Elevate Inswing/Outswing Door

Mullion Kit Instructions

Before You Begin

IMPORTANT

Read these instructions thoroughly before beginning to assemble any multiple Elevate units. Failure to assemble as recommended will void any warranty, written or implied. Refer to specific product installation instructions for proper installation methods.

⚠WARNING!

Always practice safety! Wear the appropriate eye, ear, and hand protection, especially when working with power tools.

NOTE: When specifying or considering the structural load requirements for windows and doors, it is important to consider the method of fastening the unit(s) together in addition to the method of fastening multiple assemblies into an opening. The methods contained herein may not be appropriate for all performance requirements. Selection of the appropriate fastening method(s) is the sole responsibility of the installer, contractor, structural engineer, architect, building owner and/or installer.

- Assemblies exceeding these limitations must be field mulled and must be assembled using a structural mullion kit designed specifically for Elevate multiple assemblies. Contact your Marvin dealer for additional information.
- The construction adhesive called for in the Round Top over Inswing door instructions should meet AFG-01 specifications, as established by the American Plywood Association.
- For more information on MRF Mulling please reference MRF Supplemental Instruction 19915832.

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Vertical Mulling

Parts Shipped with Mullion Kit-Vertical

NOTE: Refer to the Accessories Chapter of the Elevate Parts Manual to find individual part numbers for the mull kit components.

- W1241 Interior trim
- W7119 Jamb Extension (for mulling Direct Glaze polygons above or beside Inswing door)
- V1407 Euro groove block (Inswing only)
- A330 Aluminum mulling pin
- Recessed exterior mull cover
- Mull bracket
- Mull sealant foam tape- one sided
- 26 gauge mulling tin (2 sheets) 3-1/2" x 16"
- Structural brackets (either 6" or 10")
- Nailing fin connector
- Interior sill mull bracket
- #8 x 3/8" Phillps pan head screws
- #8 x 1/2" Phillips pan head screws (ELIFD only)
- #7 x 5/8" Phillips flat head wood screws

You Will Need to Supply

- Safety glasses
- Power drill/driver
- Phillips drive bit
- 3/16" drill bit
- 7/64" drill bit
- 16 gauge 1/2" x 1/2" staples with gun
- 16 gauge 1/2" x 1" staples with gun
- Hearing protection
- Scrap pieces of wood
- Clamps
- Hacksaw
- Silicone Sealant with gun

Stationary Panel Removal (ELIFD Only)

When mulling a stationary unit to an operator, it will be necessary to first remove the stationary panel from the frame and install the V1407 Euro Groove Block on the mull side stile of the panel.

1. To remove the stationary panel insert a stiff putty knife between the stationary panel and jamb toward the top of the panel as shown in Figure 1. Slide the knife down until it hits a stationary panel clip. Once the stationary clip is located, insert the knife between the clip and panel.

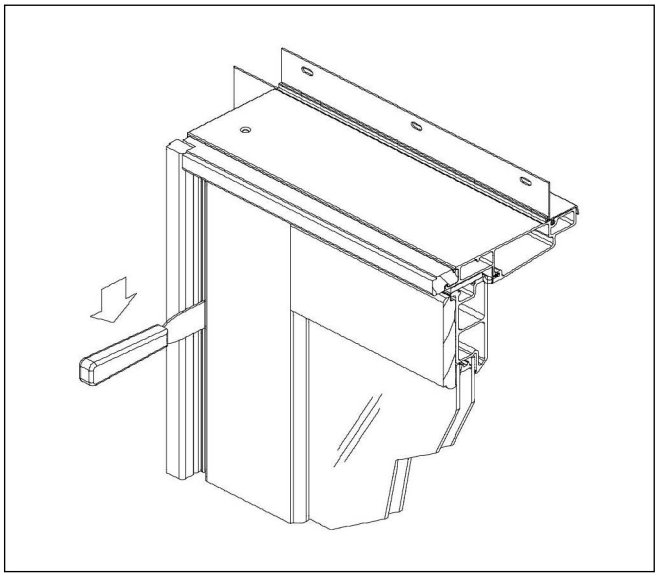

Figure 1 Interior View

2. With the stiff putty knife in place, carefully pry the panel away from the frame using a pry bar as shown in Figure 2.

NOTE: You cannot completely remove the panel until the entire side of the panel is released from the stationary clips.

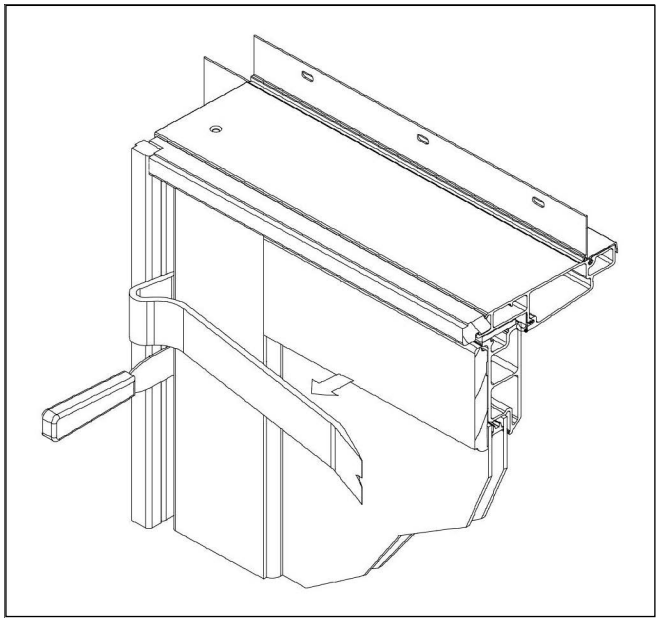

Figure 2 Interior View

3. Keeping tension on the panel with the pry bar, locate the next stationary clip and release from panel. Repeat the above steps until panel has been released from all clips on one side (three clips per side). Once released, remove panel and set aside.

4. Drive a #8 x 1/2" pan head screw into the mull side stile 31-1/2" from the bottom of the panel drip as shown in Figure 3.

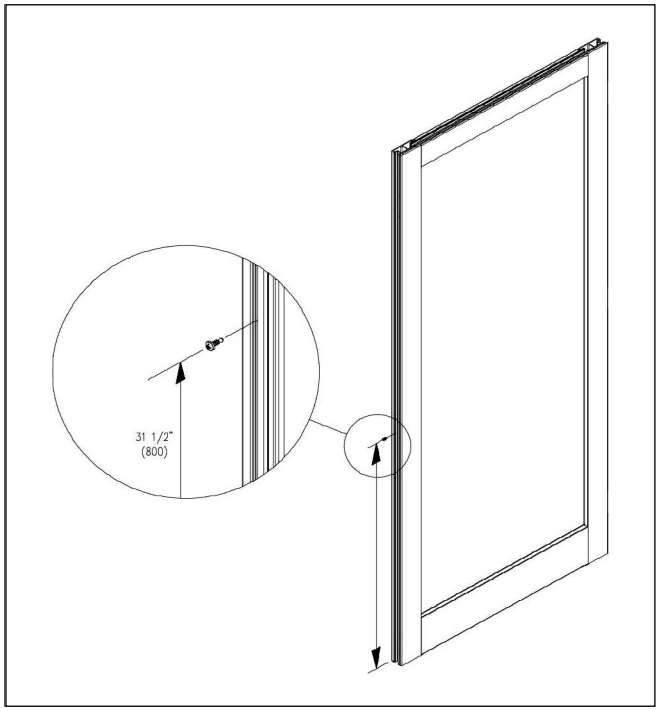

Figure 3

5. Slide the Euro Groove Block into the stile at the top of the panel as shown in Figure 4.

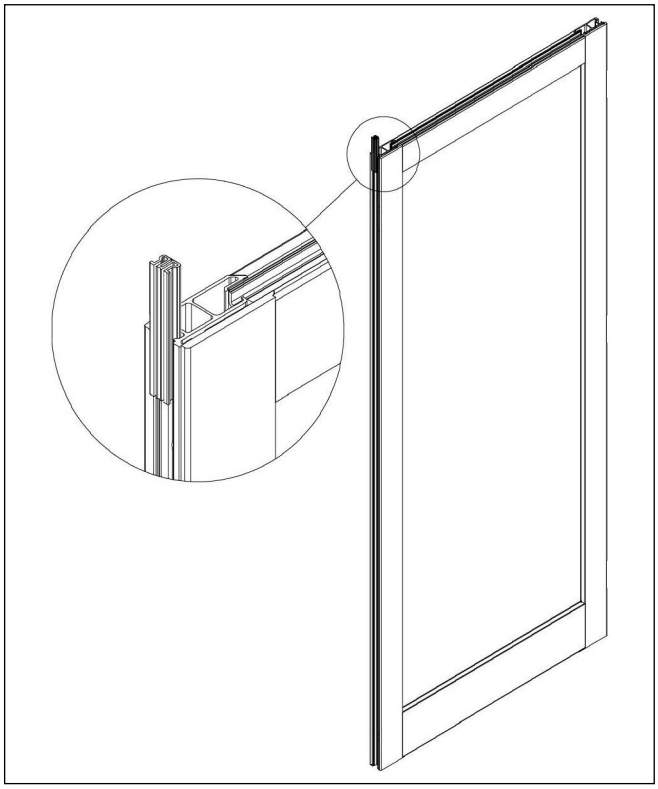

Figure 4

6. Replace the stationary panel from the interior, set replacement stationary panel on sill and tip into frame as shown in Figure 5. Make sure all stationary clips have engaged the Ultrex stiles of stationary panel.

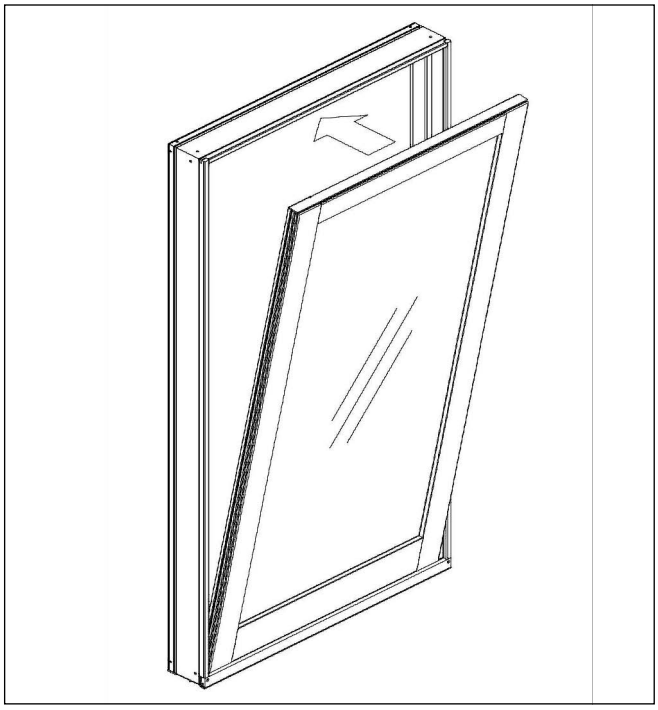

Figure 5 Interior view

Mulling Procedures-Vertical

1. Carefully lay units on a flat surface in the desired mulling configuration (interior facing up). Remove nailing fin from side jambs that will be mulled together. Apply mull sealant foam tape the entire length of one jamb to be mulled ensuring it is located 1/4" from the exterior edge of the Ultrex frame. See Figure 6.

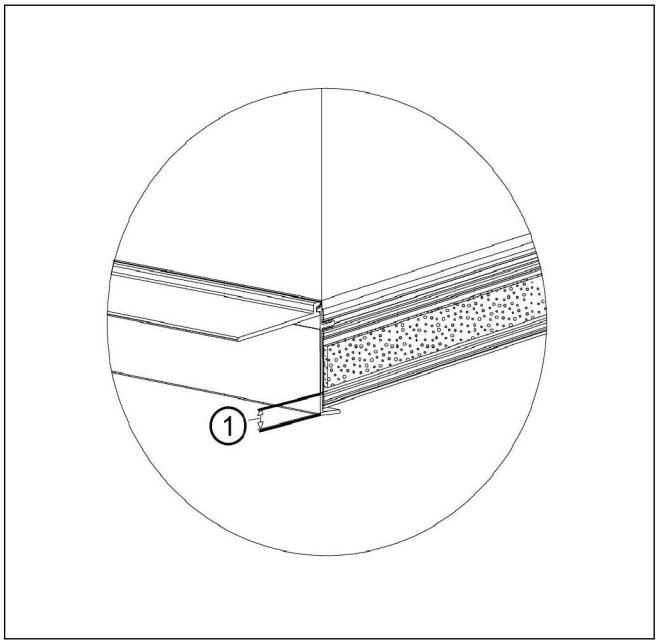

Figure 6

1	1/4"

2. Position units together in desired mulling configuration. Check to be sure that frames at both sides of mullion are flush and nailing fin/drip cap kerfs are aligned. Lightly clamp units together on interior (use wood scraps to protect interior) near each end to hold units in place.

3. Drill outer edges of nailing fin/drip cap kerfs at head jamb mullion with a 3/16"drill bit as shown in Figure 7. Clean filings from the drilled area to ensure easy installation of mull pin.

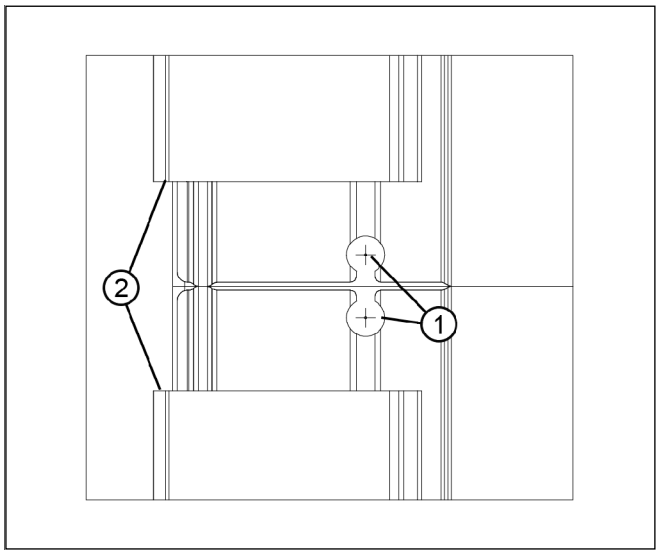

Figure 7

1	Drill out accessory kerf with 3/16" hole
2	Drip cap

4. Cut the mulling pin 1/2" shorter than the mull joint. Drive mull pin in the full length of sill/head jamb (use hammer if necessary) ensuring it is recessed 1/4" to allow for sealant application later.

5. Check to make sure that units are flush and square with each other. Apply a third clamp to interior if necessary and fasten units together at interior jamb liners with 1/2" x 1" 16 gauge staples spaced 1" off each end of the jamb liner end and every 7" in between.

6. Center mulling tin over mullion at head jamb and flush with recess in wood head jamb liner. Secure tin to head jamb with 1/2" x 1/2" 16 gauge staples as shown in Figure 8. On **Inswing units**, drill pilot holes through mulling tin and first layer of Ultrex with a 7/64" drill bit at locations. Fasten mulling tin to head jamb with #8 x 3/8" Phillips pan head screws provided. On **Outswing units**, secure each installation mull clip with 14 #7 x 5/8" flat head screws. Skip the center screw hole that lines up in the middle of the mull. See Figure 9.

NOTE: Make sure staples go into the wood and not the Ultrex.

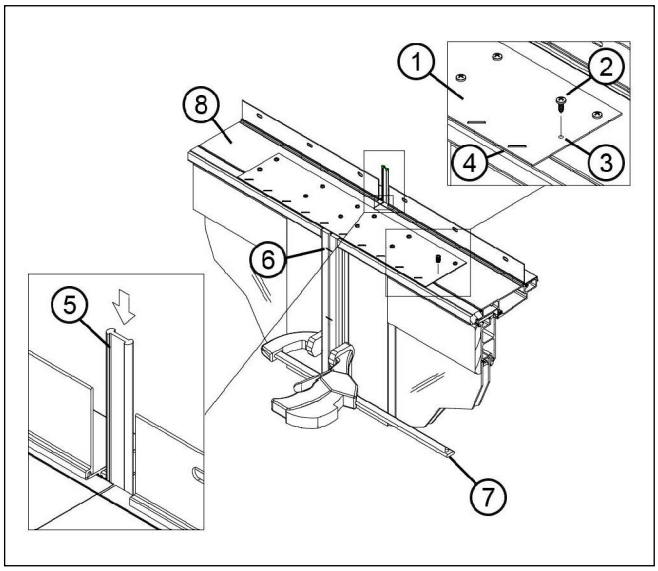

Figure 8 Inswing to Inswing mulling at head jamb

1	Mulling tin
2	#8 x 3/8" Phillips pan head screw
3	Pilot hole
4	1/2" x 1" 16 gauge staples
5	Mulling pin
6	1/2" x 1" gauge staples
7	Clamp

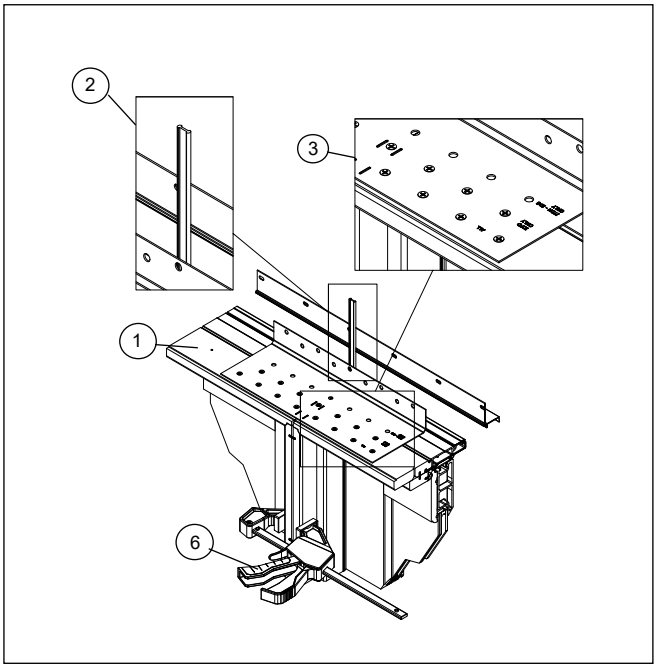

Figure 9 Outswing to Outswing mulling at head jamb

1	Head jamb
2	Mulling pin
3	Mulling tin
4	1/2" x 1/2" gauge staples
5	1/2" x 1" 16 gauge staples
6	Clamp

7. If mulling a direct glaze polygon beside an Inswing door, skip to step 8 on page 7. Remove the #8 x 1" Phillips pan head screws from the interior side of sill on each unit. Align holes on interior sill mull bracket and reattach with screws removed previously. See Figure 10.

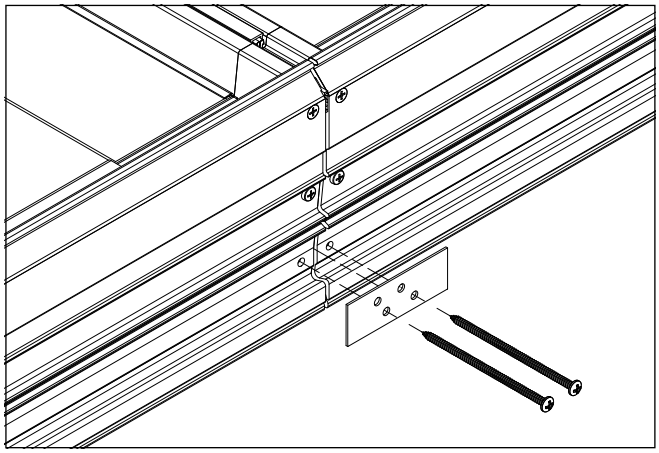

Figure 10 ELSFD to ELIFD and ELOFDG3 to ELOFDG3

1	#8 x 1" pan head screws
2	ELSFD sill
3	ELIFD sill
4	Sill mullion bracket

8. If mulling a direct glaze polygon beside an inswing door, install structural brackets on both sides of the head jamb mullion and on the polygon side of the sill mullion. Measure and mark 1-1/4" from nailing fin extended on head jamb of inswing door. Attach bracket with one #7 x 5/8 Phillips flat head wood screw. Attach structural bracket to sill and head jamb of polygon with two #7 x 5/8" wood screws. See Figure 11 and Figure 12.

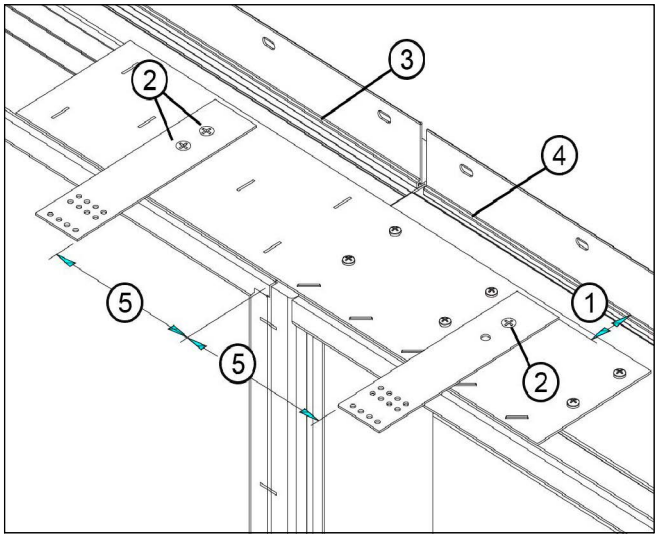

Figure 11 Head jamb detail

1	1-1/4"
2	#7 x 5/8" Phillips flat head screws
3	Direct glaze Polygon
4	Inswing door
5	4"

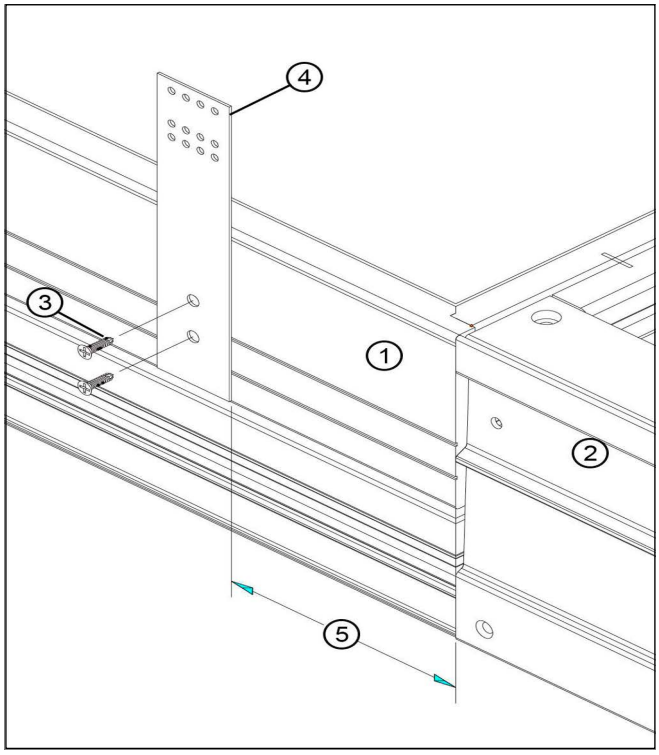

Figure 12 Sill detail

1	1-1/4"
2	#7 x 5/8" Phillips flat head screws
3	Direct glaze Polygon
4	Inswing door
5	4"

9. Apply silicone sealant at both mullion joints from the frame exterior edge to the drip cap/nailing fin kerf and across the kerf over the mulling pin as shown in Figure 13. At the sill, apply silicone to the mull joint as shown in Figure 14. *Optional: use silicone that is a similar color to the jamb plugs for an improved aesthetic.*

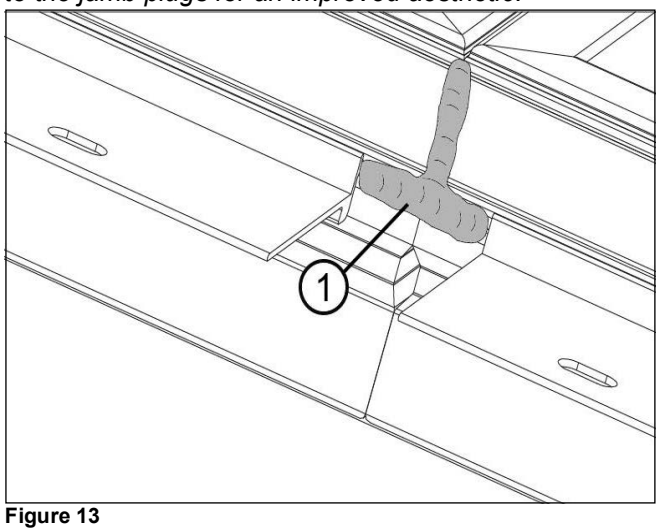

Figure 13

1	Sealant

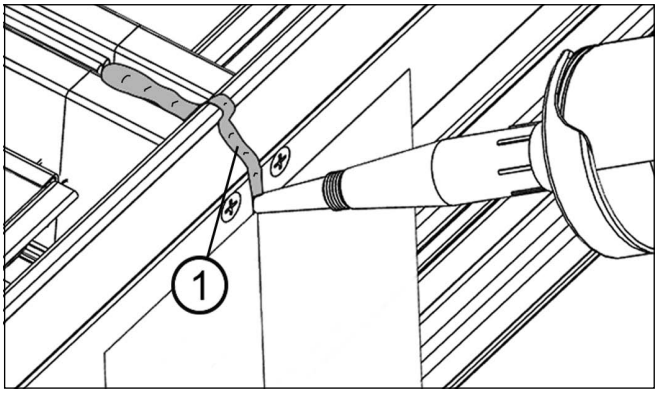

Figure 14

1	Sealant

10. Cut the exterior mull cover to allow a 1/16" gap on the top of the unit and flush with the end of the ultrex near the sill. Install by tapping with a rubber mallet as illustrated in Figure 15.

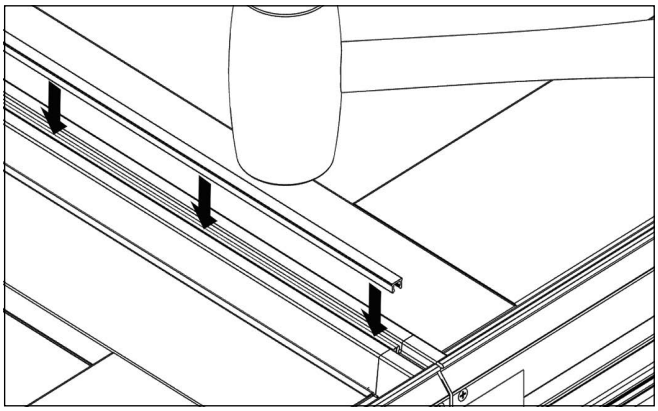

Figure 15

11. Apply the nailing fin connector by removing the paper backing from the connector and lace on the exterior side of the nail fin as shown in Figure 16.

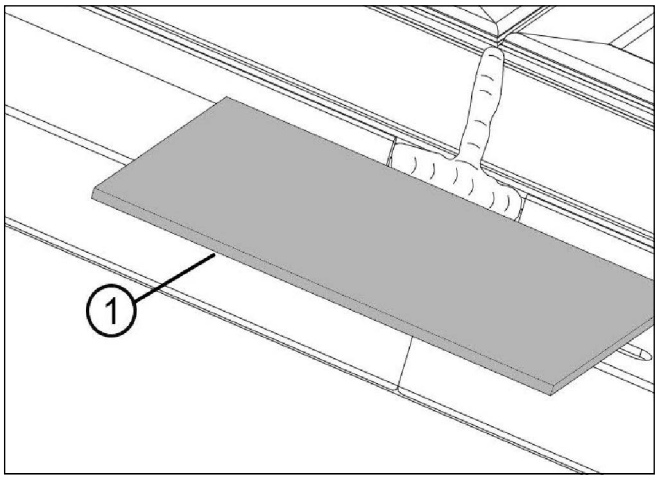

Figure 16

1	Nailing fin connector

12. If applicable, jamb extensions can now be installed. Follow installation instructions for installing unit into rough or masonry opening. Interior mull trim should be applied after unit is completely installed and interior trim is applied.

NOTE: For mulling polygon units to Inswing door units with 6-9/16" jamb extension W7119 jamb extension is supplied. Refer to installation instructions for jamb extension application.

Transom Mulling

Parts Shipped

- W1241 Interior trim
- W7119 Jamb Extension (for mulling Direct Glaze polygons above or beside inswing door)
- A330 Aluminum mulling pin
- Mull sealant foam tape- one sided
- 26 gauge mulling tin (2 sheets) 3-1/2" x 16"
- Nailing fin connector (2)
- Mull bracket
- #8 x 3/8" Phillps pan head screws
- #7 x 5/8" Phillips flat head wood screws

Refer to the Elevate Accessories Chapter of the Elevate Parts Manual to find individual part numbers for the mull kit components.

You Will Need to Supply

- Safety glasses
- Power drill/driver
- Hearing protection
- Scrap pieces of wood
- Clamps
- #2 Phillips bit
- 3/16" drill bit
- 7/64" drill bit
- Silicone sealant w/gun
- 16 gauge 1/2" x 1" staples with gun
- 16 gauge 1/2" x 1/2" staples with gun

Single Wide Transom over Swinging Door

IMPORTANT

Secure the Elevate swinging door in a rigid standing position before attempting to remove the screen door track.

1. If equipped, remove the sliding screen door track assembly at this time. Slide the screen roller bar to one side and remove the Phillips flat head screws located in the screen track. Move roller bar to the opposite side and remove the remaining screws securing screen track. See Figure 17.

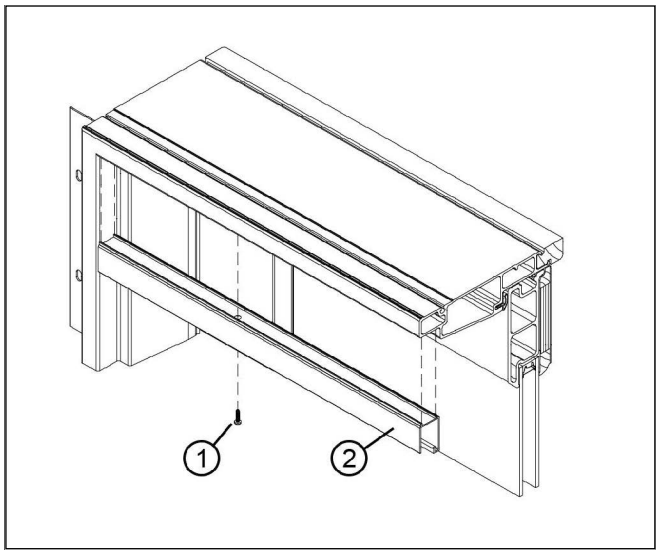

Figure 17

1	Phillips flat head screws
2	Screen track

2. If applicable, remove nailing fin/drip cap from head jamb of door and sill of transom. Apply one sided mull sealant foam tape to the entire length of door head jamb ensuring it is located 1/4" from the exterior edge of the Ultrex frame. See Figure 18.

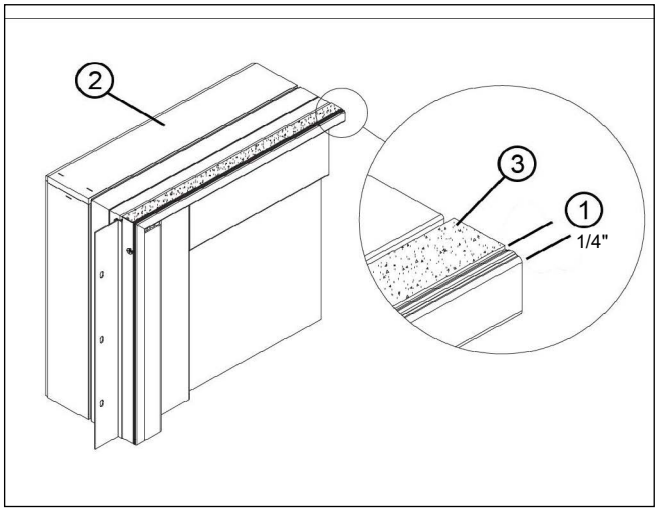

Figure 18

1	1/4"
2	Swinging Door Head Jamb
3	1 sided foam tape

NOTE: For mulling polygon units to Inswing door units with 6-9/16" jambs W7119 jamb extension is supplied. Refer to installation instructions for jamb extension application.

3. Position the rectangular transom on the head jamb of door. Check to be sure that both ends of the transom sill are flush with door head jamb. Apply clamps to interior side at each end of head jamb and sill to prevent movement. Use scrap pieces of wood to prevent marring of wood surface. Make sure that nailing fin/drip cap kerfs line up on both ends. See Figure 19.

4. Drill the outer edges of mull kerf located at one side at head jamb of door and sill of transom with a 3/16" drill bit as shown in Figure 19. Be sure to clean filings from the drilled area prior to mull pin installation. This will allow easy application of mulling pin. Cut the mulling pin 1/2" shorter than the mull joint. Drive mull pin in the full length of sill/head jamb (use hammer if necessary) ensuring it is recessed 1/4" to allow for sealant application later.

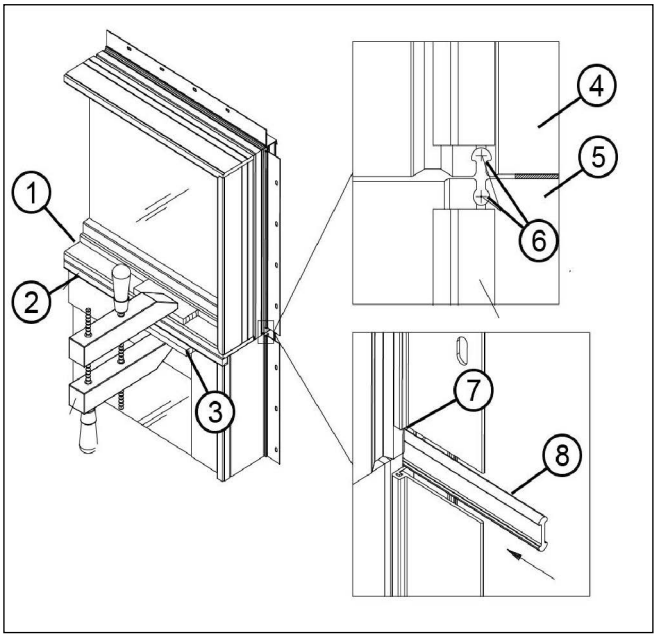

Figure 19

1	Transom sill
2	Swinging Door head jamb
3	Wood blocks
4	Transom jamb
5	Swinging Door jamb
6	Drill 3/16" hole
7	Mulling kerf
8	Mulling pin

5. Apply third clamp if necessary and fasten interior wood members with 1/2" x 1" 16 gauge staples spaced 1" off end and every 7" in between.See Figure 20.

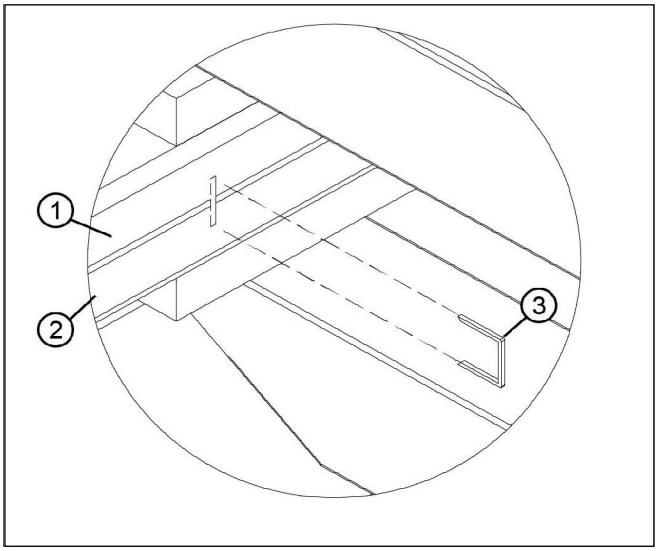

Figure 20

1	Transom sill
2	Inswing head jamb
3	1/2" x 1" 16 gauge staples

NOTE: Ensure the staples go into the wood not the Ultrex.

6. Center mulling tin over mullion and secure with 1/2" x 1" 16 gauge staples as shown in Figure 21 or Figure 22.

7. On **Inswing** units, drill three pilot holes 3-1/8" in from the exterior face on each side of the door unit through mulling tin into the Ultrex jamb using a 7/64" drill bit. Do not drill past the first thickness of Ultrex. Secure with #8 x 3/8" screws provided.

8. For **Outswing**: Secure installation mull clip at each mull end with fourteen #7 x 5/8" flat head screws. Skip the center hole that lines up over the mull joint. For **Inswing**: Attach structural masonry brackets 2" above the mullion with two #7 x 5/8" flat head screws.

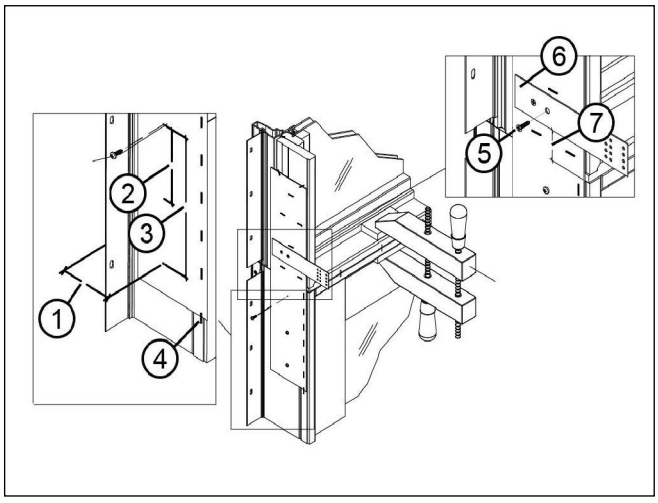

Figure 21 Inswing

1	3 1/8"
2	3 1/8"
3	6 1/4"
4	1/2" x 1/2" staples
5	#7 x 5/8" wood screw
6	Structural masonry bracket
7	2"

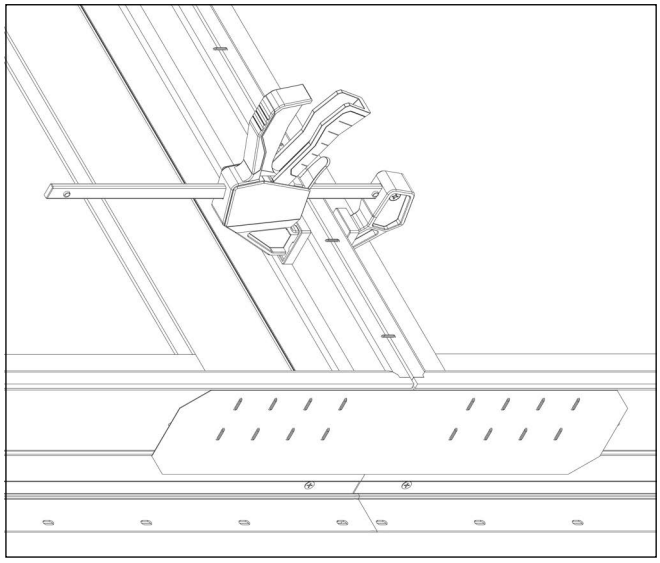

Figure 22 Outswing

9. Remove clamps from the unit. Reapply screen track assembly if removed earlier.

10. Apply silicone sealant at both mullion joints from the frame exterior edge to the drip cap/nailing fin kerf and across the kerf over the mulling pin as shown in Figure 23.

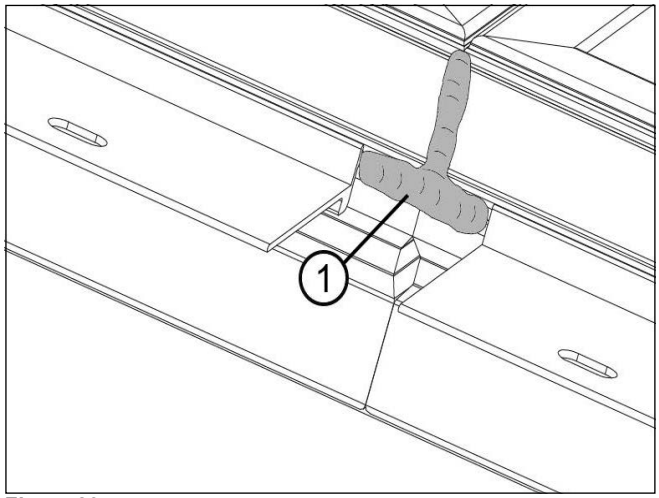

Figure 23

1	Sealant

11. Apply silicone sealant at both mullion joints from the frame exterior edge to the drip cap/nailing fin kerf and across the kerf over the mulling pin as shown in Figure 24 and Figure 25. Apply nailing fin connector to the exterior side of the nail fin by removing the paper backing from the connector and pressing into place.

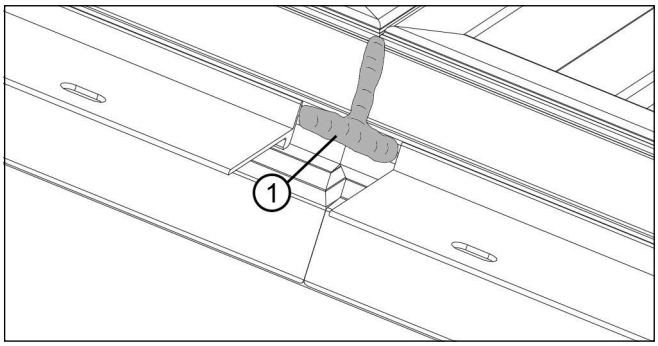

Figure 24

1	Sealant

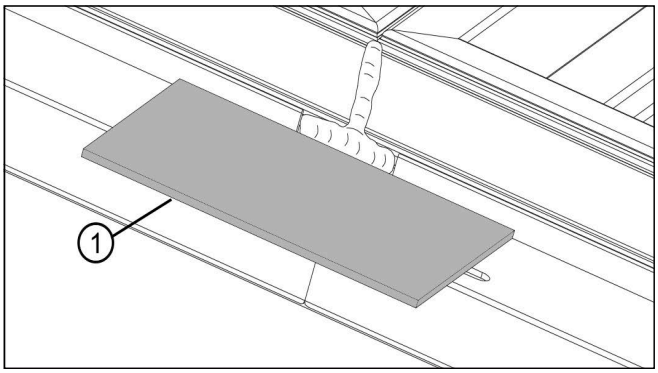

Figure 25

1	Nail fin connector

12. Follow installation instructions for installing unit into rough or masonry opening. Interior mull trim should be applied after unit is completely installed and interior trim is applied.

Multiple Wide Transom over Swinging Door

Parts Shipped

NOTE: Refer to the Elevate Accessories Chapter of the Elevate Parts Manual to find individual part numbers for the mull kit components.

- W1241 Interior trim
- A330 Aluminum mulling pin
- Mull sealant foam tape- one sided
- Steel mull tie
- Structural Bracket (6" or 10")
- Nailing fin connector (2)
- #8 x 3/8" Phillps pan head screws
- #7 x 5/8" Phillips flat head wood screws
- Interior sill mull bracket

You Will Need to Supply

- Safety glasses
- Power drill/driver
- #2 Phillips bit
- 3/16" drill bit
- 7/64" drill bit
- Silicone sealant w/gun
- 16 gauge 1/2" x 1" staples with gun
- Hearing protection
- Scrap pieces of wood
- Clamps

Mulling Procedure-Multiple Wide Direct Glaze Transom over Swinging Door

1. Lay the transom frames on a flat surface in the desired mulling configuration (interior facing up). Remove nailing fin from sill and side jambs that will be mulled together. Apply mull sealant foam tape along the entire length of one jamb to be mulled ensuring it is located 1/4" from the exterior edge of the Ultrex frame as shown in Figure 26.

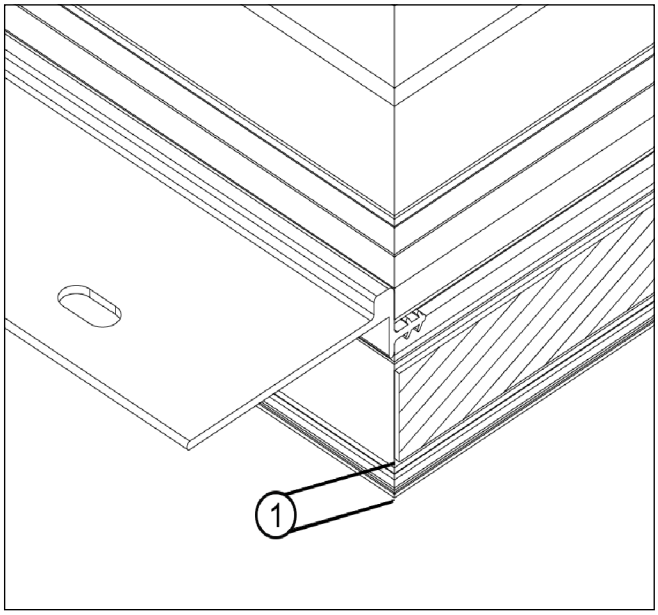

Figure 26

1	1/4"

2. Position units together in the desired configuration. Check to be sure that the frames at both ends of the mullion are flush and the nailing fin kerfs are aligned. Lightly clamp units together on interior near each end to hold mulled units in place (use wood blocks to protect interior). See Figure 27.

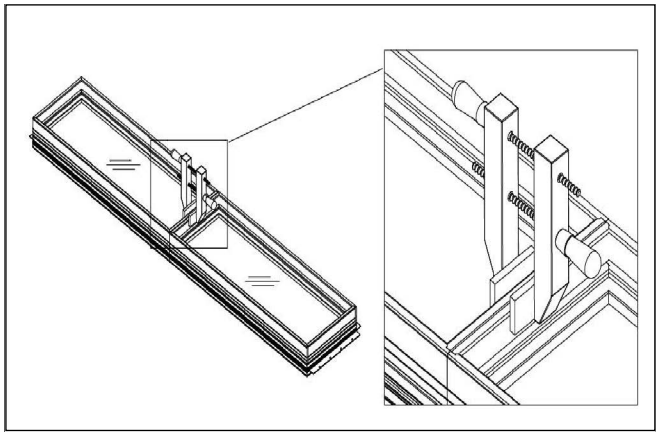

Figure 27

3. Drill out the outer edges of the nailing fin/drip cap kerf at the mullion with a 3/16" drill bit. Clean filings from drilled area to ensure easy installation of the mull pin.

4. Cut the mulling pin 1/2" shorter than the mull joint. Drive mull pin in the full length of sill/head jamb (use hammer if necessary) ensuring it is recessed 1/4" to allow for sealant application later. See Figure 28.

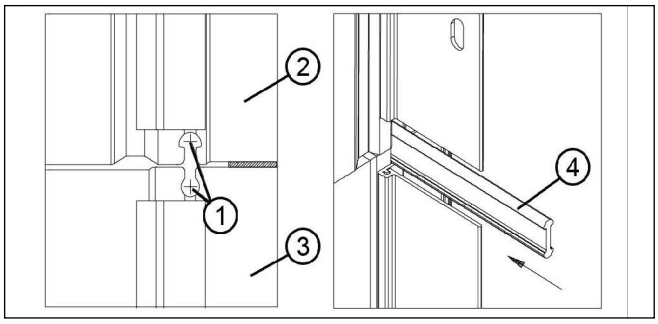

Figure 28

1	Drill 3/16" holes
2	Transom jamb
3	Swinging door jamb
4	Mulling pin

5. Make sure mulled units are flush and square at sill and jamb liners. Fasten interior of mulled units with 1/2" x 1" 16 gauge staples spaced every 5". See Figure 29.

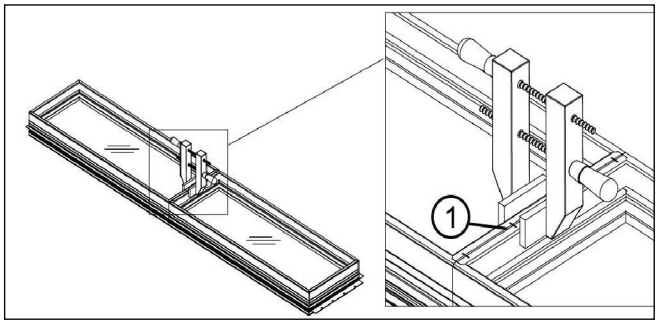

Figure 29

1	1/2" x 1" 16 gauge staples

6. Install the steel mullion tie across head jambs and fasten with two #7 x 5/8" Phillips flat head wood screws into each unit. Install structural brackets 4" from the mullion and attach with one #7 x 5/8" Phillips head screw as shown in Figure 29.

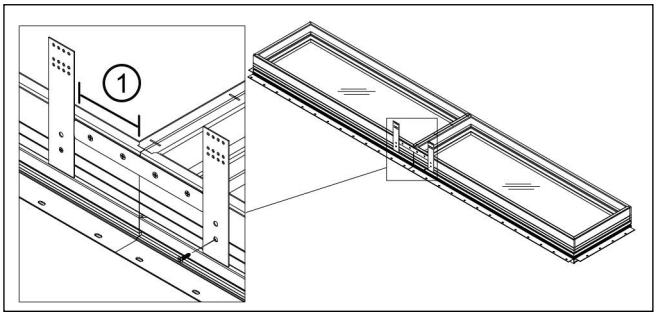

Figure 30

1	4"

7. Apply silicone sealant at both mullion joints from the frame exterior edge to the drip cap/nailing fin kerf and across the kerf over the mulling pin as shown. See Figure 28.

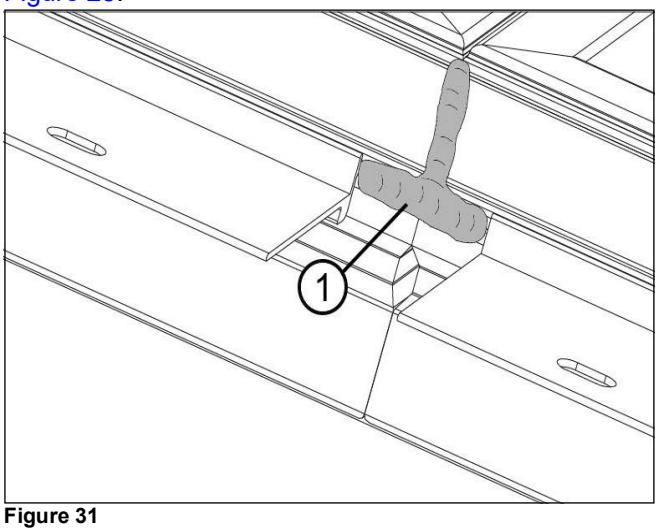

Figure 31

1	Sealant

8. At the sill, apply silicone to the mull joint. Apply the nailing fin connector by removing the paper backing from the connector and lace on the exterior side of the nail fin as shown in Figure 32. ***Optional:*** *use silicone that is a similar color to the jamb plugs for an improved aesthetic.*

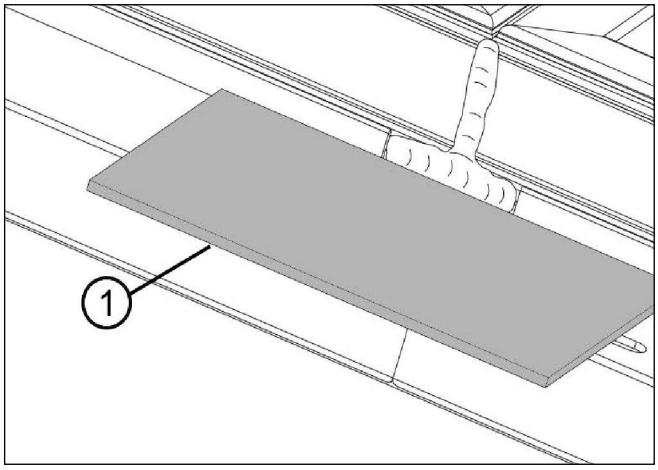

Figure 32

1	Nail fin connector

9. Follow the instructions detailed in the section, Single Wide Transom over Swinging Door on page 9 for mulling a single transom over an Elevate Swinging French door.

Elevate Round Top over Elevate Swinging Door

Parts Shipped

NOTE: Refer to the Elevate Accessories Chapter of the Elevate Parts Manual to find individual part numbers for the mull kit components.

- W1241 Interior trim (for 6-9/16" jambs)
- W1242 Interior trim (for 4-9/16" jambs)
- W7431 12" mull filler blocks for 4-9/16" jambs
- W8430 horizontal mull filler for 6-9/16" jambs
- A330 Aluminum mulling pin
- Mull sealant foam tape- one sided
- Nailing fin connectors (2)
- Mull installation clip
- Mulling tin 3-1/2" x 16"
- #8 x 3/8" Phillps pan head screws
- #7 x 5/8" Phillips flat head wood screws
- Structural Bracket (6" or 10")

You Will Need to Supply

- Safety glasses
- Power drill/driver
- #2 Phillips bit
- 3/16" drill bit
- 7/64" drill bit
- Silicone sealant w/gun
- 16 gauge 1/2" x 1" staples with gun
- 16 gauge 1/2" x 1/2" staples with gun
- 3/16" x 1" staples with gun
- Hearing protection
- Scrap pieces of wood
- Clamps

Mulling Procedures

1. Lay frames on a flat surface in the desired mulling configuration (interior side up). Remove nailing fin from head jamb of Swinging door. Remove shipping blocks from sill of ELALDGRT. Attach additional mull filler blocks to the ELALDGRT 4-9/16" sill as needed, flush to the interior, with 3/16" x 1" staples. See Figure 33.

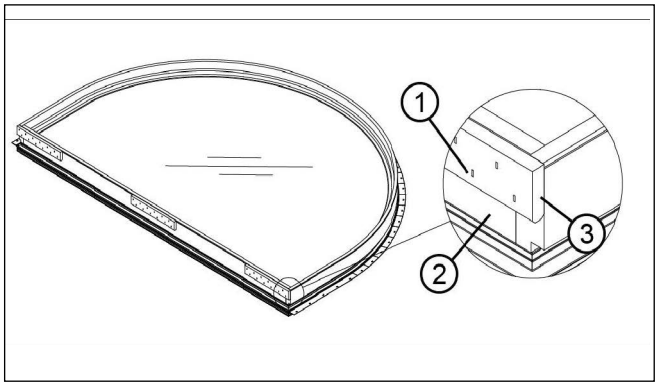

Figure 33

1	3/16" x 1" staples
2	ELALDGRT Sill
3	Mull filler block

2. For mulling ELALDGRT units to inswing door units with 6-9/16" jambs W8430 jamb extension is supplied. Remove shipping blocks and trim jamb as shown in Figure 34. Cut horizontal mull filler to length and apply with 3/16" staples as shown in Figure 34.

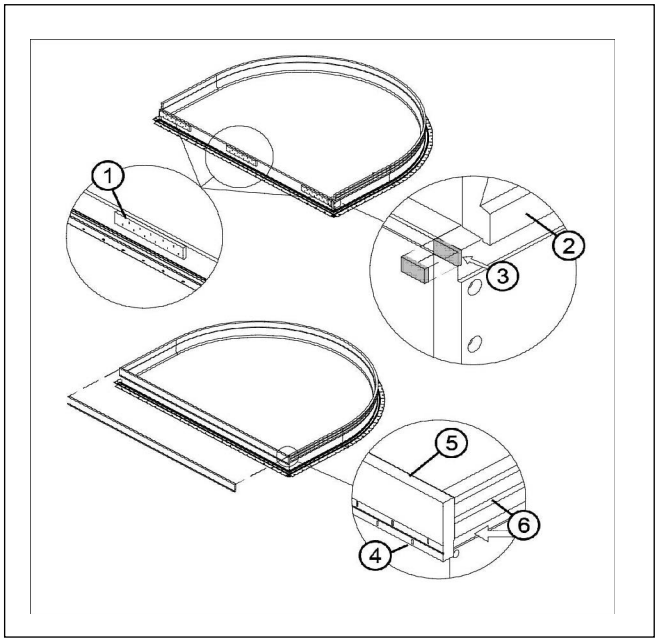

Figure 34

1	Remove blocking
2	Radius jamb extension
3	Trim off flush
4	3/16" x 1" staples
5	Mull filler
6	Radius jamb

3. Apply one sided mull tape the entire length of door head jamb ensuring it is located 1/4" from the exterior edge of the Ultrex frame. See Figure 35.

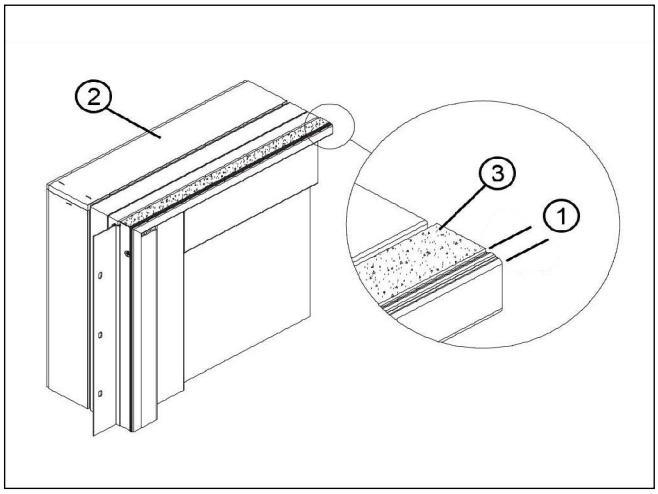

Figure 35

1	1/4"
2	Swinging Door Head Jamb
3	1 sided foam tape

4. Position ELALDGRT on the head jamb of door. Check to be sure that both ends of the ELALDGRT sill are flush with door head jamb. Apply clamps to interior side at each end of head jamb and sill to prevent movement. Use scrap pieces of wood to prevent marring of wood surface. Make sure that nailing fin/drip cap kerfs line up on both ends. See Figure 36.

5. Drill the outer edges of mull kerf located at one side at head jamb of door and sill of transom with a 3/16" (5) drill bit as shown in illustration. This will allow easy application of mulling pin. Be sure to clean filings from the drilled area prior to mull pin installations.

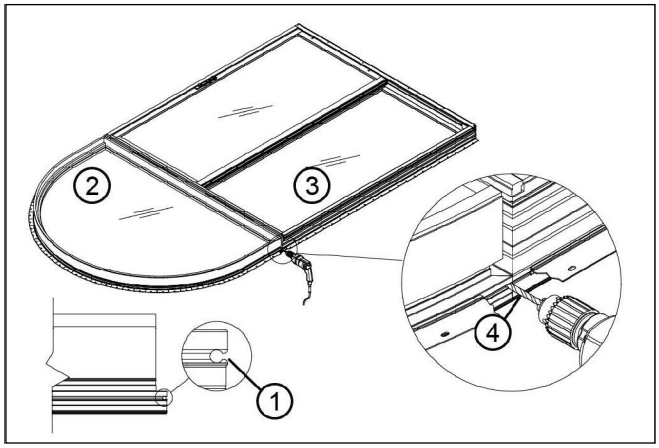

Figure 36

1	3/16" drill
2	ELALDGRT unit
3	Swinging Door
4	Drill with 3/16" drill bit

6. Cut the mulling pin 1/2" shorter than the mull joint. Drive mull pin in the full length of sill/head jamb (use hammer if necessary) ensuring it is recessed 1/4" to allow for sealant application later.

7. Apply additional clamps if necessary and fasten interior wood members with 1/2" x 1" 16 gauge staples spaced 1" off each end and every 7" in between. See Figure 37.

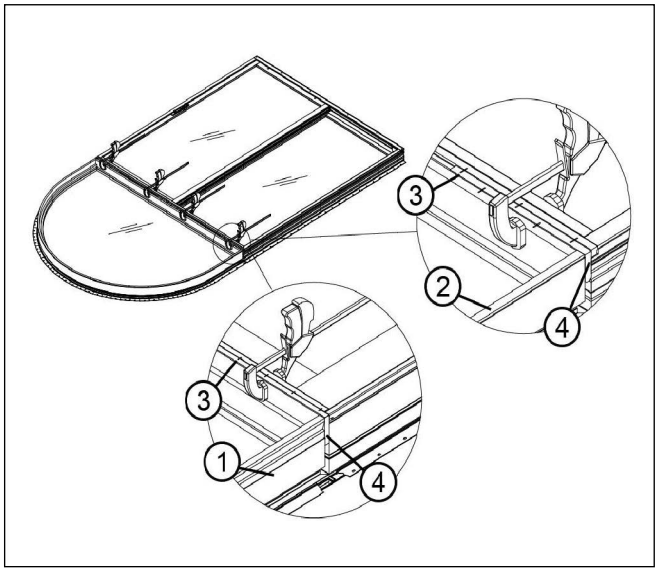

Figure 37

1	6-9/16" jambs
2	4-9/16" jambs
3	1/2" x 2" 16 gauge staples
4	Mull filler

NOTE: Ensure the staples go into the wood not the Ultrex.

8. Center mulling tin over mullion and secure with 1/2" x 1/2" 16 gauge staples as shown in Figure 38.

9. On Inswing units, drill three pilot holes 3-1/8" in from exterior face on each side of the door unit through mulling tin into the Ultrex jamb using a 7/64" drill bit. Make sure not to drill past the first thickness of Ultrex. Secure with #8 x 3/8" screws provided. See Figure 38.

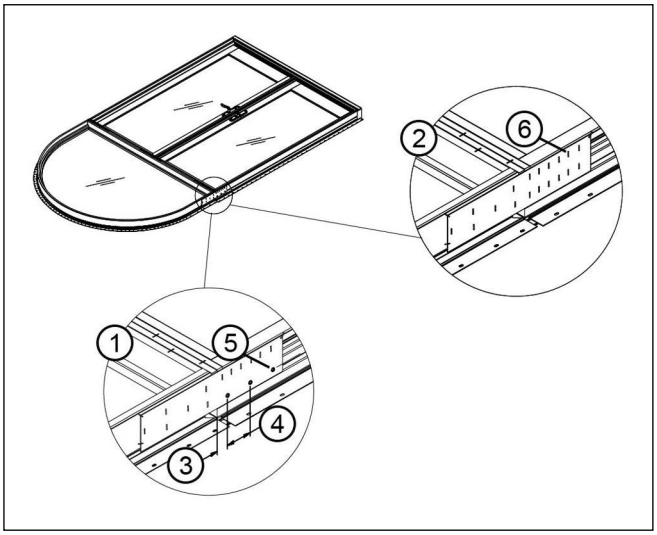

Figure 38

1	Inswing door
2	Outswing door
3	1"
4	3 1/8"
5	#8 x 3/8" pan head screws
6	1/2" x 1" 16 gauge staples

10. Attach two structural brackets on both sides of the unit with #7 x 5/8" flat head wood screws; one 4" bracket on each side of the mull joint. See Figure 39.

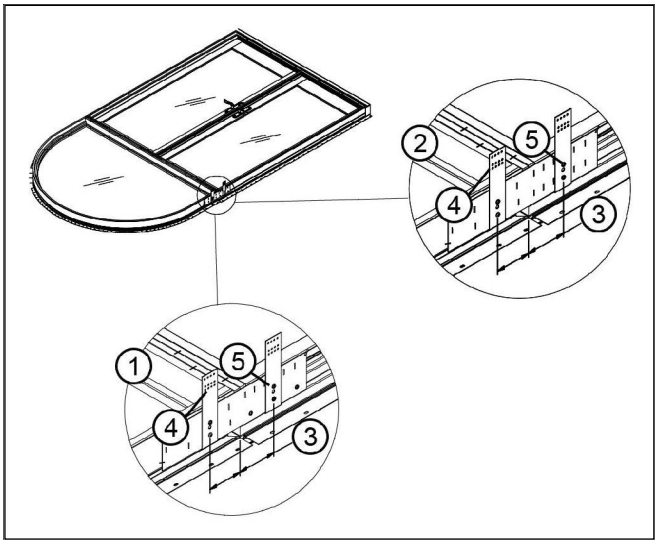

Figure 39

1	Inswing door
2	Outswing door (doesn't use a structural bracket)
3	4"
4	Structural bracket
5	#7 x 5/8" screws

11. Apply sealant on exterior over and into mullion joint from exterior edge of mulling tin to exterior surface of the jamb. See Figure 40.

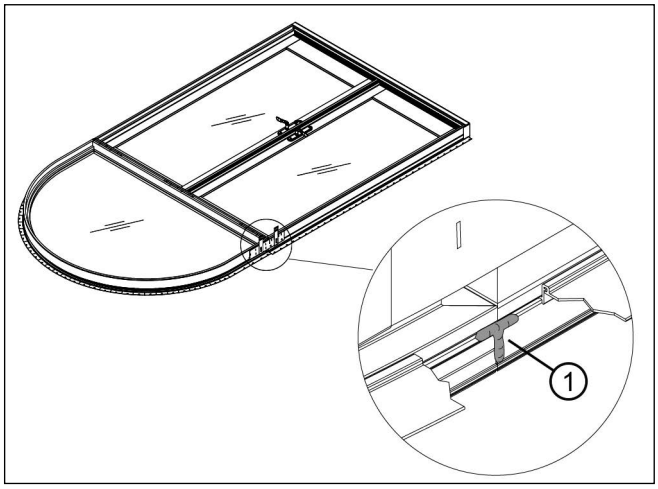

Figure 40

1	Sealant

12. Apply nailing fin connectors to exterior as shown in Figure 41.

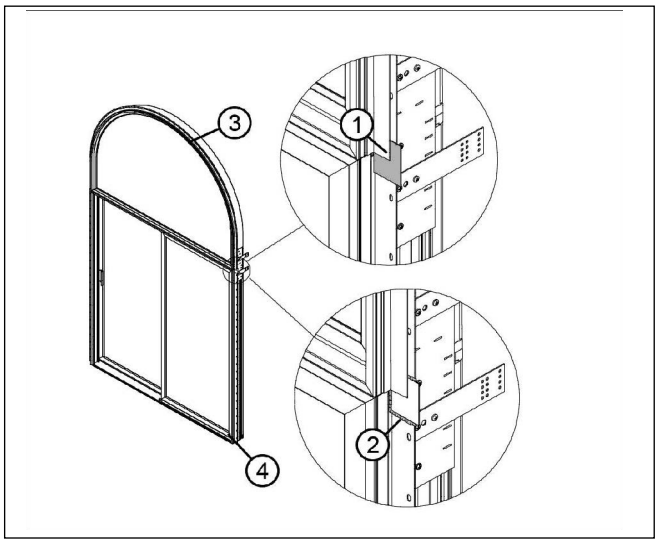

Figure 41

1	Nail fin connector
2	Sealant
3	Round Top
4	Inswing Door

NOTE: It is important that care be exercised when moving a mulled assembly from the mullion area to the rough opening.

13. Follow installation instructions for installing unit into rough or masonry opening. Interior mull trim should be applied after installation of unit and interior trim has been completed.