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April 9, 2018

IN HAND

Bonnie Sontag, Chair Planning Board City of Newburyport City Hall 60 Pleasant Street Newburyport, Massachusetts 01950

RE: 102-104 High Street / Additional Window Information

Dear Chair and Members of the Board;

Reference is made to the above-captioned matter. In that connection, at the last meeting the Applicant agreed to review the original proposal relative to the replacement of the windows on the structure. As a result, the Applicant is revising what it originally proposed and submitting the following with respect to the windows.

- 1. Restore all windows in the original structure.
- 2. Replace windows in the later additions with Marvin Integrity, Fiberglass Clad Wood Windows. You might note that the Kelley School renovation includes Marvin replacements, which were approved by the Massachusetts Historic Commission as well as the local Historic Commission. Please note, while the plans available for review indicate that the rear structure existed at least as of 1900 and maybe slightly earlier, much work has occurred on those rear additions over the years. It is clear from the Assessor's records that at first those appeared only to be two stories and various outward and upward expansions have occurred over time. Based upon the Applicant's review of the existing windows in the rear sections of the structure the windows include a mix of 9 over 3, 6 over 6 and 4 over 4. All will be replaced with 6 over 6 as noted above.

I have indicated on the attached elevation which section of the building the Applicant is proposing to use the replacement windows.

Finally, so as not to cause any confusion once construction commences, the Applicant is restoring the front two doors, the new rear doors will be wood. The remaining secondary means of egress out of the rear additions will be replacement fiberglass. Currently they are steel or fiberglass.

We look forward to discussing this with you at your next meeting.

Respectfully submitted, 102-104 High Street LLC

It's Attorney

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CHAPTER 3A

INTEGRITY WOOD-ULTREX INSERT DOUBLE HUNG

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ATTENTION:

- Specifications and technical data are subject to change without notice.
- Dimensions in parenthesis are in millimeters or square meters
- Allow 1/16" (2) tolerance on all measurements.
- Interior mullion trim are 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.marvin.com



UNIT FEATURES

FRAME AND SASH:

The frame and sash exteriors are 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. 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 interior finish.

Composite frame thickness is 1 13/16" (46). Frame width of 3 1/4" (83). Ultrex is .080" (2) thick. Includes an exterior accessory kerf and snap-in wood sill liner.

Sash:

Composite sash thickness of 1 17/32" (39), Ultrex is .070" (2) thick, Sash can be replaced but cannot be re-glazed.

The balance system is a coil spring block and tackle system, with nylon shoe and zinc locking clutch. Both sash tilt into the room for cleaning or removal for painting without removing the screen. High pressure zinc die cast checkrail lock and keeper. Lock employs a cam- lock mechanism. Color: Almond Frost or White. Optional Bright Brass, Oil Rubbed Bronze, and Satin Nickel available. Each sash employs spring loaded tilt latches to allow for easy tilting of sash, On units widths > 42 3/32" (1069) and wider, two locks are mounted, Optional factory applied Window Opening Control Device is available on all sizes. A system consisting of an acetal lever housed in an acetal shell on each stile of the top sash. Finish: White, Beige. This device works in accordance to ASTM F2090-10 standard specification for window fall prevention devices with emergency escape. Optional field applied flush mounted sash lift. The material is zinc die cast and available in Almond Frost, White, Bright Brass, Satin Nickel, and Oil Rubbed Bronze finishes.

Operator: Secure the jambs with minimum of two #8 x 3" pan head screws. Maximum spacing of jambs not to exceed 3/16". Secure the head jamb with either zero or two #8 x 3" pan head screws. Picture: Secure the jambs with minimum of two #8 x 3" pan head screws. Maximum spacing of jambs not to exceed 3/16". Secure the head jamb with two #8 x 3" pan head screws.

All units are manufactured with an 11/16" (17) IG with Low E2, E3 or E1 coating including argon gas fill. Tempered glass and/or obscure, and California Fire glass (annealed exterior and tempered interior glazing configuration) glass 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 3.1/3.1 standard 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. See the Product Performance chapter for values.

WEATHER STRIP:

All weather strip is beige in color. Jamb weather strip is a robust fabric covered foam weather strip that is inserted into a rigid vinyl jamb carrier and used to seal sash to jambs. An additional jamb weather strip is inserted into Ultrex/wood and seals bottom sash to jamb. Parting stop is vinyl with a flexible leaf seal to seal between the header and the upper sash. Check rail weather strip is a hollow bulb. Bottom sash weather strip is attached to the sash and interfaces against the Ultrex sill and jamb weather strip. Picture and transom units is a hollow bulb weather strip that is inserted into rigid vinyl jamb carrier and head jamb carrier to seal sash.

SCREEN:

Roll formed aluminum frame with corner key construction, color to match exterior frame color. Charcoal color fiberglass (non-corrosive) screen cloth. Spring loaded pins for installation.

REMOVABLE INTERIOR GRILLES:

Bar: Pine wood, 3/4" (19) Available in pine bare wood or factory applied white finish. Pattern: Standard rectangular pattern.

INTERIOR / EXTERIOR SIMULATED DIVIDED LITES (SDL):

Interior bar: 7/8" (22) wide bars, finish to match exterior, Available with or without aluminum interior spacer bar in airspace. Patterns available: rectangle, Cottage style cut, 9 lite Prairie cut or 6 lite Prairie for top sash, bottom sash, or both. ITIDHP Only: Simulated check rail option: 2 11/32" (60). Pattern available: simulated rail in standard center or customer specified location with 7/8" (22) patterns above, below or both in patterns of rectangular equal lite or prairie lite cut.

GRILLES-BETWEEN-THE-GLASS (GBG):

23/32" (18) contoured aluminum bar placed between two panes of glass. Pattern: Standard rectangular pattern, 6 or 9 lite Prairie cut, or Cottage style cut. Exterior colors: Stone White, Pebble Gray, Bronze, Evergreen, Cashmere, or Ebony. Interior colors: White or Bronze.

NOTE: NFRC Values are now located on www.marvin.com



MINIMUM AND MAXIMUM GUIDELINES

Minimum and Maximum IO Guidelines										
Unit Type	Min IO V	Min IO Width Min IO Height		eight	Max IO Width		Max IO Height		Glass Size	
	in	mm	in	mm	in	mm	in	mm	Sq. Feet	Sq. Meters
ITIDH	18 3/8	(467)	28 1/8	(714)	54 3/8	(1381)	84 1/4	(2140)	26 1/64	2.417
ITIDHT	18 3/8	(467)	16 1/8	(410)	62 3/8	(1584)	24 1/4	(616)	7 3/16	0.668
ITIDHP	18 3/8	(467)	23 5/8	(600)	58 3/8	(1483)	84 1/4	(2140)	28 41/64	2.661
ITIDHP	18 3/8	(467)	23 5/8	(600)	62 3/8	(1584)	80 1/4	(2038)	29 1/4	2.717
ITIDH-C*	18 3/8	(467)	36 1/8	(918)	54 3/8	(1381)	68 1/4	(1734)	23 11/32	2.169
ITIDH-RC**	18 3/8	(467)	36 1/8	(918)	54 3/8	(1381)	68 1/4	(1734)	23 11/32	2.169

Note: Special Size Cottage and Reverse Cottage Style ITIDH Units are available in frame sizes; width of 18 to 54 and height of 36.5 to 68.5. The Height Ratio being .402/.598 (*Cottage Style) or .598/.402 (**Reverse Cottage Style)

WOOD-ULTREX INSERT DOUBLE HUNG COLLECTION:

Wood-Ultrex Insert Double Hung: ITIDH

Wood-Ultrex Insert Double Hung Transom: ITIDHT Wood-Ultrex Insert Double Hung Picture: ITIDHP Wood-Ultrex Insert Double Hung Cottage: ITIDH-C

Wood-Ultrex Insert Double Hung Reverse Cottage: ITIDH-RC

NOTE: Special sizes are available in 1/64" (.40) increments, not to exceed the frame size measurement maximum or minimum in the table above.



Integrity WOOD-ULTREX INSERT DOUBLE HUNG

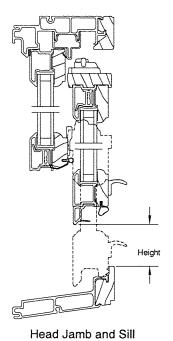
CERTIFIED SIZES

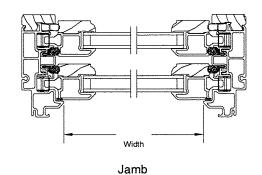
Product	Air Tested	Air Tested Water Tested		Design Pressure	PROPERTY ON SANSON AND SERVICES.	Max Overall Width		Overall ight
to psf	to psf Rating	(DP)	in	mm	in	mm		
ITIDH	1.57	6.06	LC-PG40-H	DP40	42.093	(1069)	84	(2134)
ITIDH	1.57	5.30	LC-PG35-H	DP35	54	(1372)	84	(2134)
ITIDHT	1.57	6.06	LC-PG40-FW	DP40	62	(1575)	24.5	(622)
ITIDHP	1.57	6.06	LC-PG40-FW	DP40	58	(1473)	84	(2134)
ITIDH	1.57	6,06	LC-PG40-H	DP40	42.093	(1069)	84	(2134)
ITIDH-C*	1.57	6.06	LC-PG40-H	DP40	42.093	(1069)	68.5	(1740)
ITIDH-C*	1.57	5,30	LC-PG35-H	DP35	54	(1372)	68,5	(1740)
ITIDH-RC**	1.57	6.06	LC-PG40-H	DP40	42.093	(1069)	68,5	(1740)
ITIDH-RC**	1.57	5,30	LC-PG35-H	DP35	54	(1372)	68.5	(1740)



EGRESS MEASUREMENT / EGRESS FORMULA

Integrity Insert Double Hung Egress Unit Minimum Opening Conversion Frame Size							
Minimum Value for Net Clear Opening Desired Dimension Formula							
20 Inches	Egress Opening Width (Inches)	= Frame OM Width - 3,656					
24 Inches	Egress Opening Height (Inches)	= (Frame OM Height/2) - 5.188					
5.7 Square Feet	Egress Opening Area (SQFT)	= (Egress Width x Egress Height) / 144					







CONVERSIONS

Unit Measurements			1				
From	То	Widt	Width		Height		
Daylight Opening		ln .	mm	77.00	in	mm	
Daylight Opening	Bottom Sash OM	+ 3 1/4	(83)		+ 3 1/4	(83)	
Daylight Opening	Top Sash OM	+ 3 1/4	(83)		+ 3 1/4	(83)	
Daylight Opening	Glass OM	+ 1 1/16	(27)		+ 1 1/16	(27)	
Daylight Opening	Screen OM	+ 3 7/8	(98)	X 2	+ 7 9/32	(185)	
Daylight Opening Bottom Sash	Half Screen OM	+ 3 7/8	(98)		+ 4 1/32	(102)	
Daylight Opening	Grille	order by	order by DLO order by DLO)	
Daylight Opening	Frame OM @ Exterior	+ 6 13/32	(163)	X 2	+ 9 1/8	(232)	
Inside Opening		in	mm		in	mm	
Inside Opening	Bottom Sash OM	-3 17/32	(90)	+ 2	- 1 1/8	(29)	
Inside Opening	Top Sash OM	- 3 17/32	(90)	+ 2	- 1 1/8	(29)	
Inside Opening	Daylight Opening	- 6 25/32	(172)	+ 2	- 4 3/8	(111)	
Inside Opening	Glass OM	- 5 23/32	(145)	+ 2	- 3 5/16	(84)	
Inside Opening	Screen OM	- 2 29/32	(74)		- 1 15/32	(37)	
Inside Opening	Half Screen OM	- 2 29/32	(74)	+ 2	- 11/32	(09)	
Inside Opening	Frame OM @ Interior	- 3/8	(10)		- 1/4	(06)	
Inside Opening	Frame OM @ Exterior	- 3/8	(10)		+ 3/8	(10)	

Unit Measurements		\\/idt	Unioba			
From	То	Width		Height		
Daylight Opening		ln .	mm	In	mm	
Daylight Opening	Sash OM	+ 3 1/4	(83)	+ 3 1/4	(83)	
Daylight Opening	Glass OM	+ 1 1/16	(27)	+ 1 1/16	(27)	
Daylight Opening	Grille	Order by DLO		Order by DLO		
Daylight Opening	Frame OM @ Exterior	+ 6 11/32	(161)	+ 6 13/16	(173)	
Inside Opening		in	mm	ln .	mm	
Inside Opening	Sash OM	- 3 15/32	(88)	-3 3/16	(81)	
Inside Opening	Daylight Opening	- 6 23/32	(171)	- 6 7/16	(163)	
Inside Opening	Glass OM	- 5 21/32	(144)	- 5 3/8	(137)	
Inside Opening	Frame OM @ Interior	- 3/8	(10)	- 1/4	(06)	
Inside Opening	Frame OM @ Exterior	- 3/8	(10)	+ 3/8	(10)	

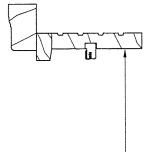
NOTE: All conversions are based off an existing 8+ degree sill. Please refer to page 3A.7 for additional existing angle inside opening to frame size height conversions.

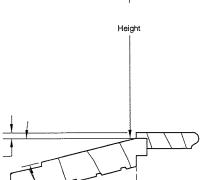


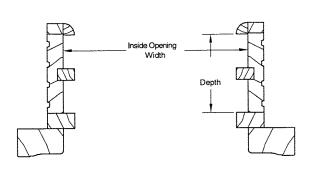
Integrity WOOD-ULTREX INSERT DOUBLE HUNG

MEASUREMENT CONVERSIONS - FIELD MEASUREMENT

Conversion fro	om Field Measurement to Fra	me OM				
	Width					
Condition Formula						
If blind stop width is 1/2 inch or less	ITIDH frame OM width = inside opening width - 0.375					
	Height					
Condition	Type of Sill	Formula				
If old sill angle is 8 degrees or more but less than 14 degrees	8 degree sill	ITIDH frame OM height = inside opening height + 0.375				







Wood-Ultrex Insert Double Hung							
Inside Opening to Frame Size at Exterior							
Existing Sill Angle	Existing Sill Angle Conversions						
8° and greater	8° and greater 3/8 (10)						
7°	5/16	(8)					
6°	3/16	(5)					
5°	1/8	(3)					
4°	1/16	(2)					
3°	0	(0)					
2°	- 1/8	(3)					
1°	- 3/16	(5)					
0°	- 1/4	(6)					

MULLING GUIDELINES

Multiple assemblies can be factory mulled: up to 5 units wide by 1 unit high

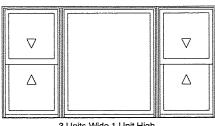
MAXIMUM INSIDE OPENING not to exceed 112 7/8" (2867) X 84 1/4" (2140)

NOTE: Field mulling beyond the above limitations is not recommended

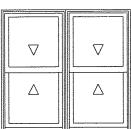
Calculating Total Inside Opening for Assemblies

WIDTH: ADD Frame Widths + 3/8" (10)

Tolerance = 3/16'' (5) from frame to Inside Opening at left and right jamb.



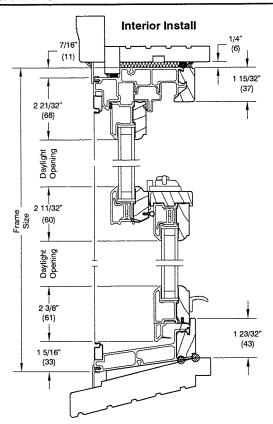
3 Units Wide 1 Unit High



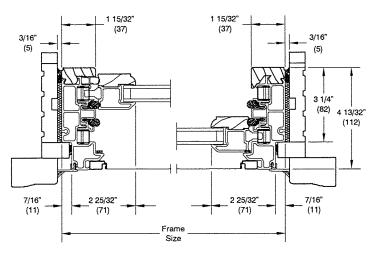
2 Units Wide 1 Unit High



SECTION DETAILS: OPERATING SCALE: 3" = 1'0"



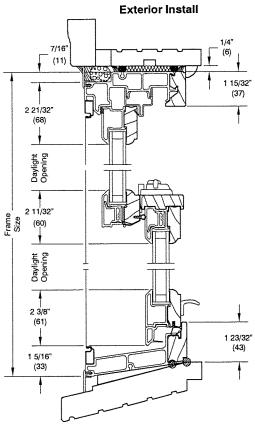
Head Jamb and Sill 8 Degree Bevel Sill Installed in Existing Frame



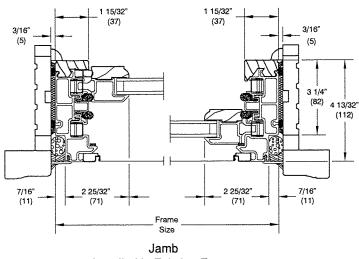
Jamb Installed in Existing Frame



SECTION DETAILS: OPERATING SCALE: 3" = 1'0"



Head Jamb and Sill 8 Degree Bevel Sill Installed in Existing Frame

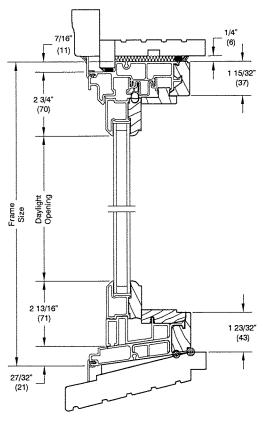


Installed in Existing Frame

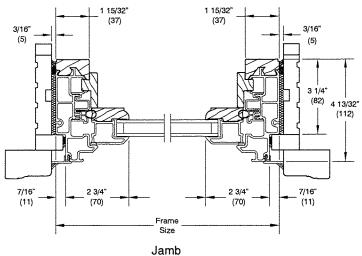


SECTION DETAILS: PICTURE/TRANSOM SCALE: 3" = 1'0"

Interior Install



Head Jamb and Sill 8 Degree Bevel Sill Installed in Existing Frame

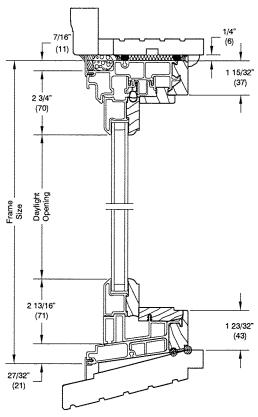


Installed in Existing Frame

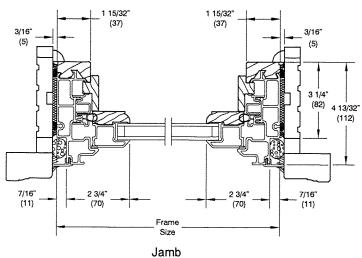


SECTION DETAILS: PICTURE/TRANSOM SCALE: 3" = 1'0"

Exterior Install



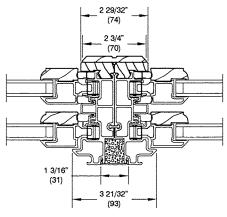
Head Jamb and Sill 8 Degree Bevel Sill Installed in Existing Frame



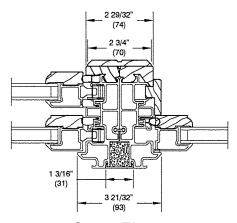
Installed in Existing Frame



SECTION DETAILS - MULLIONS SCALE: 3" = 1'0"



Operator/Operator Wood Ultrex Insert Double Hung

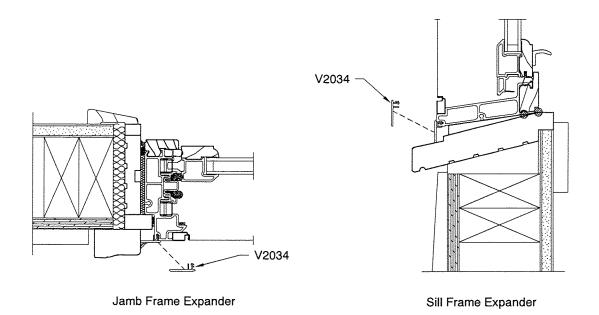


Operator/Picture Wood Ultrex Insert Double Hung



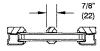
Integrity WOOD-ULTREX INSERT DOUBLE HUNG

SECTION DETAILS - FRAME EXPANDER SCALE: 3" = 1'0"

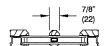




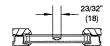
DIVIDED LITE OPTIONS Not to Scale



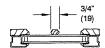
Wood Simulated Divided Lite



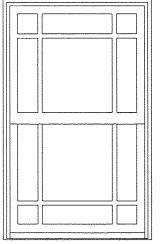
Wood Simulated Divided Lite w/Spacer Bar



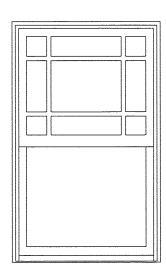
Aluminum Grille Between Glass



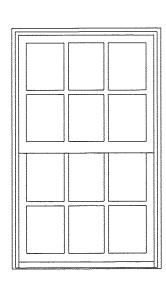
Wood Removable Grill

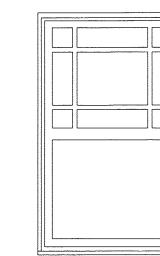


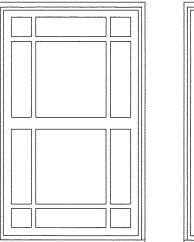
* Optional 6 lite Prairie cut for GBG or SDL.



tional 6 life Frame cut for GBG of SDL.







* Optional 9 lite Prairie cut for GBG or SDL.

NOTE: 4" (102) DLO lite cut minimum for 7/8" (22) pattern



DIVIDED LITE OPTIONS

Insert Double Hung SDL, GBG, Grille Equal Lite Cut								
		Width		Height				
Product	Frame	Width	Lite Cut Pattern	Frame	Lite Cut			
	in	mm		in	mm	Pattern		
	18	(457)	2W	28 1/2	(724)	2H		
ITIDH	26 3/32	(663)	3W	72 1/2	(1842)	3H		
ווטוו	38 3/32	(968)	4W	and the state of				
	50 3/32	(1272)	5W					
	18	(457)	2W	16 1/2	(419)	1H		
ITIDHP	26 3/32	(663)	ЗW	24 1/2	(622)	· 2H		
1110111	38 3/32	(968)	4W	28 1/2	(724)	4H		
	50 3/32	(1272)	5W	72 1/2	(1842)	6H		
	18	(457)	2W	TOP SASH		2H		
ITIDH- C*	26 3/32	(663)	3W			211		
111011-0	38 3/32	(968)	4W	BOTTOM SASH		зн		
	50 3/32	(1272)	5W			0,1		
	18	(457)	2W	TOP SASH		зн		
ITIDH- BC**	26 3/32	(663)	3W	100	UAUI I	511		
I I I I I I I I I I I I I I I I I I I	38 3/32	(968)	4W	BOTTO	M SASH	2H		
	50 3/32	(1272)	5W	50110	W OAOH	- 11		

^{*}ITIDH- C (Cottage Style) and **ITIDH- RC (Reverse Cottage Style) units are available in frame heights of 36 1/2" to 68 1/2" only. Sash ratio is .402/.598 for Cottage Style Units and .598/.402 for Reverse Cottage Style Units.

NOTE:

- * When frame width or height are between two sizes, refer to the smaller size shown for the default lite cut pattern.
- * Wood Grilles for special size units will default to the next smaller standard size lite pattern. Wood Grilles are not available in lite patterns other than the Wood Grille patterns.
- * Rectangle GBGs for special size units will default to the next smaller standard size lite pattern. Also available will be Prairie patterns, Cottage patterns, and customer specified equal rectangular lite patterns.
- * Rectangular SDL for special size units will default to the next smaller standard size lite pattern. Also available will be Prairie patterns, Cottage patterns, and customer specified equal rectangular lite patterns.
- * Prairie GBG and SDL available in 9 lite and 6 lite top, bottom, left, and right patterns.
- * Cottage GBGs and SDL for special sizes units will default to the next smaller standard size lite pattern. Cottage GBGs and SDL are also available in customer selected lite patterns.
- * Maximum number of lites wide and high for equal lite SDL option is 11 lites.
- * Minimum DLO measurement for equal lite SDL option is 4" (102) and will be validated by OMS.
- * Minimum DLO measurement for equal lite GBG option is 3" (76) and will be validated by OMS.
- * Standard DLO measurement for Prairie GBG and SDL options is 4" (102). Special DLO corners are n/a.
- * Standard DLO height measurement for Cottage SDL option is 10" (254). Minimum DLO height is 8" (203) for one high pattern. Minimum DLO height is 4" (102) for two high pattern.
- * Standard DLO height measurement for Cottage GBG option is 10" (254). Minimum DLO height is 3" (76) for both one and two high patterns.
- * 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.