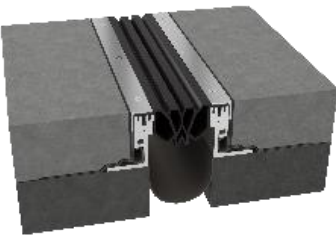


SEISMIC EXTERIOR PLAZA SYSTEM TOPPING SLAB DECK APPLICATION

Model(s): TSS/TSSw

TSS Slab to Slab System – 2” and Larger Sizes

GENERAL DESCRIPTION



This Seismic Exterior Plaza System is a high performance, versatile completely watertight expansion joint system. Topping Slab Deck System accommodates variable system widths and heights in split slab construction.

GENERAL SAFETY PRECAUTIONS Improper selection, installation, or use can cause personal injury or property damage. It is solely the responsibility of the user, through their own analysis, to select products suitable to the specific application requirements, ensure proper maintenance and use as intended. Follow local, state, and federal regulations for proper installation and operation requirements.

Introduction + Safety

Please read the complete instructions carefully before beginning any work. To ensure proper installation and performance of the product, the following actions must be completed by the installing contractor. Failure to do so will affect product warranty.

Transportation + Storage

- Inspect all shipments and materials for missing or damaged components and hardware.
- Material must be stored in a clean, dry location.

Preparation

- Locate the packing slip(s) and/or shop drawings.
- Verify that all products listed on the packing slip are included in the package.
- Check the products for damage. If products are damaged, report a freight claim immediately and leave the products in their packaging. If you sign for products without reporting damage, you waive your right to a freight claim and will be responsible for their replacement cost.
- Read the instructions thoroughly before beginning installation.

Tool List

- Tape Measure
- Chop saw to cut product to length
- Drill with Ø1/4" & Ø3/16" masonry bits & slotted drivers for anchors
- Rubber mallet
- Broom & Dustpan & Vacuum
- Level
- Silicone Sealant

Included with the expansion joint system

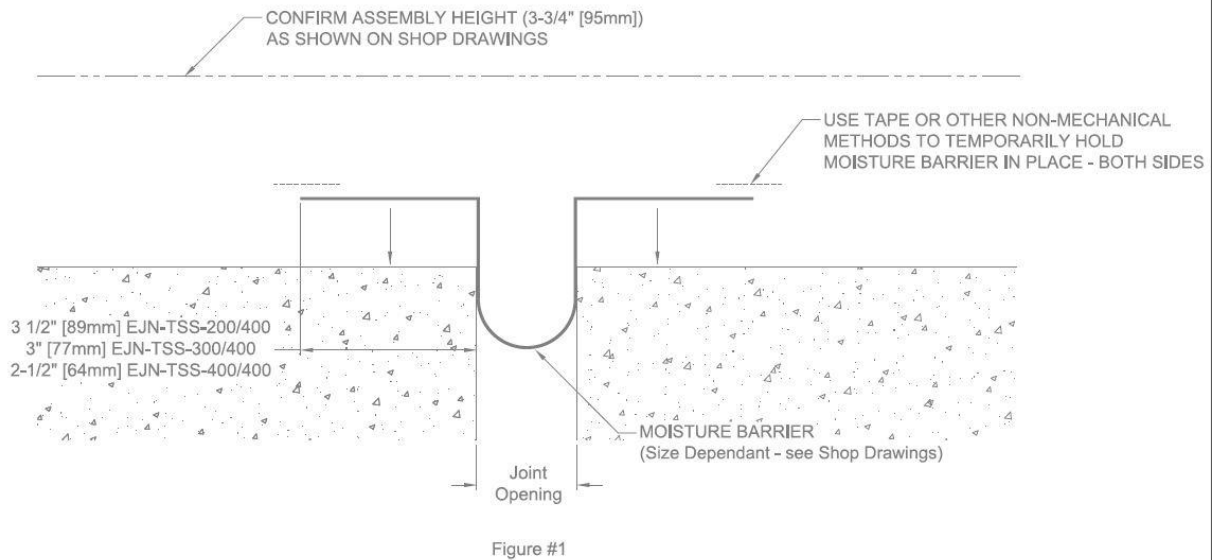
- Ø1/4-20 x 3/4" Lg Stainless Steel Screw (#1306)
- Ø5/16-18 x 5/8" Lg Stainless Steel Screw (#32132)
- Ø5/16" x 2-1/4" Lg. Button Trux Head Screw (#32111)

Preinstallation

1. Pour slabs with blockouts as shown on shop drawings.
2. Ensure the area where the expansion joint system is being installed (including the blockout area) is smooth and level. High spots should be ground down and low spots filled in. Make sure substrate is clean by sweeping and/or vacuuming substrate.

INSTALLATION (EJN-TSS-200/400 thru EJN-TSS-400/400 ONLY)

1. After determining that the area is smooth and level, position the moisture barrier inside the joint opening and hold it in place on top of the blockout using temporary methods (i.e., tape). The moisture barrier needs to be fully mounted under the aluminum base angles and must be installed in such a way (centered) that it will expand and contract with joint movement. Refer to shop drawings as required. **See Figure #1.**



2. **Using the Shop Drawings and Figures #2a, 2b & 2c (below)** determine the proper placement of the aluminum base angles. Note: their location is specific to the joint opening size – refer to the shop drawings. Once determined, place the aluminum base angles where required and with their position fixed, use them as a template to drill $\text{\O}1/4$ " holes in the substrate for the $\text{\O}5/16$ " Tapcons (#32111) – it is ok to drill through the moisture barrier as the anchor will pass through the angle and moisture barrier for anchoring. Remove angles and moisture barrier and clean entire area of dust and debris. Once all holes have been drilled, use a vacuum, blow out the holes and blockout to remove all debris from the hole locations.

Figure #2a: (EJN-TSS-200/400 ONLY):

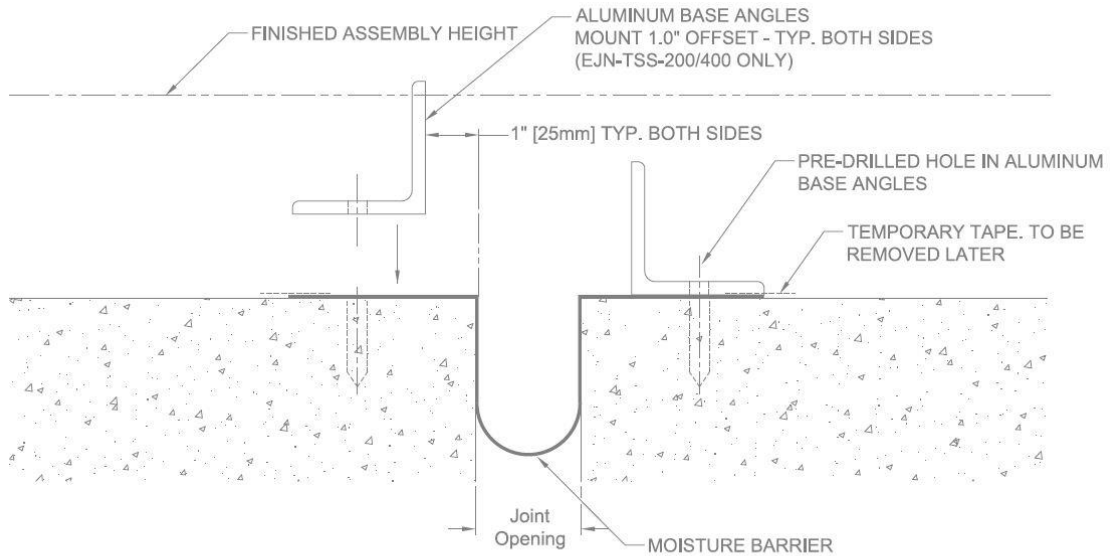


Figure #2a
(EJN-TSS-200/400 ONLY)

Figure #2b: (EJN-TSS-300/400 ONLY):

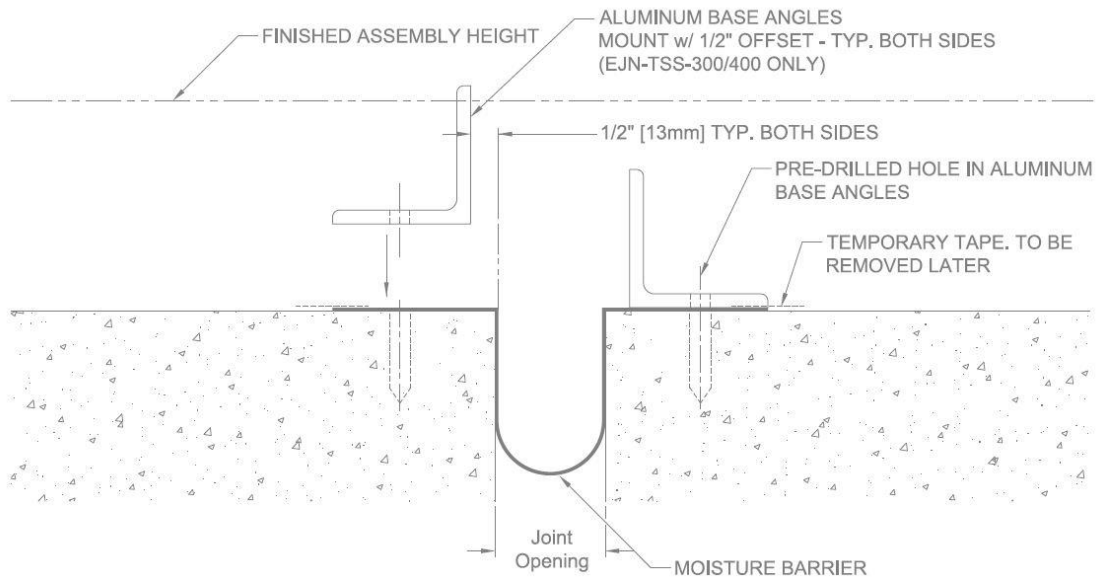


Figure #2b
(EJN-TSS-300/400 ONLY)

Figure #2c: (EJN-TSS-400/400 ONLY):

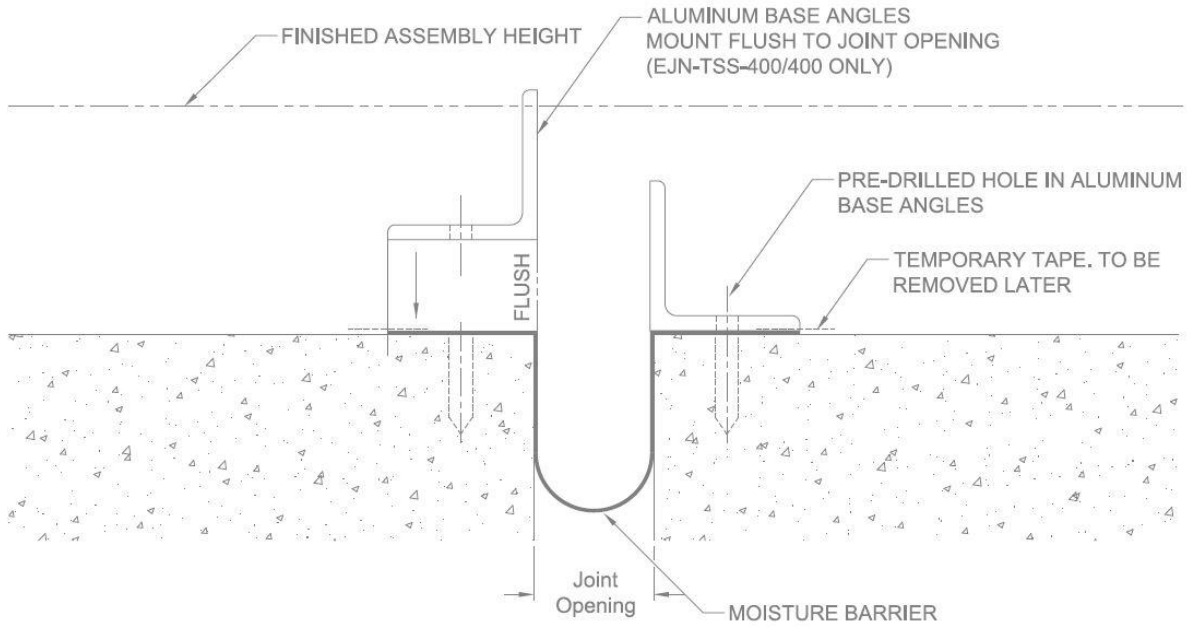


Figure #2c
(EJN-TSS-400/400 ONLY)

- Once the work area has been completely cleaned of dust and debris, reassemble the moisture barriers and aluminum base angles using the holes drilled as guides. Using the Ø5/16" Tapcons (included), permanently mount the aluminum angles to the substrate as shown in **Figure #3** below. Once all the base angles have been installed, assemble the aluminum frames (#W006) to the base angles using the provided Ø5/16-18 screws (#32132) at 18" O.C. It is best practice to stagger the seams of the frames (#W001) and the base angles (#32110) so that they are NOT directly in line with each other. Caution: installer must ensure that when cutting aluminum components to stagger seams that they do not run short at the opposite end of the system. Note: Follow manufacturer's recommendations for proper anchor installation.

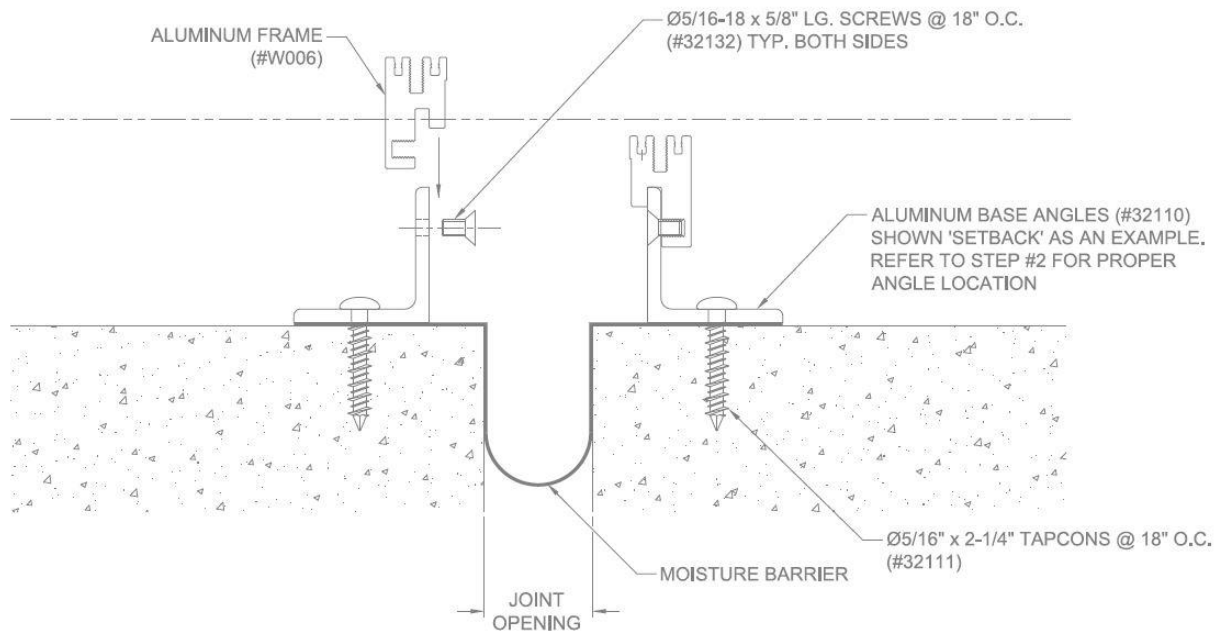


Figure #3

4. Install deck waterproofing along blockout and up onto aluminum base angles as shown in **Figure #4** below. Note: Contact the deck waterproofing manufacturer to discuss proper procedures during installation.

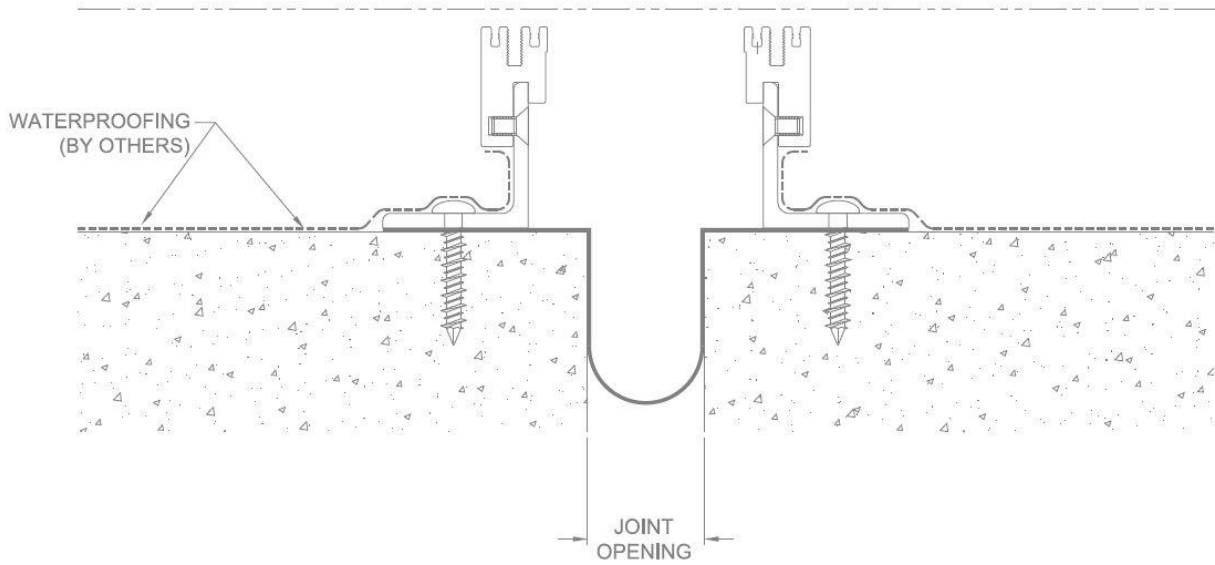


Figure #4

5. After the waterproofing has been installed (by others), install the elastomeric seal as shown in **Figure #5** below. Start at one end and press both lugs on each side, into the cavity in the aluminum frame. The seal must be fully inserted into the cavity on both sides for proper installation. A tile roller or similar can be used to firmly press the lugs into the cavities.

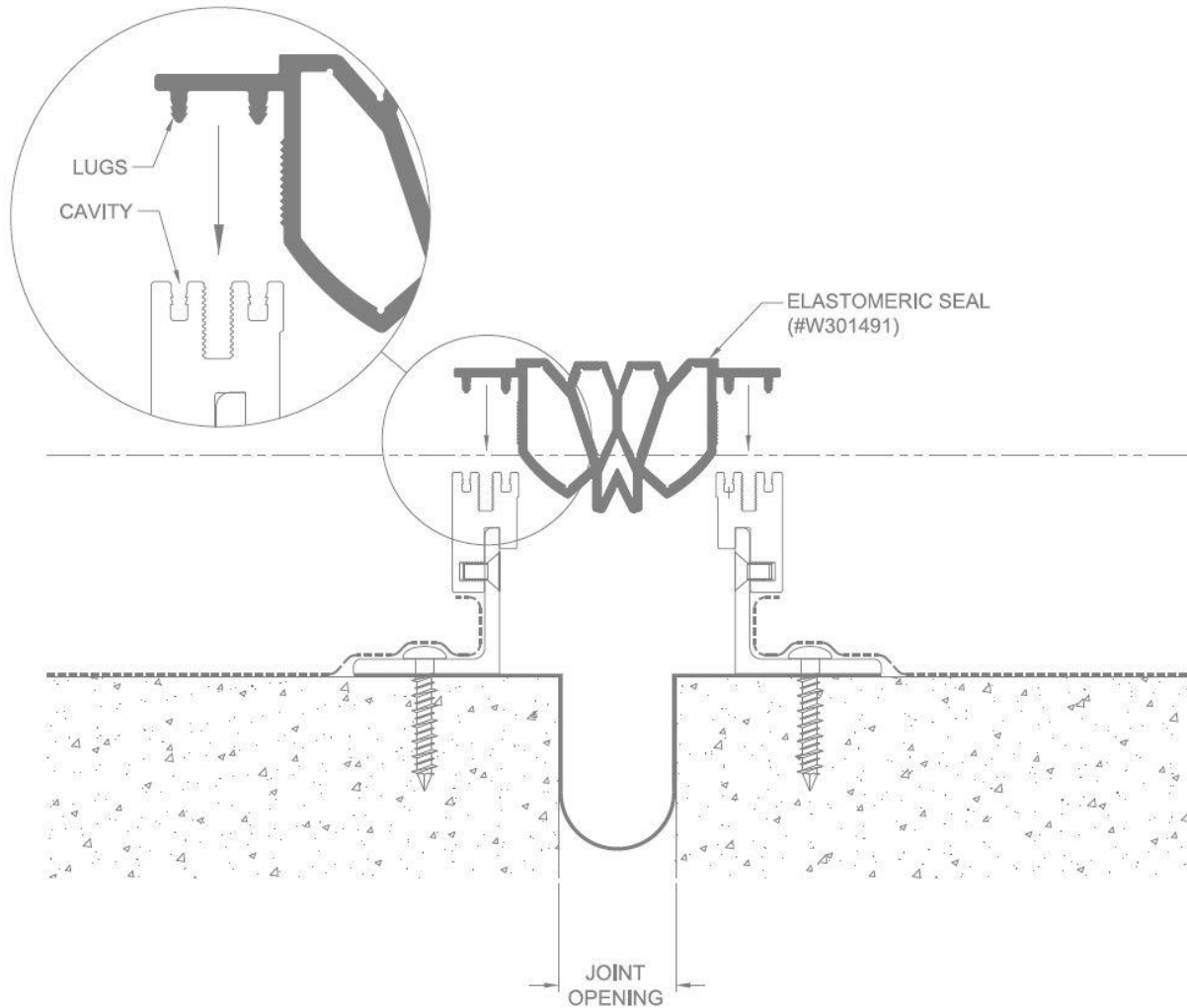


Figure #5

6. After installing the waterproofing and seal, it's time to install the self-adhering sheet membrane (#32108). Apply the membrane starting at the top next to the seal. Using the stainless-steel angles and $\text{Ø}1/4\text{-}20$ screws to captivate the membrane. Position the stainless-steel angle so that it lays flat on the membrane and is flush with the seal. The heads of the $\text{Ø}1/4\text{-}20$ screws must be flat and level with the stainless-steel angles. Once captivated, let the remaining membrane drape down over the waterproofing applied in Step #4. **See Figure #6.**

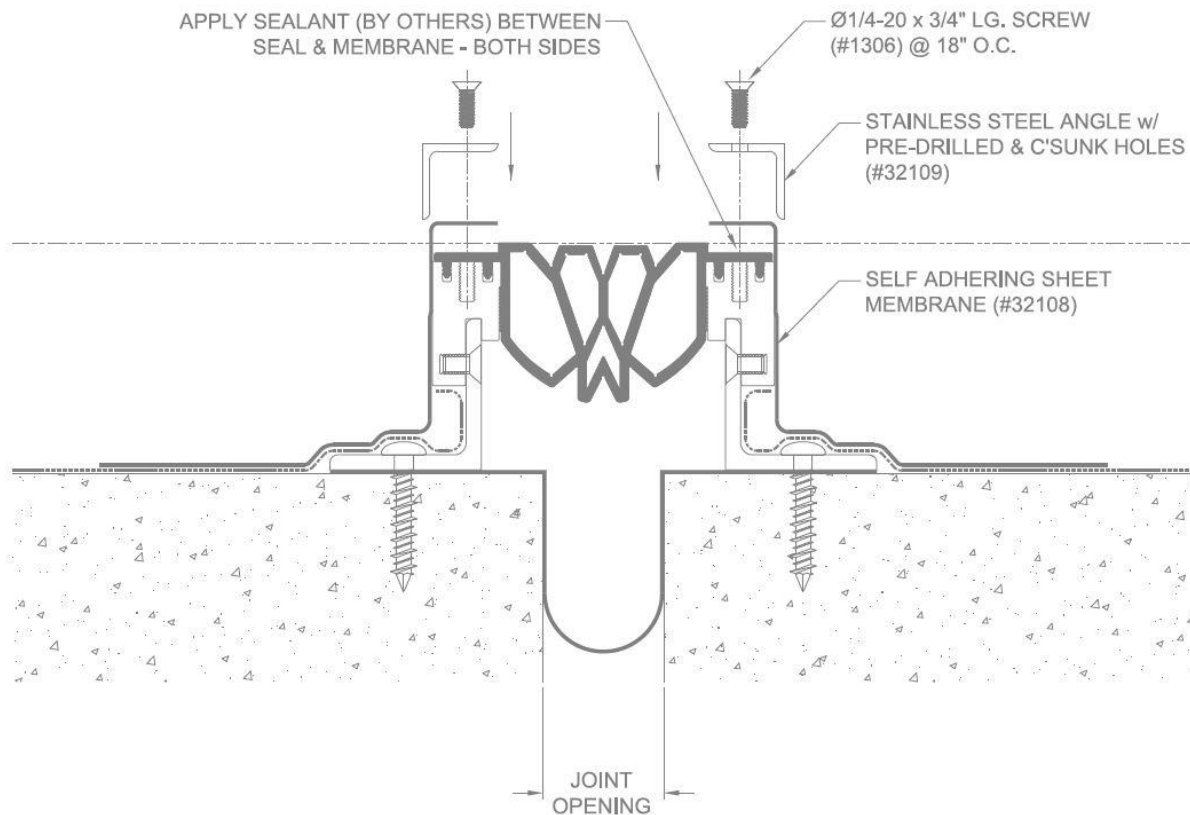


Figure #6

7. After the stainless-steel angles are installed and all screw heads are flat and level, the final topping slab or pavers can be installed. Protect the top surfaces of the expansion joint system (to prevent damage) during topping slab installation. Ensure that there is a 1/4" minimum gap between the topping slab/pavers and the stainless-steel angles – see shop drawings. Apply sealant (by others) inside the gap, the entire length of the expansion joint system.

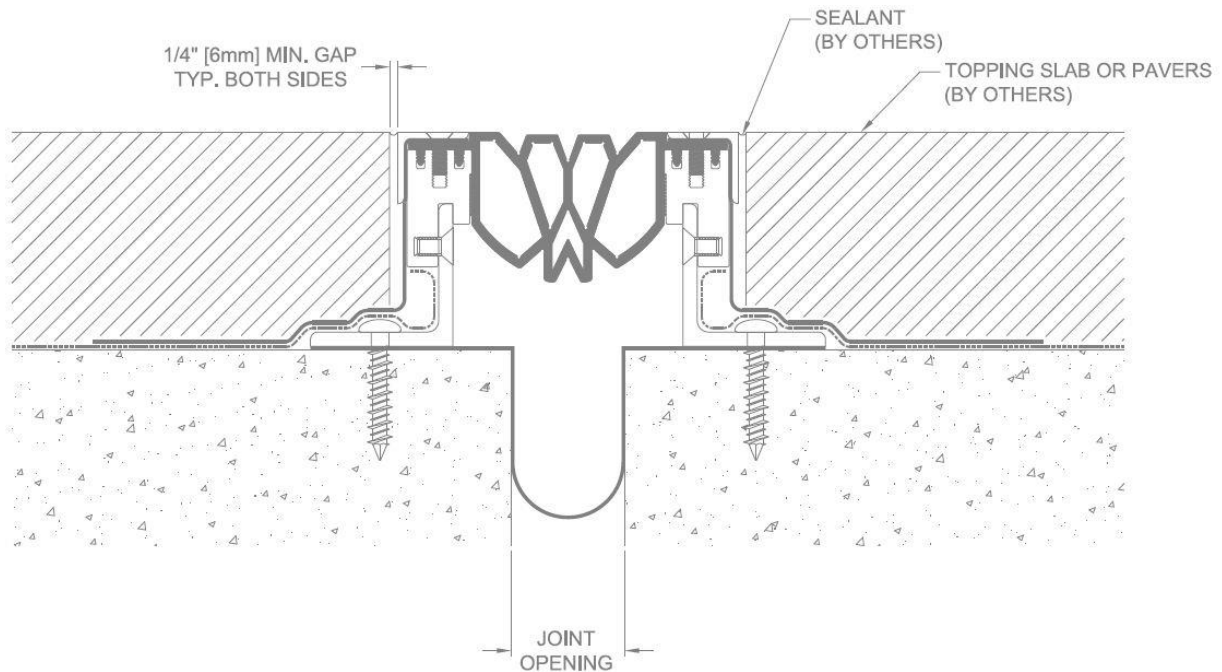
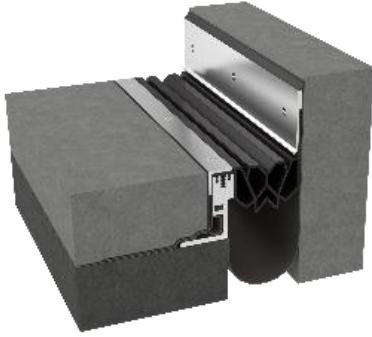


Figure #7

TSSw Slab to Wall System – 2” and Larger Sizes



GENERAL DESCRIPTION

Nystrom EJM-TSSw Exterior Plaza Cover System is designed to match the EJM-TSS cover in floor to wall applications.

Included with the expansion joint system

- Ø1/4-20 x 3/4” Lg. Stainless Steel Screw (#1306)
- Ø5/16-18 x 5/8” Lg. Stainless Steel Screw (#32132)
- Ø5/16” x 2-1/4” Lg. Button Trux Head Screw (#32111)
- Ø1/4-20 x 1-3/4” Lg. Silver Tapcon (#31880)

Preinstallation

1. Pour slabs with blockouts as shown on shop drawings.
2. Ensure the area where the expansion joint system is being installed (including the blockout area) is smooth and level. High spots should be ground down and low spots filled in. Make sure substrate is clean by sweeping and/or vacuuming substrate.

INSTALLATION (EJN-TSS-200w/400 thru EJN-TSS-400w/400 ONLY)

3. After determining that the area is smooth and level, position the moisture barrier inside the joint opening and hold it in place on top of the blockout and along the wall using temporary methods (i.e., tape). The moisture barrier needs to be fully mounted under the aluminum base angle and must be installed in such a way (centered) that it will expand and contract with joint movement. **See Figure #8.**

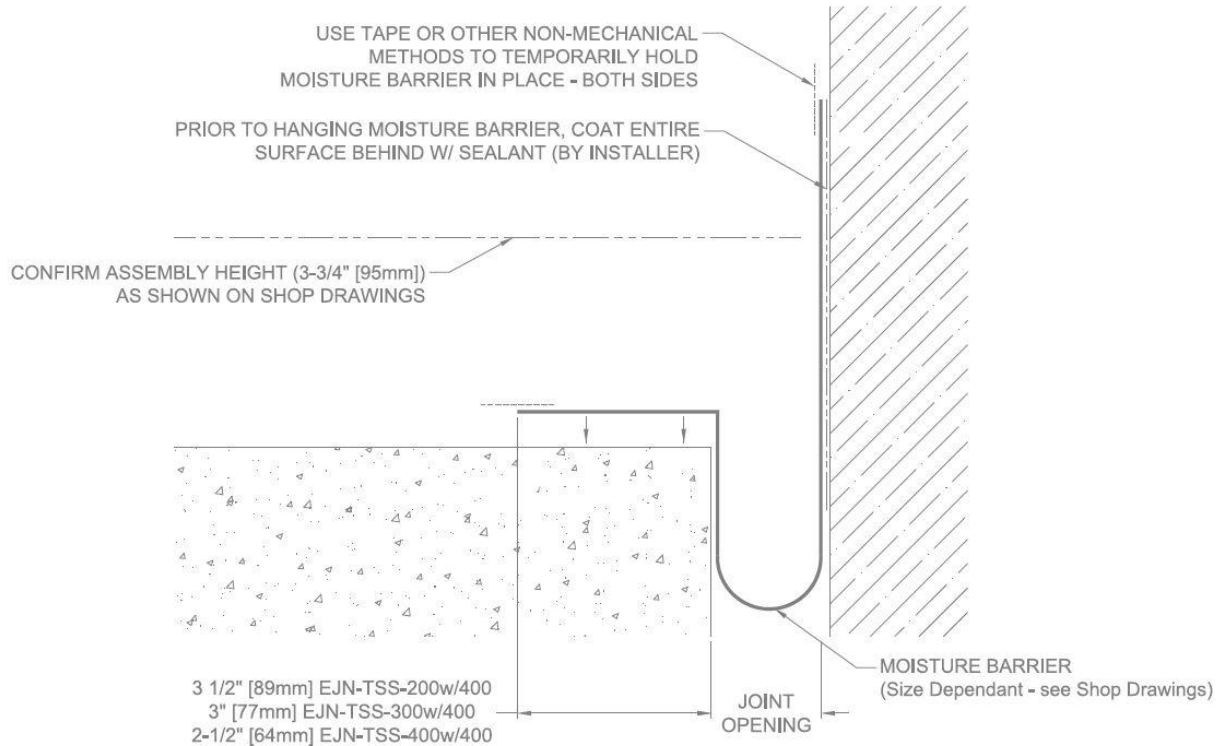


Figure #8

4. **Using the Shop Drawings and Figures #9a, 9b & 9c (below)** determine the proper placement of the aluminum base angle. Note: the location is specific to the joint opening size – refer to the shop drawings. Once determined, place the aluminum base angle where required and with the position fixed, use it as a template to drill $\varnothing 1/4$ " holes in the substrate for the $\varnothing 5/16$ " Tapcons (#32111) – it is ok to drill through the moisture barrier as the anchor will pass through the angle and moisture barrier for anchoring. Remove angles and moisture barrier and clean entire area of dust and debris. Once all holes have been drilled, use a vacuum, blow out the holes and blockout to remove all debris from the hole locations.

Figure #9a: (EJN-TSS-200w/400 ONLY):

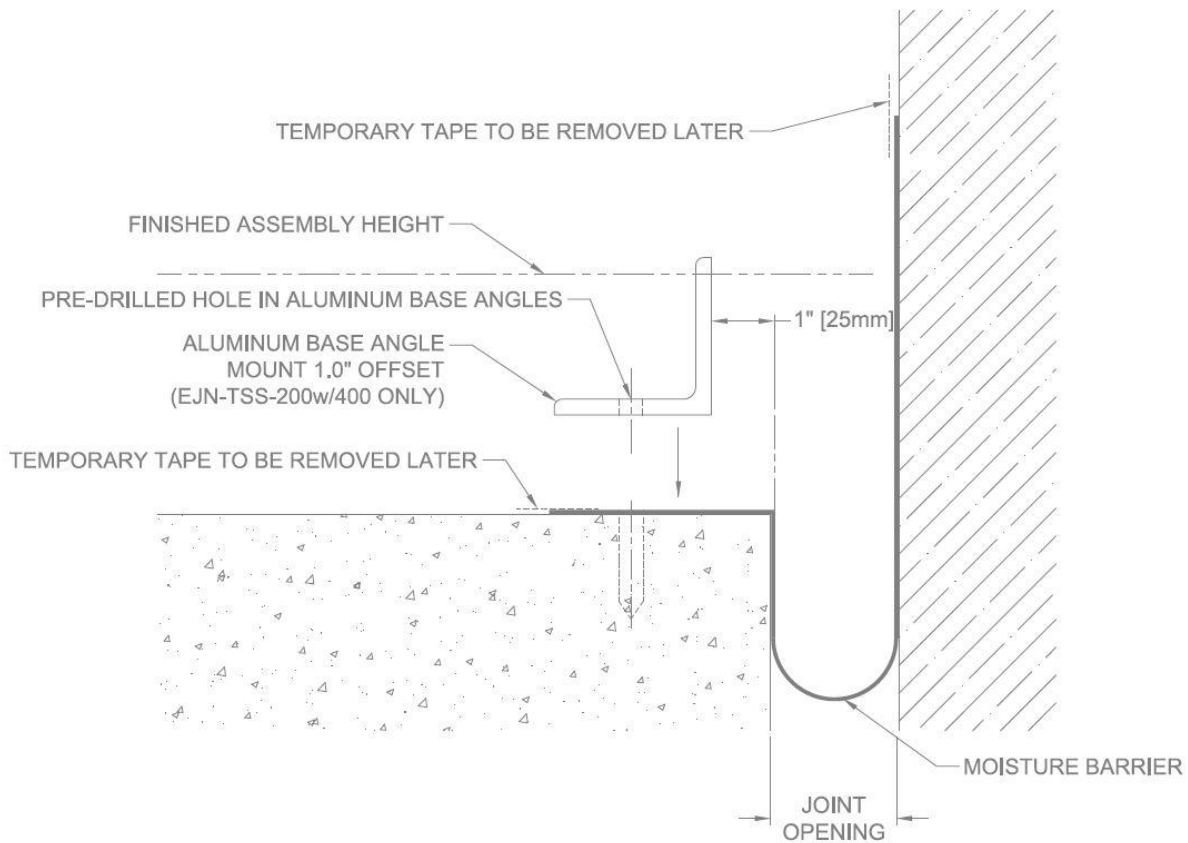


Figure #9a
(EJN-TSS-200w/400 ONLY)

Figure #9b: (EJN-TSS-300w/400 ONLY):

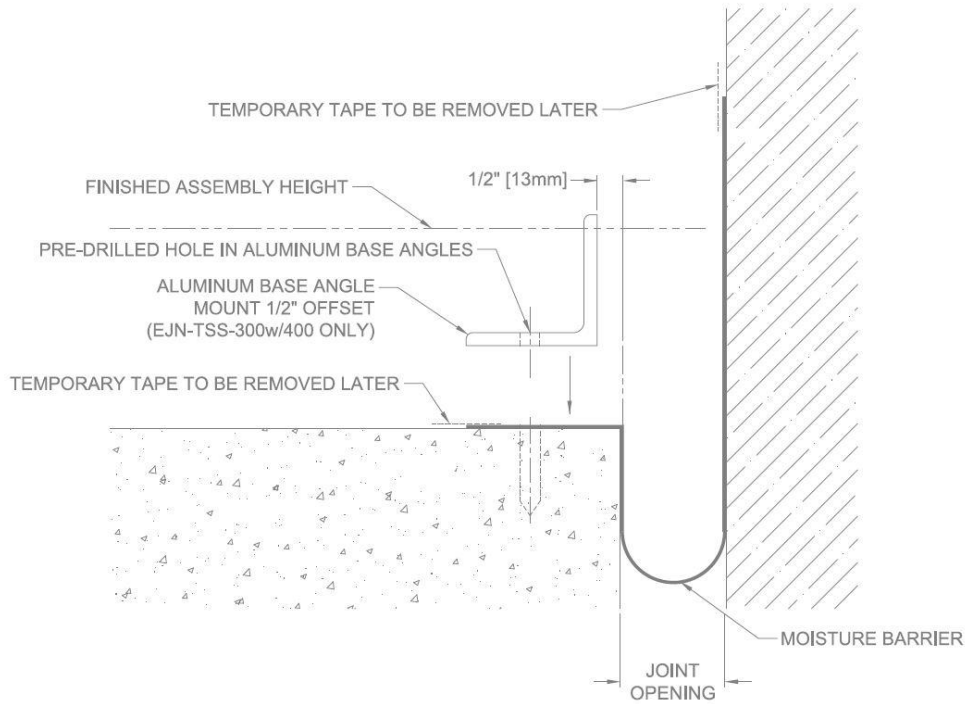


Figure #9b
(EJN-TSS-300w/400 ONLY)

Figure #9c: (EJN-TSS-400w/400 ONLY):

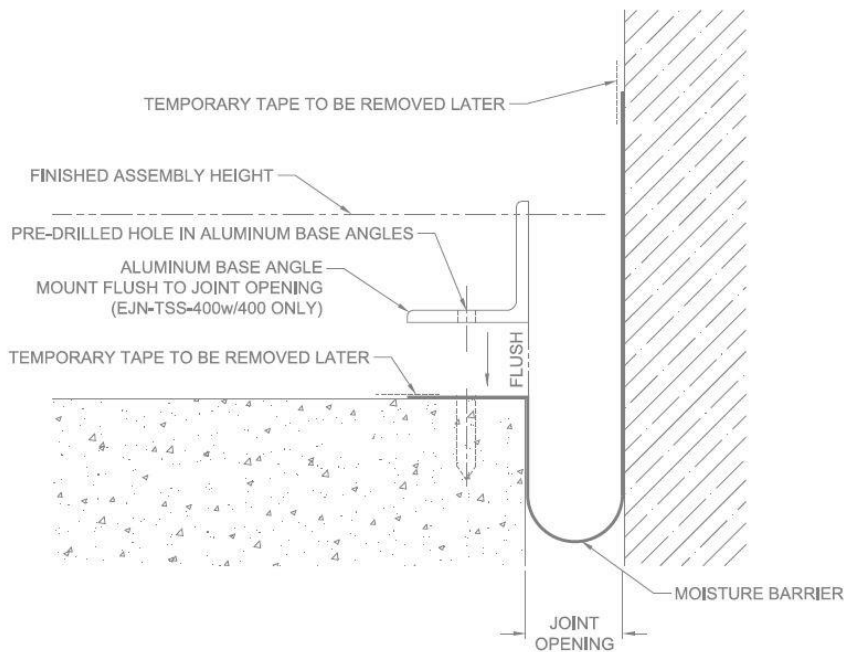


Figure #9c
(EJN-TSS-400w/400 ONLY)

- Once the work area has been completely cleaned of dust and debris, reassemble the moisture barrier and aluminum base angle using the holes drilled as guides. Using the Ø5/16" Tapcons (included), permanently mount the aluminum angle to the substrate as shown in **Figure #10** below. Once the base angle is installed, assemble the aluminum frame (#W006) to the base angle using the provided Ø5/16-18 screws (#32132) at 18" O.C. It is best practice to stagger the seams of the frames (#W001) and the base angles (#32110) so that they are NOT directly in line with each other. Caution: installer must ensure that when cutting aluminum components to stagger seams that they do not run short at the opposite end of the system. Note: Follow manufacturer's recommendations for proper anchor installation.

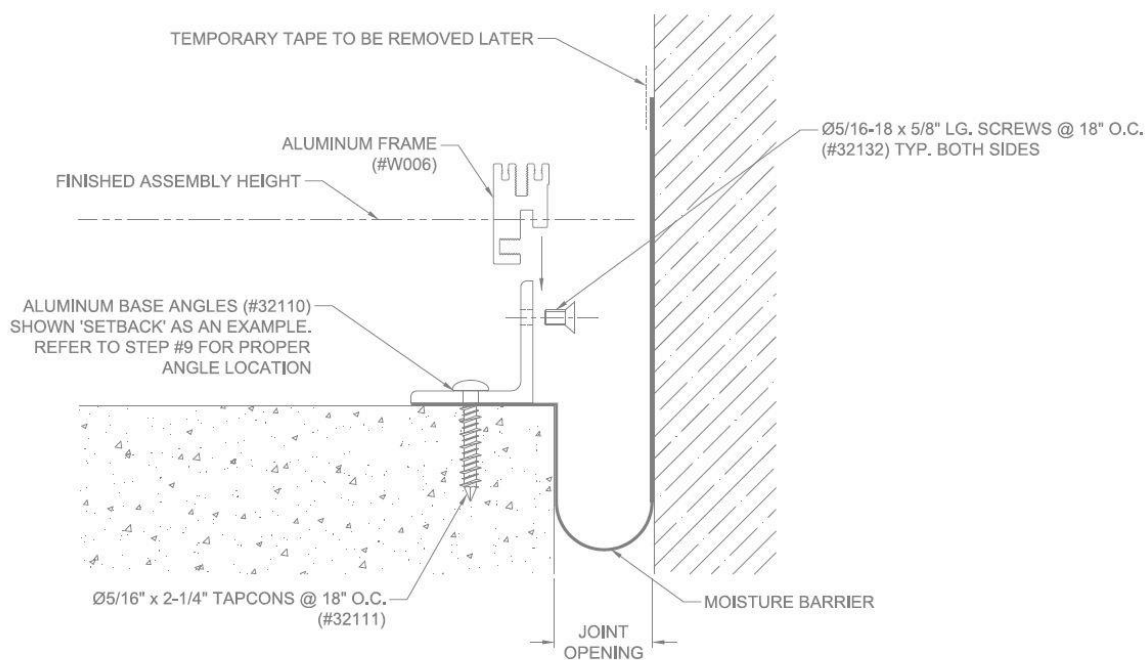


Figure #10

6. Install deck waterproofing along blockout and up onto aluminum base angles as shown in **Figure #11** below. Note: Contact the deck waterproofing manufacturer to discuss proper procedures during installation.

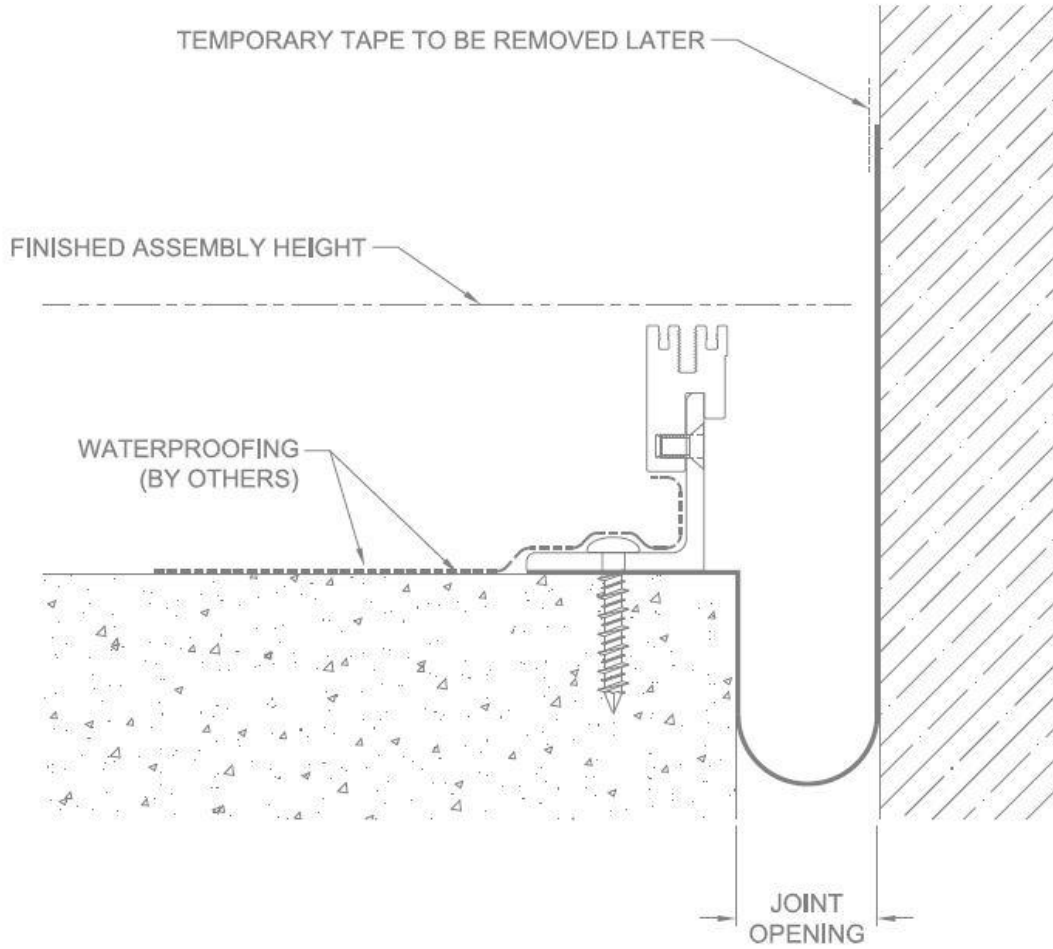


Figure #11

7. After the waterproofing has been installed (by others), install the elastomeric seal as shown in **Figure #12** below. Start at one end and press both lugs on each side, into the cavity in the aluminum frame. The seal must be fully inserted into the cavity for proper installation. A tile roller or similar can be used to firmly press the lugs into the cavities. To mount the 'wall flap', use aluminum cover (#D109). Temporarily hold the cover in place and use the $\text{Ø}3/16$ " masonry bit to drill holes for $\text{Ø}1/4$ " Tapcon screws at 12" O.C. as shown below and on the shop drawings. When installed properly, the Tapcon must penetrate the cover, the seal and the moisture barrier.

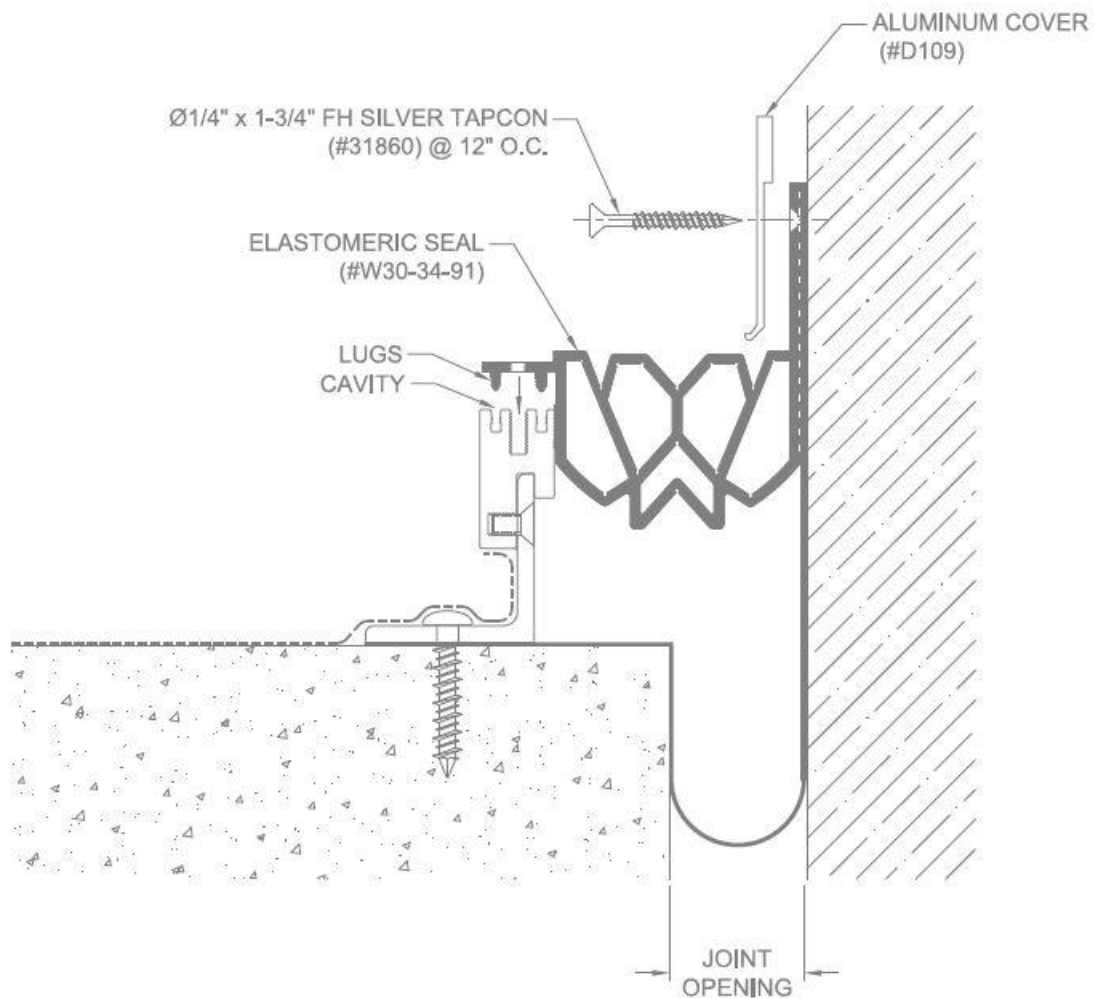


Figure #12

8. After installing the waterproofing and seal, next it's time to install the self-adhering sheet membrane (#32108). Apply the membrane starting at the top next to the seal. Using the stainless-steel angles and $\text{Ø}1/4\text{-}20$ screws to captivate the membrane. Position the stainless-steel angle so that it lays flat on the membrane and is flush with the seal. The heads of the $\text{Ø}1/4\text{-}20$ screws must be flat and level with the stainless-steel angles. Once captivated, let the remaining membrane drape down over the waterproofing applied in Step #11. **See Figure #13.**

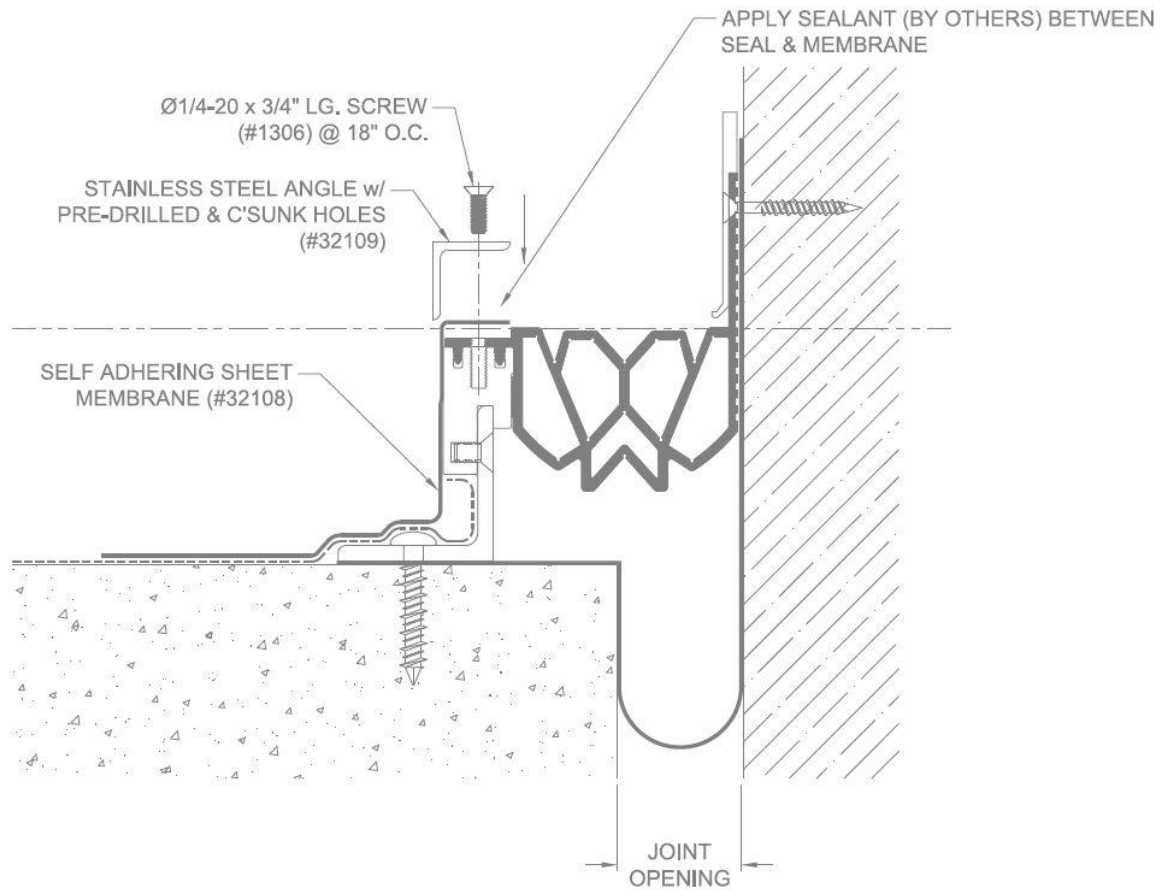


Figure #13

9. After the stainless-steel angles are installed and all screw heads are flat and level, the final topping slab or pavers can be installed. Protect the top surface of the expansion joint system (to prevent damage) during topping slab installation. Ensure that there is a 1/4" minimum gap between the topping slab/pavers and the stainless-steel angles – see shop drawings. Apply sealant (by others) inside the gap, the entire length of the expansion joint system as well as along the top edge of the (wall) cover.

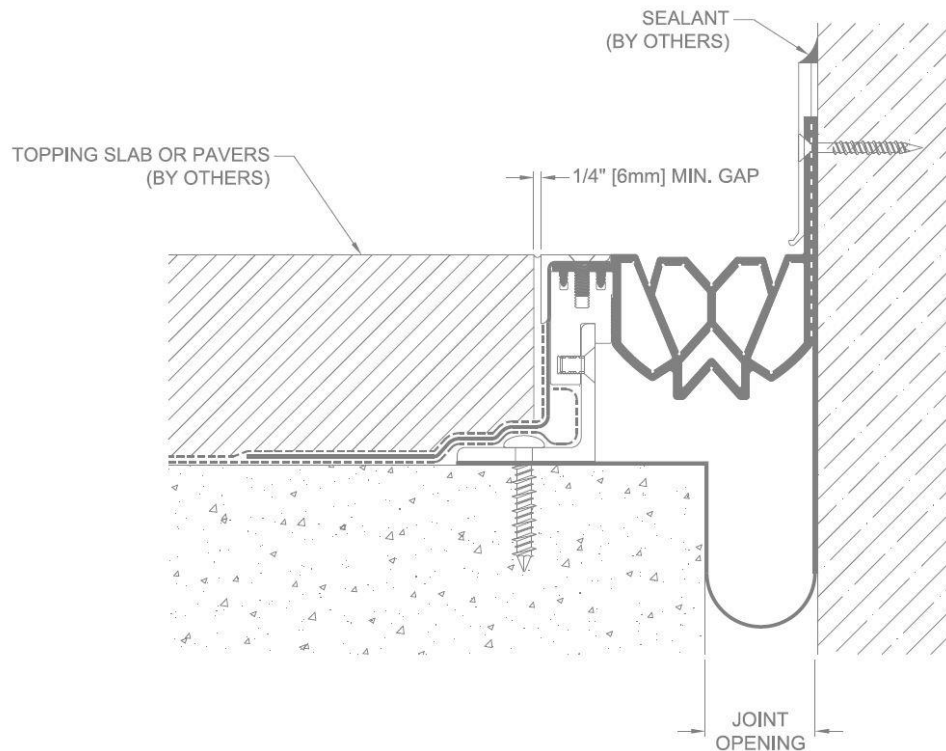


Figure #14

OPERATION

Expansion Joints are designed and built for years of dependable service.

MAINTENANCE

Perform annual inspections to make sure the system is in position; all fasteners are tight and in place and that there is no impedance of system movement. Repair and/or replace as needed.

QUESTIONS?

For more information on installation, repair, or replacement, please contact Customer Sales Support at 800-547-2635 or visit nystrom.com