



# SunLite Strip®

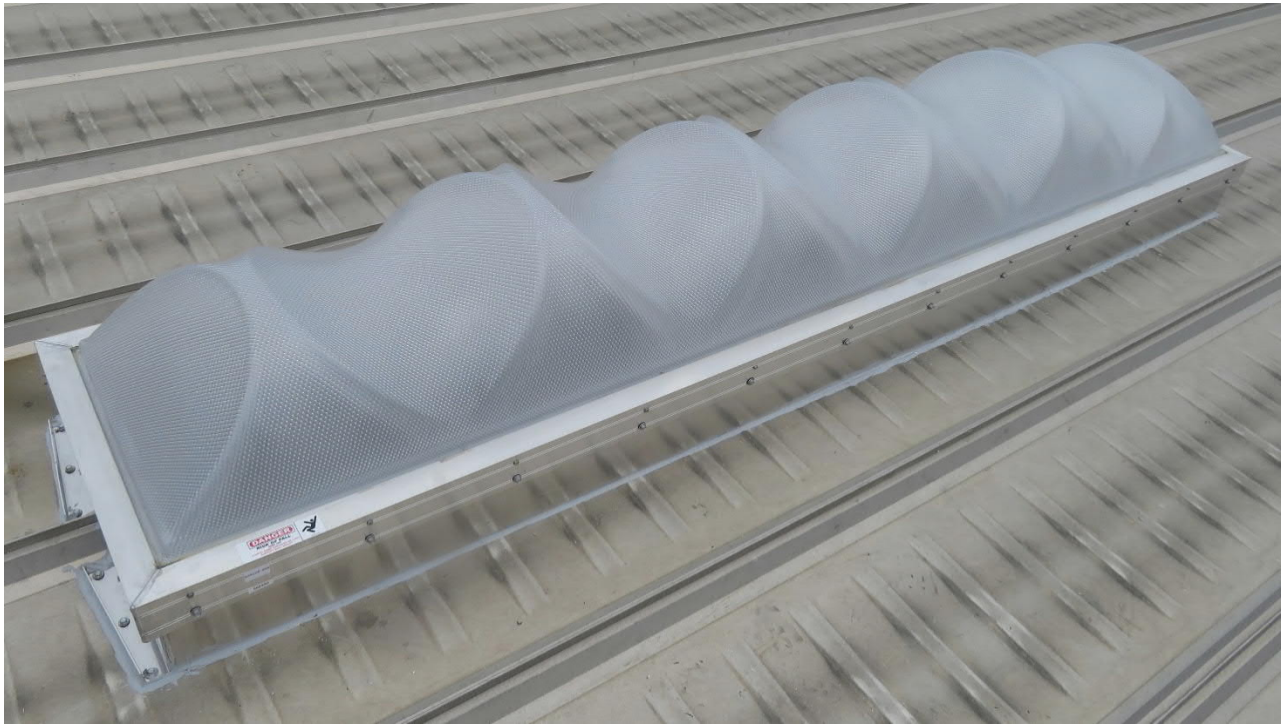
Curb Mounted Skylight

## Installation Manual

FOR TYPICAL MR-24® ROOF SYSTEM APPLICATIONS

(Issued 07/28/2020)

For other applications see list of Installation Manuals available on Note Page in the back of this Manual.



TRIPLE DOME USAGE RECOMMENDED  
IN ASHRAE CLIMATE ZONES 5 AND ABOVE

## TABLE OF CONTENTS:

- Cover sheet
- Table of Contents
- Warning
- Tool List
- Components
- Accessory Components
- Installation Procedures
- Accessory Installation
- Dome Installation
- Note Page
- Back Cover



## WARNING

You may fall from roof and be killed or seriously injured

---



Any panel can collapse.

Do not step on panels with creased edges

Do not step on or NEAR edge of panel.

Do not step within 5 feet of panel end.

---



Panels are slippery.

Use fall protection.

---



Loose panels may slide out from under you.

Do not step on loose panels or stacks of panels.

---

Always use fall protection.

Get and read "Roofing Work Safety Instructions" from supervisor.

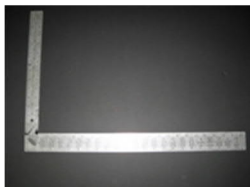


**SunLite Strip® - Do not walk or stand on dome at any time. Always place walk-boards or barricades around roof sheet area of the units while installing.**

# Tools Required to Install

Below is a pictorial of suggested tools for installing the SunLite Strip skylight in a typical MR-24 Roof System. Safety equipment like gloves, safety glasses, safety harnesses, tie-offs, etc. are not shown but highly recommended for safe installation by workers/installers. The safety equipment and procedures are the responsibility of the erector/installer per the specific project needs/requirements.

(Other basic tools, bits and cleaning supplies may be necessary to successfully complete the job.)



RECIPROCATING SAW  
4) C-CLAMP LOCKING  
PLIERS  
SNIPS (RED & GREEN)  
DRIVER FOR NYLON HEAD  
FASTENERS 11mm 12 point

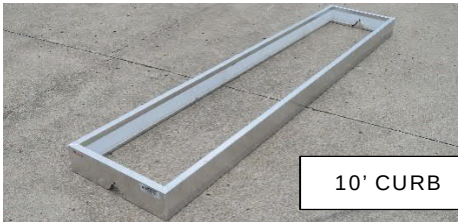
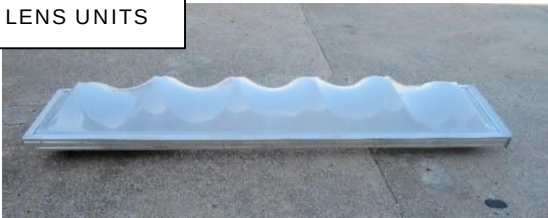
STEPPED DRILL BIT  
FRAMING SQUARE  
TAPE MEASURE / PERMANENT  
MARKER

#2 Square screw gun  
bit  
DRILL / DRIVER  
UTILITY KNIFE  
#3 PHILLIPS DRIVER

DBL-CUT POWER SHEARS  
ACETONE & RAGS  
CAULKING GUN  
(SAUSAGE PACK)

# Installation Components

10' SLS DOME  
AVAILABLE IN DOUBLE  
AND TRIPLE LENS UNITS



10' CURB



TAPE SEALANT (042715)



TUBE SEALANT (016688)



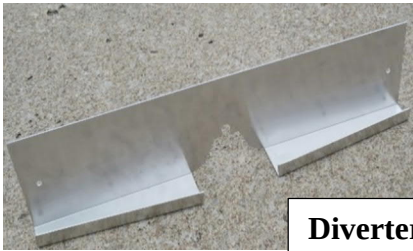
3/16" X 3/4" FOAM TAPE (560185)



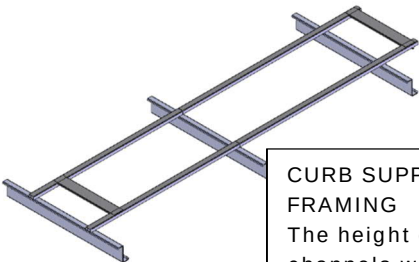
PATCH TAPE (650529)



1-1/8" SS MINI-PT. SELF-  
DRILLER SCREW (044856)  
(For Dome Attachment)



Diverter



CURB SUPPORT  
FRAMING  
The height of the support  
channels will depend on  
insulation system and  
roof clip height and will  
be sent with the curb.

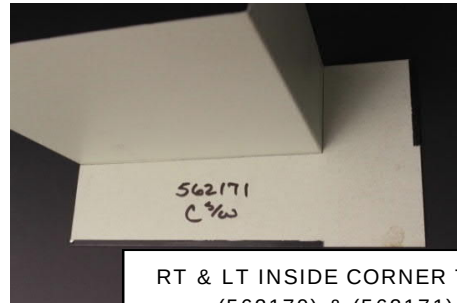


1/4-14x7/8" SDS  
(097409) Curb  
Attachment Screws

# Trim Package Components



1-1/4" SELF-DRILLER SCREW (56450)



RT & LT INSIDE CORNER TRIM  
(562170) & (562171)  
Reqd. w/blanket insulation



BLIND RIVET (097580)



ASHRAE Zones  
5 and above.

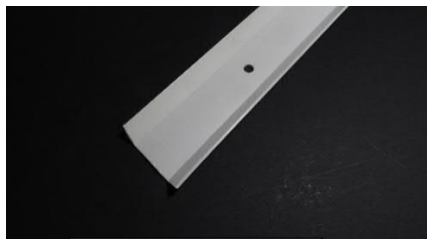
Termination Bar Fastener



Termination Bar Fastener  
ASHRAE Zones 4 and Below  
Requires 11mm 12 pt. driver



Thermal Break Tape (562245)  
Required in ASHRAE Zones 5 and  
Above. Optional in ASHRAE  
Zones 4 and Below



Termination Bar

# Accessories Components (Optional)



SAFETY GUARD  
10' (562172)



1-1/4" SELF-DRILLER SCREW (56450)

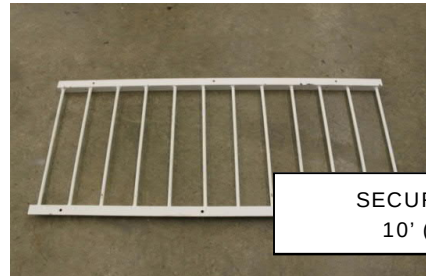


10" INSULATION ROLL (562187)

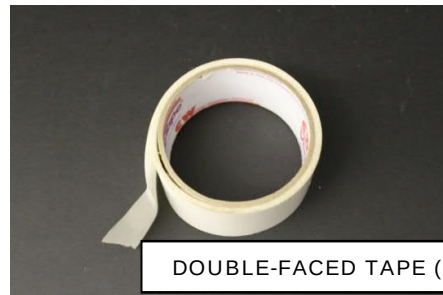


7/8" SQUARE DRIVE SCREW (044855)  
(For security bar installation)

CLIP (044273) 2" SIDE



SECURITY BARS  
10' (562175)



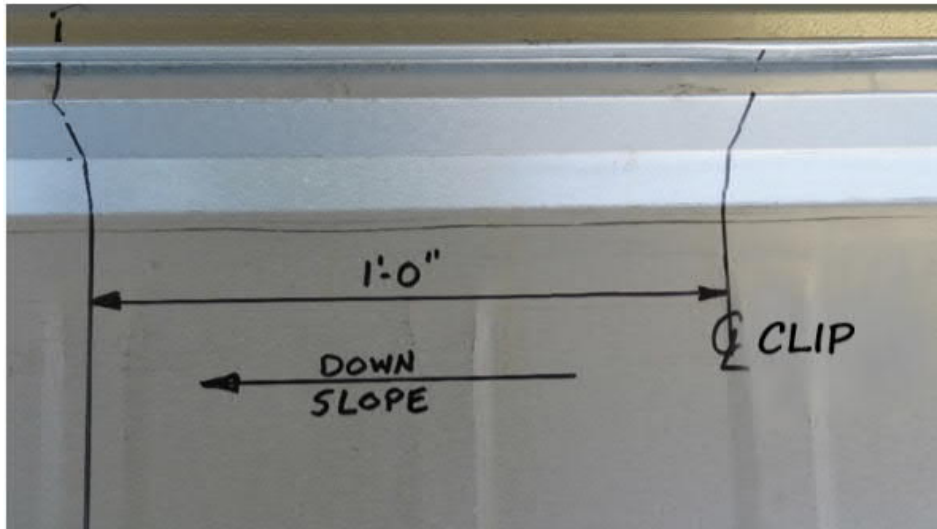
DOUBLE-FACED TAPE (562188)

1/2" PAN HEAD SELF-DRILLER (044845)  
(For Safety Screen Installation)



# Curb Installation Procedures

**Step 1: Locating the SunLite Strip skylight:** Locate the center line of the purlin run, by locating the bulge on the panel seam, area where the upper end of the SunLite Strip skylight will be installed. Make a mark exactly 1'-0" downslope of the center of the clip. This mark will be the uppermost inside edge of the curb when the curb is installed.



**Step 2: Marking inside of curb for cutout:** Set the curb on corrugation and align the upper inside flange of the curb with the mark previously made in step 1. (The seam groove in the curb is slightly off center. If the curb does not fit well, reverse the curb on the corrugation for a better fit). Using a permanent marker, make a mark around the entire **inside** of the curb. Do not allow the curb to move during this step. This mark will be the line used to cut the panel.

Mark the outside of the curb as well. This will be a guide for the mastic placement later in the installation.



Marking inside of curb

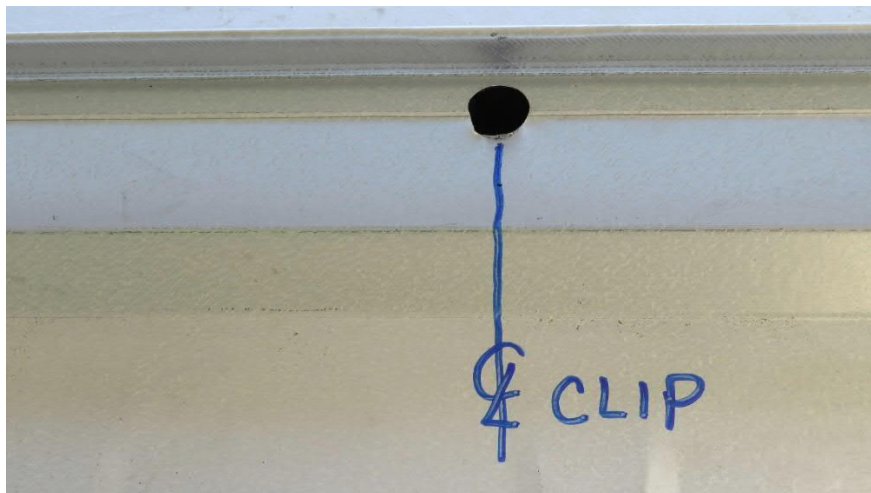
**Step 3: Cutting panel and removing cutout:**

**A.** Start by drilling holes in each corner of the curb using a step drill bit. Drill approximately a 9/16" diameter hole. This hole will give access for the shears to get started during the cutting process.



Drill Corners of cutout.

**B.** Next, Locate the center of the clips that will be removed with the portion of the panel being removed. Using the stepped drill bit, drill a hole on the left horizontal surface (looking upslope) of the corrugation and centered on the clip tab. This hole should be approximately 9/16"-3/4" in diameter. This hole will be used to remove the scrubolt from the clip.

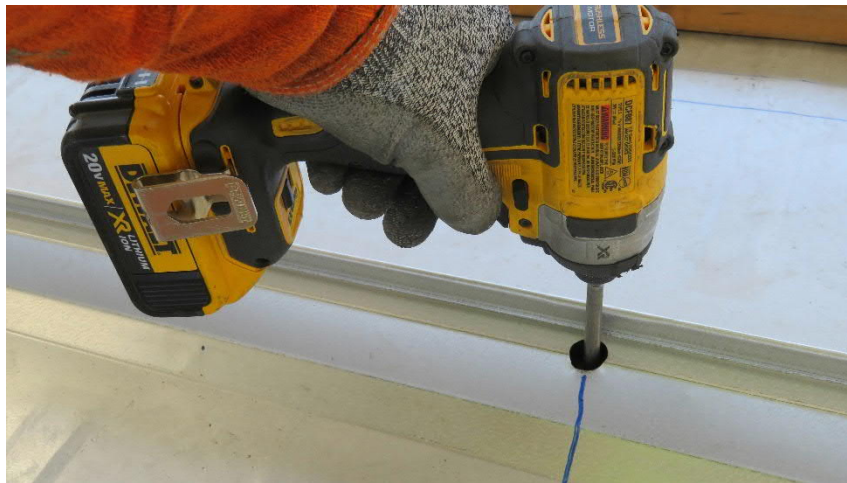


Drill hole to access scrubolt.

C. Using a 3/8" x 6" bit on a screw gun or cordless impact, locate the scrubolt through the hole that is securing the clip and remove it to free the clip.



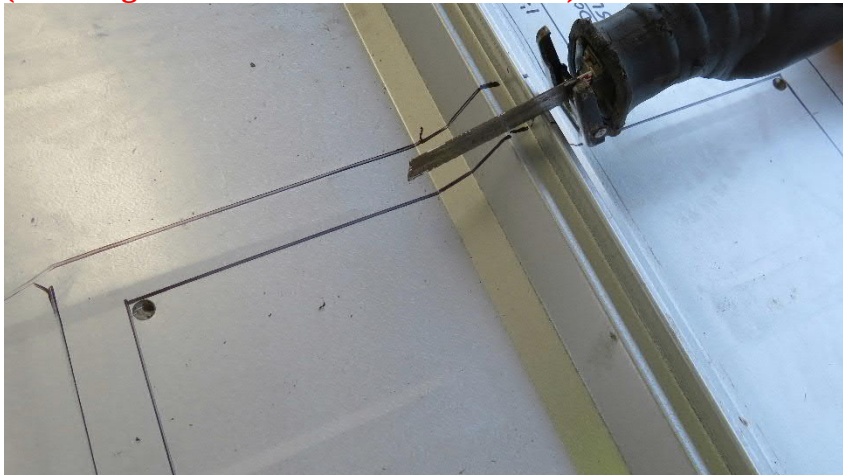
Tool Needed for clip screw removal.



Removing scrubolt from panel clip.

D. Using a reciprocating saw, cut the corrugation at the top and bottom ends of marked opening.

**(Warning: Fall Protection Must be Worn)**



Cutting the Corrugation

**E.** Lay walk boards on roof panel next to the roof area to be removed. Using a set of shears, cut the perimeter of the portion of panel to be removed. Start at the corners where the holes were previously drilled.



Cutting panel.

**F.** Remove panel that has been cut from the roof and discard. Use extreme caution when handling as there will be sharp edges on the panel.



# Support Channel Installation

### Step 4: Installing Channel Supports:

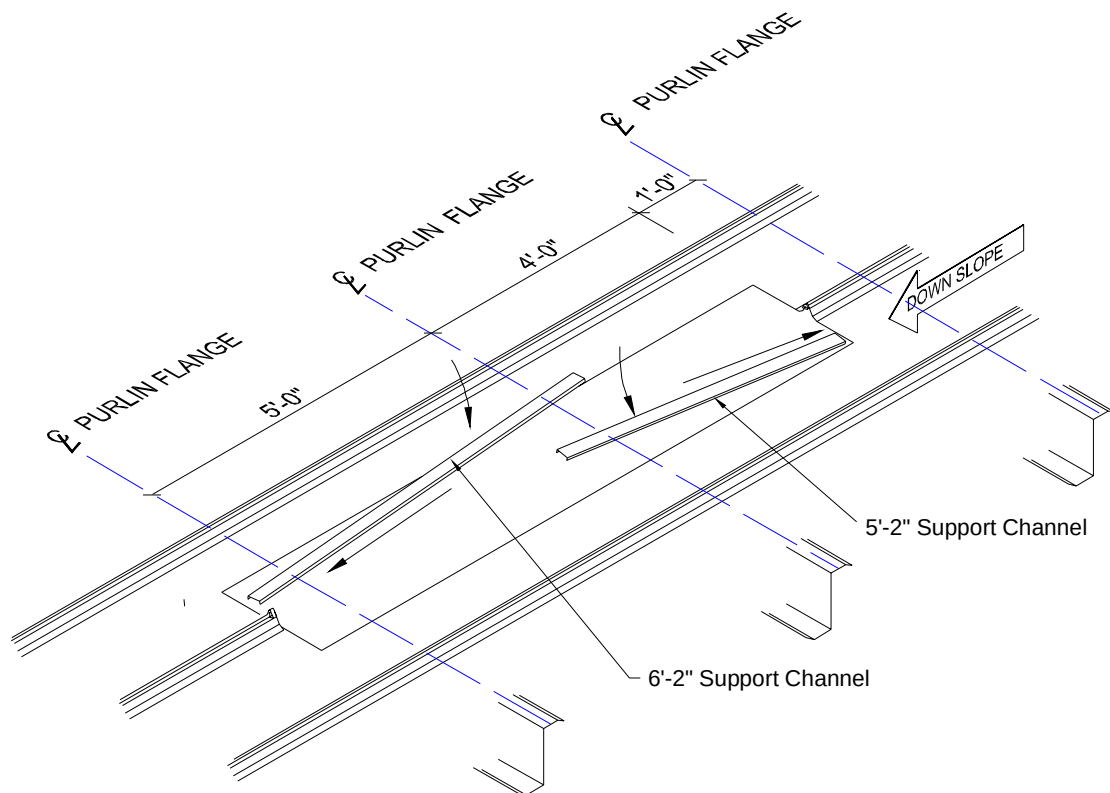
There are three different length of support channels that are supplied with the curb. There are (2) 6'-2", (2) 5'-2" channels and (2) 2'-5" channels.

The 6'-2" channels must be used on the downslope purlin space on each side of the opening.

The 5'-2" channels will be used in the upper purlin space on each side of the opening.

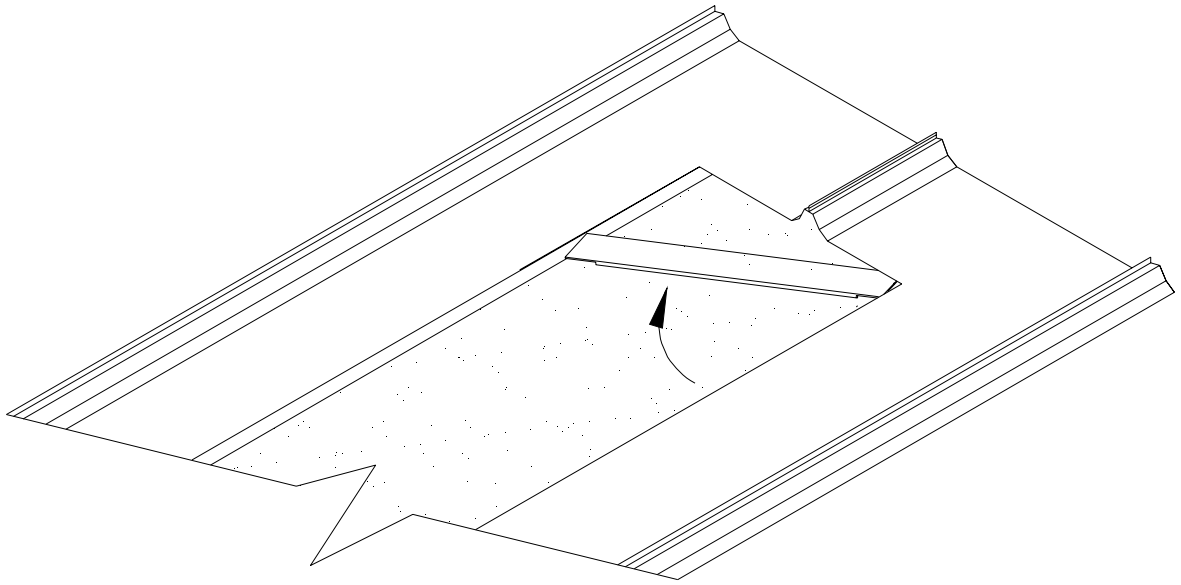
The 2'-5" channels will be used as cross pieces at the upper and lower ends of the opening.

- A. Starting with the upper channels (5'-2" long), work the upper end of the channel under the panel and onto the purlin that is located 1'-0" upslope of the opening. Center the lower end of the channel on the purlin flange. The inner edge of the channel needs to be flush with the inside of the opening. Repeat for opposite side of opening.
- B. Next, install the 6'-2" support channel by working the lower end of the channel under the low end of the opening and setting the channel onto both purlins. Slide the channel so the inner edge of the channel is flush with the edge of the opening. The ends of the upper and lower channels should be centered and butted together on the purlin that is 4'-0" from top of opening. Repeat for opposite side of opening.



- C. The two shorter channels that are supplied are coped out creating tabs on each end. This will allow the channels to be installed with the tab sitting directly over the long channels that were previously installed.

To install the channel, slide one tab of the channel between the side channel and the bottom of the roof panel. Rotate the channel enough so the second tab of the channel can be slipped between the channel and roof panel on the opposite side. Once both sides are in position, rotate the channel so it is perpendicular to the side support channels. Slide the channel so the inner edge of the channel is flush with the opening. Repeat on opposite end.



End support channel installation.

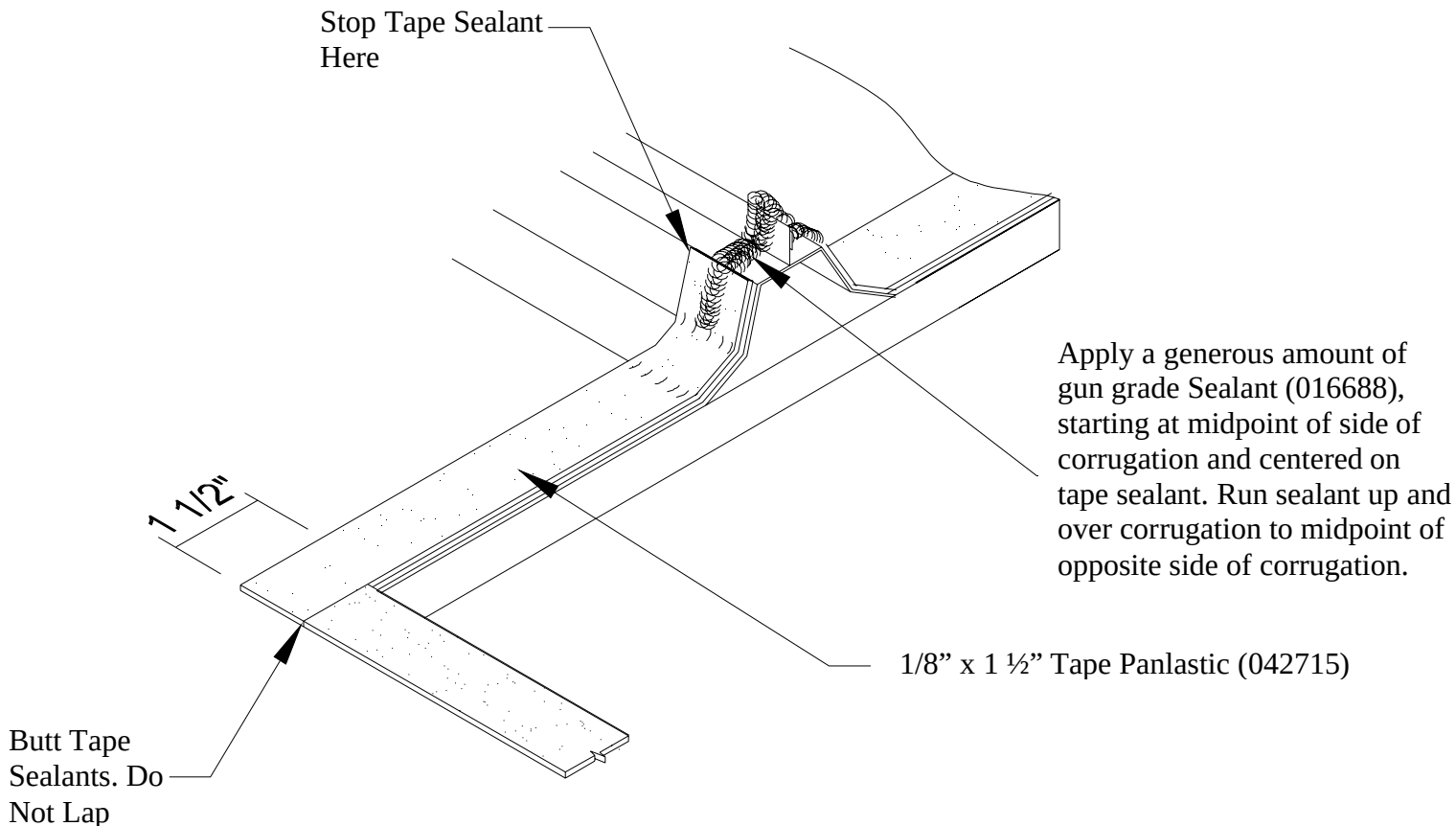


Support channels flush with inside of opening.

# Mastic Application.

## Step 5: Mastic Application:

**1<sup>st</sup>:** Starting at the upslope end of the opening, install the 1/8"x 1 1/2" (042715) tape mastic starting 1-1/2" past the corner of the opening, along the cut edge, stopping at the horizontal portion of the corrugation. Repeat for opposite side of opening. Cut the tape with a utility knife or scissors. Do not stretch to break the mastic. Align the end of the tape with the mark that was previously made on the outside of the curb. If possible, keep all mastic inside of the line.



**2<sup>nd</sup>** Starting from the edge of the tape installed at the upper end of the opening, butt the end of the tape together (do not overlap), apply tape mastic down the sides of the opening and extending it 1 1/2" past the lower end of the opening. Repeat for other side. See Diagram on next page.

**3<sup>rd</sup>** At the lower end of the opening, butt the end of the tape to the inside edge of the tape mastic that was applied to the sides, apply along the cut edge, stopping at the horizontal portion of the corrugation. Repeat for opposite side of corrugation. See Diagram on next page

**4<sup>th</sup>** Apply a heavy bead of gun grade sealant over lock-seams at each end of opening as shown in diagram above. Make sure there is adequate sealant under the seam to seal when curb is installed. See Diagram on next page

**Important Note: Do not lap mastics in the corners. Do not stretch mastic to break. Both methods could cause leaks around curb.**

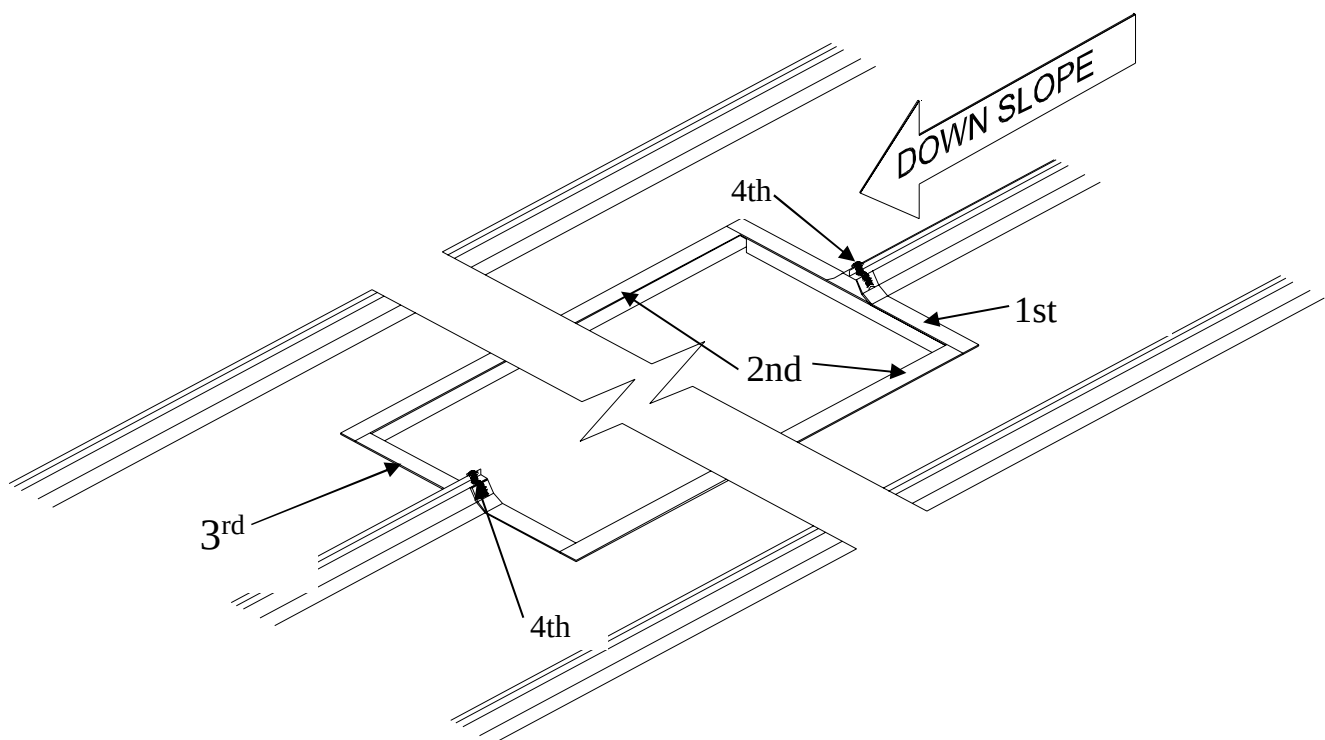
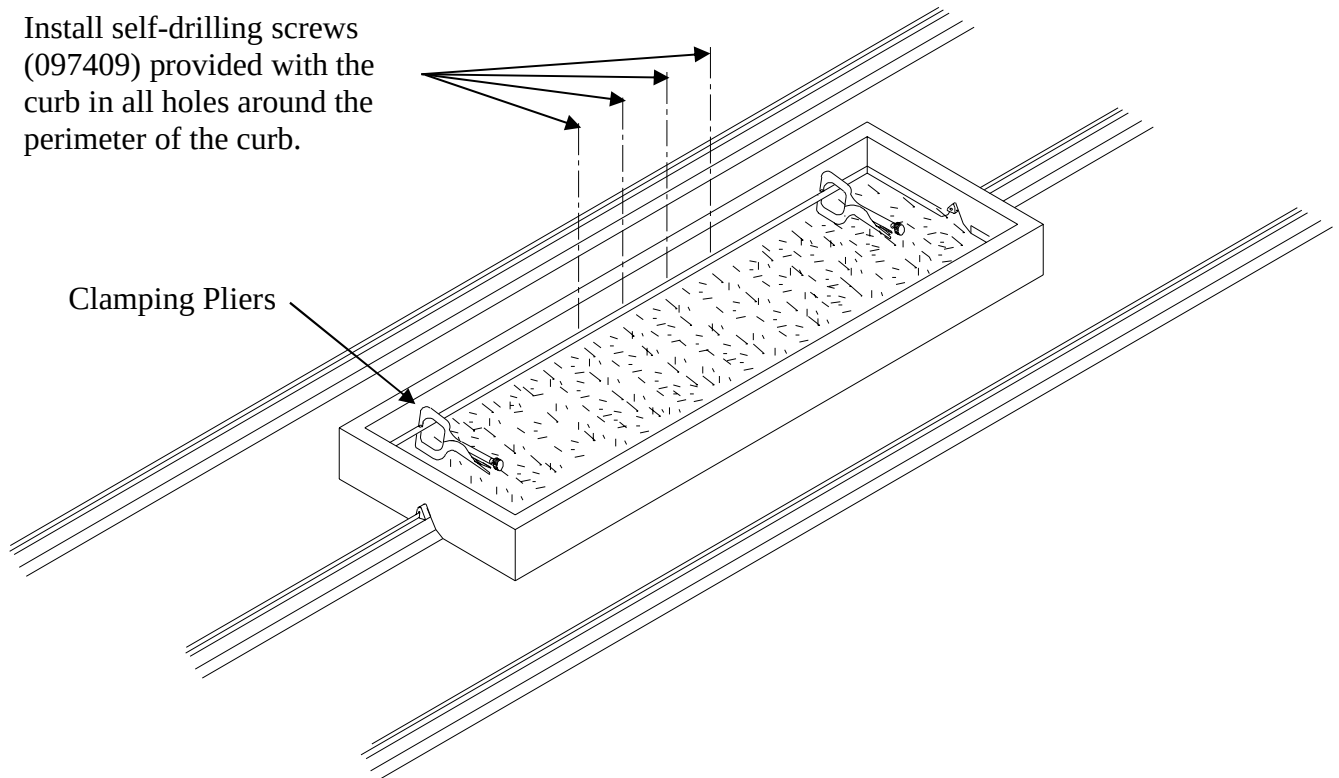


**Diagram showing the order that the mastic should be installed.**

# Curb Installation

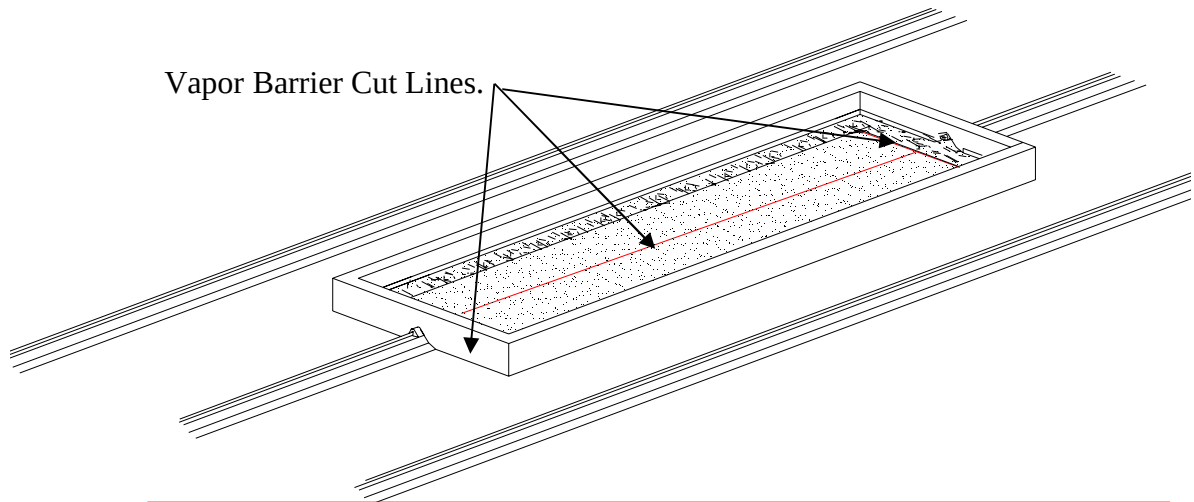
## Step 6: Curb Installation.:

- A. Turn curb upside down and pump gun grade sealant into the slot where the curb will lay over the panel seam.
- B. Place the upper end of the curb onto the corrugation making sure that the inside of the curb is aligned with the opening. Carefully lower the other end of the curb until the curb is seated onto the panel. Using locking pliers, clamp curb, panel and support channels together to prevent any movement, Install Self-Drilling screws (097409) that were provided with the curb in all holes around the perimeter in the bottom flange into the support channel.  
(The insulation will need to be compressed at the bottom of the curb to find the holes)



## Step 7: Insulation:

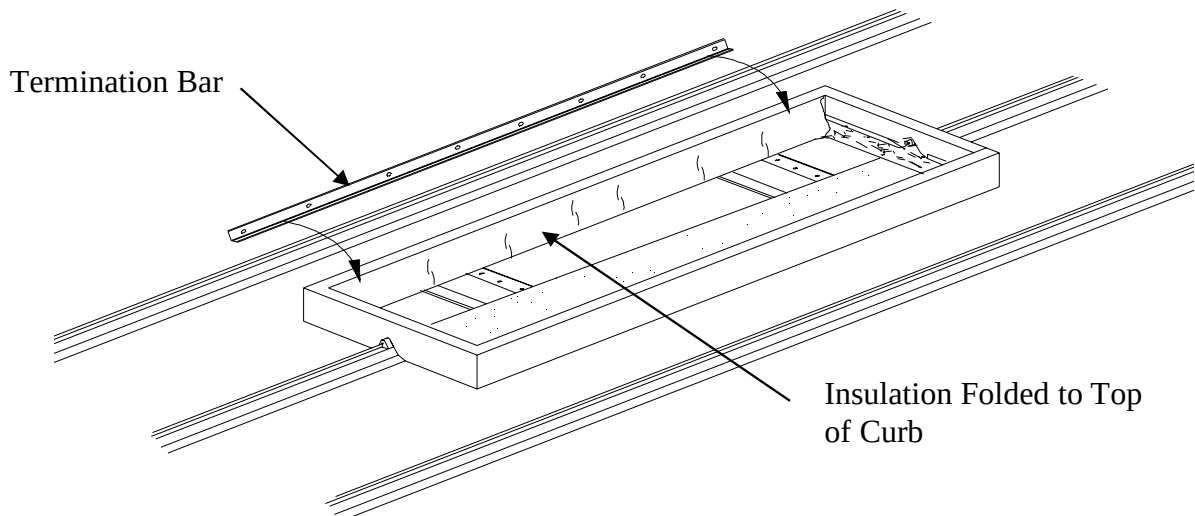
- A. Score fiberglass only around the perimeter of the curb opening with a knife. Remove enough fiberglass to reduce insulation thickness to between 2"-3" thick on all insulation between the support channels. Do not remove all the insulation as it will be used to insulate the curb sides. Save removed insulation for use on ends of curb in upcoming steps.
- B. Cut the facing down the center. Start by making a cut at the ends, flush with the opening. If you have SkyWeb, do not cut into it.



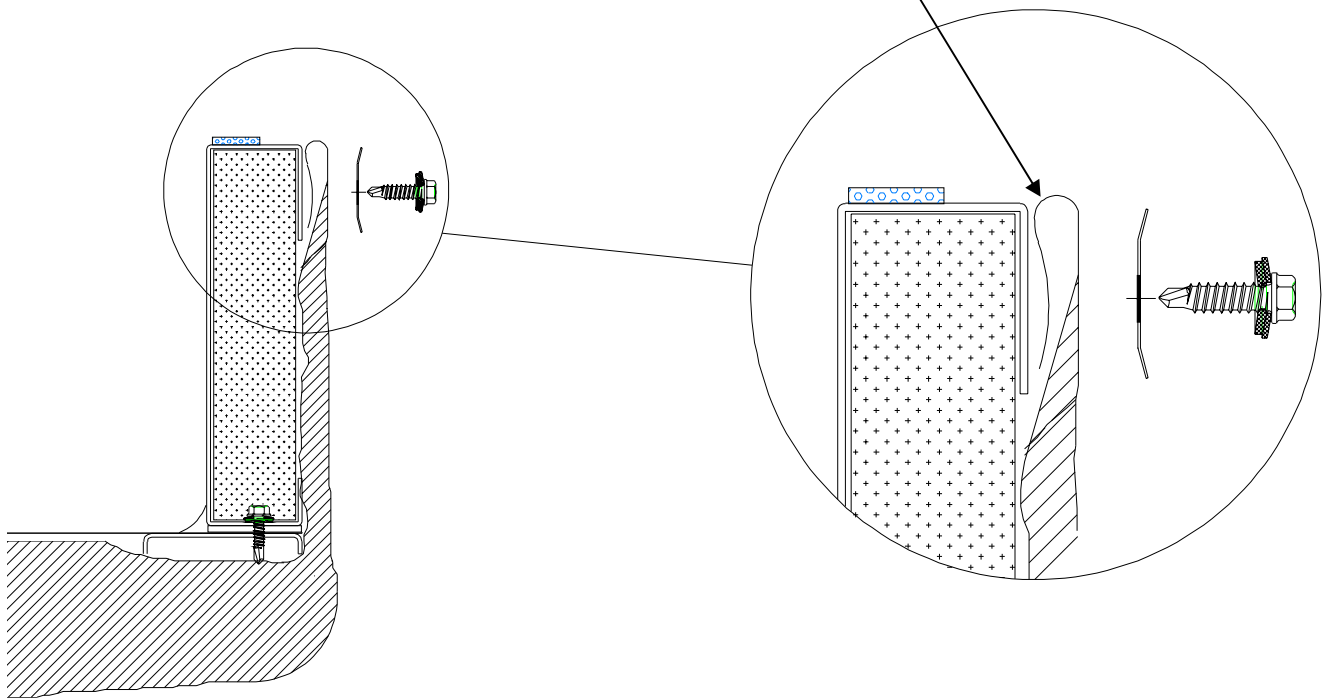
**If working in ASHRAE Climate Zones 5 or above, proceed to Section 7-C2 for Thermal Break Tape Installation. If working in Zones 4 or below, continue to step C.**

- C. Fold vapor barrier up to the upper inside flange of the curb (See Insulation Detail on next page) and attach to the curb with termination bar and nylon head SDS. Make sure the top of the termination bar is not installed higher than the top of the curb. (Note: You are finishing off the SunLite Strip skylight and care must be taken to ensure a neat appearance.).

The termination bar should be started and stopped 4" – 4 1/2" from the corner to allow the corner trim to fit into the corner without the termination bar being behind it.



Before installing the termination bar,  
Strip all insulation from the vapor  
barrier on the portion of insulation  
that extends above the curb. Fold the  
vapor barrier back to prevent any  
moisture from wicking into the

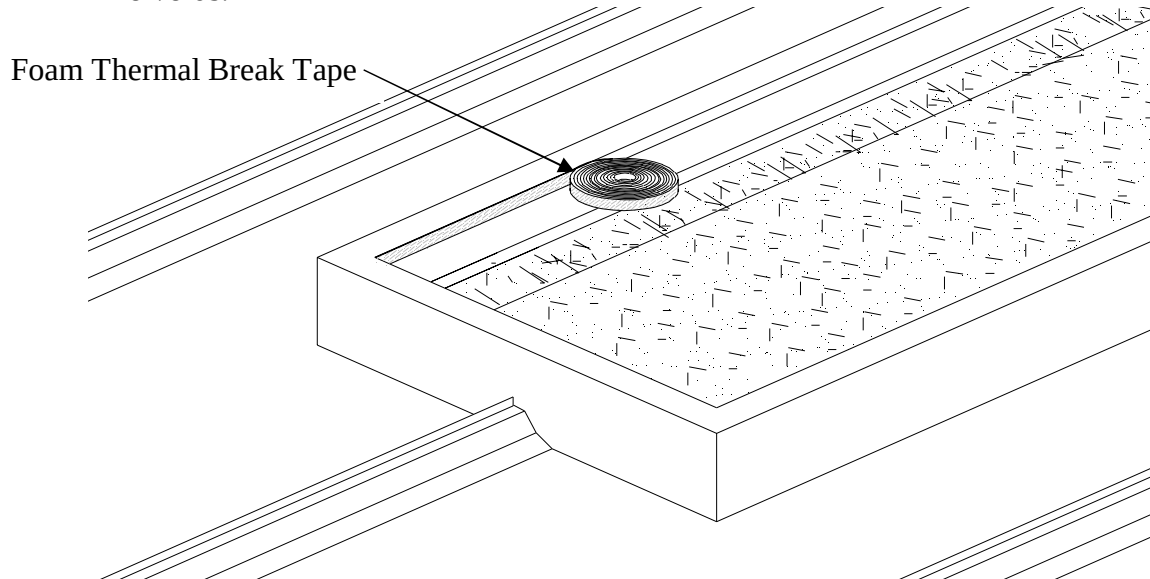


**Insulation Detail**

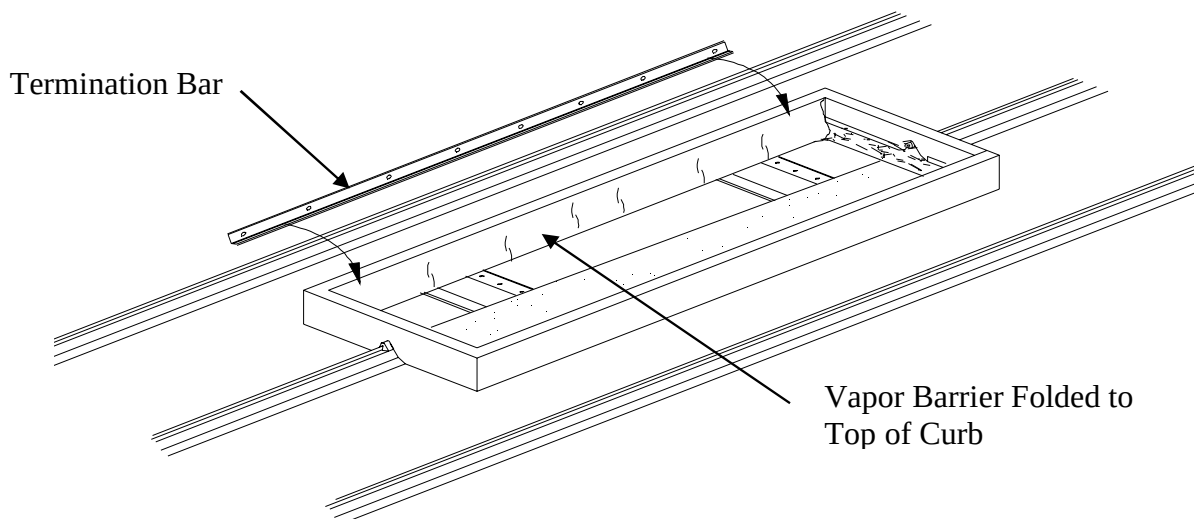
### Step 7-C2: Thermal Break Tape installation: In ASHRE Zones 5 and Above.

**Section 7-C2 is used only in ASHRAE Climate Zones 5 and above. These zones require the use of a Thermal Break tape applied to inside flange of the curb.**

- A. Clamp termination bar onto the inside flange of the curb. Start the termination bar 4-4-1/2" from each corner. Using the termination bar as a template, field drill 1/4" holes into curb.
- B. Starting at an inside corner, apply the 1-1/2" wide gray foam tape along the inner top flange of the curb. Align the bottom edge of the tape with the bottom edge of the flange. This will allow 1/4" of the tape to extend above the top of the curb. Repeat this for all the top, inner flanges of curb. Butt the foam tightly in the corners so there are no voids.

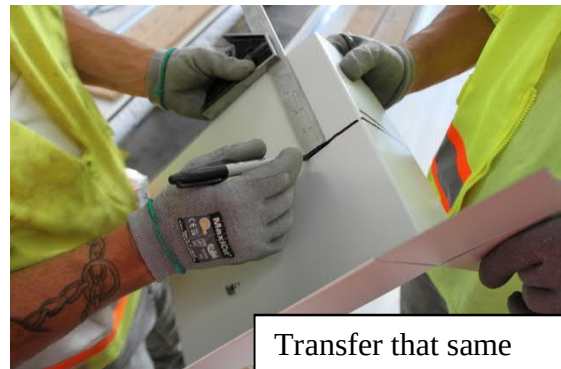


B. Fold vapor barrier up to the upper inside flange of the curb (See Insulation Detail on previous page) and attach to the curb with termination bar and plastic push pin fastener. Use a drift pin to align the holes in the termination bar with holes previously drilled. (Note: You are finishing off the SunLite Strip skylight and care must be taken to ensure a neat appearance.). The termination bar should be started and stopped 4" – 4 1/2" from the corner to allow the corner trim to fit into the corner without the termination bar being behind it.



### Step 8: Corner Trim Installation:

- A. Temporarily locate one end piece of corner trim in the corner. Pull up on the trim to make it snug against the insulation vapor barrier below. Mark the outside edge of the of the trim flush with the top of the curb.
- B. Transfer the same height to all trim pieces.
- C. Cut all end trim pieces to same height.
- D. Before installing corners, use insulation that was taken from inside of curb in Step 8 while reducing the insulation thickness, and install between the curb ends and the corner trims.
- E. Install all cut corner trims flush with the top of the curb and attach to the upper flange of the curb using nylon head self-drilling screw. If working in ASHRAE Zones 5 and below, use plastic push in fasteners.



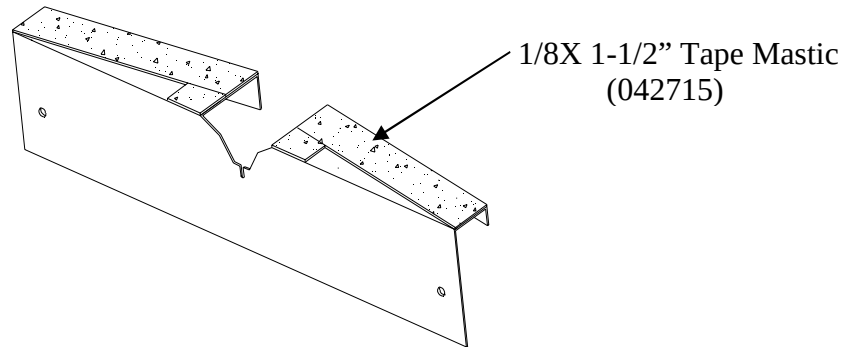
### ASHRAE Zones 5 and Above

In ASHRAE Zones 5 and above, plastic push pins will be used. Field drill a 1/4" hole through trim and inner curb flange to install push pin.

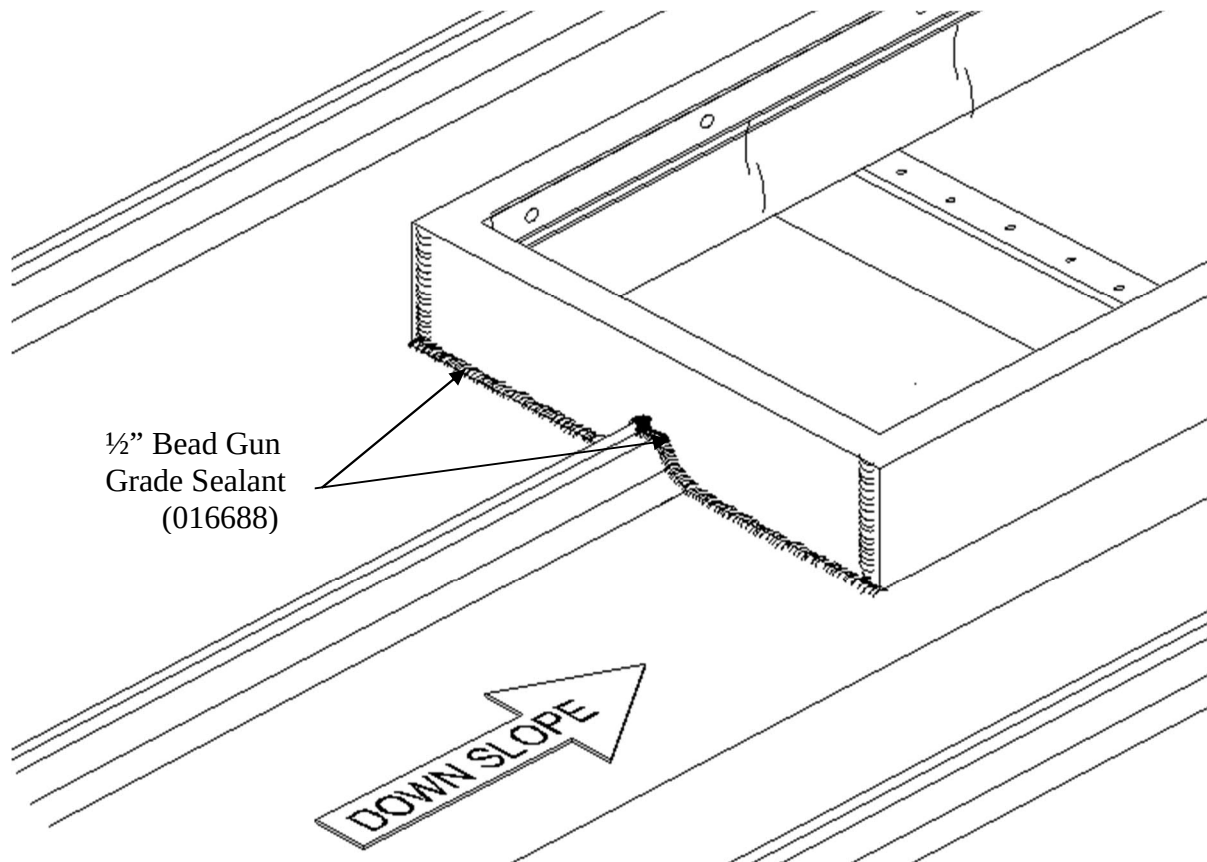


### Step 9: Diverter Installation:

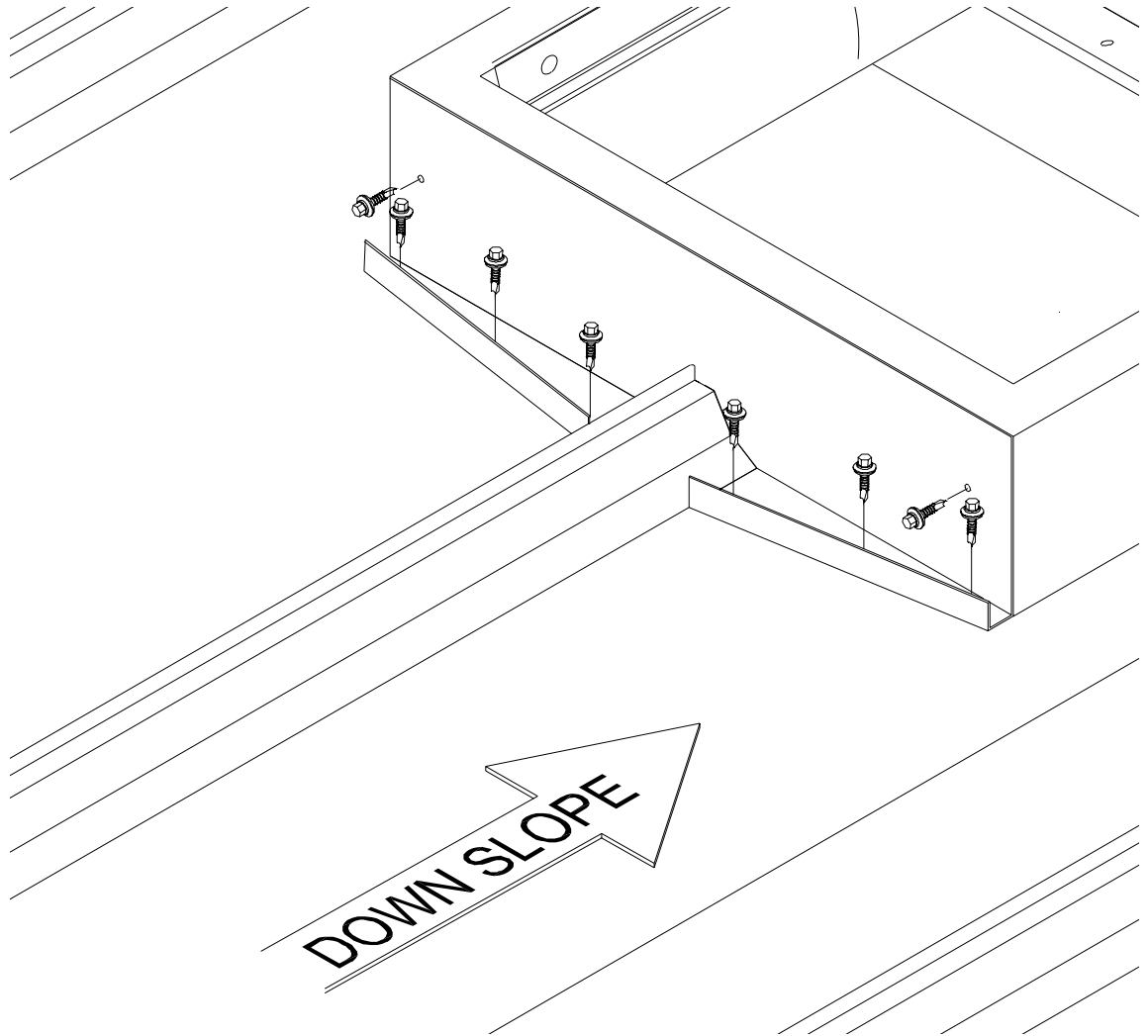
- A. Apply tape mastic to the bottom of the diverter. Starting on the end of the diverter, install the 1 ½" tape mastic along and flush with the front edge of the diverter. At the corrugation cutout, butt the mastic up to the previously applied mastic and run along and flush with the corrugation cutout of the diverter on the bottom leg of the diverter.



- B. Apply gun grade sealant (016688) to upslope face of the curb as shown. Set diverter down over the corrugation into the bead of gun grade sealant, taking care to keep back of diverter snug against curb base.

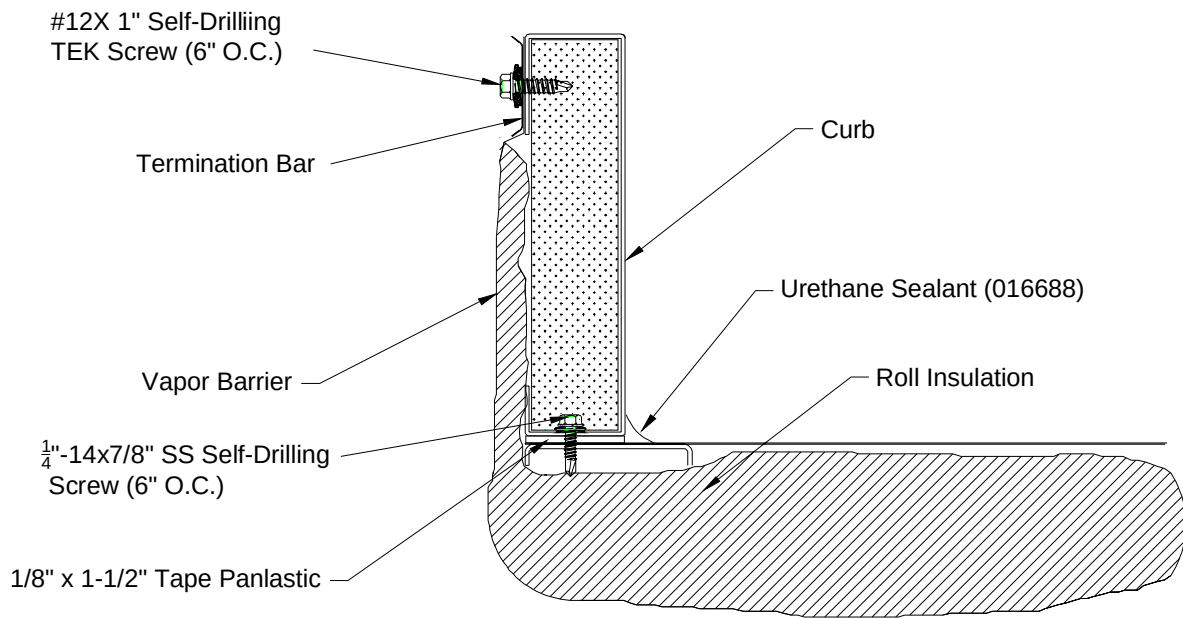


- C. Install (8) self-drilling screws (097409) into the pre-punched holes to secure the diverter in place. Make sure the diverter is pushed tightly against the curb and down on top of the panel before screwing. Be especially careful not to strip the two fasteners that are going into the aluminum wall of the curb.



**Step 10: Sealing the curb:**

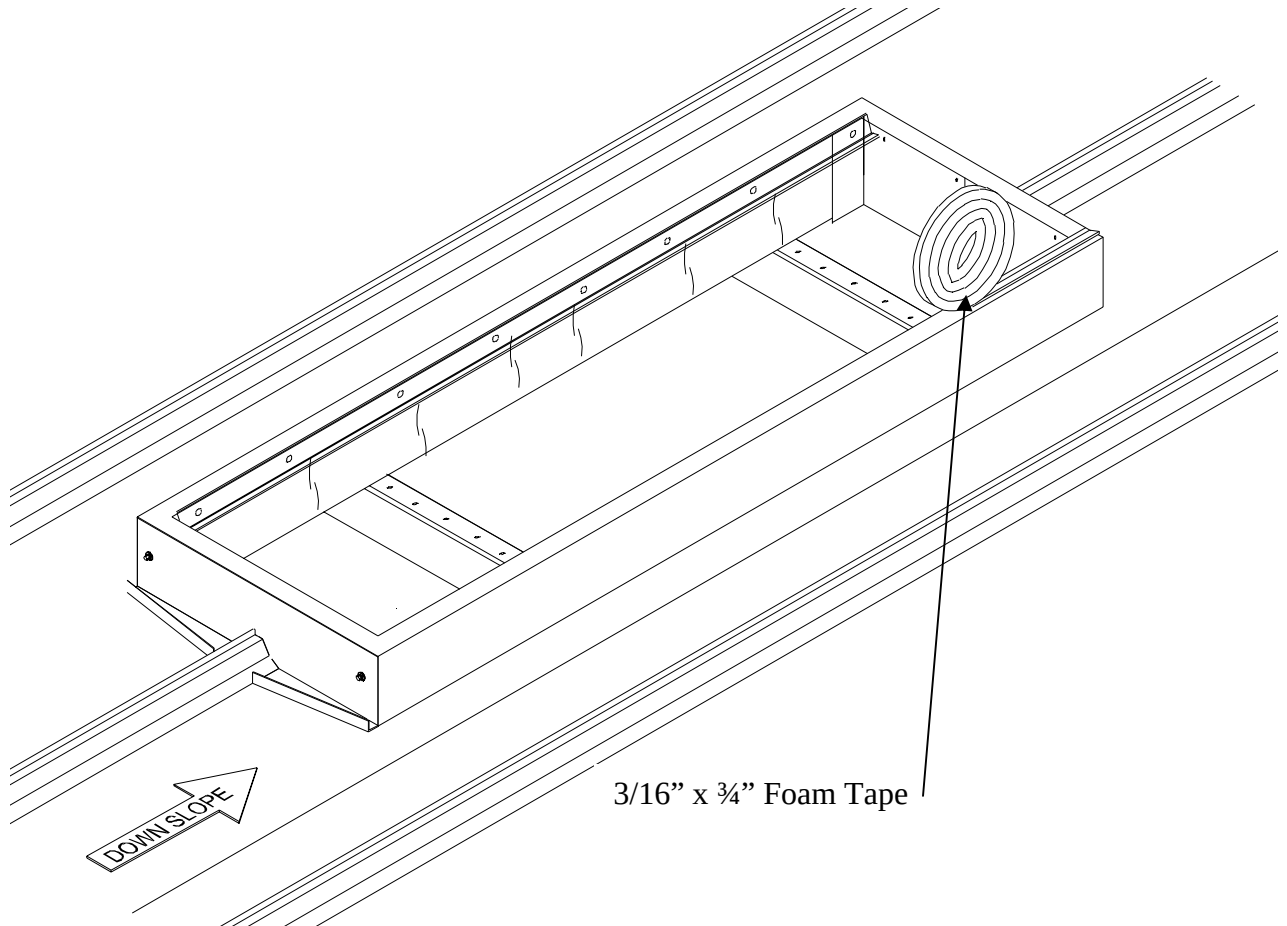
- A.** If the tape mastic has migrated out from under the curb, use a utility knife and trim the excess and discard.
- B.** Apply a bead of gun grade sealant (016688) completely around the cub and tool it to make an attractive finish.



**Cross Section of Finished Curb Sides**

**Step 11: Dome to Curb Seal Installation:**

Install 3/16" x 3/4" foam tape (560185) around top of curb. Butt the tape in the corners and do not lap. Make sure there are no voids in the corners as this will be the seal between the curb and the dome.



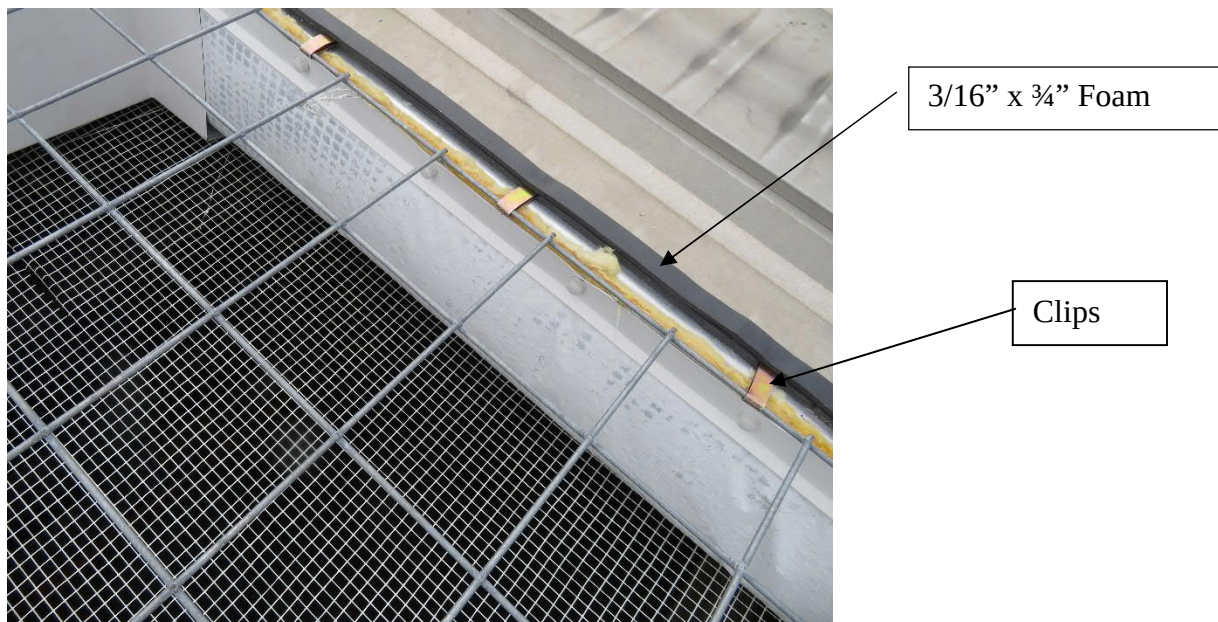
# Accessory Installation:

## Optional Safety Guard

**Step 1: Locate Safety Guard screen** by placing three temporary supports (such as metal bars or wood slats) to support the screen over the opening. Install the Clips by placing them at 8" maximum spacing along each side and along each end of the Safety Guard screen. Center the screen in the opening and in the length of the curb. Install a Phillips self-driller screw through each clip and into the top flange of the curb.



**Step 1A:** Apply a second layer of foam tape on top of the first layer once the clips and screws have been installed.



# Optional Security Bars

**Step 1:** To install the Security Bars, place them over the 3/4" wide Foam Tape previously applied around the perimeter of the opening. Install 7/8" square drive self-drilling screw (044855) to secure the security bars to the curb.



**Step 1A:** Apply 3/4" wide Foam Tape (560185) continuously to top surface of the Security Bar frame.

Apply 3/4" Foam Tape to top of surface.



Ready for dome frame installation

# Dome Installation

## Step 1: Dome Installation:

With the curb installed, set dome on top of curb, apply pressure downward on the dome down to create a good seal with the foam tape installed on top of the side rails. Install screws starting from the ends of the dome working towards the center. Install screw at a slight downward angle to create a tight seal. **DO NO OVERDRIVE (strip out) THE ATTACHMENT SCREWS.**



1-1/8" SS Self-Drilling  
Screw (044856)

**Important Note:** When moving domes, use two people and handle the domes from the end of the units. To prevent dome damage, Never try to move the dome with one person.

## NOTE PAGE:

1. Skylight Condensation and Frosting:
  - Condensation is not a skylight defect; it is a result of atmospheric conditions inside and outside the building. Condensation is the result of warm moist air coming in contact with a cooler surface, in this case, the skylight dome or frame. If the surface temperature of the skylight unit falls below freezing, then frost or ice may form on the surface.
  - This is common in acrylic glazed skylights industry wide and does not change the integrity or function of the skylight. Condensation is not covered in your product warranty.
  - Since the outside conditions cannot be controlled, condensation must be dealt with from inside the building. Managing the inside temperature and humidity along with proper ventilation are keys to controlling condensation. See the Butler Reference Library for articles regarding condensation control.
2. Other applications: Additional Installation Manuals available.
  - For installation information when a Sunlite Strip skylight is installed in a CMR-24 Roof System, see the SunLite Strip® (For CMR-24 Roof System) – Installation Manual.
  - For installation information when a SunLite Strip skylight is to be installed in an MR-24 Roof utilizing the Thermal Liner System (TLS) for the insulation system, see the SunLite Strip® (For Thermal Liner System) – Installation Manual.
  - Any MR-24 Roof System utilizing a “thick roof insulation system” like “banded liner systems”, or “long tab banded systems”, or similar, will require project specific designed details to trim out a SunLite Strip skylight. These types of insulation systems are not covered in this Installation Manual. See the SunLite Strip® Trim Details for Thick Insulation – Installation Manual.

**Butler Manufacturing**  
Division of BlueScope Buildings North America, Inc.  
**1540 Genessee Street**  
**Kansas City, MO 64102**

**Form No. 6591**  
**Date: 07/28/2020**