Series 406 StoreFront

Installation Instructions

Part NO. Y016

May 14, 2024

WHERE WINDOWS ARE JUST THE BEGINNING®

EFCO™

1000 COUNTY ROAD MONETT, MO 65708 • 800.221.4169 • EFCOCORP.COM

TABLE OF CONTENTS

Section

Minimizing Condensation

NOTE: Please reference EFCO's "Understanding Condensation" brochure which can be obtained through your EFCO representative

Condensation will form on any surface when unfavorable conditions (interior temperature and relative humidity and exterior temperature) are present. When the formation of excessive condensation is a concern, it is highly recommended that a design professional is utilized to perform an analysis of the shop drawings to recommend the best installation methods. Please contact EFCO representative for information on EFCO's Thermal Analysis Services.

Many current installation practices lead to an increase in the possibility of the formation of condensation. Though not all inclusive, the list of examples below illustrates conditions under which condensation is likely to occur

1. Bridging system thermal break with non-thermally broken metal flashing or lintels that are exposed to the exterior
2. System exposure to cold air cavities
3. Interior relative humidity levels not maintained at recommended levels, see EFCO's "Understanding.
4. Inadequate separation between system and surrounding condition at perimeter. Condensation" brochure.
5. Product combinations during the shop drawing stage that result in bridging thermal breaks of one or all products involved.

SECTION I - GENERAL NOTES

SERIES 406
2" x 6 1/2" - 1" GLAZING (THERMAL)

1) Check shop drawings, installation instructions, and glazing instructions to become thoroughly familiar with the project. The shop drawings take precedence for extrusions and details on the project.
THESE INSTALLATION INSTRUCTIONS ARE OF A GENERAL NATURE AND COVER THE MOST COMMON CONDITIONS AND SITUATIONS.

REFERENCE THE STANDARD STOREFRONT INSTALLATION INSTRUCTIONS FOR COVERAGE OF ITEMS COMMON TO STOREFRONT SYSTEMS.

2) Check all of the materials upon arrival and be sure you have everything required to begin installation.
See Section II "PARTS IDENTIFICATION", also particular parts from the standard 403 - 2" x 4 1/2" can be used with this deep system.

3) All work should start from bench marks and/or column center lines as established by the architectural drawings and the general contractor. Check construction for compliance with the contract documents.

4) NOTE:
Sealants must be compatible with all surfaces. Consult with the sealant manufacturer for recommendations regarding compatibility and adhesion.

5) All materials are to be installed plumb, level, and true.

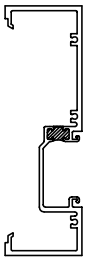
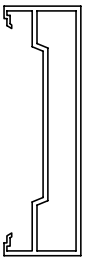
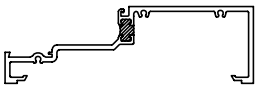
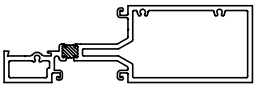
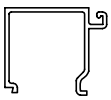
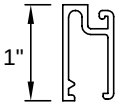
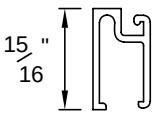
6) Protect materials after erection. Cement, plaster, alkaline solutions, and acid based materials can be harmful to the finish.
Masonry runoff may leach harmful acids onto the storefront.
This situation must also be taken into consideration at installation.

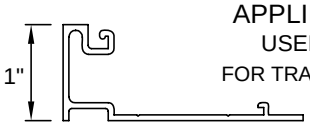
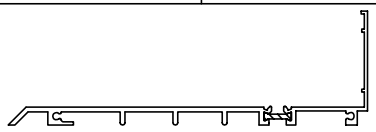
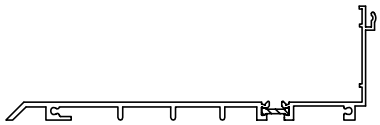
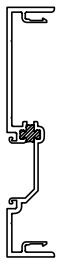
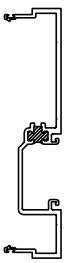
7) Clean aluminum surfaces with a mild detergent and water. No abrasive agent shall be used.

REFERENCE THESE OTHER MANUALS:

STOREFRONT INSTALLATION INSTRUCTIONS	
SYSTEMS 401, 402, and 403	Y001
DORMA RTS 88 CONCEALED OVERHEAD CLOSERS	Y013
INTERNATIONAL 200 CONCEALED OVERHEAD CLOSERS	Y014
DOOR, DOOR GLASS, and HARDWARE	Y015

SECTION II PARTS IDENTIFICATION.

DESCRIPTION	PART NO.
 HEAD or JAMB 2" X 6 1/2" DEEP USE w/ 9358	9359
 VERTICAL/HORIZONTAL GLAZING ADAPTOR 2" X 6 1/2" DEEP USE WITH 9357, 9359, & 8402	9358
 SCREW SPLINE DOOR JAMB 2" X 6 1/2" DEEP USE w/ 9358	8402
 COC TRANSOM BAR 2" X 6 1/2" DEEP USE 9123 STOPS	8400
 2 pc. OPEN BACK HORIZONTAL / SILL 2" X 6 1/2" DEEP USE w/ 9358, USE 9229 STOP (SHEAR BLOCKS APPLICABLE AT SILL ONLY)	9357
 TUBULAR HORIZONTAL 2" X 6 1/2" DEEP USE 9229 STOP	8401
 HORIZONTAL GLAZING STOP, USE WITH 9357 & 8401	9229
 TRANSOM JAMB GLAZING POCKET w/ 8402 JAMB 48" CUT OUT MAX.	8403
 TRANSOM BAR GLAZING STOP 1" GLAZING USE w/ 8400	9123
 REMOVABLE STOP USE w/ 9250 for 1" APPLIED GLAZING FOR TRANSOM LITES OVER 4' AT JAMBS	9133

DESCRIPTION	PART NO.
 APPLIED FIXED SASH USED w/ 9133 STOP FOR TRANSOM LITES OVER 4 FT. AT JAMBS	9250
 SCREW APPLIED JAMB DOOR STOP USE w/ 9155 & W138	9154
 SCREW APPLIED DOOR STOP COVER USE w/ 9154 & W138	9155
 5/8" DOOR STOP AT HEADER USE w/ 9155 & W138	4437
 C.O.C. DOOR STOP AT HEADER USE W138 WEATHERING	9914
 LCN C.O.C. DOOR STOP AT HEADER USE W138 WEATHERING	9933
 STD. SILL FLASHING	1G83
 SILL FLASHING WITH STOOL CLIP	1G86
 MALE EXPANSION MULLION HALF USE w/ 4461	4462
 FEMALE EXPANSION MULLION HALF USE w/ 4462	4461

PARTS ON THIS PAGE ARE NOT TO SCALE

SECTION II PARTS IDENTIFICATION cont.

ACCESSORIES

DESCRIPTION	PART NO.
GLAZING GASKET for UNDERSIZED GLASS 3/4" INFILL @ 1" POCKET	W165
GLAZING GASKET for OVERSIZED GLASS 1 1/16" INFILL @ 1" POCKET	W166
STANDARD GLAZING GASKET 1" INFILL @ 1" POCKET	W164
EXTERIOR GLAZED SETTING BLOCK at SILL & HORIZ. USE w/ 9357 & 8401	HN32
INTERIOR GLAZED SETTING BLOCK at HORIZ. INTERMEDIATE USE w/ 8401	HN92
TRANSOM BAR SETTING BLOCK 1" GLAZING USE w/ 8400	HNA3
STANDARD WEATHER SEAL @ DOOR STOPS	W138
APPLIED DOOR STOP ATTACHMENT SCREW USE w/ 9154 & 9155	STT6
HORIZ. to SHEAR BLOCK	STB9
SHEAR BLOCK to VERT.	S100
DOOR HEADER TO SHEAR BLOCK	STK4
TRANSOM HEAD TO SHEAR BLOCK	S101
TRANSOM BAR SHEAR BLOCK to VERT.	STV2
SILL FLASHING END CAP ATTACHMENT SCREW	STC7

DESCRIPTION	PART NO.
FRAME SPLINE ATTACHMENT SCREW #10 x 1" SL-HW-SMS	S129
SILL FLASHING SPLICE JOINT PKG. USE WITH 1G83 & 1G86 (1) FV34, (1) WM96	K979
SILL FLASHING END CAP PKG. USE WITH 1G83 & 1G86 (1) FV35, (2) SFP6	K980
HEAD & HORIZONTAL SHEAR BLOCK PKG. USE w/ 9359 & 8401 (1) FV36,(2) STB9, (4) S100, (2) S101	K977
SILL SHEAR BLOCK PKG. USE w/ 9357 (1) FU49, (1) STB9, (4) S100	KN65
TRANSOM BAR SHEAR BLOCK PKG. OPP. COC @ SINGLE DR USE w/ 8400 (1) FV33, (3) STV2, (4) STK4	K978
TRANSOM BAR SHEAR BLOCK PKG. USE W/ COC 'F' CLIP or FT16 ANGLE CLIP at CLOSER END (1) FU31, (2) STV2, (4) STK4	K996
WATER DEFLECTOR @ INT. HORIZONTAL	HWD1
5/8" ANTIWALK BLOCK at DEEP POCKET ONLY	HN52
PLASTIC CAULK BACKER 12 FT. LENGTHS	LB78
3" CUT LENGTHS USED AT FASTENERS	FV16

SYSTEM DRILL JIGS

DESCRIPTION	PART NO.
SHEAR BLOCK DRILL JIG	DJ16
SCREW SPLINE DRILL JIG	DJ17
SHEAR BLOCK DRILL FIXTURE (HORIZONTALS to SHEAR BLOCKS)	DJ18

SECTION III FABRICATION
A - SCREW SPLINE FABRICATION

The screw spline system is a fabrication and erection method that permits the preassembly of single units in the shop or at the job site. These units are then erected by mating the male mullion with the female mullion counterpart.

When an entrance is required, screw spline joinery may be used with the screw spline door jambs only.

NOTE) DUE TO THE SCREW TENSIONS REQUIRED FOR CORRECT INSTALLATION, IT IS NECESSARY TO 'WAX' THE FRAME ASSEMBLY SCREWS TO PREVENT GALLING AND BREAKAGE.

STEP 1) MEASURE THE OPENING TO DETERMINE THE CUT LENGTH OF THE FRAME COMPONENTS.

NOTE: Allow minimum 1/2" shim and caulk space around the perimeter.

NOTE: Allow extra clearances, if necessary, to accommodate building tolerances and building movement.

NOTE: Consult A.D.A. requirements to verify compliance.

STEP 2) CUT THE VERTICALS TO FRAME SIZE.

NOTE: Verticals must run through.
If the opening has an entrance, see the appropriate frame and door fabrication installation sheets.

NOTE: The screw spline door jamb runs to the floor and is cut longer than other verticals. The glazing adaptor will be cut to the standard jamb and vertical intermediate length.

STEP 3) DRILL THE HOLES FOR ASSEMBLY SCREWS ON VERTICAL MEMBERS. (See Fig. # 1 page 5).

NOTE: Drill jigs are available.
See page 3 of the parts identification section.

STEP 4) CUT THE HORIZONTAL MEMBERS TO DAY LITE OPENINGS. (BETWEEN VERTICAL MULLIONS)
CUT THE HORIZONTAL GLASS STOPS TO DAYLITE OPENINGS MINUS 1/32". (D.L.O. - 1/32")

SECTION III FABRICATION

A - SCREW SPLINE FABRICATION

(CONT.)

1) TEMPLATE FOR O. G. SCREW SPLINE

(INVERT FOR INSIDE GLAZE)

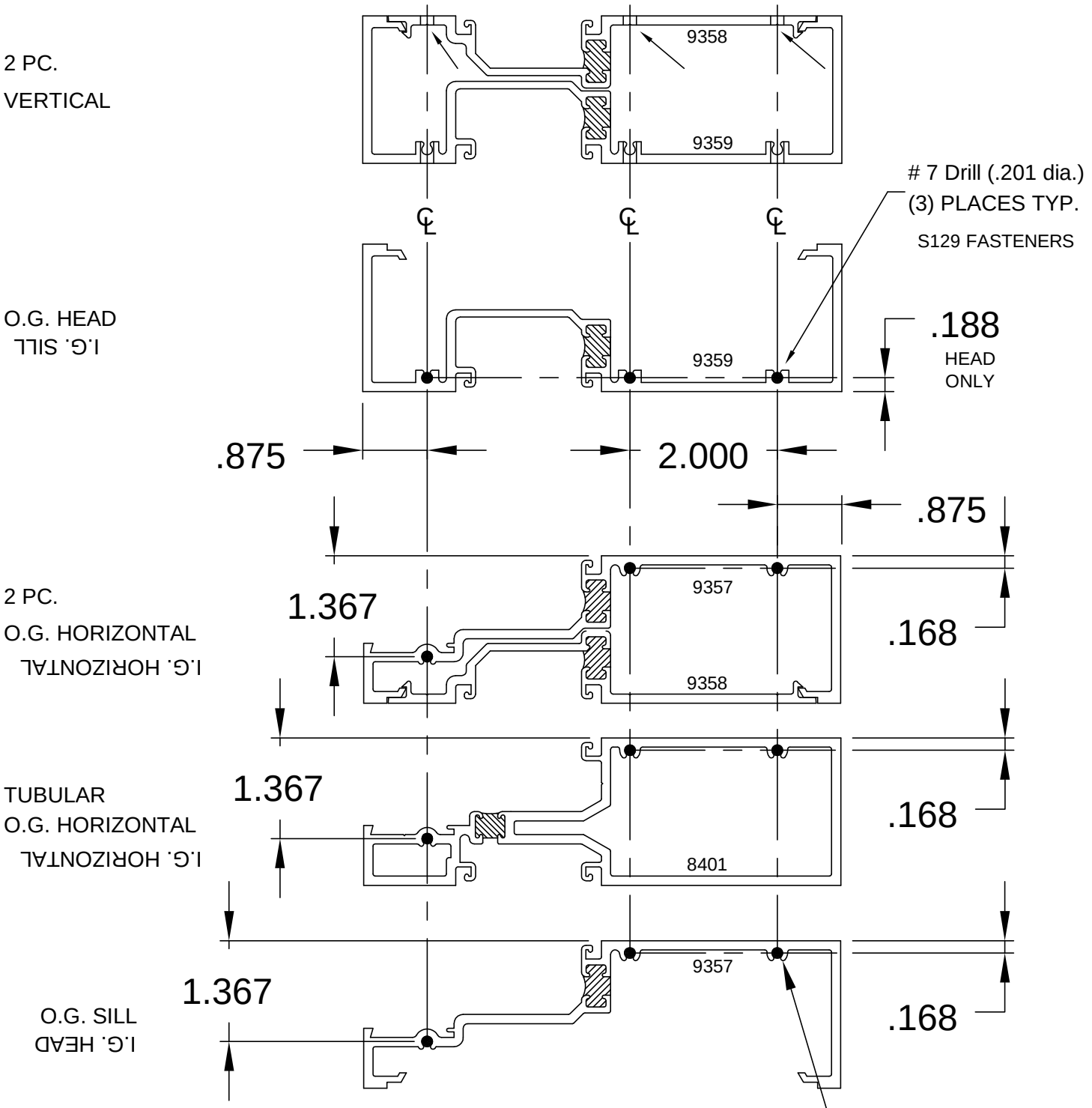


FIG. # 1

USE BLOCKED OUT HOLE LOCATIONS FOR O.G. SCREW SPLINE APPLICATIONS
INVERT PATTERN FOR INSIDE GLAZE APPLICATIONS
DRILL JIGS ARE ALSO AVAILABLE

SECTION III FABRICATION
A - SCREW SPLINE FABRICATION

(CONT.)

2) DJ17 DRILL GUIDE
FOR SCREW SPLINE APPLICATION

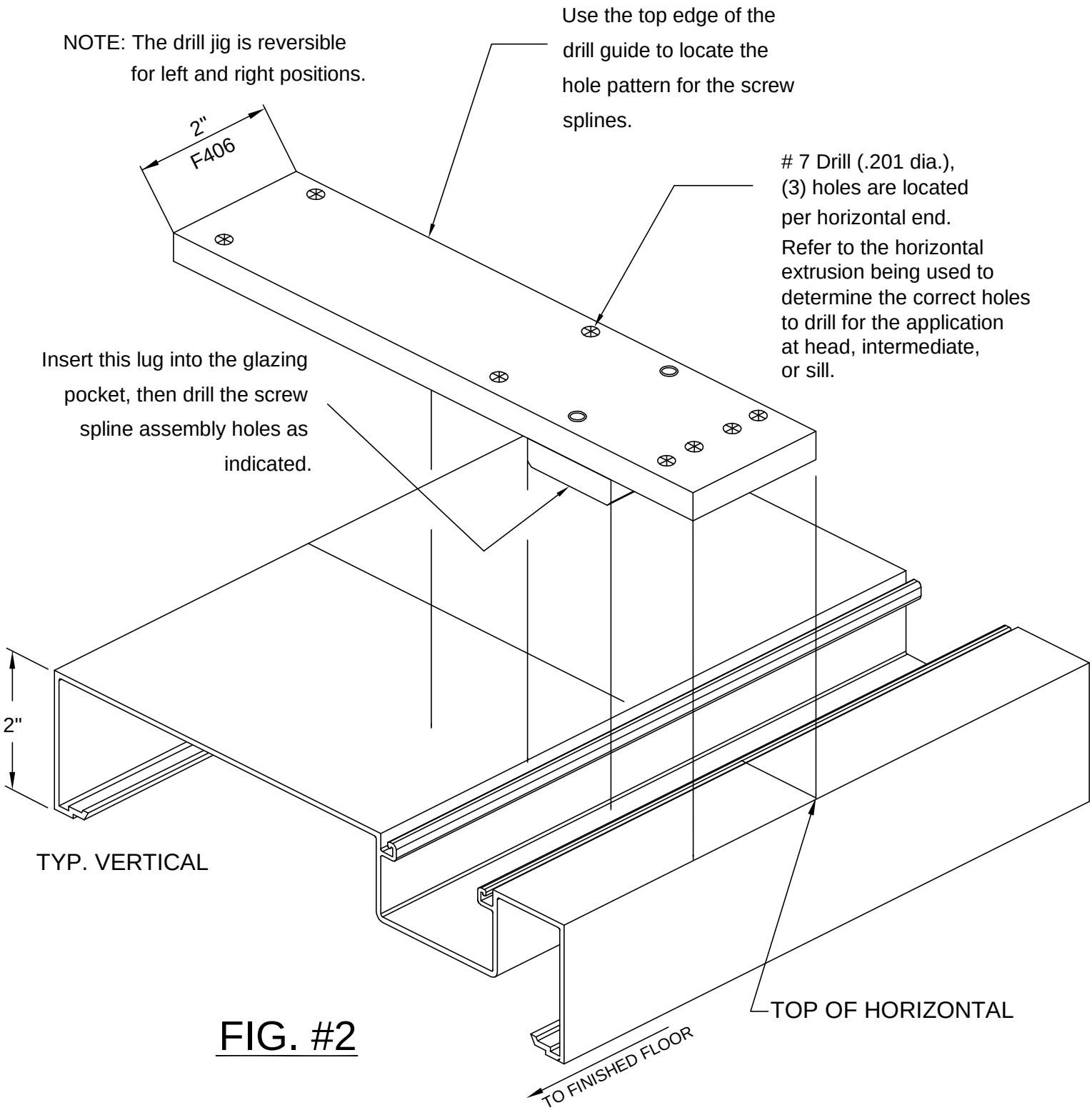


FIG. #2

SECTION III FABRICATION
B - SHEAR BLOCKS AT SCREW SPLINE DOOR JAMB

Because the screw spline door jamb is actually a tubular member, it will be necessary to shear block the transom bar, the transom head, and any intermediate horizontal that is being incorporated in the transom area.

STEP 1) MEASURE THE OPENINGS AND SUBTRACT THE VERTICAL MEMBER'S SIGHT LINES TO DETERMINE THE HORIZONTAL FRAME CUT LENGTHS.

Horizontals and transom bar cut length = D.L.O.
Horizontal glass stop cut length = D.L.O. - 1/32".
Transom bar glass stop cut length = D.L.O. - 25/32"

NOTE: Consult A.D.A. requirements to verify door opening width compliance.

STEP 2) CUT THE DOOR JAMBS TO ROUGH OPENING MINUS 1/4".

NOTE: Door jambs run to the floor and are cut longer than other verticals.

STEP 3) DRILL THE HOLES FOR THE SHEAR BLOCK SCREWS ON THE DOOR JAMBS AS SHOWN ON PAGES 8 THROUGH 13.

STEP 4) PROCEED TO SECTION III C FOR HORIZONTAL TO SHEAR BLOCK PREPS, AS SHOWN ON PAGES 14 AND 15.

NOTE: Drill jigs are available.
(See page 3 of the parts identification section.

STEP 5) PLEASE REFER TO DOOR, DOOR GLASS, AND HARDWARE MANUAL (PART #Y015), FOR THE DOOR HINGING PREPS, STRIKE PREPS, AND THRESHOLD PREPS. THESE PREPS SHOULD BE DONE TO THE DOOR JAMBS AT THIS TIME FOR EASE OF ASSEMBLY.

SECTION III FABRICATION
B - SHEAR BLOCKS AT SCREW (CONT.)
SPLINE DOOR JAMB

1) TEMPLATE FOR O.G. SHEAR BLOCKS

HEAD & HORIZONTAL SHEAR BLOCK TO S.S. DOOR JAMB

INVERT #8401 HORIZONTAL FOR I.G. TRANSOM

CAUTION:

Door jambs must run to the floor and are cut longer than other verticals.

Shear blocks are not applicable with 2 pc. horizontal intermediates.

NOTE: (2) pc. horizontal (9357/9358) cannot be shear block assembled.

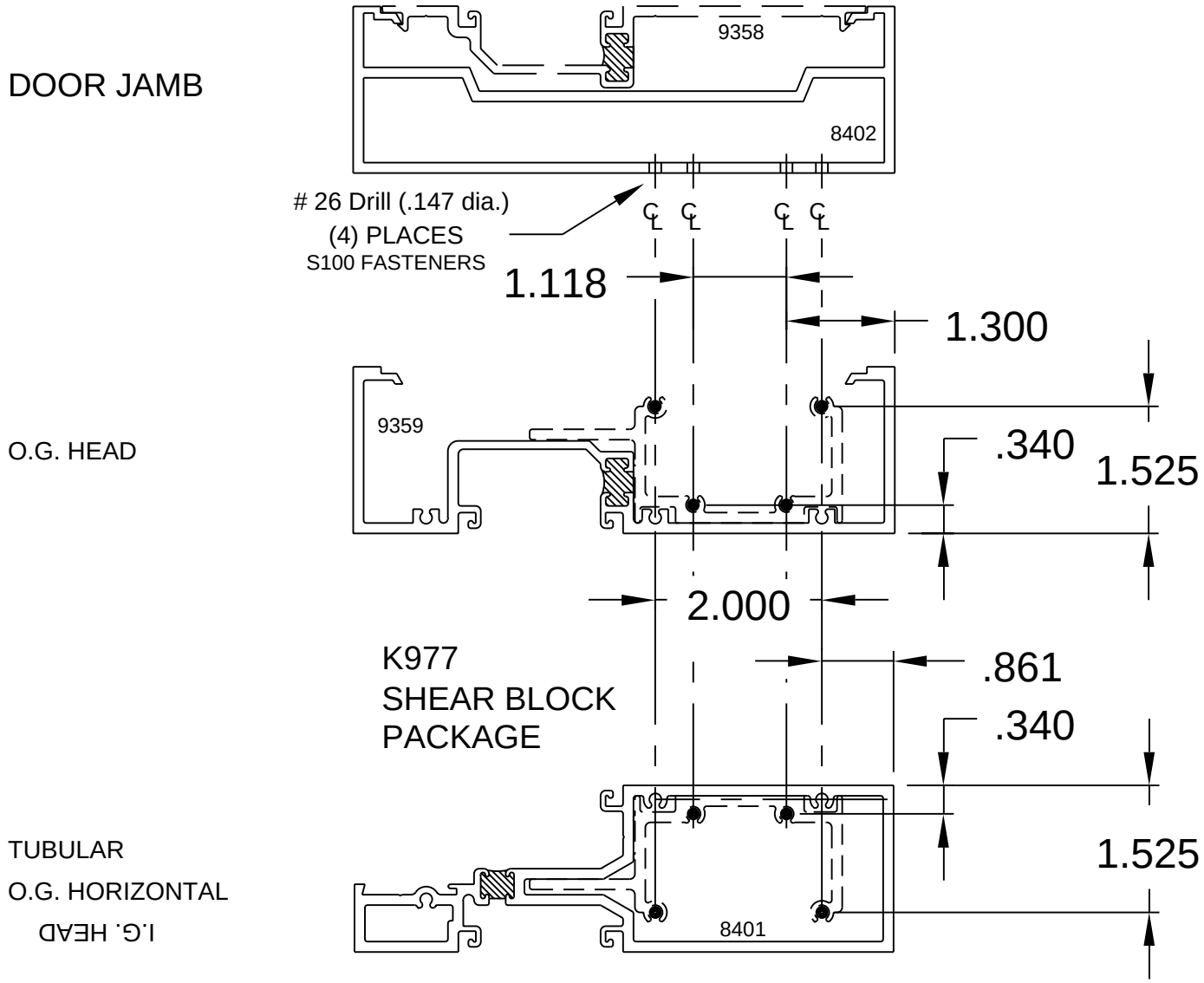


FIG. # 3

USE BLOCKED OUT HOLE LOCATIONS FOR O.G. SHEAR BLOCK APPLICATIONS
OUTSIDE GLAZED AS SHOWN, INVERT PATTERN FOR INSIDE GLAZE APPLICATIONS
DRILL JIGS ARE ALSO AVAILABLE

SECTION III FABRICATION
B - SHEAR BLOCKS AT SCREW (CONT.)
SPLINE DOOR JAMB

2) DJ16 DRILL GUIDE FOR TRANSOM - HEAD AND HORIZONTAL INTERMEDIATE SHEAR BLOCK APPLICATION

NOTE: The drill jig is reversible for left and right positions.

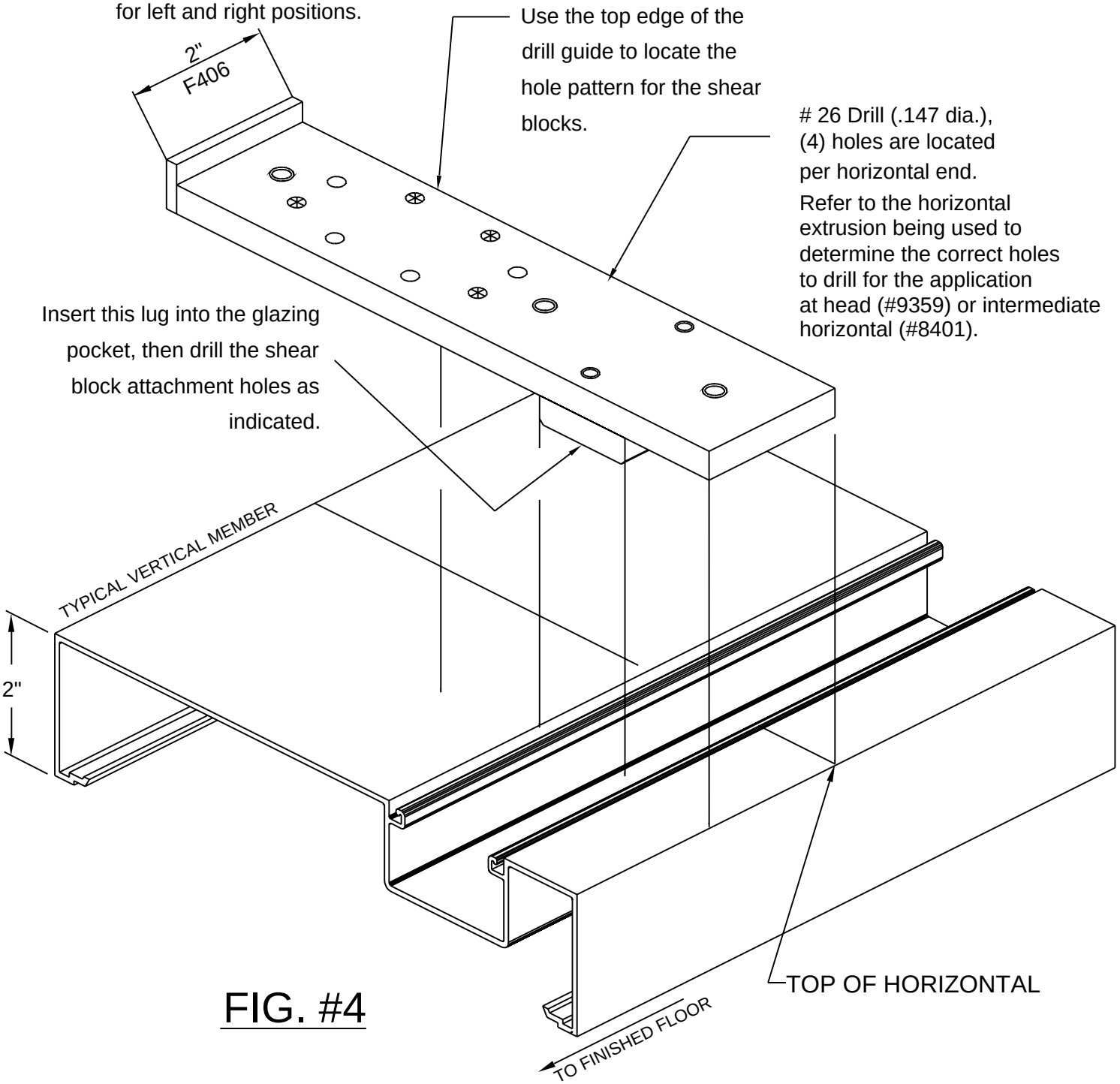


FIG. #4

SECTION III FABRICATION
B - SHEAR BLOCKS AT SCREW (CONT.)
SPLINE DOOR JAMB

3) TEMPLATE FOR TRANSOM BAR SHEAR BLOCK TO S.S. DOOR JAMB

OPPOSITE A C.O.C. AT A SINGLE DOOR

NOTE: ALL OTHER STD. 402 DOOR FRAME PREPS WILL APPLY FOR C.O.C.'S, PIVOTS, AND OTHER HINGING.

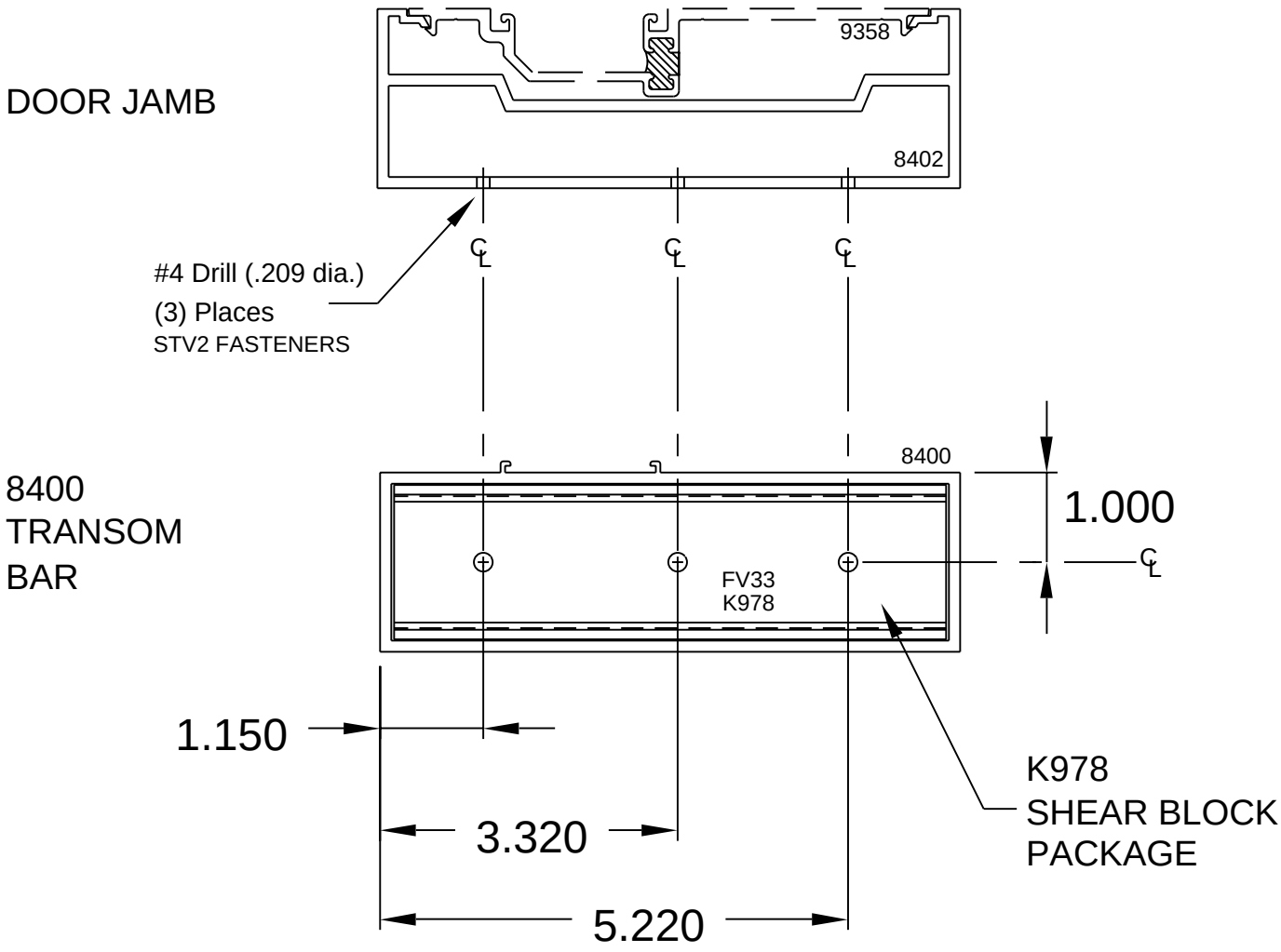


FIG. # 5

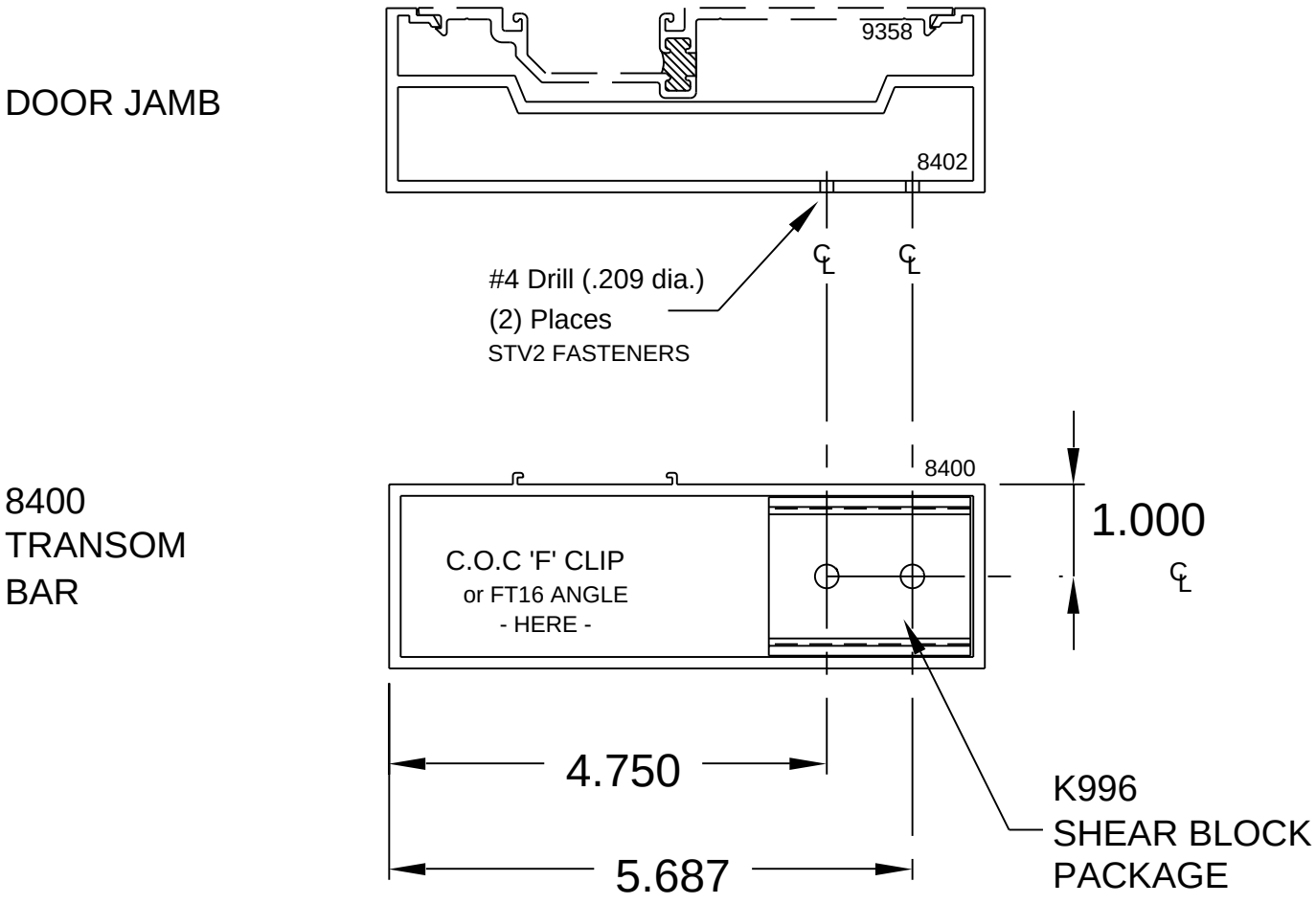
DRILL JIGS ARE ALSO AVAILABLE

SECTION III FABRICATION
B - SHEAR BLOCKS AT SCREW (CONT.)
SPLINE DOOR JAMB

4) TEMPLATE FOR TRANSOM BAR SHEAR BLOCK TO S.S. DOOR JAMB

WITH C.O.C. 'F' CLIP OR FT16 ANGLE CLIP

NOTE: ALL OTHER STD. 402 DOOR FRAME PREPS WILL APPLY FOR C.O.C.'S, PIVOTS, AND OTHER HINGING.



SEE Y013 DORMA C.O.C. INSTALLATION INSTRUCTIONS FOR DIMENSIONS AND APPLICATIONS FOR THE CLOSER

FIG. # 6

DRILL JIGS ARE ALSO AVAILABLE

SECTION III FABRICATION
B - SHEAR BLOCKS AT SCREW (CONT.)
SPLINE DOOR JAMB

5) DJ16 DRILL GUIDE

TRANSOM BAR SHEAR BLOCK TO DOOR JAMB
OPPOSITE A C.O.C. AT A SINGLE DOOR

NOTE: The drill jig is reversible for left and right positions.

26 Drill (.147 dia.), (4) holes are located per shear block. Use # K977 shear block pkg.

Use the top edge of the drill guide to locate the hole pattern for the shear blocks.

#4 Drill (.209 dia.), (3) holes are located on center, per transom bar end. This prep is opposite a C.O.C. at a single door. Use #K978 shear block pkg.

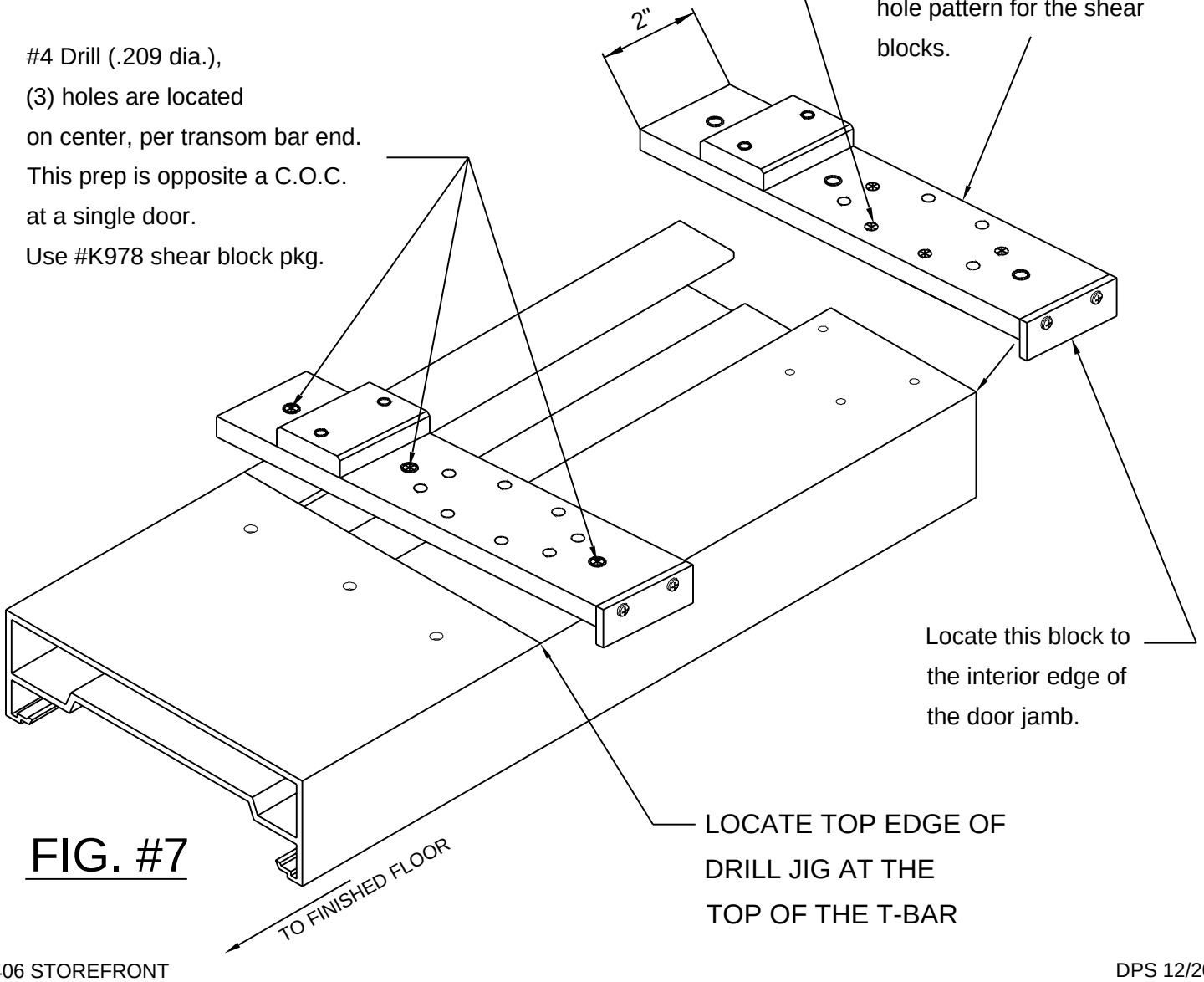


FIG. #7

SECTION III FABRICATION
B - SHEAR BLOCKS AT SCREW (CONT.)
SPLINE DOOR JAMB

6) DJ16 DRILL GUIDE

TRANSOM BAR SHEAR BLOCK TO DOOR JAMB
WITH A C.O.C - SINGLE OR PAIRS OF DOORS

NOTE: The drill jig is reversible for left and right positions.

26 Drill (.147 dia.), (4) holes are located per shear block. Use # K977 shear block pkg.

Use the top edge of the drill guide to locate the hole pattern for the shear blocks.

#4 Drill (.209 dia.), (2) holes are located on center, per transom bar end. This prep is in conjunction with the C.O.C. 'F' clip or FT16 angle. Use #K996 shear block pkg.

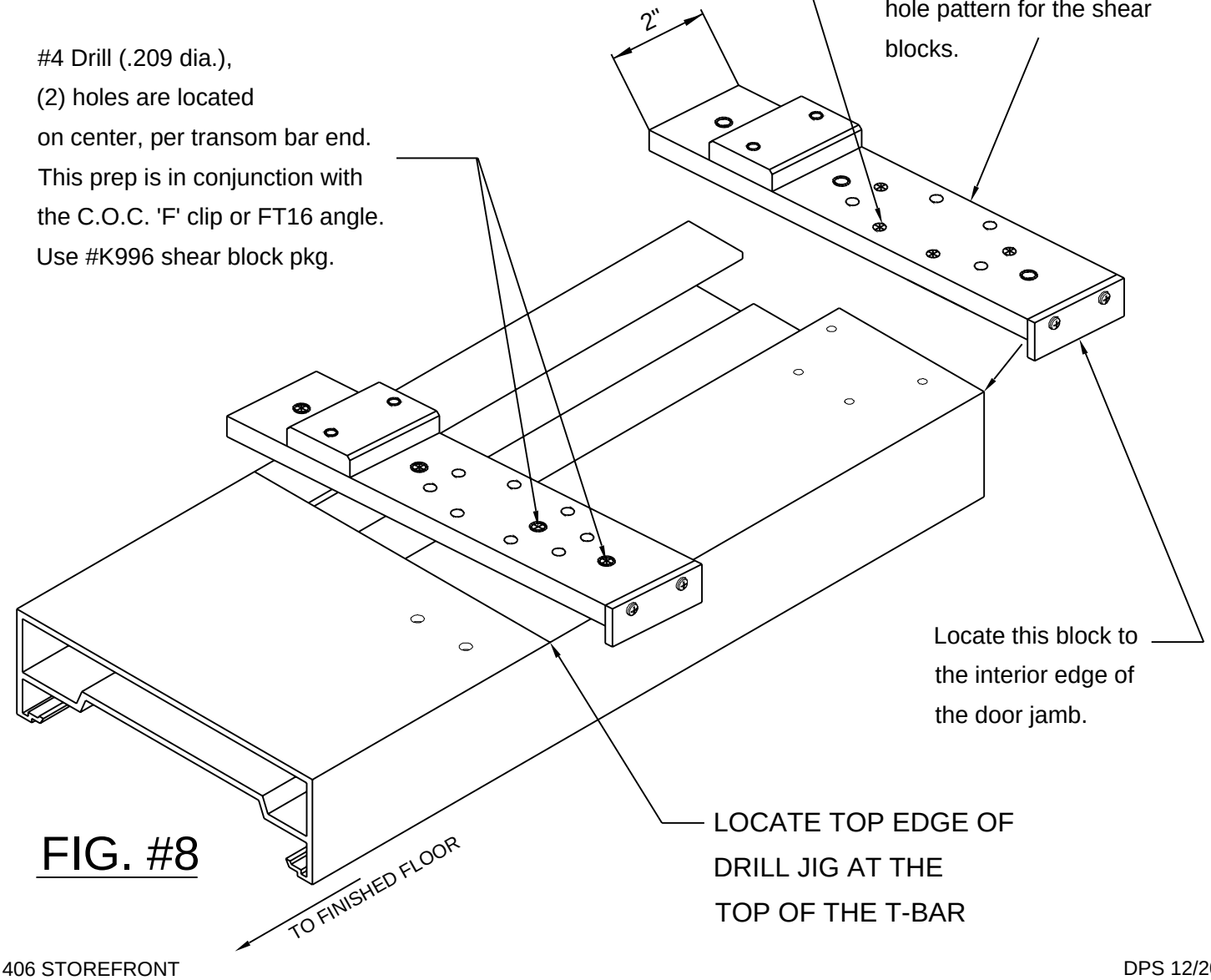
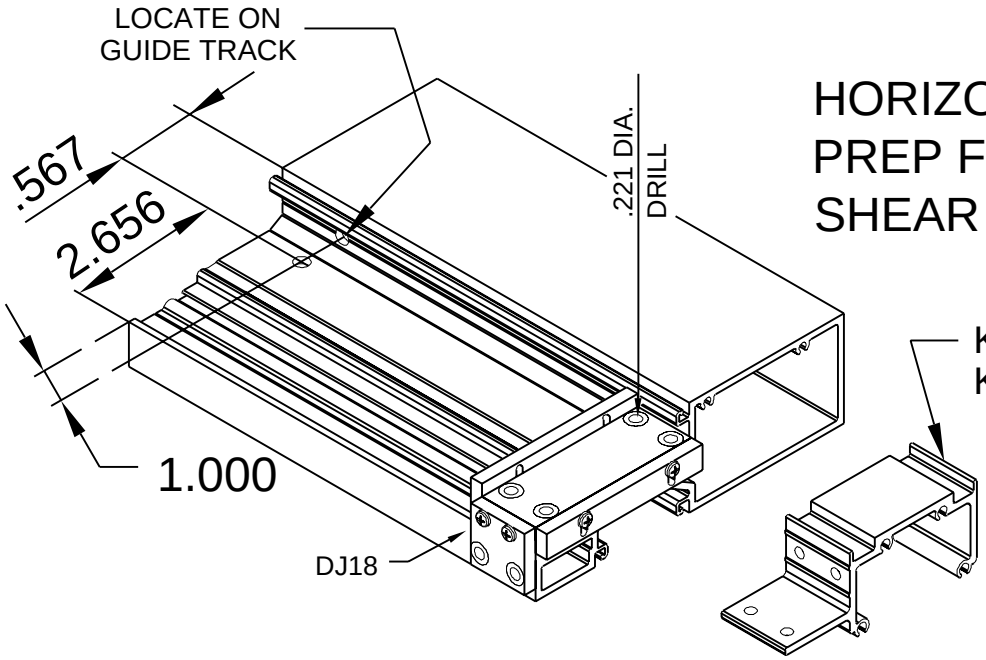


FIG. #8

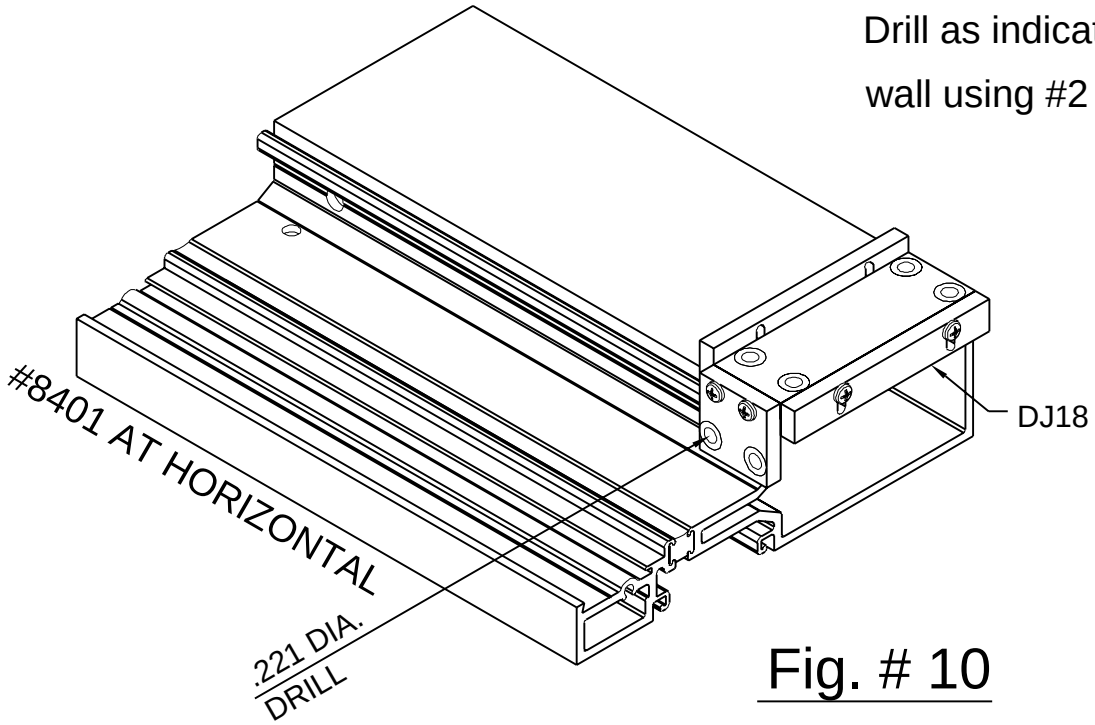
SECTION III FABRICATION
C- SHEAR BLOCK FABRICATION - FRAMES

1) DJ18 DRILL GUIDE APPLICATION AT TUBULAR INTERMEDIATE HORIZONTAL AND OPEN BACK SILL



HORIZONTAL AND SILL END PREP FOR ATTACHMENT TO SHEAR BLOCKS

Fig. #9



Drill as indicated thru one wall using #2 drill (.221 Dia).

Fig. # 10

SECTION III FABRICATION
C- SHEAR BLOCK FABRICATION - FRAMES

(CONT.)

2) DJ18 DRILL GUIDE APPLICATION AT OPEN BACK TRANSOM HEAD

TRANSOM HEAD END PREP FOR ATTACHMENT TO SHEAR BLOCKS

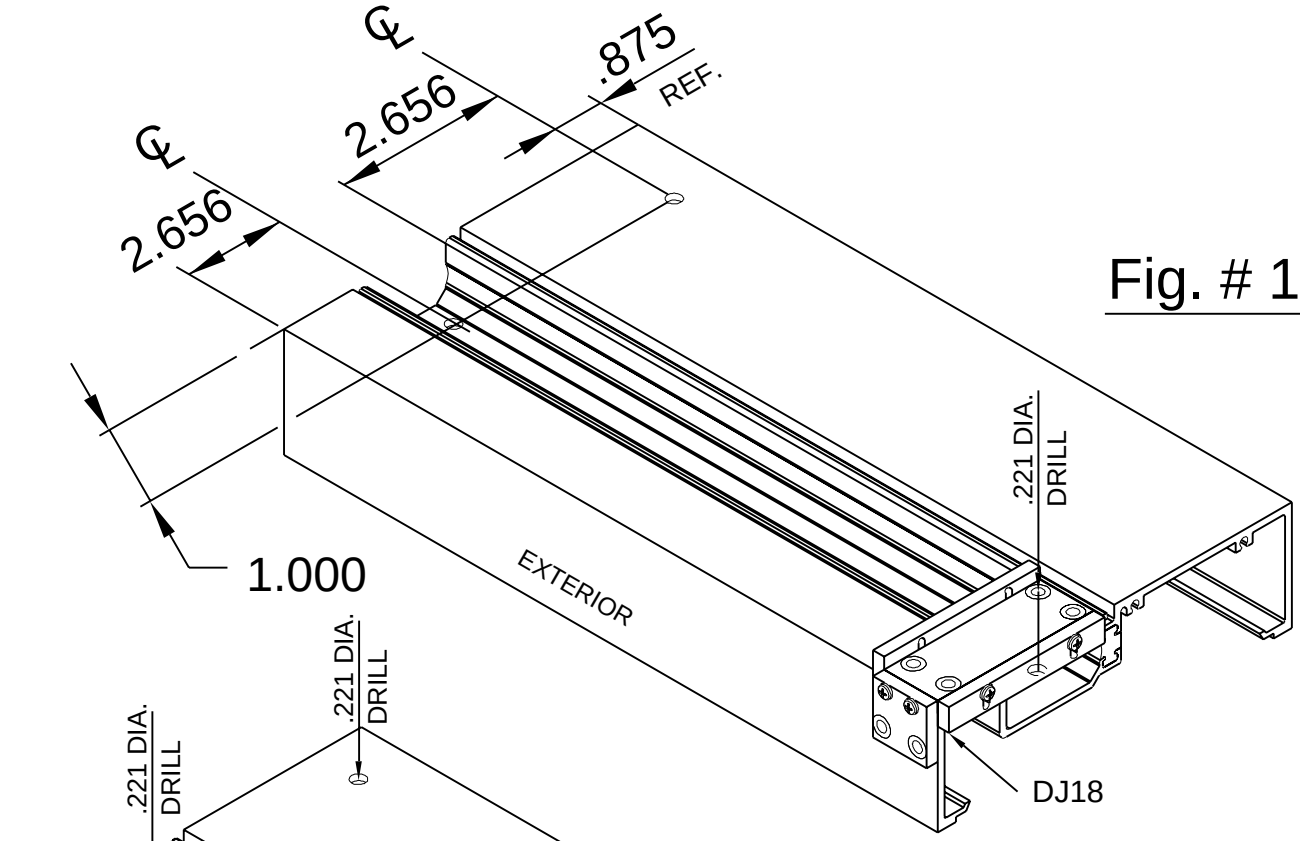


Fig. # 11

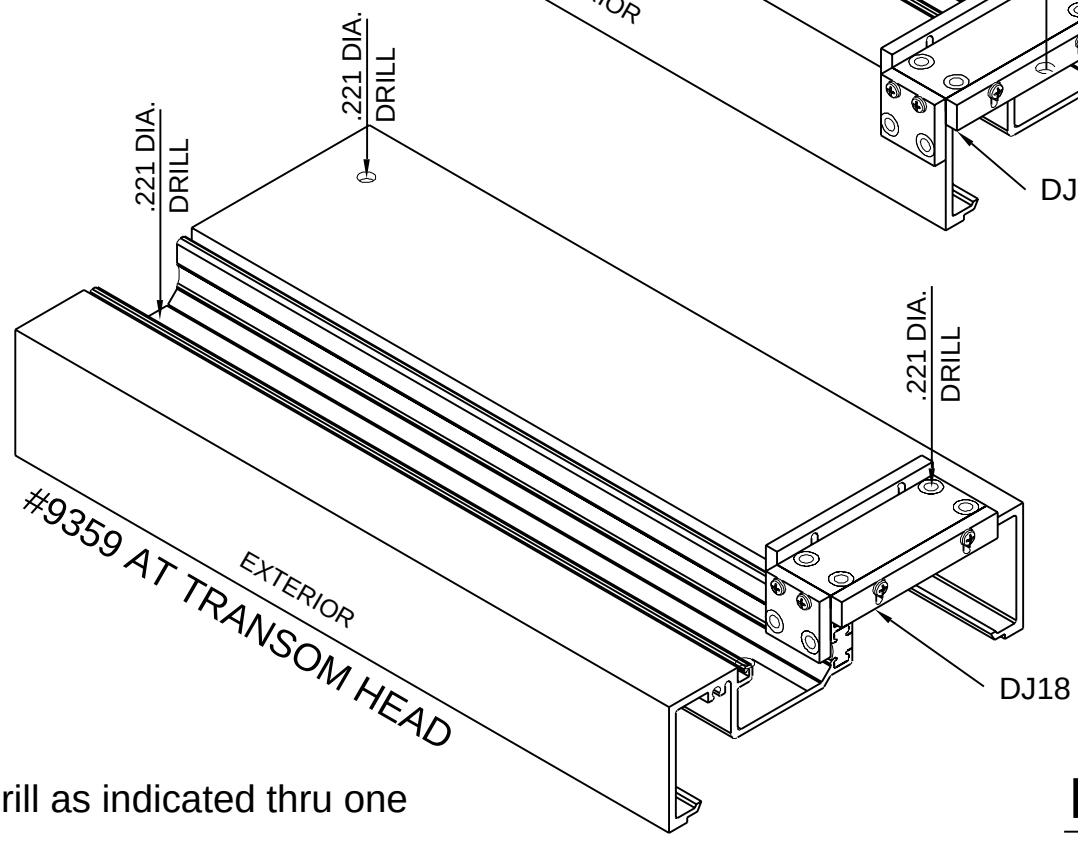


Fig. # 12

Drill as indicated thru one wall using #2 drill (.221 Dia)

SECTION III FABRICATION
D - SNAP-IN GLAZING POCKET & SCREW APPLIED GLAZING

1) SNAP-IN GLAZING POCKET END PREP

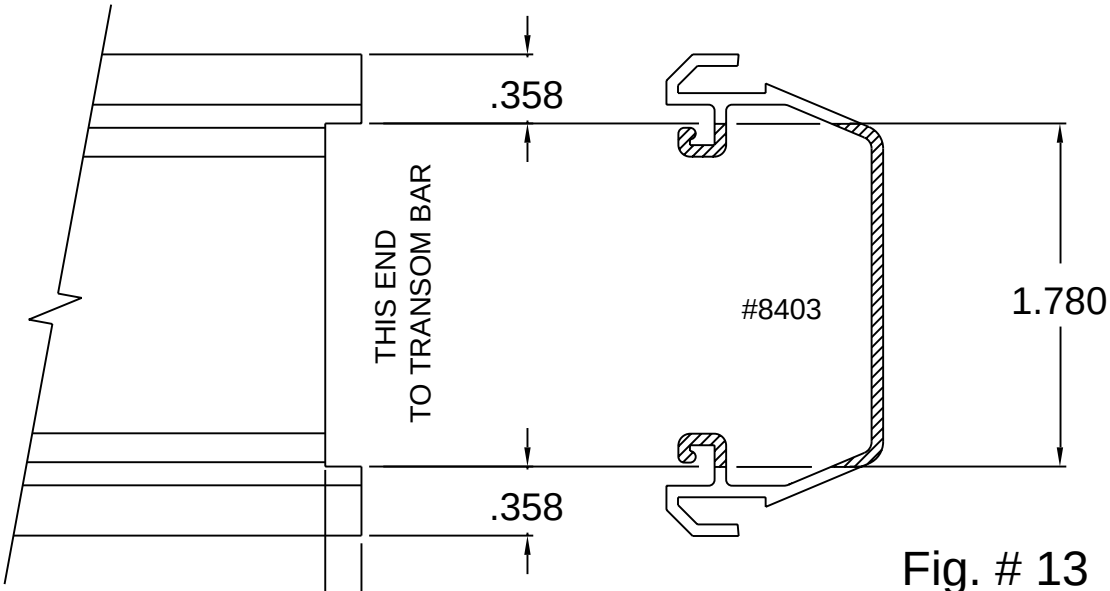


Fig. # 13

NOTE:

NOTCH THROUGH GLAZING TRACKS AND BACK WALL OF PART AS SHOWN.

2) SCREW APPLIED GLAZING END PREPS

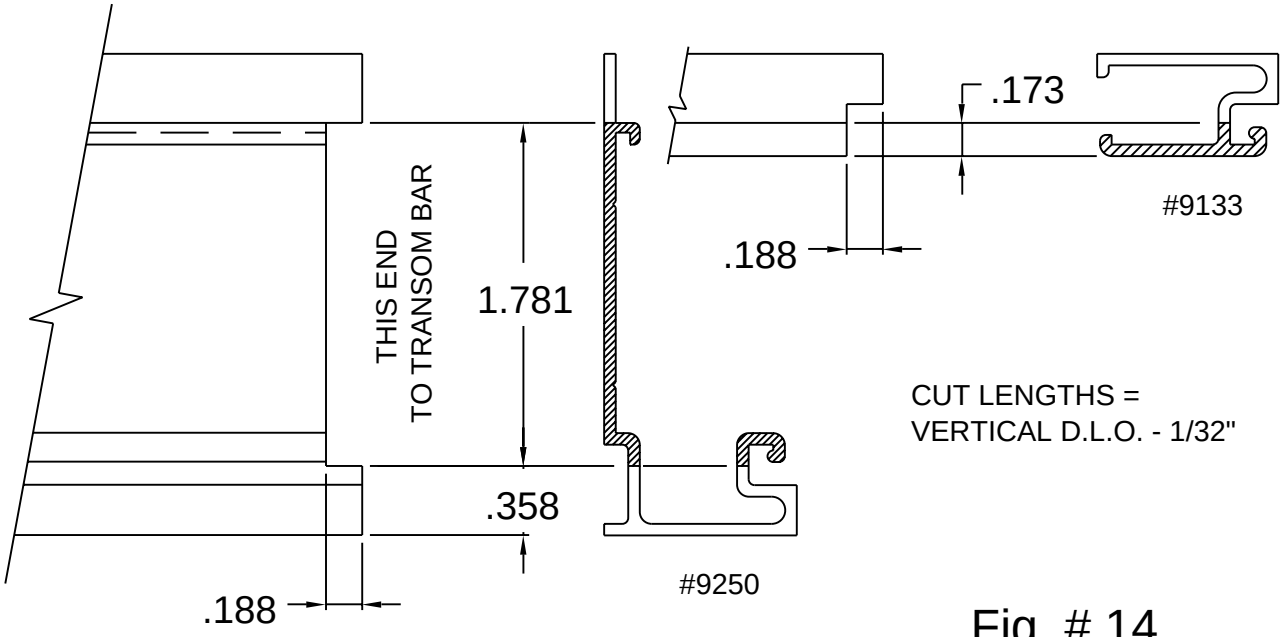


Fig. # 14

SECTION IV ASSEMBLY & INSTALLATION

A - DOOR FRAME ASSEMBLY

NOTE: If an entrance frame is required, it must be installed first.

Attach the transom bar to the jamb with the #K978 shear block or the K996 and the 'F' clip or angle bracket (#FT16) for a C.O.C.

Be sure the snap-in glazing pocket has been notched to clear the glazing stop tracks on the top of the transom bar.

Please see page 16 for this end prep.

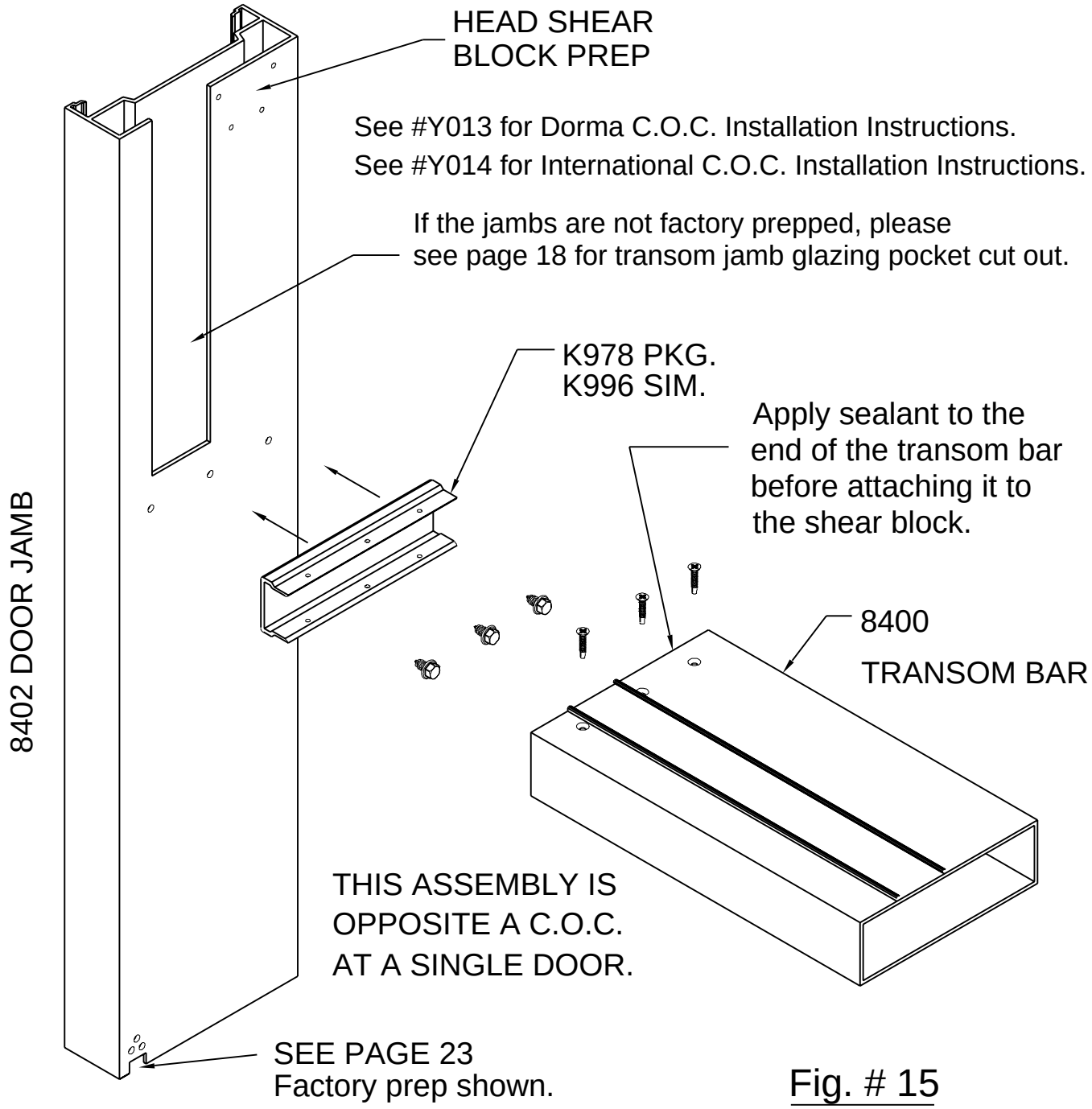


Fig. # 15

SECTION IV ASSEMBLY & INSTALLATION

A - DOOR FRAME ASSEMBLY (CONT.)

NOTE: If an entrance frame is required, it must be installed first.

The transom jamb glazing pocket will snap into the cut out cavity. The glazing pocket will flush with the top of the transom bar or with the top of the horizontal intermediate, if used.

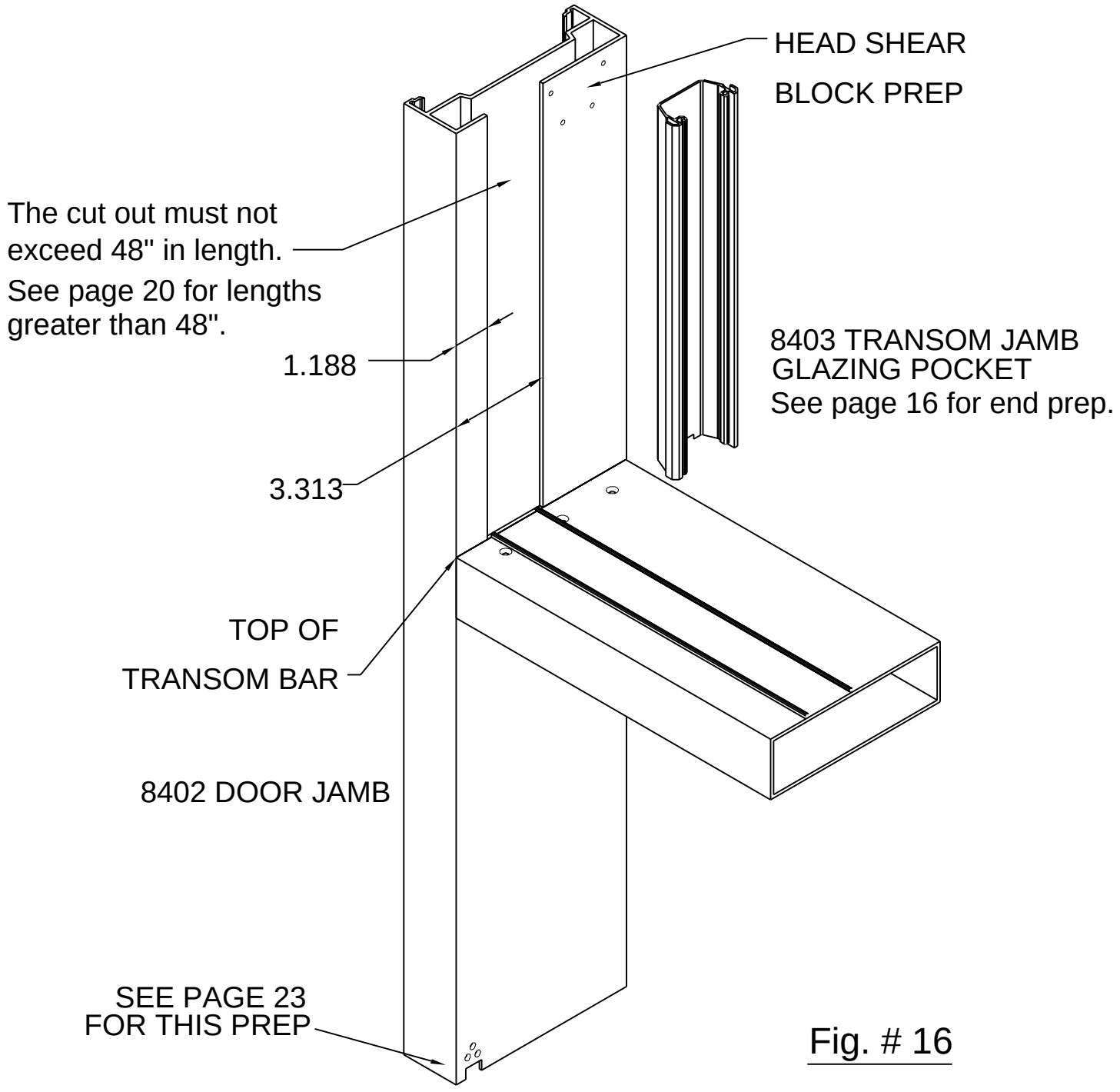


Fig. # 16

SECTION IV ASSEMBLY & INSTALLATION

A - DOOR FRAME ASSEMBLY (CONT.)

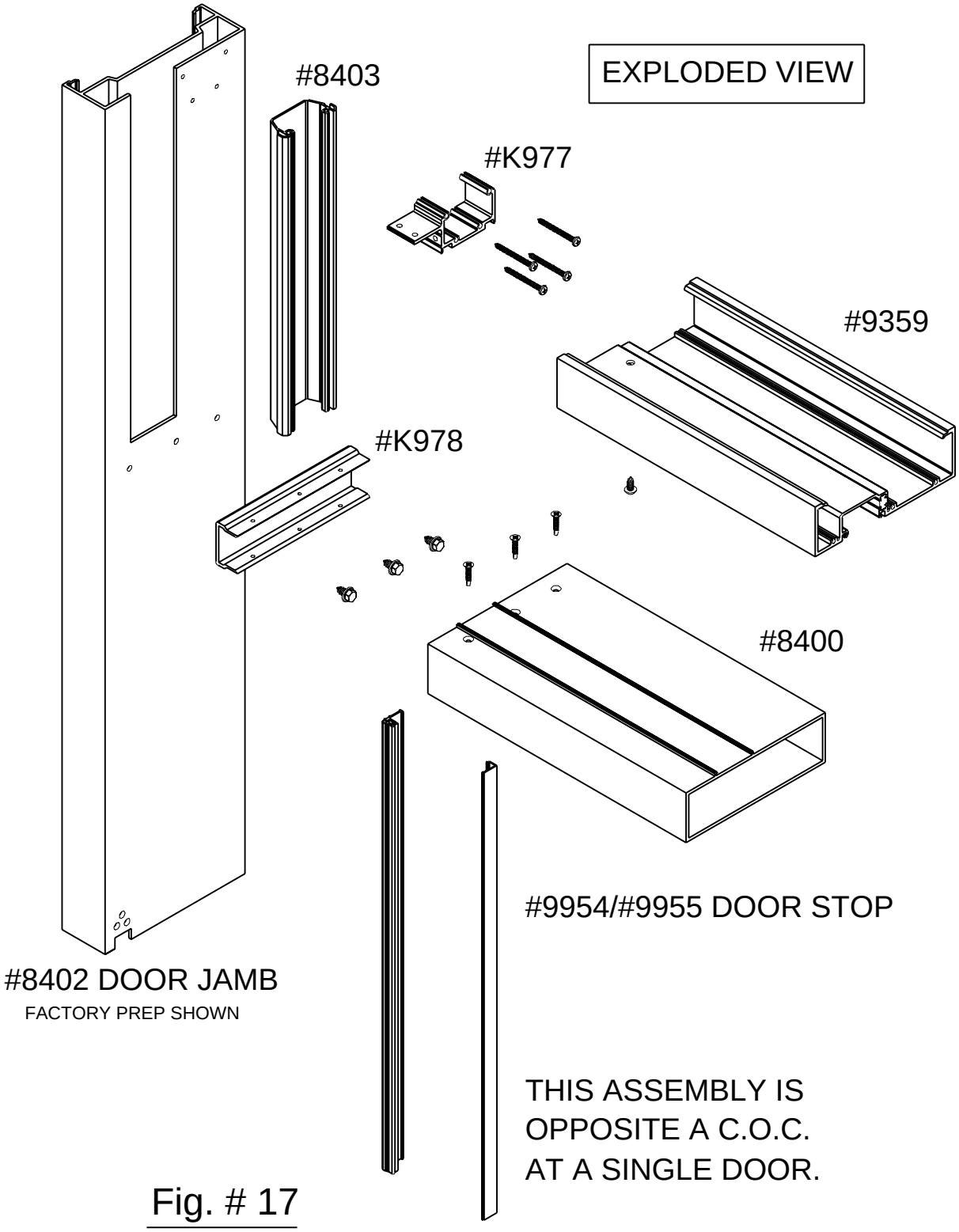


Fig. # 17

SECTION IV ASSEMBLY & INSTALLATION
A - DOOR FRAME ASSEMBLY (CONT.)

FOR TRANSOM D.L.O. OVER 48" USE #9250 AND #9133
APPLIED GLAZING AT JAMB APPLIED STOPS RUN THROUGH
AT TRANSOM BAR GLAZING STOPS.
CUT LENGTH = VERTICAL D.LO. - 1/32".

EXPLODED VIEW

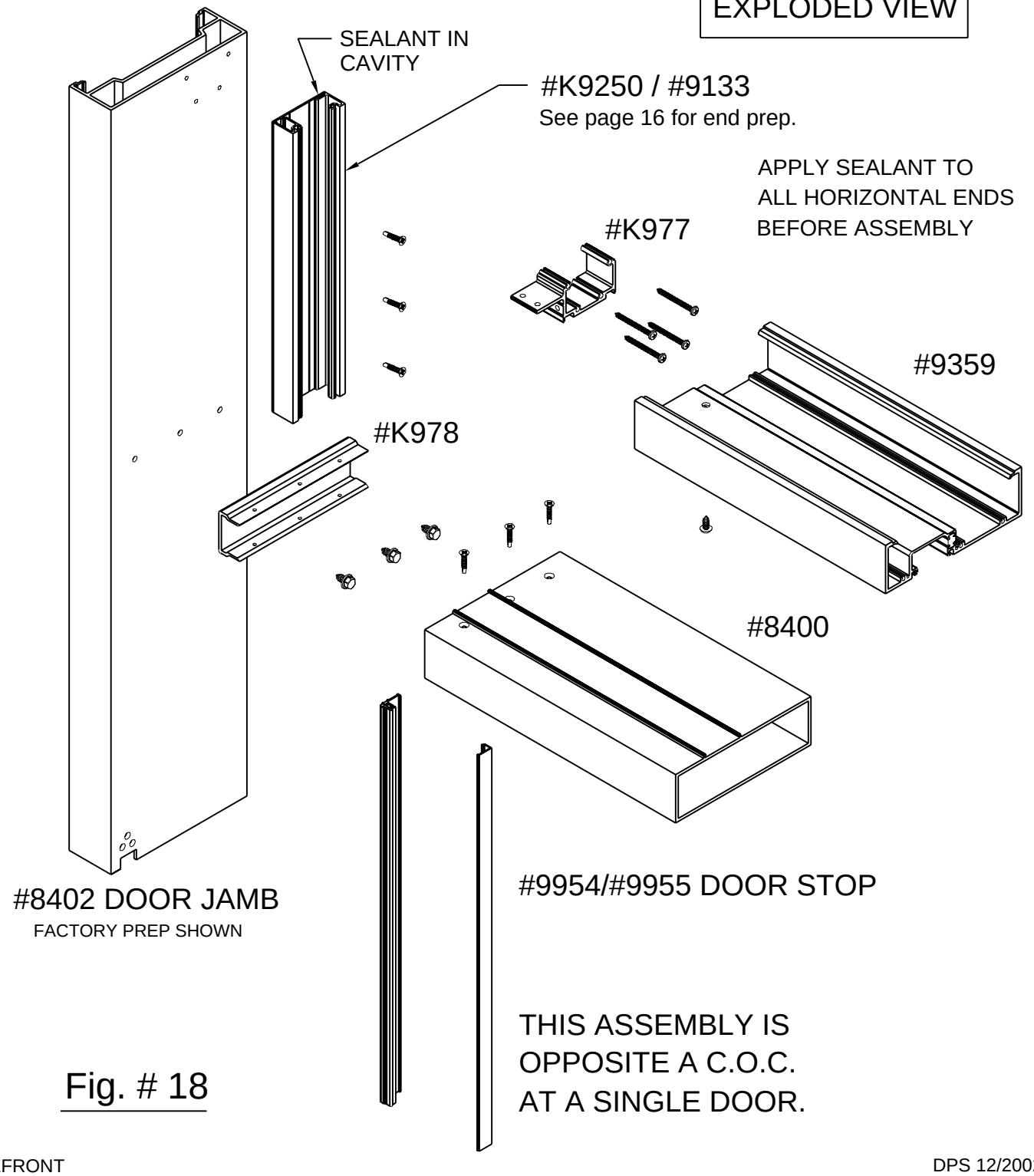


Fig. # 18

SECTION IV ASSEMBLY & INSTALLATION

A - DOOR FRAME ASSEMBLY (CONT.)

DORMA RTS 88 w/ BUTT HINGES, GEARED HINGES & DUAL ACTING

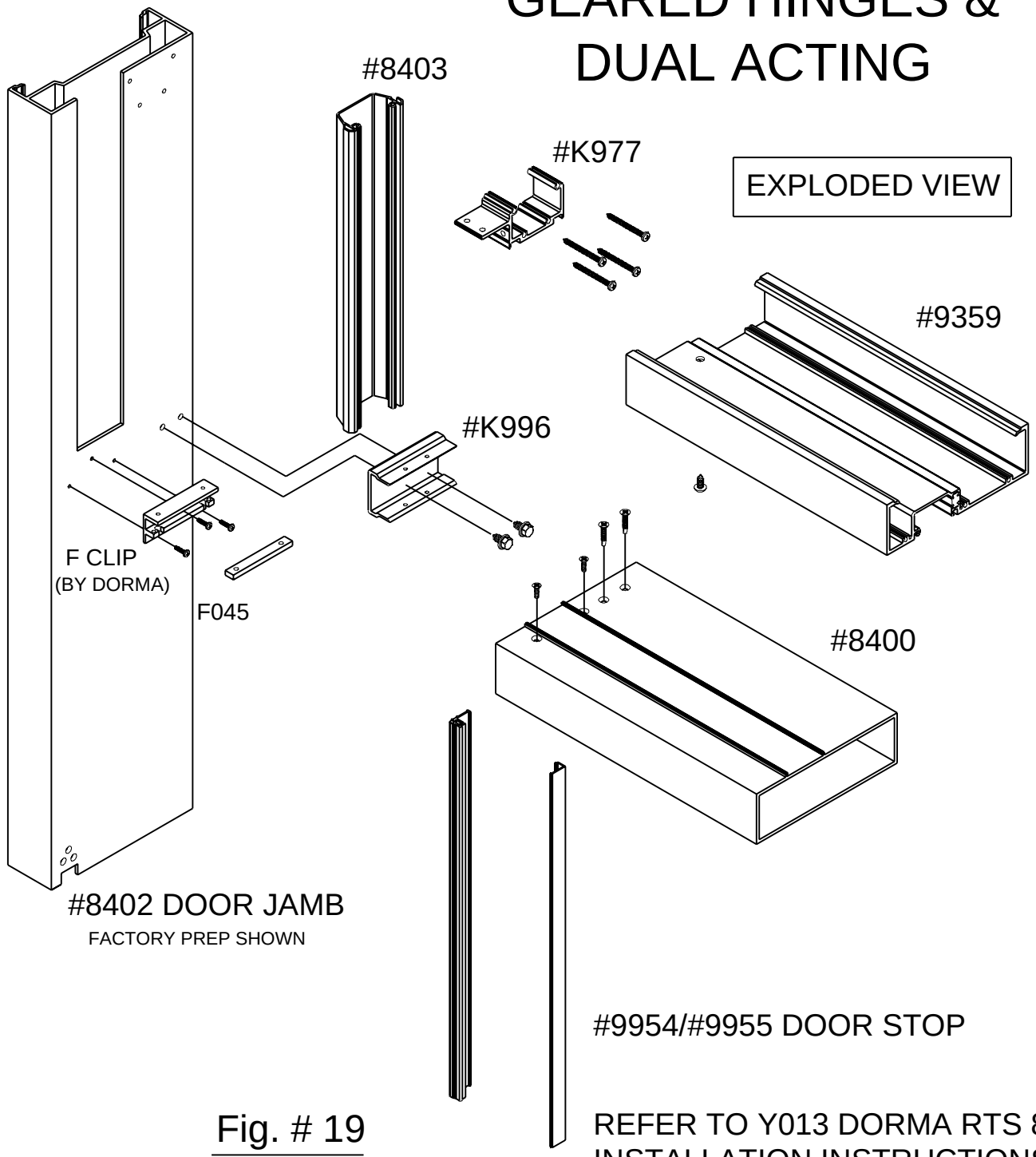


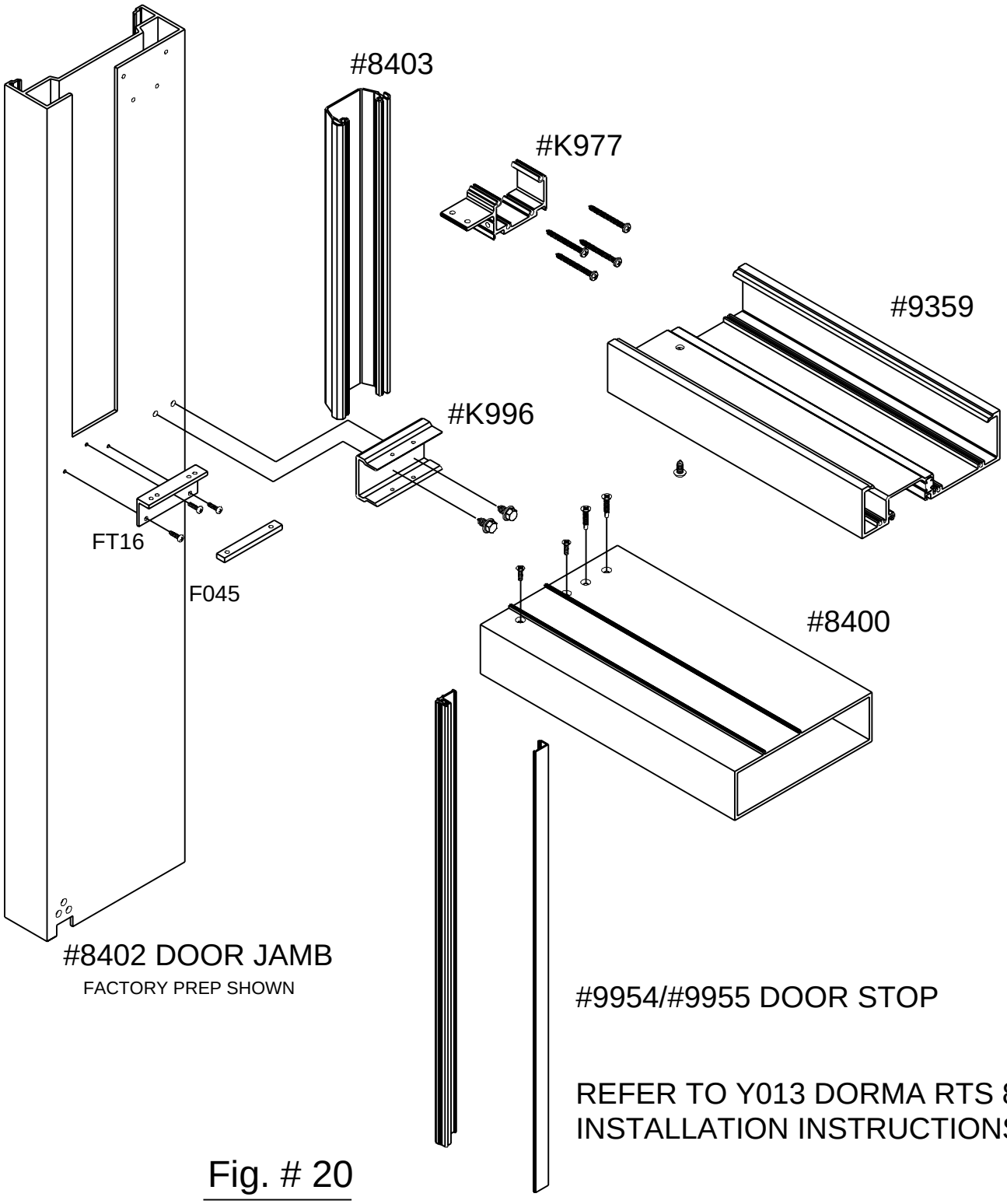
Fig. # 19

REFER TO Y013 DORMA RTS 88 INSTALLATION INSTRUCTIONS

SECTION IV ASSEMBLY & INSTALLATION

A - DOOR FRAME ASSEMBLY (CONT.)

DORMA RTS 88 w/ OFFSET PIVOTS



REFER TO Y013 DORMA RTS 88
INSTALLATION INSTRUCTIONS

Fig. # 20

SECTION IV ASSEMBLY & INSTALLATION
B - DOOR FRAME INSTALLATION

NOTE: If an entrance frame is required, it must be installed first.

STEP 1) CORRECTLY LOCATE THE ENTRANCE FRAME IN THE OPENING.

STEP 2) APPLY A BEAD OF SEALANT AROUND THE INTERIOR PORTION OF THE JAMB TO SET THE MEMBER INTO. THEN MARRY THE SIDE LITE SEALANT OR CONDITION SEALANT INTO THE BEAD OS SEALANT TO BE APPLIED UNDER THE THRESHOLD. THE CONCEPT IS TO HAVE A CONTINUOUS BEAD OF SEALANT AT THE INTERIOR, CONNECTED FROM THE SILL FLASHING/CONDITION THROUGH THE DOOR JAMB AND CONTINUING UNDER THE THRESHOLD TO THE OPPOSITE JAMB AND SO ON.

STEP 3) SET THE ASSEMBLED DOOR FRAME IN THE OPENING, PLUMB AND LEVEL.

STEP 4) ANCHOR THE DOOR FRAME AS INDICATED BELOW AND IN FIG. #22 THROUGH FIG. #25 ON PAGE 24.

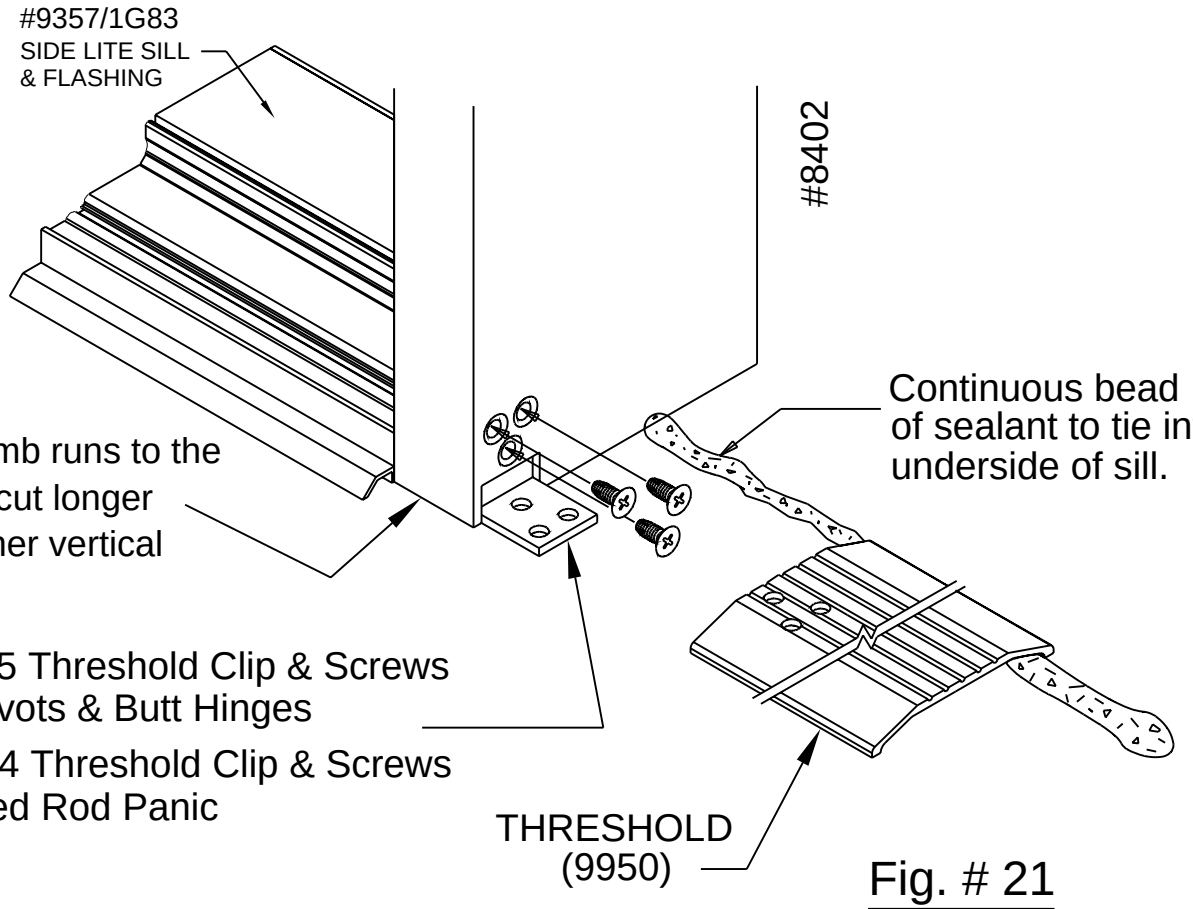
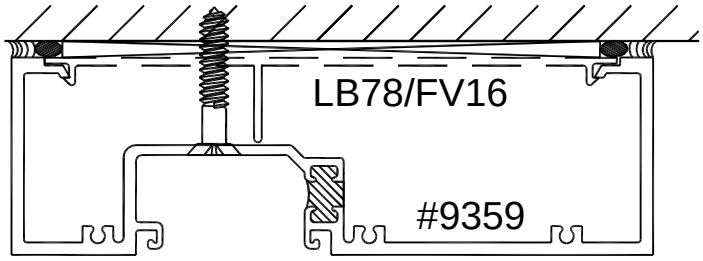


Fig. # 21

SECTION IV ASSEMBLY & INSTALLATION

B - DOOR FRAME INSTALLATION (CONT.)

At the open back head and jamb, EFCO recommends using full lengths of caulk backer (LB78) or use 3" pieces (FV16) and locate them at the frame and door frame anchors. This is to prevent collapsing the glazing pockets or distorting the door jamb. 9359 frame jamb & 9357 frame sill require LB78/FV16 similar.



Anchor through the transom head/frame head glazing pocket with flat head screws located 6" from the ends and 16" on center, maximum spacing.

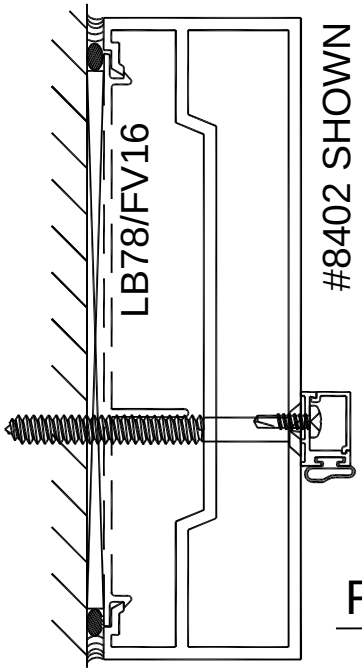


Fig. # 22

Fig. # 23

Anchor through the S.S. jamb at the door stop centerline with flat head screws located 6" from the ends and 16" on center, maximum spacing.

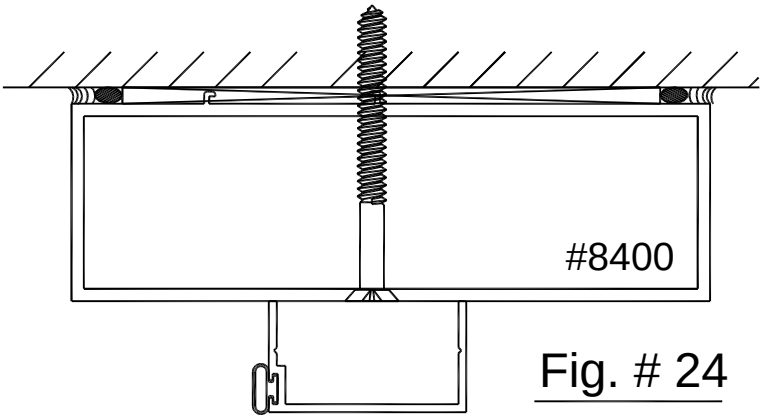
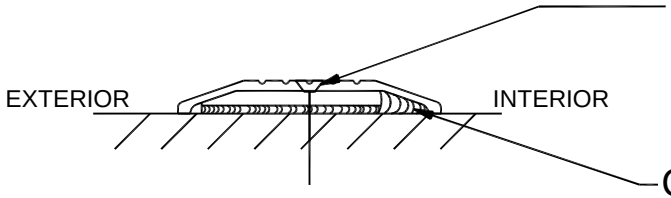


Fig. # 24

Anchor through the transom bar at the door stop centerline with flat head screws located 6" from the ends and 16" on center, maximum spacing.



Attach through the threshold with flat head screws located 6" from the ends and 15" on center, typical spacing.

Continuous bead of sealant at the back of the threshold and sides of the jambs and tied into mullion sealant at the condition.

Fig. # 25

NOTE: These are general anchor locations. It may be necessary to use 9358 as the perimeter filler if structural loads require a greater shear strength at the anchor locations. All projects should be reviewed by a structural engineer for exact anchoring requirements

SECTION IV ASSEMBLY & INSTALLATION

C - SILL FLASHING INSTALLATION

STEP 1) SILL FLASHING CUT LENGTH = ROUGH OPENING MINUS 3/8". END CAPS WOULD BE INCORPORATED, IF THE SILL FLASHING COULD NOT BE SEALED TO THE CONDITION COMPLETELY. AN EXAMPLE WOULD BE, IF THE JAMB CONDITION IS LESS THAN THE SILL FLASHING DEPTH OR IF THERE IS A VOID IN THE CONDITION. THIS CUT LENGTH PROVIDES A 3/16" GAP BETWEEN THE SILL FLASHING AND CONDITION FOR A GOOD SEALANT JOINT WHEN END CAPS ARE NOT REQUIRED.

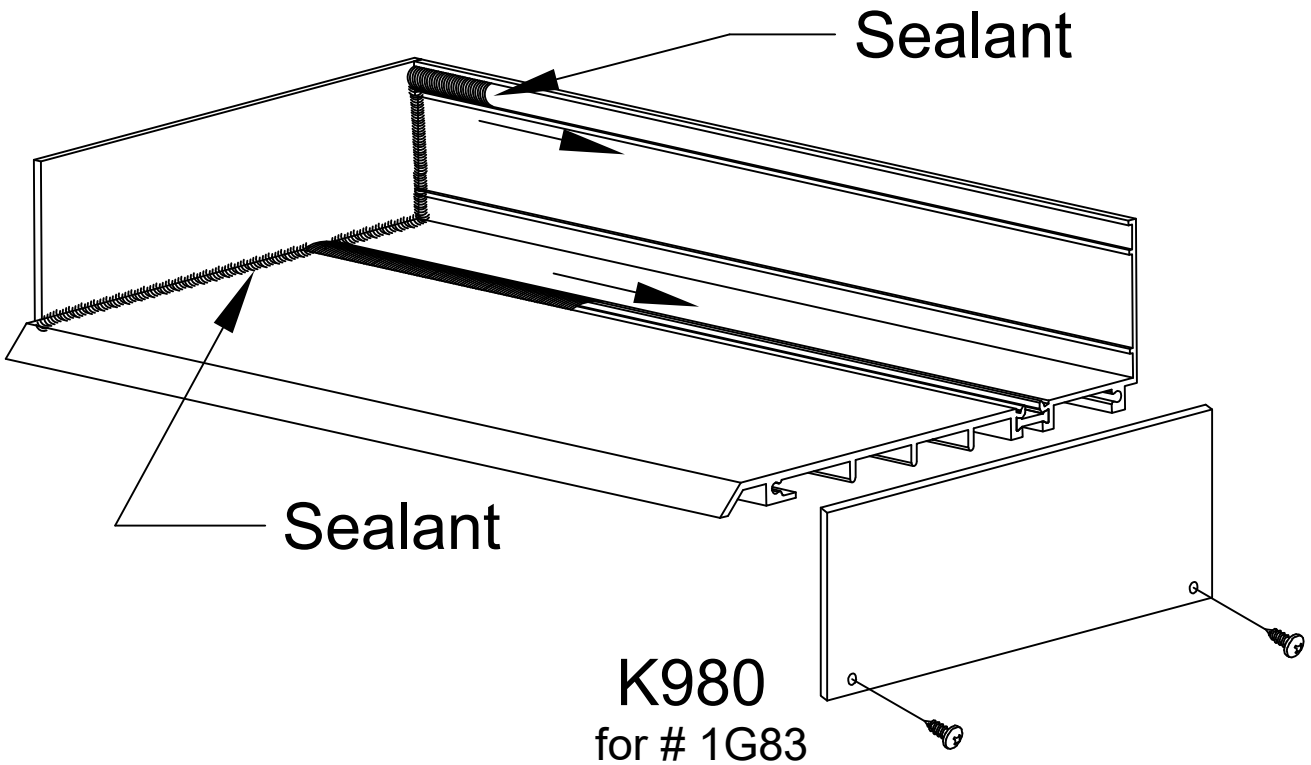


FIG. #26

SECTION IV ASSEMBLY & INSTALLATION
C - SILL FLASHING INSTALLATION

STEP 2) INSTALL THE SILL FLASHING CONTINUOUSLY BETWEEN THE MASONRY JAMBS OR BETWEEN THE DOOR FRAME AND THE MASONRY JAMB. SEE FIGURES BELOW.

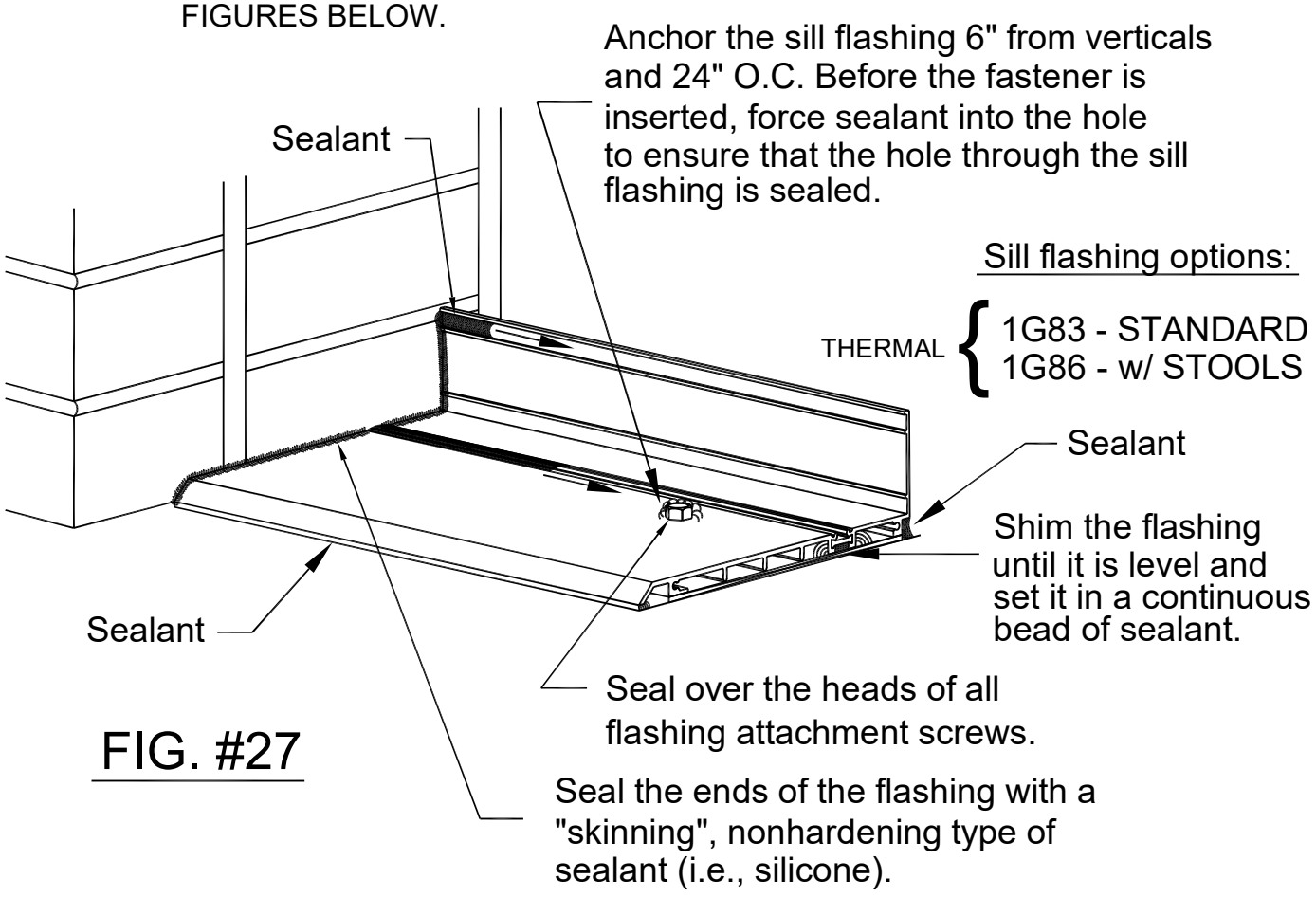
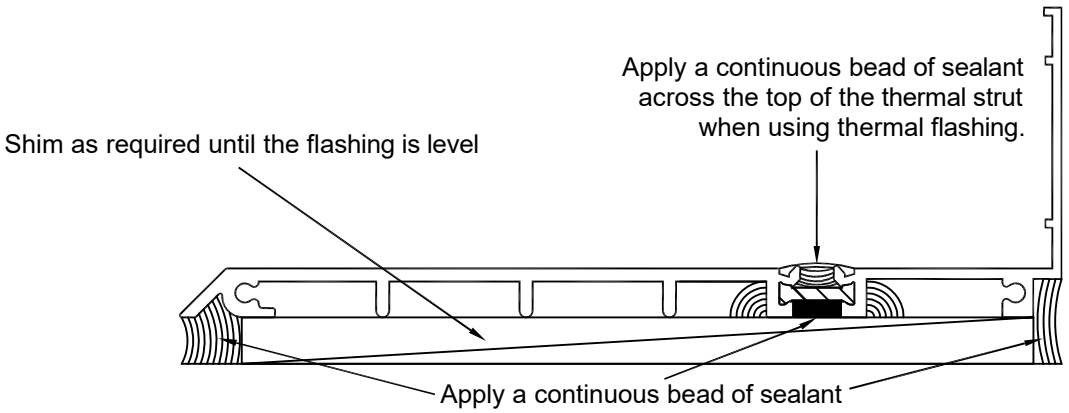


FIG. #27

NOTE: ALL THERMAL STRUT SILL FLASHING THAT COULD ENCOUNTER MOISTURE MIGRATION MUST HAVE THE THERMAL STRUT SEALED OVER WITH SILICONE.



1G83 SHOWN,
1G86 SIMILAR.

FIG. #28

SECTION IV ASSEMBLY & INSTALLATION

C - SILL FLASHING INSTALLATION (CONT.)

STEP 3) INSTALL THE SILL FLASHING IN A CONTINUOUS BEAD OF SEALANT BETWEEN THE MASONRY JAMB AND THE DOOR FRAME. THE BEAD OF SEALANT WILL TIE INTO THE SEALANT THAT FILLS THE CAVITY IN THE DOOR JAMB AND TIES INTO THE BEAD OF SEALANT THAT THE THRESHOLD IS SET INTO. SEAL THE END OF THE SILL FLASHING TO THE DOOR JAMB THOROUGHLY. FILL THE HOLLOW AREA OF THE DOOR JAMB WITH SEALANT LEVEL WITH THE SILL FLASHING TO DIVERT ANY WATER ONTO THE SILL FLASHING. SEE FIGURE BELOW.

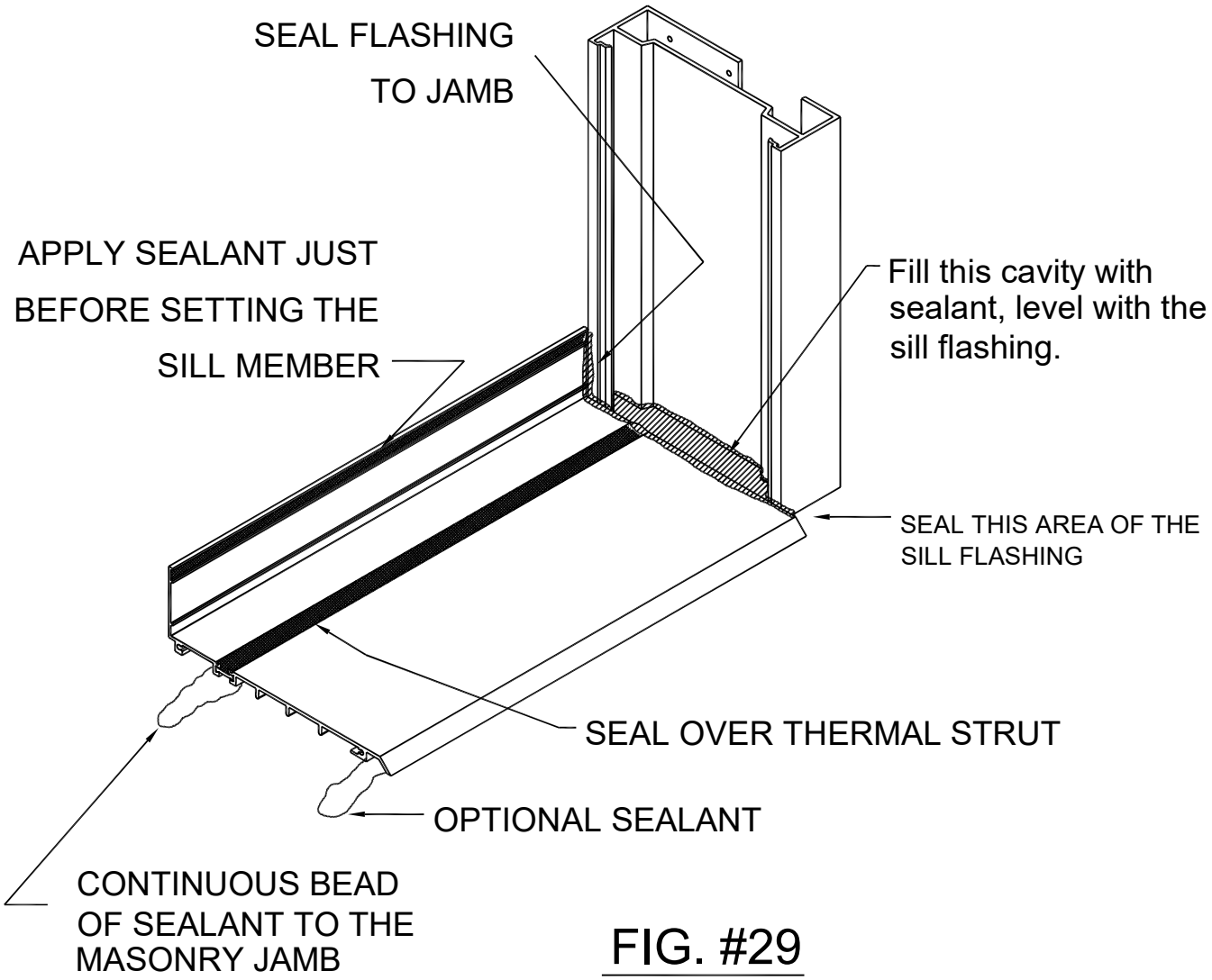


FIG. #29

SECTION IV ASSEMBLY & INSTALLATION

C - SILL FLASHING INSTALLATION (CONT.)

VIEW OF JAMB AT CONDITION

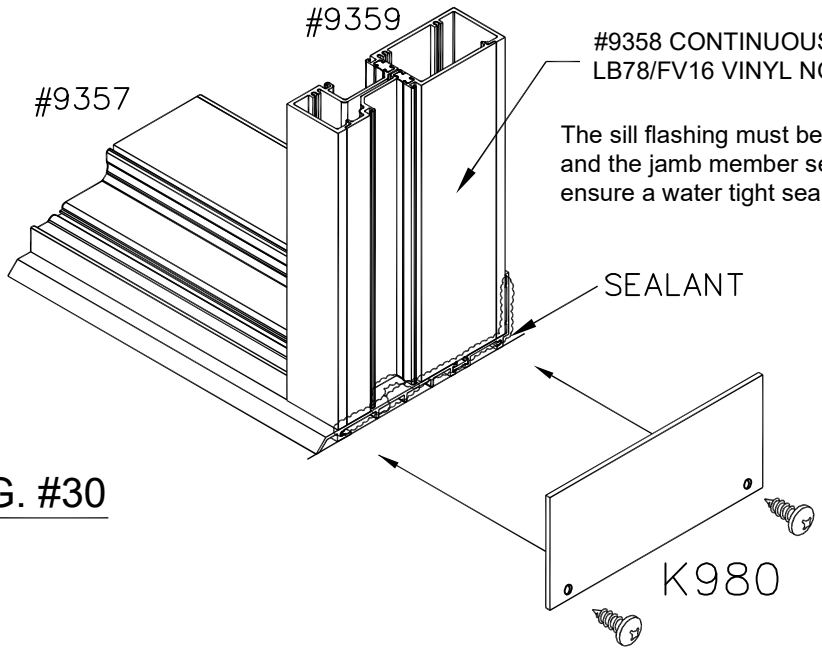


FIG. #30

STEP 4)

INCORPORATING THE SILL FLASHING END CAPS WILL COMPLEMENT THE SEALING PROCEDURE. THE END CAPS MUST BE SEALED TO THE CONDITION, AND THE SEALANT MUST TIE-IN WITH THE JAMB BLOCKING AND THE PERIMETER SEALS. THE END CAP EDGES MUST ALSO BE CONCEALED WITH THE SEALANT TO PRESENT A NEAT AND CLEAN INSTALLATION. THIS MAY CAUSE THE CAULK JOINT AT THE JAMB TO INCREASE IN THICKNESS, IF THE CONDITION IS IRREGULAR,

STEP 5)

SPLICE THE FLASHING EVERY 20'-0" AS SHOWN IN FIG. #31 BELOW. USE K979 FOR S406 HIGH PERFORMANCE FLASHING. IT IS NOT ADVISED TO LOCATE THE SPLICE JOINT DIRECTLY AT A VERTICAL INTERMEDIATE. ALLOW 6" MINIMUM SPACING FROM THE VERTICALS. FOR MITERED CORNERS, SEE PAGE 29.

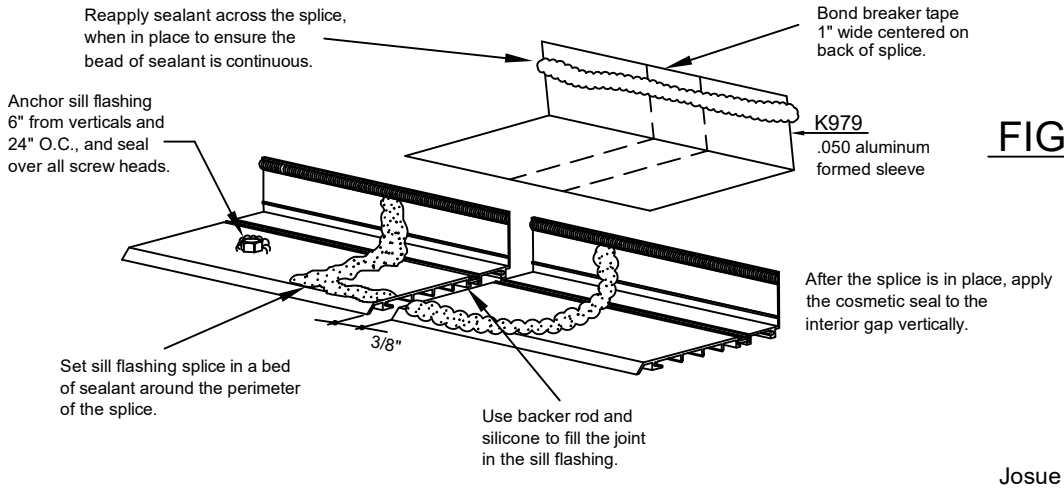


FIG. #31

SECTION IV ASSEMBLY & INSTALLATION

C - SILL FLASHING INSTALLATION (CONT.)

STEP 6) IF A CORNER IS REQUIRED, MITER THE FLASHING TO THE REQUIRED ANGLE AND THEN INSTALL AS SHOWN IN THE FIGURES BELOW. LOCATE FASTENERS 3" AWAY FROM ANY CORNER AND 1 1/2" FROM THE EDGE OF THE SILL FLASHING SPLICE.

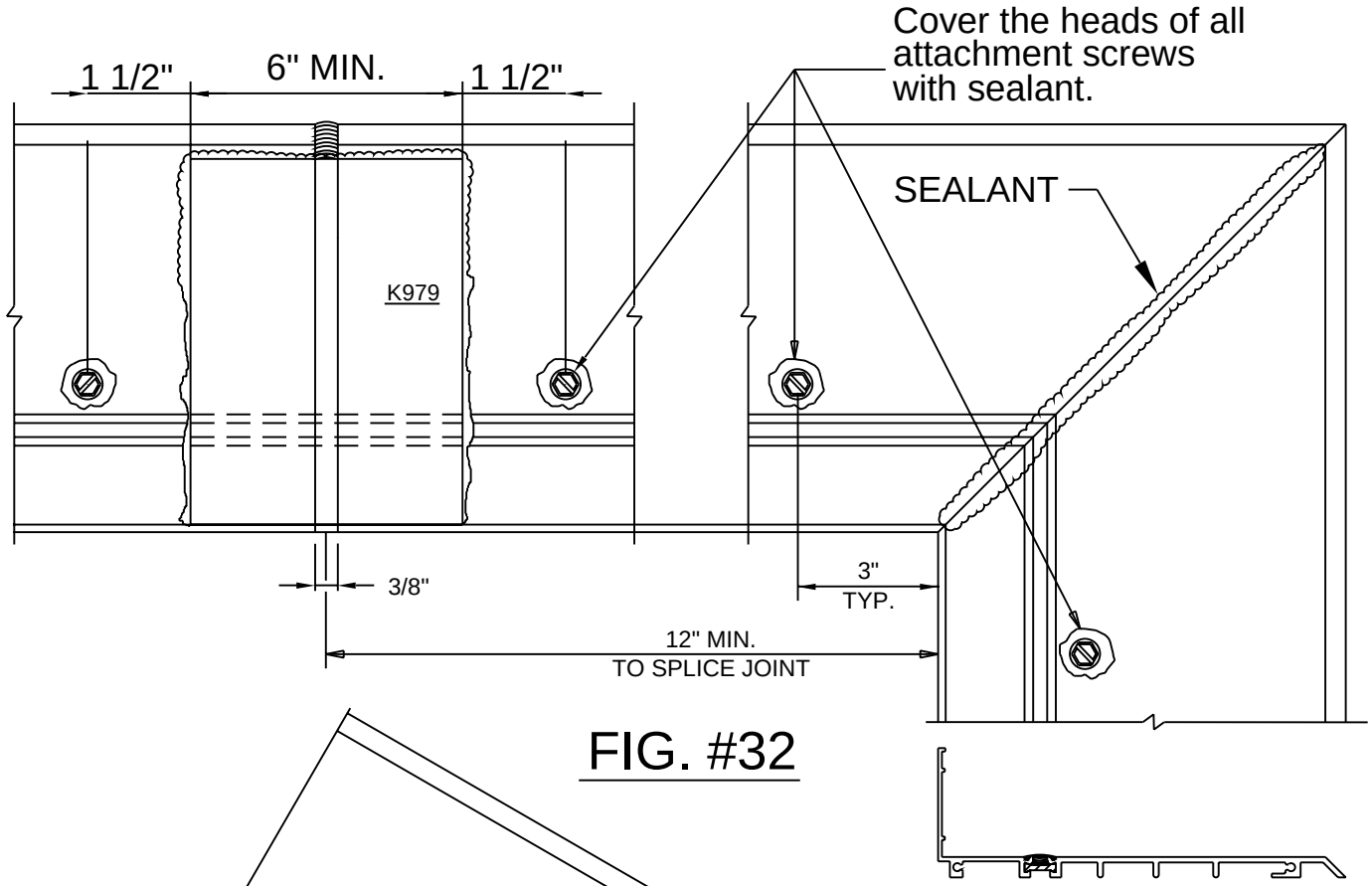


FIG. #32

1G83 sill flashing shown,
1G86 is similar.

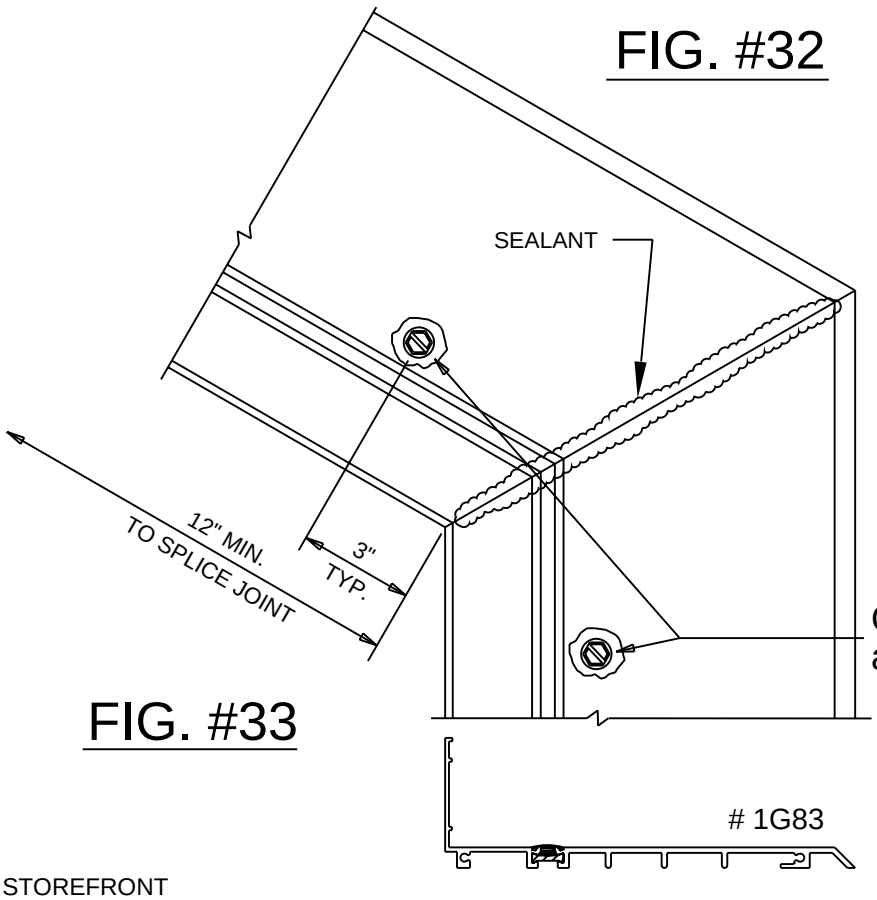


FIG. #33

SECTION IV ASSEMBLY & INSTALLATION

D - SCREW SPLINE FRAME & SIDE LITE TO DOOR JAMB ASSEMBLY

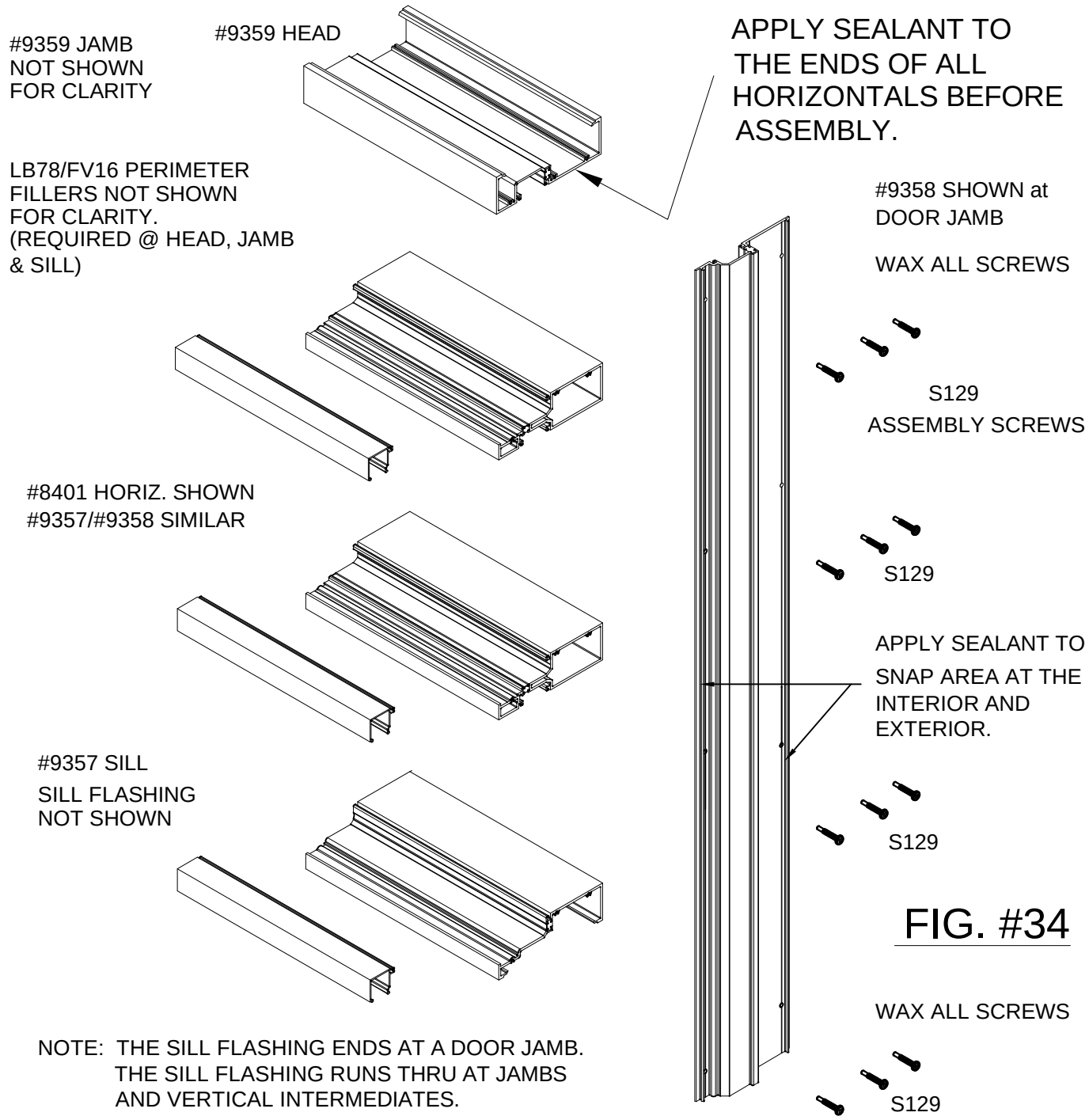


FIG. #34

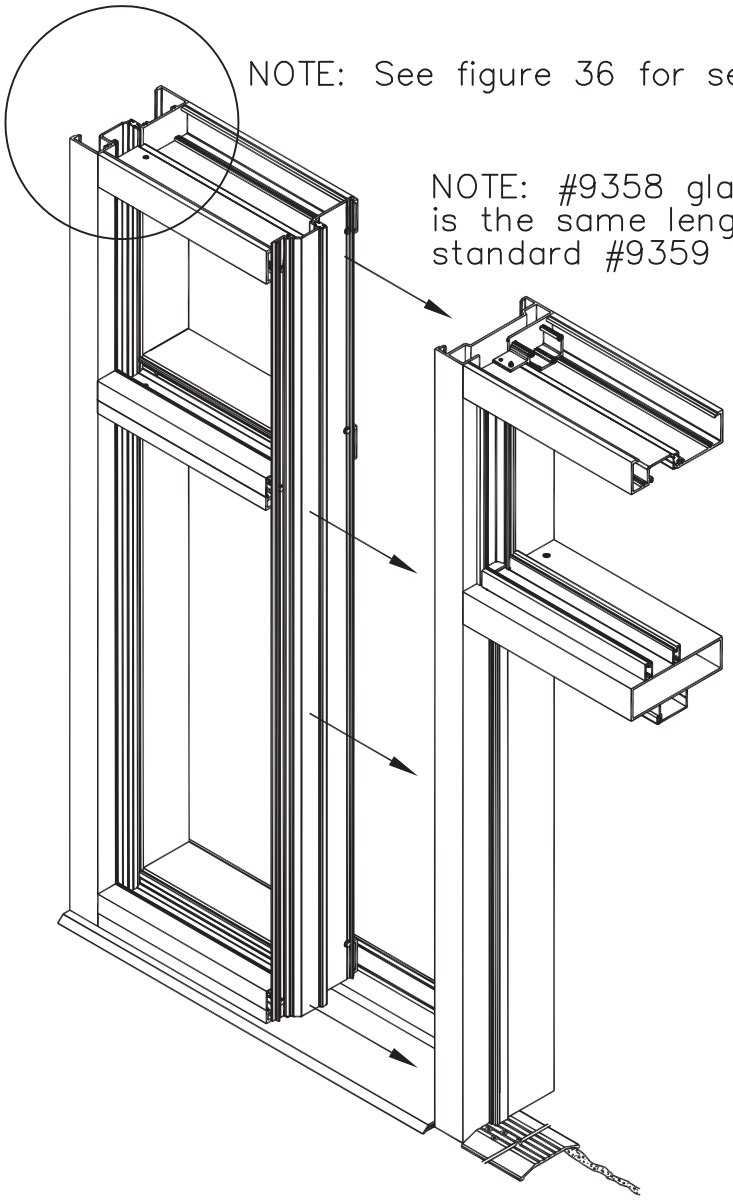
NOTE: THE SILL FLASHING ENDS AT A DOOR JAMB. THE SILL FLASHING RUNS THRU AT JAMBS AND VERTICAL INTERMEDIATES.

NOTE: Use full lengths of LB78 perimeter adaptor at the head and jambs as a caulk backe and to keep from collapsing the glazing pocket. Use 3" lengths of LB78 perimeter adaptor (FV16) at the sill member and locate them at the fastener, to keep the anchors or weight of the glazing material from collapsing the glazing pocket.

SECTION IV ASSEMBLY & INSTALLATION

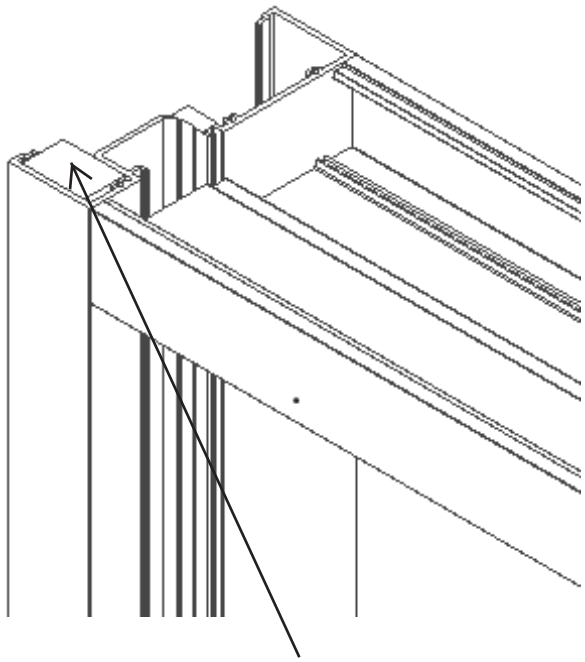
D–SCREW SPLINE FRAME & SIDE LITE TO DOOR JAMB ASSEMBLY & PRIMARY SEAL AT HEAD

FIG. #35: EXPLODED VIEW



NOTE: Make sure the bead of sealant under the threshold is continuous through the door jamb and married into the bead of sealant that the sill flashing is set into.

FIG. #36: HEAD OF JAMB



For primary seal at head, all open–ended vertical frame members must be closed off before installing the frame into the building opening. Insert a foam plug (N.B.E.) into the top of the mullion at the exterior side of the system. Make sure that the top of the plug is flush with the top of the vertical mullion in order to keep the exterior perimeter joint seal continuous.

SECTION IV ASSEMBLY & INSTALLATION
E - WATER DEFLECTOR INSTALLATION

Water deflectors are used at the ends of all horizontal intermediates to prevent any accumulated moisture in the glazing pocket from dropping on the top edge of the 1" glass unit below.

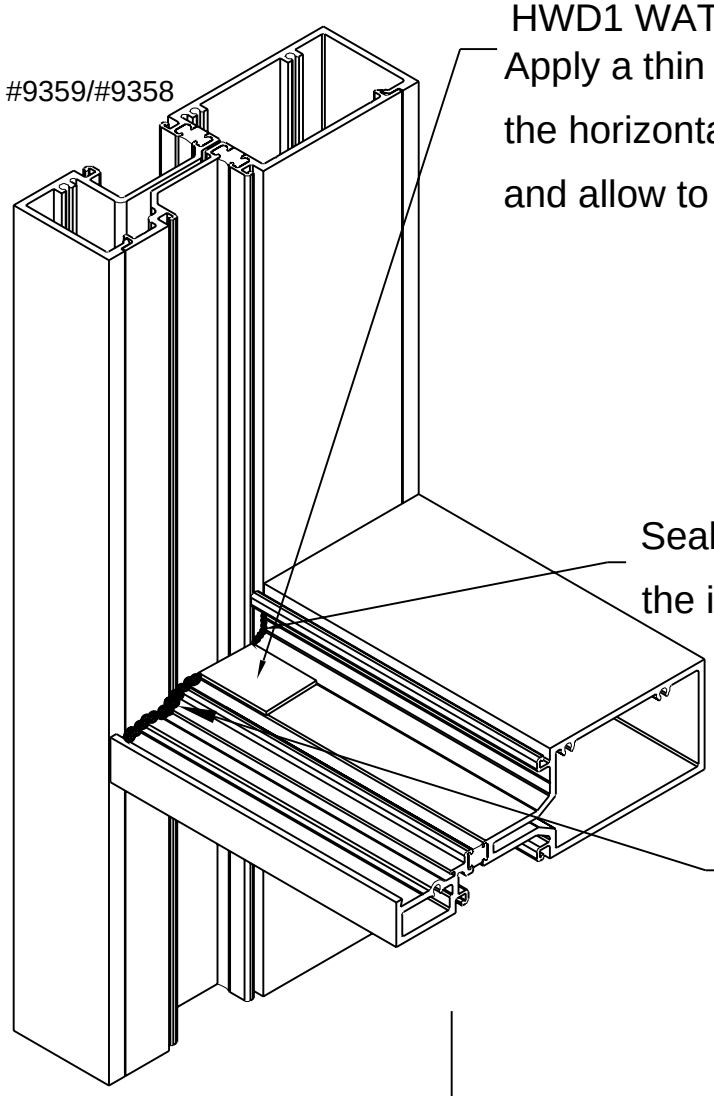


FIG. #36

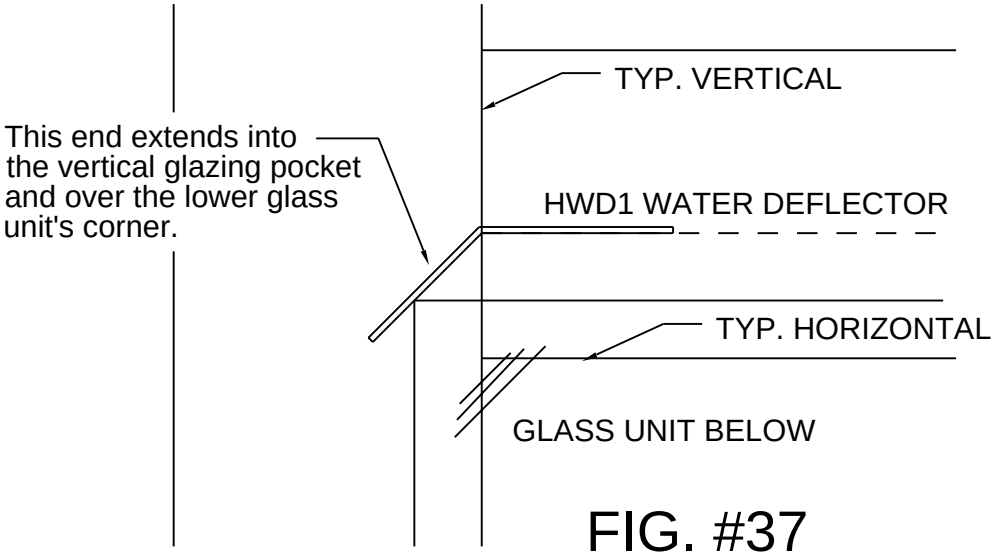


FIG. #37

SECTION V GLAZING
A - GLASS SIZE FORMULAS

System 406 (2" sight line) = D.L.O. + 7/8" (HORIZONTAL)

System 406 (2" sight line) = D.L.O. + 7/8" (VERTICAL)

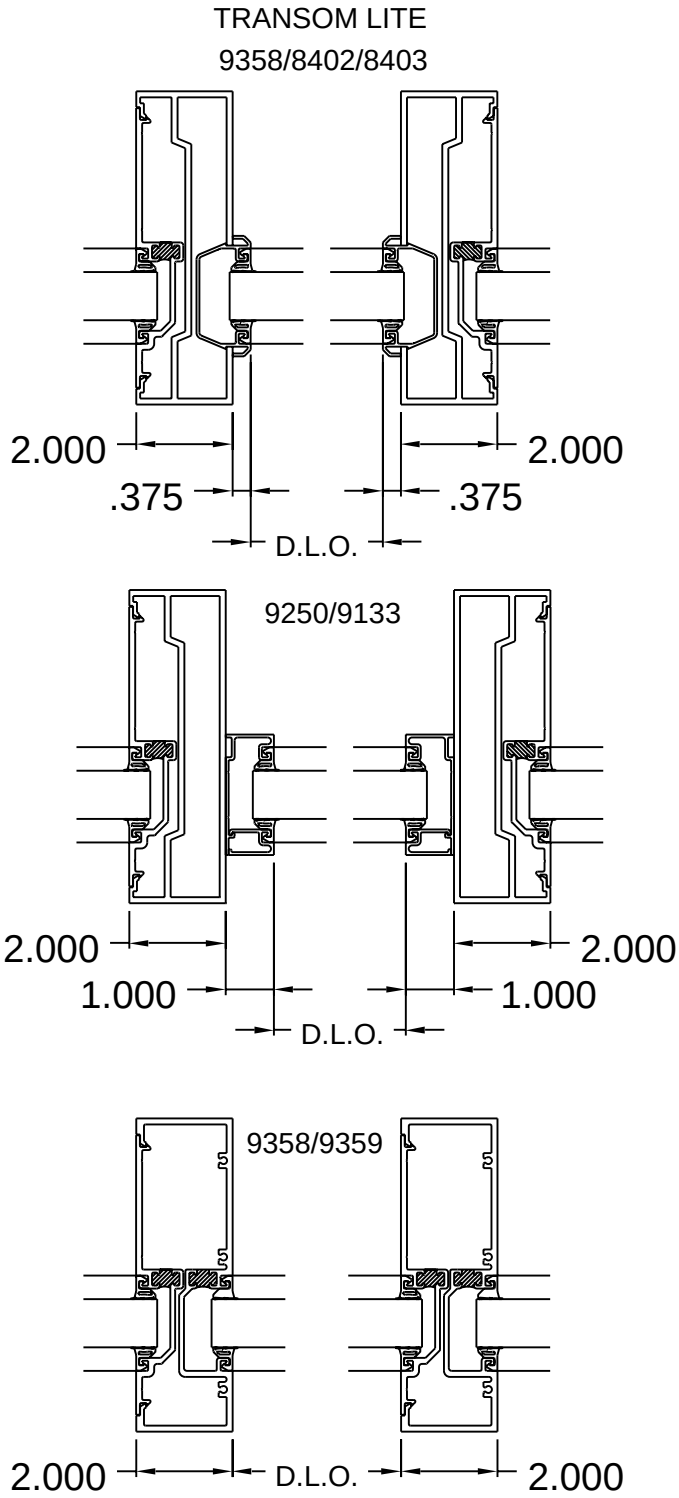


Fig. # 38

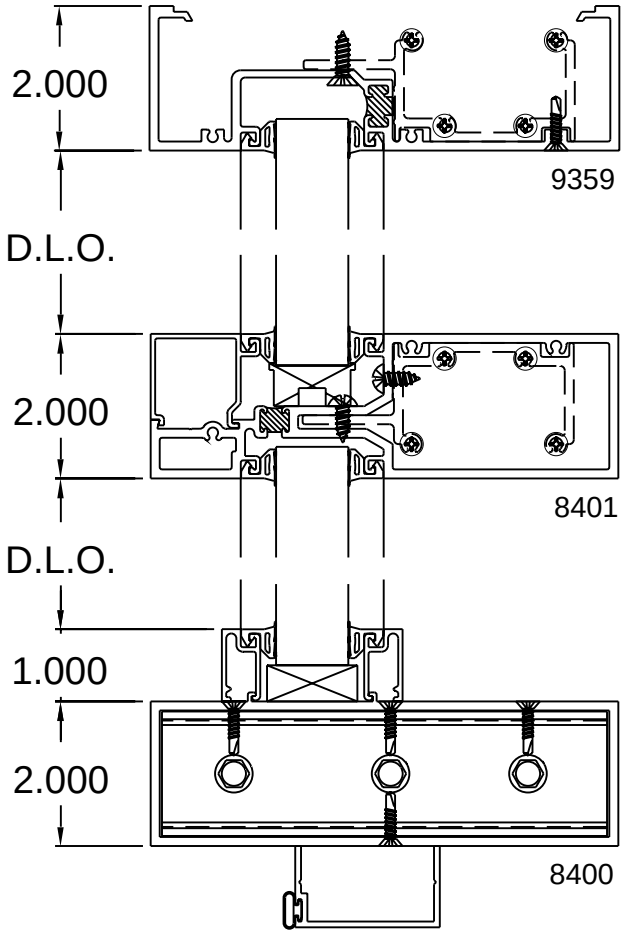


Fig. # 39

SECTION V GLAZING

B - GLASS INSTALLATION

STEP 1) GASKET INSTALLATION FOR OUTSIDE GLAZE.

A) Apply sealant to the ends of all horizontals to seal the intersections at the verticals. At all 4 corners of the D.L.O., apply sealant in the gasket race 1" away from the intersection of the vertical and horizontal members. See detail # 40 below.

B) Cut the interior and exterior push-in gasket to an approximate length of D.L.O. + 3.0".

C) Install the interior glazing gasket. NOTE: The vertical gaskets run through.

D) Start at the ends and work toward the center, firmly pushing the gasket in place.

DO NOT STRETCH THE GASKET OR IT WILL RETURN TO ITS ORIGINAL FORM, CREATING GAPS AT THE GASKET INTERSECTIONS.

E) Clean the glazing gaskets with denatured alcohol at the intersection area. Apply a small amount of sealant at the intersect area to marry the vertical and horizontal glazing gaskets. Tool all sealant to present a neat, clean appearance.

NOTE: These steps are included in the test lab procedure and are requirements to achieve the test report results for air and water infiltration.

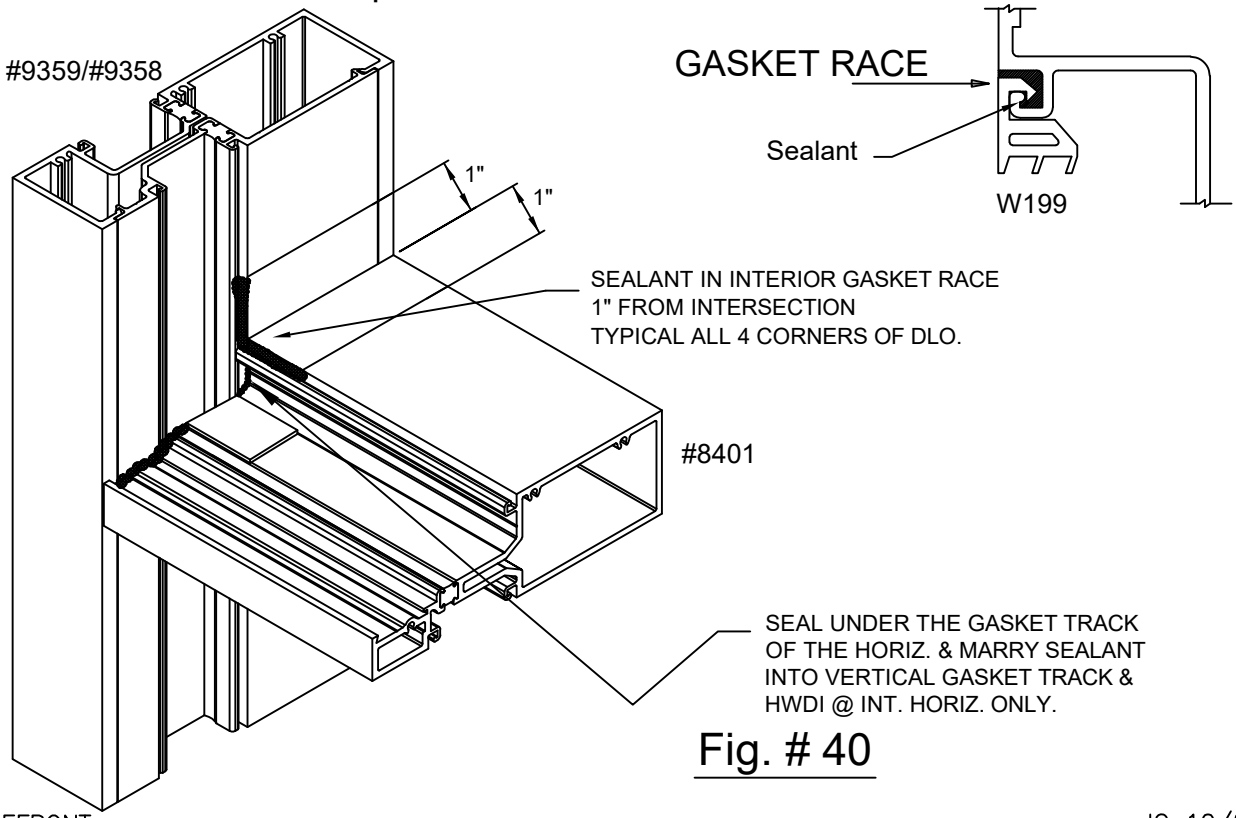


Fig. # 40

SECTION V GLAZING
B – GLASS INSTALLATION

STEP 1) GASKET INSTALLATION FOR OUTSIDE GLAZE TRANSOM BAR GLAZING STOP SEAL.

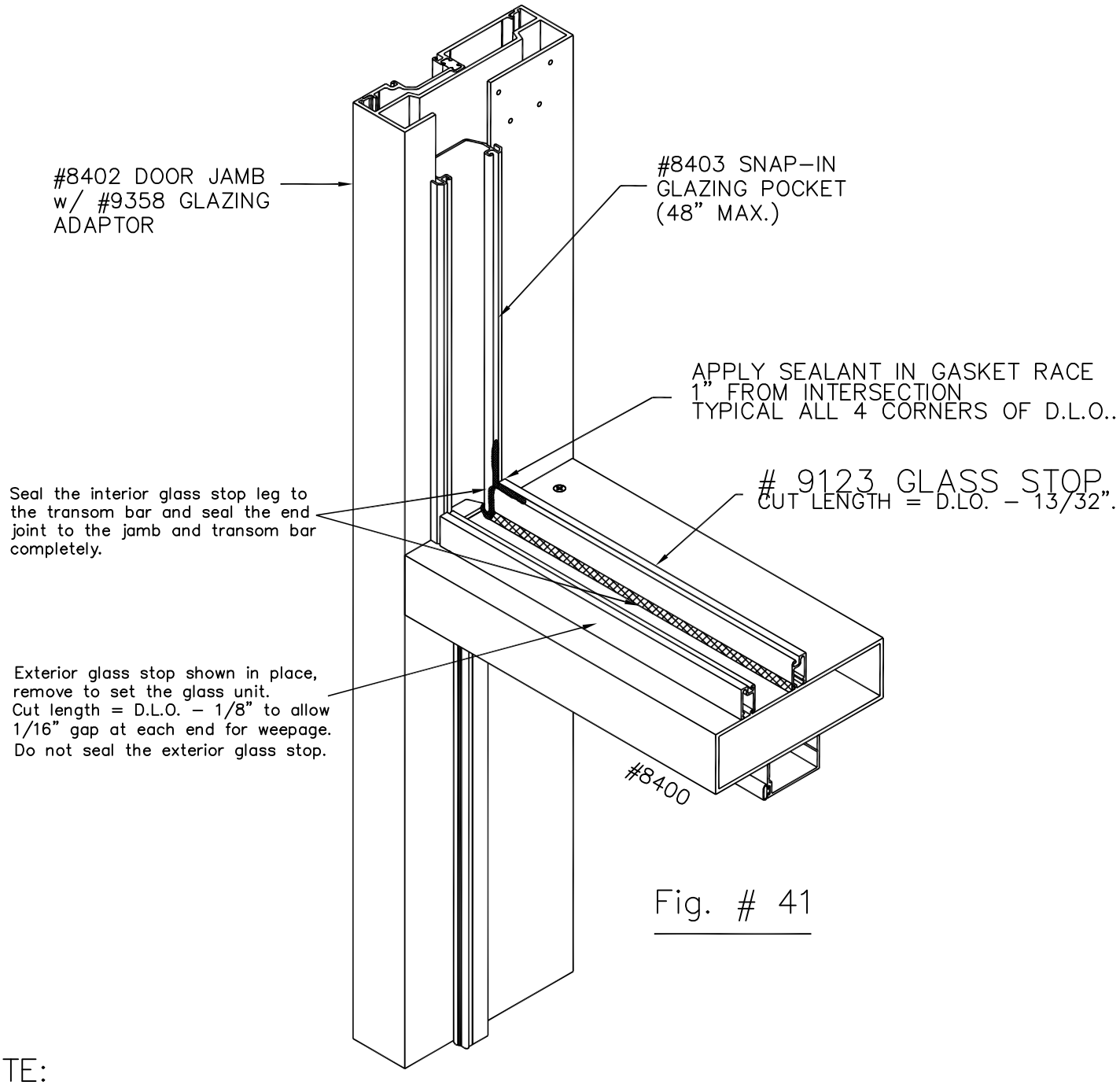


Fig. # 41

NOTE:
IF SCREW APPLIED GLAZING STOPS ARE USED VERTICALLY INSTEAD OF THE SNAP–IN GLAZING POCKET, THE SEALING SCENARIO WILL BE THE SAME. BE SURE TO SET THE GLAZING BASE IN A BEAD OF SEALANT BEFORE ATTACHING IT TO THE DOOR JAMB.

SECTION V GLAZING

B - GLASS INSTALLATION (CONT.)

STEP 2) GLASS INSTALLATION

A) Position the glass unit in front of the opening to be glazed. Lift the unit to just clear the sill stop area, and then shift the glass into the deep pocket.

B) Swing the opposite edge of the glass around to align with the glazing pocket.

C) Shift the glass into the shallow pocket until there is equal glass bite on both edges of the glass.

NOTE: If using antiwalk blocks,
refer to page 38.

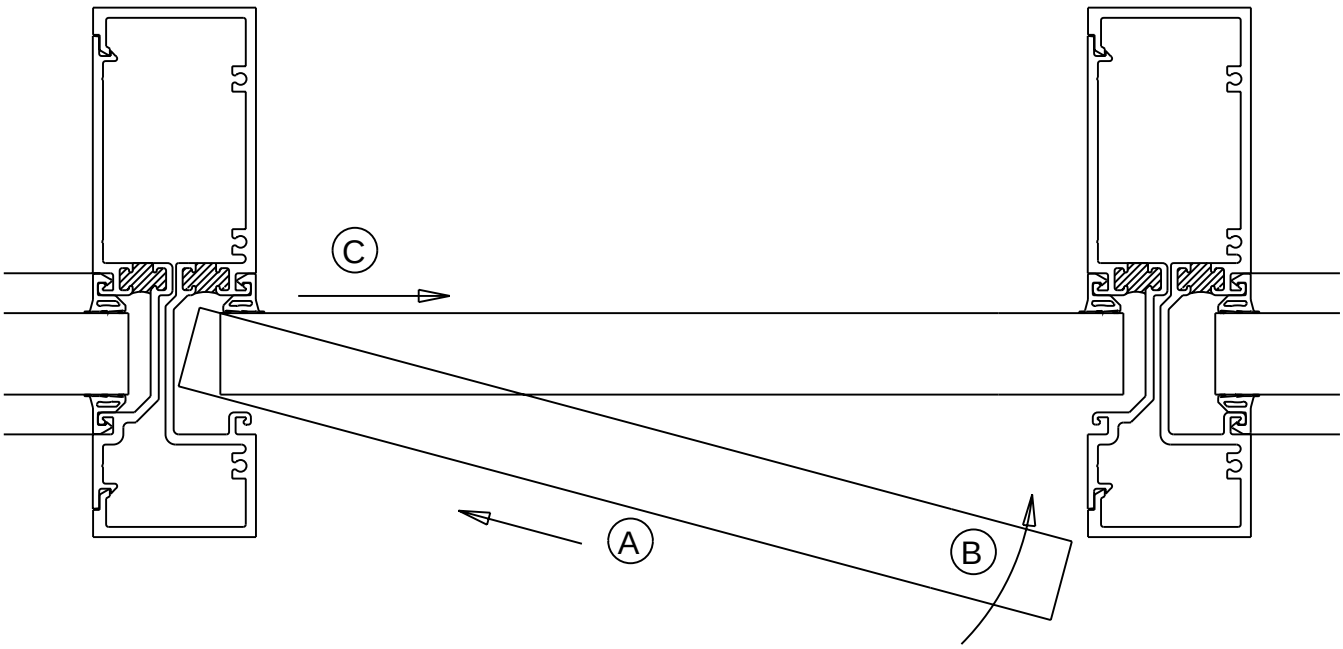


Fig. # 42

SECTION V GLAZING

B - GLASS INSTALLATION

STEP 2) GLASS INSTALLATION

D) Lift the glass into the head member's glazing pocket.

E) Insert the setting blocks under the glass at the proper locations, typically 1/4 points of the D.L.O. Then lower the glass onto the setting blocks.

F) Snap on the removable glass stop and install the exterior glazing gasket.

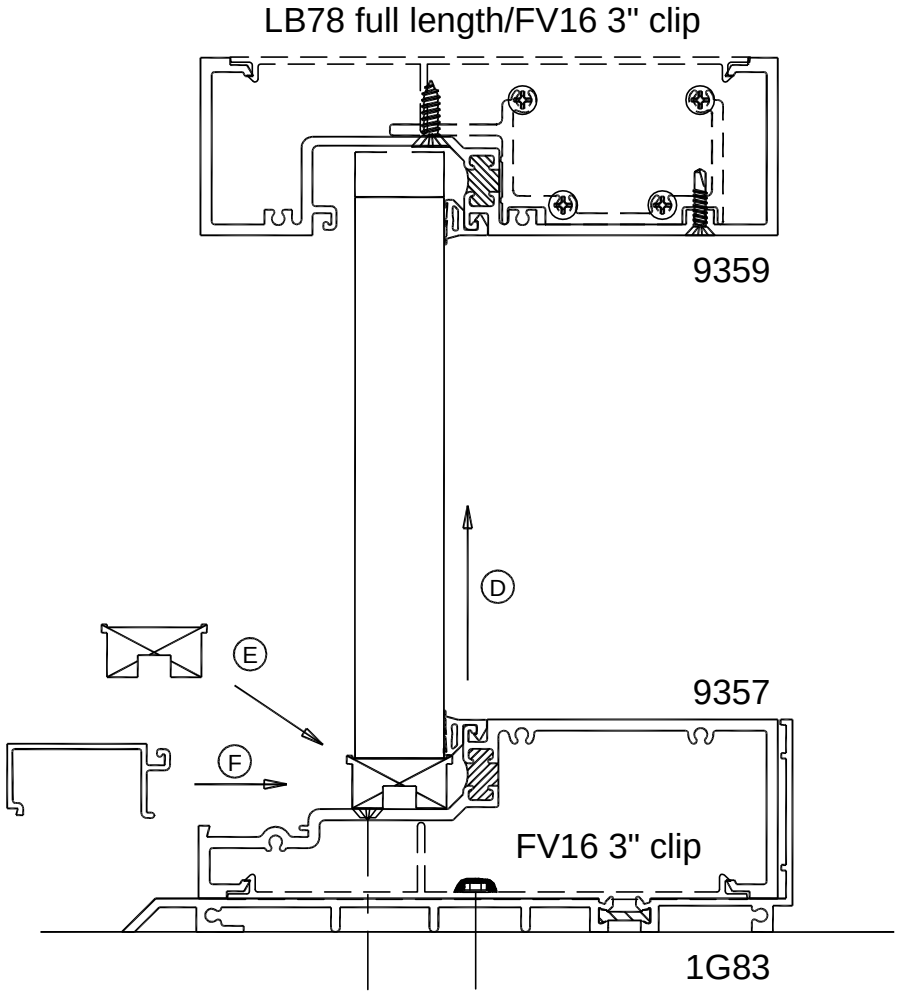


Fig. # 43

SECTION V GLAZING

C - ANTIWALK BLOCK INSTALLATION

STEP 1) ANTIWALK BLOCK INSTALLATION

A) Install the interior gasket following the steps on page 34.

B) Position the glass as described in the steps on pages 36 and 37.

C) Stretch the antiwalk block as shown in Fig. 44 below, and insert it from the exterior at midlite and deep pocket side only.

D) Recenter the glass unit to maintain equal glass bite all around.

E) Install the exterior gasket.

HN52
ANTIWALK BLOCK

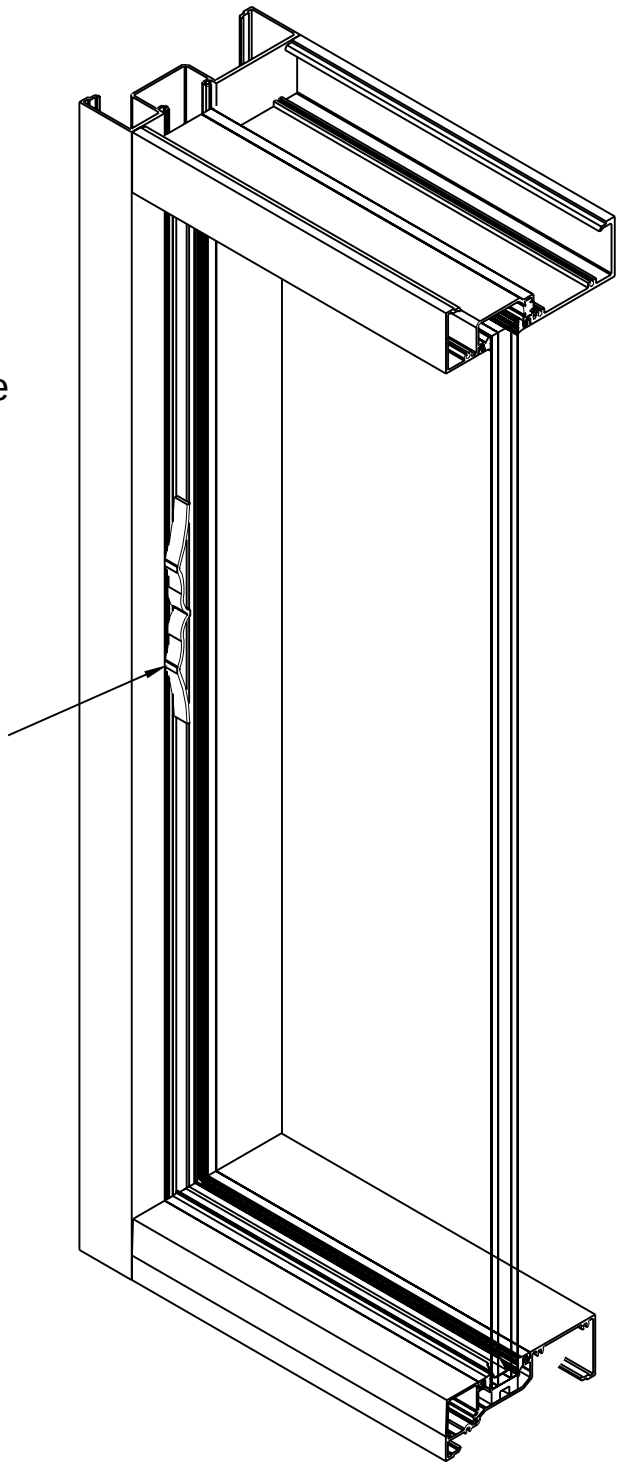


FIG. # 44

SECTION V GLAZING
C - ANTIWALK BLOCK INSTALLATION (CONT.)

STEP 2) ANTIWALK BLOCK DEGLAZING

A) Remove the interior and exterior glazing gaskets.

B) Push the glass back to the interior side.

C) Remove the antiwalk block with a sharp hook shaft tool from the exterior side.

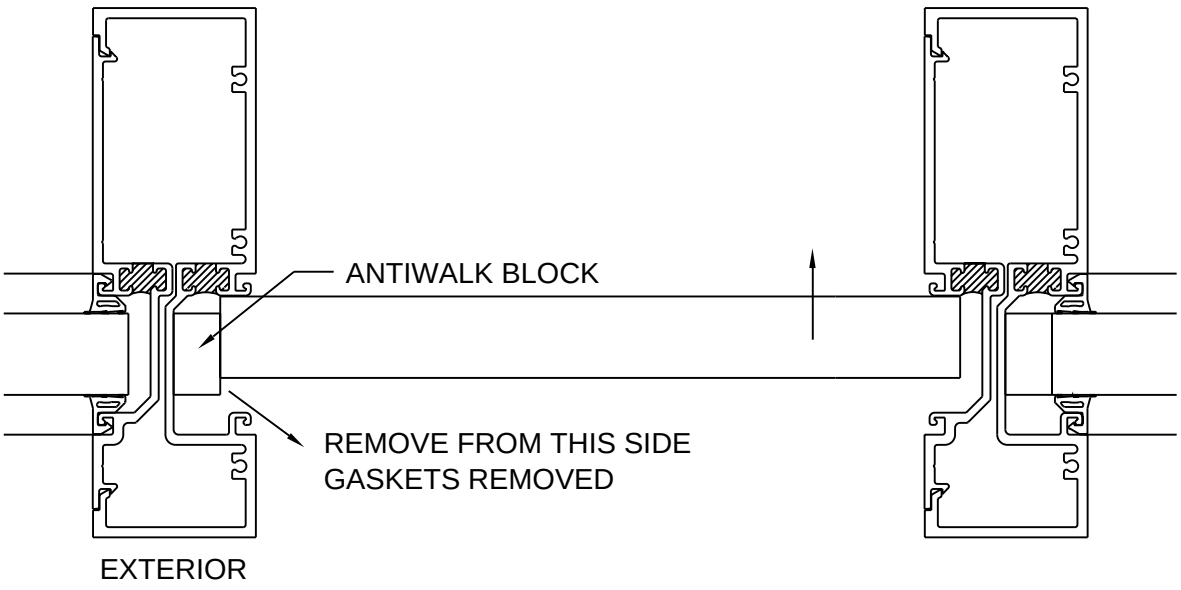


FIG. # 45

SECTION VI: A. EXPANSION MULLIONS

STEP 1) Expansion mullions are required in elevations that are over 20'-25' wide & can be used with both screw spline and shear block systems.

NOTE: For shear block application:
Follow steps #1 and #2 at Section III C for cutting & shear block hole locations.

NOTE: For screw spline application:
Follow steps #1, #2 & #3 at Section III A for cutting & screw spline hole locations.

NOTE: Do not use expansion mullions at entrance jambs.
Locate expansion mullions at next mullion over so that the distance between expansion mullions is never more than 25’-0”