

Integrity Direct Glaze Polygon

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Wood-Ultrex Direct Glaze Polygon

Unit Features

Integrity Wood-Ultrex Polygon: IDG

Frame and Sash:

- The frame exterior is made of Ultrex, an advanced fiber reinforced material that is resistant to thermal conductance.
 - Ultrex patented coating system meets all the requirements of AAMA 624-10.
 - Exterior colors: Stone White, Pebble Gray, Bronze, Evergreen, Cashmere, or Ebony.
 - Ultrex frame is .080" (2) thick.
 - The interior is non finger-jointed pine, kiln dried to a moisture content of 6–12% at time of fabrication.
 - Water-repellant, preservative treated in accordance with WDMA I.S.4.
 - Interior wood is available as pine bare wood or factory applied White, Clear, or Designer Black finishes.
 - Composite frame thickness is 2 1/16" (52). Frame width is 4 9/16" (116).
 - 4/4 non finger-jointed pine interior stop is applied to all units.

Jamb Extension:

- 6 9/16" (167) and 6 13/16" (173) jamb extension available factory applied or in lineal lengths for field application.

Installation:

- Factory applied folding nailing fin and drip cap system
 - Optional installation brackets available for Polygons without nailing fin intended for masonry application
 - Installation clips are required on Impact units.

Glazing:

- Dual-pane units are manufactured with an 11/16" (17) IG with Low E2, E3, E3/ERS or E1 coatings including argon gas fill.
 - Tripane units are manufactured with a glass thickness varying from 1 1/8" (29) to 1 1/2" (38) IG with a combination coating consisting of Low E2 on surface 2 and Low E1 on surface 5 including argon gas fill.
- Tempered glass and/or obscure glass, and California Fire glass (annealed exterior and tempered interior glazing configuration) are available as an option.
- All glass is of a select quality complying with ASTM C 1036. Insulating glass is manufactured and tested to pass level ASTM E 2190 and is IGCC certified.
- The glazing seal is a silicone bedding on both interior and exterior surfaces utilized in a sandwich style sash.
- STC/OITC values are available for standard 3.1/3.1 glass.
 - Optional 3.1/4.7 STC/OITC Upgrade glass is available. STC and OITC ratings are tested in accordance with ASTM E 90-09.
- Decorative glass options include frost, glue chip, rain, reed, narrow reed, and tinted (bronze, gray or green). Decorative glass is not available with Low E1, Low E3/ERS, tripane or STC/OITC options.
- See the Product Performance chapter for values.

Impact Glazing:

- Optional Impact Zone 3 available on selected sizes. Zone 3 for winds up to 140 miles per hour.
- Glass is laminated insulated Low E2 or E3 Argon, consisting of annealed or tempered glass exterior and laminated glass interior.
 - The laminated glass is comprised of two pieces of glass with either a SGP or PVB laminate layer between.
- Interior and exterior glazing compound is silicone, in a sandwich style glazing system.
- Not available with CE mark.

CE Glazing:

- Dual pane units are manufactured with a glass thickness of 11/16" (17) IG with Low E2, E3, and E1 coatings including argon gas fill.
- Tripane units are manufactured with a glass thickness varying from 1 1/8" (29) to 1 1/4" (32) IG with a combination coating consisting of Low E2 on surface 2 and Low E1 on surface 5 including argon gas fill.
- Tempered glass is available as an option.
- CE marked IG units comply with EN 1279 and EN 12150 (fully tempered). The glazing seal is a silicone bedding on both interior and exterior surfaces utilized in a sandwich style sash.

Unit Features Continued

RECTANGLES ONLY:

Interior / Exterior Simulated Divided Lites (SDL):

- Interior bar: 7/8", (22) wide bars. Pine bare wood or optional white, clear, or designer black interior finish.
- Exterior bar: Ultrex, 7/8" (22) wide bars, finish to match exterior. Pattern: Rectangular, Prairie or Cottage style cuts.
- Special size Direct Glaze Rectangle units will default to a 10" (254) daylight opening with a minimum 4" (102) daylight opening available. Due to size limitation, 6 or 9 lite Prairie cut may apply. Default is 9 lite for stand alone units.
- Simulated check rail option: 2 11/32" (60). Pattern available: simulated rail in standard center or center specified location with 7/8" patterns above, below or both in patterns of rectangular equal lite or prairie lite cuts.
- SDL with spacer bar available in standard rectangle only with standard lite patterns.
- For tripane units, the spacer bar is located in the exterior space between surfaces 2 and 3.
- SDL is unavailable with rain, reed and narrow reed decorative glass. Glue chip requires tempered glass. Tinted glass is not available with spacer bar.

Grilles-Between-The-Glass (GBG):

- Interior bar: 23/32" (18) contoured aluminum bar placed between two panes of glass.
 - Pattern: rectangular, 6 or 9 lite Prairie cut, or Cottage style cut. Due to size limitation, 6 or 9 lite Prairie cut may apply. Default is 9 lite for stand alone units.
 - Exterior color: Stone White, Pebble Gray, Bronze, Evergreen, Cashmere, or Ebony.
 - Interior Color: White, Bronze, or Ebony. For tripane units, the spacer bar is located in the exterior space between surfaces 2 and 3. GBGs are not available on Impact or tinted glazed units.

Exterior Casing:

- Non-integral to the unit. Fastened to the exterior wall with barb and kerf
- 2" (51) brick mould as a full surround or with sill nosing.
- 3 1/2" (89) flat casing available as full surround or with sill nosing.
- Also available with 1" (25) ranch style sill and header overhang.
- Available on rectangle units only.

Wood-Ultrex Direct Glaze Polygon

Standard Size Direct Glaze Rectangular Transom

STANDARD SIZE DIRECT GLAZE RECTANGULAR TRANSOM			
Call #	Unit Type	Frame Size OSM Width	Frame Size OSM Height
ICADG7316	Casement/Awning	72" (1829)	15 3/4" (400)
ISPDDG7216	Sliding Patio Door	71" (1803)	15 3/4" (400)
ISFDDG10716	Sliding Patio Door	106 1/2" (2705)	15 3/4" (400)
IIFDDG3616	Inswing French Door	36 5/16" (923)	15 3/4" (400)
IIFDDG7216	Inswing French Door	71" (1803)	15 3/4" (400)
IIFDDG10816	Inswing French Door	107 5/16" (2726)	15 3/4" (400)
IOFDDG3616	Outswing French Door	36 5/16" (923)	15 3/4" (400)
IOFDDG7216	Outswing French Door	71" (1803)	15 3/4" (400)
IOFDDG10816	Outswing French Door	107 5/16" (2726)	15 3/4" (400)
ISFDDG7216	Sliding French Door	71" (1803)	15 3/4" (400)
ISFDDG10716	Sliding French Door	106 1/2" (2705)	15 3/4" (400)

NOTE: CE Mark is available with ICADG 7316

Mulling Guidelines- Standard

Multiple assemblies can be factory mulled:

Direct Glaze unit for ICA/IAWN:

up to 7 units wide by 1 unit high

MAXIMUM ROUGH OPENING not to exceed 113" (2870) X 71 5/8" (1819)

up to 4 units wide by 5 units high

MAXIMUM ROUGH OPENING not to exceed 85" (2159) X 94 3/4" (2407)

Direct Glaze unit for ITDH:

up to 5 units wide by 1 unit high

MAXIMUM ROUGH OPENING not to exceed 113 1/2" (2883) X 76 1/4" (1937)

up to 3 units wide by 5 units high

MAXIMUM ROUGH OPENING not to exceed 84" (2134) X 92" (2337)

Direct Glaze for ITGL:

up to 3 units wide by 1 unit high

MAXIMUM ROUGH OPENING not to exceed 113 1/2" (2883) X 60 1/4" (1530)

Direct Glaze unit for ISPD/ISFD:

up to 1 unit wide by 2 units high

MAXIMUM ROUGH OPENING not to exceed 72" (1829) X 100 1/2" (2553)

Direct Glaze for IIFD:

up to 3 units wide by 1 unit high

MAXIMUM ROUGH OPENING not to exceed 109 15/16" (2792) X 96" (2438)

up to 2 units wide by 2 units high

MAXIMUM ROUGH OPENING not to exceed 73 5/8" (1870) X 100 1/2" (2553)

Rough Opening Calculations for Direct Glaze Rectangle assemblies

WIDTH: Single unit Rough Opening width MINUS 1" (25) = Frame width

ADD all frame widths PLUS 1" (25) = Total Rough Opening width

HEIGHT: Single unit Rough Opening height MINUS 1/2" (13) = Frame height

ADD all frame heights PLUS = 1/2" (13) Total Rough Opening height

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

NOTE: CE is not available with factory mulling.

NOTE: Field mulling door assemblies beyond 110" (2794) X 112" (2845) is not recommended

*NOTE: Assemblies using DG Rectangle units with 6 9/16" (167) or 6 13/16" (173) jambs for ITDH/ITGL/DR:
ADD 1/4" (6) to width and 1/8" (3) to height of Rough Opening*

NOTE: Polygon shapes are unavailable factory mulled

Wood-Ultrex Direct Glaze Polygon

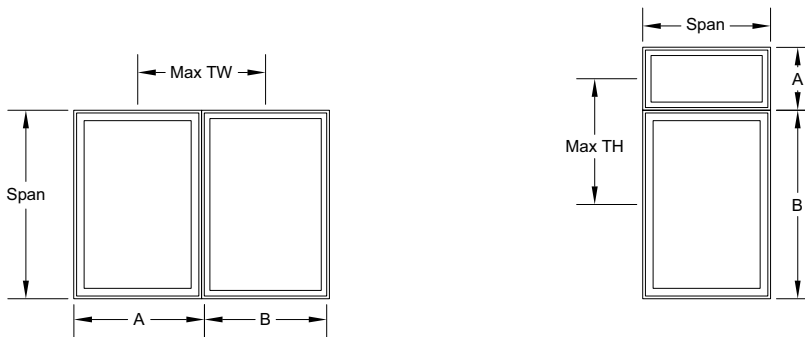
Certified Frame to Frame Mulling Guidelines

Certified Mull Limits: WDMA Hallmark certified to AAMA 450

- If assemblies have individual units that have a lower design pressure than the mull, the entire assembly is rated at the lower design pressure.
- Mull certification includes 4" mull clips (nail fin installation) or mull brackets (structural bracket installation) at all mull joints.
- Items not included in certified mulls: Stepped mulls, Palladians, Polygon Shapes, Through Jamb and Insert Products

Product	Mull Limits				
	Configuration	Max Span	Max TW or TH	Max RO	DP
IDG-CA, IDGP-CA - Vertical Frame-Frame Mulling	2-7W X 1 H	72" (1829)	56" (1422)	113" X 71 5/8" (2870 X 1819)	50
IDG-CA, IDGP-CA - Horizontal Frame-Frame Mulling	1W X 2-5H	72" (1829)	47 1/8" (1197)	73" X 94 3/4" (1854 X 2407)	50
IDG-CA, IDGP-CA - Horizontal Continuous LVL Reinforcement Mulling	2-4W X 2-5H	84" (2134)	47 1/8" (1197)	85" X 94 3/4" (2159 X 2407)	50
IDG-DH, IDGP-DH - Vertical Frame-Frame Mulling	2-5W X 1H	67 3/4" (1721)	56 1/4" (1429)	113" X 68 1/4" (2870 X 1734)	50
IDG-DH, IDGP-DH - Horizontal Frame-Frame Mulling	1W x 2-5H	61 1/2" (1562)	45 3/4" (1162)	62 1/2" X 92" (1162 X 2337)	50
IDG-DH, IDGP-DH - WU Sliding French Door Frame-Frame Mulling	1W x 2H	71" (1803)	50" (1270)	72" X 100 1/2" (1829 X 2553)	50
IDG-DH, IDGP-DH - WU Sliding Patio Door Frame-Frame Mulling	1W x 2H	71" (1803)	50" (1270)	72" X 100 1/2" (1829 X 2553)	50
IDG-DH, IDGP-DH - WU IOFD Frame-Frame Mulling	1W x 2H	71" (1803)	50" (1270)	72" X 100 1/2" (1829 X 2553)	50
IDG-DH, IDGP-DH - WU IOFD Frame-Frame Mulling	2-3W x 1H	95 1/2" (2426)	54 15/32" (1384)	109 15/16" X 96" (2792 X 2438)	50
IDG-DH, IDGP-DH - WU IIFD Frame-Frame Mulling	1W x 2H	71" (1803)	50" (1270)	72" X 100 1/2" (1829 X 2553)	50
IDG-DH, IDGP-DH - WU IIFD Frame-Frame Mulling	2-3W x 1H	95 1/2" (2426)	54 15/32" (1384)	109 15/16" X 96" (2792 X 2438)	50
IDG-CA, IDGP-CA - WU IRTM Horizontal Continuous LVL Mulling	1-3W x 2H	72" (1829)	53-11/32" (1355)	73" X 107 9/16" (1854 X 2732)	50
IDG-CA, IDGP-CA - WU IRTM Horizontal Continuous LVL Mulling	2W x 2H	72" (1829)	53-11/32" (1355)	73" X 107 9/16" (1854 X 2732)	50

- Tributary Width or Height = (A+B)/2



Frame to Frame Mulling Samples

Wood-Ultrex Direct Glaze Polygon

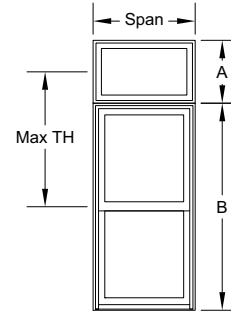
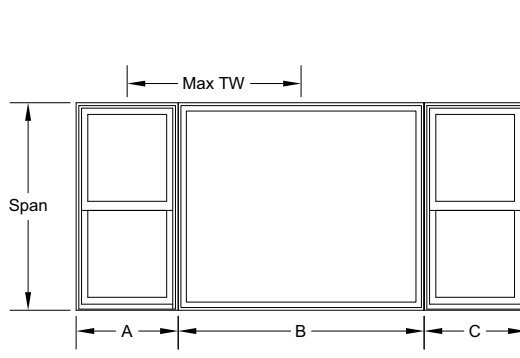
Certified Frame to Frame Mulling Guidelines

Certified Mull Limits: WDMA Hallmark certified to AAMA 450.

Frame to Frame Mulling examples continued.

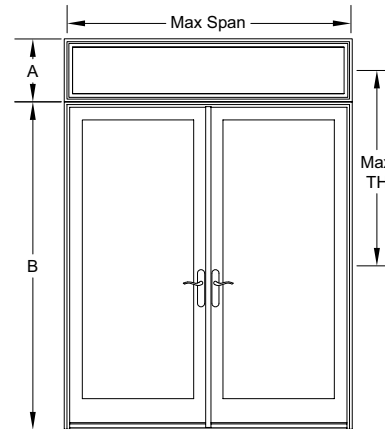
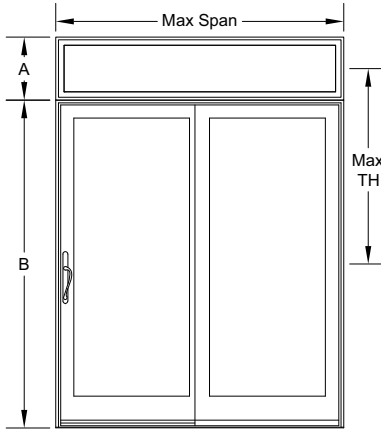
- Tributary Width or Height = $(A+B)/2$

**3 Units Wide
 1 Unit High
 ITDH mull to IDGP**



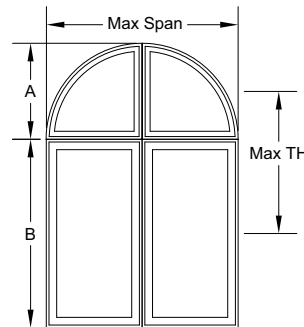
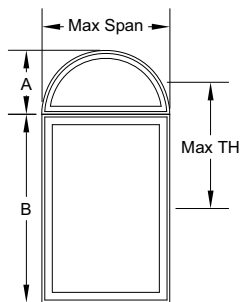
**1 unit Wide
 2 Units High
 IDG over ITDH**

**1 Unit Wide
 2 Units High
 Sliding Door**



**1 Unit Wide
 2 Units High
 Swinging Door**

**1 Unit Wide
 2 Units High
 IRTM/ICA**



**2 Units Wide
 2 Units High
 IRTM/ICA**

Wood-Ultrex Direct Glaze Polygon

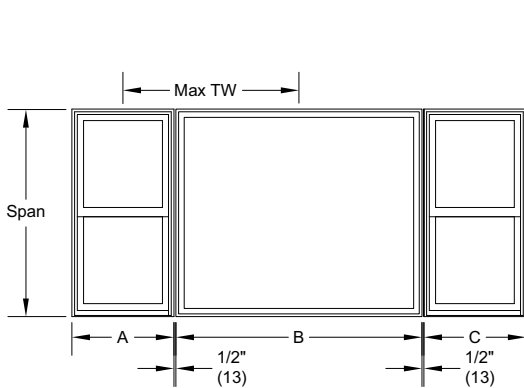
Certified 1/2" MRF Mulling Guidelines

Certified Mull Limits: WDMA Hallmark certified to AAMA 450

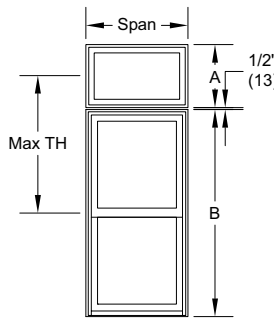
- If assemblies have individual units that have a lower design pressure than the mull; the entire assembly is rated at the lower design pressure.
- Mull certification includes 4" mull clips (nail fin installation) or mull brackets (structural installation) at all mull joints.
- Items not included in certified mulls: Stepped mulls, Palladians, Polygon Shapes, Through Jamb, and Insert Products

Mull Limits					
Product	Configuration	Max Span	Max TW or TH	Max RO	DP
IDG-DH, IDGP-DH - Vertical 1/2" MRF Mulling	2-5W x 1H	75 3/4" (1924)	56 1/4" (1429)	113 1/2" x 76 1/4" (2883 x 1937)	50
IDG-DH, IDGP-DH - Vertical 1/2" MRF Mulling	2-5W x 1H	83 3/4" (2127)	53 3/4" (1365)	108 1/2" x 84 1/4" (2756 x 2140)	40
IDG-DH, IDGP-DH - Horizontal 1/2" MRF Mulling	1W x 2-5H	61 1/2" (1562)	45 3/4" (1162)	62 1/2" X 92" (1162 X 2337)	50
IDG-DH, IDGP-DH - Vertical Continuous 1/2" MRF Mulling	2-3W x 2-5H	91 1/2" (2324)	41 1/2" (1054)	84" x 92"(2134 x 2337)	50
IDG-DH, IDGP-DH - Horizontal Continuous 1/2" MRF, Vertical Frame-Frame Mulling	2-3W x 2-5H	61 1/2" (1562)	41 1/2" (1054)	62 1/2" X 83 1/2" (1588 X 2121)	50
IDG-DH, IDGP-DH -WU Sliding French Door Horizontal 1/2" Mulling	1W x 2H	71" (1803)	50" (1270)	72" X 100 1/2" (1829 X 2553)	50
IDG-DH, IDGP-DH - WU Sliding Patio Door Horizontal 1/2" Mulling	1W x 2H	71" (1803)	50" (1270)	72" X 100 1/2" (1829 X 2553)	50
IDG-DH, IDGP-DH - WU IOFD Horizontal 1/2" MRF Mulling	1W x 2H	71" (1803)	50" (1270)	72" X 100 1/2" (1829 X 2553)	50
IDG-DH, IDGP-DH - WU IOFD Horizontal 1/2" MRF Mulling	2W x 2H	72 5/8" (1845)	50" (1270)	73 5/8" X 100 1/2" (2792 X 2553)	50
IDG-DH, IDGP-DH - WU IIFD Horizontal 1/2" MRF Mulling	1W x 2H	71" (1803)	50" (1270)	72" X 100 1/2" (1829 X 2553)	50
IDG-DH, IDGP-DH - WU IIFD Horizontal 1/2" MRF Mulling	2W x 2H	2W x 2H	50" (1270)	73 5/8" X 100 1/2" (2792 X 2553)	50
IDG-DH, IDGP-DH - WU IRTM Horizontal 1/2" MRF Mulling with a Single IRTM on top A-level row	1-3W x 2H	83" (2108)	53-17/32" (1360)	84" X 107 9/16" (2133 X 2732)	50
IDG-DH, IDGP-DH - WU IRTM Horizontal 1/2" MRF Mulling with a Single IRTM on top A-level row	2W x 2H	71" (1803)	53-17/32" (1360)	72" X 107 9/16" (1829 X 2732)	50

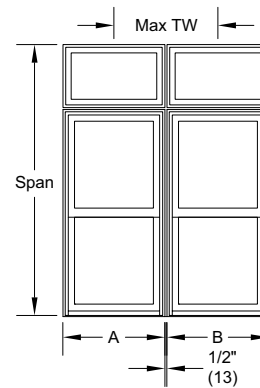
- Tributary Width or Height = (A+B+1/2)/2



**3 Units Wide
1 Unit High
ITDH mull to IDGP
with 1/2" MRF**



**1 Unit Wide
2 Units High
IDG over ITDH
with 1/2" MRF**



**2 Units Wide
2 Units High
IDG over ITDH
with 1/2" MRF**

Wood-Ultrex Direct Glaze Polygon

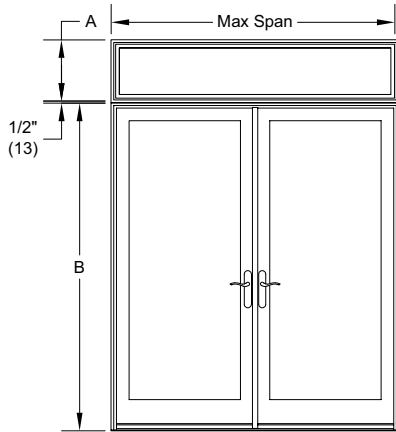
Certified 1/2" MRF Mulling Guidelines

Certified Mull Limits: WDMA Hallmark certified to AAMA 450

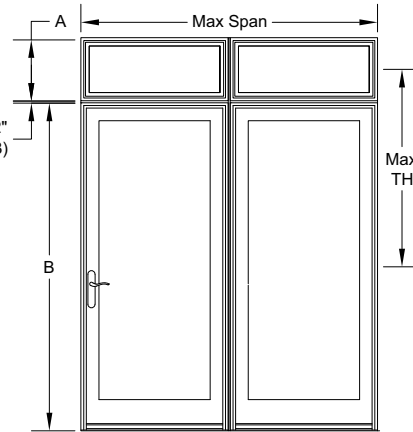
1/2" MRF Mulling examples continued.

- Tributary Width or Height = $(A+B+1/2)/2$

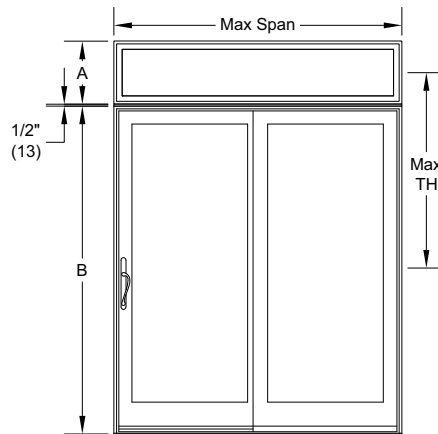
**1 Unit Wide
 2 Units High
 IDG over Swinging
 Door with 1/2" MRF**



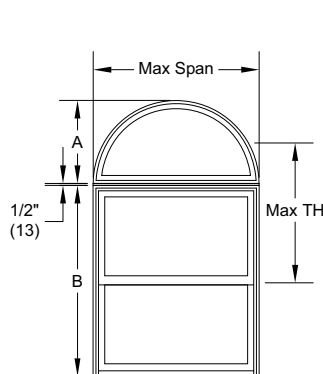
**2 Units Wide
 2 Units High
 IDG over Swinging
 Door with 1/2" MRF**



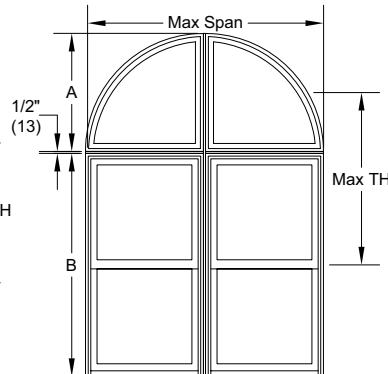
**1 Unit Wide
 2 Units High
 IDG over Sliding Door
 with 1/2" MRF**



**1 Unit Wide
 2 Units High
 IRTM over ITDH
 with 1/2" MRF**



**2 Units Wide
 2 Units High
 IRTM over ITDH
 with 1/2" MRF**



Measurement Conversions and Sizing Guidelines

Measurement Conversions - DIRECT GLAZE RECTANGLE UNITS ONLY				
POLYGON	WIDTH		HEIGHT	
	Imperial	Metric	Imperial	Metric
Rough Opening to				
Masonry Opening	-1/2"	-13	-1/4"	-6
OM of Frame	-1"	-25	-1/2"	-13
Interior Daylight Opening	-5 3/8"	-137	-4 7/8"	-124
OM of Glass	-3 13/16"	-97	-3 5/16"	-84

STANDARD UNIT MAXIMUM R.O. 110" (2794) in width or 109 1/2" (2781) height not to exceed 49 square feet frame size. Units with rough opening larger than 32.3 sq. ft. may require tempered glass.

STANDARD UNIT MAXIMUM R.O. (Tripane): 103 13/16" (2637) in width or 103 5/16" (2624) height not to exceed 44.160 square feet frame size. Units with rough opening larger than 32.3 sq. ft. may require tempered glass.

CE UNIT MAXIMUM R.O. 85" (2159) in width or 84 1/2" (2146) height not to exceed 16.8 - 23.2 sq. ft. (1.56 - 2.16) frame size (ratio dependent). Units with rough opening larger than 17.3 sq. ft. (1.61) may require tempered glass.

CE UNIT MAXIMUM R.O. (Tripane): 85" (2159) in width or 84 1/2" (2146) height not to exceed 16.8 - 23.2 sq. ft. (1.56 - 2.16) frame size. Units with rough opening larger than 17.3 sq. ft. (1.61) may require tempered glass.

CE UNIT MAXIMUM R.O. (Tempered): 51 13/16" (1316) x 84 1/2" (2146) or 85" (2159) x 51 5/16" (1303)

MINIMUM UNIT R.O. Width: 13 7/8" (352), Height: 13 3/8" (340).

MINIMUM SHORT LEG R.O. 8" (203) for P4-5, P4-6, P5-1.

MINIMUM P8 R.O. 19 1/8" (486) x 19 1/8" (486) - minimum F/S short leg 7 1/2" (191)

ANGLE PITCHES Available pitches for the following shapes:

P3 = 4/12 to 36/12. P4, P5 = Maximum Pitch 36/12.

Wood-Ultrex Direct Glaze Polygon

Mulling Guidelines / Sizing Guidelines / Measurement Conversion - IMPACT

Factory Mulling

- Direct Glaze units limited to only transom mulling above various Impact product types
 - All ICA products (ICA / IAWN / ICAP / ICATR)
 - All ITDH products (ITDH / ITDHP / ITDHTR)
 - IOFD
 - ISFD
- Refer to lower assembly unit(s) for detailed RO assembly mull limits

NOTE: CE mark is not available with Impact Products

DIRECT GLAZE TRANSOM AND POLYGON RECTANGLES - IMPACT				
Measurement Conversion				
Transom/Polygon	Width*		Height*	
Rough Opening to	Imperial (in.)	Metric (mm)	Imperial (in.)	Metric (mm)
Masonry	-1/2"	-12.7	-1/4"	-6.4
OSM of Frame	-1"	-25.4	-1/2"	-12.7
O.S. Daylight Opening	-5 1/8"	-130.2	-4 5/8"	-117.5
I.S. Daylight Opening	-5 3/8"	-136.5	-4 7/8"	-123.8
OSM of Glass	-4"	-101.7	-3 1/2"	-89

NOTE: Add 1/4" (6) to R.O. width and 1/8" (3) to R.O. height for all Double Hung and Door style Direct Glaze and Polygon units.

Minimum and Maximum Sizes - Polygon

- Maximum R.O. width: 97" (2464) Maximum R.O. height: 96 1/2" (2451)
- Maximum R.O.: 40 sq. ft. All shapes shall be defined by the enclosed rectangle.
- Minimum unit F.S. dimensions: 12 7/8" (327) x 12 7/8" (327)
- Minimum P8-1 R.O. 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)

Minimum Frame Angle: 15 degrees

STANDARD SIZE DIRECT GLAZE RECTANGULAR TRANSOM - IMPACT			
Call #	Unit Type	Frame Size OSM Width	Frame Size OSM Height
ICADG7316	Casement/Awning	72" (1829)	15 3/4" (400)
IOFDDG3616	Outswing French Door	36 5/16" (923)	15 3/4" (400)
IOFDDG7216	Outswing French Door	71" (1803)	15 3/4" (400)

Wood-Ultrex Direct Glaze Polygon

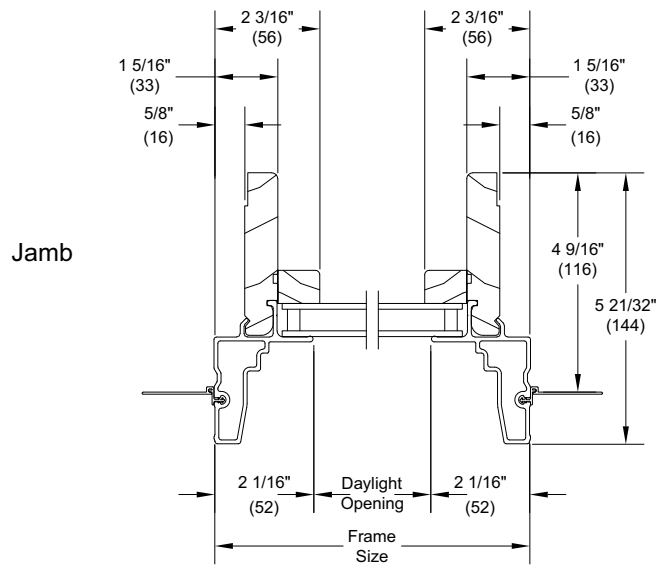
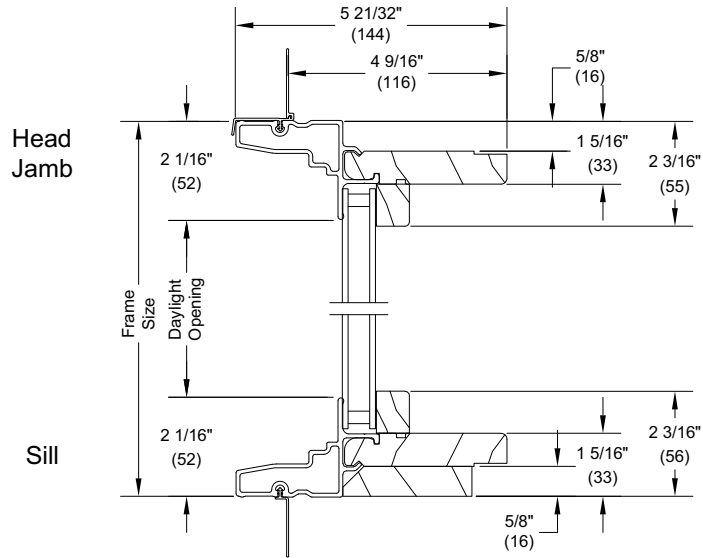
Slope to Angle and Angle to Pitch Conversion

Slope to Angle / Degree Conversions		
Slope	Angle	Degree / Minutes
1/12	4.76	4 degree 46'
2/12	9.46	9 degree 28'
3/12	14.04	14 degree 2'
4/12	18.43	18 degree 26'
5/12	22.62	22 degree 37'
6/12	26.57	26 degree 34'
7/12	30.26	30 degree 15'
8/12	33.69	33 degree 41'
9/12	36.87	36 degree 52'
10/12	39.81	39 degree 48'
11/12	42.51	42 degree 31'
12/12	45.00	45 degree 0'
13/12	47.29	47 degree 14'
14/12	53.13	49 degree 24'
15/12	54.78	51 degree 20'
16/12	56.31	53 degree 8'
17/12	54.78	54 degree 47'
18/12	56.31	56 degree 19'
19/12	57.72	57 degree 43'
20/12	59.04	59 degree 2'
21/12	60.26	60 degree 15'
22/12	61.39	61 degree 23'
23/12	62.45	62 degree 27'
24/12	63.43	63 degree 26'

Angle to Pitch conversions					
Angle	Pitch	Angle	Pitch	Angle	Pitch
1	0.21/12	31	7.21/12	61	21.65/12
2	0.42/12	32	7.50/12	62	22.57/12
3	0.63/12	33	7.79/12	63	23.55/12
4	0.84/12	34	8.09/12	64	24.60/12
5	1.05/12	35	8.40/12	65	25.73/12
6	1.26/12	36	8.72/12	66	26.95/12
7	1.47/12	37	9.04/12	67	28.27/12
8	1.69/12	38	9.38/12	68	29.70/12
9	1.90/12	39	9.72/12	69	31.26/12
10	2.12/12	40	10.07/12	70	32.97/12
11	2.33/12	41	10.43/12	71	34.85/12
12	2.55/12	42	10.80/12	72	36.93/12
13	2.77/12	43	11.19/12	73	39.25/12
14	2.99/12	44	11.59/12	74	41.85/12
15	3.22/12	45	12.00/12	75	44.78/12
16	3.44/12	46	12.43/12	76	48.13/12
17	3.67/12	47	12.87/12	77	51.98/12
18	3.90/12	48	13.33/12	78	56.56/12
19	4.13/12	49	13.80/12	79	61.73/12
20	4.37/12	50	14.30/12	80	68.06/12
21	4.61/12	51	14.82/12	81	75.77/12
22	4.85/12	52	15.36/12	82	85.38/12
23	5.09/12	53	15.92/12	83	97.73/12
24	5.34/12	54	16.52/12	84	114.17/12
25	5.60/12	55	17.14/12	85	137.16/12
26	5.85/12	56	17.79/12	86	171.61/12
27	6.11/12	57	18.48/12	87	228.97/12
28	6.38/12	58	19.20/12	88	343.64/12
29	6.65/12	59	19.97/12	89	687.48/12
30	6.93/12	60	20.78/12		

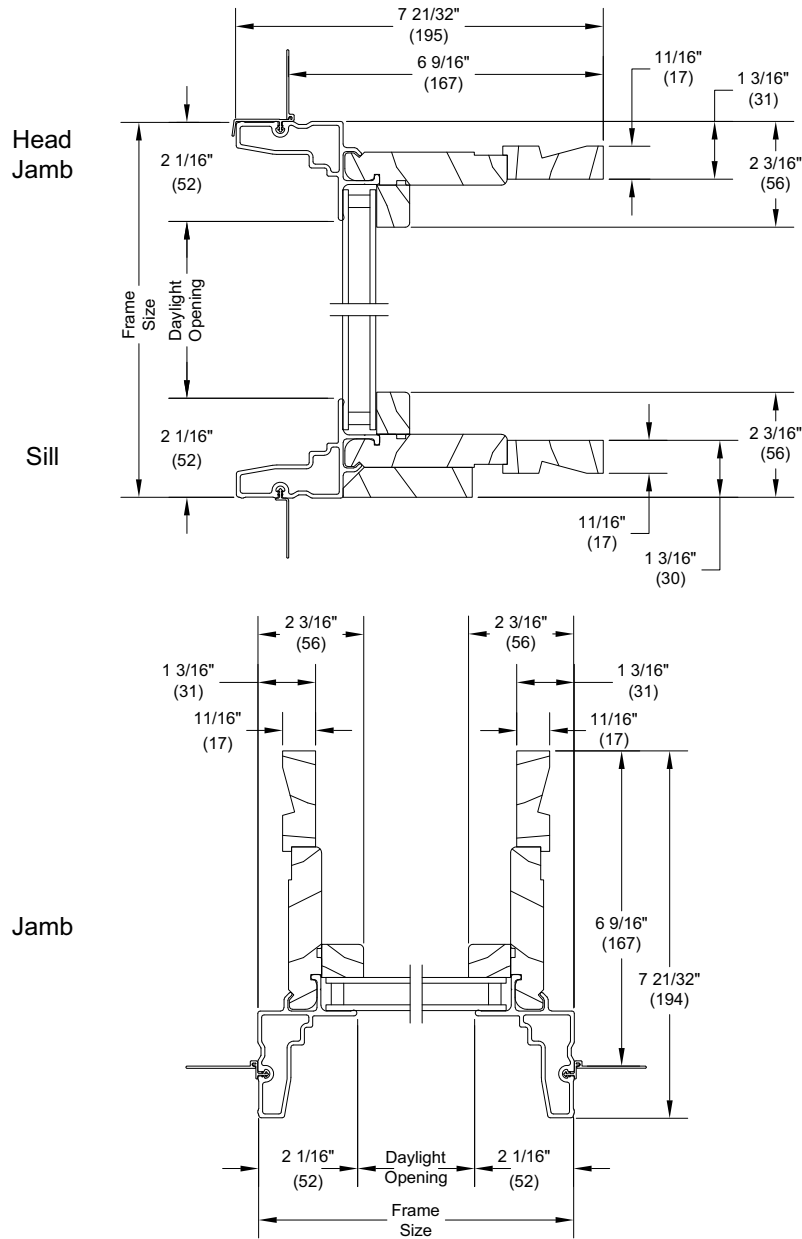
Section Details: Standard Glazing

**DIRECT GLAZE CASEMENT/AWNING
 POLYGON STAND ALONE - 4 9/16" - Standard Glazing**



Section Details: Standard Glazing

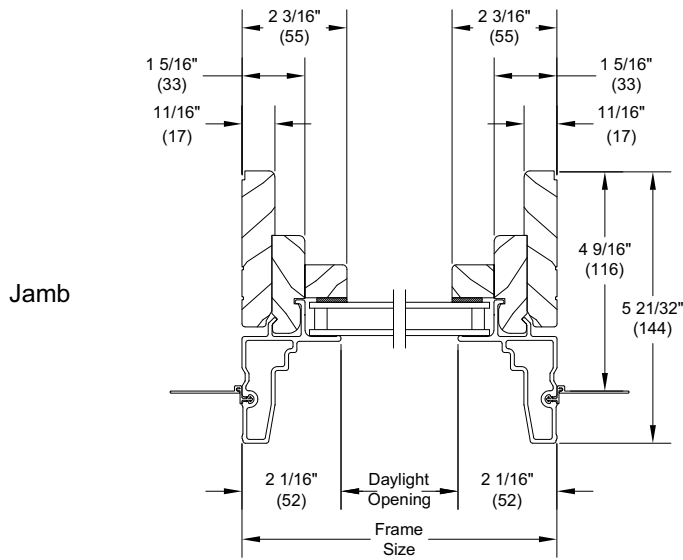
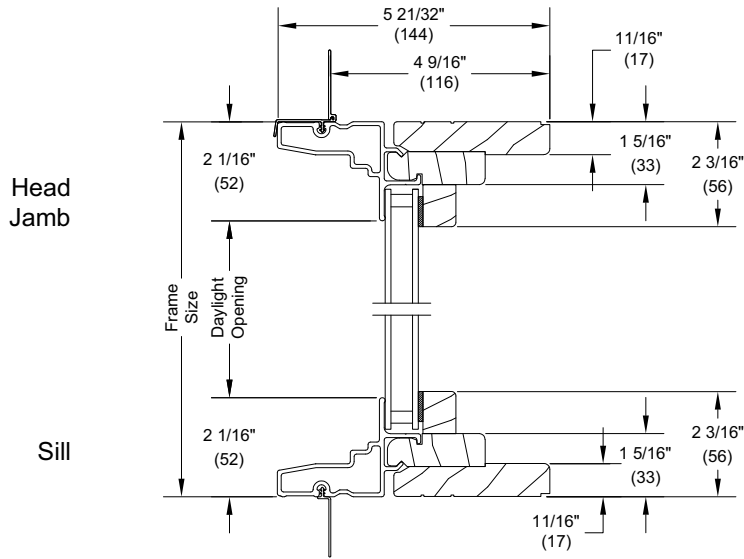
**DIRECT GLAZE CASEMENT/AWNING
 POLYGON STAND ALONE - 6 9/16" - Standard Glazing**



Wood-Ultrex Direct Glaze Polygon

Section Details: Standard Glazing

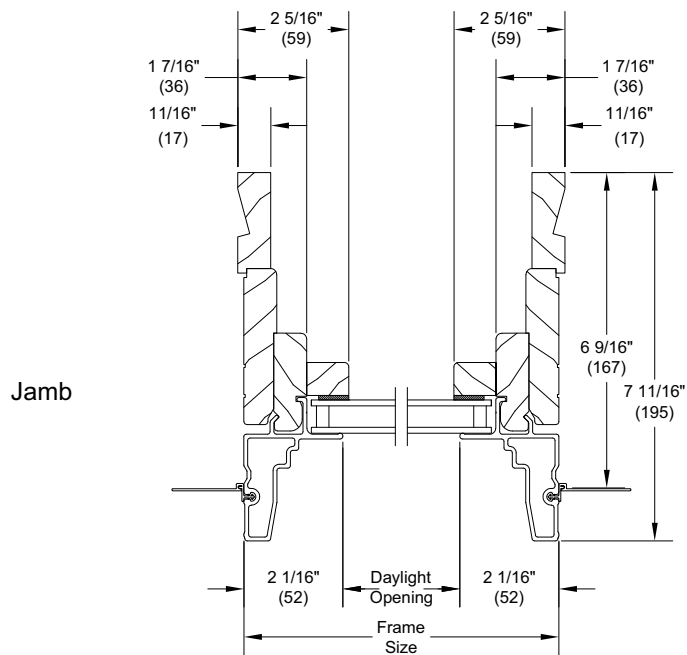
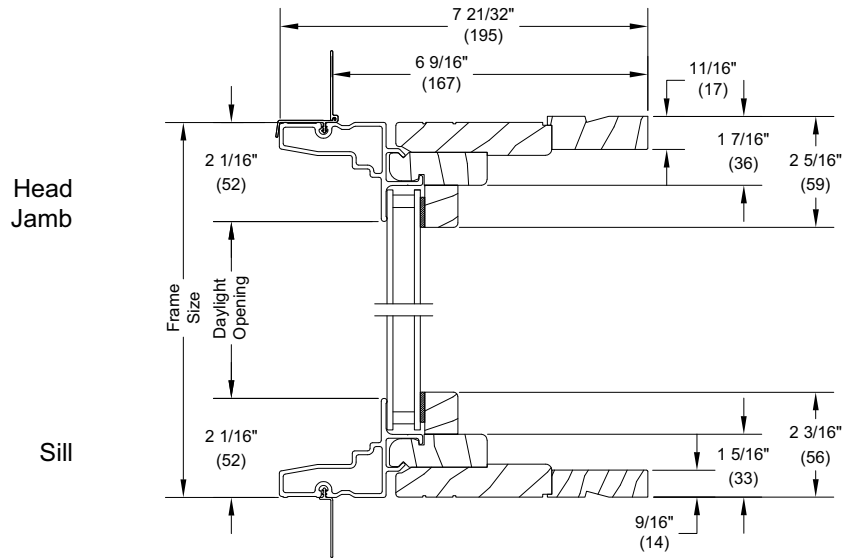
**DIRECT GLAZE DOUBLE HUNG, GLIDER, DOORS
 POLYGON STAND ALONE - 4 9/16" - Standard Glazing**



Wood-Ultrex Direct Glaze Polygon

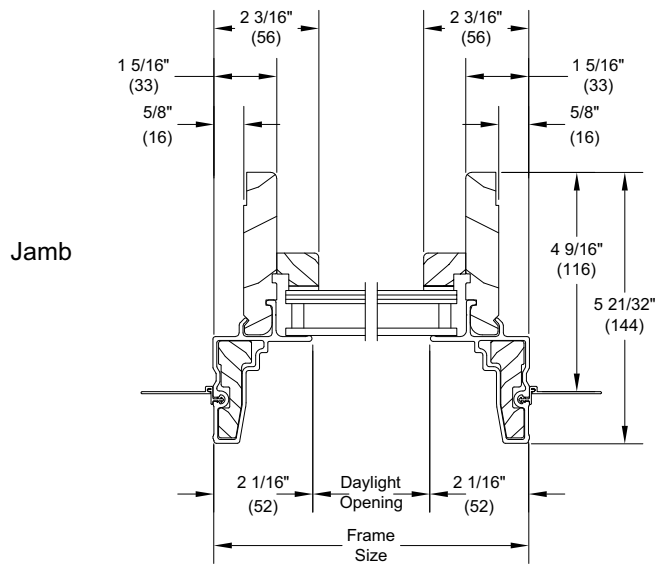
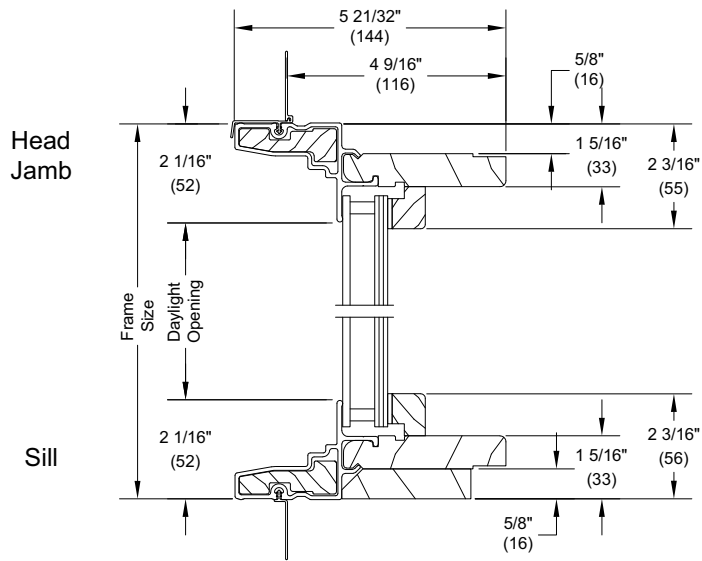
Section Details: Standard Glazing

DIRECT GLAZE DOUBLE HUNG, GLIDER, DOORS
POLYGON STAND ALONE - 6 9/16" - Standard Glazing



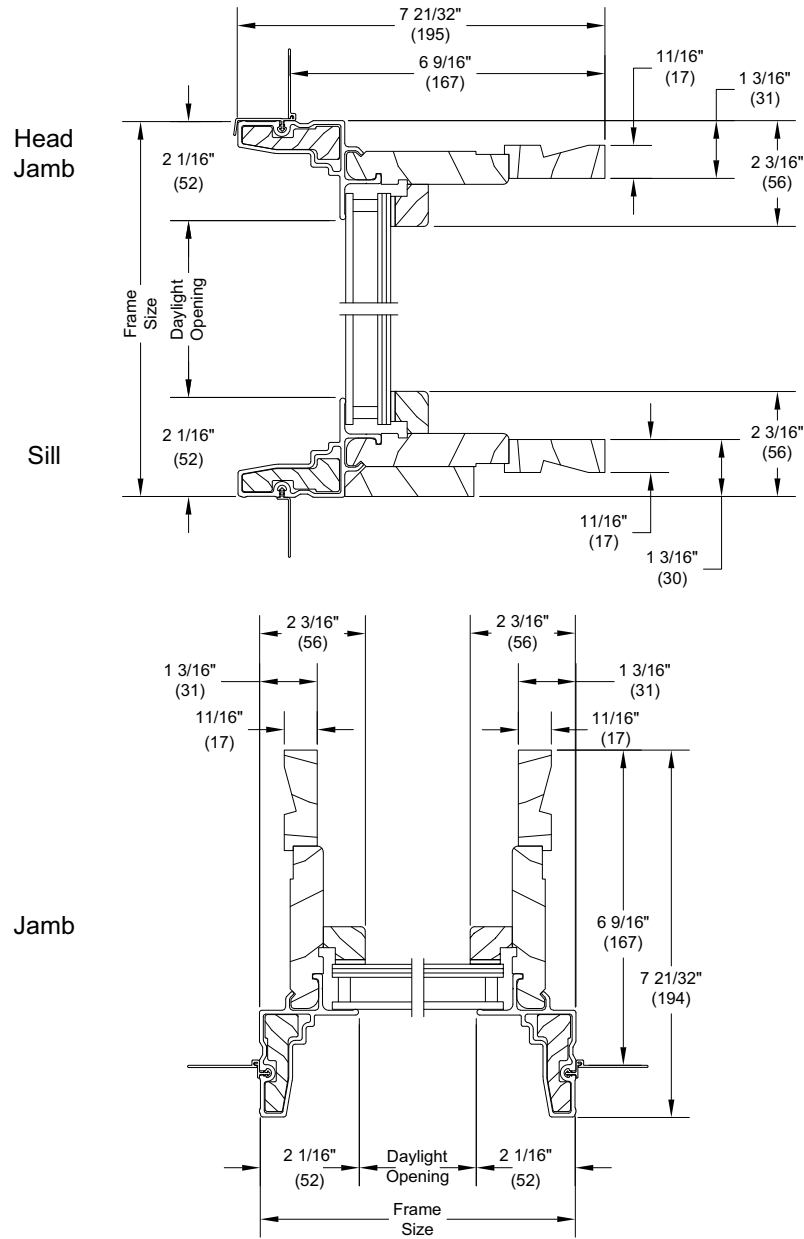
Section Details: Impact Glazing

DIRECT GLAZE CASEMENT/AWNING
POLYGON STAND ALONE - 4 9/16" - Impact Glazing



Section Details: Impact Glazing

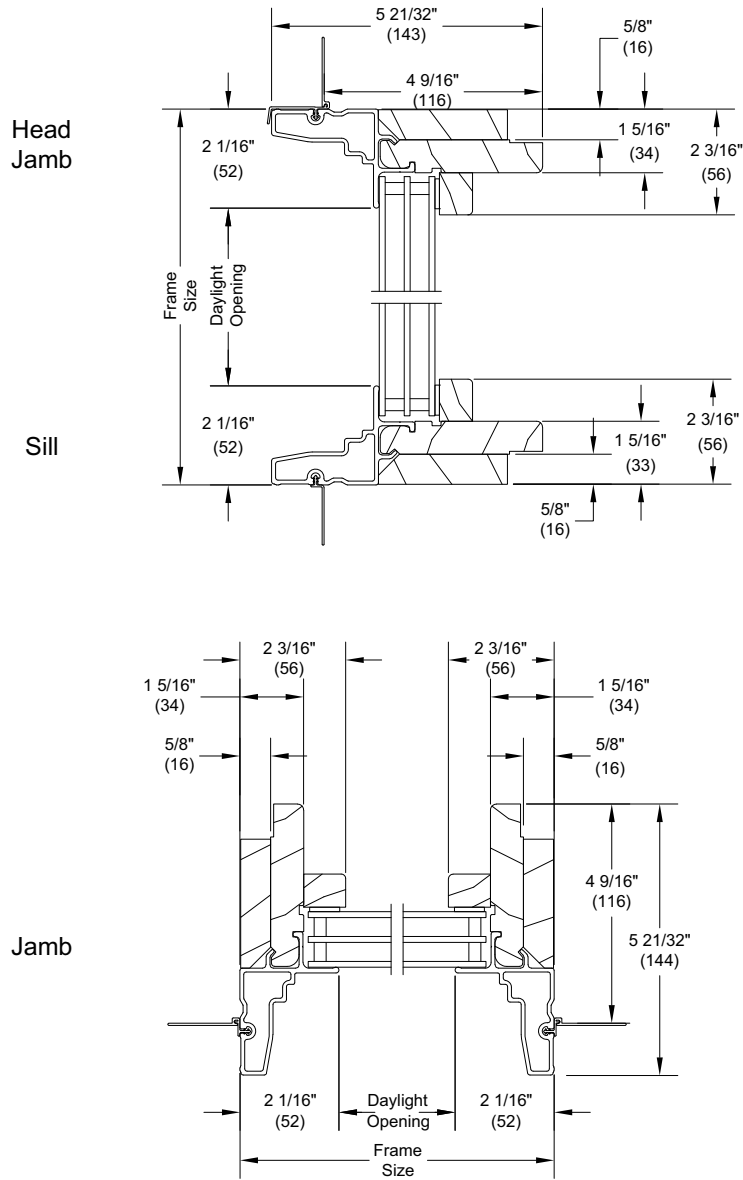
**DIRECT GLAZE CASEMENT/AWNING
 POLYGON STAND ALONE - 6 9/16" - Impact Glazing**



Wood-Ultrex Direct Glaze Polygon

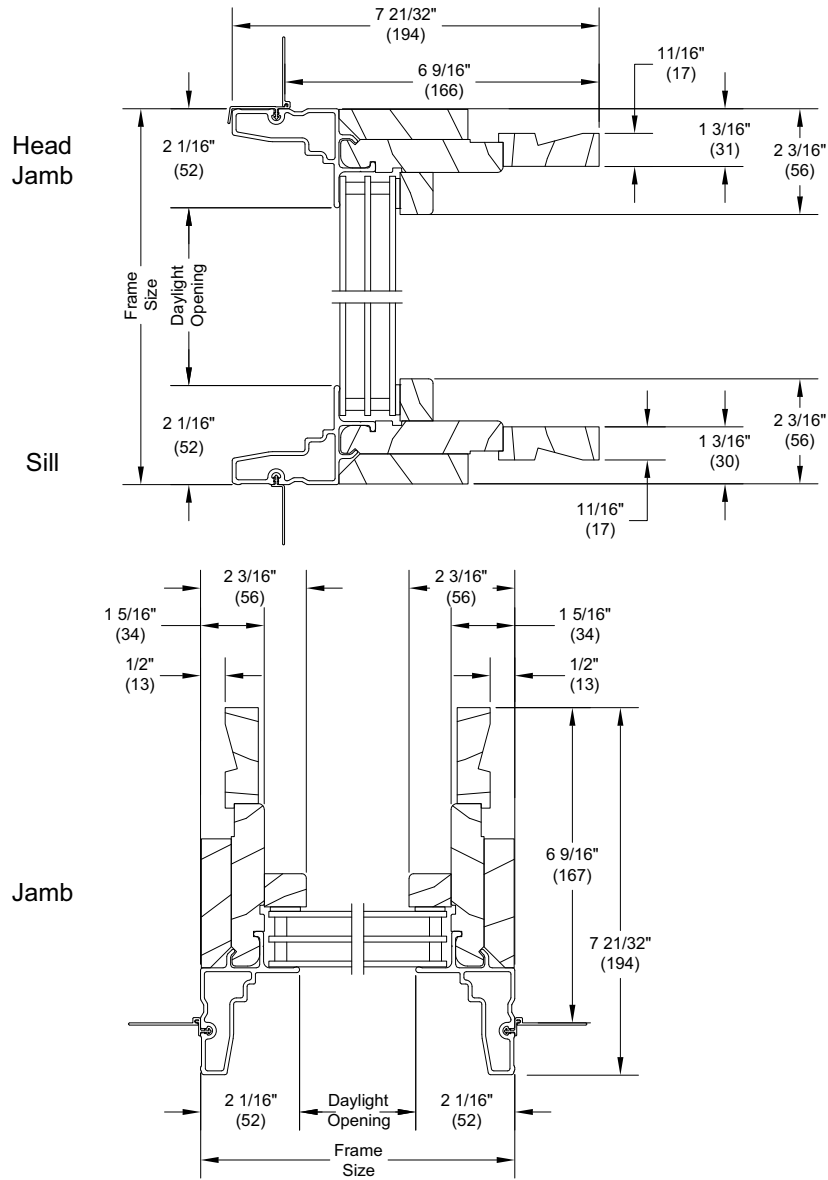
Section Details: Tripane Glazing

DIRECT GLAZE CASEMENT/AWNING
POLYGON STAND ALONE - 4 9/16" - Tripane Glazing



Section Details: Tripane Glazing

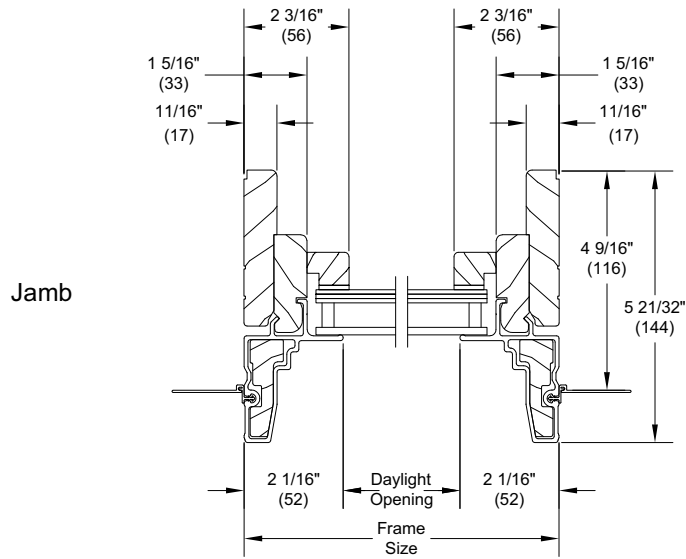
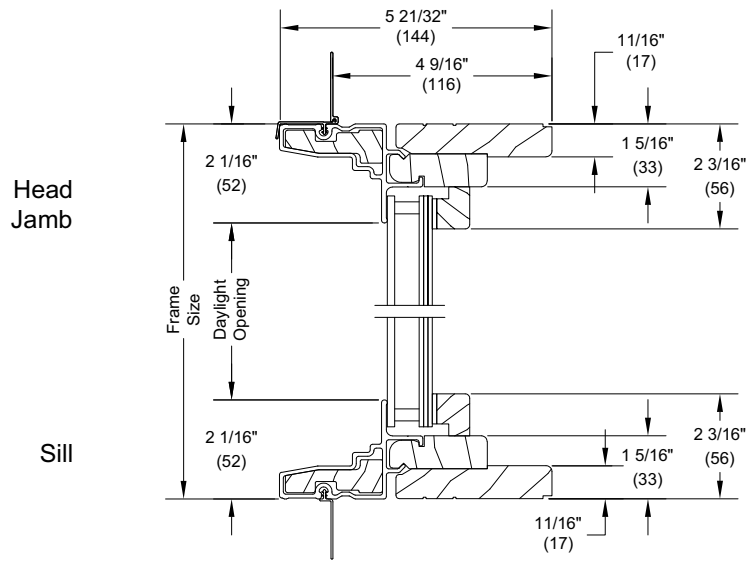
**DIRECT GLAZE CASEMENT/AWNING
 POLYGON STAND ALONE - 6 9/16" - Tripane Glazing**



Wood-Ultrex Direct Glaze Polygon

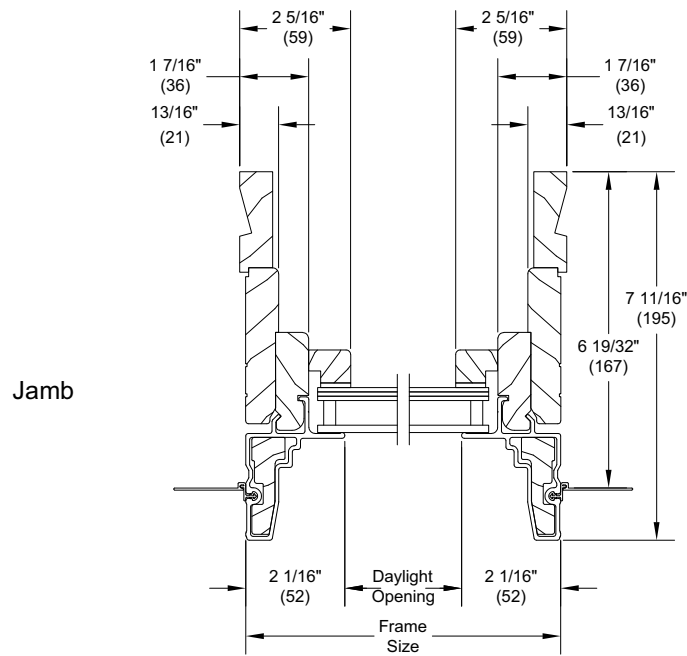
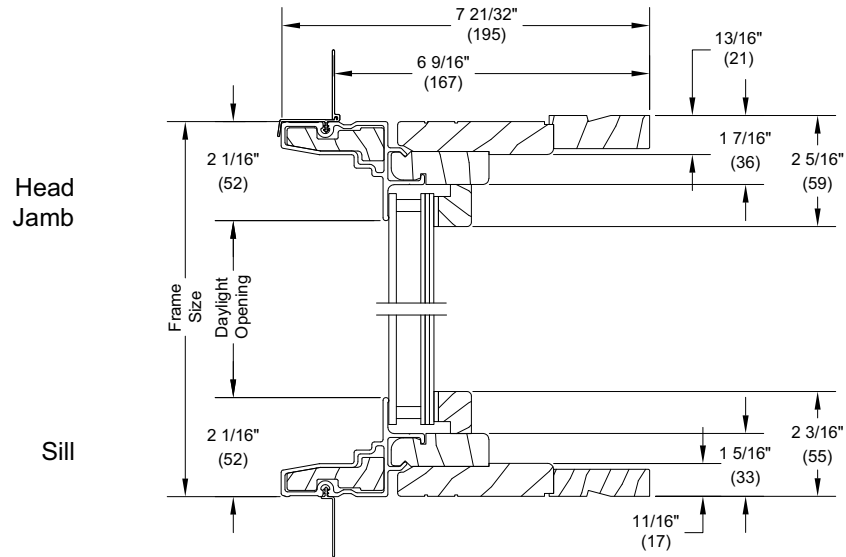
Section Details: Impact Glazing

DIRECT GLAZE DOUBLE HUNG, GLIDER, DOORS
POLYGON STAND ALONE - 4 9/16" - Impact Glazing



Section Details: Impact Glazing

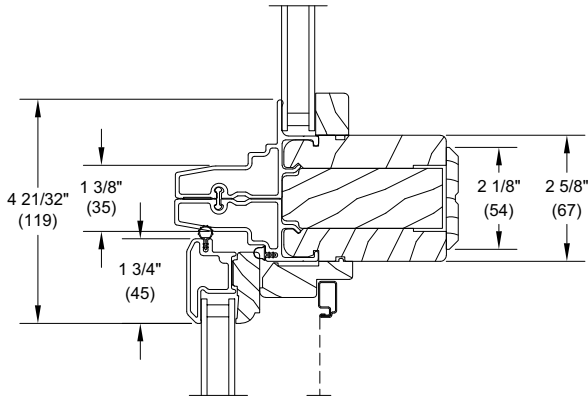
**DIRECT GLAZE DOUBLE HUNG, GLIDER, DOORS
 POLYGON STAND ALONE - 6 9/16" - Impact Glazing**



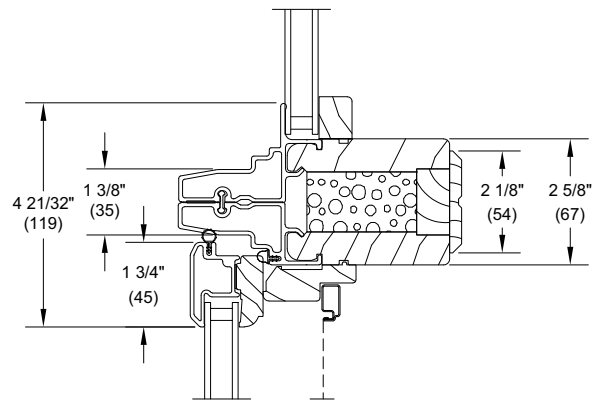
Wood-Ultrex Direct Glaze Polygon

Section Details: Horizontal Mullions

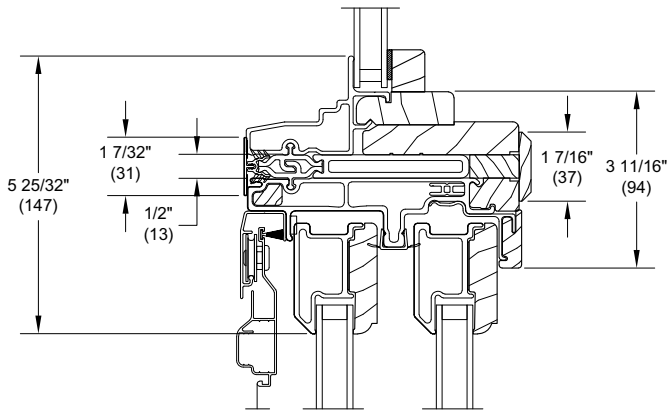
Scale: 3" = 1' 0"



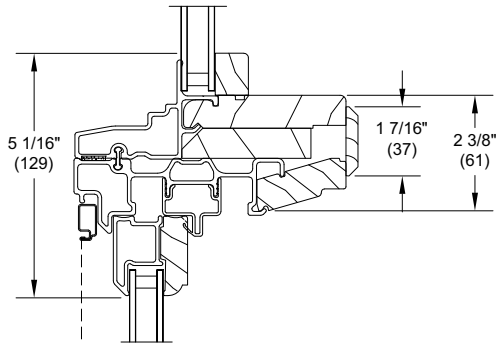
Direct Glaze Polygon over Casement with Mull Reinforcement



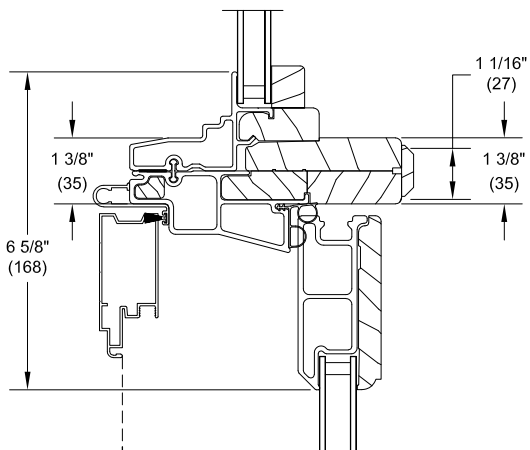
Direct Glaze Polygon over Casement



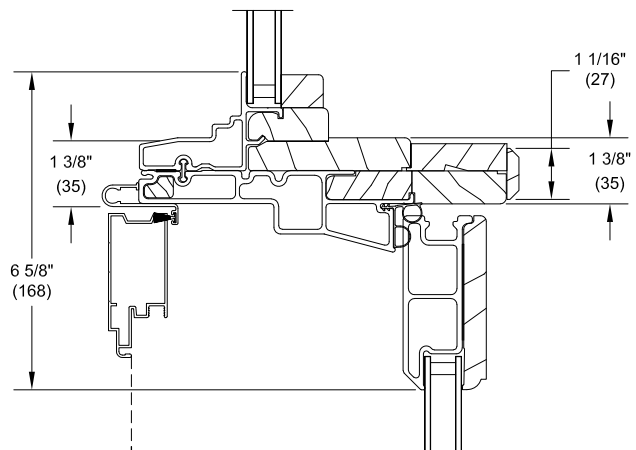
Direct Glaze Polygon/Transom over Sliding Patio Door



Direct Glaze Polygon/Transom over Double Hung



Direct Glaze Polygon/Transom over 4 9/16" Inswing French Door

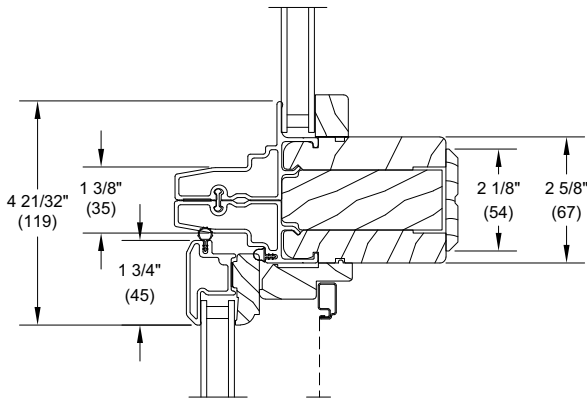


Direct Glaze Polygon/Transom over 6 9/16" Inswing French Door

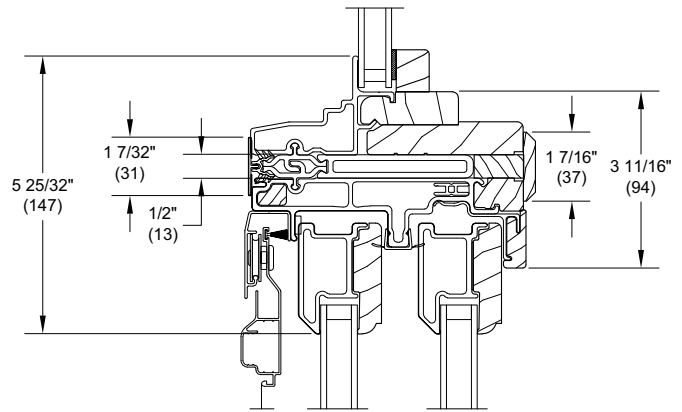
Wood-Ultrex Direct Glaze Polygon

Section Details: Horizontal LVL and 1/2" MRF Mullions

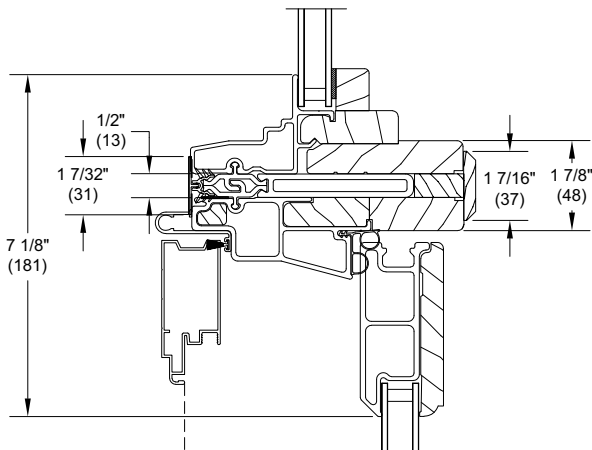
Scale: 3" = 1' 0"



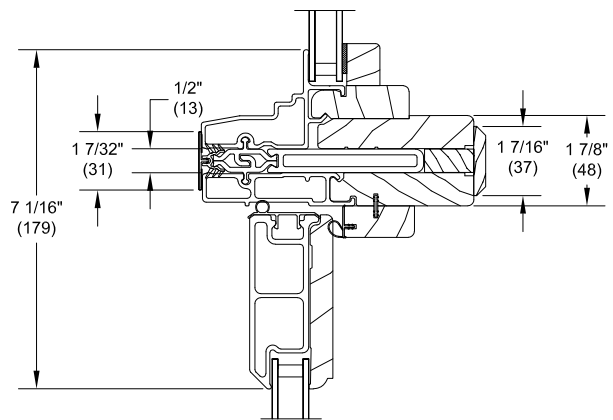
**Direct Glaze Polygon/Transom
 over Casement/Awning
 with LVL support**



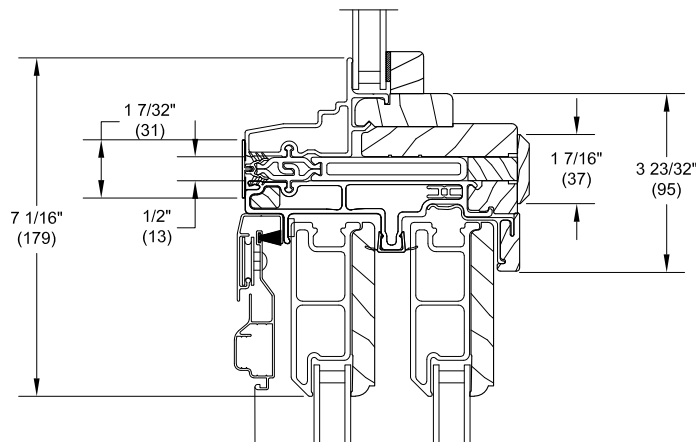
**Direct Glaze Polygon/Transom
 over Sliding Patio Door 4 9/16" Jamb
 with 1/2" MRF**



**Direct Glaze Polygon/Transom
 over Inswing French Door with 1/2" MRF**



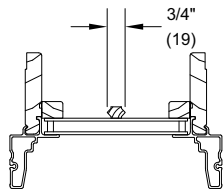
**Direct Glaze Polygon/Transom
 over IOFD with 1/2" MRF**



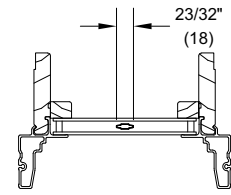
**Direct Glaze Polygon/Transom
 over ISFD 4 9/16" with 1/2" MRF**

Wood-Ultrex Direct Glaze Polygon

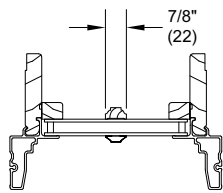
Divided Lite Options - Direct Glaze Rectangle



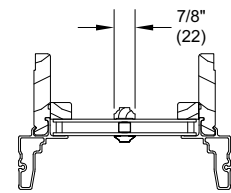
Wood Removeable Grille



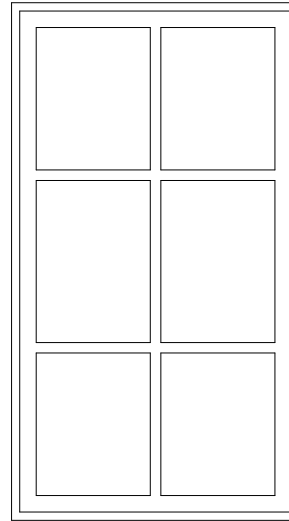
Aluminum Grille Between Glass



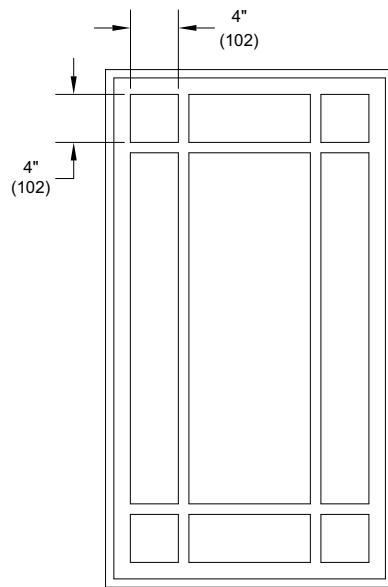
Wood SDL
Without Spacer Bar



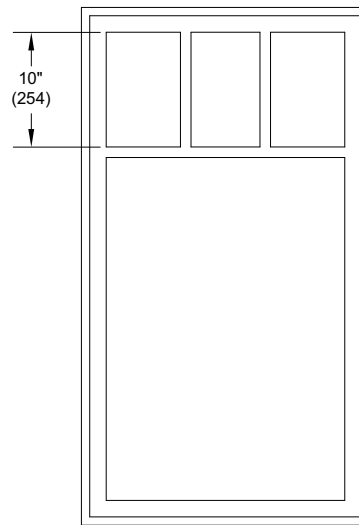
Wood SDL
With Spacer Bar



Rectangle Cut



Prairie Lite Cut



Cottage Lite Cut

NOTE: Only rectangle shape polygons are available with SDL or GBG.

Wood-Ultrex Direct Glaze Polygon

Divided Lite Options

Lite Cut	Minimum DLO
GBG	
Rectangular	3"
9-Lite Prairie	4"
6-Lite Top or Bottom Prairie	4"
6-Lite LH or RH Prairie	4"
Cottage 1H or 2H	3"
SDL	
Rectangular	4"
9-Lite Prairie	4"
6-Lite Top or Bottom Prairie	4"
6-Lite LH or RH Prairie	4"
Cottage 1H	8"
Cottage 2H	4"

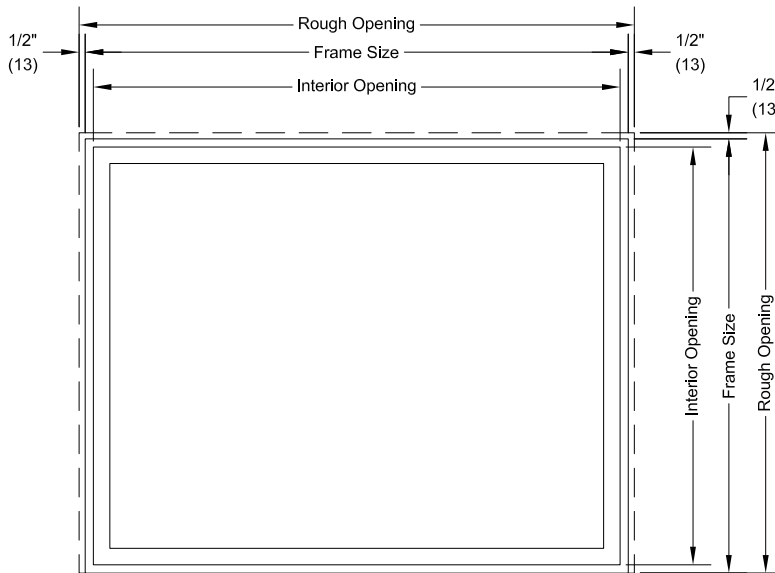
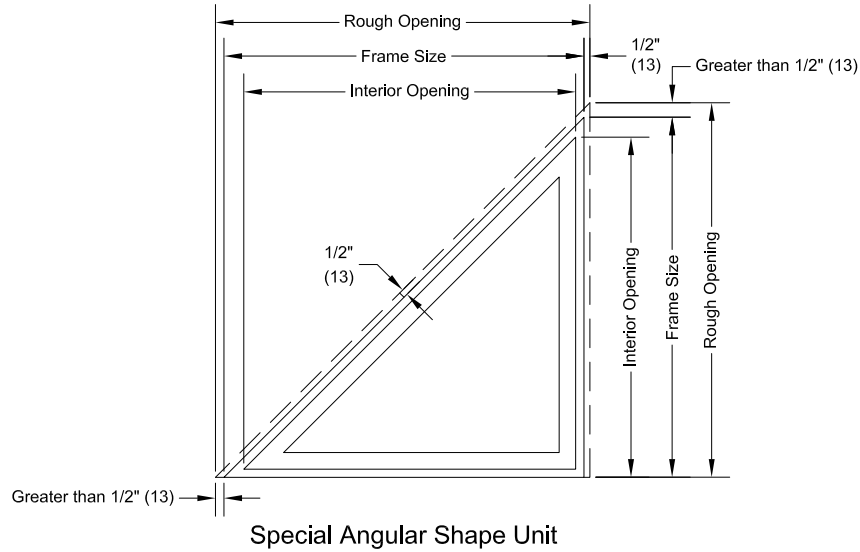
- GBGs and SDL are available on Rectangle shape Polygons only.
- Available GBG and SDL lite cuts are rectangular equal lites, Prairie patterns, and Cottage Style patterns.
- Special size direct glaze rectangle with rectangular lite cuts will have equally spaced lites and may not align with the standard unit rectangular GBG or SDL unless specified at the time of the order.
- Prairie GBG and SDL available in 9 lite and 6 lite top, bottom, left, and right patterns.
- Special size direct glaze rectangle with Prairie lite cuts will default to 4" Daylight Opening (DLO) corners and may not align with the standard unit Prairie GBG or SDL unless specified at the time of the order.
- Special size direct glaze rectangle with Cottage lite cuts will default to 10" Daylight Opening (DLO) height and may not align with the standard unit Cottage GBG or SDL unless specified at the time of the order.
- Maximum number of lites wide and high for equal lite SDL option is 11 lites.
- Simulated Rail: Rectangular, Prairie 6-Lite and 9-Lite SDL patterns are available with Simulated Rail.
- Simulated Rail: Custom ratio and specified DLO are available with Simulated Rail and will be validated by OMS.
- GBGs are not available on Impact IZ3.
- GBGs are not available with an unsupported bar length > 72".

Conversion Formula:

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

Wood-Ultrex Direct Glaze Polygon

Measurement Information

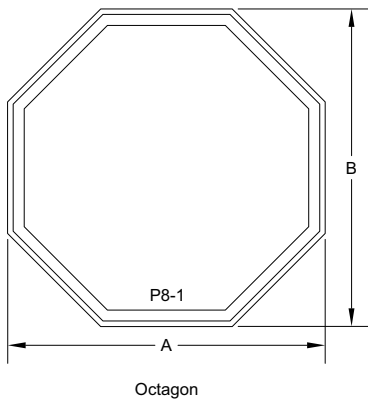
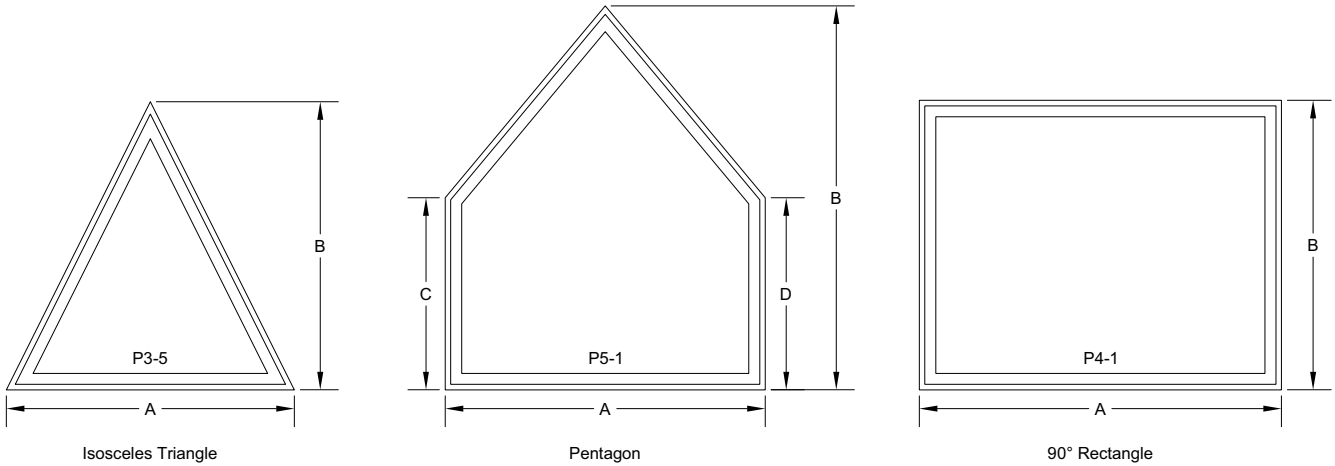
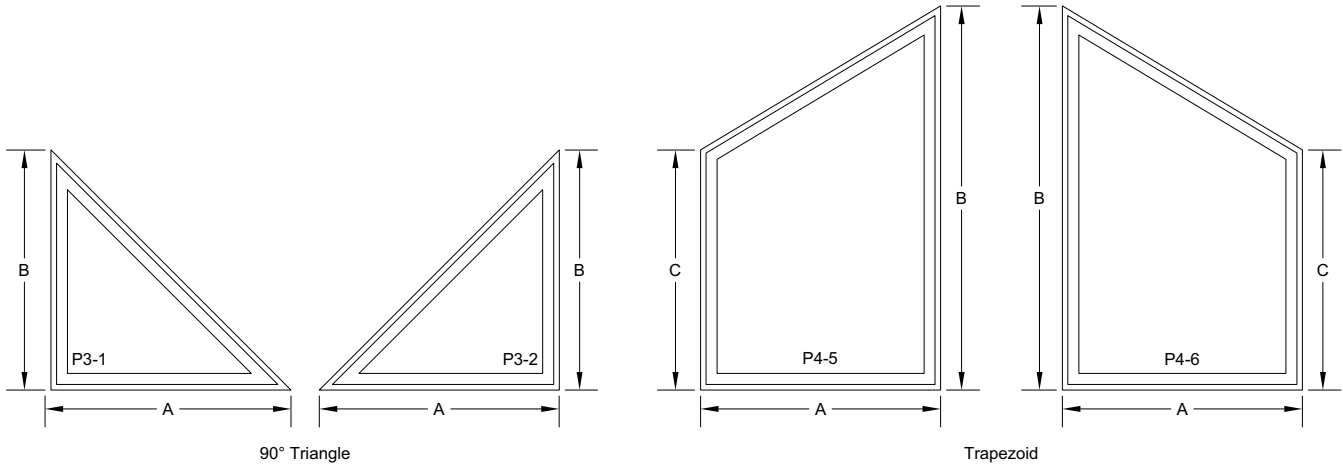


NOTE: On all units, we maintain our clearance or conversion dimension perpendicular to the frame. For this reason, standard rectangular conversions cannot be used for any unit involving angles. These must be calculated on an individual basis. If any dimension is critical (such as frame measurement to match lower unit) then order should be placed with that dimension. The order will be converted to the accurate rough opening. When calculating Angular shapes, contact your Integrity Representative.

- Rough opening tolerance is 1/2 (13) perpendicular to frame.
- Masonry opening tolerance is 1/4 (6) perpendicular to frame
- Minimum angle on any shape is 15 degrees.

Wood-Ultrex Direct Glaze Polygon

Measurement Information



How to Specify Dimensions:

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. Specify casement or other.

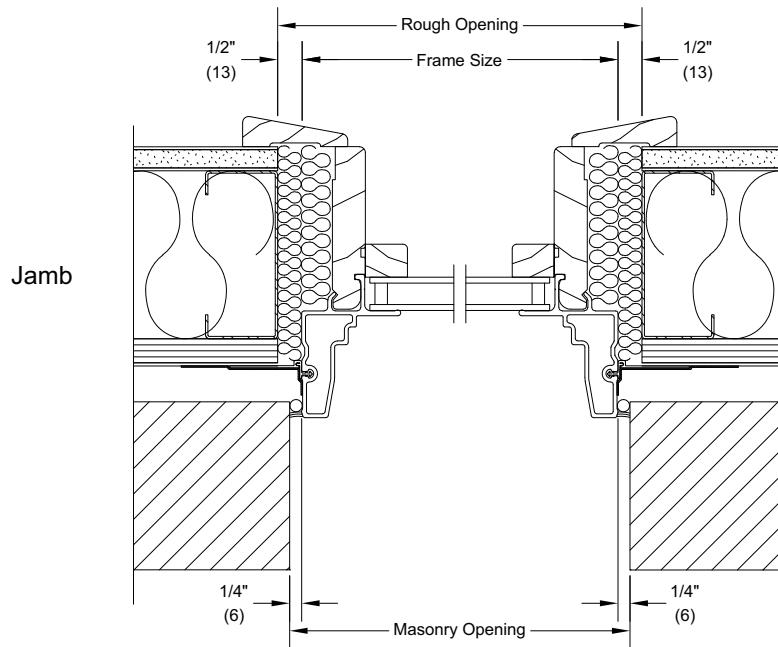
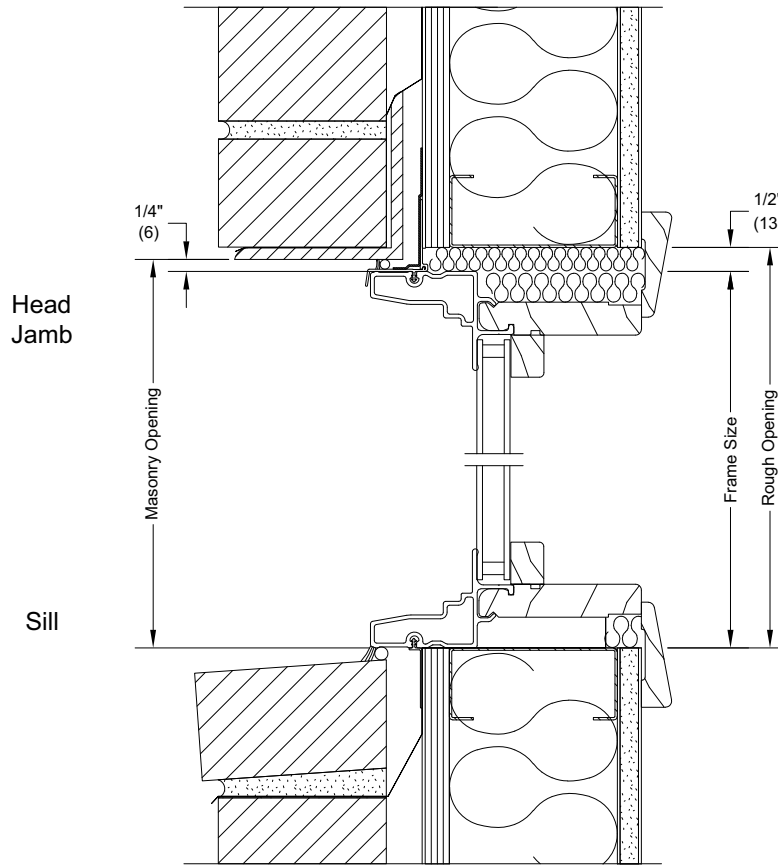
Example:

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.

Wood-Ultrex Direct Glaze Polygon

Section Details: Installation Suggestion - Brick Veneer With Steel Frame Construction

Scale: 3" - 1' 0"

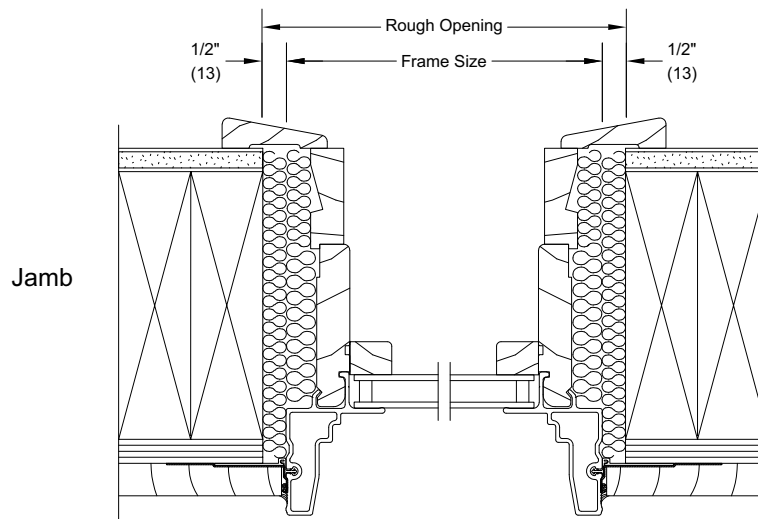
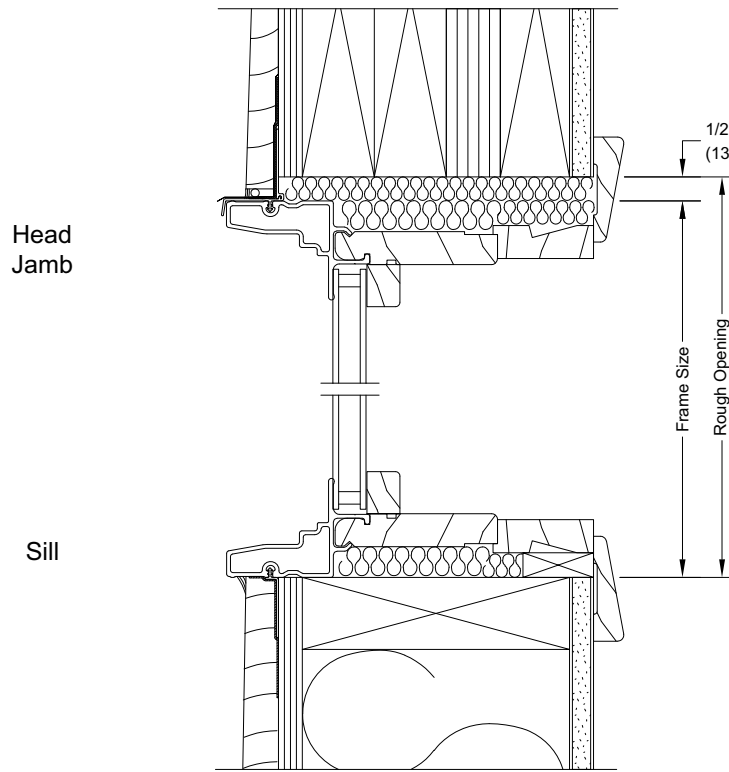


NOTE: The above wall sections represent typical wall conditions, these details are not intended as installation instructions. Please refer to the installation instructions provided with the purchased units.

Wood-Ultrex Direct Glaze Polygon

Section Details: Installation Suggestion - Wood Siding With 2x6 Frame Construction

Scale: 3" - 1' 0"

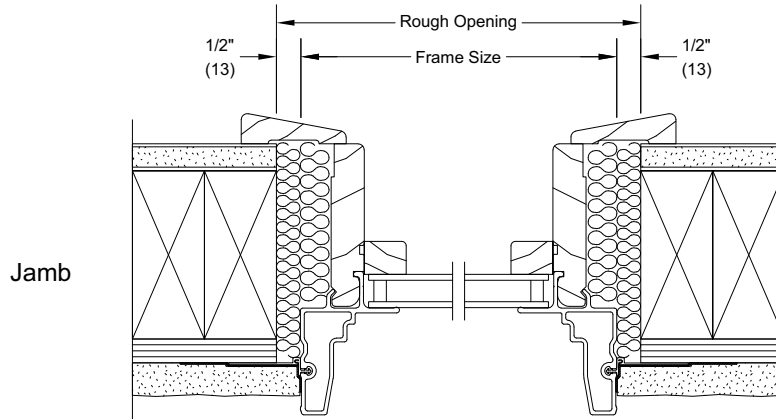
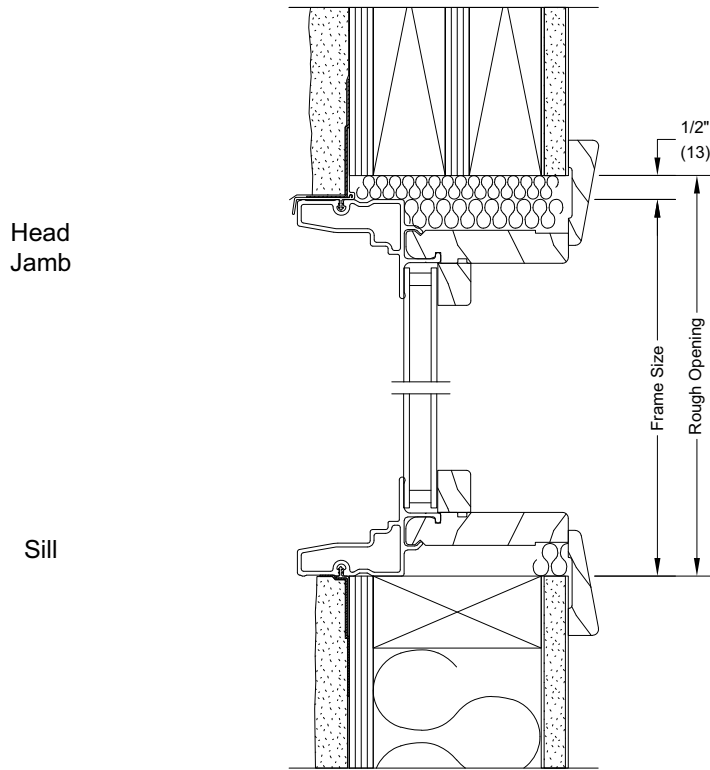


NOTE: The above wall sections represent typical wall conditions, these details are not intended as installation instructions. Please refer to the installation instructions provided with the purchased units.

Wood-Ultrex Direct Glaze Polygon

Section Details: Installation Suggestion - Stucco With 2x4 Frame Construction

Scale: 3" - 1' 0"



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.