CHAPTER 4

INTEGRITY WOOD ULTREX GLIDER

ATTENTION:

- Specifications and technical data are subject to change without notice.
- Allow 1/16″ (1.59 mm) tolerance on all measurements.
- Interior mullion trim is shipped loose for field installation.
- For answers to technical questions about Integrity products you may call our Integrity Support Line: 1–800–587–2712.
- Website: www.integritywindows.com

WOOD ULTREX GLIDER

UNIT FEATURES

FRAME:
The frame exterior is made of Ultrex® , an advanced fiber reinforced material that is exceptionally resistant to thermal conductance. The interior is clear pine, kiln dried to a moisture content of 6-12% at time of fabrication. Water-repellent, preservative treated in accordance with WDMA I.S.4.Composite frame thickness is 1 1/16″ (27 mm). Frame width of 4 9/16″ (116 mm). 4/4 clear pine interior frame liner is applied to all units. Ultrex is .080″ (2 mm) thick. Available in stone white, pebble gray, bronze, or evergreen colors.

SASH:
The sash exterior is made of Ultrex, an advanced fiber reinforced material that is exceptionally resistant to thermal conductance. The interior is clear pine, kiln dried to a moisture content of 6-12% at time of fabrication. Water-repellent, preservative treated in accordance with WDMA I.S.4. Composite thickness of 1 1/2″ (38 mm). Ultrex is .070″ (2 mm) thick. Available in stone white, pebble gray, bronze, or evergreen colors. Standard operation is XO as viewed from the exterior. OX operation is available. Operator sash is removable. Integral, full height accent pull on operating sash.

JAMB EXTENSION:
4 9/16″ (116 mm) jamb extension is standard. 6 9/16″ (167 mm) and 6 13/16″ (173 mm) jamb extension available factory applied or in lineal lengths for field application.

HARDWARE:
Meeting stile lock and keeper are of a high pressure zinc die cast with heavy gauge steel lock base. Lock employs a cam-lock mechanism. Lock and keeper are available in Almond Frost or White color finish. Two locks on 48 and 60 high units. Each sash employs spring loaded tilt latches to allow for easy removal of the sash.

INSTALLATION:
Factory applied folding nailing fin and drip cap system. Optional installation brackets for masonry available. Factory supplied field mulling kits are available for standard assemblies.

GLAZING:
All units manufactured with 3/4″ (19 mm) insulating glass Low E II with Argon [Tempered Obscure Low E II with Argon - call numbers 3624, 3636, and 4824]. All glass is of a select quality complying with Federal Specifications DD-F-451D, ASTM C 1036. Insulating glass is manufactured and tested to pass level CBA, ASTM E 772 and is IGCC certified. The glazing seal is a silicone bedding on both interior and exterior surfaces.

WEATHER STRIPPING:
All units have full perimeter frame weather strip. The sash is sealed to the jambs and header using a flexible bulb gasket. The sill is sealed to the sash using a fin weather strip. The meeting stiles are sealed using a flexible bulb gasket.

SCREEN:
Factory installed half screen. Charcoal color fiberglass (non-corrosive) screen cloth, 18 x 16 mesh, set in a stone white, pebble gray, bronze, or evergreen color aluminum frame to match the exterior Ultrex. Screen is removable from interior.

REMOVABLE INTERIOR GRILLES:
Bar: Pine wood, 3/4″ (19 mm) Pattern: Standard rectangular pattern.

INTERIOR / EXTERIOR SIMULATED DIVIDED LITES (SDL):
Interior bar: 7/8″ (22 mm) wide bars. Pine bare wood or factory applied white finish, to match interior. Exterior bar: Ultrex, 7/8″ (22 mm) wide bars, finish to match exterior. Pattern: Standard rectangular pattern, or optional 9 lite Prairie cut.

GRILLES-BETWEEN-THE-GLASS (GBG):
11/16″ (17 mm) contoured aluminum bar placed between two panes of glass. Pattern: Standard rectangular pattern, or optional 9 lite per sash Prairie cut. Exterior color is determined by frame color. White interior.

INTERIOR FINISH:
Ultrex exposed to the interior is standard pearl white. Available in treated bare wood or factory applied White Interior Finish.

PERFORMANCE RATING:
Complies with ANSI/AAMA/WDMA 101/I.S. and NASf-20, HS-LC30

EGRESS:
Egress windows are 4848, 4860, 6042, 6048, 6060, 7242, 7248, 7260 gliders, 9648 and 9660 triple sash gliders, 4848 and 4860 2-wides. The 6036 and 7236 units will meet national egress codes if installed at the proper height from the floor (maximum head jamb height of 77 15/16″ (1980)).

WOOD ULTREX GLIDER

NFRC VALUES

THERMAL PERFORMANCE:

CERTIFIED NFRC UNIT VALUES					
NFRC Glazing Type	**Values U-Factor**	**R-Value Operator/Stationary**	**Solar Heat Gain Coefficient**	**Visible Light Transmission**	**Energy Star**
Unit Type ITGL Size Tested - f/s 59.5″ x 47.8″					
Low E II Argon	0.30	3.33	0.31	.54	N, NC, SC, S
Low E II Air	0.33	3.03	0.32	.54	N, NC, SC, S
Low E II Argon GBG	0.30	3.33	0.28	.48	N, NC, SC, S
Low E II Air GBG	0.34	2.94	0.29	.48	N, NC, SC, S
Low E II Argon SDL	0.30	3.33	0.28	.48	N, NC, SC, S
Low E II Air SDL	0.33	3.03	0.29	.48	N, NC, SC, S
Unit Type ITGL Triple Sash					
Low E II Argon	0.31	3.23	0.32	.54	N, NC, SC, S
Low E II Air	0.35	2.86	0.32	.54	N, NC, SC, S
Low E II Argon GBG	0.32	3.13	0.29	.48	N, NC, SC, S
Low E II Air GBG	0.36	2.78	0.29	.48	NC, SC, S
Low E II Argon SDL	0.31	3.23	0.29	.48	N, NC, SC, S
Low E II Air SDL	0.35	2.86	0.29	.48	N, NC, SC, S

Product Values are determined using the National Fenestration Rating Council Procedure for determining fenestration product values.
U-Value - (Btu/hr-sq ft-°F) Lower the U-Value, the greater the resistance to heat flow and better its insulating value.
R-Value - (1/U-Value) Higher the R-Value, the greater the resistance to heat flow and better its insulating value.
VLT - Visible Light Transmittance - Percentage of visible light transmitted through the unit.
SHGC - Solar Heat Gain Coefficient - The lower a window's SHGC, the less solar heat it transmits, and the greater its shading ability.

*Note: Capillary tubes are required for IG units at high elevations. Argon will not be furnished in units with capillary tubes.

WOOD ULTREX GLIDER

EGRESS, LITE, AND VENT MEASUREMENTS / ABBREVIATIONS

EGRESS, LITE, AND VENT MEASUREMENTS									
UNIT #		DAYLIGHT OPENING WIDTH PER SASH	DAYLIGHT OPENING HEIGHT PER SASH	LITE Sq. ft	VENT Sq. ft	EGRESS WIDTH	EGRESS HEIGHT	EGRESS Sq. ft	FLOOR TO BOTTOM OF CLEAR OPENING
GLIDER									
ITGL	**3624**	13 11/16″	17 11/16″	3.36	1.93	14.13	19.71	1.93	60.59
	3636	13 11/16″	29 11/16″	5.64	3.11	14.13	31.71	3.11	48.59
	3642	13 11/16″	35 11/16″	6.78	3.70	14.13	37.71	3.70	42.59
	3648	13 11/16″	41 11/16″	7.93	4.28	14.13	43.71	4.28	36.59
	3660	13 11/16″	53 11/16″	10.21	5.47	14.13	55.71	5.47	24.59
	4824	19 11/16″	17 11/16″	4.84	2.76	20.13	19.71	2.76	60.59
	4836	19 11/16″	29 11/16″	8.12	4.43	20.13	31.71	4.43	48.59
	4842	19 11/16″	35 11/16″	9.76	5.27	20.13	37.71	5.27	42.59
	***4848**	19 11/16″	41 11/16″	11.40	6.11	20.13	43.71	6.11	36.59
	***4860**	19 11/16″	53 11/16″	14.68	7.79	20.13	55.71	7.79	24.59
	***6036**	25 11/16″	29 11/16″	10.59	5.75	26.13	31.71	5.75	48.59
	***6042**	25 11/16″	35 11/16″	12.73	6.84	26.13	37.71	6.84	42.59
	***6048**	25 11/16″	41 11/16″	14.87	7.93	26.13	43.71	7.93	36.59
	***6060**	25 11/16″	53 11/16″	19.15	10.11	26.13	55.71	10.11	24.59
	***7236**	31 11/16″	29 11/16″	13.07	7.08	32.13	31.71	7.08	48.59
	***7242**	31 11/16″	35 11/16″	15.71	8.41	32.13	37.71	8.41	42.59
	***7248**	31 11/16″	41 11/16″	18.35	9.75	32.13	43.71	9.75	36.59
	***7260**	31 11/16″	53 11/16″	23.63	12.43	32.13	55.71	12.43	24.59
GLIDER TRIPLE SASH									
ITGLTS	***9648**	45 11/16″	41 11/16″	24.63					
	Flankers	19 11/16″	41 11/16″	11.40	12.68	21.68	43.71	6.58	36.59
	***9660**	45 11/16″	53 11/16″	31.71					
	Flankers	19 11/16″	53 11/16″	14.68	16.77	21.68	55.71	8.39	24.59

NOTE:

* These units meet national egress codes requiring 5.7 Sq. ft 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. Floor to sill height is calculated using 6–10 1/2″ from finished floor to rough opening header.

ABBREVIATIONS

FS = Frame Size
GBG = Grille between glass
ITGL = Integrity Wood Ultrex Glider
ITGLTS = Integrity Wood Ultrex Glider Triple Sash
MO = Masonry Opening
Mas Opg = Masonry Opening
O = Stationary
mm = Millimeters
OM = Outside measurement
Rgh. Opg = Rough Opening
RO = Rough Opening
SDL =Simulated Divided Lite
Sq. ft = Square Feet
2W = 2 Units Wide
3W = 3 Units Wide

International Building Code - 2006
Section 1009 Emergency Escape and Rescue

1026.2 Minimum size: Emergency escape and rescue openings shall have a minimum net clear opening of 5.7 square feet (0.53m^2). Exception: The minimum net clear opening for emergency escape and rescue openings on the ground level at grade is 5.0 square feet (0.46m^2).

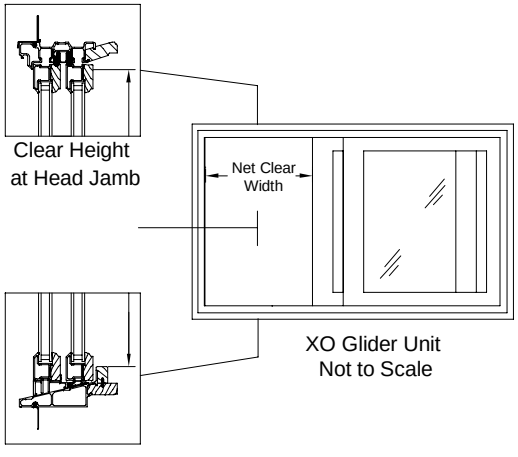
1026.2.1 Minimum dimensions: The minimum net clear opening height dimension shall be 24 inches (610 mm). The net clear opening width dimension shall be 20 inches (508 mm). The net clear opening dimensions shall be the result of normal operation of the opening.

1026.3 Maximum height from the floor: Emergency escape and rescue opening shall have the bottom of the clear opening not greater than 44 inches (1118 mm) measured from the floor.

1026.4 Operational constraints: Emergency escape and rescue openings shall be operational from the inside of the room without the use of keys or tools. Bars, grilles, grates, or similar devices are permitted to be placed over emergency escape and rescue openings provided the minimum net clear opening size complies with Section 1009.2 and such devices shall be releasable or removable from the inside without the use of a key, tool, or force greater than that which is required for normal operation of the escape and rescue opening.

Code restrictions may vary depending on your local building codes.

EGRESS MEASUREMENTS



WOOD ULTREX GLIDER

SIZING GUIDELINES AND MEASUREMENT CONVERSIONS

Multiple assemblies can be factory mulled:

up to 2 units wide by 1 unit high

MAXIMUM ROUGH OPENING: not to exceed113 1/2″ (2883 mm) 60 1/4″ (1530 mm)

NOTE: Individual or mulled units with jamb extension: ADD 1/4″ to WIDTH. and 1/8″ to HEIGHT of Frame, Rough, and Masonry Opening sizes.

6 9/16″ (167 mm) and 6 13/16 (173 mm) jamb extension available factory applied or for field application.

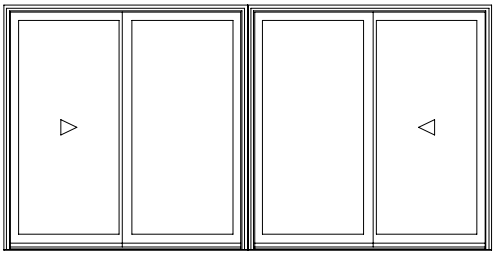
CALCULATING TOTAL ROUGH OPENING FOR ASSEMBLIES

WIDTH: ADD Frame Widths + 1″ (25 mm)

Tolerance = 1/2″ (13 mm) from frame to Rough Opening at left and right jamb.

HEIGHT: ADD Frame Heights + 1/2″ (13 mm)

Tolerance = 1/2″ (13 mm) from Frame to Rough Opening at head jamb.



2 Units Wide 1 Unit High

MEASUREMENT CONVERSIONS				
GLIDER	**WIDTH**		**HEIGHT**	
Rough Opening to	**Imperial**	**Metric**	**Imperial**	**Metric**
Masonry Opening	– 1/2″	– 13 mm	– 1/4″	– 6 mm
OM of Frame	– 1″	– 25 mm	– 1/2″	– 13 mm
OM Sash	(÷ 2) – 1 5/16″	(÷ 2) – 33 mm	– 3 5/16″	– 33 mm
Daylight Opening	(÷ 2) – 4 9/16″	(÷ 2) – 116 mm	– 6 9/16″	– 167 mm
Om of Glass	(÷ 2) – 3 1/2″	(÷ 2) – 89 mm	– 5 1/2″	– 140 mm
OM of Screen	(÷ 2) – 2 1/8″	(÷ 2) – 54 mm	– 2 1/2″	– 64 mm

For Triple Sash conversions, RO to Glass, Sash, and Screens, please contact the Integrity Support Line (1–800–587–2712).

WOOD ULTREX GLIDER

DESIGN PRESSURE

INTEGRITY WOOD ULTREX GLIDER Design Pressure						
Nominal Height	Frame Height, inches	Nominal Width Frame Width, inches				
		36 35.50	**48** 47.50	**60** 59.50	**72** 71.50	**96 (Triple)** 95.50
24	23.75	LC30	LC30			
36	35.75	LC30	LC30	LC30	LC30	
42	41.75	LC30	LC30	LC30	LC30	
48	47.75	LC30	LC30	LC30	LC30	LC30
60	59.75	LC30	LC30	LC30	LC30	LC30

WOOD ULTREX GLIDER

ELEVATIONS – 1–WIDE, 2–WIDE, AND TRIPLE SASH UNITS Not To Scale

Mas. Opg.	3–0	(914)	4–0	(1219)	5–0	(1524)	6–0	(1829)	5–11 1/2	(1816)	7–11 1/2	(2426)
Rgh.Opg.	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)
Frame Size	2–11 1/2	(902)	3–11 1/2	(1207)	4–11 1/2	(1511)	5–11 1/2	(1816)	5–11	(1803)	7–11	(2413)
Glass Size	14 3/4″	(375)	20 3/4″	(527)	26 3/4″	(679)	32 3/4″	(832)				

Mas. Opg.	Rgh. Opg.	Frame Size	Glass Size										
2–0	2–0 1/4	1–11 3/4	18 3/4″	(610)	(616)	(603)	(476)	ITGL3624	ITGL4824			ITGL3624 2W	ITGL4824 2W
3–0	3–0 1/4	2–11 3/4	30 3/4″	(914)	(921)	(908)	(781)	ITGL3636	ITGL4836	ITGL6036**	ITGL7236**	ITGL3636 2W	ITGL4836 2W
3–6	3–6 1/4	3–5 3/4	36 3/4″	(1067)	(1073)	(1060)	(933)	ITGL3642	ITGL4842	ITGL6042*	ITGL7242*	ITGL3642 2W	ITGL4842 2W
4–0	4–0 1/4	3–11 3/4	42 3/4″	(1219)	(1226)	(1213)	(1086)	ITGL3648	ITGL4848*	ITGL6048*	ITGL7248*	ITGL3648 2W	ITGL4848* 2W
5–0	5–0 1/4	4–11 3/4	54 3/4″	(1524)	(1530)	(1518)	(1391)	ITGL3660	ITGL4860*	ITGL6060*	ITGL7260*	ITGL3660 2W	ITGL4860* 2W

TRIPLE SASH UNITS

Mas. Opg.			8–0	(2438)		
Rgh. Opg.			8–0 1/2	(2451)		
Frame Size			7–11 1/2	(2426)		
Glass Size	20 3/4″	(527)	46 3/4″	(1137)	20 3/4″	(527)

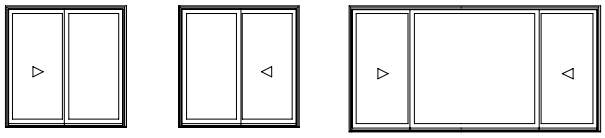
Mas. Opg.	Rgh. Opg.	Frame Size	Glass Size			
4–0	4–0 1/4	3–11 3/4	42 3/4″	(1219)	(1226)	(1213) (1086)

ITGLTS9648*

Mas. Opg.	Rgh. Opg.	Frame Size	Glass Size			
5–0	5–0 1/4	4–11 3/4	54 3/4″	(1524)	(1530)	(1518) (1391)

ITGLTS9660*

OPERATION



XO OX XOX

XO, OX or XOX operating units available.
All units viewed from exterior.
O = Stationary Sash
X = Operating Sash

NOTE:
Light Patterns:
One lite is standard. Rectangular and Prairie Lite Pattern, optional.

* These windows meet National Egress Codes for fire evacuation. Local codes may differ. See page 4.3 for additional egress information.

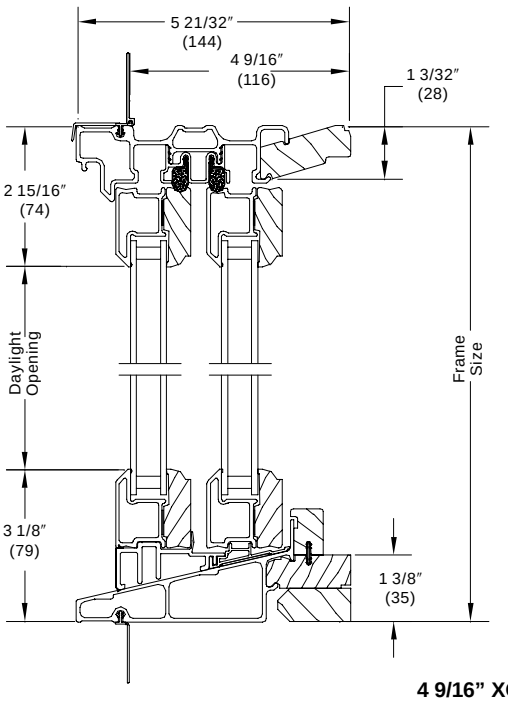
** These windows meet National Egress Codes for fire evacuation if installed at the proper height from the floor (maximum head jamb height of 77 15/16″ (1980)).

Imperial and metric dimensions are shown. Metric dimensions are in millimeters.

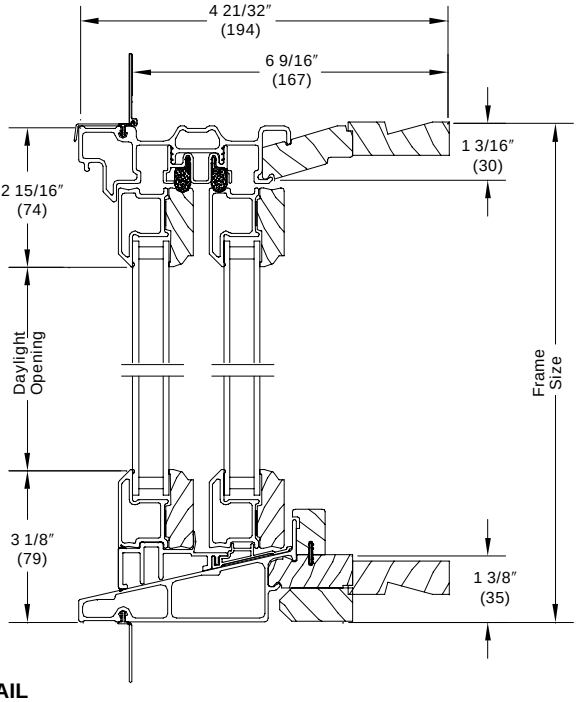
WOOD ULTREX GLIDER

SECTION DETAILS Scale 3″ = 1′ 0″

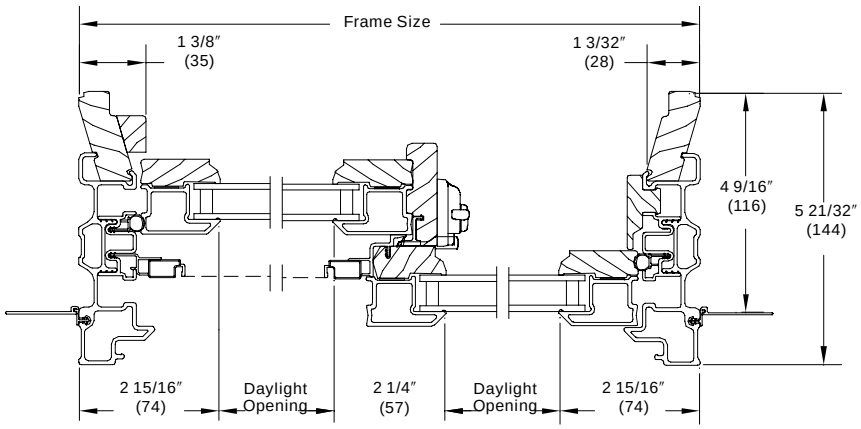
4 9/16”



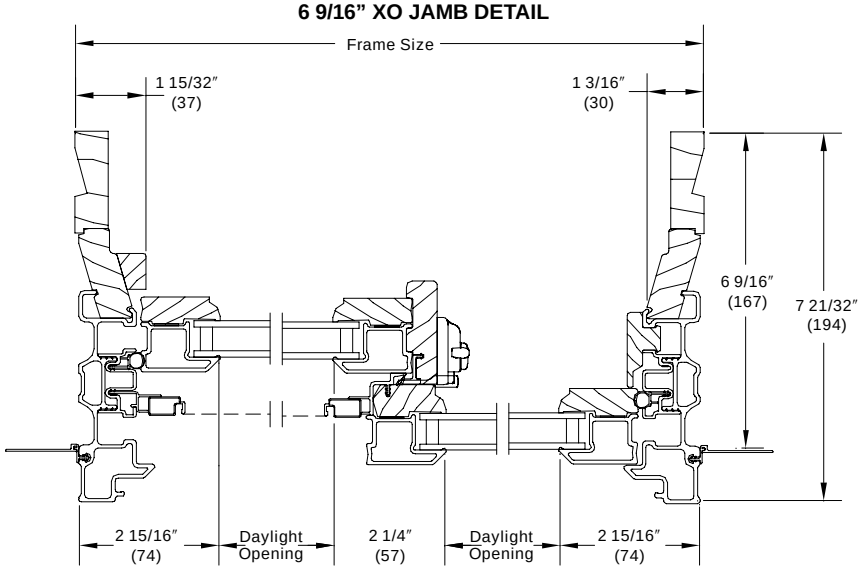
6 9/16”



4 9/16” XO JAMB DETAIL



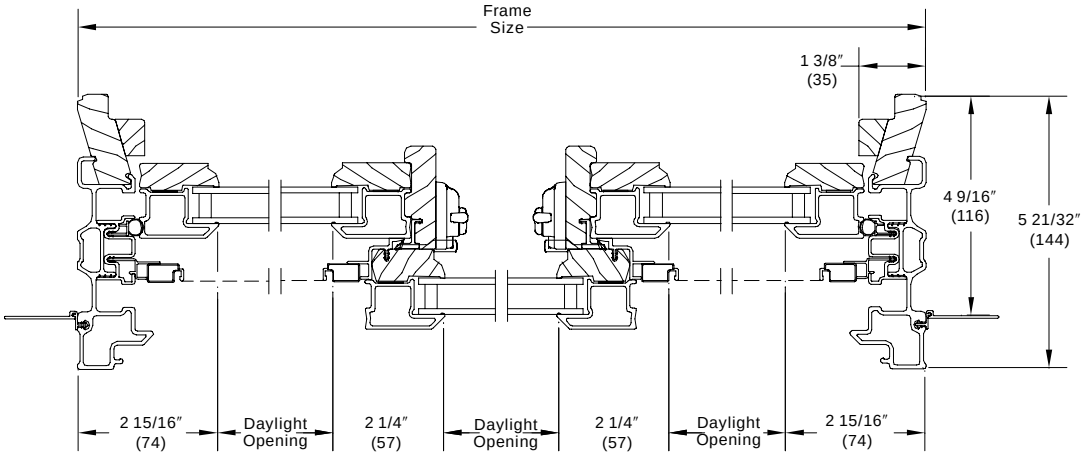
6 9/16” XO JAMB DETAIL



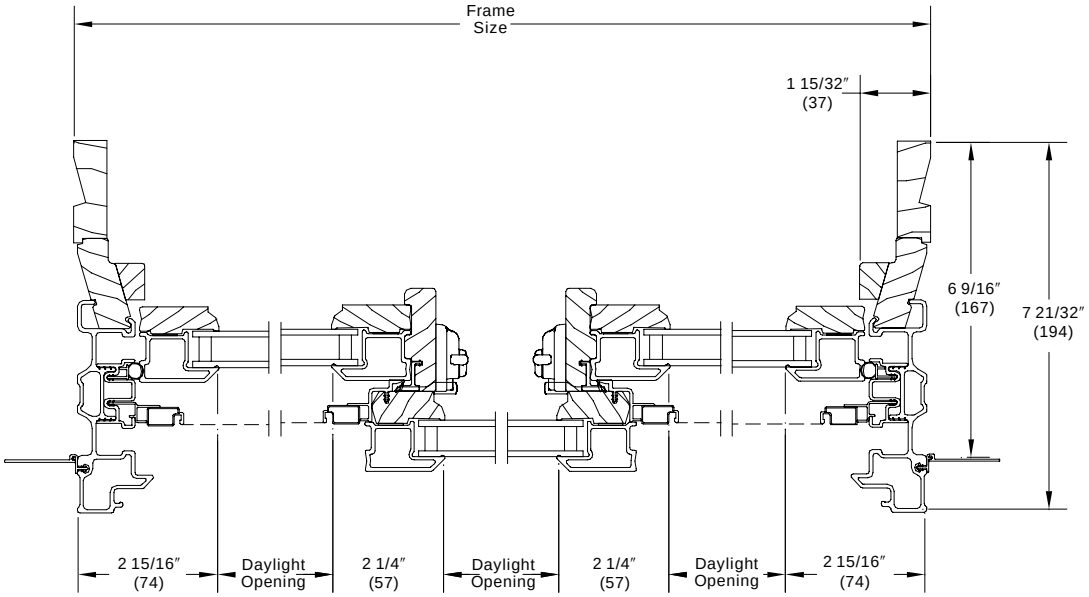
WOOD ULTREX GLIDER

SECTION DETAILS – TRIPLE SASH Scale 3″ = 1′ 0″

4 9/16” TRIPLE SASH XOX JAMB DETAIL

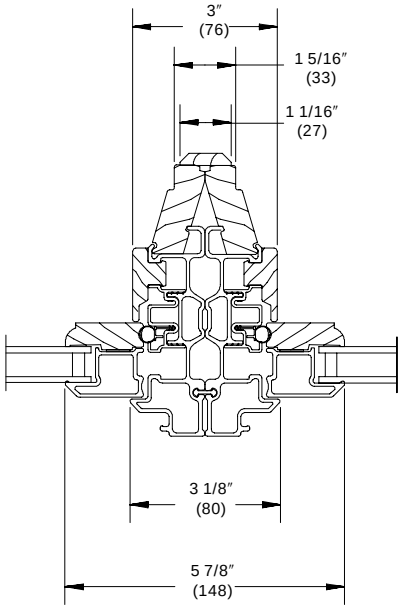


6 9/16” TRIPLE SASH XOX JAMB DETAIL

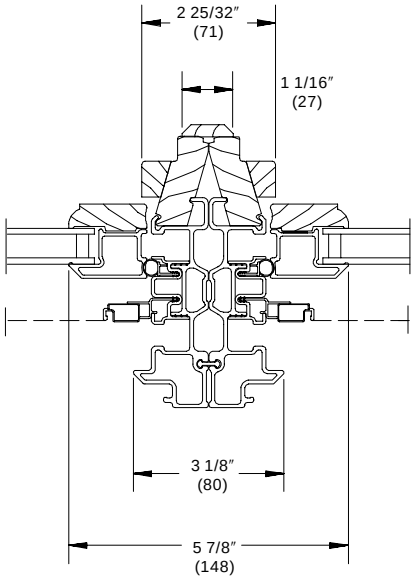


SECTION DETAILS – MULLIONS Scale 3″ = 1′ 0″

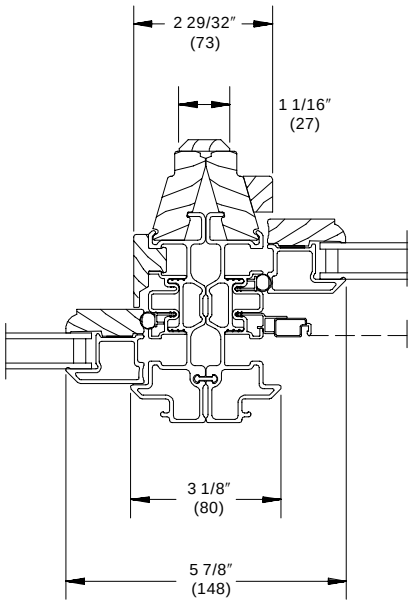
MULLIONS



VERTICAL GLIDER UNITS
2 WIDE XO-OX



VERTICAL GLIDER UNITS
2 WIDE OX-XO

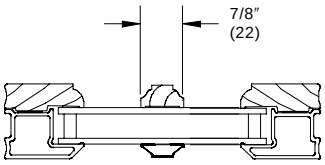


VERTICAL GLIDER UNITS
2 WIDE XO-XO

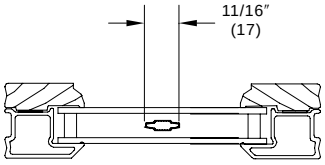
WOOD ULTREX GLIDER

SECTION DETAILS – DIVIDED LITE OPTIONS Not to Scale

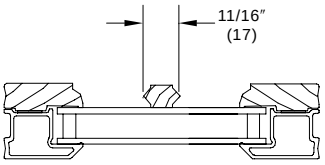
DIVIDED LITE OPTIONS



SIMULATED DIVIDED LITE

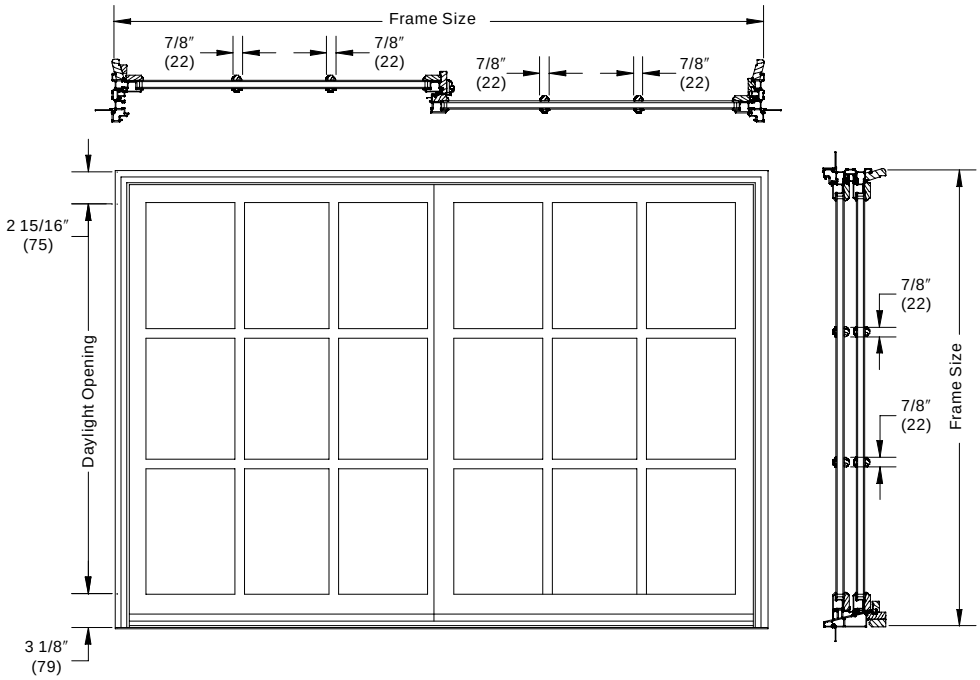


ALUMINUM GRILLE BETWEEN GLASS



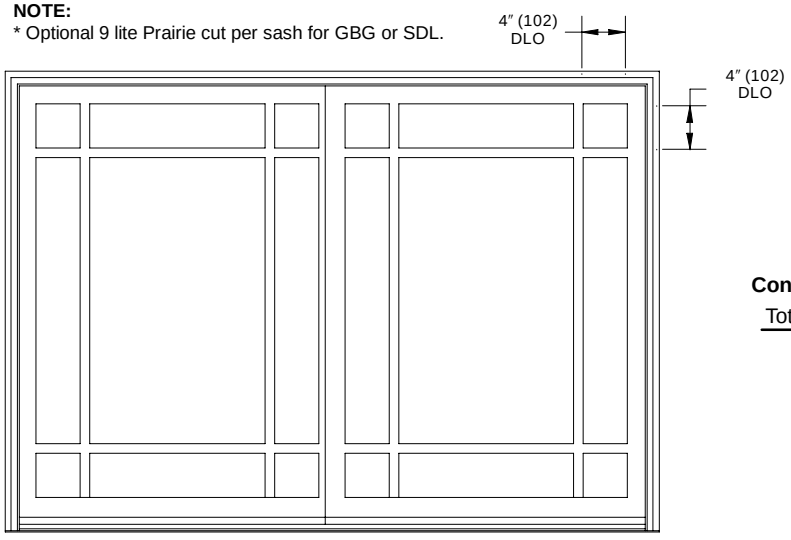
WOOD REMOVABLE GRILLE

RECTANGLE SDL
EXAMPLE SHOWN



GBG or SDL (SDL SHOWN)*

NOTE:
* Optional 9 lite Prairie cut per sash for GBG or SDL.



Conversion Formula:

$$\frac{\text{Total DLO – Total bar width}}{\text{Number of lites}} = \text{Individual DLO}$$

WOOD ULTREX GLIDER

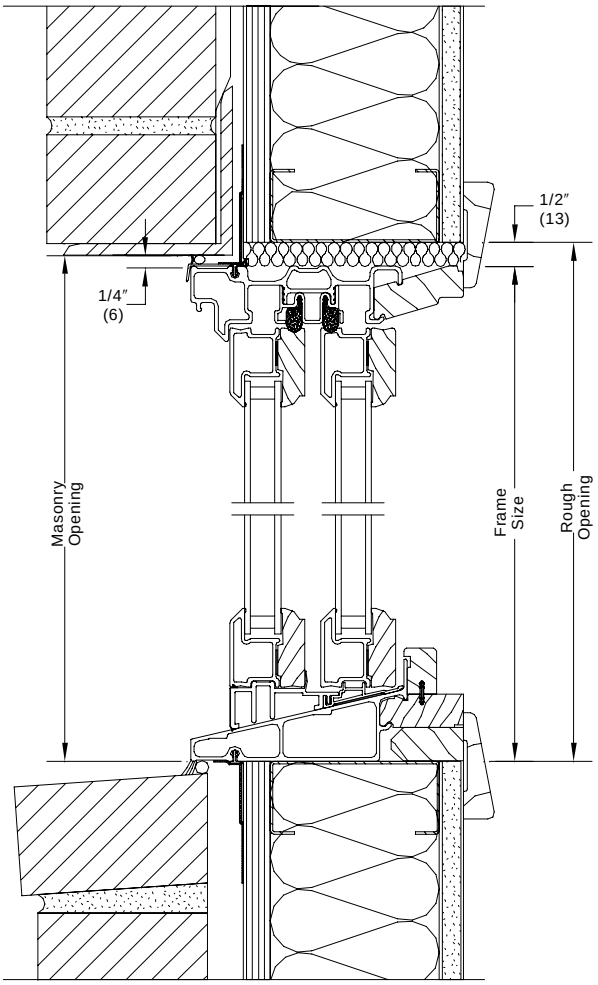
AVAILABLE DIVIDED LITE PATTERNS

CN	Rectangular			Prairie	
	Wood Grille	GBG or SDL		GBG	SDL
GLIDER per sash					
3624	2W2H	2W2H		9-Lite	9-Lite
3636	2W3H	2W3H	2W2H	9-Lite	9-Lite
3642	2W3H	2W3H	2W2H	9-Lite	9-Lite
3648	2W3H	2W3H	2W2H	9-Lite	9-Lite
3660	2W4H	2W4H	2W2H	9-Lite	9-Lite
4824	2W2H	2W2H		9-Lite	9-Lite
4836	2W3H	2W3H	2W2H	9-Lite	9-Lite
4842	2W3H	2W3H	2W2H	9-Lite	9-Lite
4848 9648 Flanker	2W3H	2W3H	2W2H	9-Lite	9-Lite
4860 9660 Flanker	2W4H	2W4H	2W2H	9-Lite	9-Lite
6036	3W3H	3W3H	2W2H	9-Lite	9-Lite
6342	3W3H	3W3H	2W2H	9-Lite	9-Lite
6048	3W3H	3W3H	2W2H	9-Lite	9-Lite
6060	3W4H	3W4H	2W2H	9-Lite	9-Lite
7236	3W3H	3W3H	2W2H	9-Lite	9-Lite
7242	3W3H	3W3H	2W2H	9-Lite	9-Lite
7248	3W3H	3W3H	2W2H	9-Lite	9-Lite
7260	3W4H	3W4H	2W2H	9-Lite	9-Lite
TRIPLE SASH-CENTER SASH					
9648	4W3H	4W3H	4W2H	9-Lite	9-Lite
9660	4W4H	4W4H	4W2H	9-Lite	9-Lite

WOOD ULTREX GLIDER

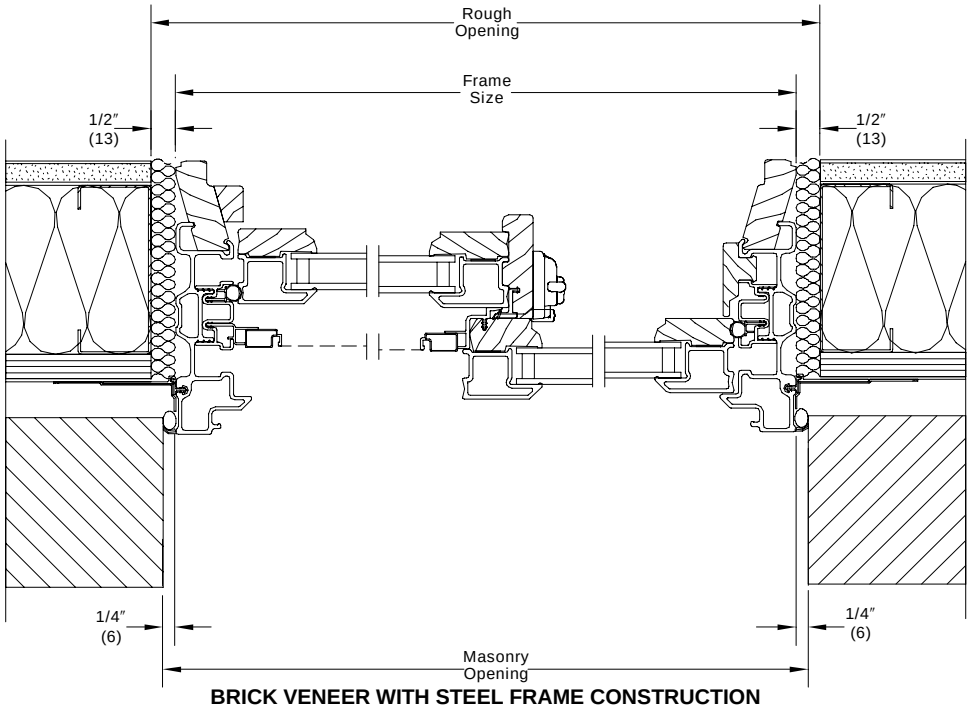
INSTALLATION SUGGESTION Scale 3″ = 1′ 0″

HEAD
JAMB



SILL

JAMB

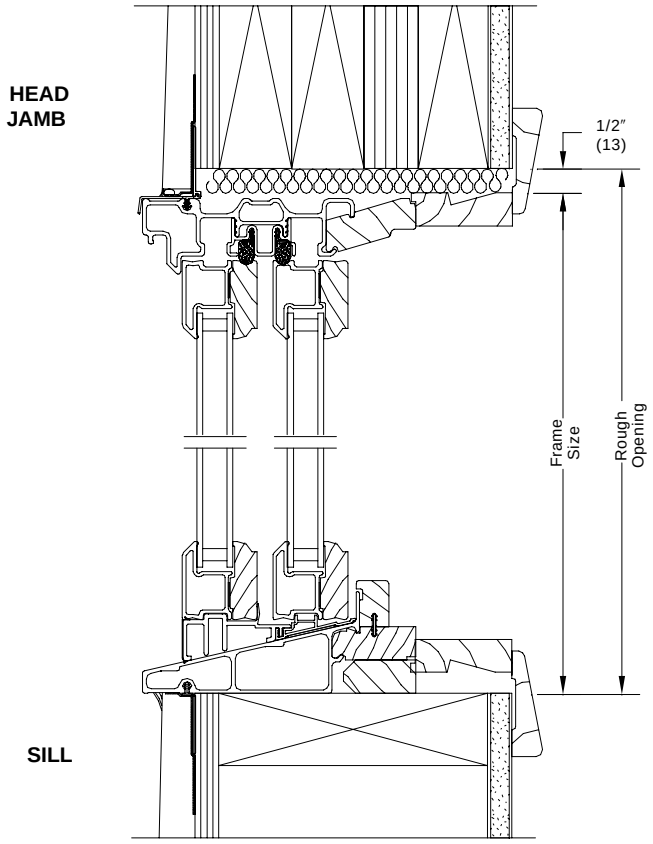


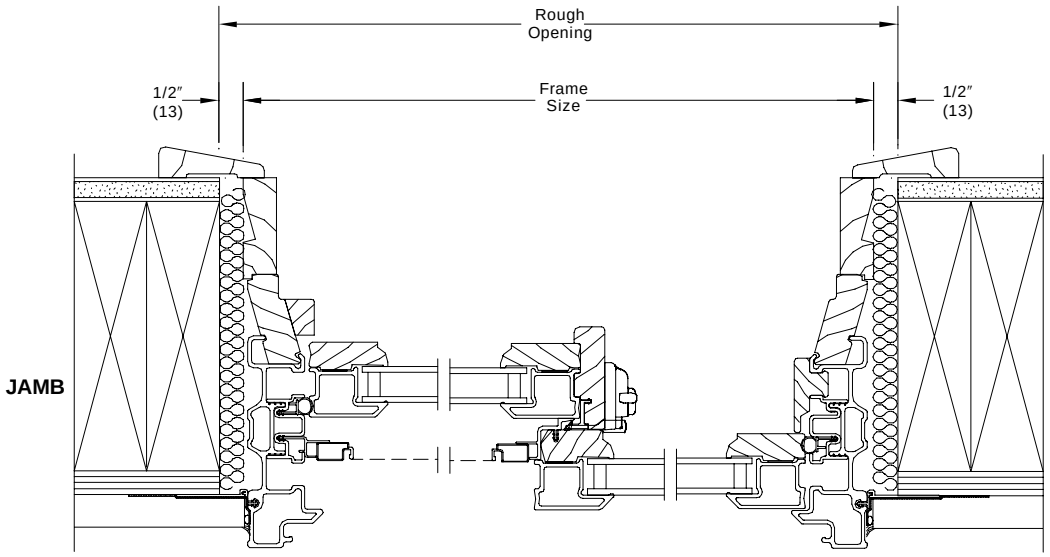
BRICK VENEER WITH STEEL FRAME CONSTRUCTION

NOTE:
The above wall sections represent typical wall conditions, these details are not intended as installation instructions. Please refer to the installation instructions provided with the purchased units.

WOOD ULTREX GLIDER

INSTALLATION SUGGESTION Scale 3″ = 1′ 0″





WOOD SIDING WITH 2X6 FRAME CONSTRUCTION

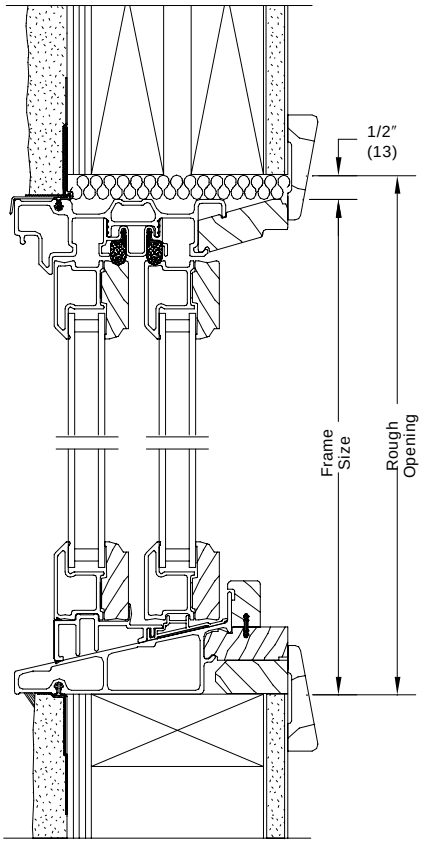
NOTE:
The above wall sections represent typical wall conditions, these details are not intended as installation instructions. Please refer to the installation instructions provided with the purchased units.

NOTE: Glider Unit shown with jamb extension

WOOD ULTREX GLIDER

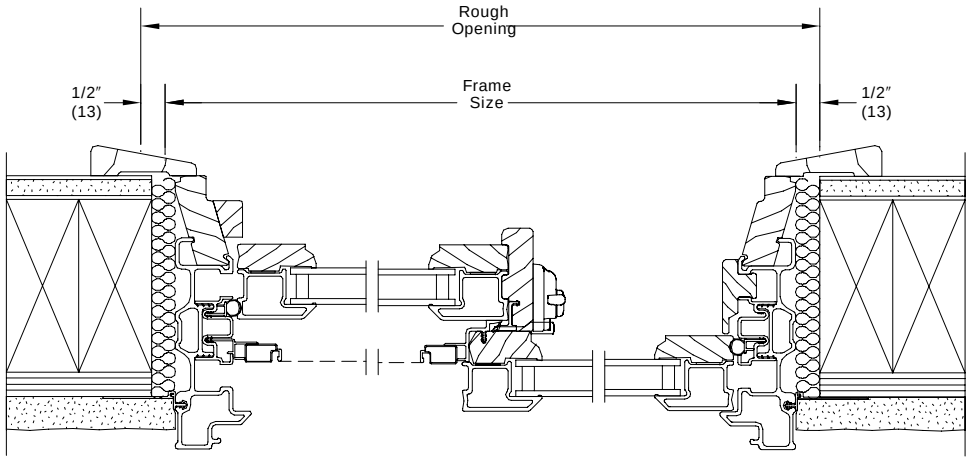
INSTALLATION SUGGESTIONS Scale 3″ = 1′ 0″

HEAD
JAMB



SILL

JAMB



STUCCO WITH 2X4 FRAME CONSTRUCTION

NOTE:
The above wall sections represent typical wall conditions, these details are not intended as installation instructions. Please refer to the installation instructions provided with the purchased units.