
TABLE OF CONTENTS

General Information 1-2

Lite Cut Information 1-3

Handling & Operation 1-4

Unit Sizing, Rough Opening & Masonry Openings 1-5

Trim & Sill Options 1-6

Glazing Options 1-8

Jamb Options 1-11

Mullion Options 1-16

Elevation Notes 1-17

General Sector Top Information 1-18

Sector Top Casement Handling & Operation 1-19

Sector Top Elevation Notes 1-20

Sector Top Clear Opening Information 1-21

Sector Top Trim Options 1-22

French Casement General Information 1-23

French Casement Handling & Operation 1-24

French Casement Elevation Notes 1-25

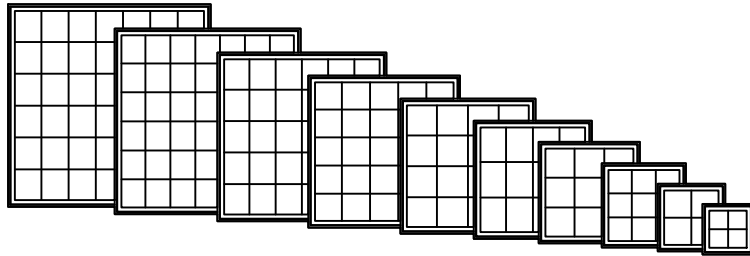
Section Details: 6" Scale 1-26

Bays & Bows Opening Specifications 1-48

Section Details: Bays & Bows-6" Scale 1-54

Min-Max Sizing 1-63

GENERAL INFORMATION
CASEMENT



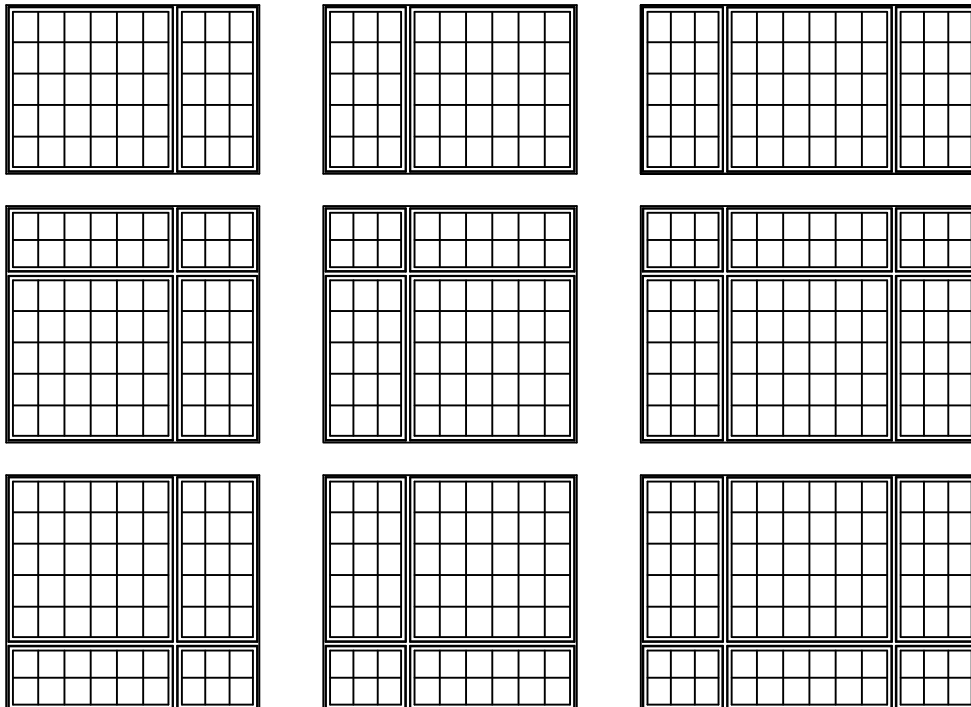
DIMENSIONAL WINDOWS

Custom clad casement windows may be specified as "dimensional", by adjusting the desired rough opening width or height in 1/16" increments from standard.

Custom clad casement windows are available with left or right hand operation, or stationary (non-venting). Operating mechanism includes corrosion resistant steel hinges and dual arm roto-type operator with hardened steel gears and operating arms. Sash locks are concealed unison type with an exposed locking lever and escutcheon plate. There are several interior hardware finish options. Refer to the Specifications for finish options.

MULTIPLE ASSEMBLIES

Custom clad casement windows may be mullied above, below, or beside other clad casement windows, or other clad window products. Factory assembled mulls are limited in height (100") and width (150").

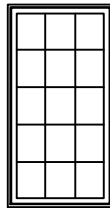


LITE CUT INFORMATION

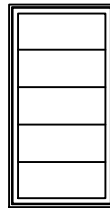
Custom clad casement windows are available with removable grilles in 7/8", 1-1/8" and 1-3/8" widths, Airspace (between the panes) grilles, and Simulated Divided Lites. Standard lite cuts are rectangular, and conform to the layouts noted in the charts on the next page. To use the chart, refer to the appropriate table by the type of window and type of bars or grilles the section drawings illustrate. Then simply cross reference the frame Height and Width to determine the standard lite cut.

LITE CUT OPTIONS

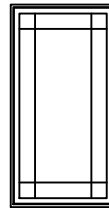
Special lite cut patterns can include a wide variety of straight line and radius patterns. The illustrations shown here represent just a few of the possibilities. Rectangular, horizontal, vertical and Prairie lite patterns are available in all standard size clad casement windows. Uneven, diamond, radius and Gothic lite cuts are available, subject to approval. Approvals are based on the ability to fulfill the design requirement while maintaining the construction integrity of the finished product.



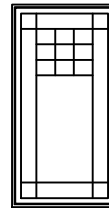
RECTANGULAR



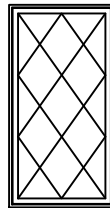
HORIZONTAL



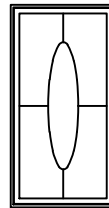
PRAIRIE



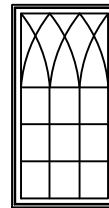
UNEVEN



DIAMOND



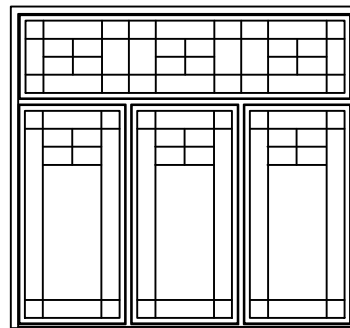
RADIUS



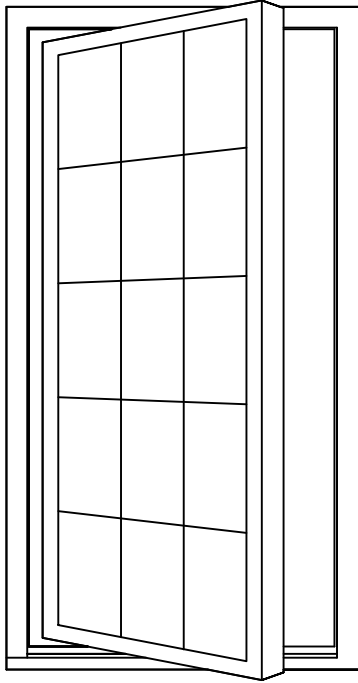
GOTHIC

BAR ALIGNMENT

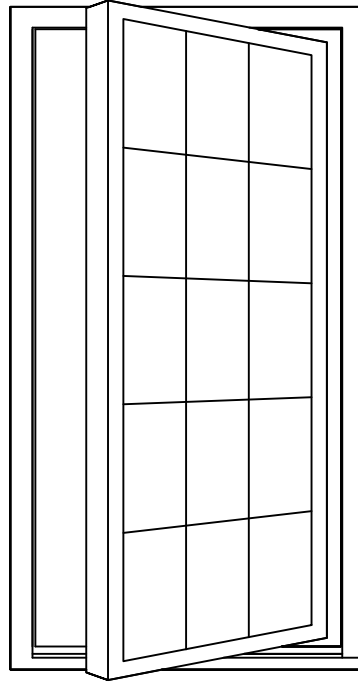
Alignment of divided lite muntin bars from one window to the next is often required by fine architectural design. Wood grilles, Grilles Between the Glass, grilles, and Simulated Divided Lites may be specified with muntin bars aligned.



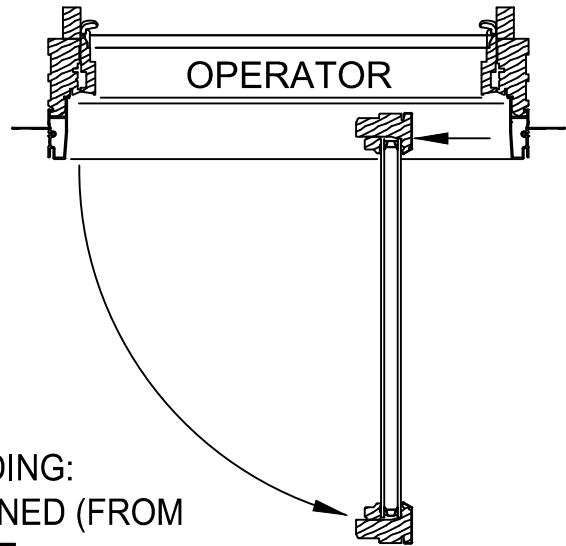
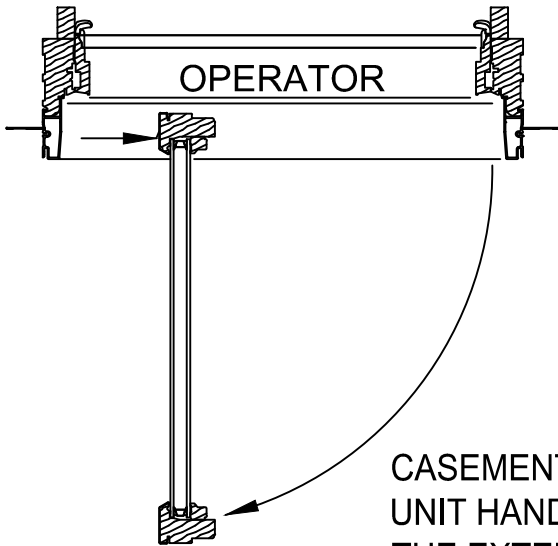
HANDLING & OPERATION
CASEMENT



**LEFT
HAND**

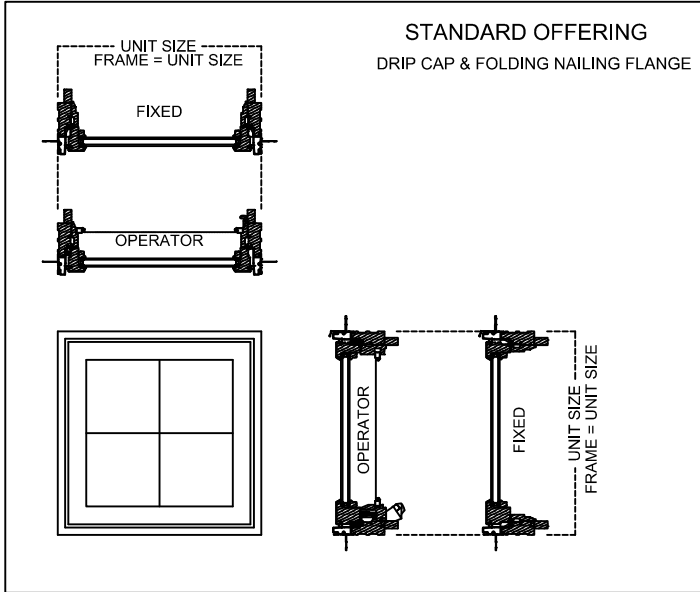


**RIGHT
HAND**



CASEMENT UNIT HANDING:
UNIT HANDING IS DEFINED (FROM
THE EXTERIOR) AS THE
DIRECTION THE SASH OPENS.

**UNIT SIZING, ROUGH OPENINGS &
MASONRY OPENINGS**



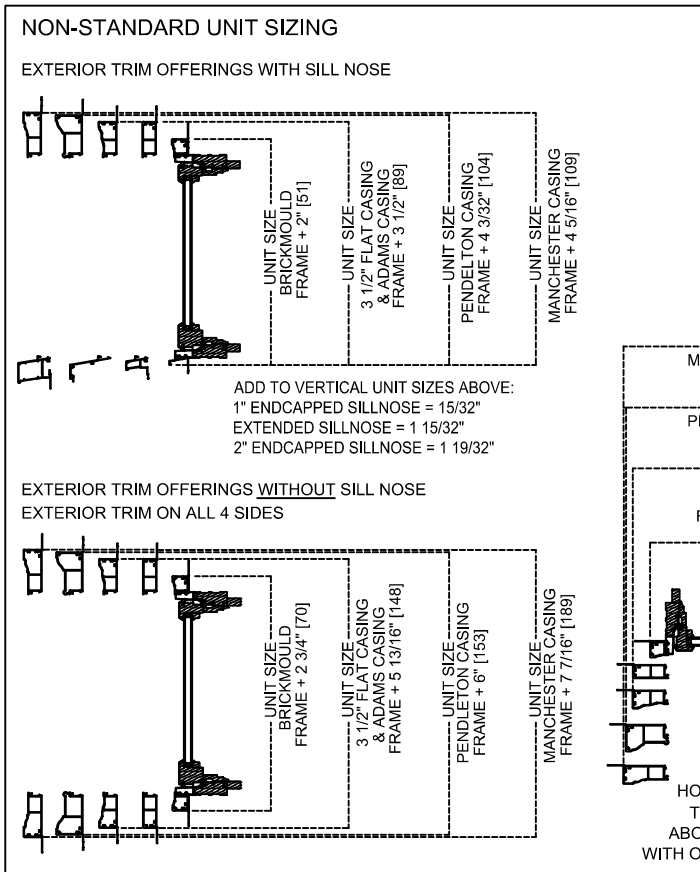
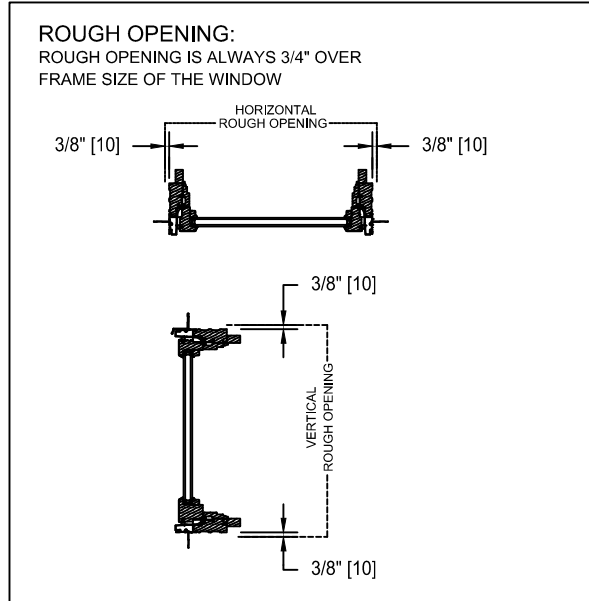
GENERAL NOTES:

UNITS WITH NO TRIM AND SILL NOSE:
UNIT SIZE = FRAME SIZE

UNIT SIZE IS ALWAYS THE
EXTREME SIZE OF THE WINDOW
WITH OR WITHOUT TRIM
(DRIP CAP & NAILING FLANGE ARE
NOT ADDED TO ANY UNIT SIZING)

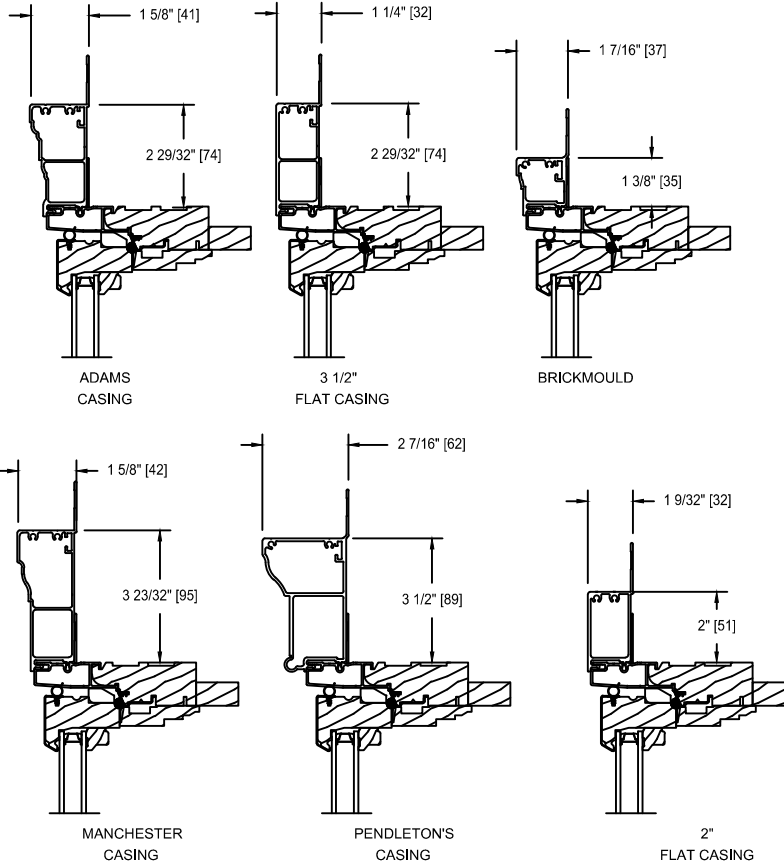
MASONRY OPENING:

MASONRY OPENING IS ALWAYS 1/2" OVER
THE UNIT SIZE OF THE WINDOW

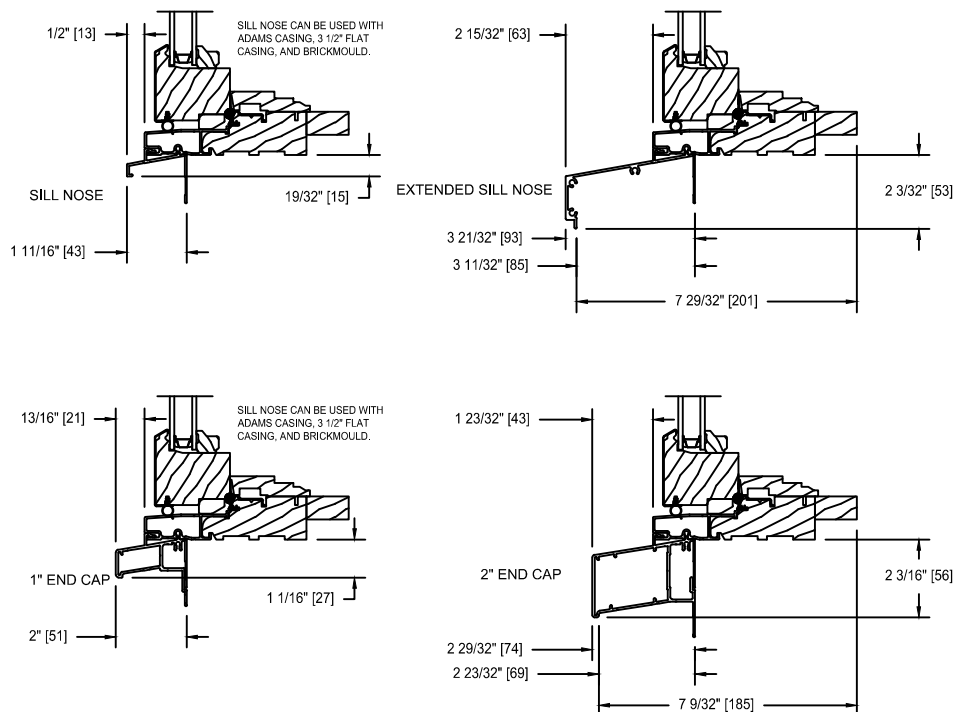


TRIM OPTIONS
CASEMENT

EXTERIOR TRIM

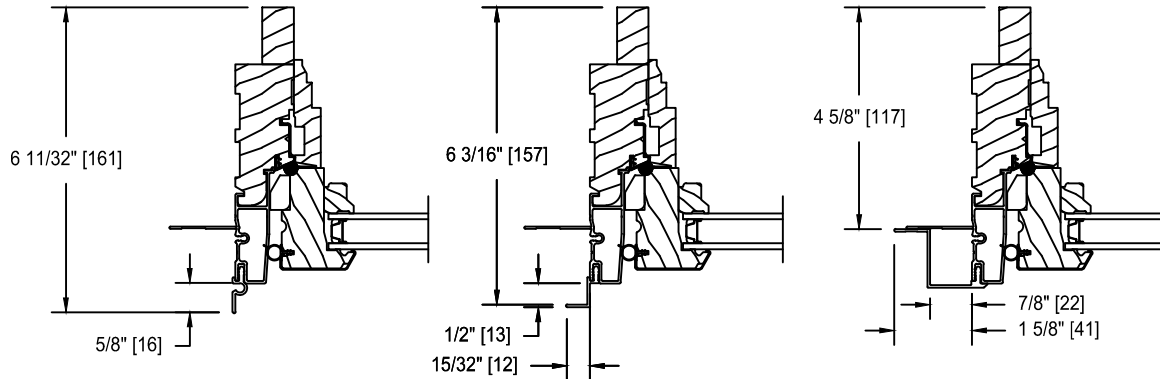


SILL NOSE OPTIONS

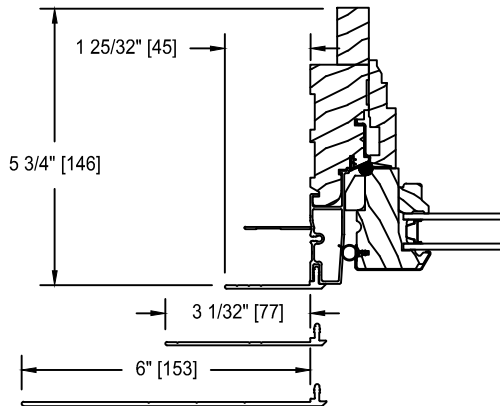


SPECIALTY EXTERIOR TRIM OPTIONS

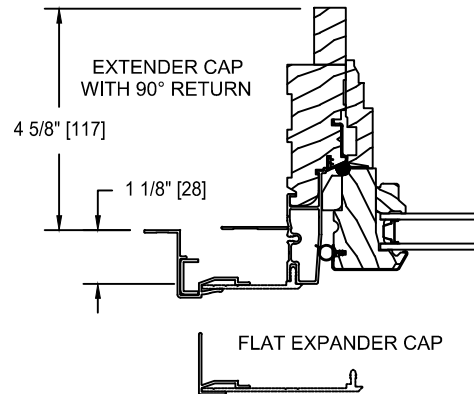
FRAME EXTENSIONS & RETURNS



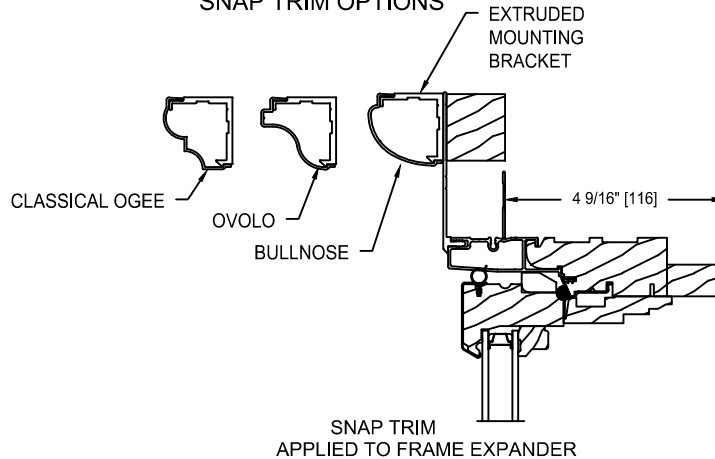
**FRAME EXPANDERS
STRAIGHTLINE ONLY**



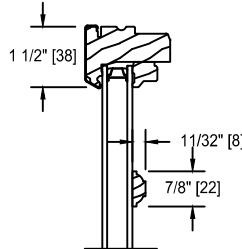
**FRAME EXPANDER CAPS
STRAIGHTLINE ONLY**



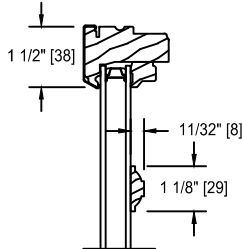
SNAP TRIM OPTIONS



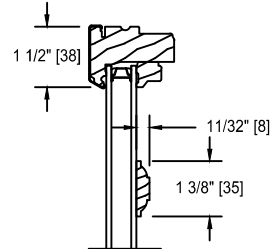
GLAZING OPTIONS
INSULATED GLASS



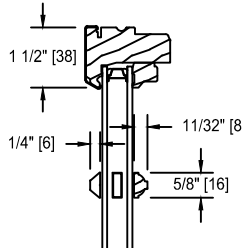
7/8" GRILLE BAR



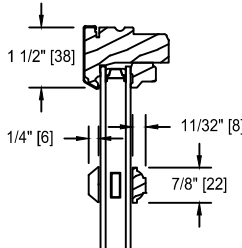
1 1/8" GRILLE BAR



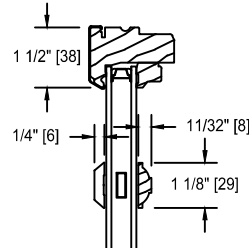
1 3/8" GRILLE BAR



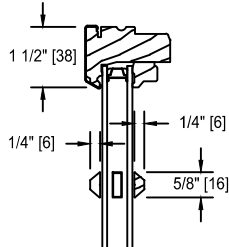
5/8" SDL BAR
(PUTTY/BEAD)



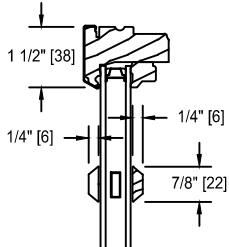
7/8" SDL BAR
(PUTTY/BEAD)



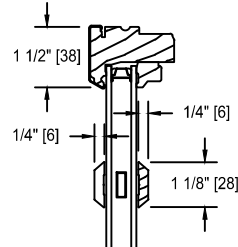
1 1/8" SDL BAR
(PUTTY/BEAD)



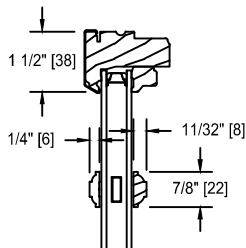
5/8" SDL BAR
(PUTTY/PUTTY)



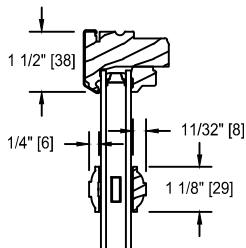
7/8" SDL BAR
(PUTTY/PUTTY)



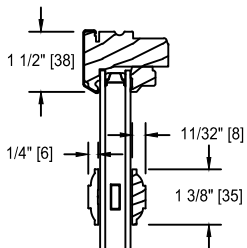
1 1/8" SDL BAR
(PUTTY/PUTTY)



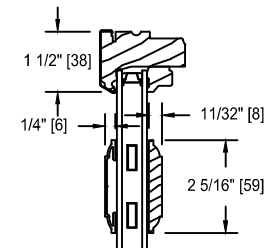
7/8" SDL BAR
(BEAD STOP)



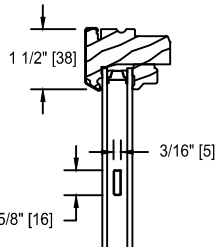
1 1/8" SDL BAR
(BEAD STOP)



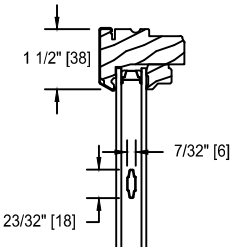
1 3/8" SDL BAR
(BEAD STOP)



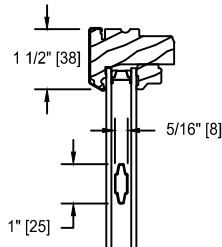
2 5/16" SDL BAR
(BEAD STOP)



5/8" FLAT
GBG

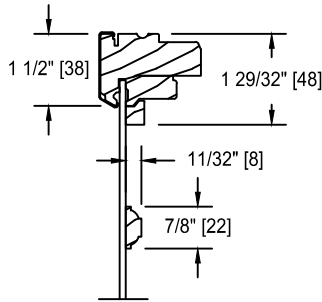


23/32" CONTOUR
GBG

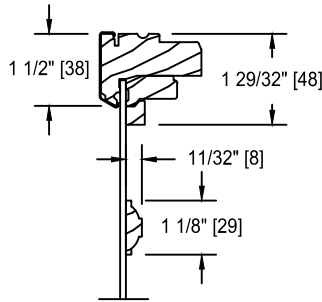


1" CONTOUR
GBG

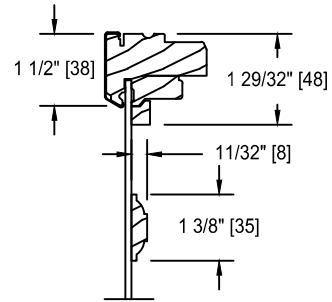
GLAZING OPTIONS
SINGLE GLAZED GLASS



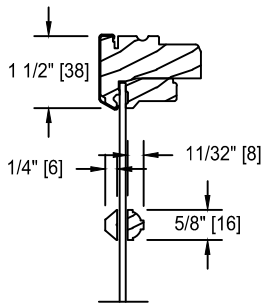
7/8" GRILLE BAR



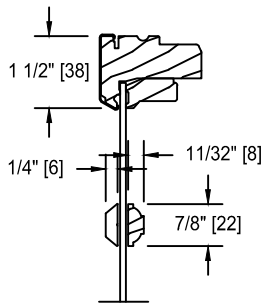
1 1/8" GRILLE BAR



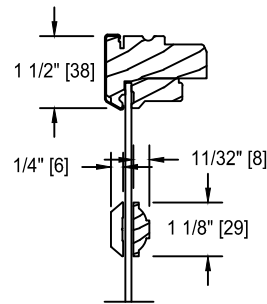
1 3/8" GRILLE BAR



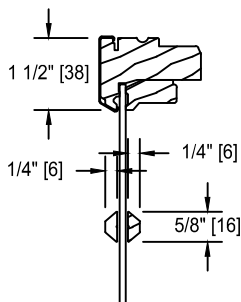
5/8" SDL
(PUTTY/BEAD)



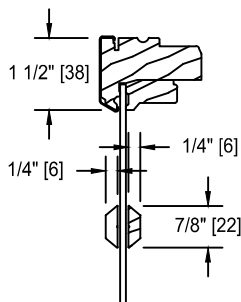
7/8" SDL
(PUTTY/BEAD)



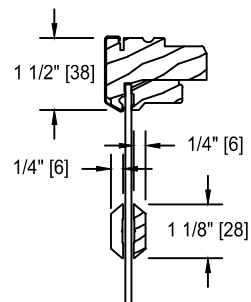
1 1/8" SDL
(PUTTY/BEAD)



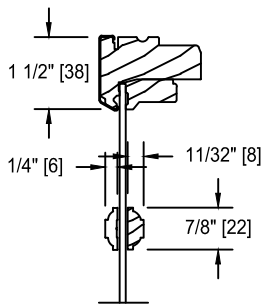
5/8" SDL
(PUTTY/PUTTY)



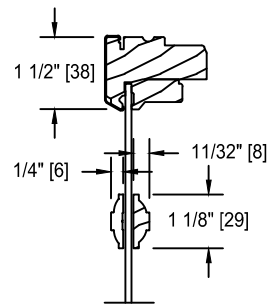
7/8" SDL
(PUTTY/PUTTY)



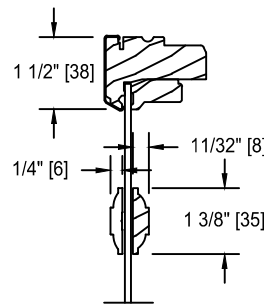
1 1/8" SDL
(PUTTY/PUTTY)



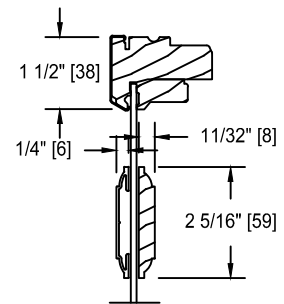
7/8" SDL
(BEAD STOP)



1 1/8" SDL
(BEAD STOP)

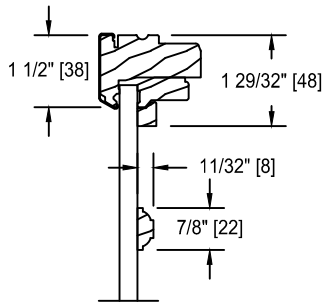


1 3/8" SDL
(BEAD STOP)

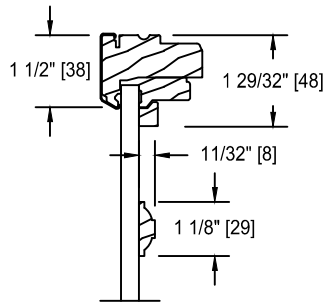


2 5/16" SDL BAR
(BEAD STOP)

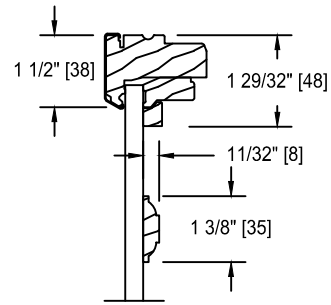
GLAZING OPTIONS
IMPACT RESISTANT GLASS



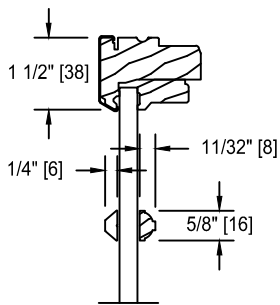
7/8" GRILLE BAR



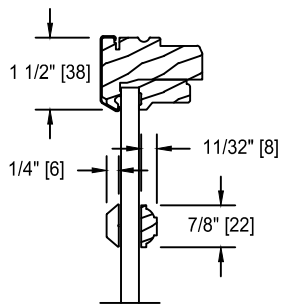
1 1/8" GRILLE BAR



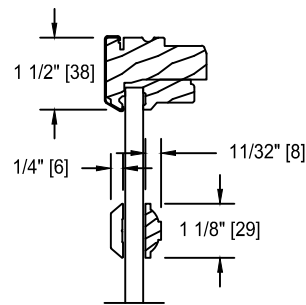
1 3/8" GRILLE BAR



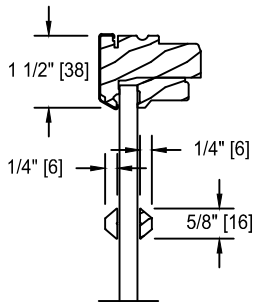
5/8" SDL
(PUTTY/BEAD)



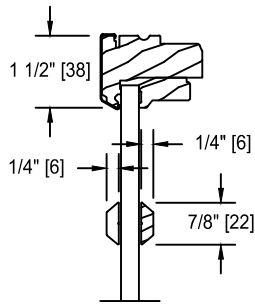
7/8" SDL
(PUTTY/BEAD)



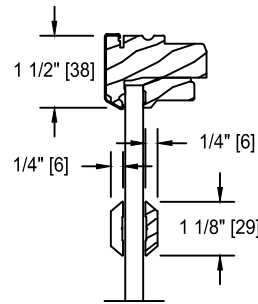
1 1/8" SDL
(PUTTY/BEAD)



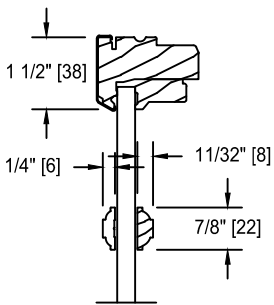
5/8" SDL
(PUTTY/PUTTY)



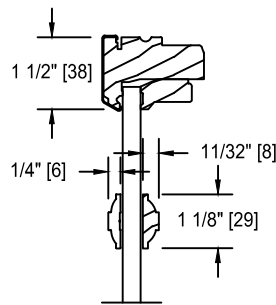
7/8" SDL
(PUTTY/PUTTY)



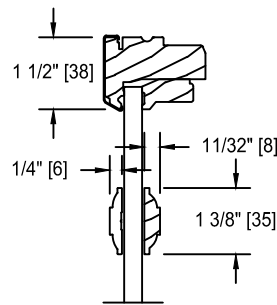
1 1/8" SDL
(PUTTY/PUTTY)



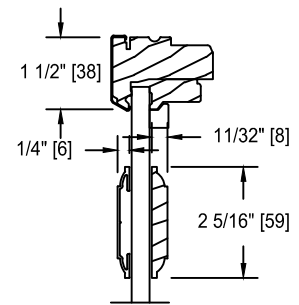
7/8" SDL
(BEAD STOP)



1 1/8" SDL
(BEAD STOP)



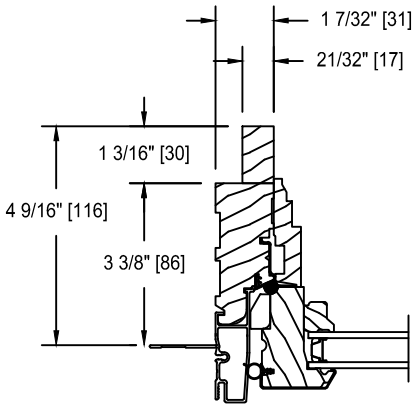
1 3/8" SDL
(BEAD STOP)



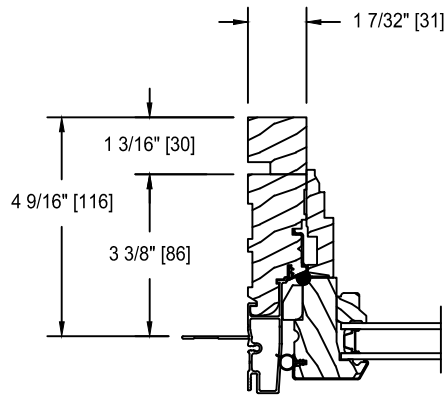
2 5/16" SDL BAR
(BEAD STOP)

JAMB EXTENDER OPTIONS

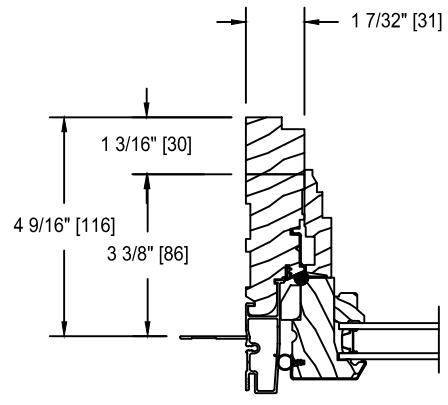
4 9/16" WALL



STANDARD 4/4
JAMB EXTENDER

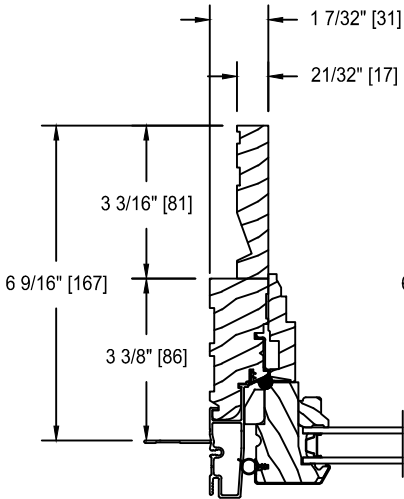


STANDARD 5/4
JAMB EXTENDER

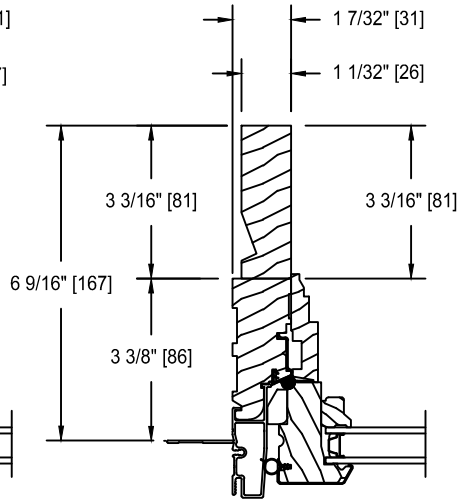


5/4 to 4/4 REVEAL
JAMB EXTENDER

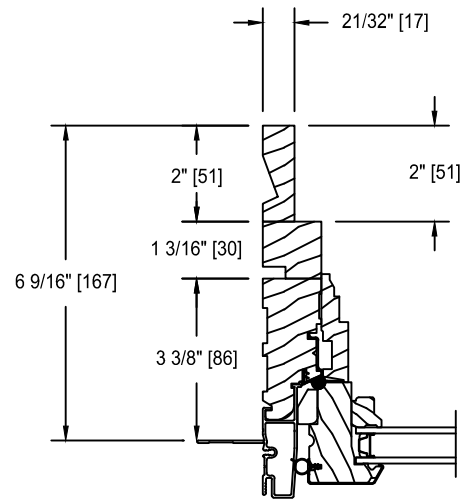
6 9/16" WALL



STANDARD 4/4
JAMB EXTENDER

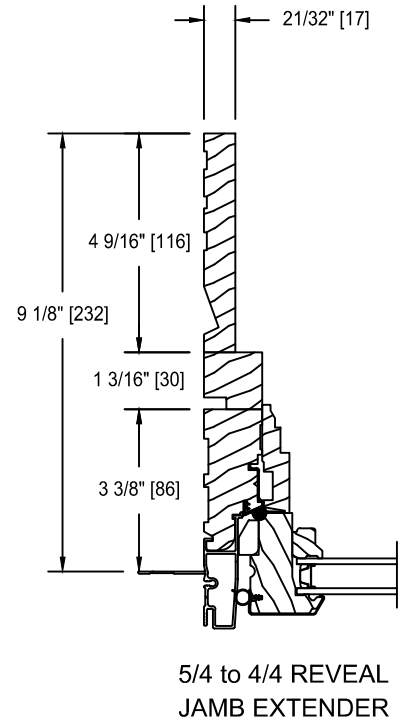
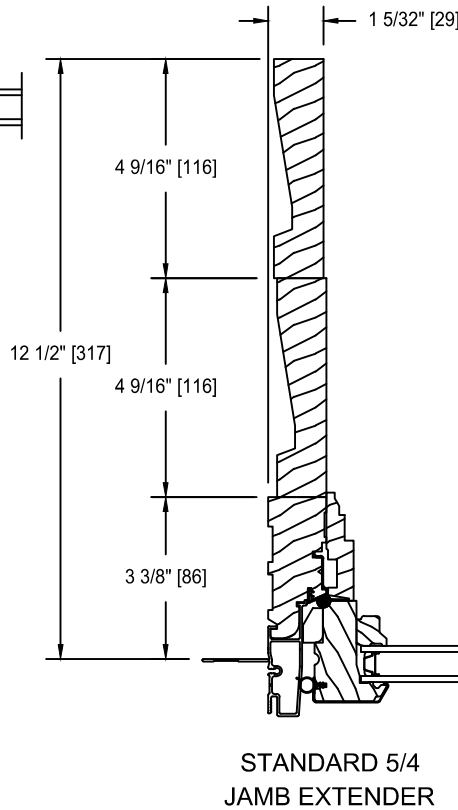
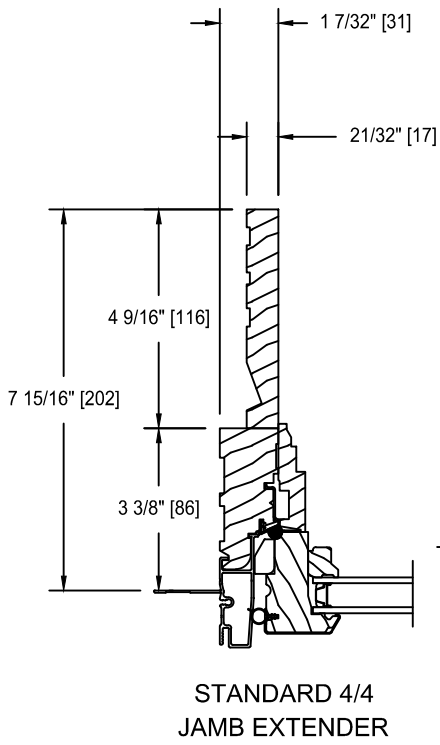


STANDARD 5/4
JAMB EXTENDER

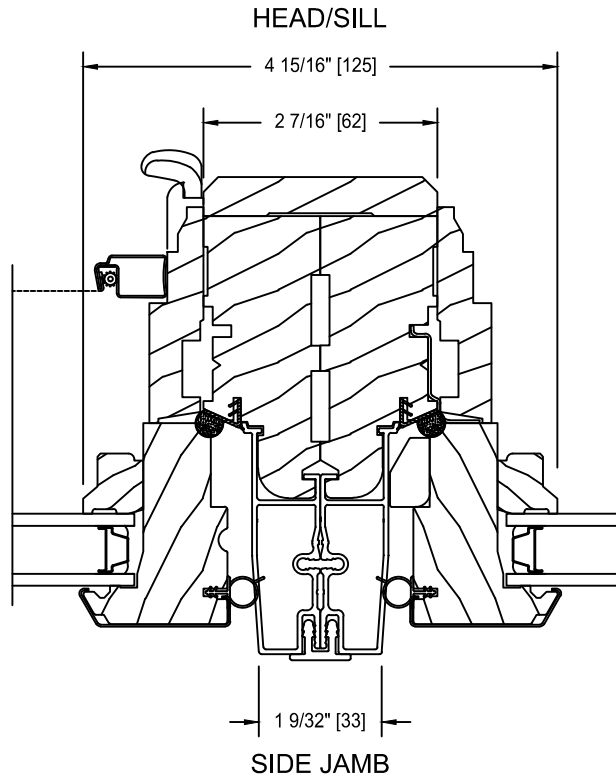
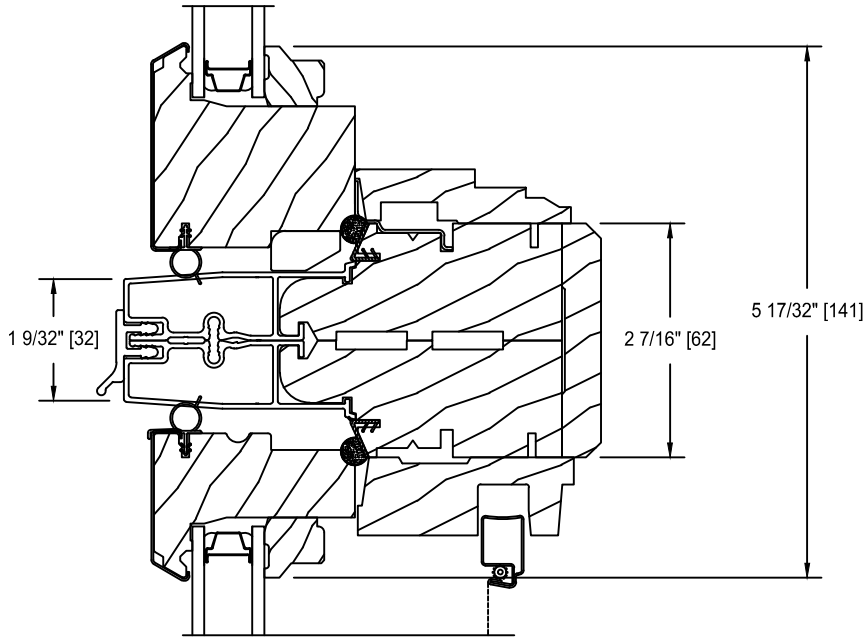


5/4 to 4/4 REVEAL
JAMB EXTENDER

MAXIMUM JAMB WIDTHS

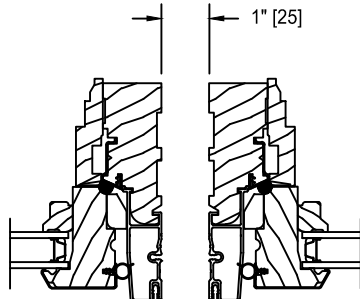


MULLION OPTIONS
STANDARD



MULLION OPTIONS
SPECIALTY

EXTERIOR SPREAD MULLIONS &
STUD POCKET COVERS



1" MULLION COVER



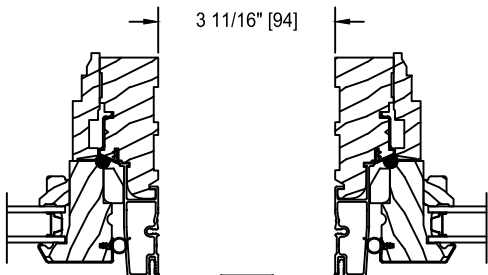
2" MULLION COVER



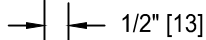
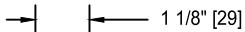
3 1/2" MULLION COVER



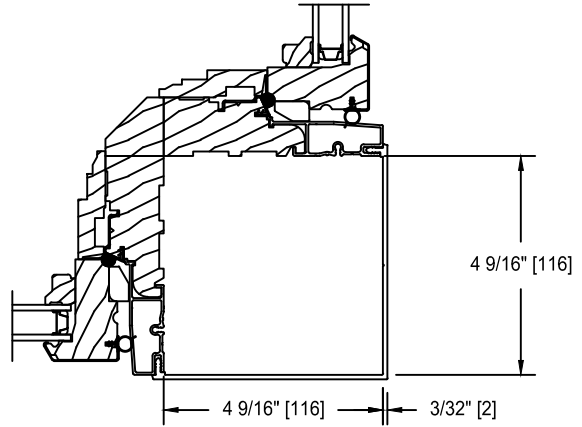
6" MULLION COVER



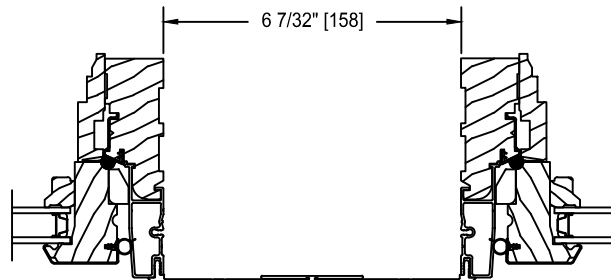
NARROW MULLION EXPANDER



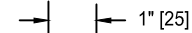
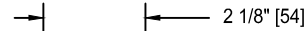
90° CORNER MULLION



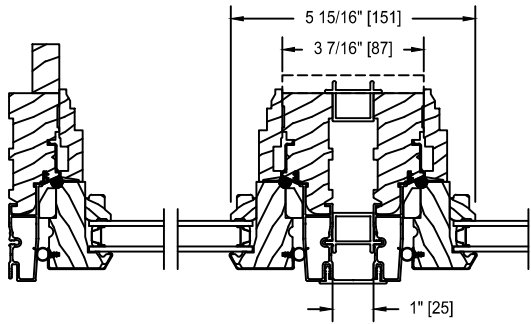
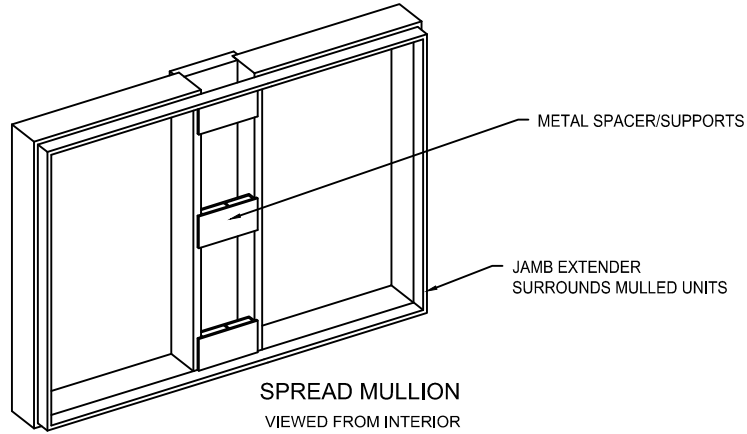
MULLION EXPANDERS



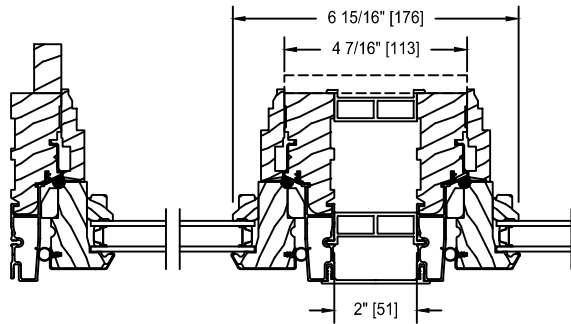
WIDE MULLION EXPANDER



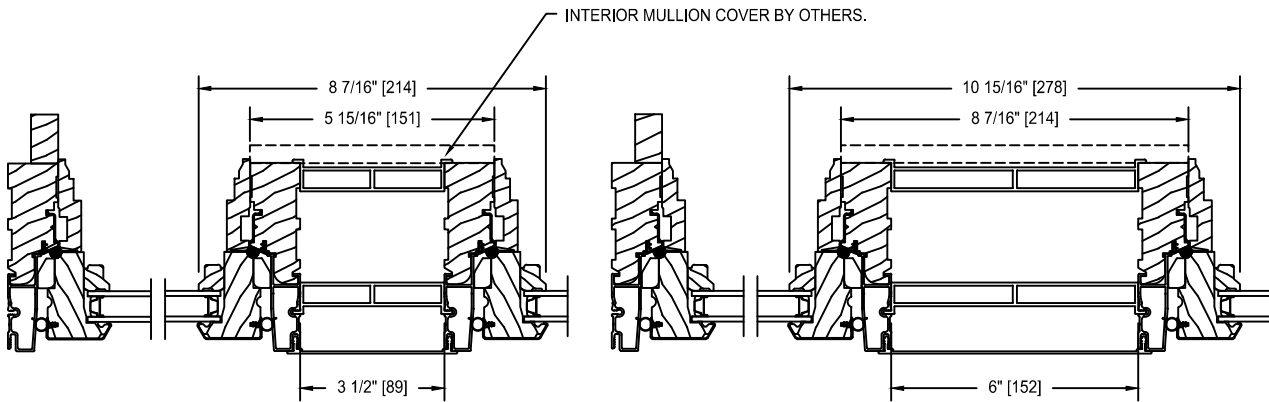
**SPECIALTY MULLION OPTIONS
SPREAD MULLION DETAILS
CLAD CASEMENT**



1" SPREAD MULLION



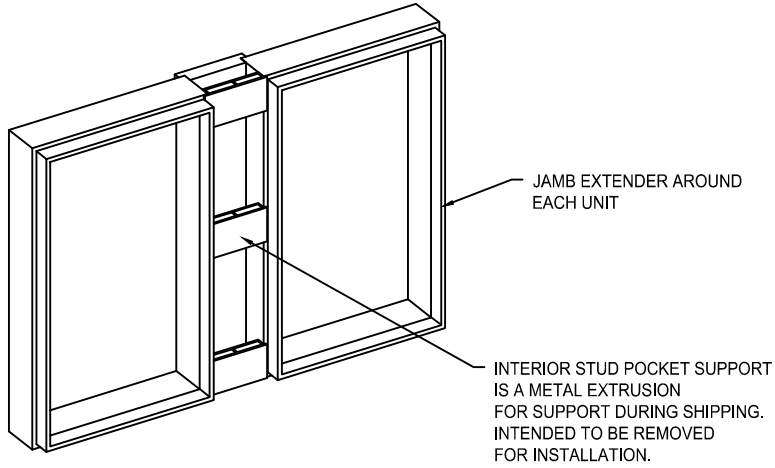
2" SPREAD MULLION



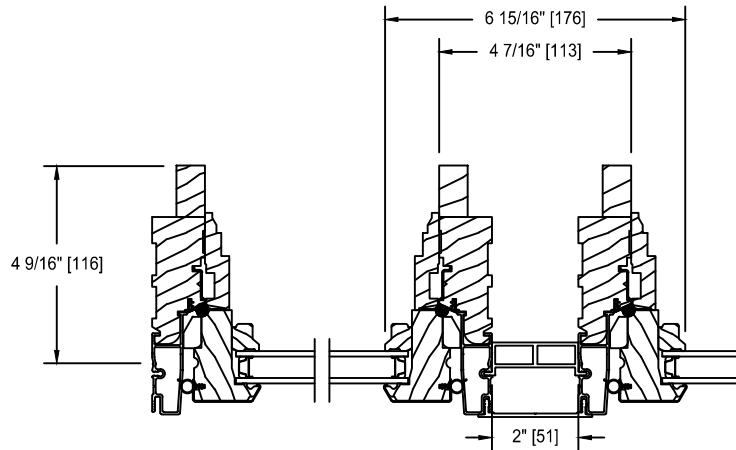
3 1/2" SPREAD MULLION

6" SPREAD MULLION

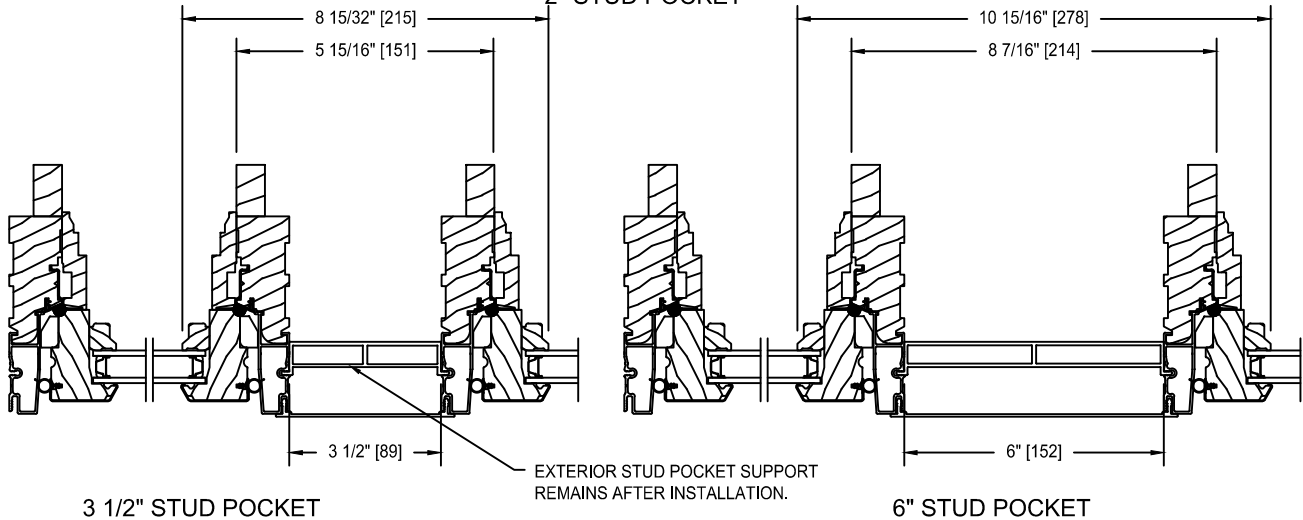
**SPECIALTY MULLION OPTIONS
STUD POCKET DETAILS
CLAD CASEMENT**



**STUD POCKET MULLION
VIEWED FROM INTERIOR**

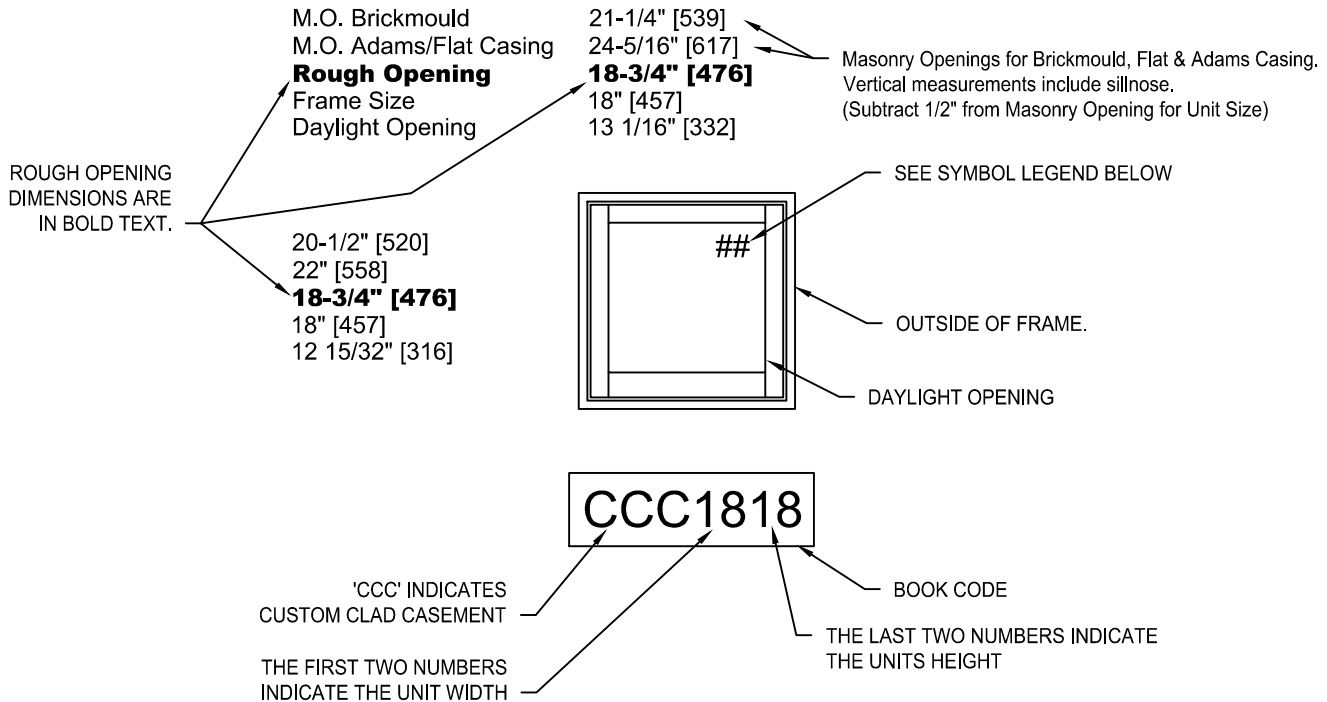


2" STUD POCKET



ELEVATION NOTES
CASEMENT

ELEVATION DRAWINGS UTILIZE A LIMITED NUMBER OF PROJECTED LINES TO PRODUCE A RUDIMENTARY DRAWING INTENDED TO BE USED IN A SMALL GRAPHICAL SCALE. ELEVATIONS ARE VIEWED PERPENDICULAR FROM THE EXTERIOR OF THE STRUCTURE. IF MORE DIMENSIONS ARE NEEDED, USE THE SECTION DRAWINGS FOR MORE COMPLETE DEPICTIONS.



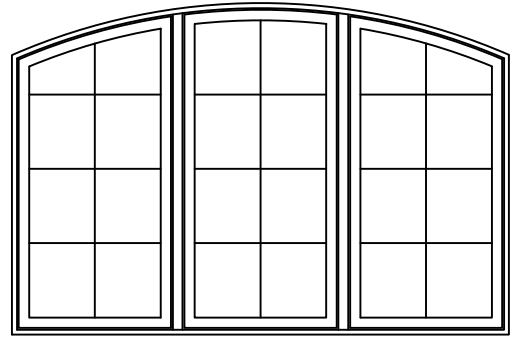
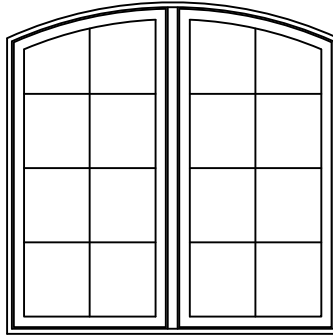
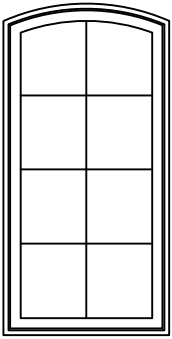
GENERAL CASEMENT NOTES

1. CUSTOM CLAD CASEMENT (CCC) UNITS ARE AVAILABLE AS OPERATING OR FIXED UNITS.
2. 'CCCP' IN A BOOK CODE DENOTES THE UNIT IS A CLAD CASEMENT PICTURE (FIXED) UNIT.
3. UNIT ELEVATIONS ARE SHOWN WITHOUT EXTERIOR TRIM. UNIT SIZES & MASONRY OPENING DIMENSIONS WILL CHANGE WITH THE ADDITION OF EXTERIOR TRIM. SEE THE 'UNIT SIZING, ROUGH OPENINGS & MASONRY OPENINGS' PAGE FOR EXTERIOR TRIM EFFECTS.
4. OPERATING UNITS ARE AVAILABLE AS LEFT OR RIGHT HAND OPERATION.
5. DIMENSIONAL VALUES IN BRACKETS ARE MILLIMETER CONVERSIONS.

ELEVATION SYMBOL LEGEND:

- E** BASIC UNIT CLEAR OPENING EXCEEDS 20" IN WIDTH, 24" IN HEIGHT & A MINIMUM OF 5.7 SQ. FT.
- E*** BASIC UNIT CLEAR OPENING REQUIRES EGRESS HINGES TO EXCEED 20" IN WIDTH, 24" IN HEIGHT & A MINIMUM OF 5.7 SQ. FT.
- E1** BASIC UNIT CLEAR OPENING EXCEEDS 20" IN WIDTH, 24" IN HEIGHT & A MINIMUM OF 5.0 SQ. FT.
- S** STATIONARY UNIT.
- ##** NUMBER INDICATES DESIGN PRESSURE (DP) RATING WITH STANDARD GLAZING. OPERATING UNITS UTILIZE THE R65 LOCKING SYSTEM FOR DP RATINGS.

GENERAL INFORMATION
SECTOR TOP CASEMENT



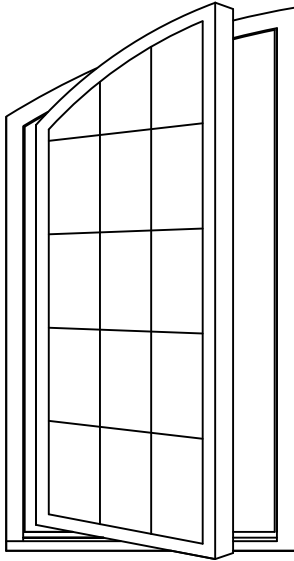
Custom sector clad casements are constructed the same as Custom clad casements, roll formed cladding on wood sash.

Custom sector clad casement windows are available with left or right hand operation (hinged on the springline), or stationary (non-venting). Operating mechanism includes stainless steel, corrosion resistant, butt hinges and single arm roto-type operator with hardened steel gears and operating arm. Sash locks are concealed unison type with an exposed locking lever and escutcheon plate. There are several interior hardware finish options. Refer to the Specifications for finish options.

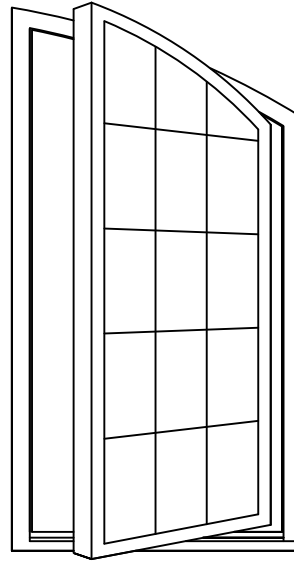
Note: Bookcoded sector top units have roll form sash.

CUSTOM CLAD SECTOR TOP CASEMENTS utilize some of the same options as CUSTOM CLAD CASEMENTS. Those options have not been repeated here in this sub-section.

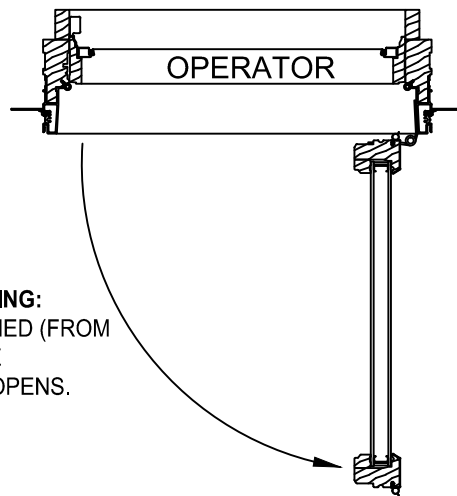
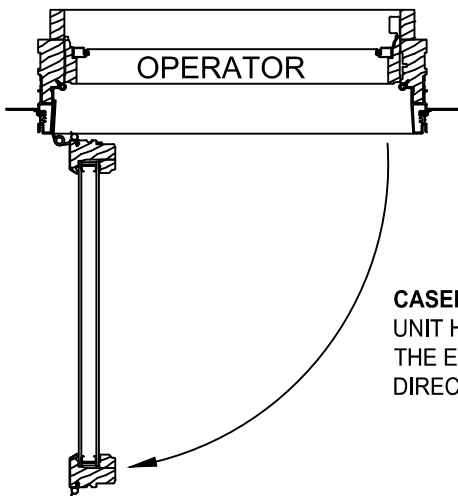
HANDLING & OPERATION
SECTOR TOP CASEMENT



**LEFT
HAND**



**RIGHT
HAND**



CASEMENT UNIT HANDING:
UNIT HANDING IS DEFINED (FROM
THE EXTERIOR) AS THE
DIRECTION THE SASH OPENS.

UNIT HANDING INFORMATION

OPERATING SINGLE SECTOR UNITS - MAY BE HANDED 'LEFT' OR 'RIGHT'.

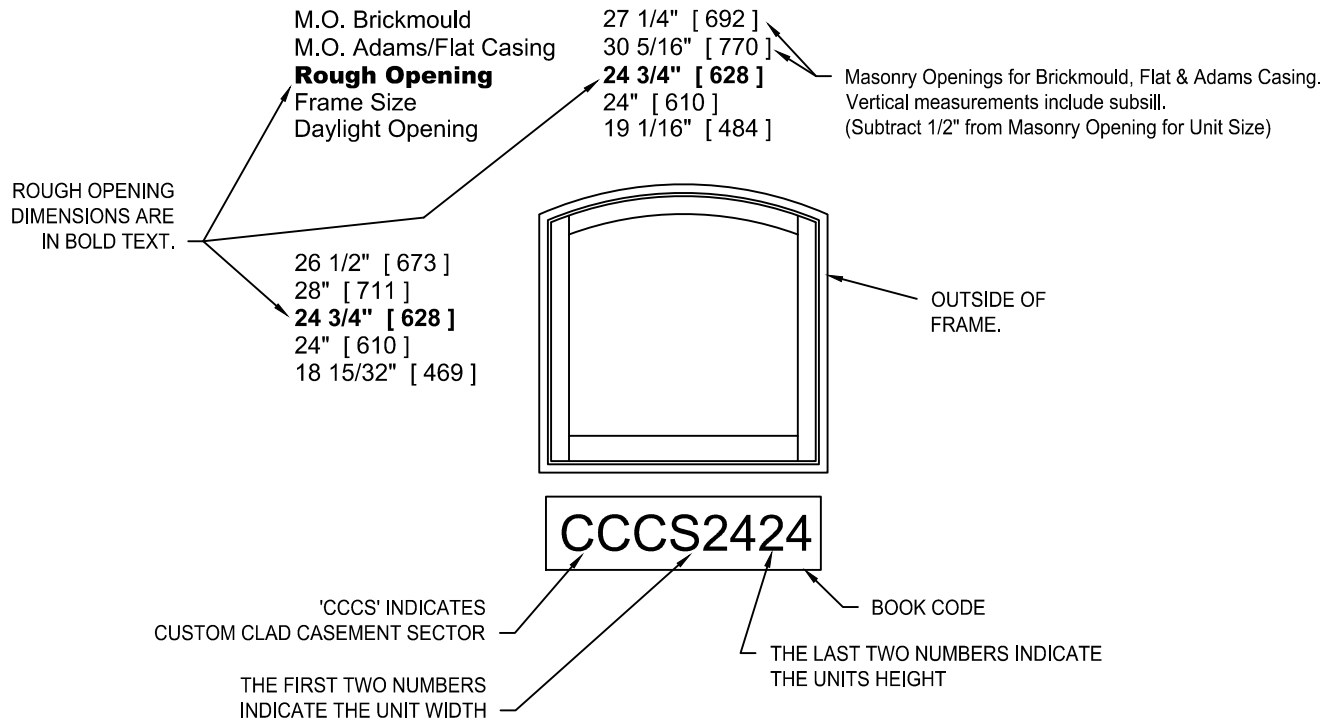
OPERATING TWIN SECTOR UNITS - THESE UNITS ARE HINGED ON THE SPRINGLINE SIDE. THE 'LEFT' SASH HAS 'LEFT' HAND OPERATION AND THE 'RIGHT' SASH HAS 'RIGHT' HAND OPERATION ONLY.

OPERATING TRIPLE SECTOR UNITS - ONLY THE FLANKING UNITS MAY BE OPERATORS WHICH ARE HINGED ON THE SPRINGLINE SIDE. THE TWO OPERATING SASH ARE HANDED THE SAME AS THE TWIN SECTOR.

NOTE: BOOKCODED SECTOR TOP UNITS HAVE ROLL FORM SASH.

ELEVATION NOTES
SECTOR TOP CASEMENT

ELEVATION DRAWINGS UTILIZE A LIMITED NUMBER OF PROJECTED LINES TO PRODUCE A RUDIMENTARY DRAWING INTENDED TO BE USED IN A SMALL GRAPHICAL SCALE. ELEVATIONS ARE VIEWED PERPENDICULAR FROM THE EXTERIOR OF THE STRUCTURE. IF MORE DIMENSIONS ARE NEEDED, USE THE SECTION DRAWINGS FOR MORE COMPLETE DEPICTIONS.



GENERAL RADIUS CASEMENT NOTES

1. CUSTOM CLAD CASEMENT SECTOR TOP (CCCS) UNITS ARE AVAILABLE AS OPERATING OR FIXED UNITS.
1. UNIT ELEVATIONS ARE SHOWN WITHOUT EXTERIOR TRIM.
2. DIMENSIONAL VALUES IN BRACKETS ARE MILLIMETER CONVERSIONS.
3. ALL SECTOR UNITS ARE AVAILABLE AS OPERATING UNITS.
4. BOOKCODED SECTOR TOP UNITS HAVE ROLL FORM SASH.

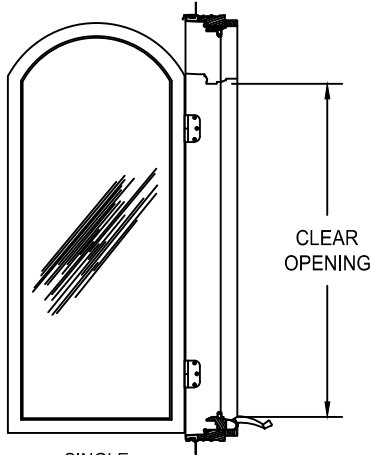
ELEVATION SYMBOL LEGEND:

- E** BASIC UNIT CLEAR OPENING EXCEEDS 20" IN WIDTH, 24" IN HEIGHT & A MINIMUM OF 5.7 SQ. FT.
- E1** BASIC UNIT CLEAR OPENING EXCEEDS 20" IN WIDTH, 24" IN HEIGHT & A MINIMUM OF 5.0 SQ. FT.
- S** STATIONARY UNIT.
- ##** NUMBER INDICATES DESIGN PRESSURE (DP) RATING WITH STANDARD GLAZING. OPERATING UNITS UTILIZE THE R65 LOCKING SYSTEM FOR DP RATINGS.

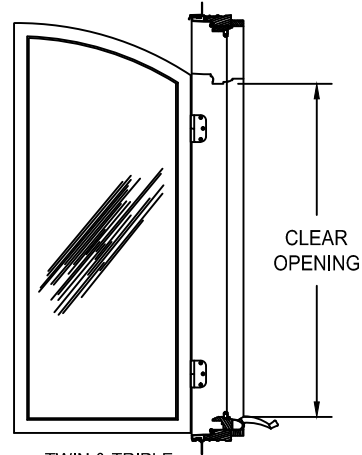
SECTOR TOP CASEMENT
CLEAR OPENING INFORMATION

CLEAR OPENINGS

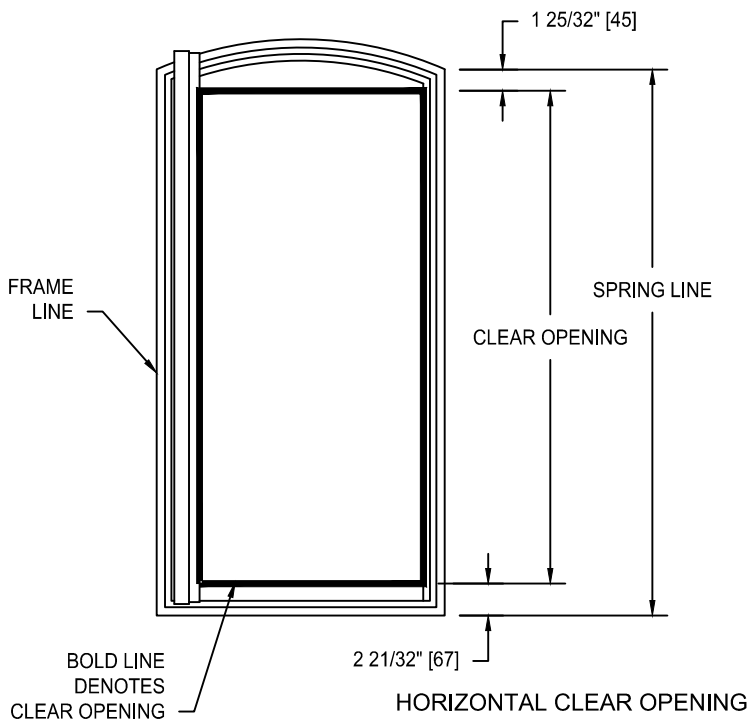
THE CLEAR OPENINGS SHOWN ABOVE ILLUSTRATE THE VERTICAL CLEAR OPENING TO THE INTERIOR SPRINGLINE OF FRAME FEATURES.



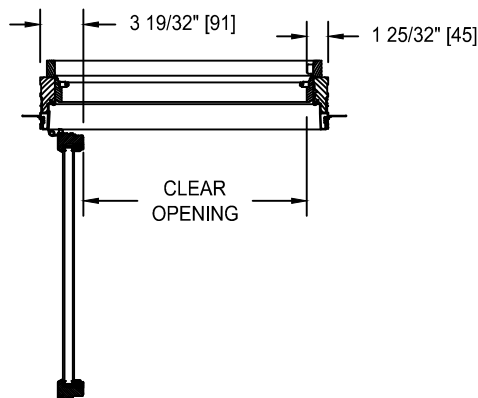
SINGLE
SECTOR



TWIN & TRIPLE
HANDED SECTOR



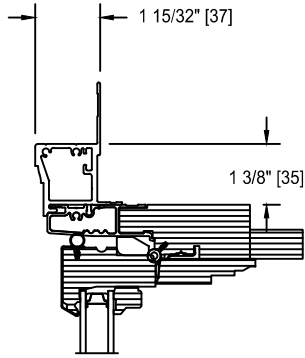
HORIZONTAL CLEAR OPENING



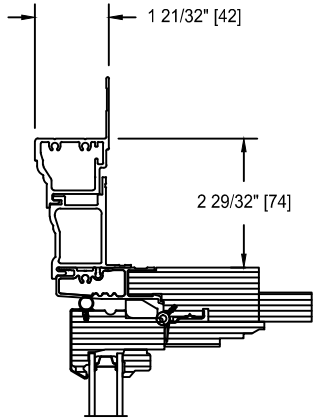
TRIM OPTIONS
SECTOR TOP RADIUS

TRIM OPTIONS NOTE:
JAMB EXTENDERS & SILL OPTIONS ARE
CONSISTENT WITH CUSTOM CLAD CASEMENT
(STRAIGHTLINE).

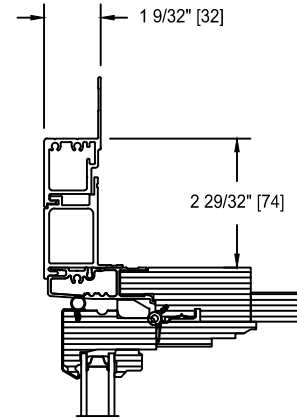
EXTERIOR TRIM



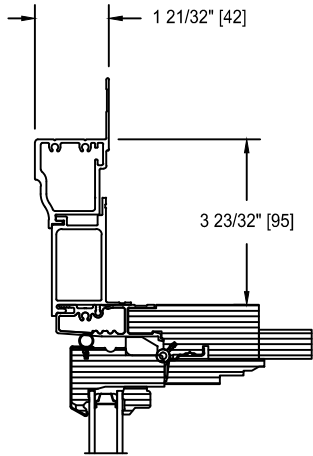
BRICKMOULD



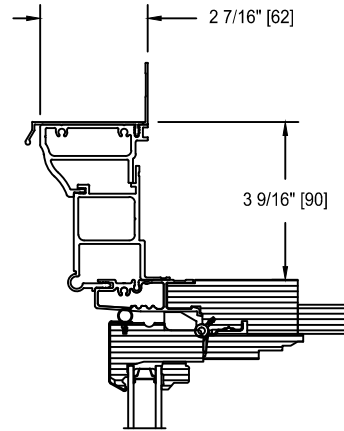
ADAMS
CASING



3 1/2"
FLAT CASING

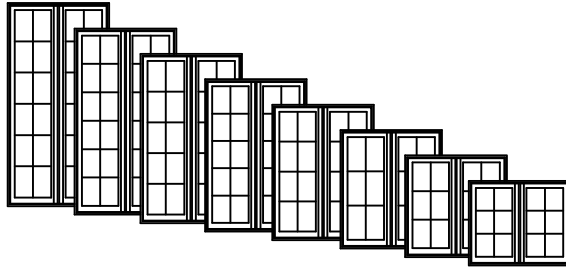


MANCHESTER
CASING

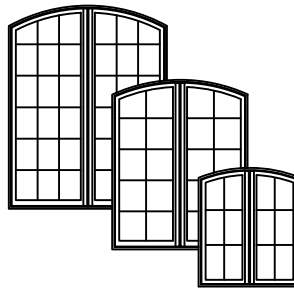


PENDLETON'S
CASING

GENERAL NOTES
FRENCH CASEMENT



Straightline windows



Open bottom sector top windows

Custom french clad casement windows are available as left sash active operation only, or stationary (non-venting). Operating mechanism includes corrosion resistant steel hinges and dual arm roto-type operators with hardened steel gears and operating arms. Sash locking system is a concealed cam and keeper type with an exposed locking lever at the sill operator cover. Refer to the Specifications for hardware finish options.

CUSTOM CLAD FRENCH CASEMENTS utilize some of the same options as CUSTOM CLAD CASEMENTS & CUSTOM CLAD SECTOR TOP CASEMENTS. Those options have not been repeated here in this sub-section.

See the CUSTOM CLAD CASEMENT section for:

Unit Sizing

Straightline Trim Options

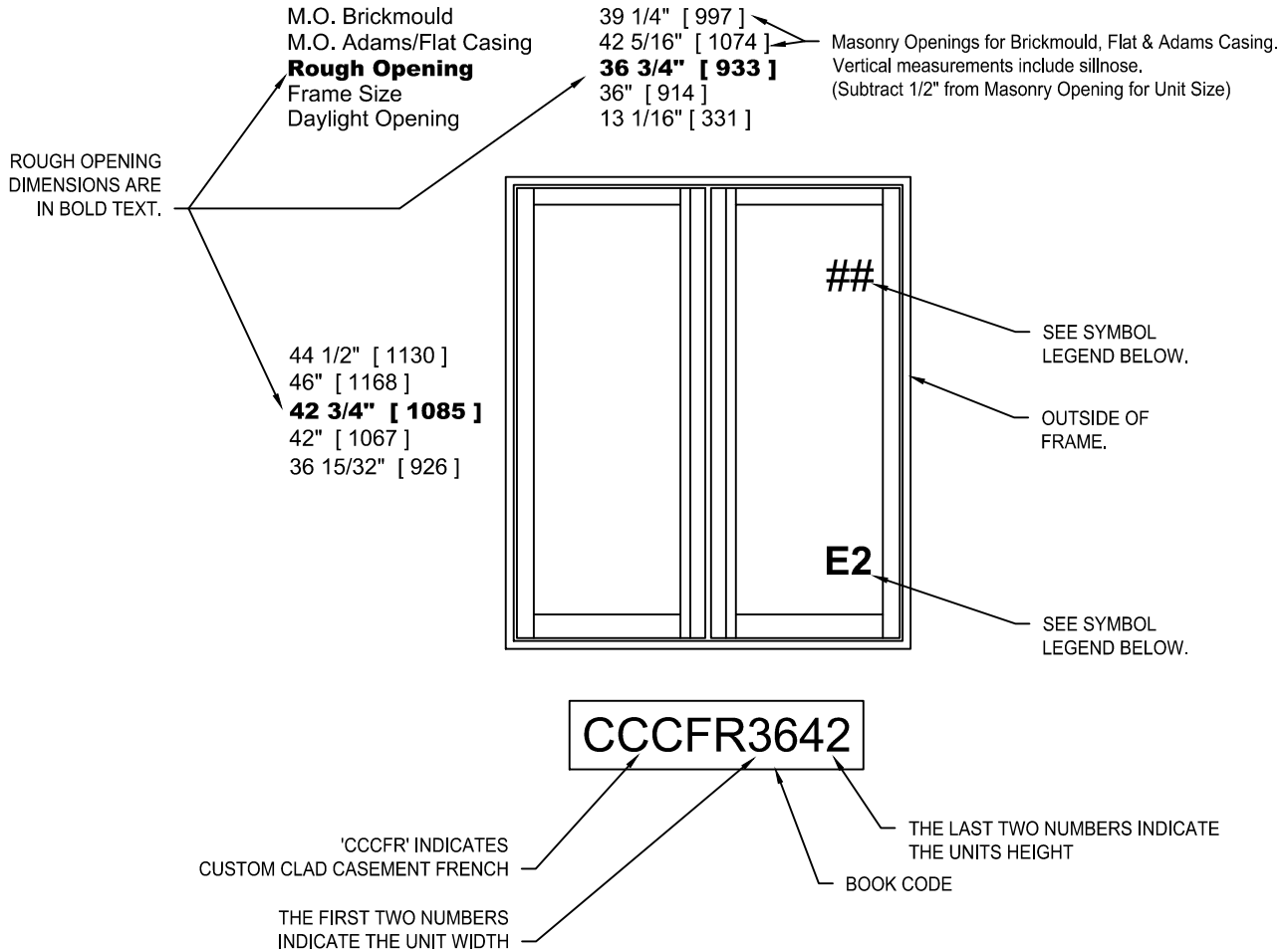
Jamb Extender Options

See the CUSTOM CLAD SECTOR TOP CASEMENT section for:

Radius Trim Options

ELEVATION NOTES
FRENCH CASEMENT

ELEVATION DRAWINGS UTILIZE A LIMITED NUMBER OF PROJECTED LINES TO PRODUCE A RUDIMENTARY DRAWING INTENDED TO BE USED IN A SMALL GRAPHICAL SCALE. ELEVATIONS ARE VIEWED PERPENDICULAR FROM THE EXTERIOR OF THE STRUCTURE. IF MORE DIMENSIONS ARE NEEDED, USE THE SECTION DRAWINGS FOR MORE COMPLETE DEPICTIONS.



GENERAL CASEMENT NOTES

1. UNIT ELEVATIONS ARE SHOWN WITHOUT EXTERIOR TRIM.
2. DIMENSIONAL VALUES IN BRACKETS ARE MILLIMETER CONVERSIONS.

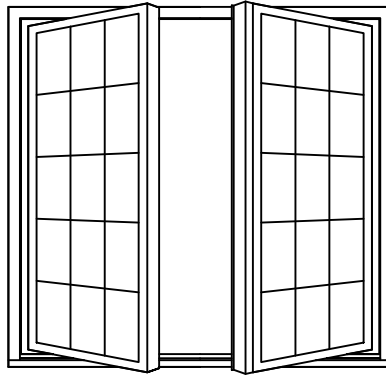
ELEVATION SYMBOL LEGEND:

- E1** BASIC UNIT CLEAR OPENING EXCEEDS 20" IN WIDTH, 24" IN HEIGHT & A MINIMUM OF 5.7 SQ. FT.
- E2** THESE UNITS REQUIRE BOTH SASH TO BE OPENED FOR THE CLEAR OPENING TO EXCEED 20" IN WIDTH, 24" IN HEIGHT & A MINIMUM OF 5.7 SQ. FT.
- (S)** THESE UNITS ARE ONLY AVAILABLE AS STATIONARY (FIXED) UNITS.
- ##** NUMBER INDICATES DESIGN PRESSURE (DP) RATING WITH STANDARD GLAZING.

HANDLING & OPERATION
FRENCH CASEMENT

ILLUSTRATIONS ARE NOT DRAWN TO SCALE

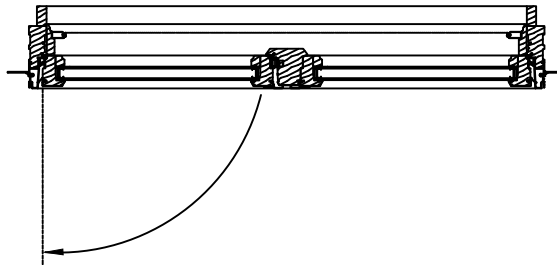
FRENCH CASEMENT HANDING:
FRENCH CASEMENT WINDOWS ARE HANDED WITH THE LEFT SASH AS THE ACTIVE SASH AND THE RIGHT SASH AS THE INACTIVE SASH.



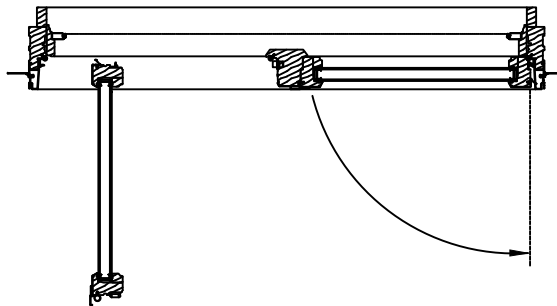
LEFT
ACTIVE

RIGHT
INACTIVE

FRENCH CASEMENT OPERATION:
FRENCH CASEMENT WINDOWS ARE OPERATED WITH THE LEFT SASH OPENED FIRST THEN THE RIGHT SASH OPENED SECOND. TO CLOSE THE WINDOW THE RIGHT SASH IS CLOSED FIRST WITH THE LEFT SASH CLOSING SECOND. THIS OPERATION IS VIEWED FROM THE EXTERIOR.

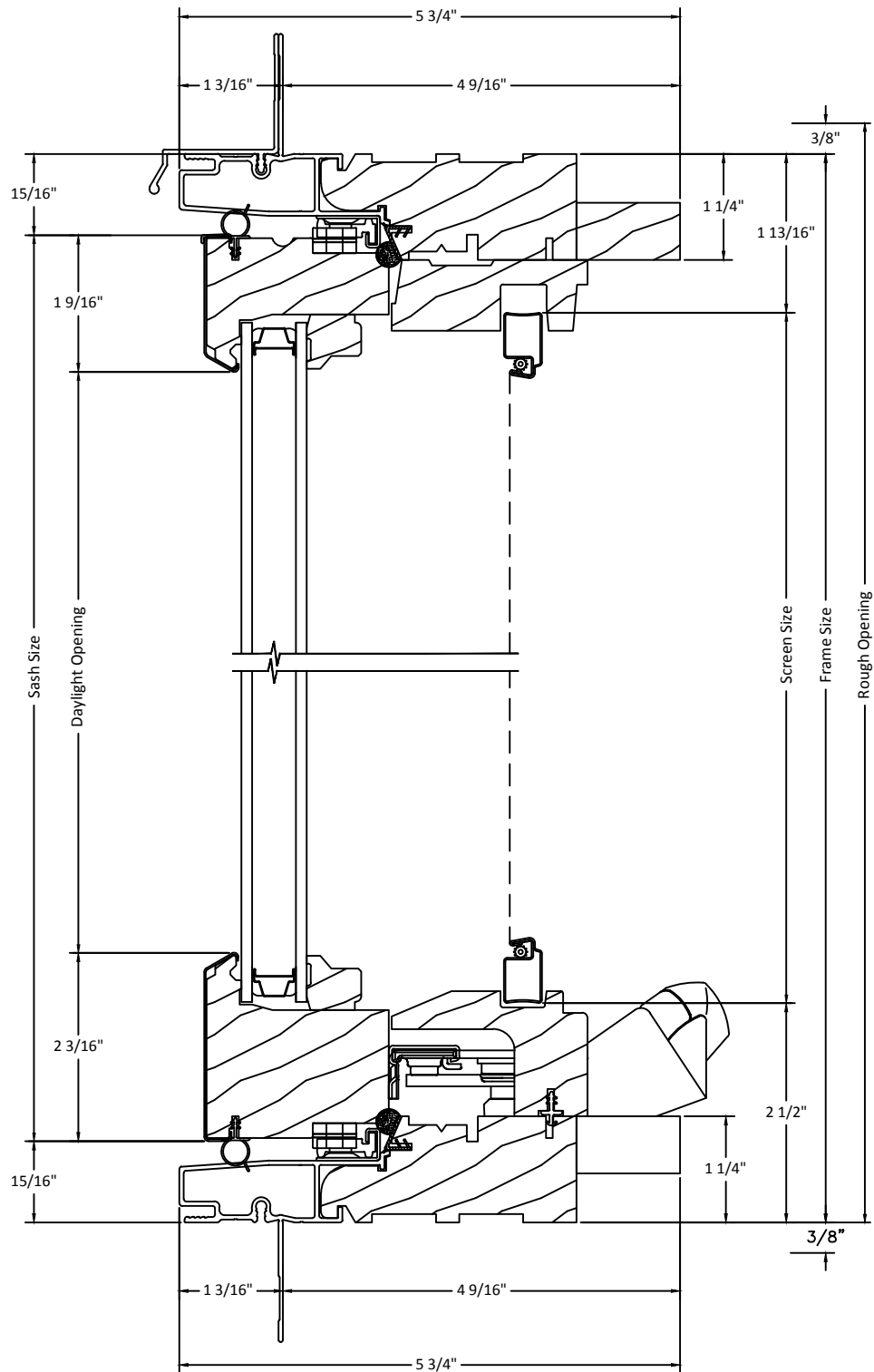


OPENS FIRST
CLOSES SECOND

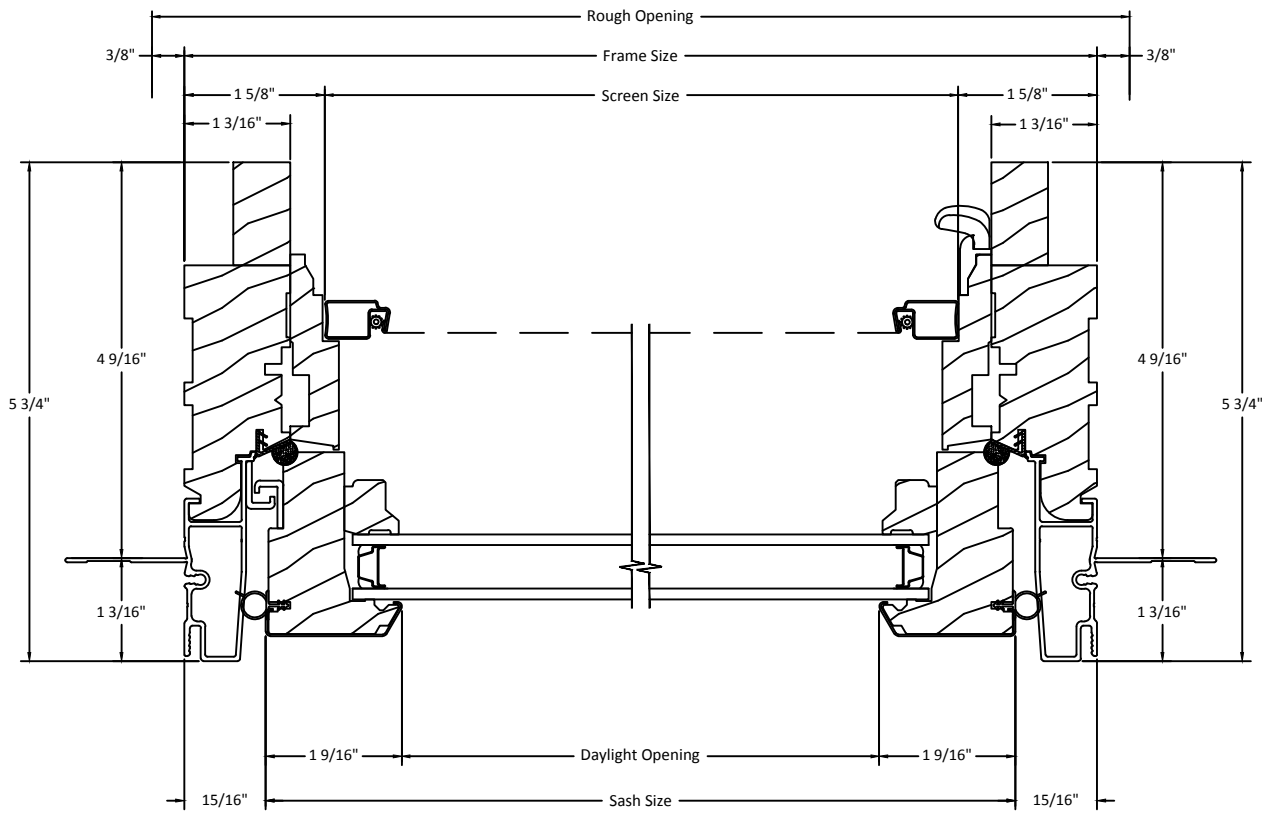


OPENS SECOND
CLOSES FIRST

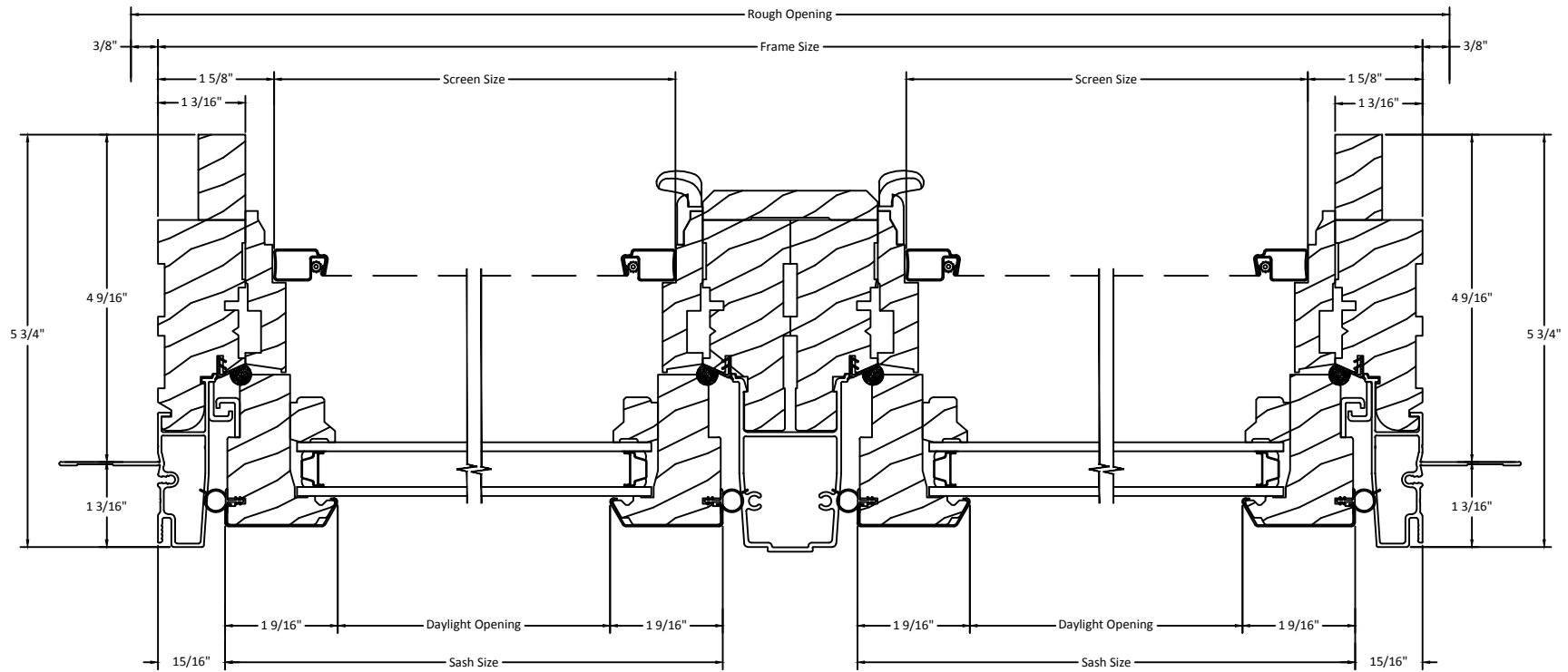
**VERTICAL SECTION
OPERATING UNIT**



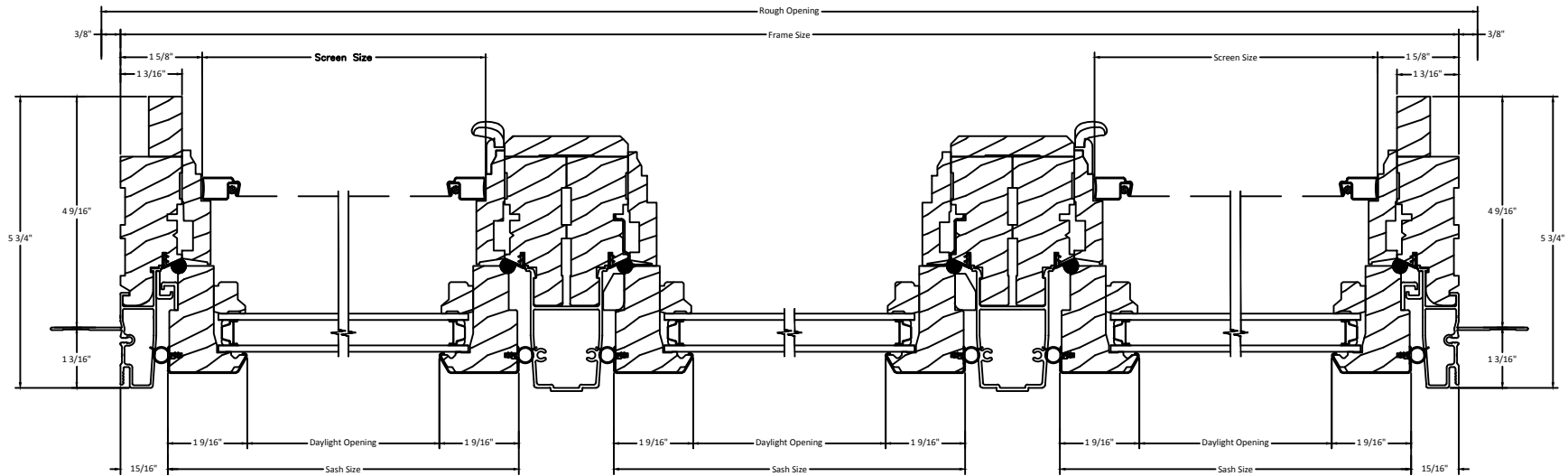
**HORIZONTAL SECTION
OPERATING UNIT**



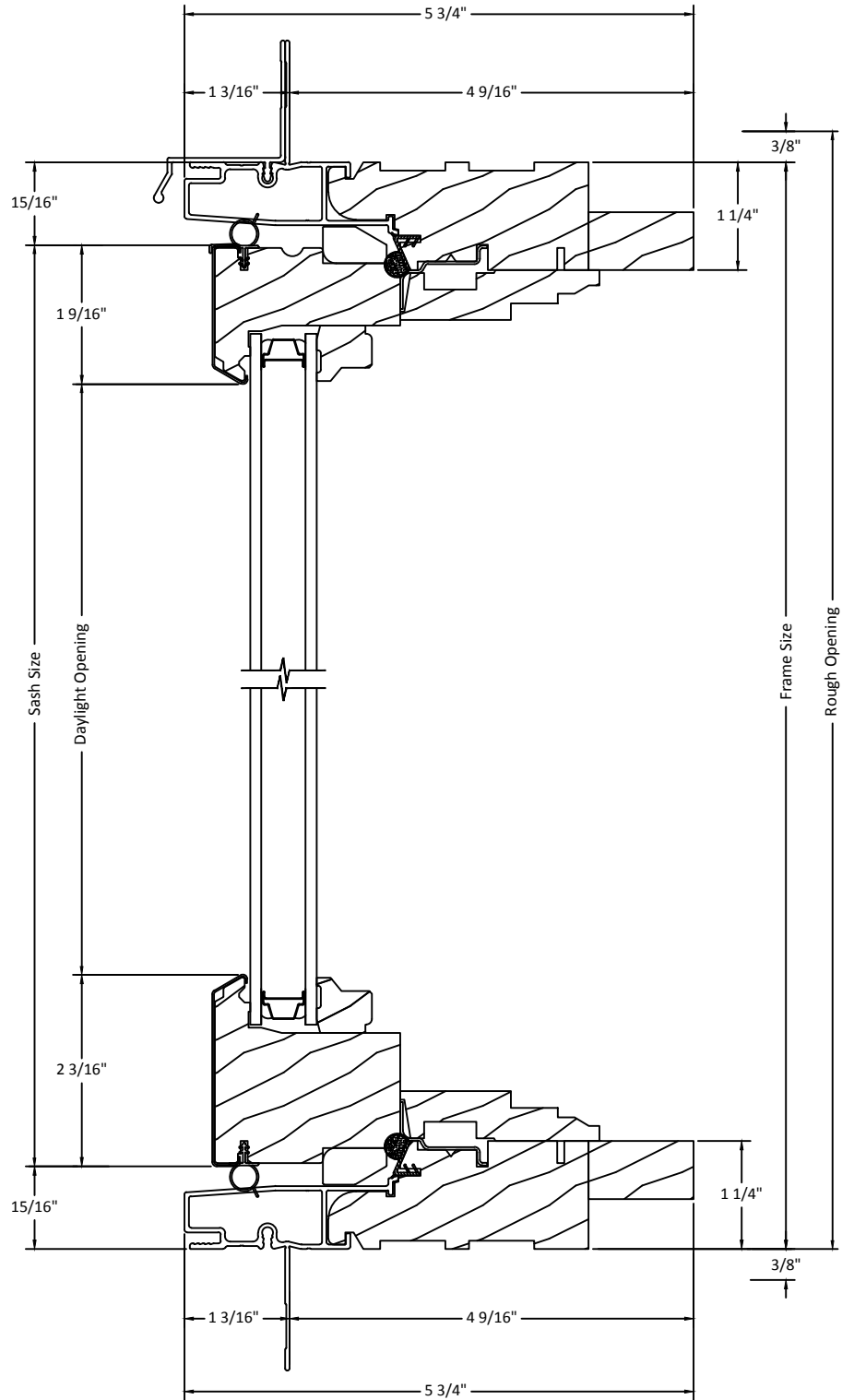
HORIZONTAL SECTION
2-WIDE UNIT



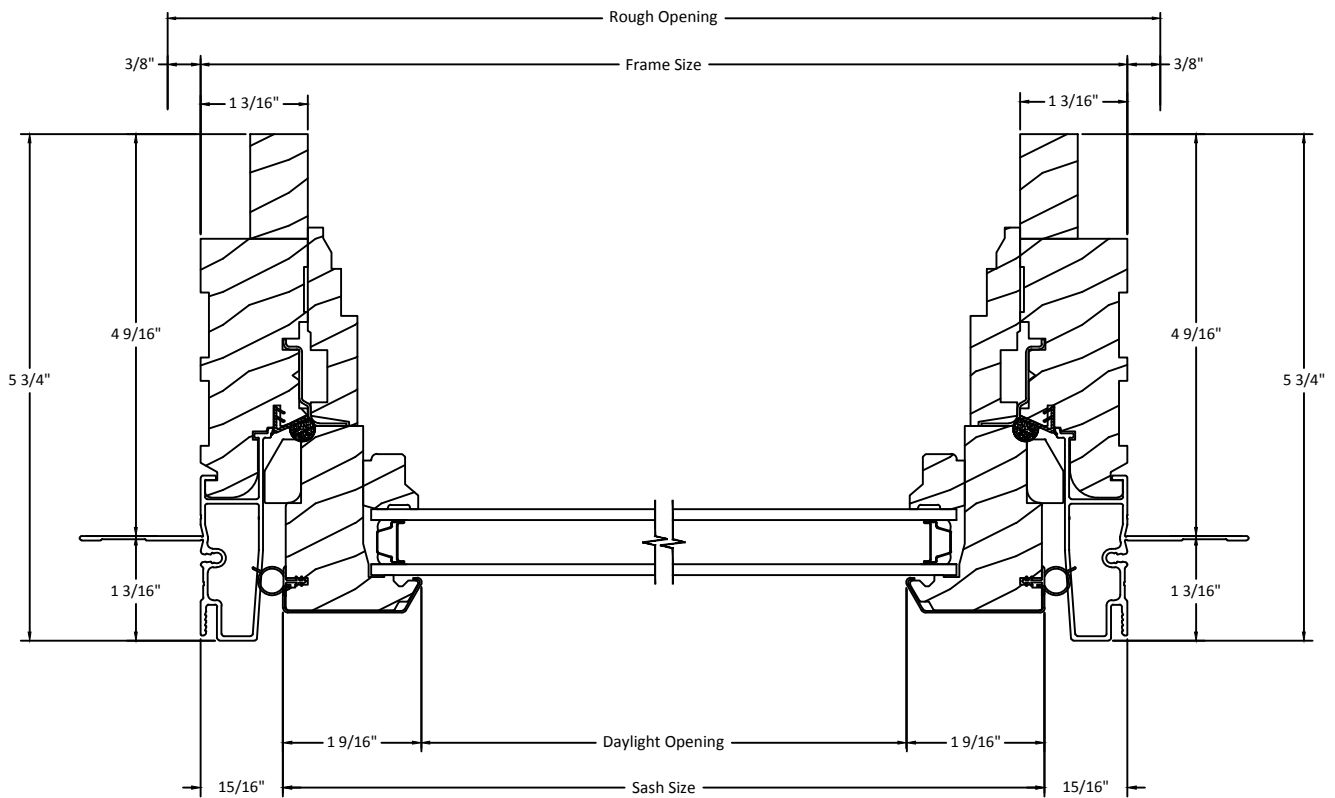
**HORIZONTAL SECTION
3-WIDE UNIT**



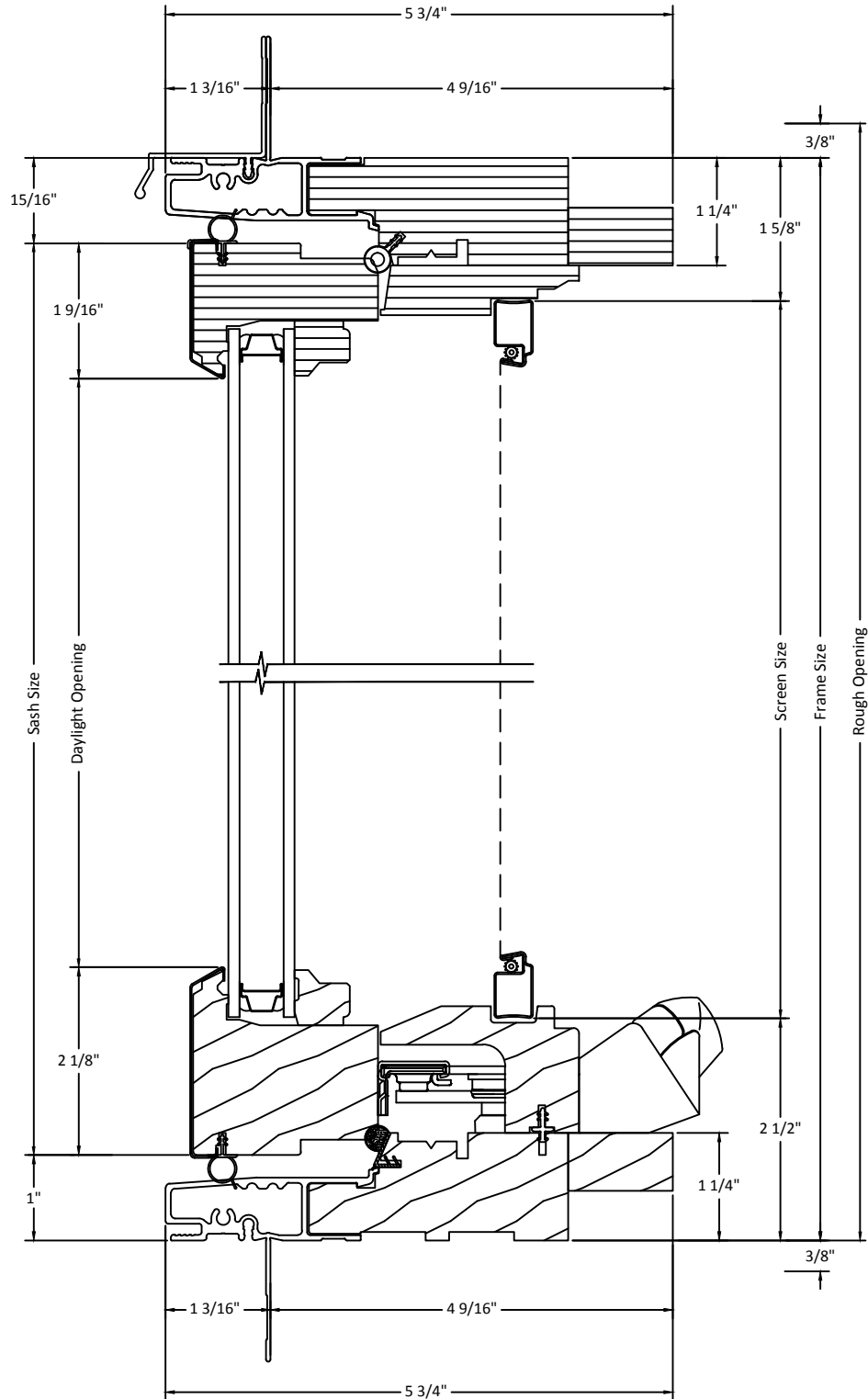
**VERTICAL SECTION
PICTURE UNIT**



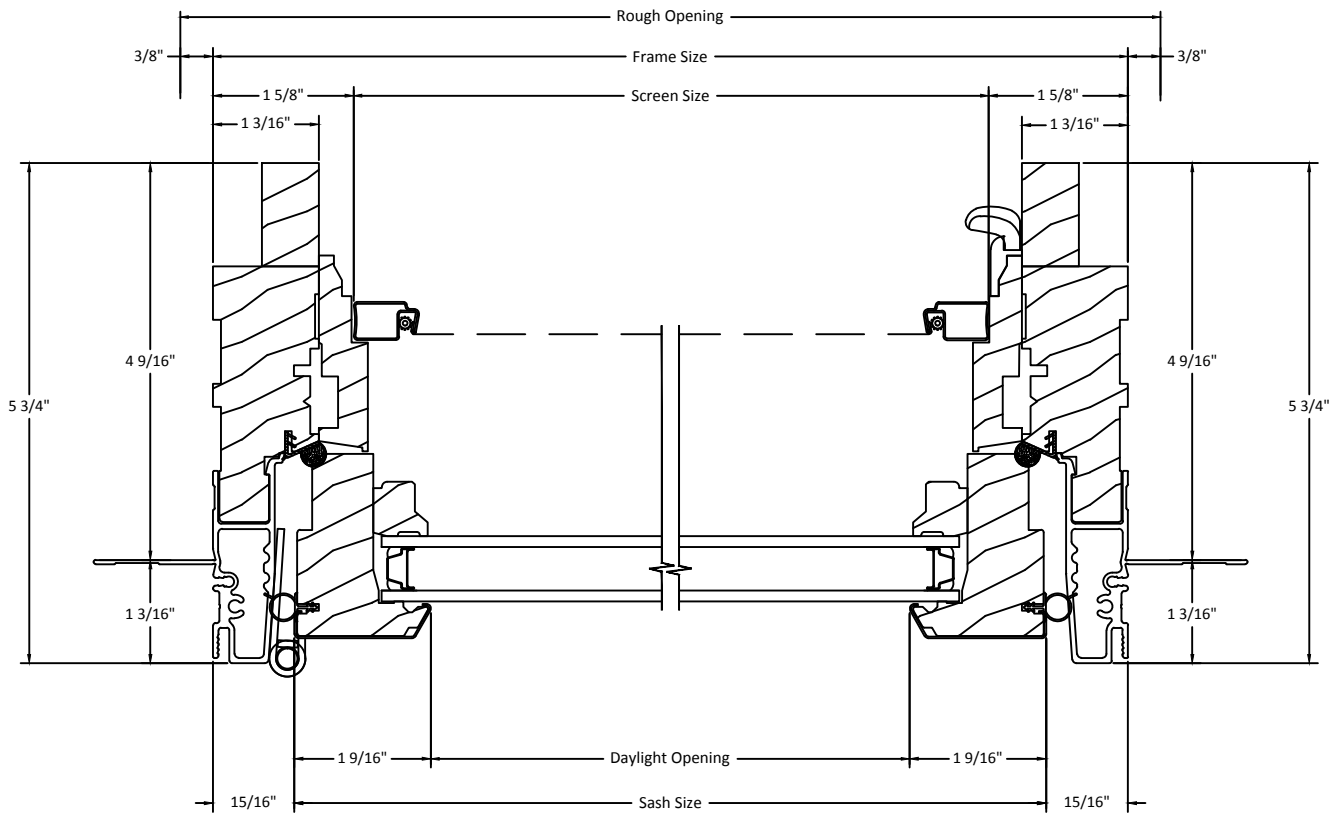
HORIZONTAL SECTION
PICTURE UNIT

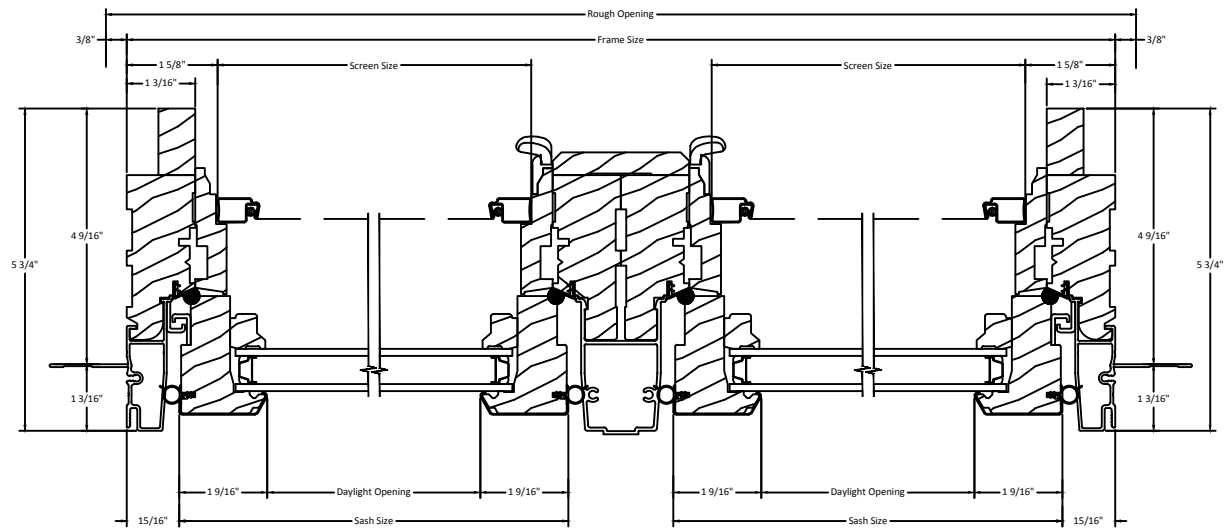


**VERTICAL SECTION
SECTOR TOP
OPERATING UNIT**

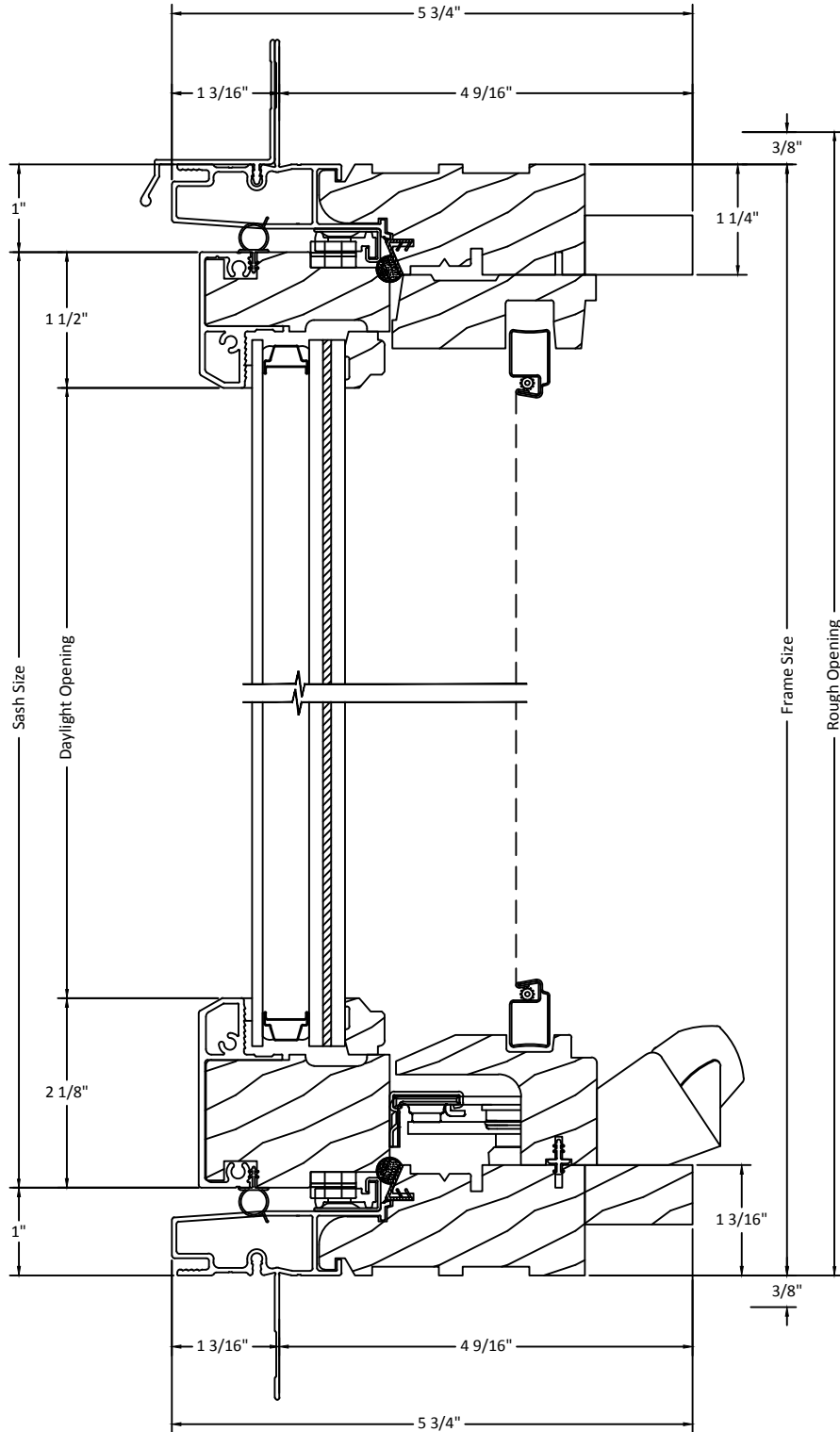


HORIZONTAL SECTION
SECTOR TOP
OPERATING UNIT

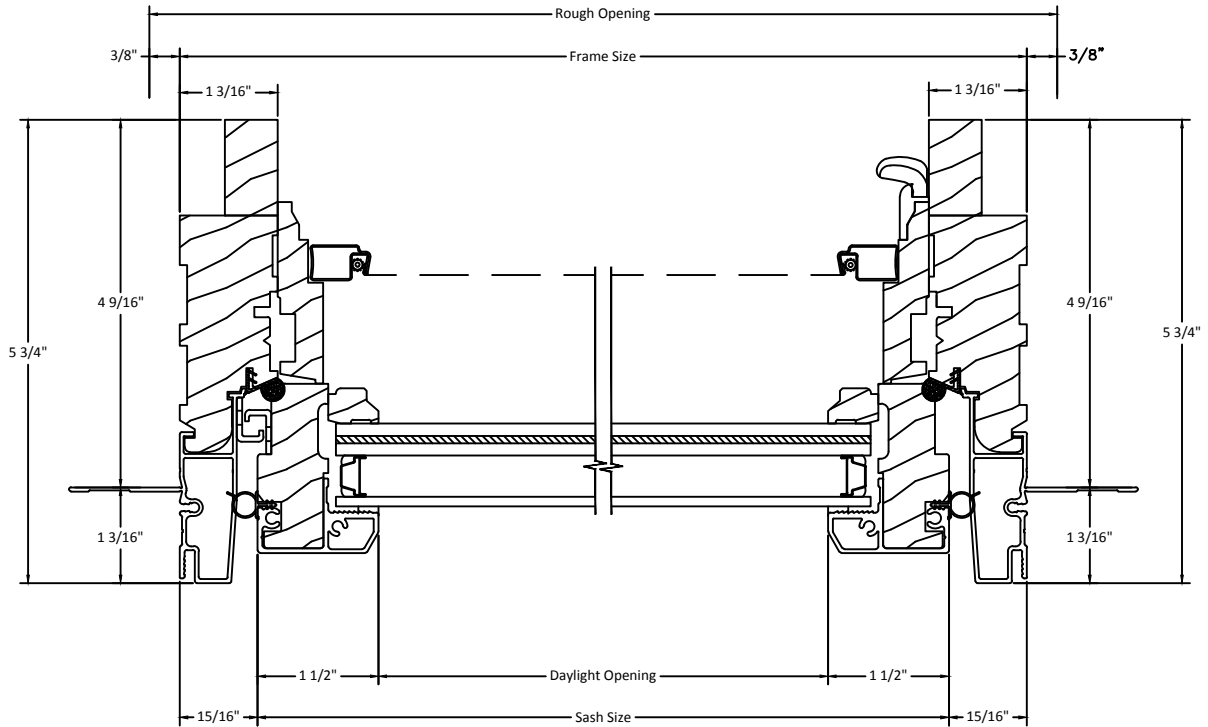




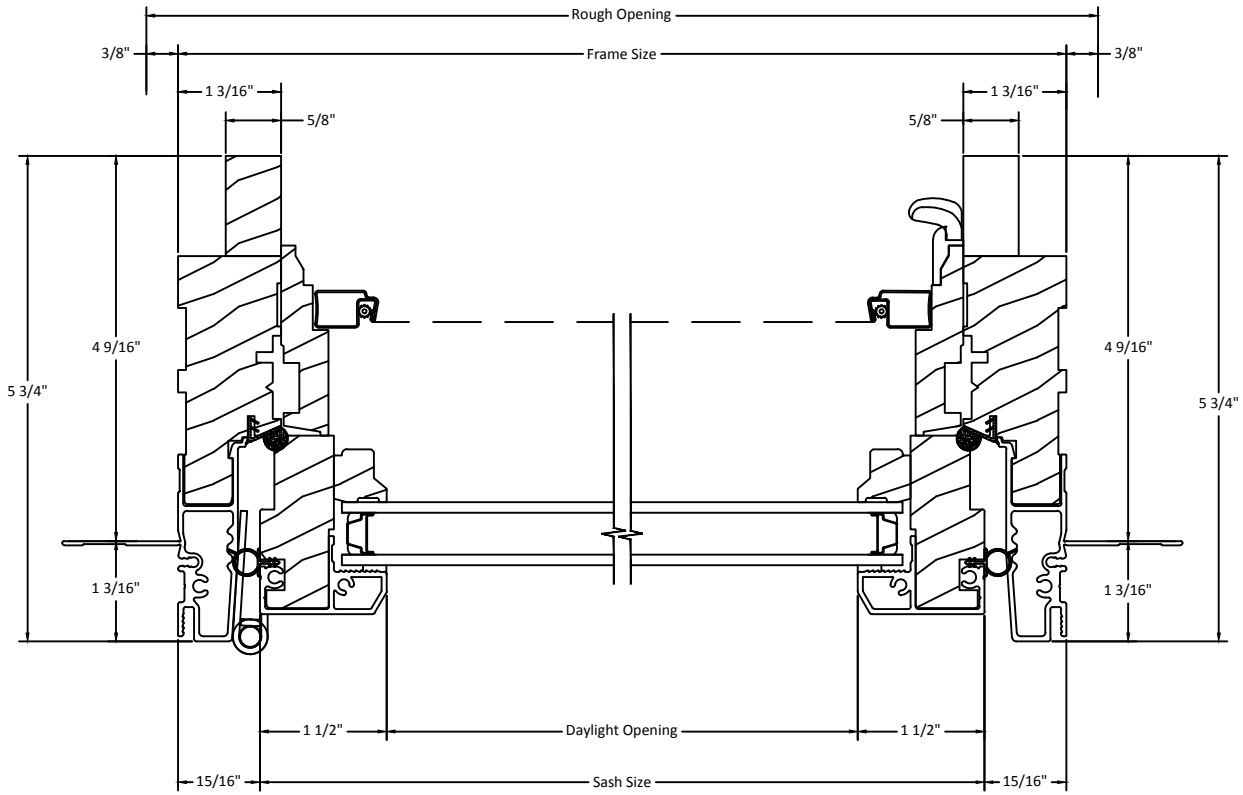
**VERTICAL SECTION
EXTRUDED SASH IMPACT
OPERATING UNIT**



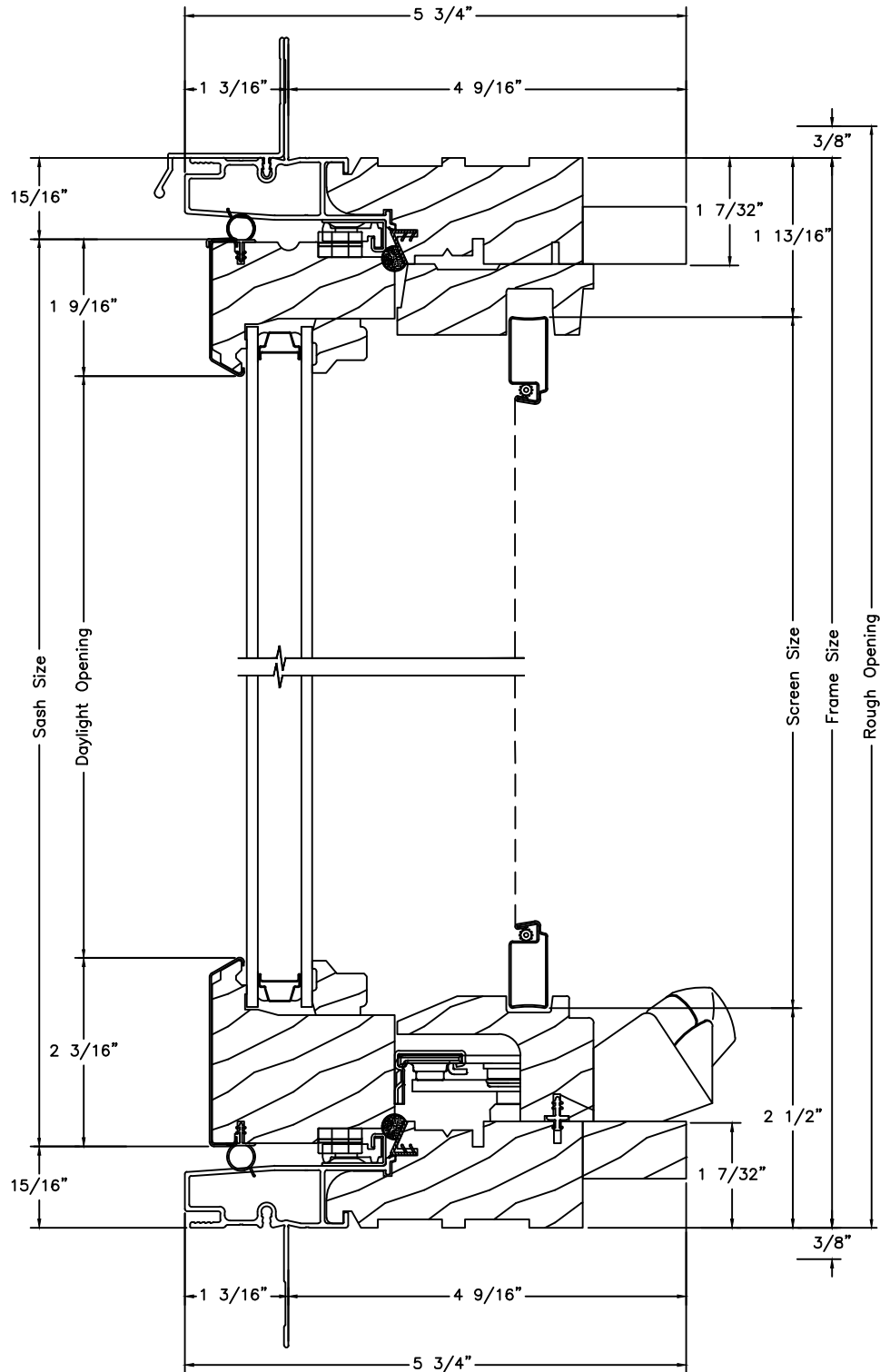
HORIZONTAL SECTION
EXTRUDED SASH IMPACT
OPERATING UNIT



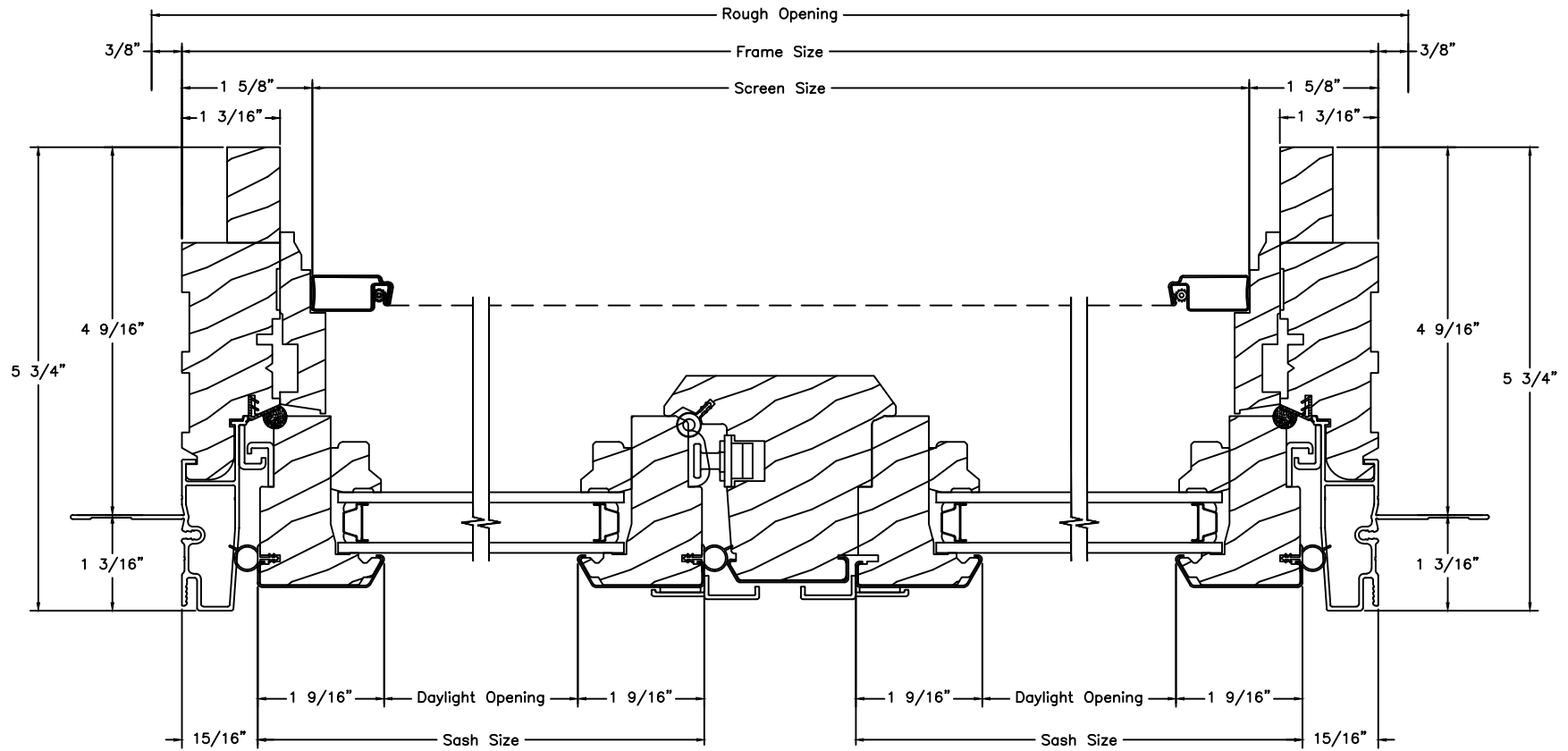
**HORIZONTAL SECTION
EXTENDED HALF ROUND**



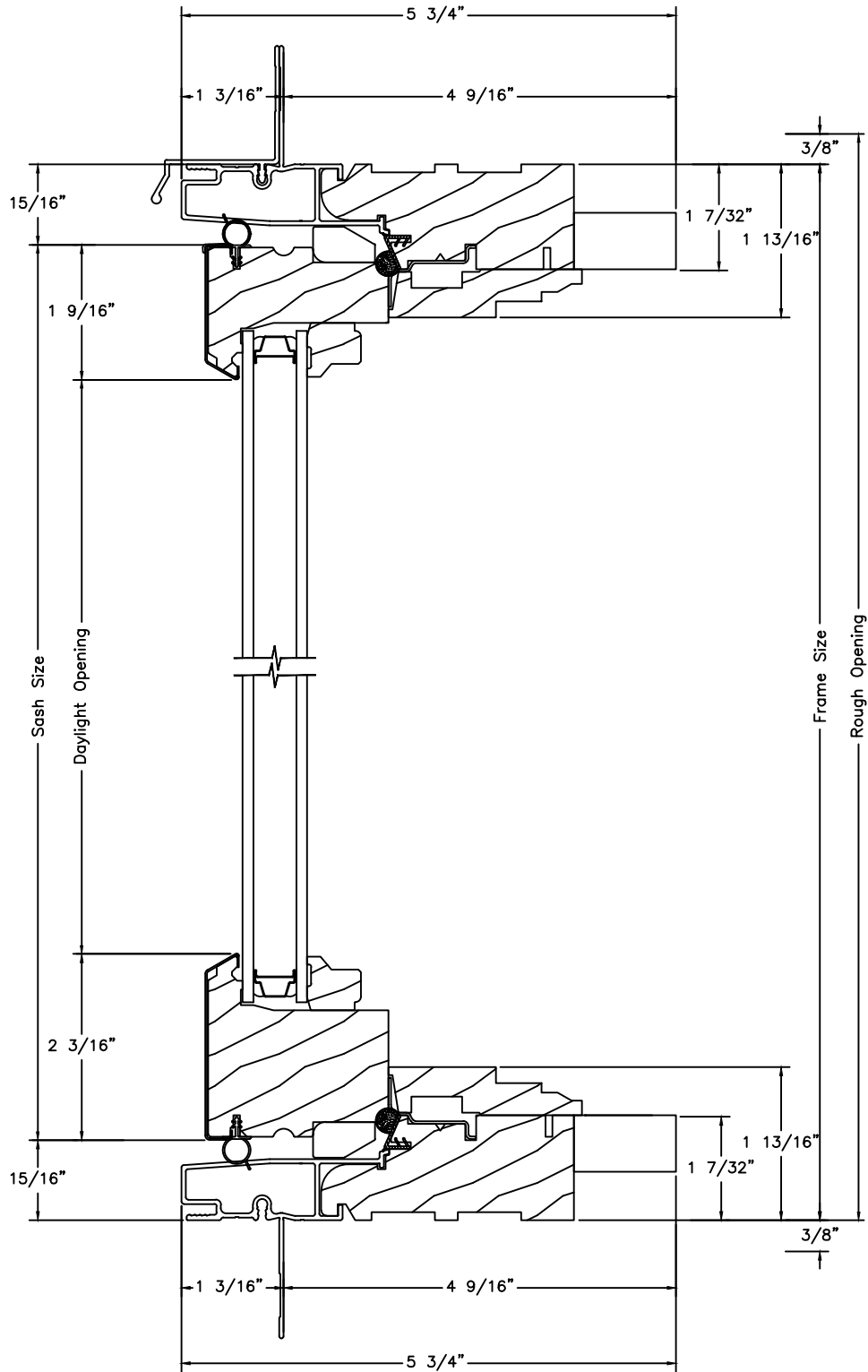
**VERTICAL SECTION
FRENCH CASEMENT UNIT**



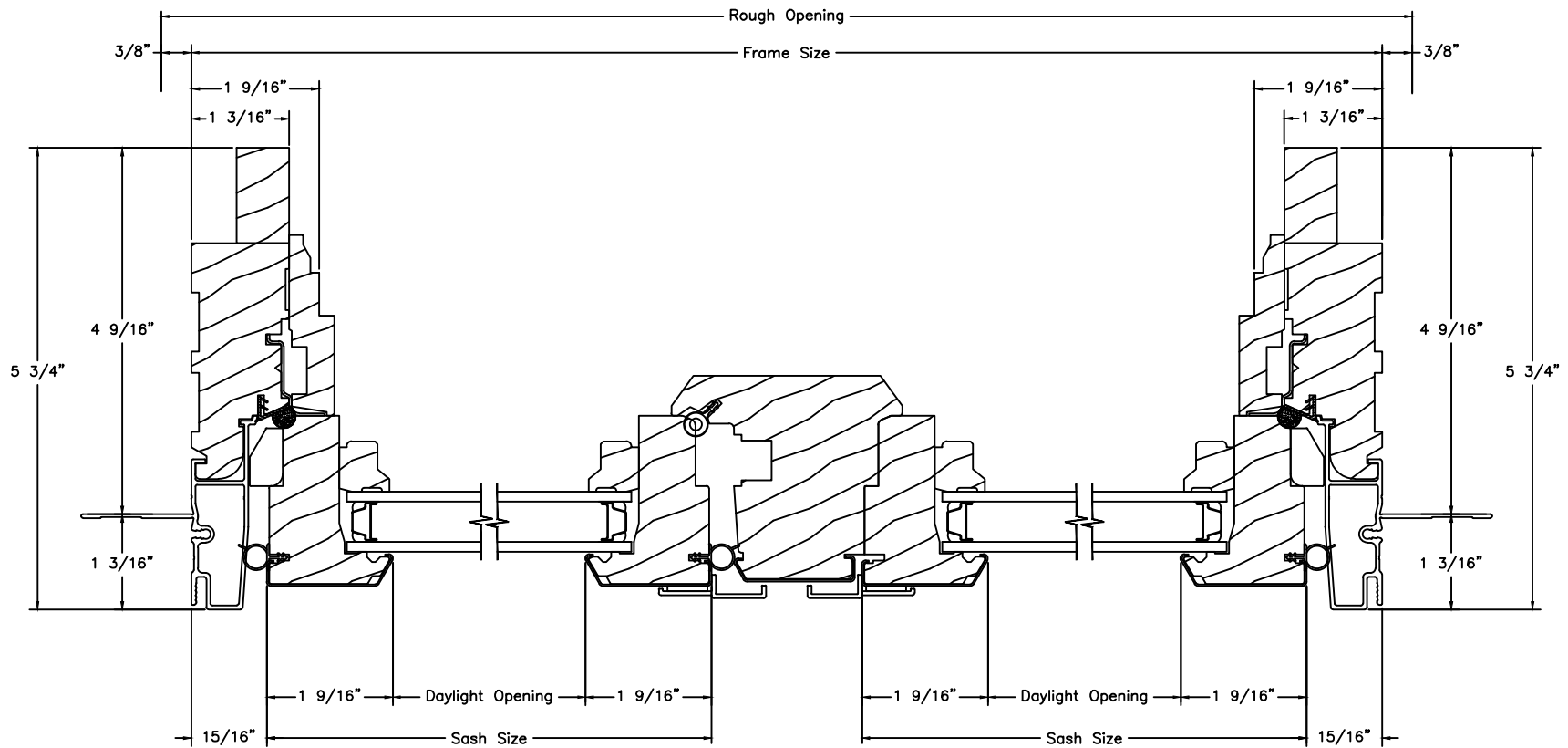
HORIZONTAL SECTION
FRENCH CASEMENT UNIT



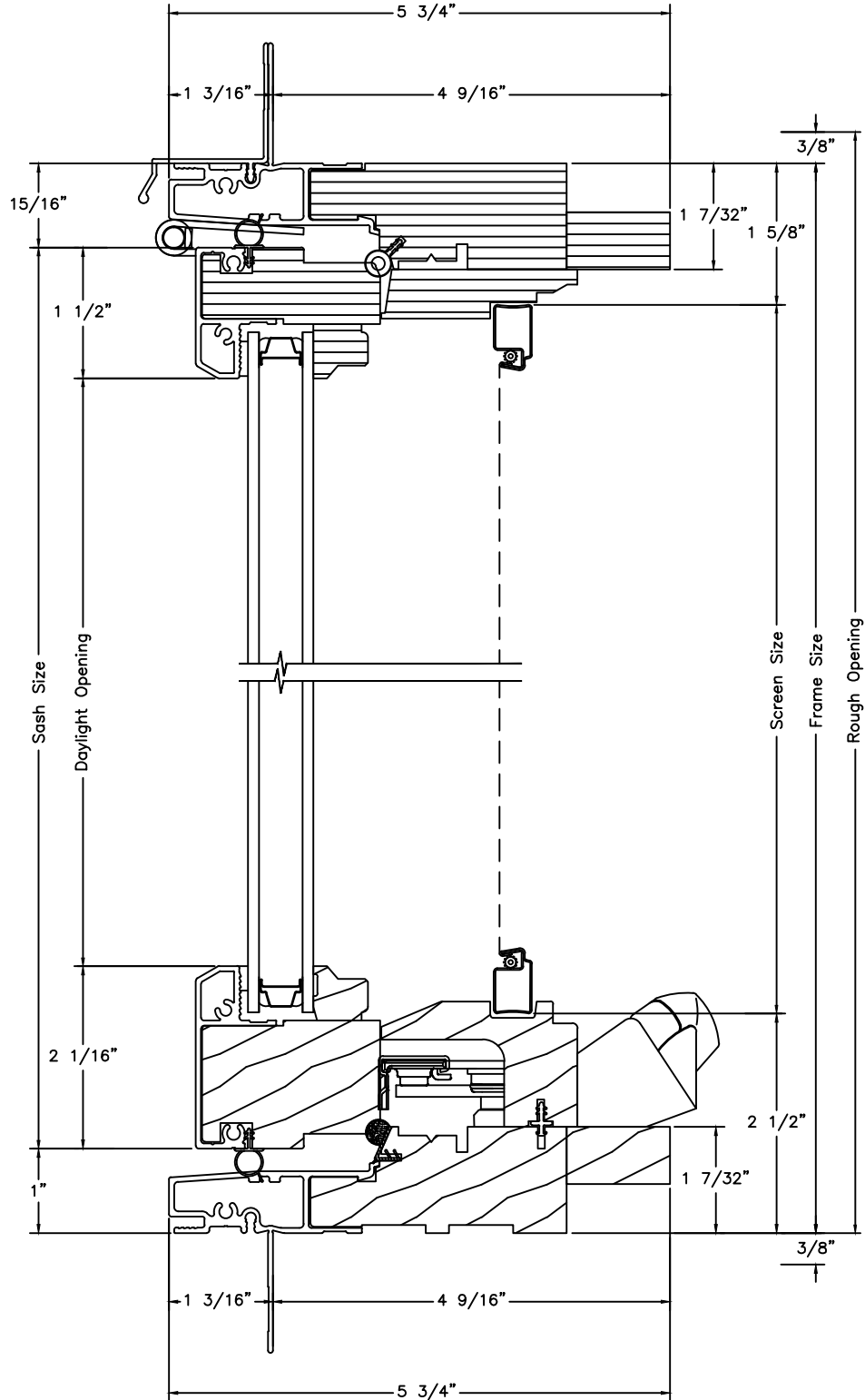
**VERTICAL SECTION
FRENCH CASEMENT PICTURE UNIT**



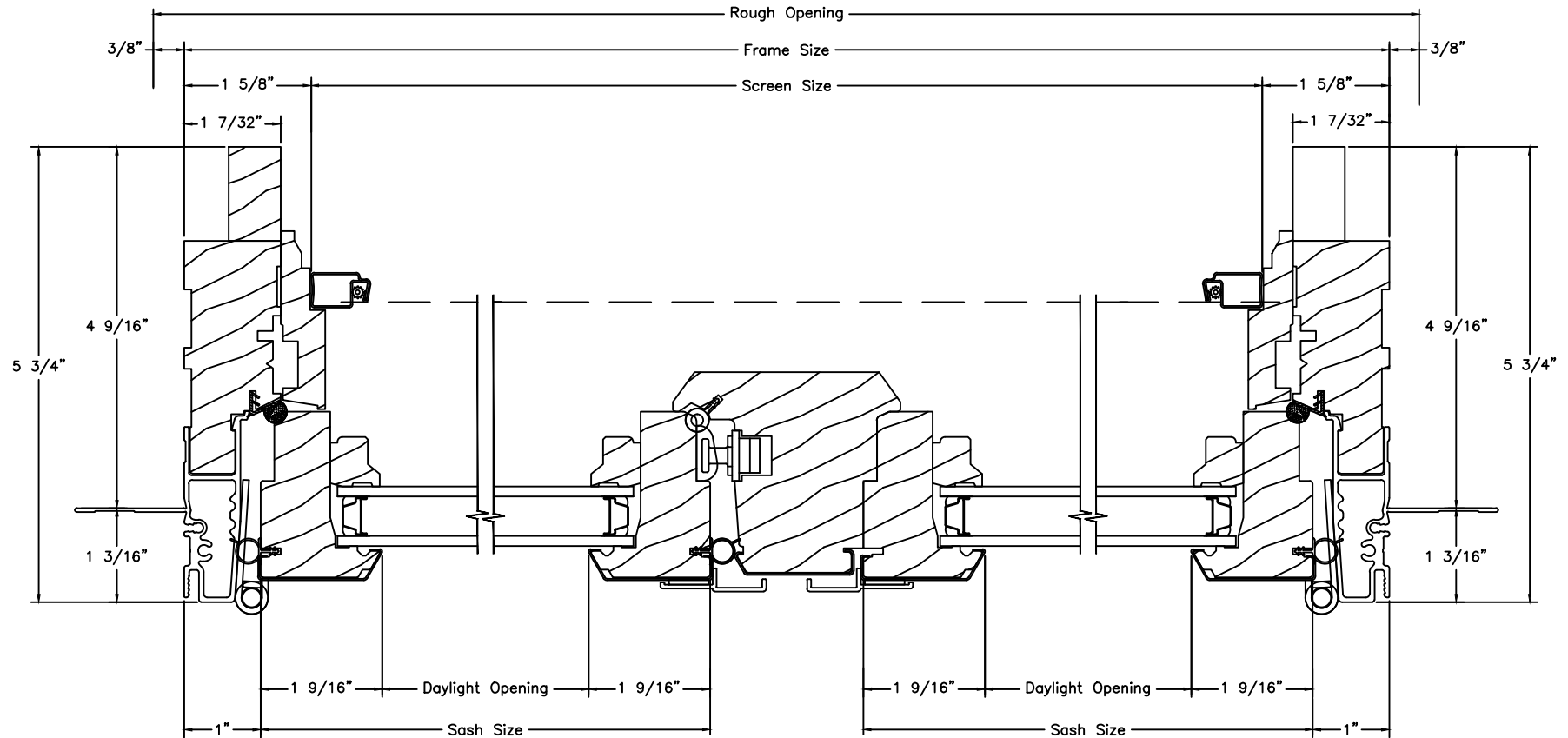
HORIZONTAL SECTION
FRENCH CASEMENT PICTURE UNIT



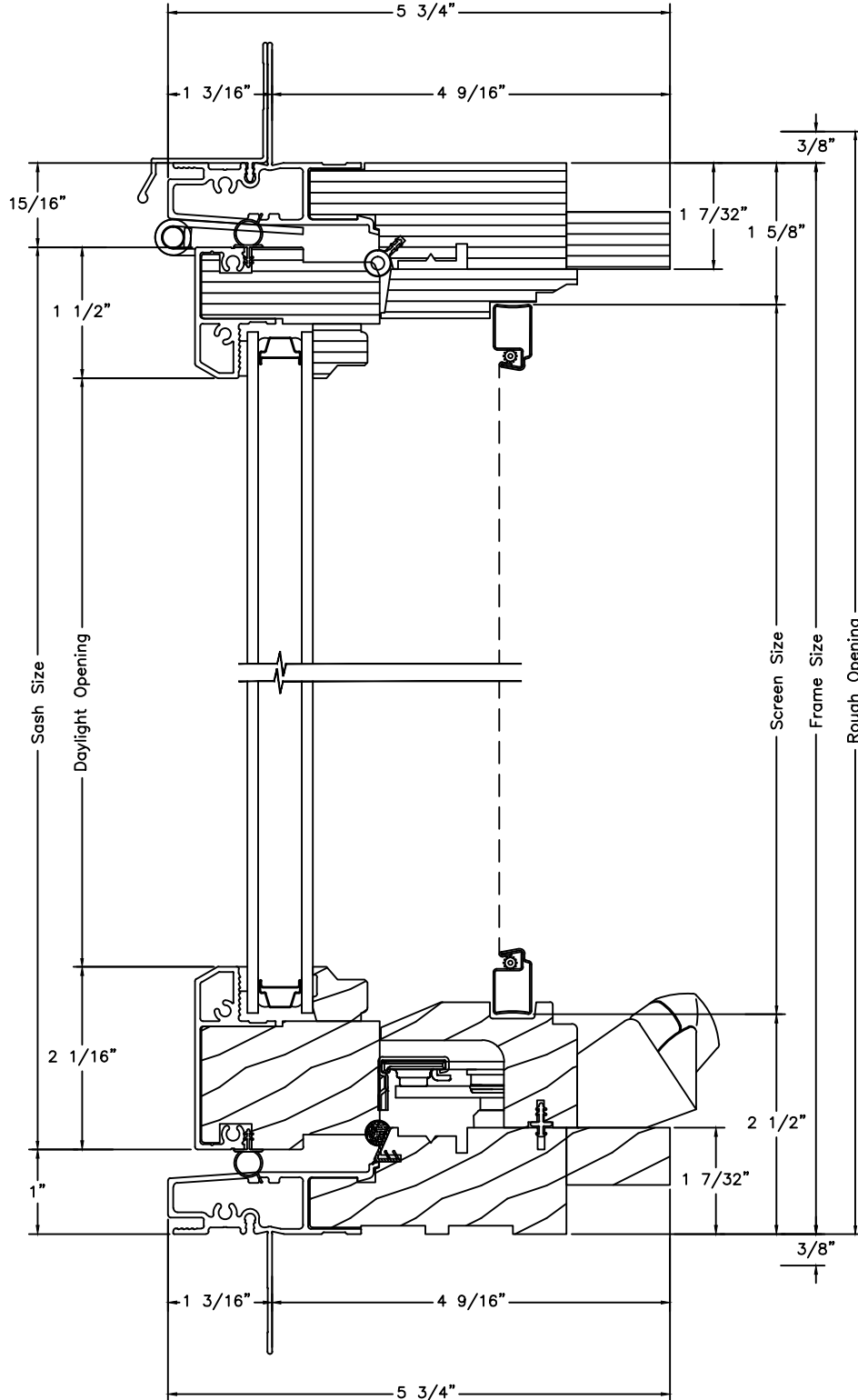
**VERTICAL SECTION
FRENCH SECTOR TOP CASEMENT UNIT**



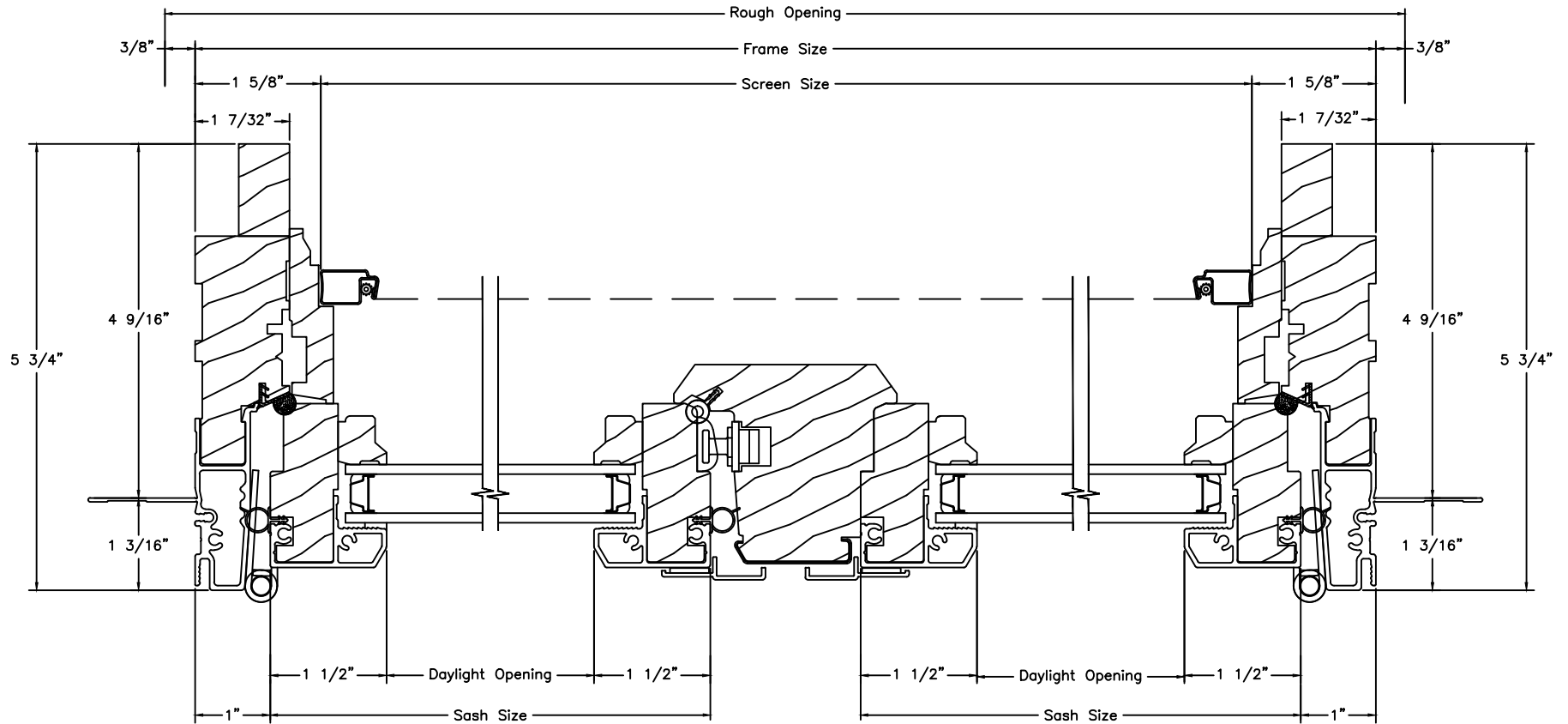
HORIZONTAL SECTION
FRENCH SECTOR TOP CASEMENT UNIT



VERTICAL SECTION
FRENCH HALF ROUND TOP CASEMENT UNIT



HORIZONTAL SECTION
FRENCH HALF ROUND TOP CASEMENT UNIT



BAY WINDOW HORIZONTAL
SPECIFICATION TABLES
TABLES

30° BAY								
Flanker Width	Center Width	A Rough Opening	F Unit Width	B* Overall Projection	C Projection Exterior Wall	E* Seating Depth	D Outside Mull To Mull	G Outside Mull To Unit
18	18	52 3/8	53 11/16	14 13/16	10 1/4	11 7/16	19 13/16	20 3/8
18	36	70 3/8	71 11/16	14 13/16	10 1/4	11 7/16	37 13/16	20 3/8
18	42	76 3/8	77 11/16	14 13/16	10 1/4	11 7/16	43 13/16	20 3/8
18	48	82 3/8	83 11/16	14 13/16	10 1/4	11 7/16	49 13/16	20 3/8
18	60	94 3/8	95 11/16	14 13/16	10 1/4	11 7/16	61 13/16	20 3/8
18	72	106 3/8	107 11/16	14 13/16	10 1/4	11 7/16	73 13/16	20 3/8

45° BAY								
Flanker Width	Center Width	A Rough Opening	F Unit Width	B* Overall Projection	C Projection Exterior Wall	E* Seating Depth	D Outside Mull To Mull	G Outside Mull To Unit
18	18	46 13/16	49 13/16	19 5/16	14 13/16	15 15/16	20 13/16	20 7/8
18	36	64 13/16	67 13/16	19 5/16	14 13/16	15 15/16	38 13/16	20 7/8
18	42	70 13/16	73 13/16	19 5/16	14 13/16	15 15/16	44 13/16	20 7/8
18	48	76 13/16	79 13/16	19 5/16	14 13/16	15 15/16	50 13/16	20 7/8
18	60	88 13/16	91 13/16	19 5/16	14 13/16	15 15/16	62 13/16	20 7/8
18	72	100 13/16	103 13/16	19 5/16	14 13/16	15 15/16	74 13/16	20 7/8

24	24	68 13/16	70 1/16	17 13/16	13 1/4	14 7/16	25 13/16	26 3/8
24	36	80 13/16	82 1/16	17 13/16	13 1/4	14 7/16	37 13/16	26 3/8
24	42	86 13/16	88 1/16	17 13/16	13 1/4	14 7/16	43 13/16	26 3/8
24	48	92 13/16	94 1/16	17 13/16	13 1/4	14 7/16	49 13/16	26 3/8
24	60	104 13/16	106 1/16	17 13/16	13 1/4	14 7/16	61 13/16	26 3/8
24	72	116 13/16	118 1/16	17 13/16	13 1/4	14 7/16	73 13/16	26 3/8

24	24	61 5/16	64 5/16	23 9/16	19 1/32	20 3/16	26 13/16	26 7/8
24	36	73 5/16	76 5/16	23 9/16	19 1/32	20 3/16	38 13/16	26 7/8
24	42	79 5/16	82 5/16	23 9/16	19 1/32	20 3/16	44 13/16	26 7/8
24	48	85 5/16	88 5/16	23 9/16	19 1/32	20 3/16	50 13/16	26 7/8
24	60	97 5/16	100 5/16	23 9/16	19 1/32	20 3/16	62 13/16	26 7/8
24	72	109 5/16	112 5/16	23 9/16	19 1/32	20 3/16	74 13/16	26 7/8

28	28	79 11/16	81	19 13/16	15 1/4	16 7/16	29 13/16	30 3/8
28	36	87 11/16	89	19 13/16	15 1/4	16 7/16	37 13/16	30 3/8
28	42	93 11/16	95	19 13/16	15 1/4	16 7/16	43 13/16	30 3/8
28	48	99 11/16	101	19 13/16	15 1/4	16 7/16	49 13/16	30 3/8
28	60	111 11/16	113	19 13/16	15 1/4	16 7/16	61 13/16	30 3/8
28	72	123 11/16	125	19 13/16	15 1/4	16 7/16	73 13/16	30 3/8

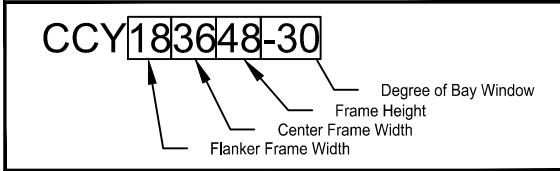
28	28	71	73 31/32	26 3/8	21 7/8	23	30 13/16	30 7/8
28	36	79	81 31/32	26 3/8	21 7/8	23	38 13/16	30 7/8
28	42	85	87 31/32	26 3/8	21 7/8	23	44 13/16	30 7/8
28	48	91	93 31/32	26 3/8	21 7/8	23	50 13/16	30 7/8
28	60	103	105 31/32	26 3/8	21 7/8	23	62 13/16	30 7/8
28	72	115	117 31/32	26 3/8	21 7/8	23	74 13/16	30 7/8

4 9/16 and 6 9/16 WALL APPLICATION

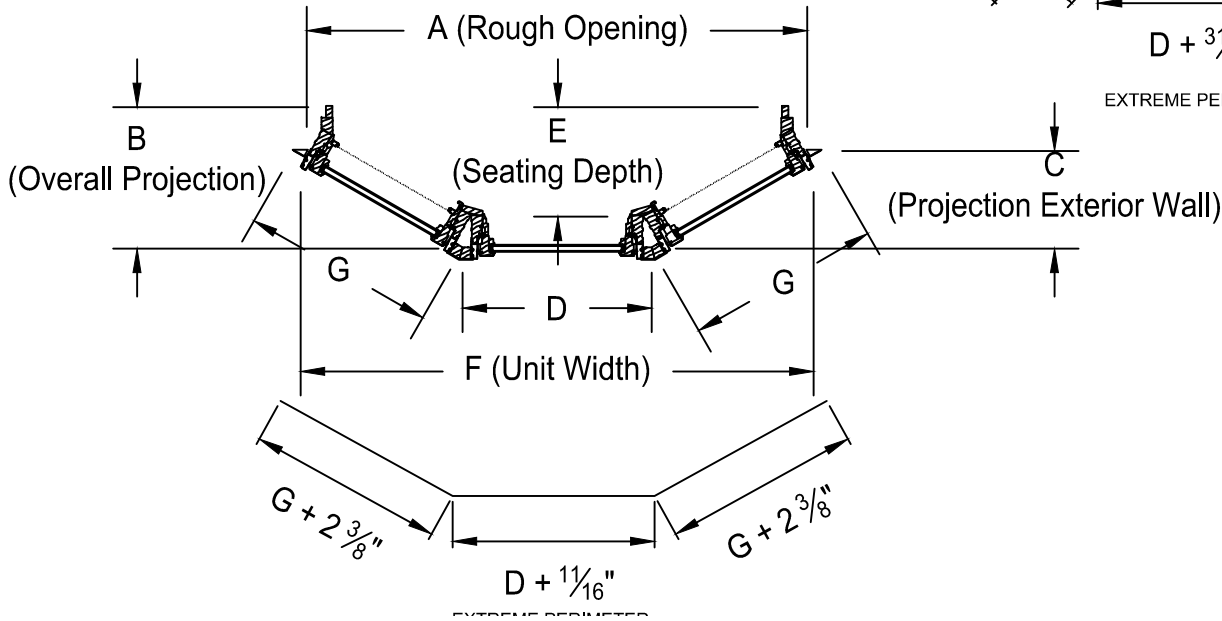
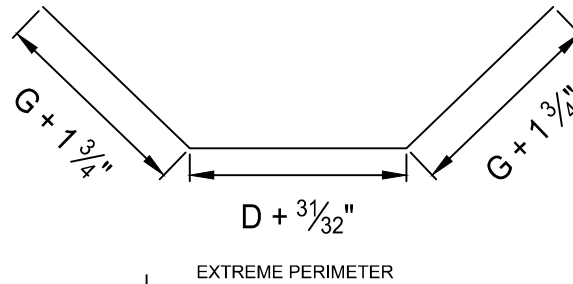
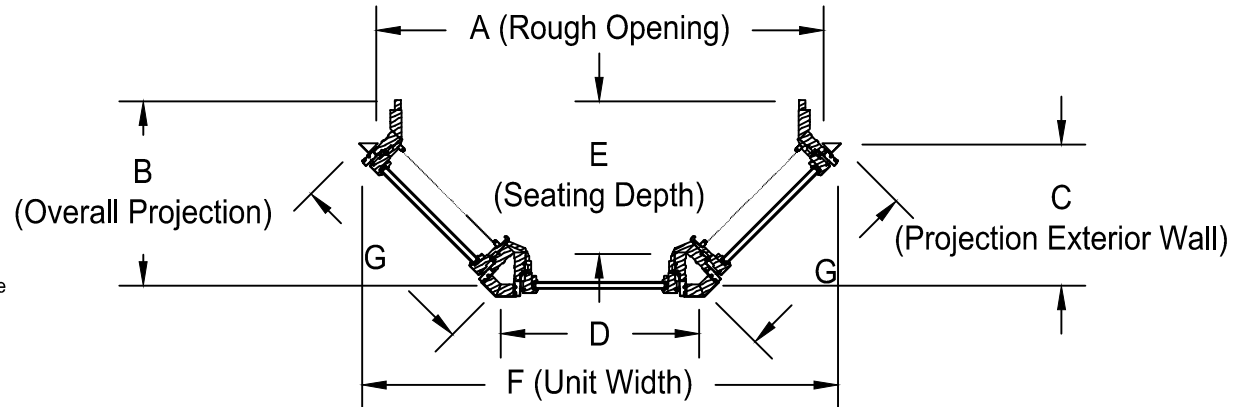
The tables above reflect a 4 9/16" wall application. To convert to 6 9/16" wall application add 2" to the figures in the columns which show an asterisk (*), B and E.
ROUGH OPENING data reflects FRAME + 3/4".

**BAY WINDOW HORIZONTAL
SPECIFICATION TABLES
SECTIONS**

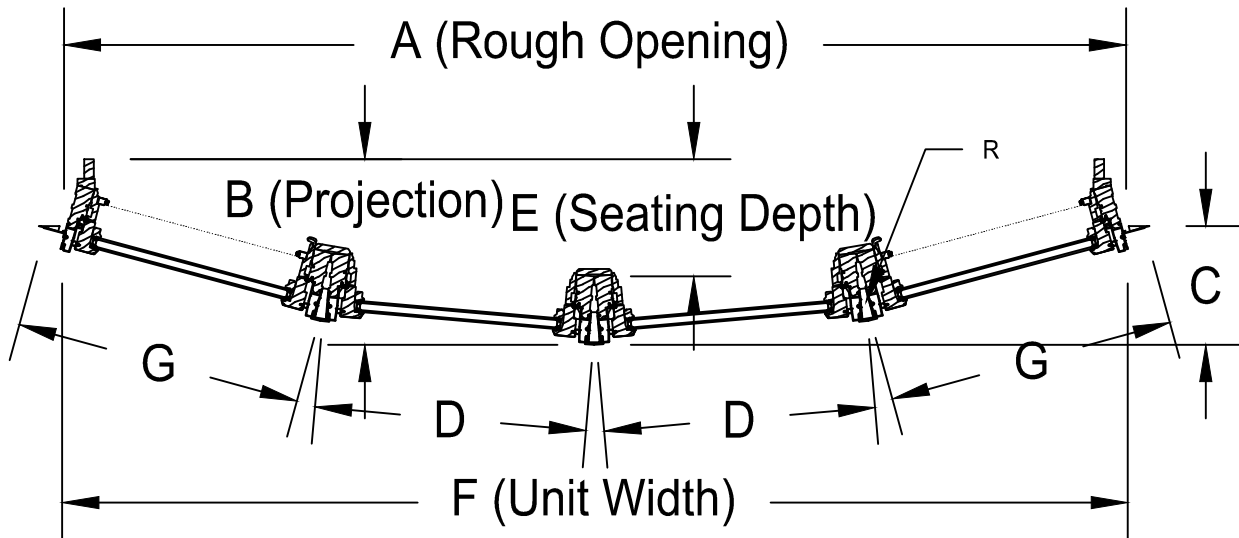
BOOKCODE NOTE:



EXTREME PERIMETER
Extreme Perimeter is the distance around the face of the bay, beginning at the exterior sheathing and continuing around the assembly along the extreme face of the basic unit frame.



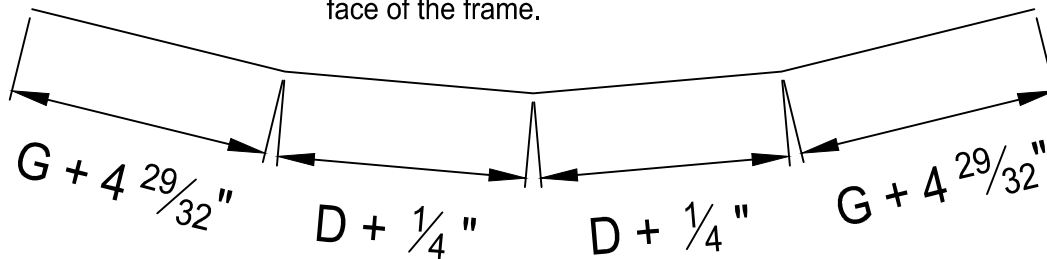
BOW WINDOW HORIZONTAL
SPECIFICATION TABLES
4-WIDE



4 WIDE BOW									
Flanker Width	A Rough Opening	F Unit Width	B* Overall Projection	C Projection Exterior Wall	E* Seating Depth	D Outside Mull To Mull	G Outside Mull To Unit	R Radius	
18	72 7/8	72 32/32	11 13/32	6 27/32	8	18 19/32	19 25/32	106 1/2	
24	96 7/16	96 1/2	13 15/32	8 29/32	10 3/32	24 19/32	25 25/32	140 3/8	
28	112 1/8	112 3/16	14 7/8	10 5/16	11 15/32	28 19/32	29 25/32	163 1/16	

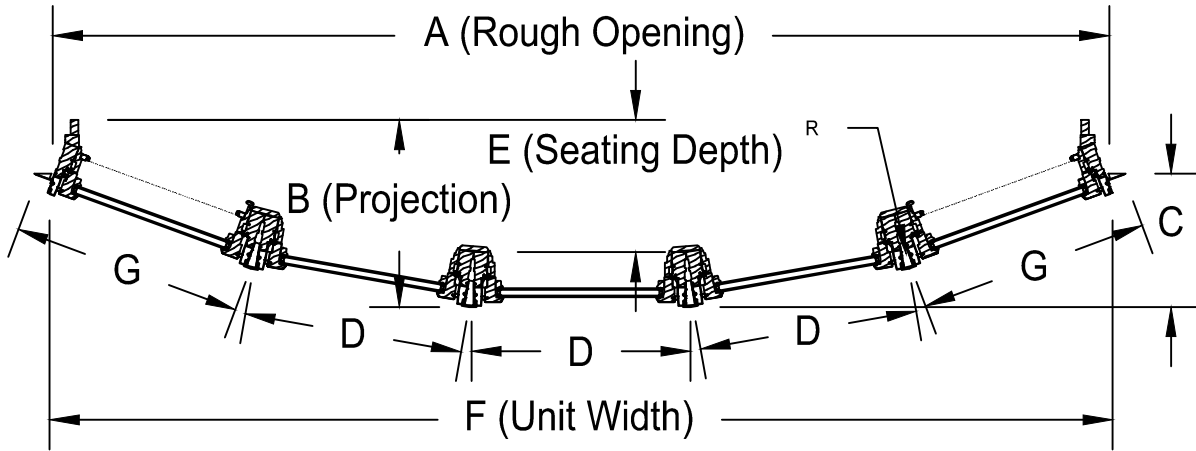
EXTREME PERIMETER

Extreme Perimeter is the distance around the face of the bow, beginning at the exterior sheathing and continuing around the assembly along the extreme face of the frame.



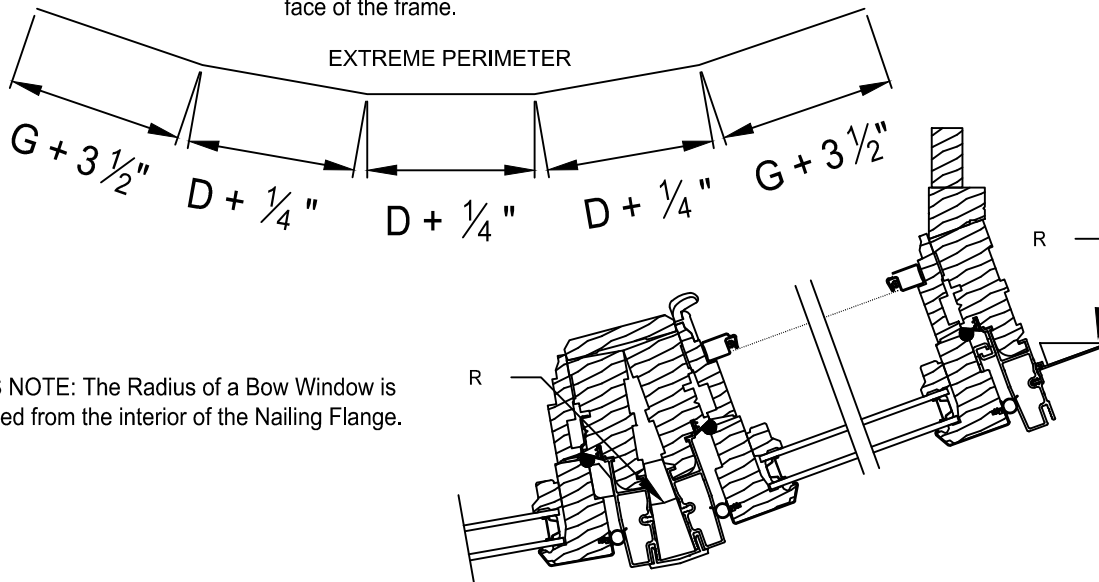
EXTREME PERIMETER

BOW WINDOW HORIZONTAL
SPECIFICATION TABLES
5-WIDE



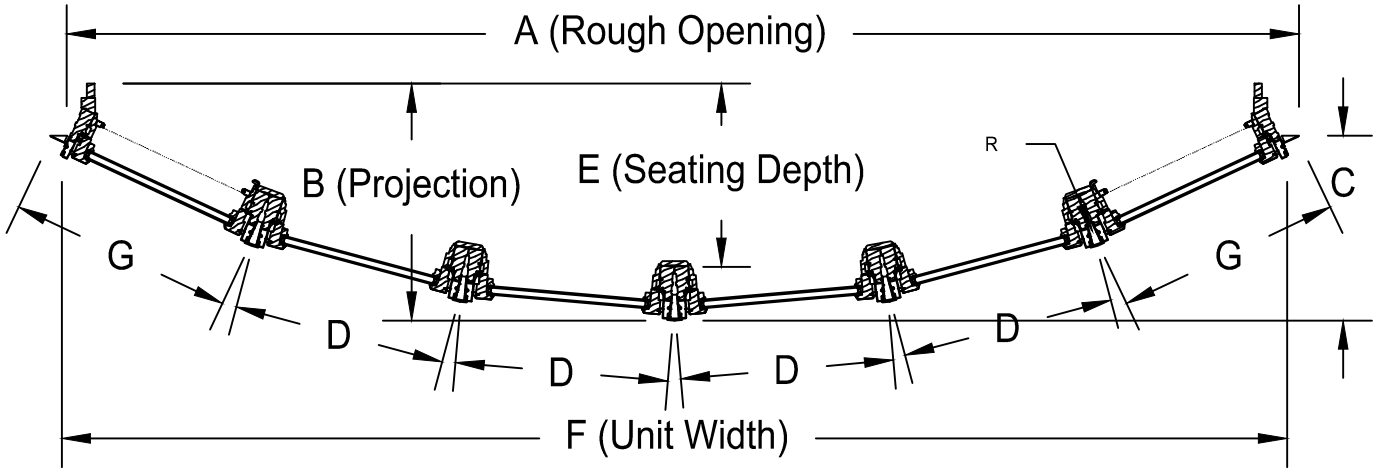
5 WIDE BOW									
Flanker Width	A Rough Opening	F Unit Width	B Overall Projection*	C Projection Exterior Wall	E Seating Depth*	D Outside Mull To Mull	G Outside Mull To Unit	R Radius	
18	89 15/16	90 3/8	14 5/8	10 1/16	11 7/32	18 19/32	19 25/32	106 1/2	
24	119	119 7/16	17 11/16	13 1/8	14 5/16	24 19/32	25 25/32	140 15/16	
28	138 3/8	138 27/32	19 3/4	15 3/16	16 3/8	28 19/32	29 25/32	163 1/16	

EXTREME PERIMETER
Extreme Perimeter is the distance around the face of the bow, beginning at the exterior sheathing and continuing around the assembly along the extreme face of the frame.



RADIUS NOTE: The Radius of a Bow Window is referenced from the interior of the Nailing Flange.

BOW WINDOW HORIZONTAL
SPECIFICATION TABLES
6-WIDE

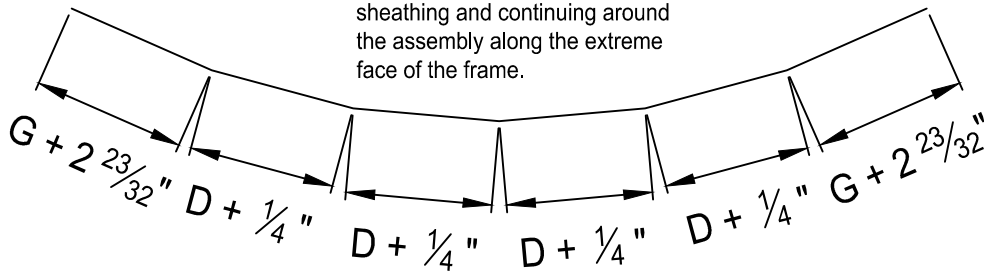


6 WIDE BOW									
Flanker Width	A Rough Opening	F Unit Width	B * Overall Projection	C Projection Exterior Wall	E * Seating Depth	D Outside Mull To Mull	G Outside Mull To Unit	R Radius	
18	106 1/4	107 1/16	19 3/8	14 13/16	16	18 19/32	19 25/32	106 1/2	
24	140 5/8	141 15/32	24	19 7/16	20 5/8	24 19/32	25 25/32	140 15/16	
28	163 5/8	164 7/16	27 1/16	22 1/2	23 11/16	28 19/32	29 25/32	163 1/16	

4 9/16 and 6 9/16 WALL APPLICATION

The tables above reflect a 4 9/16" wall application. To convert to 6 9/16" wall application add 2" to the figures in the columns which show an asterisk (*), B and E.

EXTREME PERIMETER
Extreme Perimeter is the distance around the face of the bow, beginning at the exterior sheathing and continuing around the assembly along the extreme face of the frame.



EXTREME PERIMETER

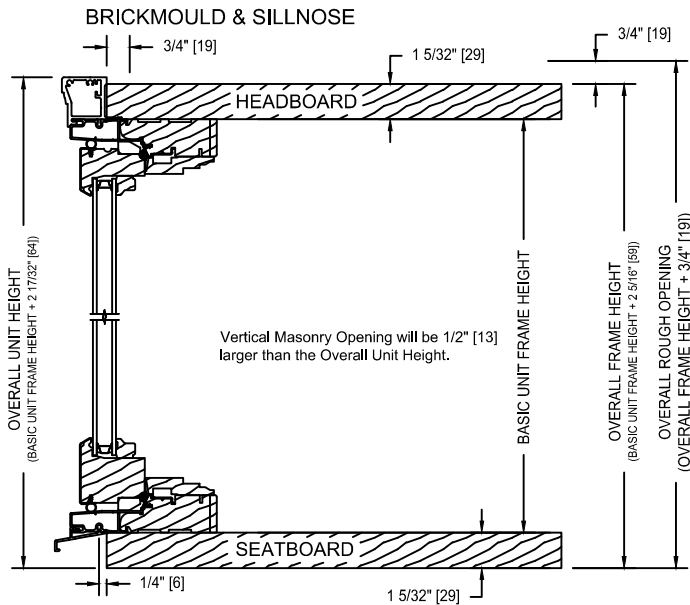
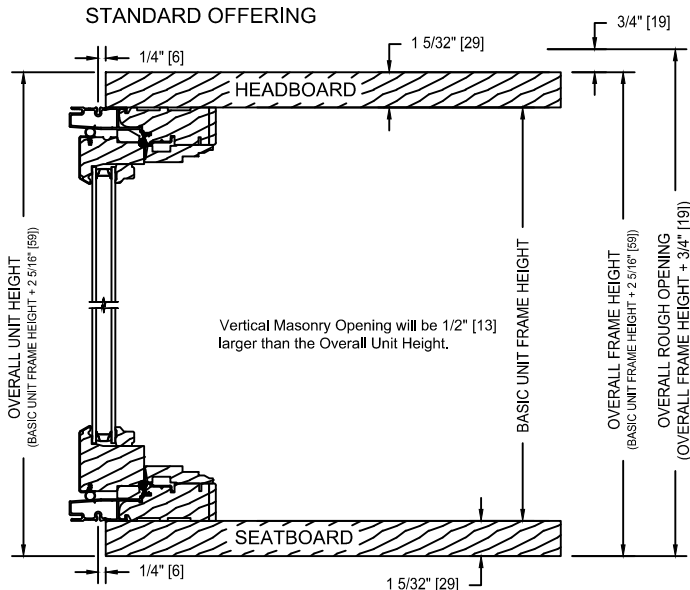
BAY & BOW WINDOW ROUGH OPENINGS

BAY & BOW WINDOW TRIM OPTIONS

The standard offering for clad bay & bow windows is 'frame only' and brickmould and sillnose. Other trim options subject to approval. Rough & Masonry openings remain consistent with all trim options.

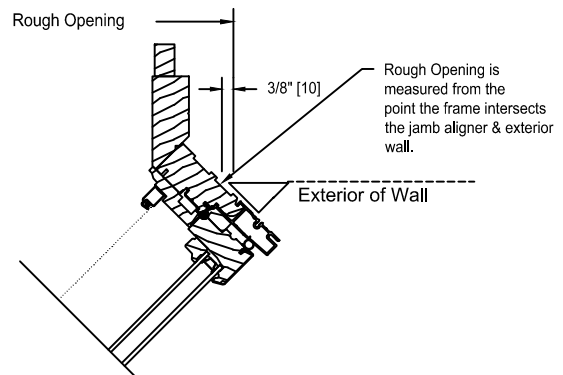
VERTICAL ROUGH OPENING

Rough Opening typical for all Units

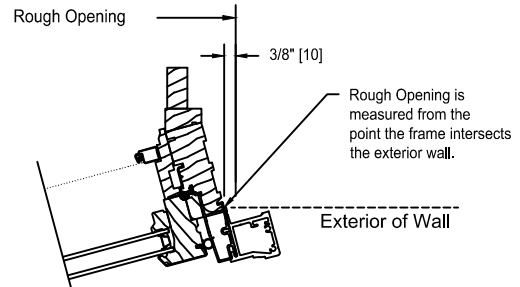


HORIZONTAL ROUGH OPENING

Rough Opening typical for all Units

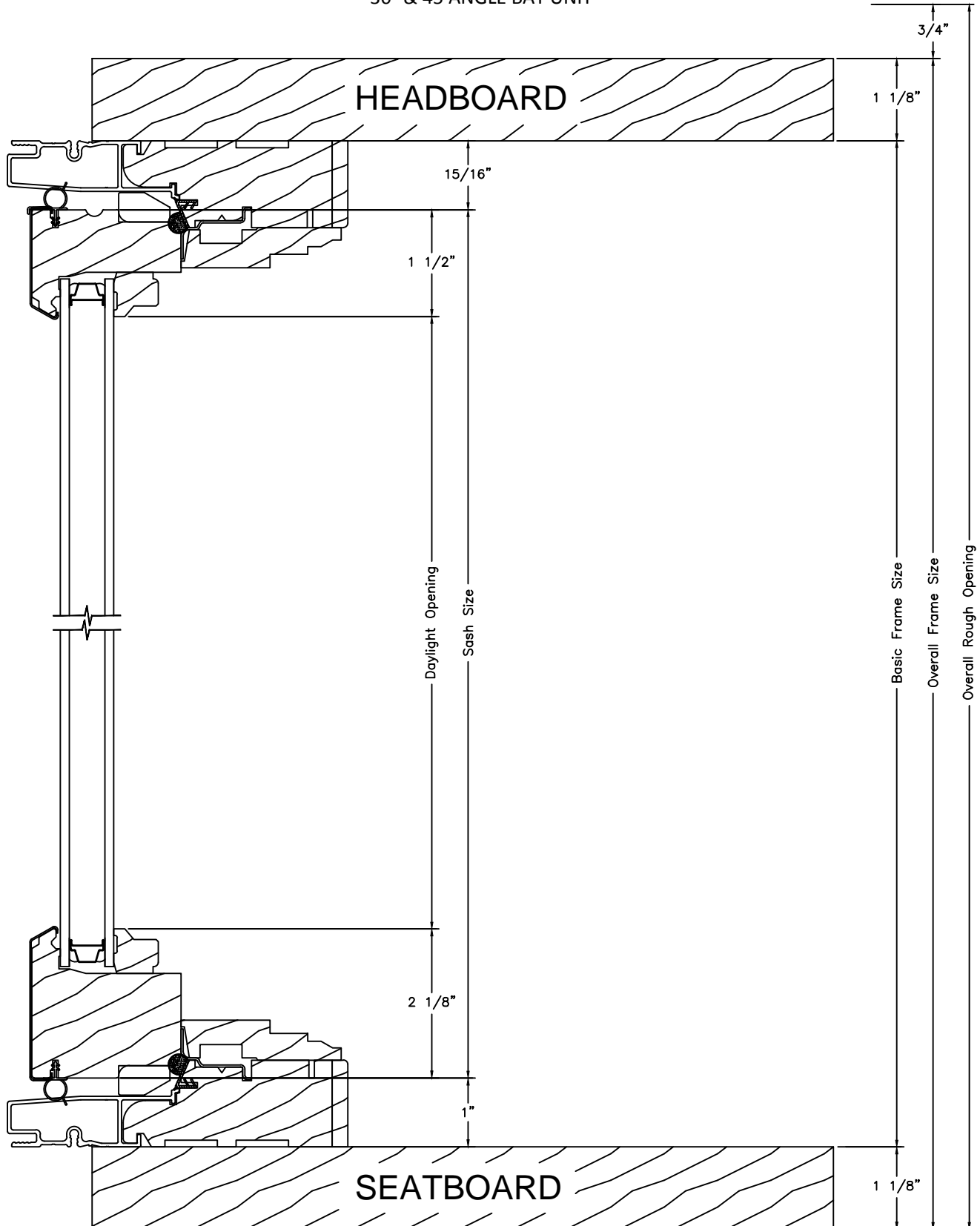


30° & 45° BAYS
45° Bay Shown
without trim

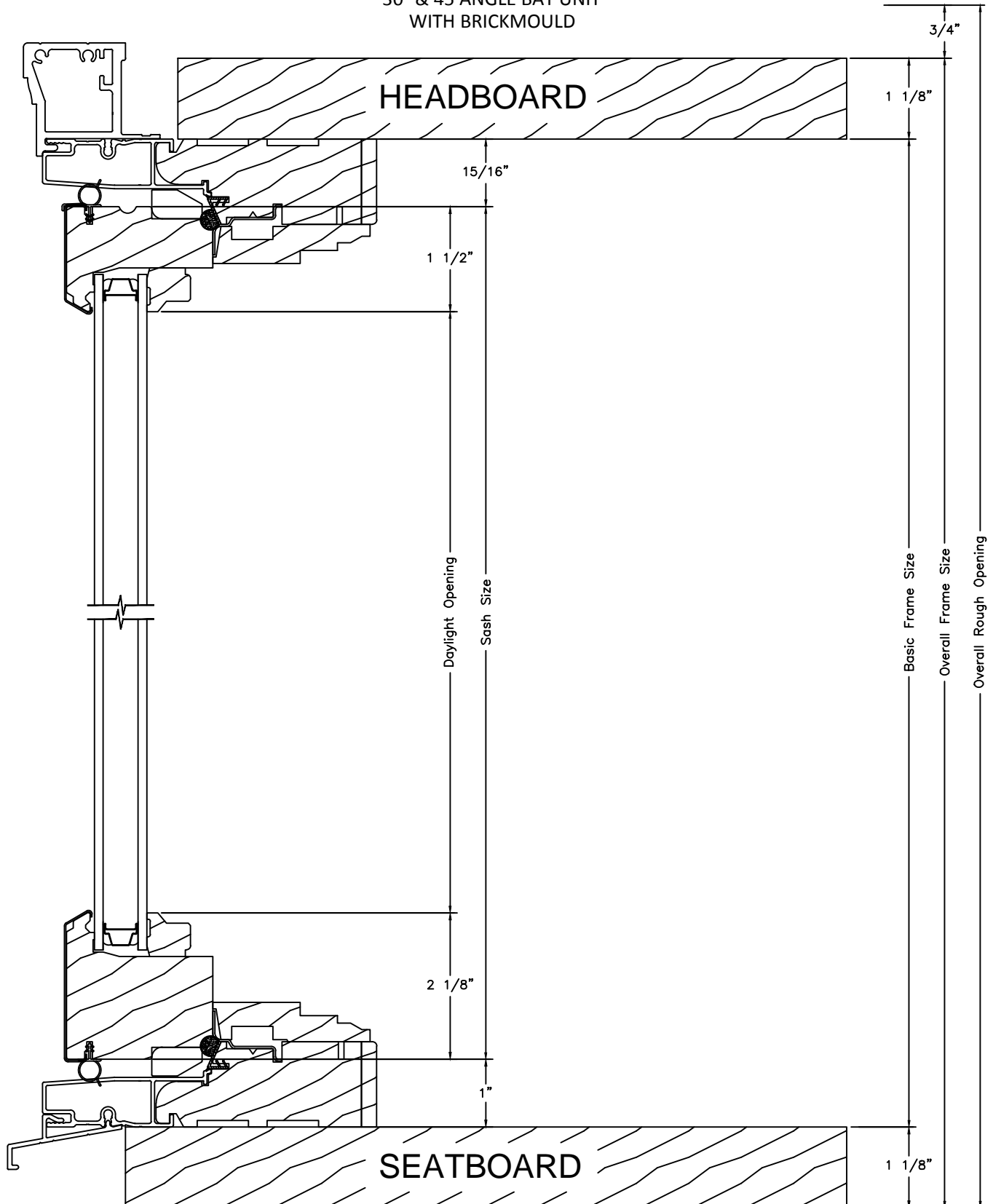


4, 5 & 6 WIDE BOWS
4 Wide Bow Shown
with Brickmould Shown

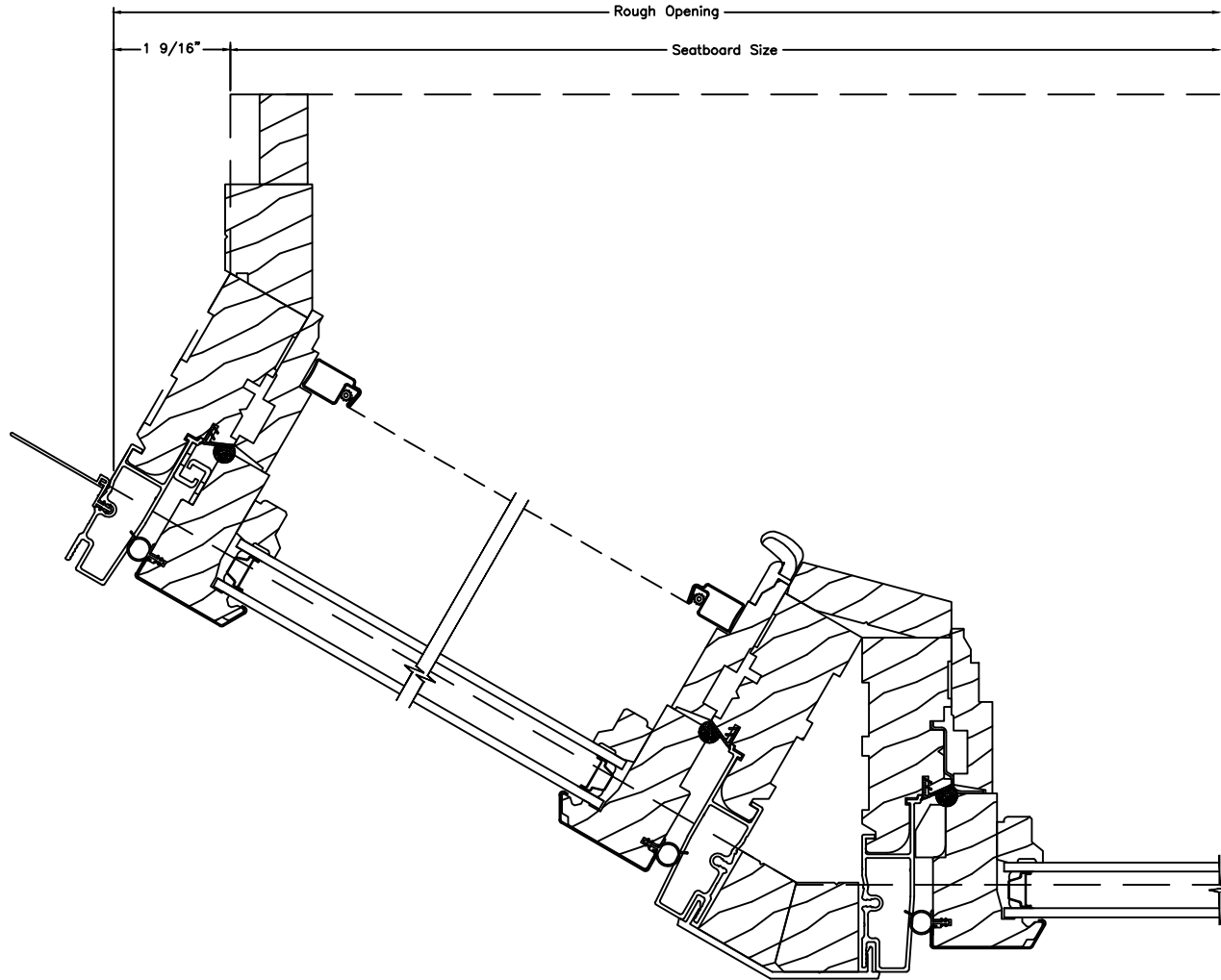
VERTICAL SECTION
30° & 45 ANGLE BAY UNIT



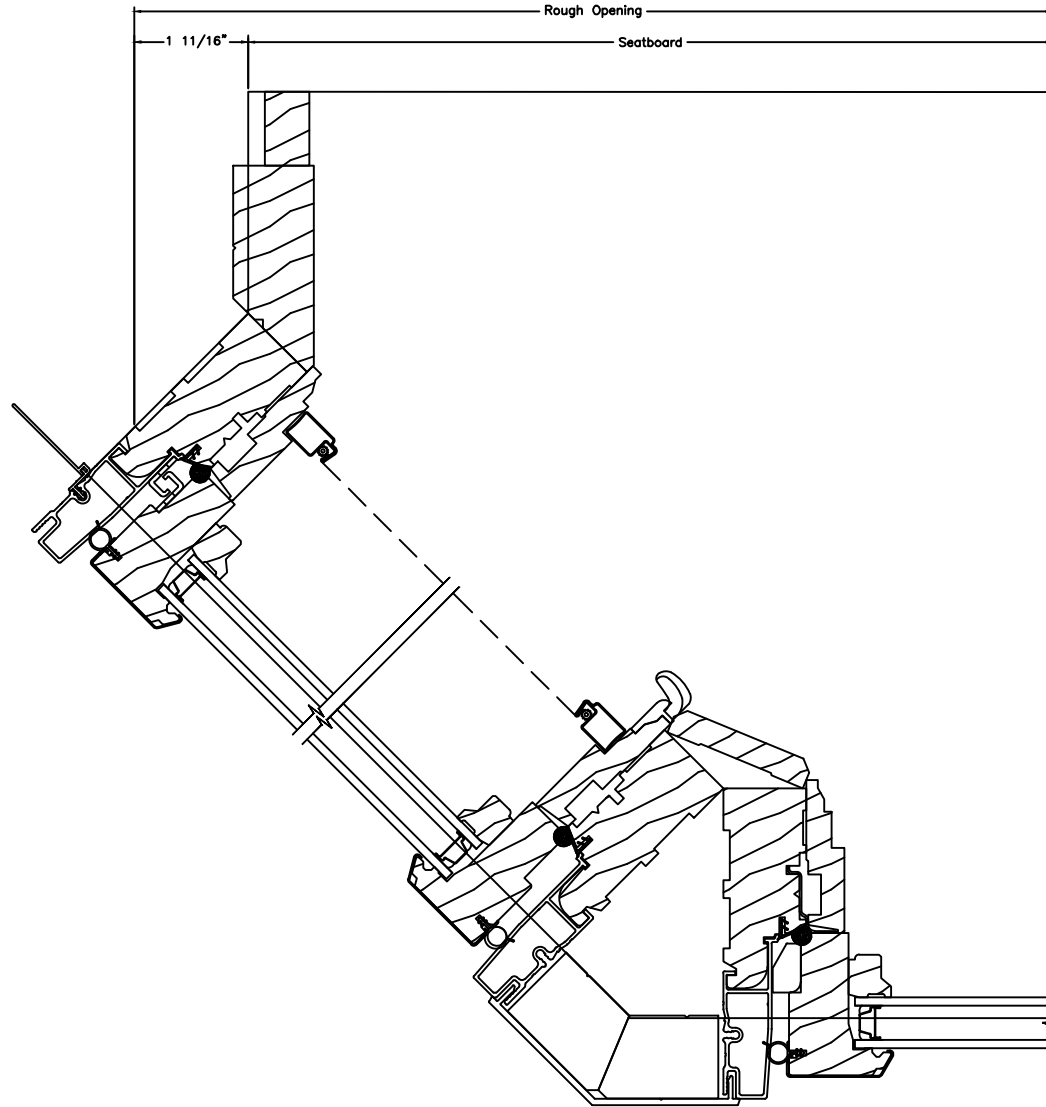
VERTICAL SECTION
30° & 45 ANGLE BAY UNIT
WITH BRICKMOULD



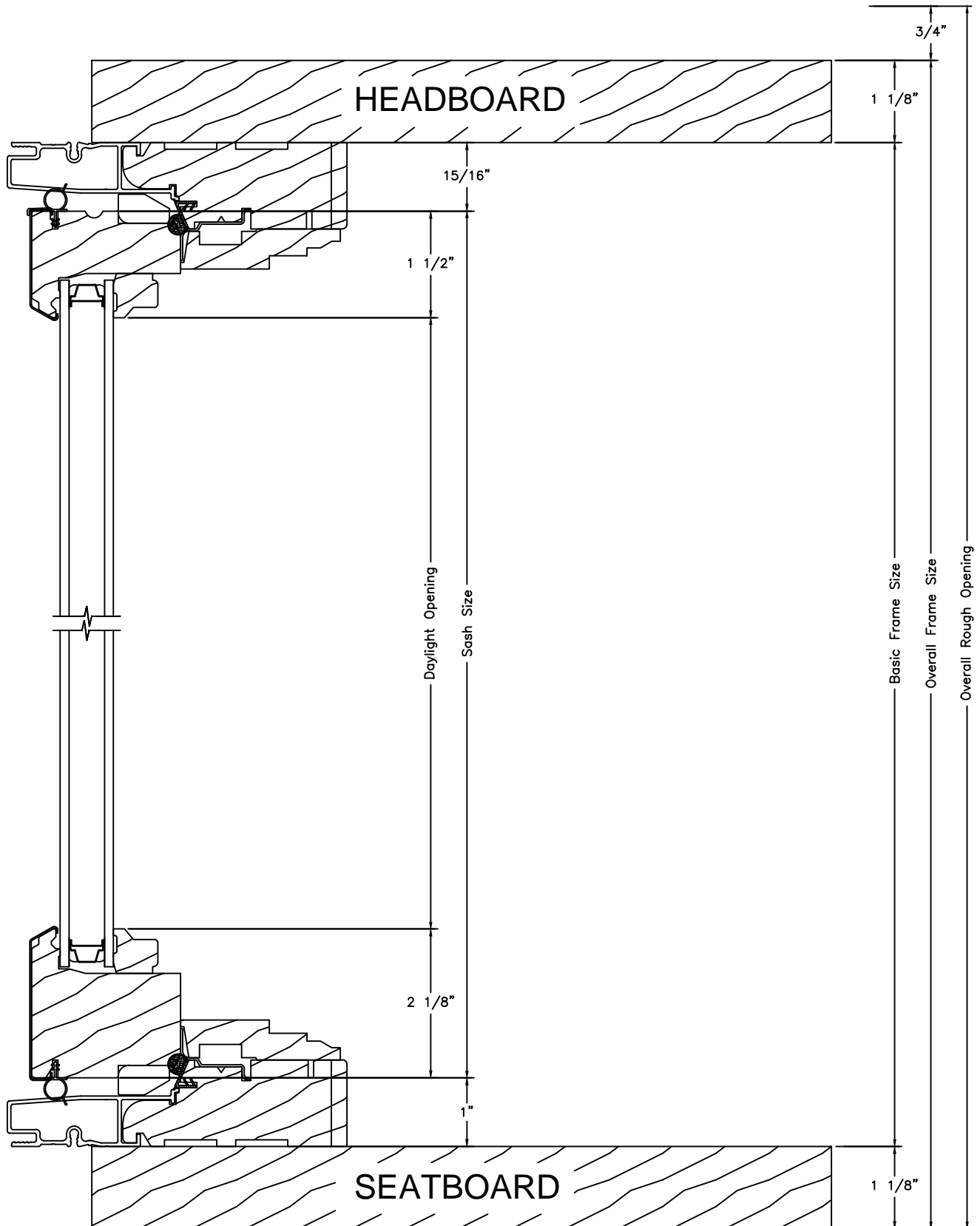
**HORIZONTAL SECTION
30° ANGLE BAY UNIT**



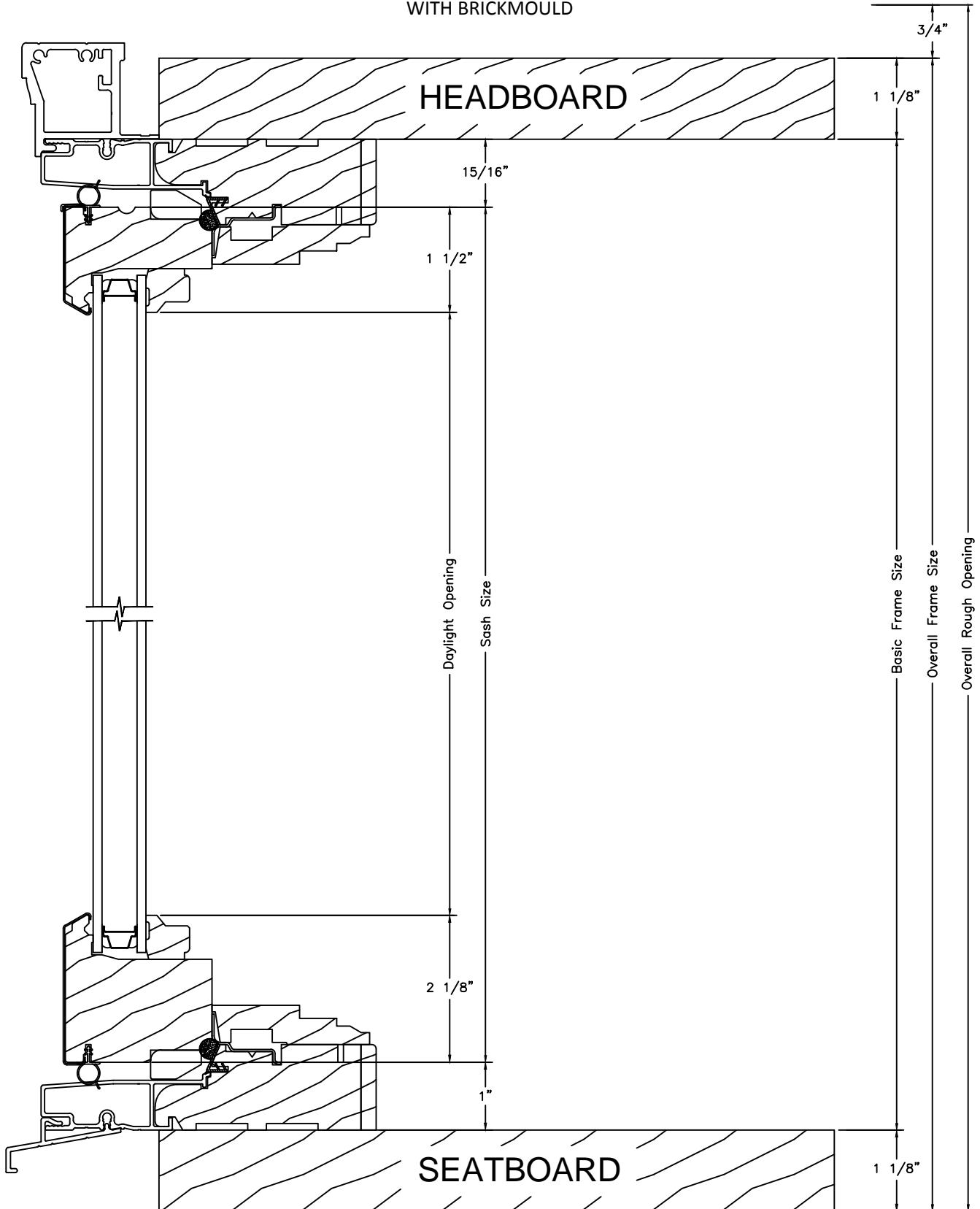
HORIZONTAL SECTION
45° ANGLE BAY UNIT



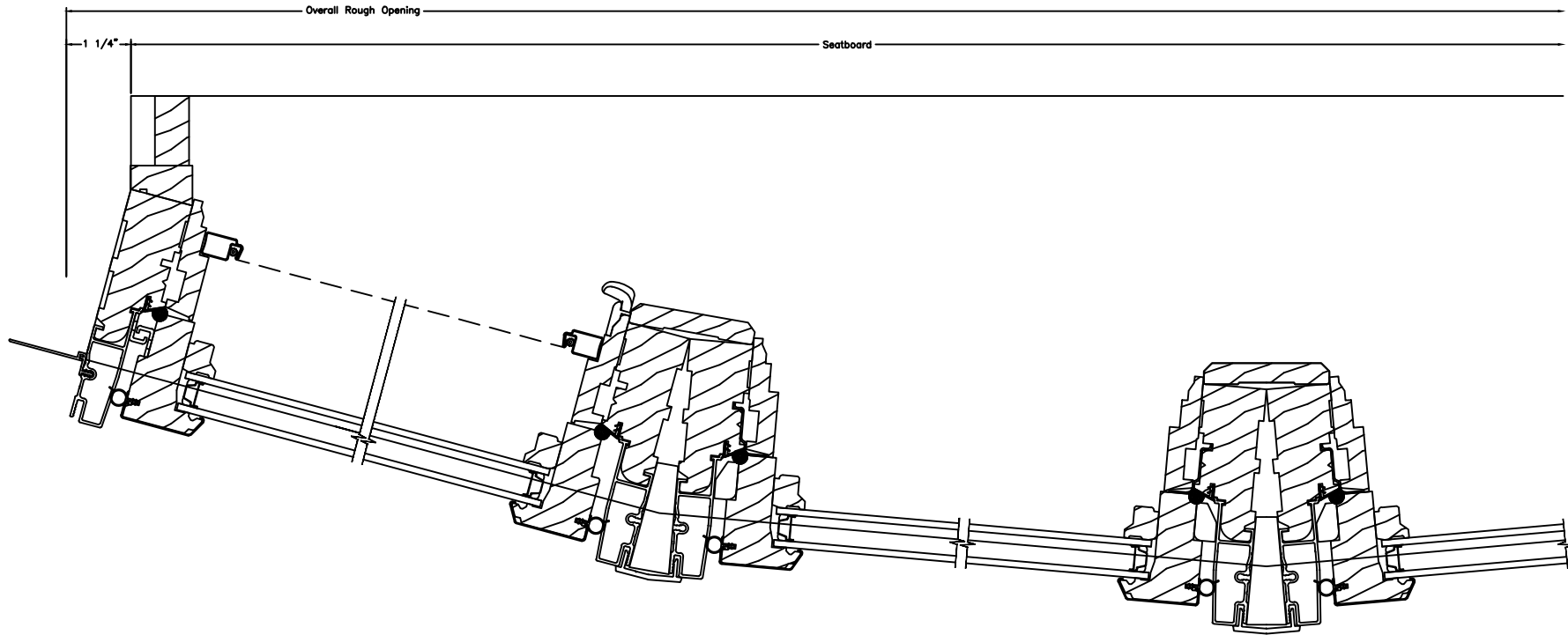
VERTICAL SECTION
BOW UNITS



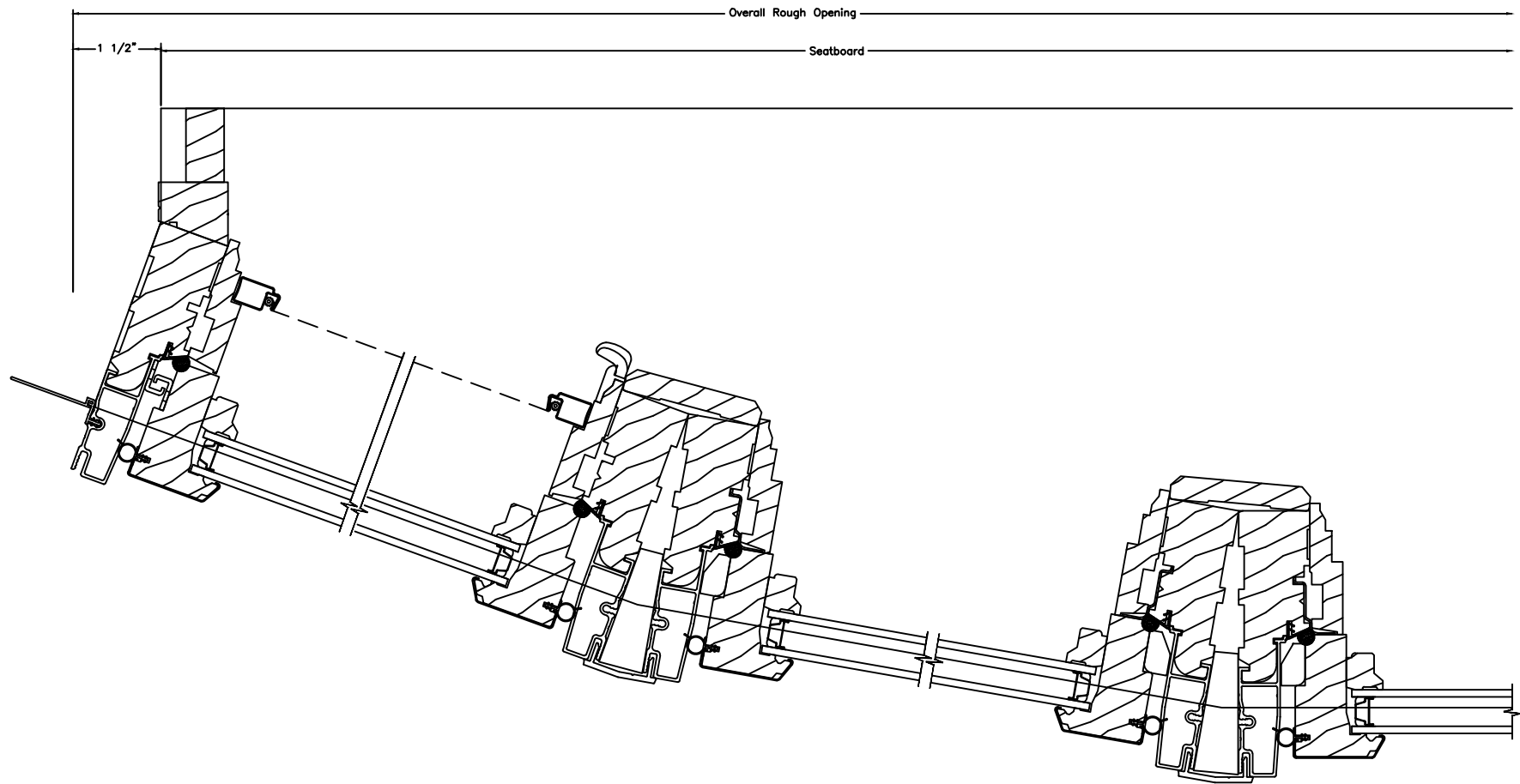
VERTICAL SECTION
BOW UNITS
WITH BRICKMOULD



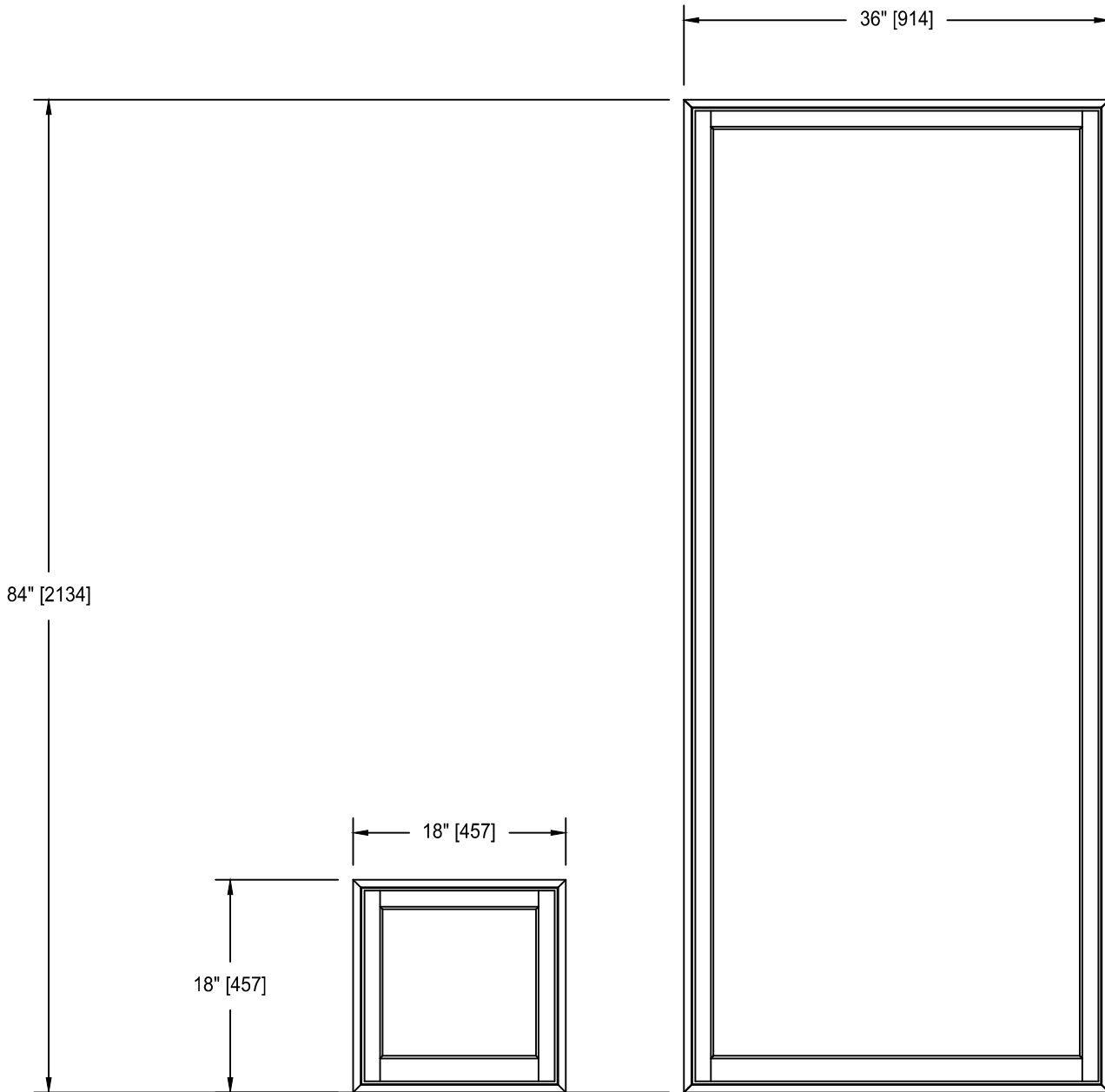
**HORIZONTAL SECTION
BOW UNITS
4-WIDE**



**HORIZONTAL SECTION
BOW UNITS
5-WIDE**



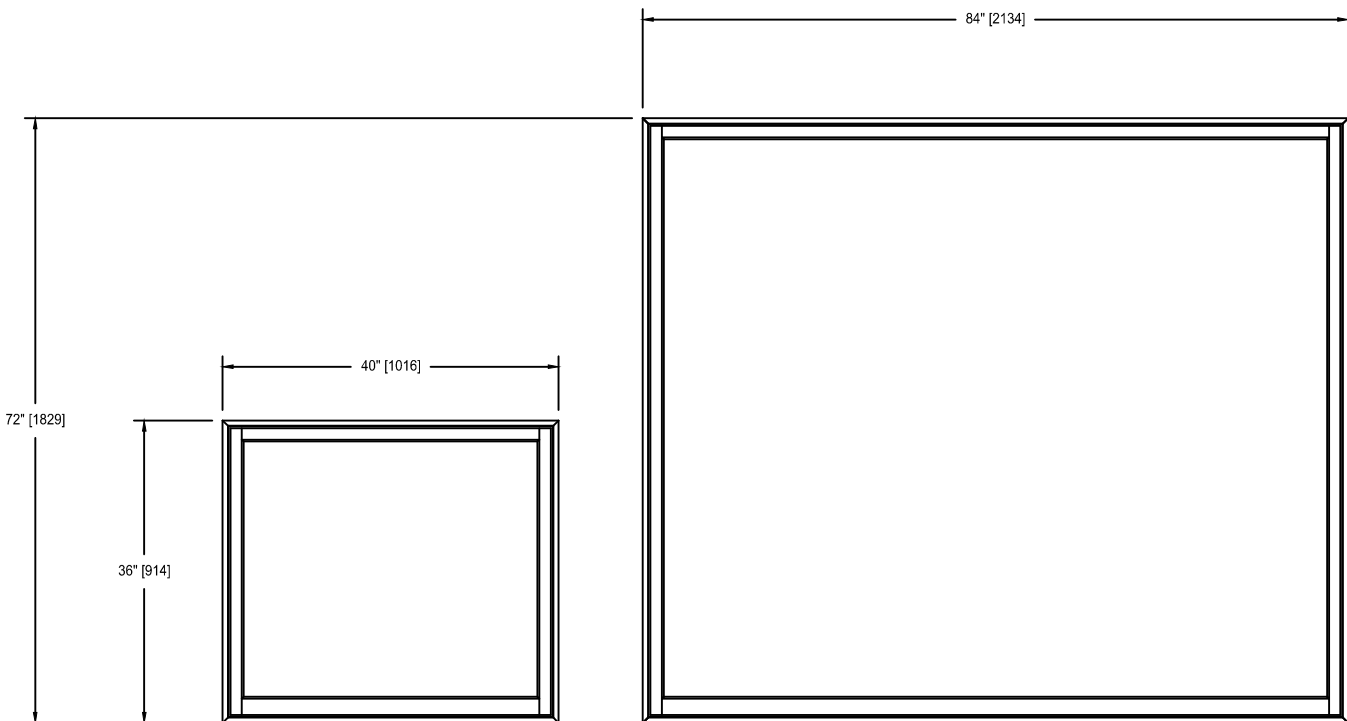
MIN-MAX SIZING
CASEMENT OPERATING UNIT



Standard widths for the Custom Clad Casement Operating window:
18" (457mm), 20" (508mm), 24" (610mm), 28" (711mm), 30" (762mm),
32" (813mm), 36" (914mm).

Standard heights for the Custom Clad Casement Operating window:
18" (457mm), 20" (508mm), 24" (610mm), 30" (762mm), 32" (813mm),
36" (914mm), 40" (1016mm), 42" (1067mm), 48" (1219mm), 54" (1372mm),
56" (1422mm), 60" (1524mm), 64" (1626mm), 66" (1676mm), 72" (1829mm),
78" (1981mm), 84" (2134mm).

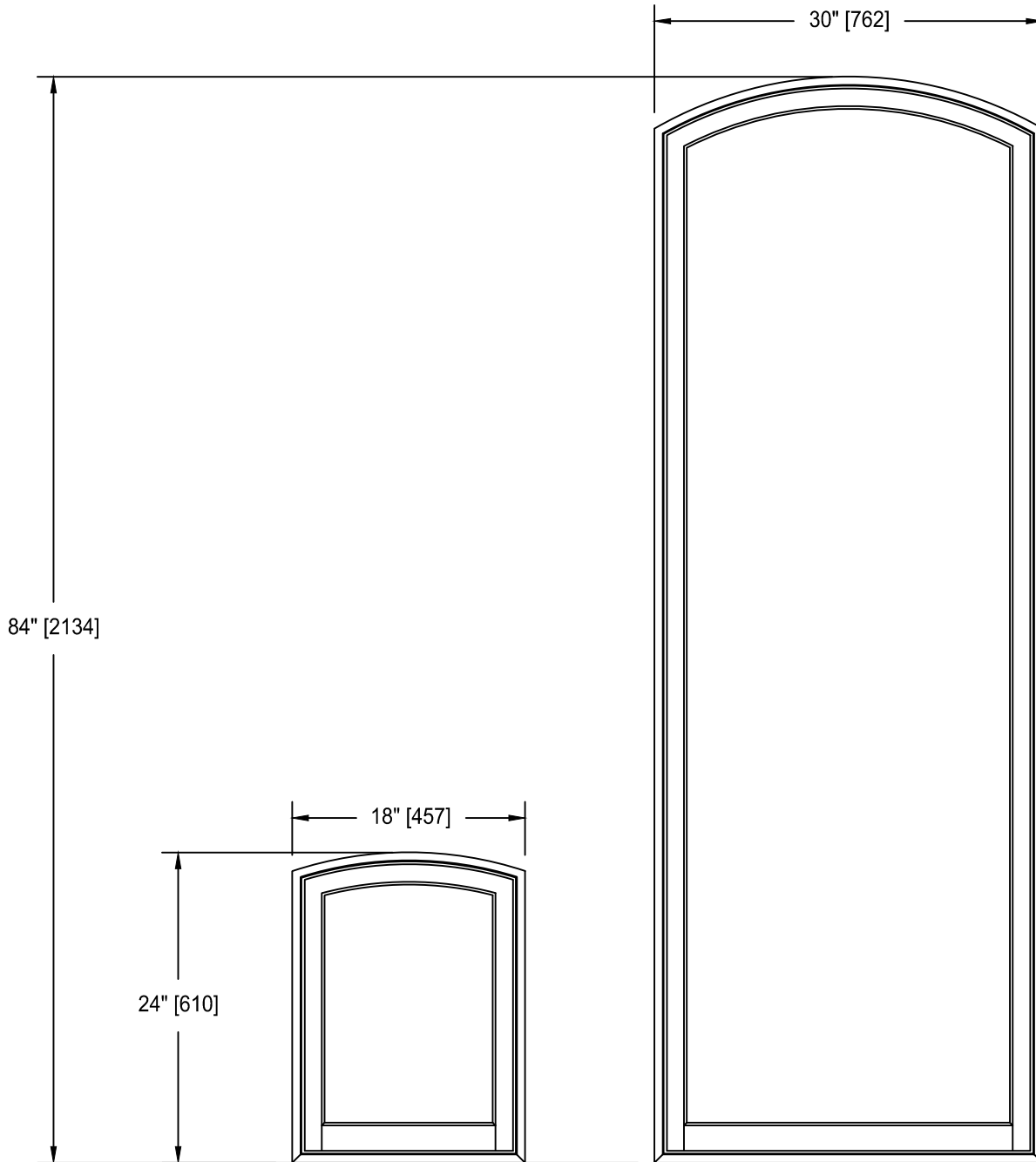
MIN-MAX SIZING
CASEMENT FIXED UNIT



Standard widths for the Custom Clad Casement Fixed window:
40" (1016mm), 42" (1067mm), 48" (1219mm), 54" (1372mm),
56" (1422mm), 60" (1524mm), 64" (1626mm), 66" (1676mm),
72" (1829mm).

Standard heights for the Custom Clad Casement Fixed window:
36" (914mm), 40" (1016mm), 42" (1067mm), 48" (1219mm),
54" (1372mm), 56" (1422mm), 60" (1524mm), 64" (1626mm),
66" (1676mm), 72" (1829mm), 78" (1981mm), 84" (2134mm).

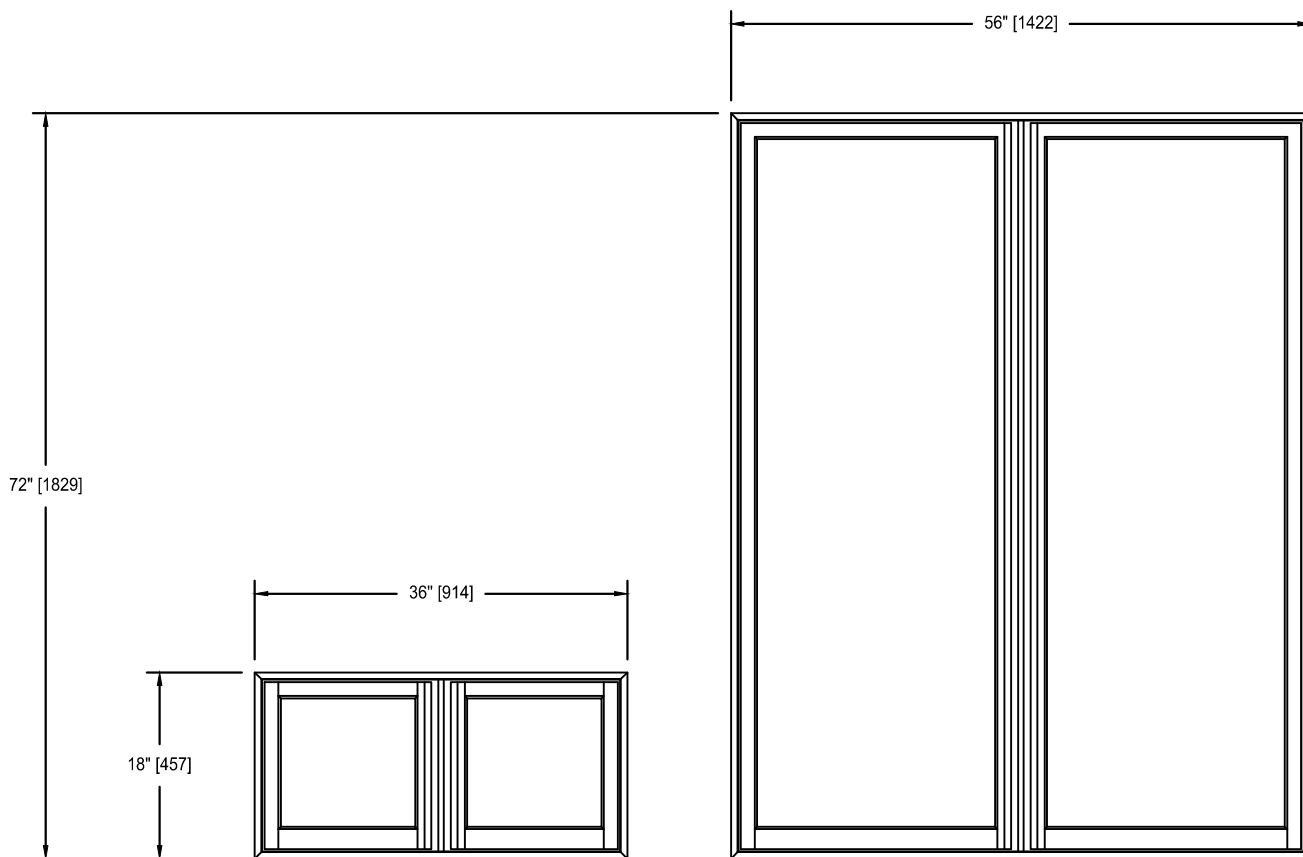
MIN-MAX SIZING
CASEMENT SECTOR TOP UNIT



Standard widths for the Custom Clad Sector Top Casement window:
18" (457mm), 20" (508mm), 24" (610mm), 28" (711mm), 30" (762mm),
32" (813mm), 36" (914mm).

Standard heights for the Custom Clad Sector Top Casement window:
24" (610mm), 30" (762mm), 32" (813mm), 36" (914mm), 40" (1016mm),
42" (1067mm), 48" (1219mm), 54" (1372mm), 56" (1422mm), 60" (1524mm),
64" (1626mm), 66" (1676mm), 72" (1829mm), 78" (1981mm), 84" (2134mm).

MIN-MAX SIZING
FRENCH CASEMENT UNIT



Standard widths for the Custom Clad French Casement window:
36" (914mm), 48" (1219mm), 56" (1422mm).

Standard heights for the Custom Clad French Casement window:
18" (457mm), 20" (508mm), 24" (610mm), 30" (762mm), 32" (813mm),
36" (914mm), 40" (1016mm), 42" (1067mm), 48" (1219mm), 54" (1372mm),
56" (1422mm), 60" (1524mm), 64" (1626mm), 66" (1676mm), 72" (1829mm).