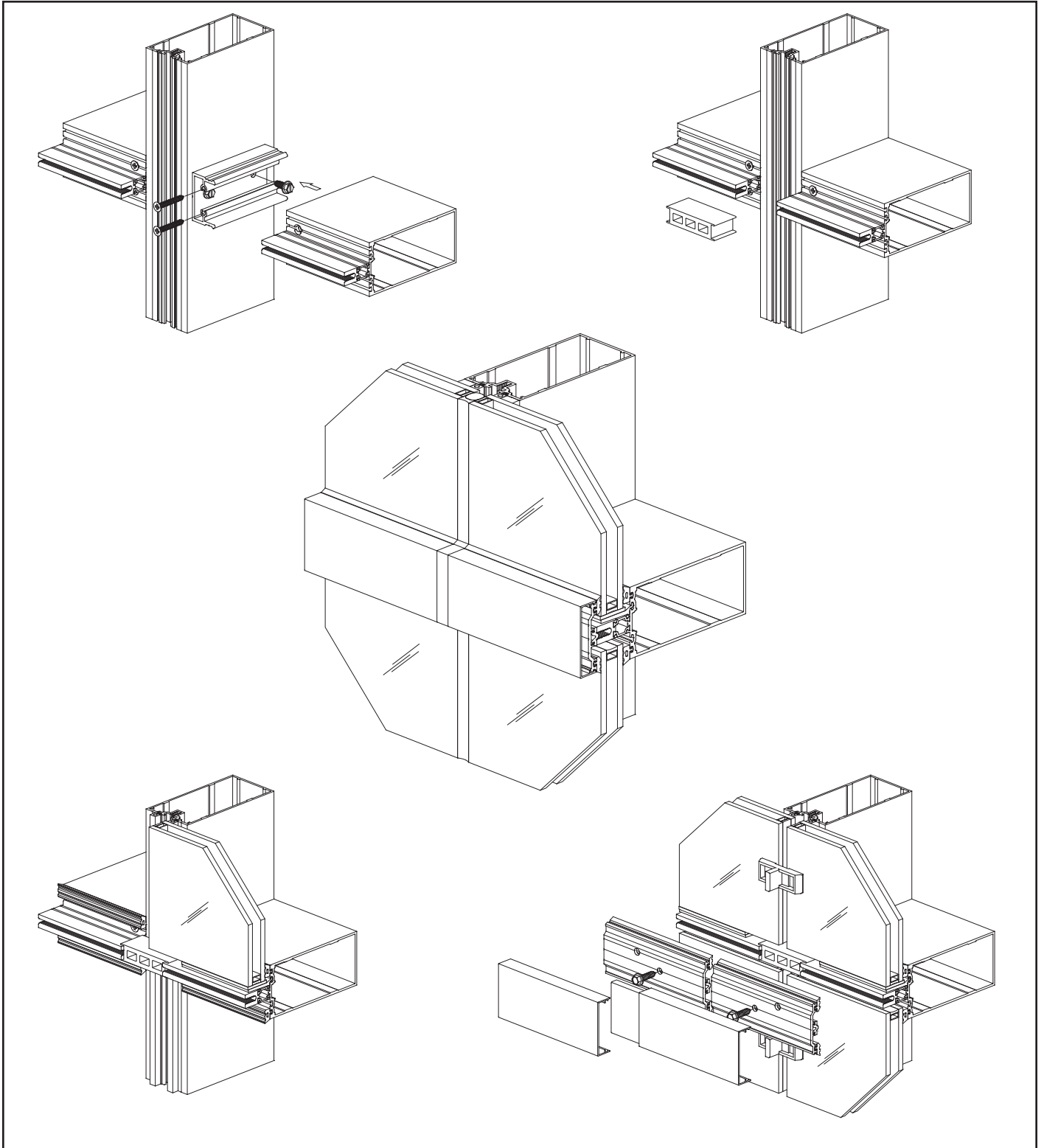


## YCW 750 XT 2-Sided SSG Structural Silicone Glazed Curtain Wall System



## Installation Manual



























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## Installation Notes









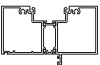

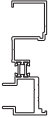




1. Do not drop, roll or drag boxes of aluminum framing. Move and stack boxes with proper support to prevent distortion. If fork lifts are used be especially careful about striking the boxes when lifting or moving.
2. Store in a dry, out of the way area. If rain exposure, condensation or any water contact is likely, then all packaging material should be removed. Wet packaging materials will discolor and may stain aluminum finishes and paints.
3. All materials should be checked for quality and quantity upon receipt, YKK AP must be notified immediately of any discrepancies in shipment. Check to make sure that you have the required shims, sealants, supplies and tools necessary for the installation.
4. Carefully check the openings and surrounding conditions that will receive your material. Remember, if the construction is not per the construction documents, it is your responsibility to notify the general contractor in writing. Any discrepancies must be brought to the general contractor's attention before you proceed with the installation.
5. Gather your shop drawings, materials, packing list, and this installation manual. Carefully review parts location, the sequence it goes therein, when you glaze it and how you seal it. Installation instructions are of a general nature and may not cover every condition you will encounter. The shop drawings and/or installation manuals were prepared specifically for the product.
6. Any material substitutions must be of equal or greater quality.
7. Make certain that material samples have been sent for compatibility testing for all manufacturer's sealants involved. Make certain sealants have been installed in strict accordance with the manufacturer's recommendations and specifications.
8. Remember to isolate, in an approved manner, all aluminum from uncured masonry or other incompatible materials.
9. System-to-structure fasteners are not supplied by YKK AP. Fasteners called out on shop drawings are to indicate minimum sizes for design loading.
10. If any questions arise concerning YKK AP products or their installation, contact YKK AP for clarification before proceeding.
11. YKK AP storefront and/or curtain wall framing is typically completed before drywall, flooring and other products which may still be in process. Take the extra time to wrap and protect the work produced.
12. Cutting tolerances are plus zero, minus one thirty second unless otherwise noted.
13. Check our website, [www.ykkap.com](http://www.ykkap.com), for the latest installation manual update prior to commencing work.

## FRAMING MEMBERS

	<b>Horizontal</b> 2-1/2" x 3-3/4"	<b>BE9-3948</b>		<b>Outside Corner Mullion</b> 2-1/2" x 5-1/4"	<b>E9-1246</b>
	<b>Jamb / Mullion / Horizontal</b> 2-1/2" x 3-3/4"	<b>BE9-3942</b>		<b>Outside Corner Mullion</b> 2-1/2" x 8-1/4"	<b>E9-8121</b>
	<b>Horizontal</b> 2-1/2" x 5-1/4"	<b>BE9-3910</b>		<b>Sill Flashing</b>	<b>BE9-3918</b>
	<b>Head / Sill / Horizontal</b> 2-1/2" x 5-1/4"	<b>BE9-3904</b>		<b>Flush Filler</b> Use With BE9-3948	<b>E9-3595</b>
	<b>Jamb / Mullion / Horizontal</b> 2-1/2" x 5-1/4"	<b>BE9-3901</b>		<b>Flush Filler</b> Use With BE9-3904	<b>E9-3162</b>
	<b>Head / Sill / Horizontal</b> 2-1/2" x 6-3/4"	<b>BE9-3914</b>		<b>Flush Filler</b> Use With BE9-3914	<b>E9-8489</b>
	<b>Jamb / Mullion / Horizontal</b> 2-1/2" x 6-3/4"	<b>BE9-3916</b>		<b>Standard Pressure Plate</b> E9-3906 with EPDM Isolator Drilled 9" O.C.	<b>AS-3906</b>
	<b>Heavy SSG Mullion **</b> 2-1/2" x 5-1/4" For 1/4" & 1" Glazin	<b>E9-3401</b>		<b>Perimeter Pressure Plate</b> E9-3907 with EPDM Isolator Drilled 9" O.C.	<b>AS-3907</b>
	<b>SSG Mullion (Standard) **</b> 2-1/2" x 5-1/4" For 1/4" & 1" Glazing	<b>E9-3402</b>		<b>Corner Adaptor</b>	<b>BE9-3912</b>
	<b>SSG Mullion **</b> 2-1/2" x 3-3/4" For 1/4" & 1" Glazing	<b>E9-3423</b>		<b>1-1/2" x 1-1/2" x 1/8" Angle</b>	<b>E9-9303</b>
	<b>SSG Mullion **</b> 2-1/2" x 6-3/4" For 1/4" & 1" Glazing	<b>E9-3426</b>		<b>3/4" x 3/4" x 1/8" Angle</b>	<b>E9-9307</b>
	<b>Outside Corner Mullion</b> 2-1/2" x 3-3/4"	<b>E9-1250</b>		<b>Face Cover</b> 2-1/2" x 3/4"	<b>E9-1206</b>



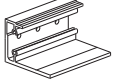




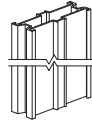
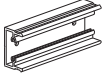

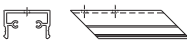



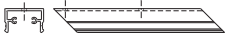
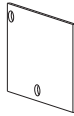



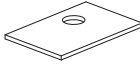
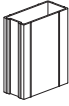


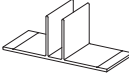
\* Splay mullions and other face covers are available, contact YKK AP.

## FRAMING MEMBERS (1" GLAZING)

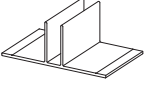

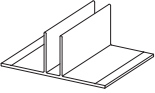

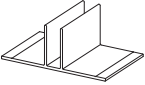

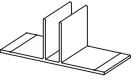

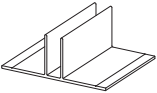

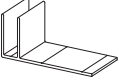

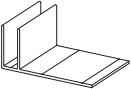

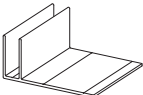

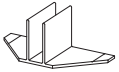

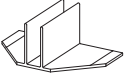

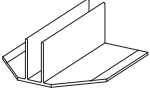

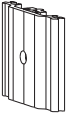

	<b>90° Outside Corner Interior Cover Base</b> Use with E9-1281	<b>E9-1280</b>		<b>Glazing Adaptor</b> For 1/4" Glazing	<b>E9-1220</b>
	<b>90° Outside Corner Interior Cover</b> For 5-1/4" Back Depth Only	<b>E9-1281</b>		<b>Door Stop</b> For 35XT/50XT Doors* E2-0051 Not Included Use with BE9-3650	<b>BE9-1533</b>
	<b>90° Outside Corner Interior Cover Base</b> Use with E9-7762	<b>E9-3556</b>		<b>Single Acting Transom Bar</b> For 25T/35T/50T Doors E2-0051 not Included	<b>BE9-2582</b>
	<b>90° Outside Corner Interior Cover</b> For 8-1/4" Back Depth Only	<b>E9-7762</b>		<b>Door Jamb Pocket Subframe</b> For 25T/35T/50T Doors Use with AS-1539	<b>BE9-1526</b>
	<b>Single Acting Transom Bar</b> For 35XT/50XT Doors* Elastomer Weathering E2-0051 Not Included	<b>BE9-1532</b>		<b>Door Stop</b> For 25T/35T/50T Doors E2-0051 Included Use with BE9-1526	<b>AS-1539</b>
	<b>Door Jamb</b> For 35XT/50XT Doors* Use with BE9-1533	<b>BE9-3650</b>		<b>Perimeter Anchor</b>	<b>E9-1223</b>
	<b>Narrow Door Jamb</b> For 35XT/50XT Doors* Use with BE9-1533	<b>BE9-1540</b>		<b>Perimeter Channel</b>	<b>E9-1231</b>
	<b>Perimeter Trim</b> For SSG Door Jamb	<b>E9-3409</b>			

\* Note: 35XT/50XT Doors to be discontinued after April 30, 2024.

## ACCESSORIES (1" GLAZING)

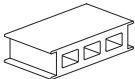

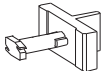


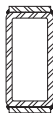





	<b>"J" Anchor</b> For 3-3/4" Depth Members Use (2) FC-1220 & Req. Fasteners	<b>E1-3501</b>		<b>Mullion Joint Sleeve</b> 18" Long, For E9-3423	<b>E1-3421</b>
	<b>"J" Anchor</b> For 5-1/4" Depth Members Use (2) FC-1220 & Req. Fasteners	<b>E1-3502</b>		<b>Mullion Joint Sleeve</b> 6" Long, For E9-3401 & E9-3402	<b>E1-3620</b>
	<b>Standard Shear Block</b> For 3-3/4" Depth Members Use (2) HF-2510-W1 & (2) FC-1220	<b>E1-3503</b>		<b>Mullion Joint Sleeve</b> 18" Long, For E9-3401 & E9-3402	<b>E1-3548</b>
	<b>Standard Shear Block</b> For 5-1/4" Depth Members Use (2) HF-2510-W1 & (2) FC-1220	<b>E1-3504</b>		<b>Mullion Joint Sleeve</b> 18" Long, For E9-3426	<b>E1-3427</b>
	<b>Standard Shear Block</b> For 6-3/4" Depth Members Use (2) HF-2510-W1 & (2) FC-1220	<b>E1-3506</b>		<b>Face Cover Splice Sleeve</b> For E9-1206 Face Cover	<b>E1-1202</b>
	<b>90° Outside Corner Shear Block</b> For 3-3/4" Depth Members, Use (2) HF-2510-W1 & (2) FC-1212	<b>E1-3503A</b>		<b>Standard Mullion End Cap</b> 2-1/2" x 2-3/8" x 0.050"	<b>E1-3605</b>
	<b>90° Outside Corner Shear Block</b> For 5-1/4" Depth Members, Use (2) HF-2510-W1 & (2) FC-1212	<b>E1-3504A</b>		<b>Stainless Steel Washer</b> To be used as end cap	<b>FW-2500-SS</b>
	<b>90° Outside Corner Shear Block</b> For 6-3/4" Depth Members, Use (2) HF-2510-W1 & (2) FC-1212	<b>E1-3506A</b>		<b>Sill Flashing End Dam</b> 2.157" x 1-3/8" x 0.050"	<b>E1-3611</b>
	<b>Setting Block Chair</b>	<b>E1-3603</b>		<b>Corner Mullion End Cap</b>	<b>E1-3608</b>
	<b>Mullion Joint Sleeve</b> For BE9-3942	<b>E1-1211</b>		<b>Perimeter Trim End Cap</b>	<b>E1-3579</b>
	<b>Mullion Joint Sleeve</b> For BE9-3901	<b>E1-1210</b>		<b>Perimeter Trim Clip</b>	<b>E1-3543</b>
	<b>Mullion Joint Sleeve</b> For BE9-3916	<b>E1-1365</b>		<b>Intermediate Vertical "T" End Anchor*</b> For BE9-3942	<b>E1-1223</b>

## ACCESSORIES (1" GLAZING)


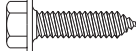
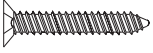
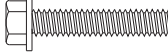

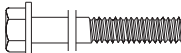

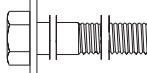

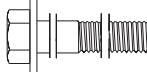






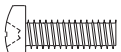





	<b>Intermediate Vertical "T" End Anchor*</b> For BE9-3901 & E9-3401	<b>E1-1222</b>		<b>Setting Block</b> For 1" Glazing	<b>E2-0513</b>
	<b>Intermediate Vertical "T" End Anchor*</b> For BE9-3916	<b>E1-3601</b>		<b>Setting Block</b> For 1/4" Glazing	<b>E2-0192</b>
	<b>Intermediate Vertical "T" End Anchor*</b> For E9-3402	<b>E1-1208</b>		<b>Side Block</b> With pressure sensitive adhesive	<b>E2-0133</b>
	<b>Intermediate Vertical "T" End Anchor*</b> For E9-3423	<b>E1-1229</b>		<b>Standard Joint Plug</b> For 1" Glazing	<b>E2-3603</b>
	<b>Intermediate Vertical "T" End Anchor*</b> For E9-3426	<b>E1-3580</b>		<b>End Dam Plug</b> Used with E9-1223 Perimeter Anchor	<b>E2-0505</b>
	<b>Jamb "F" End Anchor*</b> For BE9-3942	<b>E1-1235</b>		<b>Structural Tape</b>	<b>E2-0679</b>
	<b>Jamb "F" End Anchor*</b> For BE9-3901	<b>E1-1234</b>		<b>Nylon Slip Pad</b> For Wind Load & Dead Load Anchor	<b>E3-0103</b>
	<b>Jamb "F" End Anchor*</b> For BE9-3916	<b>E1-3602</b>		<b>Wind Load Anchor*</b> Refer to Shop Drawings For Anchor Dimensions	<b>E1-1204</b>
	<b>Corner "T" End Anchor</b> For 3-3/4" Depth Members	<b>E1-1207A</b>		<b>Dead Load Anchor*</b> Refer to Shop Drawings For Anchor Dimensions	<b>E1-1205</b>
	<b>Corner "T" End Anchor</b> For 5-1/4" Depth Members	<b>E1-1222A</b>		<b>Sill Flashing Gasket</b>	<b>E1-0241</b>
	<b>Corner "T" End Anchor</b> For 8-1/4" Depth Members	<b>E1-3571A</b>		<b>Corner Condition Gasket</b>	<b>E2-0354</b>
	<b>Temporary Glass Retainer</b> 2" Long	<b>E1-3612</b>		<b>Elastomer Weathering</b> Used with BE9-1532 & BE9-1533	<b>E2-0051</b>



## ACCESSORIES (1" GLAZING)

	<b>SSG Joint Plug</b> For 1" Glazing	<b>E2-3615</b>		<b>Interior Glazing Spacer (5/16" Depth)</b> 2" x 4" x 1/4" Steel Tube For BE9-3901 & BE9-3916	<b>E2-0261</b>
	<b>Temporary Glass Retainer **</b> For 1" Glazing	<b>E3-0001</b>		<b>Steel Reinforcing</b> 2" x 4" x 1/4" Steel Tube For BE9-3901 & BE9-3916	<b>E1-0162</b>
	<b>Interior Glazing Spacer</b> Silicone	<b>E2-0110</b>		<b>Steel Reinforcing</b> 2" x 4" x 1/4" Steel Tube & (2) 1/4" x 1-3/4" Steel Bars For BE9-3901 & BE9-3916	<b>E1-0154</b>
	<b>Perimeter Glazing Gasket</b> Use with AS-3907	<b>E2-0120</b>		<b>Jamb Anchor Plate</b> 3" x 6" x 5/16" Thk.	<b>E1-3536</b>
	<b>Exterior Glazing Gasket</b> Silicone	<b>E2-0127</b>		<b>Drill Fixture</b>	<b>H-7210</b>
	<b>Interior Glazing Gasket</b> Silicone	<b>E1-0128</b>			

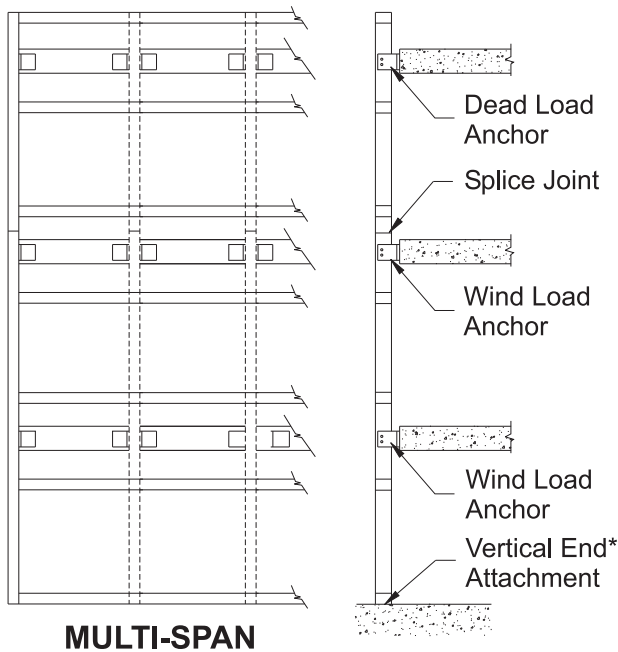
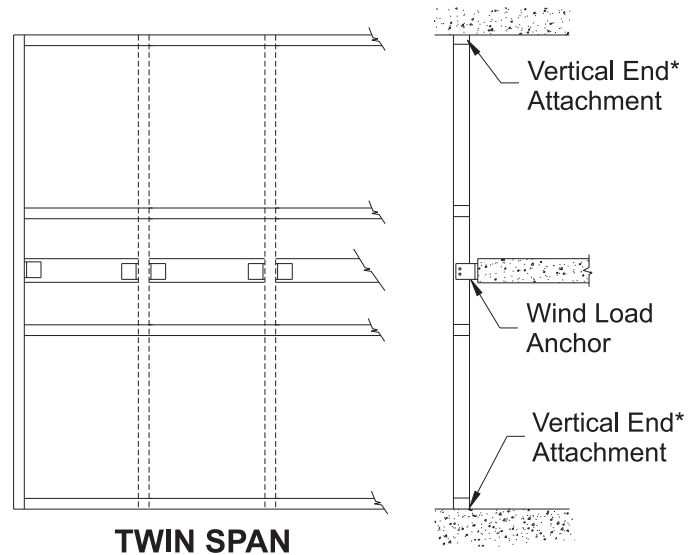
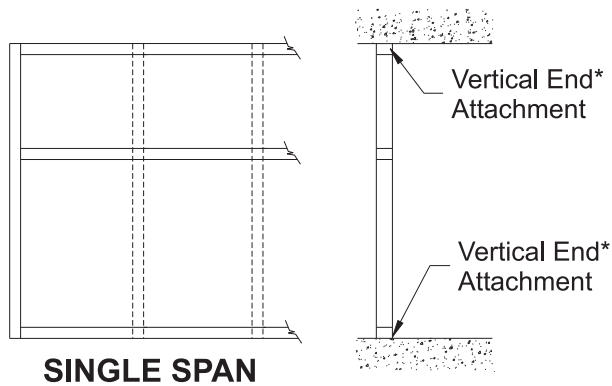
## FASTENERS

	<b>#12 x 3/4" FHSMS Type AB</b> Zinc Plated Steel For Attachment of Horizontal to Corner Shear Block	<b>FC-1212</b>		<b>1/4"-20 x 1" HWHMS Type CA</b> Stainless Steel For Attachment of Pressure Plate to Mullion	<b>HD-2516 -W3-SS</b>
	<b>#12 x 1-1/4" FHSMS Type AB</b> Zinc Plated Steel For Attachment of Horizontal to Shear Block	<b>FC-1220</b>		<b>1/4"-20 x 1-1/4" HWHMS</b> Zinc Plated Steel, For Attachment of 90° Outside Corner Adaptor to Vertical	<b>HM-2520 -W3</b>
	<b>#14 x 5/8" FHSMS Type AB</b> Zinc Plated Steel For Attachment of Mullion End Caps	<b>FC-1410</b>		<b>1/4"-20 x 3-1/2" HWHMS</b> Zinc Plated Steel For Attachment of "J" Anchor at Intermediate Vertical	<b>HM-2556 -W3</b>
	<b>#8 x 5/8" PHSMS Type AB</b> Zinc Plated Steel For Attachment of Glazing Adaptor E9-1220	<b>PC-0810</b>		<b>1/2"-13 x 2" HWHMS</b> Zinc Plated Steel, For Attachment of Windload/Deadload Anchor at Jamb	<b>HM-5032</b>
	<b>#10 x 5/8" PHSMS Type AB</b> Zinc Plated Steel For Attachment of Sill Flashing BE9-3918	<b>PC-1010</b>		<b>1/2"-13 x 4-1/2" HWHMS</b> Zinc Plated Steel, For Attachment of Windload/Deadload Anchor at Mullion	<b>HM-5072</b>
	<b>#12 x 5/8" PHSMS Type AB</b> , Zinc Plated Steel For Attachment of Perim. TrimEnd Cap	<b>PC-1210</b>		<b>1/2"-13 Nut HHMS</b> Zinc Plated Steel For Attachment of Mid-Anchors (Wind Load / Dead Load)	<b>HM-5000</b>
	<b>#8 x 1/2" PHSMS Type F</b> Stainless Steel, For Attachment of Splice Sleeve Face Covers	<b>PF-0808 -SS</b>		<b>1/4"-20 Nut HHMS</b> Zinc Plated Steel For Attachment of "J" Anchor	<b>HM-2500</b>
	<b>#10 x 3/8" PHMS</b> Stainless Steel For Attachment of Perimeter Trim Clip to Perimeter Trim	<b>PM-1006-SS</b>		<b>1/4" Flat Washer</b> Zinc Plated Steel For Attachment of "J" Anchor	<b>WW-2500</b>
	<b>1/4"-20 x 3/4" PHMS</b> Stainless Steel For Attachment of Perimeter Trim Clip to Mullion	<b>PM-2512-SS</b>		<b>1/2" Flat Washer</b> Zinc Plated Steel, For Attachment of Mid-Anchors (Wind Load / Dead Load)	<b>WW-5000</b>
	<b>1/4"-20 x 5/8" HWHS Type F</b> Zinc Plated Steel For Attachment of Standard Shear Block to Vertical	<b>HF-2510 -W1</b>		<b>1/2" Lock Washer</b> Zinc Plated Steel, For Attachment of Mid-Anchors (Wind Load / Dead Load)	<b>WS-5000</b>
	<b>1/4"-20 x 1" HWHS Type F</b> , Zinc Plated Steel, For Attachment of Standard Shear Block to Vertical w/ Steel Reinf.	<b>HF-2516 -W1</b>		<b>1/4" Lock Washer</b> Zinc Plated Steel For Attachment of "J" Anchor	<b>WS-2500</b>

## FRAME FABRICATION

### FRAME TYPES / ANCHORING METHODS

The following is a guideline for common types of frames. Refer to shop drawings for exact layout of frames.



Smaller units may be assembled on the ground and tipped in place. Larger units require being stick assembled in place.

**Note:** If YKK AP does not prepare the shop drawings for the project, a qualified engineer must approve all anchors and mullions for wind load and dead load.

All anchors must be attached to structurally sound material that will accommodate the anchor reactions.

\* Vertical end attachment will be continuous perimeter anchor, "J" anchor, or mullion end anchor.

**Fabrication of YCW 750 XT SSG varies depending on the type of vertical end attachment required for a given project:**

**Perimeter Anchors** are for low load anchoring conditions (maximum 500lb. end load reaction): E9-1248, E9-1223, & E9-1231

**"J" Anchors** are for medium to high load conditions: E1-3501, E1-3502, & E1-3505.

**Mullion End Anchors "F" & "T"** are for high load conditions. See Accessories on **Page 3 & 4**.

## FRAME FABRICATION

### FRAME TYPES / ANCHORING METHODS

#### Using Perimeter Anchors:

-Jamb mullions must be notched as shown in **Detail 1** on **Page 8**.

#### Using Mullion End Anchors:

YCW 750 XT SSG has three possible end anchoring conditions: "J", "T", and "F".

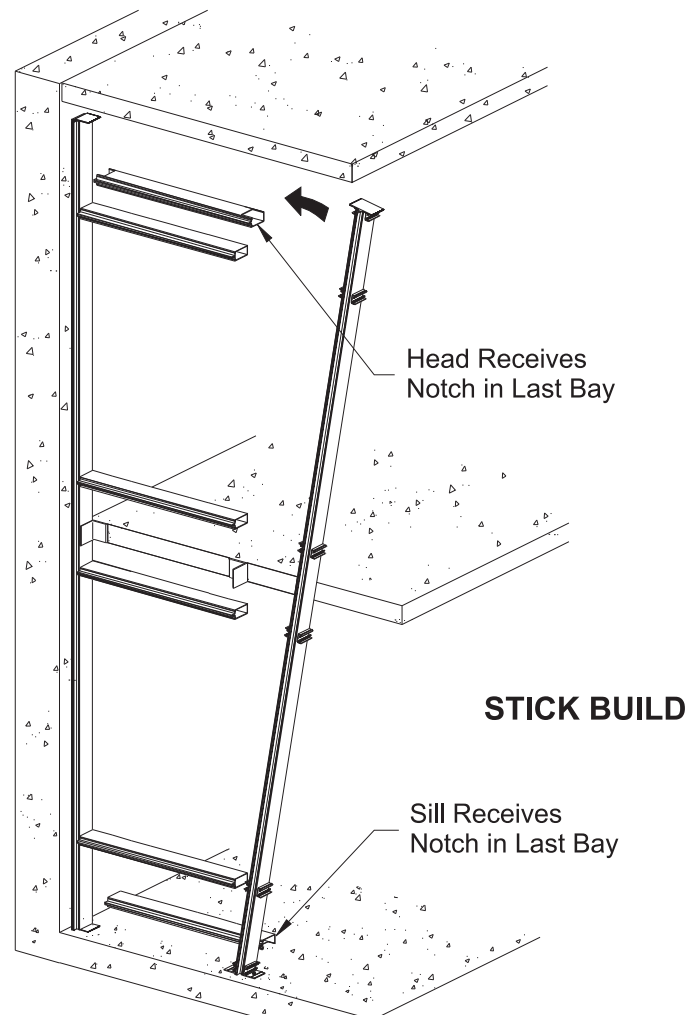
- "J" anchors are used with jambs and intermediate verticals at the sill only.
- "T" anchors are used with intermediate verticals at the head and sill.
- "F" anchors are used with jamb mullions at the head and sill.
- Anchor usage depends on end reaction, stress, and attachment.

Mullions should be pre-assembled with shear blocks/clips, end anchors, and steel or aluminum reinforcing if necessary.

#### Framing Members for Stick Build:

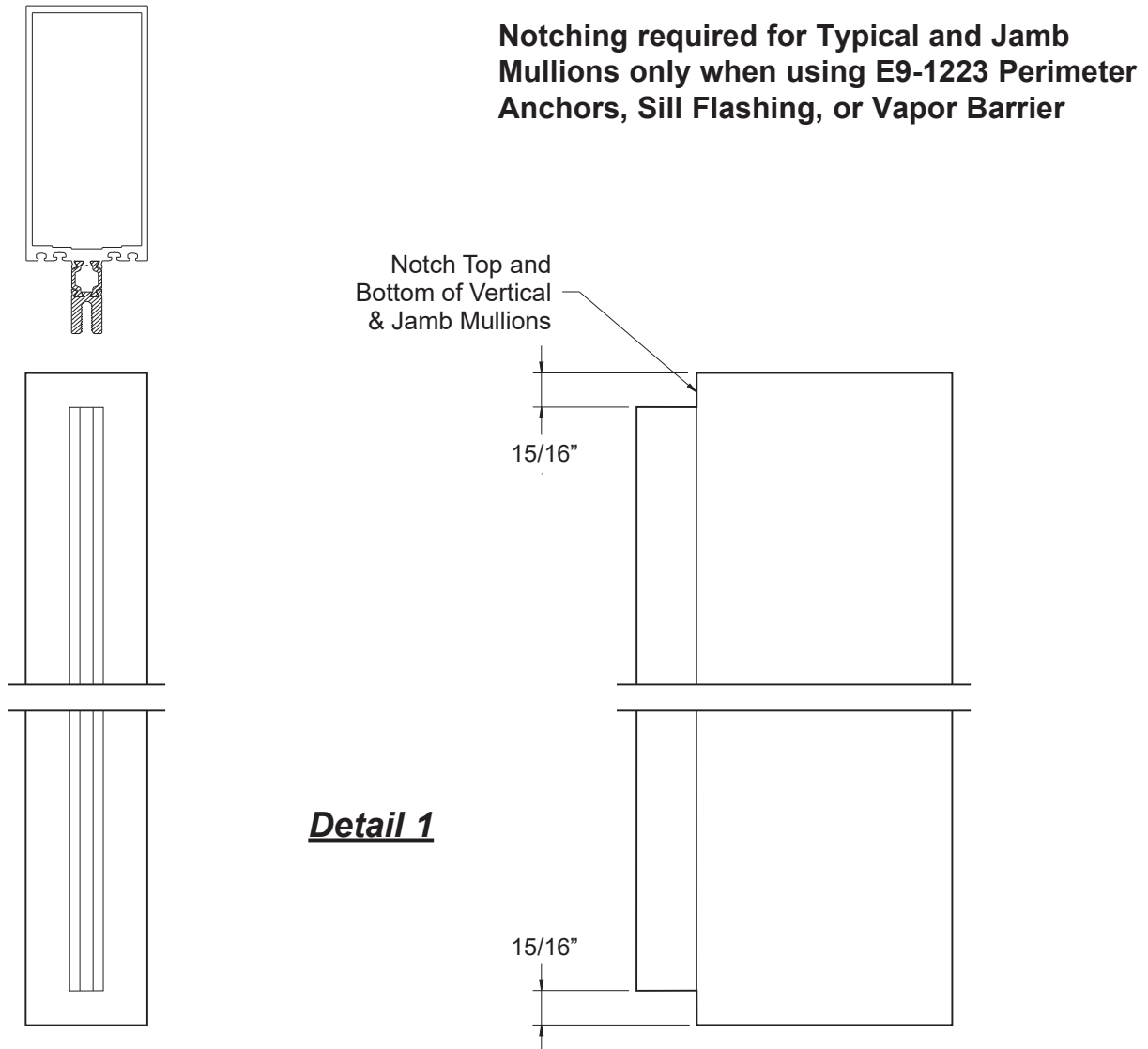
- Head and sill members must be notched as shown **Detail 9** on **Page-15** to clear the mullion end anchors.
- Closed horizontal members are used at all intermediate locations except at end bays.
- Open back intermediate horizontals are used at end bays to clear the shear clips.

**Note:** When using stick build construction, check overall frame width every fifth mullion as the wall is installed to prevent the buildup of cumulative tolerance errors.



## FRAME FABRICATION

### FABRICATE VERTICAL MULLIONS



#### Step 1

-Cut all vertical and jamb mullions to dimensions as shown on shop drawings.  
Allow for 1/2" caulk joint around the frame & 1/2" joint at vertical splices.

#### Step 2

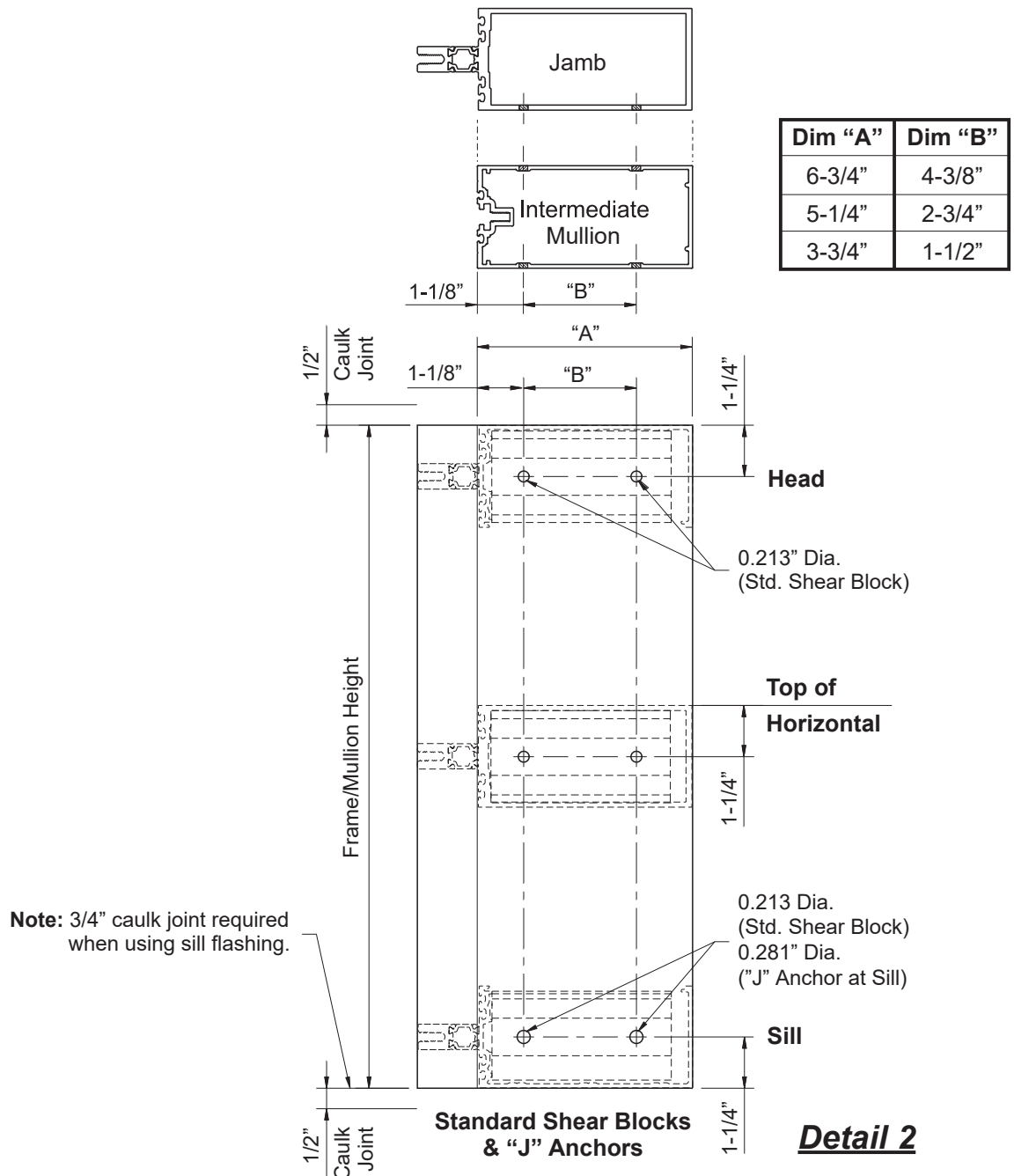
-If you are using continuous perimeter anchors, E9-1223, the top and bottom of jamb mullions must be notched as shown in **Detail 1**.

## FRAME FABRICATION

### STEP 3

### FABRICATE VERTICAL MULLIONS

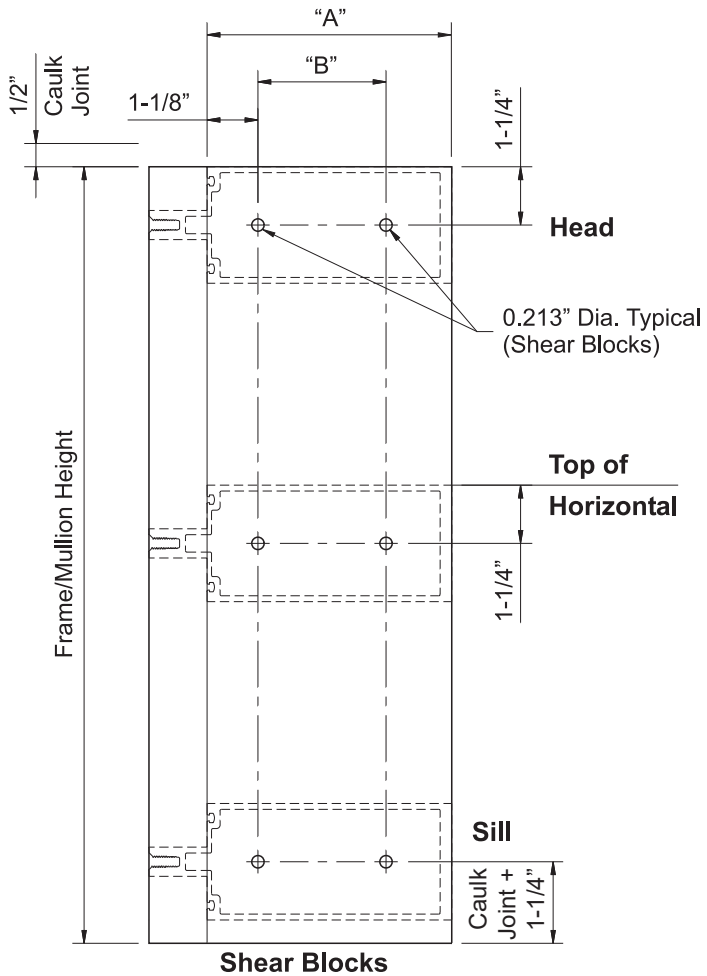
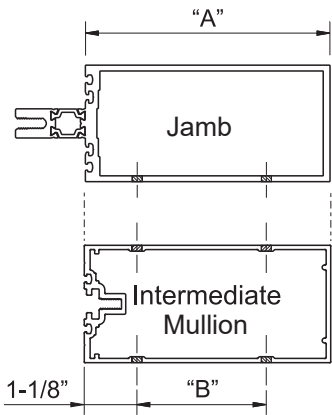
- Mullion hole locations for shear blocks, shear clips, and "J" anchors are shown below.
- Drill 0.213" dia. (#3 drill bit) holes for shear block/clip attachment at the locations indicated.
- Drill 0.281" dia. (#9/32 drill bit) holes for "J" anchor attachment at the sill.
- See **Details 2 & 3**.



## FRAME FABRICATION

### STEP 3 (Continued) FABRICATE VERTICAL MULLIONS AT DOOR JAMB

Dim "A"	Dim "B"
6-3/4"	4-3/8"
5-1/4"	2-3/4"
3-3/4"	1-1/2"



**Detail 3**

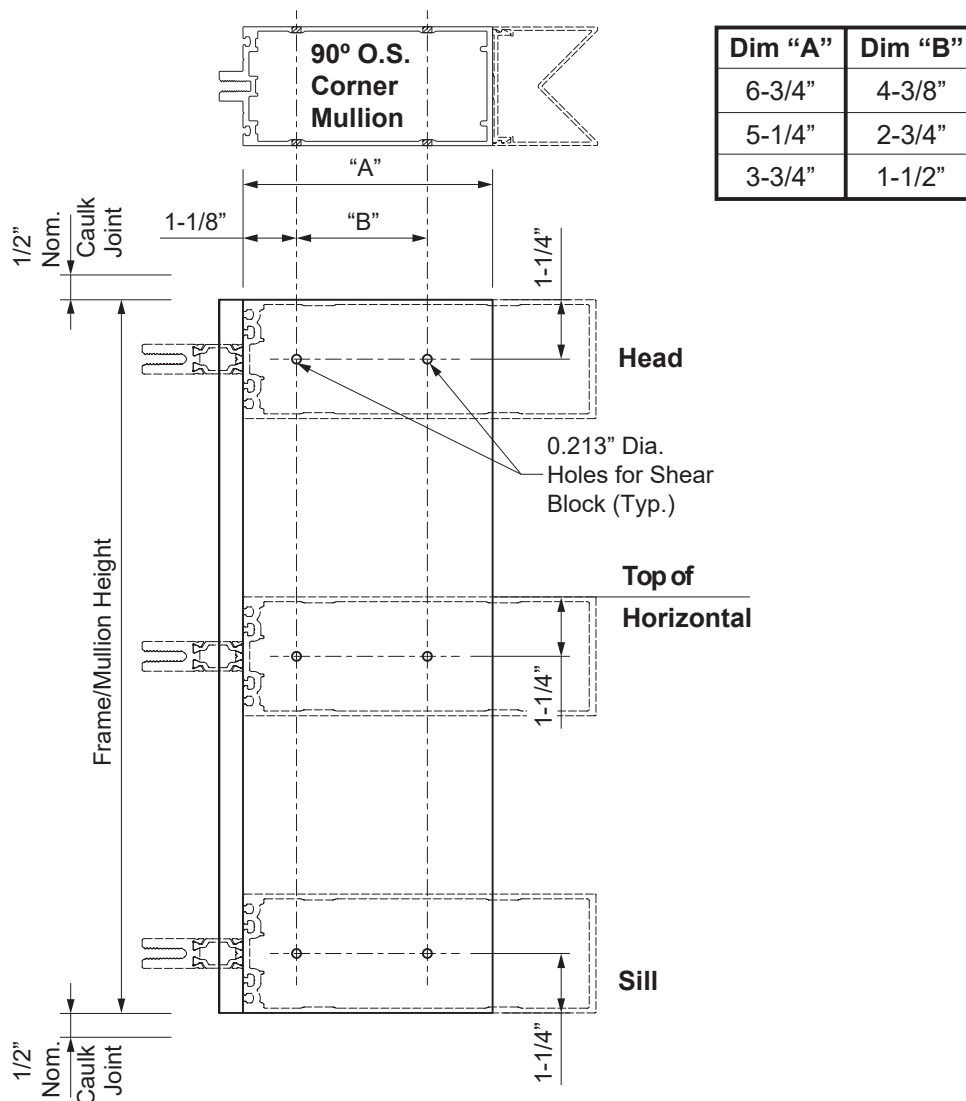
## FRAME FABRICATION

### STEP 3 (Continued)

### FABRICATE 90° OUTSIDE CORNER MULLIONS

- Mullion hole locations for shear blocks, shear clips, and “J” anchors are shown below.
  - Drill 0.213” dia. (#3 bit) holes for shear block/clip attachment at the locations indicated.
  - Drill 0.281” dia. (#9/32 bit) holes for “J” anchor attachment at the sill at the locations indicated.
- See **Detail 4**.

**Note:** Hole locations for standard shear blocks are not the same as shear clips for optional incidental water head.



**Detail 4**



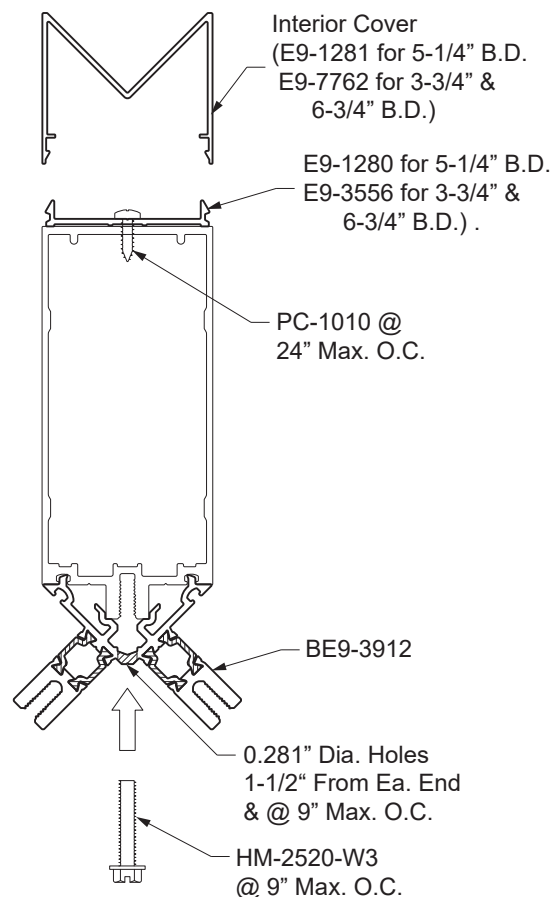
## FRAME FABRICATION

### STEP 4

#### ASSEMBLE 90° OUTSIDE CORNER MULLIONS

- Drill 0.281" diameter clear holes into the corner mullion adaptor at 1-1/2" from each end and at 9" maximum on center.
- Fasten the corner mullion adaptor onto the corner mullion using HM-2520-W3 screws. Tighten the screws to 70 inch-pounds.
- Prior to attaching the corner shear blocks to the corner mullion, the interior covers must be installed. Attach the interior cover base to the back of the corner mullion with PC-1010 screws at 24" maximum on center. Then snap on the interior cover.

See **Detail 5**.



**Detail 5**

**FRAME FABRICATION****STEP 4****ATTACH SHEAR BLOCKS/CLIPS FOR HORIZONTALS**

Shear blocks are used to attach one piece horizontal members to the jamb and vertical mullions:

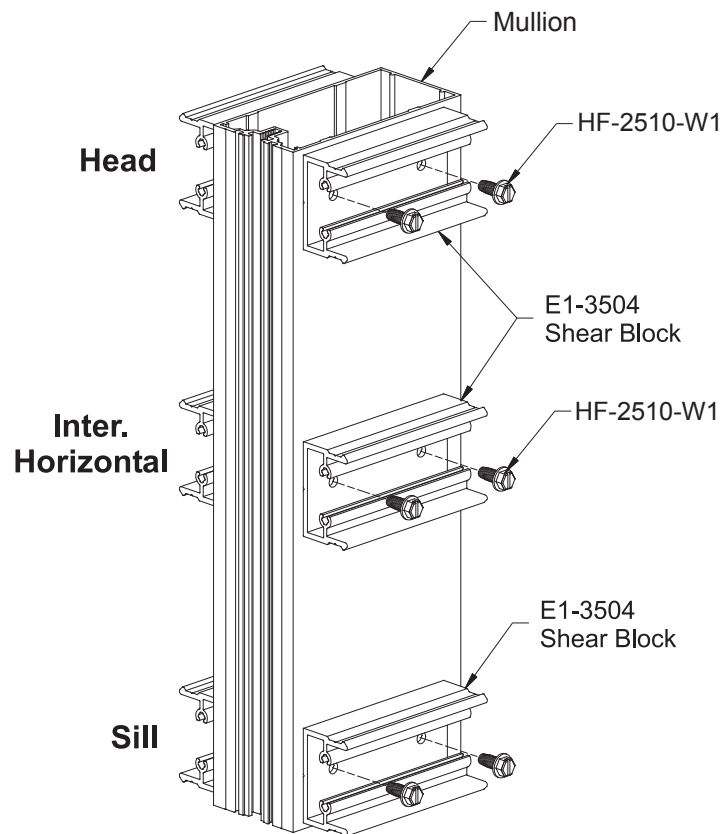
E1-3503 for 3-3/4" back members.

E1-3504 for 5-1/4" back members.

E1-3506 for 6-3/4" back members.

-Attach the shear blocks/clips to jambs and verticals with two HF-2510-W1 fasteners per block.  
See **Detail 6**.

**Note:** See **Step 5** on the next page when using reinforcing.



**Detail 6**

## FRAME FABRICATION

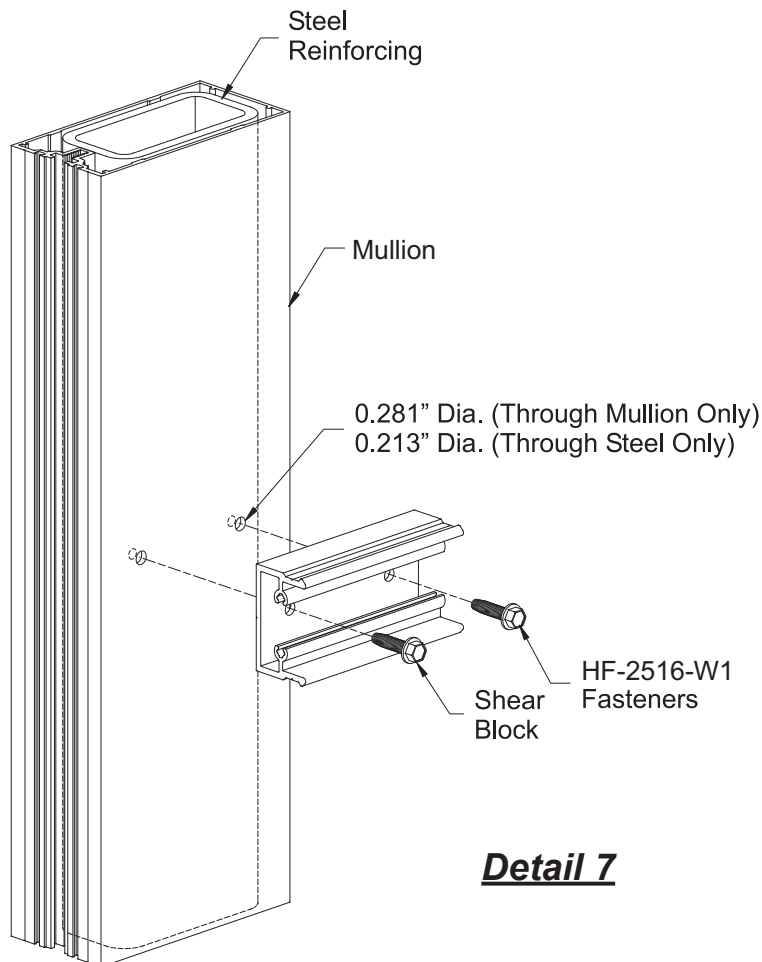
### STEP 5 USING ALTERNATE REINFORCING

Engineering calculations may require the vertical mullions to be reinforced with either steel or aluminum.

- Steel reinforcing is always fastened through the shear blocks.
- Slide the steel reinforcing into the mullion and into position.
- Drill a 0.281" diameter (#9/32 bit) hole in the vertical mullion being careful not to drill a hole in steel reinforcing.
- Drill a 0.213" diameter (#3 bit) hole in the steel reinforcing through the previous holes.
- Attach the shear blocks to the mullion and steel with two HF-2516-W1 fasteners per block.

See **Detail 7**.

**Note:** Exact size of reinforcing to be determined by a qualified engineer.



**Detail 7**

## FRAME FABRICATION

### STEP 6 ATTACH “J” ANCHORS

In addition to anchoring the curtain wall frame to the structure, “J” anchors are used to attach sill members to jamb and vertical mullions:

E1-3501 for 3-3/4” back members.

E1-3502 for 5-1/4” back members.

E1-3505 for 6-3/4” back members.

**Note:** “J” anchors are used at the sill only.

#### Attach “J” anchors at jambs:

-Align the “J” anchor with the mullion and insert the HM-2516 bolts through the inside of the mullion and out the “J” anchor.

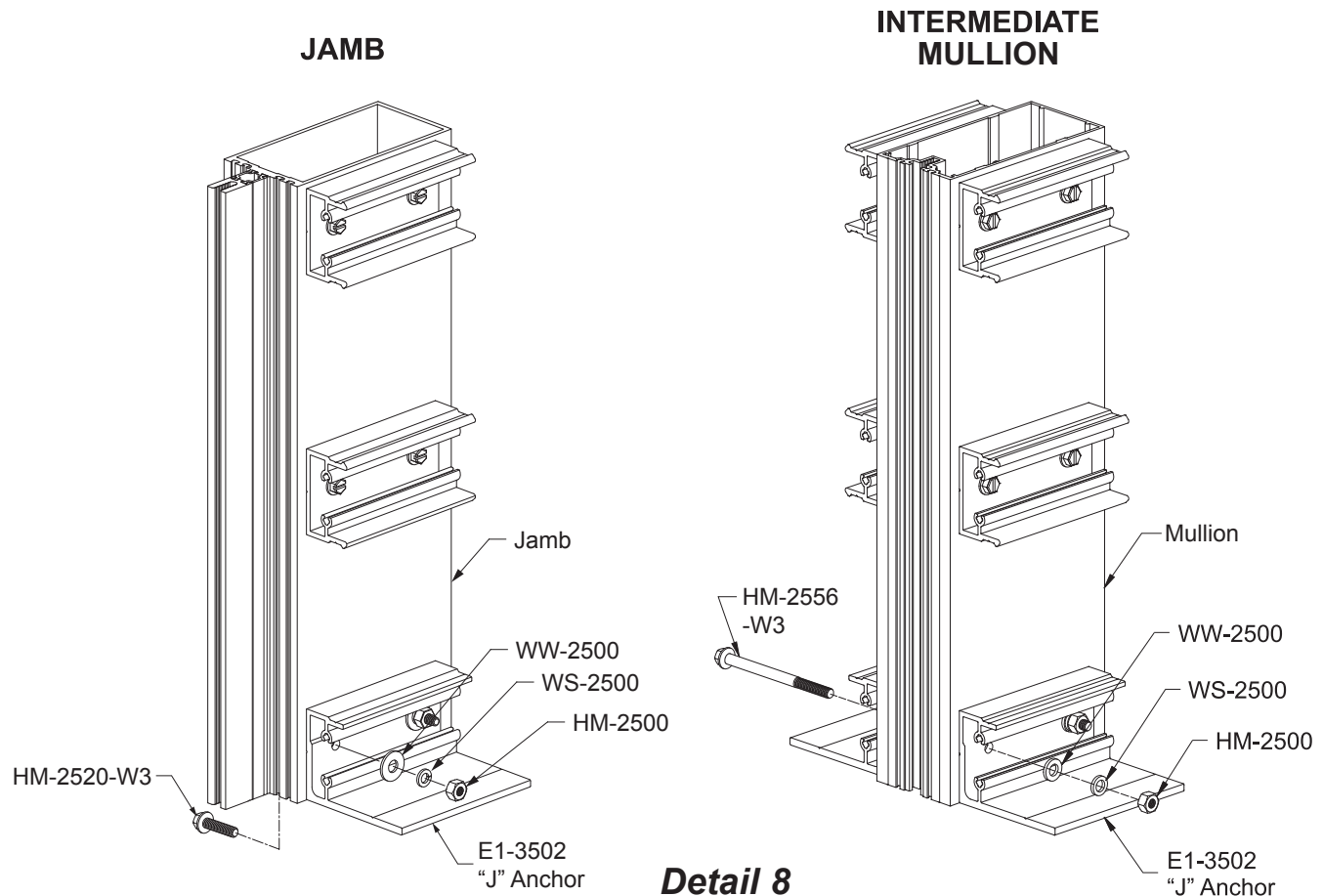
-Install 1/4” flat and lock washers between the anchor and HM-2500 hex nuts.

#### Attach “J” anchors at intermediate verticals:

-Align the “J” anchors and insert the HM-2556 bolts through both anchors and the mullion.

-Install 1/4” flat and lock washers between the anchor and HM-2500 hex nuts.

See **Detail 8**.



## FRAME FABRICATION

### STEP 6 (Continued)

#### ATTACH CORNER SHEAR BLOCKS/CLIPS FOR HORIZONTALS

Standard shear blocks are used to attach horizontal members to the jambs and mullions.

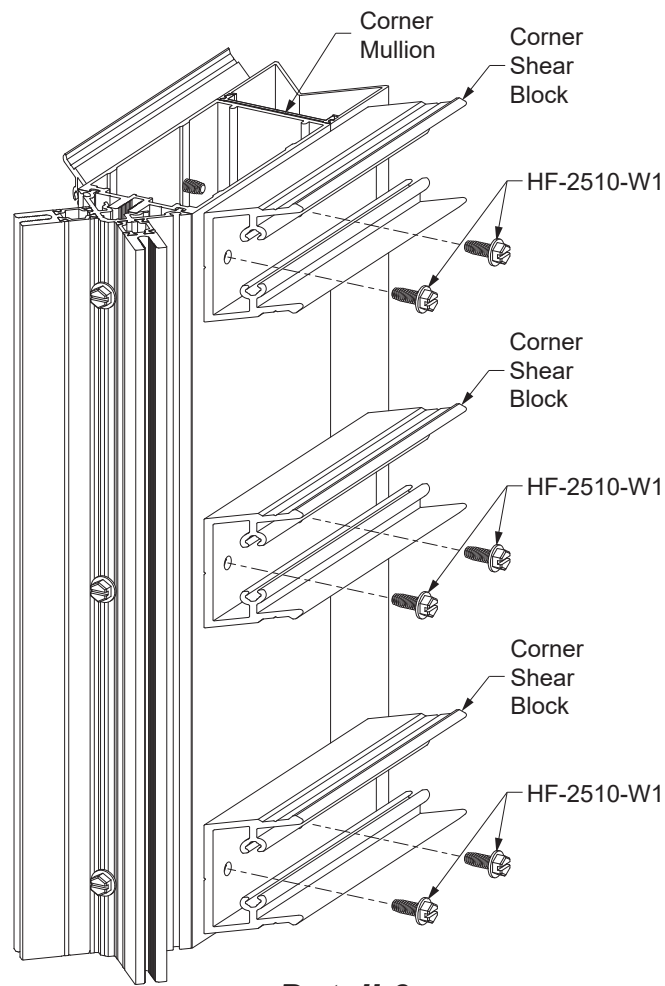
E1-3503A for 3-3/4" back members.

E1-3504A for 5-1/4" back members.

E1-3506A for 6-3/4" back members.

-Attach shear blocks to jambs and mullions with (2) HF-2510-W1 fasteners per block.

See **Detail 9**.



**Detail 9**

## FRAME FABRICATION

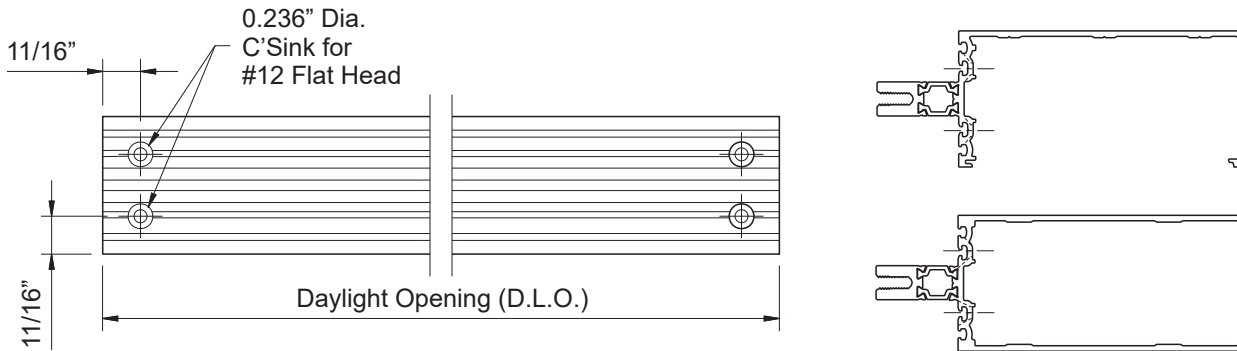
### STEP 7

#### FABRICATE HORIZONTAL MEMBERS

- Cut all horizontal members to the daylight opening as shown in shop drawings.
- Horizontal members must be fabricated as shown below to attach to shear blocks or clips.

#### Horizontals with Concealed Fasteners:

- Layout hole locations on the face of the horizontal at both ends as shown below.
  - Drill 0.236" diameter (#B bit) holes and countersink for #12 flat head fasteners.
- See **Detail 10**.



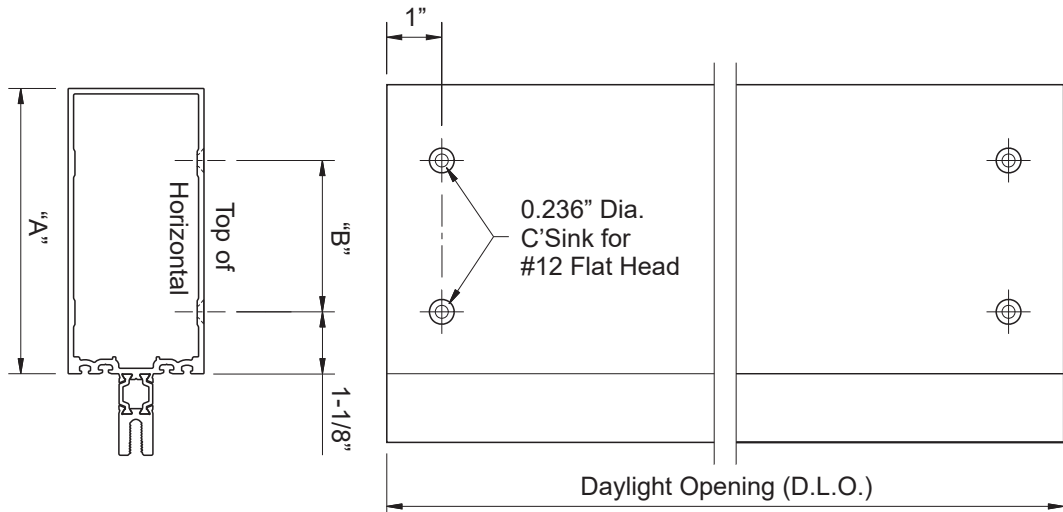
**Detail 10**

#### Horizontals with Exposed Fasteners:

- Layout hole locations on the top of the horizontal at both ends as shown below.
  - Drill 0.236" diameter (#B bit) holes and countersink for #12 flat head fasteners.
- See **Detail 11**.

Dim "A"	Dim "B"
6-3/4"	4-3/8"
5-1/4"	2-3/4"
3-3/4"	1-1/2"

**Detail 11**



## FRAME FABRICATION

### STEP 7 (Continued)

### FABRICATE HORIZONTAL MEMBERS @ 90° OUTSIDE CORNER

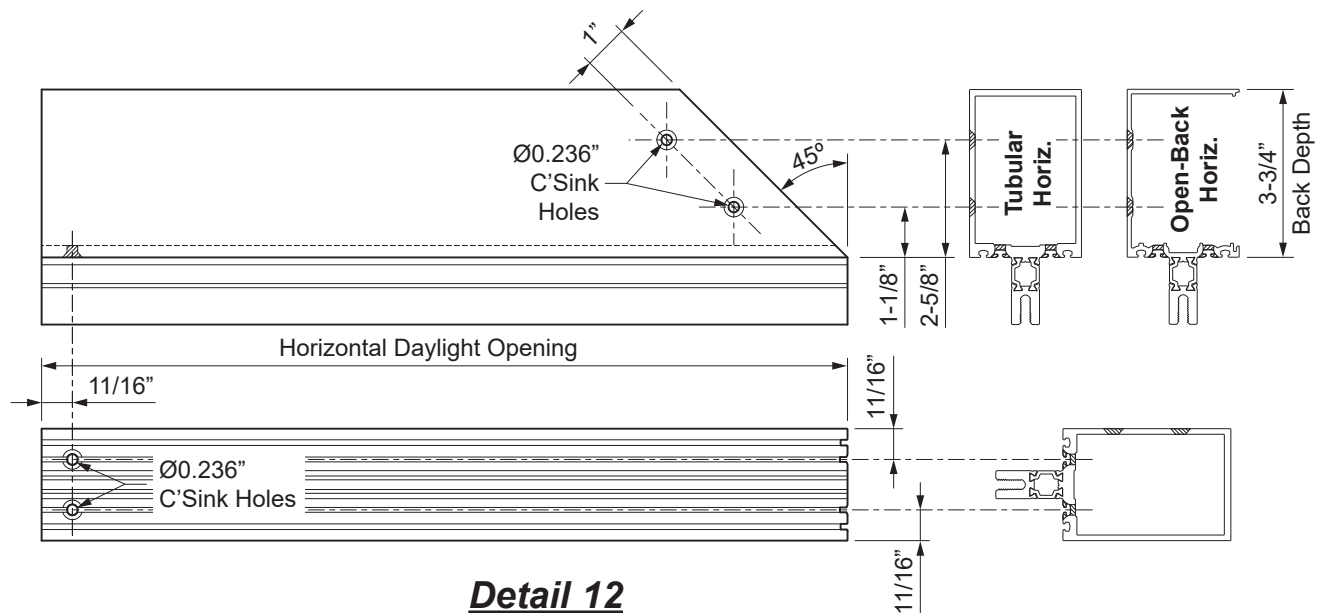
**Note:** Tubular head and sill members must be used at 90° corner mullion. Intermediate horizontals can be either tubular or open back.

-Layout hole locations from the face of the tubular horizontal at both ends as shown below.

-Drill 0.236" diameter (#B bit) holes and countersink for #12 flat head fasteners. Screw heads must be flush with face of horizontal.

See **Details 12 thru 14**.

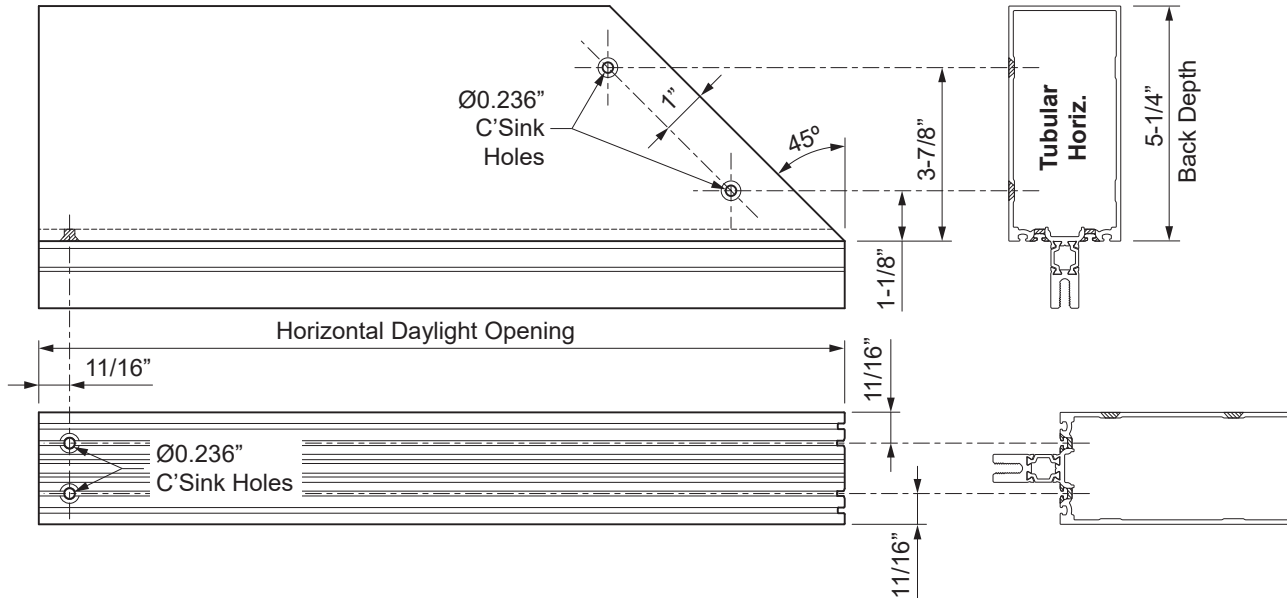
**Note:** For 3-1/4" back depth open back horizontals (shown below in **Detail 11**), fabrication is the same as for the tubular horizontal. Other open back horizontals (shown on **Pages 19 & 20**) have different fabrication compared to their respective tubular versions.



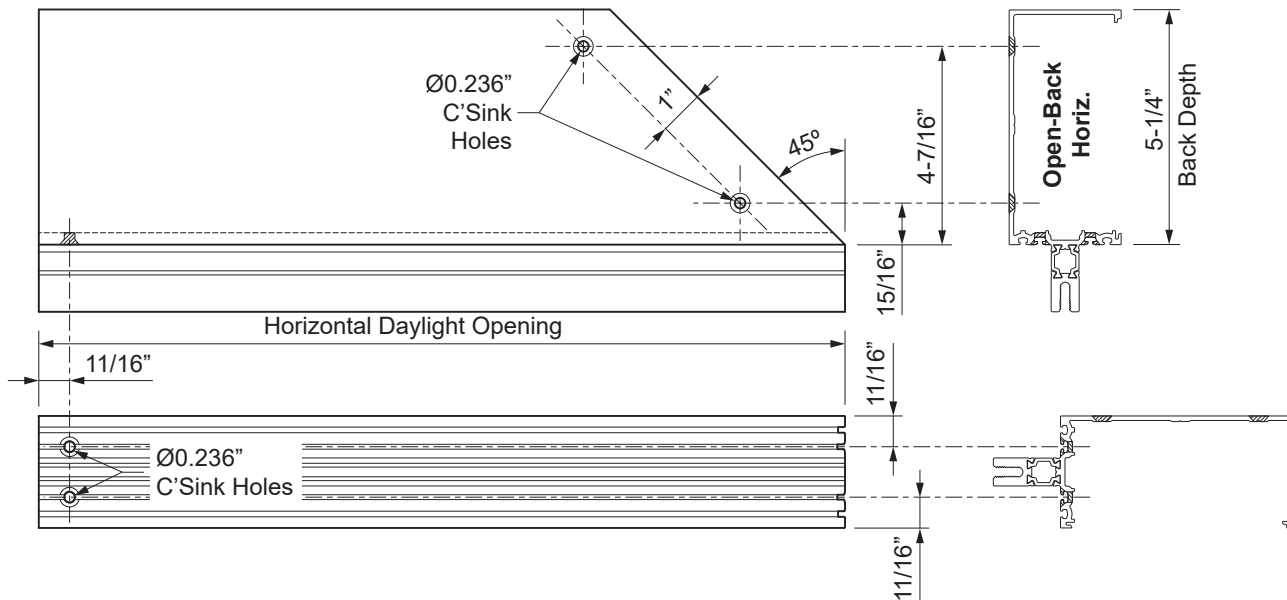
**FRAME FABRICATION**

**STEP 7 (Continued)**

**FABRICATE HORIZONTAL MEMBERS @ 90° OUTSIDE CORNER**



**Detail 13**



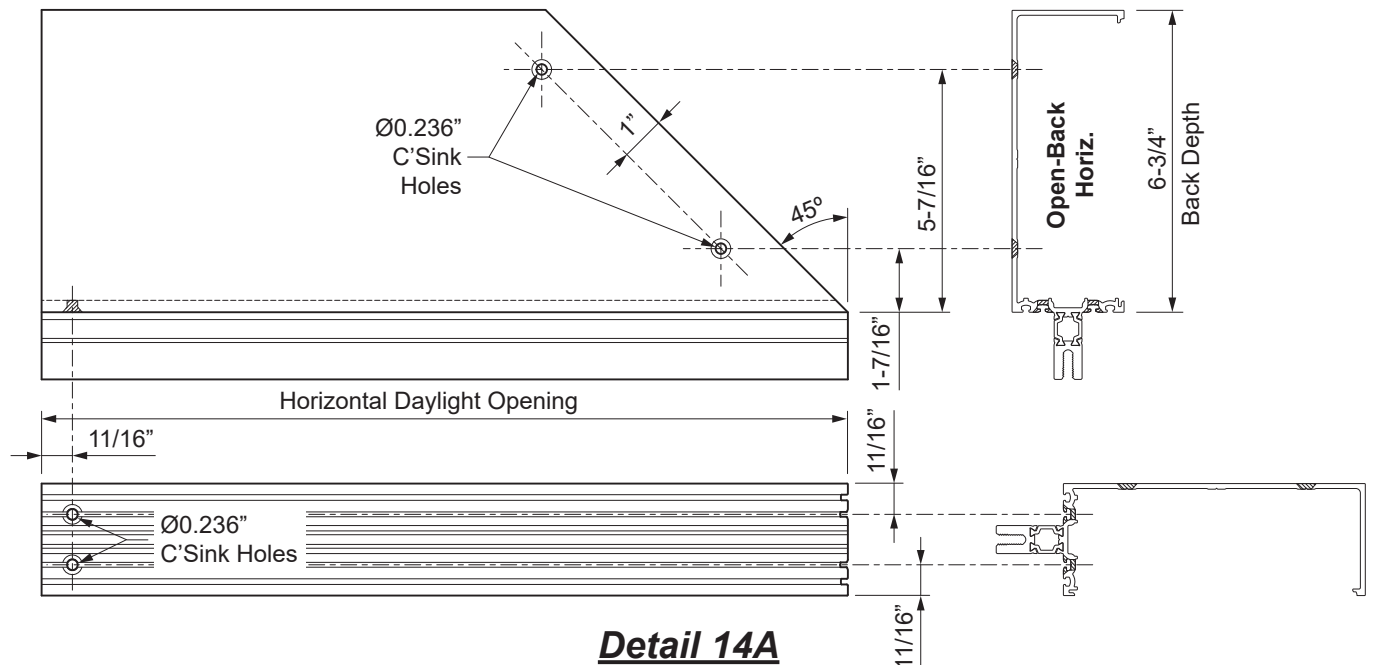
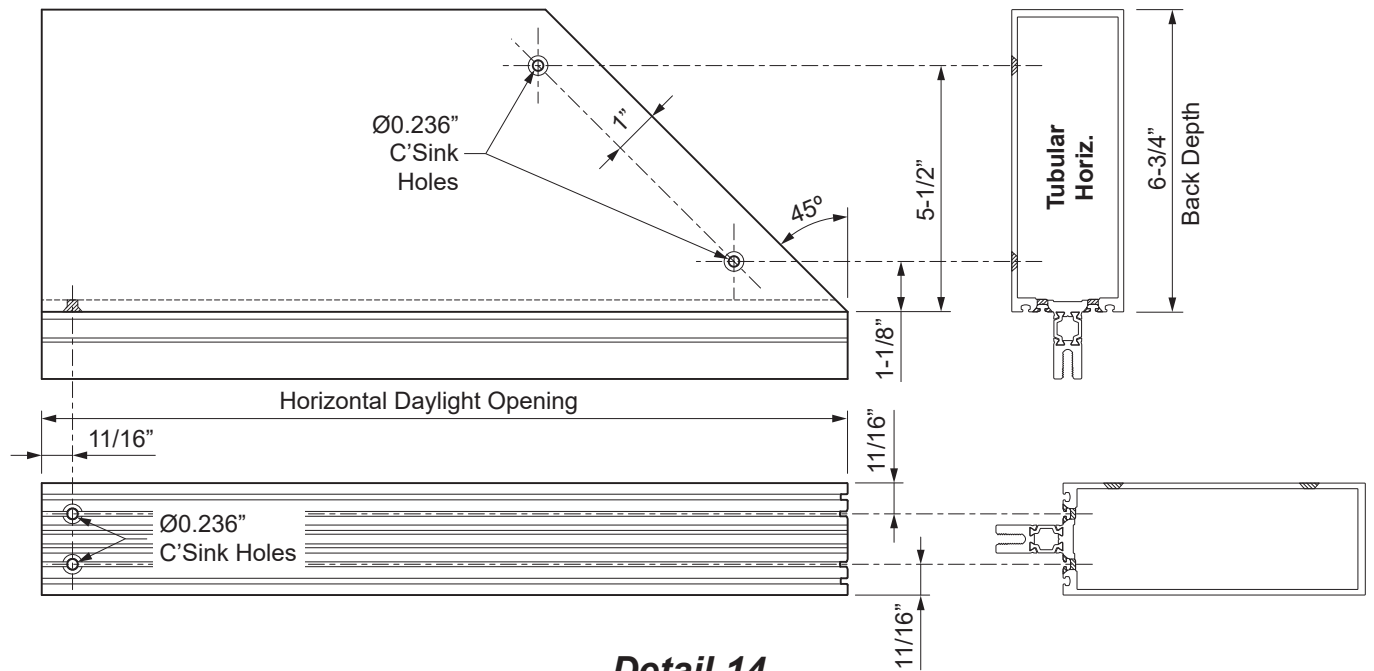
**Detail 13A**



## FRAME FABRICATION

### STEP 7 (Continued)

### FABRICATE HORIZONTAL MEMBERS @ 90° OUTSIDE CORNER



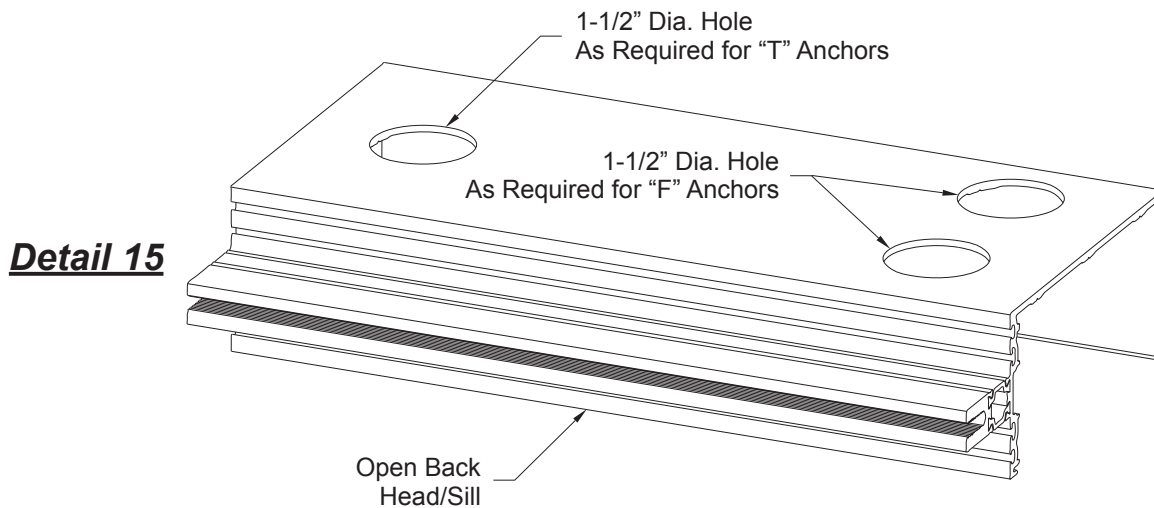
## FRAME FABRICATION

### STEP 7 (Continued)

#### FABRICATE HORIZONTAL MEMBERS

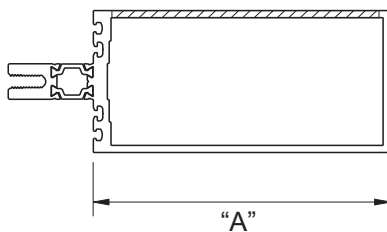
##### Open Back Head & Sill with “T” & “F” Anchors:

- Open back head & sill members require holes to access anchor bolts.
  - Drill 1-1/2” dia. holes at anchor locations as required by approved shop drawings or engineering calculations.
- See **Detail 15**.



##### Tubular Head & Sill with “J”, “F” & “T” Anchors:

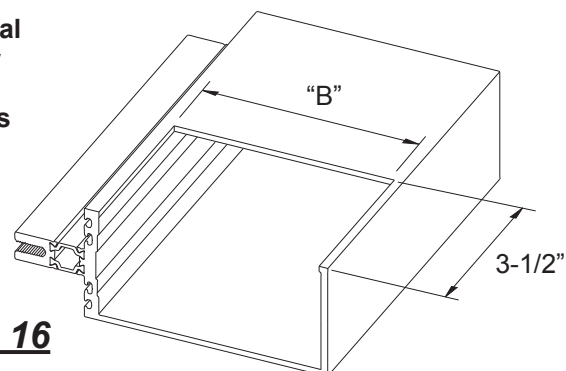
- Tubular head and sill members must be notched at each end to clear mullion end anchors and anchor bolts.
- See **Detail 16** below for notch dimensions.



Dim “A”	Dim “B”
6-3/4”	6-1/4”
5-1/4”	4-3/4”
3-3/4”	3-1/4”

**Notch Horizontal  
Ends to Clear  
End Anchors  
& Anchor Bolts**

### **Detail 16**

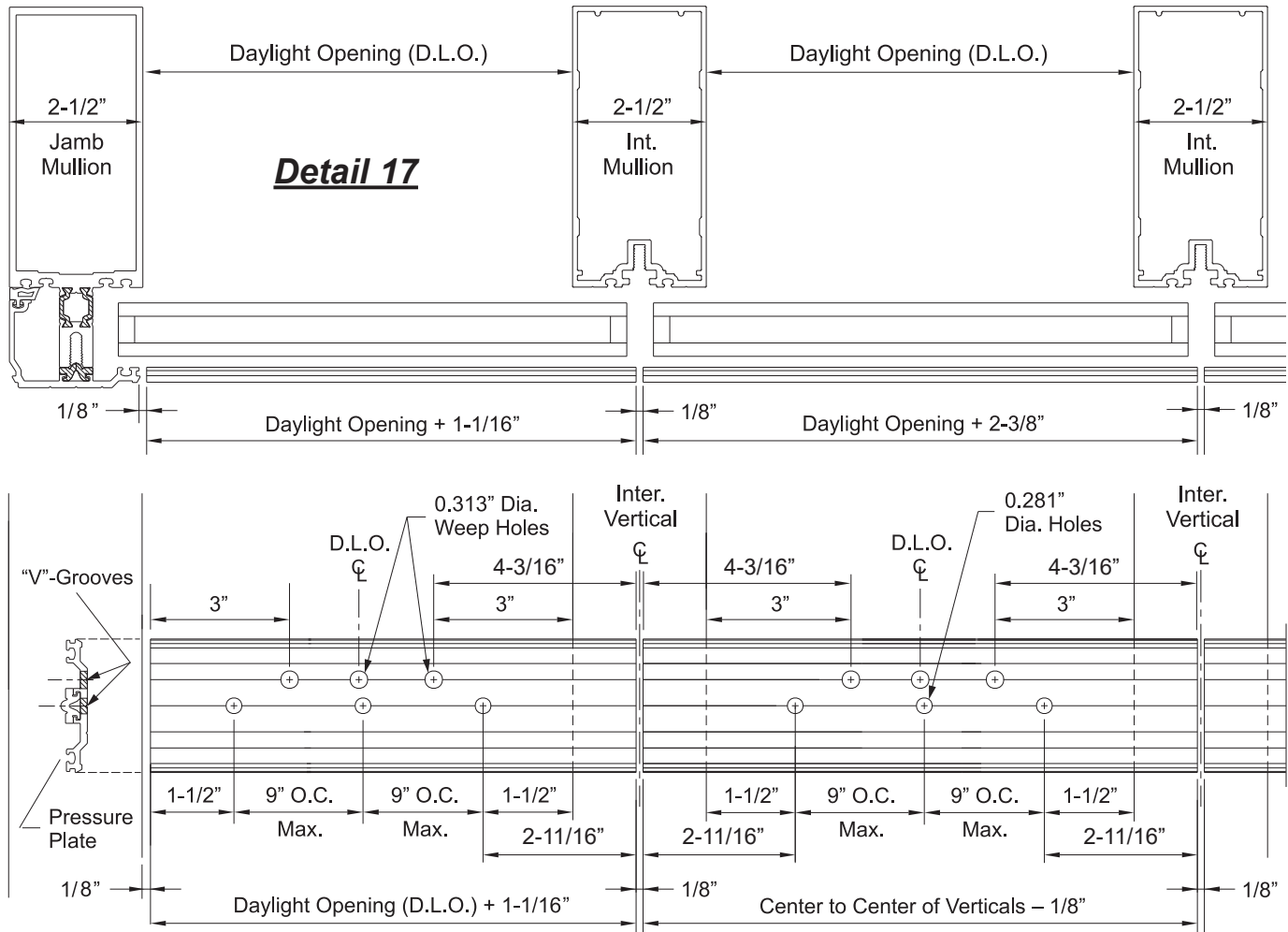


## FRAME FABRICATION

### STEP 8

### FABRICATE PRESSURE PLATES

- Cut all jamb pressure plates to the same length as the jamb mullions.
- Drill additional holes if required to ensure that end holes are 1-1/2" from each end.
- If jamb members are spliced, cut pressure plates to accommodate for 1/2" expansion joint as shown in **Step 10** on **Pages 26 & 27**.
- Cut horizontal pressure plates as shown in **Detail 17**.
  - Cut pressure plates between jamb and intermediate mullions to D.L.O. plus(+) 1-1/16".
  - Cut pressure plates between intermediate verticals to D.L.O. plus(+) 2-3/8".
  - For pressure plates spanning more than one bay, cut them to the centerline to centerline dimension between mullions minus(-) 1/8".
- Pressure plate stock lengths have 0.281" dia. holes factory punched every 9".  
Drill additional holes if required to ensure that end holes are 1-1/2" from each end.
- Drill three 0.313" diameter weep holes per horizontal daylight opening (D.L.O.) as shown in **Detail 17**. If the space between the weep holes exceeds 3', additional weep holes should be drilled to ensure that there is no more than 3' between the weep holes.

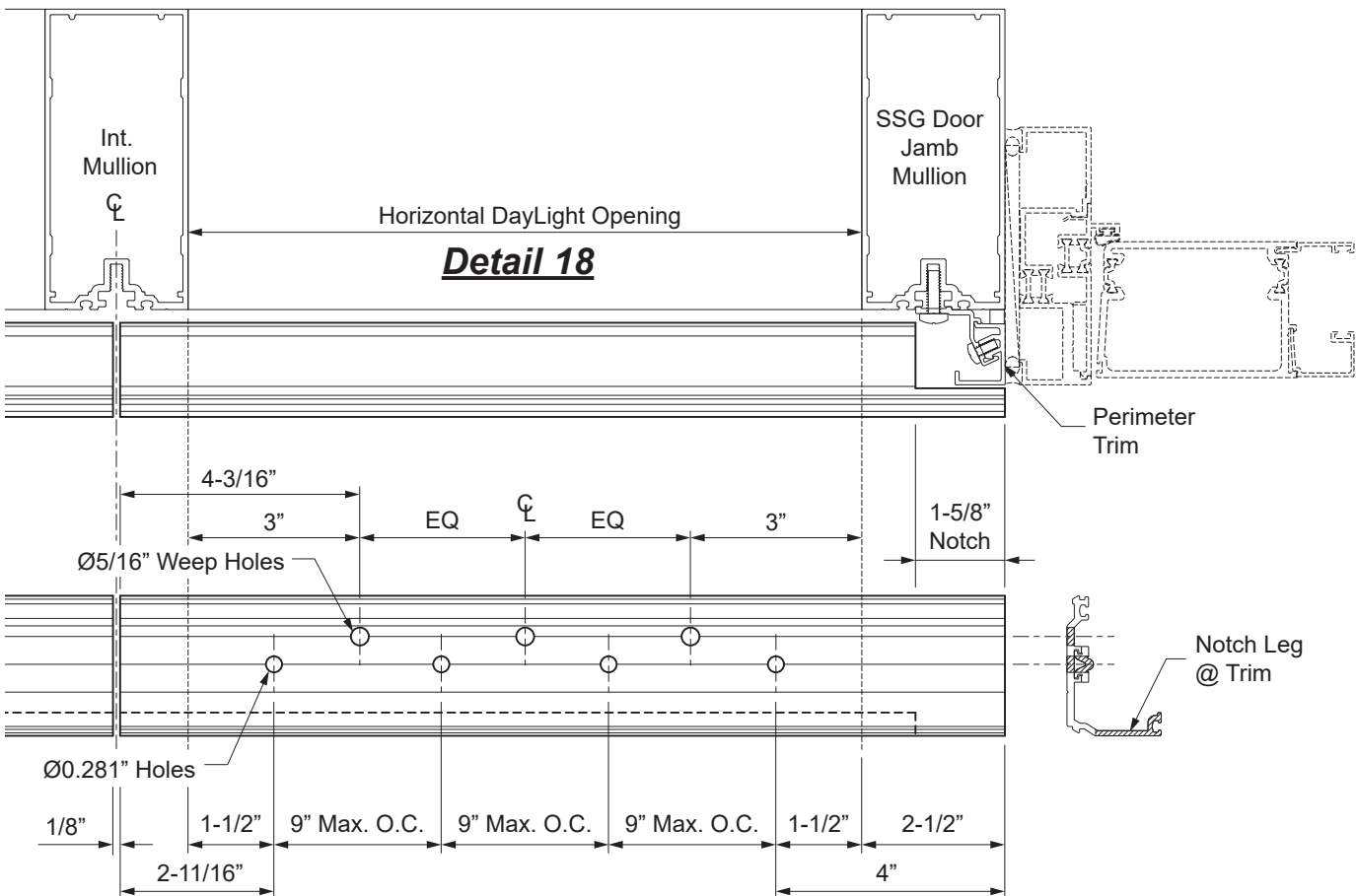


## FRAME FABRICATION

### STEP 8 (Continued)

#### FABRICATE PRESSURE PLATES

- At the SSG mullion at the door jamb, the pressure plate is cut to overlap the mullion, flush with the inside of the SSG door jamb mullion as shown in **Detail 18**. Perimeter pressure plates at sill are notched 1-5/8" to accommodate the perimeter trim.
- Cut pressure plates between intermediate mullions and SSG door jamb mullion to D.L.O. plus(+) 3-11/16".
- If an SSG door jamb mullion is adjacent to a jamb, cut pressure plate to D.L.O. plus(+) 2-3/8".
- If an SSG door jamb mullion is adjacent to a 90° SSG corner mullion, cut the pressure plate to D.L.O. plus(+) 5-7/16".
- Drill additional fastener holes if required to ensure that end holes are at 1-1/2" from the end at the jamb and at 2-11/16" from the end at the SSG mullion.
- Drill 0.313" diameter weep holes per horizontal daylight opening as shown below. If the space between the weep holes exceeds 3', additional weep holes should be drilled to ensure that there is no more than 3' between the weep holes.



**Notes:** Sill perimeter pressure plate shown. Pressure plates at intermediate horizontals do not require notching. Also, if the space between the weep holes exceeds 3', additional weep holes should be drilled to ensure that there is no more than 3' between the weep holes.

## FRAME FABRICATION

### STEP 9

### FABRICATE FACE COVERS

-Cut jamb face covers to the same length as the jamb mullions unless the mullions are spliced. If jamb mullions are spliced, cut jamb covers to accommodate for the 1/2" expansion joint as shown in **Step 10** on **Pages 26 & 27**.

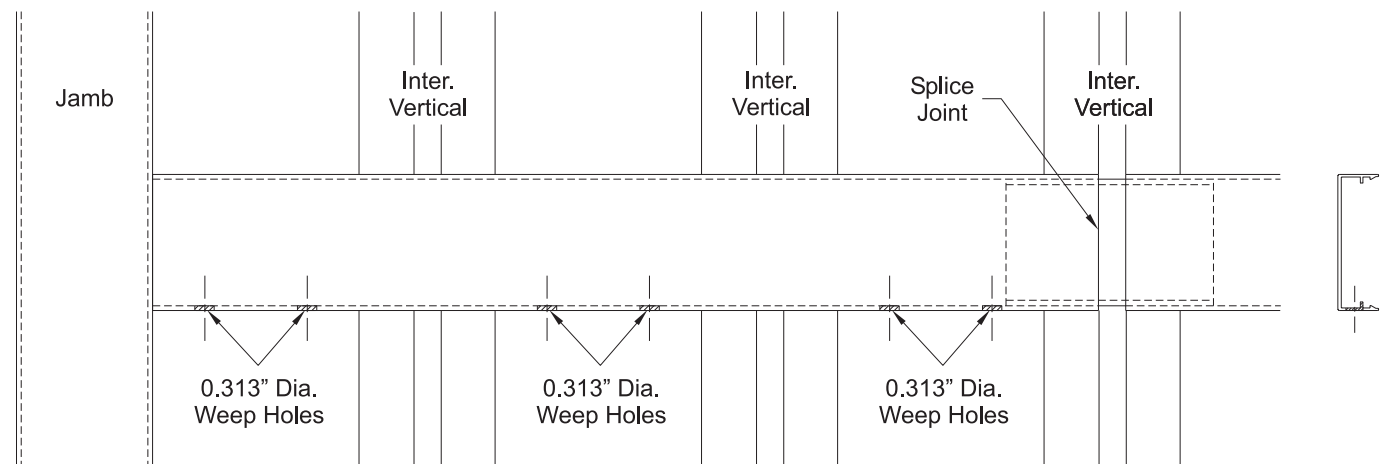
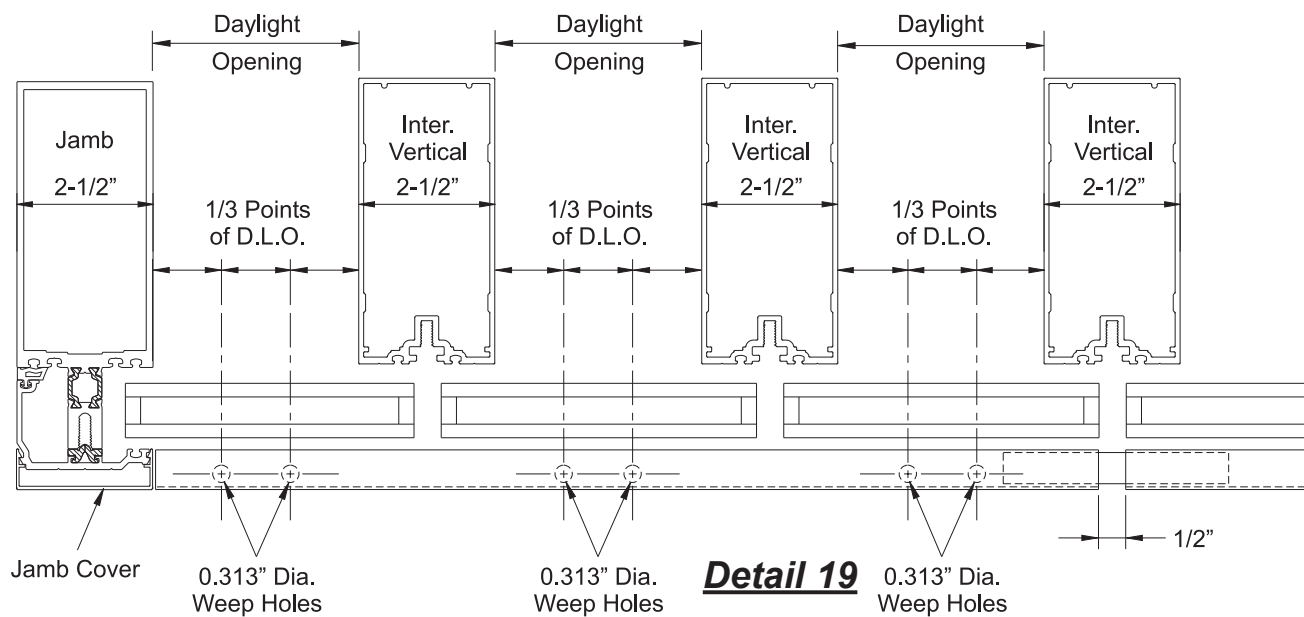
-Cut horizontal covers 1/32" short of jamb mullion on jamb side of frame. Covers are to be spliced at every third light of glass at the centerline of vertical mullion. Optionally, covers may be spliced at every centerline of vertical mullions.

-Drill two 0.313" diameter weep holes as shown, at 1/3 points of each daylight opening.

**Face cover weep holes must not align with pressure plate weep holes.**

-At the door jamb, horizontal and sill face covers are cut to run flush with the pressure plate, flush with the inside edge of the mullion, as previously detailed on **Page 19**.

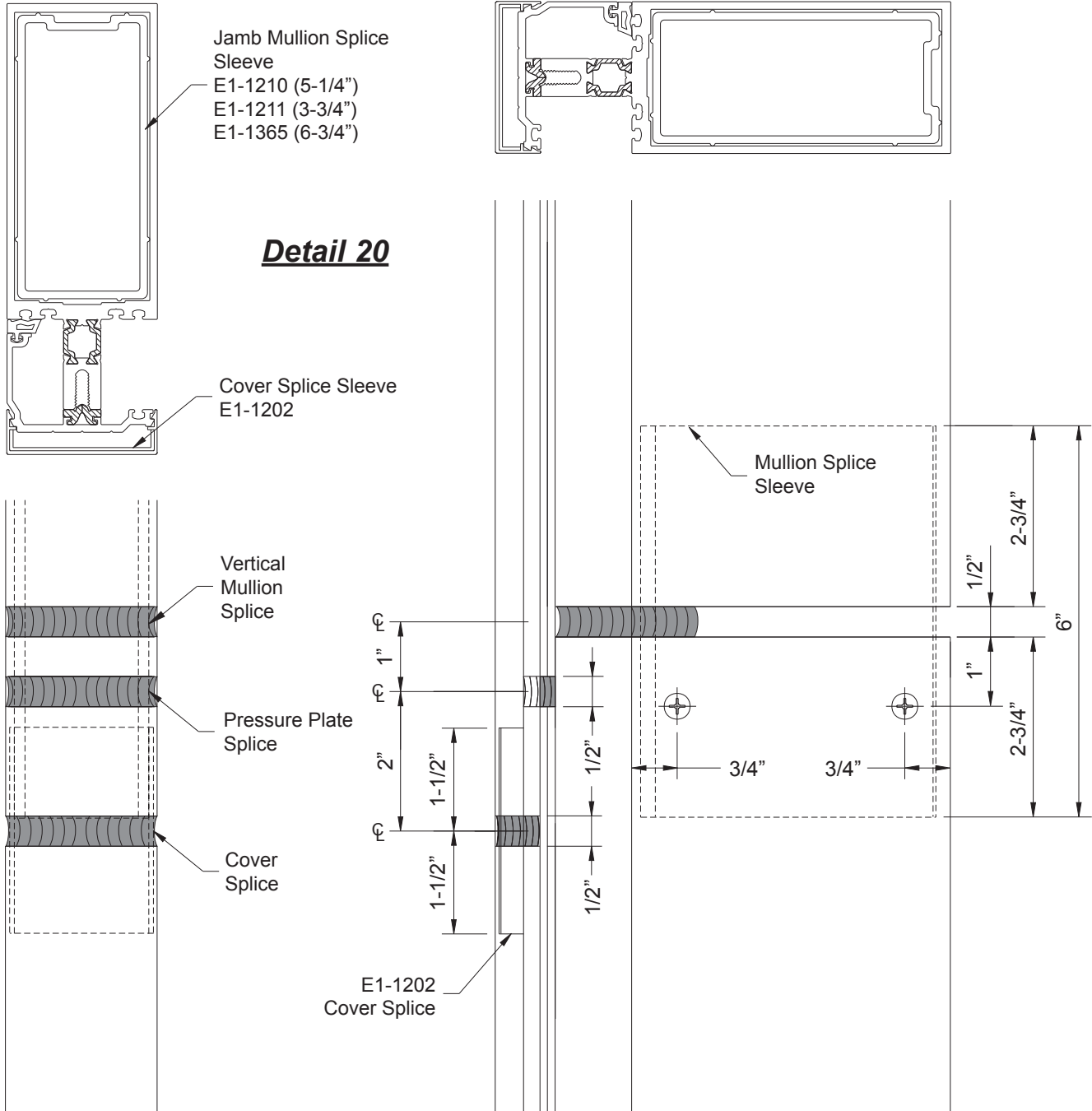
See **Detail 19**.



**FRAME INSTALLATION**

**STEP 10  
JAMB SPLICE**

**Stagger Mullion, Pressure Plate, and Cover Splice Joints as Shown Below.**



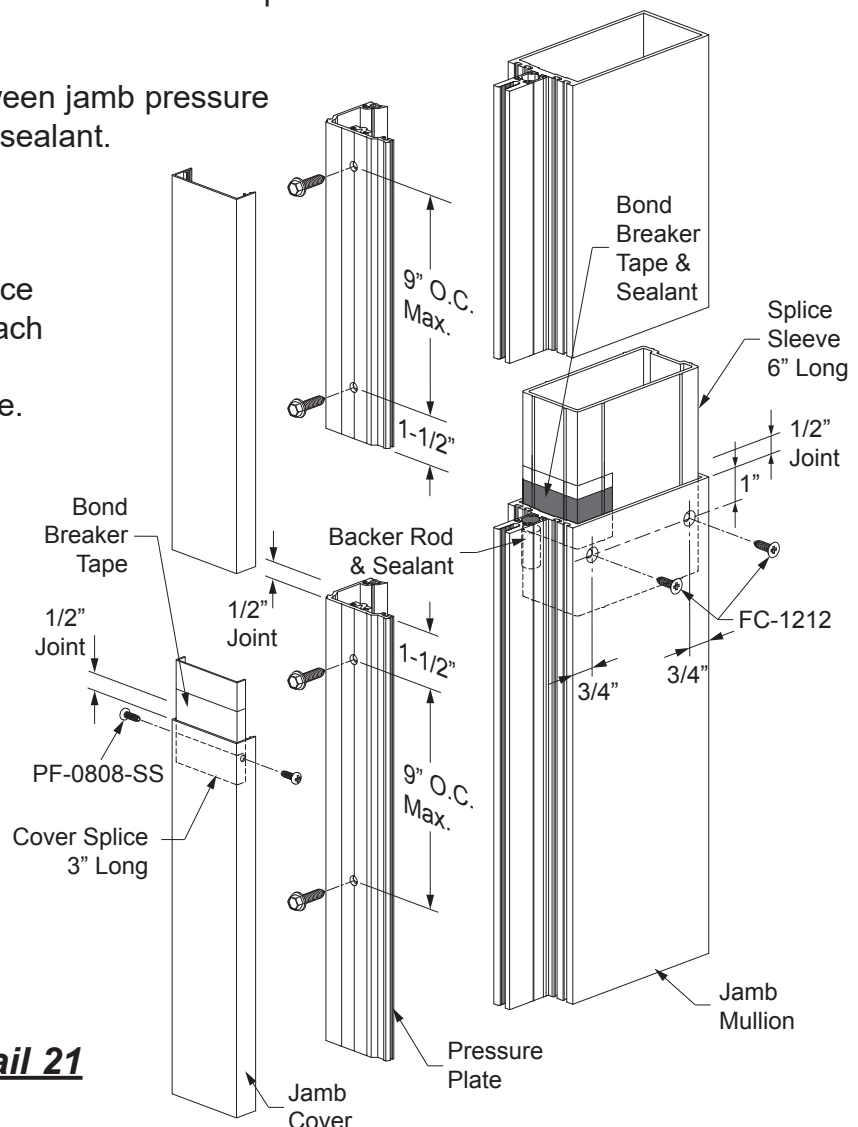
## FRAME INSTALLATION

### STEP 10 (Continued) JAMB SPLICE

- Clean all surfaces as recommended by sealant manufacturer.
- Apply bond breaker tape to the face of the splice sleeve at its midpoint (3" from top or bottom).
- Lower the splice sleeve into top of lower mullion 2-3/4" and attach with two FC-1212 fasteners on both sides of the mullion. Screws should be installed 3/4" from the front and back of mullion and 1" down from the top.
- When using 1" glazing jamb mullions, stuff a small piece of backer rod 1/2" down the cavity behind mullion tongue and pump in sealant to fill the cavity.
- Apply non-curing sealant to the face of splice sleeve on the upper half.
- Carefully slide the upper mullion down onto the splice sleeve and place a 1/2" temporary shim between the mullions to properly locate them.
- Secure the upper mullion to the mid anchors and remove the temporary shims.
- Apply and tool sealant to the face and sides of the splice sleeve to create a water tight joint.
- Leave a 1/2" expansion joint between jamb pressure plate splices and fill the joint with sealant.
- Locate pressure plate fasteners 1-1/2" from each end of pressure plate splice as shown.
- Apply bond breaker tape to the face of the cover splice sleeve and attach it to the lower face cover with a PF-0808-SS fastener on each side.
- Prior to snapping on the upper portion of the face cover, apply sealant to the face of the splice.
- Leave a 1/2" expansion joint between face cover splices.

See **Details 21 & 21a**.

**Note:** Face covers, pressure plates, and mullions are staggered at splice locations. SSG vertical splices are similar.



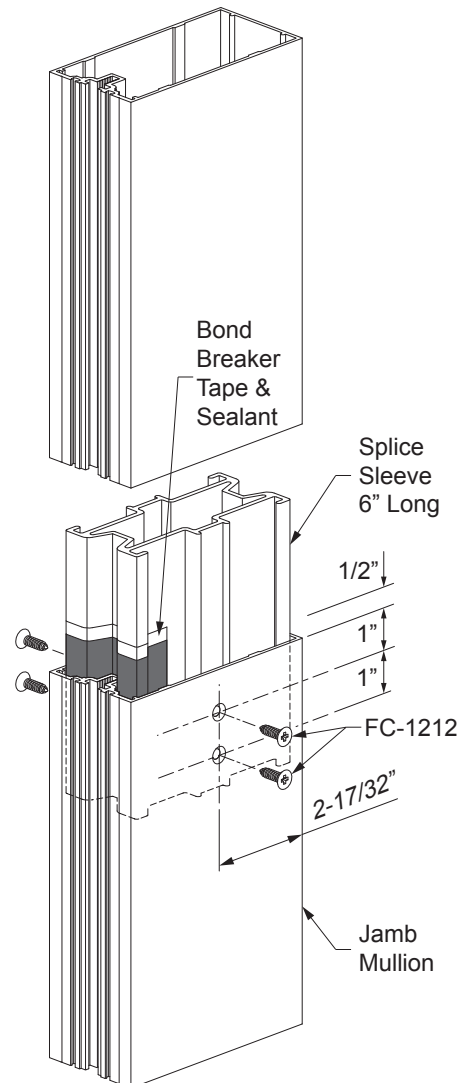
**Detail 21**

## FRAME INSTALLATION

### STEP 10 (Continued) SSG MULLION SPLICE

- Clean all surfaces as recommended by sealant manufacturer.
- Apply bond breaker tape to the face of the splice sleeve at its midpoint (3" from top or bottom).
- Lower the splice sleeve into top of lower mullion 2-3/4" and attach with two FC-1212 fasteners on both sides of the mullion as shown on **Detail 21a**.
- Apply non-curing sealant to the face of splice sleeve on the upper half.
- Carefully slide the upper mullion down onto the splice sleeve and place a 1/2" temporary shim between the mullions to properly locate them.
- Secure the upper mullion to the mid anchors and remove the temporary shims.
- Apply and tool sealant to the face and sides of the splice sleeve to create a water tight joint.

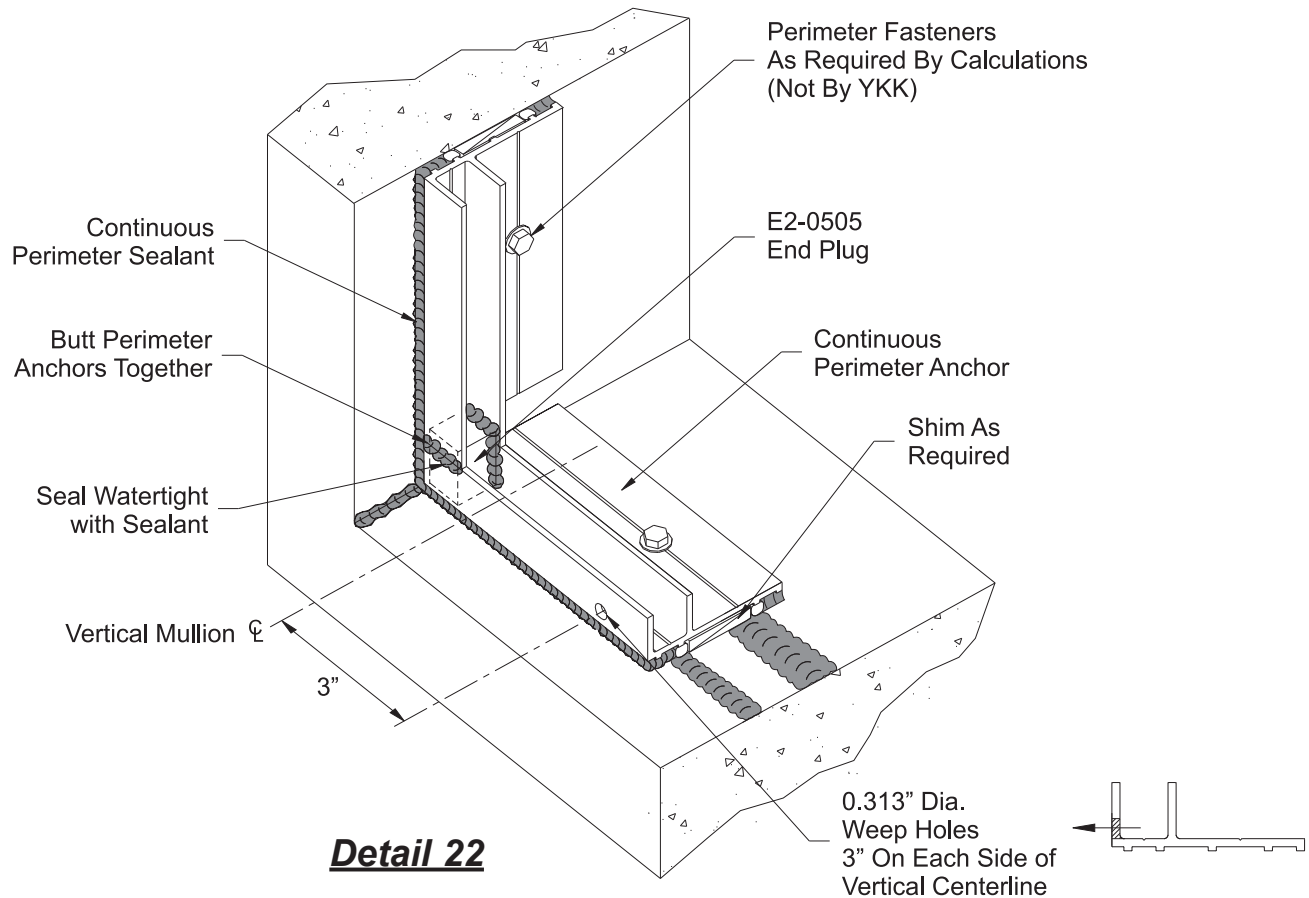
**Detail 21a**





## FRAME INSTALLATION

### STEP 11 INSTALL CONTINUOUS PERIMETER ANCHOR



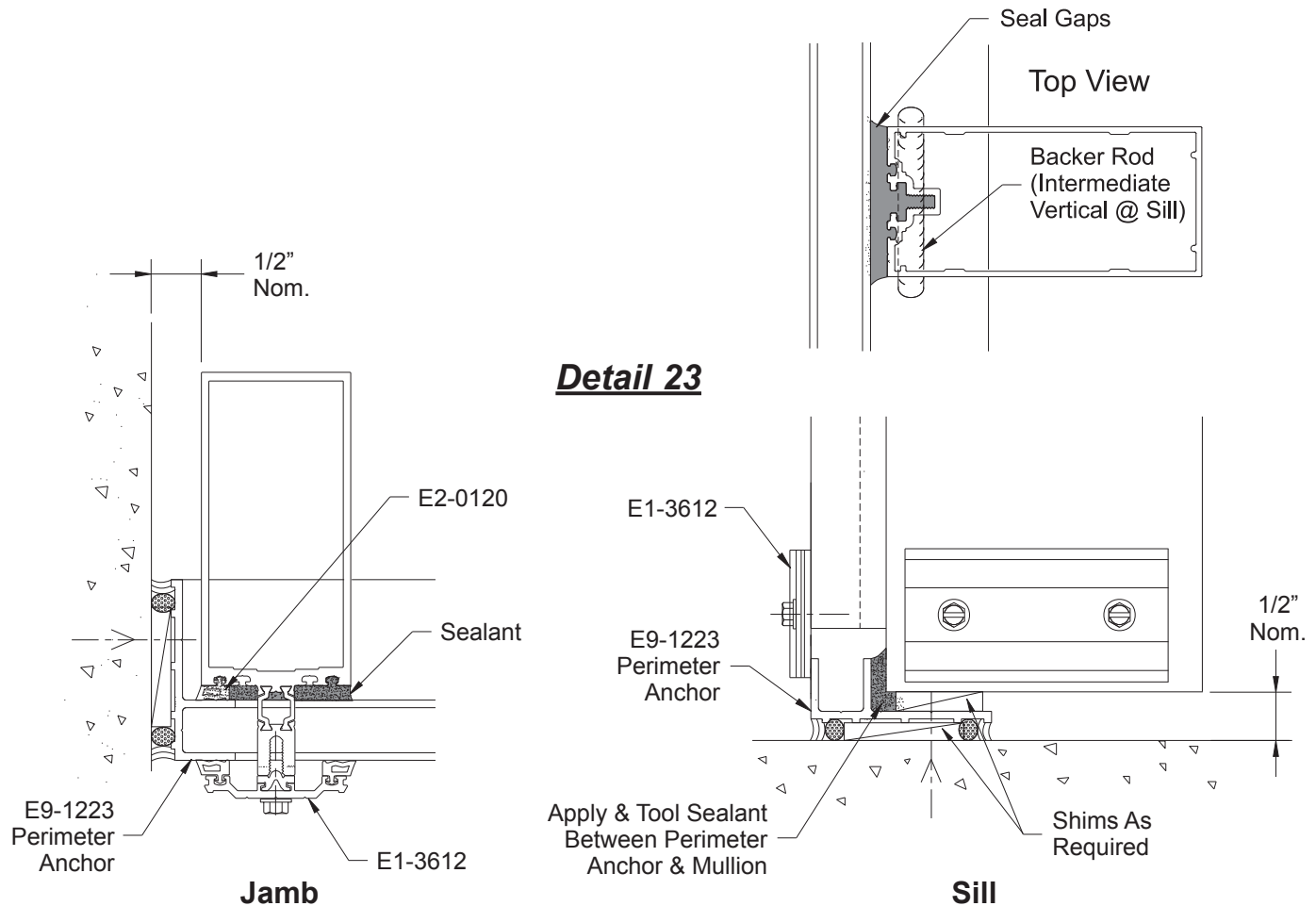
- Cut perimeter anchors to size:  
Head and sill anchors stop 1/8" short of the jambs.  
Vertical jamb anchors butt in between head and sill anchors.
  - Install perimeter anchors with appropriate perimeter fasteners. Refer to shop drawings or engineering calculations for type and spacing of fasteners. Shim as required to install anchors level.
  - When splicing head and sill pieces together, leave 3/8" joint for expansion and install end plug, E2-0505, that has been buttered with sealant on the front, back, and bottom at the joint.
  - Run continuous sealant along the perimeter between the anchors and the substrate.
  - Seal corners of butted perimeter anchors watertight with sealant.
  - Butter E2-0505 end plug with butyl on all sides that touch the anchors. Then push end plug into place and tool excess sealant that comes through the cracks.
  - Field drill 0.313" diameter weep holes in perimeter anchor (exterior face only) at sill 3" from center line of vertical on each side.
- See **Detail 22**.

## FRAME INSTALLATION

### STEP 12

#### JAMB/VERTICAL INSTALLATION WITH PERIMETER ANCHORS

- The notched ends of jamb mullions for 1" glazing leaves the interior of the mullion exposed and must be plugged prior to installation.
  - Install a small piece of backer rod into the notched out space directly behind the tongue at the top and bottom of the jamb mullions.
  - Push the backer rod into the opening at the face of the mullion.
  - Apply and tool sealant to seal off the opening made by the notch.
  - Install interior gasket, E2-0120, to jamb mullion (jamb side only) the full length of the mullion.
  - Position jamb into opening as shown in **Detail 23**.
  - Seal the gap between the perimeter anchor and vertical glazing pocket with sealant.
  - Install temporary retainer clip, E1-3612, at the top and bottom of the mullion.
- Place a small length of backer rod below each SSG vertical and set the mullion onto the perimeter anchors as shown below.
- Seal all gaps between the SSG vertical and the perimeter anchor at the sill.
- See **Detail 23**.



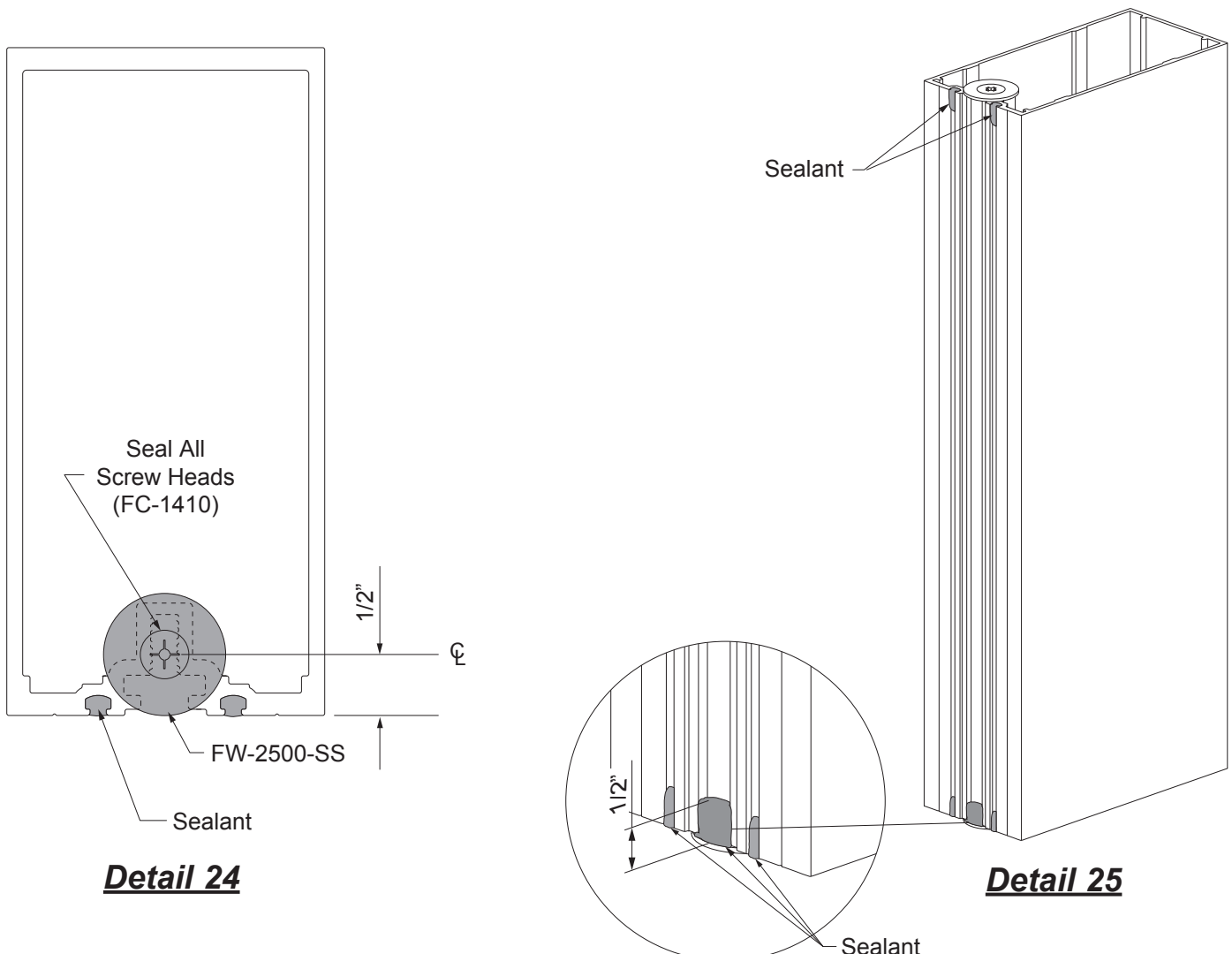
## FRAME INSTALLATION

### STEP 13

#### ATTACH SSG MULLION END CAPS

Mullion end caps are required at the head and sill of jambs and mullions.

- Clean the mullion ends and mullion end caps with a cleaner and method approved by the sealant manufacturer.
  - Apply sealant to the spline cavity and along the front of the mullions on both ends prior to installing mullion end caps, FW-2500-SS. Also apply sealant to the reglets at both ends of the mullion.
  - Attach the mullion end caps to each end of the mullion with FC-1410 fasteners as shown **Detail 24**.
  - Tool the excess sealant flush between the mullion end cap and the mullion and at the reglets.
  - Seal over all screw heads.
  - At the bottom of the mullions, apply sealant to the center cavity to a height of 1/2".
- See **Detail 25**.



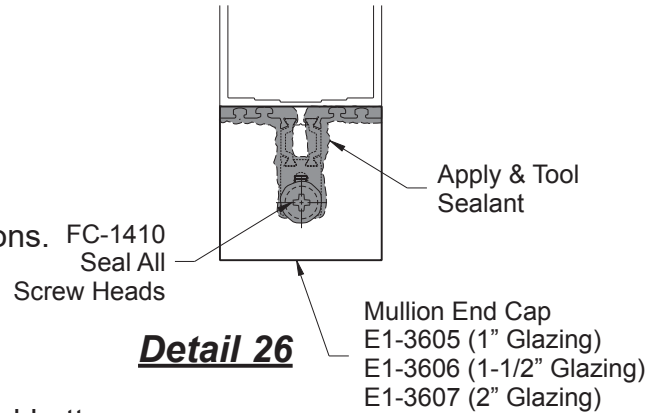
## FRAME INSTALLATION

### STEP 13A

#### JAMB/VERTICAL INSTALLATION WITH MULLION END ANCHORS

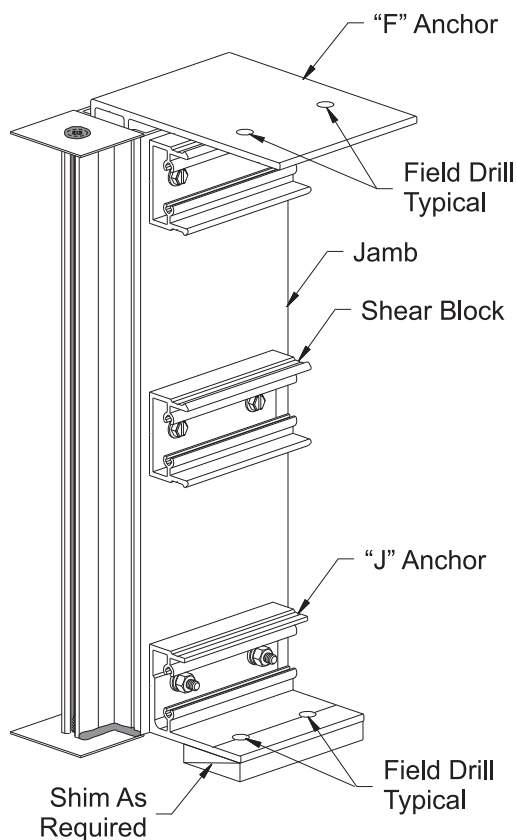
- Clean all contact surfaces as recommended by sealant manufacturer.
- Apply sealant into the screw raceway and along the front edge of the jamb mullion at each end.
- Prior to erecting jambs, install end caps, E1-3605 at the top and bottom of the jamb mullions.
- Apply and seal mullion end caps.
- Seal all screw heads with sealant.

See **Detail 26**.

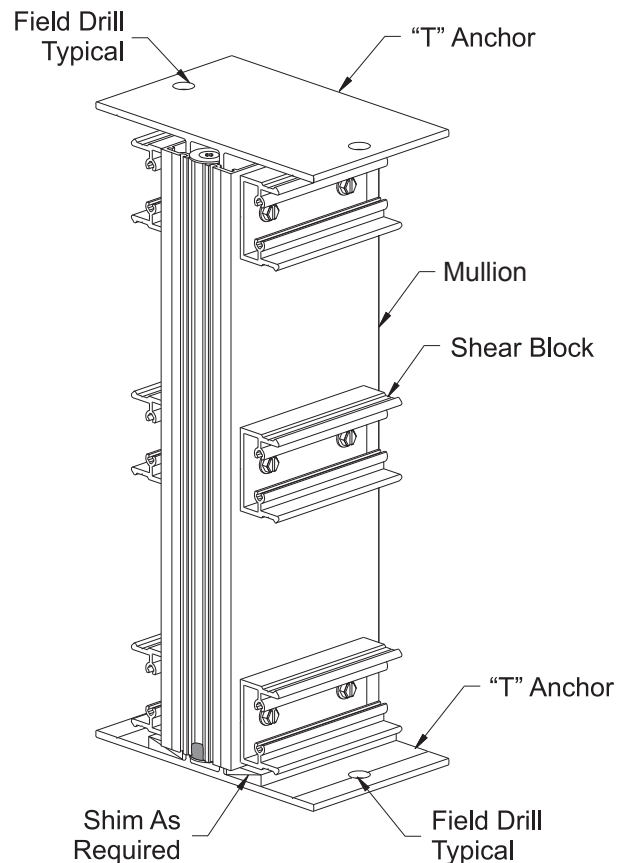


- Insert mullion "T" and "F" anchors into the top and bottom of the mullions before erecting them into the opening.
- Erect and locate the jamb and vertical mullions and temporarily attach them to the structure. All mullions must be installed plumb and true.
- Field drill holes in "T", "F", and "J" anchors for the appropriate anchor fasteners according to shop drawings or engineering calculations. Consult YKK AP if load requirements are in question.

**Note:** When using T and F anchors, shims should be located between the of the T or F anchor and the bottom of the vertical mullions as shown in **Detail 27**.



**Detail 27**



## FRAME INSTALLATION

### STEP 13B VERTICAL INSTALLATION AT DOOR JAMB END ANCHORS

The mullions at the door jambs are set directly upon the sill substrate without any shims and are sealed against the substrate. The anchors to be used at this location are specified by the approved shop drawings and or P.E. calculations.

-Locate the mullion anchor for the door jamb and install it to the substrate according to the approved shop drawings and P.E. calculations.

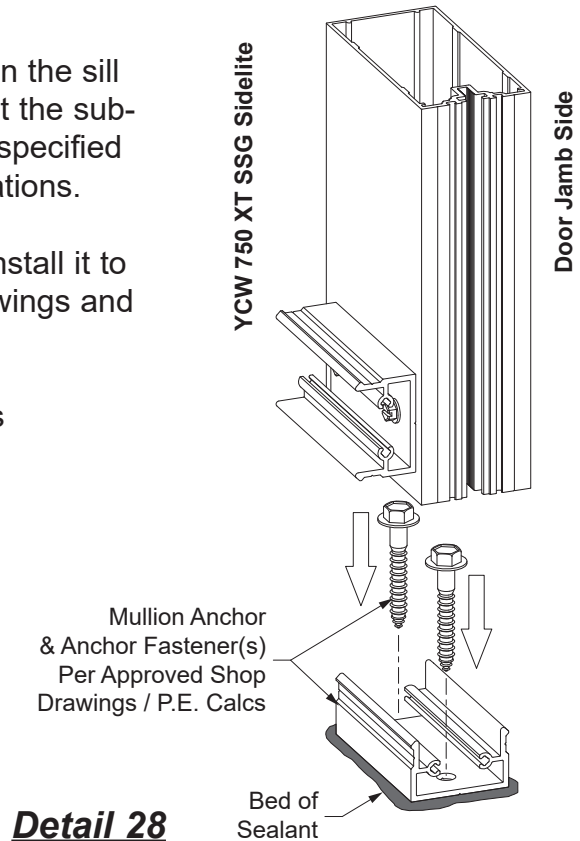
**Note:** if using an exposed fasteners shear block as a mullion anchor, check to ensure the sill shear block fasteners will not cause interference. Field modify the shear block anchor as required.  
See **Detail 29**.

-Clean all contact surfaces as recommended by sealant manufacturer.  
-Set the mullion on the anchor, directly onto the sill substrate in a bed of sealant. Avoid using shims at this location.

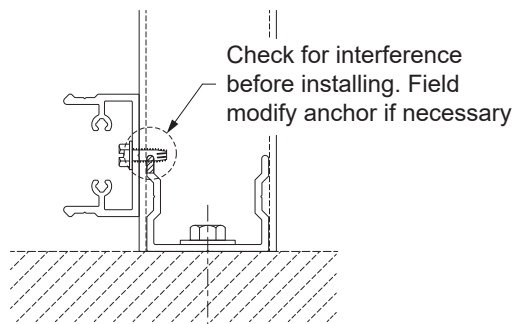
See **Detail 28**.

-Refer to the approved shop drawings for any additional fasteners required at anchor.  
-Tool sealant at the bottom of the mullion at the sill substrate around the perimeter of the mullion.

See **Detail 30**.

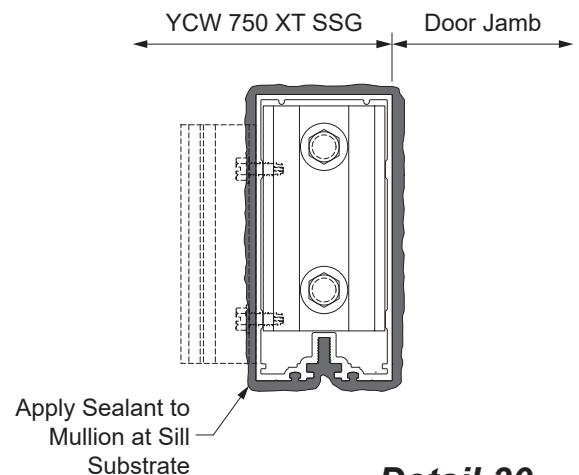


**Detail 28**



**Detail 29**

For Exposed Fasteners Shear Block Used as Anchor



**Detail 30**

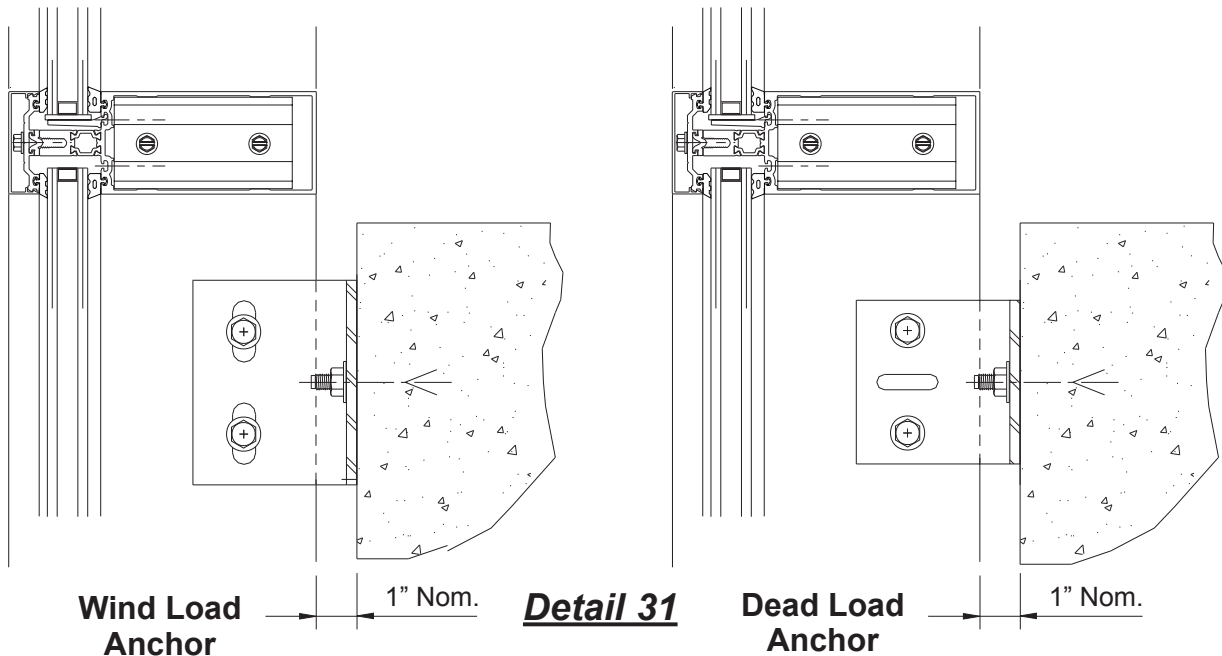
**FRAME INSTALLATION**

**STEP 14**

**INSTALL WIND LOAD / DEAD LOAD ANCHORS**

-Install steel wind load and dead load anchor clips. Anchor clips are normally template or line set before mullions are hung. Outstanding leg of clip must be set at 90° to offset line. The back of the vertical mullion should set 1" from the anchoring substrate.

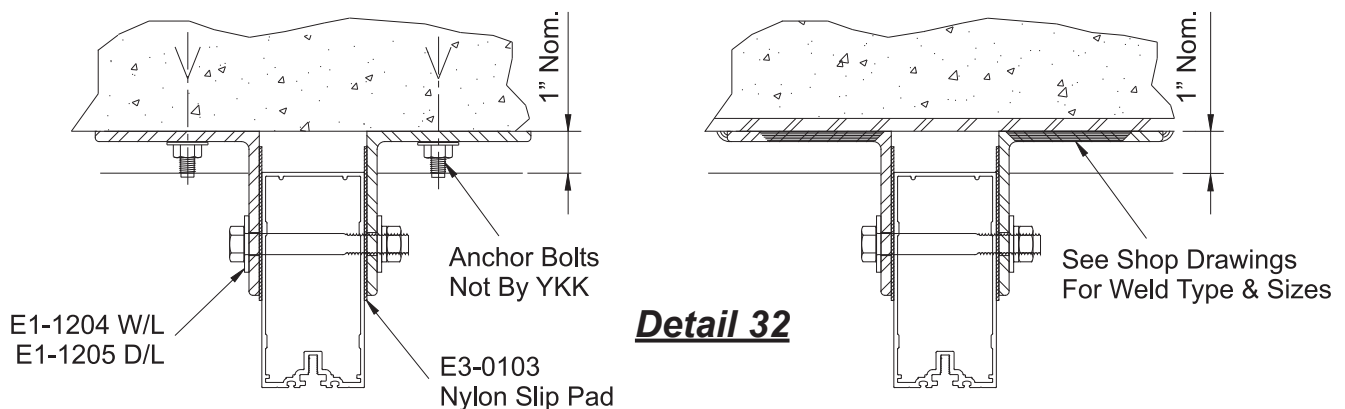
See **Detail 31**.



-Install, plumb, and align vertical mullions. Drill and install appropriate diameter anchor bolts. If shop drawings are not prepared by YKK AP, all anchors and bolts must be checked by a qualified engineer.

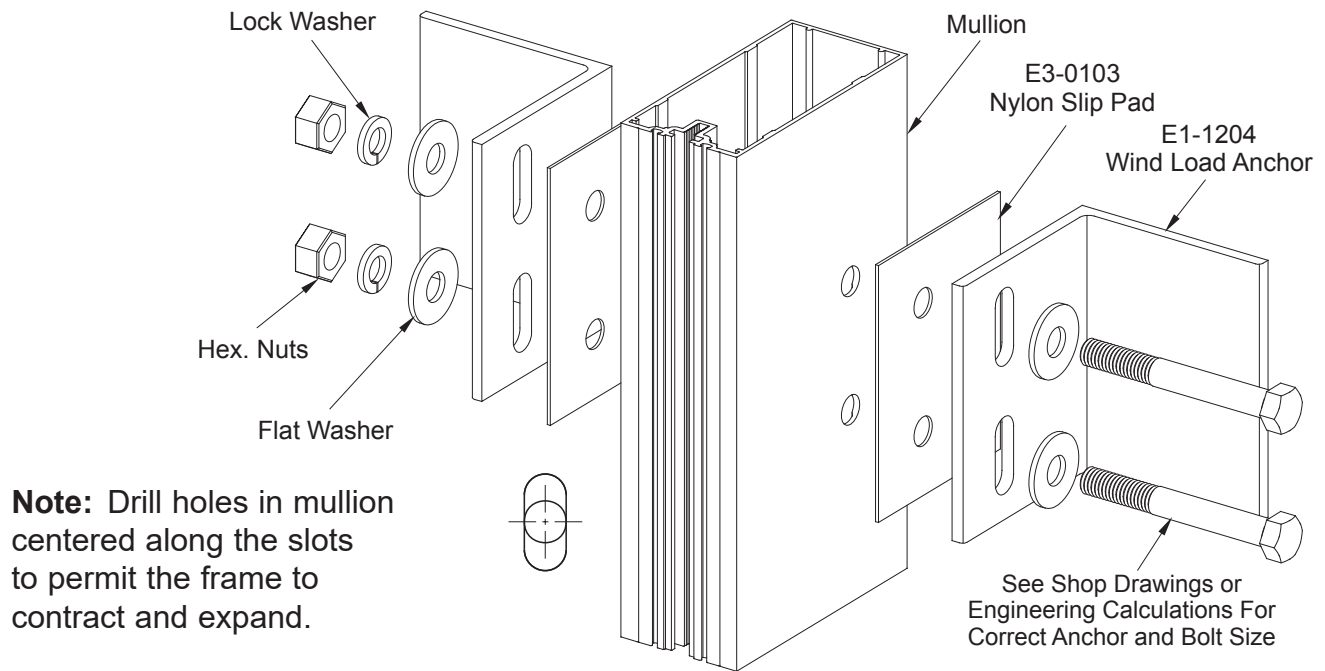
-Nylon slip pads, E3-0103, must be installed between mullion and anchor.

See **Detail 32**.



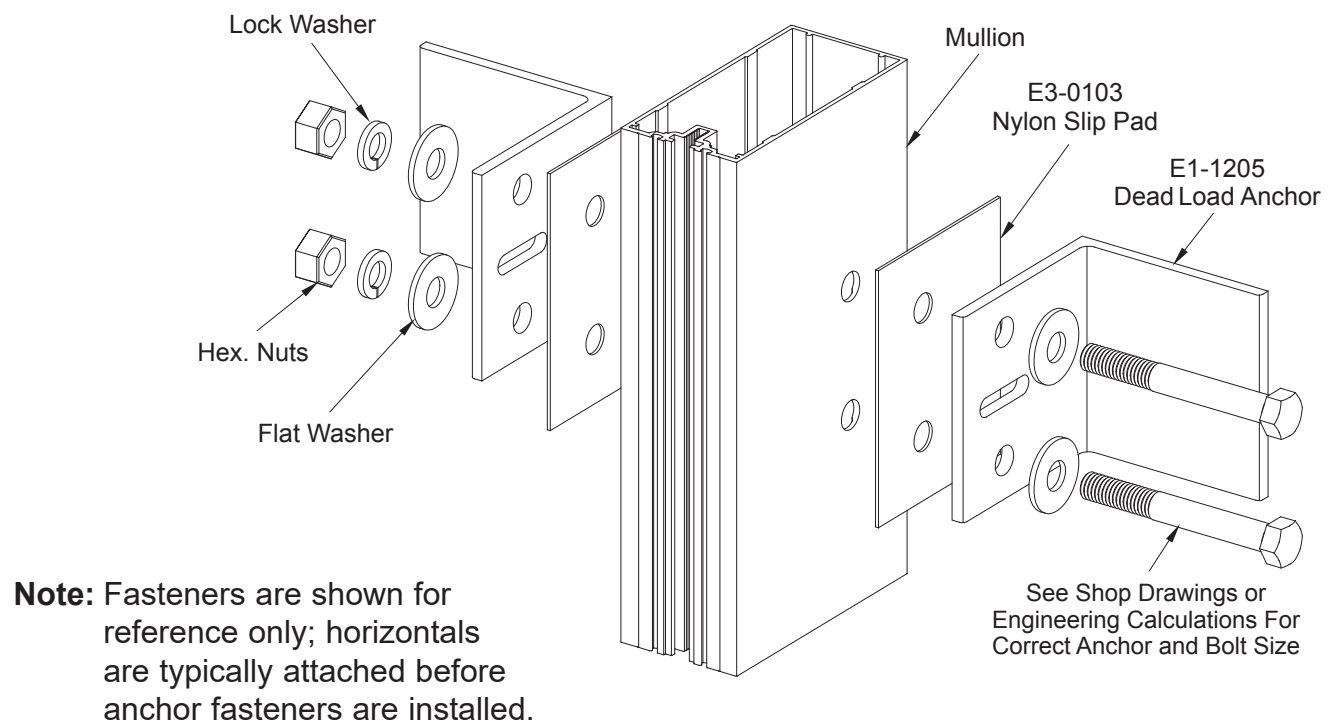
## FRAME INSTALLATION

### TYPICAL WIND LOAD ANCHOR



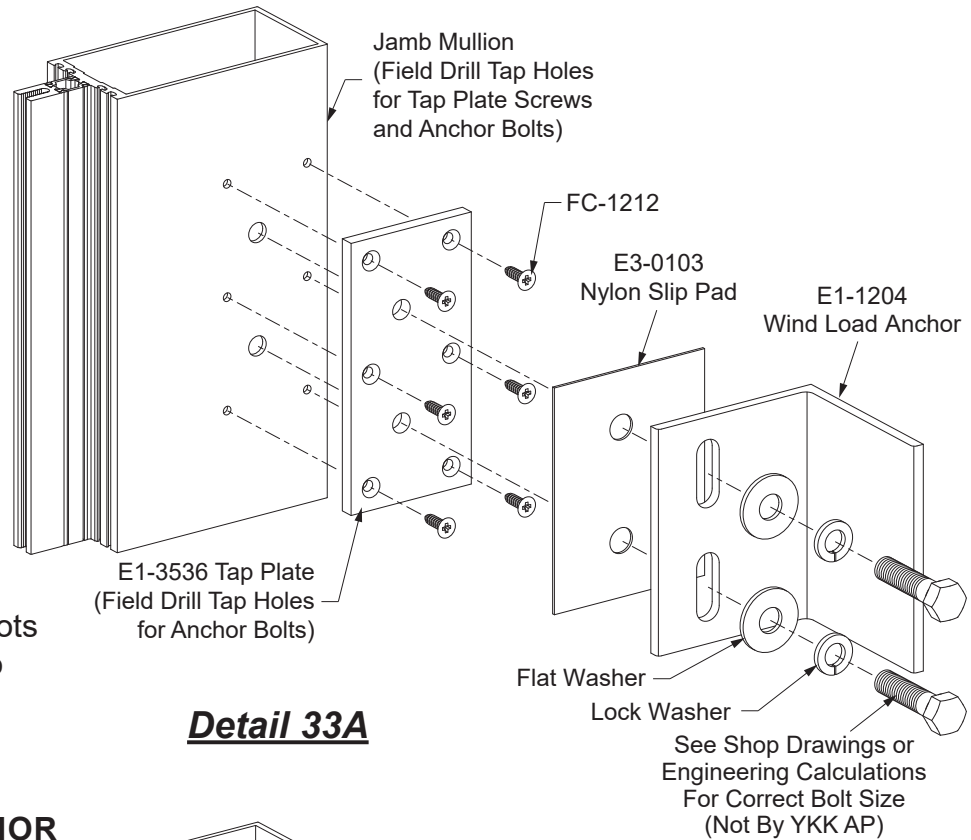
### Detail 33

### TYPICAL DEAD LOAD ANCHOR



**FRAME INSTALLATION**

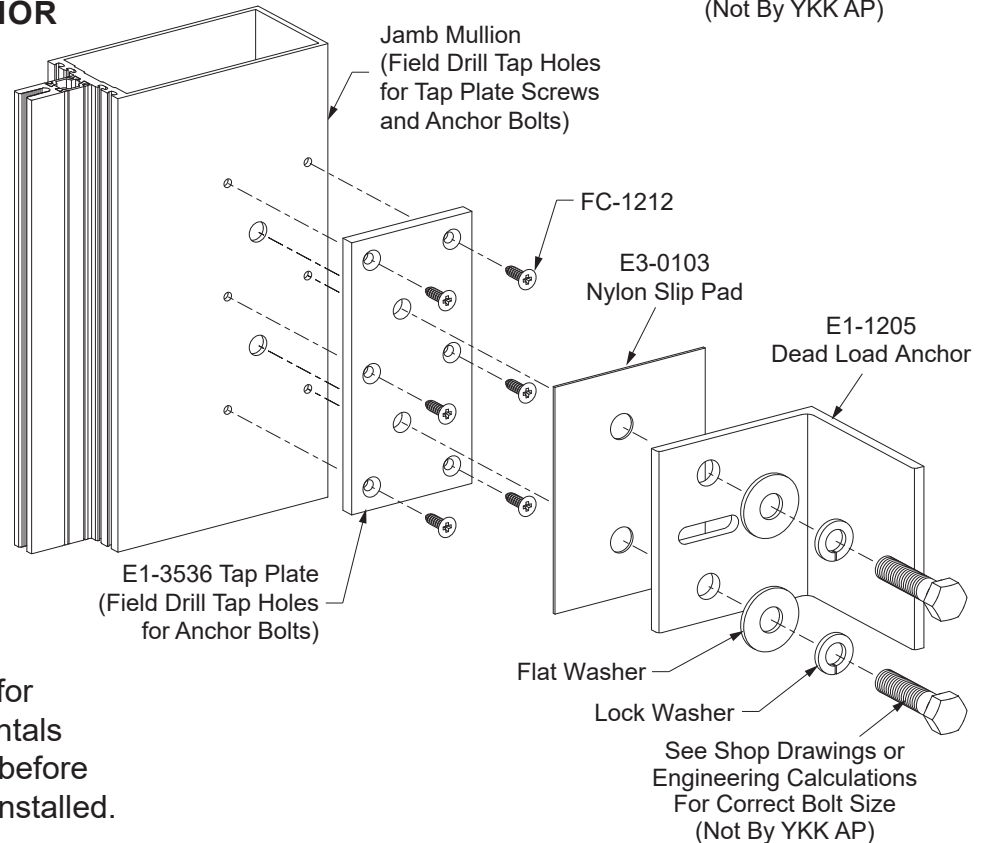
**JAMB WIND LOAD ANCHOR**



**Note:** Drill holes in mullion centered along the slots to permit the frame to contract and expand.

**Detail 33A**

**JAMB DEAD LOAD ANCHOR**



**Note:** Fasteners are shown for reference only; horizontals are typically attached before anchor fasteners are installed.



## FRAME INSTALLATION

### STEP 15

#### ATTACH HORIZONTAL MEMBERS

-Just prior to attaching the horizontal members to the vertical, apply sealant to the front of the shear block as shown below.

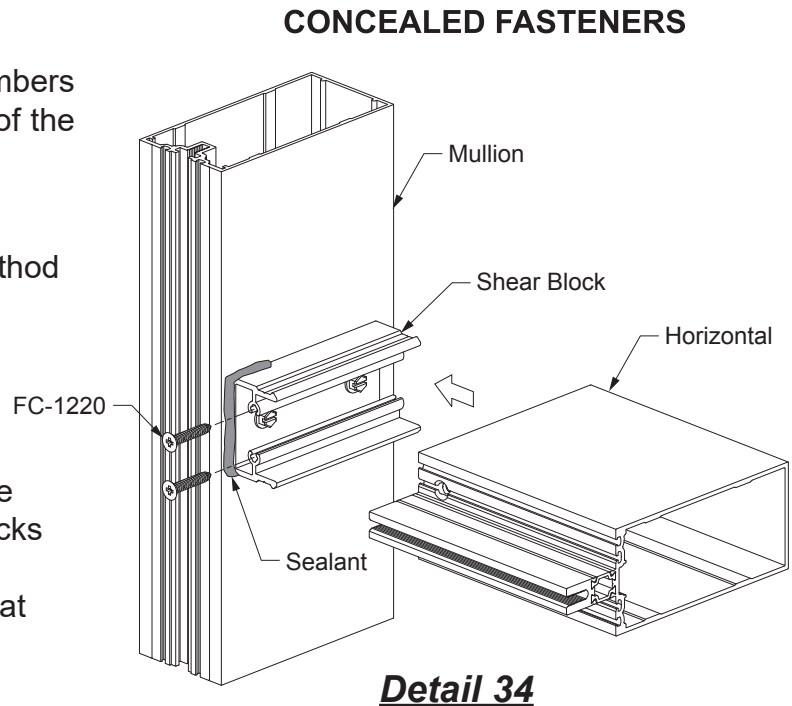
**Note:** Before applying any sealant, clean aluminum surfaces using cleaner and method approved by sealant manufacturer.

#### For Concealed Fasteners:

-Slide the horizontal members towards the vertical and attach them to the shear blocks at each end with two FC-1220 fasteners.

-Tool and wipe away any excess sealant at the vertical to horizontal joints.

See **Detail 34**.



#### For Exposed Fasteners:

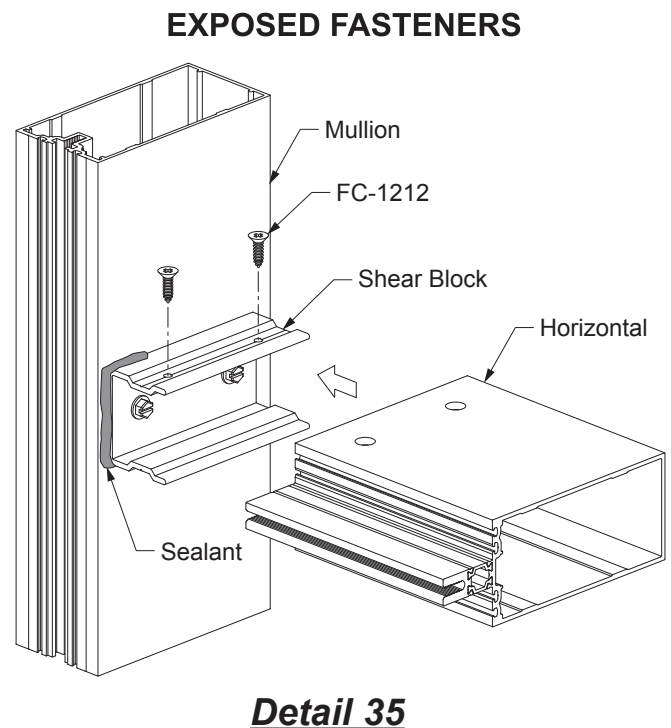
-Slide the horizontal members towards the vertical and transfer the hole locations on top of the horizontal to the shear block.

-Remove the horizontal and drill a 0.189" dia. (#12 bit) hole at each hole location.

-Slide the horizontal back against the vertical and attach it to the shear block with two FC-1212 fasteners at each end.

-Tool and wipe away any excess sealant at the vertical to horizontal joints.

See **Detail 35**.



## FRAME INSTALLATION

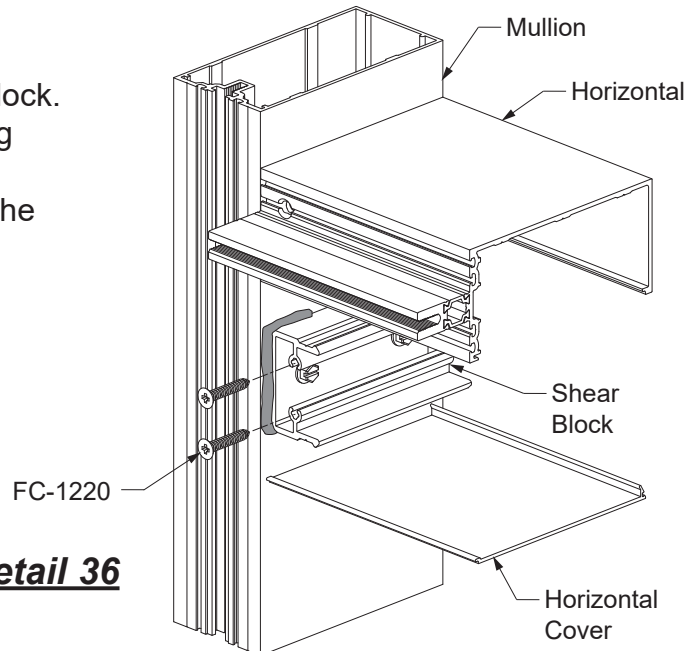
### STEP 15 (Continued)

### ATTACH HORIZONTAL MEMBERS

#### For Two Piece Horizontals:

- Lower the horizontal down onto the shear block. Make sure the horizontal and vertical glazing pockets are flush.
  - Attach the horizontal to the shear clip from the front of the horizontal using two FC-1220 fasteners.
  - Snap on the horizontal cover.
- See **Detail 36**.

#### OPEN BACK HORIZONTAL



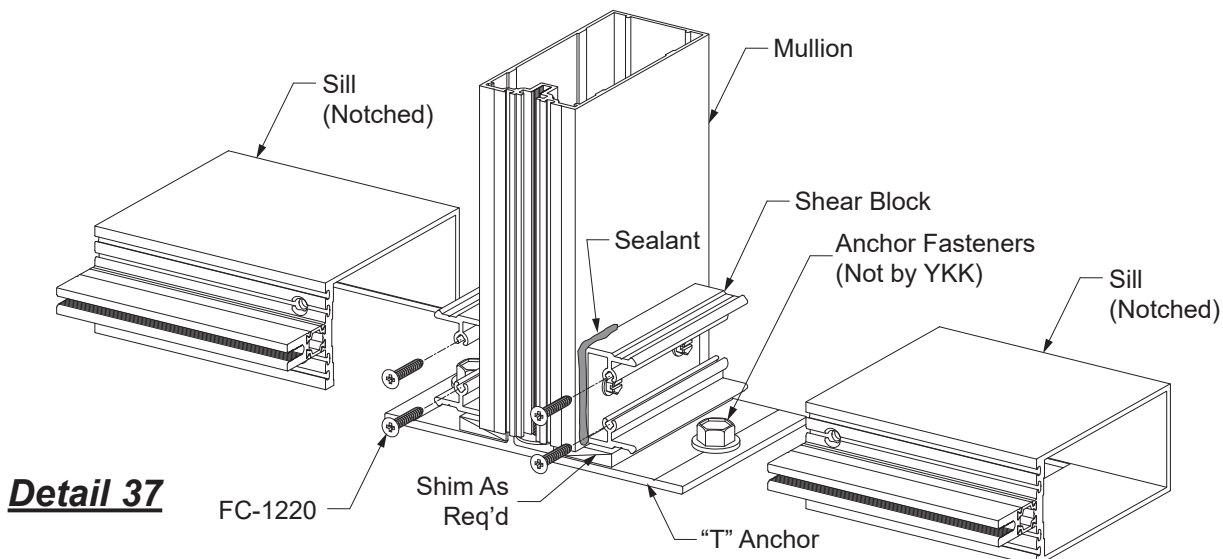
**Detail 36**

#### At Head and Sills:

- Mullion end anchors must be installed before head and sill members are attached.
  - Provide anchor fasteners as per job requirements. See approved shop drawings or engineering calculations for appropriate anchor fasteners.
  - Install the anchor fasteners as recommended by fastener manufacturer.
- Attach head and sill members according to the procedures previously outlined with the notched out portion facing the anchors.

See **Detail 37**.

**Caution:** There must always be a shim under the mullion to transfer glazing dead loads to the foundation.



**Detail 37**

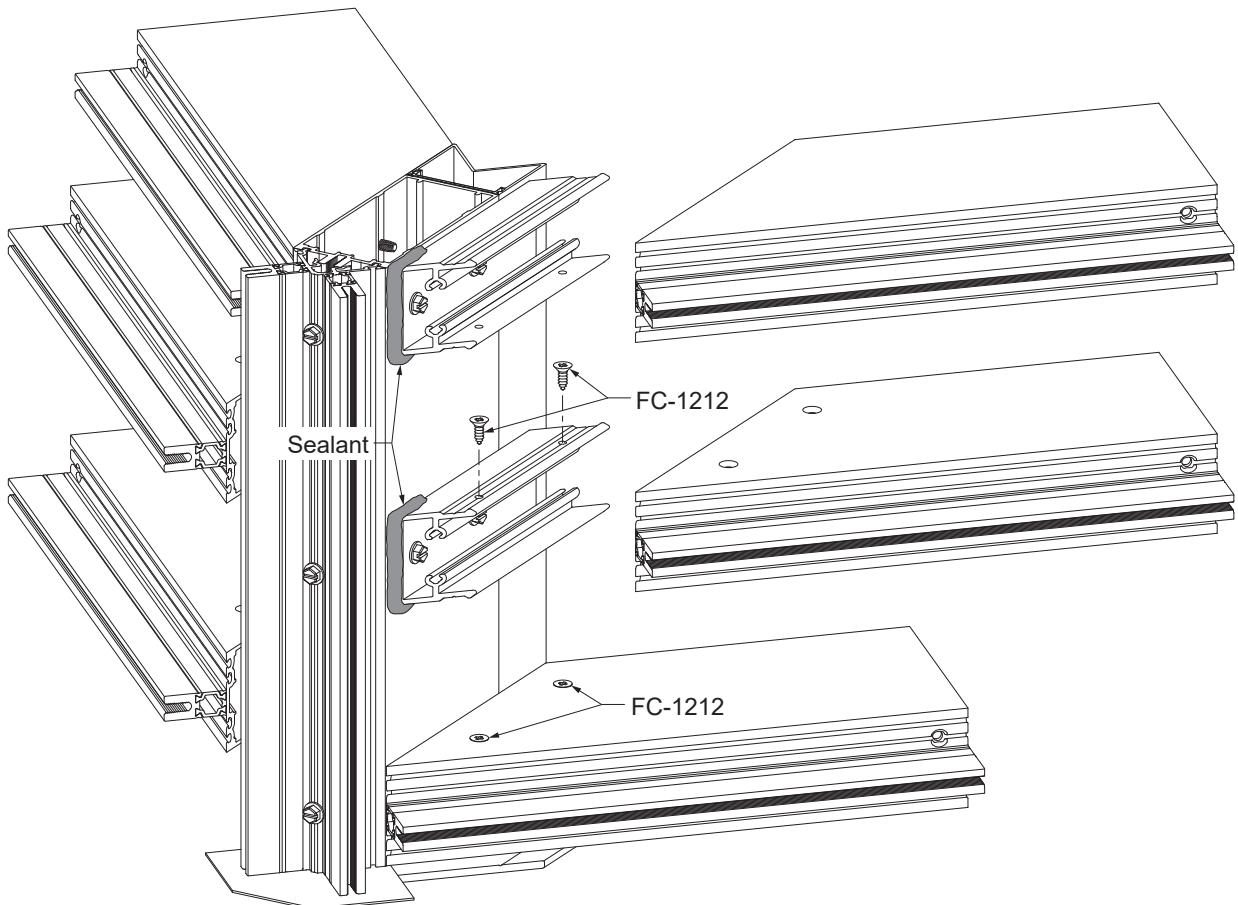
## FRAME INSTALLATION

### STEP 15 (Continued)

#### ATTACH HORIZONTAL MEMBERS AT 90° OUTSIDE CORNER MULLIONS

**Note:** Before applying any sealant, clean aluminum surfaces using cleaner and method approved by sealant manufacturer.

- Just prior to attaching the horizontal members to the corner mullion, apply sealant to the front of the shear block as shown in **Detail 38**.
- Attach the horizontal members at the mitered end to the corner mullion at the shear blocks with fasteners as shown below.
- When using incidental water head members, match drill 0.189" tap holes into the shear clips. Attach the incidental water head using PC-1208 screws.
- Tool and wipe away any excess sealant at the vertical to horizontal joints.



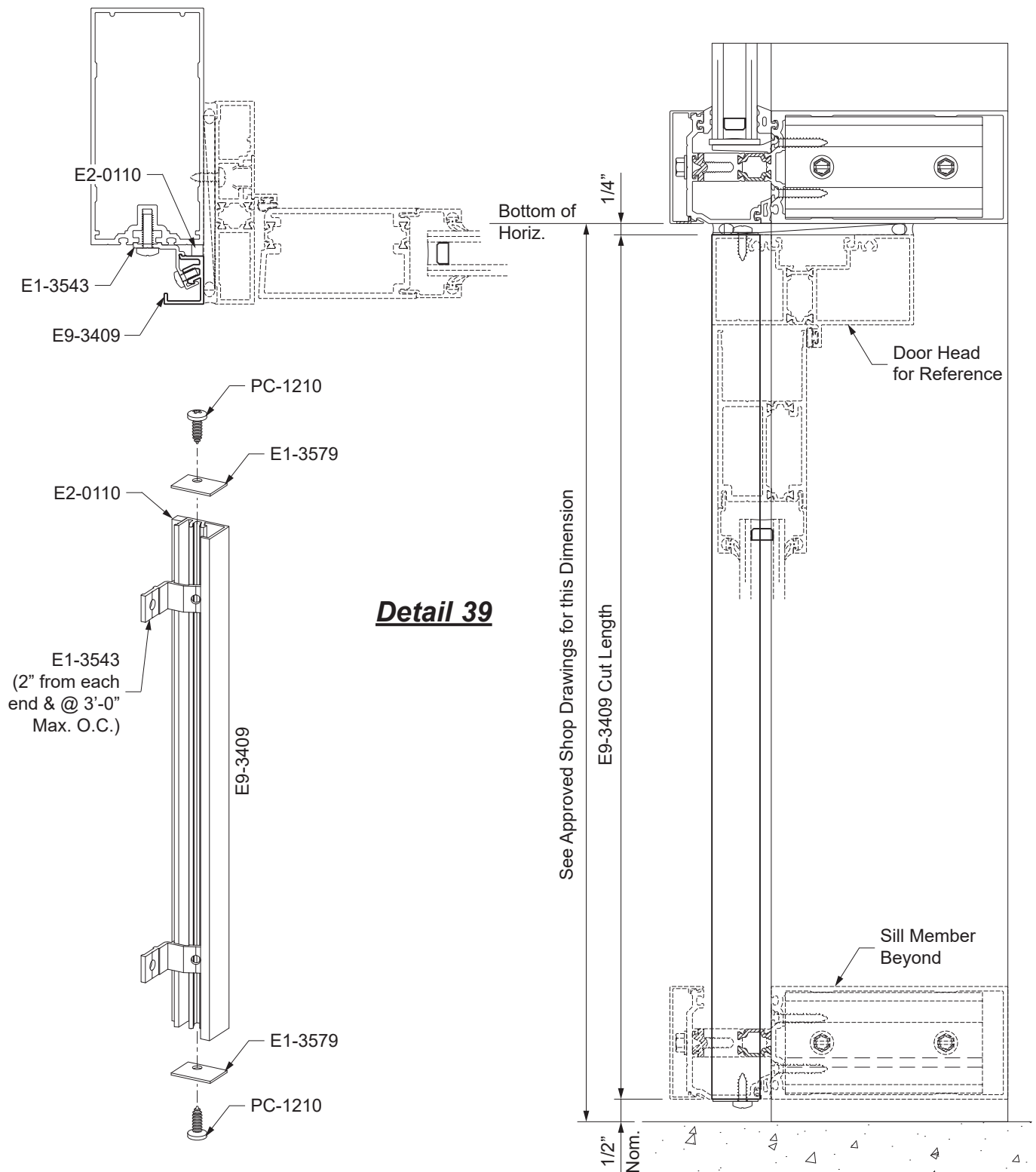
**Detail 38**

**FRAME INSTALLATION****STEP 16****INSTALL DOOR SUBFRAMES**

- Fabricate and assemble the perimeter trim for the door jamb as shown on **Detail 39** on the next page.
- Attach the E1-3543 trim clips onto the E9-3409 perimeter trim, locating them at 2" from each end of the trim and at 3'-0" maximum on center.
- Fasten E1-3579 end caps to the ends of the perimeter trim with PC-1210 screws.

FRAME INSTALLATION

STEP 16  
INSTALL DOOR SUBFRAMES

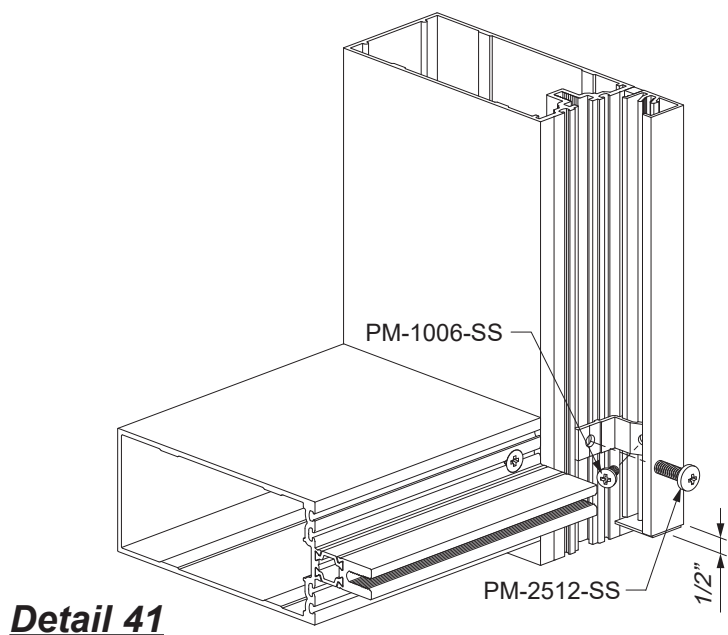
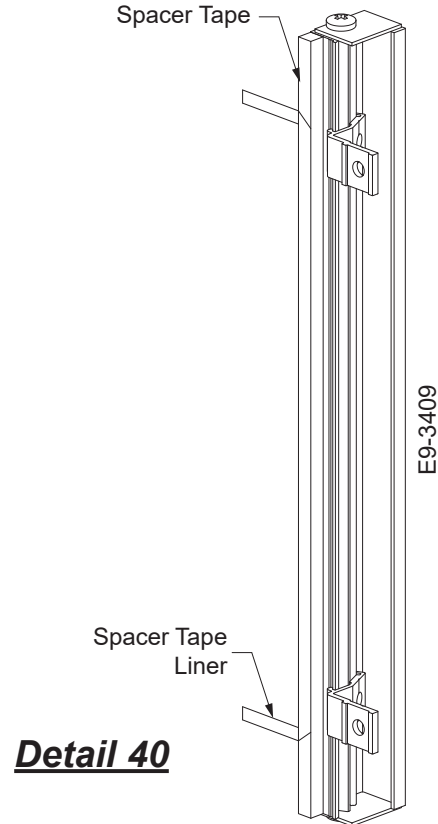


## FRAME INSTALLATION

### STEP 16 INSTALL DOOR SUBFRAMES

- Clean all sealant contact surfaces as recommended by the sealant manufacturer. Adhere E2-0110 spacer tape onto the perimeter trim.
- Peel back tape liner of the perimeter trim 2" from each end to expose the adhesive backing as shown in **Detail 40**.
- Press the perimeter trim onto the SSG door jamb member, leaving a 1/2" caulk joint at the sill. Peel the remaining tape liner from the perimeter trim while continuing to press the trim against the mullion.
- Fasten the perimeter trim clips to the spline of the SSG mullion using PM-2512-SS fasteners.
- Fasten the perimeter trim clips to the spline of the perimeter trim using PM-1006-SS fasteners.

See **Detail 41**.



## FRAME INSTALLATION

### STEP 16 INSTALL DOOR SUBFRAMES

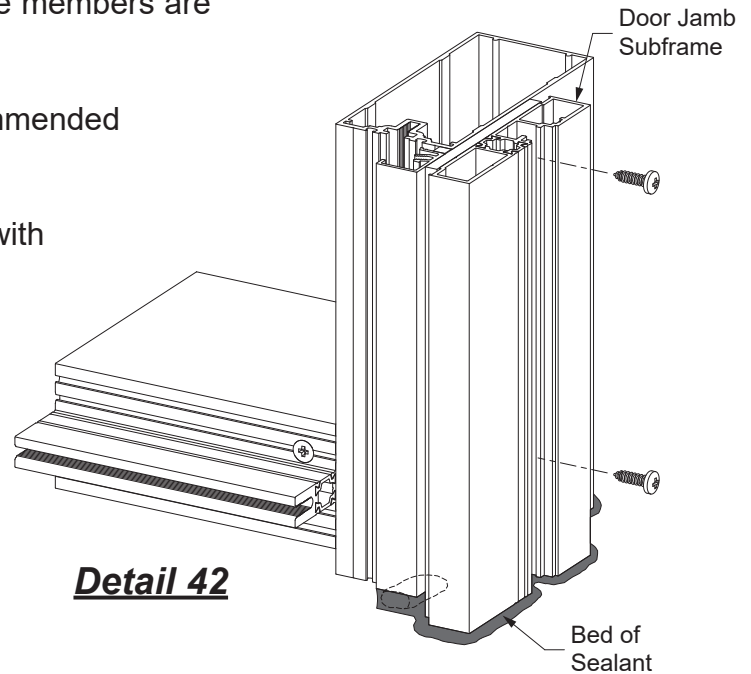
Refer to the **Entrances Installation Manual** for assembly of the door subframes. These subframes are typically installed into the curtain wall framing at the jambs, and set directly upon the sill substrate. The subframe members are determined by the approved shop drawings.

-Clean all sealant contact surfaces as recommended by the sealant manufacturer.

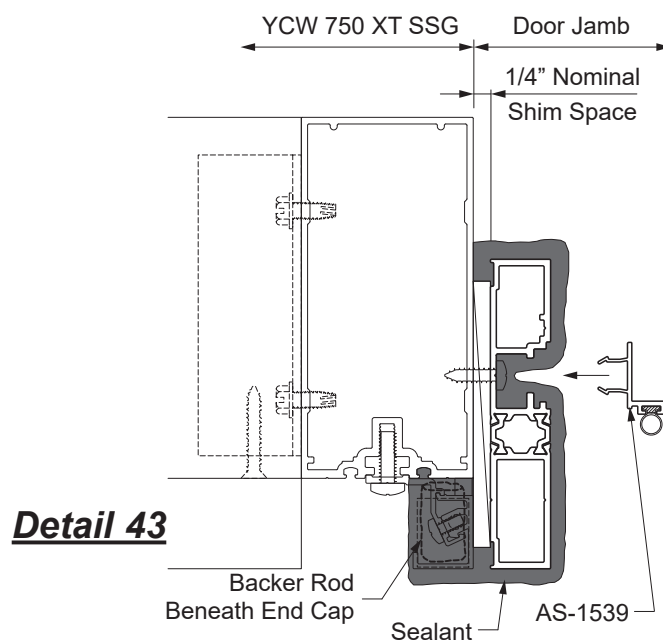
-Install the jamb subframe onto the mullion with fasteners according to the approved shop drawings and/or P.E. calculations, setting the subframe jambs in beds of sealant as shown in **Detail 42**, and aligning the face of the subframe with the face of the perimeter trim.

-Apply and tool sealant to the bottom of the jamb subframe as shown in **Detail 43**.

-Install door stop into the door jambs.



**Detail 42**



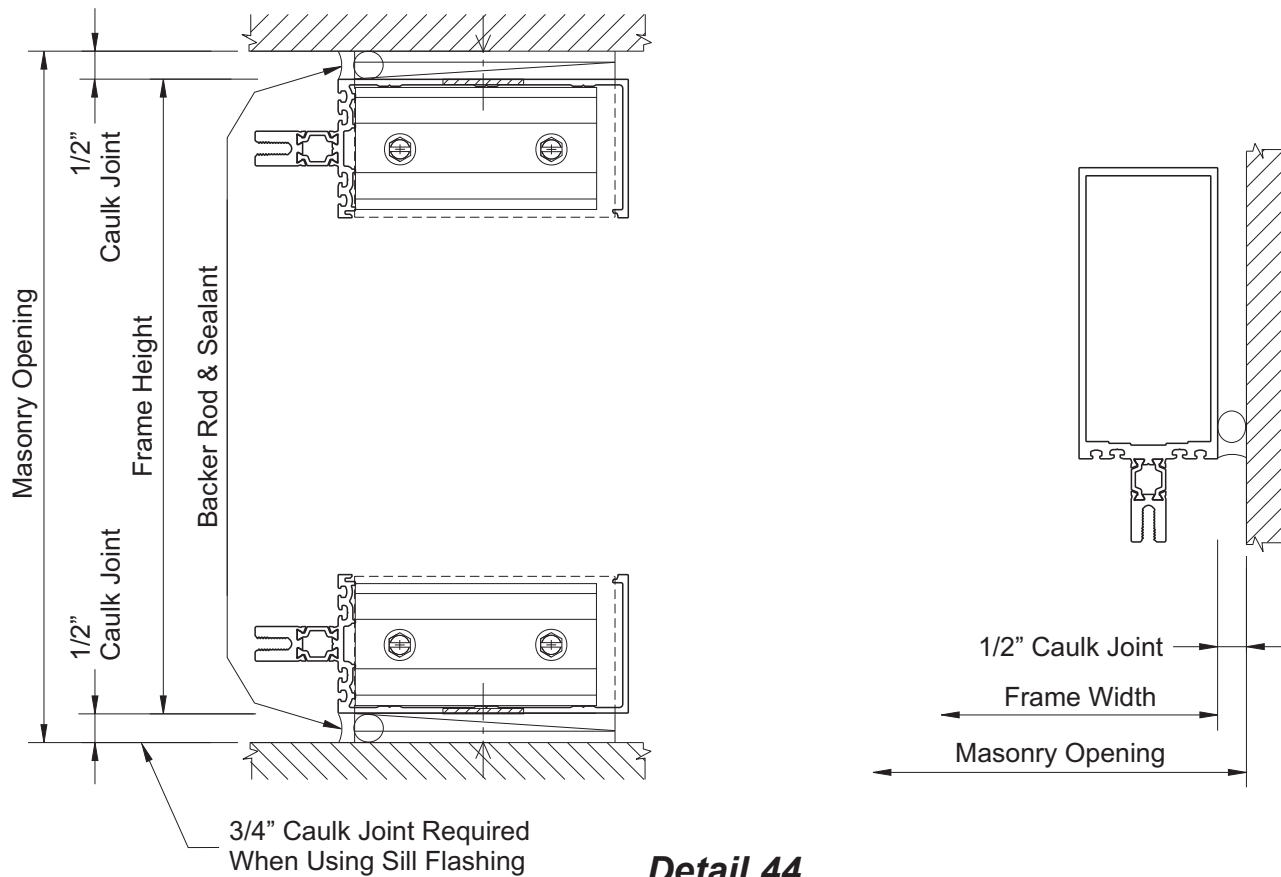
**Detail 43**

## FRAME INSTALLATION

### STEP 17

#### APPLY PERIMETER SEALANT

- Clean the area around the perimeter of the frame with cleaner and method approved by sealant manufacturer.
  - Insert a backer rod and apply sealant to the perimeter of the frame.
  - Tool the sealant making sure that sealant does not get into the gasket reglets.
- See **Detail 44**.





## FRAME INSTALLATION

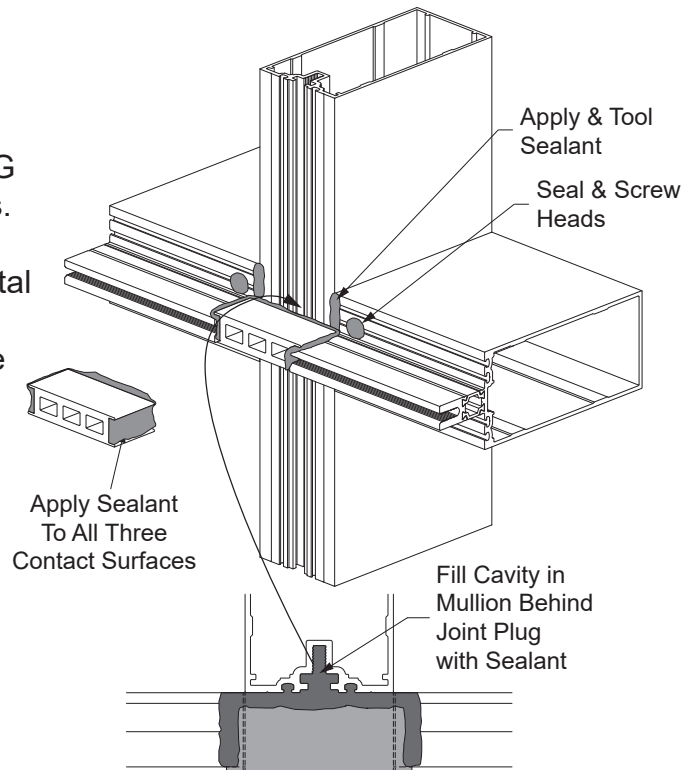
### STEP 18 INSTALL JOINT PLUGS

#### At Intermediate SSG Verticals:

The space between the horizontals at each SSG vertical must be closed with E2-3615 joint plugs.

- Clean the area around the vertical and horizontal intersection with an approved cleaner.
- Apply and tool sealant to the intersection of the horizontal and vertical.
- Apply sealant to the three contact sides of the joint plug and into all cavities behind where the joint plug will go.
- Press joint plug firmly against face of mullion.
- Tool the sealant to ensure a watertight seal.
- Apply and tool sealant over fastener heads on horizontal. Make sure raceway adjacent to fastener head is effectively sealed.

See **Detail 45**.

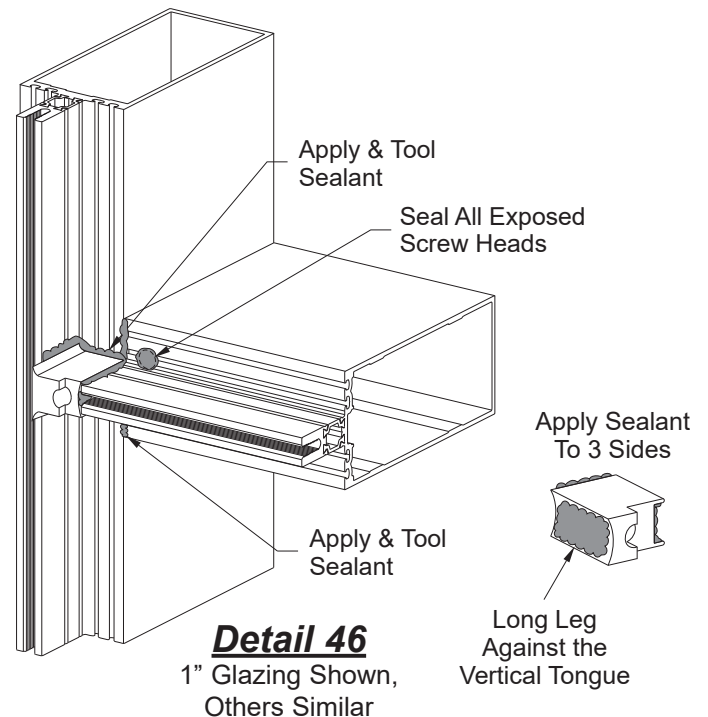


#### At Jamb Mullions:

The tongue of the horizontal mullion must be sealed to the tongue of the jamb mullion with joint plugs, E2-3603 for 1" glazing.

- Clean the area around the tongue intersection with an approved cleaner.
- Apply and tool sealant to the intersection of the horizontal and jamb mullions.
- Apply sealant to the three contact sides of the joint plug and at the intersection of the vertical and horizontal glazing pocket.
- Install joint plug as shown with the long leg of plug against the vertical tongue.
- Press joint plug firmly against face of mullion.
- Tool the sealant to ensure a watertight seal.
- Apply and tool sealant over fastener heads on horizontal. Make sure raceway adjacent to fastener head is effectively sealed.

See **Detail 46**.



#### **Detail 45**

1" Glazing Shown,  
Others Similar

#### **Detail 46**

1" Glazing Shown,  
Others Similar

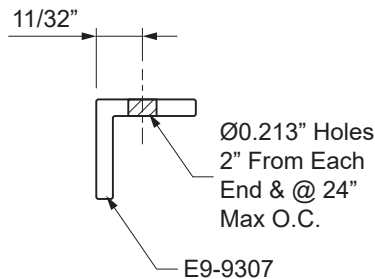
## FRAME INSTALLATION

### STEP 19

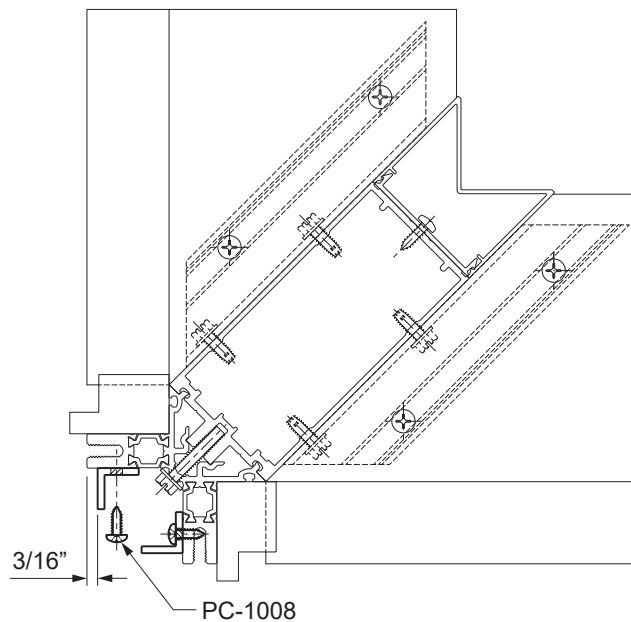
### INSTALL 90° OUTSIDE CORNER TRIM

Prior to glazing, install corner trim onto the 90° outside corner mullion.

- Cut E9-9307 angles to the same length as the 90° outside corner mullion adaptor.
- Drill 0.213" diameter holes into the E9-9307 angle at 2" from each end and at 24" maximum on center as shown in **Detail 47**.
- Clamp the angle onto the mullion as shown in **Detail 48**, 3/16" from the edge of the glazing tongue.
- Fasten the angle onto each side of the corner adaptor with PC-1008 screws.



**Detail 47**



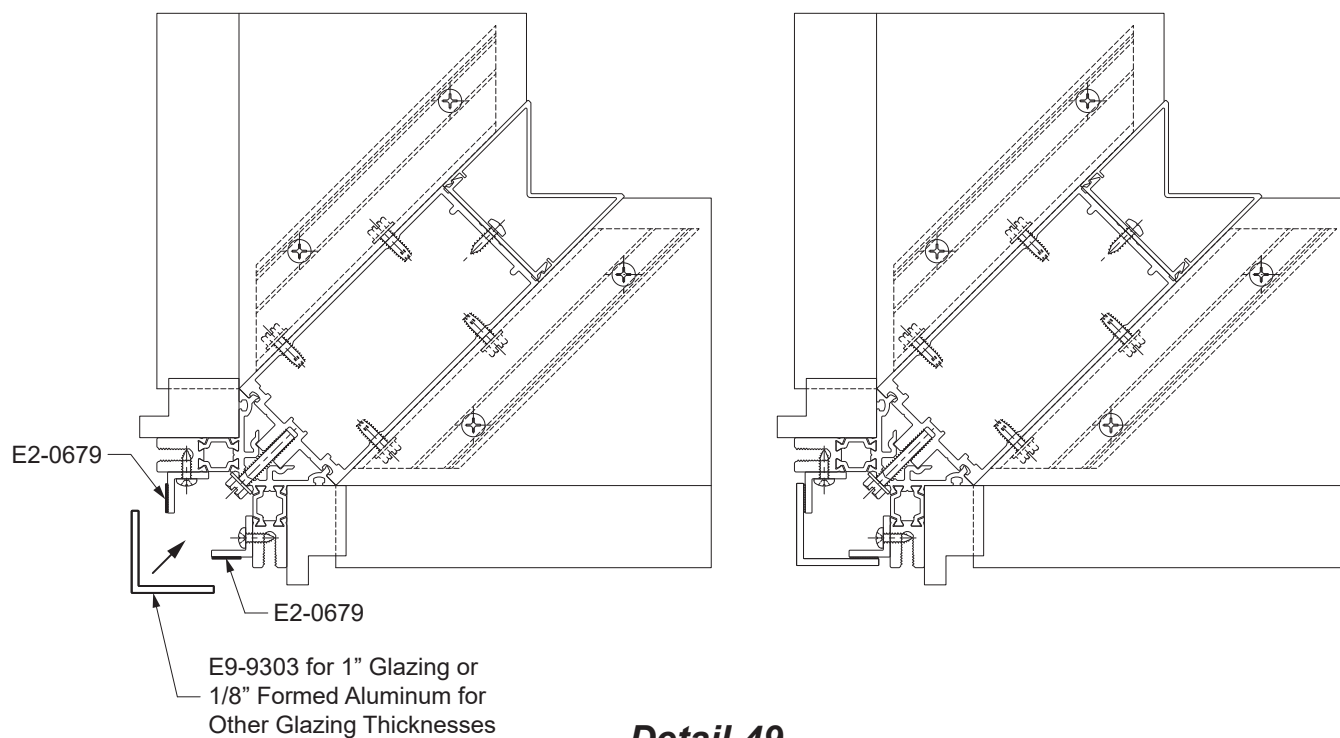
**Detail 48**

## FRAME INSTALLATION

### STEP 19 (Continued)

### INSTALL 90° OUTSIDE CORNER TRIM

- Adhere E2-0679 continuous structural tape to the installed E9-9307 angles as shown in **Detail 49**.
- Cut the outside trim angle (E9-9303 for 1" glazing, 1/8" formed aluminum for other glazing thicknesses) to the length of the 90° outside corner mullion adaptor.
- Then firmly adhere the outside trim angle onto the structural glazing tape on both sides.

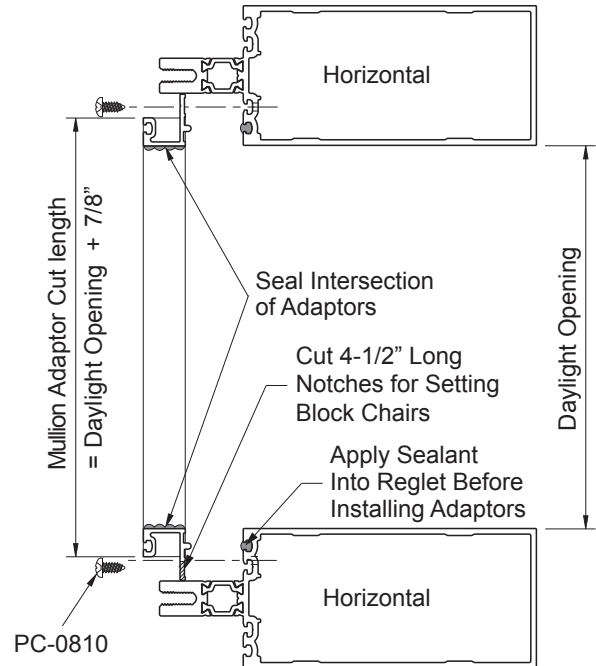
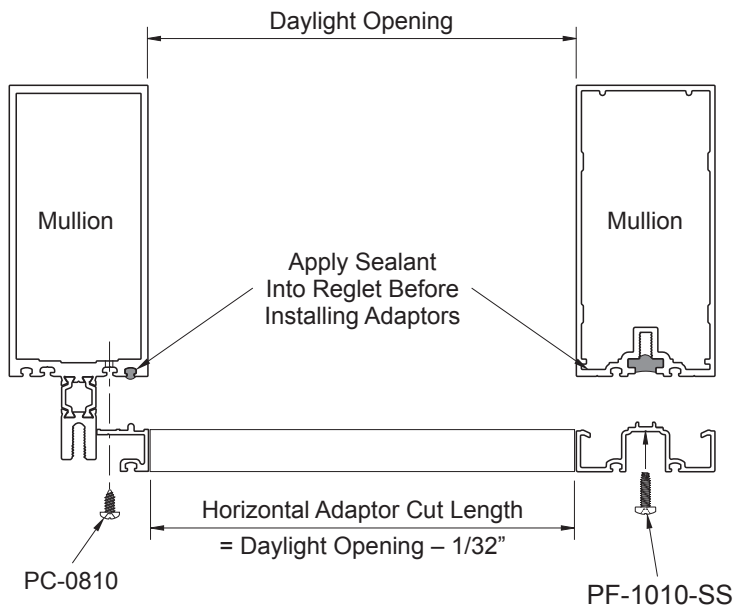


**Detail 49**

## GLAZING

### STEP 20 INSTALL GLAZING ADAPTORS (When Required)

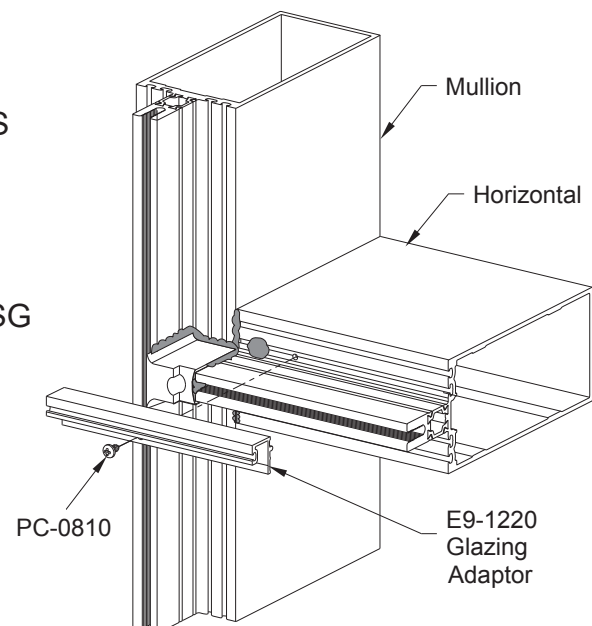
**Note:** 1/4" glazing adaptors shown  
1/2" glazing adaptors similar.



- Cut glazing adaptors to size:  
Vertical Cut Length = Daylight Opening plus(+) 7/8".  
Horizontal Cut Length = Daylight Opening minus(-) 1/32".

### **Detail 50**

- Predrill each adaptor with 0.189" dia. (#12) holes 2" from each end and 24" O.C.
  - Dry fit adaptors and match drill 0.141" diameter (#28) holes on mullion to receive PC-0810 and PF-1010-SS screws.
  - Clean the area around the mullion glazing reglet and the glazing adaptor with a cleaner approved by the sealant manufacturer.
  - Apply sealant to the glazing reglets of the mullion, SSG mullion recesses, and the ends of the horizontal adaptors.
  - Install the adaptors with PC-0810 screws 2" from each end and at the center of the adaptor. Install the vertical adaptors first and make sure they are centered along the day light opening.
  - Tool sealant at all adaptor intersections and seal all screw heads.
- See **Detail 50**.



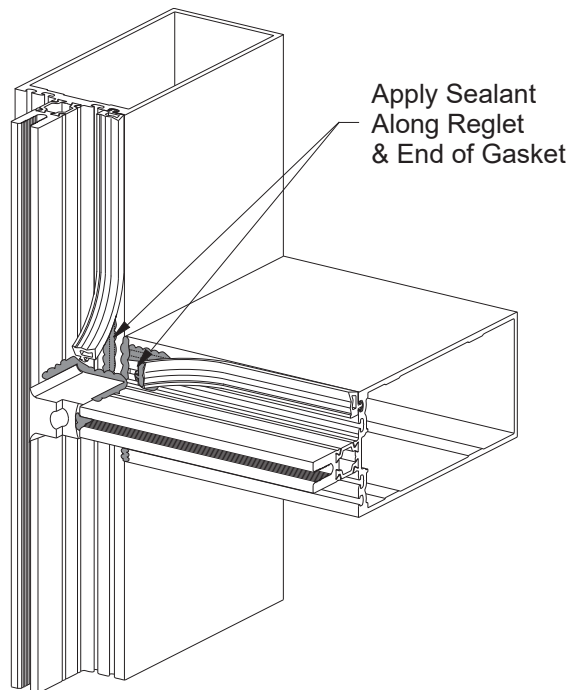
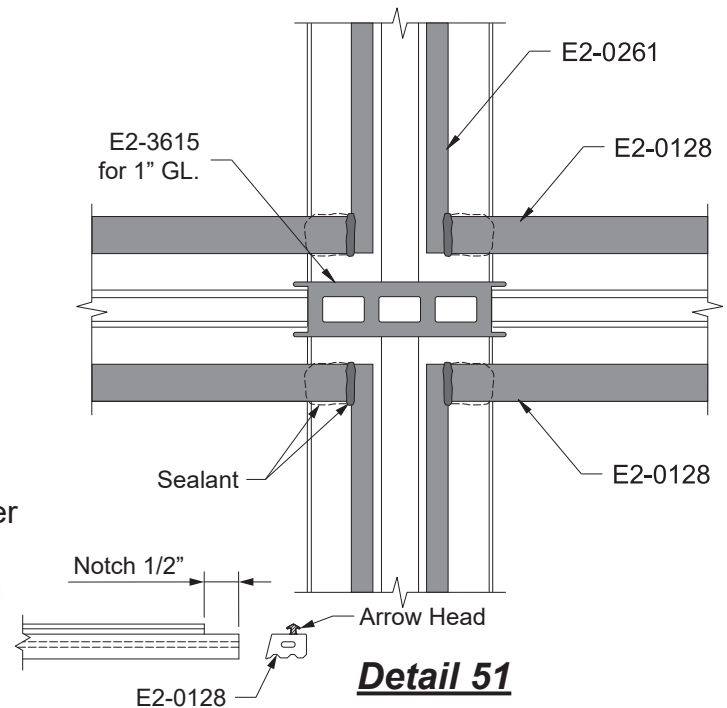
## GLAZING

### STEP 21

#### INSTALL INTERIOR GLAZING GASKETS & SPACERS AT SSG MULLIONS

- Cut vertical gaskets and spacers to Daylight Opening plus(+) 1-1/2".
- Cut horizontal gaskets to Daylight Opening plus(+) 1" plus(+) 1/4" per each foot of opening width.
- Notch horizontal gasket arrow heads 1/2" at each end.
- Apply sealant where the notched horizontal gasket overlaps the mullion and where it meets the vertical spacer.
- Install vertical gaskets and spacers first, centered along the daylight opening.
- Install horizontal glazing spacers by pushing each end into the reglet. Next press the center of gasket into the reglet and then push the rest of the gasket into the reglet working from the center towards each end.

See **Detail 51**.



**Detail 52**

Glazing gaskets require additional sealant at the jamb and horizontal intersection.

- Pull the last 3" of each gasket away from the reglet.
- With gasket end held out of the way, run a 2" to 3" bead of sealant into the reglet at each end.
- Apply sealant to each end of the horizontal gasket.
- Reinsert the gasket ends and press them firmly against the face of the mullion.
- Apply and tool sealant at the intersection of the vertical and horizontal gaskets.

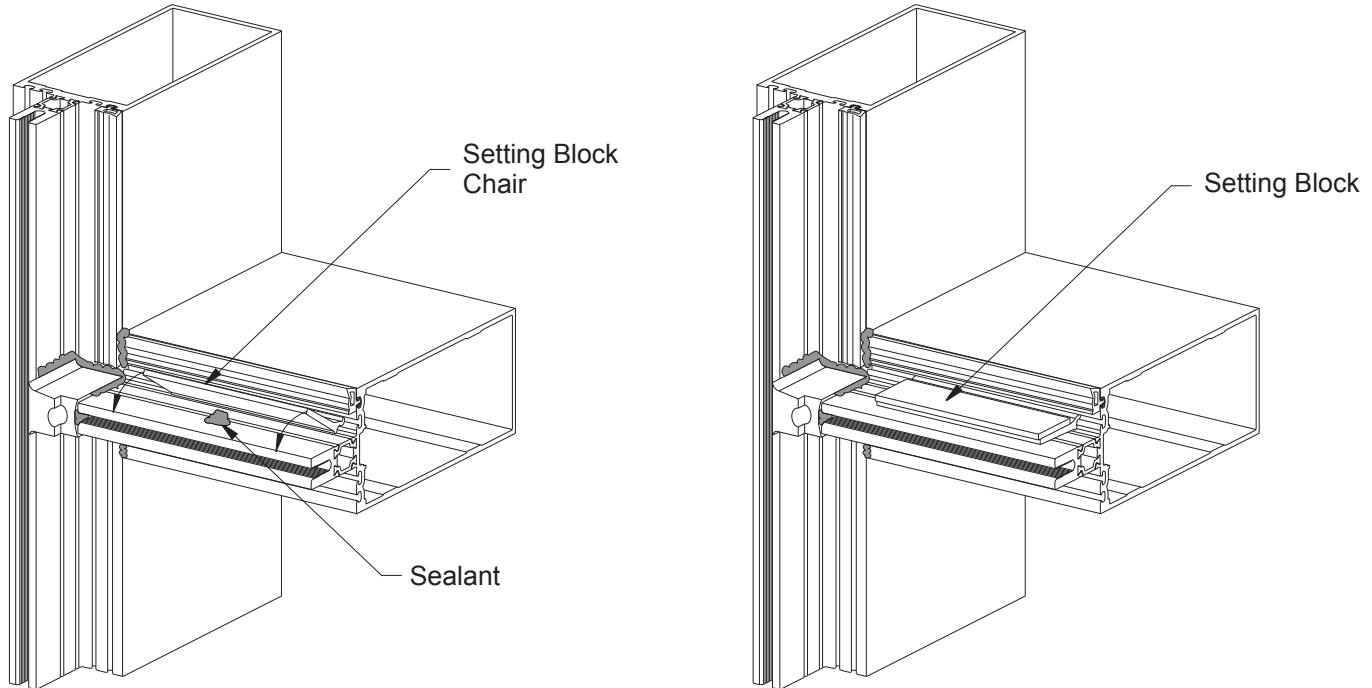
See **Detail 52**.

**GLAZING****STEP 22****INSTALL SETTING BLOCK CHAIRS AND SETTING BLOCKS**

**Note:** For correct placement of setting block chairs and setting blocks, see **Detail 54** on **Page 51**. Consult YKK AP for setting block requirements on units that exceed 60" x 90" or 40 sq. ft.

- Install the E1-3603 setting block chair at 1/4 points as shown in **Detail 53**.
- Apply a small amount of silicone sealant to the tongue of the horizontal to keep the setting block chair correctly positioned prior to the glass being set.
- Place the E2-0513 setting block on the setting block chair.

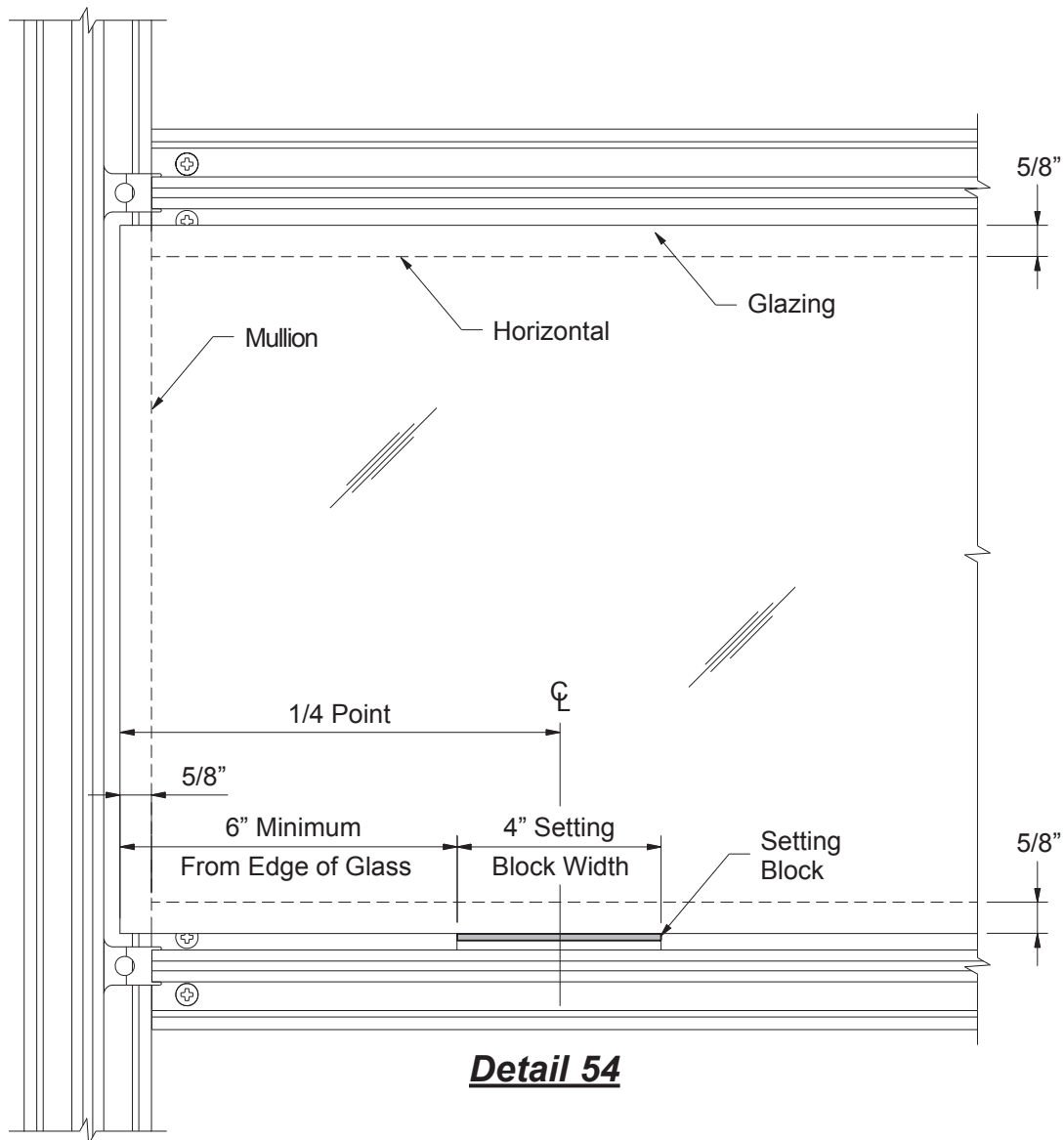
See **Detail 53**.



**Detail 53**

## GLAZING

### STEP 22 INSTALL SETTING BLOCKS (Continued)



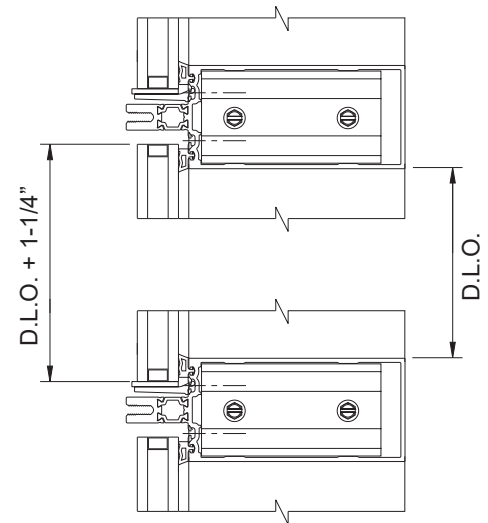
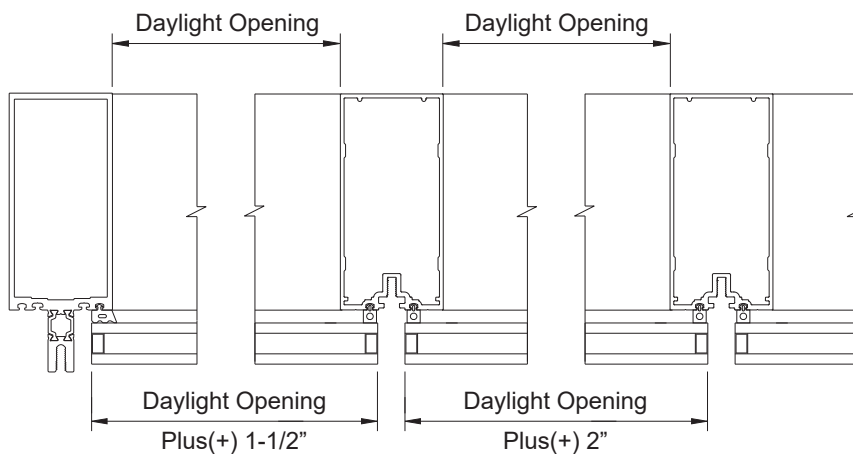
**GLAZING**

**STEP 23**

**INSTALL EXTERIOR GLAZING GASKETS**

- Cut exterior jamb glazing gaskets to the same length as the jamb pressure plates.
- Cut exterior horizontal glazing gaskets to daylight opening plus  $\frac{3}{16}$ " per foot of opening width.
- Install jamb glazing gaskets centered along the jamb pressure plates.
- Install horizontal gaskets by pushing each end into the reglet of the pressure plate. Next press center of gasket into reglet; then push gasket into reglet working from center towards the ends.

**Caution:** Do not stretch the gaskets.



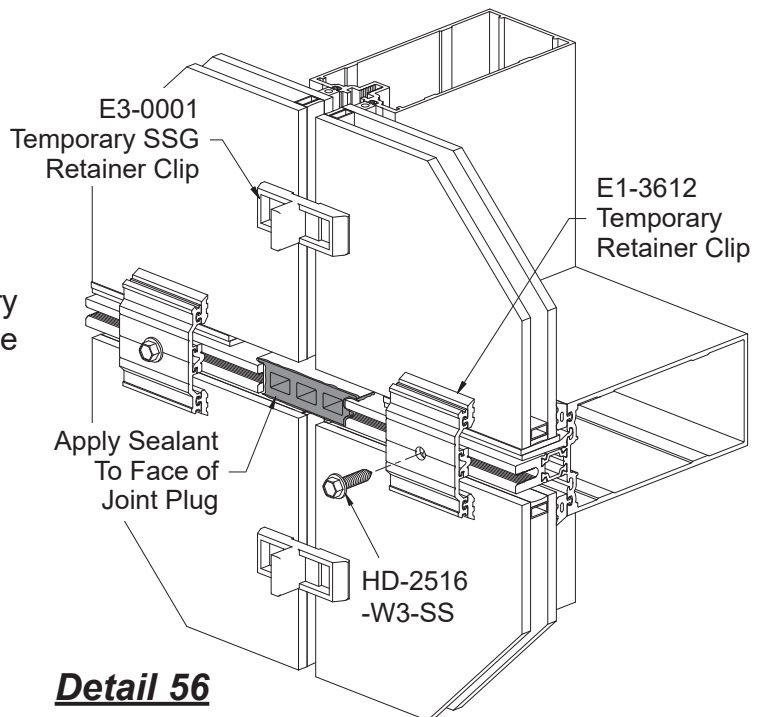
**STEP 24**

**INSTALL GLASS**

- Install glass.  
See **Detail 55** for glass sizes.
  - As each lite is installed, attach a temporary retaining clip, E1-3612, in the middle of each horizontal and 4" from glass edge at each end with HD-2516-W3-SS fasteners.
  - Additionally, secure glass with SSG temporary glass retainers every 3'-0" maximum along the SSG verticals.
  - Apply sealant to the face of the joint plug just prior to installing pressure plates.  
Do not allow sealant to skin over prior to installing pressure plates.
- See **Detail 56**.

**Note:** Sealant must form a complete seal between the exterior gasket, pressure plate, thermal isolator, and the joint plug.

**Detail 55**

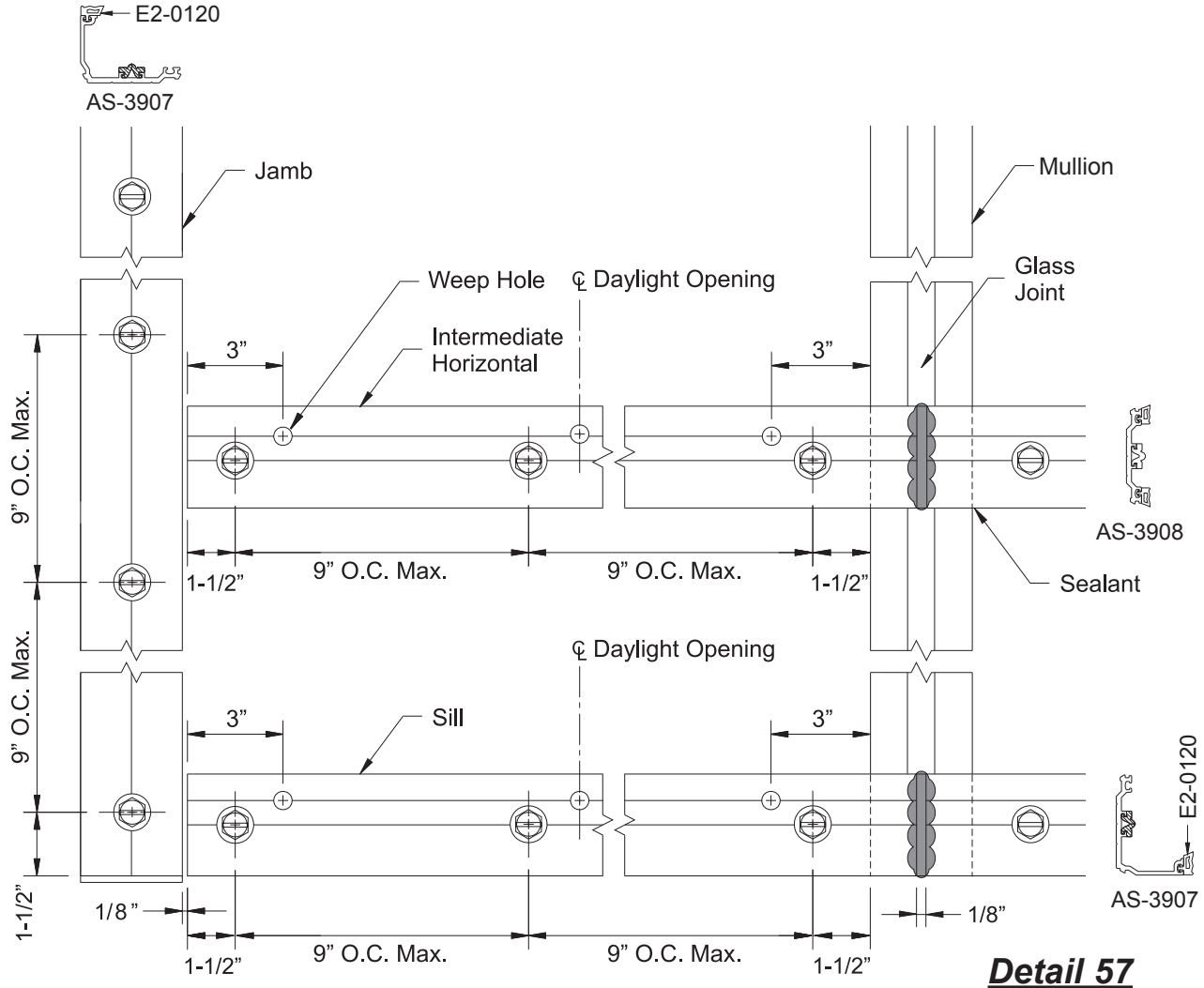


**Detail 56**



## GLAZING

### STEP 25 PRESSURE PLATE LAYOUT AND ASSEMBLY



- Pressure plate stock lengths are factory punched with 0.281" diameter holes at 9" o.c. maximum. After cutting, additional holes may be required to have fasteners located 1-1/2" from each end.
- Install jamb pressure plates using HD-2516-W3-SS bolts. Initially torque bolts to 30 inch-pounds with a speed wrench or torque limiting screw gun. Work from the bottom up.
- Center and install horizontal pressure plates in opening, leaving gaps at the ends as shown.
- Starting at the center of each pressure plate, tighten each retainer bolt to 50 inch-pounds.
- Apply and tool sealant to completely seal gaps at the pressure plate ends.
- Torque all vertical pressure plate bolts to 50 inch-pounds.

See **Detail 57**.

**Note:** Pressure plate AS-3908 must be used instead of AS-3907 on the perimeter when using perimeter anchors. Mullion end cap, E1-3605, must be installed at jambs when using mullion end anchors: "F" or "J".

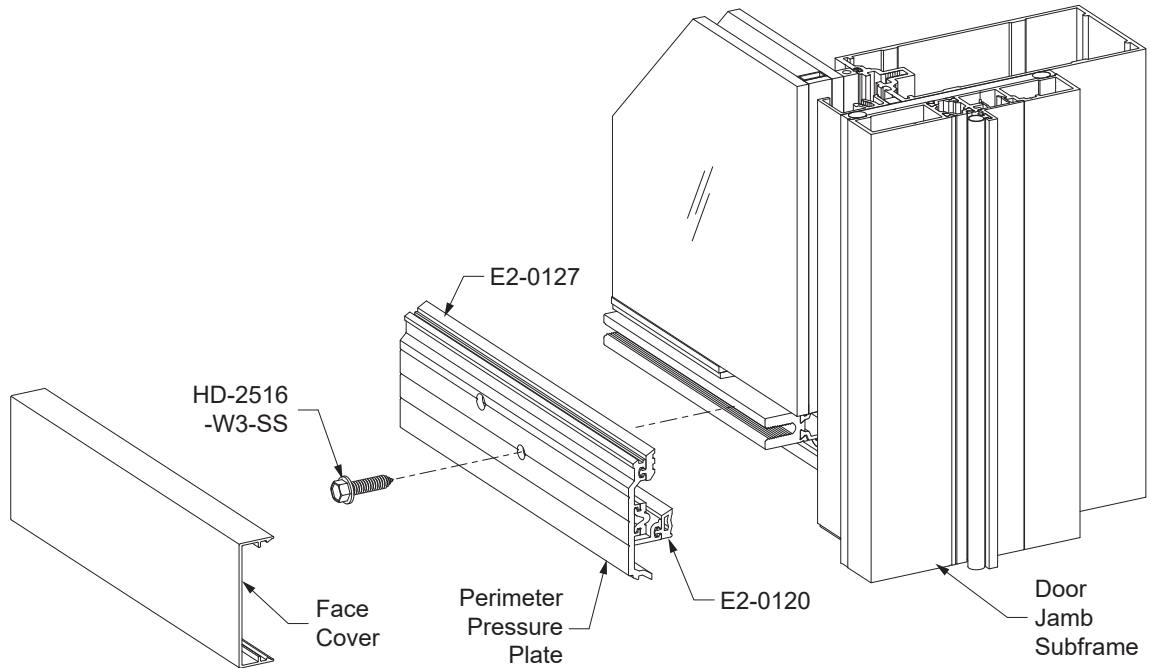
**GLAZING**

**STEP 25 (Continued)**

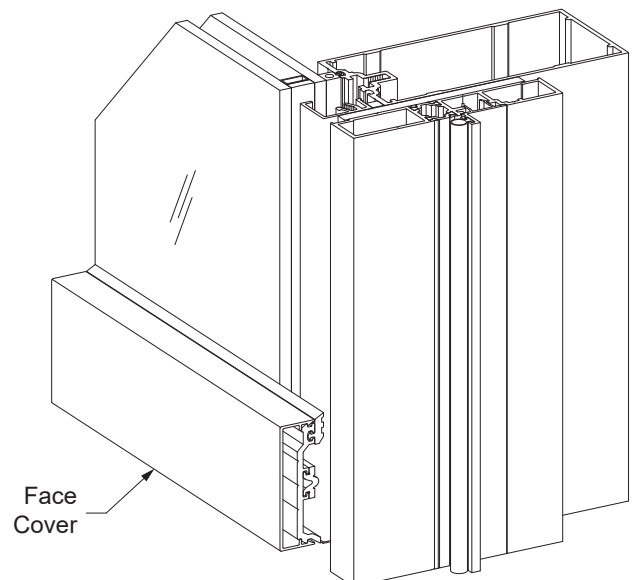
**PRESSURE PLATE LAYOUT AND ASSEMBLY**

-At the door jamb, the horizontal and sill pressure plates and face covers overlap the perimeter trim.

See **Detail 58**.



**Detail 58**

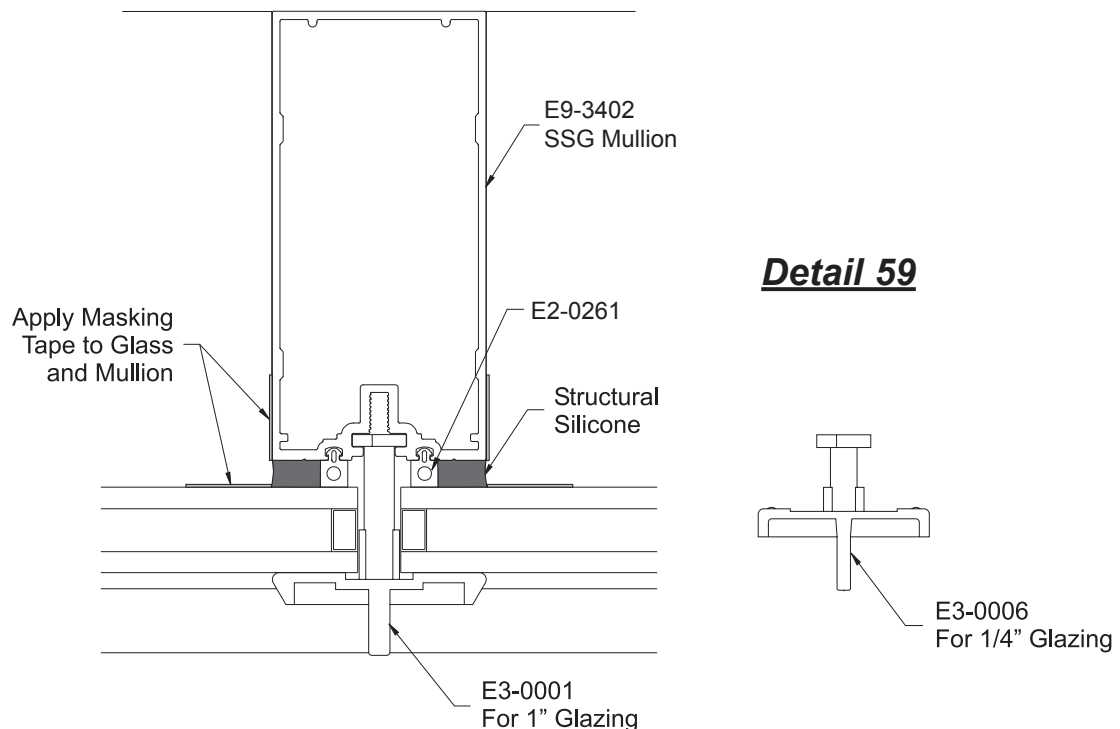


## GLAZING

### STEP 25

#### APPLY INTERIOR STRUCTURAL SILICONE SEALANT

- Carefully read and follow sealant manufacturers sealant recommendations.
- Make sure all silicone contact surfaces and joints have been cleaned with cleaner and method recommended by sealant manufacturer.
- Apply masking tape to the mullion and glass as shown in **Detail 59**.
- Apply an approved structural silicone from the bottom to the top of the joint. Use positive pressure to completely fill the cavity between the glass and vertical mullion.
- Using a nylon spatula or other non-scratching implement, tool the silicone immediately after running the vertical joint. Exert positive pressure while tooling to ensure that the silicone completely fills the cavity.
- Be careful not to remove too much silicone.  
The silicone should make complete contact with the glass and aluminum surfaces.  
The finished joint should be flush with the edge of the vertical.  
See **Detail 59**.
- Allow silicone to cure as per manufacturer's recommendations.  
Temporary retainers should be left in place until silicone has cured.



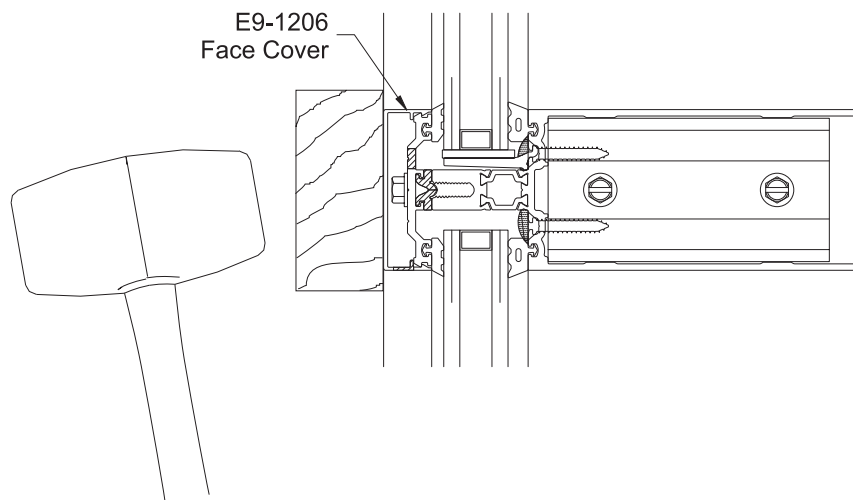
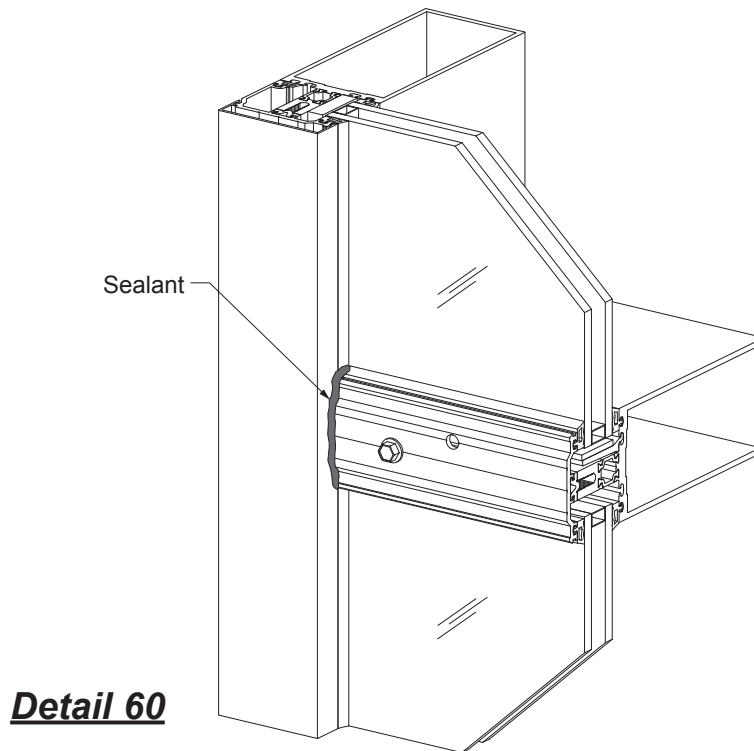
**Caution:** Do not permit the silicone to skin over before it is tooled. Immediately remove masking tape after tooling the silicone.

**GLAZING****STEP 26****INSTALL EXTERIOR JAMB FACE COVERS**

-Snap on exterior jamb face covers using a mallet and clean piece of lumber.  
Start at one end. Work block and mallet down the vertical.

-Apply sealant to the joint between the horizontal pressure plate and the jamb face cover.  
Make sure all sealant contact surfaces have been cleaned with method recommended by sealant manufacturer.

See **Detail 60**.



## GLAZING

### STEP 26A

#### INSTALL EXTERIOR HORIZONTAL FACE COVERS

-Snap on exterior horizontal face covers using a mallet and clean piece of lumber.  
Start at one end. Work block and mallet across the horizontal.

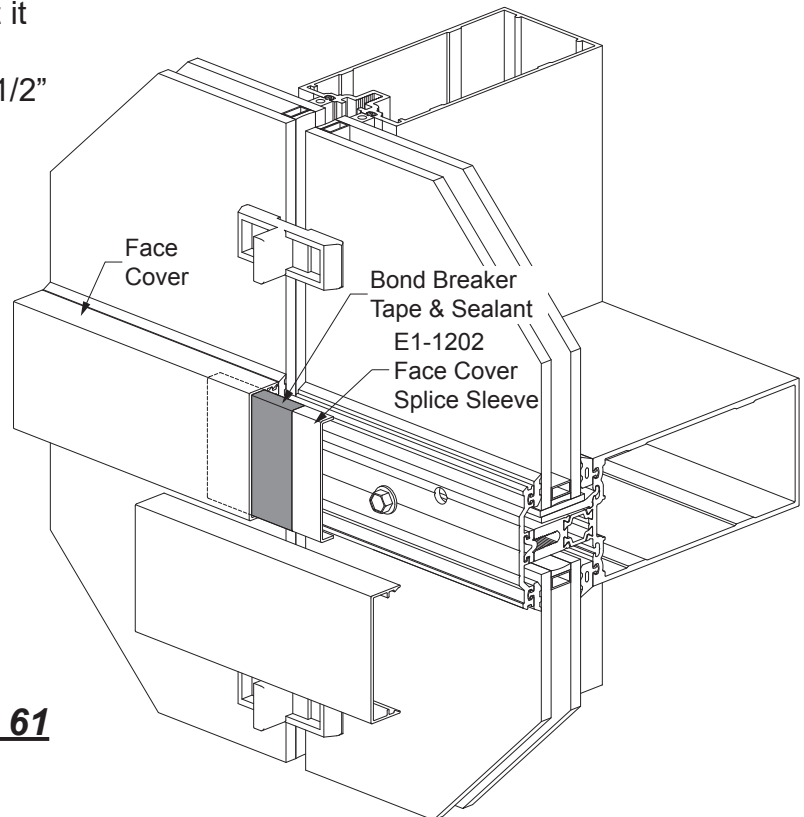
-If horizontal face covers are spliced, apply bond breaker tape and sealant to the face of the splice sleeve, E1-1202, and insert it at the end of the first cover.

-Attach the second face cover leaving a 1/2" joint between the two covers.

-Seal the joint between the face covers with sealant.

See **Detail 61**.

**Note:** Face cover splice joint should align with the vertical glass joint.



**Detail 61**

**GLAZING**

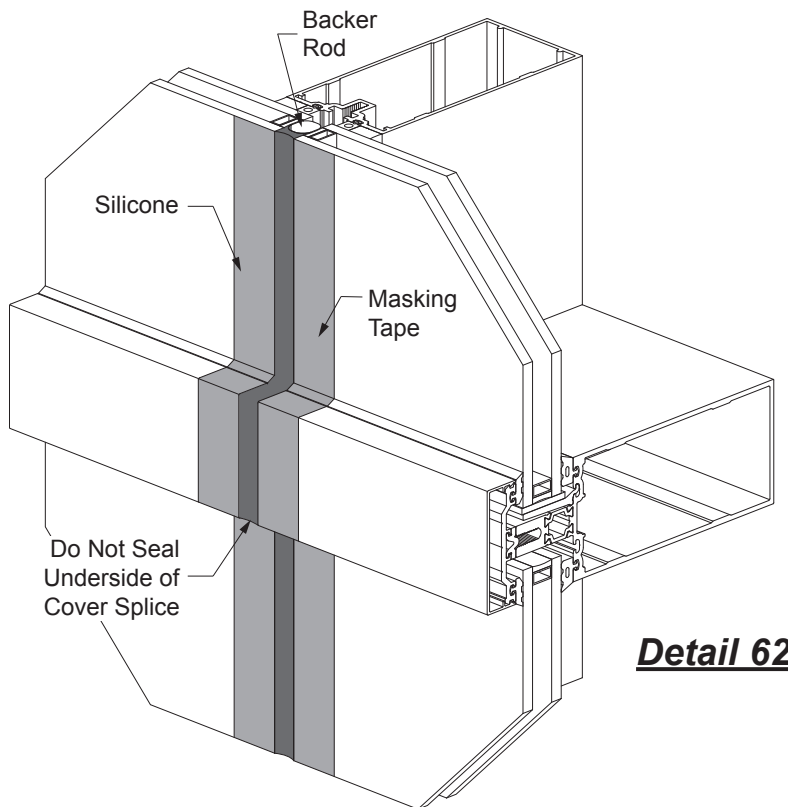
**STEP 27**

**APPLY EXTERIOR WEATHERSEAL**

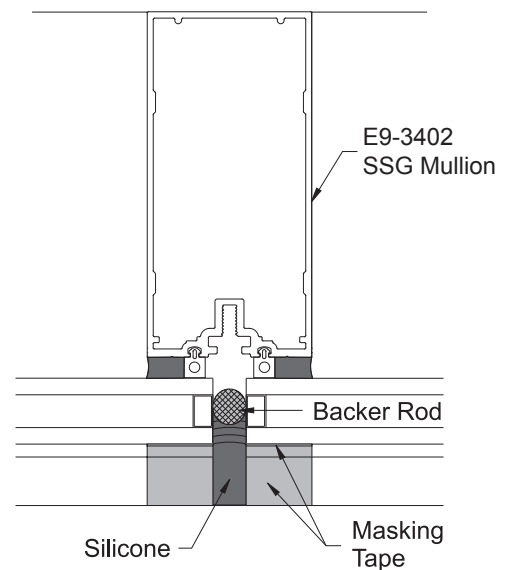
- Once interior structural silicone has cured, remove the temporary retainer clips and insert an approved open cell polyurethane backer rod into the glass joint.
- Clean all silicone contact surfaces and joints with cleaner and method recommended by sealant manufacturer.
- Apply masking tape to the edges of the glass and aluminum as shown in **Detail 62**.
- Apply silicone sealant into the cavity between the mullion and glass starting from the bottom and work towards the top. Use positive pressure so that the silicone sealant completely fills the cavity.

**Note:** The underside of face cover splices are left unsealed to allow for weepage.

- Using a spatula or other non-scratching implement, tool the silicone sealant immediately after running the joint. Exert positive pressure while tooling to ensure that the silicone sealant makes complete contact with all surfaces. Be careful not to remove too much silicone.



**Detail 62**



**Caution:** Do not permit the silicone to skin over before it is tooled. Immediately remove masking tape after tooling the silicone.

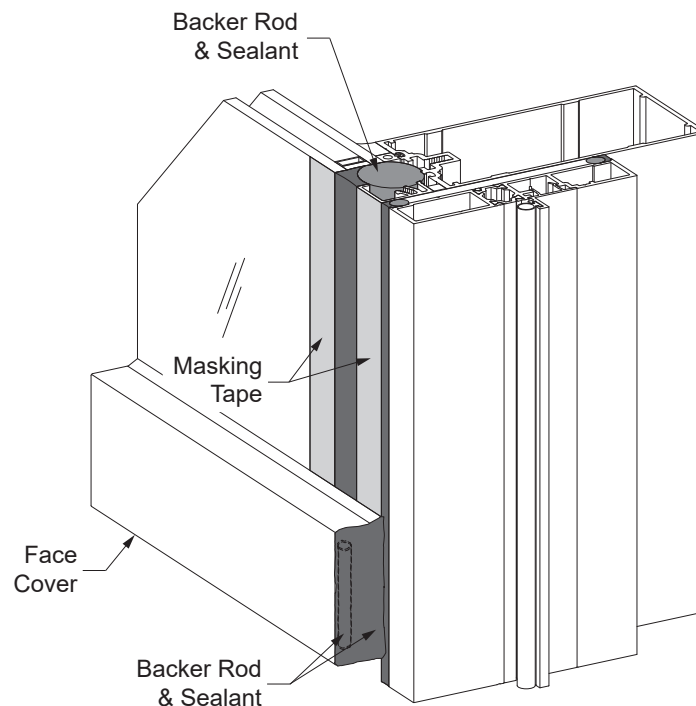
## GLAZING

### STEP 27 (Continued)

#### APPLY EXTERIOR WEATHER SEAL

- At the door jamb, seal the cavity at the exposed edge off the horizontal and sill face covers. Insert backer rods as required to facilitate this sealant closure.
- Also, apply backer rod and seal between the glass and the perimeter trim.

See **Detail 63**.



**Detail 63**



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