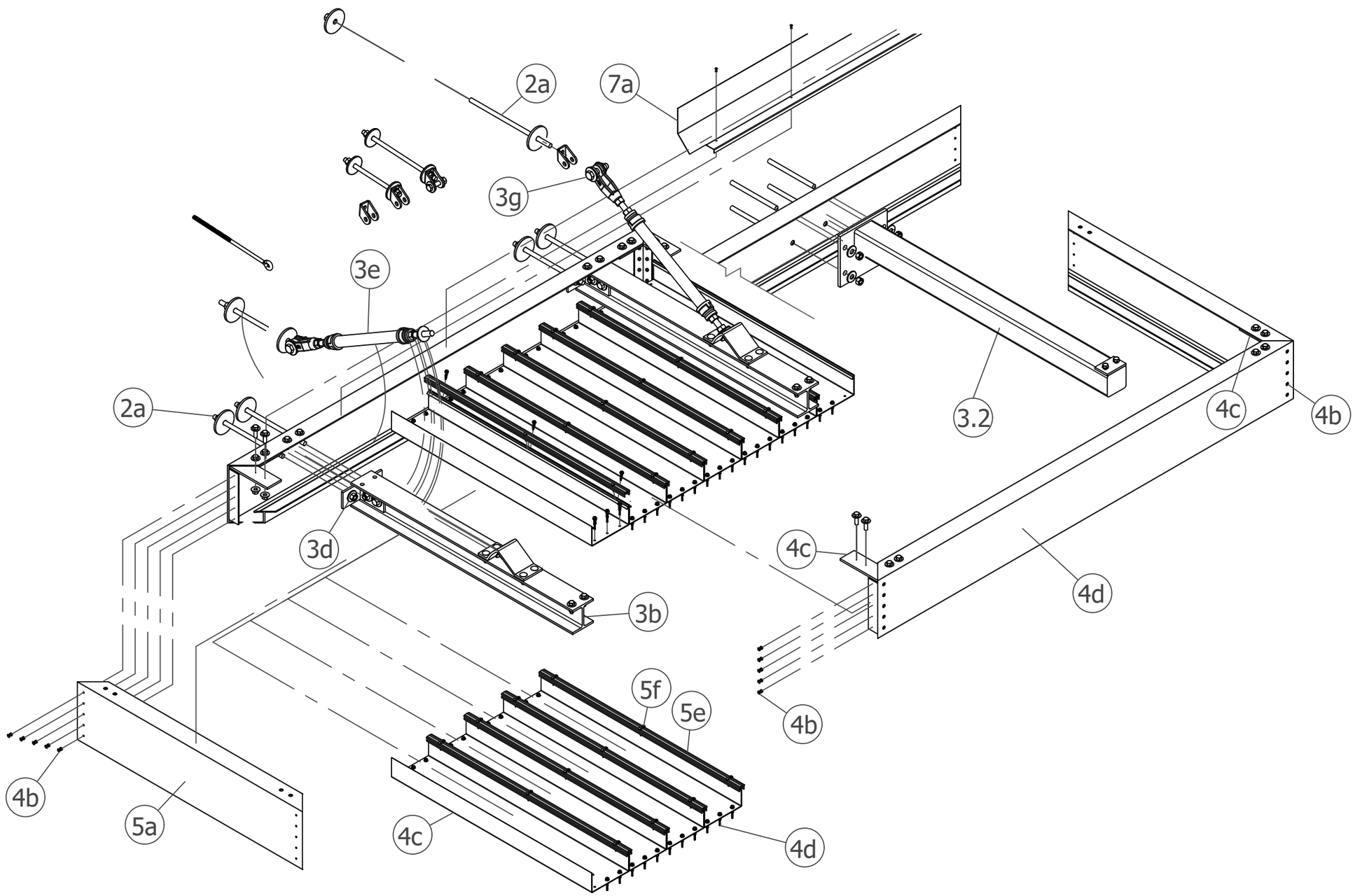
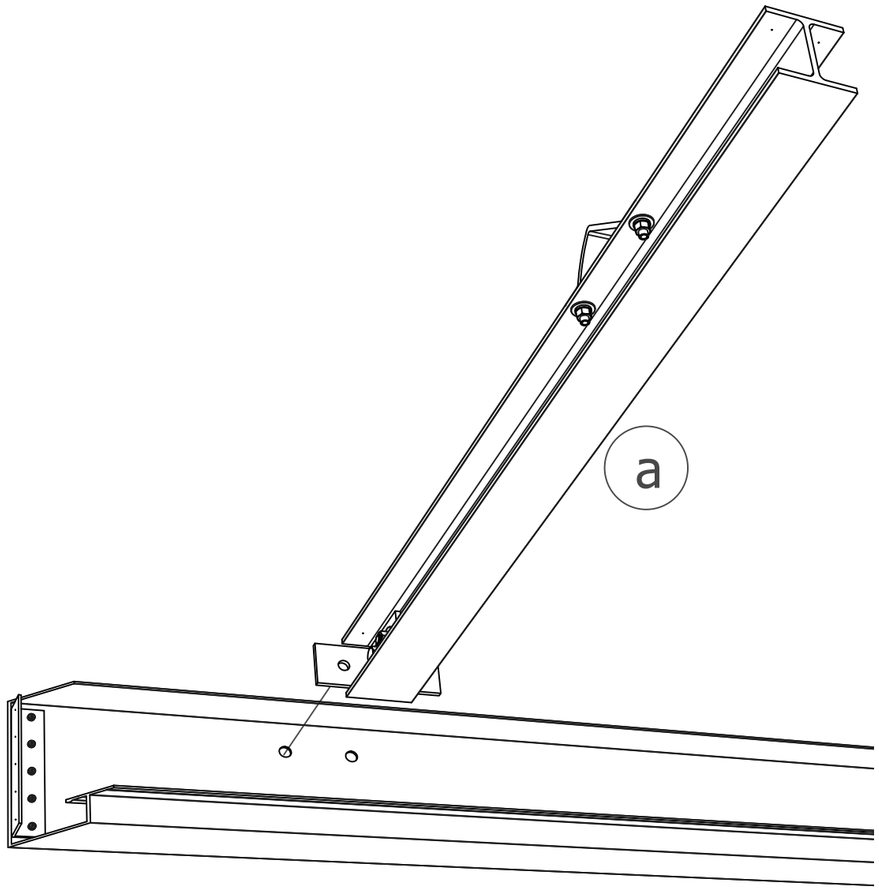
Canopy Assembly Instructions: Flat Soffit Hanger Rod or Cantilever Tube

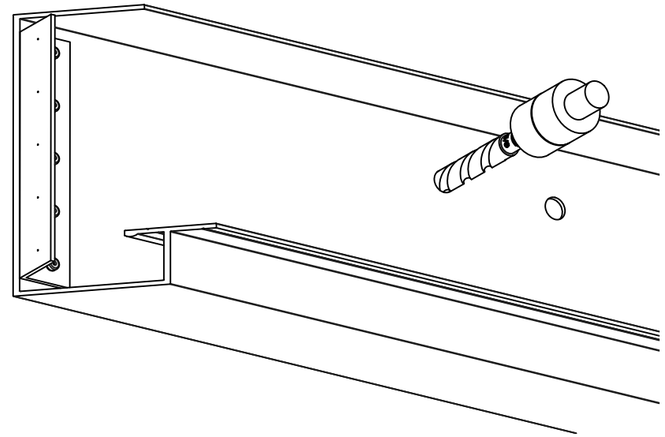


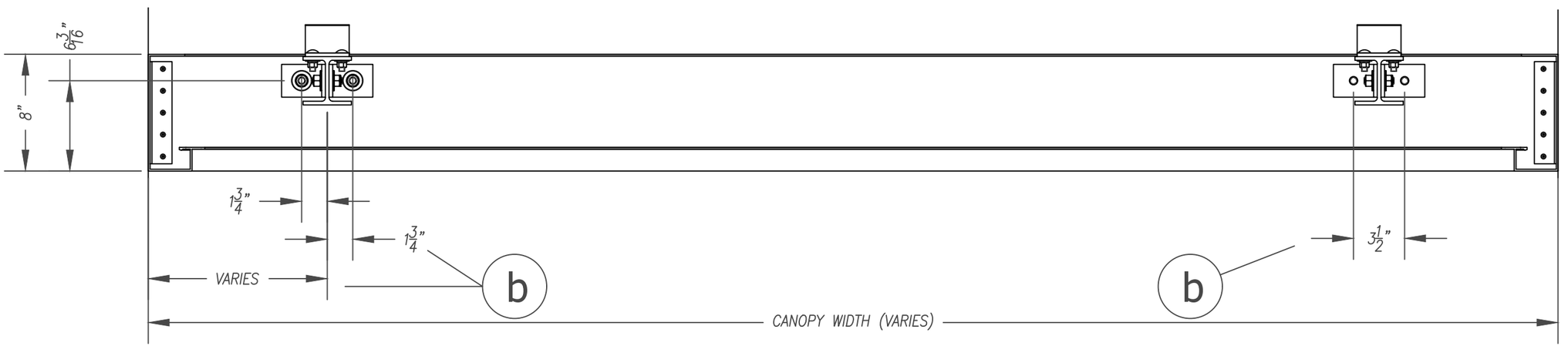


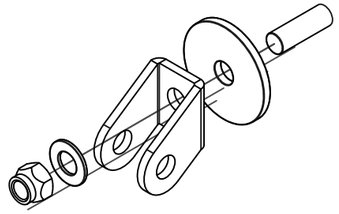
1. Drill Wall Fascia For Mounting

a)Using I-beam assembly rear clips as guide, put directly on fascia to mark out holes. Use a center punch for accurate drilling. (NOTE: I-beam assemblies are factory-assembled with front and rear clips.)

b)Using approved shop drawings as guide, measure and locate holes spacing in wall to correspond to rear fascia holes spacing. Drill 11/16" holes in fascia for easier fit.







Bent 'U' Clip Upper Connection
Figure 3

2. Install Upper and Lower Wall Anchors

a) Bent U Clip, collars, escutcheon plates (if used), backing plates, threaded rod.

b) Seal all around wall penetrations and behind escutcheon plates or collars.

c) Alternative upper connection: Eyebolt. *(limited availability; for example, to match existing fasteners)*

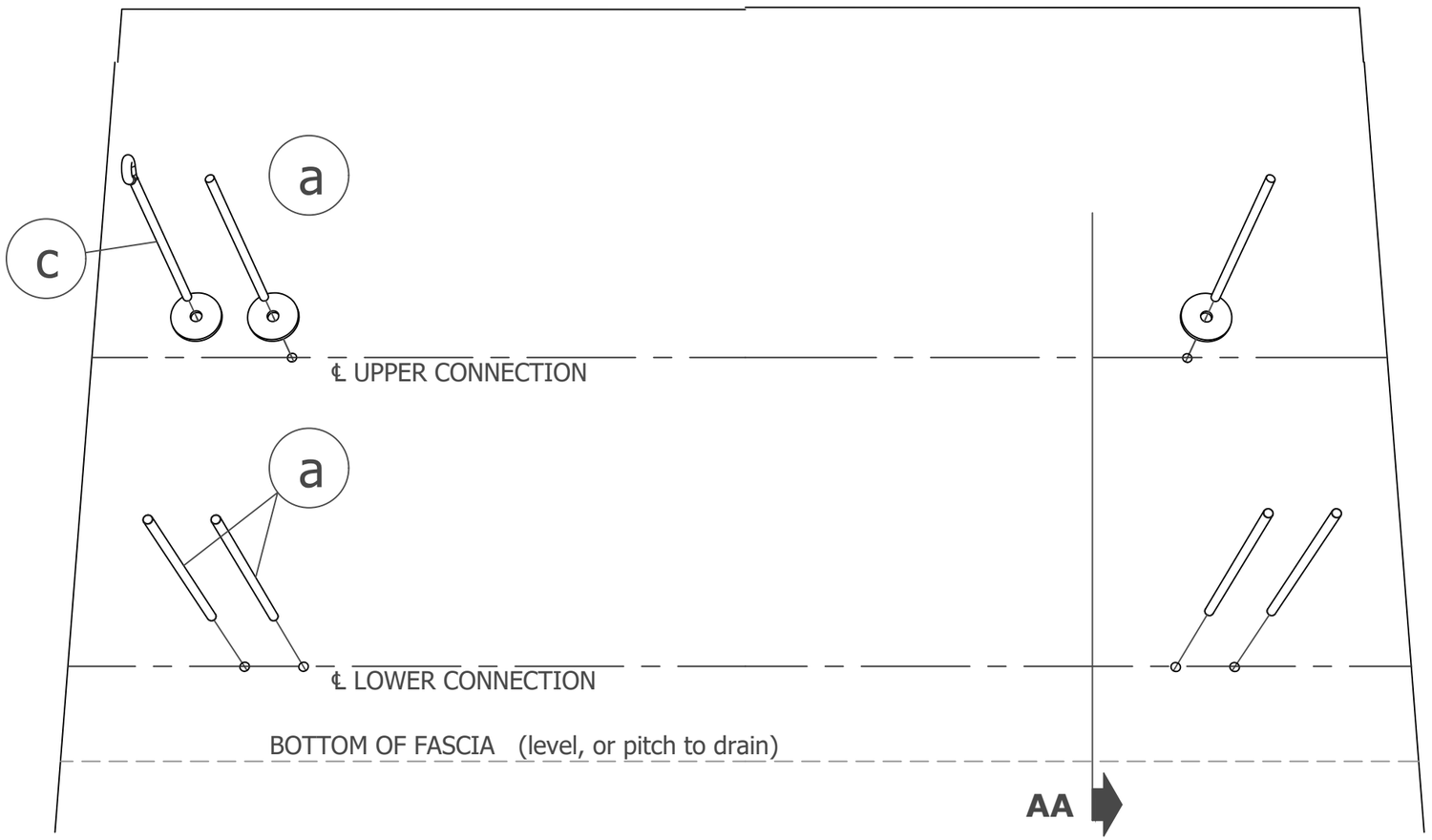


Figure 1

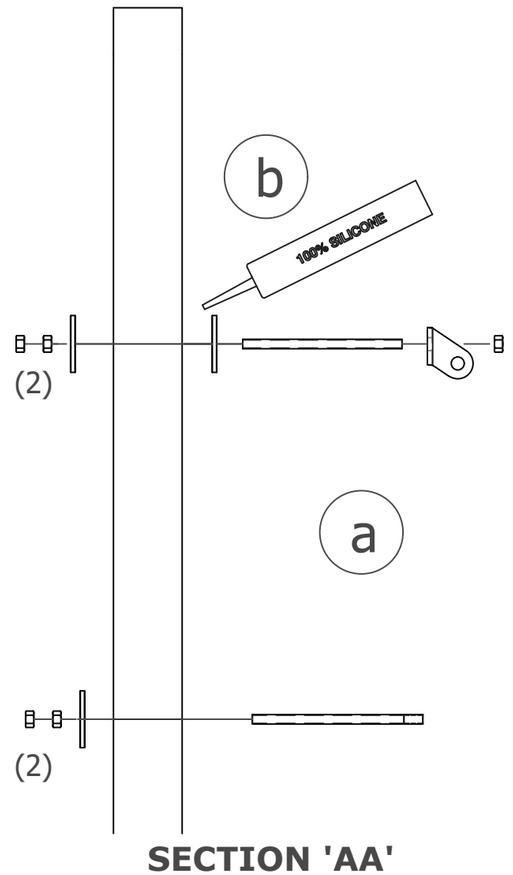
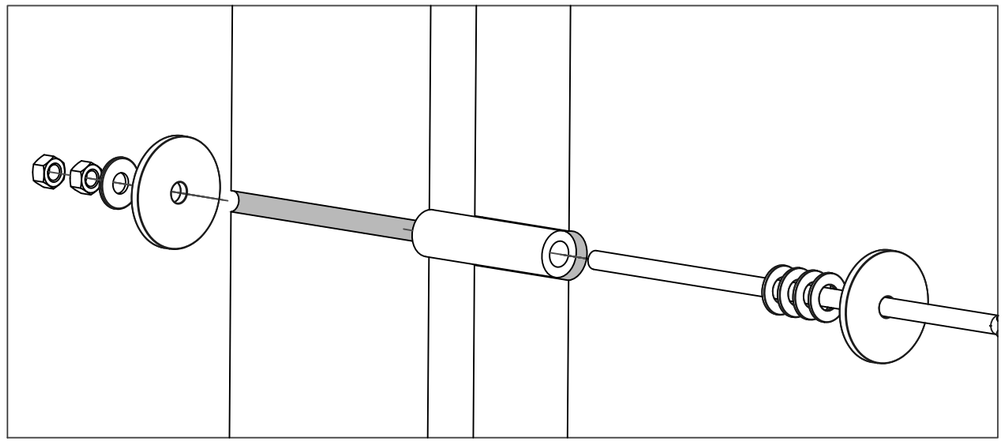


Figure 2

Canopy Assembly Instructions:
Crush Sleeve Assembly



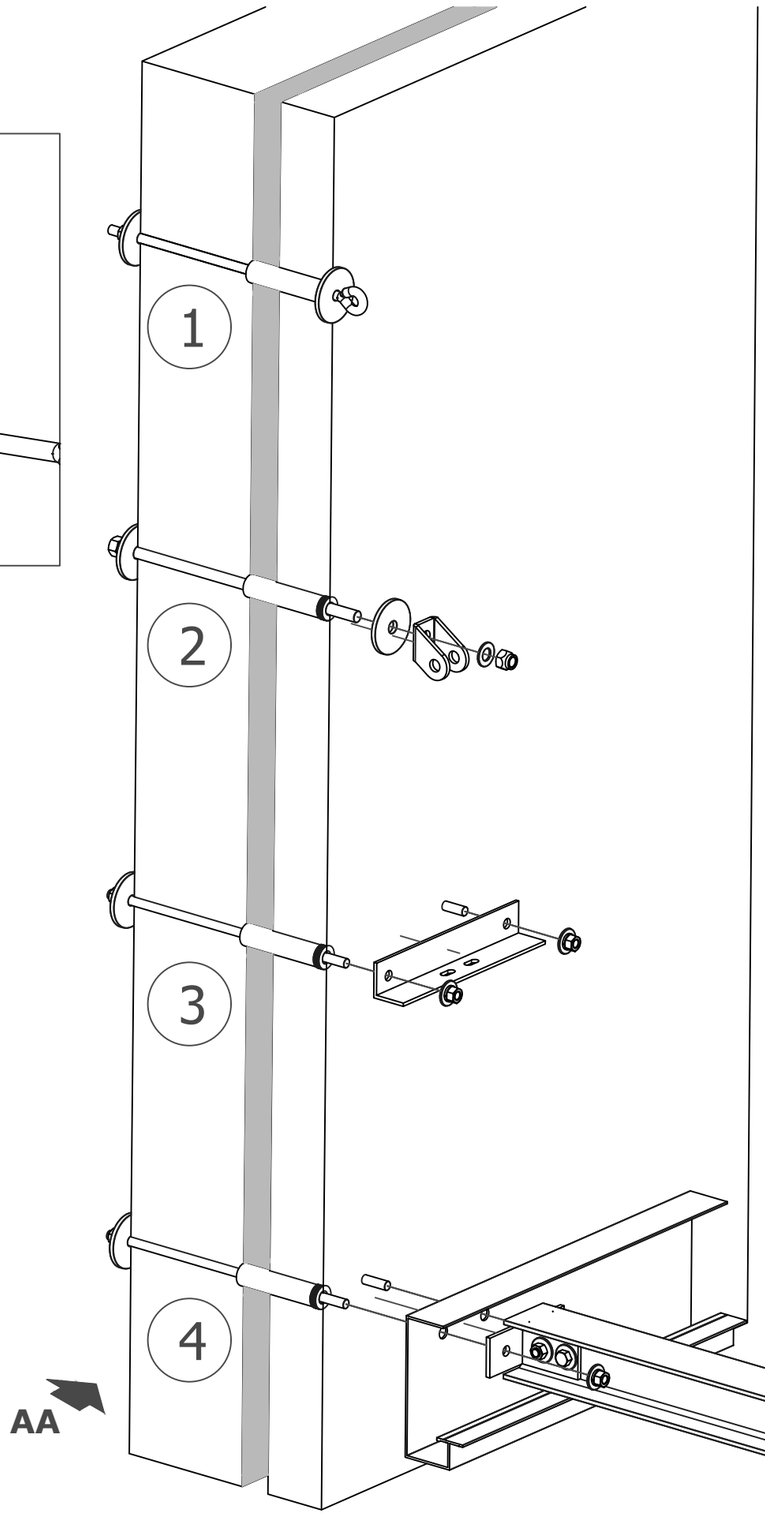
Crush Sleeve Application:
On certain wall types, to prevent damage to the wall cladding or veneer, a "crush sleeve" assembly is added. Installed w/ the wall bolt, sleeve functions as a "ferrule" through wall cladding and transfers the canopy load to the building structure beyond.

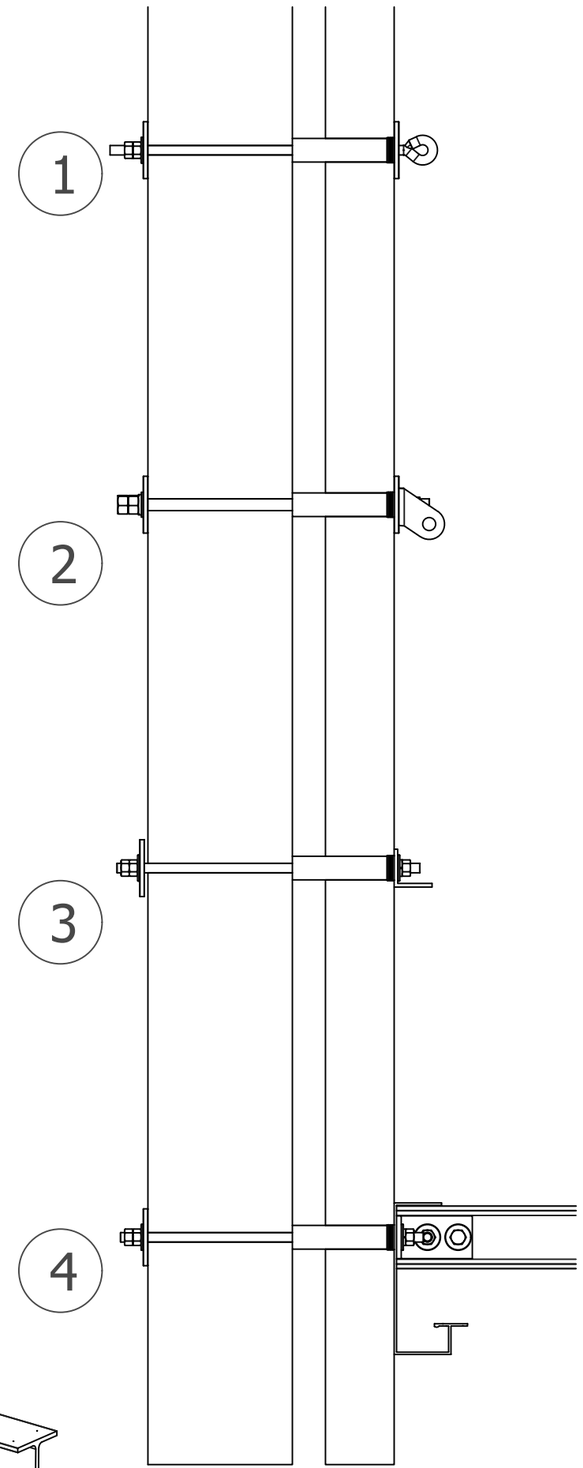
Upper Connection:

1. $\frac{1}{2}$"Ø Eyebolt (used rarely, to match older work)
2. $\frac{5}{8}$"Ø Threaded rod w/ bent u bracket, washers, nuts & 3"ØX.25 backing plate (w/ 1 $\frac{1}{4}$" OD x $\frac{11}{16}$" ID tubing as crush sleeve (w/ 2 to 4 flat washers to bring assembly to veneer face) through brick veneer)

Lower Connection:

3. Lumishade/Louver: $\frac{1}{2}$"Ø Threaded rod w/ hardware and crush sleeve as above
4. Super Lumideck h-rod: $\frac{1}{2}$"Ø Threaded rod w/ hardware and crush sleeve as above





WALL SECTION 'AA'

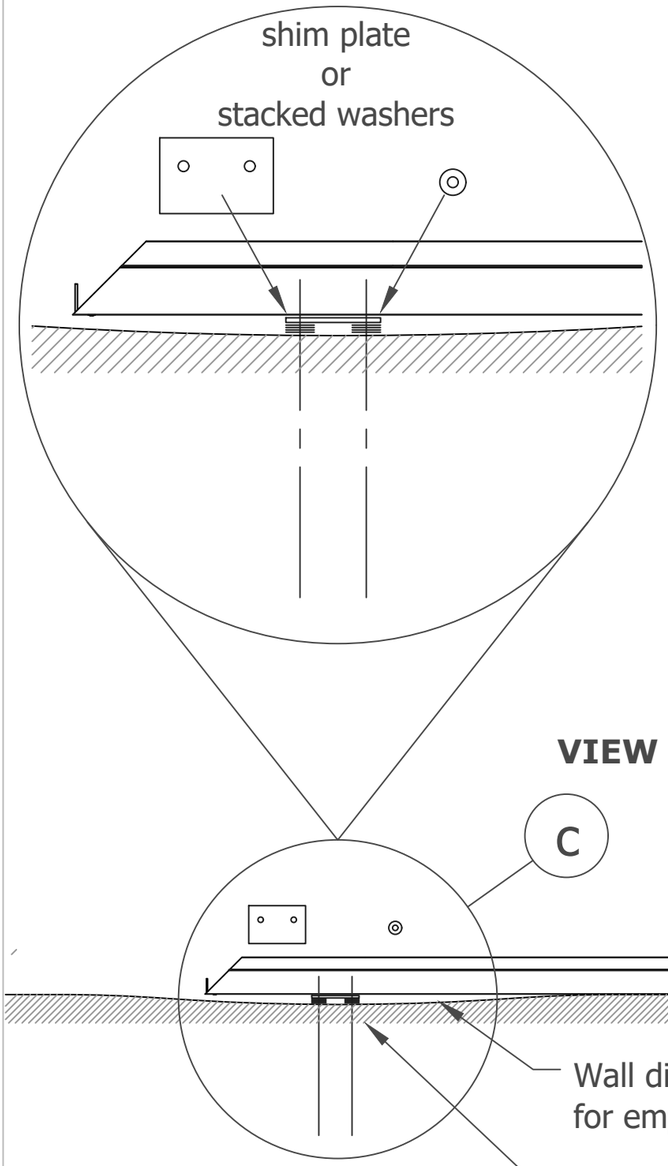
3. Assemble Back Fascia, Hanger Beams and Hanger Rods

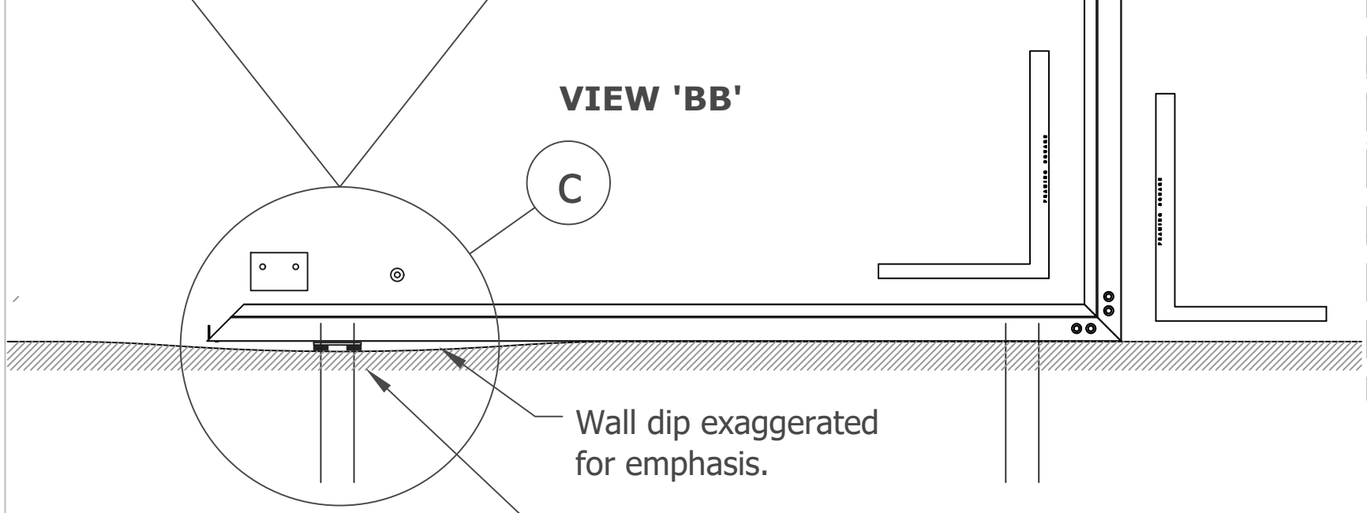
a) 1 ½" x 1 ½" inside corner angles are preassembled to fascia on 1 side.

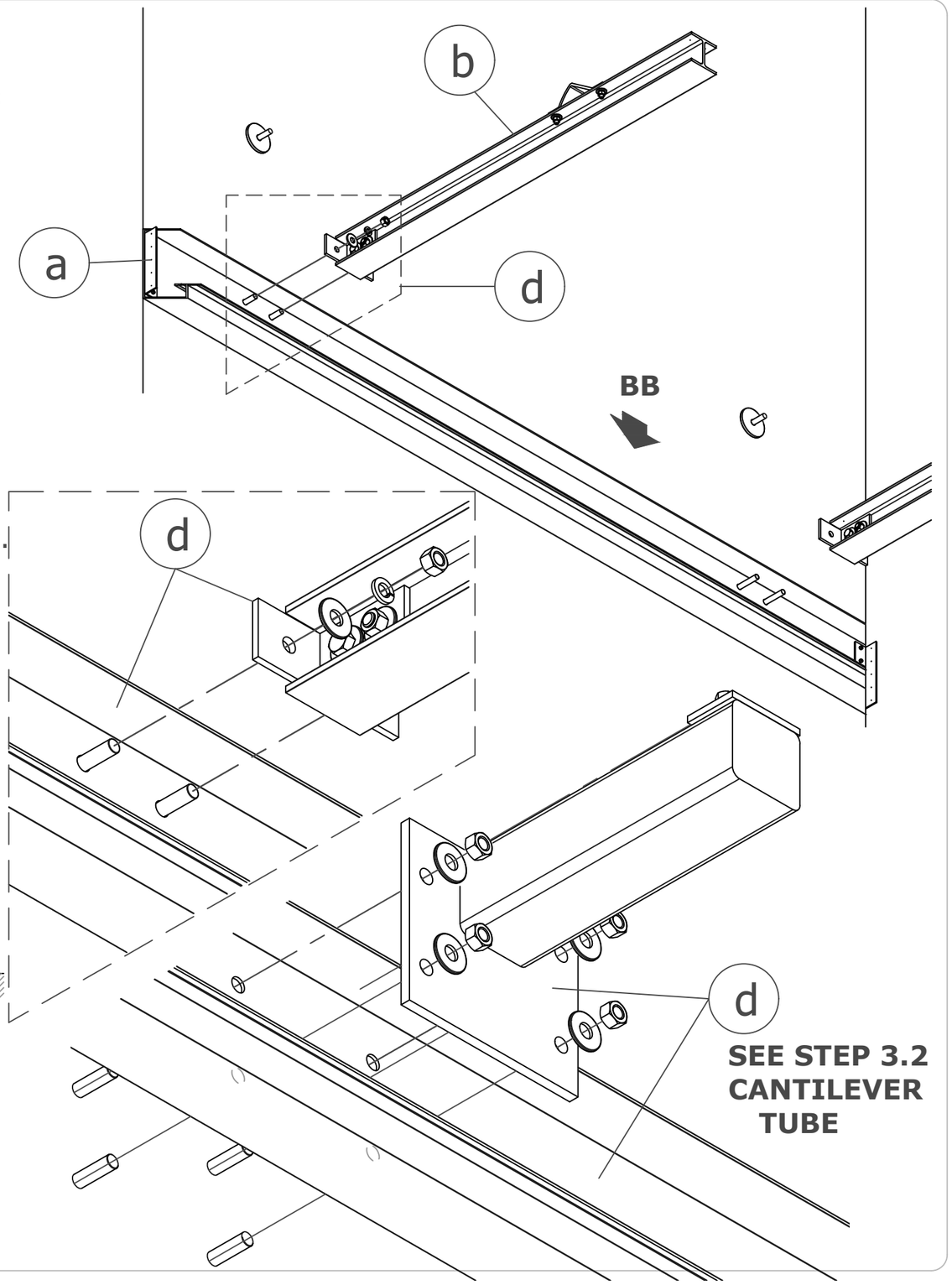
b) Hanger Rod Hanger I-beams are preassembled with front and rear clips. (Cantilever hanger tubes are one piece welded component)

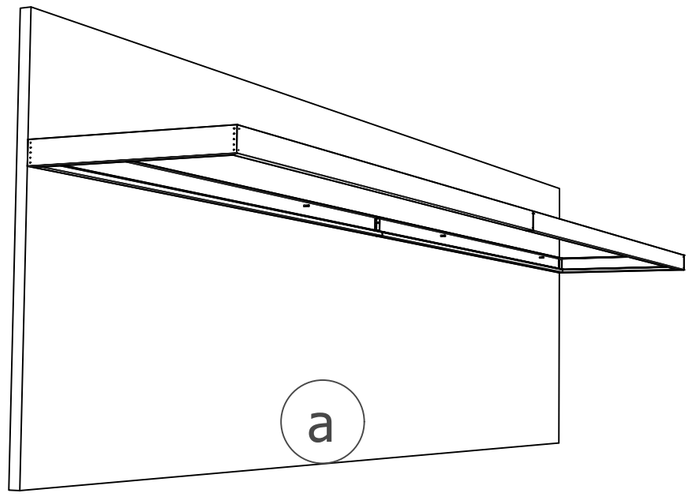
c) Before installing rear fascia assembly, check wall for uneven areas. Shim behind fascia at wall if required to prevent deflection when rear fascia is tightened to wall (shim material by installer).

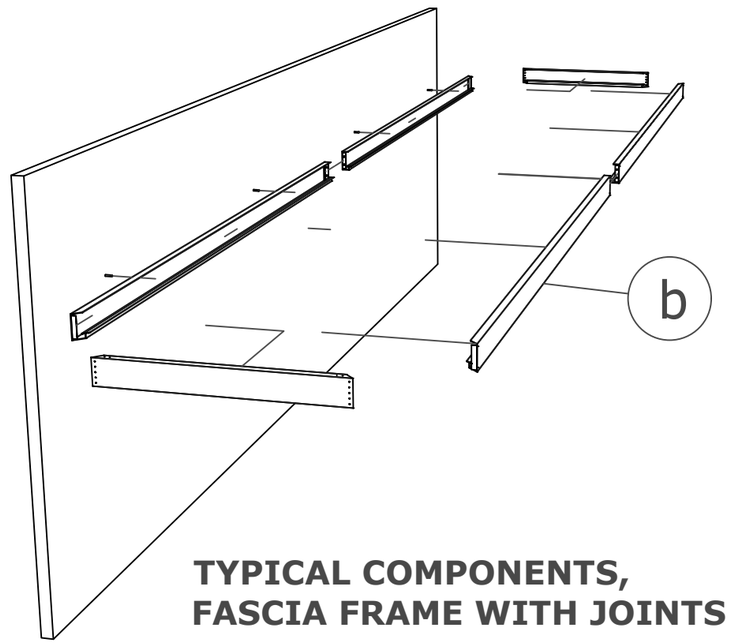
d) Fasten rear fascia to wall with I-beam or tube (go to 3.2) assembly.











TYPICAL COMPONENTS, FASCIA FRAME WITH JOINTS

3.1 OPTION: Fascia Splice:

a. On long canopies, fascia runs may be fabricated in shorter sections, due to length or handling restrictions, and are assembled on site.

b. Fascia pieces are preassembled with 1 1/2" x 1 1/2" angles at splice location.

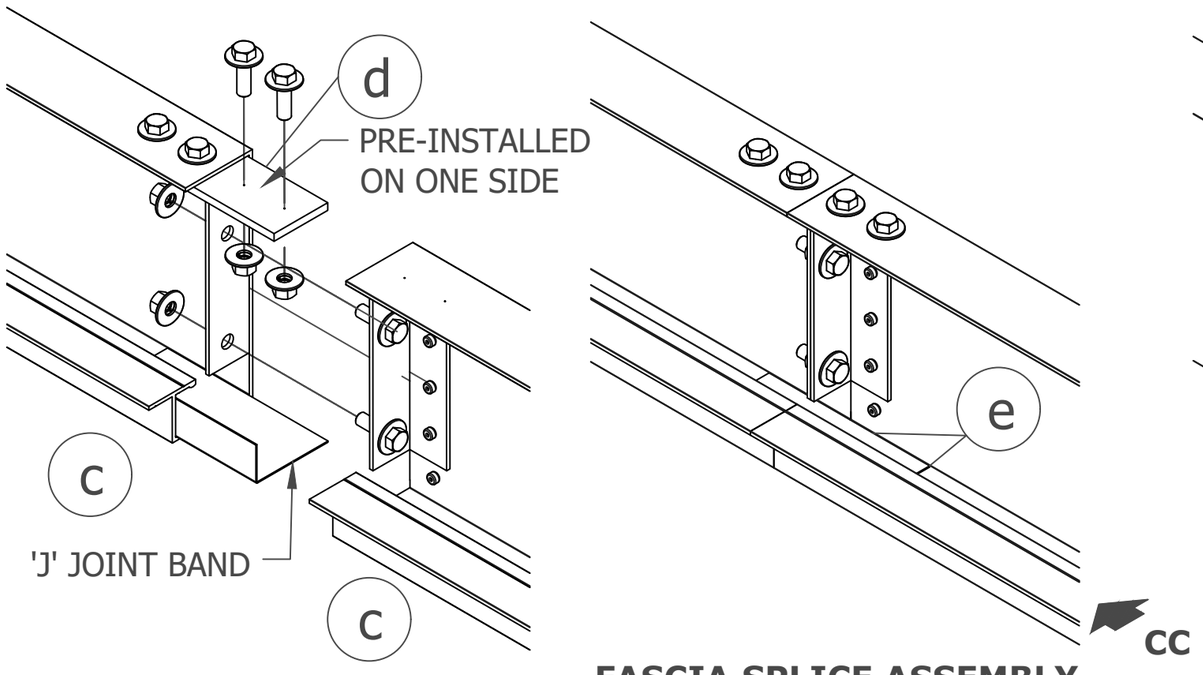
When fascia "breaks" between hanger beams (preferred):

c. Mate fascia pieces using 3/8" machine bolt assemblies to draw joint angles together for a tight splice.

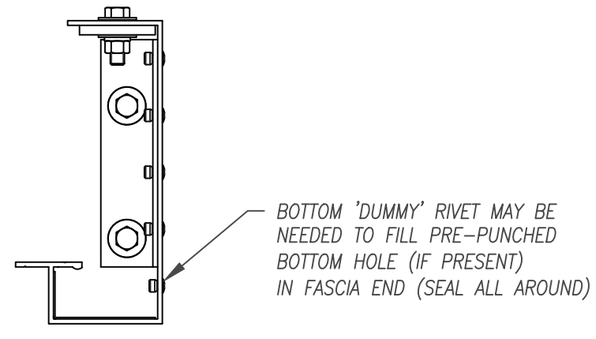
d. Clamp and drill 7/16" holes through fascia top lip and 2” x 6” top splice plate and fasten top splice plate underneath top lip of fascia using (4) 3/8” machine bolt assemblies to join fascia pieces.

e. Seal all edges of joint bands and angles, and all around rivets.

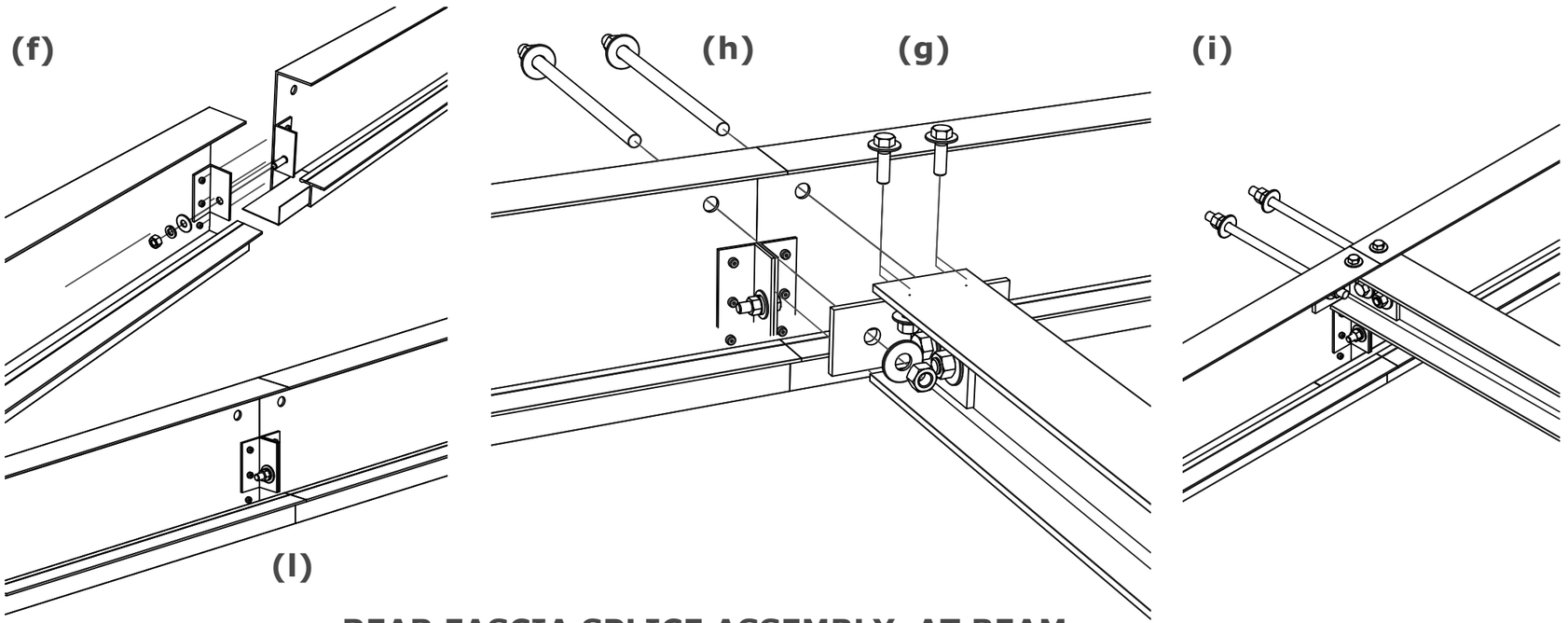
NOTE: toughest spot is on the smaller vertical lip of the fascia along the joint and the band.



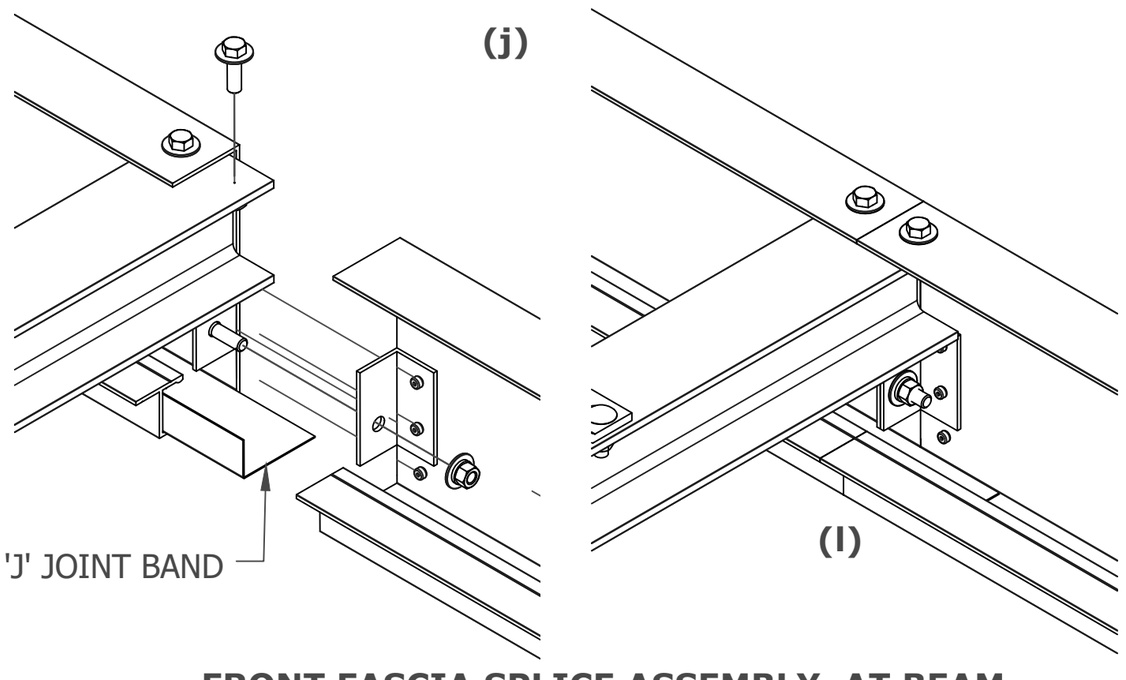
FASCIA SPLICE ASSEMBLY



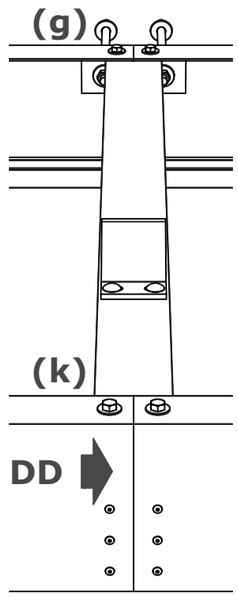
SECTION 'CC'

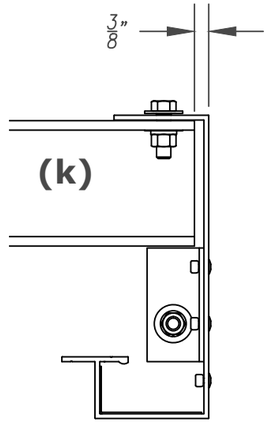


REAR FASCIA SPLICE ASSEMBLY, AT BEAM



FRONT FASCIA SPLICE ASSEMBLY, AT BEAM





SECTION 'DD'

3.1 - OPTION: Fascia Splice (continued):

a. On long canopies, fascia runs may be fabricated in shorter sections, due to length or handling restrictions, and are assembled on site.

b. Fascia pieces are preassembled with 1 1/2" x 1 1/2" angles at splice location.

When fascia "breaks" at hanger beams (less preferred):

f. Mate **REAR** fascia pieces using 3/8" machine bolt assembly to draw joint angles together for a tight splice.

g. Clamp and drill 7/16" holes through **REAR** fascia top lip and hanger beam top flange and fasten beam underneath top lip of fascia using (2) 3/8” machine bolt assemblies to join fascia pieces.

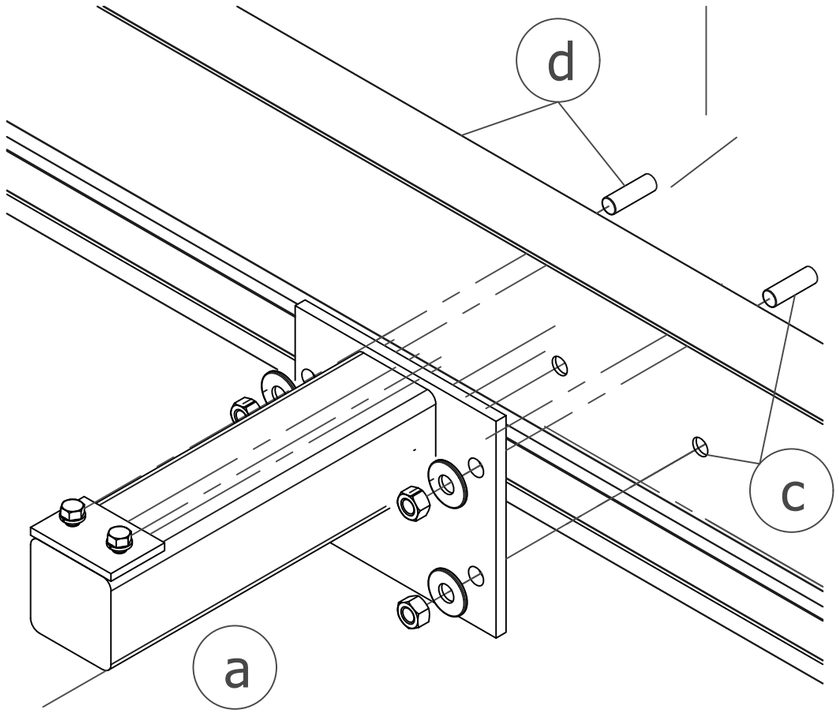
h. Hang fascia assembly on wall bolts.

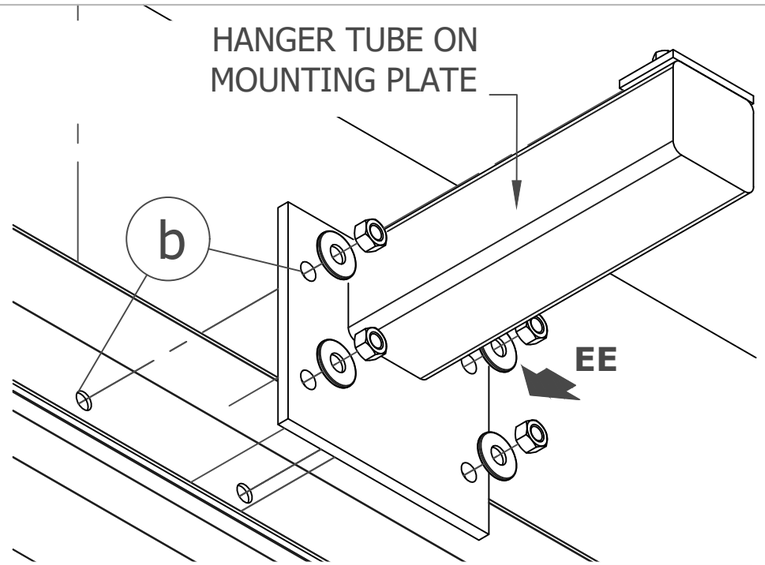
i. Install beam/clip assembly on wall bolts, sandwiching fascia between wall and beam.

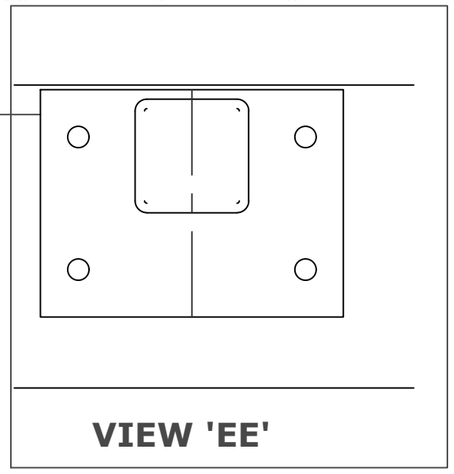
j. On **FRONT** fascia, follow same procedure as in (**f.**) above, assuring fascia pieces butt together.

k. Fasten **FRONT** fascia to hanger beam per (**g.**) above, EXCEPT offset fascia face 3/8" forward of front of beam.

l. Seal in and all around joint band and joint angles at all fascia breaks.







VIEW 'EE'

3.2 OPTION: Cantilever Tube Hanger Beam (no hanger rod):

a. On some canopy applications where overhead connection, i.e. hanger rod, may not be possible or desirable, a "cantilever" support system is then used**.** Mapes supplies a steel tube hanger beam assembly for these situations.

b. As per Step 1-a) & -b) on page 3, use hanger tube wall plate as template for wall bolt drilling in rear fascia.

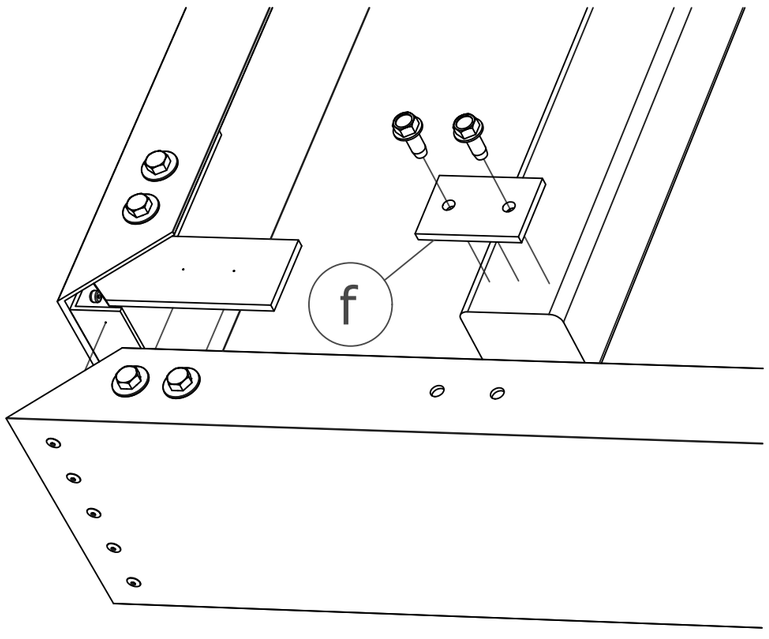
c. Drill 11/16" holes in rear fascia, to correspond to wall anchor layout.

d. Hang fascia on wall bolts.

e. Fasten hanger tube mounting plate to wall bolts, sandwiching fascia between wall and mounting plate.

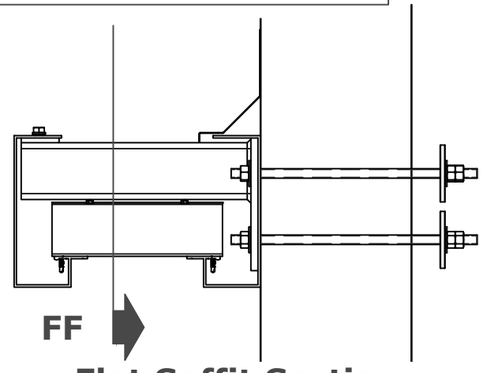
f. (continued at left)

NOTE: For flat soffit type deck, Mapes hanger beam layout attempts to center beam between vertical ribs of deck assembly. When deck rib/snap cap occur under beam, there is minimal clearance.

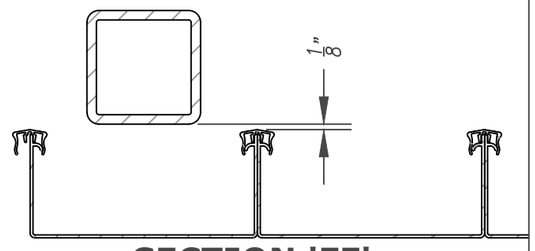


CANTILEVER TUBE FRONT FASCIA ATTACHMENT:

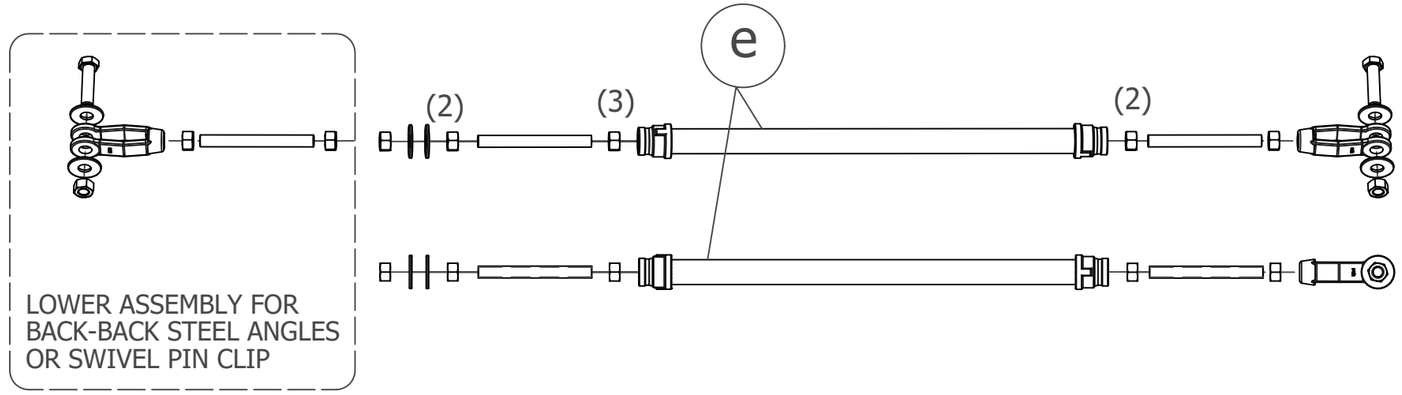
f. Install front fascia in the following manner: Using shim as template, drill $\frac{11}{32}$" holes for 3/8-16 **thread-rolling screws** in top of hanger tube at front; Make holes in fascia lip to align; then drive screws down through fascia lip, shim, and into hanger tube.

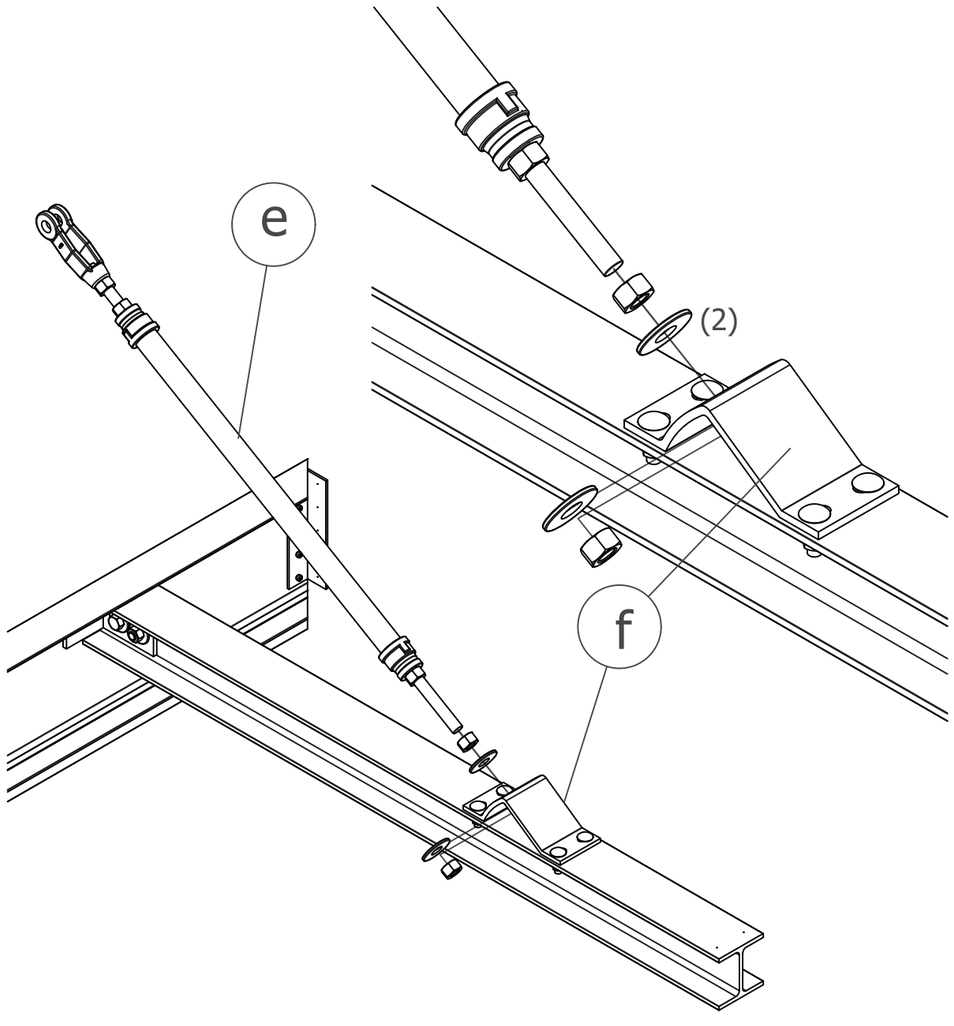


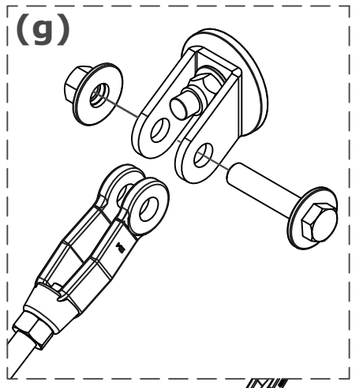
Flat Soffit Section

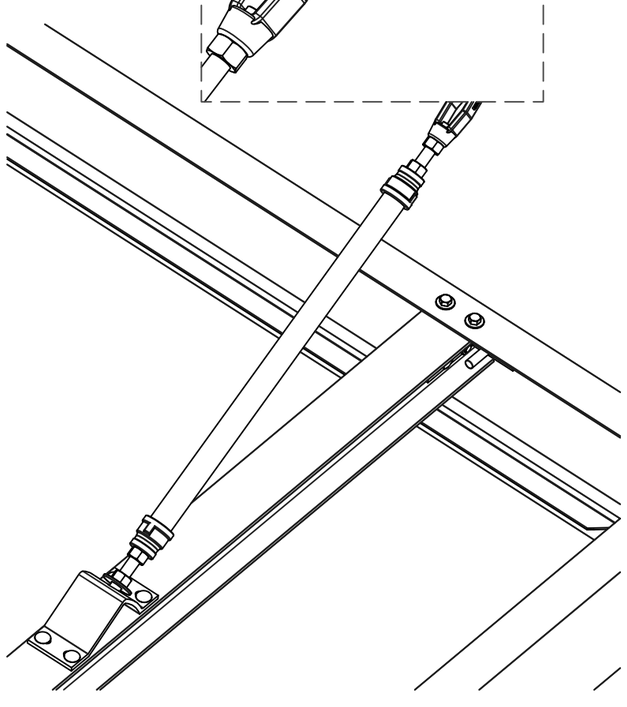


SECTION 'FF':
Beam clearance over flat soffit deck









3. Assemble Back Fascia, Hanger Beams and Hanger Rods (CONTINUED)

e)Hanger pipe and related hardware are preassembled.

f) Attach the hanger rod to the front clip on the I-beam, w/ (2) 5/8" flat washers, and (3) 5/8" nuts.

g)Attach hanger rods to upper wall connection w/ 5/8" x 3" bolt assembly.

h)Alternate front connection: If required by engineering to meet local codes, and/or hanger rod rise angle is greater than 45° off horizontal, front clip is assembled from steel angles (next page).

i) Alternate front connection: When hanger rod upper and lower connections are not in line, a SWIVEL PIN front clip permits more "range of motion" (next page).

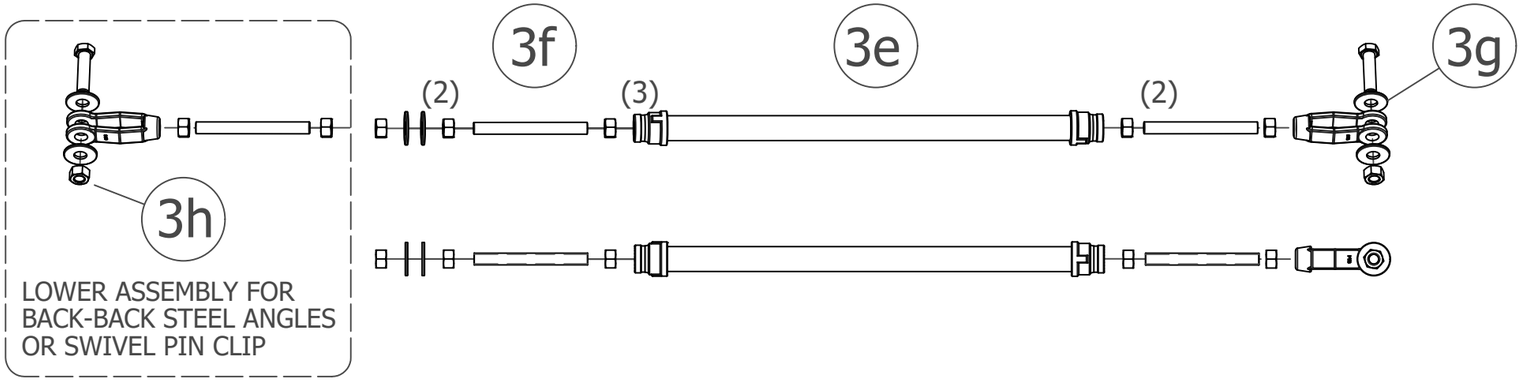
j) Alternative upper connection: In rare circumstances when required, threaded eyebolt in place of bent u w/ threaded rod (next page).

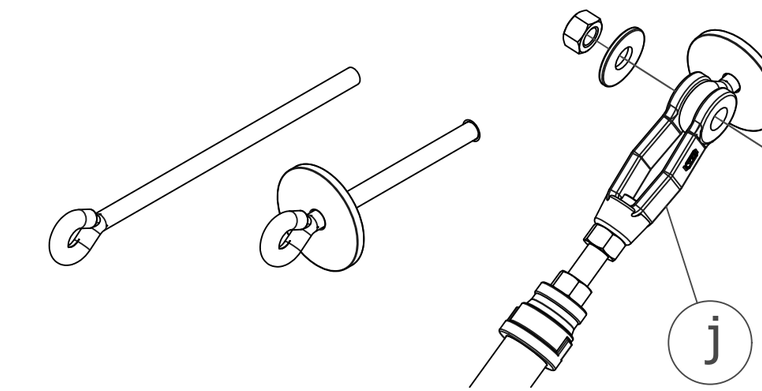
3. Hanger Rods (CONTINUED)

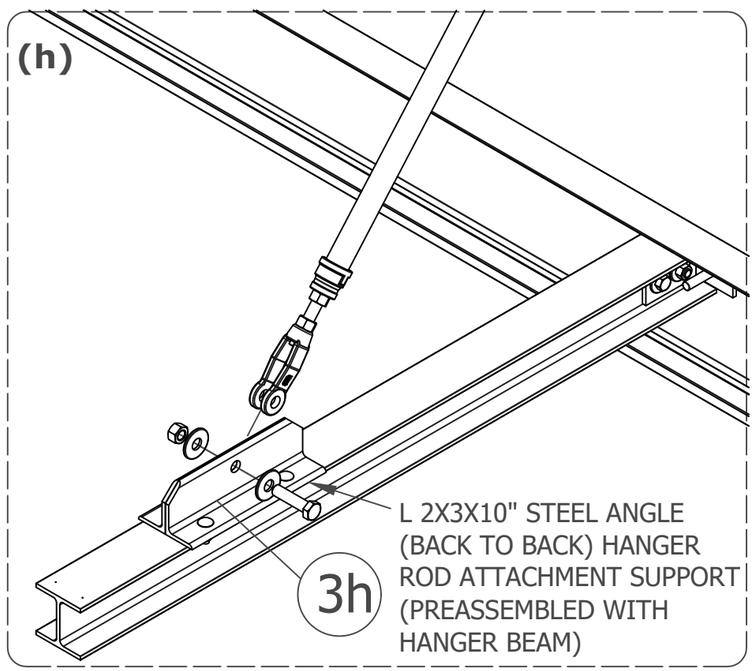
h) Alternate front connection: If required by engineering to meet local codes, and/or hanger rod rise angle is greater than 45° off horizontal, front clip is assembled from steel angles.

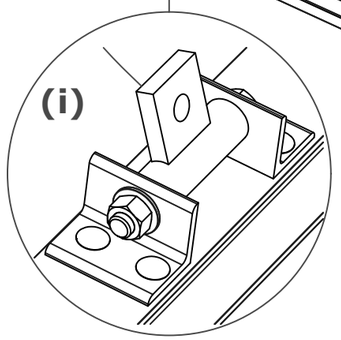
i) Alternate front connection: When hanger rod upper and lower connections are not in line, a SWIVEL PIN front clip permits more "range".

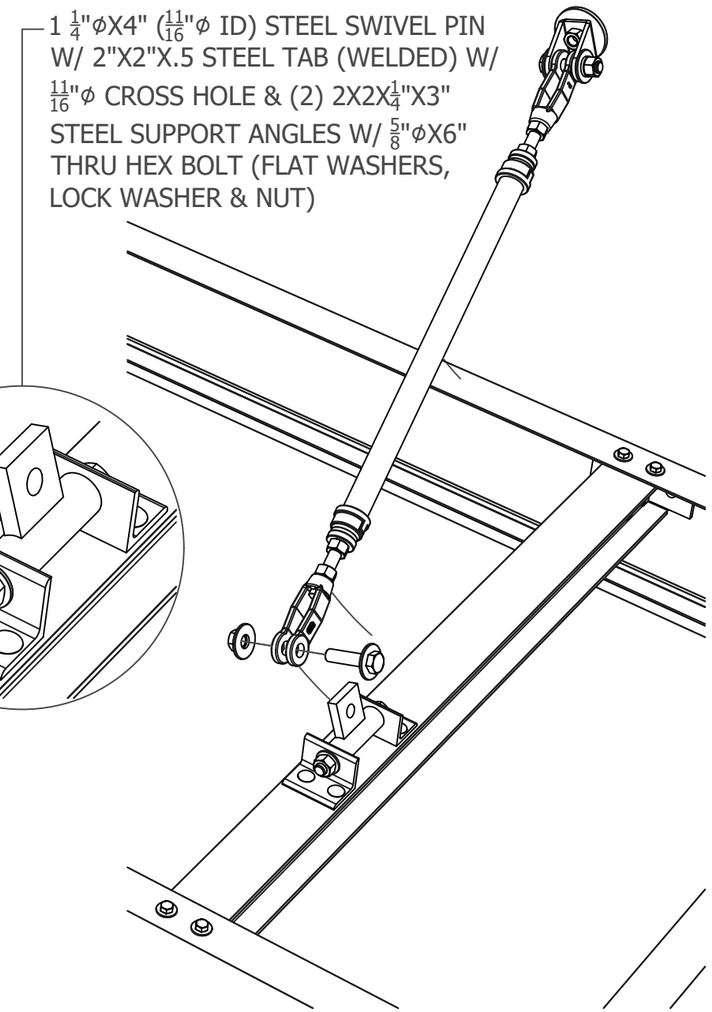
j) Alternative upper connection: In rare circumstances when required, threaded eyebolt instead of bent u w/ threaded rod.

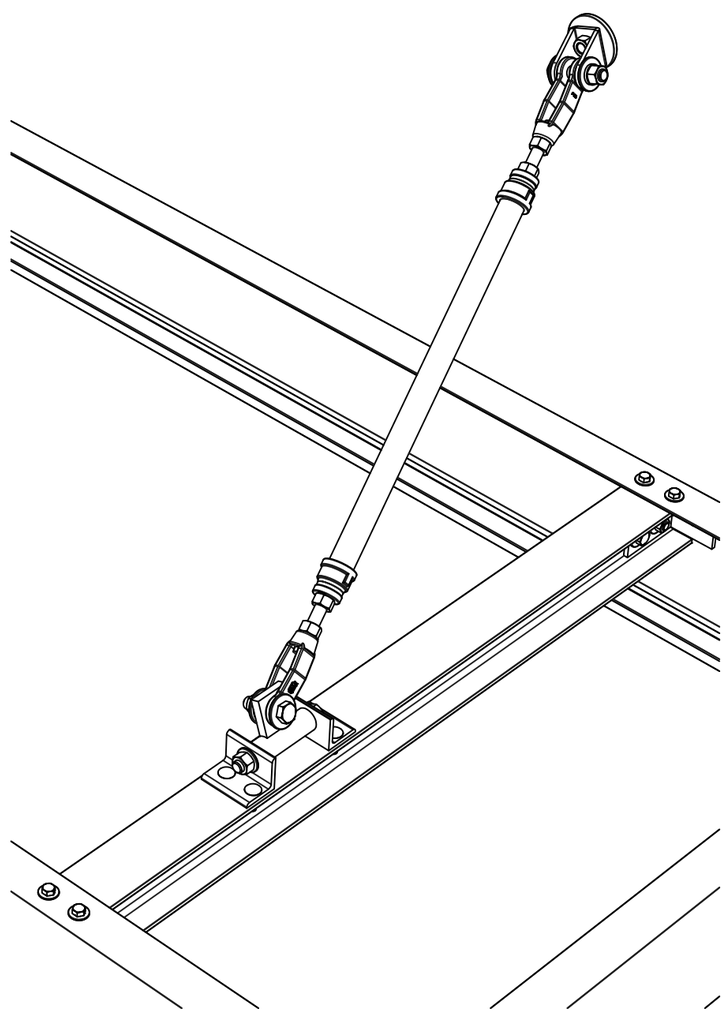


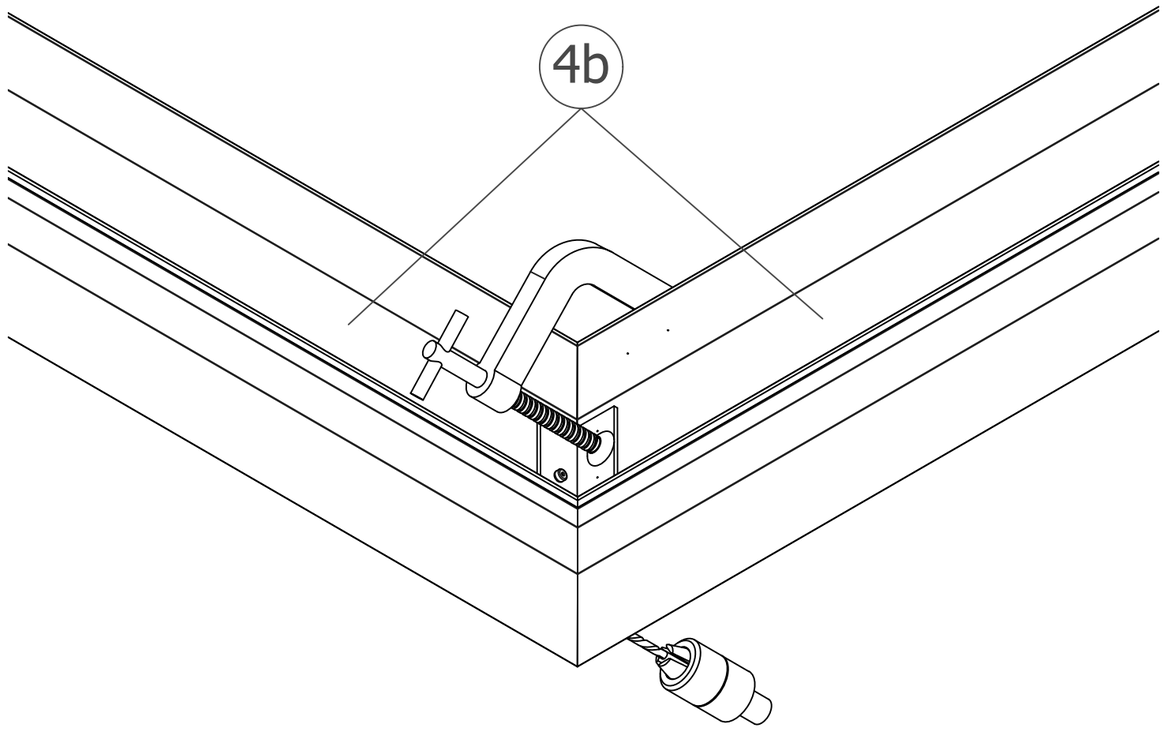


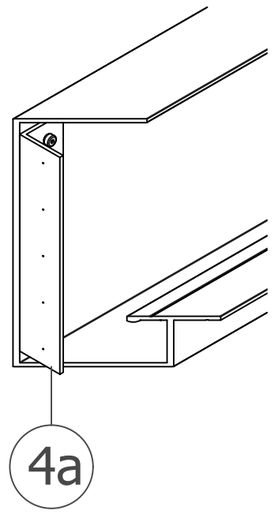








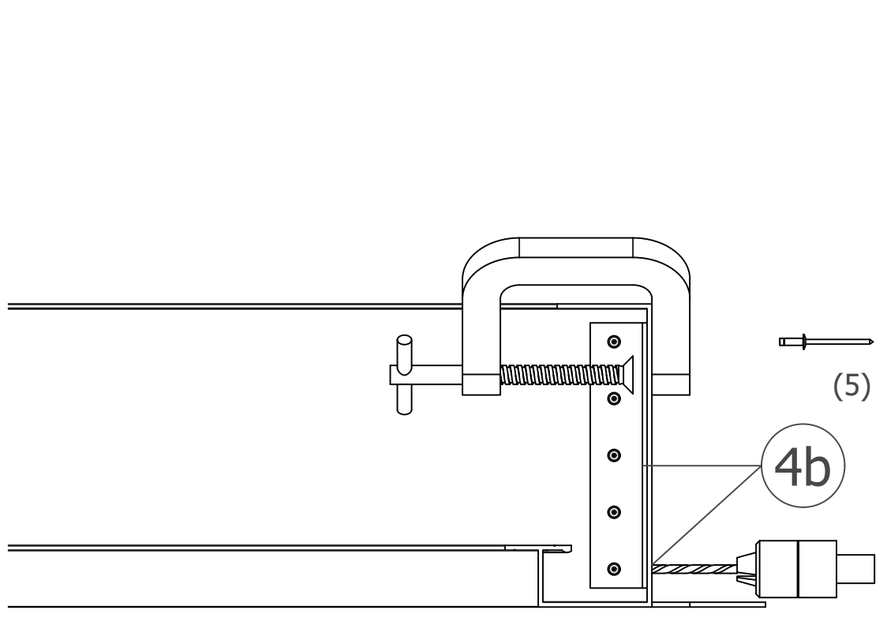


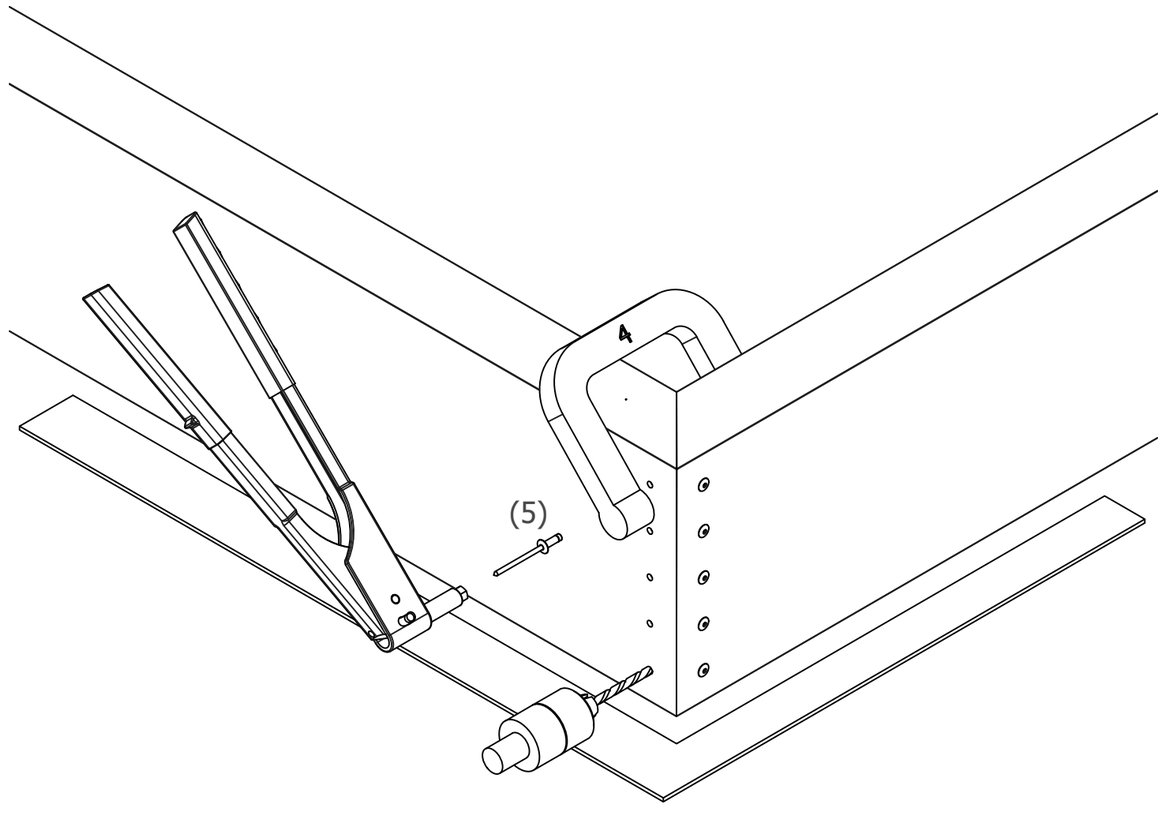


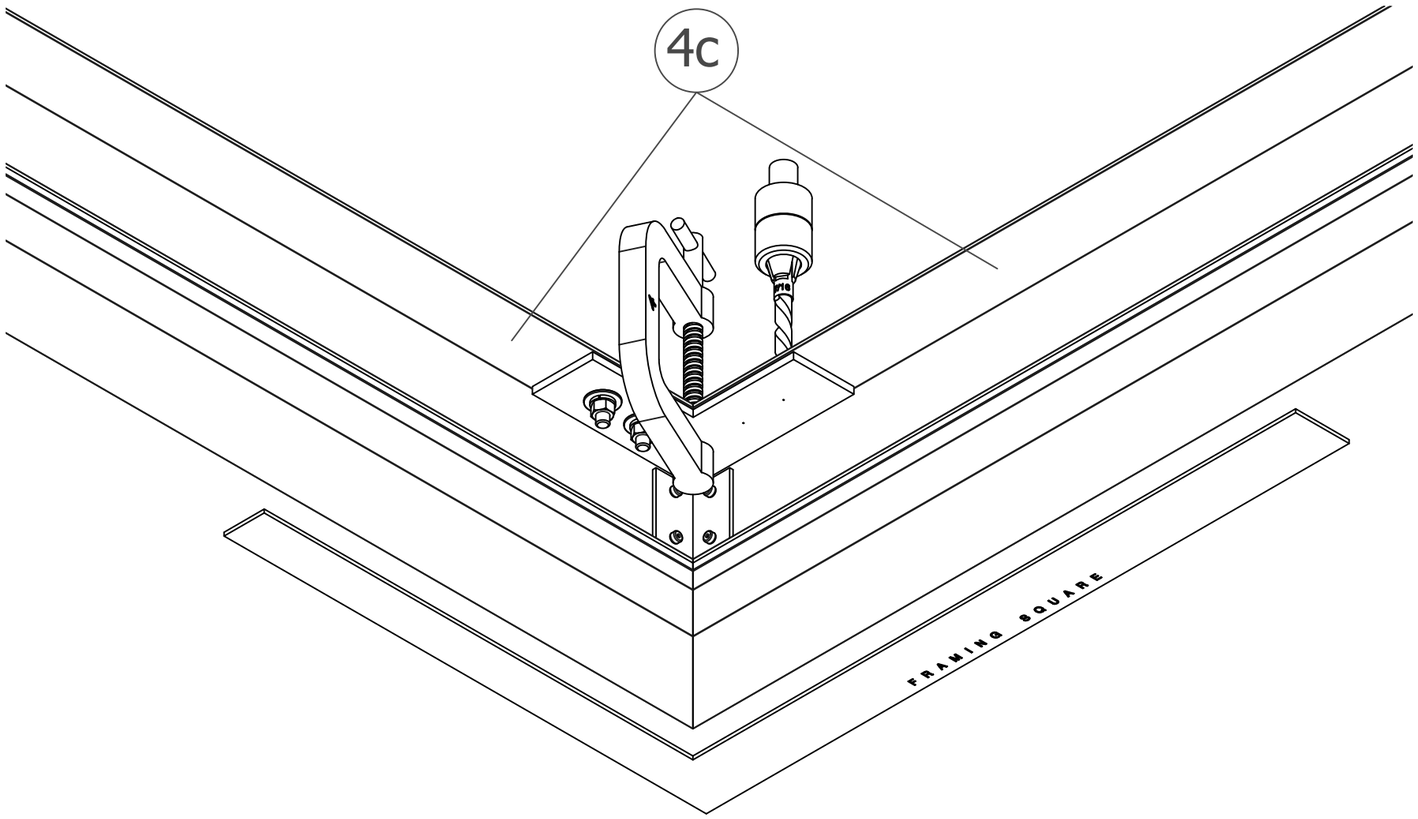
4. Assemble Fascia

a) 1 ½" x 1 ½" inside corner braces are already assembled to fascia on 1 side.

b) Clamp together side and wall fascia pieces to make corner. Drill through factory holes in side fascia into 1 ½" x 1 ½" angle and use (5) 3/16" rivets.

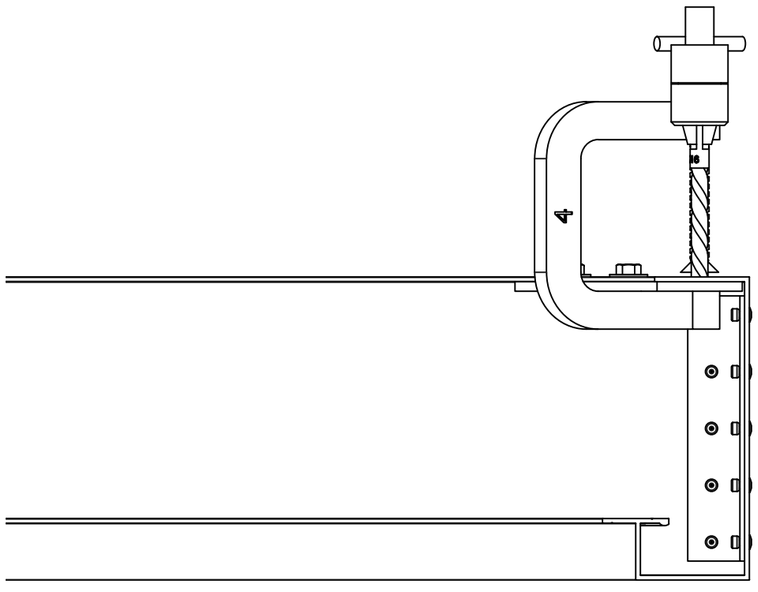


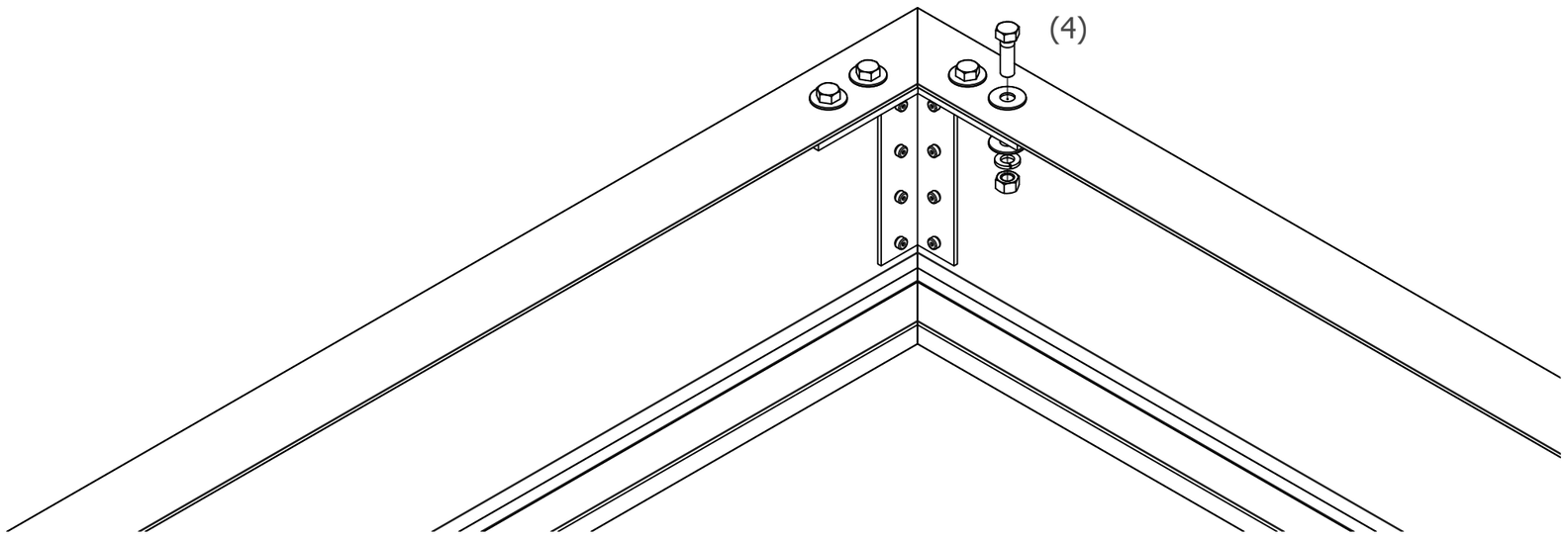




4. Assemble Fascia (CONTINUED)

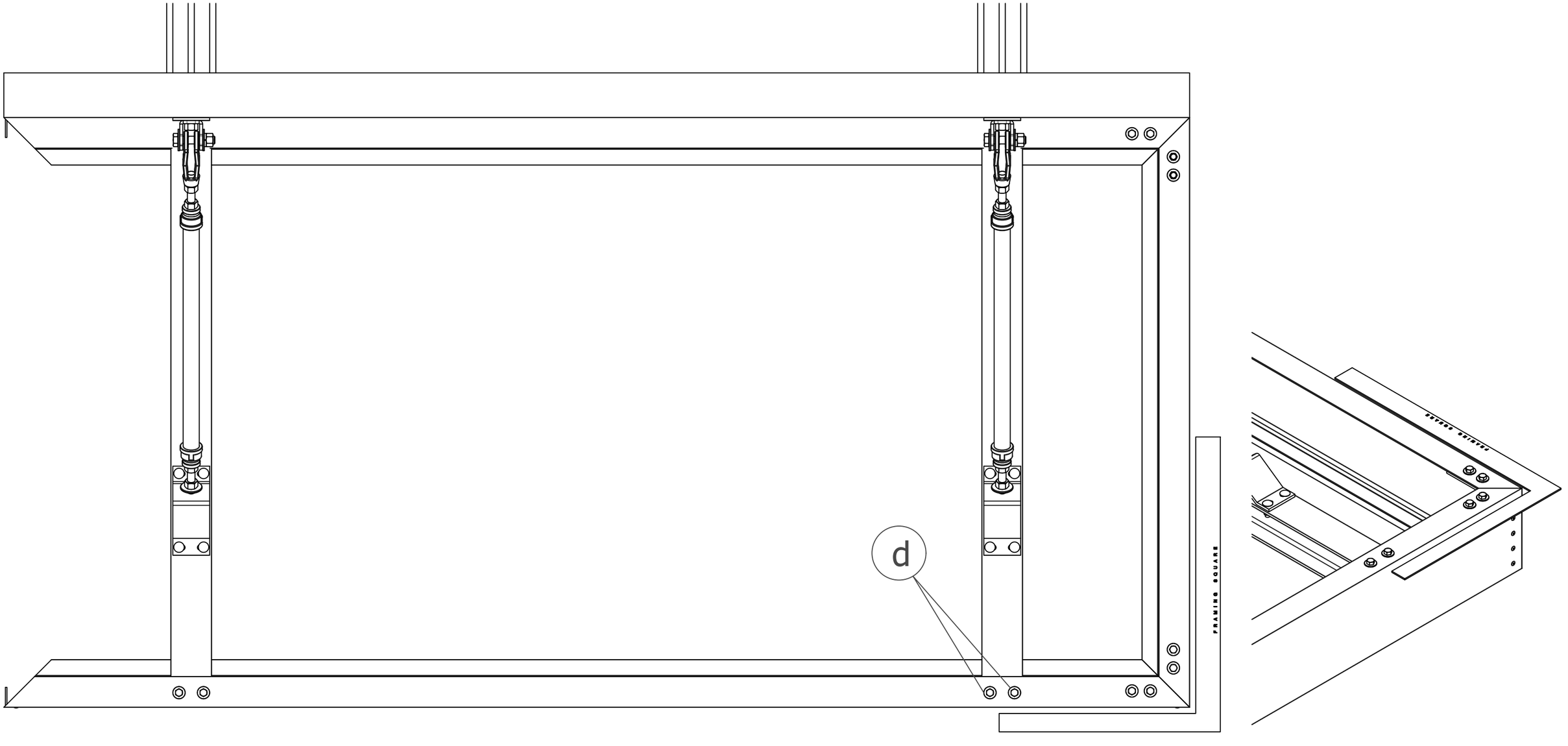
c. Clamp and drill 7/16" holes through fascia top lip and 6” x 6” corner plates and fasten corner plate underneath top lip of fascia using (4) 3/8” machine bolt assemblies to complete corner.

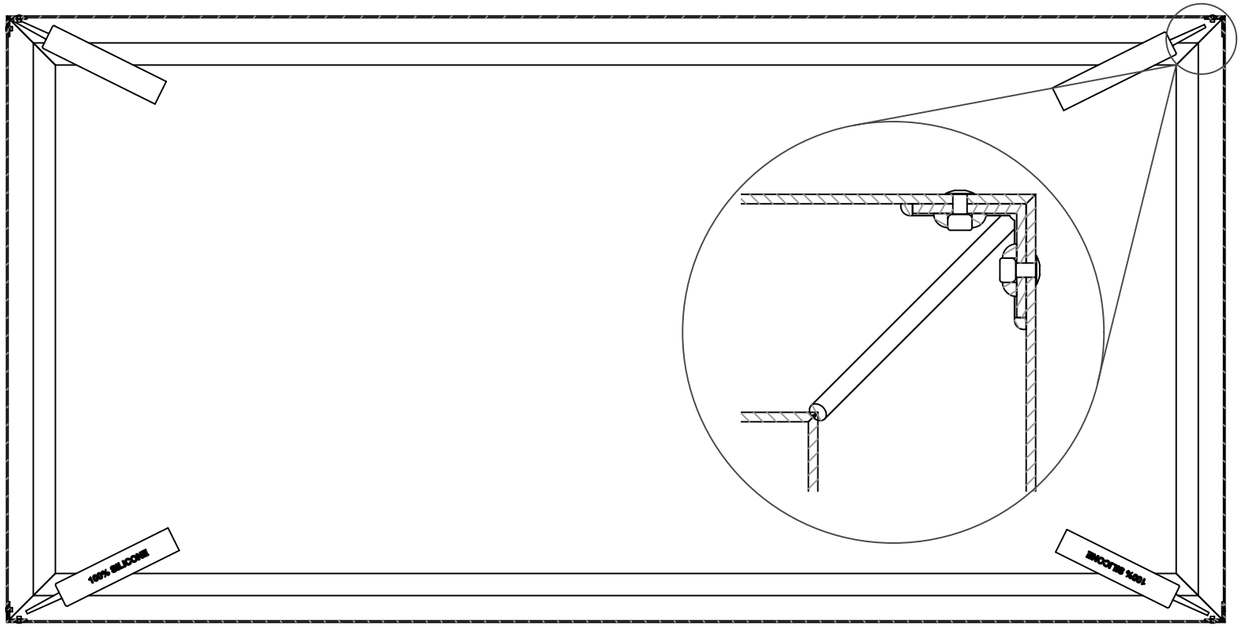


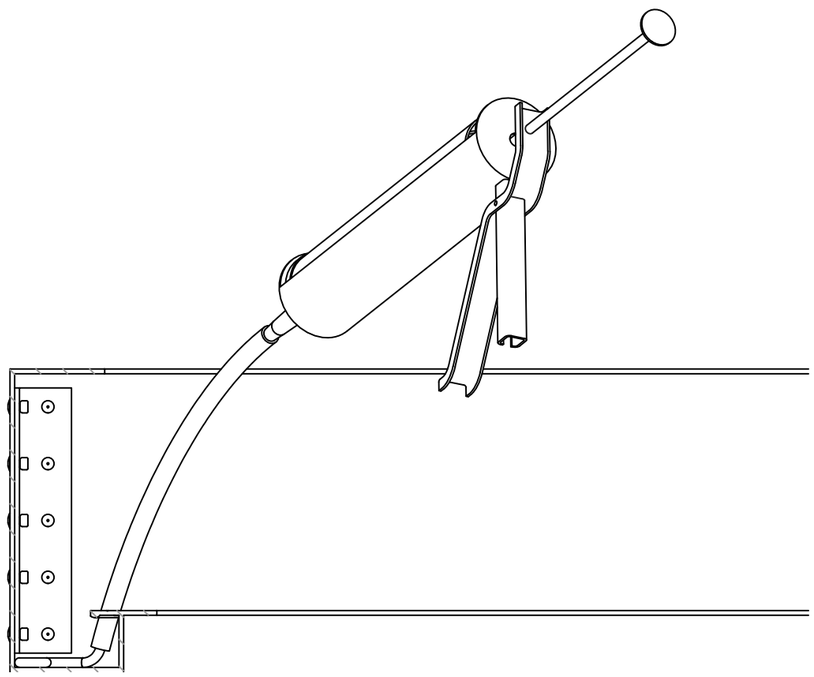


4. Assemble Fascia (CONTINUED)

d) Attach front of fascia onto I-beam w/ 3/8" machine bolts, and lock into place (make sure its square).



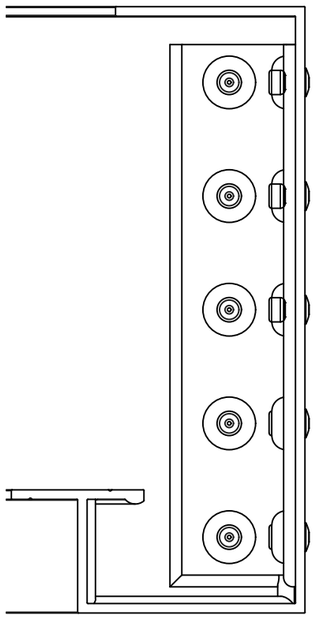


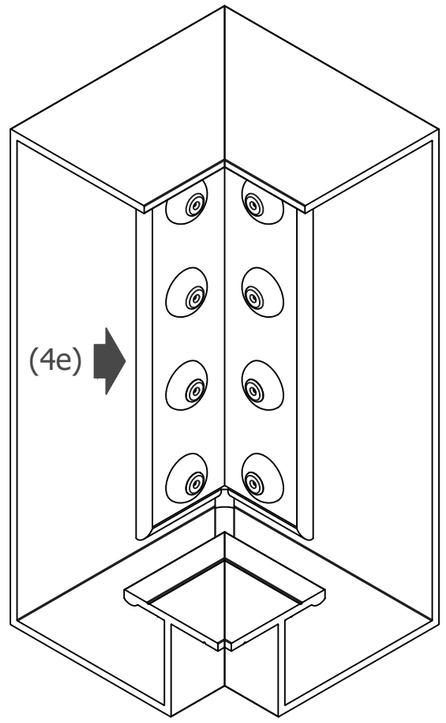


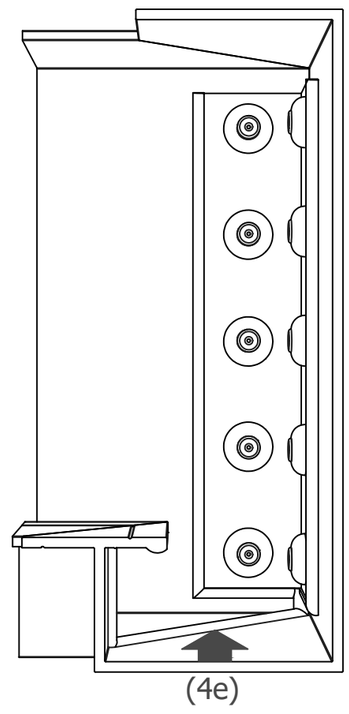
4. Assemble Fascia (CONTINUED)

e) Apply continuous sealant to either side of the corner angle, across bottom of trough at seam and back up to fascia inside lip. Use flexible hosing to direct silicone into tight corners. Seal all rivets.

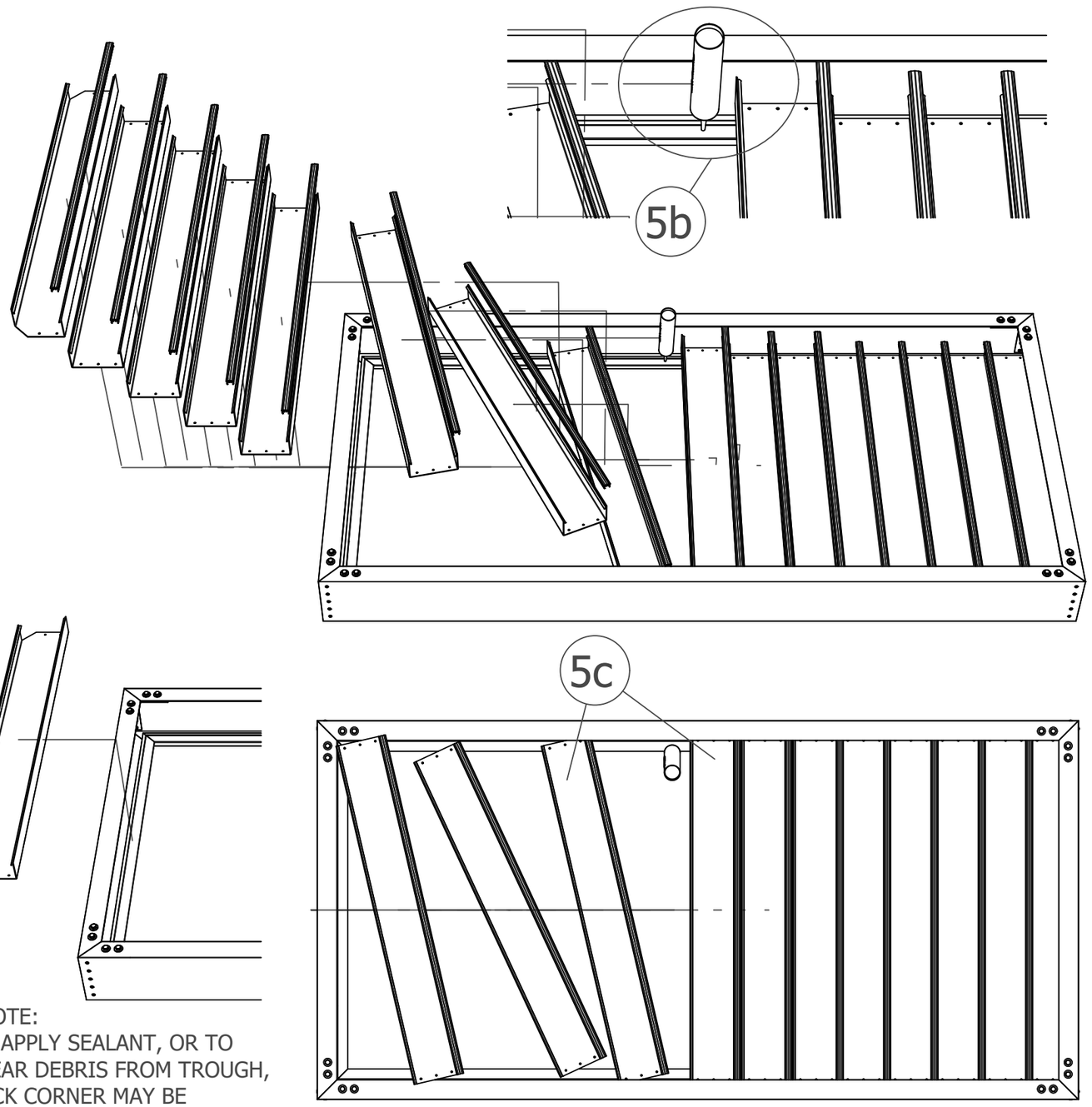
Seal all edges of angles and all around rivets. *NOTE: toughest spot is on the smaller vertical lip of the fascia.*

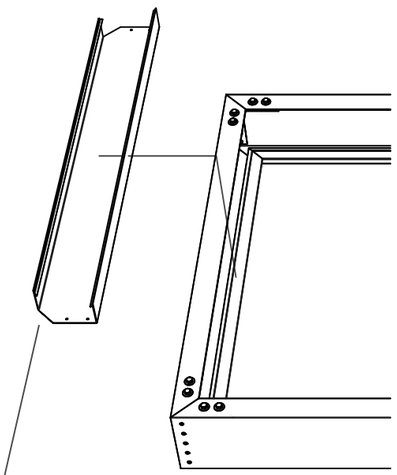






Canopy Assembly Instructions: Flat Soffit Hanger Rod

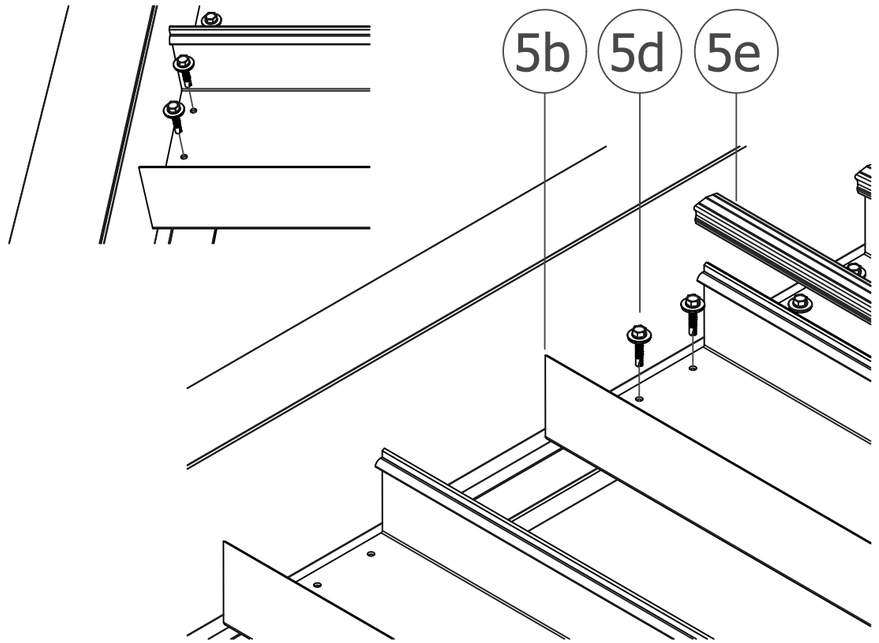




*NOTE:
TO APPLY SEALANT, OR TO CLEAR DEBRIS FROM TROUGH, DECK CORNER MAY BE FIELD-NOTCHED BY INSTALLER

5. Install Decking

a. Assemble (per #4c & d) last side fascia piece to complete fascia frame. Seal corners per #4e.
b. Run continuous sealant along lower fascia lip to be between it and underside of deck when installed. Load deck from top. Rotate each deck piece to slip under top lip of fascia and position on lower fascia lip such that deck extends over inside lip.
c. Maneuver decking to match spacing on blueprints. Make sure both ends (of deck) are equal distance from inside of front and rear fascia.
d. With (3) #12 tek screws, fasten decking to fascia using pre-punched holes on lower decking.



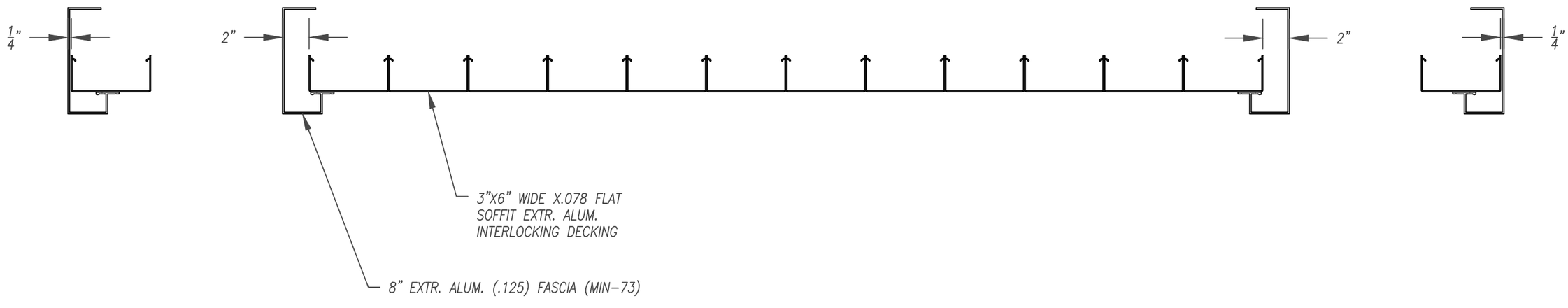
5. Install Decking (continued)

c. Maneuver decking to match spacing on blueprints. Make sure both ends (of deck) are equal distance from inside of front and rear fascia.

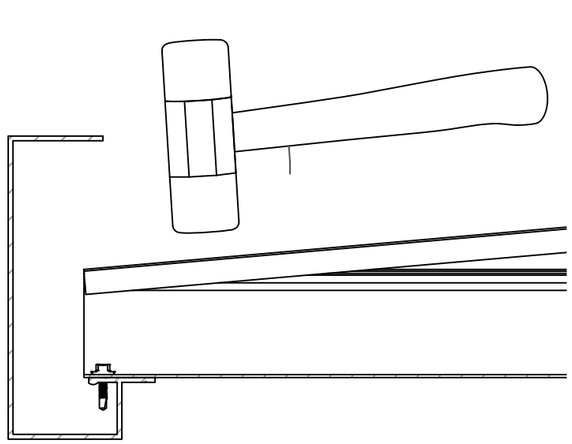
Deck offset from end fascia may vary based on canopy width. Flat soffit deck pieces are 6" or 3" wide (or end pieces may be "slit" - that is - trimmed on one side to fit within fascia frame).

Maximum deck side offset from outer face of side fascia is 2 inches; minimum offset is $\frac{1}{4}$". Begin and end installation such that deck offset will be equal on both sides.

Unless other wise noted, deck **ends** are offset 2 inches from outer face of front and rear fascia.



Canopy Assembly Instructions: Flat Soffit Hanger Rod



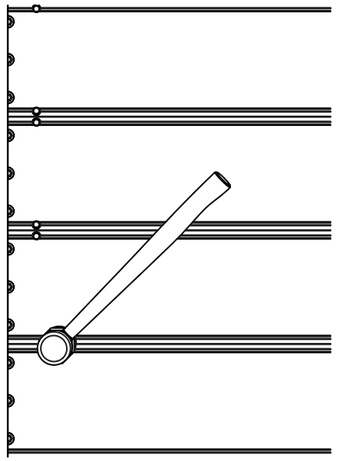
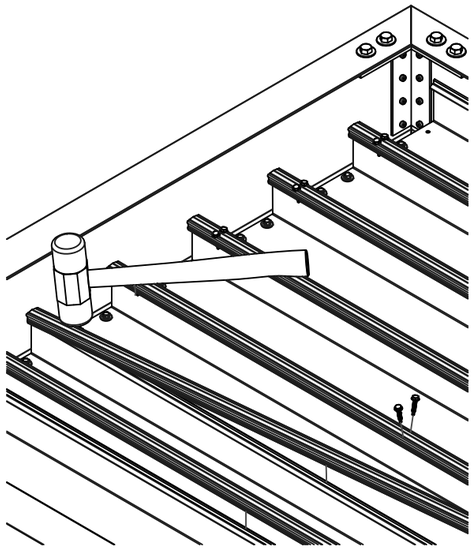
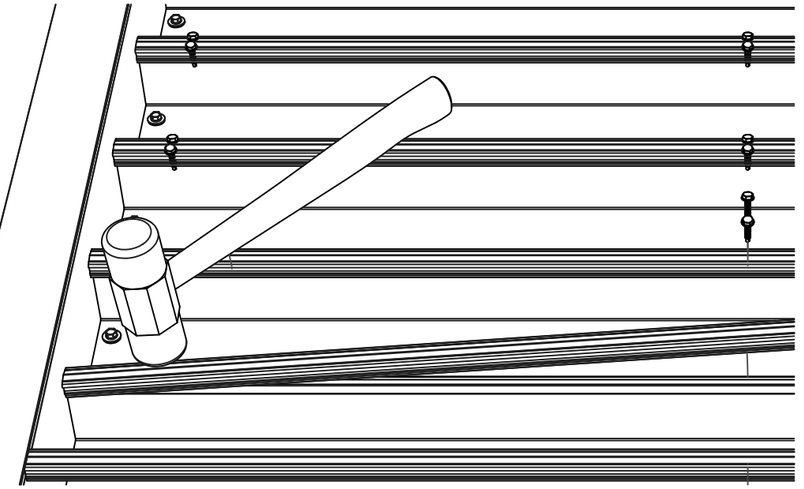


Figure e.

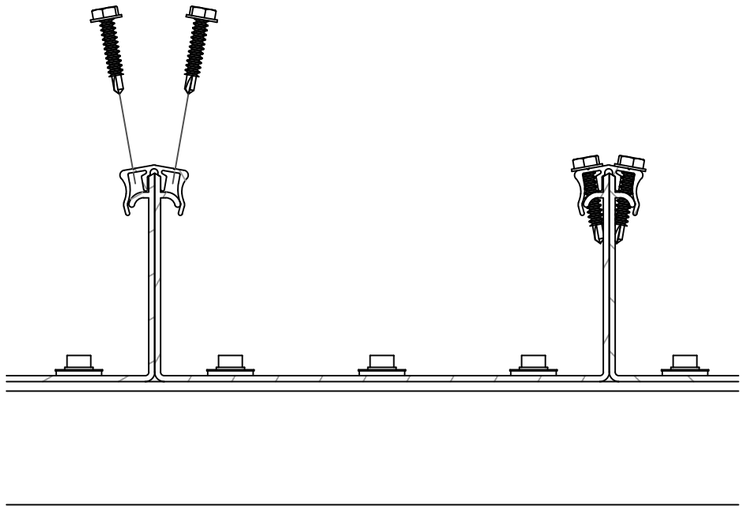




5. Install Decking (continued)

e) Using a rubber mallet, put on snap cap. (Hammer one end on, then work your way down, hammering every foot until you get the whole piece to snap on).

f) Apply #10-16 tek screws to snap cap at 24” on center on both sides of the peak. Pay attention when screwing, so screw grabs both snap cap and deck flare, or snap cap might be pushed up. If it does, back out screw (snap cap will go back down) then put screw right back in.



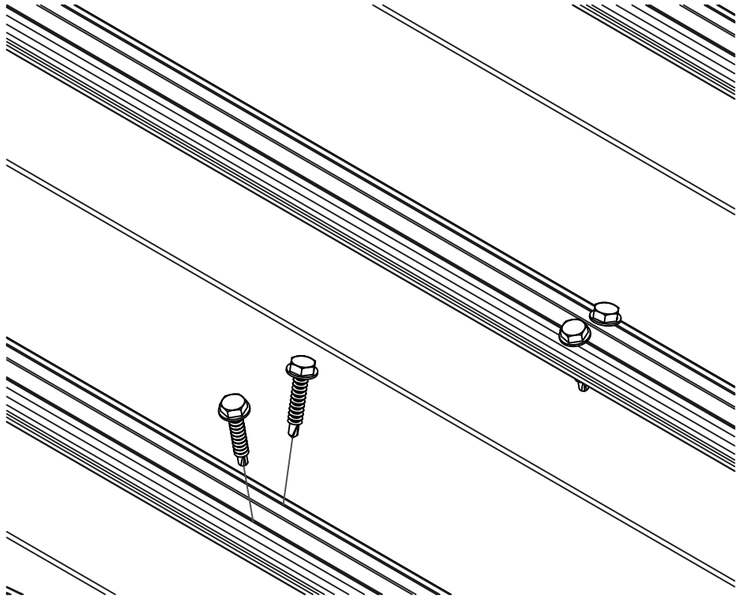
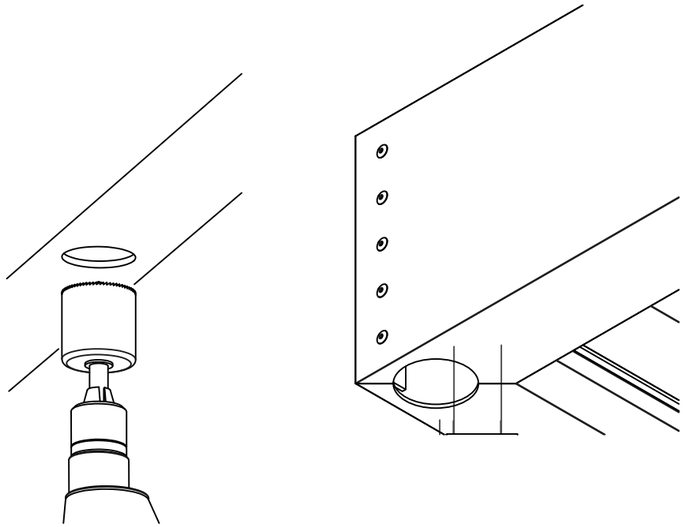
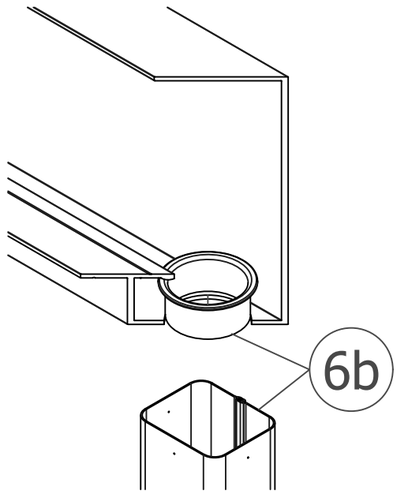
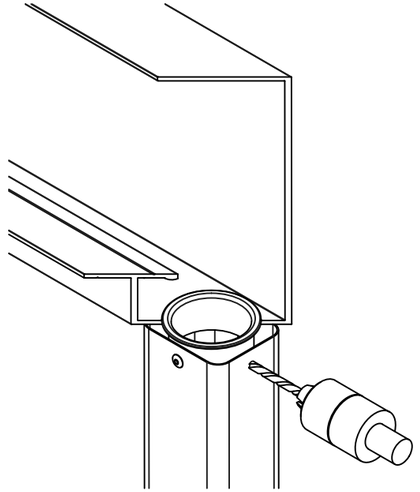
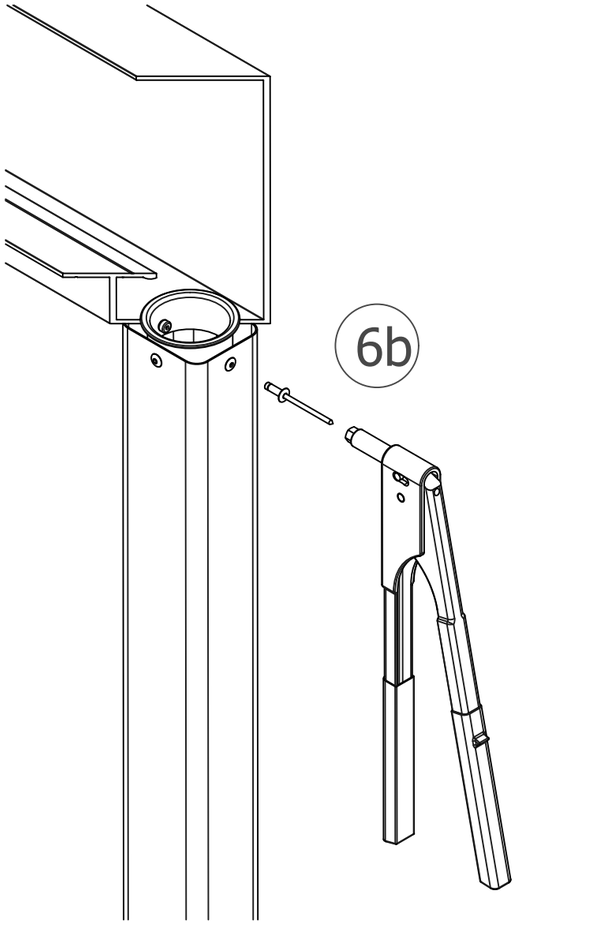


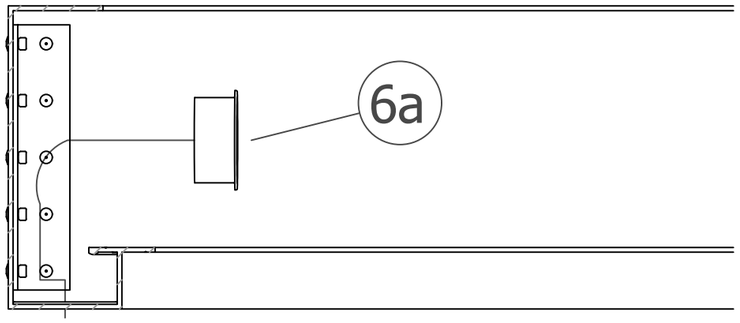
Figure f.

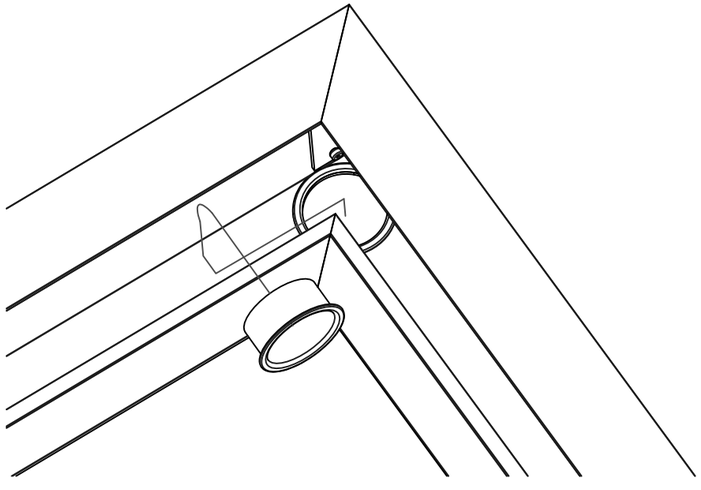












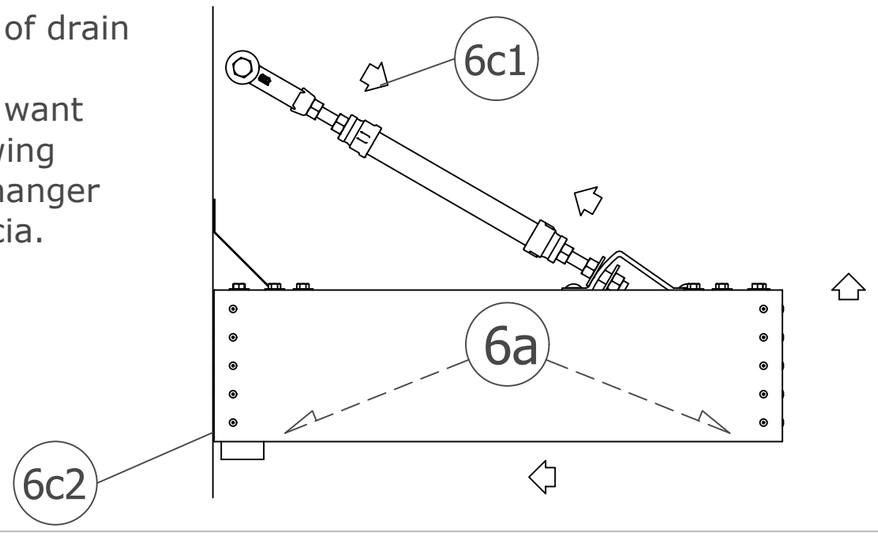
6. Drill Proper Drainage Holes in Fascia, Fascia Extension Assembly (If Applicable)

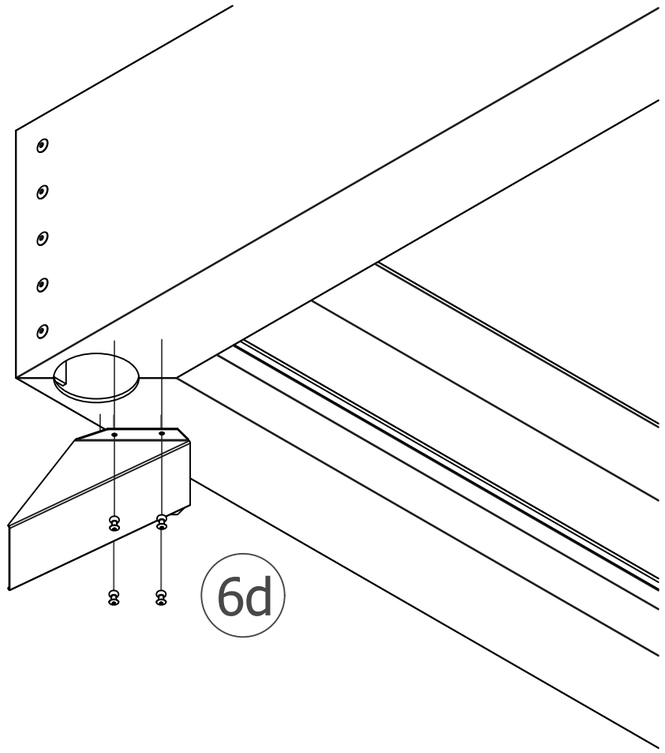
DRAIN STUB: a) Drill 2 $\frac{5}{16}$" hole in fascia trough at desired drain location and install 2 $\frac{1}{4}$" pressed aluminum drain stub**.**

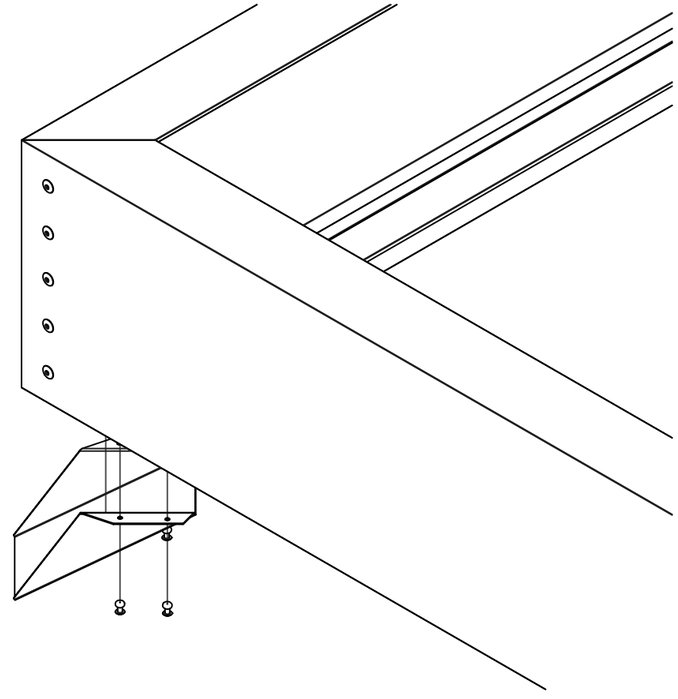
*** Mapes recommends at least one (1) drain location for each 175 SF of canopy and each 15' of fascia (gutter) distance.**

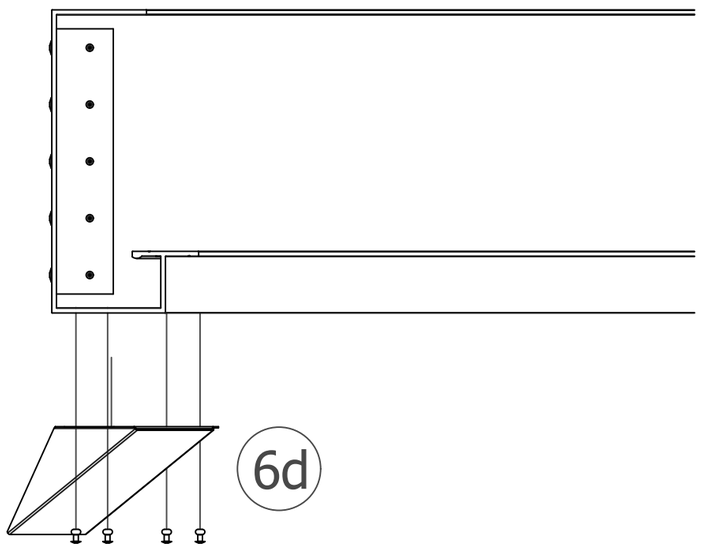
DOWNSPOUT: b) If using downspout, drill 2 5/16” hole in fascia trough for drain stub (*as above)*, and attach downspout with downspout elbows and tie-backs using 3/16” self-sealing rivets. Modifications of drain stub may apply in some instances.

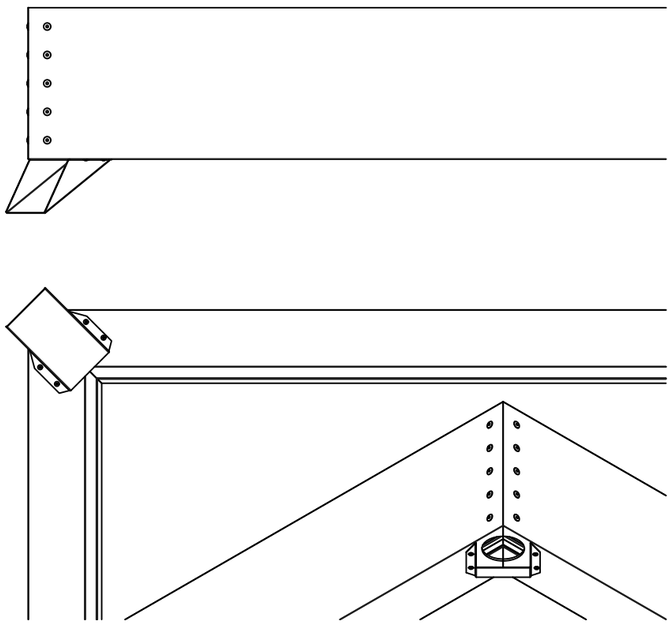
c) Adjust canopy whichever direction you want water to drain, by one (or both) of the following methods: 1) turn the adjusting nuts on the hanger adjustment rods, or 2) shim behind rear fascia.









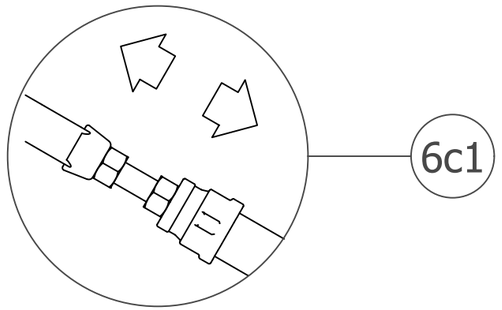


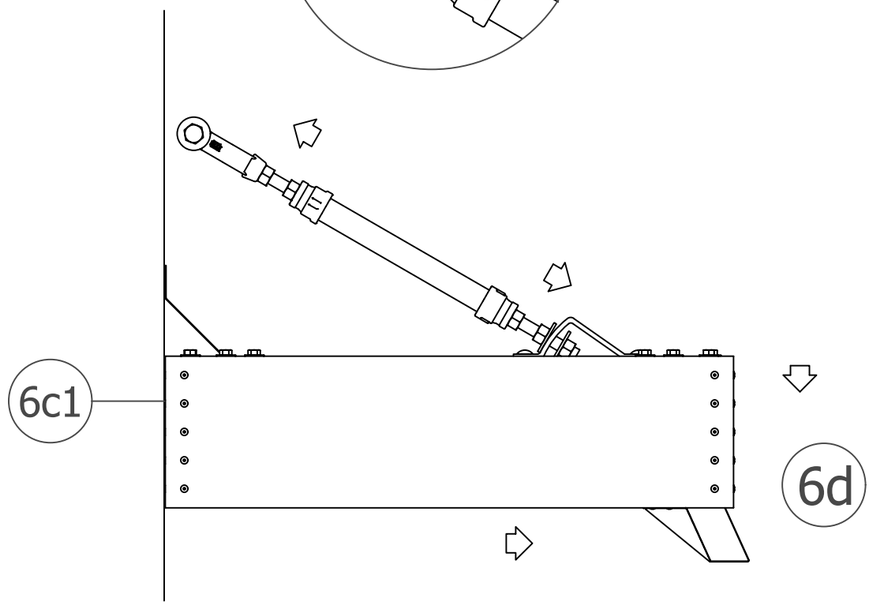
6. Drill Proper Drainage Holes in Fascia, Fascia Extension Assembly (If Applicable)

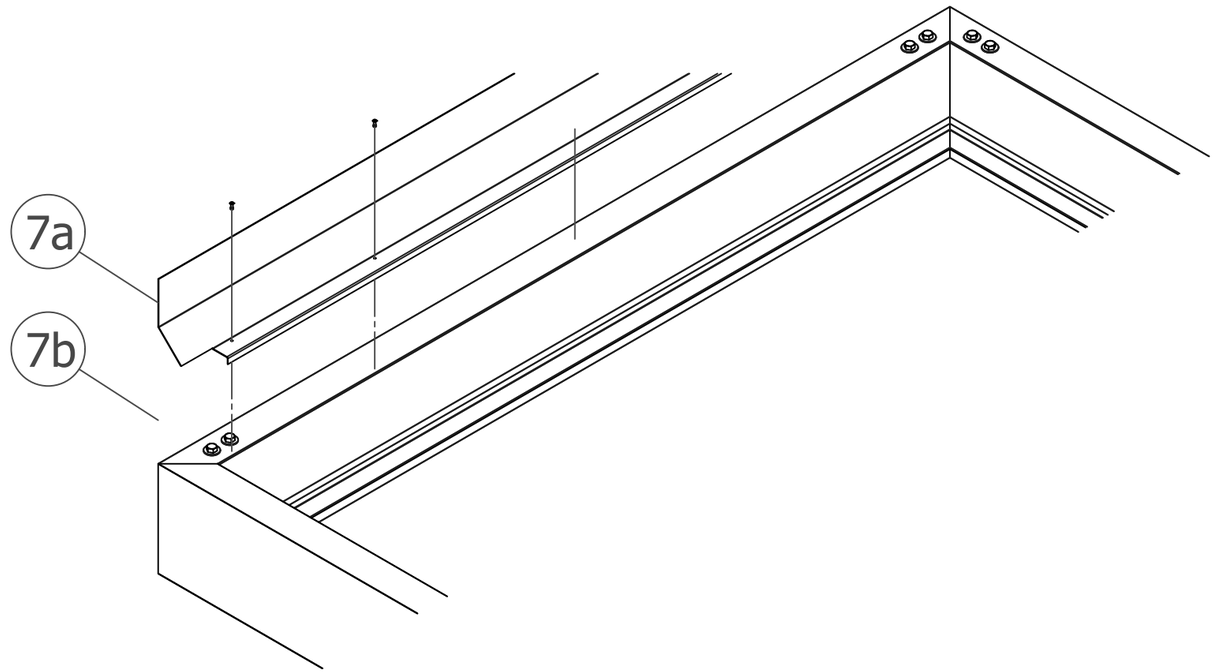
OPTIONAL "DEFLECTOR-STYLE" SCUPPER:

d) If using scuppers, drill 2” hole in fascia trough and use (4) self-sealing rivets to attach.

c) Adjust canopy *whichever direction you want water to drain, by one (or both) of the following methods: 1) turn the adjusting nuts on the hanger adjustment rods, or 2) shim behind rear fascia.*







7. Flash and Seal

a) Flashing provided by Mapes. *(Flashing is sent long; notch for length and fascia lip in field).*

b) After canopy is up, start from one end. Make flashing flush with the back of fascia at wall, notch/cut off the lower leg of flashing so it fits/funnels into the canopy. Put a rivet down the middle part of flashing into the top of rear fascia (one rivet every 12”). If you have multiple overlapping pieces of flashing, then silicone at every joint. Once you finish at the other end of canopy, put thick bead of silicone behind/against the flashing/wall and to also do one at the top edge of the flashing at wall. The point is to prevent seepage or wicking down wall behind canopy and flashing.