDH2676	ELDH3076 E	ELDH3276 E	ELDH3476 E
6-3 3/4 (1924)	(S.O. 1-8 x 6-2)	(S.O. 2-0 x 6-2)	(S.O. 2-4 x 6-2)	(S.O. 2-6 x 6-2)	(S.O. 2-8 x 6-2)
2-9 11/16 (856)	ELDH2276	ELDH2676	ELDH3076 E	ELDH3276 E	ELDH3476 E

DOUBLE HUNG

MO (mm)	3-0 (914)	3-2 (965)	3-6 (1067)	4-0 (1219)	4-6 (1372)
RO (mm)	3-0 1/2 (927)	3-2 1/2 (978)	3-6 1/2 (1080)	4-0 1/2 (1232)	4-6 1/2 (1384)
FS (mm)	2-11 1/2 (902)	3-1 1/2 (953)	3-5 1/2 (1054)	3-11 1/2 (1207)	4-5 1/2 (1359)
DLO (mm)	2-5 11/16 (754)	2-7 11/16 (805)	2-11 11/16 (906)	3-5 11/16 (1059)	3-11 11/16 (1211)
6-4 (1930) 6-4 1/4 (1937) 6-3 3/4 (1924) 2-9 11/16 (856)	(S.O. 2-10 x 6-2)	(S.O. 3-0 x 6-2)	(S.O. 3-4 x 6-2)	(S.O. 3-10 x 6-2)	(S.O. 4-4 x 6-2)
	ELDH3676 E	ELDH3876 E	ELDH4276 E	ELDH4876 E	ELDH5476 E
	ELDH3672 E	ELDH3872 E	ELDH4272 E	ELDH4872 E	ELDH5472 E
	ELDH3668 E	ELDH3868 E	ELDH4268 E	ELDH4868 E	ELDH5468 E
	ELDH3664 E	ELDH3864 E	ELDH4264 E	ELDH4864 E	ELDH5464 E
5-8 (1727) 5-8 1/4 (1734) 5-7 3/4 (1721) 2-5 11/16 (754)	(S.O. 2-10 x 5-6)	(S.O. 3-0 x 5-6)	(S.O. 3-4 x 5-6)	(S.O. 3-10 x 5-6)	(S.O. 4-4 x 5-6)
	ELDH3668 E	ELDH3868 E	ELDH4268 E	ELDH4868 E	ELDH5468 E
	ELDH3664 E	ELDH3864 E	ELDH4264 E	ELDH4864 E	ELDH5464 E
	ELDH3656	ELDH3856	ELDH4256	ELDH4856	ELDH5456
	ELDH3652	ELDH3852	ELDH4252	ELDH4852	ELDH5452
4-8 (1422) 4-8 1/4 (1429) 4-7 3/4 (1416) 1-11 11/16 (602)	(S.O. 2-10 x 4-6)	(S.O. 3-0 x 4-6)	(S.O. 3-4 x 4-6)	(S.O. 3-10 x 4-6)	(S.O. 4-4 x 4-6)
	ELDH3656	ELDH3856	ELDH4256	ELDH4856	ELDH5456
	ELDH3652	ELDH3852	ELDH4252	ELDH4852	ELDH5452
	ELDH3648	ELDH3848	ELDH4248	ELDH4848	ELDH5448
	ELDH3644	ELDH3844	ELDH4244	ELDH4844	ELDH5444
3-8 (1176) 3-8 1/4 (1124) 3-7 3/4 (1111) 1-5 11/16 (449)	(S.O. 2-10 x 3-10)	(S.O. 3-0 x 3-10)	(S.O. 3-4 x 3-10)	(S.O. 3-10 x 3-10)	(S.O. 4-4 x 3-10)
	ELDH3648	ELDH3848	ELDH4248	ELDH4848	ELDH5448
	ELDH3644	ELDH3844	ELDH4244	ELDH4844	ELDH5444
	ELDH3640	ELDH3840	ELDH4240	ELDH4840	ELDH5440
	ELDH3636	ELDH3836	ELDH4236	ELDH4836	ELDH5436
3-4 (1016) 3-4 1/4 (1022) 3-3 3/4 (1010) 1-3 11/16 (398)	(S.O. 2-10 x 3-2)	(S.O. 3-0 x 3-2)	(S.O. 3-4 x 3-2)	(S.O. 3-10 x 3-2)	(S.O. 4-4 x 3-2)
	ELDH3640	ELDH3840	ELDH4240	ELDH4840	ELDH5440
	ELDH3644	ELDH3844	ELDH4244	ELDH4844	ELDH5444
	ELDH3636	ELDH3836	ELDH4236	ELDH4836	ELDH5436
	3-0 (914)	3-0 1/4 (921)	3-0 1/2 (927)	3-1 1/2 (953)	3-1 1/2 (959)

DOUBLE HUNG

MO (mm)	1-10 (559)	2-2 (660)	2-6 (762)	2-8 (813)	2-10 (864)
RO (mm)	1-10 1/2 (572)	2-2 1/2 (673)	2-6 1/2 (775)	2-8 1/2 (826)	2-10 1/2 (876)
FS (mm)	1-9 1/2 (546)	2-1 1/2 (648)	2-5 1/2 (749)	2-7 1/2 (800)	2-9 1/2 (851)
DLO (mm)	1-3 11/16 (398)	1-7 11/16 (500)	1-11 11/16 (602)	2-1 11/16 (652)	2-3 11/16 (703)
7-0 (2134) 7-0 1/4 (2140) 6-11 3/4 (2127) 3-1 11/16 (957)	ELDH2284	ELDH2684	ELDH3084E	ELDH3284E	ELDH3484E
	ELDH2280	ELDH2680	ELDH3080E	ELDH3280E	ELDH3480E
	ELDH2280	ELDH2680	ELDH3080E	ELDH3280E	ELDH3480E
	ELDH2280	ELDH2680	ELDH3080E	ELDH3280E	ELDH3480E
	ELDH2280	ELDH2680	ELDH3080E	ELDH3280E	ELDH3480E

Details and Elevations not to scale.

Special sized units available within and outside of CN matrix. Please contact your Marvin dealer.

Minimum frame size: 17 1/2" x 27 3/4"

Maximum frame size: 53 1/2" x 83 3/4"

Optional Double Hung GBGs and SDLs are available in a standard Rectangular cut shown. Other available lite cuts shown on page 3.

E = These windows meet National Egress Codes for fire evacuation. Local codes may differ.

Available in equal, cottage, and reverse cottage sash configurations. Cottage and reverse cottage sash configurations are not available below CN 36 height and above CN 68 height.

For further details and drawings visit the 'Technical Specifications' section at Marvin.com.

MULTIPLE ASSEMBLIES

Multiple assemblies can be factory mullied.

MAXIMUM ROUGH OPENING not to exceed 113 1/2" x 76 1/4" Maximum up to 5 units wide by 1 unit high.

MAXIMUM ROUGH OPENING not to exceed 84" x 92" Maximum up to 3 units wide by 5 units high.

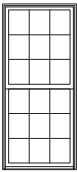
Field mull kits are available. Structural mullion reinforcement is required for some assemblies.

Please consult your local Marvin representative for more information.

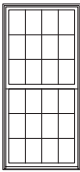
DOUBLE HUNG

MO (mm)	3-0 (914)	3-2 (965)	3-6 (1067)	4-0 (1219)	4-6 (1372)
RO (mm)	3-0 1/2 (927)	3-2 1/2 (978)	3-6 1/2 (1080)	4-0 1/2 (1232)	4-6 1/2 (1384)
FS (mm)	2-11 1/2 (902)	3-1 (953)	3-5 1/2 (1054)	3-11 1/2 (1207)	4-5 1/2 (1359)
DLO (mm)	2-5 11/16 (754)	2-7 11/16 (805)	2-11 11/16 (906)	3-5 11/16 (1059)	3-11 11/16 (1211)

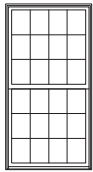
6-8 (2032)	6-8 1/4 (2038)	6-7 3/4 (2026)	2-11 11/16 (906)
7-0 (2134)	7-0 1/4 (2140)	6-11 3/4 (2127)	3-11 11/16 (957)



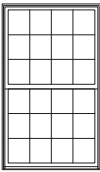
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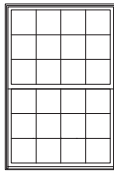
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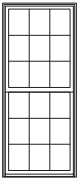
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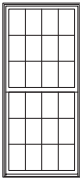
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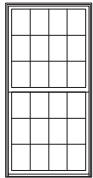
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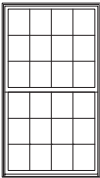
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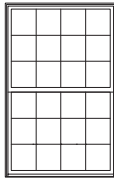
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ELDH4284E



ELDH4884E



ELDH5484E

Details and Elevations not to scale.

Special sized units available within and outside of CN matrix. Please contact your Marvin dealer.

Minimum frame size: 17 1/2" x 27 3/4"

Maximum frame size: 53 1/2" x 83 3/4"

Optional Double Hung GBGs and SDLs are available in a standard Rectangular cut shown. Other available lite cuts shown on page 3.

E = These windows meet National Egress Codes for fire evacuation. Local codes may differ.

Available in equal, cottage, and reverse cottage sash configurations. Cottage and reverse cottage sash configurations are not available below CN 36 height and above CN 68 height.

For further details and drawings visit the 'Technical Specifications' section at Marvin.com.

MULTIPLE ASSEMBLIES

Multiple assemblies can be factory mullled.

MAXIMUM ROUGH OPENING not to exceed 113 1/2" x 76 1/4" Maximum up to 5 units wide by 1 unit high.

MAXIMUM ROUGH OPENING not to exceed 84" x 92" Maximum up to 3 units wide by 5 units high.

Field mull kits are available. Structural mullion reinforcement is required for some assemblies.

Please consult your local Marvin representative for more information.

DOUBLE HUNG

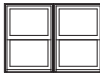
2 Wide

MO (mm)	3-7 1/2 (1105)	4-3 1/2 (1308)	4-11 1/2 (1511)	5-3 1/2 (1613)	5-7 1/2 (1715)	5-11 1/2 (1816)	6-3 1/2 (1918)	6-11 1/2 (2121)
RO (mm)	3-8 (1118)	4-4 (1321)	5-0 (1524)	5-4 (1626)	5-8 (1727)	6-0 (1829)	6-4 (1930)	7-0 (2134)
FS (mm)	3-7 (1092)	4-3 (1295)	4-11 (1499)	5-3 (1600)	5-7 (1702)	5-11 (1803)	6-3 (1905)	6-11 (2108)

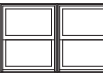
3-0 (914)	3-0 1/4 (921)	2-11 3/4 (906)
3-4 (1016)	3-4 1/4 (1022)	3-3 3/4 (1010)
3-8 (1176)	3-8 1/4 (1124)	3-7 3/4 (1111)
4-0 (1219)	4-0 1/4 (1226)	3-11 3/4 (1213)
4-4 (1321)	4-4 1/4 (1327)	4-3 3/4 (1314)
4-8 (1422)	4-8 1/4 (1428)	4-7 3/4 (1416)
5-0 (1524)	5-0 1/4 (1530)	4-11 3/4 (1518)
5-4 (1626)	5-4 1/4 (1632)	5-3 3/4 (1619)
5-8 (1727)	5-8 1/4 (1734)	5-7 3/4 (1721)
6-0 (1829)	6-0 1/4 (1835)	5-11 3/4 (1822)
6-4 (1930)	6-4 1/4 (1937)	6-3 3/4 (1924)



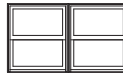
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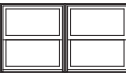
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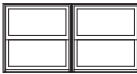
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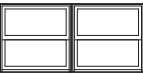
ELDH3236 2W



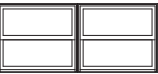
ELDH3436 2W



ELDH3636 2W



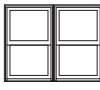
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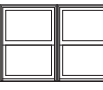
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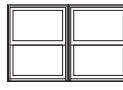
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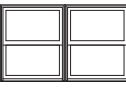
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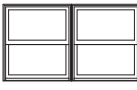
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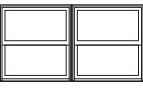
ELDH3240 2W



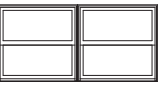
ELDH3440 2W



ELDH 3640 2W



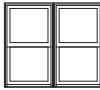
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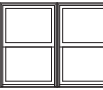
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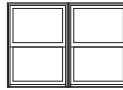
ELDH2244 2W



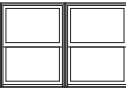
ELDH2644 2W



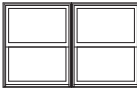
ELDH3044 2W



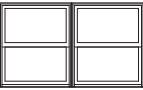
ELDH3244 2W



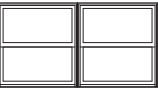
ELDH3444 2W



ELDH 3644 2W



ELDH 3844 2W



ELDH 4244 2W



ELDH2248 2W



ELDH2648 2W



ELDH3048 2W



ELDH3248 2W



ELDH3448 2W



ELDH 3648 2W



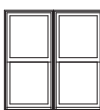
ELDH 3848 2W



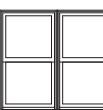
ELDH 4248 2W



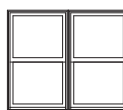
ELDH2252 2W



ELDH2652 2W



ELDH3052 2W



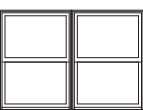
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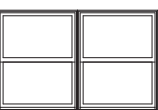
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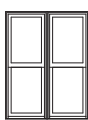
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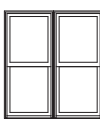
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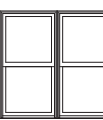
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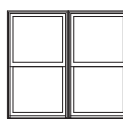
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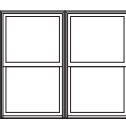
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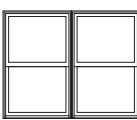
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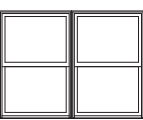
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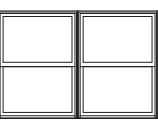
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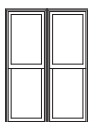
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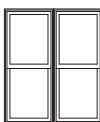
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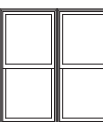
ELDH 4256 2W



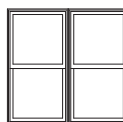
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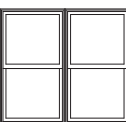
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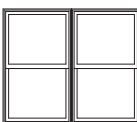
ELDH3060 2W



ELDH3260 2W



ELDH3460 2W



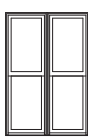
ELDH 3660 2W E



ELDH 3860 2W E



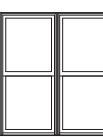
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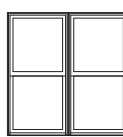
ELDH2264 2W



ELDH2664 2W



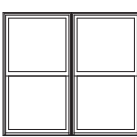
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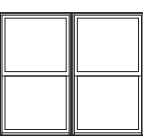
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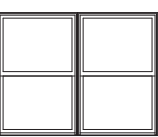
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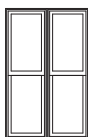
ELDH 3664 2W E



ELDH 3864 2W E



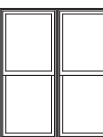
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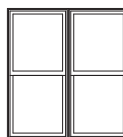
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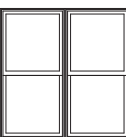
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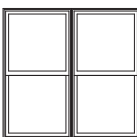
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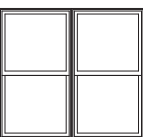
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ELDH3468 2W E



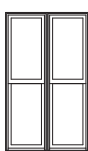
ELDH 3668 2W E



ELDH 3868 2W E



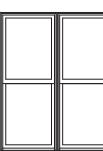
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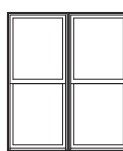
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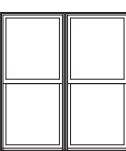
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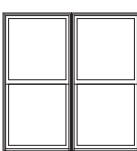
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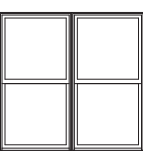
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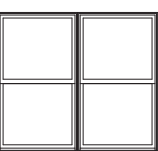
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ELDH 3672 2W E



ELDH 3872 2W E



ELDH 4272 2W E



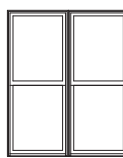
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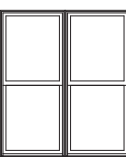
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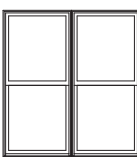
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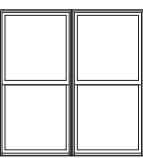
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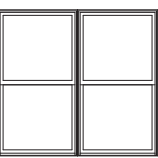
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ELDH 3676 2W E



ELDH 3876 2W E

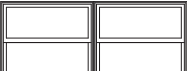
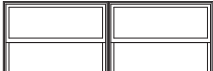
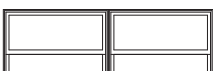
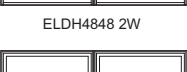
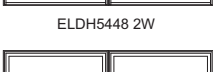
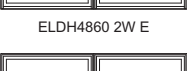


ELDH 4276 2W E

DOUBLE HUNG

2 Wide

MO (mm)	7-11 1/2 (2426)	8-11 1/2 (2731)
RO (mm)	8-0 (2438)	9-0 (2743)
FS (mm)	7-11 (2413)	8-11 (2718)

3-0 (914)		
3-0 1/4 (921)	ELD4836 2W	ELD5436 2W
3-4 (1016)		
3-4 1/4 (1022)	ELD4840 2W	ELD5440 2W
3-8 (1176)		
3-8 1/4 (1124)	ELD4844 2W	ELD5444 2W
4-0 (1219)		
4-0 1/4 (1226)	ELD4848 2W	ELD5448 2W
4-4 (1321)		
4-4 1/4 (1327)	ELD4852 2W	ELD5452 2W
4-8 (1422)		
4-8 1/4 (1429)	ELD4856 2W	ELD5456 2W
5-0 (1524)		
5-0 1/4 (1530)	ELD4860 2W E	ELD5460 2W E
5-4 (1626)		
5-4 1/4 (1632)	ELD4864 2W E	ELD5464 2W E
5-8 (1727)		
5-8 1/4 (1734)	ELD4868 2W E	ELD5468 2W E
6-0 (1829)		
6-0 1/4 (1835)	ELD4872 2W E	ELD5472 2W E
6-4 (1930)		
6-4 1/4 (1937)	ELD4876 2W E	ELD5476 2W E

80" HEIGHTS:	
MO (mm)	6-8 (2032)
RO (mm)	6-8 1/4" (2038)
FS (mm)	6-7 3/4" (2026)
DLO (mm)	2-11 11/16" (906)

84" HEIGHTS:	
MO (mm)	7-0 (2134)
RO (mm)	7-0 1/4" (2140)
FS (mm)	6-11 3/4" (2127)
DLO (mm)	3-1 11/16" (957)

Details and Elevations not to scale.
Special sized units available within and outside of CN matrix.
Please contact your Marvin dealer.
Minimum frame size: 17 1/2" x 27 3/4"
Maximum frame size: 53 1/2" x 83 3/4"
Optional Double Hung GBGs and SDLs are available in a standard Rectangular cut shown. Other available lite cuts shown on page 3.

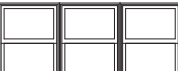
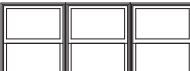
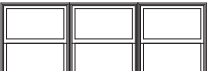
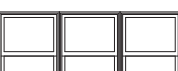
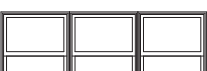
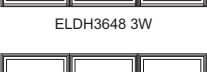
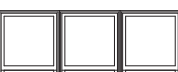
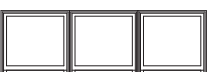
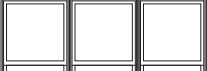
E = These windows meet National Egress Codes for fire evacuation. Local codes may differ.
Available in equal, cottage, and reverse cottage sash configurations. Cottage and reverse cottage sash configurations are not available below CN 36 height and above CN 68 height.
For further details and drawings visit the 'Technical Specifications' section at Marvin.com.

MULTIPLE ASSEMBLIES
Multiple assemblies can be factory mulled.
MAXIMUM ROUGH OPENING not to exceed 113 1/2" x 76 1/4"
Maximum up to 5 units wide by 1 unit high.
MAXIMUM ROUGH OPENING not to exceed 84" x 92"
Maximum up to 3 units wide by 5 units high.
Field mull kits are available. Structural mullion reinforcement is required for some assemblies.
Please consult your local Marvin representative for more information.

DOUBLE HUNG

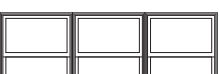
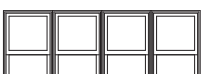
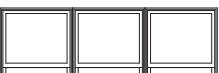
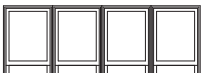
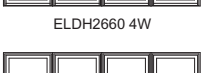
3 Wide

MO (mm)	5-5 (1651)	6-5 (1956)	7-5 (2261)	7-11 (2413)	8-5 (2565)	8-11 (2718)
RO (mm)	5-5 1/2 (1664)	6-5 1/2 (1969)	7-5 1/2 (2273)	7-11 1/2 (2426)	8-5 1/2 (2578)	8-11 1/2 (2731)
FS (mm)	5-4 1/2 (1638)	6-4 1/2 (1943)	7-4 1/2 (2248)	7-10 1/2 (2400)	8-4 1/2 (2553)	8-10 1/2 (2705)

3-0 (914)						
3-0 1/4 (921)	ELD2236 3W	ELD2636 3W	ELD3036 3W	ELDH3236 3W	ELD3436 3W	ELD3636 3W
3-4 (1016)						
3-4 1/4 (1022)	ELD2240 3W	ELD2640 3W	ELD3040 3W	ELDH3240 3W	ELD3440 3W	ELD3640 3W
3-8 (1176)						
3-8 1/4 (1124)	ELD2244 3W	ELD2644 3W	ELD3044 3W	ELDH3244 3W	ELD3444 3W	ELD3644 3W
4-0 (1219)						
4-0 1/4 (1226)	ELD2248 3W	ELD2648 3W	ELD3048 3W	ELDH3248 3W	ELD3448 3W	ELD3648 3W
4-4 (1321)						
4-4 1/4 (1327)	ELD2252 3W	ELD2652 3W	ELD3052 3W	ELDH3252 3W	ELD3452 3W	ELD3652 3W
4-8 (1422)						
4-8 1/4 (1429)	ELD2256 3W	ELD2656 3W	ELD3056 3W	ELDH3256 3W	ELD3456 3W	ELD3656 3W
5-0 (1524)						
5-0 1/4 (1530)	ELD2260 3W	ELD2660 3W	ELD3060 3W	ELDH3260 3W	ELD3460 3W	ELD3660 3W E
5-4 (1626)						
5-4 1/4 (1632)	ELD2264 3W	ELD2664 3W	ELD3064 3W	ELDH3264 3W	ELD3464 3W	ELD3664 3W E
5-8 (1727)						
5-8 1/4 (1734)	ELD2268 3W	ELD2668 3W	ELD3068 3W	ELDH3268 3W E	ELD3468 3W E	ELD3668 3W E
6-0 (1829)						
6-0 1/4 (1835)	ELD2272 3W	ELD2672 3W	ELD3072 3W	ELDH3272 3W E	ELD3472 3W E	ELD3672 3W E
6-4 (1930)						
6-4 1/4 (1937)	ELD2276 3W	ELD2676 3W	ELD3076 3W E	ELDH3276 3W E	ELD3476 3W E	ELD3676 3W E

DOUBLE HUNG

3 Wide and 4 Wide

MO (mm)	9-5 (2870)	7-2 1/2 (2197)	8-6 1/2 (2604)
RO (mm)	9-5 1/2 (2883)	7-3 (2210)	8-7 (2616)
FS (mm)	9-4 1/2 (2858)	7-2 (2184)	8-6 (2591)
3-0 (914)			
3-0 1/4 (921)			
3-4 (1016)			
3-4 1/4 (1022)			
3-8 (1176)			
3-8 1/4 (1124)			
3-7 3/4 (1111)			
4-0 (1219)			
4-0 1/4 (1226)			
3-11 3/4 (1213)			
4-4 (1321)			
4-4 1/4 (1327)			
4-3 3/4 (1314)			
4-8 (1422)			
4-8 1/4 (1429)			
4-7 3/4 (1416)			
5-0 (1524)			
5-0 1/4 (1530)			
4-11 3/4 (1518)			
5-4 (1626)			
5-4 1/4 (1632)			
5-3 3/4 (1619)			
5-8 (1727)			
5-8 1/4 (1734)			
5-7 3/4 (1721)			
6-0 (1829)			
6-0 1/4 (1835)			
5-11 3/4 (1822)			
6-4 (1930)			
6-4 1/4 (1937)			
6-3 3/4 (1924)			

Details and Elevations not to scale.

Special sized units available within and outside of CN matrix. Please contact your Marvin dealer.

Minimum frame size: 17 1/2" x 27 3/4"

Maximum frame size: 53 1/2" x 83 3/4"

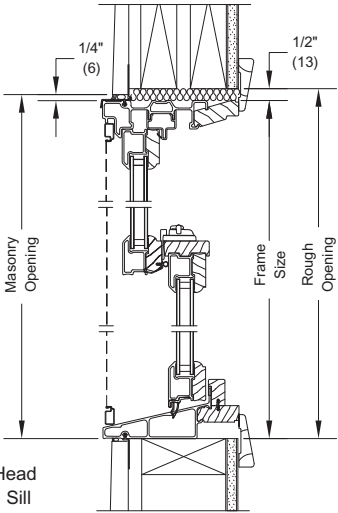
Optional Double Hung GBGs and SDLs are available in a standard Rectangular cut shown. Other available lite cuts shown on page 3.

E = These windows meet National Egress Codes for fire evacuation. Local codes may differ.

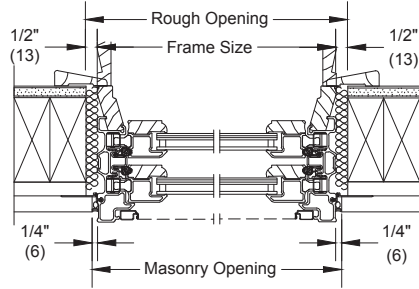
Available in equal, cottage, and reverse cottage sash configurations. Cottage and reverse cottage sash configurations are not available below CN 36 height and above CN 68 height.

For further details and drawings visit the 'Technical Specifications' section at Marvin.com.

Construction Details



Operator Head
Jamb and Sill



Operator
Jamb

MULTIPLE ASSEMBLIES

Multiple assemblies can be factory mullied.

MAXIMUM ROUGH OPENING not to exceed 113 1/2" x 76 1/4" Maximum up to 5 units wide by 1 unit high.

MAXIMUM ROUGH OPENING not to exceed 84" x 92" Maximum up to 3 units wide by 5 units high.

Field mull kits are available. Structural mullion reinforcement is required for some assemblies.

Please consult your local Marvin representative for more information.

DOUBLE HUNG PICTURE

MO (mm)	1-10 (559)	2-2 (660)	2-6 (762)	2-8 (813)	2-10 (864)	3-0 (914)	3-2 (965)	3-6 (1067)	4-0 (1219)
RO (mm)	1-10 1/2 (572)	2-2 1/2 (673)	2-6 1/2 (775)	2-8 1/2 (826)	2-10 1/2 (876)	3-0 1/2 (927)	3-2 1/2 (978)	3-6 1/2 (1080)	4-0 1/2 (1232)
FS (mm)	1-9 1/2 (546)	2-1 1/2 (648)	2-5 1/2 (749)	2-7 1/2 (800)	2-9 1/2 (851)	2-11 1/2 (902)	3-1 1/2 (953)	3-5 1/2 (1054)	3-11 1/2 (1207)
DLO (mm)	1-3 11/16 (398)	1-7 11/16 (500)	1-11 11/16 (602)	2-1 11/16 (652)	2-3 11/16 (703)	2-5 11/16 (754)	2-7 11/16 (805)	2-11 11/16 (906)	3-5 11/16 (1059)
3-0 (914)									
3-0 1/4 (921)									
3-4 (1016)									
3-4 1/4 (1022)									
3-8 (1176)									
3-8 1/4 (1124)									
3-7 3/4 (1111)									
3-11 3/4 (1213)									
3-11 3/4 (1213)									
3-5 11/16 (1059)									
3-5 11/16 (1059)									
4-0 (1219)									
4-0 1/4 (1226)									
4-4 (1321)									
4-4 1/4 (1327)									
4-3 3/4 (1314)									
4-8 (1422)									
4-8 1/4 (1429)									
4-7 3/4 (1416)									
4-11 3/4 (1518)									
5-0 (1524)									
5-0 1/4 (1530)									
4-11 3/4 (1518)									
5-4 (1626)									
5-4 1/4 (1632)									
5-3 3/4 (1619)									
5-8 (1727)									
5-8 1/4 (1734)									
5-7 3/4 (1721)									
6-0 (1829)									
6-0 1/4 (1835)									
5-11 3/4 (1822)									
6-4 (1930)									
6-4 1/4 (1937)									
6-3 3/4 (1924)									

Details and Elevations not to scale.

Special sized units available within and outside of CN matrix. Please contact your Marvin dealer.

Minimum frame size: 17 1/2" x 27 3/4"

Maximum frame size: 53 1/2" x 83 3/4" or 61 1/2" x 75 3/4"

Optional Double Hung GBGs and SDLs are available in a standard Rectangular cut shown. Other available lite cuts shown on page 3.

For further details and drawings visit the 'Technical Specifications' section at Marvin.com.

DOUBLE HUNG PICTURE

MO (mm)	4-2 (1270)	4-6 (1372)	5-2 (1575)
RO (mm)	4-2 1/2 (1283)	4-6 1/2 (1384)	5-2 1/2 (1588)
FS (mm)	4-1 1/2 (1257)	4-5 1/2 (1359)	5-1 1/2 (1562)
DLO (mm)	3-7 11/16 (1110)	3-11 11/16 (1211)	4-7 11/16 (1414)

4-8 (1422)	4-4 (1321)	4-0 (1219)	3-8 (1176)	3-4 (1016)	3-0 (914)
4-8 1/4 (1429)	4-4 1/4 (1327)	4-0 1/4 (1226)	3-8 1/4 (1124)	3-4 1/4 (1022)	3-0 1/4 (921)
4-7 3/4 (1416)	4-3 3/4 (1314)	3-11 3/4 (1213)	3-7 3/4 (1111)	3-3 3/4 (1010)	2-11 3/4 (908)
4-1 11/16 (1262)	3-9 11/16 (1160)	3-5 11/16 (1059)	3-1 11/16 (957)	2-9 3/4 (856)	2-5 11/16 (754)

ELDHP5056	ELDHP5052	ELDHP5048	ELDHP5044	ELDHP5040	ELDHP5036
ELDHP5456	ELDHP5452	ELDHP5448	ELDHP5444	ELDHP5440	ELDHP5436
ELDHP6256	ELDHP6252	ELDHP6248	ELDHP6244	ELDHP6240	ELDHP6236

MULTIPLE ASSEMBLIES

Multiple assemblies can be factory mulled.

MAXIMUM ROUGH OPENING not to exceed 113 1/2" x 76 1/4"
Maximum up to 5 units wide by 1 unit high.

MAXIMUM ROUGH OPENING not to exceed 84" x 92"
Maximum up to 3 units wide by 5 units high.

Field mull kits are available. Structural mullion reinforcement is required for some assemblies.

Please consult your local Marvin representative for more information.

DOUBLE HUNG PICTURE

MO (mm)	4-2 (1270)	4-6 (1372)	5-2 (1575)
RO (mm)	4-2 1/2 (1283)	4-6 1/2 (1384)	5-2 1/2 (1588)
FS (mm)	4-1 1/2 (1257)	4-5 1/2 (1359)	5-1 1/2 (1562)
DLO (mm)	3-7 11/16 (1110)	3-11 11/16 (1211)	4-7 11/16 (1414)

6-4 (1930)	6-0 (1829)	5-8 (1727)	5-4 (1626)	5-0 (1524)
6-4 1/4 (1937)	6-0 1/4 (1835)	5-8 1/4 (1734)	5-4 1/4 (1632)	5-0 1/4 (1530)
6-3 3/4 (1924)	5-11 3/4 (1822)	5-7 3/4 (1721)	5-3 3/4 (1619)	4-11 3/4 (1518)
5-9 11/16 (1770)	5-5 11/16 (1668)	5-1 11/16 (1567)	4-9 11/16 (1465)	4-5 11/16 (1364)

ELDHP5076	ELDHP5072	ELDHP5068	ELDHP5064	ELDHP5060
ELDHP5476	ELDHP5472	ELDHP5468	ELDHP5464	ELDHP5460
ELDHP6276	ELDHP6272	ELDHP6268	ELDHP6264	ELDHP6260

Details and Elevations not to scale.

Special sized units available within and outside of CN matrix. Please contact your Marvin dealer.

Minimum frame size: 17 1/2" x 27 3/4"

Maximum frame size: 53 1/2" x 83 3/4" or 61 1/2" x 75 3/4"

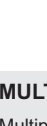
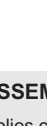
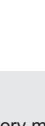
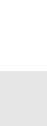
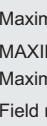
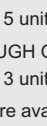
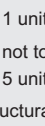
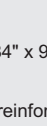
Optional Double Hung GBGs and SDLs are available in a standard Rectangular cut shown.

Other available lite cuts shown on page 3.

For further details and drawings visit the 'Technical Specifications' section at Marvin.com.

MARVIN ELEVATE™ COLLECTION

DOUBLE HUNG PICTURE

MO (mm)	1-10 (559)	2-2 (660)	2-6 (762)	2-8 (813)	2-10 (864)	3-0 (914)	3-2 (965)	3-6 (1067)	4-0 (1219)
RO (mm)	1-10 1/2 (572)	2-2 1/2 (673)	2-6 1/2 (775)	2-8 1/2 (826)	2-10 1/2 (876)	3-0 1/2 (927)	3-2 1/2 (978)	3-6 1/2 (1080)	4-0 1/2 (1232)
FS (mm)	1-9 1/2 (546)	2-1 1/2 (648)	2-5 1/2 (749)	2-7 1/2 (800)	2-9 1/2 (851)	2-11 1/2 (902)	3-1 1/2 (953)	3-5 1/2 (1054)	3-11 1/2 (1207)
DLO (mm)	1-3 11/16 (398)	1-7 11/16 (500)	1-11 11/16 (602)	2-1 11/16 (652)	2-3 11/16 (703)	2-5 11/16 (754)	2-7 11/16 (805)	2-11 11/16 (906)	3-5 11/16 (1059)
5-0 (1524)									
5-0 1/4 (1530)	ELDHP2260	ELDHP2660	ELDHP3060	ELDHP3260	ELDHP3460	ELDHP3660	ELDHP3860	ELDHP4260	ELDHP4860
5-4 (1626)									
5-4 1/4 (1632)	ELDHP2264	ELDHP2664	ELDHP3064	ELDHP3264	ELDHP3464	ELDHP3664	ELDHP3864	ELDHP4264	ELDHP4864
5-3 3/4 (1619)									
5-3 3/4 (1619)	ELDHP2268	ELDHP2668	ELDHP3068	ELDHP3268	ELDHP3468	ELDHP3668	ELDHP3868	ELDHP4268	ELDHP4868
5-1 11/16 (1567)									
5-1 11/16 (1567)	ELDHP2272	ELDHP2672	ELDHP3072	ELDHP3272	ELDHP3472	ELDHP3672	ELDHP3872	ELDHP4272	ELDHP4872
6-0 (1829)									
6-0 1/4 (1835)	ELDHP2276	ELDHP2676	ELDHP3076	ELDHP3276	ELDHP3476	ELDHP3676	ELDHP3876	ELDHP4276	ELDHP4876
6-4 (1930)									
6-4 1/4 (1937)	ELDHP2280	ELDHP2680	ELDHP3080	ELDHP3280	ELDHP3480	ELDHP3680	ELDHP3880	ELDHP4280	ELDHP4880
6-3 3/4 (1924)									
6-3 3/4 (1924)	ELDHP2284	ELDHP2684	ELDHP3084	ELDHP3284	ELDHP3484	ELDHP3684	ELDHP3884	ELDHP4284	ELDHP4884
5-9 11/16 (1770)									
5-9 11/16 (1770)	ELDHP2288	ELDHP2688	ELDHP3088	ELDHP3288	ELDHP3488	ELDHP3688	ELDHP3888	ELDHP4288	ELDHP4888
6-8 (2032)									
6-8 1/4 (2038)	ELDHP2292	ELDHP2692	ELDHP3092	ELDHP3292	ELDHP3492	ELDHP3692	ELDHP3892	ELDHP4292	ELDHP4892
7-0 (2134)									
7-0 1/4 (2140)	ELDHP2296	ELDHP2696	ELDHP3096	ELDHP3296	ELDHP3496	ELDHP3696	ELDHP3896	ELDHP4296	ELDHP4896
6-11 3/4 (2127)									
6-11 3/4 (2127)	ELDHP2300	ELDHP2700	ELDHP3100	ELDHP3300	ELDHP3500	ELDHP3700	ELDHP3900	ELDHP4300	ELDHP4900
3-1 11/16 (957)									
3-1 11/16 (957)	ELDHP2304	ELDHP2704	ELDHP3104	ELDHP3304	ELDHP3504	ELDHP3704	ELDHP3904	ELDHP4304	ELDHP4904

MULTIPLE ASSEMBLIES

Multiple assemblies can be factory mulled.

MAXIMUM ROUGH OPENING not to exceed 113 1/2" x 76 1/4"

Maximum up to 5 units wide by 1 unit high.

MAXIMUM ROUGH OPENING not to exceed 84" x 92"

Maximum up to 3 units wide by 5 units high.

Field mull kits are available. Structural mullion reinforcement is required for some assemblies.

Please consult your local Marvin representative for more information.

DOUBLE HUNG TRANSOM

MO (mm)	1-10 (559)	2-2 (660)	2-6 (762)	2-8 (813)	2-10 (864)	3-0 (914)	4-0 (1219)
RO (mm)	1-10 1/2 (572)	2-2 1/2 (673)	2-6 1/2 (775)	2-8 1/2 (826)	2-10 1/2 (876)	3-0 1/2 (927)	4-0 1/2 (1232)
FS (mm)	1-9 1/2 (546)	2-1 1/2 (648)	2-5 1/2 (749)	2-7 1/2 (800)	2-9 1/2 (851)	2-11 1/2 (902)	3-11 1/2 (1207)
DLO (mm)	1-3 11/16 (398)	1-7 11/16 (500)	1-9 11/16 (551)	1-11 11/16 (602)	2-3 11/16 (703)	2-5 11/16 (754)	3-5 11/16 (1059)
1-4 (406)							
1-4 1/4 (413)	ELDHTR2216	ELDHTR2616	ELDHTR3016	ELDHTR3216	ELDHTR3416	ELDHTR3616	ELDHTR4816
2-0 (610)							
2-0 1/4 (616)	ELDHTR2224*	ELDHTR2624*	ELDHTR3024*	ELDHTR3224*	ELDHTR3424*	ELDHTR3624*	ELDHTR4824*
1-11 3/4 (603)							
1-5 11/16 (449)	ELDHTR3816	ELDHTR4216	ELDHTR5016	ELDHTR5416	ELDHTR6216		
2-0 (610)							
2-0 1/4 (616)	ELDHTR3824*	ELDHTR4224*	ELDHTR5024*	ELDHTR5424*	ELDHTR6224*		
1-11 3/4 (603)							
1-5 11/16 (449)	ELDHTR3816	ELDHTR4216	ELDHTR5016	ELDHTR5416	ELDHTR6216		
5-3 3/4 (1619)							
5-3 3/4 (1619)	ELDHTR2216 / ELDH2248	ELDHTR3016 / ELDH3048					

Double Hung Transoms Mulled Over Double Hungs

MO (mm)	1-10 (559)	2-6 (762)
RO (mm)	1-10 1/2 (572)	2-6 1/2 (775)
FS (mm)	1-9 1/2 (546)	2-5 1/2 (749)
5-3 3/4 (1619)		
5-3 3/4 (1619)	ELDHTR2216 / ELDH2248	ELDHTR3016 / ELDH3048

Details and Elevations not to scale.

Special sized units available within product size matrix and available down to 17 1/2" frame width. See your Marvin retailer.

Optional picture GBGs and SDLs are available in a standard Rectangular cut shown. Also available in Prairie lite cuts shown on page 3.

* Size available in picture unit also.

For further details and drawings visit the "Technical Specifications" section at Marvin.com.

MULTIPLE ASSEMBLIES

Multiple assemblies can be factory mulled.

MAXIMUM ROUGH OPENING not to exceed 113 1/2" x 76 1/4"

Maximum up to 5 units wide by 1 unit high.

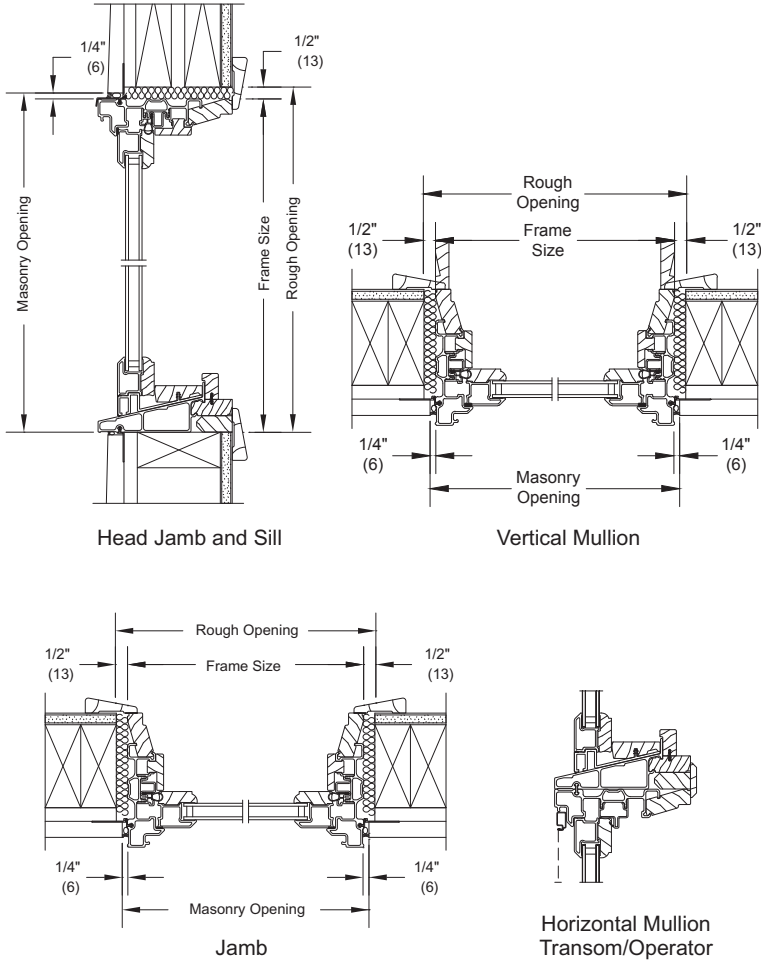
MAXIMUM ROUGH OPENING not to exceed 84" x 92"

Maximum up to 3 units wide by 5 units high.

Field mull kits are available. Structural mullion reinforcement is required for some assemblies.

Please consult your local Marvin representative for more information.

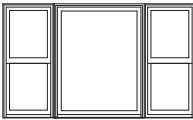
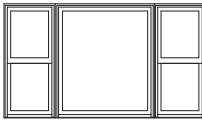
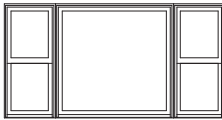
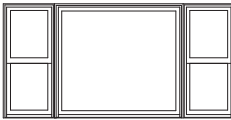
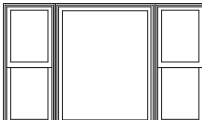
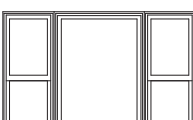
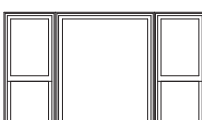
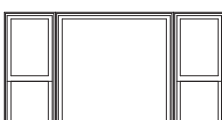
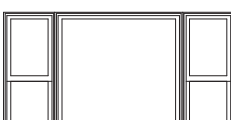
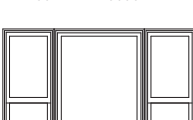
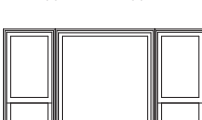
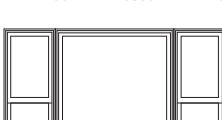
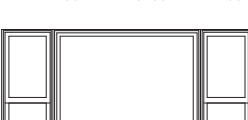
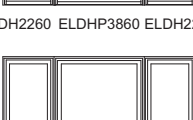
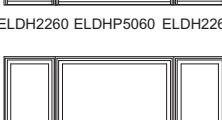
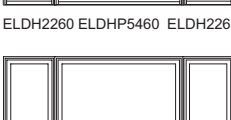
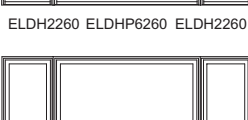
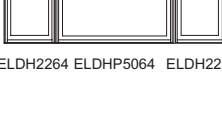
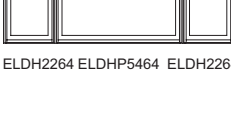
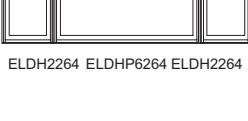
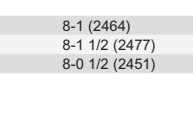
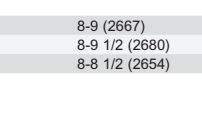
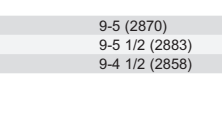
Construction Details



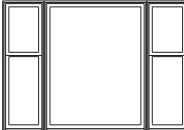
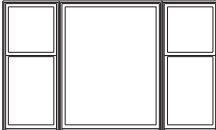
DOUBLE HUNG

Multiple Assemblies

Flankers with Center Picture (call number 22 flankers shown, also available with call number 26 flankers)

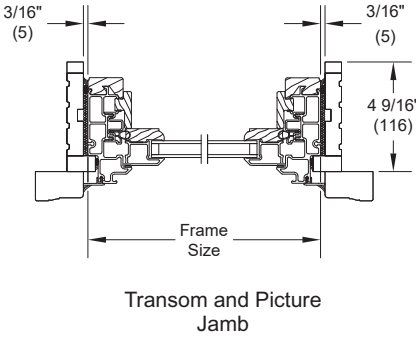
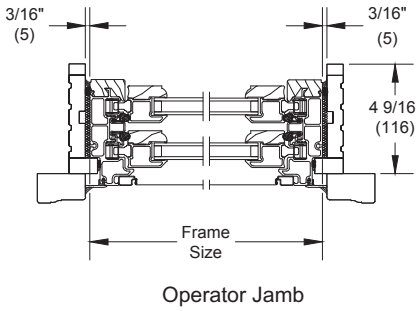
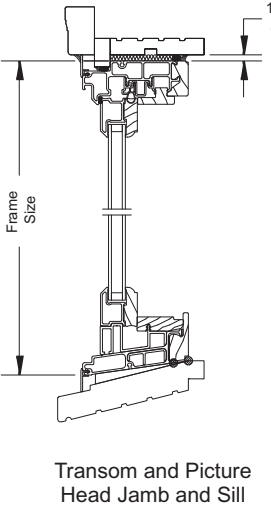
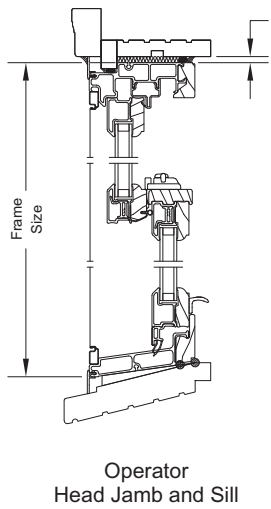
MO (mm)	6-9 (2057)		7-1 (2159)		7-9 (2362)		8-1 (2464)		8-9 (2667)	
RO (mm)	6-9 1/2 (2070)		7-1 1/2 (2172)		7-9 1/2 (2375)		8-1 1/2 (2477)		8-9 1/2 (2680)	
FS (mm)	6-8 1/2 (2045)		7-0 1/2 (2146)		7-8 1/2 (2350)		8-0 1/2 (2451)		8-8 1/2 (2654)	
4-0 (1219) 4-0 1/4 (1226) 3-11 3/4 (1213)										
	ELDH2248 ELDHP3848 ELDH2248		ELDH2248 ELDHP4248 ELDH2248		ELDH2248 ELDHP5048 ELDH2248		ELDH2248 ELDHP5448 ELDH2248		ELDH2248 ELDHP6248 ELDH2248	
										
	ELDH2252 ELDHP3852 ELDH2252		ELDH2252 ELDHP4252 ELDH2252		ELDH2252 ELDHP5052 ELDH2252		ELDH2252 ELDHP5452 ELDH2252		ELDH2252 ELDHP6252 ELDH2252	
										
4-4 (1321) 4-4 1/4 (1327) 4-3 3/4 (1314)										
	ELDH2256 ELDHP3856 ELDH2256		ELDH2256 ELDHP4256 ELDH2256		ELDH2256 ELDHP5056 ELDH2256		ELDH2256 ELDHP5456 ELDH2256		ELDH2256 ELDHP6256 ELDH2256	
										
	ELDH2260 ELDHP3860 ELDH2260		ELDH2260 ELDHP4260 ELDH2260		ELDH2260 ELDHP5060 ELDH2260		ELDH2260 ELDHP5460 ELDH2260		ELDH2260 ELDHP6260 ELDH2260	
										
4-8 (1422) 4-8 1/4 (1429) 4-7 3/4 (1416)										
	ELDH2264 ELDHP3864 ELDH2264		ELDH2264 ELDHP4264 ELDH2264		ELDH2264 ELDHP5064 ELDH2264		ELDH2264 ELDHP5464 ELDH2264		ELDH2264 ELDHP6264 ELDH2264	
										
	ELDH2268 ELDHP3868 ELDH2268		ELDH2268 ELDHP4268 ELDH2268		ELDH2268 ELDHP5068 ELDH2268		ELDH2268 ELDHP5468 ELDH2268		ELDH2268 ELDHP6268 ELDH2268	
										
5-0 (1524) 5-0 1/4 (1530) 4-11 3/4 (1518)										
	ELDH2264 ELDHP3864 ELDH2264		ELDH2264 ELDHP4264 ELDH2264		ELDH2264 ELDHP5064 ELDH2264		ELDH2264 ELDHP5464 ELDH2264		ELDH2264 ELDHP6264 ELDH2264	
										
	ELDH2264 ELDHP3864 ELDH2264		ELDH2264 ELDHP4264 ELDH2264		ELDH2264 ELDHP5064 ELDH2264		ELDH2264 ELDHP5464 ELDH2264		ELDH2264 ELDHP6264 ELDH2264	
5-4 (1626) 5-4 1/4 (1632) 5-3 3/4 (1619)										
	ELDH2264 ELDHP3864 ELDH2264		ELDH2264 ELDHP4264 ELDH2264		ELDH2264 ELDHP5064 ELDH2264		ELDH2264 ELDHP5464 ELDH2264		ELDH2264 ELDHP6264 ELDH2264	
	ELDH2264 ELDHP3864 ELDH2264		ELDH2264 ELDHP4264 ELDH2264		ELDH2264 ELDHP5064 ELDH2264		ELDH2264 ELDHP5464 ELDH2264		ELDH2264 ELDHP6264 ELDH2264	
5-8 (1727) 5-8 1/4 (1734) 5-7 3/4 (1721)										
	ELDH2268 ELDHP3868 ELDH2268		ELDH2268 ELDHP4268 ELDH2268		ELDH2268 ELDHP5068 ELDH2268		ELDH2268 ELDHP5468 ELDH2268		ELDH2268 ELDHP6268 ELDH2268	
	ELDH2268 ELDHP3868 ELDH2268		ELDH2268 ELDHP4268 ELDH2268		ELDH2268 ELDHP5068 ELDH2268		ELDH2268 ELDHP5468 ELDH2268		ELDH2268 ELDHP6268 ELDH2268	

Cottage Style Flankers with Center Picture

MO (mm)	8-1 (2464)		8-9 (2667)		9-5 (2870)	
RO (mm)	8-1 1/2 (2477)		8-9 1/2 (2680)		9-5 1/2 (2883)	
FS (mm)	8-0 1/2 (2451)		8-8 1/2 (2654)		9-4 1/2 (2858)	
5-8 (1727) 5-8 1/4 (1734) 5-7 3/4 (1721)						
	ELDH2268 ELDHP5468 ELDH2268		ELDH2668 ELDHP5468 ELDH2668		ELDH3068 ELDHP5468 ELDH3068	
						
	ELDH2268 ELDHP5468 ELDH2268		ELDH2668 ELDHP5468 ELDH2668		ELDH3068 ELDHP5468 ELDH3068	
						

DOUBLE HUNG INSERT

Construction Details



Details and Elevations not to scale.
Special sized units available within product size matrix.
See your Marvin retailer.
Optional Double Hung GBGs and SDLs are available in a standard Rectangular cut.
Available lite cuts shown on page 3.
Cottage and Reverse Cottage sash configurations are available between 35 1/2" and 67 3/4" frame heights.
For further details and drawings visit the "Technical Specifications" section at Marvin.com.

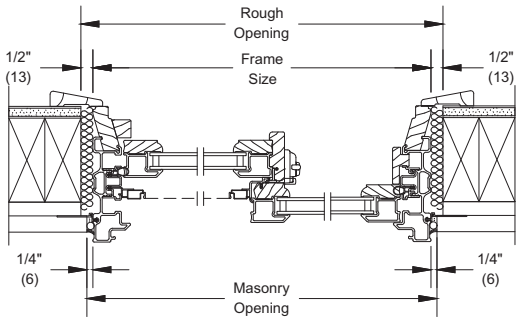
MULTIPLE ASSEMBLIES
Multiple assemblies can be factory mulled.
MAXIMUM ROUGH OPENING not to exceed 112 7/8" x 84 1/4"
Maximum up to 5 units wide by 1 unit high.
Field mull kits are available.
Please consult your local Marvin representative for more information.

GLIDER

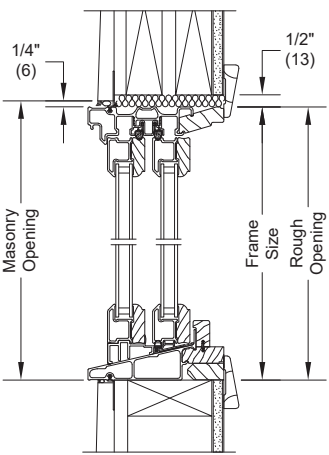
1 Wide and 2 Wide

MO (mm)	3-0 (914)	4-0 (1219)	5-0 (1524)	6-0 (1829)	5-11 1/2 (1816)	7-11 1/2 (2426)
RO (mm)	3-0 1/2 (927)	4-0 1/2 (1232)	5-0 1/2 (1537)	6-0 1/2 (1842)	6-0 (1829)	8-0 (2438)
FS (mm)	2-11 1/2 (902)	3-11 1/2 (1207)	4-11 1/2 (1511)	5-11 (1816)	5-11 (1803)	7-11 (2413)
DLO (mm)	1-1 11/16 (348)	1-7 11/16 (500)	2-1 11/16 (652)	2-7 11/16 (805)	1-1 11/16 (348)	1-7 11/16 (500)
2-0 (610) 2-0 1/4 (616) 1-11 3/4 (603) 1-5 3/4 (449)	 ELGL3624	 ELGL4824	 ELGL6024	 ELGL7224	 ELGL3624 2W	 ELGL4824 2W
3-0 (914) 3-0 1/4 (921) 2-11 3/4 (908) 2-5 3/4 (754)	 ELGL3636	 ELGL4836	 ELGL6036 E*	 ELGL7236 E*	 ELGL3636 2W	 ELGL4836 2W
3-6 (1067) 3-6 1/4 (1073) 3-5 3/4 (1060) 2-11 3/4 (906)	 ELGL3642	 ELGL4842	 ELGL6042 E	 ELGL7242 E	 ELGL3642 2W	 ELGL4842 2W
4-0 (1219) 4-0 1/4 (1226) 3-11 3/4 (1213) 3-5 3/4 (1059)	 ELGL3648	 ELGL4848 E	 ELGL6048 E	 ELGL7248 E	 ELGL3648 2W	 ELGL4848 E 2W
5-0 (1524) 5-0 1/4 (1530) 4-11 3/4 (1518) 4-5 3/4 (1364)	 ELGL3660	 ELGL4860 E	 ELGL6060 E	 ELGL7260 E	 ELGL3660 2W	 ELGL4860 E 2W

Construction Details



XO Operator Jamb

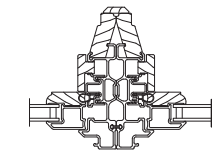


Head Jamb and Sill

Details and Elevations not to scale.
Special sized units available within product size matrix. See your Marvin retailer.
E = These windows meet National Egress Codes for fire evacuation. Local codes may differ.
* These windows meet National Egress Codes for fire evacuation if floor to sill height does not exceed 44" (118 mm). Local codes may differ.
XO operation standard, OX operation optional.
Optional Glider GBGs and SDLs are available in a standard Rectangular cut shown. Other available lite cuts shown on page 3.

For further details and drawings visit the "Technical Specifications" section at Marvin.com.

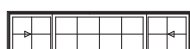
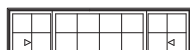
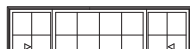
Mullion Detail



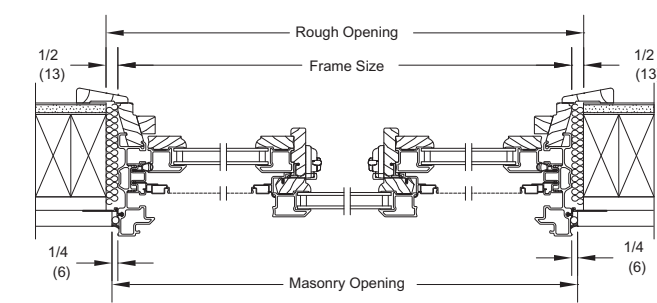
Vertical Mullion Operator Unit

GLIDER - TRIPLE SASH

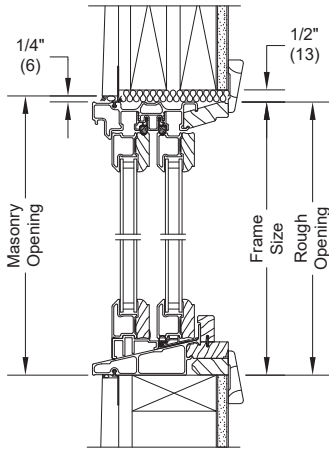
1 Wide

MO (mm)	6-0 (1829)	7-0 (2134)	8-0 (2438)
RO (mm)	6-0 1/2 (1842)	7-0 1/2 (2146)	8-0 1/2 (2451)
FS (mm)	5-11 1/2 (1816)	6-11 1/2 (2121)	7-11 1/2 (2426)
2-0 (610) 2-0 1/4 (616) 1-11 3/4 (603)	 ELGLTS7224	 ELGLTS8424	 ELGLTS9624
3-0 (914) 3-0 1/4 (921) 2-11 3/4 (908)	 ELGLTS7236	 ELGLTS8436	 ELGLTS9636
3-6 (1067) 3-6 1/4 (1073) 3-5 3/4 (1060)	 ELGLTS7242	 ELGLTS8442	 ELGLTS9642
4-0 (1219) 4-0 1/4 (1226) 3-11 3/4 (1213)	 ELGLTS7248	 ELGLTS8448	 ELGLTS9648 E
5-0 (1524) 5-0 1/4 (1530) 4-11 3/4 (1518)	 ELGLTS7260	 ELGLTS8460	 ELGLTS9660 E

Construction Details



Triple Sash XO Operator Jamb



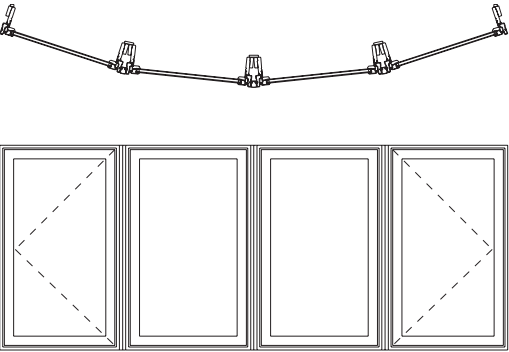
Head Jamb and Sill

MULTIPLE ASSEMBLIES

Multiple assemblies can be factory mulled.
MAXIMUM ROUGH OPENING not to exceed 113 1/2" x 60 1/4" Maximum up to 3 units wide by 1 unit high.
Field mull kits are available. Structural mullion reinforcement is required for some assemblies.
Please consult your local Marvin representative for more information.

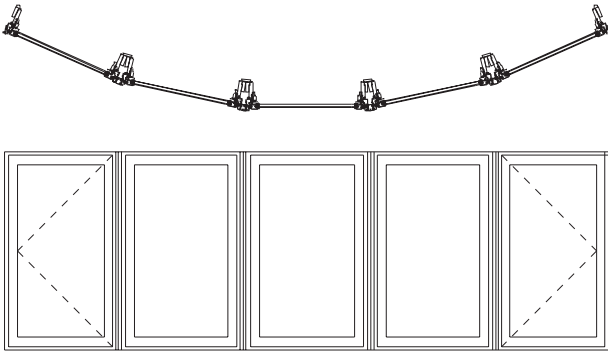
CASEMENT BOWS

4 Wide Bows



	RO Width		Projection	
CN Width	Inches	(mm)	Inches	(mm)
17 – 4W	66 17/64	(1683)	6 7/8	(175)
21 – 4W	81 53/64	(2078)	8 17/32	(217)
25 – 4W	97 25/64	(2474)	10 3/16	(259)
29 – 4W	112 61/64	(2869)	11 27/32	(301)

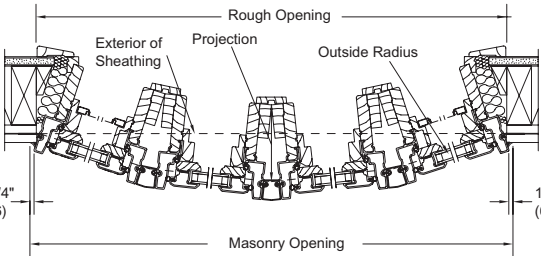
5 Wide Bows



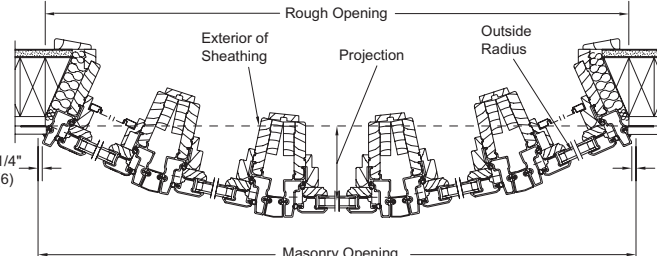
	RO Width		Projection	
CN Width	Inches	(mm)	Inches	(mm)
17 – 5W	81 31/64	(2070)	10 1/4	(260)
21 – 5W	100 5/8	(2556)	12 23/32	(323)
25 – 5W	119 3/4	(3042)	15 11/64	(385)

RO Height		
CN Height	Inches	(mm)
31	31 13/16	(808)
35	35 13/16	(910)
39	39 13/16	(1011)
43	43 13/16	(1113)
47	47 13/16	(1214)
55	55 13/16	(1418)
59	59 13/16	(1519)
63	63 13/16	(1621)
71	71 13/16	(1824)

Construction Details



4-Wide Casement Bow Unit

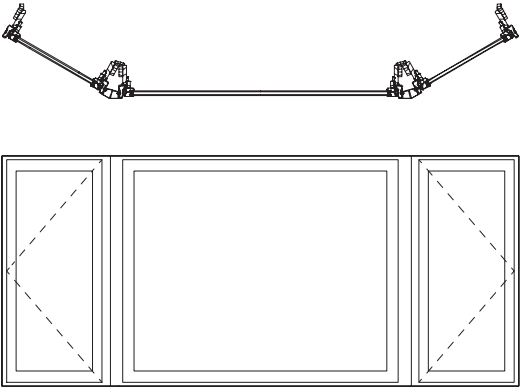


5-Wide Casement Bow Unit

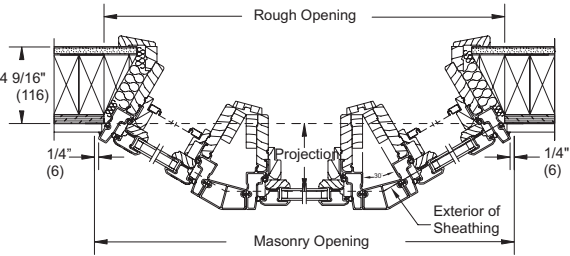
Details and Elevations not to scale.
For rough opening height of a Bay or Bow, add 3/16" to Casement rough opening height.
* When using Marvin Bays and Bows to replace products within existing openings, you will want to contact your local Marvin dealer for assistance and field verification of dimensions.
For further details and drawings visit the 'Technical Specifications' section at Marvin.com.

CASEMENT BAYS

30° Bays



	RO Width		Projection	
CN Width	Inches	(mm)	Inches	(mm)
17-17-17	49 25/64	(1255)	8 5/8	(219)
17-21-17	53 25/64	(1356)	8 5/8	(219)
17-25-17	57 25/64	(1458)	8 5/8	(219)
17-29-17	61 25/64	(1559)	8 5/8	(219)
17-33-17	65 25/64	(1661)	8 5/8	(219)
17-37-17	69 25/64	(1763)	8 5/8	(219)
17-41-17	73 25/64	(1864)	8 5/8	(219)
17-49-17	81 25/64	(2067)	8 5/8	(219)
21-17-21	56 21/64	(1431)	10 5/8	(270)
21-21-21	60 21/64	(1532)	10 5/8	(270)
21-25-21	64 21/64	(1634)	10 5/8	(270)
21-29-21	68 21/64	(1736)	10 5/8	(270)
21-33-21	72 21/64	(1837)	10 5/8	(270)
21-37-21	76 21/64	(1939)	10 5/8	(270)
21-41-21	80 21/64	(2040)	10 5/8	(270)
21-49-21	88 21/64	(2244)	10 5/8	(270)
21-57-21	96 21/64	(2447)	10 5/8	(270)
21-73-21	112 21/64	(2853)	10 5/8	(270)
25-17-25	63 1/4	(1607)	12 5/8	(321)
25-21-25	67 1/4	(1708)	12 5/8	(321)
25-25-25	71 1/4	(1810)	12 5/8	(321)
25-29-25	75 1/4	(1911)	12 5/8	(321)
25-33-25	79 1/4	(2013)	12 5/8	(321)
25-37-25	83 1/4	(2115)	12 5/8	(321)
25-41-25	87 1/4	(2216)	12 5/8	(321)
25-49-25	95 1/4	(2419)	12 5/8	(321)
25-57-25	103 1/4	(2623)	12 5/8	(321)
29-17-29	70 11/64	(1782)	14 5/8	(372)
29-21-29	74 11/64	(1884)	14 5/8	(372)
29-25-29	78 11/64	(1986)	14 5/8	(372)
29-29-29	82 11/64	(2087)	14 5/8	(372)
29-33-29	86 11/64	(2189)	14 5/8	(372)
29-37-29	90 11/64	(2290)	14 5/8	(372)
29-41-29	94 11/64	(2392)	14 5/8	(372)
29-49-29	102 11/64	(2595)	14 5/8	(372)
29-57-29	110 11/64	(2798)	14 5/8	(372)

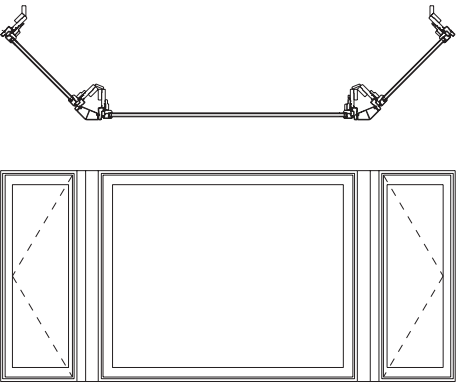


30° Casement Bay with Stationary/ Center Picture Unit

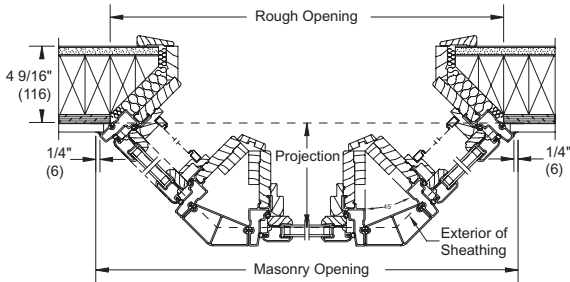
	RO Width		Projection	
CN Width	Inches	(mm)	Inches	(mm)
33-17-33	77 7/64	(1959)	16 5/8	(422)
33-21-33	81 7/64	(2060)	16 5/8	(422)
33-25-33	85 7/64	(2162)	16 5/8	(422)
33-29-33	89 7/64	(2263)	16 5/8	(422)
33-33-33	93 7/64	(2365)	16 5/8	(422)
33-37-33	97 7/64	(2467)	16 5/8	(422)
33-41-33	101 7/64	(2568)	16 5/8	(422)
33-49-33	109 7/64	(2771)	16 5/8	(422)
37-17-37	84 1/32	(2134)	18 5/8	(473)
37-21-37	88 1/32	(2236)	18 5/8	(473)
37-25-37	92 1/32	(2338)	18 5/8	(473)
37-29-37	96 1/32	(2439)	18 5/8	(473)
37-33-37	100 1/32	(2541)	18 5/8	(473)
37-37-37	104 1/32	(2642)	18 5/8	(473)

CASEMENT BAYS

45° Bays



Construction Details



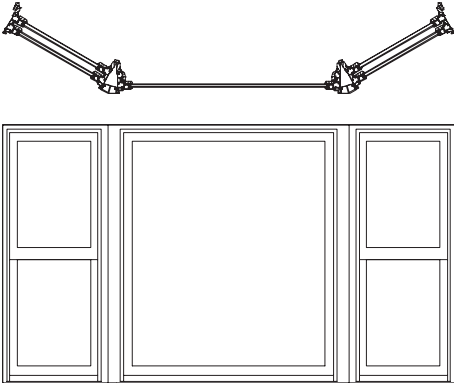
45° Casement Bay with Stationary/Center Picture Unit

CN Width		RO Width		Projection	
Inches	(mm)	Inches	(mm)	Inches	(mm)
17-17-17	46 11/64	(1173)	12 43/64	(322)	
17-21-17	50 11/64	(1274)	12 43/64	(322)	
17-25-17	54 11/64	(1376)	12 43/64	(322)	
17-29-17	58 11/64	(1478)	12 43/64	(322)	
17-33-17	62 11/64	(1579)	12 43/64	(322)	
17-37-17	66 11/64	(1681)	12 43/64	(322)	
17-41-17	70 11/64	(1782)	12 43/64	(322)	
17-49-17	78 11/64	(1986)	12 43/64	(322)	
21-17-21	51 53/64	(1317)	15 1/2	(394)	
21-21-21	55 53/64	(1418)	15 1/2	(394)	
21-25-21	59 53/64	(1520)	15 1/2	(394)	
21-29-21	63 53/64	(1621)	15 1/2	(394)	
21-33-21	67 53/64	(1723)	15 1/2	(394)	
21-37-21	71 53/64	(1825)	15 1/2	(394)	
21-41-21	75 53/64	(1926)	15 1/2	(394)	
21-49-21	83 53/64	(2129)	15 1/2	(394)	
21-57-21	91 53/64	(2333)	15 1/2	(394)	
21-73-21	107 53/64	(2739)	15 1/2	(394)	
25-17-25	57 31/64	(1460)	18 21/64	(466)	
25-21-25	61 31/64	(1562)	18 21/64	(466)	
25-25-25	65 31/64	(1663)	18 21/64	(466)	
25-29-25	69 31/64	(1765)	18 21/64	(466)	
25-33-25	73 31/64	(1867)	18 21/64	(466)	
25-37-25	77 31/64	(1968)	18 21/64	(466)	
25-41-25	81 31/64	(2070)	18 21/64	(466)	
25-49-25	89 31/64	(2273)	18 21/64	(466)	
25-57-25	97 31/64	(2476)	18 21/64	(466)	
25-73-25	113 1/2	(2883)	18 21/64	(466)	
29-17-29	63 9/64	(1604)	21 5/32	(537)	
29-21-29	67 9/64	(1706)	21 5/32	(537)	
29-25-29	71 9/64	(1807)	21 5/32	(537)	
29-29-29	75 9/64	(1909)	21 5/32	(537)	
29-33-29	79 9/64	(2011)	21 5/32	(537)	
29-37-29	83 9/64	(2112)	21 5/32	(537)	
29-41-29	87 9/64	(2213)	21 5/32	(537)	
29-49-29	95 9/64	(2417)	21 5/32	(537)	
29-57-29	103 9/64	(2620)	21 5/32	(537)	

Details and Elevations not to scale.
For rough opening height of a Bay or Bow, add 3/16" to Casement rough opening height.
* When using Marvin Bays and Bows to replace products within existing openings, you will want to contact your local Marvin dealer for assistance and field verification of dimensions.
For further details and drawings visit the 'Technical Specifications' section at Marvin.com.

DOUBLE HUNG BAYS

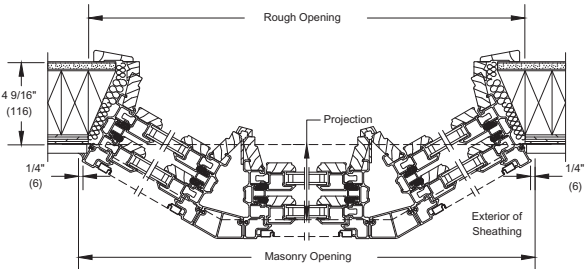
30° Bay Center Picture



RO Width		Projection	
CN Width	Inches (mm)	Inches (mm)	(mm)
22-22-22	64 27/64 (1636)	11 3/8	(289)
22-26-22	68 27/64 (1738)	11 3/8	(289)
22-30-22	72 27/64 (1839)	11 3/8	(289)
22-32-22	74 27/64 (1890)	11 3/8	(289)
22-34-22	76 27/64 (1941)	11 3/8	(289)
22-36-22	78 27/64 (1992)	11 3/8	(289)
22-38-22	80 27/64 (2043)	11 3/8	(289)
22-42-22	84 27/64 (2144)	11 3/8	(289)
22-48-22	90 27/64 (2297)	11 3/8	(289)
22-50-22	92 27/64 (2347)	11 3/8	(289)
22-54-22	96 27/64 (2449)	11 3/8	(289)
22-62-22	104 27/64 (2652)	11 3/8	(289)
26-22-26	71 11/32 (1812)	13 3/8	(340)
26-26-26	75 11/32 (1914)	13 3/8	(340)
26-30-26	79 11/32 (2015)	13 3/8	(340)
26-32-26	81 11/32 (2066)	13 3/8	(340)
26-34-26	83 11/32 (2117)	13 3/8	(340)
26-36-26	85 11/32 (2168)	13 3/8	(340)
26-38-26	87 11/32 (2219)	13 3/8	(340)
26-42-26	91 11/32 (2320)	13 3/8	(340)
26-48-26	97 11/32 (2473)	13 3/8	(340)
26-50-26	99 11/32 (2523)	13 3/8	(340)
26-54-26	103 11/32 (2625)	13 3/8	(340)
26-62-26	111 11/32 (2828)	13 3/8	(340)
30-22-30	78 9/32 (1988)	15 3/8	(391)
30-26-30	82 9/32 (2090)	15 3/8	(391)
30-30-30	86 9/32 (2191)	15 3/8	(391)
30-32-30	88 9/32 (2242)	15 3/8	(391)
30-34-30	90 9/32 (2293)	15 3/8	(391)
30-36-30	92 9/32 (2344)	15 3/8	(391)
30-38-30	94 9/32 (2395)	15 3/8	(391)
30-42-30	98 9/32 (2496)	15 3/8	(391)
30-48-30	104 9/32 (2649)	15 3/8	(391)
30-50-30	106 9/32 (2699)	15 3/8	(391)
30-54-30	110 9/32 (2801)	15 3/8	(391)

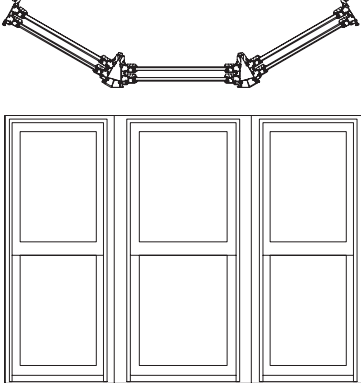
Details and Elevations not to scale.
For rough opening height of a Bay, add 1 7/16" to the Double Hung rough opening height.

Construction Details

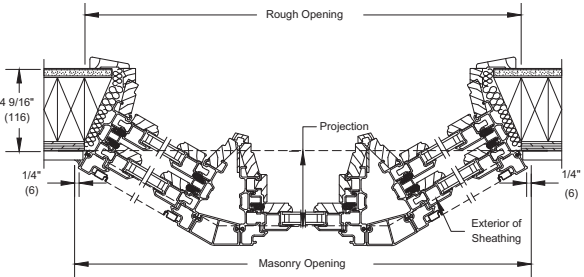


30° Bay with Operator Center Unit Jamb

30° Bay Center Operator



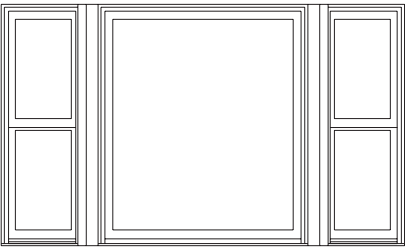
RO Width		Projection	
CN Width	Inches (mm)	Inches (mm)	(mm)
32-22-32	81 3/8 (2067)	16 3/8	(416)
32-26-32	85 3/8 (2169)	16 3/8	(416)
32-30-32	89 3/8 (2270)	16 3/8	(416)
32-32-32	91 47/64 (2330)	16 3/8	(416)
32-34-32	93 47/64 (2381)	16 3/8	(416)
32-36-32	95 47/64 (2432)	16 3/8	(416)
32-38-32	97 47/64 (2483)	16 3/8	(416)
32-42-32	101 47/64 (2584)	16 3/8	(416)
32-48-32	107 47/64 (2737)	16 3/8	(416)
32-50-32	109 47/64 (2787)	16 3/8	(416)
34-22-34	85 13/64 (2164)	17 3/8	(441)
34-26-34	89 13/64 (2266)	17 3/8	(441)
34-30-34	93 13/64 (2367)	17 3/8	(441)
34-32-34	95 13/64 (2418)	17 3/8	(441)
34-34-34	97 13/64 (2469)	17 3/8	(441)
34-36-34	99 13/64 (2520)	17 3/8	(441)
34-38-34	101 13/64 (2571)	17 3/8	(441)
34-42-34	105 13/64 (2672)	17 3/8	(441)
34-48-34	111 13/64 (2825)	17 3/8	(441)
34-50-34	113 13/64 (2875)	17 3/8	(441)
36-22-36	88 43/64 (2252)	18 3/8	(467)
36-26-36	92 43/64 (2354)	18 3/8	(467)
36-30-36	96 43/64 (2455)	18 3/8	(467)
36-32-36	98 43/64 (2506)	18 3/8	(467)
36-34-36	100 43/64 (2557)	18 3/8	(467)
36-36-36	102 43/64 (2608)	18 3/8	(467)
36-38-36	104 43/64 (2659)	18 3/8	(467)
36-42-36	108 43/64 (2760)	18 3/8	(467)
38-22-38	92 1/8 (2340)	19 3/8	(492)
38-26-38	96 1/8 (2442)	19 3/8	(492)
38-30-38	100 1/8 (2543)	19 3/8	(492)
38-32-38	102 1/8 (2594)	19 3/8	(492)
38-34-38	104 1/8 (2645)	19 3/8	(492)
38-36-38	106 1/8 (2696)	19 3/8	(492)
38-38-38	108 1/8 (2747)	19 3/8	(492)
38-42-38	112 1/8 (2848)	19 3/8	(492)
42-22-42	99 1/16 (2516)	21 3/8	(543)
42-26-42	103 1/16 (2618)	21 3/8	(543)
42-30-42	107 1/16 (2719)	21 3/8	(543)
42-32-42	109 1/16 (2770)	21 3/8	(543)
42-34-42	111 1/16 (2821)	21 3/8	(543)
42-36-42	113 1/16 (2872)	21 3/8	(543)
42-38-42	115 1/16 (2923)	21 3/8	(543)



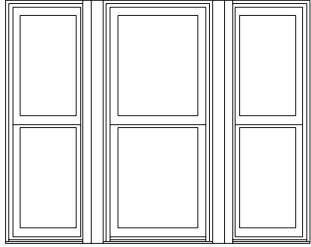
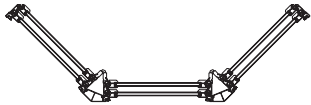
30° Bay with Center Picture Unit Jamb

DOUBLE HUNG BAYS

45° Bay Center Picture



45° Bay Center Operator



RO Width		Projection		
CN Width	Inches	(mm)	Inches	(mm)
22-22-22	59 29/64	(1510)	16 9/16	(421)
22-26-22	63 29/64	(1612)	16 9/16	(421)
22-30-22	67 29/64	(1713)	16 9/16	(421)
22-32-22	69 29/64	(1764)	16 9/16	(421)
22-34-22	71 29/64	(1815)	16 9/16	(421)
22-36-22	73 29/64	(1866)	16 9/16	(421)
22-38-22	75 29/64	(1917)	16 9/16	(421)
22-42-22	79 29/64	(2018)	16 9/16	(421)
22-48-22	85 29/64	(2171)	16 9/16	(421)
22-50-22	87 29/64	(2221)	16 9/16	(421)
22-54-22	91 29/64	(2323)	16 9/16	(421)
22-62-22	99 29/64	(2526)	16 9/16	(421)
26-22-26	65 7/64	(1654)	19 25/64	(492)
26-26-26	69 7/64	(1755)	19 25/64	(492)
26-30-26	73 7/64	(1857)	19 25/64	(492)
26-32-26	75 7/64	(1908)	19 25/64	(492)
26-34-26	77 7/64	(1959)	19 25/64	(492)
26-36-26	79 7/64	(2009)	19 25/64	(492)
26-38-26	81 7/64	(2060)	19 25/64	(492)
26-42-26	85 7/64	(2162)	19 25/64	(492)
26-48-26	91 7/64	(2314)	19 25/64	(492)
26-50-26	93 7/64	(2365)	19 25/64	(492)
26-54-26	97 7/64	(2467)	19 25/64	(492)
26-62-26	105 7/64	(2670)	19 25/64	(492)

RO Width			Projection	
CN Width	Inches	(mm)	Inches	(mm)
30-22-30	70 49/64	(1797)	22 7/32	(564)
30-26-30	74 49/64	(1899)	22 7/32	(564)
30-30-30	78 49/64	(2001)	22 7/32	(564)
30-32-30	80 49/64	(2051)	22 7/32	(564)
30-34-30	82 49/64	(2102)	22 7/32	(564)
30-36-30	84 49/64	(2153)	22 7/32	(564)
30-38-30	86 49/64	(2204)	22 7/32	(564)
30-42-30	90 49/64	(2305)	22 7/32	(564)
30-48-30	96 49/64	(2458)	22 7/32	(564)
30-50-30	98 49/64	(2509)	22 7/32	(564)
30-54-30	102 49/64	(2610)	22 7/32	(564)
30-62-30	110 49/64	(2813)	22 7/32	(564)

RO Height		
CN Height	Inches	(mm)
24	25 11/16	(652)
36	37 11/16	(957)
40	41 11/16	(1059)
44	45 11/16	(1160)
48	49 11/16	(1262)
52	53 11/16	(1364)
56	57 11/16	(1465)
60	61 11/16	(1567)
64	65 11/16	(1668)
68	69 11/16	(1770)
72	73 11/16	(1872)
76	77 11/16	(1973)

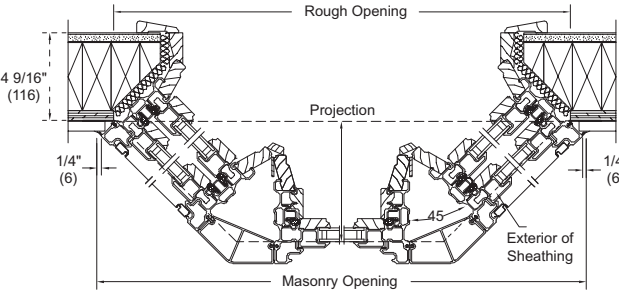
Details and Elevations not to scale.

For rough opening height of a Bay, add 1 7/16" to the Double Hung rough opening height.

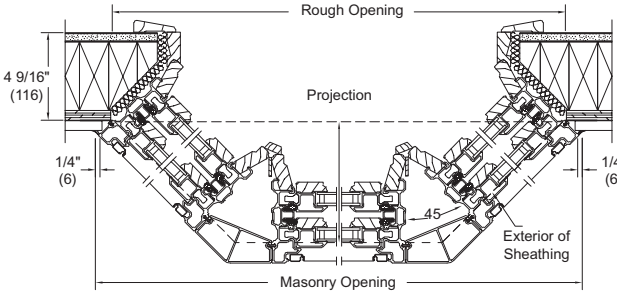
Note: When using Marvin Bays and Bows to replace products within existing openings, you will want to contact your local Marvin dealer for assistance and field verification of dimensions.

For further details and drawings visit the 'Technical Specifications' section at Marvin.com.

Construction Details



45° Bay with Stationary/Center Picture Unit Jamb



45° Bay with Center Operator Unit Jamb

ALUMINUM DIRECT GLAZE ROUND TOPS

Casement Frame Type

True Half (RT1), Quarter Round (RT7/8), Elliptical (RT29)

MO (mm)	2-4 1/2 (724)	MO (mm)	3-4 1/2 (1029)	MO (mm)	4-0 1/2 (1232)	MO (mm)	2-4 1/2 (724)
RO (mm)	2-5 (737)	RO (mm)	3-5 (1041)	RO (mm)	4-1 (1245)	RO (mm)	2-5 (737)
FS (mm)	2-4 (711)	FS (mm)	3-4 (1016)	FS (mm)	4-0 (1219)	FS (mm)	2-4 (711)
1-2 1/4 (362)		1-8 1/4 (514)		2-0 1/4 (616)		2-4 1/4 (718)	
1-2 1/2 (368)		1-8 1/2 (521)		2-0 1/2 (622)		2-4 1/2 (724)	
1-2 (356)		1-8 (608)		2-0 (610)		2-4 (711)	
	ELALDGRT29 1W		ELALDGRT21 2W		ELALDGRT25 2W		ELALDG RT CIRQ29 1W

MO (mm)	4-8 1/2 (1435)	MO (mm)	6-0 1/2 (1842)	MO (mm)	6-0 1/2 (1842)
RO (mm)	4-9 (1448)	RO (mm)	6-1 (1854)	RO (mm)	6-1 (1854)
FS (mm)	4-8 (1422)	FS (mm)	6-0 (1829)	FS (mm)	6-0 (1829)
2-4 1/4 (718)		3-0 1/4 (921)		1-6 1/4 (464)	
2-4 1/2 (724)		3-0 1/2 (927)		1-6 1/2 (470)	
2-4 (711)		3-0 (914)		1-6 (457)	
	ELALDGRT29 2W		ELALDGRT25 3W		ELALDGRT7318

Multiple Assemblies

MO (mm)	6-0 1/2 (1842)	MO (mm)	6-0 1/2 (1842)	MO (mm)	6-0 1/2 (1842)
RO (mm)	6-1 (1854)	RO (mm)	6-1 (1854)	RO (mm)	6-1 (1854)
FS (mm)	6-0 (1829)	FS (mm)	6-0 (1829)	FS (mm)	6-0 (1829)
7-7 3/8 (2321)		7-11 3/8 (2423)		8-3 3/8 (2524)	
7-7 5/8 (2327)		7-11 5/8 (2429)		8-3 5/8 (2530)	
7-7 1/8 (2315)		7-11 1/8 (2416)		8-3 1/8 (2518)	
	ELALDGRT25 3W / ELCA2555 3W		ELALDGRT25 3W / ELCA2559 3W		ELALDGRT25 3W / ELCA2563 3W

MO (mm)	2-4 1/2 (724)	MO (mm)	2-4 1/2 (724)	MO (mm)	2-4 1/2 (724)
RO (mm)	2-5 (737)	RO (mm)	2-5 (737)	RO (mm)	2-5 (737)
FS (mm)	2-4 (711)	FS (mm)	2-4 (711)	FS (mm)	2-4 (711)
6-3 3/8 (1915)		6-11 3/8 (2118)		7-3 3/8 (2219)	
6-3 5/8 (1921)		6-11 5/8 (2124)		7-3 5/8 (2226)	
6-3 1/8 (1908)		6-11 1/8 (2111)		7-3 1/8 (2213)	
	ELALDG RT29 1W / ELCA2947 E		ELALDG RT29 1W / ELCA2955 E		ELALDG RT29 1W / ELCA2959 E

Lite Patterns

Open Hub	Open Hub	Closed Hub
SDL	GBG	GBG
SDL	GBG	GBG
SDL	GBG	GBG

Details and Elevations not to scale.

E = These windows meet National Egress Codes for fire evacuation. Local codes may differ.

Any Casement unit in these combinations can be operating or stationary. Operating sash are viewed from the exterior.

Optional Round Top SDL, SDL with Spacer Bar and GBG are available in a standard cut, as shown to the left. (Round Top divided lites not available in other lite cuts.)

Optional Casement GBGs and SDLs are available in several lite cut variations, standard Rectangular cut shown.

For further details and drawings visit the 'Technical Specifications' section at Marvin.com.

MULTIPLE ASSEMBLIES

Multiple assemblies can be factory mull up to 3 units wide by 2 units high.

MAXIMUM ROUGH OPENING not to exceed 113 1/2" x 91 1/16" or 85" x 107 9/16".

Field mull kits are available. Structural mullion reinforcement is required for some assemblies.

Please consult your local Marvin representative for more information.

MARVIN ELEVATE™ COLLECTION

ALUMINUM DIRECT GLAZE ROUND TOPS

Casement Frame Type

True Half (RT1), Quarter Round (RT7/8)

MO (mm)	2-8 1/2 (826)
RO (mm)	2-9 (838)
FS (mm)	2-8 (813)

1-4 1/4 (413)
1-4 1/2 (419)
1-4 (406)



ELALDGR33 1W

MO (mm)	3-0 1/2 (927)
RO (mm)	3-1 (940)
FS (mm)	3-0 (914)

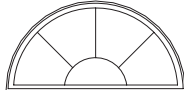
1-6 1/4 (464)
1-6 1/2 (470)
1-6 (457)



ELALDGR37 1W

MO (mm)	5-4 1/2 (1638)
RO (mm)	5-5 (1651)
FS (mm)	5-4 (1626)

2-8 1/4 (819)
2-8 1/2 (826)
2-8 (813)



ELALDGR33 2W

MO (mm)	2-0 1/2 (622)
RO (mm)	2-1 (635)
FS (mm)	2-0 (610)

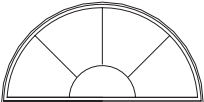
2-0 1/4 (616)
2-0 1/2 (622)
2-0 (610)



L R
ELALDGR25 1W

MO (mm)	6-0 1/2 (1842)
RO (mm)	6-1 (1854)
FS (mm)	6-0 (1829)

3-0 1/4 (921)
3-0 1/2 (927)
3-0 (914)



ELALDGR37 2W

MULTIPLE ASSEMBLIES

Units may be factory mulled up to 3 units wide by 2 units high. Field mull kits are available. Structural mullion reinforcement is required for some assemblies.

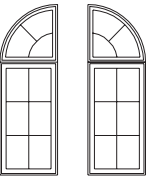
MAXIMUM ROUGH OPENING 113 1/2" (2883 mm) wide x 91 1/16" (2313 mm) high or 85" (2159 mm) wide x 107 9/16" (2732 mm) high. Quarter Round shapes require a Casement with a continuous head jamb.

Please consult your local Marvin representative for more information.

Multiple Assemblies

MO (mm)	2-0 1/2 (622)
RO (mm)	2-1 (635)
FS (mm)	2-0 (610)

(813)
5-11 3/8 (1819)
5-11 5/8 (1807)
5-11 1/8



ELALDGR25 1W
ELCA2547

MO (mm)	3-0 1/2 (927)
RO (mm)	3-1 (940)
FS (mm)	3-0 (914)

(1051)
3-5 3/8 (1057)
3-5 5/8 (1045)
3-5 1/8



ELALDGR37 1W
ELAWN3723

MO (mm)	3-0 1/2 (927)
RO (mm)	3-1 (940)
FS (mm)	3-0 (914)

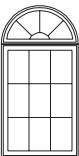
4-9 3/8 (1457)
4-9 5/8 (1464)
4-9 1/8 (1451)



ELALDGR37 1W
ELAWN3739

MO (mm)	2-8 1/2 (826)
RO (mm)	2-9 (838)
FS (mm)	2-8 (813)

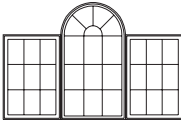
(810)
5-3 3/8 (1616)
5-3 5/8 (1603)
5-3 1/8



ELALDGR33 1W
ELCA3347 E

MO (mm)	8-4 1/2 (2553)
RO (mm)	8-5 (2565)
FS (mm)	8-4 (2540)

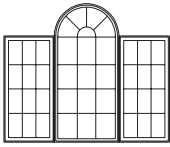
5-5 3/8 (1661)
5-5 5/8 (1667)
5-5 1/8 (1654)



ELALDGR3765 / ELCA3347 E

MO (mm)	7-8 1/2 (2350)
RO (mm)	7-9 (2362)
FS (mm)	7-8 (2337)

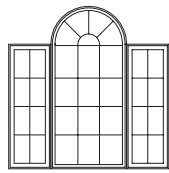
6-5 3/8 (1965)
6-5 5/8 (1972)
6-5 1/8 (1959)



ELALDGR3777 / ELCA2959 E

MO (mm)	6-4 1/2 (1943)
RO (mm)	6-5 (1956)
FS (mm)	6-4 (1930)

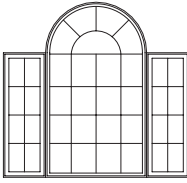
6-5 3/8 (1965)
6-5 5/8 (1972)
6-5 1/8 (1959)



ELALDGR3777 / ELCA2159

MO (mm)	7-4 1/2 (2248)
RO (mm)	7-5 (2261)
FS (mm)	7-4 (2235)

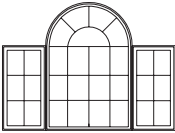
6-11 3/8 (2118)
6-11 5/8 (2124)
6-11 1/8 (2111)



ELALDGR4983 / ELCA2159

MO (mm)	8-0 1/2 (2451)
RO (mm)	8-1 (2464)
FS (mm)	8-0 (2438)

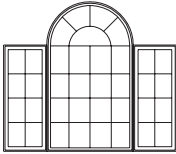
5-11 3/8 (1813)
5-11 5/8 (1819)
5-11 1/8 (1807)



ELALDGR4971 / ELCA2547

MO (mm)	8-0 1/2 (2451)
RO (mm)	8-1 (2464)
FS (mm)	8-0 (2438)

6-11 3/8 (2118)
6-11 5/8 (2124)
6-11 1/8 (2111)



ELALDGR4983 / ELCA2559

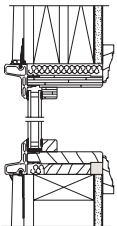
MO (mm)	6-0 1/2 (1842)
RO (mm)	6-1 (1854)
FS (mm)	6-0 (1829)

6-10 1/2 (2096)
6-10 3/4 (2102)
6-10 1/4 (2089)



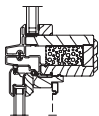
ELALDGR7359
ELAWN2523 3W

Construction Detail



Casement Round Top
Head Jamb and Sill

Horizontal Mullion Detail



Casement Round Top
Over Casement

E = These windows meet National Egress Codes for fire evacuation. Local codes may differ.

Contact your sales representative for multiple assembly lite alignment. Certain assemblies do not allow for exact lite alignment.

Not to scale. Optional Round Top SDL and SDL with Spacer Bar are available in standard cut shown above. GBG patterns shown on page 46. (Round Top divided lites not available in other lite cuts)

Optional Casement and Double Hung GBGs and SDLs are available in several lite variations, standard Rectangular cut shown.

For further details and drawings visit the 'Technical Specifications' section at Marvin.com.

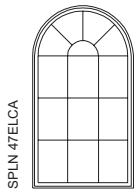
ALUMINUM DIRECT GLAZE ROUND TOPS

Casement Frame Type

True Half above Springline (RT2)

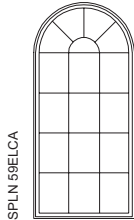
MO (mm)	3-0 1/2 (927)
RO (mm)	3-1 (940)
FS (mm)	3-0 (914)

5-5 3/8 (1661)
5-5 5/8 (1667)
5-5 1/8 (1654)



SPLN 47ELCA
ELALDGR3765

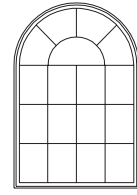
6-5 3/8 (1965)
6-5 5/8 (1972)
6-5 1/8 (1959)



SPLN 59ELCA
ELALDGR3777

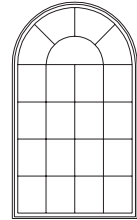
MO (mm)	4-0 1/2 (1232)
RO (mm)	4-1 (1245)
FS (mm)	4-0 (1219)

5-11 3/8 (1813)
5-11 5/8 (1819)
5-11 1/8 (1807)



SPLN 47ELCA
ELALDGR4971

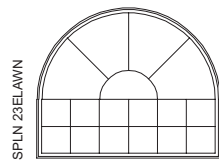
6-11 3/8 (2118)
6-11 5/8 (2124)
6-11 1/8 (2111)



SPLN 59ELCA
ELALDGR4983

MO (mm)	6-0 1/2 (1842)
RO (mm)	6-1 (1854)
FS (mm)	6-0 (1829)

4-11 3/8 (1508)
4-11 5/8 (1514)
4-11 1/8 (1502)



SPLN 23ELAWN
ELALDGR7359

Eyebrow above Springline (RT6)

MO (mm)	1-8 1/2 (521)
RO (mm)	1-9 (533)
FS (mm)	1-8 (508)

1-6 3/16 (462)
1-6 7/16 (468)
1-5 15/16 (456)



SPLN 6ELCATR
ELALDGR2118

MO (mm)	2-0 1/2 (622)
RO (mm)	2-1 (635)
FS (mm)	2-0 (610)

1-7 1/4 (488)
1-7 1/2 (495)
1-7 (482)



SPLN 16ELCATR
ELALDGR2519

MO (mm)	2-4 1/2 (724)
RO (mm)	2-5 (737)
FS (mm)	2-4 (711)

1-8 1/2 (621)
1-8 3/4 (628)
1-8 1/4 (615)



SPLN 16ELCATR
ELALDGR2920

MO (mm)	2-8 1/2 (826)
RO (mm)	2-9 (838)
FS (mm)	2-8 (813)

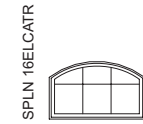
1-8 5/8 (624)
1-8 7/8 (630)
1-8 3/8 (618)



SPLN 16ELCATR
ELALDGR3320

MO (mm)	3-0 1/2 (927)
RO (mm)	3-1 (940)
FS (mm)	3-0 (914)

1-10 (559)
1-10 1/4 (565)
1-9 3/4 (552)



SPLN 16ELCATR
ELALDGR3722

MO (mm)	3-4 1/2 (1029)
RO (mm)	3-5 (1041)
FS (mm)	3-4 (1016)

1-9 3/8 (543)
1-9 5/8 (549)
1-9 1/8 (537)



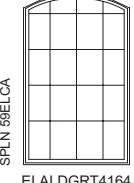
SPLN 16ELCATR
ELALDGR4121

2-4 3/4 (730)
2-5 (737)
2-4 1/2 (724)



SPLN 23ELAWN
ELALDGR4128

5-4 3/4 (1645)
5-5 (1651)
5-4 1/4 (1638)



SPLN 59ELCA
ELALDGR4164

MO (mm)	4-0 1/2 (1232)
RO (mm)	4-1 (1245)
FS (mm)	4-0 (1219)

1-9 5/8 (549)
1-9 7/8 (556)
1-9 3/8 (543)



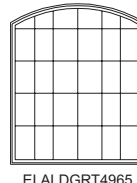
SPLN 16ELCATR
ELALDGR4921

2-5 (737)
2-5 1/4 (743)
2-4 3/4 (730)



SPLN 23ELAWN
ELALDGR4929

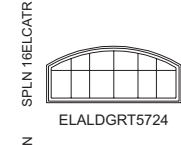
5-5 (1651)
5-5 1/4 (1657)
5-4 3/4 (1645)



SPLN 59ELCA
ELALDGR4965

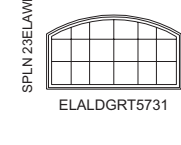
MO (mm)	4-8 1/2 (1435)
RO (mm)	4-9 (1448)
FS (mm)	4-8 (1422)

1-11 13/16 (605)
2-0 1/16 (611)
1-11 9/16 (598)



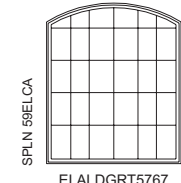
SPLN 16ELCATR
ELALDGR5724

2-7 3/16 (793)
2-7 7/16 (799)
2-6 15/16 (786)



SPLN 23ELAWN
ELALDGR5731

5-7 3/16 (1707)
5-7 7/16 (1713)
5-6 15/16 (1700)



SPLN 59ELCA
ELALDGR5767

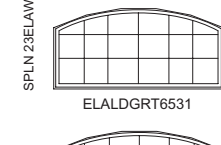
MO (mm)	5-4 1/2 (1638)
RO (mm)	5-5 (1651)
FS (mm)	5-4 (1626)

1-11 1/2 (597)
1-11 3/4 (603)
1-11 1/4 (591)



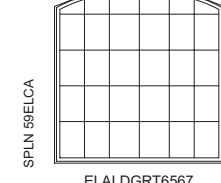
SPLN 16ELCATR
ELALDGR6523

2-6 7/8 (784)
2-7 1/8 (791)
2-6 5/8 (778)



SPLN 23ELAWN
ELALDGR6531

5-6 7/8 (1699)
5-7 1/8 (1705)
5-6 5/8 (1692)



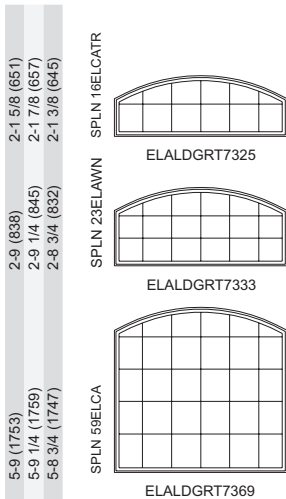
SPLN 59ELCA
ELALDGR6567

ALUMINUM DIRECT GLAZE ROUND TOPS

Casement Frame Type

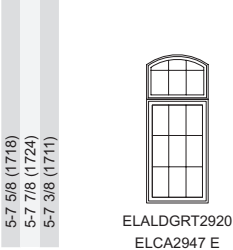
Eyebrow above Springline (RT6)

MO (mm)	6-0 1/2 (1842)
RO (mm)	6-1 (1854)
FS (mm)	6-0 (1829)

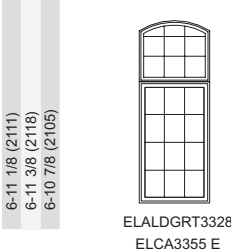


Multiple Assemblies

MO (mm)	2-4 1/2 (724)
RO (mm)	2-5 (737)
FS (mm)	2-4 (711)

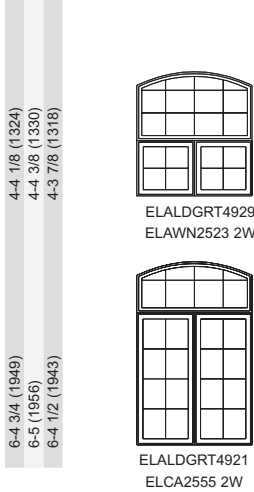


MO (mm)	2-8 1/2 (826)
RO (mm)	2-9 (838)
FS (mm)	2-8 (813)

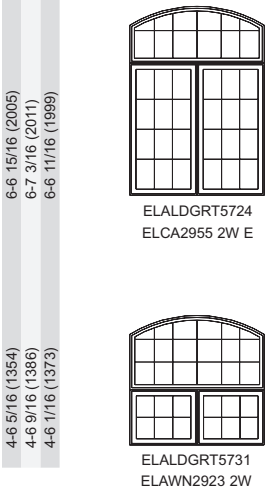


Multiple Assemblies

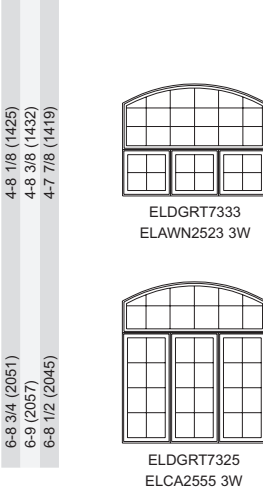
MO (mm)	4-0 1/2 (1232)
RO (mm)	4-1 (1245)
FS (mm)	4-0 (1219)



MO (mm)	4-8 1/2 (1435)
RO (mm)	4-9 (1448)
FS (mm)	4-8 (1422)



MO (mm)	6-0 1/2 (1842)
RO (mm)	6-1 (1854)
FS (mm)	6-0 (1829)



E = These windows meet National Egress Codes for fire evacuation. Local codes may differ.

Contact your sales representative for multiple assembly lite alignment. Certain assemblies do not allow for exact lite alignment.

Not to scale. Optional Round Top SDL and SDL with Spacer Bar are available in standard cut shown above. GBG patterns shown on page 46. (Round Top divided lites not available in other lite cuts)

Optional Casement and Double Hung GBGs and SDLs are available in several lite variations, standard Rectangular cut shown.

For further details and drawings visit the 'Technical Specifications' section at Marvin.com.

MULTIPLE ASSEMBLIES

Units may be factory mulled up to 3 units wide by 2 units high. Field mull kits are available. Structural mullion reinforcement is required for some assemblies. Please consult your local Marvin representative for more information.

MAXIMUM ROUGH OPENING 113 1/2" (2883 mm) wide x 91 1/16" (2313 mm) high or 85" (2159 mm) wide x 107 9/16" (2732 mm) high. Quarter Round shapes require a Casement with a continuous head jamb.

ALUMINUM DIRECT GLAZE ROUND TOPS

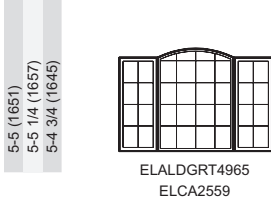
Casement Frame Type

Eyebrow above Springline (RT6)

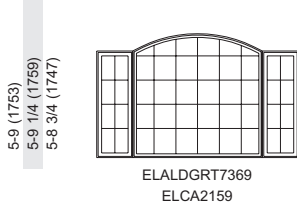
MO (mm)	7-4 1/2 (2248)
RO (mm)	7-5 (2261)
FS (mm)	7-4 (2235)



MO (mm)	8-0 1/2 (2451)
RO (mm)	8-1 (2464)
FS (mm)	8-0 (2438)



MO (mm)	9-4 1/2 (2858)
RO (mm)	9-5 (2870)
FS (mm)	9-4 (2845)

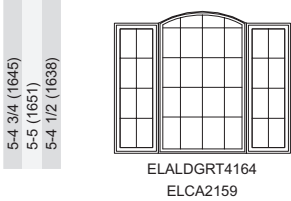


Multiple Assemblies

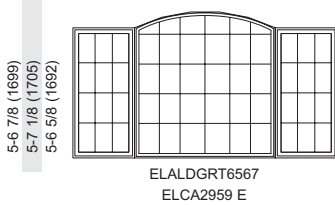
MO (mm)	9-0 1/2 (2756)
RO (mm)	9-1 (2769)
FS (mm)	9-0 (2743)



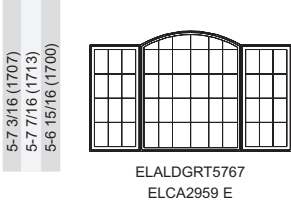
MO (mm)	6-8 1/2 (2045)
RO (mm)	6-9 (2057)
FS (mm)	6-8 (2032)



MO (mm)	10-0 1/2 (3061)
RO (mm)	10-1 (3073)
FS (mm)	10-0 (3048)

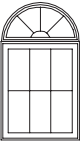
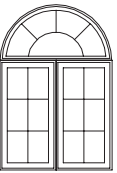
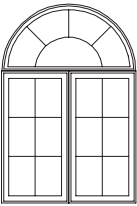
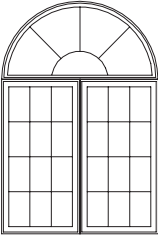
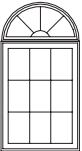
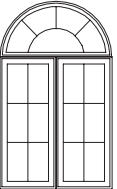
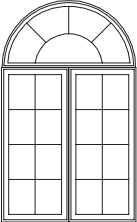
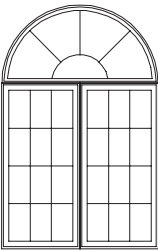
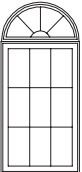
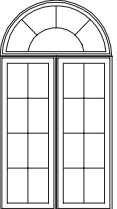
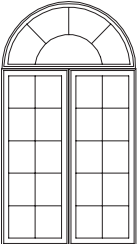
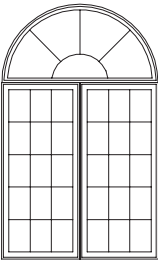
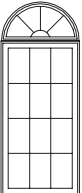
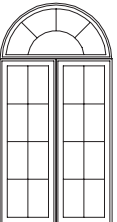
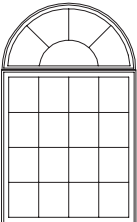
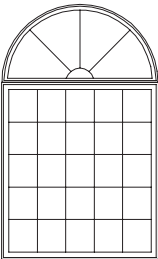


MO (mm)	9-4 1/2 (2858)
RO (mm)	9-5 (2870)
FS (mm)	9-4 (2845)



Casement Frame Type

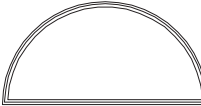
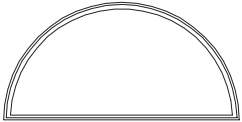
Multiple Assemblies

MO (mm)	2-4 1/2 (724)	MO (mm)	3-4 1/2 (1029)	MO (mm)	4-0 1/2 (1232)	MO (mm)	4-8 1/2 (1435)
RO (mm)	2-5 (737)	RO (mm)	3-5 (1041)	RO (mm)	4-1 (1245)	RO (mm)	4-9 (1448)
FS (mm)	2-4 (711)	FS (mm)	3-4 (1016)	FS (mm)	4-0 (1219)	FS (mm)	4-8 (1422)
4-1 3/8 (1254) 4-1 5/8 (1260) 4-1 1/8 (1248)		4-11 3/8 (1508) 4-11 5/8 (1514) 4-11 1/8 (1502)		5-11 3/8 (1813) 5-11 5/8 (1819) 5-11 1/8 (1807)		6-11 3/8 (2118) 6-11 5/8 (2124) 6-11 1/8 (2111)	
4-5 3/8 (1356) 4-5 5/8 (1362) 4-5 1/8 (1349)		5-7 3/8 (1711) 5-7 5/8 (1718) 5-7 1/8 (1705)		6-7 3/8 (2016) 6-7 5/8 (2022) 6-7 1/8 (2010)		7-3 3/8 (2219) 7-3 5/8 (2226) 7-3 1/8 (2213)	
5-1 3/8 (1559) 5-1 5/8 (1565) 5-1 1/8 (1553)		6-3 3/8 (1915) 6-3 5/8 (1921) 6-3 1/8 (1908)		7-3 3/8 (2219) 7-3 5/8 (2226) 7-3 1/8 (2213)		7-7 3/8 (2321) 7-7 5/8 (2327) 7-7 1/8 (2315)	
5-9 3/8 (1762) 5-9 5/8 (1768) 5-9 1/8 (1756)		6-7 3/8 (2016) 6-7 5/8 (2022) 6-7 1/8 (2010)		6-7 3/8 (2016) 6-7 5/8 (2022) 6-7 1/8 (2010)		7-7 3/8 (2321) 7-7 5/8 (2327) 7-7 1/8 (2315)	

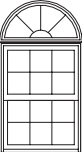
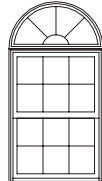
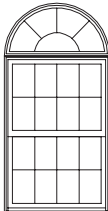
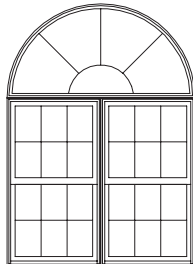
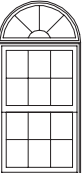
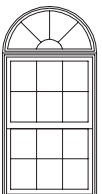
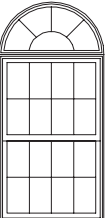
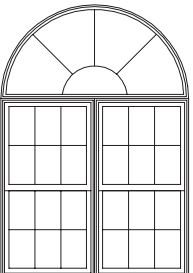
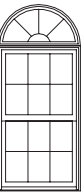
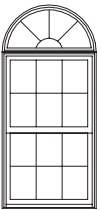
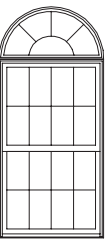
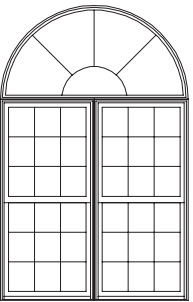
ALUMINUM DIRECT GLAZE ROUND TOPS

Double Hung Frame Type

True Half (RT1)

MO (mm)	2-6 (762)	MO (mm)	2-10 (864)	MO (mm)	3-2 (965)	MO (mm)	5-7 1/2 (1715)	MO (mm)	5-11 1/2 (1816)
RO (mm)	2-6 1/2 (775)	RO (mm)	2-10 1/2 (876)	RO (mm)	3-2 1/2 (978)	RO (mm)	5-8 (1727)	RO (mm)	6-0 (1829)
FS (mm)	2-5 1/2 (749)	FS (mm)	2-9 1/2 (851)	FS (mm)	3-1 1/2 (953)	FS (mm)	5-7 (1702)	FS (mm)	5-11 (1803)
1-3 (881) 1-3 1/4 (387) 1-2 3/4 (375)		1-5 (432) 1-5 1/4 (438) 1-4 3/4 (425)		1-7 (483) 1-7 1/4 (489) 1-6 3/4 (476)		2-9 3/4 (857) 2-10 (864) 2-9 1/2 (851)		2-11 3/4 (908) 3-0 (914) 2-11 1/2 (902)	

Multiple Assemblies

MO (mm)	2-6 (762)	MO (mm)	2-10 (864)	MO (mm)	3-2 (965)	MO (mm)	5-7 1/2 (1715)
RO (mm)	2-6 1/2 (775)	RO (mm)	2-10 1/2 (876)	RO (mm)	3-2 1/2 (978)	RO (mm)	5-8 (1727)
FS (mm)	2-5 1/2 (749)	FS (mm)	2-9 1/2 (851)	FS (mm)	3-1 1/2 (953)	FS (mm)	5-7 (1702)
4-6 3/4 (1391) 4-7 (1397) 4-6 1/2 (1384)		5-4 3/4 (1645) 5-5 (1651) 5-4 1/2 (1638)		6-2 3/4 (1899) 6-3 (1905) 6-2 1/2 (1892)		7-9 1/2 (2375) 7-9 3/4 (2381) 7-9 1/4 (2369)	
5-2 3/4 (1594) 5-3 (1600) 5-2 1/2 (1588)		5-8 3/4 (1746) 5-9 (1753) 5-8 1/2 (1740)		6-6 3/4 (2000) 6-7 (2007) 6-6 1/2 (1994)		8-1 1/2 (2477) 8-1 3/4 (2483) 8-1 1/4 (2470)	
5-6 3/4 (1695) 5-7 (1702) 5-6 1/2 (1689)		6-0 3/4 (1848) 6-1 (1854) 6-0 1/2 (1842)		6-10 3/4 (2102) 6-11 (2108) 6-10 1/2 (2096)		8-9 1/2 (2680) 8-9 3/4 (2686) 8-9 1/4 (2673)	

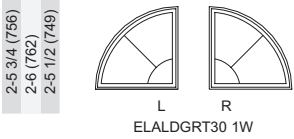
Details and Elevations not to scale.
E = These windows meet National Egress Codes for fire evacuation.
Local codes may differ.
When ordering 6 9/16" (167 mm) jambs, add 1/4" (6 mm) to width and 1/8" (3 mm) to height for Rough Opening, Frame Size and Masonry Opening.
Optional Round Top SDL, SDL with Spacer Bar and GBG are available in a standard cut, as shown on page 35. (Round Top divided lites not available in other lite cuts.)
Optional Double Hung GBGs and SDLs are available in several lite cut variations, standard Rectangular cut shown.
For further details and drawings visit the 'Technical Specifications' section at Marvin.com.

ALUMINUM DIRECT GLAZE ROUND TOPS

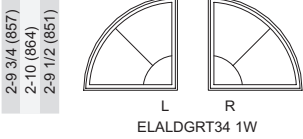
Double Hung/Door Frame Type

True Half (RT1), Quarter Round (RT7/8), Full Circle (RT27), Ellipse (RT28)

MO (mm)	2-6 (762)
RO (mm)	2-6 1/2 (775)
FS (mm)	2-5 1/2 (749)



MO (mm)	2-10 (864)
RO (mm)	2-10 1/2 (876)
FS (mm)	2-9 1/2 (851)



MO (mm)	3-0 (914)
RO (mm)	3-0 1/2 (927)
FS (mm)	2-11 1/2 (902)



MO (mm)	3-0 (914)
RO (mm)	3-0 1/2 (927)
FS (mm)	2-11 1/2 (902)



MO (mm)	3-6 (1067)
RO (mm)	3-6 1/2 (1080)
FS (mm)	3-5 1/2 (1054)



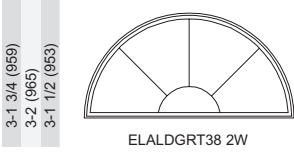
MO (mm)	4-3 1/2 (1308)
RO (mm)	4-4 (1321)
FS (mm)	4-3 (1295)



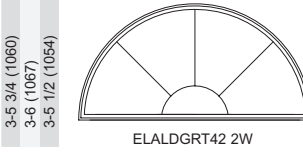
MO (mm)	4-11 1/2 (1511)
RO (mm)	5-0 (1524)
FS (mm)	4-11 (1499)



MO (mm)	6-3 1/2 (1918)
RO (mm)	6-4 (1930)
FS (mm)	6-3 (1905)



MO (mm)	6-11 1/2 (2121)
RO (mm)	7-0 (2134)
FS (mm)	6-11 (2108)



MO (mm)	2-11 1/2 (902)
RO (mm)	3-0 (914)
FS (mm)	2-11 (889)



MO (mm)	2-7 1/2 (800)
RO (mm)	2-8 (813)
FS (mm)	2-7 (787)

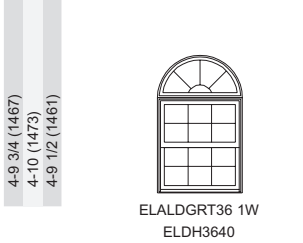


Multiple Assemblies

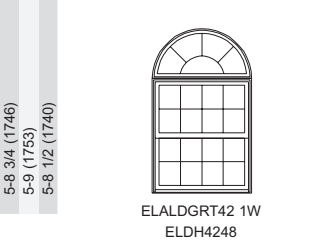
MO (mm)	2-10 (864)
RO (mm)	2-10 1/2 (876)
FS (mm)	2-9 1/2 (851)



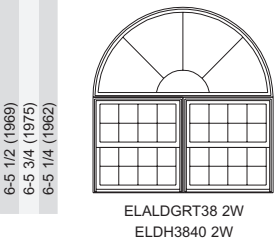
MO (mm)	3-0 (914)
RO (mm)	3-0 1/2 (927)
FS (mm)	2-11 1/2 (902)



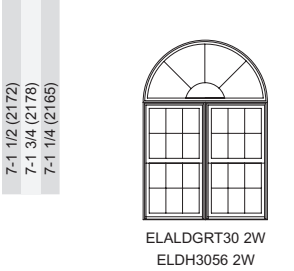
MO (mm)	3-6 (1067)
RO (mm)	3-6 1/2 (1080)
FS (mm)	3-5 1/2 (1054)



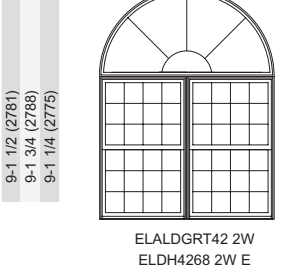
MO (mm)	6-3 1/2 (1918)
RO (mm)	6-4 (1930)
FS (mm)	6-3 (1905)



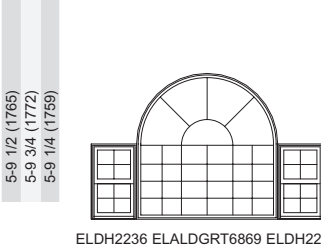
MO (mm)	4-11 1/2 (1511)
RO (mm)	5-0 (1524)
FS (mm)	4-11 (1499)



MO (mm)	6-11 1/2 (2121)
RO (mm)	7-0 (2134)
FS (mm)	6-11 (2108)



MO (mm)	9-2 1/2 (2807)
RO (mm)	9-3 (2819)
FS (mm)	9-2 (2794)



E = These windows meet National Egress Codes for fire evacuation. Local codes may differ.

Contact your sales representative for multiple assembly lite alignment. Certain assemblies do not allow for exact lite alignment.

Not to scale. Optional Round Top SDL and SDL with Spacer Bar are available in standard cut shown above. GBG patterns shown on page 46. (Round Top divided lites not available in other lite cuts)

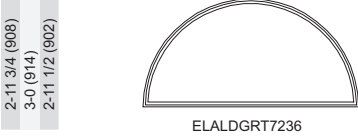
Optional Casement and Double Hung GBGs and SDLs are available in several lite variations, standard Rectangular cut shown.

ALUMINUM DIRECT GLAZE ROUND TOPS

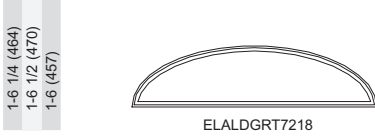
Door Frame Type

True Half (RT1), Elliptical (RT29)

MO (mm)	5-11 1/2 (1816)
RO (mm)	6-0 (1829)
FS (mm)	5-11 (1803)



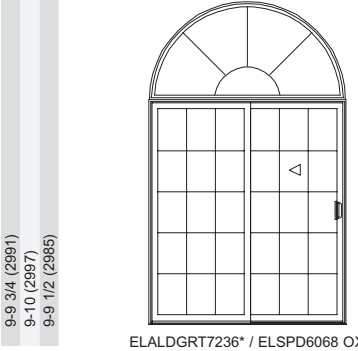
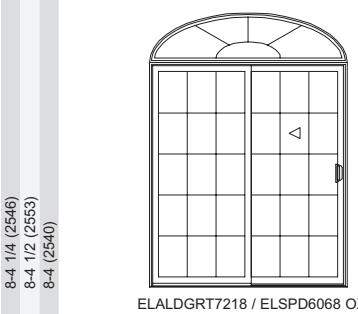
MO (mm)	5-11 1/2 (1816)
RO (mm)	6-0 (1829)
FS (mm)	5-11 (1803)



Multiple Assemblies

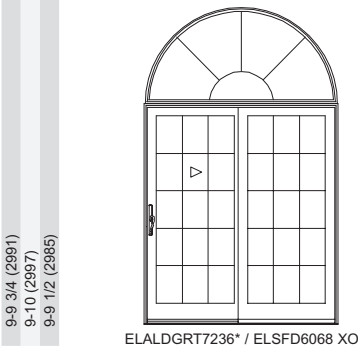
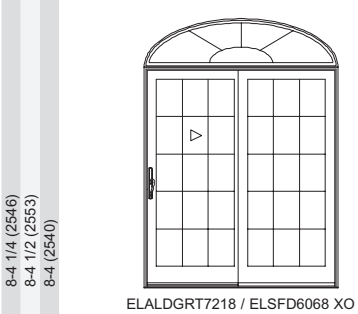
Sliding Patio Doors

MO (mm)	5-11 1/2 (1816)
RO (mm)	6-0 (1829)
FS (mm)	5-11 (1803)



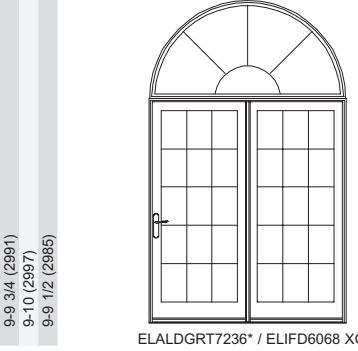
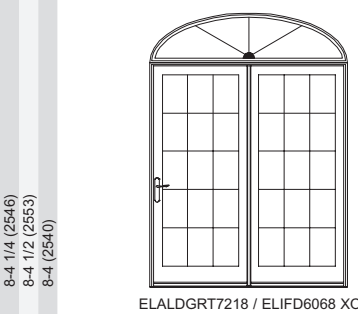
Sliding French Doors

MO (mm)	5-11 1/2 (1816)
RO (mm)	6-0 (1829)
FS (mm)	5-11 (1803)

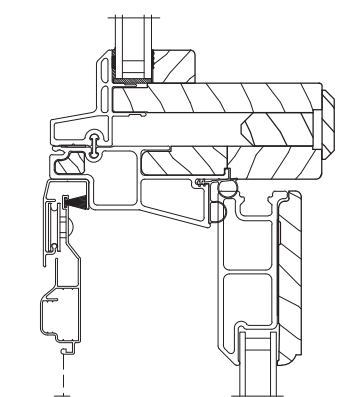


Inswing French Doors

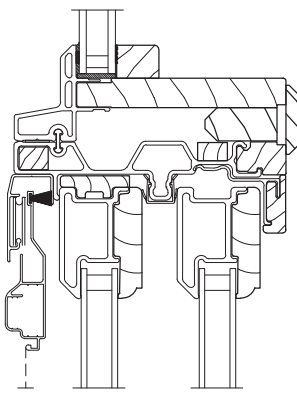
MO (mm)	5-11 1/2 (1816)
RO (mm)	6-0 (1829)
FS (mm)	5-11 (1803)



Horizontal Mullion Details



Round Top Over
Inswing French Door



Round Top Over
Sliding Patio Door

Details and Elevations not to scale.

* Assembly available field mullied only.

Optional Round Top SDL, SDL with Spacer Bar and GBG are available in a standard cut, as shown on page 35. (Round Top divided lites not available in other lite cuts)

Optional Casement GBGs and SDLs are available in several lite cut variations, standard Rectangular cut shown.

ELALDG RT 7236 and ELALDG RT 7218 can be mullied above a CN 36 width 2W Elevate Double Hung.

For more information, please contact your Marvin representative. For further details and drawings visit the 'Technical Specifications' section at Marvin.com.

MULTIPLE ASSEMBLIES

Multiple assemblies can be factory mullied up to 1W2H or 2W2H or 3W1H. See product Specifications for mulling limitations.

Field mull kits are available. Structural mullion reinforcement is required for some assemblies. Please consult your local Marvin representative for more information.

MARVIN® ELEVATE™ COLLECTION

ALUMINUM DIRECT GLAZE ROUND TOPS

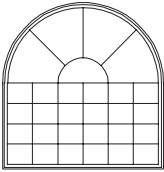
Double Hung/Door Frame Type

True Half above Springline (RT2)

MO (mm)	5-7 1/2 (1715)
RO (mm)	5-8 (1727)
FS (mm)	5-7 (1702)

5-9 1/2 (1765)
5-9 3/4 (1772)
5-9 1/4 (1759)

SPLN 36ELDH

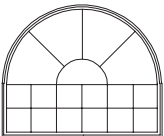


ELALDGRT6869

MO (mm)	5-11 1/2 (1816)
RO (mm)	6-0 (1829)
FS (mm)	5-11 (1803)

4-10 7/8 (1495)
4-11 1/8 (1502)
4-10 5/8 (1489)

SPLN 36ELDH



ELALDGRT7259

Eyebrow above Springline (RT6)

MO (mm)	2-2 (660)
RO (mm)	2-2 1/2 (673)
FS (mm)	2-1 1/2 (648)

1-7 11/16 (500)
1-7 15/16 (506)
1-7 7/16 (494)

SPLN 16ELDHTR



ELALDGRT2619

MO (mm)	2-6 (762)
RO (mm)	2-6 1/2 (775)
FS (mm)	2-5 1/2 (749)

1-9 1/8 (536)
1-9 3/8 (542)
1-8 7/8 (529)

SPLN 16ELDHTR



ELALDGRT3021

MO (mm)	2-10 (864)
RO (mm)	2-10 1/2 (876)
FS (mm)	2-9 1/2 (851)

1-9 1/8 (536)
1-9 3/8 (542)
1-8 7/8 (529)

SPLN 16ELDHTR

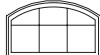


ELALDGRT3421

MO (mm)	3-0 (914)
RO (mm)	3-0 1/2 (927)
FS (mm)	2-11 1/2 (902)

1-9 13/16 (554)
1-10 1/16 (560)
1-9 9/16 (548)

SPLN 16ELDHTR



ELALDGRT3622

MO (mm)	3-2 (965)
RO (mm)	3-2 1/2 (978)
FS (mm)	3-1 1/2 (953)

1-8 5/8 (525)
1-8 7/8 (531)
1-8 3/8 (518)

SPLN 16ELDHTR

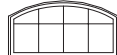


ELALDGRT3820

MO (mm)	3-6 (1067)
RO (mm)	3-6 1/2 (1080)
FS (mm)	3-5 1/2 (1054)

1-9 13/16 (554)
1-10 1/16 (560)
1-9 9/16 (548)

SPLN 16ELDHTR

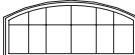


ELALDGRT4222

MO (mm)	4-3 1/2 (1308)
RO (mm)	4-4 (1321)
FS (mm)	4-3 (1295)

1-10 3/8 (569)
1-10 5/8 (575)
1-10 1/8 (563)

SPLN 16ELDHTR

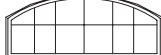


ELALDGRT5222

MO (mm)	4-11 1/2 (1511)
RO (mm)	5-0 (1524)
FS (mm)	4-11 (1499)

2-0 3/4 (629)
2-1 (636)
2-0 1/2 (623)

SPLN 16ELDHTR



ELALDGRT6025

MO (mm)	5-7 1/2 (1715)
RO (mm)	5-8 (1727)
FS (mm)	5-7 (1702)

2-0 1/4 (616)
2-0 1/2 (622)
2-0 (610)

SPLN 16ELDHTR



ELALDGRT6824

MO (mm)	5-11 1/2 (1816)
RO (mm)	6-0 (1829)
FS (mm)	5-11 (1803)

2-1 3/8 (645)
2-1 5/8 (651)
2-1 1/8 (638)

SPLN 16ELDHTR



ELALDGRT7225

MO (mm)	6-3 1/2 (1918)
RO (mm)	6-4 (1930)
FS (mm)	6-3 (1905)

2-2 1/2 (674)
2-2 3/4 (680)
2-2 1/4 (668)

SPLN 16ELDHTR

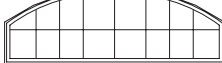


ELALDGRT7626

MO (mm)	6-11 1/2 (2121)
RO (mm)	7-0 (2134)
FS (mm)	6-11 (2108)

2-5 1/8 (741)
2-5 3/8 (747)
2-4 7/8 (734)

SPLN 16ELDHTR

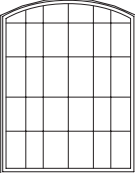


ELALDGRT8429

MO (mm)	4-3 1/2 (1308)
RO (mm)	4-4 (1321)
FS (mm)	4-3 (1295)

5-6 3/8 (1687)
5-6 5/8 (1693)
5-6 1/8 (1680)

SPLN 60ELDH

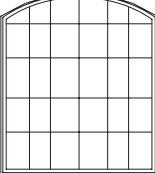


ELALDGRT5266

MO (mm)	4-11 1/2 (1511)
RO (mm)	5-0 (1524)
FS (mm)	4-11 (1499)

5-8 3/4 (1747)
5-9 (1753)
5-8 1/2 (1741)

SPLN 60ELDH

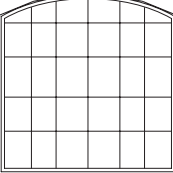


ELALDGRT6069

MO (mm)	5-7 1/2 (1715)
RO (mm)	5-8 (1727)
FS (mm)	5-7 (1702)

5-8 1/4 (1734)
5-8 1/2 (1741)
5-8 (1728)

SPLN 60ELDH

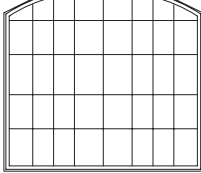


ELALDGRT6868

MO (mm)	6-3 1/2 (1918)
RO (mm)	6-4 (1930)
FS (mm)	6-3 (1905)

5-10 1/2 (1791)
5-10 3/4 (1798)
5-10 1/4 (1785)

SPLN 60ELDH

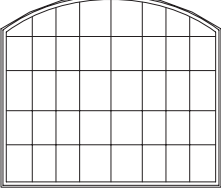


ELALDGRT7670

MO (mm)	6-11 1/2 (2121)
RO (mm)	7-0 (2134)
FS (mm)	6-11 (2108)

6-1 1/8 (1858)
6-1 3/8 (1865)
6-0 7/8 (1852)

SPLN 60ELDH



ELALDGRT8473

E = These windows meet National Egress Codes for fire evacuation. Local codes may differ.

Not to scale. Optional Round Top SDL and SDL with Spacer Bar are available in standard cut shown above. GBG patterns shown on page 46. (Round Top divided lites not available in other lite cuts)

Optional Casement and Double Hung GBGs and SDLs are available in several lite variations, standard Rectangular cut shown.

For further details and drawings visit the 'Technical Specifications' section at Marvin.com.

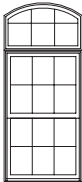
ALUMINUM DIRECT GLAZE ROUND TOPS

Double Hung/Door Frame Type

Eyebrow above Springline (RT6) Multiple Assemblies

MO (mm)	3-0 (914)
RO (mm)	3-0 1/2 (927)
FS (mm)	2-11 1/2 (902)

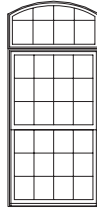
6-9 9/16 (2072)
6-9 13/16 (2078)
6-9 5/16 (2065)



ELALDGRT3622
ELDH3660 E

MO (mm)	3-6 (1067)
RO (mm)	3-6 1/2 (1080)
FS (mm)	3-5 1/2 (1054)

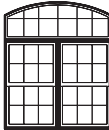
7-9 9/16 (2376)
7-9 13/16 (2383)
7-9 5/16 (2370)



ELALDGRT4222
ELDH4272 E

MO (mm)	5-7 1/2 (1715)
RO (mm)	5-8 (1727)
FS (mm)	5-7 (1702)

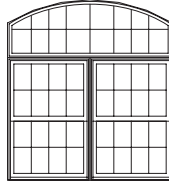
6-8 (2032)
6-8 1/4 (2038)
6-7 3/4 (2026)



ELALDGRT6824
ELDH3456 2W

MO (mm)	6-3 1/2 (1918)
RO (mm)	6-4 (1930)
FS (mm)	6-3 (1905)

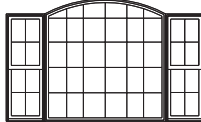
6-10 (2083)
6-10 1/4 (2089)
6-9 3/4 (2076)



ELALDGRT7626
ELDH3856 2W

MO (mm)	8-6 1/2 (2604)
RO (mm)	8-7 (2616)
FS (mm)	8-6 (2591)

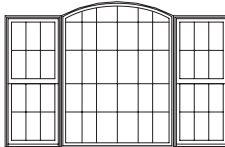
5-8 3/8 (1686)
5-8 5/8 (1692)
5-8 1/8 (1680)



ELALDGRT5266
ELDH2660

MO (mm)	9-2 1/2 (2807)
RO (mm)	9-3 (2819)
FS (mm)	9-2 (2794)

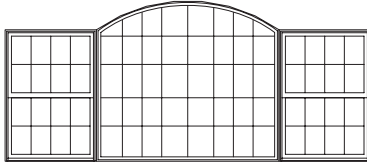
5-8 1/4 (1734)
5-8 1/2 (1740)
5-8 (1727)



ELALDGRT6868
ELDH4260

MO (mm)	13-10 1/2 (4229)
RO (mm)	13-11 (4242)
FS (mm)	13-10 (4216)

6-1 1/8 (1857)
6-1 3/8 (1864)
6-0 7/8 (1851)



ELALDGRT8473T
ELDH4260 E

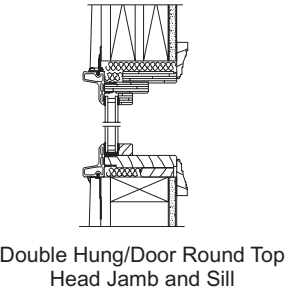
MO (mm)	6-1 (1854)
RO (mm)	6-1 1/2 (1867)
FS (mm)	6-0 1/2 (1842)

1-9 1/8 (637)
1-9 3/8 (643)
1-8 7/8 (630)



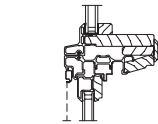
ELALDGRT3021
ELDHT2216

Construction Detail



Double Hung/Door Round Top Head Jamb and Sill

Horizontal Mullion Detail



Double Hung Round Top Over Double Hung

MULTIPLE ASSEMBLIES

Units may be factory mulled up to 3 units wide by 2 units high. Field mull kits are available. Structural mullion reinforcement is required for some assemblies. Please consult your local Marvin representative for more information.

MAXIMUM ROUGH OPENING 113 1/2" (2883 mm) wide x 91 1/16" (2313 mm) high or 85" (2159 mm) wide x 107 9/16" (2732 mm) high. Quarter Round shapes require a Casement with a continuous head jamb.

48

49

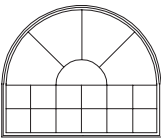
ALUMINUM DIRECT GLAZE ROUND TOPS

Double Hung/Door Frame Type

Half Round above Springline (RT2)

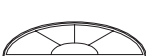
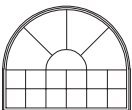
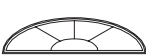
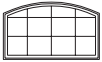
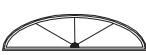
MO (mm)	5-11 1/2 (1816)
RO (mm)	6-0 (1829)
FS (mm)	5-11 (1803)

4-10 7/8 (1495)
4-11 1/8 (1502)
4-10 5/8 (1489)



ELALDGRT7259

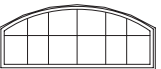
Lite Patterns

SDL	Open Hub						
GBG	Open Hub						Not Available
GBG	Closed Hub						Not Available

Eyebrow above Springline (RT6)

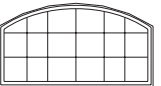
MO (mm)	4-11 1/2 (1511)
RO (mm)	5-0 (1524)
FS (mm)	4-11 (1499)

2-0 3/4 (629)
2-1 (636)
2-0 1/2 (623)



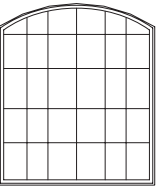
ELALDGRT6025

2-8 1/8 (817)
2-8 3/8 (823)
2-7 7/8 (810)



ELALDGRT6032

5-8 3/4 (1747)
5-9 (1753)
5-8 1/2 (1740)



ELALDGRT6069

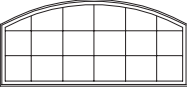
MO (mm)	5-11 1/2 (1816)
RO (mm)	6-0 (1829)
FS (mm)	5-11 (1803)

2-1 3/8 (645)
2-1 5/8 (651)
2-1 1/8 (638)



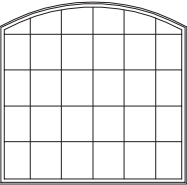
ELALDGRT7225

2-8 (832)
2-9 (836)
2-8 1/2 (826)



ELALDGRT7233

5-8 3/4 (1746)
5-9 (1753)
5-8 1/2 (1740)



ELALDGRT7269

T = Standard Tempered

Contact your Marvin representative for multiple assembly lite alignment. Certain assemblies do not allow for exact lite alignment.

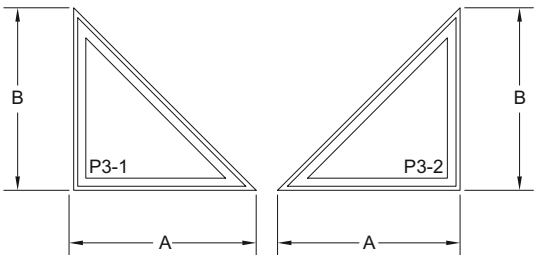
Not to scale. Optional Round Top SDL and SDL with Spacer Bar are available in standard cut shown above. GBG patterns shown above. (Round Top divided lites not available in other lite cuts) Optional Casement and Double Hung GBGs and SDLs are available in several lite variations, standard Rectangular cut shown.

Note: ELALDGRT7225, ELALDGRT7233, and ELALDGRT7269 can be mulled above a CN 36 width 2W Elevate Double Hung. GBGs may not line up in multiple assemblies. ELALDGRT7259 can be mulled above a CN 36 width 2W Elevate Double Hung.

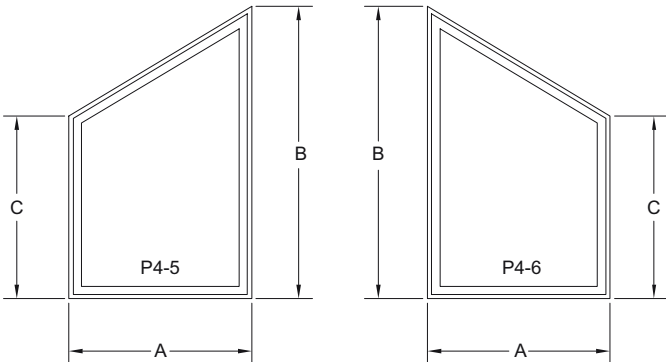
For more information, please contact your Marvin representative.

For further details and drawings visit the 'Technical Specifications' section at Marvin.com.

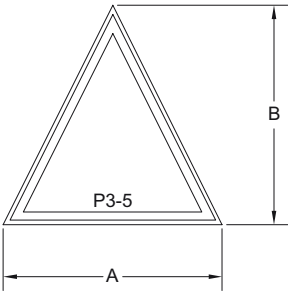
DIRECT GLAZE SPECIALTY SHAPES - POLYGONS



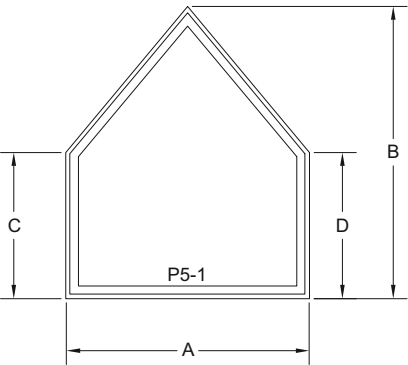
90° TRIANGLE



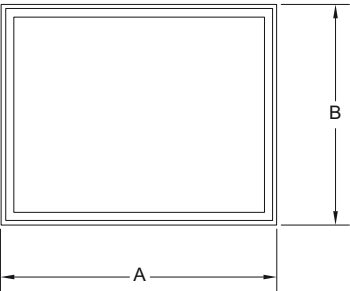
TRAPEZOID



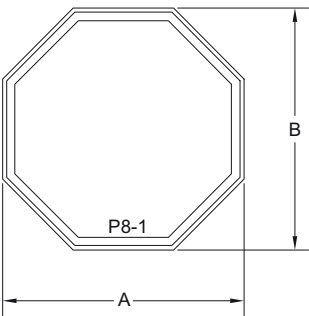
ISOSCELES TRIANGLE



PENTAGON



90° RECTANGLE



OCTAGON

HOW TO SPECIFY

When ordering a Trapezoid, Triangle, or Rectangle window, provide a sketch of the unit as viewed from the exterior, also include key Rough Opening dimensions.

EXAMPLE

To order a window of a Trapezoid opening provide the measurements of A, B, and C as indicated. For other shapes, give the dimensions shown.

To ensure the proper unit for field mulling applications, specify Casement/Awning or Double Hung/Door frame type.

SPECIFICATION NOTES

Maximum frame long dimension: 109" (2767)

Maximum frame short dimension at 109" (2767) long dimension: 64 3/4" (1645)

Tripane maximum frame long dimension: 102 13/16" (2611)

Tripane maximum frame short dimension at 102 13/16" (2611) long dimension: 61 13/16" (1570)

Minimum unit frame dimensions: 12 7/8" (327) x 12 7/8" (327)

Minimum P8-1 RO size: 19 1/8" (486) x 19 1/8" (486)

Minimum frame short dimension for P4-5, P4-6, P5-1: 7 1/2" (191)

Maximum frame square footage: 49 ft². All shapes shall be defined by the enclosed rectangle.

Tripane maximum frame square footage: 44.160 ft². All shapes shall be defined by the enclosed rectangle.

The minimum frame angle is 15 degrees (3.22/12 pitch).

MULTIPLE ASSEMBLIES - RECTANGLES ONLY

Multiple assemblies of rectangles only can be factory mulled:

For ELDG units using ELCA/ELAWN frame type: up to 7 units wide by 1 unit high. MAXIMUM ROUGH OPENING not to exceed 113" x 71 5/8" or up to 4 units wide by 5 units high. MAXIMUM ROUGH OPENING not to exceed 85" x 94 3/4".

For ELDG units using ELDH/ELGL frame type: up to 5 units wide by 1 unit high. MAXIMUM ROUGH OPENING not to exceed 113 1/2" x 76 1/4" or up to 3 units wide by 5 units high. MAXIMUM ROUGH OPENING not to exceed 84" x 92".

For ELDG units mulling over ELSPD/ELSFD: up to 1 unit wide by 2 units high. MAXIMUM ROUGH OPENING not to exceed 72" x 100 1/2".

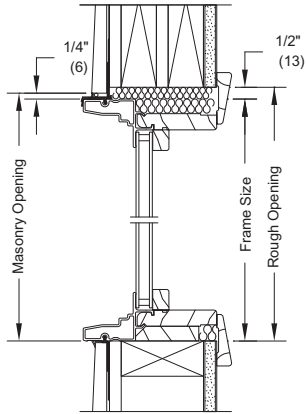
For ELDG units mulling over ELIFD/ELOFD: up to 2 units wide by 2 units high. MAXIMUM ROUGH OPENING not to exceed 73 5/8" x 100 1/2".

Field mulling window assemblies beyond the above limitations is not recommended.

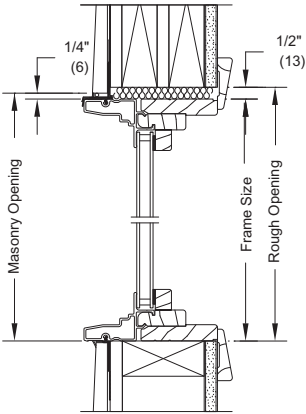
Field mulling door assemblies beyond 110" x 112" is not recommended.

DIRECT GLAZE

Construction Details

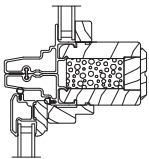


Direct Glaze Casement
Frame Type
Head Jamb and Sill

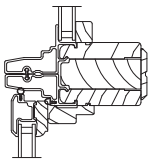


Direct Glaze Double Hung/Door
Frame Type
Head Jamb and Sill

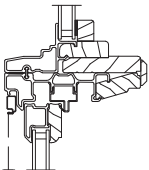
Mullion Details



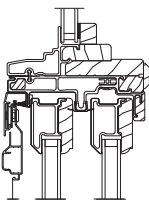
Direct Glaze
Over Casement/Awning



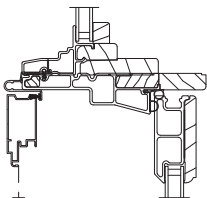
Direct Glaze
Over Casement/Awning
with Structural Mull
Reinforcement Block*



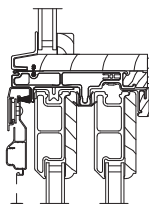
Direct Glaze
Over Double Hung



Direct Glaze
Over Sliding Patio Door



Direct Glaze
Over Inswing French
Door



Direct Glaze
Over
Sliding French Door

Details not to scale.
Note: Drip cap supplied on direct glaze rectangles only.
* To be used on 2 wide by 2 high assemblies.

For further details and drawings visit the 'Technical Specifications' section at Marvin.com.

SLIDING PATIO DOOR

2 Panel

MO (mm)	4-11 1/2 (1511)			5-11 1/2 (1816)			7-11 1/2 (2426)		
RO (mm)	5-0 (1524)			6-0 (1829)			8-0 (2438)		
FS (mm)	4-11 (1499)			5-11 (1803)			7-11 (2413)		
DLO (mm)	2-1 (635)			2-7 (787)			3-7 (1092)		
6-7 3/4 (2026) 6-8 (2032) 6-7 1/2 (2019) 6-0 1/32 (1803)									
	ELSPD5065 XO	ELSPD5065 OX	ELSPD6065 XO	ELSPD6065 OX	ELSPD8065 XO	ELSPD8065 OX			
6-10 1/4 (2089) 6-10 1/2 (2096) 6-10 (2083) 6-2 17/32 (1893)									
	ELSPD5068 XO	ELSPD5068 OX	ELSPD6068 XO	ELSPD6068 OX	ELSPD8068 XO	ELSPD8068 OX			
7-2 1/4 (2191) 7-2 1/2 (2197) 7-2 (2184) 6-6 17/32 (1995)									
	ELSPD5070 XO	ELSPD5070 OX	ELSPD6070 XO	ELSPD6070 OX	ELSPD8070 XO	ELSPD8070 OX			
7-11 3/4 (2432) 8-0 (2438) 7-11 1/2 (2426) 7-4 1/32 (2236)									
	ELSPD5080 XO	ELSPD5080 OX	ELSPD6080 XO	ELSPD6080 OX	ELSPD8080 XO	ELSPD8080 OX			

Details and Elevations not to scale.
Optional Direct Glaze GBGs and SDLs are available in a standard Rectangular cut, as shown. Alternate lite cuts available to align with doors using select lite cut options shown on page 3. Optional Round Top SDL and SDL with Spacer Bar are available in a standard cut, as shown. Round Top GBG cuts are shown on page 35. (Round Top divided lites not available in other lite cuts)
For further details and drawings visit the 'Technical Specifications' section at Marvin.com.

MULTIPLE ASSEMBLIES

Multiple assembly units can be factory mull up to 1 unit wide by 2 units high.
MAXIMUM ROUGH OPENING not to exceed 72" x 100 1/2"
Field mull kits available not to exceed 110" x 112"

True Half Rounds are available field mull only. Structural mullion reinforcement is required for some assemblies.

Please consult your local Marvin representative for more information.

SLIDING PATIO DOOR

3 Panel

MO (mm)	7-5 (2261)				8-11 (2718)
RO (mm)	7-5 1/2 (2273)				8-11 1/2 (2731)
FS (mm)	7-4 1/2 (2248)				8-10 1/2 (2705)
DLO (mm)	2-1 (635)				2-7 (787)
6-7 3/4 (2026)					
6-8 (2032)	ELSPD7665 OXO - RH	ELSPD7665 OXO - LH	ELSPD7665 XOO	ELSPD7665 OOX	ELSPD9065 OXO - RH
6-7 1/2 (2019)					
6-0 1/32 (1803)	ELSPD7668 OXO - RH	ELSPD7668 OXO - LH	ELSPD7668 XOO	ELSPD7668 OOX	ELSPD9068 OXO - RH
6-10 1/4 (2089)					
6-10 1/2 (2096)	ELSPD7670 OXO - RH	ELSPD7670 OXO - LH	ELSPD7670 XOO	ELSPD7670 OOX	ELSPD9070 OXO - RH
6-10 (2083)					
6-2 17/32 (1893)	ELSPD7680 OXO - RH	ELSPD7680 OXO - LH	ELSPD7680 XOO	ELSPD7680 OOX	ELSPD9080 OXO - RH
7-2 1/4 (2191)					
7-2 1/2 (2197)	ELSPD7680 OXO - RH	ELSPD7680 OXO - LH	ELSPD7680 XOO	ELSPD7680 OOX	ELSPD9080 OXO - RH
7-2 (2184)					
6-6 17/32 (1995)	ELSPD7680 OXO - RH	ELSPD7680 OXO - LH	ELSPD7680 XOO	ELSPD7680 OOX	ELSPD9080 OXO - RH
7-11 3/4 (2432)					
8-0 (2436)	ELSPD7680 OXO - RH	ELSPD7680 OXO - LH	ELSPD7680 XOO	ELSPD7680 OOX	ELSPD9080 OXO - RH
7-11 1/2 (2426)					
7-4 1/32 (2236)	ELSPD7680 OXO - RH	ELSPD7680 OXO - LH	ELSPD7680 XOO	ELSPD7680 OOX	ELSPD9080 OXO - RH

Details and Elevations not to scale.

Optional Direct Glaze GBGs and SDLs are available in a standard Rectangular cut, as shown. Alternate lite cuts available to align with doors using select lite cut options shown on page 3. Optional Round Top SDL and SDL with Spacer Bar are available in a standard cut, as shown. Round Top GBG cuts are shown on page 35 and 46. (Round Top divided lites not available in other lite cuts)

For further details and drawings visit the 'Technical Specifications' section at Marvin.com.

SLIDING PATIO DOOR

3 Panel

MO (mm)	8-11 (2718)				11-11 (3632)
RO (mm)	8-11 1/2 (2731)				11-11 1/2 (3645)
FS (mm)	8-10 1/2 (2705)				11-10 1/2 (3620)
DLO (mm)	2-7 (787)				3-7 (1092)
6-7 3/4 (2026)					
6-8 (2032)	ELSPD9065 OXO - LH	ELSPD9065 XOO	ELSPD9065 OOX	ELSPD12065 OXO - RH	
6-7 1/2 (2019)					
6-0 1/32 (1803)	ELSPD9068 OXO - LH	ELSPD9068 XOO	ELSPD9068 OOX	ELSPD12068 OXO - RH	
6-10 1/4 (2089)					
6-10 1/2 (2096)	ELSPD9070 OXO - LH	ELSPD9070 XOO	ELSPD9070 OOX	ELSPD12070 OXO - RH	
6-10 (2083)					
6-2 17/32 (1893)	ELSPD9080 OXO - LH	ELSPD9080 XOO	ELSPD9080 OOX	ELSPD12080 OXO - RH	
7-2 1/4 (2191)					
7-2 1/2 (2197)	ELSPD9080 OXO - LH	ELSPD9080 XOO	ELSPD9080 OOX	ELSPD12080 OXO - RH	
7-2 (2184)					
6-6 17/32 (1995)	ELSPD9080 OXO - LH	ELSPD9080 XOO	ELSPD9080 OOX	ELSPD12080 OXO - RH	
7-11 3/4 (2432)					
8-0 (2436)	ELSPD9080 OXO - LH	ELSPD9080 XOO	ELSPD9080 OOX	ELSPD12080 OXO - RH	
7-11 1/2 (2426)					
7-4 1/32 (2236)	ELSPD9080 OXO - LH	ELSPD9080 XOO	ELSPD9080 OOX	ELSPD12080 OXO - RH	

MULTIPLE ASSEMBLIES

Multiple assembly units can be factory mulled up to 1 unit wide by 2 units high.

MAXIMUM ROUGH OPENING not to exceed 72" x 100 1/2"

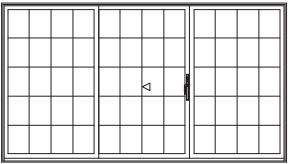
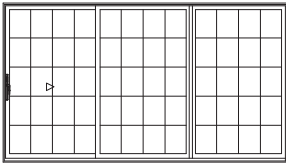
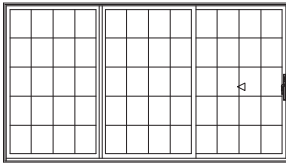
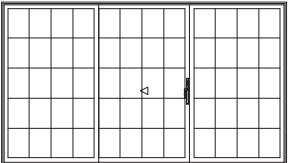
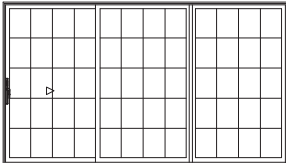
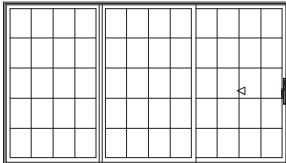
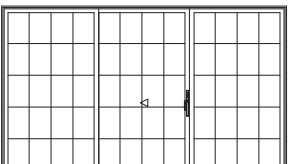
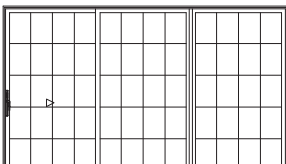
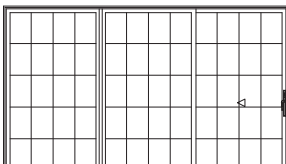
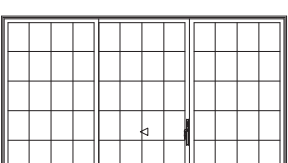
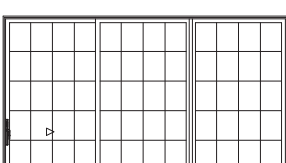
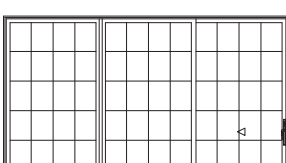
Field mull kits available not to exceed 110" x 112".

True Half Rounds are available field mulled only. Structural mullion reinforcement is required for some assemblies.

Please consult your local Marvin representative for more information.

SLIDING PATIO DOOR

3 Panel

MO (mm)	11-11 (3632)		
RO (mm)	11-11 1/2 (3645)		
FS (mm)	11-10 1/2 (3620)		
DLO (mm)	3-7 (1092)		
6-7 3/4 (2026) 6-8 (2032) 6-7 1/2 (2019) 6-0 1/32 (1803)			
	ELSPD12065 OXO - LH	ELSPD12065 XOO	ELSPD12065 OOX
6-10 1/4 (2089) 6-10 1/2 (2096) 6-10 (2083) 6-2 17/32 (1893)			
	ELSPD12068 OXO - LH	ELSPD12068 XOO	ELSPD12068 OOX
7-2 1/4 (2191) 7-2 1/2 (2197) 7-2 (2184) 6-6 17/32 (1995)			
	ELSPD12070 OXO - LH	ELSPD12070 XOO	ELSPD12070 OOX
7-11 3/4 (2432) 8-0 (2436) 7-11 1/2 (2426) 7-4 1/32 (2236)			
	ELSPD12080 OXO - LH	ELSPD12080 XOO	ELSPD12080 OOX

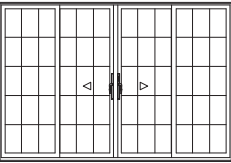
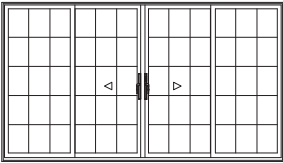
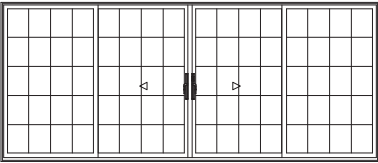
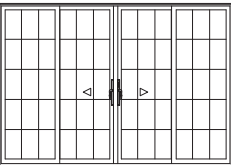
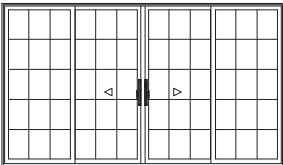
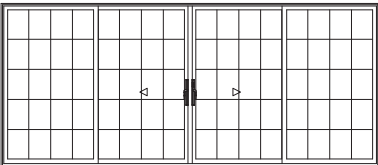
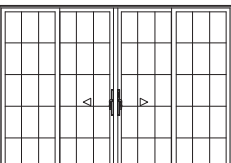
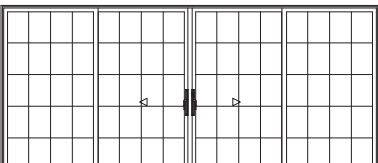
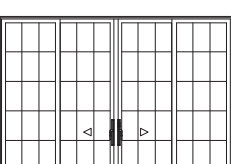
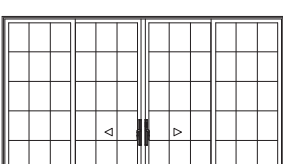
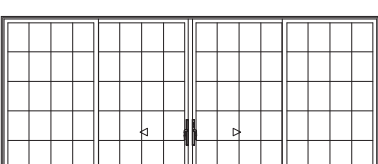
Details and Elevations not to scale.

Optional Direct Glaze GBGs and SDLs are available in a standard Rectangular cut, as shown. Alternate lite cuts available to align with doors using select lite cut options shown on page 3. Optional Round Top SDL and SDL with Spacer Bar are available in a standard cut, as shown. Round Top GBG cuts are shown on page 35. (Round Top divided lites not available in other lite cuts)

For further details and drawings visit the 'Technical Specifications' section at Marvin.com.

SLIDING PATIO DOOR

4 Panel

MO (mm)	9-9 1/2 (2985)		11-9 1/2 (3594)	15-9 1/2 (4813)
RO (mm)	9-10 (2997)		11-10 (3607)	15-10 (4826)
FS (mm)	9-9 (2972)		11-9 (3581)	15-9 (4801)
DLO (mm)	2-1 (635)		2-7 (787)	3-7 (1092)
6-7 3/4 (2026) 6-8 (2032) 6-7 1/2 (2019) 6-0 1/32 (1803)				
	ELSPD10065 OXXO	ELSPD12065 OXXO	ELSPD16065 OXXO	
6-10 1/4 (2089) 6-10 1/2 (2096) 6-10 (2083) 6-2 17/32 (1893)				
	ELSPD10068 OXXO	ELSPD12068 OXXO	ELSPD16068 OXXO	
7-2 1/4 (2191) 7-2 1/2 (2197) 7-2 (2184) 6-6 17/32 (1995)				
	ELSPD10070 OXXO	ELSPD12070 OXXO	ELSPD16070 OXXO	
7-11 3/4 (2432) 8-0 (2436) 7-11 1/2 (2426) 7-4 1/32 (2236)				
	ELSPD10080 OXXO	ELSPD12080 OXXO	ELSPD16080 OXXO	

MULTIPLE ASSEMBLIES

Multiple assembly units can be factory mulled up to 1 unit wide by 2 units high.

MAXIMUM ROUGH OPENING not to exceed 72" x 100 1/2"

Field mull kits available not to exceed 110" x 112".

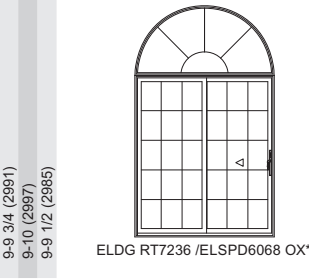
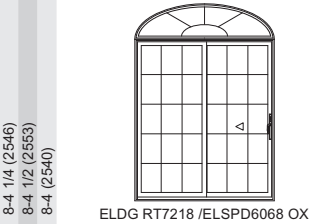
True Half Rounds are available field mulled only. Structural mullion reinforcement is required for some assemblies.

Please consult your local Marvin representative for more information.

SLIDING PATIO DOOR

Round Top Over Sliding Patio Door

MO (mm)	5-11 1/2 (1816)
RO (mm)	6-0 (1829)
FS (mm)	5-11 (1803)



Details and Elevations not to scale.

Optional Direct Glaze GBGs and SDLs are available in a standard Rectangular cut, as shown. Alternate lite cuts available to align with doors using select lite cut options shown on page 3. Optional Round Top SDL and SDL with Spacer Bar are available in a standard cut, as shown. Round Top GBG cuts are shown on page 35. (Round Top divided lites not available in other lite cuts)

* This product is only available field mulled.

For further details and drawings visit the 'Technical Spcifications' section at Marvin.com.

MULTIPLE ASSEMBLIES

Multiple assembly units can be factory mulled up to 1 unit wide by 2 units high.

MAXIMUM ROUGH OPENING not to exceed 72" x 100 1/2"

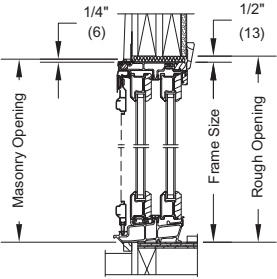
Field mull kits available not to exceed 110" x 112".

True Half Rounds are available field mulled only. Structural mullion reinforcement is required for some assemblies.

Please consult your local Marvin representative for more information.

SLIDING PATIO DOOR

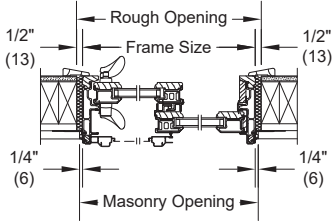
Construction Details



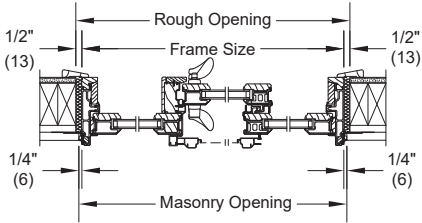
Head Jamb and Sill



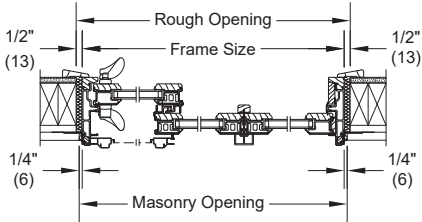
Direct Glaze Over Sliding Patio Door



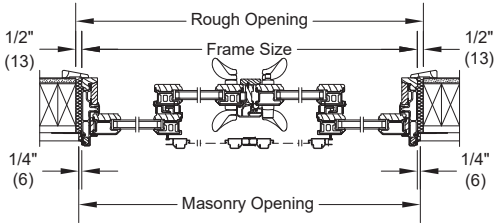
2 Panel XO Operator Jamb



3 Panel OXO Operator Jamb



3 Panel XOO Operator Jamb



4 Panel OXXO Operator Jamb

SLIDING FRENCH DOOR

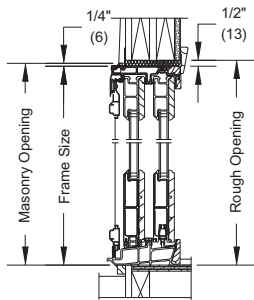
2 Panel

MO (mm)	4-11 1/2 (1511)			5-11 1/2 (1816)		7-11 1/2 (2426)	
RO (mm)	5-0 (1524)			6-0 (1829)		8-0 (2438)	
FS (mm)	4-11 (1499)			5-11 (1803)		7-11 (2413)	
DLO (mm)	1-10 3/8 (568)			2-4 3/8 (721)		3-4 3/8 (1026)	
6-7 3/4 (2026)							
6-8 (2032)							
6-7 1/2 (2019)							
5-7 3/32 (1704)							
6-10 1/4 (2089)							
6-10 1/2 (2096)							
6-10 (2083)							
5-9 19/32 (1768)							
7-2 1/4 (2191)							
7-2 1/2 (2197)							
7-2 (2184)							
6-1 19/32 (1869)							
7-11 3/4 (2432)							
8-0 (2436)							
7-11 1/2 (2426)							
6-11 3/32 (2111)							

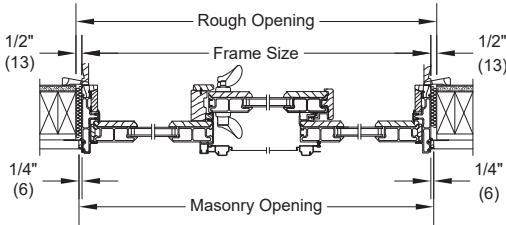
Round Top Over
Sliding French Door

MO (mm)	5-11 1/2 (1816)
RO (mm)	6-0 (1829)
FS (mm)	5-11 (1803)
8-4 1/4 (2546)	
8-4 1/2 (2553)	
8-4 (2540)	
9-9 3/4 (2891)	
9-10 (2907)	
9-9 1/2 (2885)	

Construction Details



Head Jamb and Sill



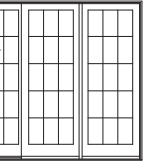
2 Panel Jamb - XO Operator

* This product is only available field mulled.

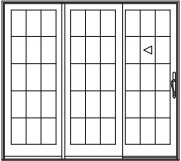
SLIDING FRENCH DOOR

3 Panel

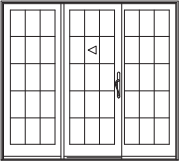
MO (mm)	7-5 (2261)		
RO (mm)	7-5 1/2 (2273)		
FS (mm)	7-4 1/2 (2248)		
DLO (mm)	1-10 3/8 (568)		
6-7 3/4 (2026)			
6-8 (2032)			
6-7 1/2 (2019)			
5-7 3/32 (1704)			
6-10 1/4 (2089)			
6-10 1/2 (2096)			
6-10 (2083)			
5-9 19/32 (1768)			
7-2 1/4 (2191)			
7-2 1/2 (2197)			
7-2 (2184)			
6-1 19/32 (1869)			
7-11 3/4 (2432)			
8-0 (2438)			
7-11 1/2 (2426)			
6-11 3/32 (2111)			



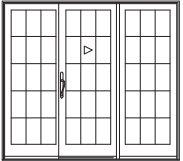
ELSFD 7665 XO



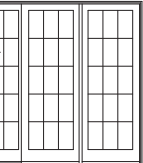
ELSFD 7665 OOX



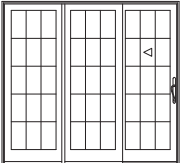
ELSFD 7665 OXO-LH



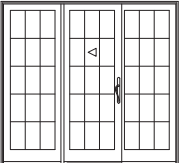
ELSFD 7665 OXO-RH



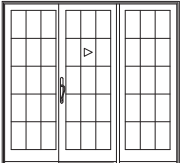
ELSFD 7668 XO



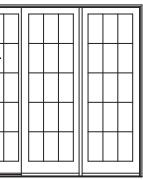
ELSFD 7668 OOX



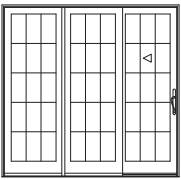
ELSFD 7668 OXO-LH



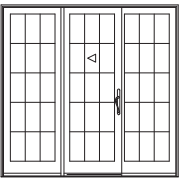
ELSFD 7668 OXO-RH



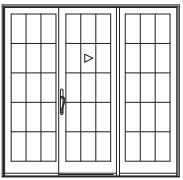
ELSFD 7670 XO



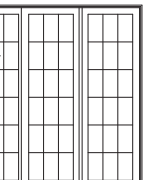
ELSFD 7670 OOX



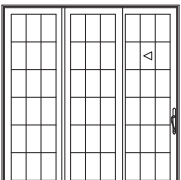
ELSFD 7670 OXO-LH



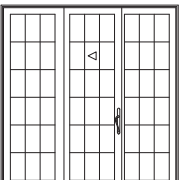
ELSFD 7670 OXO-RH



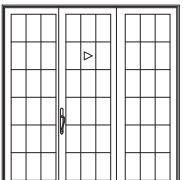
ELSFD 7680 XO



ELSFD 7680 OOX



ELSFD 7680 OXO-LH



ELSFD 7680 OXO-RH

Details and Elevations not to scale.

Optional Direct Glaze GBGs and SDLs are available in a standard Rectangular cut, as shown.

Alternate lite cuts available to align with doors using select lite cut options shown on page 3. Optional Round Top SDL and SDL with Spacer Bar are available in a standard cut, as shown. Round Top GBG cuts are shown on page 35. (Round Top divided lites not available in other lite cuts)

For further details and drawings visit the 'Technical Specifications' section at Marvin.com.

MULTIPLE ASSEMBLIES

Multiple assembly units can be factory mulled up to 1 unit wide by 2 units high.

MAXIMUM ROUGH OPENING not to exceed 72" x 100 1/2"

Field mull kits available for up to 3 units wide by 2 units high not to exceed 110" x 112".

True Half Rounds are available field mulled only. Structural mullion reinforcement is required for some assemblies.

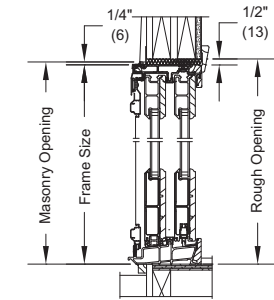
Please consult your local Marvin representative for more information.

SLIDING FRENCH DOOR

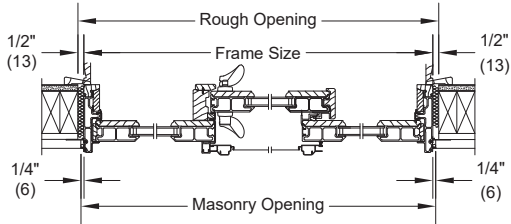
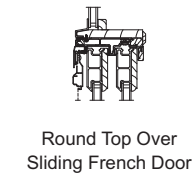
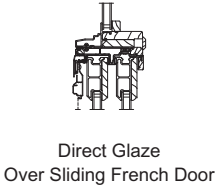
3 Panel

MO (mm)	8-11 (2718)			
RO (mm)	8-11 1/2 (2731)			
FS (mm)	8-10 1/2 (2705)			
DLO (mm)	2-4 3/8 (721)			
6-7 3/4 (2026)				
6-8 (2032)				
6-7 1/2 (2019)				
5-7 3/32 (1704)				
6-10 1/4 (2089)				
6-10 1/2 (2096)				
6-10 (2083)				
5-9 19/32 (1768)				
7-2 1/4 (2191)				
7-2 1/2 (2197)				
7-2 (2184)				
6-1 19/32 (1869)				
7-11 3/4 (2432)				
8-0 (2438)				
7-11 1/2 (2426)				
6-11 3/32 (2111)				

Construction Details



Head Jamb and Sill



3 Panel Jamb - OXO - RH Operator

SLIDING FRENCH DOOR

3 Panel

MO (mm)	11-11 (3632)			
RO (mm)	11-11 1/2 (3645)			
FS (mm)	11-10 1/2 (3620)			
DLO (mm)	3-4 3/8 (1026)			
6-7 3/4 (2026)				
6-8 (2032)				
6-7 1/2 (2019)				
5-7 3/32 (1704)				
6-10 1/4 (2089)				
6-10 1/2 (2096)				
6-10 (2083)				
5-9 19/32 (1768)				
7-2 1/4 (2191)				
7-2 1/2 (2197)				
7-2 (2184)				
6-1 19/32 (1869)				
7-11 3/4 (2432)				
8-0 (2438)				
7-11 1/2 (2426)				
6-11 3/32 (2111)				

Details and Elevations not to scale.
* This product is only available field mulled
Optional Direct Glaze GBGs and SDLs are available in a standard Rectangular cut, as shown. Alternate lite cuts available to align with door using select lite cut options shown on page 3.
Optional Round Top SDL and SDL with Spacer Bar are available in a standard cut, as shown. Round Top GBG cuts are shown on page 35. (Round Top divided lites not available in other lite cuts)
For further details and drawings visit the 'Technical Specifications' section at Marvin.com.

MULTIPLE ASSEMBLIES
Field mull kits available not to exceed 110" x 112". True Half Rounds are available field mulled only. Structural mullion reinforcement is required for some assemblies.
Please consult your local Marvin representative for more information.

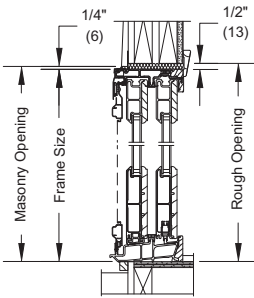
SLIDING FRENCH DOOR

4 Panel

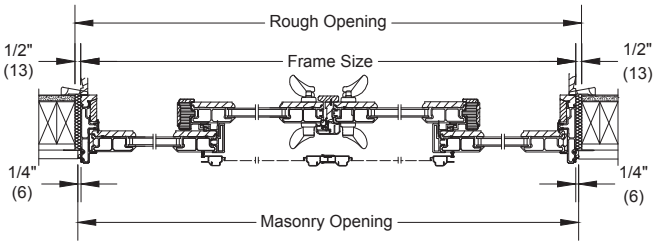
MO (mm)	9-9 1/2 (2985)	11-9 1/2 (3594)	15-9 1/2 (4813)
RO (mm)	9-10 (2997)	11-10 (3607)	15-10 (4826)
FS (mm)	9-9 (2972)	11-9 (3581)	15-9 (4801)
DLO (mm)	1-10 3/8 (568)	2-4 3/8 (721)	3-4 3/8 (1026)

6-7 3/4 (2026) 6-8 (2032) 6-7 1/2 (2019) 5-7 3/32 (1704)			
ELSFD10065 OXXO	ELSFD12065 OXXO	ELSFD16065 OXXO	
6-10 1/4 (2089) 6-10 1/2 (2096) 6-10 (2083) 5-9 19/32 (1768)			
ELSFD10068 OXXO	ELSFD12068 OXXO	ELSFD16068 OXXO	
7-2 1/4 (2191) 7-2 1/2 (2197) 7-2 (2184) 6-1 19/32 (1869)			
ELSFD10070 OXXO	ELSFD12070 OXXO	ELSFD16070 OXXO	
7-11 3/4 (2432) 8-0 (2438) 7-11 1/2 (2426) 6-11 3/32 (2111)			
ELSFD10080 OXXO	ELSFD12080 OXXO	ELSFD16080 OXXO	

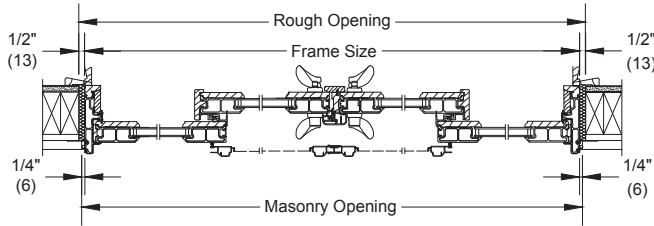
Construction Details



Head Jamb and Sill



4 Panel Jamb - OXXO Operator
Frame Heights over 86"



4 Panel Jamb - OXXO Operator
Frame Heights 86" or Less

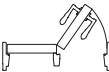
INSWING FRENCH DOOR

MO (mm)	2-6 13/16 (783)	2-8 13/16 (834)	3-0 13/16 (935)
RO (mm)	2-7 5/16 (796)	2-9 5/16 (846)	3-1 5/16 (948)
FS (mm)	2-6 5/16 (770)	2-8 5/16 (821)	3-0 5/16 (923)
DLO (mm)	1-9 11/32 (542)	1-11 11/32 (593)	2-3 11/32 (695)

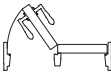
6-7 3/4 (2026) 6-8 (2032) 6-7 1/2 (2019) 5-7 3/32 (1704)									
ELIFD2665 O	ELIFD2665 X R	ELIFD2665 X L	ELIFD2865 O	ELIFD2865 X R	ELIFD2865 X L	ELIFD3065 O	ELIFD3065 X R	ELIFD3065 X L	
6-10 1/4 (2089) 6-10 1/2 (2096) 6-10 (2083) 5-9 19/32 (1768)									
ELIFD2668 O	ELIFD2668 X R	ELIFD2668 X L	ELIFD2868 O	ELIFD2868 X R	ELIFD2868 X L	ELIFD3068 O	ELIFD3068 X R	ELIFD3068 X L	
7-2 1/4 (2191) 7-2 1/2 (2197) 7-2 (2184) 6-1 19/32 (1869)									
ELIFD2670 O	ELIFD2670 X R	ELIFD2670 X L	ELIFD2870 O	ELIFD2870 X R	ELIFD2870 X L	ELIFD3070 O	ELIFD3070 X R	ELIFD3070 X L	
7-11 3/4 (2432) 8-0 (2438) 7-11 1/2 (2426) 6-11 3/32 (2111)									
ELIFD2680 O	ELIFD2680 X R	ELIFD2680 X L	ELIFD2880 O	ELIFD2880 X R	ELIFD2880 X L	ELIFD3080 O	ELIFD3080 X R	ELIFD3080 X L	

Inswing Door Operation

X signifies an operating door panel, O means stationary.
Listing the panels in a door starts from the left to the right,
looking from the exterior.



OX L Inswing Door



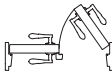
XO R Inswing
Door



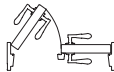
X R Inswing
Door



X L Inswing
Door



XX R Inswing
Door



XX L Inswing Door

Details and Elevations not to scale.

O = Stationary X = Operator
L = Left Hand Panel R = Right Hand Panel

For further details and drawings visit the 'Technical Specifications' section at Marvin.com.

MULTIPLE ASSEMBLIES

Multiple assemblies can be factory mullied.

MAXIMUM ROUGH OPENING not to exceed 109 15/16" x 96"
maximum up to 3 units wide by 1 unit high.

MAXIMUM ROUGH OPENING not to exceed 73 5/8" x 100 1/2"
maximum up to 2 units wide by 2 unit high .

Field mull kits available for up to 3 units wide by 2 units high
not to exceed 110" x 112".

True Half Rounds are available field mullied only. Structural
mullion reinforcement is required for some assemblies.

Please consult your local Marvin representative for more
information.

INSWING FRENCH DOOR

MO (mm)	4-11 1/2 (1511)			5-3 1/2 (1613)		5-11 1/2 (1816)	
RO (mm)	5-0 (1524)			5-4 (1626)		6-0 (1829)	
FS (mm)	4-11 (1499)			5-3 (1600)		5-11 (1803)	
DLO (mm)	1-9 11/32 (542)			1-11 11/32 (593)		2-3 11/32 (695)	
6-7 3/4 (2026) 6-8 (2032) 6-7 1/2 (2019) 5-7 3/32 (1704)							
	ELIFD5065 XO	ELIFD5065 XX	ELIFD5465 XO	ELIFD5465 XX	ELIFD6065 XO	ELIFD6065 XX	
	ELIFD5068 XO	ELIFD5068 XX	ELIFD5468 XO	ELIFD5468 XX	ELIFD6068 XO	ELIFD6068 XX	
6-10 1/4 (2089) 6-10 1/2 (2096) 6-10 (2083) 5-9 19/32 (1768)							
	ELIFD5070 XO	ELIFD5070 XX	ELIFD5470 XO	ELIFD5470 XX	ELIFD6070 XO	ELIFD6070 XX	
	ELIFD5080 XO	ELIFD5080 XX	ELIFD5480 XO	ELIFD5480 XX	ELIFD6080 XO	ELIFD6080 XX	
7-2 1/4 (2191) 7-2 1/2 (2197) 7-2 (2184) 6-1 19/32 (1869)							
	ELIFD5070 XO	ELIFD5070 XX	ELIFD5470 XO	ELIFD5470 XX	ELIFD6070 XO	ELIFD6070 XX	
	ELIFD5080 XO	ELIFD5080 XX	ELIFD5480 XO	ELIFD5480 XX	ELIFD6080 XO	ELIFD6080 XX	
7-11 3/4 (2432) 8-0 (2438) 7-11 1/2 (2426) 6-11 3/32 (2111)							
	ELIFD5080 XO	ELIFD5080 XX	ELIFD5480 XO	ELIFD5480 XX	ELIFD6080 XO	ELIFD6080 XX	
	ELIFD5080 XO	ELIFD5080 XX	ELIFD5480 XO	ELIFD5480 XX	ELIFD6080 XO	ELIFD6080 XX	

Details and Elevations not to scale.

* This product is only available field mullled.

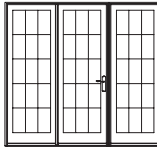
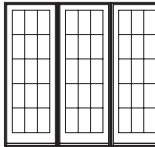
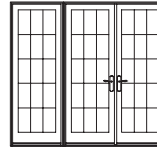
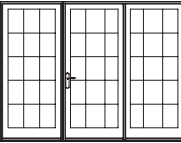
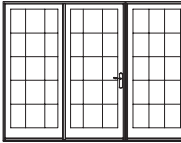
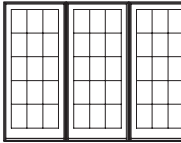
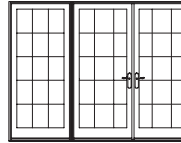
O = Stationary X = Operator

Optional Direct Glaze GBGs, SDLs and SDLs with Spacer Bar are available in a standard rectangular cut, as shown. Alternate lite cuts available to align with doors using select lite cut options shown on page 3.

For further details and drawings visit the 'Technical Specifications' section at Marvin.com.

INSWING FRENCH DOOR

Multiple Assemblies – 3 Panel

MO (mm)	7-5 13/16 (2281)		7-5 13/16 (2281)		7-7 7/16 (2323)		7-5 13/16 (2281)	
RO (mm)	7-6 5/16 (2294)		7-6 5/16 (2294)		7-7 15/16 (2335)		7-6 5/16 (2294)	
FS (mm)	7-5 5/16 (2269)		7-5 5/16 (2269)		7-6 15/16 (2310)		7-5 5/16 (2269)	
6-10 1/4 (2089) 6-10 1/2 (2096) 6-10 (2083)								
	ELIFD2668 / ELIFD5068 XO		ELIFD5068 OX / ELIFD2668		ELIFD2668 / ELIFD2668 / ELIFD2668		ELIFD2668 / ELIFD5068 XXL	
MO (mm)	8-11 13/16 (2738)		8-11 13/16 (2738)		9-1 7/16 (2780)		8-11 13/16 (2738)	
RO (mm)	9-0 5/16 (2751)		9-0 5/16 (2751)		9-1 15/16 (2792)		9-0 5/16 (2751)	
FS (mm)	8-11 5/16 (2726)		8-11 5/16 (2726)		9-0 15/16 (2767)		8-11 5/16 (2726)	
6-10 1/4 (2089) 6-10 1/2 (2096) 6-10 (2083)								
	ELIFD3068 / ELIFD6068 XO		ELIFD6068 OX / ELIFD3068		ELIFD3068 / ELIFD3068 / ELIFD3068		ELIFD3068 / ELIFD6068 XXL	

Round Top Over Inswing French Door

MO (mm)	5-11 1/2 (1816)	
RO (mm)	6-0 (1829)	
FS (mm)	5-11 (1803)	
8-4 1/4 (2546) 8-4 1/2 (2553) 8-4 (2540)		
	ELDGRT7218 / ELIFD6068 XXL	
	ELDGRT7236* / ELIFD6068 XXL	

Details and Elevations not to scale.

* This product is only available field mullled.

** 2 and 3 panel XX configurations also available in XX R.

O = Stationary X = Operator

Optional Round Top SDL and SDL with Spacer Bar are available in a standard cut, as shown. Round Top GBG cuts are shown on page 3. (Round Top divided lites only available in standard lite cut)

For further details and drawings visit the 'Technical Specifications' section at Marvin.com.

MULTIPLE ASSEMBLIES

Multiple assemblies can be factory mullled.

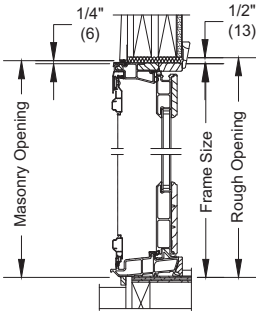
MAXIMUM ROUGH OPENING not to exceed 109 15/16" x 96" maximum up to 3 units wide by 1 unit high.

MAXIMUM ROUGH OPENING not to exceed 73 5/8" x 100 1/2" maximum up to 2 units wide by 2 unit high.

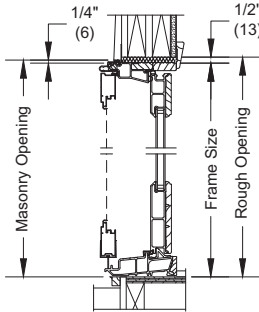
Field mull kits available not to exceed 110" x 112". True Half Rounds are available field mullled only. Structural mullion reinforcement is required for some assemblies.

Please consult your local Marvin representative for more information.

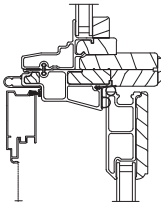
Construction Details



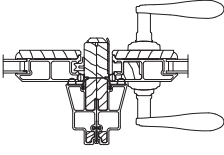
Head Jamb and Sill with Sliding Screen



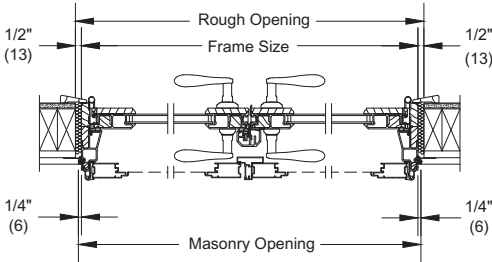
Head Jamb and Sill with Swinging Screen



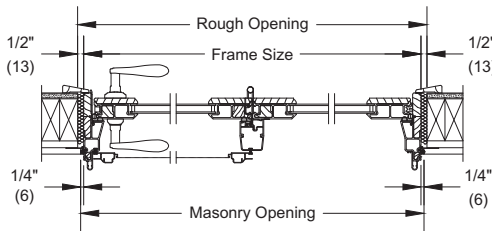
Direct Glaze Over Inswing French Door



Vertical Mullion O-XO operator

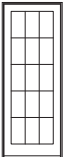
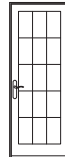
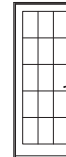
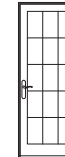
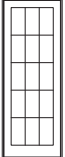
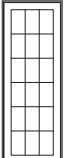
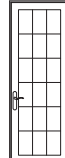
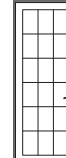
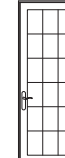
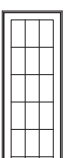
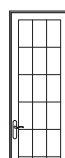


Jamb - XX Operator



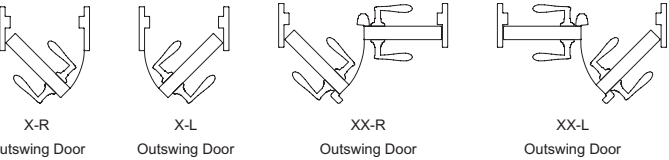
Jamb - XO Operator

OUTSWING FRENCH DOOR

MO (mm)	2-6 13/16 (783)			2-8 13/16 (834)			3-0 13/16 (935)		
RO (mm)	2-7 5/16 (796)			2-9 5/16 (846)			3-1 5/16 (948)		
FS (mm)	2-6 5/16 (770)			2-8 5/16 (821)			3-0 5/16 (923)		
DLO (mm)	1-9 11/32 (542)			1-11 11/32 (593)			2-3 11/32 (695)		
6-7 3/4 (2026) 6-8 (2032) 6-7 1/2 (2019) 5-7 3/32 (1704)									
	ELOFD2665 O	ELOFD2665 XR	ELOFD2665 XL	ELOFD2865 O	ELOFD2865 XR	ELOFD2865 XL	ELOFD3065 O	ELOFD3065 XR	ELOFD3065 XL
									
	ELOFD2668 O	ELOFD2668 XR	ELOFD2668 XL	ELOFD2868 O	ELOFD2868 XR	ELOFD2868 XL	ELOFD3068 O	ELOFD3068 XR	ELOFD3068 XL
7-2 1/4 (2191) 7-2 1/2 (2197) 7-2 (2184) 6-1 19/32 (1869)									
	ELOFD2670 O	ELOFD2670 XR	ELOFD2670 XL	ELOFD2870 O	ELOFD2870 XR	ELOFD2870 XL	ELOFD3070 O	ELOFD3070 XR	ELOFD3070 XL
									
	ELOFD2680 O	ELOFD2680 XR	ELOFD2680 XL	ELOFD2880 O	ELOFD2880 XR	ELOFD2880 XL	ELOFD3080 O	ELOFD3080 XR	ELOFD3080 XL

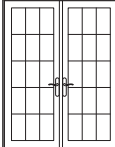
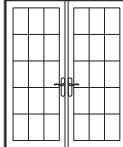
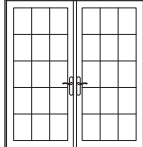
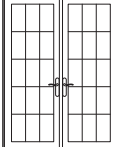
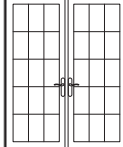
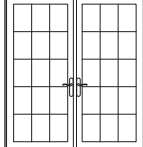
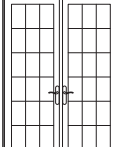
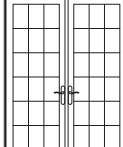
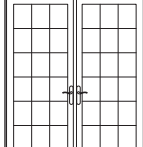
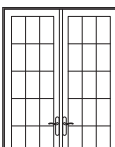
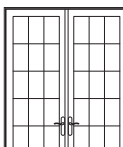
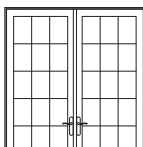
Outswing Door Operation

X signifies an operating door panel, O means stationary. Listing the panels in a door starts from the left to the right, looking from the exterior.

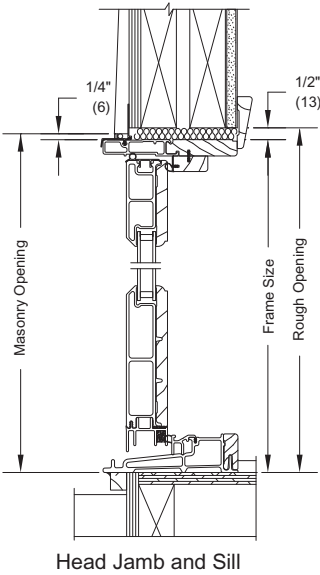


Details and Elevations not to scale.
O = Stationary X = Operator
L = Left Hand Panel R = Right Hand Panel
Optional Outswing French Door GBGs, SDLs and SDLs with Spacer Bar are available in a standard Rectangular cut, as shown. Other available lite cuts on page 3.
For further details and drawings visit the 'Technical Specifications' section at Marvin.com.

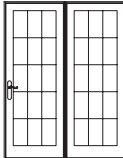
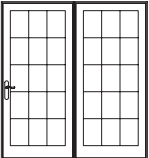
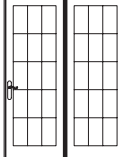
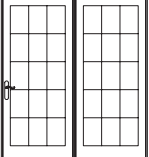
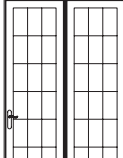
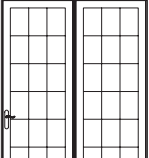
OUTSWING FRENCH DOOR

MO (mm)	4-11 1/2 (1511)	5-3 1/2 (1613)	5-11 1/2 (1816)
RO (mm)	5-0 (1524)	5-4 (1626)	6-0 (1829)
FS (mm)	4-11 (1499)	5-3 (1600)	5-11 (1803)
DLO (mm)	1-9 11/32 (542)	1-11 11/32 (593)	2-3 11/32 (695)
6-7 3/4 (2026) 6-8 (2032) 6-7 1/2 (2019) 5-7 3/32 (1704)			
	ELOFD5065 XXL	ELOFD5465 XXL	ELOFD6065 XXL
			
	ELOFD5068 XXL	ELOFD5468 XXL	ELOFD6068 XXL
7-2 1/4 (2191) 7-2 1/2 (2197) 7-2 (2184) 6-1 19/32 (1869)			
	ELOFD5070 XXL	ELOFD5470 XXL	ELOFD6070 XXL
			
	ELOFD5080 XXL	ELOFD5480 XXL	ELOFD6080 XXL

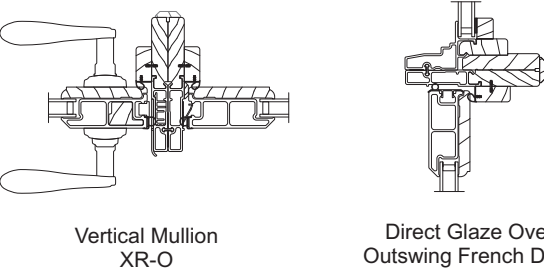
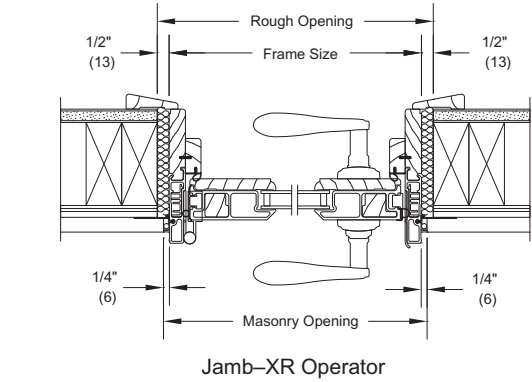
Construction Details



Multiple Assemblies – 2 Panel

MO (mm)	5-1 1/8 (1553)	6-1 1/8 (1857)
RO (mm)	5-1 5/8 (1565)	6-1 5/8 (1870)
FS (mm)	5-0 5/8 (1540)	6-0 5/8 (1845)
6-7 3/4 (2026) 6-8 (2032) 6-7 1/2 (2019)		
	ELOFD2665 / ELOFD2665*	ELOFD3065 / ELOFD3065*
		
	ELOFD2668 / ELOFD2668*	ELOFD3068 / ELOFD3068*
7-11 3/4 (2432) 8-0 (2438) 7-11 1/2 (2426)		
	ELOFD2680 / ELOFD2680*	ELOFD3080 / ELOFD3080*

* 2 panel mullied assembly



OUTSWING FRENCH DOOR

Multiple Assemblies – 3 Panel

MO (mm)	7-7 7/16 (2323)	7-7 7/16 (2323)	7-7 7/16 (2323)	7-5 13/16 (2281)
RO (mm)	7-7 15/16 (2335)	7-7 15/16 (2335)	7-7 15/16 (2335)	7-6 5/16 (2294)
Frame Size (mm)	7-6 15/16 (2310)	7-6 15/16 (2310)	7-6 15/16 (2310)	7-5 5/16 (2269)

6-10 1/4 (2089)

6-10 1/2 (2096)

6-10 (2083)

ELOFD2668 / ELOFD2668 XL / ELOFD2668

6-10 1/4 (2089)

6-10 1/2 (2096)

6-10 (2083)

ELOFD2668 / ELOFD2668 XR / ELOFD2668

6-10 1/4 (2089)

6-10 1/2 (2096)

6-10 (2083)

ELOFD2668 / ELOFD2668

6-10 1/4 (2089)

6-10 1/2 (2096)

6-10 (2083)

ELOFD2668 / ELOFD5068 XXL*

MO (mm)	9-1 7/16 (2780)	9-1 7/16 (2780)	9-1 7/16 (2780)	8-11 13/16 (2738)
RO (mm)	9-1 15/16 (2792)	9-1 15/16 (2792)	9-1 15/16 (2792)	9-0 5/16 (2751)
FS (mm)	9-0 15/16 (2767)	9-0 15/16 (2767)	9-0 15/16 (2767)	8-11 5/16 (2726)

6-10 1/4 (2089)

6-10 1/2 (2096)

6-10 (2083)

ELOFD3068 / ELOFD3068 XL / ELOFD3068

6-10 1/4 (2089)

6-10 1/2 (2096)

6-10 (2083)

ELOFD3068 / ELOFD3068 XR / ELOFD3068

6-10 1/4 (2089)

6-10 1/2 (2096)

6-10 (2083)

ELOFD3068 / ELOFD3068

6-10 1/4 (2089)

6-10 1/2 (2096)

6-10 (2083)

ELOFD3068 / ELOFD6068 XXL*

Round Top Over Outswing French Door

MO (mm)	5-11 1/2 (1816)
RO (mm)	6-0 (1829)
FS (mm)	5-11 (1803)

8-4 1/4 (2546)

8-4 1/2 (2553)

8-4 (2540)

ELDGRT7218 / ELOFD6068 XXL

9-9 3/4 (2991)

9-10 (2997)

9-9 1/2 (2985)

ELDGRT7236** / ELOFD6068 XXL

Details and Elevations not to scale.

O = Stationary X = Operator
L = Left Hand Panel R = Right Hand Panel

* 2 and 3 panel XX configurations also available in XX R.

** This product is only available field mulled.

Optional Direct Glaze GBGs, SDLs and SDLs with Spacer Bar are available in a standard Rectangular cut, as shown. Alternate lite cuts available to align with doors using select lite cut options shown on page 3.

Optional Round Top SDL with Spacer Bar are available in a standard cut, as shown. Round Top GBG cuts are shown on page 35. (Round Top divided lites only available in standard lite cut)

For further details and drawings visit the 'Technical Specifications' section at Marvin.com.

MULTIPLE ASSEMBLIES

MAXIMUM ROUGH OPENING not to exceed 109 ¹⁵/₁₆" x 96"
maximum up to 3 units wide by 1 unit high.

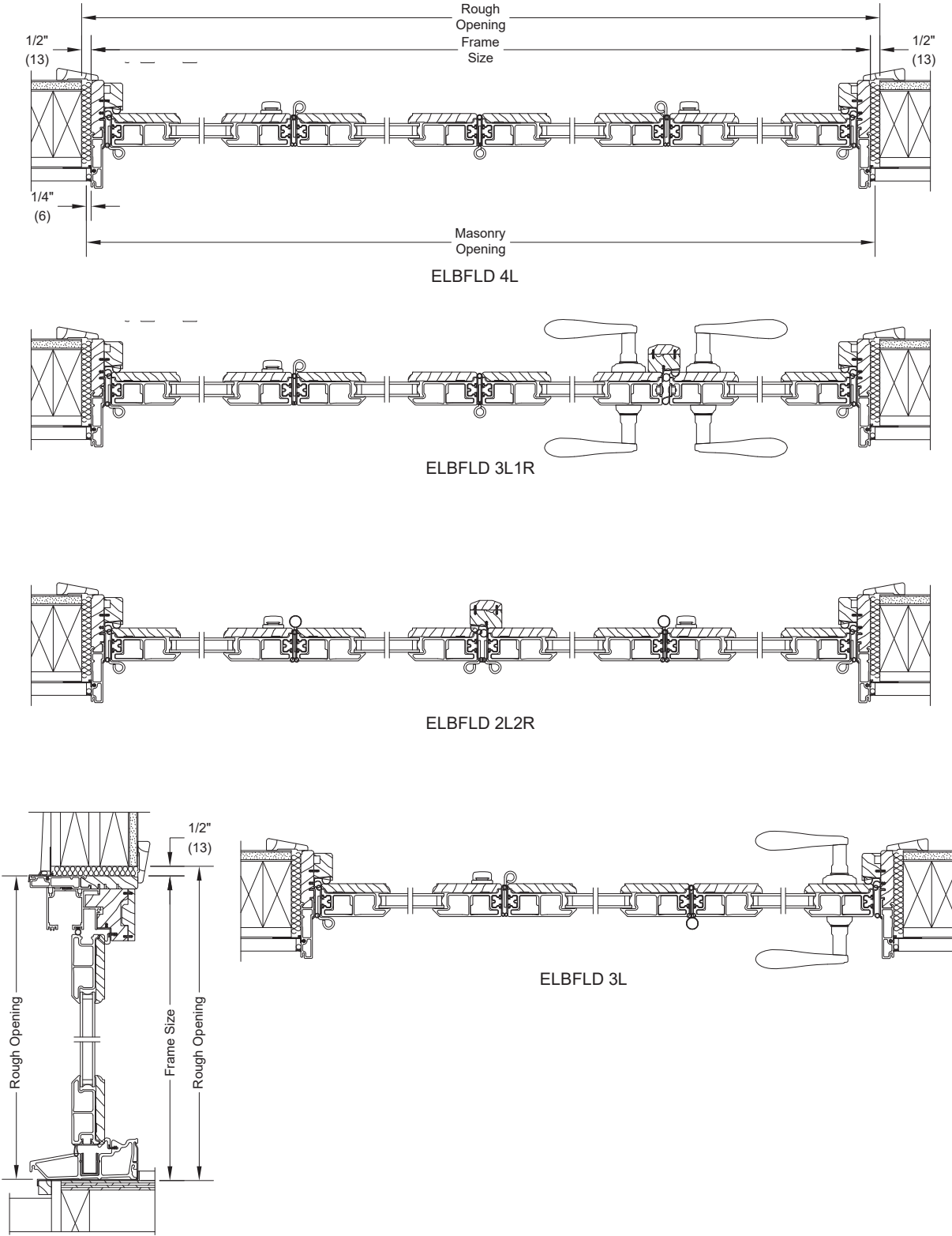
MAXIMUM ROUGH OPENING not to exceed 73 ⁵/₈" x 100 ¹/₂"
maximum up to 2 units wide by 2 unit high.

Field mull kits available not to exceed 110" x 112". True Half Rounds are available field mulled only. Structural mullion reinforcement is required for some assemblies.

Please consult your local Marvin representative for more information.

BI-FOLD DOOR

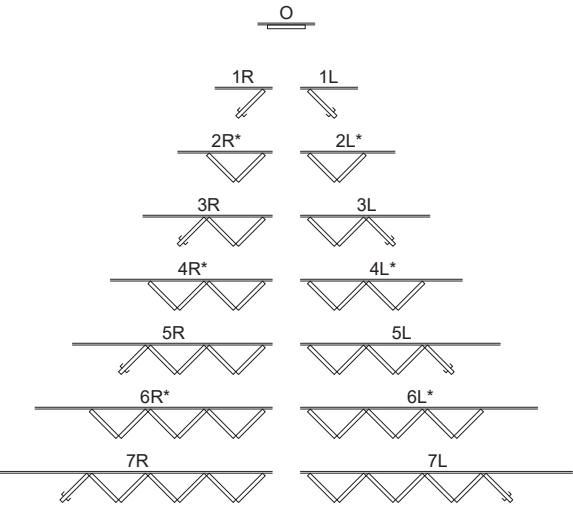
Construction Details



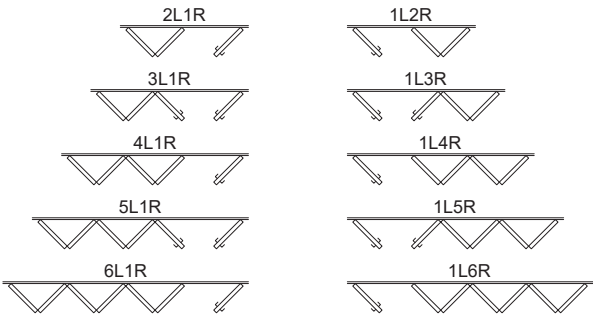
BI-FOLD DOOR

Configurations

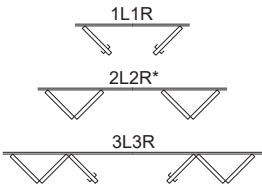
Stationary Unit



Uni-directional Left or Right Units



Bi-parting (equal) Units



*not accessible from exterior

CERTIFIED MULLING OFFERINGS

Product Type	Mull Kit	Maximum Overall Frame Size not to exceed:	Maximum Units Wide by High	PG Rating	Continuous Span Direction
Casement / Awning Picture/Transom/Direct Glaze	Certified Standard	112" x 71-1/8"	7 Wide x 1 High	50	Vertical
		72" x 94-1/4"	1 Wide x 5 High	50	Horizontal
	Structural (LVL Reinforcement)	84" x 94-1/4"	4 Wide x 5 High	50	Horizontal
Double Hung Picture/Transom/Direct Glaze	Certified Standard	112-1/2" x 67-3/4"	5 Wide x 1 High	40	Vertical
		61-1/2" x 91-1/2"	1 Wide x 5 High	40	Horizontal
	1/2" MRF	112-1/2" x 75-3/4"	5 Wide x 1 High	40	Vertical
		107-1/2" x 83-3/4"	5 Wide x 1 High	40	Vertical
		61-1/2" x 91-1/2"	1 Wide x 5 High	40	Vertical
		83" x 91-1/2"	3 Wide x 5 High	40	Vertical
Glider Picture/Transom/Direct Glaze	Certified Standard	112-1/2" x 67-3/4"	5 Wide x 1 High	30	Vertical
	1/2" MRF	112-1/2" x 75-3/4"	5 Wide x 1 High	30	Vertical
		107-1/2" x 83-3/4"	5 Wide x 1 High	30	Vertical
Sliding Patio Door / Sliding French Door Direct Glaze	Certified Standard	71" x 100"	1 Wide x 2 High	40	Horizontal
	1/2" MRF	71" x 100"	1 Wide x 2 High	40	Horizontal
Inswing French Door / Outswing Sliding French Door Direct Glaze	Certified Standard	71" x 100"	1 Wide x 2 High	30	Horizontal
	Certified Standard*	107-5/16" x 95-1/2"	3 Wide x 1 High	30	Vertical
	1/2" MRF	71" x 100"	1 Wide x 2 High	30	Horizontal
	1/2" MRF	72-5/8" x 100"	2 Wide x 2 High	30	Horizontal
Aluminum Round Top over Casement/Awning/ Picture/Transom/ Direct Glaze	Structural (LVL Reinforcement)	72" x 107-1/16"	1 Wide x 2 High	50	Horizontal
	Structural (LVL Reinforcement)	72" x 107-1/16"	3 Wide x 2 High	50	Horizontal
Aluminum Round Top over Double Hung/Picture/ Transom/ Direct Glaze	1/2" MRF** (Single RT)	83" x 107-1/16"	3 Wide x 2 High	50	Horizontal
	1/2" MRF** (RT7 & RT8)	71" x 107-1/16"	2 Wide x 2 High	50	Horizontal

* Direct Glaze is not included in this certified mull configuration option
** Maximum lower unit height is 67-3/4" (CN68)

Certified mulling not available on narrow frame or insert product.

EGRESS OPENINGS

Casement

EGRESS OPENING															
		Egress Width		Egress Height		Egress Clear Opening		Floor to Clear Opening		Vent Opening		DLO			
Unit #		Inches	(mm)	Inches	(mm)	Sq. Ft.	(cm²)	Inches	(mm)	Sq. Ft.	(cm²)	Sq. Ft.	(cm²)		
1731		7 15/64	(184)	26 45/64	(678)	1.34	(1248)	53 15/64	(1352)	2.20	(2046)	1.94	(1804)		
1735		7 15/64	(184)	30 45/64	(780)	1.54	(1435)	49 15/64	(1250)	2.53	(2352)	2.24	(2082)		
1739		7 15/64	(184)	34 45/64	(882)	1.75	(1622)	45 15/64	(1149)	2.86	(2659)	2.54	(2361)		
1743		7 15/64	(184)	38 53/64	(986)	1.95	(1814)	41 7/64	(1044)	3.2	(2975)	2.85	(2648)		
1747		7 15/64	(184)	42 45/64	(1085)	2.15	(1995)	37 15/64	(946)	3.52	(3271)	3.14	(2917)		
1755		7 15/64	(184)	50 45/64	(1288)	2.55	(2369)	29 15/64	(742)	4.18	(3884)	3.74	(3474)		
1759		7 15/64	(184)	54 45/64	(1390)	2.75	(2556)	25 15/64	(641)	4.51	(4191)	4.04	(3753)		
1763		7 15/64	(184)	58 45/64	(1491)	2.95	(2743)	21 15/64	(539)	4.84	(4497)	4.34	(4031)		
1771	T	7 15/64	(184)	66 45/64	(1694)	3.35	(3117)	13 15/64	(336)	5.50	(5110)	4.94	(4588)		
2131		11 15/64	(286)	26 45/64	(678)	2.08	(1937)	53 15/64	(1352)	2.94	(2735)	2.66	(2473)		
2135		11 15/64	(286)	30 45/64	(780)	2.4	(2227)	49 15/64	(1250)	3.38	(3145)	3.07	(2854)		
2139		11 15/64	(286)	34 45/64	(882)	2.71	(2517)	45 15/64	(1149)	3.83	(3554)	3.48	(3236)		
2143		11 15/64	(286)	38 53/64	(986)	3.03	(2816)	41 7/64	(1044)	4.28	(3977)	3.91	(3629)		
2147		11 15/64	(286)	42 45/64	(1085)	3.33	(3097)	37 15/64	(946)	4.71	(4374)	4.30	(3999)		
2155		11 15/64	(286)	50 45/64	(1288)	3.96	(3678)	29 15/64	(742)	5.59	(5193)	5.13	(4762)		
2159		11 15/64	(286)	54 45/64	(1390)	4.27	(3968)	25 15/64	(641)	6.03	(5602)	5.54	(5144)		
2163		11 15/64	(286)	58 45/64	(1491)	4.58	(4258)	21 15/64	(539)	6.47	(6012)	5.95	(5526)		
2171	T	11 15/64	(286)	66 45/64	(1694)	5.21	(4838)	13 15/64	(336)	7.35	(6831)	6.77	(6289)		
2531		15 15/64	(387)	26 45/64	(678)	2.83	(2626)	53 15/64	(1352)	3.69	(3424)	3.38	(3141)		
2535		15 15/64	(387)	30 45/64	(780)	3.25	(3019)	49 15/64	(1250)	4.24	(3937)	3.90	(3626)		
2539		15 15/64	(387)	34 45/64	(882)	3.67	(3413)	45 15/64	(1149)	4.79	(4450)	4.43	(4111)		
2543		15 15/64	(387)	38 53/64	(986)	4.11	(3818)	41 7/64	(1044)	5.36	(4979)	4.96	(4611)		
2547		15 15/64	(387)	42 45/64	(1085)	4.52	(4199)	37 15/64	(946)	5.89	(5476)	5.47	(5081)		
2555		15 15/64	(387)	50 45/64	(1288)	5.37	(4986)	29 15/64	(742)	7.00	(6501)	6.51	(6051)		
2559		15 15/64	(387)	54 45/64	(1390)	5.79	(5379)	25 15/64	(641)	7.55	(7014)	7.03	(6535)		
2563		15 15/64	(387)	58 45/64	(1491)	6.21	(5773)	21 15/64	(539)	8.10	(7527)	7.56	(7020)		
2571	T	15 15/64	(387)	66 45/64	(1694)	7.06	(6559)	13 15/64	(336)	9.21	(8553)	8.60	(7990)		
2931		21 55/64	(555)	26 45/64	(678)	4.06	(3767)	53 15/64	(1352)	4.43	(4113)	4.10	(3810)		
2935		21 55/64	(555)	30 45/64	(780)	4.66	(4332)	49 15/64	(1250)	5.09	(4729)	4.73	(4398)		
2939		21 55/64	(555)	34 45/64	(882)	5.27	(4896)	45 15/64	(1149)	5.75	(5345)	5.37	(4986)		
2943	E	21 55/64	(555)	38 53/64	(986)	5.9	(5478)	41 7/64	(1044)	6.44	(5981)	6.02	(5593)		
2947	E	21 55/64	(555)	42 45/64	(1085)	6.48	(6025)	37 15/64	(946)	7.08	(6578)	6.63	(6162)		
2955	E	21 55/64	(555)	50 45/64	(1288)	7.7	(7153)	29 15/64	(742)	8.41	(7810)	7.90	(7339)		
2959	E	21 55/64	(555)	54 45/64	(1390)	8.31	(7718)	25 15/64	(641)	9.07	(8426)	8.53	(7927)		
2963	E	21 55/64	(555)	58 45/64	(1491)	8.91	(8282)	21 15/64	(539)	9.73	(9042)	9.17	(8515)		
2971	E T	21 55/64	(555)	66 45/64	(1694)	10.13	(9411)	13 15/64	(336)	11.06	(10274)	10.43	(9691)		
3331		23 15/64	(590)	26 45/64	(678)	4.31	(4004)	53 15/64	(1352)	5.17	(4802)	4.82	(4479)		
3335		23 15/64	(590)	30 45/64	(780)	4.96	(4604)	49 15/64	(1250)	5.94	(5522)	5.57	(5170)		
3339		23 15/64	(590)	34 45/64	(882)	5.60	(5204)	45 15/64	(1149)	6.72	(6241)	6.31	(5861)		
3343	E	23 15/64	(590)	38 53/64	(986)	6.27	(5822)	41 7/64	(1044)	7.52	(6983)	7.08	(6574)		
3347	E	23 15/64	(590)	42 45/64	(1085)	6.89	(6404)	37 15/64	(946)	8.27	(7680)	7.80	(7244)		
3355	E	23 15/64	(590)	50 45/64	(1288)	8.18	(7603)	29 15/64	(742)	9.81	(9118)	9.29	(8627)		
3359	E	23 15/64	(590)	54 45/64	(1390)	8.83	(8203)	25 15/64	(641)	10.59	(9838)	10.03	(9318)		
3363	E	23 15/64	(590)	58 45/64	(1491)	9.48	(8803)	21 15/64	(539)	11.36	(10557)	10.77	(10009)		
3371	E T	23 15/64	(590)	66 45/64	(1694)	10.77	(10002)	13 15/64	(336)	12.91	(11996)	12.26	(11392)		
3731		27 15/64	(692)	26 45/64	(678)	5.05	(4694)	53 15/64	(1352)	5.91	(5492)	5.54	(5148)		
3735	E*	27 15/64	(692)	30 45/64	(780)	5.81	(5397)	49 15/64	(1250)	6.80	(6314)	6.40	(5942)		
3739	E*	27 15/64	(692)	34 45/64	(882)	6.57	(6100)	45 15/64	(1149)	7.68	(7137)	7.25	(6737)		
3743	E	27 15/64	(692)	38 53/64	(986)	7.35	(6825)	41 7/64	(1044)	8.59	(7985)	8.13	(7556)		
3747	E	27 15/64	(692)	42 45/64	(1085)	8.08	(7506)	37 15/64	(946)	9.45	(8782)	8.96	(8326)		
3755	E	27 15/64	(692)	50 45/64	(1288)	9.59	(8912)	29 15/64	(742)	11.22	(10427)	10.67	(9915)		
3759	E	27 15/64	(692)	54 45/64	(1390)	10.35	(9615)	25 15/64	(641)	12.11	(11249)	11.53	(10709)		
3763	E	27 15/64	(692)	58 45/64	(1491)	11.11	(10318)	21 15/64	(539)	12.99	(12072)	12.38	(11504)		
3771	E T	27 15/64	(692)	66 45/64	(1694)	12.62	(11724)	13 15/64	(336)	14.76	(13717)	14.09	(13093)		

Awning

VENT OPENING				
	Vent		DLO	
Unit #	Sq. Ft.	(cm²)	Sq. Ft.	(cm²)
2519	2.05	(1901)	1.82	(1687)
2523	2.60	(2414)	2.34	(2172)
2527	3.15	(2927)	2.86	(2656)
2535	4.25	(3953)	3.90	(3626)
2539	4.81	(4466)	4.43	(4111)
2547	5.91	(5492)	5.47	(5081)
2919	2.46	(2284)	2.20	(2046)
2923	3.12	(2900)	2.84	(2634)
2927	3.79	(3516)	3.47	(3222)
2935	5.11	(4749)	4.73	(4398)
2939	5.77	(5365)	5.37	(4986)
2947	7.10	(6597)	6.63	(6162)
3319	2.87	(2667)	2.59	(2405)
3323	3.64	(3386)	3.33	(3096)
3327	4.42	(4106)	4.08	(3787)
3335	5.97	(5544)	5.57	(5170)
3339	6.74	(6264)	6.31	(5861)
3347	8.29	(7702)	7.80	(7244)

E = These units meet National Egress Codes requiring 5.7 SF clear opening, 20" clear width, and 24" clear height, not to exceed a floor to sill height of 44". Code restrictions may vary depending on local building codes.

Units with Sash Limiter do not meet egress requirements.

Awning

VENT OPENING				
	Vent		DLO	
Unit #	Sq. Ft.	(cm²)	Sq. Ft.	(cm²)
3719	3.28	(3050)	2.97	(2764)
3723	4.17	(3872)	3.83	(3558)
3727	5.05	(4695)	4.69	(4353)
3735	6.82	(6340)	6.40	(5942)
3739	7.71	(7162)	7.25	(6737)
3747	9.48	(8807)	8.96	(8326)
4119	3.69	(3432)	3.36	(3123)
4123	4.69	(4358)	4.33	(4021)
4127	5.69	(5284)	5.29	(4918)
4135	7.68	(7135)	7.23	(6714)
4139	8.68	(8061)	8.19	(7612)
4147	10.67	(9913)	10.13	(9407)
4919	4.52	(4198)	4.13	(3841)
4923	5.74	(5330)	5.32	(4945)
4927	6.96	(6462)	6.51	(6050)
4935	9.39	(8727)	8.89	(8258)
4939	10.61	(9859)	10.08	(9362)
4947	13.05	(12123)	12.45	(11571)

Double Hung (Continued)

EGRESS OPENING												
Egress Width			Egress Height		Egress Clear Opening		Floor To Clear Opening		Vent		DLO	
Unit #	Inches	(mm)	Inches	(mm)	Sq. Ft.	(cm²)	Inches	(mm)	Sq. Ft.	(cm²)	Sq. Ft.	(cm²)
4236	38 3/8	(975)	12 31/32	(329)	3.46	(3211)	48 47/64	(1238)	3.46	(3211)	6.78	(6303)
4240	38 3/8	(975)	14 31/32	(380)	3.99	(3706)	44 47/64	(1136)	3.99	(3706)	7.78	(7224)
4244	38 3/8	(975)	16 31/32	(431)	4.52	(4201)	40 47/64	(1035)	4.52	(4201)	8.77	(8145)
4248	38 3/8	(975)	18 31/32	(482)	5.06	(4696)	36 47/64	(933)	5.06	(4696)	9.76	(9066)
4252	38 3/8	(975)	20 31/32	(533)	5.59	(5192)	32 47/64	(831)	5.59	(5192)	10.75	(9987)
4256	38 3/8	(975)	22 31/32	(583)	6.12	(5687)	28 47/64	(730)	6.12	(5687)	11.74	(10908)
4260	E 38 3/8	(975)	24 31/32	(634)	6.65	(6182)	24 47/64	(628)	6.65	(6182)	12.73	(11829)
4264	E 38 3/8	(975)	26 31/32	(685)	7.19	(6677)	20 47/64	(527)	7.19	(6677)	13.72	(12750)
4268	E 38 3/8	(975)	28 31/32	(736)	7.72	(7172)	16 47/64	(425)	7.72	(7172)	14.72	(13671)
4272	E 38 3/8	(975)	30 31/32	(787)	8.25	(7667)	12 47/64	(323)	8.25	(7667)	15.71	(14592)
4276	E 38 3/8	(975)	32 31/32	(837)	8.79	(8162)	8 47/64	(222)	8.79	(8162)	16.70	(15513)
4836	44 3/8	(1127)	12 31/32	(329)	4.0	(3713)	48 47/64	(1238)	4.00	(3713)	7.93	(7363)
4840	44 3/8	(1127)	14 31/32	(380)	4.61	(4286)	44 47/64	(1136)	4.61	(4286)	9.08	(8439)
4844	44 3/8	(1127)	16 31/32	(431)	5.23	(4858)	40 47/64	(1035)	5.23	(4858)	10.24	(9515)
4848	44 3/8	(1127)	18 31/32	(482)	5.85	(5431)	36 47/64	(933)	5.85	(5431)	11.40	(10590)
4852	44 3/8	(1127)	20 31/32	(533)	6.46	(6003)	32 47/64	(831)	6.46	(6003)	12.56	(11666)
4856	44 3/8	(1127)	22 31/32	(583)	7.08	(6576)	28 47/64	(730)	7.08	(6576)	13.72	(12742)
4860	E 44 3/8	(1127)	24 31/32	(634)	7.69	(7148)	24 47/64	(628)	7.69	(7148)	14.87	(13818)
4864	E 44 3/8	(1127)	26 31/32	(685)	8.31	(7721)	20 47/64	(527)	8.31	(7721)	16.03	(14894)
4868	E 44 3/8	(1127)	28 31/32	(736)	8.93	(8294)	16 47/64	(425)	8.93	(8294)	17.19	(15969)
4872	E 44 3/8	(1127)	30 31/32	(787)	9.54	(8866)	12 47/64	(323)	9.54	(8866)	18.35	(17045)
4876	E 44 3/8	(1127)	32 31/32	(837)	10.16	(9439)	8 47/64	(222)	10.16	(9439)	19.51	(18121)
5436	50 3/8	(1279)	12 31/32	(329)	4.54	(4215)	48 47/64	(1238)	4.54	(4215)	9.07	(8423)
5440	50 3/8	(1279)	14 31/32	(380)	5.24	(4865)	44 47/64	(1136)	5.24	(4865)	10.39	(9653)
5444	50 3/8	(1279)	16 31/32	(431)	5.94	(5515)	40 47/64	(1035)	5.94	(5515)	11.72	(10884)
5448	50 3/8	(1279)	18 31/32	(482)	6.64	(6165)	36 47/64	(933)	6.64	(6165)	13.04	(12115)
5452	50 3/8	(1279)	20 31/32	(533)	7.34	(6815)	32 47/64	(831)	7.34	(6815)	14.36	(13345)
5456	50 3/8	(1279)	22 31/32	(583)	8.04	(7465)	28 47/64	(730)	8.04	(7465)	15.69	(14576)
5460	E 50 3/8	(1279)	24 31/32	(634)	8.73	(8115)	24 47/64	(628)	8.73	(8115)	17.01	(15807)
5464	E 50 3/8	(1279)	26 31/32	(685)	9.43	(8765)	20 47/64	(527)	9.43	(8765)	18.34	(17037)
5468	E 50 3/8	(1279)	28 31/32	(736)	10.13	(9415)	16 47/64	(425)	10.13	(9415)	19.66	(18268)
5472	E 50 3/8	(1279)	30 31/32	(787)	10.83	(10065)	12 47/64	(323)	10.83	(10065)	20.99	(19499)
5476	E 50 3/8	(1279)	32 31/32	(837)	11.53	(10715)	8 47/64	(222)	11.53	(10715)	22.31	(20729)

Double Hung Cottage

EGRESS OPENING														
Egress Width			Egress Height		Egress Clear Opening		Floor To Clear Opening		Vent		DLO		Check Rail Height	
Unit #	Inches	(mm)	Inches	(mm)	Sq. Ft.	(cm ²)	Inches	(mm)	Sq. Ft.	(cm ²)	Sq. Ft	(cm ²)	Inches	(mm)
2236C	18 3/8	(467)	10 3/32	(256)	1.29	(1196)	48 47/64	(1238)	1.29	(1196)	2.98	(2771)	21 29/32	(556)
2240C	18 3/8	(467)	11 45/64	(297)	1.49	(1387)	44 47/64	(1136)	1.49	(1387)	3.42	(3176)	24 19/64	(617)
2244C	18 3/8	(467)	13 5/16	(338)	1.70	(1578)	40 47/64	(1035)	1.70	(1578)	3.85	(3581)	26 11/16	(678)
2248C	18 3/8	(467)	14 59/64	(379)	1.90	(1769)	36 47/64	(933)	1.90	(1769)	4.29	(3985)	29 5/64	(739)
2252C	18 3/8	(467)	16 17/32	(420)	2.11	(1959)	32 47/64	(831)	2.11	(1959)	4.73	(4390)	31 15/32	(799)
2256C	18 3/8	(467)	19 3/4	(461)	2.31	(2150)	28 47/64	(730)	2.31	(2150)	5.16	(4795)	33 55/64	(860)
2260C	18 3/8	(467)	19 3/4	(502)	2.52	(2341)	24 47/64	(628)	2.52	(2341)	5.60	(5200)	36 1/4	(921)
2264C	18 3/8	(467)	21 23/64	(543)	2.73	(2532)	20 47/64	(527)	2.73	(2532)	6.03	(5605)	38 41/64	(981)
2268C	18 3/8	(467)	22 31/32	(583)	2.93	(2723)	16 47/64	(425)	2.93	(2723)	6.47	(6010)	41 1/32	(1042)
2636C	22 3/8	(568)	10 3/32	(256)	1.57	(1457)	48 47/64	(1238)	1.57	(1457)	3.74	(3477)	21 29/32	(556)
2640C	22 3/8	(568)	11 45/64	(297)	1.82	(1689)	44 47/64	(1136)	1.82	(1689)	4.29	(3985)	24 19/64	(617)
2644C	22 3/8	(568)	13 5/16	(338)	2.07	(1921)	40 47/64	(1035)	2.07	(1921)	4.84	(4493)	26 11/16	(678)
2648C	22 3/8	(568)	14 59/64	(379)	2.32	(2154)	36 47/64	(933)	2.32	(2154)	5.38	(5002)	29 5/64	(739)
2652C	22 3/8	(568)	16 17/32	(420)	2.57	(2386)	32 47/64	(831)	2.57	(2386)	5.93	(5510)	31 15/32	(799)
2656C	22 3/8	(568)	18 9/64	(461)	2.82	(2618)	28 47/64	(730)	2.82	(2618)	6.48	(6018)	33 55/64	(860)
2660C	22 3/8	(568)	19 3/4	(502)	3.07	(2851)	24 47/64	(628)	3.07	(2851)	7.02	(6526)	36 1/4	(921)
2664C	22 3/8	(568)	21 23/64	(543)	3.32	(3083)	20 47/64	(527)	3.32	(3083)	7.57	(7034)	38 41/64	(981)
2668C	22 3/8	(568)	22 31/32	(583)	3.57	(3315)	16 47/64	(425)	3.57	(3315)	8.12	(7542)	41 1/32	(1042)
3036C	26 3/8	(670)	10 3/32	(256)	1.85	(1717)	48 47/64	(1238)	1.85	(1717)	4.50	(4184)	21 29/32	(556)
3040C	26 3/8	(670)	11 45/64	(297)	2.14	(1991)	44 47/64	(1136)	2.14	(1991)	5.16	(4795)	24 19/64	(617)
3044C	26 3/8	(670)	13 5/16	(338)	2.44	(2265)	40 47/64	(1035)	2.44	(2265)	5.82	(5406)	26 11/16	(678)
3048C	26 3/8	(670)	14 59/64	(379)	2.73	(2539)	36 47/64	(933)	2.73	(2539)	6.48	(6018)	29 5/64	(739)
3052C	26 3/8	(670)	16 17/32	(420)	3.03	(2813)	32 47/64	(831)	3.03	(2813)	7.14	(6629)	31 15/32	(799)
3056C	26 3/8	(670)	18 9/64	(461)	3.32	(3087)	28 47/64	(730)	3.32	(3087)	7.79	(7240)	33 55/64	(860)
3060C	26 3/8	(670)	19 3/4	(502)	3.62	(3360)	24 47/64	(628)	3.62	(3360)	8.45	(7852)	36 1/4	(921)
3064C	26 3/8	(670)	21 23/64	(543)	3.91	(3634)	20 47/64	(527)	3.91	(3634)	9.11	(8463)	38 41/64	(981)
3068C	26 3/8	(670)	22 31/32	(583)	4.21	(3908)	16 47/64	(425)	4.21	(3908)	9.77	(9074)	41 1/32	(1042)
3236C	28 3/8	(721)	10 3/32	(256)	1.99	(1847)	48 47/64	(1238)	1.99	(1847)	4.88	(4537)	21 29/32	(556)
3240C	28 3/8	(721)	11 45/64	(297)	2.31	(2142)	44 47/64	(1136)	2.31	(2142)	5.60	(5200)	24 19/64	(617)
3244C	28 3/8	(721)	13 5/16	(338)	2.62	(2437)	40 47/64	(1035)	2.62	(2437)	6.31	(5863)	26 11/16	(678)
3248C	28 3/8	(721)	14 59/64	(379)	2.94	(2731)	36 47/64	(933)	2.94	(2731)	7.02	(6526)	29 5/64	(739)
3252C	28 3/8	(721)	16 17/32	(420)	3.26	(3026)	32 47/64	(831)	3.26	(3026)	7.74	(7189)	31 15/32	(799)
3256C	28 3/8	(721)	18 9/64	(461)	3.57	(3321)	28 47/64	(730)	3.57	(3321)	8.45	(7852)	33 55/64	(860)
3260C	28 3/8	(721)	19 3/4	(502)	3.89	(3615)	24 47/64	(628)	3.89	(3615)	9.16	(8514)	36 1/4	(921)
3264C	28 3/8	(721)	21 23/64	(543)	4.21	(3910)	20 47/64	(527)	4.21	(3910)	9.88	(9177)	38 41/64	(981)
3268C	28 3/8	(721)	22 31/32	(583)	4.53	(4205)	16 47/64	(425)	4.53	(4205)	10.59	(9840)	41 1/32	(1042)

EGRESS OPENINGS

Double Hung Cottage (Continued)

EGRESS OPENING														
Egress Width			Egress Height		Egress Clear Opening		Floor To Clear Opening		Vent		DLO		Check Rail Height	
Unit #	Inches	(mm)	Inches	(mm)	Sq. Ft.	(cm ²)	Inches	(mm)	Sq. Ft.	(cm ²)	Sq. Ft.	(cm ³)	Inches	(mm)
3436C	30 3/8	(771)	10 3/32	(256)	2.13	(1978)	48 47/64	(1238)	2.13	(1978)	5.26	(4890)	21 29/32	(556)
3440C	30 3/8	(771)	11 45/64	(297)	2.47	(2293)	44 47/64	(1136)	2.47	(2293)	6.03	(5605)	24 19/64	(617)
3444C	30 3/8	(771)	13 5/16	(338)	2.81	(2608)	40 47/64	(1035)	2.81	(2608)	6.80	(6319)	26 11/16	(678)
3448C	30 3/8	(771)	14 59/64	(379)	3.15	(2924)	36 47/64	(933)	3.15	(2924)	7.57	(7034)	29 5/64	(739)
3452C	30 3/8	(771)	16 17/32	(420)	3.49	(3239)	32 47/64	(831)	3.49	(3239)	8.34	(7748)	31 15/32	(799)
3456C	30 3/8	(771)	18 9/64	(461)	3.83	(3555)	28 47/64	(730)	3.83	(3555)	9.11	(8463)	33 55/64	(860)
3460C	30 3/8	(771)	19 3/4	(502)	4.17	(3870)	24 47/64	(628)	4.17	(3870)	9.88	(9177)	36 1/4	(921)
3464C	30 3/8	(771)	21 23/64	(543)	4.51	(4185)	20 47/64	(527)	4.51	(4185)	10.65	(9892)	38 41/64	(981)
3468C	30 3/8	(771)	22 31/32	(583)	4.84	(4501)	16 47/64	(425)	4.84	(4501)	11.42	(10606)	41 1/32	(1042)
3636C	32 3/8	(822)	10 3/32	(256)	2.27	(2108)	48 47/64	(1238)	2.27	(2108)	5.64	(5243)	21 29/32	(556)
3640C	32 3/8	(822)	11 45/64	(297)	2.63	(2444)	44 47/64	(1136)	2.63	(2444)	6.47	(6010)	24 19/64	(617)
3644C	32 3/8	(822)	13 5/16	(338)	2.99	(2780)	40 47/64	(1035)	2.99	(2780)	7.29	(6776)	26 11/16	(678)
3648C	32 3/8	(822)	14 59/64	(379)	3.35	(3116)	36 47/64	(933)	3.35	(3116)	8.12	(7542)	29 5/64	(739)
3652C	32 3/8	(822)	16 17/32	(420)	3.72	(3453)	32 47/64	(831)	3.72	(3453)	8.94	(8308)	31 15/32	(799)
3656C	32 3/8	(822)	18 9/64	(461)	4.08	(3789)	28 47/64	(730)	4.08	(3789)	9.77	(9074)	33 55/64	(860)
3660C	32 3/8	(822)	19 3/4	(502)	4.44	(4125)	24 47/64	(628)	4.44	(4125)	10.59	(9840)	36 1/4	(921)
3664C	32 3/8	(822)	21 23/64	(543)	4.80	(4461)	20 47/64	(527)	4.80	(4461)	11.42	(10606)	38 41/64	(981)
3668C	32 3/8	(822)	22 31/32	(583)	5.16	(4797)	16 47/64	(425)	5.16	(4797)	12.24	(11373)	41 1/32	(1042)
3836C	34 3/8	(873)	10 3/32	(256)	2.41	(2238)	48 47/64	(1238)	2.41	(2238)	6.02	(5597)	21 29/32	(556)
3840C	34 3/8	(873)	11 45/64	(297)	2.79	(2595)	44 47/64	(1136)	2.79	(2595)	6.90	(6414)	24 19/64	(617)
3844C	34 3/8	(873)	13 5/16	(338)	3.18	(2952)	40 47/64	(1035)	3.18	(2952)	7.78	(7232)	26 11/16	(678)
3848C	34 3/8	(873)	14 59/64	(379)	3.56	(3309)	36 47/64	(933)	3.56	(3309)	8.66	(8050)	29 5/64	(739)
3852C	34 3/8	(873)	16 17/32	(420)	3.95	(3666)	32 47/64	(831)	3.95	(3666)	9.55	(8868)	31 15/32	(799)
3856C	34 3/8	(873)	18 9/64	(461)	4.33	(4023)	28 47/64	(730)	4.33	(4023)	10.43	(9685)	33 55/64	(860)
3860C	34 3/8	(873)	19 3/4	(502)	4.71	(4380)	24 47/64	(628)	4.71	(4380)	11.31	(10503)	36 1/4	(921)
3864C	34 3/8	(873)	21 23/64	(543)	5.10	(4737)	20 47/64	(527)	5.10	(4737)	12.19	(11321)	38 41/64	(981)
3868C	34 3/8	(873)	22 31/32	(583)	5.48	(5094)	16 47/64	(425)	5.48	(5094)	13.07	(12139)	41 1/32	(1042)
4236C	38 3/8	(975)	10 3/32	(256)	2.69	(2498)	48 47/64	(1238)	2.69	(2498)	6.78	(6303)	21 29/32	(556)
4240C	38 3/8	(975)	11 45/64	(297)	3.12	(2897)	44 47/64	(1136)	3.12	(2897)	7.78	(7224)	24 19/64	(617)
4244C	38 3/8	(975)	13 5/16	(338)	3.55	(3295)	40 47/64	(1035)	3.55	(3295)	8.77	(8145)	26 11/16	(678)
4248C	38 3/8	(975)	14 59/64	(379)	3.98	(3694)	36 47/64	(933)	3.98	(3694)	9.76	(9066)	29 5/64	(739)
4252C	38 3/8	(975)	16 17/32	(420)	4.41	(4092)	32 47/64	(831)	4.41	(4092)	10.75	(9987)	31 15/32	(799)
4256C	38 3/8	(975)	18 9/64	(461)	4.83	(4491)	28 47/64	(730)	4.83	(4491)	11.74	(10908)	33 55/64	(860)
4260C	38 3/8	(975)	19 3/4	(502)	5.26	(4890)	24 47/64	(628)	5.26	(4890)	12.73	(11829)	36 1/4	(921)
4264C	38 3/8	(975)	21 23/64	(543)	5.69	(5288)	20 47/64	(527)	5.69	(5288)	13.72	(12750)	38 41/64	(981)
4268C	38 3/8	(975)	22 31/32	(583)	6.12	(5686)	16 47/64	(425)	6.12	(5686)	14.72	(13671)	41 1/32	(1042)
4836C	44 3/8	(1127)	10 3/32	(256)	3.11	(2889)	48 47/64	(1238)	3.11	(2889)	7.93	(7363)	21 29/32	(556)
4840C	44 3/8	(1127)	11 45/64	(297)	3.61	(3350)	44 47/64	(1136)	3.61	(3350)	9.08	(8439)	24 19/64	(617)
4844C	44 3/8	(1127)	13 5/16	(338)	4.10	(3811)	40 47/64	(1035)	4.10	(3811)	10.24	(9515)	26 11/16	(678)
4848C	44 3/8	(1127)	14 59/64	(379)	4.60	(4271)	36 47/64	(933)	4.60	(4271)	11.40	(10590)	29 5/64	(739)
4852C	44 3/8	(1127)	16 17/32	(420)	5.09	(4732)	32 47/64	(831)	5.09	(4732)	12.56	(11666)	31 15/32	(799)
4856C	44 3/8	(1127)	18 9/64	(461)	5.59	(5193)	28 47/64	(730)	5.59	(5193)	13.72	(12742)	33 55/64	(860)
4860C	44 3/8	(1127)	19 3/4	(502)	6.09	(5654)	24 47/64	(628)	6.09	(5654)	14.87	(13818)	36 1/4	(921)
4864C	44 3/8	(1127)	21 23/64	(543)	6.58	(6115)	20 47/64	(527)	6.58	(6115)	16.03	(14894)	38 41/64	(981)
4868C	44 3/8	(1127)	22 31/32	(583)	7.08	(6576)	16 47/64	(425)	7.08	(6576)	17.19	(15969)	41 1/32	(1042)
5436C	50 3/8	(1279)	10 3/32	(256)	3.53	(3280)	48 47/64	(1238)	3.53	(3280)	9.07	(8423)	21 29/32	(556)
5440C	50 3/8	(1279)	11 45/64	(297)	4.09	(3803)	44 47/64	(1136)	4.09	(3803)	10.39	(9653)	24 19/64	(617)
5444C	50 3/8	(1279)	13 5/16	(338)	4.66	(4326)	40 47/64	(1035)	4.66	(4326)	11.72	(10884)	26 11/16	(678)
5448C	50 3/8	(1279)	14 59/64	(379)	5.22	(4849)	36 47/64	(933)	5.22	(4849)	13.04	(12115)	29 5/64	(739)
5452C	50 3/8	(1279)	16 17/32	(420)	5.78	(5372)	32 47/64	(831)	5.78	(5372)	14.36	(13345)	31 15/32	(799)
5456C	50 3/8	(1279)	18 9/64	(461)	6.35	(5895)	28 47/64	(730)	6.35	(5895)	15.69	(14576)	33 55/64	(860)
5460C	50 3/8	(1279)	19 3/4	(502)	6.91	(6419)	24 47/64	(628)	6.91	(6419)	17.01	(15807)	36 1/4	(921)
5464C	50 3/8	(1279)	21 23/64	(543)	7.47	(6942)	20 47/64	(527)	7.47	(6942)	18.34	(17037)	38 41/64	(981)
5468C	50 3/8	(1279)	22 31/32	(583)	8.04	(7465)	16 47/64	(425)	8.04	(7465)	19.66	(18268)	41 1/32	(1042)

EGRESS OPENINGS

Double Hung Reverse Cottage (Continued)

EGRESS OPENING															
		Egress Width		Egress Height		Egress Clear Opening		Floor To Clear Opening		Vent		DLO		Check Rail Height	
Unit #		Inches	(mm)	Inches	(mm)	Sq. Ft.	(cm ²)	Inches	(mm)	Sq. Ft.	(cm ²)	Sq. Ft.	(cm ²)	Inches	(mm)
3036RC		26 3/8	(670)	6 1/32	(153)	1.11	(1027)	48 47/64	(1238)	1.11	(1027)	4.50	(4184)	16 5/32	(410)
3040RC		26 3/8	(670)	8 27/64	(214)	1.54	(1434)	44 47/64	(1136)	1.54	(1434)	5.16	(4795)	17 49/64	(451)
3044RC		26 3/8	(670)	10 13/16	(275)	1.98	(1841)	40 47/64	(1035)	1.98	(1841)	5.82	(5406)	19 3/8	(492)
3048RC		26 3/8	(670)	13 13/64	(336)	2.42	(2247)	36 47/64	(933)	2.42	(2247)	6.48	(6018)	20 63/64	(533)
3052RC		26 3/8	(670)	15 19/32	(396)	2.86	(2654)	32 47/64	(831)	2.86	(2654)	7.14	(6629)	22 19/32	(574)
3056RC		26 3/8	(670)	15 11/32	(390)	2.81	(2611)	28 47/64	(730)	2.81	(2611)	7.79	(7240)	24 13/64	(615)
3060RC		26 3/8	(670)	17 47/64	(451)	3.25	(3018)	24 47/64	(628)	3.25	(3018)	8.45	(7852)	25 13/16	(656)
3064RC		26 3/8	(670)	20 1/8	(511)	3.69	(3425)	20 47/64	(527)	3.69	(3425)	9.11	(8463)	27 27/64	(697)
3068RC		26 3/8	(670)	22 33/64	(572)	4.12	(3831)	16 47/64	(425)	4.12	(3831)	12.33	(9074)	29 1/32	(737)
3236RC		28 3/8	(721)	6 1/32	(153)	1.19	(1105)	48 47/64	(1238)	1.19	(1105)	4.88	(4537)	16 5/32	(410)
3240RC		28 3/8	(721)	8 27/64	(214)	1.66	(1543)	44 47/64	(1136)	1.66	(1543)	5.60	(5200)	17 49/64	(451)
3244RC		28 3/8	(721)	10 13/16	(275)	2.13	(1980)	40 47/64	(1035)	2.13	(1980)	6.31	(7852)	19 3/8	(492)
3248RC		28 3/8	(721)	13 13/64	(336)	2.60	(2418)	36 47/64	(933)	2.60	(2418)	7.02	(6526)	20 63/64	(533)
3252RC		28 3/8	(721)	15 19/32	(396)	3.07	(2855)	32 47/64	(831)	3.07	(2855)	7.74	(7189)	22 19/32	(574)
3256RC		28 3/8	(721)	15 11/32	(390)	3.02	(2809)	28 47/64	(730)	3.02	(2809)	8.45	(7852)	24 13/64	(615)
3260RC		28 3/8	(721)	17 47/64	(451)	3.49	(3247)	24 47/64	(628)	3.49	(3247)	9.16	(8514)	25 13/16	(656)
3264RC		28 3/8	(721)	20 1/8	(511)	3.97	(3685)	20 47/64	(527)	3.97	(3685)	9.88	(9177)	27 27/64	(697)
3268RC		28 3/8	(721)	22 33/64	(572)	4.44	(4122)	16 47/64	(425)	4.44	(4122)	10.59	(9840)	29 1/32	(737)
3436RC		30 3/8	(771)	6 1/32	(153)	1.27	(1183)	48 47/64	(1238)	1.27	(1183)	5.26	(4890)	16 5/32	(410)
3440RC		30 3/8	(771)	8 27/64	(214)	1.78	(1651)	44 47/64	(1136)	1.78	(1651)	6.03	(5605)	17 49/64	(451)
3444RC		30 3/8	(771)	10 13/16	(275)	2.28	(2120)	40 47/64	(1035)	2.28	(2120)	6.80	(6319)	19 3/8	(492)
3448RC		30 3/8	(771)	13 13/64	(336)	2.79	(2588)	36 47/64	(933)	2.79	(2588)	7.57	(7034)	20 63/64	(533)
3452RC		30 3/8	(771)	15 19/32	(396)	3.29	(3057)	32 47/64	(831)	3.29	(3057)	8.34	(7748)	22 19/32	(574)
3456RC		30 3/8	(771)	15 11/32	(390)	3.24	(3007)	28 47/64	(730)	3.24	(3007)	9.11	(8463)	24 13/64	(615)
3460RC		30 3/8	(771)	17 47/64	(451)	3.74	(3476)	24 47/64	(628)	3.74	(3476)	9.88	(9177)	25 13/16	(656)
3464RC		30 3/8	(771)	20 1/8	(511)	4.25	(3944)	20 47/64	(527)	4.25	(3944)	10.65	(9892)	27 27/64	(697)
3468RC		30 3/8	(771)	22 33/64	(572)	4.75	(4413)	16 47/64	(425)	4.75	(4413)	11.42	(10606)	29 1/32	(737)
3636RC		32 3/8	(822)	6 1/32	(153)	1.36	(1261)	48 47/64	(1238)	1.36	(1261)	5.64	(5243)	16 5/32	(410)
3640RC		32 3/8	(822)	8 27/64	(214)	1.89	(1760)	44 47/64	(1136)	1.89	(1760)	6.47	(6010)	17 49/64	(451)
3644RC		32 3/8	(822)	10 13/16	(275)	2.43	(2259)	40 47/64	(1035)	2.43	(2259)	7.29	(9177)	19 3/8	(492)
3648RC		32 3/8	(822)	13 13/64	(336)	2.97	(2759)	36 47/64	(933)	2.97	(2759)	8.12	(9892)	20 63/64	(533)
3652RC		32 3/8	(822)	15 19/32	(396)	3.51	(3258)	32 47/64	(831)	3.51	(3258)	8.94	(8308)	22 19/32	(574)
3656RC		32 3/8	(822)	15 11/32	(390)	3.45	(3205)	28 47/64	(730)	3.45	(3205)	9.77	(9074)	24 13/64	(615)
3660RC		32 3/8	(822)	17 47/64	(451)	3.99	(3705)	24 47/64	(628)	3.99	(3705)	10.59	(9840)	25 13/16	(656)
3664RC		32 3/8	(822)	20 1/8	(511)	4.53	(4204)	20 47/64	(527)	4.53	(4204)	11.42	(10606)	27 27/64	(697)
3668RC		32 3/8	(822)	22 33/64	(572)	5.06	(4703)	16 47/64	(425)	5.06	(4703)	12.24	(11373)	29 1/32	(737)
3836RC		34 3/8	(873)	6 1/32	(153)	1.44	(1339)	48 47/64	(1238)	1.44	(1339)	6.02	(5597)	16 5/32	(410)
3840RC		34 3/8	(873)	8 27/64	(214)	2.01	(1869)	44 47/64	(1136)	2.01	(1869)	6.90	(6414)	17 49/64	(451)
3844RC		34 3/8	(873)	10 13/16	(275)	2.58	(2399)	40 47/64	(1035)	2.58	(2399)	7.78	(7232)	19 3/8	(492)
3848RC		34 3/8	(873)	13 13/64	(336)	3.15	(2929)	36 47/64	(933)	3.15	(2929)	8.66	(8050)	20 63/64	(533)
3852RC		34 3/8	(873)	15 19/32	(396)	3.72	(3459)	32 47/64	(831)	3.72	(3459)	9.55	(8868)	22 19/32	(574)
3856RC		34 3/8	(873)	15 11/32	(390)	3.66	(3403)	28 47/64	(730)	3.66	(3403)	10.43	(9685)	24 13/64	(615)
3860RC		34 3/8	(873)	17 47/64	(451)	4.23	(3933)	24 47/64	(628)	4.23	(3933)	11.31	(10503)	25 13/16	(656)
3864RC		34 3/8	(873)	20 1/8	(511)	4.80	(4464)	20 47/64	(527)	4.80	(4464)	12.19	(11321)	27 27/64	(697)
3868RC		34 3/8	(873)	22 33/64	(572)	5.38	(4994)	16 47/64	(425)	5.38	(4994)	13.07	(12139)	29 1/32	(737)
4236RC		38 3/8	(975)	6 1/32	(153)	1.61	(1495)	48 47/64	(1238)	1.61	(1495)	6.78	(6303)	16 5/32	(410)
4240RC		38 3/8	(975)	8 27/64	(214)	2.25	(2086)	44 47/64	(1136)	2.25	(2086)	7.78	(7224)	17 49/64	(451)
4244RC		38 3/8	(975)	10 13/16	(275)	2.88	(2678)	40 47/64	(1035)	2.88	(2678)	8.77	(8145)	19 3/8	(492)
4248RC		38 3/8	(975)	13 13/64	(336)	3.52	(3270)	36 47/64	(933)	3.52	(3270)	9.76	(9066)	20 63/64	(533)
4252RC		38 3/8	(975)	15 19/32	(396)	4.16	(3862)	32 47/64	(831)	4.16	(3862)	10.75	(9987)	22 19/32	(574)
4256RC		38 3/8	(975)	15 11/32	(390)	4.09	(3800)	28 47/64	(730)	4.09	(3800)	11.74	(10908)	24 13/64	(615)
4260RC		38 3/8	(975)	17 47/64	(451)	4.73	(4391)	24 47/64	(628)	4.73	(4391)	12.73	(11829)	25 13/16	(656)
4264RC		38 3/8	(975)	20 1/8	(511)	5.36	(4983)	20 47/64	(527)	5.36	(4983)	13.72	(12750)	27 27/64	(697)
4268RC		38 3/8	(975)	22 33/64	(572)	6.00	(5575)	16 47/64	(425)	6.00	(5575)	14.72	(13671)	29 1/32	(737)
4836RC		44 3/8	(1127)	6 1/32	(153)	1.86	(1729)	48 47/64	(1238)	1.86	(1729)	7.93	(7363)	16 5/32	(410)
4840RC		44 3/8	(1127)	8 27/64	(214)	2.60	(2413)	44 47/64	(1136)	2.60	(2413)	9.08	(8439)	17 49/64	(451)
4844RC		44 3/8	(1127)	10 13/16	(275)	3.33	(3097)	40 47/64	(1035)	3.33	(3097)	10.24	(9515)	19 3/8	(492)
4848RC		44 3/8	(1127)	13 13/64	(336)	4.07	(3781)	36 47/64	(933)	4.07	(3781)	11.40	(10590)	20 63/64	(533)
4852RC		44 3/8	(1127)	15 19/32	(396)	4.81	(4466)	32 47/64	(831)	4.81	(4466)	12.56	(11666)	22 19/32	(574)
4856RC		44 3/8	(1127)	15 11/32	(390)	4.73	(4394)	28 47/64	(730)	4.73	(4394)	13.72	(12742)	24 13/64	(615)
4860RC		44 3/8	(1127)	17 47/64	(451)	5.47	(5078)	24 47/64	(628)	5.47	(5078)	14.87	(13818)	25 13/16	(656)
4864RC		44 3/8	(1127)	20 1/8	(511)	6.20	(5762)	20 47/64	(527)	6.20	(5762)	16.03	(14894)	27 27/64	(697)
4868RC		44 3/8	(1127)	22 33/64	(572)	6.94	(6447)	16 47/64	(425)	6.94	(6447)	17.19	(15969)	29 1/32	(737)
5436RC		50 3/8	(1279)	6 1/32	(153)	2.11	(1962)	48 47/64	(1238)	2.11	(1962)	9.07	(8423)	16 5/32	(410)
5440RC		50 3/8	(1279)	8 27/64	(214)	2.95	(2739)	44 47/64	(1136)	2.95	(2739)	10.39	(9653)	17 49/64	(451)
5444RC		50 3/8	(1279)	10 13/16	(275)	3.78	(3516)	40 47/64	(1035)	3.78	(3516)	11.72	(10884)	19 3/8	(492)
5448RC		50 3/8	(1279)	13 13/64	(336)	4.62	(4293)	36 47/64	(933)	4.62	(4293)	13.04	(12115)	20 63/64	(533)
5452RC		50 3/8	(1279)	15 19/32	(396)	5.46	(5069)	32 47/64	(831)	5.46	(5069)	14.36	(13345)	22 19/32	(574)
5456RC		50 3/8	(1279)	15 11/32	(390)	5.37	(4988)	28 47/64	(730)	5.37	(4988)	15.69	(14576)	24 13/64	(615)
5460RC		50 3/8	(1279)	17 47/64	(451)	6.20	(5764)	24 47/64	(628)	6.20	(5764)	17.01	(15807)	25 13/16	(656)
5464RC		50 3/8	(1279)	20 1/8	(511)	7.04	(6542)	20 47/64	(527)	7.04	(6542)	18.34	(17037)	27 27/64	(697)
5468RC		50 3/8	(1279)	22 33/64	(572)	7.88	(7318)	16 47/64	(425)	7.88	(7318)	19.66	(18268)	29 1/32	(737)

The information provided in this catalog has been gathered and assembled with every effort made to validate accuracy and consistency of the content.

However, Marvin does not make any warranty or guarantee as to this information. Please verify critical product data in Marvin Order Management

System (OMS) quotes and at the time of ordering.

EGRESS OPENINGS

Glider

EGRESS OPENING															
		Egress Width		Egress Height		Egress Clear Opening		Floor To Clear Opening		Venting		DLO			
Unit #		Inches	(mm)	Inches	(mm)	Sq. Ft.	(cm ²)	Sq. Ft	(cm ²)	Sq. Ft.	(cm ²)	Sq. Ft.	(cm ²)		
3624	XO, XO	14 1/8	(359)	19 9/16	(497)	1.92	(1784)	5-0 47/64	(1543)	1.92	(1784)	3.36	(3124)		
3636	XO, XO	14 1/8	(359)	31 9/16	(802)	3.10	(2878)	4-0 47/64	(1238)	3.10	(2878)	5.64	(5243)		
3642	XO, XO	14 1/8	(359)	37 9/16	(954)	3.69	(3425)	3-6 47/64	(1085)	3.69	(3425)	6.78	(6303)		
3648	XO, XO	14 1/8	(359)	43 9/16	(1107)	4.28	(3972)	3-0 47/64	(933)	4.28	(3972)	7.93	(7363)		
3660	XO, XO	14 1/8	(359)	55 9/16	(1411)	5.45	(5066)	2-0 47/64	(628)	5.45	(5066)	10.21	(9482)		
4824	XO, XO	20 1/8	(511)	19 9/16	(497)	2.74	(2542)	5-0 47/64	(1543)	2.74	(2542)	4.84	(4493)		
4836	XO, XO	20 1/8	(511)	31 9/16	(802)	4.41	(4100)	4-0 47/64	(1238)	4.41	(4100)	8.12	(7542)		
4842	XO, XO	20 1/8	(511)	37 9/16	(954)	5.25	(4879)	3-6 47/64	(1085)	5.25	(4879)	9.76	(9066)		
4848	XO, XO	E 20 1/8	(511)	43 9/16	(1107)	6.09	(5658)	3-0 47/64	(933)	6.09	(5658)	11.40	(10590)		
4860	XO, XO	E 20 1/8	(511)	55 9/16	(1411)	7.77	(7217)	2-0 47/64	(628)	7.77	(7217)	14.68	(13639)		
6024	XO, XO	E 26 1/8	(664)	19 9/16	(497)	3.55	(3299)	5-0 47/64	(1543)	3.55	(3299)	6.31	(5863)		
6036	XO, XO	E* 26 1/8	(664)	31 9/16	(802)	5.73	(5322)	4-0 47/64	(1238)	5.73	(5322)	10.59	(9840)		
6042	XO, XO	E 26 1/8	(664)	37 9/16	(954)	6.82	(6334)	3-6 47/64	(1085)	6.82	(6334)	12.73	(11829)		
6048	XO, XO	E 26 1/8	(664)	43 9/16	(1107)	7.91	(7345)	3-0 47/64	(933)	7.91	(7345)	14.87	(13818)		
6060	XO, XO	E 26 1/8	(664)	55 9/16	(1411)	10.08	(9368)	2-0 47/64	(628)	10.08	(9368)	19.15	(17795)		
7224	XO, XO	E 32 1/8	(816)	19 9/16	(497)	4.37	(4057)	5-0 47/64	(1543)	4.37	(4057)	7.78	(7232)		
7236	XO, XO	E* 32 1/8	(816)	31 9/16	(802)	7.04	(6544)	4-0 47/64	(1238)	7.04	(6544)	13.07	(12139)		
7242	XO, XO	E 32 1/8	(816)	37 9/16	(954)	8.38	(7788)	3-6 47/64	(1085)	8.38	(7788)	15.71	(14592)		
7248	XO, XO	E 32 1/8	(816)	43 9/16	(1107)	9.72	(9032)	3-0 47/64	(933)	9.72	(9032)	18.35	(17045)		
7260	XO, XO	E 32 1/8	(816)	55 9/16	(1411)	12.40	(11519)	2-0 47/64	(628)	12.40	(11519)	23.63	(21952)		
7224	XOX	15 11/16	(398)	19 9/16	(497)	2.13	(1980)	60 47/64	(1543)	4.26	(3959)	7.50	(6968)		
7236	XOX	15 11/16	(398)	31 9/16	(802)	3.44	(3194)	48 47/64	(1238)	6.88	(6387)	12.59	(11696)		
7242	XOX	15 11/16	(398)	37 9/16	(954)	4.09	(3801)	42 47/64	(1085)	8.18	(7601)	15.13	(14060)		
7248	XOX	15 11/16	(398)	43 9/16	(1107)	4.74	(4408)	36 47/64	(933)	9.49	(8815)	17.68	(16423)		
7260	XOX	15 11/16	(398)	55 9/16	(1411)	6.05	(5622)	24 47/64	(628)	12.10	(11243)	22.77	(21151)		
8424	XOX	18 11/16	(474)	19 9/16	(497)	2.54	(2358)	60 47/64	(1543)	5.08	(4717)	8.97	(8338)		
8436	XOX	18 11/16	(474)	31 9/16	(802)	4.10	(3805)	48 47/64	(1238)	8.19	(7609)	15.06	(13994)		
8442	XOX	18 11/16	(474)	37 9/16	(954)	4.87	(4528)	42 47/64	(1085)	9.75	(9056)	18.11	(16823)		
8448	XOX	18 11/16	(474)	43 9/16	(1107)	5.65	(5251)	36 47/64	(933)	11.30	(10502)	21.15	(19651)		
8460	XOX	18 11/16	(474)	55 9/16	(1411)	7.21	(6697)	24 47/64	(628)	14.42	(13394)	27.24	(25307)		
9624	XOX	21 11/16	(551)	19 9/16	(497)	2.95	(2737)	60 47/64	(1543)	5.89	(5475)	10.45	(9707)		
9636	XOX	21 11/16	(551)	31 9/16	(802)	4.75	(4416)	48 47/64	(1238)	9.51	(8831)	17.54	(16293)		
9642	XOX	21 11/16	(551)	37 9/16	(954)	5.66	(5255)	42 47/64	(1085)	11.31	(10510)	21.08	(19586)		
9648	XOX	E 21 11/16	(551)	43 9/16	(1107)	6.56	(6094)	36 47/64	(933)	13.12	(12188)	24.63	(22878)		
9660	XOX	E 21 11/16	(551)	55 9/16	(1411)	8.37	(7773)	24 47/64	(628)	16.73	(15545)	31.71	(29464)		

EGRESS OPENINGS

Sliding Patio Door

EGRESS OPENING													
		Egress Width		Egress Height		Egress Clear Opening		Floor To Clear Opening		Venting		DLO	
Unit #		Inches	(mm)	Inches	(mm)	Sq. Ft.	(cm ²)	Sq. Ft.	(cm ²)	Sq. Ft.	(cm ²)	Sq. Ft.	(cm ²)
5065	XO, OX	23 17/64	(591)	74 47/64	(1898)	12.07	(11217)	N/A	N/A	12.07	(11217)	25.01	(23237)
5068	XO, OX	23 17/64	(591)	77 15/64	(1962)	12.48	(11592)	N/A	N/A	12.48	(11592)	25.88	(24043)
5070	XO, OX	23 17/64	(591)	81 15/64	(2063)	13.12	(12192)	N/A	N/A	13.12	(12192)	27.27	(25333)
5080	XO, OX	23 17/64	(591)	90 47/64	(2305)	14.66	(13618)	N/A	N/A	14.66	(13618)	30.57	(28398)
6065	XO, OX	29 17/64	(743)	74 47/64	(1898)	15.19	(14110)	N/A	N/A	15.19	(14110)	31.01	(28814)
6068	XO, OX	29 17/64	(743)	77 15/64	(1962)	15.70	(14582)	N/A	N/A	15.70	(14582)	32.09	(29814)
6070	XO, OX	29 17/64	(743)	81 15/64	(2063)	16.51	(15337)	N/A	N/A	16.51	(15337)	33.81	(31414)
6080	XO, OX	29 17/64	(743)	90 47/64	(2305)	18.44	(17130)	N/A	N/A	18.44	(17130)	37.90	(35214)
8065	XO, OX	41 17/64	(1048)	74 47/64	(1898)	21.42	(19895)	N/A	N/A	21.42	(19895)	43.02	(39967)
8068	XO, OX	41 17/64	(1048)	77 15/64	(1962)	22.13	(20561)	N/A	N/A	22.13	(20561)	44.51	(41354)
8070	XO, OX	41 17/64	(1048)	81 15/64	(2063)	23.28	(21626)	N/A	N/A	23.28	(21626)	46.90	(43574)
8080	XO, OX	41 17/64	(1048)	90 47/64	(2305)	26.00	(24155)	N/A	N/A	26.00	(24155)	52.58	(48845)
5065	XOO, OOX	23 17/64	(591)	74 47/64	(1898)	12.07	(11217)	N/A	N/A	12.07	(11217)	37.52	(34855)
5068	XOO, OOX	23 17/64	(591)	77 15/64	(1962)	12.48	(11592)	N/A	N/A	12.48	(11592)	38.82	(24043)
7670	XOO, OOX	23 17/64	(591)	81 15/64	(2063)	13.12	(12192)	N/A	N/A	13.12	(12192)	40.90	(25333)
7680	XOO, OOX	23 17/64	(591)	90 47/64	(2305)	14.66	(13618)	N/A	N/A	14.66	(13618)	45.85	(28398)
6065	XOO, OOX	29 17/64	(743)	74 47/64	(1898)	15.19	(14110)	N/A	N/A	15.19	(14110)	46.52	(28814)
6068	XOO, OOX	29 17/64	(743)	77 15/64	(1962)	15.70	(14582)	N/A	N/A	15.70	(14582)	48.14	(29814)
9070	XOO, OOX	29 17/64	(743)	81 15/64	(2063)	16.51	(15337)	N/A	N/A	16.51	(15337)	50.72	(31414)
9080	XOO, OOX	29 17/64	(743)	90 47/64	(2305)	18.44	(17130)	N/A	N/A	18.44	(17130)	56.86	(35214)
12065	XOO, OOX	41 17/64	(1048)	74 47/64	(1898)	21.42	(19895)	N/A	N/A	21.42	(19895)	64.53	(39967)
12068	XOO, OOX	41 17/64	(1048)	77 15/64	(1962)	22.13	(20561)	N/A	N/A	22.13	(20561)	66.77	(41354)
12070	XOO, OOX	41 17/64	(1048)	81 15/64	(2063)	23.28	(21626)	N/A	N/A	23.28	(21626)	70.35	(43574)
12080	XOO, OOX	41 17/64	(1048)	90 47/64	(2305)	26.00	(24155)	N/A	N/A	26.00	(24155)	78.86	(48845)
7665	OXO	23 19/64	(592)	74 47/64	(1898)	12.09	(11229)	N/A	N/A	12.09	(11229)	37.52	(34855)
7668	OXO	23 19/64	(592)	77 15/64	(1962)	12.49	(11605)	N/A	N/A	12.49	(11605)	38.82	(36065)
7670	OXO	23 19/64	(592)	81 15/64	(2063)	13.14	(12206)	N/A	N/A	13.14	(12206)	40.90	(38000)
7680	OXO	23 19/64	(592)	90 47/64	(2305)	14.67	(13633)	N/A	N/A	14.67	(13633)	45.85	(42597)
9065	OXO	29 19/64	(744)	74 47/64	(1898)	15.20	(14122)	N/A	N/A	15.20	(14122)	46.52	(43220)
9068	OXO	29 19/64	(744)	77 15/64	(1962)	15.71	(14595)	N/A	N/A	15.71	(14595)	48.14	(44720)
9070	OXO	29 19/64	(744)	81 15/64	(2063)	16.52	(15350)	N/A	N/A	16.52	(15350)	50.72	(47120)
9080	OXO	29 19/64	(744)	90 47/64	(2305)	18.46	(17146)	N/A	N/A	18.46	(17146)	56.86	(52820)
12065	OXO	41 19/64	(1049)	74 47/64	(1898)	21.43	(19908)	N/A	N/A	21.43	(19908)	64.53	(59951)
12068	OXO	41 19/64	(1049)	77 15/64	(1962)	22.15	(20574)	N/A	N/A	22.15	(20574)	66.77	(62031)
12070	OXO	41 19/64	(1049)	81 15/64	(2063)	23.29	(21639)	N/A	N/A	23.29	(21639)	70.35	(65360)
12080	OXO	41 19/64	(1049)	90 47/64	(2305)	26.02	(24170)	N/A	N/A	26.02	(24170)	78.86	(73267)
10065	OXXO	46 57/64	(1191)	74 47/64	(1898)	24.34	(22610)	N/A	N/A	24.34	(22610)	50.02	(46473)
10068	OXXO	46 57/64	(1191)	77 15/64	(1962)	25.15	(23366)	N/A	N/A	25.15	(23366)	51.76	(48086)
10070	OXXO	46 57/64	(1191)	81 15/64	(2063)	26.45	(24576)	N/A	N/A	26.45	(24576)	54.54	(50667)
10080	OXXO	46 57/64	(1191)	90 47/64	(2305)	29.55	(27450)	N/A	N/A	29.55	(27450)	61.13	(56796)
12065	OXXO	58 57/64	(1496)	74 47/64	(1898)	30.56	(28396)	N/A	N/A	30.56	(28396)	62.03	(57627)
12068	OXXO	58 57/64	(1496)	77 15/64	(1962)	31.59	(29345)	N/A	N/A	31.59	(29345)	64.18	(59627)
12070	OXXO	58 57/64	(1496)	81 15/64	(2063)	33.22	(30865)	N/A	N/A	33.22	(30865)	67.63	(62827)
12080	OXXO	58 57/64	(1496)	90 47/64	(2305)	37.11	(34475)	N/A	N/A	37.11	(34475)	75.81	(70427)
16065	OXXO	82 57/64	(2106)	74 47/64	(1898)	43.02	(39967)	N/A	N/A	43.02	(39967)	86.04	(79934)
16068	OXXO	82 57/64	(2106)	77 15/64	(1962)	44.46	(41304)	N/A	N/A	44.46	(41304)	89.03	(82709)
16070	OXXO	82 57/64	(2106)	81 15/64	(2063)	46.76	(43443)	N/A	N/A	46.76	(43443)	93.80	(87147)
16080	OXXO	82 57/64	(2106)	90 47/64	(2305)	52.23	(48524)	N/A	N/A	52.23	(48524)	105.15	(97689)

The information provided in this catalog has been gathered and assembled with every effort made to validate accuracy and consistency of the content.

However, Marvin does not make any warranty or guarantee as to this information. Please verify critical product data in Marvin Order Management

System (OMS) quotes and at the time of ordering.

EGRESS OPENINGS

Sliding French Door

EGRESS OPENING													
		Egress Width		Egress Height		Egress Clear Opening		Floor To Clear Opening		Vent		DLO	
Unit #		Inches	(mm)	Inches	(mm)	Sq. Ft.	(cm ²)	Sq. Ft.	(cm ²)	Sq. Ft.	(cm ²)	Sq. Ft.	(cm ²)
5065	XO, OX	23 17/64	(591)	74 47/64	(1898)	12.07	(11217)	N/A	N/A	12.07	(11217)	20.85	(19371)
5068	XO, OX	23 17/64	(591)	77 15/64	(1962)	12.48	(11592)	N/A	N/A	12.48	(11592)	21.63	(20093)
5070	XO, OX	23 17/64	(591)	81 15/64	(2063)	13.12	(12192)	N/A	N/A	13.12	(12192)	22.87	(21248)
5080	XO, OX	23 17/64	(591)	90 47/64	(2305)	14.66	(13618)	N/A	N/A	14.66	(13618)	25.82	(23991)
6065	XO, OX	29 17/64	(743)	74 47/64	(1898)	15.19	(14110)	N/A	N/A	15.19	(14110)	26.44	(24566)
6068	XO, OX	29 17/64	(743)	77 15/64	(1962)	15.70	(14582)	N/A	N/A	15.70	(14582)	27.43	(25481)
6070	XO, OX	29 17/64	(743)	81 15/64	(2063)	16.51	(15337)	N/A	N/A	16.51	(15337)	29.00	(26946)
6080	XO, OX	29 17/64	(743)	90 47/64	(2305)	18.44	(17130)	N/A	N/A	18.44	(17130)	32.75	(30424)
8065	XO, OX	41 17/64	(1048)	74 47/64	(1898)	21.42	(19895)	N/A	N/A	21.42	(19895)	37.63	(34955)
8068	XO, OX	41 17/64	(1048)	77 15/64	(1962)	22.13	(20561)	N/A	N/A	22.13	(20561)	39.03	(36257)
8070	XO, OX	41 17/64	(1048)	81 15/64	(2063)	23.28	(21626)	N/A	N/A	23.28	(21626)	41.27	(38341)
8080	XO, OX	41 17/64	(1048)	90 47/64	(2305)	26.00	(24155)	N/A	N/A	26.00	(24155)	46.60	(43290)
7665	XOO, OOX	23 17/64	(591)	74 47/64	(1898)	12.07	(11217)	N/A	N/A	12.07	(11217)	31.28	(29057)
7668	XOO, OOX	23 17/64	(591)	77 15/64	(1962)	12.48	(11592)	N/A	N/A	12.48	(11592)	32.44	(30139)
7670	XOO, OOX	23 17/64	(591)	81 15/64	(2063)	13.12	(12192)	N/A	N/A	13.12	(12192)	34.31	(31872)
7680	XOO, OOX	23 17/64	(591)	90 47/64	(2305)	14.66	(13618)	N/A	N/A	14.66	(13618)	38.73	(35986)
9065	XOO, OOX	29 17/64	(743)	74 47/64	(1898)	15.19	(14110)	N/A	N/A	15.19	(14110)	39.66	(36849)
9068	XOO, OOX	29 17/64	(743)	77 15/64	(1962)	15.70	(14582)	N/A	N/A	15.70	(14582)	41.14	(38222)
9070	XOO, OOX	29 17/64	(743)	81 15/64	(2063)	16.51	(15337)	N/A	N/A	16.51	(15337)	43.51	(40418)
9080	XOO, OOX	29 17/64	(743)	90 47/64	(2305)	18.44	(17130)	N/A	N/A	18.44	(17130)	49.12	(45636)
12065	XOO, OOX	41 17/64	(1048)	74 47/64	(1898)	21.42	(19895)	N/A	N/A	21.42	(19895)	56.44	(52432)
12068	XOO, OOX	41 17/64	(1048)	77 15/64	(1962)	22.13	(20561)	N/A	N/A	22.13	(20561)	58.54	(54386)
12070	XOO, OOX	41 17/64	(1048)	81 15/64	(2063)	23.28	(21626)	N/A	N/A	23.28	(21626)	61.90	(57512)
12080	XOO, OOX	41 17/64	(1048)	90 47/64	(2305)	26.00	(24155)	N/A	N/A	26.00	(24155)	69.90	(64935)
7665	OXO	23 31/64	(596)	74 47/64	(1898)	12.19	(11322)	N/A	N/A	12.19	(11322)	31.28	(29057)
7668	OXO	23 31/64	(596)	77 15/64	(1962)	12.59	(11701)	N/A	N/A	12.59	(11701)	32.44	(30139)
7670	OXO	23 31/64	(596)	81 15/64	(2063)	13.25	(12307)	N/A	N/A	13.25	(12307)	34.31	(31872)
7680	OXO	23 31/64	(596)	90 47/64	(2305)	14.80	(13746)	N/A	N/A	14.80	(13746)	38.73	(35986)
9065	OXO	29 31/64	(749)	74 47/64	(1898)	15.30	(14215)	N/A	N/A	15.30	(14215)	39.66	(36849)
9068	OXO	29 31/64	(749)	77 15/64	(1962)	15.81	(14691)	N/A	N/A	15.81	(14691)	41.14	(38222)
9070	OXO	29 31/64	(749)	81 15/64	(2063)	16.63	(15452)	N/A	N/A	16.63	(15452)	43.51	(40418)
9080	OXO	29 31/64	(749)	90 47/64	(2305)	18.58	(17259)	N/A	N/A	18.58	(17259)	49.12	(45636)
12065	OXO	41 31/64	(1054)	74 47/64	(1898)	21.53	(20001)	N/A	N/A	21.53	(20001)	56.44	(52432)
12068	OXO	41 31/64	(1054)	77 15/64	(1962)	22.25	(20670)	N/A	N/A	22.25	(20670)	58.54	(54386)
12070	OXO	41 31/64	(1054)	81 15/64	(2063)	23.40	(21741)	N/A	N/A	23.40	(21741)	61.90	(57512)
12080	OXO	41 31/64	(1054)	90 47/64	(2305)	26.14	(24283)	N/A	N/A	26.14	(24283)	69.90	(64935)
10065	OX XO	47 3/64	(1195)	74 47/64	(1898)	24.42	(22686)	N/A	N/A	24.42	(22686)	41.70	(38742)
10068	OX XO	47 3/64	(1195)	77 15/64	(1962)	25.24	(23444)	N/A	N/A	25.24	(23444)	43.26	(40186)
10070	OX XO	47 3/64	(1195)	81 15/64	(2063)	26.54	(24659)	N/A	N/A	26.54	(24659)	45.74	(42496)
10080	OX XO	47 3/64	(1195)	90 47/64	(2305)	29.65	(27542)	N/A	N/A	29.65	(27542)	51.65	(47981)
12065	OX XO	59 3/64	(1500)	74 47/64	(1898)	30.65	(28471)	N/A	N/A	30.65	(28471)	52.88	(49131)
12068	OX XO	59 3/64	(1500)	77 15/64	(1962)	31.67	(29424)	N/A	N/A	31.67	(29424)	54.86	(50962)
12070	OX XO	59 3/64	(1500)	81 15/64	(2063)	33.31	(30948)	N/A	N/A	33.31	(30948)	58.01	(53891)
12080	OX XO	59 3/64	(1500)	90 47/64	(2305)	37.21	(34567)	N/A	N/A	37.21	(34567)	65.50	(60848)
16065	OX XO	83 3/64	(2109)	74 47/64	(1898)	43.10	(40043)	N/A	N/A	43.10	(40043)	75.25	(69910)
16068	OX XO	83 3/64	(2109)	77 15/64	(1962)	44.54	(41382)	N/A	N/A	44.54	(41382)	78.05	(72514)
16070	OX XO	83 3/64	(2109)	81 15/64	(2063)	46.85	(43526)	N/A	N/A	46.85	(43526)	82.54	(76682)
16080	OX XO	83 3/64	(2109)	90 47/64	(2305)	52.33	(48616)	N/A	N/A	52.33	(48616)	93.19	(86580)

EGRESS OPENINGS

Inswing French Door

EGRESS OPENING													
		Egress Width		Egress Height		Egress Clear Opening		Floor To Clear Opening		Vent		DLO	
Unit #		Inches	(mm)	Inches	(mm)	Sq. Ft.	(cm ²)	Sq. Ft.	(cm ²)	Sq. Ft.	(cm ²)	Sq. Ft.	(cm ²)
2665	X	25 21/64	(643)	75 3/4	(1924)	13.32	(12376)	N/A	N/A	13.32	(12376)	9.95	(9240)
2668	X	25 21/64	(643)	78 1/4	(1987)	13.76	(12784)	N/A	N/A	13.76	(12784)	10.32	(9584)
2670	X	25 21/64	(643)	82 1/4	(2089)	14.46	(13438)	N/A	N/A	14.46	(13438)	10.91	(10135)
2680	X	25 21/64	(643)	91 3/4	(2330)	16.14	(14990)	N/A	N/A	16.14	(14990)	12.32	(11444)
2865	X	27 21/64	(694)	75 3/4	(1924)	14.37	(13353)	N/A	N/A	14.37	(13353)	10.88	(10106)
2868	X	27 21/64	(694)	78 1/4	(1987)	14.85	(13794)	N/A	N/A	14.85	(13794)	11.28	(10482)
2870	X	27 21/64	(694)	82 1/4	(2089)	15.61	(14499)	N/A	N/A	15.61	(14499)	11.93	(11085)
2880	X	27 21/64	(694)	91 3/4	(2330)	17.41	(16174)	N/A	N/A	17.41	(16174)	13.47	(12516)
3065	X	31 21/64	(796)	75 3/4	(1924)	16.48	(15308)	N/A	N/A	16.48	(15308)	12.74	(11837)
3068	X	31 21/64	(796)	78 1/4	(1987)	17.02	(15813)	N/A	N/A	17.02	(15813)	13.22	(12279)
3070	X	31 21/64	(796)	82 1/4	(2089)	17.89	(16621)	N/A	N/A	17.89	(16621)	13.98	(12984)
3080	X	31 21/64	(796)	91 3/4	(2330)	19.96	(18541)	N/A	N/A	19.96	(18541)	15.78	(14660)
5065	XO, OX	25 1/4	(641)	75 3/4	(1924)	13.28	(12337)	N/A	N/A	13.28	(12337)	19.89	(18480)
5068	XO, OX	25 1/4	(641)	78 1/4	(1987)	13.72	(12744)	N/A	N/A	13.72	(12744)	20.63	(19169)
5070	XO, OX	25 1/4	(641)	82 1/4	(2089)	14.42	(13396)	N/A	N/A	14.42	(13396)	21.82	(20271)
5080	XO, OX	25 1/4	(641)	91 3/4	(2330)	16.08	(14943)	N/A	N/A	16.08	(14943)	24.64	(22887)
5465	XO, OX	27 1/4	(692)	75 3/4	(1924)	14.33	(13314)	N/A	N/A	14.33	(13314)	21.76	(20212)
5468	XO, OX	27 1/4	(692)	78 1/4	(1987)	14.80	(13754)	N/A	N/A	14.80	(13754)	22.57	(20965)
5470	XO, OX	27 1/4	(692)	82 1/4	(2089)	15.56	(14457)	N/A	N/A	15.56	(14457)	23.86	(22170)
5480	XO, OX	27 1/4	(692)	91 3/4	(2330)	17.36	(16127)	N/A	N/A	17.36	(16127)	26.94	(25032)
6065	XO, OX	31 1/4	(794)	75 3/4	(1924)	16.44	(15269)	N/A	N/A	16.44	(15269)	25.48	(23675)
6068	XO, OX	31 1/4	(794)	78 1/4	(1987)	16.98	(15773)	N/A	N/A	16.98	(15773)	26.43	(24557)
6070	XO, OX	31 1/4	(794)	82 1/4	(2089)	17.85	(16579)	N/A	N/A	17.85	(16579)	27.95	(25968)
6080	XO, OX	31 1/4	(794)	91 3/4	(2330)	19.91	(18495)	N/A	N/A	19.91	(18495)	31.56	(29320)
5065	XX	52 13/32	(1331)	75 3/4	(1924)	27.57	(25612)	N/A	N/A	27.57	(25612)	19.89	(18480)
5068	XX	52 13/32	(1331)	78 1/4	(1987)	28.48	(26458)	N/A	N/A	28.48	(26458)	20.63	(19169)
5070	XX	52 13/32	(1331)	82 1/4	(2089)	29.93	(27810)	N/A	N/A	29.93	(27810)	21.82	(20271)
5080	XX	52 13/32	(1331)	91 3/4	(2330)	33.39	(31023)	N/A	N/A	33.39	(31023)	24.64	(22887)
5465	XX	56 13/32	(1433)	75 3/4	(1924)	29.67	(27567)	N/A	N/A	29.67	(27567)	21.76	(20212)
5468	XX	56 13/32	(1433)	78 1/4	(1987)	30.65	(28477)	N/A	N/A	30.65	(28477)	22.57	(20965)
5470	XX	56 13/32	(1433)	82 1/4	(2089)	32.22	(29933)	N/A	N/A	32.22	(29933)	23.86	(22170)
5480	XX	56 13/32	(1433)	91 3/4	(2330)	35.94	(33390)	N/A	N/A	35.94	(33390)	26.94	(25032)
6065	XX	64 13/32	(1636)	75 3/4	(1924)	33.88	(31477)	N/A	N/A	33.88	(31477)	25.48	(23675)
6068	XX	64 13/32	(1636)	78 1/4	(1987)	35.00	(32516)	N/A	N/A	35.00	(32516)	26.43	(24557)
6070	XX	64 13/32	(1636)	82 1/4	(2089)	36.79	(34178)	N/A	N/A	36.79	(34178)	27.95	(25968)
6080	XX	64 13/32	(1636)	91 3/4	(2330)	41.04	(38126)	N/A	N/A	41.04	(38126)	31.56	(29320)

Outswing French Door

EGRESS OPENING													
		Egress Width		Egress Height		Egress Clear Opening		Floor To Clear Opening		Vent		DLO	
Unit #		Inches	(mm)	Inches	(mm)	Sq. Ft.	(cm ²)	Sq. Ft.	(cm ²)	Sq. Ft.	(cm ²)	Sq. Ft.	(cm ²)
2665	X	25 37/64	(650)	76 35/64	(1944)	13.60	(12633)	N/A	N/A	13.60	(12633)	9.95	(9240)
2668	X	25 37/64	(650)	79 3/64	(2008)	14.04	(13046)	N/A	N/A	14.04	(13046)	10.32	(9584)
2670	X	25 37/64	(650)	83 3/64	(2109)	14.75	(13706)	N/A	N/A	14.75	(13706)	10.91	(10135)
2680	X	25 37/64	(650)	92 35/64	(2351)	16.44	(15274)	N/A	N/A	16.44	(15274)	12.32	(11444)
2865	X	27 37/64	(701)	76 35/64	(1944)	14.66	(13621)	N/A	N/A	14.66	(13621)	10.88	(10106)
2868	X	27 37/64	(701)	79 3/64	(2008)	15.14	(14066)	N/A	N/A	15.14	(14066)	11.28	(10482)
2870	X	27 37/64	(701)	83 3/64	(2109)	15.91	(14778)	N/A	N/A	15.91	(14778)	11.93	(11085)
2880	X	27 37/64	(701)	92 35/64	(2351)	17.73	(16468)	N/A	N/A	17.73	(16468)	13.47	(12516)
3065	X	31 37/64	(802)	76 35/64	(1944)	16.79	(15596)	N/A	N/A	16.79	(15596)	12.74	(11837)
3068	X	31 37/64	(802)	79 3/64	(2008)	17.34	(16106)	N/A	N/A	17.34	(16106)	13.22	(12279)
3070	X	31 37/64	(802)	83 3/64	(2109)	18.21	(16921)	N/A	N/A	18.21	(16921)	13.98	(12984)
3080	X	31 37/64	(802)	92 35/64	(2351)	20.30	(18856)	N/A	N/A	20.30	(18856)	15.78	(14660)
5065	XX	52 7/32	(1326)	76 35/64	(1944)	27.76	(25785)	N/A	N/A	27.76	(25785)	19.89	(18480)
5068	XX	52 7/32	(1326)	79 3/64	(2008)	28.66	(26627)	N/A	N/A	28.66	(26627)	20.63	(19169)
5070	XX	52 7/32	(1326)	83 3/64	(2109)	30.11	(27975)	N/A	N/A	30.11	(27975)	21.82	(20271)
5080	XX	52 7/32	(1326)	92 35/64	(2351)	33.56	(31175)	N/A	N/A	33.56	(31175)	24.64	(22887)
5465	XX	56 7/32	(1428)	76 35/64	(1944)	29.88	(27761)	N/A	N/A	29.88	(27761)	21.76	(20212)
5468	XX	56 7/32	(1428)	79 3/64	(2008)	30.86	(28667)	N/A	N/A	30.86	(28667)	22.57	(20965)
5470	XX	56 7/32	(1428)	83 3/64	(2109)	32.42	(30118)	N/A	N/A	32.42	(30118)	23.86	(22170)
5480	XX	56 7/32	(1428)	92 35/64	(2351)	36.13	(33563)	N/A	N/A	36.13	(33563)	26.94	(25032)
6065	XX	64 7/32	(1631)	76 35/64	(1944)	34.13	(31712)	N/A	N/A	34.13	(31712)	25.48	(23675)
6068	XX	64 7/32	(1631)	79 3/64	(2008)	35.25	(32747)	N/A	N/A	35.25	(32747)	26.43	(24557)
6070	XX	64 7/32	(1631)	83 3/64	(2109)	37.03	(34404)	N/A	N/A	37.03	(34404)	27.95	(25968)
6080	XX	64 7/32	(1631)	92 35/64	(2351)	41.27	(38340)	N/A	N/A	41.27	(38340)	31.56	(29320)

WDMA AND PERFORMANCE GRADE (PG)

WDMA STANDARDS

The Window and Door Manufacturers Association (WDMA) in conjunction with other organizations in the industry has developed standards that make it easy to compare windows from different manufacturers, testing product performance regarding air and water infiltration, as well as physical loads on the exterior and interior (very important when you consider the pressure differentials that can occur in coastal areas) as well as forced entry resistance. Marvin products are rated in accordance with the North American Fenestration Standard (AAMA/WDMA CSA 101/I.S.2/A440) and are certified in compliance with the WDMA Hallmark program.

PERFORMANCE GRADE (PG)

A performance grade rating, as created by AAMA/WDMA/CSA Standards, is a measure of the overall tested performance of a window or door that addresses all of the applicable requirements of the Standards. A product receives a PG rating if it meets all performance requirements, including: air infiltration resistance, water penetration resistance, structural performance, ease of operation, durability, weatherability, and resistance to forced entry. The higher a PG number a product has, the better the performance. As a frame of reference: PG40 means that a product is tested structurally to a minimum 60 pounds per square foot (psf) and must withstand water penetration under conditions equal to 8 inches of rain per hour driven by a minimum of 50 mph winds.

Casement	LC-PG50-C
Casement Picture	LC-PG50-FW
Awning	LC-PG50-AP
Double Hung	LC-PG40-H*
Double Hung Picture	LC-PG40-FW*
Casement Narrow Frame	LC-PG50-C
Casement Narrow Frame Picture	LC-PG50-FW
Awning Narrow Frame	LC-PG50-AP
Double Hung Insert	LC-PG40-H**
Double Hung Insert Picture	LC-PG40-FW
Gliders	LC-PG30-HS

Direct Glaze	CW-PG50-FW
Sliding Patio Doors	LC-PG40-SD***
Sliding French Doors	LC-PG40-SD****
Inswing French Doors	LC-PG30-SHD
Inswing French Doors HP	LC-PG50-SHD
Outswing French Doors	LC-PG50-SHD
Bi-Fold Doors	LC-PG30-FLD

- * All Double Hung units taller than CN76 have a rating of LC-PG35, High Performance Kit: Optional high performance upgrade kit increases design pressure rating of units to LC-PG50, and increases units taller than CN76 to LC-PG40.
- **Insert Double Hung units wider than CN42 have a rating of LC-PG35.
- ***ELSPD 2 and 3 panel call sizes wider than CN60 or taller than CN70 are LC-PG30-SD, ELSPD 3 and 4 panel call sizes wider than CN90 are LC-PG25-SD
- ****ELSFD 2 and 3 panel call sizes taller than CN70 or wider than CN90 are LC-PG30-SD, ELSFD 4 panel units are LC-PG30-SD, High performance option available for ELSFD 2 and 3 panel units up to CN90 widths and CN80 heights which increases design pressure rating of units to LC-PG50-SD



SOUND TRANSMISSION

PRODUCT TYPE	EXTERIOR GLAZING	AIR SPACE	INTERIOR GLAZING OR CENTER GLAZING	AIRSPACE	INTERIOR GLAZING	STC	OITC
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Casement/Awning

ELCA	1/8" (3.1)	15/32" (11.5)	1/8" (3.1)	--	--	28	24
	1/8" (3.1)	13/32" (9.8)	3/16" (4.7)	--	--	32	28
	1/8" (3.1)	13/32" (9.8)	1/8" (3.1)	13/32" (9.8)	1/8" (3.1)	28	24
	1/8" (3.1)	5/16" (7.5)	9/32" (6.9) PVB laminate	--	--	33	29
	5/32" (3.9)	9/32" (7.0)	9/32" (6.9) SGP laminate	--	--	31	28
ELCA P	1/8" (3.1)	15/32" (11.5)	1/8" (3.1)	--	--	27	23
	1/8" (3.1)	13/32" (9.8)	3/16" (4.7)	--	--	31	27
	1/8" (3.1)	13/32" (9.8)	1/8" (3.1)	13/32" (9.8)	1/8" (3.1)	28	21
	1/8" (3.1)	5/16" (7.5)	9/32" (6.9) PVB laminate	--	--	32	27
	5/32" (3.9)	9/32" (7.0)	9/32" (6.9) SGP laminate	--	--	30	27
ELAWN	1/8" (3.1)	15/32" (11.5)	1/8" (3.1)	--	--	29	24
	1/8" (3.1)	13/32" (9.8)	3/16" (4.7)	--	--	32	27
	1/8" (3.1)	13/32" (9.8)	1/8" (3.1)	13/32" (9.8)	1/8" (3.1)	30	24
	1/8" (3.1)	5/16" (7.5)	9/32" (6.9) PVB laminate	--	--	32	28
	5/32" (3.9)	9/32" (7.0)	9/32" (6.9) SGP laminate	--	--	31	27

Double Hung

ELDH	1/8" (3.1)	15/32" (11.5)	1/8" (3.1)	--	--	27	23
	1/8" (3.1)	13/32" (9.8)	3/16" (4.7)	--	--	30	26
	1/8" (3.1)	5/16" (7.5)	9/32" (6.9) PVB laminate	--	--	32	28
ELDH P	1/8" (3.1)	15/32" (11.5)	1/8" (3.1)	--	--	27	23
	1/8" (3.1)	13/32" (9.8)	3/16" (4.7)	--	--	31	26
	1/8" (3.1)	5/16" (7.5)	9/32" (6.9) PVB laminate	--	--	32	27
	5/32" (3.9)	9/32" (7.0)	9/32" (6.9) SGP laminate	--	--	31	27

Casement Narrow Frame

ELCANF	1/8" (3.1)	15/32" (11.5)	1/8" (3.1)	--	--	28	25
	1/8" (3.1)	13/32" (9.8)	3/16" (4.7)	--	--	33	29
ELAWNPF	1/8" (3.1)	15/32" (11.5)	1/8" (3.1)	--	--	28	24
	1/8" (3.1)	13/32" (9.8)	3/16" (4.7)	--	--	32	27
ELCANF P	1/8" (3.1)	15/32" (11.5)	1/8" (3.1)	--	--	26	22
	1/8" (3.1)	13/32" (9.8)	3/16" (4.7)	--	--	31	27

Double Hung Insert

ELDHIN	1/8" (3.1)	15/32" (11.5)	1/8" (3.1)	--	--	29	24
	1/8" (3.1)	13/32" (9.8)	3/16" (4.7)	--	--	31	27
ELDHIN P	1/8" (3.1)	15/32" (11.5)	1/8" (3.1)	--	--	27	23
	1/8" (3.1)	13/32" (9.8)	3/16" (4.7)	--	--	31	26

Glider

ELGL	1/8" (3.1)	15/32" (11.5)	1/8" (3.1)	--	--	28	23
	1/8" (3.1)	13/32" (9.8)	3/16" (4.7)	--	--	30	27

Sliding Patio Door

ELSPD	1/8" (3.1)	17/32" (13.0)	1/8" (3.1)	--	--	27	23
	1/8" (3.1)	15/32" (11.5)	3/16" (4.7)	--	--	30	26

Sliding French Door

ELSFD	1/8" (3.1)	17/32" (13.0)	1/8" (3.1)	--	--	28	24
	1/8" (3.1)	15/32" (11.5)	3/16" (4.7)	--	--	31	27

Inswing French Door

ELIFD	1/8" (3.1)	17/32" (13.0)	1/8" (3.1)	--	--	29	24
	1/8" (3.1)	15/32" (11.5)	3/16" (4.7)	--	--	32	27
	5/32" (3.9)	5/16" (8.0)	9/32" (6.9) SGP laminate	--	--	32	29

Outswing French Door

ELOFD	1/8" (3.1)	17/32" (13.0)	1/8" (3.1)	--	--	30	24
	1/8" (3.1)	15/32" (11.5)	3/16" (4.7)	--	--	32	27
	5/32" (3.9)	5/16" (8.0)	9/32" (6.9) SGP laminate	--	--	32	29

Direct Glaze

ELDG (CASEMENT FRAME)	1/8" (3.1)	15/32" (11.5)	1/8" (3.1)	--	--	28	23
	1/8" (3.1)	17/32" (13.0)	3/16" (4.7)	--	--	32	27
	1/8" (3.1)	13/32" (9.8)	1/8" (3.1)	13/32" (9.8)	1/8" (3.1)	28	23
	5/16" (3.9)	17/32" (13.0)	9/32" (6.9) PVB laminate	--	--	33	28
	1/4" (5.7)	13/32" (9.8)	13/32" (10.1) SGP laminate	--	--	35	31
ELDG (DOUBLE HUNG AND DOOR FRAME)	1/8" (3.1)	15/32" (11.5)	1/8" (3.1)	--	--	27	22
	1/8" (3.1)	17/32" (13.0)	3/16" (4.7)	--	--	31	26
	5/16" (3.9)	17/32" (13.0)	9/32" (6.9) PVB laminate	--	--	34	28
	1/4" (5.7)	13/32" (9.8)	13/32" (10.1) SGP laminate	--	--	34	30

Sound Transmission Class (STC) and Outdoor-Indoor Transmission Class (OITC) values are subject to change. Values are generated in accordance with ASTM E90 and ASTM 1332 test Specifications. Tested glass types available in units using 3.1 mm standard glass thickness.

Contact your Marvin retailer for details.

For further details and drawings visit the 'Technical Specifications' section at Marvin.com.

ALTITUDE GUIDELINES

Casement

ALTITUDE LIMITS (FEET)

UNIT SIZE		17	21	25	29	33	37
31	Annealed	4000	5000	6000	7000	8000	8000
	Tempered	7000	9000	10000	10000	10000	10000
35	Annealed	4000	5000	6000	7000	8000	9000
	Tempered	7000	10000	10000	10000	10000	10000
39	Annealed	4000	5000	6000	7000	9000	10000
	Tempered	8000	10000	10000	10000	10000	10000
43	Annealed	4000	5000	6000	8000	9000	10000
	Tempered	8000	10000	10000	10000	10000	10000
47	Annealed	4000	5000	6000	8000	9000	10000
	Tempered	8000	10000	10000	10000	10000	10000
55	Annealed	4000	5000	6000	8000	9000	10000
	Tempered	9000	10000	10000	10000	10000	10000
59	Annealed	4000	5000	6000	8000	9000	10000
	Tempered	9000	10000	10000	10000	10000	10000
63	Annealed	4000	5000	6000	8000	10000	10000
	Tempered	9000	10000	10000	10000	10000	10000
71	Annealed	N/A	N/A	N/A	N/A	N/A	N/A
	Tempered	9000	10000	10000	10000	10000	10000

Casement STC

ALTITUDE LIMITS (FEET)

UNIT SIZE		17	21	25	29	33	37
31	Annealed	3000	4000	5000	6000	7000	7000
	Tempered	6000	8000	9000	10000	10000	10000
35	Annealed	3000	4000	5000	6000	7000	8000
	Tempered	6000	8000	10000	10000	10000	10000
39	Annealed	3000	4000	5000	6000	7000	8000
	Tempered	6000	9000	10000	10000	10000	10000
43	Annealed	3000	4000	5000	6000	7000	8000
	Tempered	7000	9000	10000	10000	10000	10000
47	Annealed	3000	4000	5000	6000	8000	9000
	Tempered	7000	10000	10000	10000	10000	10000
55	Annealed	3000	4000	5000	7000	8000	9000
	Tempered	7000	10000	10000	10000	10000	10000
59	Annealed	3000	4000	5000	7000	8000	9000
	Tempered	7000	10000	10000	10000	10000	10000
63	Annealed	3000	4000	5000	7000	8000	9000
	Tempered	7000	10000	10000	10000	10000	10000
71	Annealed	N/A	N/A	N/A	N/A	N/A	N/A
	Tempered	7000	10000	10000	10000	10000	10000

Casement Tripane

ALTITUDE LIMITS (FEET)

UNIT SIZE		17	21	25	29	33	37
31	Annealed	N/A	N/A	4000	5000	5000	6000
	Tempered	N/A	N/A	8000	9000	9000	10000
35	Annealed	3000	3000	4000	5000	6000	6000
	Tempered	5000	7000	8000	9000	10000	10000
39	Annealed	3000	3000	4000	5000	6000	7000
	Tempered	6000	7000	9000	10000	10000	10000
43	Annealed	3000	3000	4000	5000	6000	7000
	Tempered	6000	8000	10000	10000	10000	10000
47	Annealed	3000	3000	4000	5000	6000	7000
	Tempered	6000	8000	10000	10000	10000	10000
55	Annealed	3000	3000	4000	5000	6000	7000
	Tempered	6000	9000	10000	10000	10000	10000
59	Annealed	3000	3000	4000	5000	6000	7000
	Tempered	6000	9000	10000	10000	10000	10000
63	Annealed	3000	3000	4000	5000	7000	8000
	Tempered	7000	10000	10000	10000	10000	10000
71	Annealed	3000	3000	4000	N/A	N/A	N/A
	Tempered	7000	10000	10000	10000	10000	10000

Casement Picture

ALTITUDE LIMITS (FEET)

UNIT SIZE		17	21	25	29	33	37	41	49	57	73
19	Annealed	4000	4000	4000	5000	5000	5000	5000	5000	5000	5000
	Tempered	5000	6000	7000	8000	9000	9000	10000	10000	10000	10000
23	Annealed	4000	5000	5000	6000	6000	6000	6000	6000	6000	6000
	Tempered	6000	7000	9000	10000	10000	10000	10000	10000	10000	10000
27	Annealed	4000	5000	6000	7000	7000	7000	7000	7000	8000	7000
	Tempered	6000	8000	10000	10000	10000	10000	10000	10000	10000	10000
31	Annealed	4000	5000	6000	7000	8000	8000	8000	9000	9000	9000
	Tempered	7000	9000	10000	10000	10000	10000	10000	10000	10000	10000
35	Annealed	4000	5000	6000	7000	8000	9000	8000	10000	10000	10000
	Tempered	7000	10000	10000	10000	10000	10000	10000	10000	10000	10000
39	Annealed	4000	5000	6000	7000	9000	10000	10000	10000	10000	10000
	Tempered	8000	10000	10000	10000	10000	10000	10000	10000	10000	10000
43	Annealed	4000	5000	6000	8000	9000	10000	10000	10000	10000	10000
	Tempered	8000	10000	10000	10000	10000	10000	10000	10000	10000	10000
47	Annealed	4000	5000	6000	8000	9000	10000	10000	10000	10000	10000
	Tempered	8000	10000	10000	10000	10000	10000	10000	10000	10000	10000
55	Annealed	4000	5000	6000	8000	9000	10000	10000	10000	10000	10000
	Tempered	9000	10000	10000	10000	10000	10000	10000	10000	10000	10000
59	Annealed	4000	5000	6000	8000	9000	10000	10000	10000	10000	N/A
	Tempered	9000	10000	10000	10000	10000	10000	10000	10000	10000	10000
63	Annealed	4000	5000	6000	8000	10000	10000	10000	10000	10000	N/A
	Tempered	9000	10000	10000	10000	10000	10000	10000	10000	10000	N/A
71	Annealed	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Tempered	9000	10000	10000	10000	10000	10000	10000	10000	10000	N/A

ALTITUDE GUIDELINES

Casement Picture STC

ALTITUDE LIMITS (FEET)											
	UNIT SIZE	17	21	25	29	33	37	41	49	57	73
19	Annealed	3000	4000	4000	4000	4000	4000	4000	4000	4000	4000
	Tempered	4000	5000	6000	7000	7000	8000	8000	9000	10000	10000
23	Annealed	3000	4000	4000	4000	5000	5000	5000	5000	5000	5000
	Tempered	5000	6000	7000	8000	9000	10000	10000	10000	10000	10000
27	Annealed	3000	4000	5000	5000	6000	6000	6000	6000	6000	6000
	Tempered	5000	7000	8000	10000	10000	10000	10000	10000	10000	10000
31	Annealed	3000	4000	5000	6000	7000	7000	7000	7000	7000	8000
	Tempered	6000	8000	9000	10000	10000	10000	10000	10000	10000	10000
35	Annealed	3000	4000	5000	6000	7000	8000	8000	8000	9000	9000
	Tempered	6000	8000	10000	10000	10000	10000	10000	10000	10000	10000
39	Annealed	3000	4000	5000	6000	7000	8000	9000	10000	10000	N/A
	Tempered	6000	9000	10000	10000	10000	10000	10000	10000	10000	10000
43	Annealed	3000	4000	5000	6000	7000	8000	9000	10000	10000	N/A
	Tempered	7000	9000	10000	10000	10000	10000	10000	10000	10000	N/A
47	Annealed	3000	4000	5000	6000	8000	9000	10000	10000	10000	N/A
	Tempered	7000	10000	10000	10000	10000	10000	10000	10000	10000	N/A
55	Annealed	3000	4000	5000	7000	8000	9000	10000	10000	N/A	N/A
	Tempered	7000	10000	10000	10000	10000	10000	10000	10000	N/A	N/A
59	Annealed	3000	4000	5000	7000	8000	9000	10000	N/A	N/A	N/A
	Tempered	7000	10000	10000	10000	10000	10000	10000	N/A	N/A	N/A
63	Annealed	3000	4000	5000	7000	8000	9000	10000	N/A	N/A	N/A
	Tempered	7000	10000	10000	10000	10000	10000	10000	N/A	N/A	N/A
71	Annealed	N/A	N/A	N/A	N/A	N/A	N/A	10000	N/A	N/A	N/A
	Tempered	7000	10000	10000	10000	10000	10000	10000	N/A	N/A	N/A

Casement Picture Tripane

ALTITUDE LIMITS (FEET)											
	UNIT SIZE	17	21	25	29	33	37	41	49	57	73
19	Annealed	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000
	Tempered	4000	4000	5000	6000	6000	7000	7000	8000	9000	9000
23	Annealed	3000	3000	4000	4000	4000	4000	4000	4000	4000	4000
	Tempered	4000	5000	6000	7000	8000	8000	9000	10000	10000	10000
27	Annealed	3000	3000	4000	4000	5000	5000	5000	5000	5000	5000
	Tempered	5000	6000	7000	8000	9000	9000	10000	10000	10000	10000
31	Annealed	3000	3000	4000	5000	5000	6000	6000	6000	6000	6000
	Tempered	5000	6000	8000	9000	9000	10000	10000	10000	10000	10000
35	Annealed	3000	3000	4000	5000	6000	6000	7000	7000	7000	7000
	Tempered	5000	7000	8000	9000	10000	10000	10000	10000	10000	10000
39	Annealed	3000	3000	4000	5000	6000	7000	7000	8000	8000	8000
	Tempered	6000	7000	9000	10000	10000	10000	10000	10000	10000	10000
43	Annealed	3000	3000	4000	5000	6000	7000	8000	8000	9000	9000
	Tempered	6000	8000	10000	10000	10000	10000	10000	10000	10000	N/A
47	Annealed	3000	3000	4000	5000	6000	7000	8000	9000	10000	N/A
	Tempered	6000	8000	10000	10000	10000	10000	10000	10000	10000	9000
55	Annealed	3000	3000	4000	5000	6000	7000	8000	10000	10000	10000
	Tempered	6000	9000	10000	10000	10000	10000	10000	10000	10000	10000
59	Annealed	3000	3000	4000	5000	6000	7000	8000	9000	10000	10000
	Tempered	6000	9000	10000	10000	10000	10000	10000	10000	10000	10000
63	Annealed	3000	3000	4000	5000	7000	8000	8000	9000	10000	N/A
	Tempered	7000	10000	10000	10000	10000	10000	10000	10000	10000	N/A
71	Annealed	3000	3000	4000	N/A	N/A	N/A	9000	9000	10000	N/A
	Tempered	7000	10000	10000	10000	10000	10000	10000	10000	10000	N/A

Awning

ALTITUDE LIMITS (FEET)							
UNIT SIZE		25	29	33	37	41	49
19	Annealed	4000	5000	5000	5000	5000	5000
	Tempered	7000	8000	9000	9000	10000	10000
23	Annealed	5000	6000	6000	6000	6000	6000
	Tempered	9000	10000	10000	10000	10000	10000
27	Annealed	6000	7000	7000	7000	7000	7000
	Tempered	10000	10000	10000	10000	10000	10000
35	Annealed	6000	7000	8000	9000	8000	10000
	Tempered	10000	10000	10000	10000	10000	10000
39	Annealed	6000	7000	9000	10000	10000	10000
	Tempered	10000	10000	10000	10000	10000	10000
47	Annealed	6000	8000	9000	10000	10000	10000
	Tempered	10000	10000	10000	10000	10000	10000

Awning STC

ALTITUDE LIMITS (FEET)							
UNIT SIZE		25	29	33	37	41	49
19	Annealed	4000	4000	4000	4000	4000	4000
	Tempered	6000	7000	7000	8000	8000	9000
23	Annealed	4000	4000	5000	5000	5000	5000
	Tempered	7000	8000	9000	10000	10000	10000
27	Annealed	5000	5000	6000	6000	6000	6000
	Tempered	8000	10000	10000	10000	10000	10000
35	Annealed	5000	6000	7000	8000	8000	8000
	Tempered	10000	10000	10000	10000	10000	10000
39	Annealed	5000	6000	7000	8000	9000	10000
	Tempered	10000	10000	10000	10000	10000	10000
47	Annealed	5000	6000	8000	9000	10000	10000
	Tempered	10000	10000	10000	10000	10000	10000

Awning Tripane

ALTITUDE LIMITS (FEET)							
UNIT SIZE		25	29	33	37	41	49
19	Annealed	3000	3000	3000	3000	3000	3000
	Tempered	5000	6000	6000	7000	7000	8000
23	Annealed	4000	4000	4000	4000	4000	4000
	Tempered	6000	7000	8000	8000	9000	10000
27	Annealed	4000	4000	5000	5000	5000	5000
	Tempered	7000	8000	9000	9000	10000	10000
35	Annealed	4000	5000	6000	6000	7000	7000
	Tempered	8000	9000	10000	10000	10000	10000
39	Annealed	4000	5000	6000	7000	7000	8000
	Tempered	9000	10000	10000	10000	10000	10000
47	Annealed	4000	5000	6000	7000	8000	9000
	Tempered	10000	10000	10000	10000	10000	10000

ALTITUDE GUIDELINES

Double Hung

ALTITUDE LIMITS (FEET)											
	UNIT SIZE	22	26	30	32	34	36	38	42	48	54
36	Annealed	4000	4000	4000	5000	5000	5000	5000	5000	4000	4000
	Tempered	6000	7000	8000	8000	9000	9000	9000	10000	8000	8000
40	Annealed	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000
	Tempered	7000	8000	9000	9000	10000	10000	10000	10000	10000	10000
44	Annealed	5000	5000	6000	6000	6000	6000	6000	6000	6000	6000
	Tempered	8000	9000	10000	10000	10000	10000	10000	10000	10000	10000
48	Annealed	5000	6000	6000	6000	6000	6000	6000	7000	6000	6000
	Tempered	8000	9000	10000	10000	10000	10000	10000	10000	10000	10000
52	Annealed	5000	6000	7000	7000	7000	7000	7000	7000	7000	7000
	Tempered	9000	10000	10000	10000	10000	10000	10000	10000	10000	10000
56	Annealed	5000	6000	7000	7000	7000	8000	8000	8000	7500	8000
	Tempered	9000	10000	10000	10000	10000	10000	10000	10000	10000	10000
60	Annealed	5000	6000	7000	8000	8000	8000	8000	8000	8500	9000
	Tempered	9000	10000	10000	10000	10000	10000	10000	10000	10000	10000
64	Annealed	5000	6000	7000	8000	8000	9000	9000	9000	9000	9000
	Tempered	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000
68	Annealed	5000	6000	8000	8000	9000	9000	9000	10000	9500	9500
	Tempered	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000
72	Annealed	5000	6000	8000	8000	9000	9000	10000	10000	9500	9500
	Tempered	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000
76	Annealed	5000	6000	8000	8000	9000	9000	10000	10000	10000	10000
	Tempered	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000
68C	Annealed	5000	7000	8000	8000	9000	10000	10000	10000	10000	10000
	Tempered	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000

ALTITUDE GUIDELINES

Double Hung Transom

ALTITUDE LIMITS (FEET)												
UNIT SIZE		22	26	30	32	34	36	38	42	50	54	62
16	Annealed	4000	4000	4000	4000	4000	4000	4000	4000	4000	4000	4000
	Tempered	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
24	Annealed	5000	5000	6000	6000	6000	6000	6000	6000	6000	6000	6000
	Tempered	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Double Hung Transom STC

ALTITUDE LIMITS (FEET)												
UNIT SIZE		22	26	30	32	34	36	38	42	50	54	62
16	Annealed	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000
	Tempered	4000	5000	5000	5000	5000	6000	6000	6000	6000	6000	6000
24	Annealed	4000	4000	4000	5000	5000	5000	5000	5000	5000	5000	5000
	Tempered	6000	7000	8000	9000	9000	10000	10000	10000	10000	10000	10000

Glider

ALTITUDE LIMITS (FEET)									
UNIT SIZE		36	48	60	72	72/XOX	84/XOX	96/XOX	
24	Annealed	4000	5000	6000	6000	4000	5000	5000	
	Tempered	7000	9000	10000	10000	7000	8000	9000	
36	Annealed	5000	6000	8000	9000	5000	5000	6000	
	Tempered	9000	10000	10000	10000	9000	10000	10000	
42	Annealed	5000	7000	8000	10000	5000	6000	7000	
	Tempered	10000	10000	10000	10000	10000	10000	10000	
48	Annealed	5000	7000	9000	10000	5000	6000	7000	
	Tempered	10000	10000	10000	10000	10000	10000	10000	
60	Annealed	5000	7000	9000	10000	5000	6000	7000	
	Tempered	10000	10000	10000	10000	10000	10000	10000	

Glider STC

ALTITUDE LIMITS (FEET)									
UNIT SIZE		36	48	60	72	72/XOX	84/XOX	96/XOX	
24	Annealed	4000	4000	4000	5000	4000	4000	4000	
	Tempered	6000	7000	9000	10000	6000	7000	7000	
36	Annealed	4000	5000	7000	8000	4000	4000	5000	
	Tempered	8000	10000	10000	10000	8000	9000	10000	
42	Annealed	4000	5000	7000	9000	4000	4000	5000	
	Tempered	8000	10000	10000	10000	8000	10000	10000	
48	Annealed	4000	5000	7000	9000	4000	4000	5000	
	Tempered	9000	10000	10000	10000	9000	10000	10000	
60	Annealed	4000	5000	7000	9000	4000	5000	N/A	
	Tempered	10000	10000	10000	10000	10000	10000	N/A	

ALTITUDE GUIDELINES

Double Hung Insert - Annealed Glass

ALTITUDE LIMITS (FEET)								
Frame Size	18	21	25	28	31	34	38	54
28.5	4000	4000	4000	4000	4000	4000	4000	4000
38	4000	4000	4000	4000	4000	4000	4000	4000
46	4000	4000	5000	5000	5000	5000	5000	5000
52	4000	4000	5000	6000	6000	6000	6000	6000
58	4000	4000	5000	6000	7000	7000	7000	7000
64	4000	4000	5000	6000	7000	8000	8000	8000
72	4000	4000	5000	6000	7000	8000	9000	9000
84	4000	4000	5000	6000	7000	8000	9000	10000

Double Hung Insert - Tempered Glass

ALTITUDE LIMITS (FEET)							
Frame Size	18	20	21	23	25	26	54
28.5	4000	4000	4000	4000	4000	4000	4000
32	4000	4000	4000	4000	4000	4000	4000
36	5000	5000	5000	5000	5000	5000	5000
38	5000	5000	6000	6000	6000	6000	6000
42	5000	5000	6000	7000	7000	7000	7000
46	5000	5000	6000	7000	8000	8000	8000
48	5000	5000	6000	7000	8000	9000	9000
84	5000	5000	6000	7000	8000	9000	10000

Double Hung Insert - Annealed Glass STC

ALTITUDE LIMITS (FEET)									
Frame Size	18	20	26	29	33	36	39	42	54
28.5	3000	3000	3000	3000	3000	3000	3000	3000	3000
36	3000	3000	3000	3000	3000	3000	3000	3000	3000
48	3000	3000	4000	4000	4000	4000	4000	4000	4000
54	3000	3000	4000	5000	5000	5000	5000	5000	5000
62	3000	3000	4000	5000	6000	6000	6000	6000	6000
68	3000	3000	4000	5000	6000	7000	7000	7000	7000
74	3000	3000	4000	5000	6000	7000	8000	8000	8000
80	3000	3000	4000	5000	6000	7000	8000	9000	9000
84	3000	3000	4000	5000	6000	7000	8000	9000	10000

Double Hung Insert - Tempered Glass STC

ALTITUDE LIMITS (FEET)								
Frame Size	18	20	22	24	25	27	29	54
28.5	4000	4000	4000	4000	4000	4000	4000	4000
36	4000	4000	4000	4000	4000	4000	4000	4000
40	4000	4000	5000	5000	5000	5000	5000	5000
44	4000	4000	5000	6000	6000	6000	6000	6000
46	4000	4000	5000	6000	7000	7000	7000	7000
50	4000	4000	5000	6000	7000	8000	8000	8000
54	4000	4000	5000	6000	7000	8000	9000	9000
84	4000	4000	5000	6000	7000	8000	9000	10000

Double Hung Insert Picture/Transom - Annealed Glass

ALTITUDE LIMITS (FEET)								
Frame Size	18	21	25	28	31	34	38	62
16.5	4000	4000	4000	4000	4000	4000	4000	4000
21.25	4000	4000	4000	4000	4000	4000	4000	4000
25.25	4000	4000	5000	5000	5000	5000	5000	5000
28.25	4000	4000	5000	6000	6000	6000	6000	6000
31.25	4000	4000	5000	6000	7000	7000	7000	7000
34.25	4000	4000	5000	6000	7000	8000	8000	8000
38.25	4000	4000	5000	6000	7000	8000	9000	9000
84	4000	4000	5000	6000	7000	8000	9000	10000

Double Hung Insert Picture/Transom - Tempered Glass

ALTITUDE LIMITS (FEET)							
Frame Size	18	20	21	23	25	26	62
16.5	4000	4000	4000	4000	4000	4000	4000
18.25	4000	4000	4000	4000	4000	4000	4000
20.25	5000	5000	5000	5000	5000	5000	5000
21.25	5000	5000	6000	6000	6000	6000	6000
23.25	5000	5000	6000	7000	7000	7000	7000
25.25	5000	5000	6000	7000	8000	8000	8000
26.25	5000	5000	6000	7000	8000	9000	9000
84	5000	5000	6000	7000	8000	9000	10000

Double Hung Insert Picture/Transom - Annealed Glass STC

ALTITUDE LIMITS (FEET)										
Frame Size	18	20	26	29	33	36	39	42	62	
16.5	3000	3000	3000	3000	3000	3000	3000	3000	3000	
20.25	3000	3000	3000	3000	3000	3000	3000	3000	3000	
26.25	3000	3000	4000	4000	4000	4000	4000	4000	4000	
29.25	3000	3000	4000	5000	5000	5000	5000	5000	5000	
33.25	3000	3000	4000	5000	6000	6000	6000	6000	6000	
36.25	3000	3000	4000	5000	6000	7000	7000	7000	7000	
39.25	3000	3000	4000	5000	6000	7000	8000	8000	8000	
42.25	3000	3000	4000	5000	6000	7000	8000	9000	9000	
84	3000	3000	4000	5000	6000	7000	8000	9000	10000	

Double Hung Insert Picture/Transom - Tempered Glass STC

ALTITUDE LIMITS (FEET)									
Frame Size	18	20	22	24	25	27	29	62	
16.5	4000	4000	4000	4000	4000	4000	4000	4000	
20.25	4000	4000	4000	4000	4000	4000	4000	4000	
22.25	4000	4000	5000	5000	5000	5000	5000	5000	
24.25	4000	4000	5000	6000	6000	6000	6000	6000	
25.25	4000	4000	5000	6000	7000	7000	7000	7000	
27.25	4000	4000	5000	6000	7000	8000	8000	8000	
29.25	4000	4000	5000	6000	7000	8000	9000	9000	
84	4000	4000	5000	6000	7000	8000	9000	10000	

ALTITUDE GUIDELINES

Aluminum Direct Glaze
Round Tops

ALTITUDE LIMITS (FEET)

UNIT SIZE		
2499 ELALDG RT Casement	Annealed	5000
	Tempered	N/A
2500 ELALDG RT Casement	Annealed	5000
	Tempered	N/A
3301 ELALDG RT Casement	Annealed	4000
	Tempered	N/A
3302 ELALDG RT Casement	Annealed	9000
	Tempered	N/A
3320 ELALDG RT Casement	Annealed	5000
	Tempered	N/A
3328 ELALDG RT Casement	Annealed	7000
	Tempered	N/A
2118 ELALDG RT Casement	Annealed	4000
	Tempered	N/A
2519 ELALDG RT Casement	Annealed	4000
	Tempered	N/A
2526 ELALDG RT Casement	Annealed	6000
	Tempered	N/A
2920 ELALDG RT Casement	Annealed	5000
	Tempered	N/A
2928 ELALDG RT Casement	Annealed	6000
	Tempered	N/A
3701 ELALDG RT Casement	Annealed	4000
	Tempered	N/A
3702 ELALDG RT Casement	Annealed	9000
	Tempered	N/A
3722 ELALDG RT Casement	Annealed	5000
	Tempered	N/A
3729 ELALDG RT Casement	Annealed	7000
	Tempered	N/A
3765 ELALDG RT Casement	Annealed	8000
	Tempered	10000
3777 ELALDG RT Casement	Annealed	7000
	Tempered	10000
4121 ELALDG RT Casement	Annealed	5000
	Tempered	N/A
4128 ELALDG RT Casement	Annealed	7000
	Tempered	10000
4164 ELALDG RT Casement	Annealed	10000
	Tempered	10000
4921 ELALDG RT Casement	Annealed	5000
	Tempered	N/A
4929 ELALDG RT Casement	Annealed	8000
	Tempered	10000
4965 ELALDG RT Casement	Annealed	10000
	Tempered	10000
5724 ELALDG RT Casement	Annealed	6000
	Tempered	N/A
5731 ELALDG RT Casement	Annealed	9000
	Tempered	10000
5767 ELALDG RT Casement	Annealed	10000
	Tempered	10000
5771 ELALDG RT Casement	Annealed	N/A
	Tempered	N/A
5783 ELALDG RT Casement	Annealed	N/A
	Tempered	N/A

Aluminum Direct Glaze
Round Tops

ALTITUDE LIMITS (FEET)

UNIT SIZE			
6523 ELALDG RT Casement	Annealed	6000	
	Tempered	N/A	
6531 ELALDG RT Casement	Annealed	9000	
	Tempered	10000	
6567 ELALDG RT Casement	Annealed	10000	
	Tempered	10000	
7325 ELALDG RT Casement	Annealed	5000	
	Tempered	N/A	
7333 ELALDG RT Casement	Annealed	4000	
	Tempered	7000	
7359 ELALDG RT Casement	Annealed	10000	
	Tempered	10000	
7369 ELALDG RT Casement	Annealed	N/A	
	Tempered	10000	
2999 ELALDG RT Double Hung	Annealed	7000	
	Tempered	N/A	
3000 ELALDG RT Double Hung	Annealed	7000	
	Tempered	N/A	
3002 ELALDG RT Double Hung	Annealed	8000	
	Tempered	N/A	
3021 ELALDG RT Double Hung	Annealed	5000	
	Tempered	N/A	
3399 ELALDG RT Double Hung	Annealed	8000	
	Tempered	N/A	
3400 ELALDG RT Double Hung	Annealed	8000	
	Tempered	N/A	
3421 ELALDG RT Double Hung	Annealed	5000	
	Tempered	N/A	
3599 ELALDG RT Double Hung	Annealed	9000	
	Tempered	N/A	
3600 ELALDG RT Double Hung	Annealed	9000	
	Tempered	N/A	
3622 ELALDG RT Double Hung	Annealed	5000	
	Tempered	N/A	
3636 ELALDG RT Double Hung	Annealed	9000	
	Tempered	N/A	
2602 ELALDG RT Double Hung	Annealed	7000	
	Tempered	N/A	
2619 ELALDG RT Double Hung	Annealed	5000	
	Tempered	N/A	
3820 ELALDG RT Double Hung	Annealed	5000	
	Tempered	N/A	
4202 ELALDG RT Double Hung	Annealed	10000	
	Tempered	N/A	
4222 ELALDG RT Double Hung	Annealed	5000	
	Tempered	N/A	
5222 ELALDG RT Double Hung	Annealed	6000	
	Tempered	N/A	
5266 ELALDG RT Double Hung	Annealed	10000	
	Tempered	N/A	
6025 ELALDG RT Double Hung	Annealed	7000	
	Tempered	N/A	
6032 ELALDG RT Double Hung	Annealed	9000	
	Tempered	10000	
6069 ELALDG RT Double Hung	Annealed	10000	
	Tempered	10000	

Aluminum Direct Glaze
Round Tops

ALTITUDE LIMITS (FEET)

UNIT SIZE			
7626 ELALDG RT Double Hung	Annealed	6000	
	Tempered	N/A	
7670 ELALDG RT Double Hung	Annealed	N/A	
	Tempered	10000	
8429 ELALDG RT Double Hung	Annealed	6000	
	Tempered	N/A	
8473 ELALDG RT Double Hung	Annealed	N/A	
	Tempered	10000	
3248 ELALDG RT Double Hung	Annealed	8000	
	Tempered	N/A	
3601 ELALDG RT Double Hung	Annealed	4000	
	Tempered	N/A	
4201 ELALDG RT Double Hung	Annealed	5000	
	Tempered	N/A	
3802 ELALDG RT Double Hung	Annealed	8000	
	Tempered	N/A	
6824 ELALDG RT Double Hung	Annealed	6000	
	Tempered	N/A	
6868 ELALDG RT Double Hung	Annealed	10000	
	Tempered	10000	
6869 ELALDG RT Double Hung	Annealed	10000	
	Tempered	10000	
7225 ELALDG RT Double Hung	Annealed	5000	
	Tempered	N/A	
7233 ELALDG RT Double Hung	Annealed	7000	
	Tempered	10000	
7259 ELALDG RT Double Hung	Annealed	10000	
	Tempered	10000	
7269 ELALDG RT Double Hung	Annealed	N/A	
	Tempered	10000	
3002 ELDG RT Door	Annealed	8000	
	Tempered	N/A	
6025 ELDG RT Door	Annealed	7000	
	Tempered	N/A	
6032 ELDG RT Door	Annealed	9000	
	Tempered	10000	
6069 ELDG RT Door	Annealed	10000	
	Tempered	10000	
6824 ELDG RT Door	Annealed	6000	
	Tempered	N/A	
6068 ELDG RT Door	Annealed	N/A	
	Tempered	N/A	
6069 ELDG RT Door	Annealed	10000	
	Tempered	10000	
7225 ELDG RT Door	Annealed	5000	
	Tempered	N/A	
7233 ELDG RT Door	Annealed	7000	
	Tempered	10000	
7259 ELDG RT Door	Annealed	10000	
	Tempered	10000	
7269 ELDG RT Door	Annealed	N/A	
	Tempered	10000	

ALTITUDE GUIDELINES

Sliding French Door

ALTITUDE LIMITS (FEET)

UNIT SIZE		50	60	76	80	90	100	120	160
65	Annealed	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Tempered	10000	10000	10000	10000	10000	10000	10000	10000
68	Annealed	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Tempered	10000	10000	10000	10000	10000	10000	10000	10000
70	Annealed	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Tempered	10000	10000	10000	N/A	10000	10000	10000	N/A
80	Annealed	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Tempered	10000	10000	10000	10000	10000	10000	10000	10000

Sliding French Door STC

ALTITUDE LIMITS (FEET)

UNIT SIZE		50	60	76	90	100	120*
65	Annealed	N/A	N/A	N/A	N/A	N/A	N/A
	Tempered	10000	10000	10000	10000	10000	10000
68	Annealed	N/A	N/A	N/A	N/A	N/A	N/A
	Tempered	10000	10000	10000	10000	10000	10000
70	Annealed	N/A	N/A	N/A	N/A	N/A	N/A
	Tempered	10000	10000	10000	10000	10000	10000

*STC is only available on CN120 OXXO units (not CN120 3-panel units)

Inswing French Door

ALTITUDE LIMITS (FEET)

UNIT SIZE		26	28	30	50	54	60
65	Annealed	N/A	N/A	N/A	N/A	N/A	N/A
	Tempered	10000	10000	10000	10000	10000	10000
68	Annealed	N/A	N/A	N/A	N/A	N/A	N/A
	Tempered	10000	10000	10000	10000	10000	10000
70	Annealed	N/A	N/A	N/A	N/A	N/A	N/A
	Tempered	10000	10000	10000	10000	10000	10000
80	Annealed	N/A	N/A	N/A	N/A	N/A	N/A
	Tempered	10000	10000	10000	10000	10000	10000

Inswing French Door STC

ALTITUDE LIMITS (FEET)

UNIT SIZE		26	28	30	50	54	60
65	Annealed	N/A	N/A	N/A	N/A	N/A	N/A
	Tempered	10000	10000	10000	10000	10000	10000
68	Annealed	N/A	N/A	N/A	N/A	N/A	N/A
	Tempered	10000	10000	10000	10000	10000	10000
70	Annealed	N/A	N/A	N/A	N/A	N/A	N/A
	Tempered	10000	10000	10000	10000	10000	10000

Outswing French Door

ALTITUDE LIMITS (FEET)

UNIT SIZE		26	28	30	50	54	60
65	Annealed	N/A	N/A	N/A	N/A	N/A	N/A
	Tempered	10000	10000	10000	10000	10000	10000
68	Annealed	N/A	N/A	N/A	N/A	N/A	N/A
	Tempered	10000	10000	10000	10000	10000	10000
70	Annealed	N/A	N/A	N/A	N/A	N/A	N/A
	Tempered	10000	10000	10000	10000	10000	10000
80	Annealed	N/A	N/A	N/A	N/A	N/A	N/A
	Tempered	10000	10000	10000	10000	10000	10000

Outswing French Door STC

ALTITUDE LIMITS (FEET)

UNIT SIZE		26	28	30	50	54	60
65	Annealed	N/A	N/A	N/A	N/A	N/A	N/A
	Tempered	10000	10000	10000	10000	10000	10000
68	Annealed	N/A	N/A	N/A	N/A	N/A	N/A
	Tempered	10000	10000	10000	10000	10000	10000
70	Annealed	N/A	N/A	N/A	N/A	N/A	N/A
	Tempered	10000	10000	10000	10000	10000	10000

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ALTITUDE GUIDELINES

Sliding Patio Door

ALTITUDE LIMITS (FEET)

UNIT SIZE		50	60	76	80	90	100	120	160
65	Annealed	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Tempered	10000	10000	10000	10000	10000	10000	10000	10000
68	Annealed	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Tempered	10000	10000	10000	10000	10000	10000	10000	10000
70	Annealed	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Tempered	10000	10000	10000	N/A	10000	10000	10000	10000
80	Annealed	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Tempered	10000	10000	10000	10000	10000	10000	10000	10000

Sliding Patio Door STC

ALTITUDE LIMITS (FEET)

UNIT SIZE		50	60	76	80	90	100	120	160
65	Annealed	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Tempered	10000	10000	10000	10000	10000	10000	10000	10000
68	Annealed	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Tempered	10000	10000	10000	10000	10000	10000	10000	10000
70	Annealed	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Tempered	10000	10000	10000	N/A	10000	10000	10000	10000
80	Annealed	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Tempered	10000	10000	10000	10000	10000	10000	10000	10000

Bi-Fold Door

ALTITUDE LIMITS (FEET)

UNIT SIZE		30	34	60	66	90	98	120	128	150	160	178	190	206	220
65	Annealed	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Tempered	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000
68	Annealed	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Tempered	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000
70	Annealed	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Tempered	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	N/A	10000	10000
80	Annealed	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Tempered	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000

Bi-Fold Door STC

ALTITUDE LIMITS (FEET)

UNIT SIZE		30	34	60	66	90	98	120	128	150	160	178	190	206	220
65	Annealed	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Tempered	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000
68	Annealed	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Tempered	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000
70	Annealed	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Tempered	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	N/A	10000	10000
80	Annealed	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Tempered	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

THERMAL PERFORMANCE

ELEVATE CASEMENT

GLASS DESCRIPTION	DIVIDER	U-FACTOR	SHGC	VT	CR	ENERGY STAR 2020	CANADA ENERGY STAR 2020
11/16" IG Low E3/ERS Arg		0.23	0.20	0.45	48	N, NC, SC, S	
	SDLS < 1"	0.23	0.18	0.41	48	N, NC, SC, S	
	SDLN < 1"	0.23	0.18	0.41	48	N, NC, SC, S	
	GBG	0.23	0.18	0.41	48	N, NC, SC, S	
11/16" IG Low E3/ERS Air		0.26	0.20	0.45	44	N, NC, SC, S	
	SDLS < 1"	0.26	0.18	0.41	44	N, NC, SC, S	
	SDLN < 1"	0.26	0.18	0.41	44	N, NC, SC, S	
	GBG	0.26	0.18	0.41	44	N, NC, SC, S	
11/16" IG Low E3 Arg		0.27	0.20	0.46	59	N, NC, SC, S	
	SDLS < 1"	0.27	0.18	0.42	59	N, NC, SC, S	
	SDLN < 1"	0.27	0.18	0.42	59	N, NC, SC, S	
	GBG	0.27	0.18	0.42	59	N, NC, SC, S	
11/16" IG Low E3 Air		0.30	0.20	0.46	56	NC, SC, S	
	SDLS < 1"	0.30	0.19	0.42	56	NC, SC, S	
	SDLN < 1"	0.30	0.19	0.42	56	NC, SC, S	
	GBG	0.30	0.19	0.42	56	NC, SC, S	
11/16" IG Low E2 Arg		0.27	0.30	0.51	59	N, NC	
	SDLS < 1"	0.27	0.27	0.46	59	N, NC	
	SDLN < 1"	0.27	0.27	0.46	59	N, NC	
	GBG	0.27	0.27	0.46	59	N, NC	
11/16" IG Low E2 Air		0.31	0.30	0.51	55		
	SDLS < 1"	0.31	0.28	0.46	55		
	SDLN < 1"	0.31	0.28	0.46	55		
	GBG	0.31	0.28	0.46	55		
11/16" IG Low E1 Arg		0.28	0.49	0.56	58	N	
	SDLS < 1"	0.28	0.45	0.51	58	N	
	SDLN < 1"	0.28	0.45	0.51	58	N	
	GBG	0.28	0.45	0.51	58	N	
11/16" IG Low E1 Air		0.31	0.49	0.56	55		
	SDLS < 1"	0.31	0.45	0.51	55		
	SDLN < 1"	0.31	0.45	0.51	55		
	GBG	0.31	0.45	0.51	55		
11/16" IG Arg		0.41	0.56	0.59	45		
	SDLS < 1"	0.41	0.51	0.53	45		
	SDLN < 1"	0.41	0.51	0.53	45		
	GBG	0.41	0.51	0.53	45		
11/16" IG Air		0.43	0.56	0.59	44		
	SDLS < 1"	0.43	0.51	0.53	44		
	SDLN < 1"	0.43	0.51	0.53	44		
	GBG	0.43	0.51	0.53	44		
1 1/8" Tripane Low E2/E1 Arg		0.20	0.27	0.45	69	N, NC	Meets
	SDLS < 1"	0.20	0.25	0.41	69	N, NC, SC, S	Meets
	SDLN < 1"	0.20	0.25	0.41	69	N, NC, SC, S	Meets
	GBG	0.20	0.25	0.41	69	N, NC, SC, S	Meets
1 1/8" Tripane Low E2/E1 Air		0.22	0.27	0.45	65	N, NC	
	SDLS < 1"	0.22	0.25	0.41	65	N, NC, SC, S	
	SDLN < 1"	0.22	0.25	0.41	65	N, NC, SC, S	
	GBG	0.23	0.25	0.41	65	N, NC, SC, S	

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THERMAL PERFORMANCE

ELEVATE CASEMENT PICTURE-TRANSOM

GLASS DESCRIPTION	DIVIDER	U-FACTOR	SHGC	VT	CR	ENERGY STAR 2020	CANADA ENERGY STAR 2020
11/16" IG Low E3/ERS Arg		0.22	0.22	0.51	47	N, NC, SC, S	
	SDLS < 1"	0.22	0.20	0.46	47	N, NC, SC, S	
	SDLN < 1"	0.22	0.20	0.46	47	N, NC, SC, S	
	GBG	0.22	0.20	0.46	47	N, NC, SC, S	
11/16" IG Low E3/ERS Air		0.25	0.22	0.51	43	N, NC, SC, S	
	SDLS < 1"	0.25	0.20	0.46	43	N, NC, SC, S	
	SDLN < 1"	0.25	0.20	0.46	43	N, NC, SC, S	
	GBG	0.25	0.20	0.46	43	N, NC, SC, S	
11/16" IG Low E3 Arg		0.26	0.23	0.53	59	N, NC, SC, S	
	SDLS < 1"	0.26	0.20	0.47	59	N, NC, SC, S	
	SDLN < 1"	0.26	0.20	0.47	59	N, NC, SC, S	
	GBG	0.26	0.20	0.47	59	N, NC, SC, S	
11/16" IG Low E3 Air		0.30	0.23	0.53	55	NC, SC, S	
	SDLS < 1"	0.30	0.21	0.47	55	NC, SC, S	
	SDLN < 1"	0.30	0.21	0.47	55	NC, SC, S	
	GBG	0.30	0.21	0.47	55	NC, SC, S	
11/16" IG Low E2 Arg		0.26	0.34	0.58	58	N, NC	
	SDLS < 1"	0.26	0.31	0.52	58	N, NC	
	SDLN < 1"	0.26	0.31	0.52	58	N, NC	
	GBG	0.26	0.31	0.52	58	N, NC	
11/16" IG Low E2 Air		0.30	0.34	0.58	55	NC	
	SDLS < 1"	0.30	0.31	0.52	55	NC	
	SDLN < 1"	0.30	0.31	0.52	55	NC	
	GBG	0.30	0.31	0.52	55	NC	
11/16" IG Low E1 Arg		0.27	0.56	0.64	58	N	Meets
	SDLS < 1"	0.27	0.50	0.57	58	N	Meets
	SDLN < 1"	0.27	0.50	0.57	58	N	Meets
	GBG	0.27	0.50	0.57	58	N	Meets
11/16" IG Low E1 Air		0.31	0.56	0.64	54		Meets
	SDLS < 1"	0.31	0.50	0.57	54		
	SDLN < 1"	0.31	0.50	0.57	54		
	GBG	0.31	0.50	0.57	54		
11/16" IG Arg		0.42	0.63	0.67	45		
	SDLS < 1"	0.42	0.57	0.60	45		
	SDLN < 1"	0.42	0.57	0.60	45		
	GBG	0.42	0.57	0.60	45		
11/16" IG Air		0.45	0.63	0.67	43		
	SDLS < 1"	0.45	0.57	0.60	43		
	SDLN < 1"	0.45	0.57	0.60	43		
	GBG	0.45	0.57	0.60	43		
1 1/8" Tripane Low E2/E1 Arg		0.18	0.31	0.51	69	N, NC	Meets
	SDLS < 1"	0.18	0.28	0.46	69	N, NC	Meets
	SDLN < 1"	0.18	0.28	0.46	69	N, NC	Meets
	GBG	0.23	0.28	0.46	69	N, NC	
1 1/8" Tripane Low E2/E1 Air		0.21	0.31	0.51	66	N, NC	Meets
	SDLS < 1"	0.21	0.28	0.46	66	N, NC	Meets
	SDLN < 1"	0.21	0.28	0.46	66	N, NC	Meets
	GBG	0.25	0.28	0.46	66	N, NC	

THERMAL PERFORMANCE

ELEVATE AWNING

GLASS DESCRIPTION	DIVIDER	U-FACTOR	SHGC	VT	CR	ENERGY STAR 2020	CANADA ENERGY STAR 2020
11/16" IG Low E3/ERS Arg		0.24	0.20	0.45	46	N, NC, SC, S	
	SDLS < 1"	0.24	0.18	0.41	46	N, NC, SC, S	
	SDLN < 1"	0.24	0.18	0.41	46	N, NC, SC, S	
	GBG	0.24	0.18	0.41	46	N, NC, SC, S	
11/16" IG Low E3/ERS Air		0.27	0.20	0.45	42	N, NC, SC, S	
	SDLS < 1"	0.27	0.18	0.41	42	N, NC, SC, S	
	SDLN < 1"	0.27	0.18	0.41	42	N, NC, SC, S	
	GBG	0.27	0.18	0.41	42	N, NC, SC, S	
11/16" IG Low E3 Arg		0.27	0.20	0.46	58	N, NC, SC, S	
	SDLS < 1"	0.27	0.18	0.42	58	N, NC, SC, S	
	SDLN < 1"	0.27	0.18	0.42	58	N, NC, SC, S	
	GBG	0.27	0.18	0.42	58	N, NC, SC, S	
11/16" IG Low E3 Air		0.30	0.20	0.46	54	NC, SC, S	
	SDLS < 1"	0.30	0.19	0.42	54	NC, SC, S	
	SDLN < 1"	0.30	0.19	0.42	54	NC, SC, S	
	GBG	0.30	0.19	0.42	54	NC, SC, S	
11/16" IG Low E2 Arg		0.27	0.30	0.51	57	N, NC	
	SDLS < 1"	0.27	0.27	0.46	57	N, NC	
	SDLN < 1"	0.27	0.27	0.46	57	N, NC	
	GBG	0.27	0.27	0.46	57	N, NC	
11/16" IG Low E2 Air		0.31	0.30	0.51	54		
	SDLS < 1"	0.31	0.28	0.46	54		
	SDLN < 1"	0.31	0.28	0.46	54		
	GBG	0.31	0.28	0.46	54		
11/16" IG Low E1 Arg		0.28	0.49	0.56	57	N	
	SDLS < 1"	0.28	0.45	0.51	57	N	
	SDLN < 1"	0.28	0.45	0.51	57	N	
	GBG	0.28	0.45	0.51	57	N	
11/16" IG Low E1 Air		0.31	0.49	0.56	53		
	SDLS < 1"	0.31	0.45	0.51	53		
	SDLN < 1"	0.31	0.45	0.51	53		
	GBG	0.31	0.45	0.51	53		
11/16" IG Arg		0.42	0.56	0.59	45		
	SDLS < 1"	0.42	0.51	0.53	45		
	SDLN < 1"	0.42	0.51	0.53	45		
	GBG	0.42	0.51	0.53	45		
11/16" IG Air		0.44	0.56	0.59	43		
	SDLS < 1"	0.44	0.51	0.53	43		
	SDLN < 1"	0.44	0.51	0.53	43		
	GBG	0.44	0.51	0.53	43		
1 1/8" Tripane Low E2/E1 Arg		0.20	0.27	0.45	69	N, NC	Meets
	SDLS < 1"	0.20	0.25	0.41	69	N, NC, SC, S	Meets
	SDLN < 1"	0.20	0.25	0.41	69	N, NC, SC, S	Meets
	GBG	0.20	0.25	0.41	69	N, NC, SC, S	Meets
1 1/8" Tripane Low E2/E1 Air		0.22	0.27	0.45	66	N, NC	
	SDLS < 1"	0.22	0.25	0.41	66	N, NC, SC, S	
	SDLN < 1"	0.22	0.25	0.41	66	N, NC, SC, S	
	GBG	0.23	0.25	0.41	66	N, NC, SC, S	

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THERMAL PERFORMANCE

ELEVATE DOUBLE HUNG

GLASS DESCRIPTION	DIVIDER	U-FACTOR	SHGC	VT	CR	ENERGY STAR 2020	CANADA ENERGY STAR 2020
11/16" IG Low E3/ERS Arg		0.24	0.21	0.48	46	N, NC, SC, S	
	SDLS < 1"	0.24	0.19	0.42	46	N, NC, SC, S	
	SDLN < 1"	0.24	0.19	0.42	46	N, NC, SC, S	
	GBG	0.24	0.19	0.42	46	N, NC, SC, S	
11/16" IG Low E3/ERS Air		0.27	0.21	0.48	42	N, NC, SC, S	
	SDLS < 1"	0.27	0.19	0.42	42	N, NC, SC, S	
	SDLN < 1"	0.27	0.19	0.42	42	N, NC, SC, S	
	GBG	0.27	0.19	0.42	42	N, NC, SC, S	
11/16" IG Low E3 Arg		0.27	0.21	0.49	57	N, NC, SC, S	
	SDLS < 1"	0.27	0.19	0.43	57	N, NC, SC, S	
	SDLN < 1"	0.27	0.19	0.43	57	N, NC, SC, S	
	GBG	0.27	0.19	0.43	57	N, NC, SC, S	
11/16" IG Low E3 Air		0.31	0.21	0.49	53	S	
	SDLS < 1"	0.31	0.19	0.43	53	S	
	SDLN < 1"	0.31	0.19	0.43	53	S	
	GBG	0.31	0.19	0.43	53	S	
11/16" IG Low E2 Arg		0.28	0.32	0.54	56	N, NC	
	SDLS < 1"	0.28	0.28	0.48	56	NC	
	SDLN < 1"	0.28	0.28	0.48	56	NC	
	GBG	0.28	0.28	0.48	56	NC	
11/16" IG Low E2 Air		0.32	0.32	0.54	53		
	SDLS < 1"	0.32	0.29	0.48	53		
	SDLN < 1"	0.32	0.29	0.48	53		
	GBG	0.32	0.29	0.48	53		
11/16" IG Low E1 Arg		0.29	0.52	0.60	56	N	
	SDLS < 1"	0.29	0.47	0.53	56	N	
	SDLN < 1"	0.29	0.47	0.53	56	N	
	GBG	0.29	0.47	0.53	56	N	
11/16" IG Low E1 Air		0.32	0.52	0.60	52		
	SDLS < 1"	0.32	0.46	0.53	52		
	SDLN < 1"	0.32	0.46	0.53	52		
	GBG	0.32	0.46	0.53	52		
11/16" IG Arg		0.43	0.59	0.62	45		
	SDLS < 1"	0.43	0.53	0.55	45		
	SDLN < 1"	0.43	0.53	0.55	45		
	GBG	0.43	0.53	0.55	45		
11/16" IG Air		0.45	0.59	0.62	43		
	SDLS < 1"	0.45	0.53	0.55	43		
	SDLN < 1"	0.45	0.53	0.55	43		
	GBG	0.45	0.53	0.55	43		

THERMAL PERFORMANCE

ELEVATE DOUBLE HUNG PICTURE-TRANSOM

GLASS DESCRIPTION	DIVIDER	U-FACTOR	SHGC	VT	CR	ENERGY STAR 2020	CANADA ENERGY STAR 2020
11/16" IG Low E3/ERS Arg		0.22	0.22	0.50	48	N, NC, SC, S	
	SDLS < 1"	0.22	0.20	0.44	48	N, NC, SC, S	
	SDLN < 1"	0.22	0.20	0.44	48	N, NC, SC, S	
	GBG	0.22	0.20	0.44	48	N, NC, SC, S	
11/16" IG Low E3/ERS Air		0.25	0.22	0.50	44	N, NC, SC, S	
	SDLS < 1"	0.25	0.20	0.44	44	N, NC, SC, S	
	SDLN < 1"	0.25	0.20	0.44	44	N, NC, SC, S	
	GBG	0.25	0.20	0.44	44	N, NC, SC, S	
11/16" IG Low E3 Arg		0.26	0.22	0.51	60	N, NC, SC, S	
	SDLS < 1"	0.26	0.20	0.45	60	N, NC, SC, S	
	SDLN < 1"	0.26	0.20	0.45	60	N, NC, SC, S	
	GBG	0.26	0.20	0.45	60	N, NC, SC, S	
11/16" IG Low E3 Air		0.30	0.22	0.51	57	NC, SC, S	
	SDLS < 1"	0.30	0.20	0.45	57	NC, SC, S	
	SDLN < 1"	0.30	0.20	0.45	57	NC, SC, S	
	GBG	0.30	0.20	0.45	57	NC, SC, S	
11/16" IG Low E2 Arg		0.26	0.33	0.57	60	N, NC	
	SDLS < 1"	0.26	0.30	0.51	60	N, NC	
	SDLN < 1"	0.26	0.30	0.51	60	N, NC	
	GBG	0.26	0.30	0.51	60	N, NC	
11/16" IG Low E2 Air		0.30	0.33	0.57	56	NC	
	SDLS < 1"	0.30	0.30	0.51	56	NC	
	SDLN < 1"	0.30	0.30	0.51	56	NC	
	GBG	0.30	0.30	0.51	56	NC	
11/16" IG Low E1 Arg		0.27	0.54	0.62	59	N	Meets
	SDLS < 1"	0.27	0.49	0.56	59	N	Meets
	SDLN < 1"	0.27	0.49	0.56	59	N	Meets
	GBG	0.27	0.49	0.56	59	N	Meets
11/16" IG Low E1 Air		0.31	0.54	0.62	56		
	SDLS < 1"	0.31	0.49	0.56	56		
	SDLN < 1"	0.31	0.49	0.56	56		
	GBG	0.31	0.49	0.56	56		
11/16" IG Arg		0.42	0.62	0.65	46		
	SDLS < 1"	0.42	0.55	0.58	46		
	SDLN < 1"	0.42	0.55	0.58	46		
	GBG	0.42	0.55	0.58	46		
11/16" IG Air		0.44	0.62	0.65	44		
	SDLS < 1"	0.44	0.55	0.58	44		
	SDLN < 1"	0.44	0.55	0.58	44		
	GBG	0.44	0.55	0.58	44		

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THERMAL PERFORMANCE

ELEVATE CASEMENT NARROW FRAME

GLASS DESCRIPTION	DIVIDER	U-FACTOR	SHGC	VT	CR	ENERGY STAR 2020	CANADA ENERGY STAR 2020
11/16" IG Low E3/ERS Arg		0.24	0.20	0.45	48	N, NC, SC, S	
	SDLS < 1"	0.24	0.18	0.41	48	N, NC, SC, S	
	SDLN < 1"	0.24	0.18	0.41	48	N, NC, SC, S	
	GBG	0.24	0.18	0.41	48	N, NC, SC, S	
11/16" IG Low E3/ERS Air		0.26	0.20	0.45	44	N, NC, SC, S	
	SDLS < 1"	0.26	0.18	0.41	44	N, NC, SC, S	
	SDLN < 1"	0.26	0.18	0.41	44	N, NC, SC, S	
	GBG	0.26	0.18	0.41	44	N, NC, SC, S	
11/16" IG Low E3 Arg		0.27	0.20	0.46	60	N, NC, SC, S	
	SDLS < 1"	0.27	0.18	0.42	60	N, NC, SC, S	
	SDLN < 1"	0.27	0.18	0.42	60	N, NC, SC, S	
	GBG	0.27	0.18	0.42	60	N, NC, SC, S	
11/16" IG Low E3 Air		0.31	0.20	0.46	56	S	
	SDLS < 1"	0.31	0.19	0.42	56	S	
	SDLN < 1"	0.31	0.19	0.42	56	S	
	GBG	0.31	0.19	0.42	56	S	
11/16" IG Low E2 Arg		0.28	0.30	0.51	59	NC	
	SDLS < 1"	0.28	0.27	0.46	59	NC	
	SDLN < 1"	0.28	0.27	0.46	59	NC	
	GBG	0.28	0.27	0.46	59	NC	
11/16" IG Low E2 Air		0.31	0.30	0.51	56		
	SDLS < 1"	0.31	0.28	0.46	56		
	SDLN < 1"	0.31	0.28	0.46	56		
	GBG	0.31	0.28	0.46	56		
11/16" IG Low E1 Arg		0.28	0.49	0.56	59	N	
	SDLS < 1"	0.28	0.45	0.51	59	N	
	SDLN < 1"	0.28	0.45	0.51	59	N	
	GBG	0.28	0.45	0.51	59	N	
11/16" IG Low E1 Air		0.32	0.49	0.56	55		
	SDLS < 1"	0.32	0.45	0.51	55		
	SDLN < 1"	0.32	0.45	0.51	55		
	GBG	0.32	0.45	0.51	55		
11/16" IG Arg		0.42	0.56	0.58	46		
	SDLS < 1"	0.42	0.51	0.53	46		
	SDLN < 1"	0.42	0.51	0.53	46		
	GBG	0.42	0.51	0.53	46		
11/16" IG Air		0.43	0.56	0.58	44		
	SDLS < 1"	0.43	0.51	0.53	44		
	SDLN < 1"	0.43	0.51	0.53	44		
	GBG	0.43	0.51	0.53	44		

THERMAL PERFORMANCE

ELEVATE CASEMENT NARROW FRAME PICTURE-TRANSOM

GLASS DESCRIPTION	DIVIDER	U-FACTOR	SHGC	VT	CR	ENERGY STAR 2020	CANADA ENERGY STAR 2020
11/16" IG Low E3/ERS Arg		0.22	0.22	0.51	47	N, NC, SC, S	
	SDLS < 1"	0.22	0.20	0.46	47	N, NC, SC, S	
	SDLN < 1"	0.22	0.20	0.46	47	N, NC, SC, S	
	GBG	0.22	0.20	0.46	47	N, NC, SC, S	
11/16" IG Low E3/ERS Air		0.25	0.22	0.51	43	N, NC, SC, S	
	SDLS < 1"	0.25	0.20	0.46	43	N, NC, SC, S	
	SDLN < 1"	0.25	0.20	0.46	43	N, NC, SC, S	
	GBG	0.25	0.20	0.46	43	N, NC, SC, S	
11/16" IG Low E3 Arg		0.26	0.23	0.53	59	N, NC, SC, S	
	SDLS < 1"	0.26	0.21	0.47	59	N, NC, SC, S	
	SDLN < 1"	0.26	0.21	0.47	59	N, NC, SC, S	
	GBG	0.26	0.21	0.47	59	N, NC, SC, S	
11/16" IG Low E3 Air		0.30	0.23	0.53	55	NC, SC, S	
	SDLS < 1"	0.30	0.21	0.47	55	NC, SC, S	
	SDLN < 1"	0.30	0.21	0.47	55	NC, SC, S	
	GBG	0.30	0.21	0.47	55	NC, SC, S	
11/16" IG Low E2 Arg		0.27	0.34	0.58	59	N, NC	
	SDLS < 1"	0.27	0.31	0.52	59	N, NC	
	SDLN < 1"	0.27	0.31	0.52	59	N, NC	
	GBG	0.27	0.31	0.52	59	N, NC	
11/16" IG Low E2 Air		0.31	0.34	0.58	55		
	SDLS < 1"	0.31	0.31	0.52	55		
	SDLN < 1"	0.31	0.31	0.52	55		
	GBG	0.31	0.31	0.52	55		
11/16" IG Low E1 Arg		0.27	0.56	0.64	58	N	Meets
	SDLS < 1"	0.27	0.50	0.57	58	N	Meets
	SDLN < 1"	0.27	0.50	0.57	58	N	Meets
	GBG	0.27	0.50	0.57	58	N	Meets
11/16" IG Low E1 Air		0.31	0.56	0.64	55		
	SDLS < 1"	0.31	0.50	0.57	55		
	SDLN < 1"	0.31	0.50	0.57	55		
	GBG	0.31	0.50	0.57	55		
11/16" IG Arg		0.43	0.64	0.67	45		
	SDLS < 1"	0.43	0.57	0.60	45		
	SDLN < 1"	0.43	0.57	0.60	45		
	GBG	0.43	0.57	0.60	45		
11/16" IG Air		0.45	0.63	0.67	44		
	SDLS < 1"	0.45	0.57	0.60	44		
	SDLN < 1"	0.45	0.57	0.60	44		
	GBG	0.45	0.57	0.60	44		

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THERMAL PERFORMANCE

ELEVATE AWNING NARROW FRAME

GLASS DESCRIPTION	DIVIDER	U-FACTOR	SHGC	VT	CR	ENERGY STAR 2020	CANADA ENERGY STAR 2020
11/16" IG Low E3/ERS Arg		0.24	0.20	0.45	46	N, NC, SC, S	
	SDLS < 1"	0.24	0.18	0.41	46	N, NC, SC, S	
	SDLN < 1"	0.24	0.18	0.41	46	N, NC, SC, S	
	GBG	0.24	0.18	0.41	46	N, NC, SC, S	
11/16" IG Low E3/ERS Air		0.27	0.20	0.45	42	N, NC, SC, S	
	SDLS < 1"	0.27	0.18	0.41	42	N, NC, SC, S	
	SDLN < 1"	0.27	0.18	0.41	42	N, NC, SC, S	
	GBG	0.27	0.18	0.41	42	N, NC, SC, S	
11/16" IG Low E3 Arg		0.27	0.20	0.46	58	N, NC, SC, S	
	SDLS < 1"	0.27	0.19	0.42	58	N, NC, SC, S	
	SDLN < 1"	0.27	0.19	0.42	58	N, NC, SC, S	
	GBG	0.27	0.19	0.42	58	N, NC, SC, S	
11/16" IG Low E3 Air		0.31	0.20	0.46	54	S	
	SDLS < 1"	0.31	0.19	0.42	54	S	
	SDLN < 1"	0.31	0.19	0.42	54	S	
	GBG	0.31	0.19	0.42	54	S	
11/16" IG Low E2 Arg		0.28	0.30	0.51	58	NC	
	SDLS < 1"	0.28	0.28	0.46	58	NC	
	SDLN < 1"	0.28	0.28	0.46	58	NC	
	GBG	0.28	0.28	0.46	58	NC	
11/16" IG Low E2 Air		0.31	0.30	0.51	54		
	SDLS < 1"	0.31	0.28	0.46	54		
	SDLN < 1"	0.31	0.28	0.46	54		
	GBG	0.31	0.28	0.46	54		
11/16" IG Low E1 Arg		0.29	0.49	0.56	57	N	
	SDLS < 1"	0.29	0.45	0.51	57	N	
	SDLN < 1"	0.29	0.45	0.51	57	N	
	GBG	0.29	0.45	0.51	57	N	
11/16" IG Low E1 Air		0.32	0.49	0.56	54		
	SDLS < 1"	0.32	0.45	0.51	54		
	SDLN < 1"	0.32	0.45	0.51	54		
	GBG	0.32	0.45	0.51	54		
11/16" IG Arg		0.42	0.56	0.59	45		
	SDLS < 1"	0.42	0.51	0.53	45		
	SDLN < 1"	0.42	0.51	0.53	45		
	GBG	0.42	0.51	0.53	45		
11/16" IG Air		0.44	0.56	0.59	43		
	SDLS < 1"	0.44	0.51	0.53	43		
	SDLN < 1"	0.44	0.51	0.53	43		
	GBG	0.44	0.51	0.53	43		

THERMAL PERFORMANCE

ELEVATE DOUBLE HUNG INSERT

GLASS DESCRIPTION	DIVIDER	U-FACTOR	SHGC	VT	CR	ENERGY STAR 2020	CANADA ENERGY STAR 2020
11/16" IG Low E3/ERS Arg		0.24	0.20	0.46	46	N, NC, SC, S	
	SDLS < 1"	0.24	0.18	0.41	46	N, NC, SC, S	
	SDLN < 1"	0.24	0.18	0.41	46	N, NC, SC, S	
	GBG	0.24	0.18	0.41	46	N, NC, SC, S	
11/16" IG Low E3/ERS Air		0.27	0.20	0.46	42	N, NC, SC, S	
	SDLS < 1"	0.27	0.18	0.41	42	N, NC, SC, S	
	SDLN < 1"	0.27	0.18	0.41	42	N, NC, SC, S	
	GBG	0.27	0.18	0.41	42	N, NC, SC, S	
11/16" IG Low E3 Arg		0.28	0.20	0.47	57	NC, SC, S	
	SDLS < 1"	0.28	0.19	0.42	57	NC, SC, S	
	SDLN < 1"	0.28	0.19	0.42	57	NC, SC, S	
	GBG	0.28	0.19	0.42	57	NC, SC, S	
11/16" IG Low E3 Air		0.31	0.21	0.47	53	S	
	SDLS < 1"	0.31	0.19	0.42	53	S	
	SDLN < 1"	0.31	0.19	0.42	53	S	
	GBG	0.31	0.19	0.42	53	S	
11/16" IG Low E2 Arg		0.28	0.31	0.53	56	NC	
	SDLS < 1"	0.28	0.28	0.47	56	NC	
	SDLN < 1"	0.28	0.28	0.47	56	NC	
	GBG	0.28	0.28	0.47	56	NC	
11/16" IG Low E2 Air		0.32	0.31	0.53	53		
	SDLS < 1"	0.32	0.28	0.47	53		
	SDLN < 1"	0.32	0.28	0.47	53		
	GBG	0.32	0.28	0.47	53		
11/16" IG Low E1 Arg		0.29	0.51	0.58	56	N	
	SDLS < 1"	0.29	0.45	0.52	56	N	
	SDLN < 1"	0.29	0.45	0.52	56	N	
	GBG	0.29	0.45	0.52	56	N	
11/16" IG Low E1 Air		0.32	0.50	0.58	53		
	SDLS < 1"	0.32	0.45	0.52	53		
	SDLN < 1"	0.32	0.45	0.52	53		
	GBG	0.32	0.45	0.52	53		
11/16" IG Arg		0.43	0.57	0.60	45		
	SDLS < 1"	0.43	0.51	0.54	45		
	SDLN < 1"	0.43	0.51	0.54	45		
	GBG	0.43	0.51	0.54	45		
11/16" IG Air		0.45	0.57	0.60	43		
	SDLS < 1"	0.45	0.51	0.54	43		
	SDLN < 1"	0.45	0.51	0.54	43		
	GBG	0.45	0.51	0.54	43		

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THERMAL PERFORMANCE

ELEVATE DOUBLE HUNG INSERT PICTURE-TRANSOM

GLASS DESCRIPTION	Divider	U-Factor	SHGC	VT	CR	Energy Star 2020	Canada Energy Star 2020
11/16" IG Low E3/ERS Arg		0.22	0.21	0.48	48	N, NC, SC, S	
	SDLS < 1"	0.22	0.19	0.43	48	N, NC, SC, S	
	SDLN < 1"	0.22	0.19	0.43	48	N, NC, SC, S	
	GBG	0.22	0.19	0.43	48	N, NC, SC, S	
11/16" IG Low E3/ERS Air		0.25	0.21	0.48	44	N, NC, SC, S	
	SDLS < 1"	0.25	0.19	0.43	44	N, NC, SC, S	
	SDLN < 1"	0.25	0.19	0.43	44	N, NC, SC, S	
	GBG	0.25	0.19	0.43	44	N, NC, SC, S	
11/16" IG Low E3 Arg		0.26	0.21	0.50	61	N, NC, SC, S	
	SDLS < 1"	0.26	0.19	0.44	61	N, NC, SC, S	
	SDLN < 1"	0.26	0.19	0.44	61	N, NC, SC, S	
	GBG	0.26	0.19	0.44	61	N, NC, SC, S	
11/16" IG Low E3 Air		0.29	0.22	0.50	57	NC, SC, S	
	SDLS < 1"	0.29	0.20	0.44	57	NC, SC, S	
	SDLN < 1"	0.29	0.20	0.44	57	NC, SC, S	
	GBG	0.29	0.20	0.44	57	NC, SC, S	
11/16" IG Low E2 Arg		0.26	0.32	0.55	60	N, NC	
	SDLS < 1"	0.26	0.29	0.49	60	N, NC	
	SDLN < 1"	0.26	0.29	0.49	60	N, NC	
	GBG	0.26	0.29	0.49	60	N, NC	
11/16" IG Low E2 Air		0.30	0.32	0.55	57	NC	
	SDLS < 1"	0.30	0.29	0.49	57	NC	
	SDLN < 1"	0.30	0.29	0.49	57	NC	
	GBG	0.30	0.29	0.49	57	NC	
11/16" IG Low E1 Arg		0.27	0.53	0.61	60	N	Meets
	SDLS < 1"	0.27	0.47	0.54	60	N	
	SDLN < 1"	0.27	0.47	0.54	60	N	
	GBG	0.27	0.47	0.54	60	N	
11/16" IG Low E1 Air		0.31	0.53	0.61	56		
	SDLS < 1"	0.31	0.47	0.54	56		
	SDLN < 1"	0.31	0.47	0.54	56		
	GBG	0.31	0.47	0.54	56		
11/16" IG Arg		0.42	0.60	0.63	46		
	SDLS < 1"	0.42	0.54	0.56	46		
	SDLN < 1"	0.42	0.54	0.56	46		
	GBG	0.42	0.54	0.56	46		
11/16" IG Air		0.44	0.60	0.63	45		
	SDLS < 1"	0.44	0.54	0.56	45		
	SDLN < 1"	0.44	0.54	0.56	45		
	GBG	0.44	0.54	0.56	45		

THERMAL PERFORMANCE

ELEVATE GLIDER

GLASS DESCRIPTION	DIVIDER	U-FACTOR	SHGC	VT	CR	ENERGY STAR 2020	CANADA ENERGY STAR 2020
11/16" IG Low E3/ERS Arg		0.24	0.21	0.48	47	N, NC, SC, S	
	SDLS < 1"	0.24	0.19	0.42	47	N, NC, SC, S	
	SDLN < 1"	0.24	0.19	0.42	47	N, NC, SC, S	
	GBG	0.24	0.19	0.42	47	N, NC, SC, S	
11/16" IG Low E3/ERS Air		0.27	0.21	0.48	43	N, NC, SC, S	
	SDLS < 1"	0.27	0.19	0.42	43	N, NC, SC, S	
	SDLN < 1"	0.27	0.19	0.42	43	N, NC, SC, S	
	GBG	0.27	0.19	0.42	43	N, NC, SC, S	
11/16" IG Low E3 Arg		0.27	0.21	0.49	58	N, NC, SC, S	
	SDLS < 1"	0.27	0.19	0.43	58	N, NC, SC, S	
	SDLN < 1"	0.27	0.19	0.43	58	N, NC, SC, S	
	GBG	0.27	0.19	0.43	58	N, NC, SC, S	
11/16" IG Low E3 Air		0.31	0.21	0.49	54	S	
	SDLS < 1"	0.31	0.19	0.43	54	S	
	SDLN < 1"	0.31	0.19	0.43	54	S	
	GBG	0.31	0.19	0.43	54	S	
11/16" IG Low E2 Arg		0.28	0.32	0.54	57	N, NC	
	SDLS < 1"	0.28	0.28	0.48	57	NC	
	SDLN < 1"	0.28	0.28	0.48	57	NC	
	GBG	0.28	0.28	0.48	57	NC	
11/16" IG Low E2 Air		0.32	0.32	0.54	54		
	SDLS < 1"	0.32	0.29	0.48	54		
	SDLN < 1"	0.32	0.29	0.48	54		
	GBG	0.32	0.29	0.48	54		
11/16" IG Low E1 Arg		0.29	0.52	0.60	57	N	Meets
	SDLS < 1"	0.29	0.47	0.53	57	N	
	SDLN < 1"	0.29	0.47	0.53	57	N	
	GBG	0.29	0.47	0.53	57	N	
11/16" IG Low E1 Air		0.32	0.52	0.60	53		
	SDLS < 1"	0.32	0.46	0.53	53		
	SDLN < 1"	0.32	0.46	0.53	53		
	GBG	0.32	0.46	0.53	53		
11/16" IG Arg		0.43	0.59	0.62	45		
	SDLS < 1"	0.43	0.53	0.55	45		
	SDLN < 1"	0.43	0.53	0.55	45		
	GBG	0.43	0.53	0.55	45		
11/16" IG Air		0.45	0.59	0.62	43		
	SDLS < 1"	0.45	0.53	0.55	43		
	SDLN < 1"	0.45	0.53	0.55	43		
	GBG	0.45	0.53	0.55	43		

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THERMAL PERFORMANCE

ELEVATE ALUMINUM DIRECT GLAZE ROUND TOPS

GLASS DESCRIPTION	DIVIDER	U-FACTOR	SHGC	VT	CR	ENERGY STAR 2020	CANADA ENERGY STAR 2020
3/4" IG Low E3/ERS Arg		0.24	0.23	0.54	39	N, NC, SC, S	
	SDLS < 1"	0.24	0.21	0.48	39	N, NC, SC, S	
	SDLN < 1"	0.24	0.21	0.48	39	N, NC, SC, S	
	GBG	0.24	0.21	0.48	39	N, NC, SC, S	
3/4" IG Low E3/ERS Air		0.26	0.23	0.54	36	N, NC, SC, S	
	SDLS < 1"	0.26	0.21	0.48	36	N, NC, SC, S	
	SDLN < 1"	0.26	0.21	0.48	36	N, NC, SC, S	
	GBG	0.26	0.21	0.48	36	N, NC, SC, S	
3/4" IG Low E3 Arg		0.29	0.24	0.55	50	NC, SC, S	
	SDLS < 1"	0.29	0.21	0.50	50	NC, SC, S	
	SDLN < 1"	0.29	0.21	0.50	50	NC, SC, S	
	GBG	0.29	0.21	0.50	50	NC, SC, S	
3/4" IG Low E3 Air		0.32	0.24	0.55	47	S	
	SDLS < 1"	0.32	0.22	0.50	47	S	
	SDLN < 1"	0.32	0.22	0.50	47	S	
	GBG	0.32	0.22	0.50	47	S	
3/4" IG Low E2 Arg		0.29	0.36	0.61	50	NC	
	SDLS < 1"	0.29	0.32	0.55	50	NC	
	SDLN < 1"	0.29	0.32	0.55	50	NC	
	GBG	0.29	0.32	0.55	50	NC	
3/4" IG Low E2 Air		0.33	0.36	0.61	47		
	SDLS < 1"	0.33	0.33	0.55	47		
	SDLN < 1"	0.33	0.33	0.55	47		
	GBG	0.33	0.33	0.55	47		
3/4" IG Low E1 Arg		0.30	0.59	0.68	50	N	Meets
	SDLS < 1"	0.30	0.53	0.61	50	N	
	SDLN < 1"	0.30	0.53	0.61	50	N	
	GBG	0.30	0.53	0.61	50	N	
3/4" IG Low E1 Air		0.34	0.59	0.68	47		
	SDLS < 1"	0.34	0.53	0.61	47		
	SDLN < 1"	0.34	0.53	0.61	47		
	GBG	0.34	0.53	0.61	47		
3/4" IG Arg		0.45	0.67	0.70	39		
	SDLS < 1"	0.45	0.60	0.63	39		
	SDLN < 1"	0.45	0.60	0.63	39		
	GBG	0.45	0.60	0.63	39		
3/4" IG Air		0.47	0.67	0.70	38		
	SDLS < 1"	0.47	0.60	0.63	38		
	SDLN < 1"	0.47	0.60	0.63	38		
	GBG	0.47	0.60	0.63	38		

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THERMAL PERFORMANCE

ELEVATE DIRECT GLAZE

GLASS DESCRIPTION	DIVIDER	U-FACTOR	SHGC	VT	CR	ENERGY STAR 2020	CANADA ENERGY STAR 2020
11/16" IG Low E3/ERS Arg		0.22	0.23	0.54	46	N, NC, SC, S	
	SDLS < 1"	0.22	0.21	0.48	46	N, NC, SC, S	
	SDLN < 1"	0.22	0.21	0.48	46	N, NC, SC, S	
	GBG	0.22	0.21	0.48	46	N, NC, SC, S	
11/16" IG Low E3/ERS Air		0.25	0.23	0.54	42	N, NC, SC, S	
	SDLS < 1"	0.25	0.21	0.48	42	N, NC, SC, S	
	SDLN < 1"	0.25	0.21	0.48	42	N, NC, SC, S	
	GBG	0.25	0.21	0.48	42	N, NC, SC, S	
11/16" IG Low E3 Arg		0.26	0.23	0.55	59	N, NC, SC, S	
	SDLS < 1"	0.26	0.21	0.49	59	N, NC, SC, S	
	SDLN < 1"	0.26	0.21	0.49	59	N, NC, SC, S	
	GBG	0.26	0.21	0.49	59	N, NC, SC, S	
11/16" IG Low E3 Air		0.30	0.24	0.55	55	NC, SC, S	
	SDLS < 1"	0.30	0.22	0.49	55	NC, SC, S	
	SDLN < 1"	0.30	0.22	0.49	55	NC, SC, S	
	GBG	0.30	0.22	0.49	55	NC, SC, S	
11/16" IG Low E2 Arg		0.27	0.35	0.61	58	N, NC	
	SDLS < 1"	0.27	0.32	0.55	58	N, NC	
	SDLN < 1"	0.27	0.32	0.55	58	N, NC	
	GBG	0.27	0.32	0.55	58	N, NC	
11/16" IG Low E2 Air		0.31	0.36	0.61	55		
	SDLS < 1"	0.31	0.32	0.55	55		
	SDLN < 1"	0.31	0.32	0.55	55		
	GBG	0.31	0.32	0.55	55		
11/16" IG Low E1 Arg		0.28	0.58	0.67	58	N	Meets
	SDLS < 1"	0.28	0.53	0.60	58	N	Meets
	SDLN < 1"	0.28	0.53	0.60	58	N	Meets
	GBG	0.28	0.53	0.60	58	N	Meets
11/16" IG Low E1 Air		0.32	0.58	0.67	54		Meets
	SDLS < 1"	0.32	0.52	0.60	54		
	SDLN < 1"	0.32	0.52	0.60	54		
	GBG	0.32	0.52	0.60	54		
11/16" IG Arg		0.44	0.66	0.70	45		
	SDLS < 1"	0.44	0.60	0.63	45		
	SDLN < 1"	0.44	0.60	0.63	45		
	GBG	0.44	0.60	0.63	45		
11/16" IG Air		0.46	0.66	0.70	43		
	SDLS < 1"	0.46	0.60	0.63	43		
	SDLN < 1"	0.46	0.60	0.63	43		
	GBG	0.46	0.60	0.63	43		
1 1/8" Tripane Low E2/E1 Arg		0.17	0.32	0.54	70	N, NC	Meets
	SDLS < 1"	0.17	0.29	0.48	70	N, NC	Meets
	SDLN < 1"	0.17	0.29	0.48	70	N, NC	Meets
	GBG	0.17	0.29	0.48	70	N, NC	Meets
1 1/8" Tripane Low E2/E1 Air		0.20	0.32	0.54	67	N, NC	Meets
	SDLS < 1"	0.20	0.29	0.48	67	N, NC	Meets
	SDLN < 1"	0.20	0.29	0.48	67	N, NC	Meets
	GBG	0.21	0.29	0.48	67	N, NC	Meets

THERMAL PERFORMANCE

ELEVATE SLIDING PATIO DOOR

GLASS DESCRIPTION	DIVIDER	U-FACTOR	SHGC	VT	CR	ENERGY STAR 2020	CANADA ENERGY STAR 2020
3/4" IG Low E3/ERS Arg		0.23	0.22	0.51	48	N, NC, SC, S	
	SDLS < 1"	0.23	0.19	0.44	48	N, NC, SC, S	
	SDLN < 1"	0.23	0.19	0.44	48	N, NC, SC, S	
	GBG	0.23	0.19	0.44	48	N, NC, SC, S	
3/4" IG Low E3/ERS Air		0.25	0.22	0.51	44	N, NC, SC, S	
	SDLS < 1"	0.25	0.20	0.44	44	N, NC, SC, S	
	SDLN < 1"	0.25	0.20	0.44	44	N, NC, SC, S	
	GBG	0.25	0.20	0.44	44	N, NC, SC, S	
3/4" IG Low E3 Arg		0.27	0.22	0.52	59	N, NC, SC, S	
	SDLS < 1"	0.27	0.20	0.46	59	N, NC, SC, S	
	SDLN < 1"	0.27	0.20	0.46	59	N, NC, SC, S	
	GBG	0.27	0.20	0.46	59	N, NC, SC, S	
3/4" IG Low E3 Air		0.31	0.23	0.52	56		
	SDLS < 1"	0.31	0.20	0.46	56		
	SDLN < 1"	0.31	0.20	0.46	56		
	GBG	0.31	0.20	0.46	56		
3/4" IG Low E2 Arg		0.28	0.33	0.58	58	N, NC	
	SDLS < 1"	0.28	0.30	0.51	58	N, NC	
	SDLN < 1"	0.28	0.30	0.51	58	N, NC	
	GBG	0.28	0.30	0.51	58	N, NC	
3/4" IG Low E2 Air		0.31	0.34	0.58	55		
	SDLS < 1"	0.31	0.30	0.51	55		
	SDLN < 1"	0.31	0.30	0.51	55		
	GBG	0.31	0.30	0.51	55		
3/4" IG Low E1 Arg		0.29	0.55	0.64	58		Meets
	SDLS < 1"	0.29	0.49	0.56	58		
	SDLN < 1"	0.29	0.49	0.56	58		
	GBG	0.29	0.49	0.56	58		
3/4" IG Low E1 Air		0.32	0.55	0.64	55		
	SDLS < 1"	0.32	0.49	0.56	55		
	SDLN < 1"	0.32	0.49	0.56	55		
	GBG	0.32	0.49	0.56	55		
3/4" IG Arg		0.43	0.63	0.66	46		
	SDLS < 1"	0.43	0.55	0.58	46		
	SDLN < 1"	0.43	0.55	0.58	46		
	GBG	0.43	0.55	0.58	46		
3/4" IG Air		0.45	0.63	0.66	44		
	SDLS < 1"	0.45	0.55	0.58	44		
	SDLN < 1"	0.45	0.55	0.58	44		
	GBG	0.45	0.55	0.58	44		

NFRC values listed above are from April 2022. NFRC values may change upon renewal or recertification of the product. For this reason, the CPD number and NFRC values published on the temporary label affixed to the product may vary from the CPD numbers provided on the quote or in this catalog. CPD numbers on product labels reflect the NFRC values in effect on the date of manufacture.

THERMAL PERFORMANCE

ELEVATE SLIDING FRENCH DOOR

GLASS DESCRIPTION	DIVIDER	U-FACTOR	SHGC	VT	CR	ENERGY STAR 2020	CANADA ENERGY STAR 2020
3/4" IG Low E3/ERS Arg		0.24	0.19	0.44	48	N, NC, SC, S	
	SDLS < 1"	0.24	0.17	0.38	48	N, NC, SC, S	
	SDLN < 1"	0.24	0.17	0.38	48	N, NC, SC, S	
	GBG	0.24	0.17	0.38	48	N, NC, SC, S	
3/4" IG Low E3/ERS Air		0.26	0.19	0.44	44	N, NC, SC, S	
	SDLS < 1"	0.26	0.17	0.38	44	N, NC, SC, S	
	SDLN < 1"	0.26	0.17	0.38	44	N, NC, SC, S	
	GBG	0.26	0.17	0.38	44	N, NC, SC, S	
3/4" IG Low E3 Arg		0.28	0.19	0.45	58	N, NC, SC, S	
	SDLS < 1"	0.28	0.17	0.39	58	N, NC, SC, S	
	SDLN < 1"	0.28	0.17	0.39	58	N, NC, SC, S	
	GBG	0.28	0.17	0.39	58	N, NC, SC, S	
3/4" IG Low E3 Air		0.31	0.20	0.45	55		
	SDLS < 1"	0.31	0.17	0.39	55		
	SDLN < 1"	0.31	0.17	0.39	55		
	GBG	0.31	0.17	0.39	55		
3/4" IG Low E2 Arg		0.28	0.29	0.50	58	N, NC	
	SDLS < 1"	0.28	0.26	0.43	58	N, NC	
	SDLN < 1"	0.28	0.26	0.43	58	N, NC	
	GBG	0.28	0.26	0.43	58	N, NC	
3/4" IG Low E2 Air		0.32	0.29	0.50	55		
	SDLS < 1"	0.32	0.26	0.43	55		
	SDLN < 1"	0.32	0.26	0.43	55		
	GBG	0.32	0.26	0.43	55		
3/4" IG Low E1 Arg		0.29	0.48	0.55	57		
	SDLS < 1"	0.29	0.42	0.47	57		
	SDLN < 1"	0.29	0.42	0.47	57		
	GBG	0.29	0.42	0.47	57		
3/4" IG Low E1 Air		0.32	0.48	0.55	54		
	SDLS < 1"	0.32	0.42	0.47	54		
	SDLN < 1"	0.32	0.42	0.47	54		
	GBG	0.32	0.42	0.47	54		
3/4" IG Arg		0.42	0.54	0.57	46		
	SDLS < 1"	0.42	0.48	0.49	46		
	SDLN < 1"	0.42	0.48	0.49	46		
	GBG	0.42	0.48	0.49	46		
3/4" IG Air		0.43	0.54	0.57	44		
	SDLS < 1"	0.43	0.47	0.49	44		
	SDLN < 1"	0.43	0.47	0.49	44		
	GBG	0.43	0.47	0.49	44		

THERMAL PERFORMANCE

ELEVATE INSWING FRENCH DOOR

GLASS DESCRIPTION	Divider	U-Factor	SHGC	VT	CR	Energy Star 2020	Canada
							Energy Star 2020
3/4" IG Low E3/ERS Arg		0.24	0.18	0.41	49	N, NC, SC, S	
	SDLS < 1"	0.24	0.16	0.35	49	N, NC, SC, S	
	SDLN < 1"	0.24	0.16	0.35	49	N, NC, SC, S	
	GBG	0.24	0.16	0.35	49	N, NC, SC, S	
3/4" IG Low E3/ERS Air		0.26	0.18	0.41	46	N, NC, SC, S	
	SDLS < 1"	0.26	0.16	0.35	46	N, NC, SC, S	
	SDLN < 1"	0.26	0.16	0.35	46	N, NC, SC, S	
	GBG	0.26	0.16	0.35	46	N, NC, SC, S	
3/4" IG Low E3 Arg		0.28	0.18	0.42	62	N, NC, SC, S	
	SDLS < 1"	0.28	0.16	0.36	62	N, NC, SC, S	
	SDLN < 1"	0.28	0.16	0.36	62	N, NC, SC, S	
	GBG	0.28	0.16	0.36	62	N, NC, SC, S	
3/4" IG Low E3 Air		0.31	0.18	0.42	59		
	SDLS < 1"	0.31	0.16	0.36	59		
	SDLN < 1"	0.31	0.16	0.36	59		
	GBG	0.31	0.16	0.36	59		
3/4" IG Low E2 Arg		0.28	0.27	0.46	62	N, NC	
	SDLS < 1"	0.28	0.24	0.40	62	N, NC, SC, S	
	SDLN < 1"	0.28	0.24	0.40	62	N, NC, SC, S	
	GBG	0.28	0.24	0.40	62	N, NC, SC, S	
3/4" IG Low E2 Air		0.31	0.27	0.46	58		
	SDLS < 1"	0.31	0.24	0.40	58		
	SDLN < 1"	0.31	0.24	0.40	58		
	GBG	0.31	0.24	0.40	58		
3/4" IG Low E1 Arg		0.29	0.45	0.51	61		
	SDLS < 1"	0.29	0.39	0.44	61	N, NC	
	SDLN < 1"	0.29	0.39	0.44	61	N, NC	
	GBG	0.29	0.39	0.44	61	N, NC	
3/4" IG Low E1 Air		0.32	0.44	0.51	58		
	SDLS < 1"	0.32	0.39	0.44	58		
	SDLN < 1"	0.32	0.39	0.44	58		
	GBG	0.32	0.39	0.44	58		
3/4" IG Arg		0.41	0.51	0.53	47		
	SDLS < 1"	0.41	0.44	0.46	47		
	SDLN < 1"	0.41	0.44	0.46	47		
	GBG	0.41	0.44	0.46	47		
3/4" IG Air		0.42	0.50	0.53	46		
	SDLS < 1"	0.42	0.44	0.46	46		
	SDLN < 1"	0.42	0.44	0.46	46		
	GBG	0.42	0.44	0.46	46		

NFRC values listed above are from April 2022. NFRC values may change upon renewal or recertification of the product. For this reason, the CPD number and NFRC values published on the temporary label affixed to the product may vary from the CPD numbers provided on the quote or in this catalog. CPD numbers on product labels reflect the NFRC values in effect on the date of manufacture.

THERMAL PERFORMANCE

ELEVATE OUTSWING FRENCH DOOR

GLASS DESCRIPTION	DIVIDER	U-FACTOR	SHGC	VT	CR	ENERGY STAR 2020	CANADA ENERGY STAR 2020
3/4" IG Low E3/ERS Arg		0.25	0.18	0.41	49	N, NC, SC, S	
	SDLS < 1"	0.25	0.16	0.35	49	N, NC, SC, S	
	SDLN < 1"	0.25	0.16	0.35	49	N, NC, SC, S	
	GBG	0.25	0.16	0.35	49	N, NC, SC, S	
3/4" IG Low E3/ERS Air		0.27	0.18	0.41	46	N, NC, SC, S	
	SDLS < 1"	0.27	0.16	0.35	46	N, NC, SC, S	
	SDLN < 1"	0.27	0.16	0.35	46	N, NC, SC, S	
	GBG	0.27	0.16	0.35	46	N, NC, SC, S	
3/4" IG Low E3 Arg		0.28	0.18	0.42	62	N, NC, SC, S	
	SDLS < 1"	0.28	0.16	0.36	62	N, NC, SC, S	
	SDLN < 1"	0.28	0.16	0.36	62	N, NC, SC, S	
	GBG	0.28	0.16	0.36	62	N, NC, SC, S	
3/4" IG Low E3 Air		0.31	0.19	0.42	59		
	SDLS < 1"	0.31	0.17	0.36	59		
	SDLN < 1"	0.31	0.17	0.36	59		
	GBG	0.31	0.17	0.36	59		
3/4" IG Low E2 Arg		0.29	0.28	0.47	62	N, NC	
	SDLS < 1"	0.29	0.24	0.40	62	N, NC, SC, S	
	SDLN < 1"	0.29	0.24	0.40	62	N, NC, SC, S	
	GBG	0.29	0.24	0.40	62	N, NC, SC, S	
3/4" IG Low E2 Air		0.32	0.28	0.47	58		
	SDLS < 1"	0.32	0.24	0.40	58		
	SDLN < 1"	0.32	0.24	0.40	58		
	GBG	0.32	0.24	0.40	58		
3/4" IG Low E1 Arg		0.30	0.45	0.51	61		
	SDLS < 1"	0.30	0.39	0.44	61	N, NC	
	SDLN < 1"	0.30	0.39	0.44	61	N, NC	
	GBG	0.30	0.39	0.44	61	N, NC	
3/4" IG Low E1 Air		0.32	0.45	0.51	58		
	SDLS < 1"	0.32	0.39	0.44	58		
	SDLN < 1"	0.32	0.39	0.44	58		
	GBG	0.32	0.39	0.44	58		
3/4" IG Arg		0.41	0.51	0.53	47		
	SDLS < 1"	0.41	0.45	0.46	47		
	SDLN < 1"	0.41	0.45	0.46	47		
	GBG	0.41	0.45	0.46	47		
3/4" IG Air		0.43	0.51	0.53	46		
	SDLS < 1"	0.43	0.45	0.46	46		
	SDLN < 1"	0.43	0.45	0.46	46		
	GBG	0.43	0.45	0.46	46		

THERMAL PERFORMANCE

NOTES

ELEVATE OUTSWING FRENCH DOOR

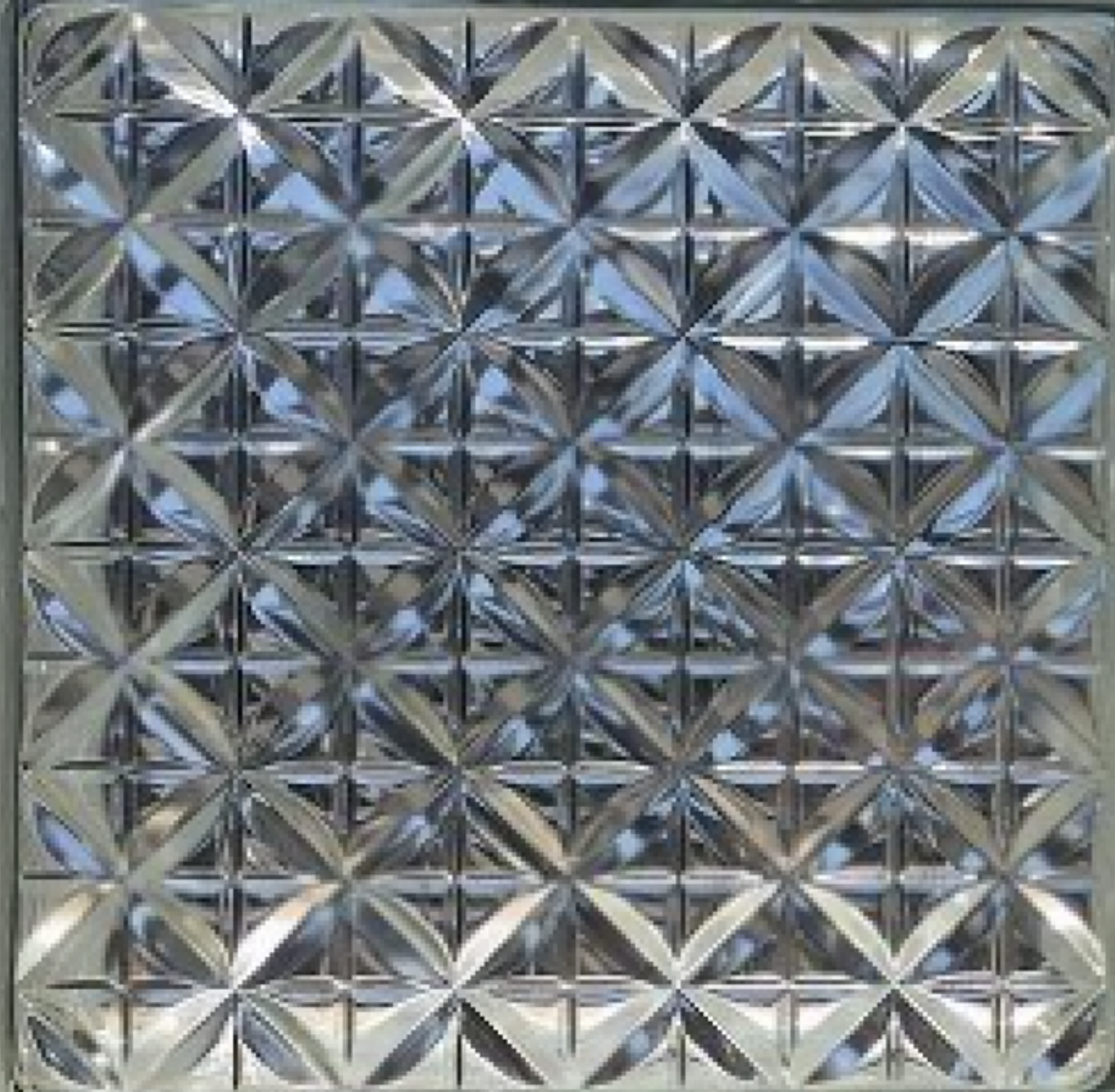
GLASS DESCRIPTION	DIVIDER	U-FACTOR	SHGC	VT	CR	ENERGY STAR 2020	CANADA ENERGY STAR 2020
3/4" IG Low E3/ERS Arg		0.25	0.18	0.41	49	N, NC, SC, S	
	SDLS < 1"	0.25	0.16	0.35	49	N, NC, SC, S	
	SDLN < 1"	0.25	0.16	0.35	49	N, NC, SC, S	
	GBG	0.25	0.16	0.35	49	N, NC, SC, S	
3/4" IG Low E3/ERS Air		0.27	0.18	0.41	46	N, NC, SC, S	
	SDLS < 1"	0.27	0.16	0.35	46	N, NC, SC, S	
	SDLN < 1"	0.27	0.16	0.35	46	N, NC, SC, S	
	GBG	0.27	0.16	0.35	46	N, NC, SC, S	
3/4" IG Low E3 Arg		0.28	0.18	0.42	62	N, NC, SC, S	
	SDLS < 1"	0.28	0.16	0.36	62	N, NC, SC, S	
	SDLN < 1"	0.28	0.16	0.36	62	N, NC, SC, S	
	GBG	0.28	0.16	0.36	62	N, NC, SC, S	
3/4" IG Low E3 Air		0.31	0.19	0.42	59		
	SDLS < 1"	0.31	0.17	0.36	59		
	SDLN < 1"	0.31	0.17	0.36	59		
	GBG	0.31	0.17	0.36	59		
3/4" IG Low E2 Arg		0.29	0.28	0.47	62	N, NC	
	SDLS < 1"	0.29	0.24	0.40	62	N, NC, SC, S	
	SDLN < 1"	0.29	0.24	0.40	62	N, NC, SC, S	
	GBG	0.29	0.24	0.40	62	N, NC, SC, S	
3/4" IG Low E2 Air		0.32	0.28	0.47	58		
	SDLS < 1"	0.32	0.24	0.40	58		
	SDLN < 1"	0.32	0.24	0.40	58		
	GBG	0.32	0.24	0.40	58		
3/4" IG Low E1 Arg		0.30	0.45	0.51	61		
	SDLS < 1"	0.30	0.39	0.44	61	N, NC	
	SDLN < 1"	0.30	0.39	0.44	61	N, NC	
	GBG	0.30	0.39	0.44	61	N, NC	
3/4" IG Low E1 Air		0.32	0.45	0.51	58		
	SDLS < 1"	0.32	0.39	0.44	58		
	SDLN < 1"	0.32	0.39	0.44	58		
	GBG	0.32	0.39	0.44	58		
3/4" IG Arg		0.41	0.51	0.53	47		
	SDLS < 1"	0.41	0.45	0.46	47		
	SDLN < 1"	0.41	0.45	0.46	47		
	GBG	0.41	0.45	0.46	47		
3/4" IG Air		0.43	0.51	0.53	46		
	SDLS < 1"	0.43	0.45	0.46	46		
	SDLN < 1"	0.43	0.45	0.46	46		
	GBG	0.43	0.45	0.46	46		

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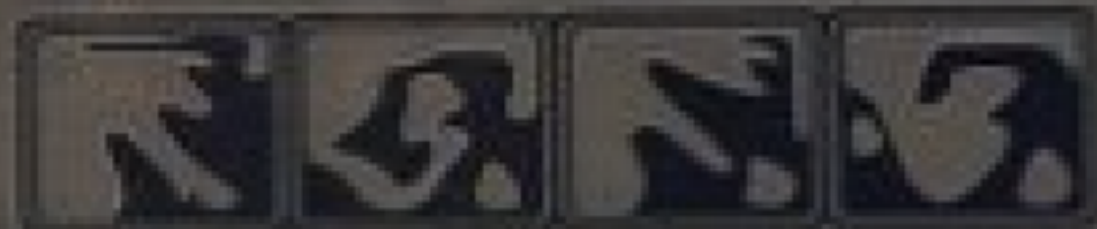


Since we opened as a family-owned and -operated lumber and cedar company in 1912, Marvin has designed products to help people live better. We remain committed to bringing beauty and simplicity into people's lives with windows and doors that stand the test of time.

MARVIN.COM



**DOWNRIVER
GLASS BLOCK**



313.928.3888

USDOT 1809921

LEGAL NOTICE

CITY OF DETROIT
BUILDINGS, SAFETY ENGINEERING & ENVIRONMENTAL DEPARTMENT
408 Coleman A. Young Municipal Center, 2 Woodward Avenue, Detroit, MI 48202
313-224-3202

DATE 4-16-25

WHEREAS, violations of { Article II CHP, Section 8.2.11 of the Zoning Ordinance } have been found on
{ Article 12C2021, Section R114.1 of the Building Code }

these premises, **IT IS HEREBY ORDERED** in accordance with the above Code that all persons cease, desist from and

STOP WORK

at once pertaining to construction, alterations or repairs on these premises
known as 3928 Porter

All persons acting contrary to this order or removing or mutilating this notice are liable to summary arrest unless such action is authorized by the Department.

BUILDINGS/CONSTRUCTION DIVISION

[Signature]
District Inspector

[Signature]
Chief Inspector

9/2018

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City of Detroit
Buildings, Safety Engineering and Environmental Department
Building Division
Coleman A. Young Municipal Center
2 Woodward Avenue, 4th Floor, Suite 408, Detroit, Michigan 48226
(313) 224-3202 or E-mail BLD@detroitmi.gov

VIOLATION NOTICE

Record ID : SPL2025-00465

Type of Construction :

Location : 3928 Porter

Khanh Tran
[Redacted]

Telephone inquiries may be made between
8:30 am and 3:30 pm Monday - Friday

Inspection Type : Complaint
Inspector : Kendrick Arrington

Inspection Result : **FAIL**
Inspection ID : 33042464

The Building Division inspected the above premises on **04/16/2025** as required by law. Violations of the Building Code were found to exist.

The following orders are issued and correction shall be made on or before the compliance date unless otherwise specified below.
Compliance Date : **05/16/2025**

NOTE: YOUR ATTENTION IS DIRECTED TO THE COMPLIANCE DATE ON THIS NOTICE. FAILURE TO CORRECT VIOLATIONS, PROVIDE RESTITUTION AND REQUEST A REINSPECTION BY THE COMPLIANCE DATE WILL BE CAUSE FOR COURT ACTION. IF YOU CANNOT MAKE THE CORRECTIONS WITHIN THE SPECIFIED TIME AND YOU FEEL THERE IS A VALID REASON FOR DELAY, YOU MUST REQUEST AN OFFICE HEARING WITHIN THE SPECIFIED TIME FOR CORRECTIONS.

Please notify Building Division upon compliance of this violation.
IF YOU ARE NOT THE LEGAL OWNER/CONTRACTOR, PLEASE NOTIFY THE Building Division.

SPL2025-00465

BLD@detroitmi.gov

Page 1 of 2



LEGAL NOTICE

CITY OF DETROIT
BUILDINGS, SAFETY ENGINEERING & ENVIRONMENTAL DEPARTMENT
408 Coleman A. Young Municipal Center, 2 Woodward Avenue, Detroit, MI 48202
313-224-3202

DATE 04-23-2025

WHEREAS, violations of { Article II CHP Section 8-2-11 of the City of Detroit }
{ Article MRC 2018 Section 8114.1 of the Building Code } have been found on
these premises, IT IS HEREBY ORDERED, in accordance with the above Code that all persons cease, desist from and

STOP WORK

at once pertaining to construction, alterations or repairs on these premises
known as 3916 Porter

All persons acting contrary to this order or removing or mutilating this notice are liable to summary arrest unless such action is
authorized by the Department.


District Inspector


Chief Inspector

1/2011

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Buildings, Safety Engineering
& Environmental Department

City of Detroit
Buildings, Safety Engineering and Environmental Department
Building Division
Coleman A. Young Municipal Center
2 Woodward Avenue, 4th Floor, Suite 408, Detroit, Michigan 48226
(313) 224-3202 or E-mail BLD@detroitmi.gov

VIOULATION NOTICE

Record ID : SPL2025-00490

Type of Construction :

Location : 3916 Porter

Motor City Holdings, Llc C/O Neil Sullivan
1701 Edison St.
Detroit MI, 48206

Telephone inquiries may be made between
8:30 am and 3:30 pm Monday - Friday

Inspection Type : Complaint

Inspector : Kendrick Arrington

Inspection Result : FAIL

Inspection ID : 33048813

The Building Division inspected the above premises on 04/23/2025 as required by law. Violations of the Building
Code were found to exist.

The following orders are issued and correction shall be made on or before the compliance date unless otherwise
specified below.
Compliance Date : 05/23/2025

NOTE: YOUR ATTENTION IS DIRECTED TO THE COMPLIANCE DATE ON THIS NOTICE. FAILURE TO CORRECT VIOLATIONS, PROVIDE
RESTITUTION AND REQUEST A REINSPECTION BY THE COMPLIANCE DATE WILL BE CAUSE FOR COURT ACTION. IF YOU CANNOT MAKE
THE CORRECTIONS WITHIN THE SPECIFIED TIME AND YOU FEEL THERE IS A VALID REASON FOR DELAY, YOU MUST REQUEST AN
OFFICE HEARING WITHIN THE SPECIFIED TIME FOR CORRECTIONS.

Please notify Building Division upon compliance of this violation.
IF YOU ARE NOT THE LEGAL OWNER/CONTRACTOR, PLEASE NOTIFY THE Building Division.

SPL2025-00490

BLD@detroitmi.gov

Page 1 of 2

From: Eric Allan Hensley <eric.hensley@nyu.edu>
Subject: 3916 Porter Street and 3928 Porter Street
Date: April 2, 2025 at 11:16:59 AM EDT
To: Audra Dye <dyea@detroitmi.gov>

Dear Ms. Dye,

Thank you for your follow-up regarding the unfortunate circumstances surrounding our historic townhome at 3928 Porter Street, which we purchased on February 7, 2024.

As we discussed during our call, work intended solely for 3916 Porter Street was also carried out on our townhome, which as a result, has compromised the only nearly intact exterior of a townhome within the Victoria, a 125-year-old-structure situated in the historic district of Hubbard Farms — Hubbard Farms having received its official historic designation in 1993.

Upon returning from vacation on March 28, 2025, I discovered that unauthorized work had been conducted on our property, resulting in the destruction of 7 windows that were original to our home from 1900, 1 minor non-original window, damage to various bricked areas on the front facade, and the installation of a front porch rail.

Further investigation through our home security cameras revealed that this unlawful work began on March 22, 2025, from 10:00AM to 8:00PM, during which exterior changes were performed on 8 windows. Additionally, on March 24, 2025, from 10:30AM to 11:00AM, a handrail was installed on the front porch.

In a span of 8.5 hours of unauthorized work, irreparable exterior changes were performed on our windows and various aforementioned damages to our home occurred. Please note that due to the file size, my partner Khanh Tran has sent you a shared Google drive that contains various photos and videos.

Upon reviewing the security footage and conducting a visual inspection of the Victoria, I determined that exterior modifications were also made to the front windows of 3916 Porter Street, another unit within the same structure known as the Victoria. I believe that modifications were also made to the side and rear windows of 3916 Porter Street, however, I could not access those areas and did not want to trespass onto those gated areas.

That same day of discovering the unauthorized work, I spoke with a tenant residing at 3916 Porter Street, who informed me that the person performing

the work had informed her that he was working on the outside of her unit. The tenant also provided me with the maintenance request/follow-up telephone number.

Upon calling the number I was given, the call was routed to a third-party answering service located in the Philippines. I informed the agent that I needed a local contact number for the owner or management number, and not the maintenance number that I had been provided.

I then reached out to Great Lakes Renaissance Properties, LLC via the number provided by the answering service which was 586-279-1436. I left a message and received a returned call from an associate named April, who called from 586-360-8565 and refused to provide her last name. April confirmed that work had been ordered at 3916 Porter Street but was uncertain about the specifics of the work performed and who carried it out. I expressed to April that a management company should be fully aware of work it has ordered, especially in a historic district where numerous protocols must be adhered to. April informed me that 3916 Porter Street was not in a historic district and that the City of Detroit had already approved the scope of work that had been performed at 3916 Porter which she claims was exempt from HDC guidelines. April subsequently let me know that she was beginning her weekend early, that she would not be reaching out to anyone that day, and that she was not required to disclose who performed the work to their properties despite that work destroying my windows and other damages to my home.

After my conversation with April, I accessed the City of Detroit Parcel Viewer and public records from LARA. I discovered that 3916 Porter Street is owned by Motor City Oz Holdings, LLC, which is located in Oakland, California, and is owned by Neill Sullivan.

Later that day, Khanh Tran, the co-owner of my townhome, contacted Mr. Sullivan through LinkedIn. Mr. Sullivan directed us to reach out to someone named Melissa Gambrell via email. I contacted Melissa via email to discuss the matter further.

I am uncertain about Melissa's role in this situation, as her phone number is linked to another real estate management company in Florida. She called me on Monday, March 31, 2025, from telephone number 904-761-0749 and mentioned that she operates out of Florida. I provided her with a detailed explanation of the situation, and she expressed that April from Great Lakes Renaissance Properties, LLC had not communicated internally about this incident.

During our discussion, I inquired if Melissa had any details regarding who conducted all of this work, as well as, whether the exterior modifications had been approved by the Detroit Historic District Commission, and what additional information or assistance she could offer to help resolve the issue, as our home's historic windows had been irreparably damaged and various elements had been compromised.

Melissa informed me that Great Lakes Renaissance Properties, LLC had contracted Brad Tunesi of Tunesi Contracting, LLC for the work to 3916 Porter Street, but she did not have specific information on why or how the work was carried out on our townhome.

Melissa also mentioned that she was investigating the work order for 3916 Porter Street, which she believed was related to a Certificate of Compliance issue since it is a rental property. She thought the work order was connected to a correction order issued by BSEED regarding a lead assessment. I then asked her if she was familiar with regulations surrounding exterior work in historic districts in Detroit and whether or not she was familiar that BSEED violations also have a permit process or staff approval process. Melissa was unable to fully clarify her knowledge of these factors. I later received an email from Melissa confirming Brad Tunesi and Tunesi Contracting, LLC had performed the work to both 3916 and 3928 Porter Street. She indicated his contact number as 586-289-0580.

I spoke with a person within BSEED (not sure who I was transferred to when I called), however, that person I spoke with informed me that a complaint was filed by a tenant living at 3916 Porter Street, leading to a correction notice from BSEED. This representative clarified that although BSEED issued the correction notice, it was the owner's responsibility to take the necessary actions to comply, including obtaining the appropriate permits and/or permissions from HDC to address and correct the issues within the BSEED correction notice.

At this juncture, my understanding is that either Motor City Oz Holdings, LLC and their representative, Great Lakes Renaissance Properties, LLC failed to submit the necessary permits for exterior modifications to 3916 Street, or that HDC granted staff approval for such exterior modifications to their property.

Thank you. I look forward to discussing this matter with you further.

Sincerely,
Eric Hensley



Great Lakes Renaissance Properties, LLC
20951 Kelly Rd
Eastpointe, MI 48021
Phone - (586) 279-1436

To:
Bradley Tunesi
28189 Norwood Ave
Warren, MI 48092
Phone - (586) 289-0580

Work Order #	6688-1
Status	Completed
Created On	03/14/2025
Estimate Requested On	--
Estimate Amount	--
Estimated On	--
Scheduled On	--
Completed On	04/01/2025
Tenant(s) Notified	--
Permission to Enter	N/A
Job Site	3916 Porter St 3916 Porter St Detroit, MI 48216-1426
Pet(s)	--

Tenant(s)

Description

RENTAL RENEWAL
LEAD INSPECTION

-exterior window apron a.

– Exterior window casing a.

– Exterior window windowsill, a.

-All exterior window lintels
(remove component and replaced with new or wet scrape and encapsulate)

Created By: Micaelynn Potts

Authorized By: _____

Signed By: _____

Dated By: _____

Invoice #: _____

Technician's Notes:



Chris Caswell

to Eric ▾

Eric,

I saw the photos of the coil that was added to you existing windows and it is one of the worst jobs I have seen in the 23 years I have been in this business. Due to the se of so much caulk and trim nails there is no way to save the windows or brickmould attached to the windows.

Please see the attached quote broken down into 2 quotes. The first quote is for the front Elevation and the 2nd is for the rest of the units. Please contact me with any questions or changes.

Thank you,

Chris Caswell

248-802-7687 direct/cell



2350 Franklin Rd. Ste 115	15020 Kercheval Ave.	3850 S. Huron
Bloomfield Hills, MI 48302	Grosse Point Park, MI 48230	Bay City, MI 48706
248-333-9085 office		989-684-9811 office
248-333-9095 fax		989-684-5288 fax