

# Essential Direct Glaze Polygon

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## Unit Features

Essential Direct Glaze Polygon: ESDGP (P3, P4, P5, P8)

For applicable certification and code information, refer to the Introduction and Product Performance chapter.

### Frame:

- The frame is made of Ultrex, an advanced fiber reinforced material that is resistant to thermal conductance.
- Exterior colors: Stone White, Pebble Gray, Bronze, Cashmere, Gunmetal, or Ebony.
- The interior coating meets all the requirements of 00022716 in Stone White, Bronze, Gunmetal, and Ebony.
- Split finishes are not available for Dark Interior options. Only Bronze interior/Bronze exterior, Gunmetal interior/Gunmetal exterior, and Ebony interior/Ebony exterior combinations are available.
- Composite frame thickness is 1 23/32" (44). Frame width is 3 3/32" (79). Ultrex wall is .065" - .070" (2) thick.

### Jamb Extension:

- 2" (51) is standard. 4 9/16" (116) and 6 9/16" (167) maintenance free jamb extension available.
- Available in Stone White, Bronze, Gunmetal, or Ebony. Default color will match the unit interior selection. Split finishes not available for Dark Interior options. Stone White jamb extension is available for all interior color selections.

### Installation:

- Nailing fin.
- Through jamb installation.
- Structural brackets.

### Exterior Casing (rectangles only):

- Non-integral to the unit. Fastened to the exterior wall with barb and kerf 2" brick mould as a full surround or with sill nosing. 3 1/2" flat casing available as full surround or with sill nosing. Also available with 1" ranch style sill and header overhang

### Accessories:

- Field applied: J-channel, a 1" (25) or a 3" (76) frame expander, or flush fin installation kit
- Factory applied: sheet rock return for 1/2" (13) or 5/8" (16) drywall
- 3/4" (19) receiver
- Frame filler or a flush fin installation kit. Sheet rock return and 3/4" receiver color options: Stone White, Bronze, Gunmetal, or Ebony. Default color will match unit interior selection. Stone White sheet rock return and 3/4" receivers are available for all interior color selections.

### Mulling:

- For mull performance, refer to the Essential Mulling Chapter of the ADM.
- Mull kits are available for field assembly. Kits include instructions, mull covers, mull plugs and brackets.

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**Unit Features****Glazing:**

- Dual-pane units are manufactured with an 7/8" (22) IG with Low E1, Low E2, Low E2/ERS, Low E3, Low E3/ERS, or no coating.
  - 3.1/4.7 mm glass is available.
- Gas Fill: Argon or Air
- Glazing Seal: Silicone bedding on the exterior surface and a vinyl glazing seal inserted on the interior surface in a one-piece sash.
- The Perimeter spacer default color is silver (mill finish) and an optional black perimeter spacer color is available for all interior color selections.
- Available Glass Types:
  - Laminate, STC/OITC, Tempered and/or obscure, and California Fire glass (annealed exterior and tempered interior glazing configuration)
  - Insulating glass is manufactured and tested.
  - Decorative glass options: Glue Chip, Rain, Reed, Narrow Reed, Frost, Tinted (bronze, gray, or green)
  - Decorative glass is not available with Low E1, Low E3/ERS, or STC/OITC
  - STC/OITC values are available for 3.1mm glass.
    - Optional 3.1/4.7 mm STC/OITC upgrade glass is available for. See Product Performance chapter for STC and OITC ratings

**Grilles-Between-The-Glass (GBG), size limitations may apply (rectangles only):**

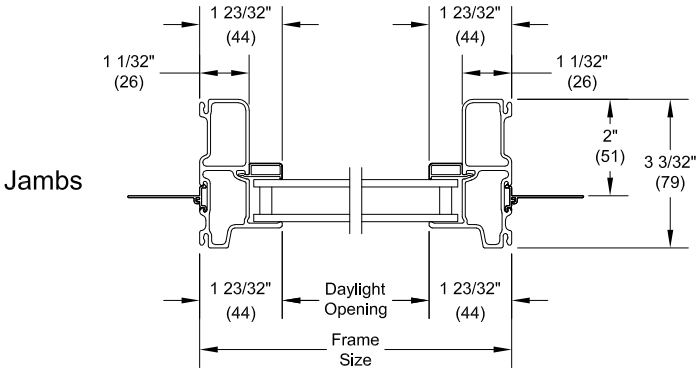
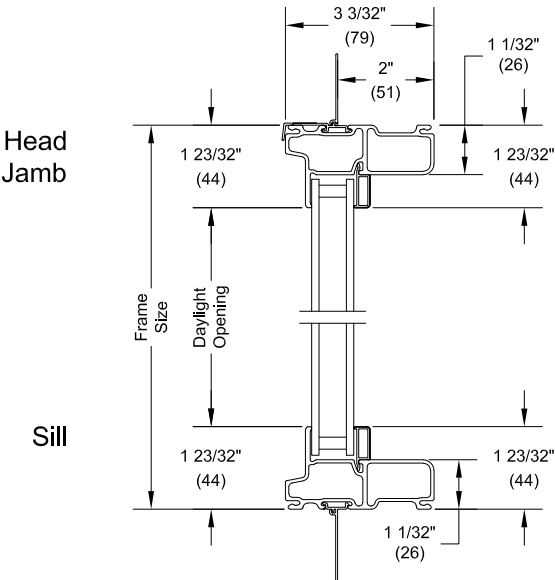
- 23/32" (18) contoured aluminum bar placed between two panes of glass
- Patterns: Rectangular, 6 or 9 lite Prairie cut, or Cottage style
- Exterior colors: Stone White, Pebble Gray, Bronze, Gunmetal, Cashmere, or Ebony
- Interior colors: Stone White, Bronze, Gunmetal, or Ebony (matches unit interior color)
- GBG is not available with tinted glass.

**Certified Sizes and Rating**

Product	Air Tested to PSF	Water Tested to psf	Design Pressure (DP)	Certification Rating	Max Overall Width		Max Overall Height	
					in	mm	in	mm
Essential Direct Glaze	1.57	8.36	50	LC-PG50-FW	83	(2108)	83	(2108)
Essential Direct Glaze	1.57	8.36	50	LC-PG50-FW	73	(1854)	73	(1854)

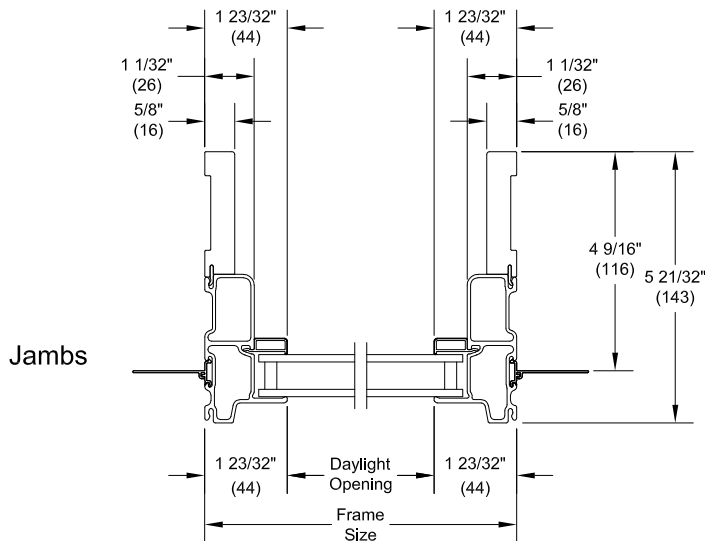
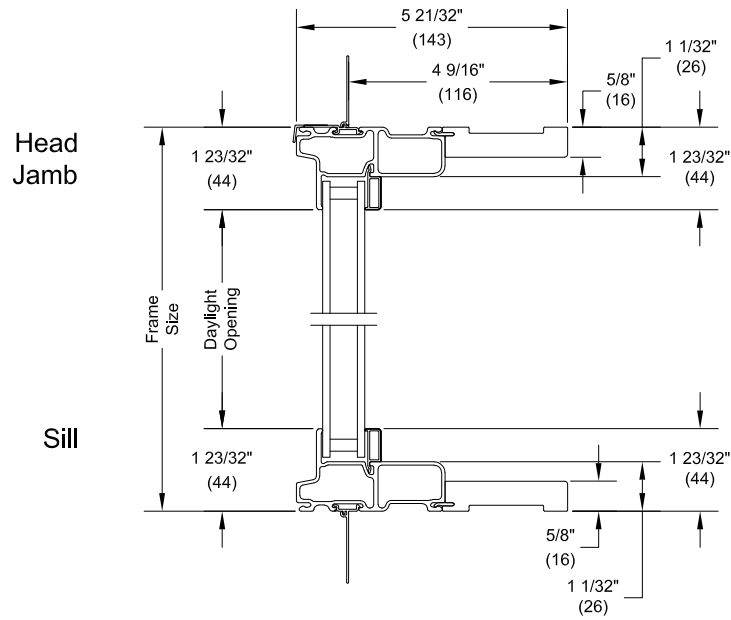
**Section Details - Direct Glaze - 2" Jamb**

SCALE: Not to Scale



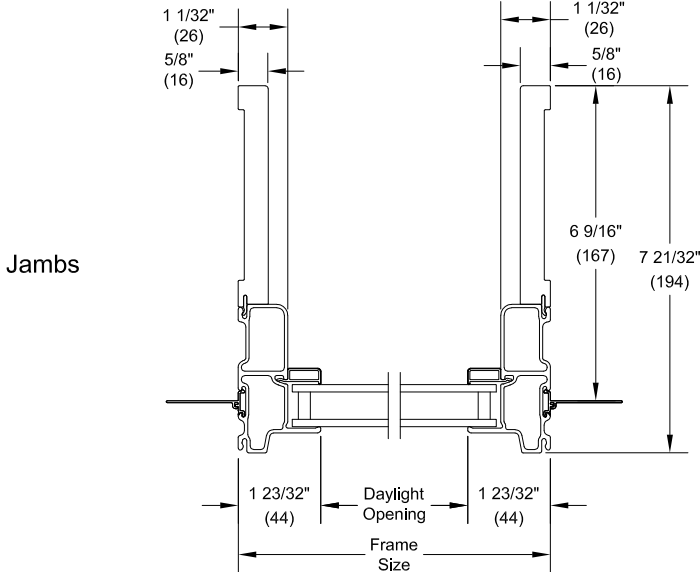
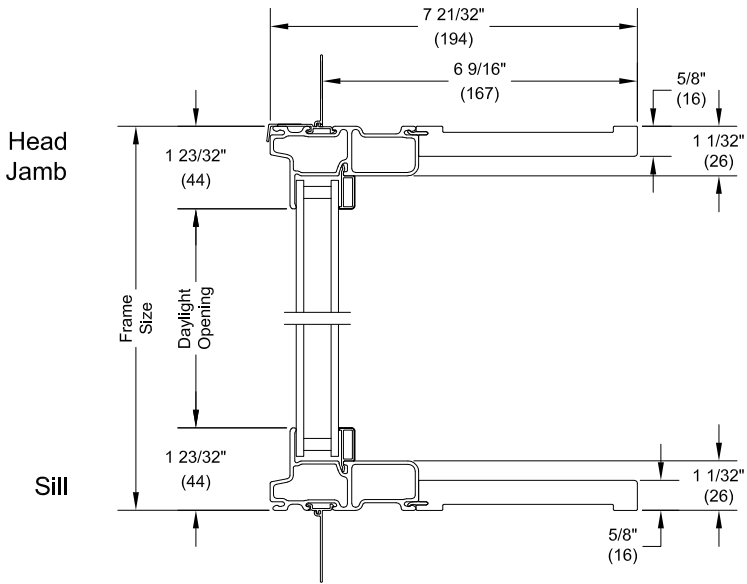
**Section Details - Direct Glaze - 4 9/16" Jamb**

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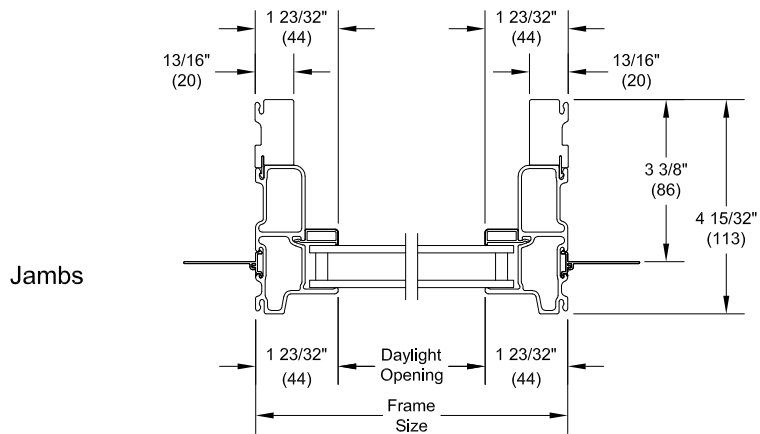
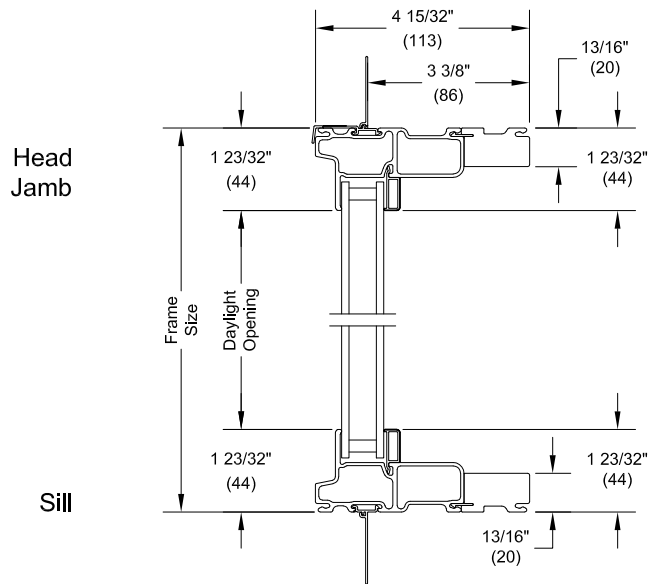
Section Details - Direct Glaze - 6 9/16" Jamb

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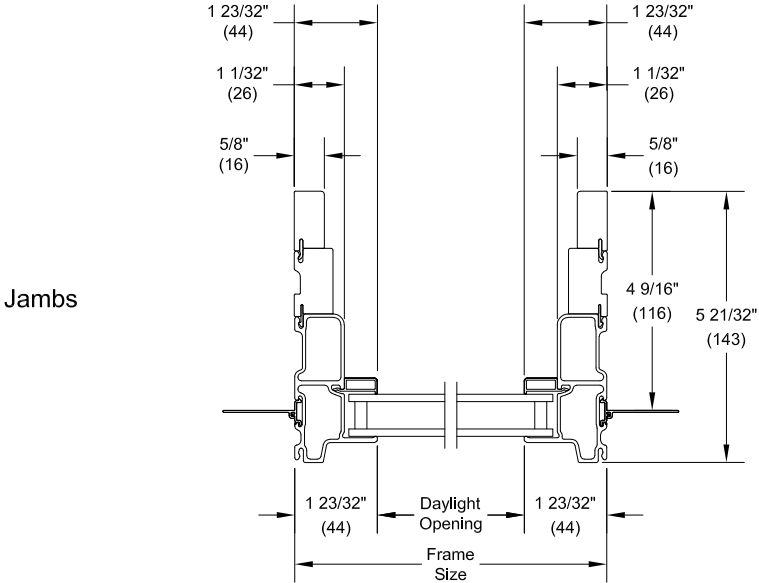
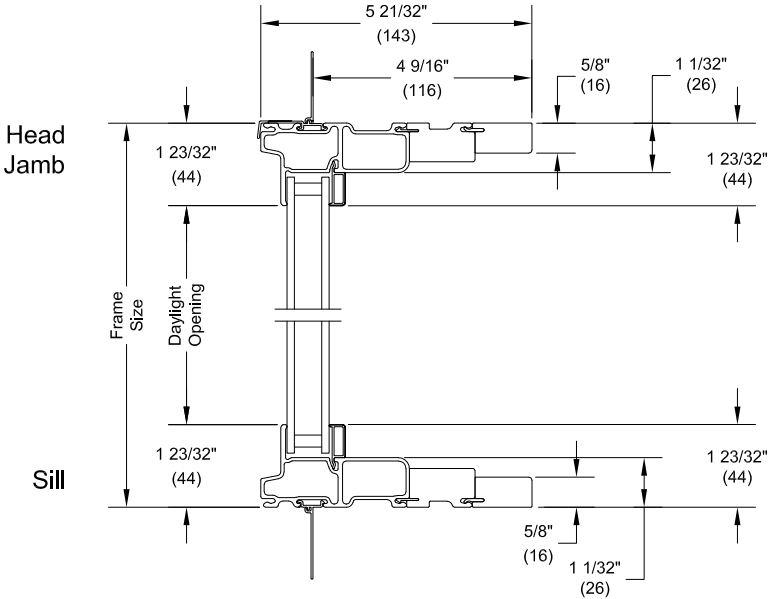
**Section Details - Direct Glaze Rectangle over Door - 3 3/8" Jambs**

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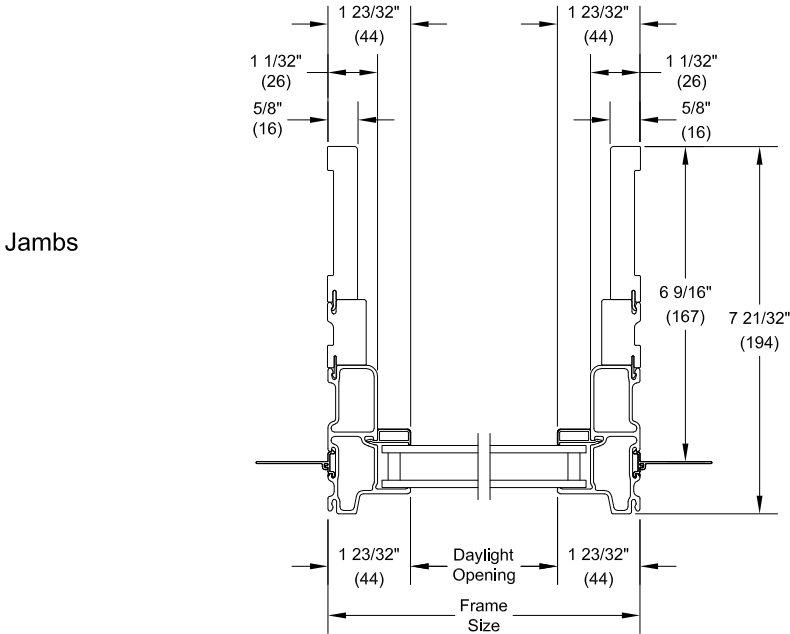
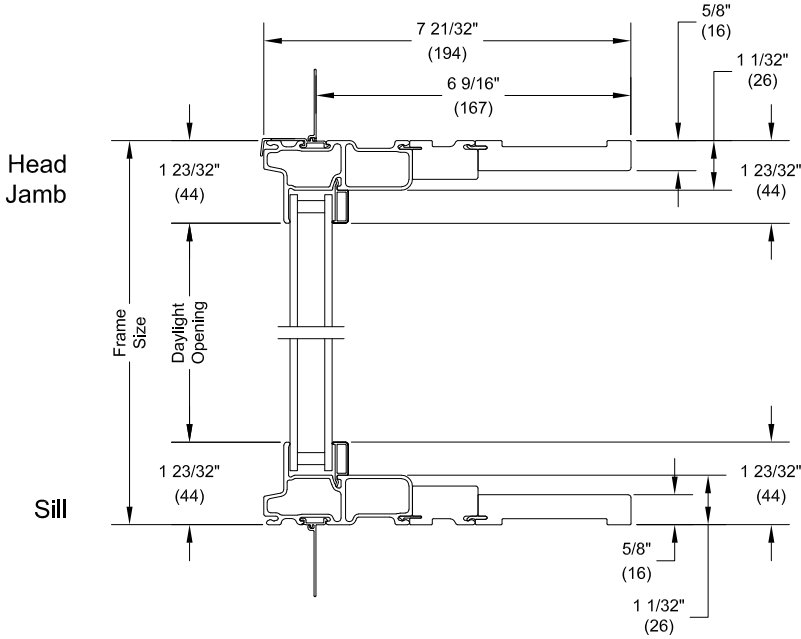
Section Details - Direct Glaze Rectangle over Door - 4 9/16" Jamb

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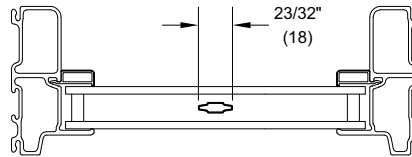


Section Details - Direct Glaze Rectangle over Door - 6 9/16" Jambs

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**Direct Glaze Rectangle Casement/Awning**

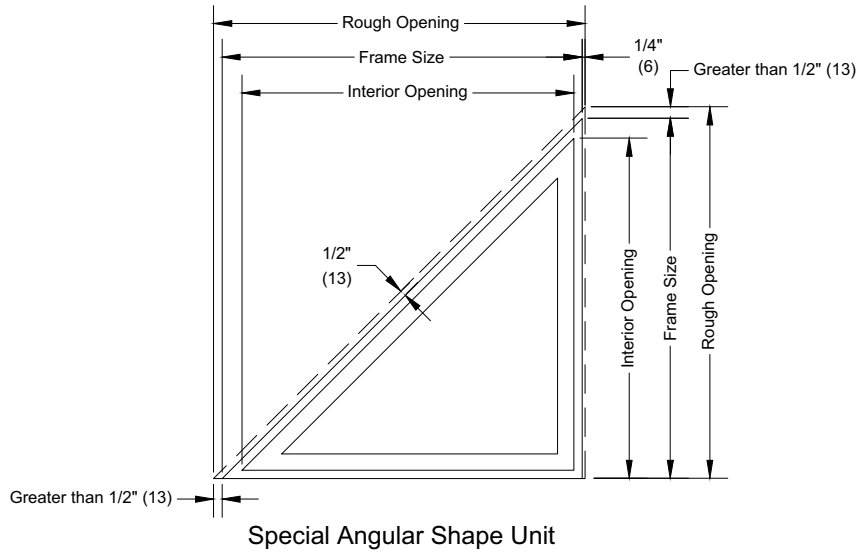


Aluminum Grilles Between Glass  
(Available In Rectangles Only)

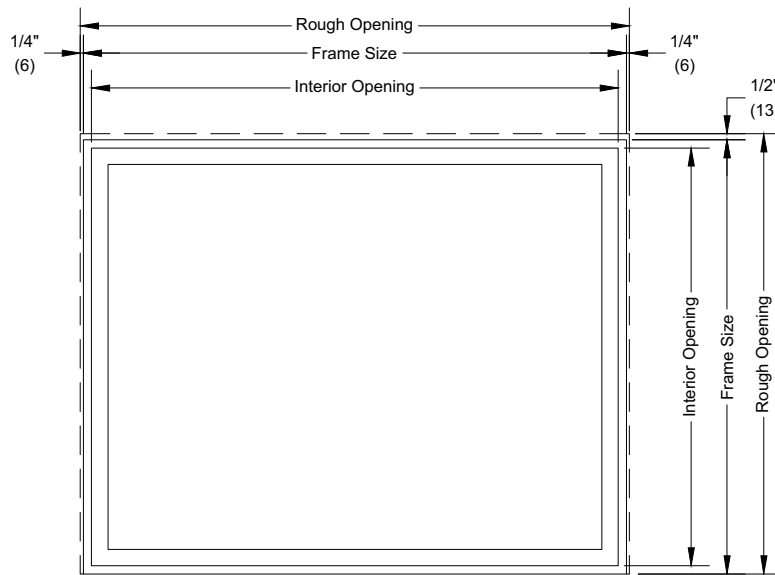
Lite Pattern	Minimum DLO	Minimum		Maximum	
		R.O. Width	R.O. Height	R.O. Width	R.O. Height
Rectangular	4 1/2"	>24"	>24"	85 1/4"	85 1/4"
9-Lite Prairie	4"	>24"	>24"	85 1/4"	85 1/4"
6-Lite Top Prairie	4"	16"	16"	85 1/4"	24"
6-Lite LH or RH Prairie	4"	16"	16"	24"	85 1/4"

- GBGs are available on Rectangle shape Polygons only.
- Available GBG lite cuts are rectangular equal lites, Prairie patterns, and Cottage Style patterns.
- Special size direct glaze rectangle units with rectangular lite patterns will have equally spaced lites and may not align with the standard unit GBGs unless specified at the time of the order.
- Prairie available in 9 lite and 6 lite top, bottom, left, and right patterns.
- Special size direct glaze rectangle units with Prairie lite patterns will default to 4" Daylight Opening (DLO) corners and may not align with the standard unit Prairie GBGs 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 unless specified at the time of the order.
- GBGs are not available with an unsupported bar length > 72"

**Measurement Information**



Special Angular Shape Unit

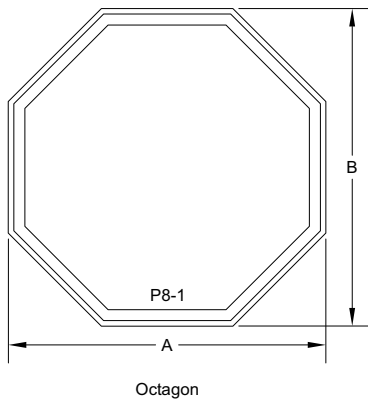
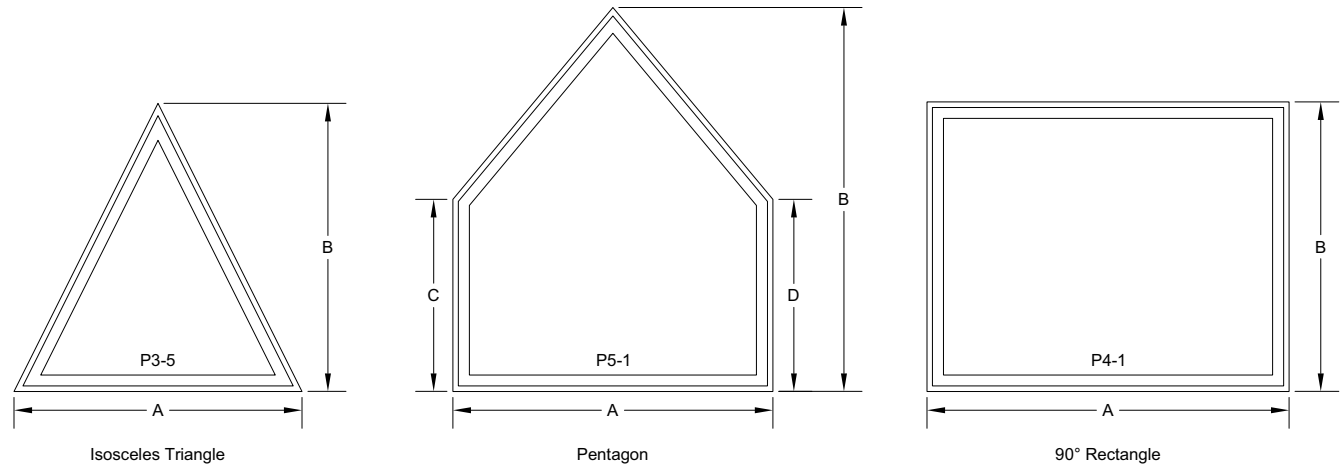
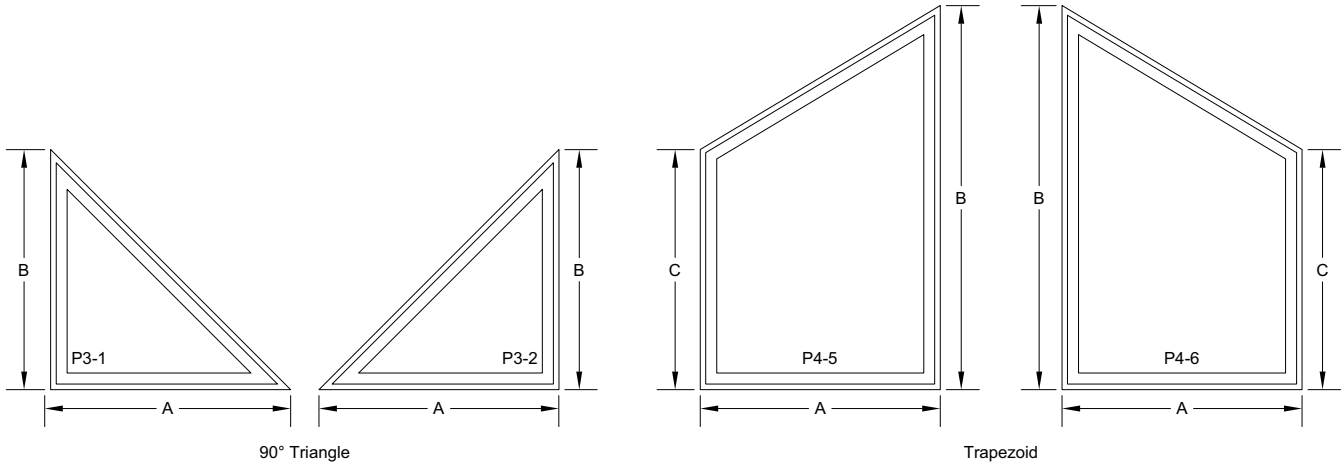


Rectangular Unit

**NOTES:**

- 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 Marvin Architectural Representative.
- Rough opening tolerance is 1/2 (13) perpendicular to frame, except on sill.
- Masonry opening tolerance is 0 on width and 1/4 (6) on height perpendicular to frame, except on sill.
- Minimum angle on any shape is 15 degrees.

**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.

**Example:**

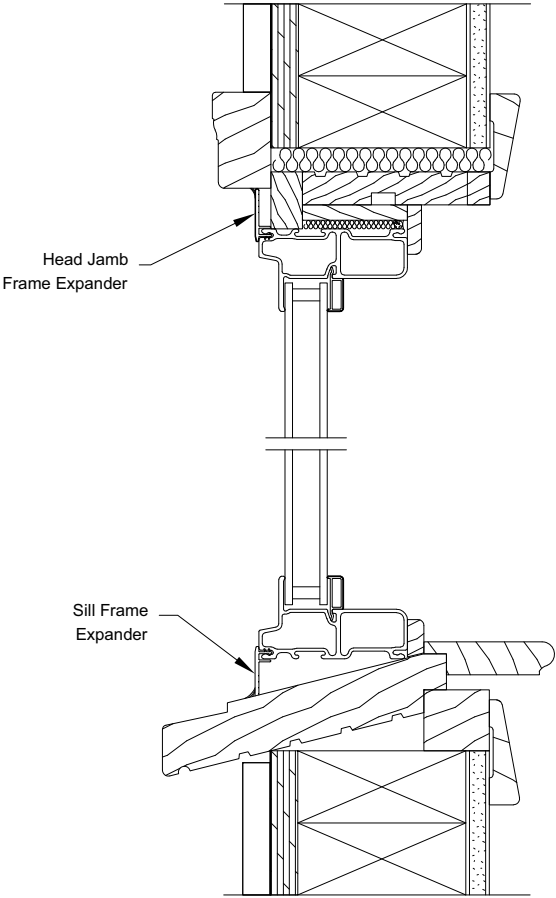
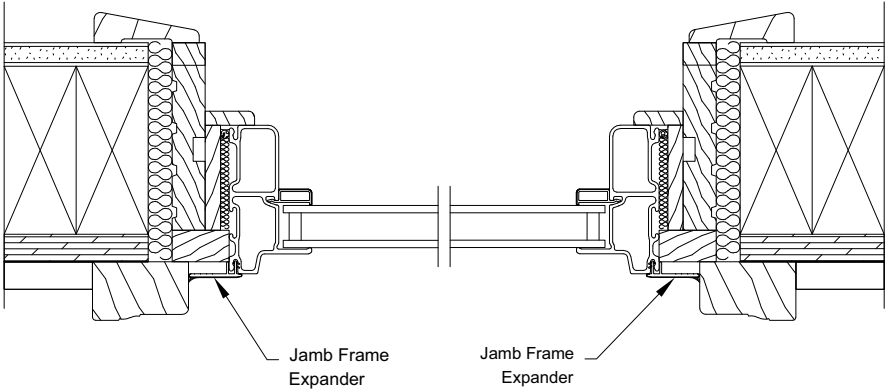
To order a window of a trapezoid opening, provide the measurements of A, B, and C as indicated. For other shapes, give the dimensions shown.

Slope to Angle and Angle to Pitch Conversion

Slope to Angle / Degree Conversions					
Slope	Angle	Degree / Minutes	Slope	Angle	Degree / Minutes
1/12	4.76	4 degree 46'	13/12	47.29	47 degrees 14'
2/12	9.46	9 degree 28'	14/12	53.13	49 degrees 24'
3/12	14.04	14 degree 2'	15/12	54.78	51 degrees 20'
4/12	18.43	18 degree 26'	16/12	56.3111	53 degrees 8'
5/12	22.62	22 degree 37'	17/12	54.78	54 degrees 47'
6/12	26.57	26 degree 34'	18/12	56.31	56 degrees 19'
7/12	30.26	30 degree 15'	19/12	57.72	57 degrees 43'
8/12	33.69	33 degree 41'	20/12	59.04	59 degrees 2'
9/12	36.87	36 degree 52'	21/12	60.26	60 degrees 15'
10/12	39.81	39 degree 48'	22/12	61.39	61 degrees 23'
11/12	42.51	42 degree 31'	23/12	62.45	62 degrees 27'
12/12	45.00	45 degree 0'	24/12	63.43	63 degrees 26'

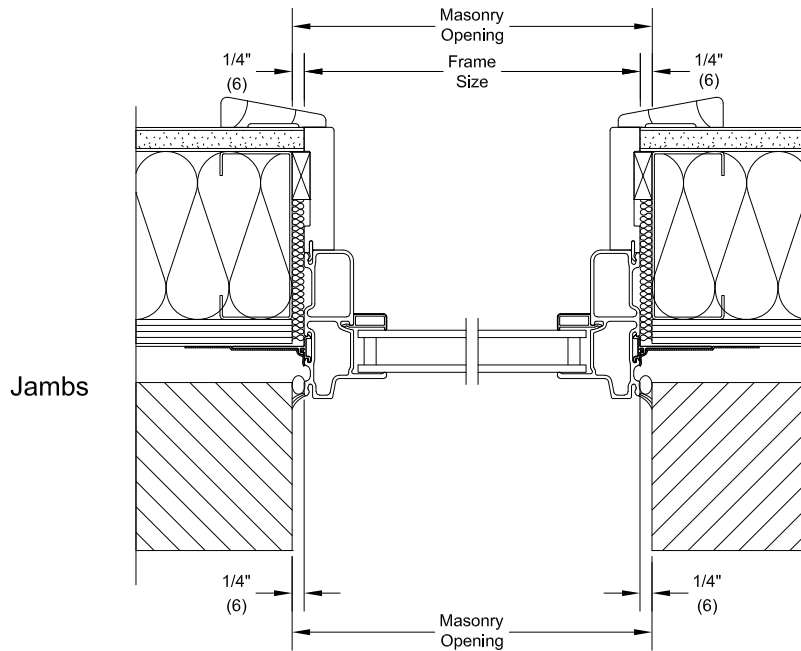
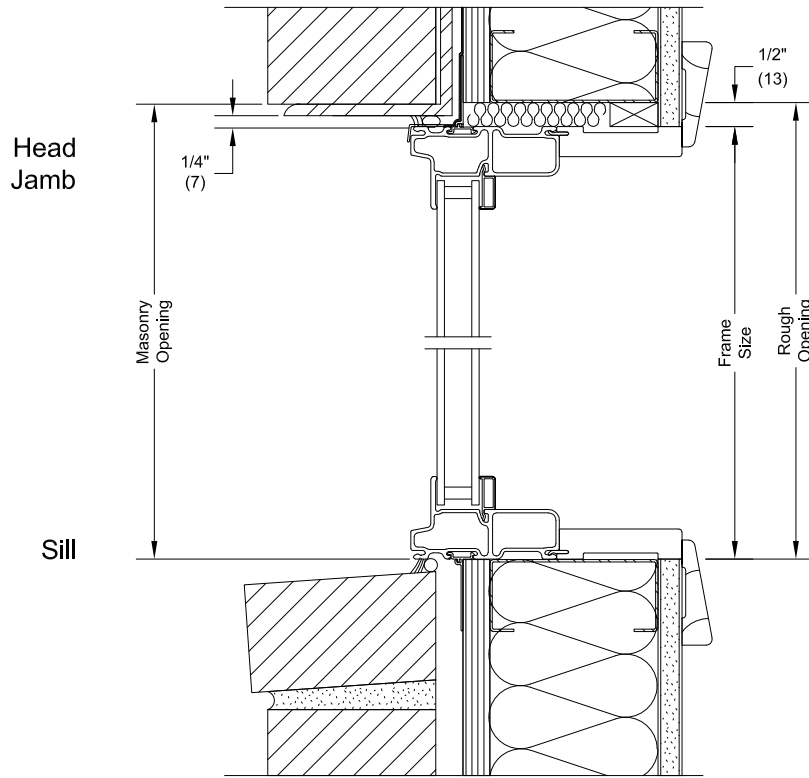
Angle to Pitch Conversions							
Angle	Pitch	Angle	Pitch	Angle	Pitch	Angle	Pitch
1	0.21/12	26	5.85/12	51	14.82/12	76	48.13/12
2	0.42/12	27	6.11/12	52	15.36/12	77	51.98/12
3	0.63/12	28	6.38/12	53	15.92/12	78	56.92/12
4	0.84/12	29	6.65/12	54	16.52/12	79	61.73/12
5	1.05/12	30	6.93/12	55	17.14/12	80	68.06/12
6	1.26/12	31	7.21/12	56	17.79/12	81	75.77/12
7	1.47/12	32	7.50/12	57	18.48/12	82	85.38/12
8	1.69/12	33	7.79/12	58	19.20/12	83	97.73/12
9	1.90/12	34	8.09/12	59	19.97/12	84	114.17/12
10	2.12/12	35	8.40/12	60	20.78/12	85	137.16/12
11	2.33/12	36	8.72/12	61	21.65/12	86	171.61/12
12	2.55/12	37	9.04/12	62	22.57/12	87	228.97/12
13	2.77/12	38	9.38/12	63	23.55/12	88	343.64/12
14	2.99/12	39	9.72/12	64	24.60/12	89	687.48/12
15	3.22/12	40	10.07/12	65	25.73/12		
16	3.44/12	41	10.43/12	66	26.95/12		
17	3.67/12	42	10.80/12	67	28.27/12		
18	3.90/12	43	11.19/12	68	29.70/12		
19	4.13/12	44	11.59/12	69	31.26/12		
20	4.37/12	45	12.00/12	70	32.97/12		
21	4.61/12	46	12.43/12	71	34.85/12		
22	4.85/12	47	12.87/12	72	36.93/12		
23	5.09/12	48	13.33/12	73	39.25/12		
24	5.34/12	49	13.80/12	74	41.85/12		
25	5.60/12	50	14.30/12	75	44.78/12		

Installation Suggestion - Frame Expander



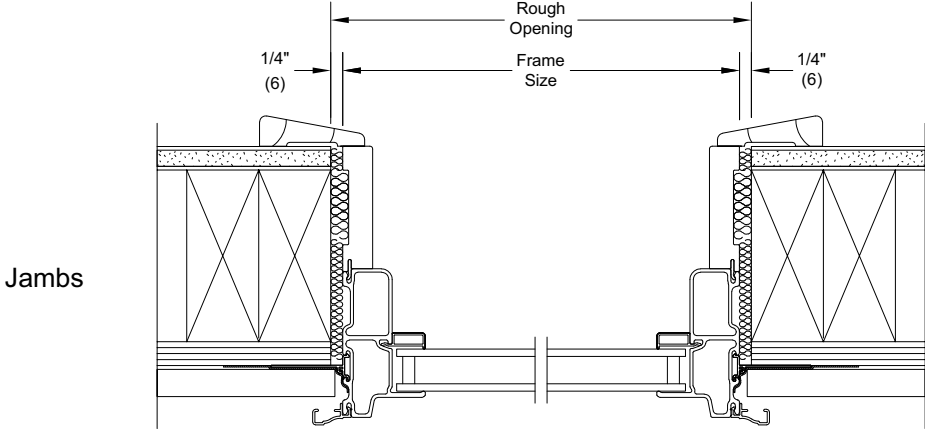
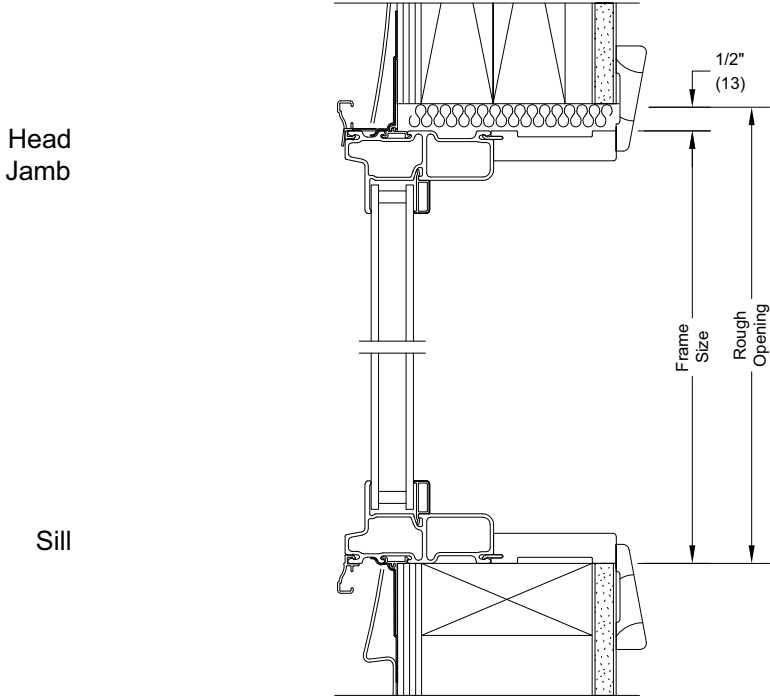
**Installation Suggestion - Brick Veneer with Steel Frame Construction**

SCALE: 3" = 1'0"



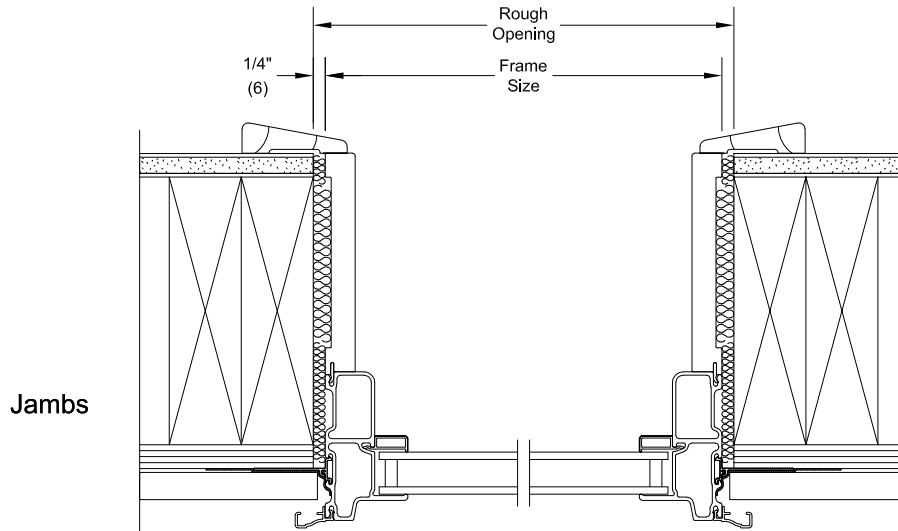
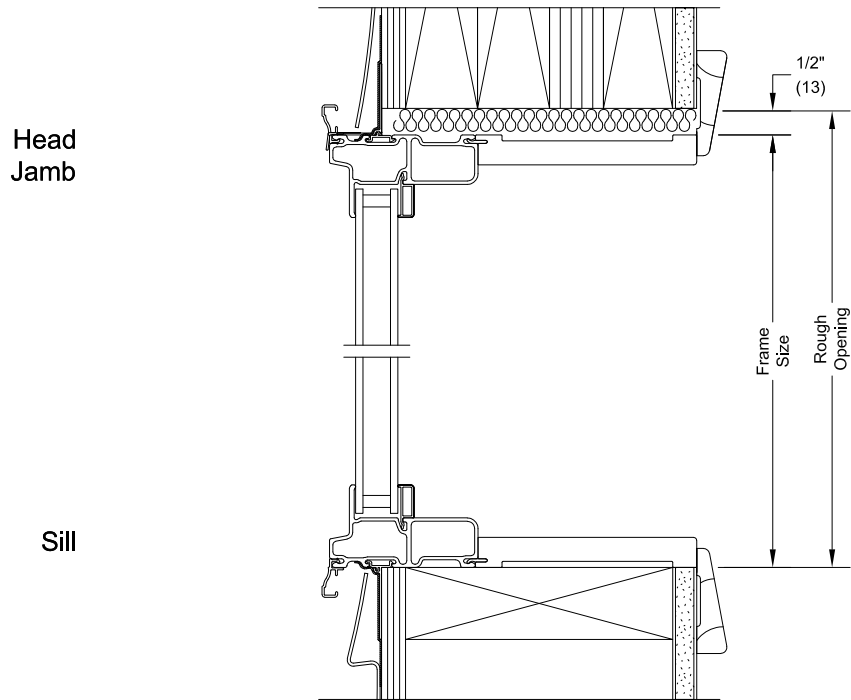
**Installation Suggestion - Vinyl Siding with 2x4 Frame Construction**

SCALE: 3" = 1'0"



**Installation Suggestion - Vinyl Siding with 2x6 Frame Construction**

SCALE: 3" = 1'0"



**Installation Suggestion - Stucco with 2x6 Frame Construction**

SCALE: 3" = 1'0"

