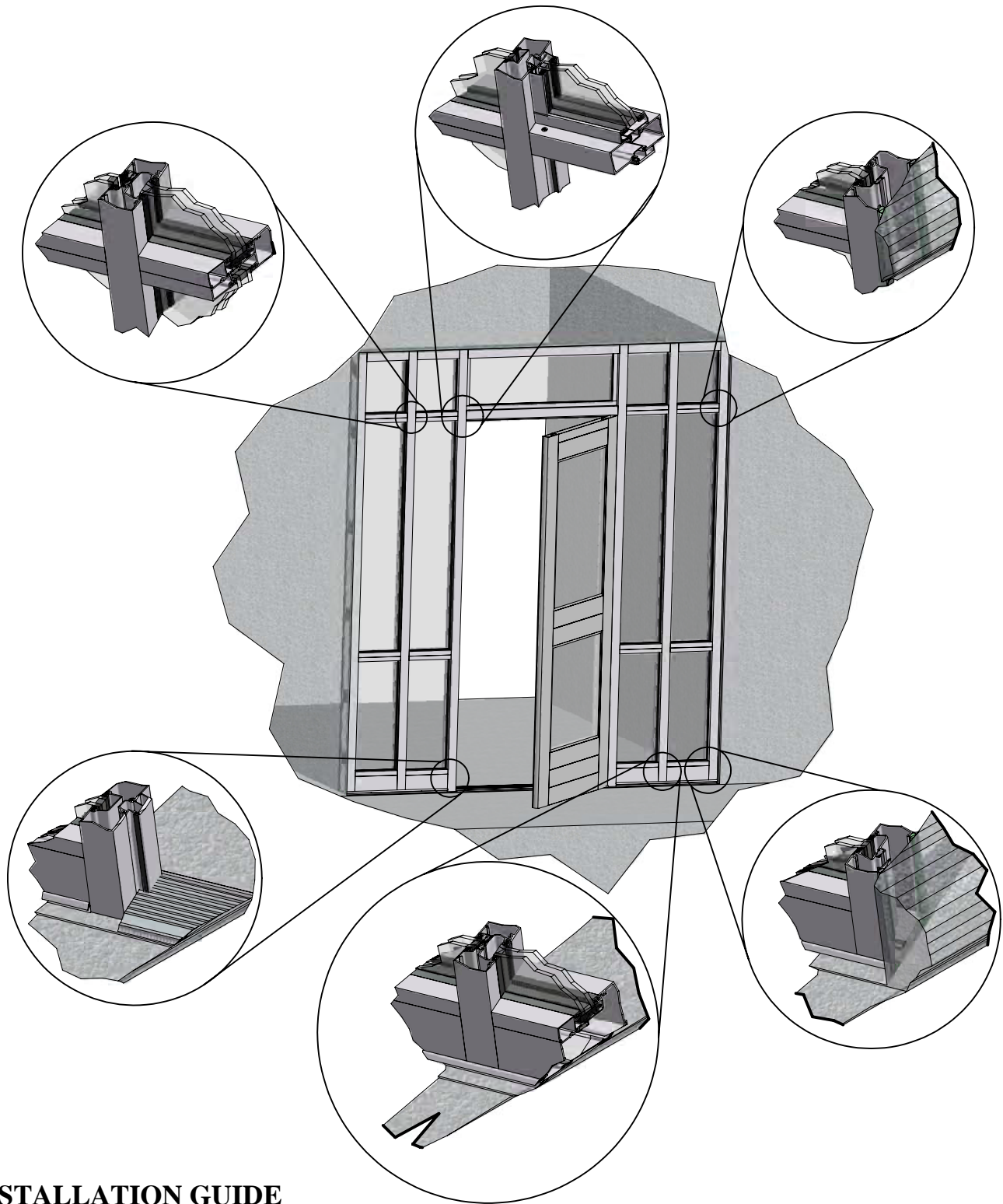


CROSS ALUMINUM PRODUCTS, INC.

the only way to enter....



INSTALLATION GUIDE

A Reference Guide to Measuring Openings, Prep Work, and General Installation of Storefront Framing and Doors

E-4500 Framing Series (1-3/4" x 4-1/2")

T/E 14000 Framing Series (2" x 4-1/2")

T/E14650 Framing Series (2" x 6-1/2")

***Note:** These instructions are provided only as a reference and are not a step by step, foolproof installation checklist. The installation should be done by an experienced installer. Improper installation will void manufacturers warranty. Read all before starting install.*

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Other Available Guides:

- A. Worksheet for Measuring Rough Openings - Complete Replacement
- B. Worksheet for Measuring Door Opening - Reusing Existing Frame
- C. Checklist for Job Progression Steps
- D. Checklist for Quote Take Off
- D. Technical Nonmenclature - Understanding the Door Industry, Shop Drawings, Hardware Schedules, etc.

PRE-INSTALLATION CAUTIONS

INITIAL MEASUREMENTS



-Measuring an Opening

Termonology - **RO** = *rough opening* = **MO** = *masonry opening* **FS** = *actual frame size*,
DO = *door opening*

-To Find The Frame Width:

- Measure at least three places- the top, the middle, the base widths of the opening (*figure 3.1*).
- Take the smallest measurement and subtract clearances to find the frame width (FS). Cross Aluminum Products standard clearance is 1/4" both sides. In this case, you would take the smallest width measurement and subtract 1/2". For out-of-square openings or architectural specs, the clearance can be increased to 3/8" both sides (subtract 3/4").

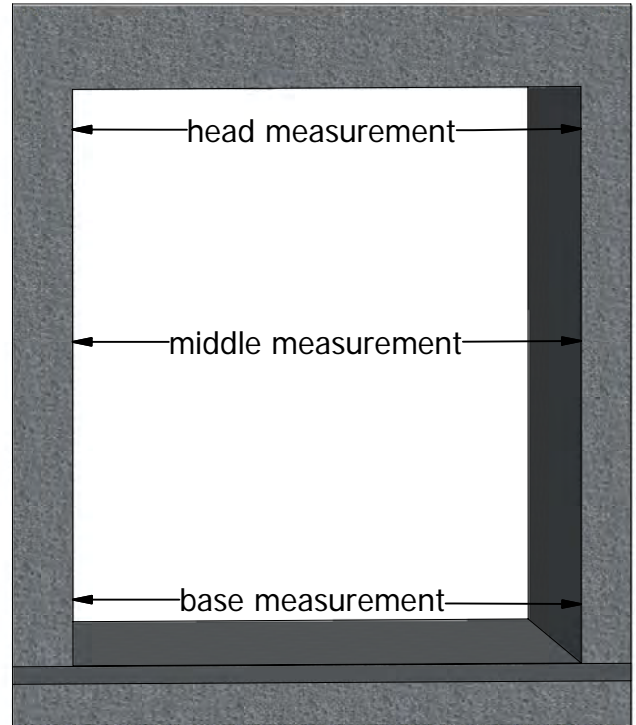


FIGURE 3.1

Equation

FS = Smallest Horizontal Measurement - (2 x jamb clearance)

-To Find The Frame Height:

- Measure the vertical height at the corners of the rough opening and every several feet (*figure 3.2*).
- Take the smallest measurement and subtract clearances to find the actual frame height (FS). Cross Aluminum Products standard head clearance is 1/4". In this case, you would take the smallest height measurement and subtract 1/4". For out-of-square openings or if architectural specs call for, the clearance can be increased to 3/8".

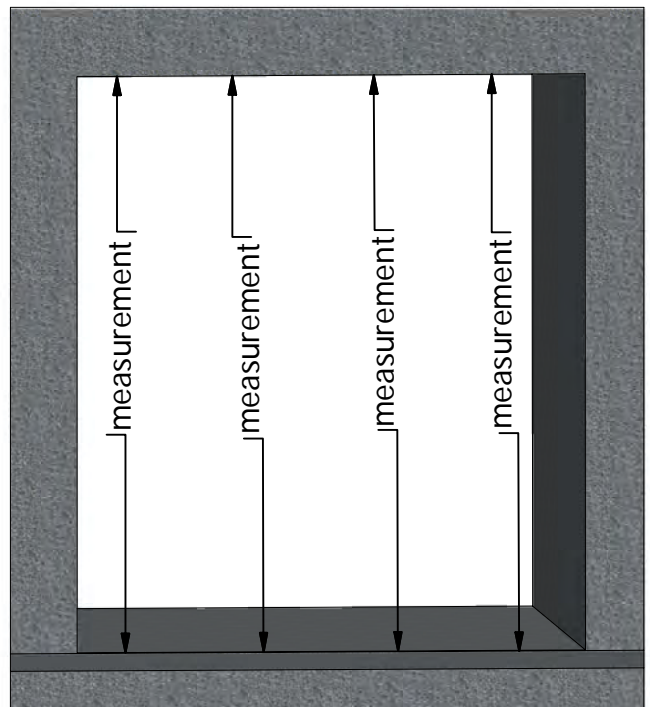


FIGURE 3.2

Equation

FS = Smallest Vertical Dimension - Head Clearance

Note: Cross Aluminum Products will take into account bottom sill clearances during the manufacturing process.

PRE-INSTALLATION CAUTIONS

INITIAL MEASUREMENTS (Continued)



PAGE 4

-Squareness Test

A good practice is to check for squareness of each opening. One way to check for this is to measure from the bottom left corner to top right corner and then measure from the bottom right corner to the top left corner. These two measurements should be equal for the opening to be square. If the entrance is out of square, the clearances will need to be increased to allow the framing unit to be shimmed in plum and square. (*figure 4.1*)

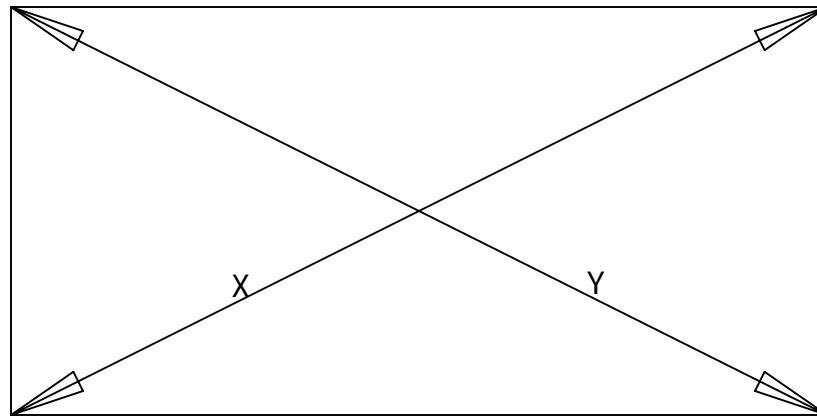


figure 4.1

$$X = Y$$

-Conclusion to In-field Measurements

Once either the RO or FS is determined, along with preliminary elevation drawings and specifications, Cross Aluminum Products will design an entrance or fixed window within those set boundaries. ***Time (in minutes) taken in this measurement stage, can save you hours, even days, in the installation stage.***

1. Check for shipping damage, when unloading. Damage will need to be dealt with immediately with freight handling firm. Cross Aluminum Products will not be held responsible for shipping damage.
2. Team lift products to ensure your safety and product's safety.
3. Store door and frame systems indoors away from excessive amounts of moisture.
4. Protect doors and frame systems against damage from outdoor hazards during the entire installation.
5. Carefully review shop drawings, hardware schedules and templates, floor plans, glass sizes, packing lists, and installation instructions prior to installation.
6. Check all field conditions around door and storefront openings. Make sure areas are satisfactory. Example: ***Make sure exterior flooring materials slope down away from opening. (If correction is not your responsibility, contact general contractor.)***
7. Anywhere aluminum products might come in contact with masonry or incompatible materials, that face should be covered by Zinc-chromate or bituminous paint.
8. Make sure to coordinate your work with the general contractors and other trades. Take steps to protect your work from other construction.
9. It is your responsibility to make sure all sealants, anchoring, and glazing materials meet local laws, architectural specs, and building codes. Stick to manufacturer's recommendations and specs in using these products.
10. All materials must be installed square, plumb, level, and true.
11. This installation guide is **only a reference** and should **not** be used as a principle source of installation. Always have an experienced installer install door and framing systems.
12. If you have any questions on installation or use of any Cross Aluminum Products materials, please contact Cross Aluminum directly for assistance. Have approved shop drawings and any pertinent info handy for assistance in locating the problem and solution.

Contact information:

Cross Aluminum Products

1770 Mayflower Rd.

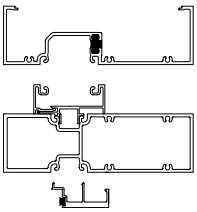
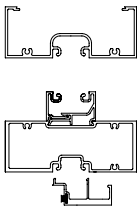
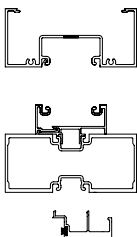
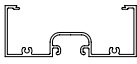
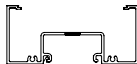

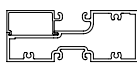
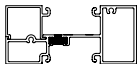
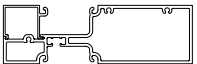
Niles, MI 49120

Ph: 1-800-806-DOOR

Fax: 1-269-697-8348

Web: www.crossaluminum.com

Email: door@crossaluminum.com

PARTS	DESCRIPTION
	TRANSOM DOOR HEADER KIT FOR T/E-14650 (2" x 6-1/2") SERIES FRAMING (FOR 1/4" OR 1" INFILL. KIT CONTAINS E14624 DOOR HEADER, CDM-32 OR E4531 SNAP-IN DOOR STOP, T14641 TRANSOM HEADER, AND E4013/E4015 GLASS STOPS. PRE-DRILLED IN FACTORY.
	TRANSOM DOOR HEADER KIT FOR E-4500 (1-3/4" x 4-1/2") SERIES FRAMING FOR 1/4" INFILL. KIT CONTAINS E45124 DOOR HEADER, CDM-32 OR E4531 SNAP-IN DOOR STOP, E4541 TRANSOM HEADER, AND E4026/E4015 GLASS STOPS. PRE-DRILLED IN FACTORY.
	TRANSOM DOOR HEADER KIT FOR T/E-14000 (2" x 4-1/2") SERIES FRAMING FOR 1/4". 1/2". 1" INFILLS. KIT CONTAINS E14145 DOOR HEADER, CDM-32 OR E4531 SNAP-IN DOOR STOP, T14141 TRANSOM HEADER, AND E4013/E4015 GLASS STOPS. PRE-DRILLED IN FACTORY.
	E4541 FRAME HEADER (1-3/4"x4-1/2") FOR 1/4" INFILL- OCCASSIONALLY SHIPPED LOOSE, IF SHIPPING REQUIRES A FRAME TO BE BROKEN DOWN, DUE TO SIZE. PRE-DRILLED IN FACTORY.
	T14141 FRAME HEADER (2"x4-1/2") FOR 1/4", 1/2", OR 1" INFILL- OCCASSIONALLY SHIPPED LOOSE, IF SHIPPING REQUIRES A FRAME TO BE BROKEN DOWN, DUE TO SIZE. PRE-DRILLED IN FACTORY.
	T14641 FRAME HEADER (2"x6-1/2") FOR 1/4", 1/2", OR 1" INFILL - OCCASSIONALLY SHIPPED LOOSE, IF SHIPPING REQUIRES A FRAME TO BE BROKEN DOWN, DUE TO SIZE. PRE-DRILLED IN FACTORY.
	E4503 FRAME HORIZONTAL (1-3/4"x4-1/2") FOR 1/4" INFILL - OCCASSIONALLY SHIPPED LOOSE, IF SHIPPING REQUIRES A FRAME TO BE BROKEN DOWN, DUE TO SIZE. E4504 GLASS STOP SNAPS INTO THIS MEMBER. PRE-DRILLED IN FACTORY.
	T14143 FRAME HORIZONTAL (2"x4-1/2") FOR 1/4", 1/2", OR 1" INFILL- OCCASSIONALLY SHIPPED LOOSE, IF SHIPPING REQUIRES A FRAME TO BE BROKEN DOWN, DUE TO SIZE. E14104 GLASS STOP SNAPS INTO THIS MEMBER. PRE-DRILLED IN FACTORY.
	T14643 FRAME HORIZONTAL (2"x6-1/2") FOR 1/4", 1/2", OR 1" INFILL- OCCASSIONALLY SHIPPED LOOSE, IF SHIPPING REQUIRES A FRAME TO BE BROKEN DOWN, DUE TO SIZE. E14104 GLASS STOP SNAPS INTO THIS MEMBER. PRE-DRILLED IN FACTORY.

PARTS LIST

ACCESSORIES



PARTS	DESCRIPTION
	CDM-32 (5/8" HIGHx1-1/2"WIDEx3/16"THICK) HEAVY-DUTY SNAP IN DOOR STOP. EACH DOOR OPENING HAS 2 VERTICAL DOOR STOPS AND 1 HORIZONTAL DOOR STOP. THE VERTICAL DOOR STOPS ARE NOTCHED AT THE TOP OF THE STOPS AND ARE HANDED RIGHT SIDE AND LEFT SIDE.
	E4531 (1/2" HIGH) STANDARD-DUTY SNAP-IN DOOR STOP. EACH DOOR OPENING HAS 2 VERTICAL DOOR STOPS AND 1 HORIZONTAL DOOR STOP. THE VERTICAL DOOR STOPS ARE NOTCHED AT THE TOP OF THE STOPS AND ARE HANDED RIGHT SIDE AND LEFT SIDE.
	E-4015 EXTERIOR SNAP-IN GLASS STOP. THIS PART IS USED IN THE DOOR TRANSOM AREA. THE DOOR HEADER AND VERTICAL DOOR JAMBS IN TRANSOM OPENING WILL USE THIS PART. THIS PART SNAPS INTO E4013 AND E4026 FIXED INTERIOR GLASS STOPS
	E-14104 GLASS STOP. THIS PART SNAPS INTO T14143 AND T14643
	E-4504 GLASS STOP. THIS PART SNAPS INTO E4503.
	GLAZING ADAPTERS. E14036 IS USED TO CONVERT 1" INFILL POCKET TO 1/4" INFILL. E14061 IS USED TO CONVERT 1" INFILL POCKET TO 1/2" INFILL THESE MEMBERS SNAP INTO THE INTERIOR SIDE OF THE 1" FRAME GLAZING POCKET.
	T-14259 THERMAL SILL FOR 4-1/2" FRAMING (TA14659 FOR 6-1/2" FRAMING)THIS IS USED AT THE BASE OF EXTERIOR FRAMING UNITS TO HELP DIRECT WATER TO THE OUTSIDE OF THE BUILDING.
	E4543 SNAP-IN FILLER (E14653 FOR 6-1/2" FRAMING). CAN BE USED WHEN OPEN BACK MEMBERS ARE AT ANCHOR LOCATIONS. CAN BE CUT TO FULL LENGTH OR CUT AT 4" LENGTHS. OPTIONAL.
	DOOR THRESHOLDS - MANY DIFFERENT CONFIGURATIONS AND HEIGHTS. CONTACT CROSS IF THIS OPTION IS NEEDED. WHEN CROSS SUPPLIES THE THRESHOLDS, THEY WILL BE PRE-NOTCHED FOR DOOR STOPS. ADDITIONAL OPTIONAL IS TO HAVE THRESHOLDS ATTACHED TO FRAME JAMBS.
	FRAME GLAZING VINYL.
	SILL FLASHING SPLICE SLEEVE. (P1147 FOR 6-1/2" SILL & P1144(-43) FOR 4-1/2" SILL).
	1/4" = P575 1" = P1132 SETTING BLOCKS (P1132 FOR 1" INFILL & P575 FOR 1/4" INFILL). OPTIONAL.
	END DAM FOR SILL (P1142 FOR 4-1/2" FRAMING & P1147 FOR 6-1/2" FRAMING). OPTIONAL.
	1/4" = P879 1" = P1138 WATER DIVERTERS (P1138 FOR 1" INFILL & P879 FOR 1/4" INFILL). OPTIONAL.
	#10-3/4" PANHEAD SCREWS FOR MOUNTING TRANSOM HEAD TO FRAME. ALREADY IN SHEAR BLOCKS ON VERTICAL JAMBS.
	#10-3/4" FLATHEAD SCREWS FOR MOUNTING TRANSOM DOOR HEAD TO FRAME. ALREADY IN SHEAR BLOCKS ON VERTICAL JAMBS.
	#10-1" PANHEAD SCREWS FOR MOUNTING IMMEDIATE DOOR HEADER IN SCREW SPLINES. ALREADY IN DOOR HEADER SCREW SPLINES.
	MISC. HARDWARE BOXES W/ FRAME HINGE SCREWS, OVERHEAD STOP SCREWS, SURFACE-APPLIED FRAME STRIKES, HARDWARE TEMPLATES, ETC. THIS ITEM(S) VARY FROM JOB TO JOB - CHECK PACKING LIST FOR SPECIFICS.

- A.) Gather all parts and materials needed for this particular opening.
- B.) Make sure opening is suitable for installation of new framing and door system. Check squareness (*figure 4.1*) and proper floor slope to eliminate standing water. Confirm and compare all measurements of opening with shops, architecturals, new aluminum frame system, etc. (*figure 3.1 & 3.2*)
- C.) Pre-mark anchor hole locations. Place frame members in actual opening and mark out anchor locations. Vertical jambs need anchor points roughly 4" from top and bottom and then approximately every 18" to 22" (*figures 8.1 & 8.2*). Horizontal headers and bases need at least at 2 anchor points and approximately every 18" (*figures 8.1 & 8.2*). Always mark anchor points at strike, butt hinge, closer mounting, and other hardware mounting locations.

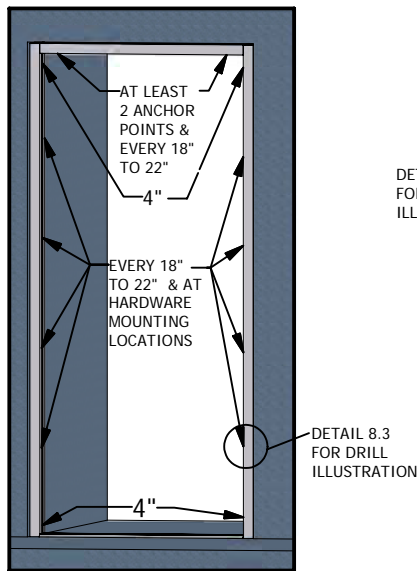


Figure 8.1

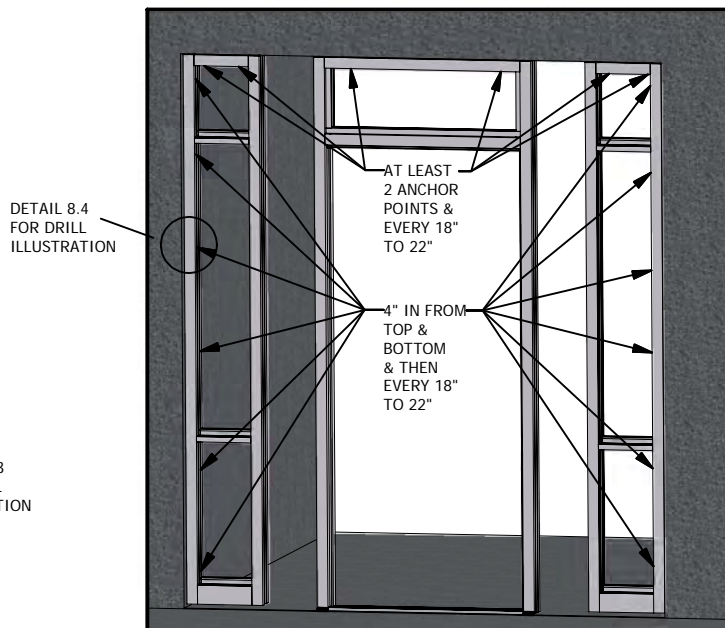


Figure 8.2

- D.) Drill anchor holes at your marks from previous step. The drilled holes need to be at least a 1/16" larger than screw outer thread diameter (*figures 8.3 & 8.4*). These holes are clearance holes (only the head of the screw should contact frame wall). Cross requires at least 1/4" anchoring screws or larger. Type of mounting screw used varies, depending on the building material into which the frame is being mounted. Length of anchoring screw depends on needed bite, clearances, and frame depth. Selecting the right anchoring hardware is critical and should be done by professional installers.

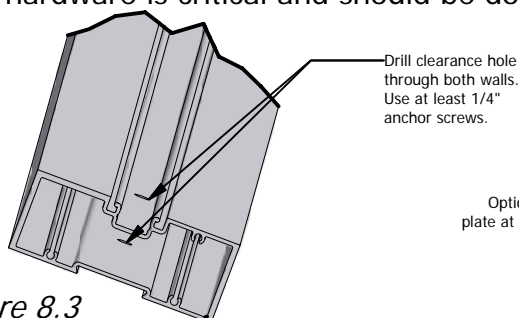


Figure 8.3

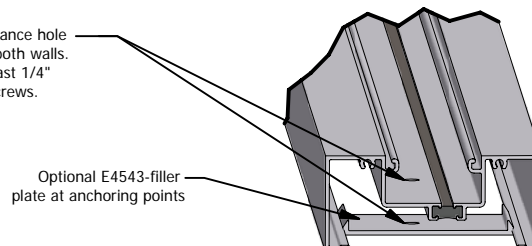


Figure 8.4

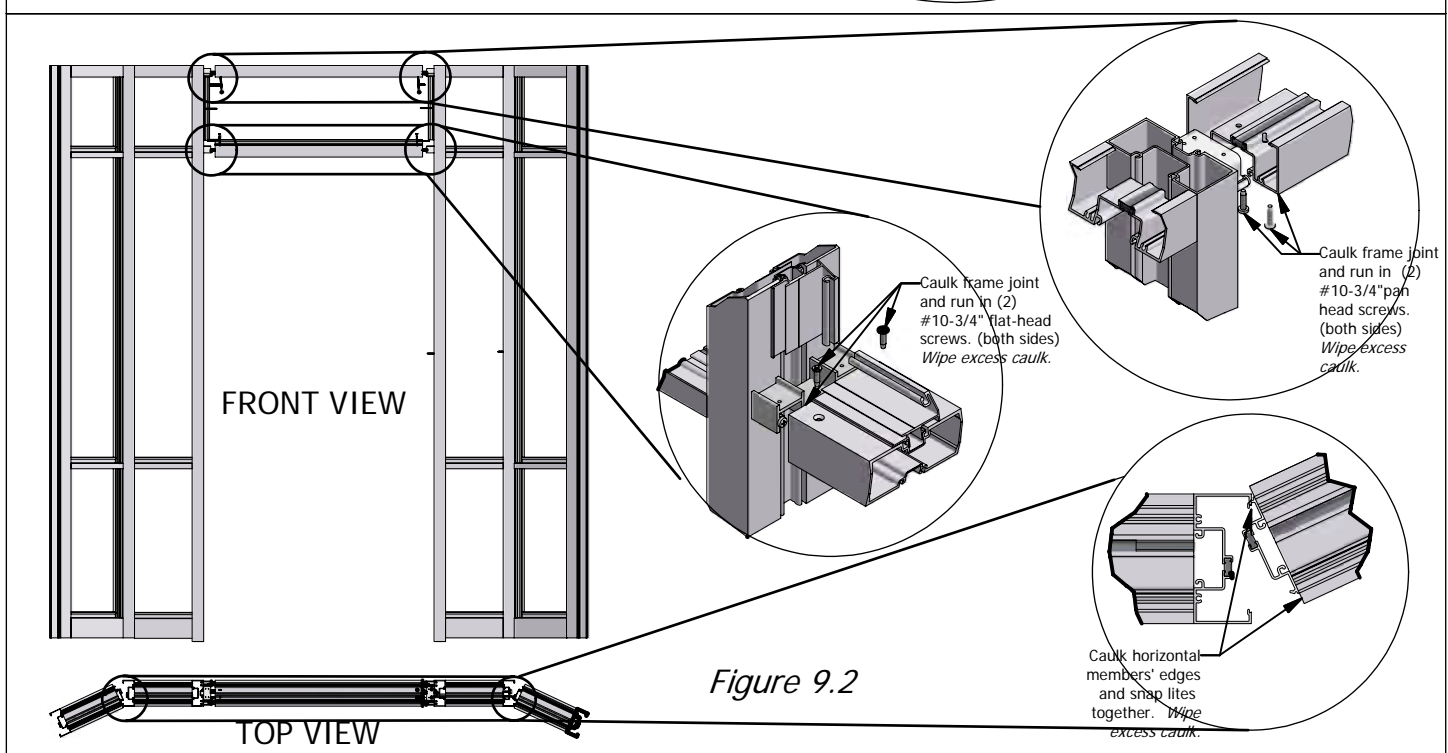
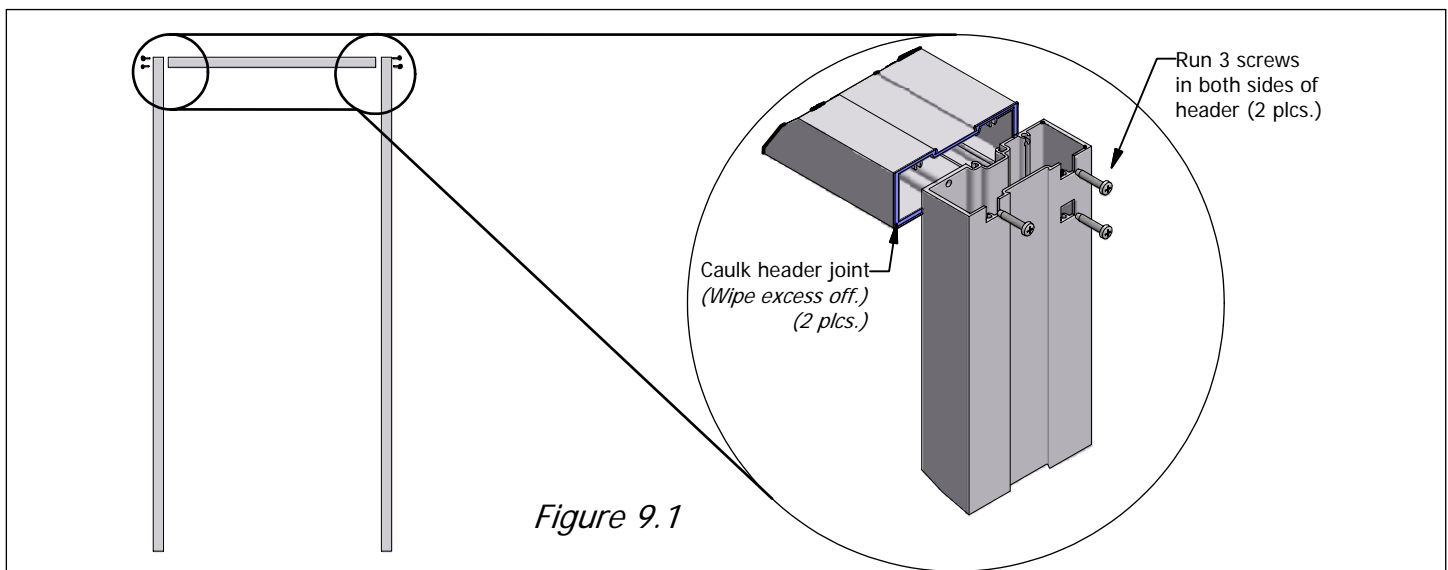
INSTALLATION

STEP 2) FRAME ASSEMBLY



PAGE 9

- A.) Assemble frame. Immediate door frame parts are all wrapped together. Frames with transoms, sidelites, and centerlites will have several separate packages. Each sidelite or centerlite will be wrapped separately with its glass stops and sills. The vertical door stops will be wrapped to its vertical jambs. The header will be wrapped as kits (*refer to parts list for specifics*). Carefully remove protective wrap from parts.
- B.) Follow *Figures 9.1* and *9.2* for assembly of frames. All frame joints have been pre-drilled and applied in the factory. For shipping purposes, some frame joints need to be removed and applied in the field. ***All frame joints that are not factory-applied need to be caulked.***



INSTALLATION

STEP 3) SILL FLASHING PREP



- A.) If frame system requires a sill, proceed with the following steps.
- B.) Layout sill mounting location in physical opening.
- C.) Follow *Figures 10.1 and 10.2*, when installing a sill between a door opening and masonry edge. Follow *Figure 10.1* when installing a sill from masonry edge to masonry edge. Follow *Figure 10.2*, when installing a sill from a door opening to door opening.
- D.) If sill is longer than 24 feet, a splice sleeve (P1144) must be added, to piece together the two piece sill system. Follow *Figure 10.1* for instructions.

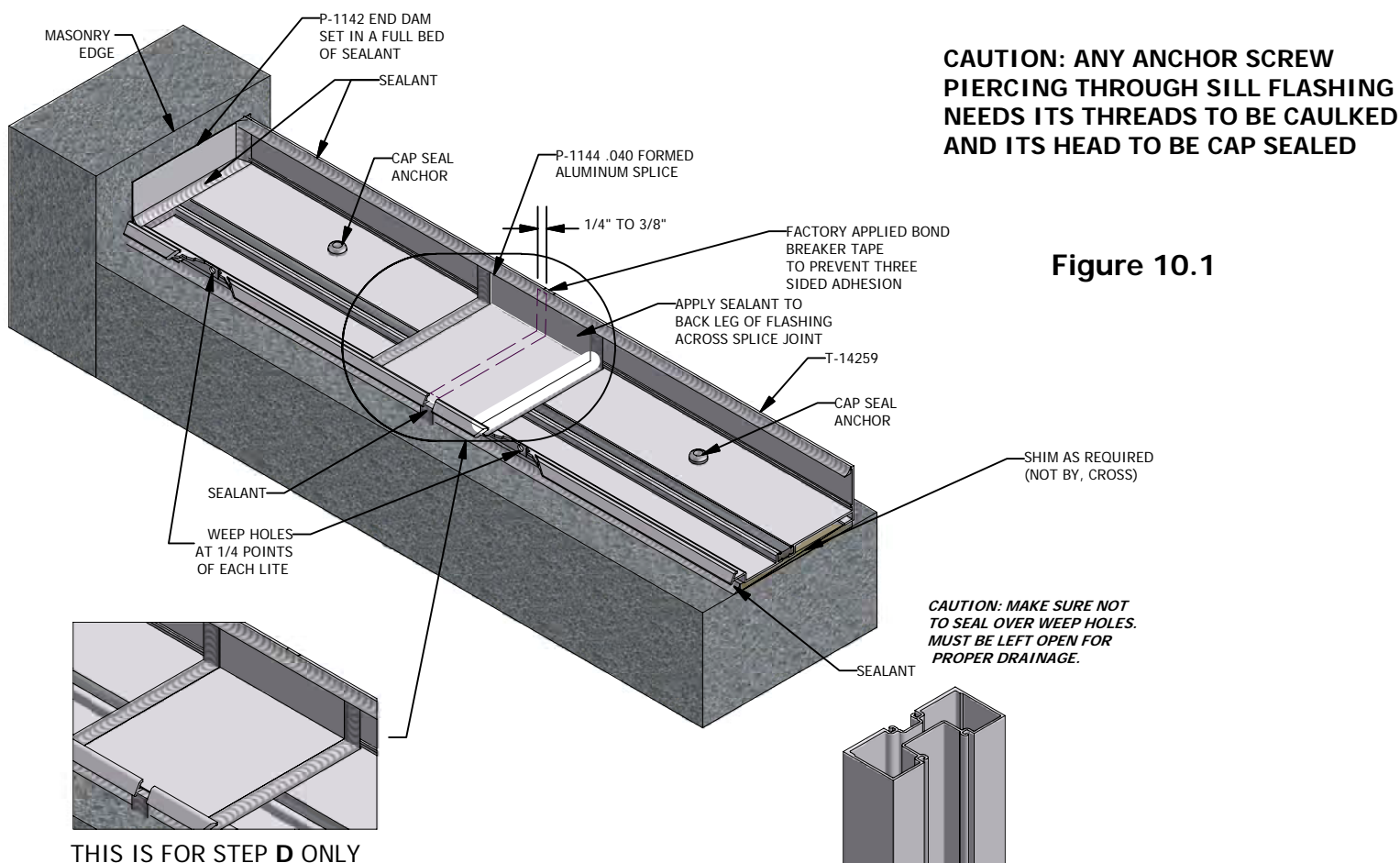
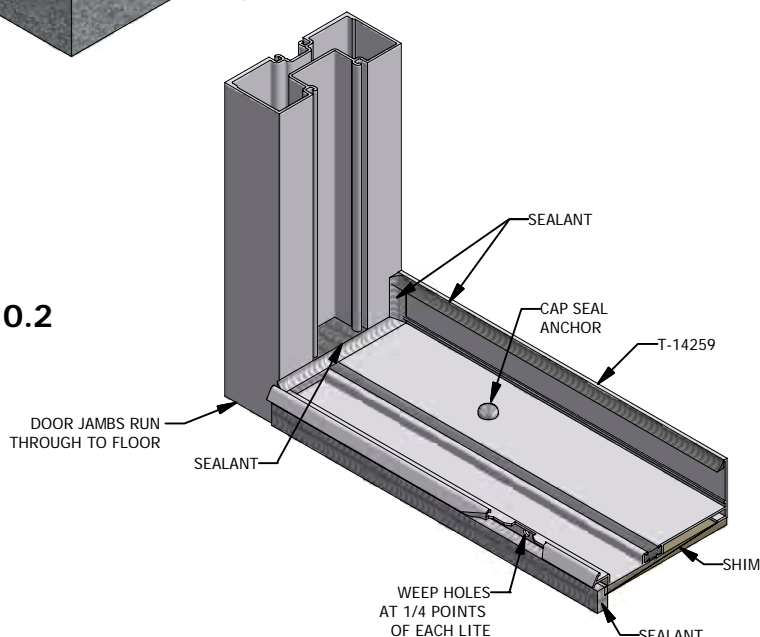


Figure 10.2



(Figure 10.1 and 10.2)
WEEP HOLES IN FLASHING
ARE TO BE 7/32" DIA.
TWO PER LIGHT AT
APPROX. 1/4 POINTS

- A.) Assemble and place frame system in the opening and shim into place. Use cedar wood shims (supplied by others). Check shop drawings for shim areas, if any questions arise.
- B.) Shim behind every anchor point. (*Figures 11.1 and 11.2*)
- C.) In door opening areas, make sure to use proper width threshold or spacer at bottom of door openings. This helps ensure a square door opening. (*Figures 11.1 and 11.2*)
- D.) Use a commercial-grade level to assure door jamb verticals and door header are level and plumb. Make any adjustments now and re-test until both are level and plumb.
- E.) Door opening vertical jambs should rest on floor. If bottom sill is required (check shop drawings), they should be installed before this step (*Figures 10.1 and 10.2*).

Figure 11.1

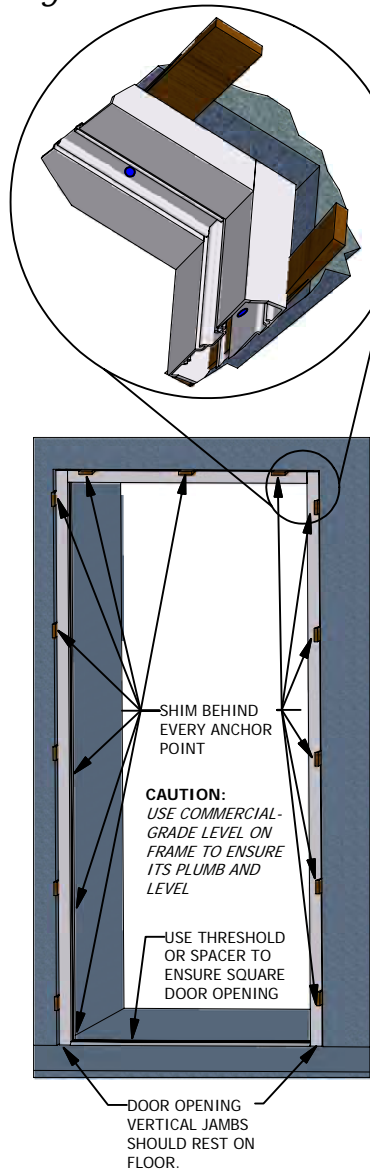
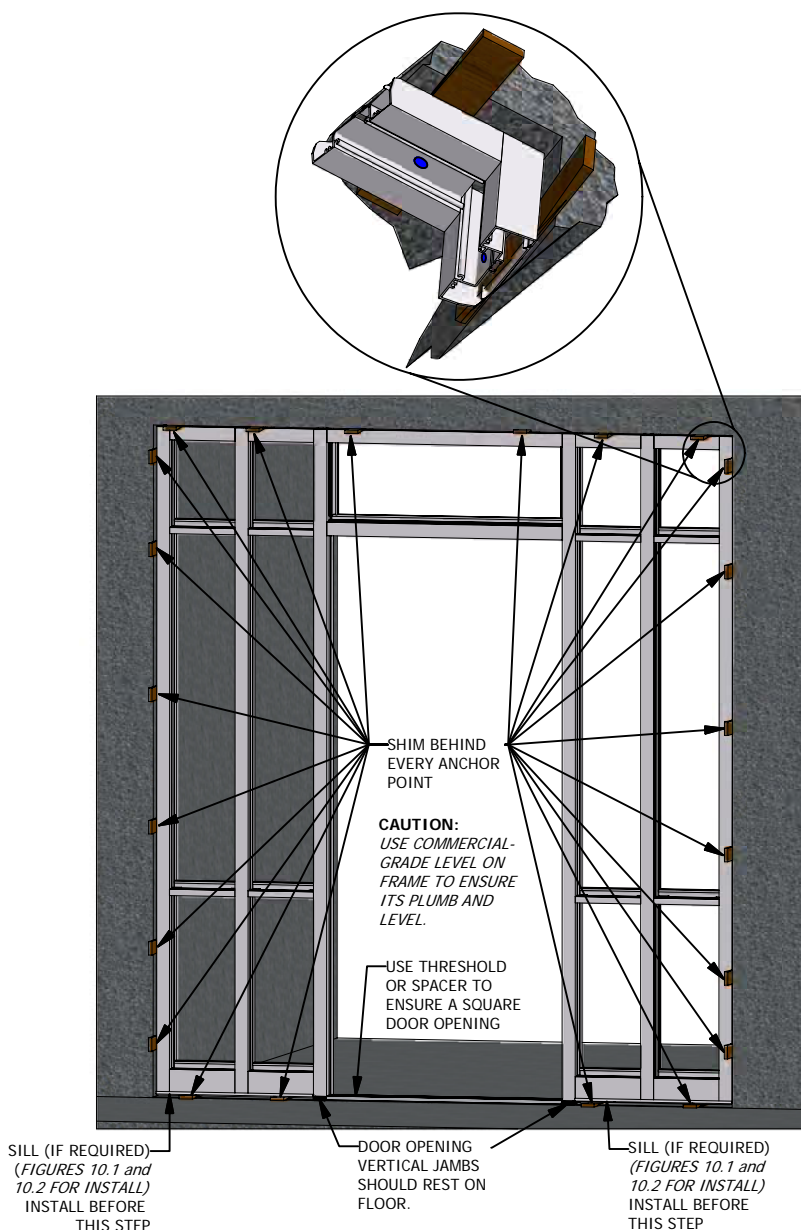


Figure 11.2



A.) After frame has been shimmed and leveled in opening, hang the door(s) in the opening(s). The hinge screws will be located in the misc. hardware box. If doors have concealed overhead stops or closers, make sure to install frame shoe or track. Those mounting screws will also be in the misc. hardware box.

B.) Test the door(s) functions. Check the full operational swing of the door. With the door(s) in the closed position, check for proper clearances and adjust frame to eliminate any out-of-square situations.

Standard Clearances are as follows:

- 1/8" on lock side
- 3/16" between pairs
- 1/8" at the head

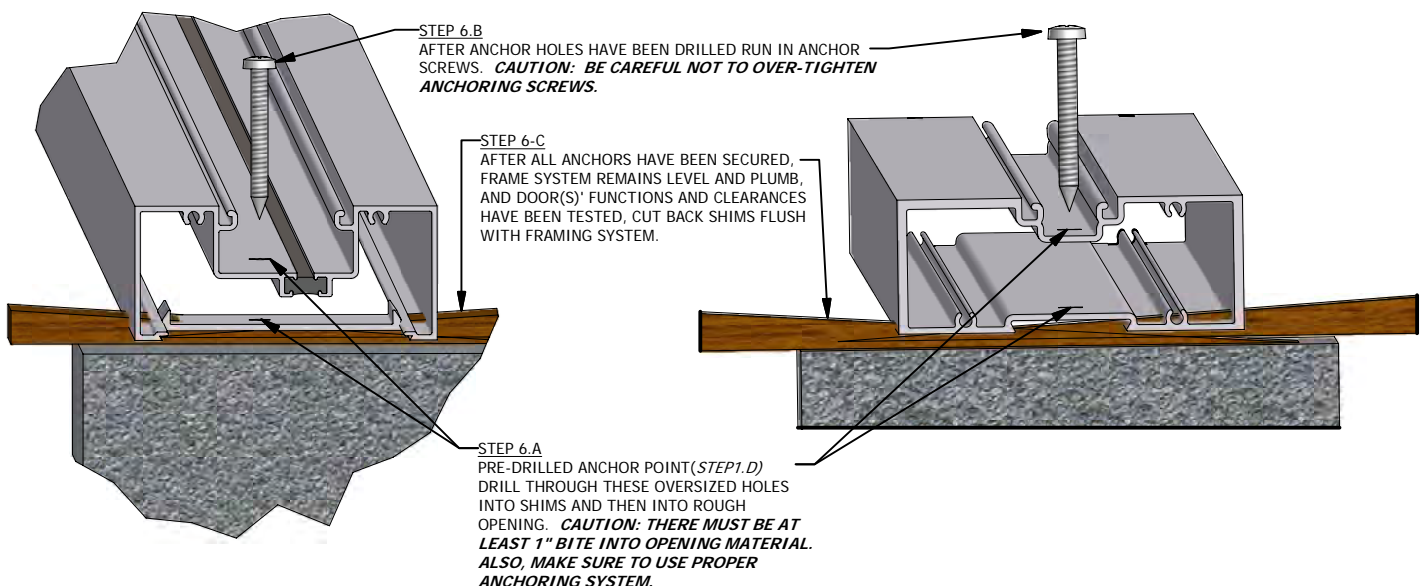
C.) Adjust the frame to accommodate the above clearances, allowing the door to function properly.

STEP 6) ANCHOR THE FRAME.

A.) With door(s) functioning properly and frame shimmed in level and plumb, start drilling all anchor points. Make sure to use proper anchoring methods, depending on the type of materials (masonry, steel, wood, etc.) to which the frame system is being anchoring. Always use anchoring system manufacturer's installation recommendations. *Anchor screws should be at least 1/4" in diameter and should have at least 1" bite into rough opening.*

B.) *Be careful not to over-tighten anchoring screws.*

C.) After anchoring is completed, frame system remains level and plumb, and door(s) functions and clearances have been tested, cut back shims flush with framing system.



INSTALLATION

STEP 7) SNAP-IN DOOR STOPS



- A.) Each door opening will have (2) vertical door stops and (1) horizontal door stop.
- B.) First, snap-in horizontal door stop into header. make sure weatherstrip points towards the door.
(Figure 13.1).
- C.) The vertical door stops are handed left and right. Each stop has been notched at the top of the stop. With the notched portion of the stop pointing up and the weatherstrip pointing toward the door, snap in the hinge side stop first. If you grabbed the wrong handed door stop, one of the two criteria will not be met.
- D.) In the case that the door stop snaps in and is loose, the back fin of the door stop can be bent inward towards weatherstrip to tighten door stops. (Figure 13.2)

Figure 13.1

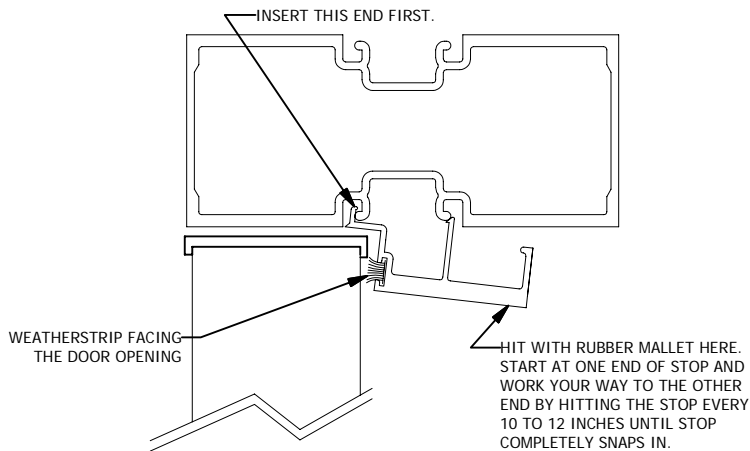


Figure 13.2

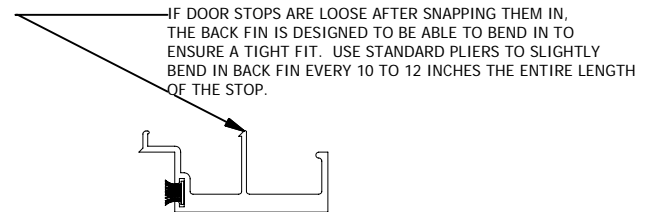
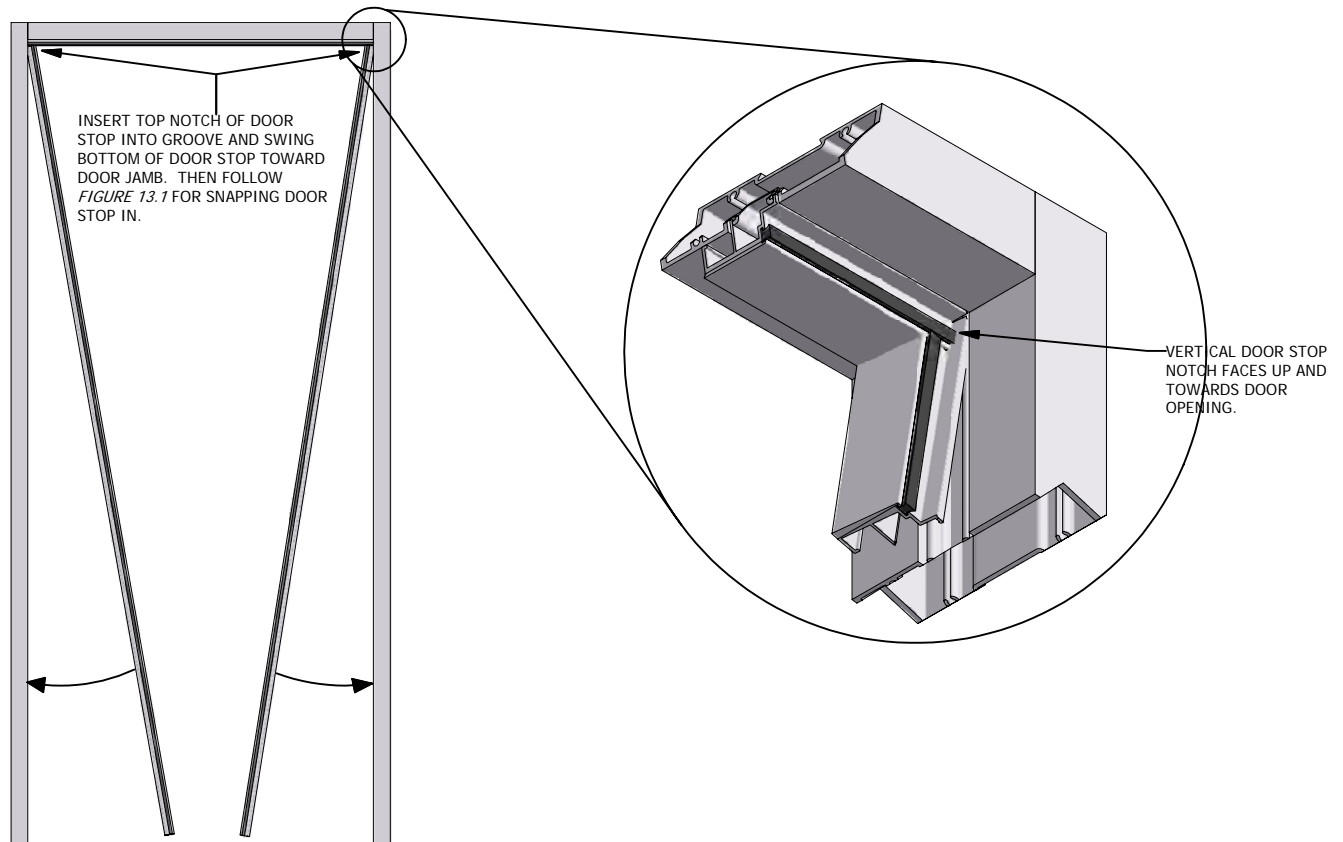


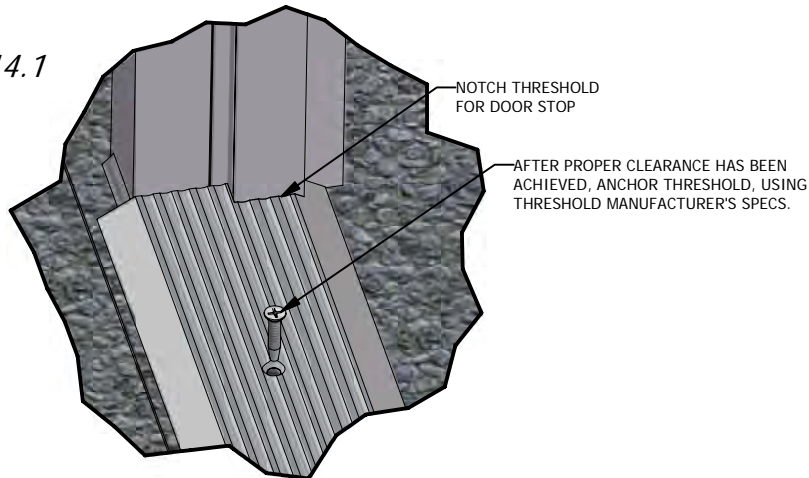
Figure 13.3



STEP 8) INSTALL THRESHOLD (IF REQUIRED).

- A.) If threshold is not provided by Cross, make sure to follow hardware schedule and use a threshold with the right height.
- B.) If not already done, notch threshold for door stop. Make sure to use appropriate backset into frame. You want water and weather to run outside and not into the building.
- C.) Before anchoring threshold, test for proper clearances. The floor might need to be built up to achieve the right height.
- D.) Once step C. is accomplished, anchor threshold according to threshold manufacturer's specs.

Figure 14.1



STEP 9) CAULK FRAME PERIMETER

- A.) Run a bead of caulk along the exterior and interior perimeter of the framing system. Use a commercial-grade sealant that meets local codes and architectural specs. Do not use clear sealant. (figure 14.2, figure 14.3, figure 10.1, figure 10.2)
- B.) If threshold was required, run a bead of caulk on both the interior and exterior edges of the threshold. (figure 14.4)
- C.) Leave weep gaps on exterior face only, where vertical door jambs extend all the way to the floor. (figure 14.4) Be careful not to cover up sill flashing weep holes (figure 10.1, figure 10.2).

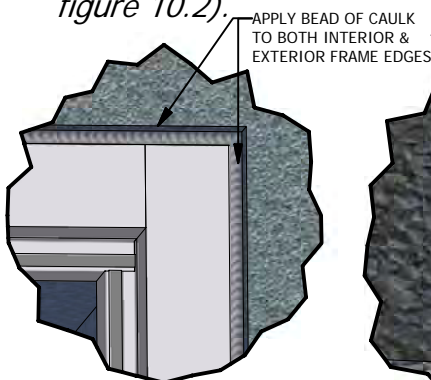


Figure 14.2

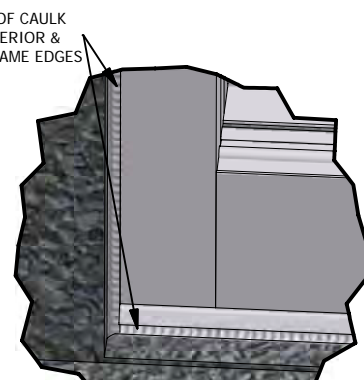


Figure 14.3

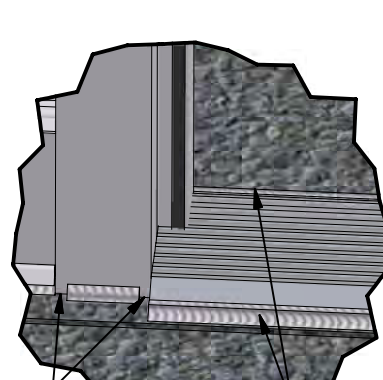


Figure 14.4

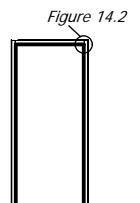


Figure 14.2

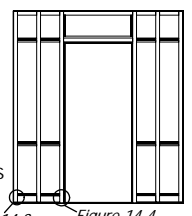


Figure 14.3

Figure 14.4

STEP 10) IN-FIELD HARDWARE APPLICATION

- A.) Hardware that falls into this category: surface-applied strikes, surface-applied closers, surface-applied overhead stops, hardware mullions, sweeps, and other surface-applied hardware. Any mortise hardware, exit devices, locksets, hinging hardware, kickplates, push bars, pulls, etc. should be and is recommended to be applied in the factory.
- B.) Strikes, mounting screws, templates, installation instructions, etc. will be located in misc. hardware box sent with the entrance system.
- C.) Always follow installation instructions, templates, and approved hardware schedule, when applying remainder of hardware.
- D.) Test all hardware after final installation. Make necessary adjustments to ensure proper function.

STEP 11) FRAME GLAZING

- A.) Before this step, make sure all necessary glass and infills are at job site and are ready for installation.
- B.) Install water diverters *(if required)* and seal frame joints *(required always)* as shown in Figure 15.1.

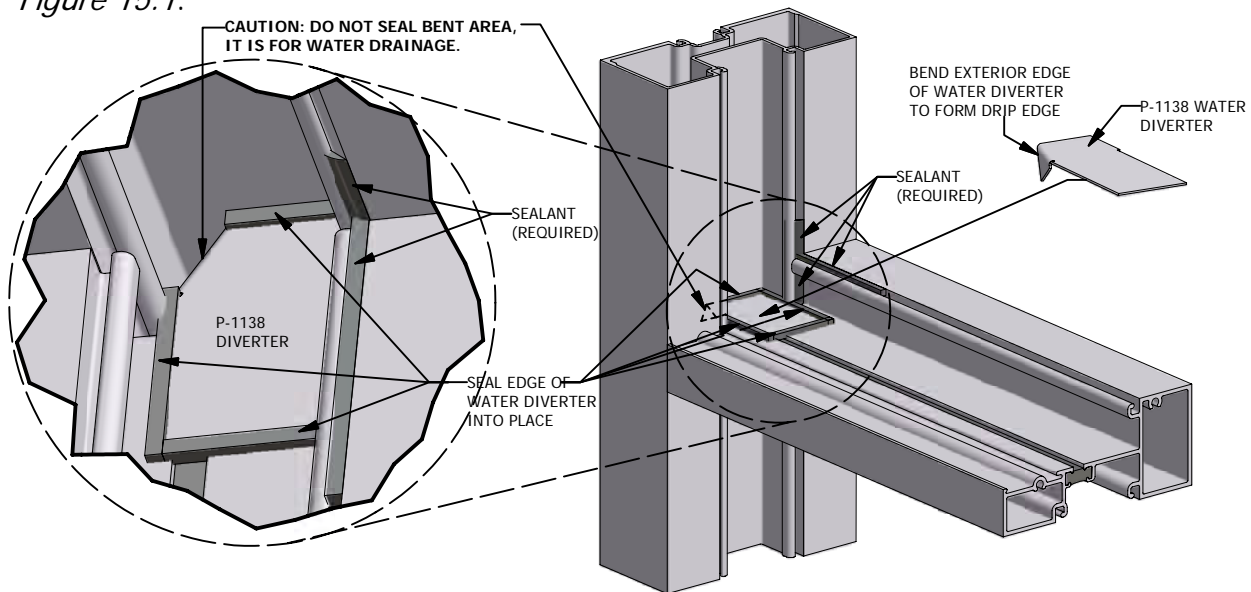
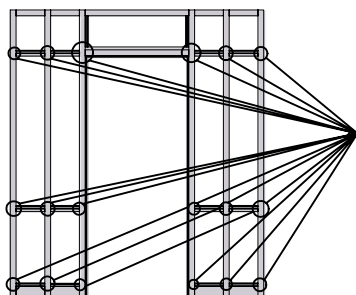


FIGURE 15.1



IF REQUIRED, JOINTS CIRCLED ARE TYPICAL AREAS THAT NEED WATER DIVERTERS. THESE JOINTS ALWAYS NEED TO BE SEALED AS SHOWN IN FIGURE 15.1.

INSTALLATION

STEP 11) FRAME GLAZING (continued)

INSTALL INTERIOR GLAZING VINYL



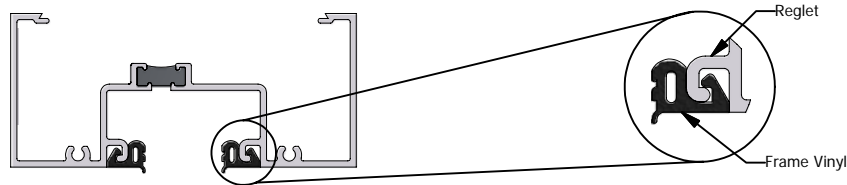
C.) Cut interior vertical glazing vinyl to size, which is daylight opening plus 1" plus 1/16" to 1/8" per foot of daylight opening.

formula

$$\text{vertical glazing vinyl (in inches)} = (\text{D.L.O.}) + (1) + ((.01) * (\text{D.L.O.}))$$

Once glazing vinyl has been cut to size, start inserting the vinyl at both ends into reglet (*Figure 16.1*). The vinyl should start a 1/2" beyond the daylight opening or horizontal members faces. After the both ends are started, move to the midpoint of the opening and start pushing in the rest of the vinyl, working towards the ends. (*Figure 16.2*)

Figure 16.1



D.) Now, cut the interior horizontal glazing vinyl to size. The vinyl should be cut to daylight opening plus 1/16" to 1/8" per foot of daylight opening.

formula

$$\text{horizontal frame vinyl (in inches)} = \text{D.L.O.} + ((.01) * (\text{D.L.O.}))$$

Once vinyl has been cut to size, seal the ends with sealant suitable for frame vinyl. Then insert the ends of the vinyl in place (reglet) and move to the midpoint and push the remainder of the vinyl piece in, working toward the ends. The ends of the horizontal vinyl needs to butt up to the vertical vinyl. (*Figure 16.3*)

Figure 16.2

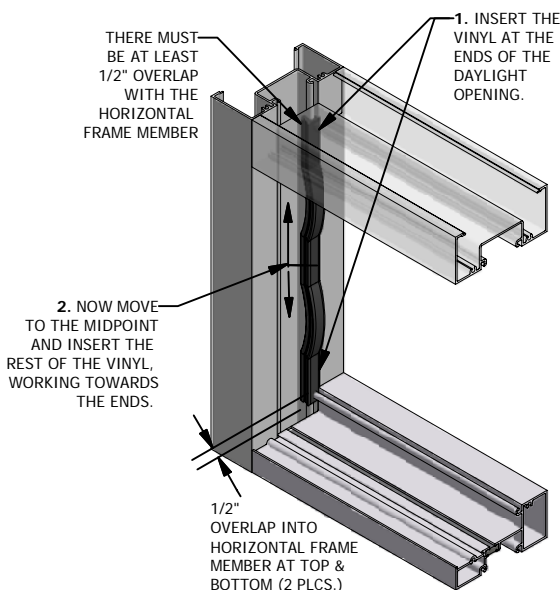
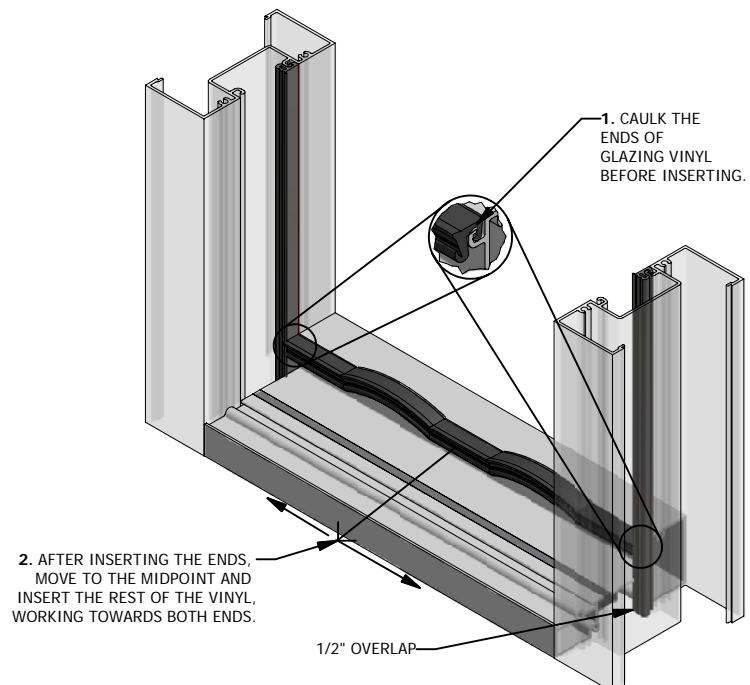


Figure 16.3



STEP 11) FRAME GLAZING *(continued)* **INSTALL GLASS IN FRAMES**

E.) With interior frame vinyl in place, insert glass in the opening (*Figure 17.1*).

STEPS

TOP VIEW

- 1) Slide the glass horizontally into the deep pocket.
- 2) Swing the other end of glass into the opening.
- 3) Shift the glass towards the other glass pocket and equal out glass bite.

SIDE VIEW

- 4) Now lift the glass into the upper horizontal pocket.
- 5) Insert the setting blocks under the glass at 1/4 points (at least 2 per lite).
- 6) Snap in the glass stop and insert the exterior glazing vinyl, using the same steps as the interior glazing vinyl. (Steps 11C and 11D on previous page)

TOP VIEW

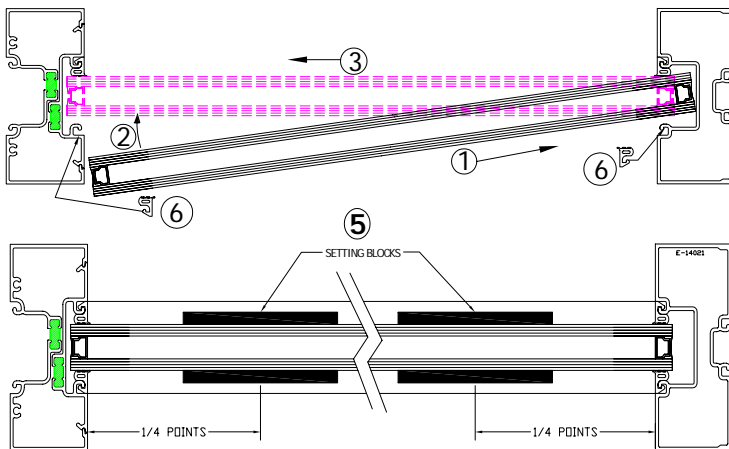
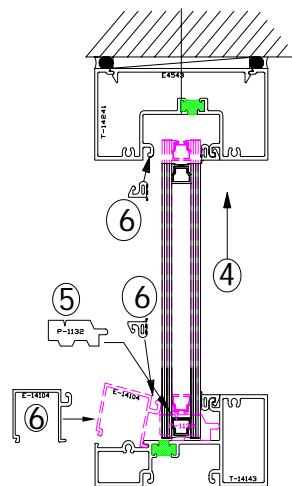


Figure 17.1

SIDE VIEW



STEP 12) DOOR GLAZING

A.) Find glazing tape for job, refer to packing list for location of glazing tape rolls.
*(They will either be in a door box or misc. hardware box). **CAUTION: Before proceeding with installing glazing tape, refer to Figure 18.2 (next page) to find out what glazing tape should be used for each glazing infill.***

B.) Remove door glazing stops. The glass stops are screw-applied snap-in stops. First remove the screws of the two horizontal stops and remove them. Then remove the screws on the two vertical stops and remove the stops. Use caution not to lose screws or mix up stop locations. If needed, extra glazing screws are provided in job's misc. hardware box.

C.) Install glazing tape on the fixed exterior leg. Run glazing tape on horizontal leg first from door edge to door edge. Next run the glazing tape on the vertical legs butting up to horizontal tape edges.

D.) Run the glazing tape on the removable stops, the tape should be flush with the edges of the stop. **CAUTION: Make sure to run the glazing tape on the interior side of the glass stops. Refer to Figure 18.1(next page).**

INSTALLATION

STEP 12) DOOR GLAZING (continued)

Figure 18.1 Removable Door Glazing Stops

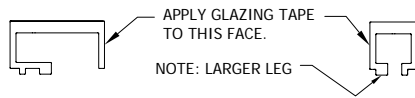


Figure 18.2 Door Glazing Tape Guide

GT-14



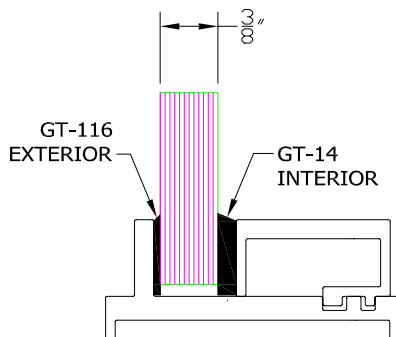
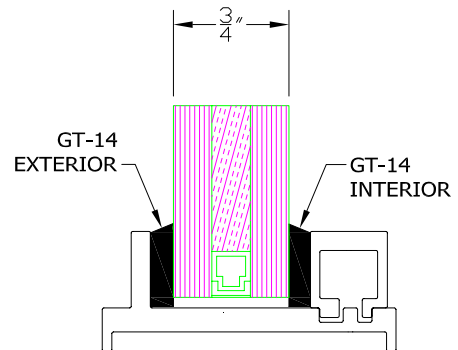
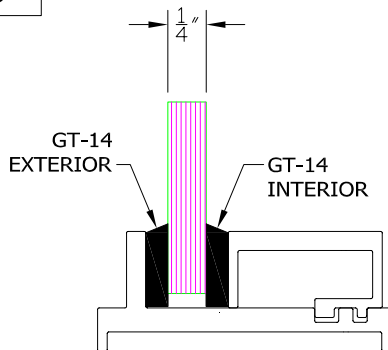
COMES IN 50FT ROLLS (STANDARD) - THICKER TAPE

GT-116

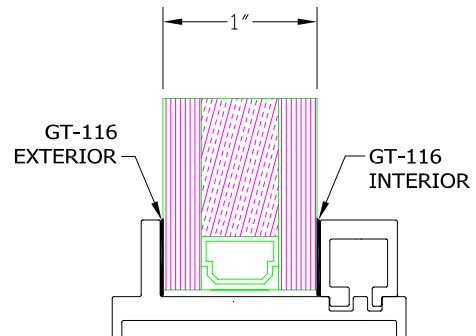
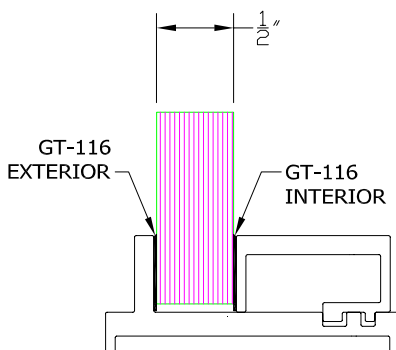
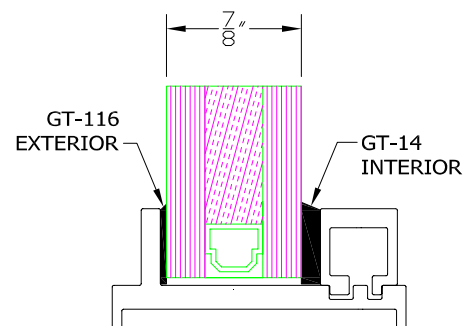


COMES IN 200 FT ROLLS (STANDARD) - THINNER TAPE

STANDARD



STANDARD



INSTALLATION

STEP 12) DOOR GLAZING (continued)



- E.) After glazing tape is applied, carefully insert glass and shim in place with rubber or neoprene shims or setting blocks (not by Cross). For assistance in selecting appropriate shims or to order Cross Aluminum glazing kits, contact Cross Aluminum.
- F.) With glass shimmed in place, re-apply glazing stops. First, apply vertical stops and run in glazing stop screws, then re-apply the horizontal stops, running all glazing screws back in.

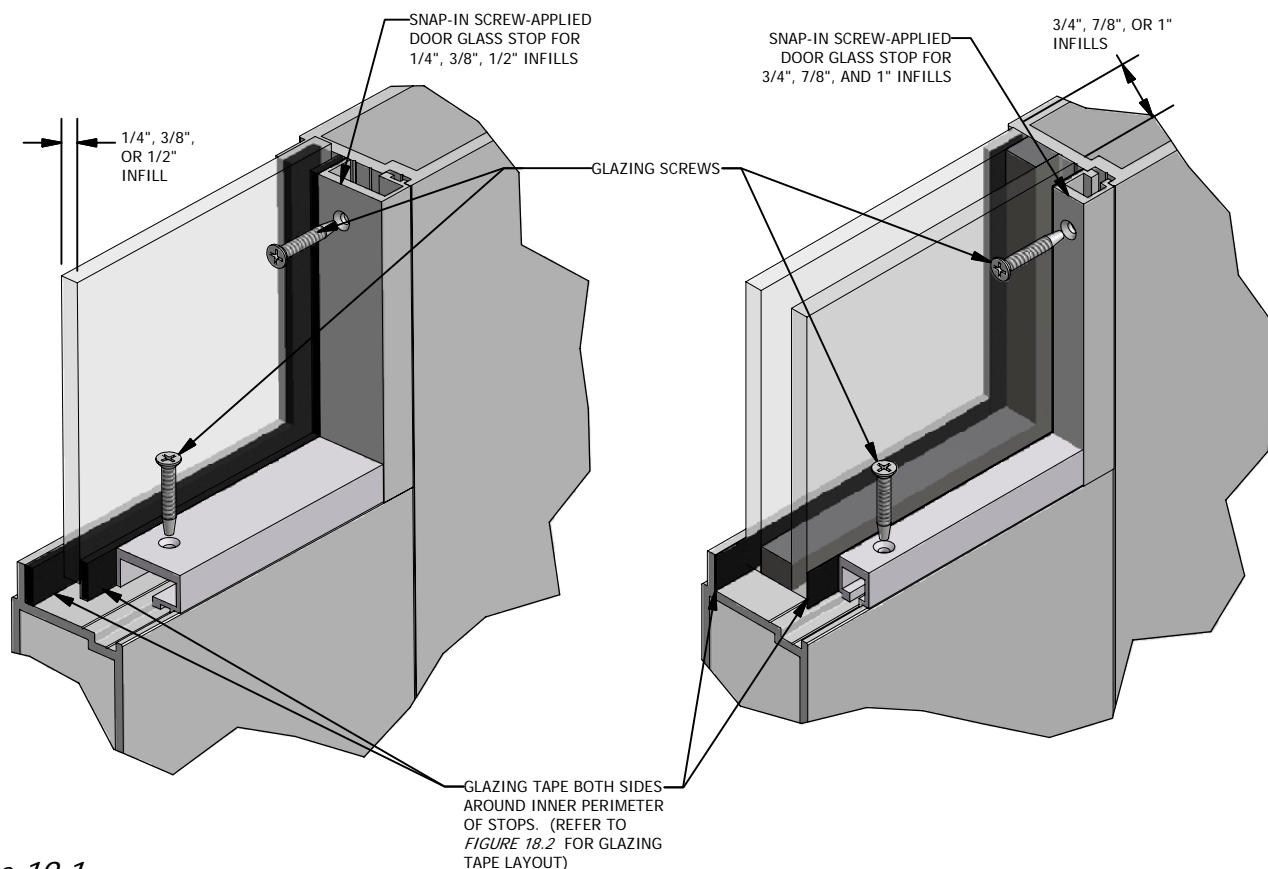
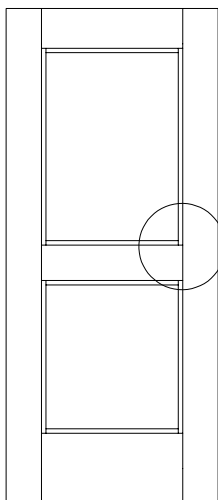


Figure 19.1

WS-500-HD DOOR SERIES
MS-400-S DOOR SERIES



FL-400-F-S DOOR SERIES
FL-800-F-S DOOR SERIES

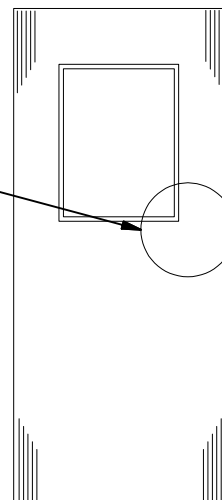
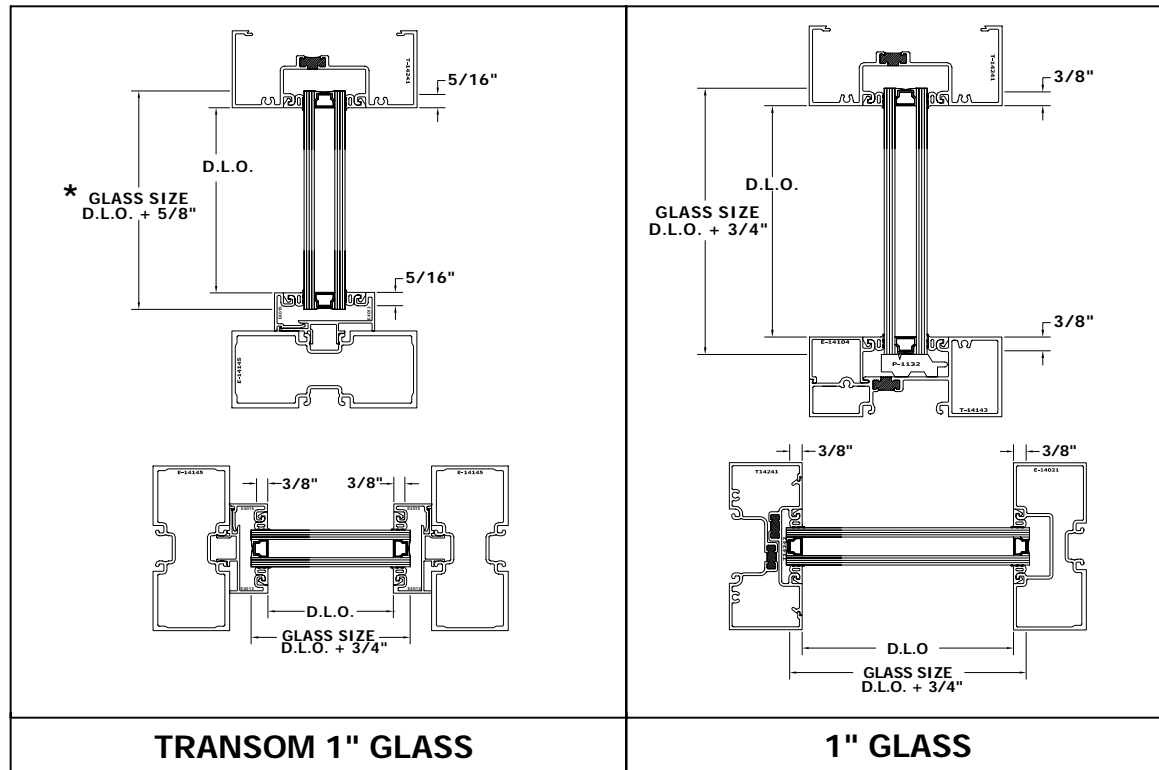


FIGURE 19.1 FOR
GLAZING DETAILS

STEP 1) FIGURING FRAME GLASS

A.) T-14000 AND T-14650 SERIES FRAMING

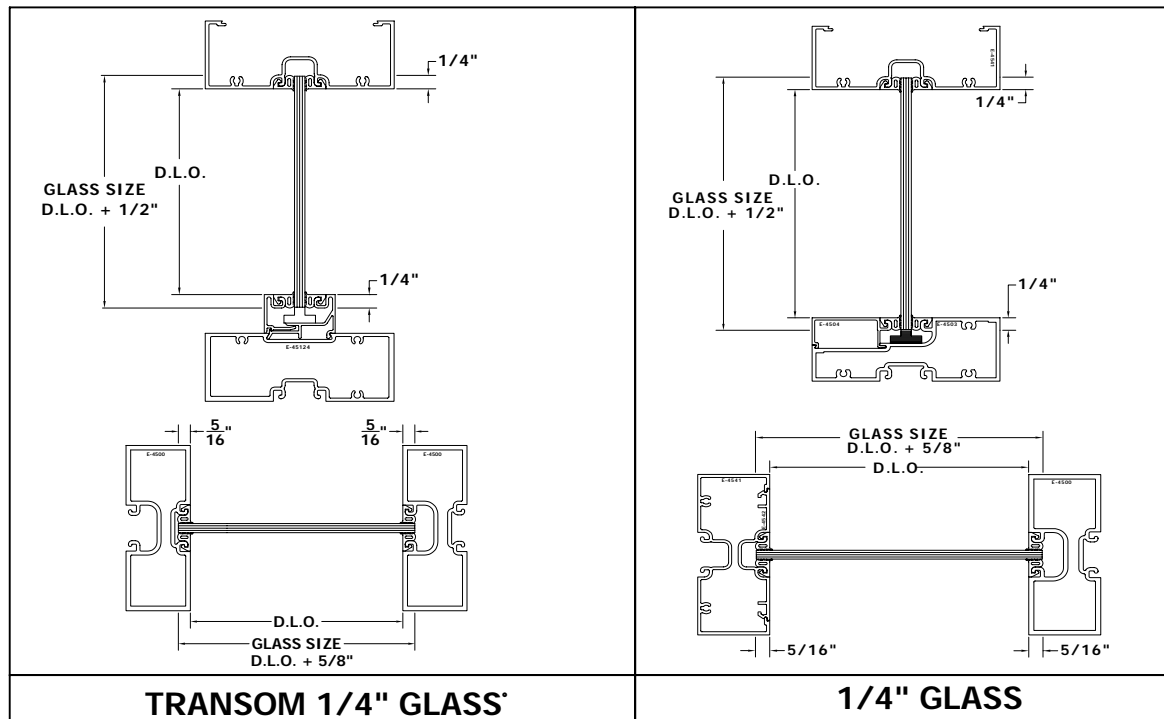


FORMULA: *Vertical Glass Size = D.L.O. + 3/4"*

***FORMULA:** *Vertical Transom Glass Size = D.L.O. + 5/8"*

FORMULA: *Horizontal Glass Size = D.L.O. + 3/4"*

B.) E4500 SERIES FRAMING



FORMULA: *Vertical Glass Size = D.L.O. + 1/2"*

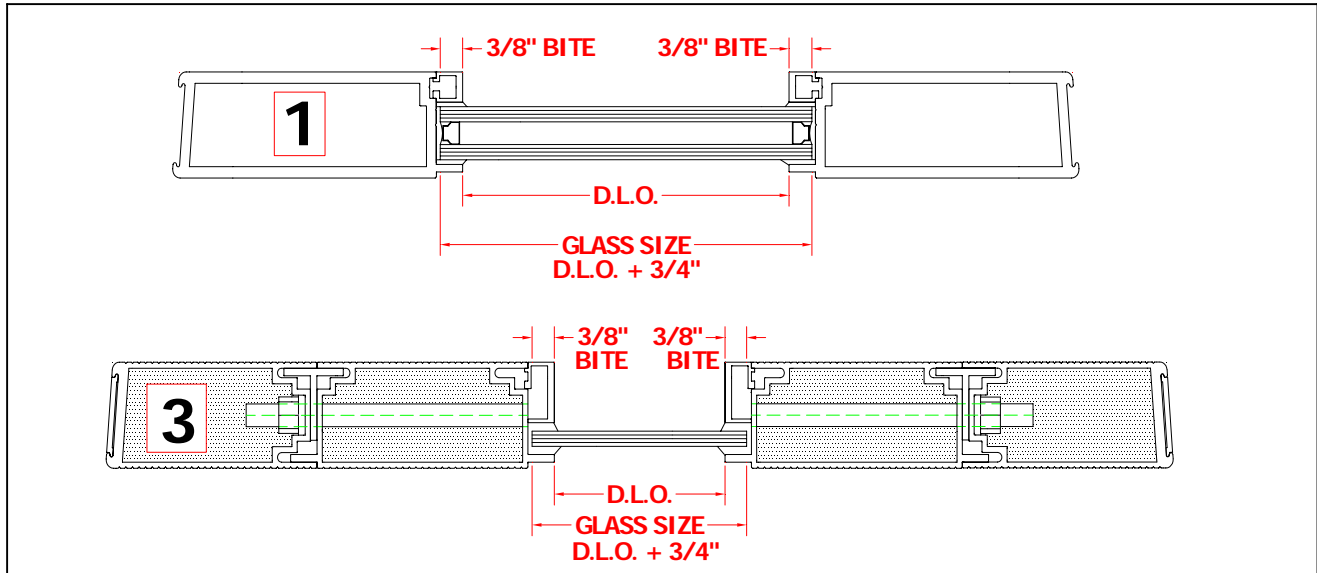
FORMULA: *Horizontal Glass Size = D.L.O. + 5/8"*

DETERMINING GLASS SIZES

STEP 2) FIGURING DOOR GLASS

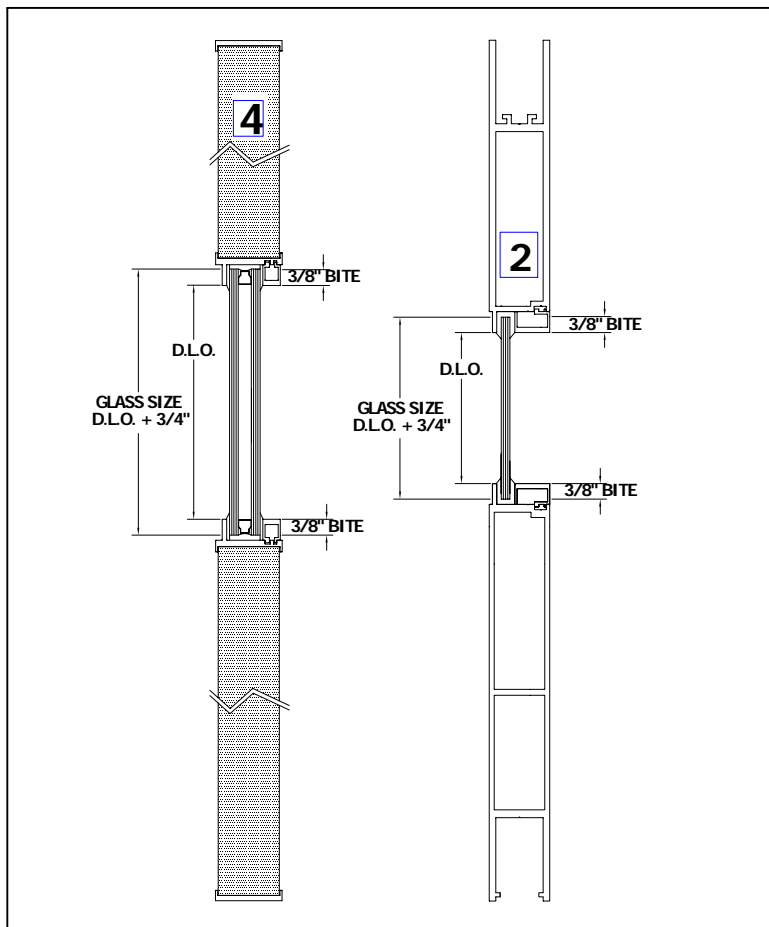
A.) ALL DOOR SERIES - FL-400-SERIES, FL-800-SERIES, MS-400-SERIES, AND WS-500-HD-SERIES

GLASS WIDTH - **FORMULA:** $GLASS\ WIDTH = D.L.O. + 3/4"$

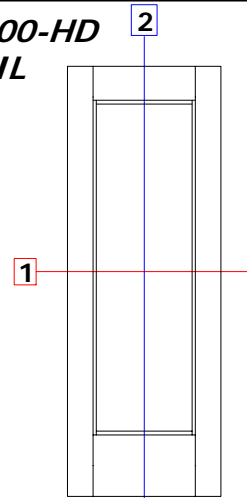


GLASS HEIGHT -

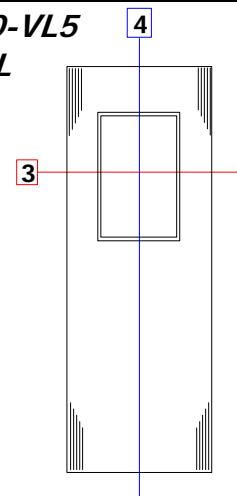
FORMULA: $GLASS\ HEIGHT = D.L.O. + 3/4"$



**WS-500-HD
DETAIL**



**FL-400-VL5
DETAIL**



CARE AND MAINTENANCE OF ALUMINUM ENTRANCES

CAUTION: Most damage occurs during construction and installation, follow pre-installation cautions to protect your work during this critical stage.

* CLEAR 204R-1 ANODIZE FINISH:

To clean, apply T-43 Xylene (mineral spirits) with a clean rag. If door has fluted pattern, brush with an ordinary cleaning hand brush after applying solvent. If door or frame has a smooth pattern, dry door with a clean rag. For your safety, safety glasses and gloves should be worn when cleaning doors and frames.

To touch-up minor scratches or gouges, use aluminum colored touch-up paint.

* BRONZE ANODIZED FINISH:

To clean, follow the same directions above. If you need to repair minor damages that may occur over a period of time, such as scratches or gouges, complete the following procedures:

Clean door. Apply with a small artist brush, Aluminum Black Metal Touch Up by Birchwood Casey (you may substitute gun bluing found in any gun store, for the Aluminum Black). Apply directly to the damaged area and allow to dry a few seconds for lighter bronze finishes and up to one minute for darker bronze finishes. With a clean rag, wipe area with T-43 Xylene. The scratch will turn dark. You may need to repeat this procedure in order to achieve the desired color.

* PAINTED FINISHES:

To clean, use a gentle cleaner and lint free cloth. If cleaning fluted pattern, use a clean hand brush to get to dirt in grooves.

Scratches can be touched up by using a small paint brush with approved touch up paint applied directly to the scratch and left to air dry. *(With most paint jobs, Cross Aluminum will provide a spray can of touchup paint.)*

* SEVERELY DAMAGED DOORS:

May be repaired on site, in many cases by owner maintenance staff. Call our home office in Niles, Michigan (800)806-DOOR to receive further instructions on how to repair a Cross Aluminum door. This procedure may save several dollars instead of having to replace the door.

* GLASS CLEANING:

The following website is a good resource to get up-to-date cleaning procedures for cleaning and protecting different kinds of architectural glass:

Glass Association of North America www.glasswebsite.com - informational bulletins
Proper Procedures for Cleaning Architectural Glass Products