



Trex® RainEscape®
DECK DRAINAGE SYSTEM

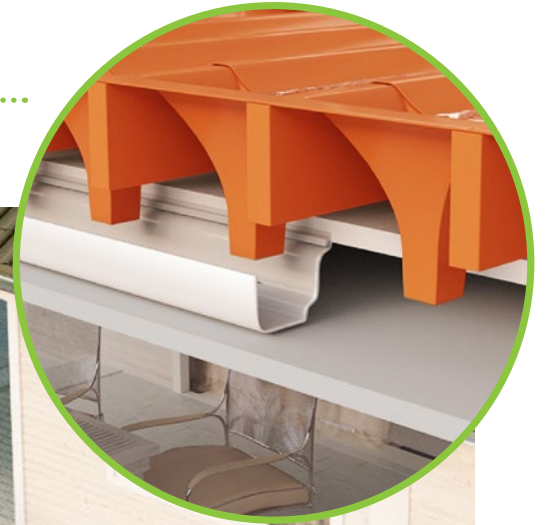
INSTALLATION GUIDE



CREATE A
DRY SPACE
below your deck

Protect the space below your deck
FROM RAIN, SUN & OTHER ELEMENTS

WATER IS DIRECTED AWAY FROM YOUR DECK AND INTO A WATER DRAINAGE SYSTEM



EXPAND YOUR
OUTDOOR LIVING SPACE



Trex® RainEscape®

DECK DRAINAGE SYSTEM



INSTALLATION GUIDE

This installation guide provides step-by-step instructions on how to install Trex RainEscape on an elevated deck. Please read through these instructions carefully. For additional information on how to install Trex RainEscape, please view our videos on the Trex RainEscape YouTube channel or call a Trex RainEscape Specialist at **1-877-348-1385**.

TREX® RAINESCAPE® INSTALLATION GUIDE

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**Refer to installation sheet for most current updates*

BEFORE YOU BEGIN

DO'S

Make all joists straight and square.
Add outlets to gutter every 12' - 14'.
Cover all joists and blocking with trough material, then butyl tape.
Cover the Trex RainEscape system with deck boards.
Ensure the troughs and downspouts are dry and clear of debris before applying tape.
Acclimate the trough before installing.
Install the trough material with the shiny side up.

DON'TS

Do not staple Trex RainEscape products anywhere other than into or over floor joists, ledger, rim joists, or headers.
Do not use spiked hidden fasteners, or any fastener without a flat base to provide pressure to butyl tape. Call a Trex RainEscape Specialist at 1-877-348-1385 for recommendations.
Do not over drive double thread screws.
Do not stand anywhere other than the top of the floor joists, ledger, rim joists, or headers. The Trex RainEscape system can not support body weight.
Do not use nails to attach the deck boards above the Trex RainEscape system.

HELPFUL TIPS

THE TREX RAINESCAPE SYSTEM IS MORE EASILY INSTALLED WITH TWO PEOPLE WORKING TOGETHER

SNOW BUILD-UP

Snow will sit on decking until it melts and then it will run through the system.

LEAVES

If leaves and debris accumulate in the troughs, a standard washing or a hard rain will clean out the system.

IF THE TAPE WILL NOT STICK

In areas, such as the perimeter, brick or stucco, where the Trex RainEscape tape will not stick, use the Trex RainEscape caulking to adhere the material.

CAUTION

Do not splice trough material. If the trough material is spliced it must be replaced. Do not try to repair any damage with the Trex RainEscape tape.

To estimate your materials needs or for questions, visit our website trexrainscape.com or contact us at **1-877-348-1385**

BASIC INSTALLATION

PARTS

DOWNSPOUT - 40mil

TROUGH - 20mil
19-5/8" x 16' (49.8 cm x 4.8 M)

TROUGH - 20mil
19-5/8" x 12' 49.8 cm x 3.6 M)

WALL FLASH
1/4" x 1" x 25'
(6.35 mm x 25.4 mm x 7.62 M)

TAPE
4" x 50'
(102mm x 15.24 M)

DOUBLE SIDED TAPE
2 1/2" x 50'
(63.5 mm x 15.24 M)

CAULKING* (10.5 oz tube)

SOFFIT LIGHT

4X4 POST FLASH
(102 mm x 102 mm)

*One tube covers 25 linear ft. w/1/4" bead

TOOLS

STAPLE GUN

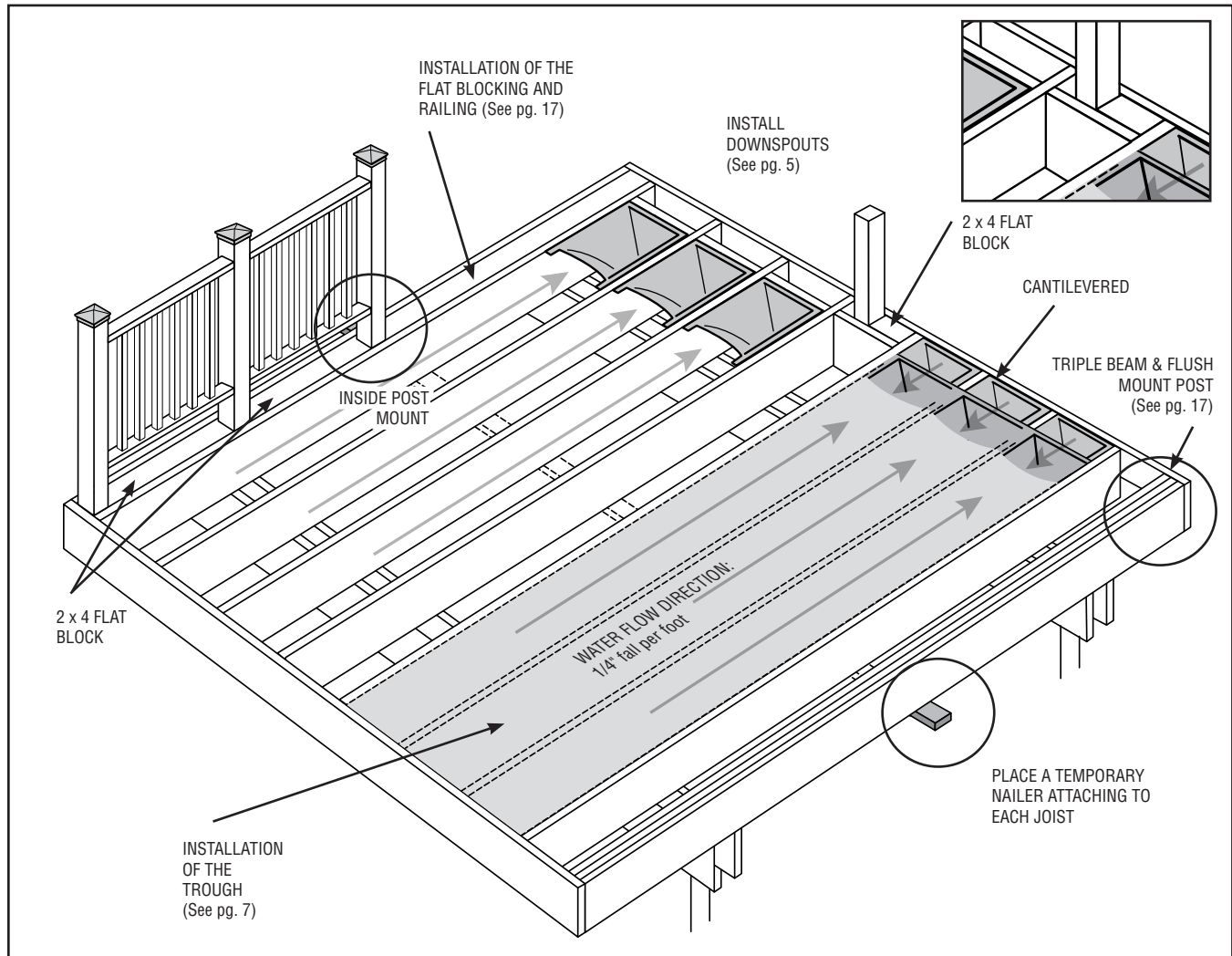
CAULKING GUN

REGULAR STAPLES
(3/8" or longer)

UTILITY KNIFE

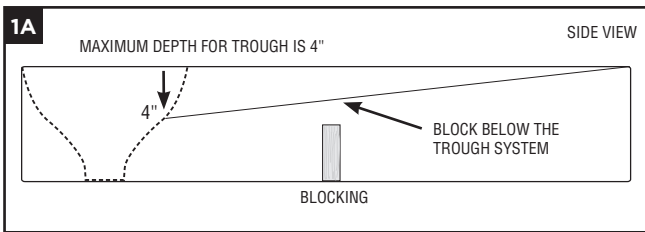
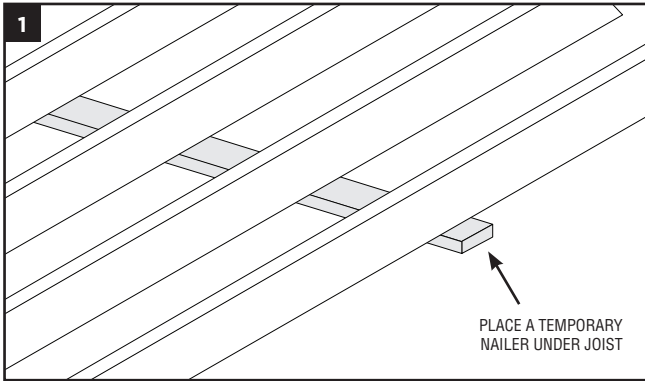
4-5/8" (120 mm) HOLE SAW

FRAMING DETAIL



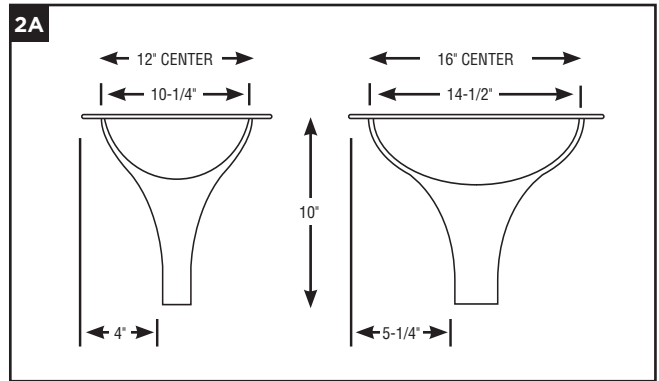
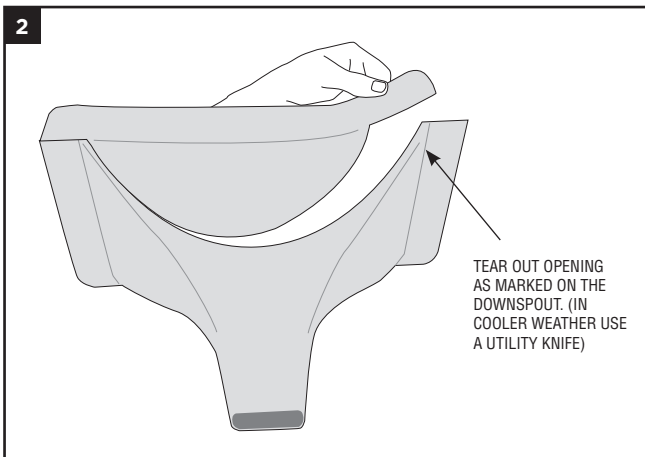
1. PREPARATION

- »Read all instructions completely before beginning.
- »Place midspan nailer (1) or vertical blocking (1A) to keep joist straight and prevent rolling.
- »Midspan nailer can be removed when soffit or ceiling is installed.

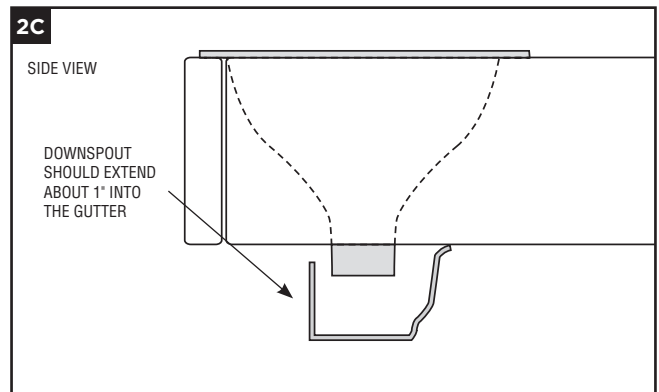
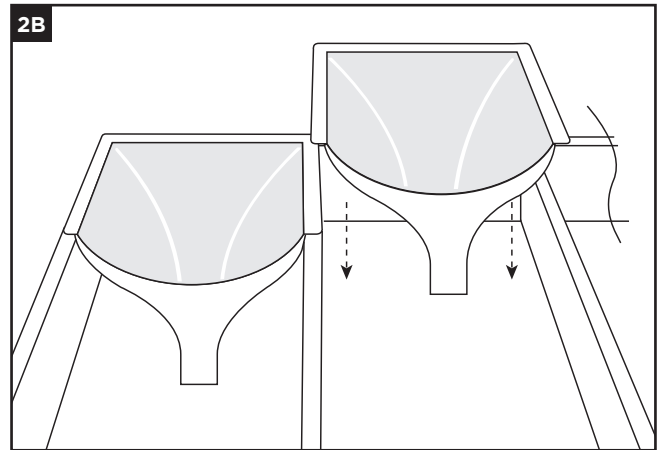


2. INSTALLING THE TREX RAINESCAPE DOWNSPOUT

- »Cut downspouts along one 12" or 16" side of score mark based on joist spacing.
- »Install all downspouts along rim joist and/or ledger board. Cut-out side should face open deck bay.



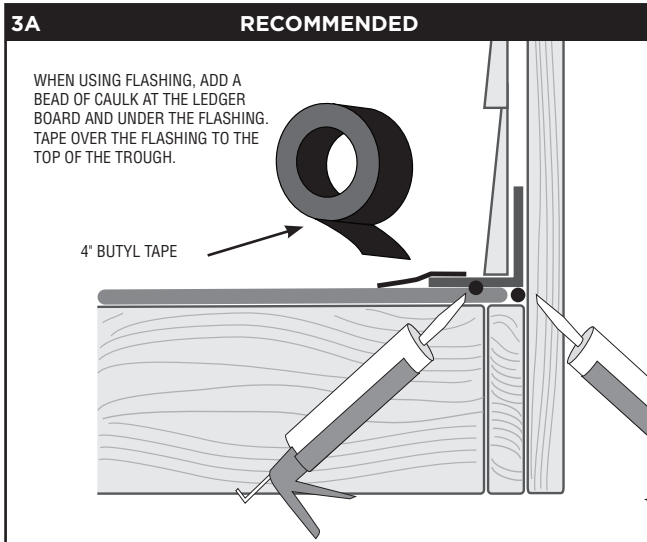
- »Downspout should extend 1" into gutter: cut or extend as necessary. (2C)



3. FOUR TYPES OF FLASHING:

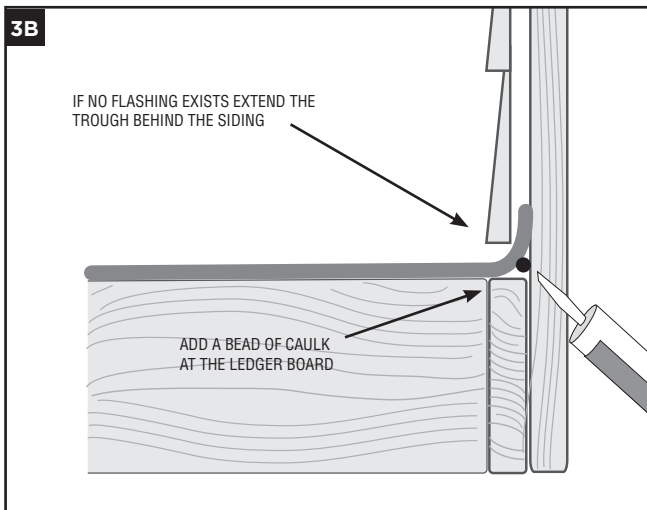
With Flashing

»When using flashing add a bead of caulk at the ledger board and under the flashing. Tape over the flashing to the top of the trough using the 4" RainEscape butyl tape. (3A)



Without Flashing

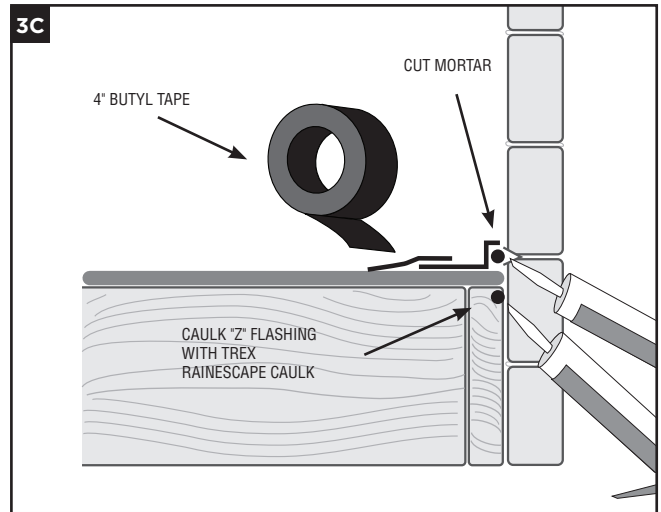
»If there is no flashing at the ledger, slide 3" of trough material under the existing siding. (3B)



»When taping seams, follow seams up wall.

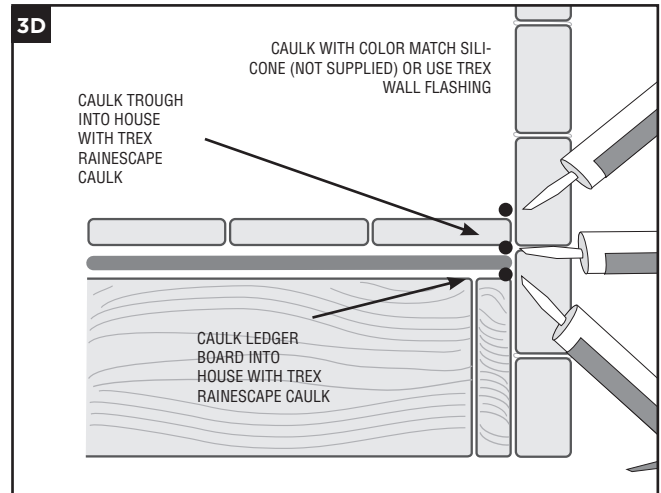
Flashing with Brick or Stucco

»Cut into mortar or cement joint. (3C) Caulk "Z" flashing into mortar. Install trough under flashing as shown in (3A). Tape over flashing to the top of the trough using the 4" RainEscape butyl tape.



No Flashing with Brick or Stucco

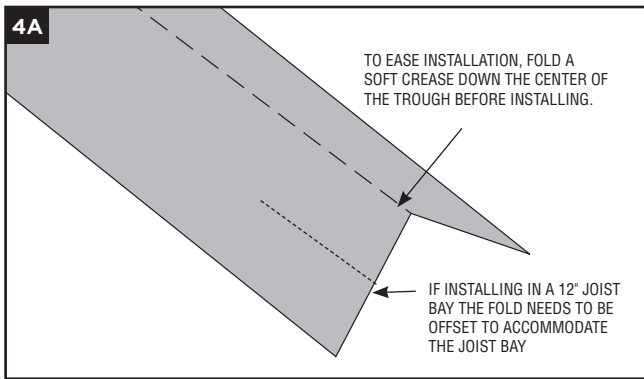
»If installing against brick or stucco and you **DO NOT** need a 100% water tight seal, use the caulking method. (3D)



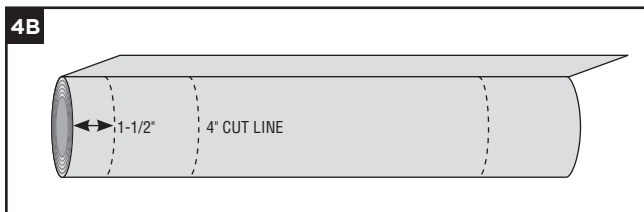
4. INSTALLING THE TREX RAINESCAPE TROUGHS

NOTE: If installing when temperatures fluctuate drastically, be sure to acclimate trough material before installing. Especially if you are using black. Here are two ways.

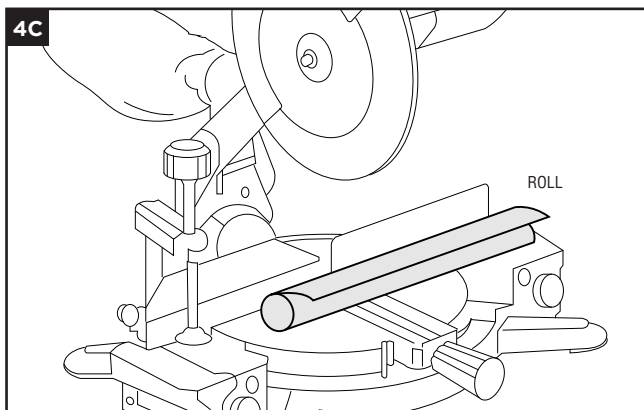
- » Fold a soft crease down the center of the trough. Be sure to account for the offset if installing for a 12" joist bay. (4A)
- » Unroll trough material, giving plastic time to relax and acclimate to outdoor temperatures.



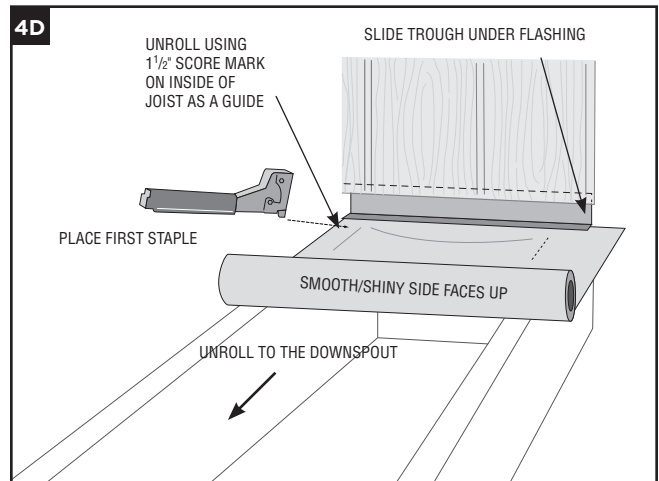
- » When working with the Trex RainEscape trough material, ensure that the smooth/shiny side always faces up.



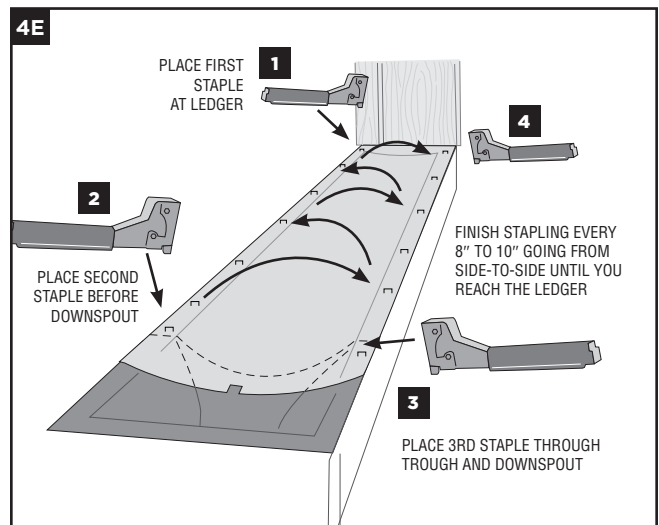
- » If installing the system on 12" o.c. joist, cut the 1-1/2" score mark side back 4". Then align the left edge of the trough with the outside of the joist (4B).



- » Measure over 4" on the 1-1/2" score mark side and cut off for 12" on center joists. (4C)

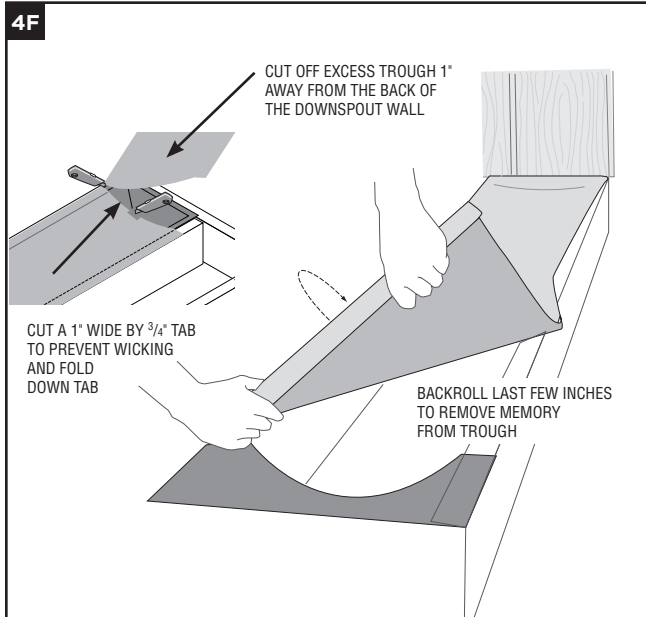


- » Hold roll so 1- 1/2" score mark is on the left. (4D)
- » Line up the 1-1/2" score with the second joist.
- » Place first staple at ledger board on 1-1/2" score mark side. (4E)



- » Unroll trough to downspout using 1-1/2" score mark on inside joist as guide.
- » Cut trough to length to back wall of downspout.
- » To remove memory from sheet, backroll the last few inches of the trough. (4F)

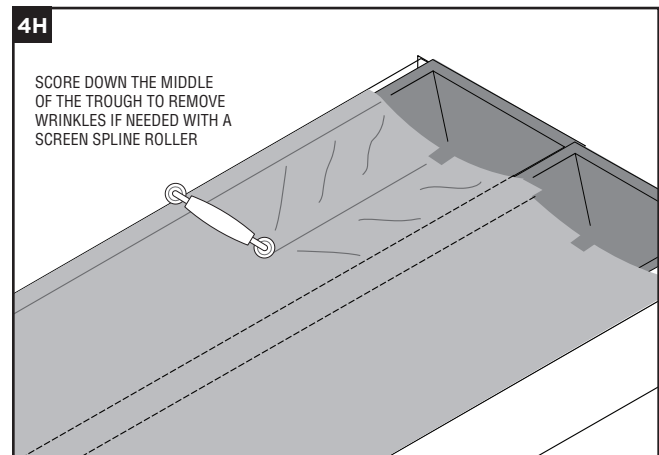
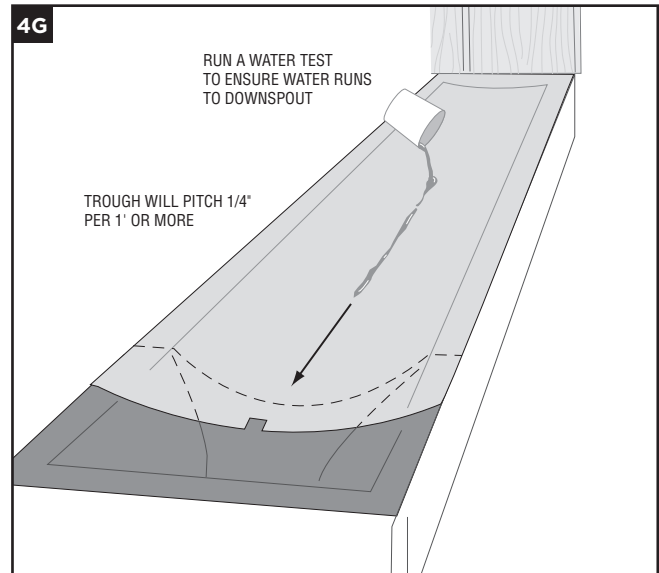
NOTE: If run is longer than 12', put down second staple halfway down second joist.



- » Pull trough tight to ensure memory is released, and place second staple on inside joist through downspout. (4E)
- » On outside joist, form a trough into downspout while lining up the edge of the score mark with inside of joist. Place third staple through trough and downspout on outside joist. (4E)
- » Cut a 1" wide by 3/4" tab at center edge of trough (fold tab down) to prevent wicking. (4F)
- » Pull corner at ledger and outside joist tight keeping entire length of trough smooth and wrinkle-free so as not to impede water flow. (4E)
- » Place fourth staple on outside joist. (4E)
- » Continue stapling every 6" to 8" from downspout to ledger on both joists to secure. (4E)
- » **Trough material must cover all exposed wood on surface of deck**

» To test for correct slope, pour a cup of water on trough at ledger board ensuring water runs to the downspout. (4G)

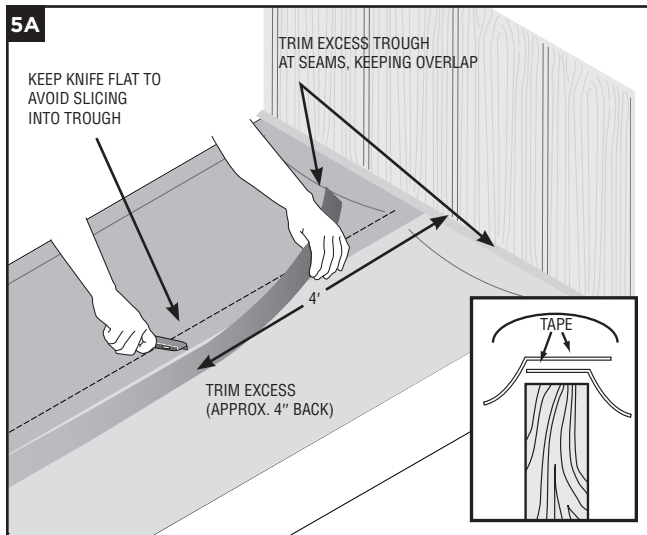
» Follow above step for the remaining troughs.



NOTE: In extreme temperature swings, trough material will expand and contract. Some wrinkling is acceptable but should not impede the flow of water.

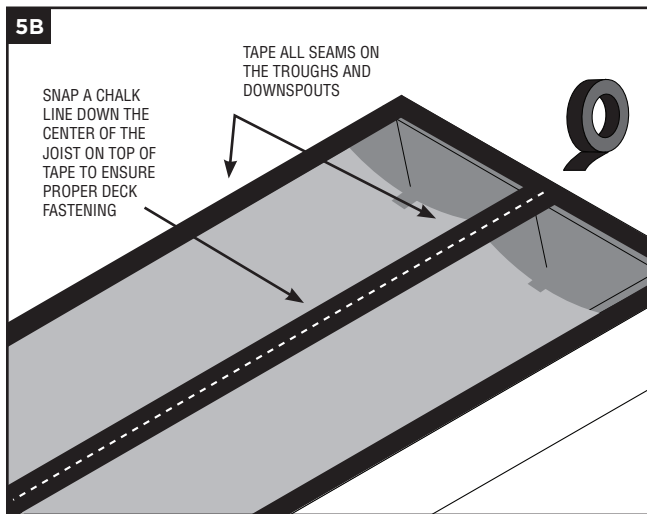
5. TAPE ALL SEAMS

»Trim excess trough at seams, keeping overlap so tape will cover the top of the joist and seams. (5A)



»Using Trex RainEscape tape, tape all seams, joints and perimeter making sure the flashing is taped to the trough. (5B)

NOTE: Tape works off of compression and must be pinched between decking and joist to make a tight seal.



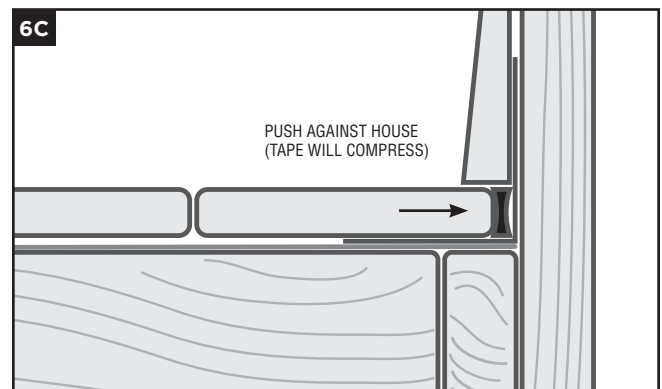
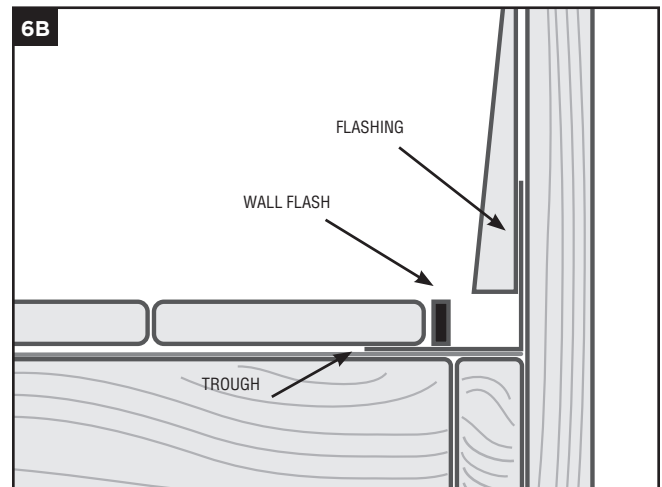
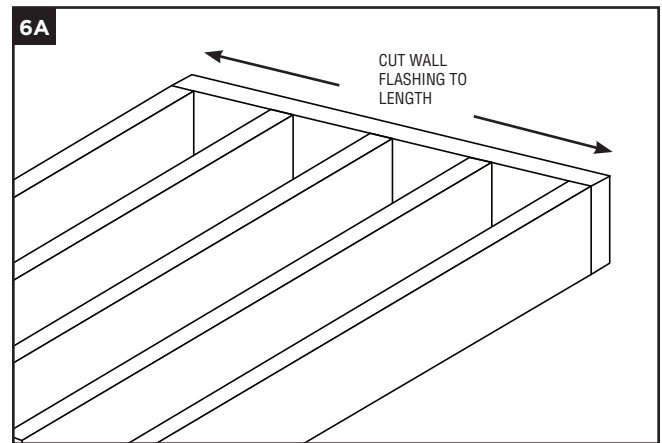
NOTE: Tape shown should never be put on board without trough material below it.

6. WALL FLASHING FOAM STRIP

»Cut a piece of the self-adhesive wall flash the width of the deck. (6A)

»Peel release paper from the wall flashing and adhere to edge of decking. (6B)

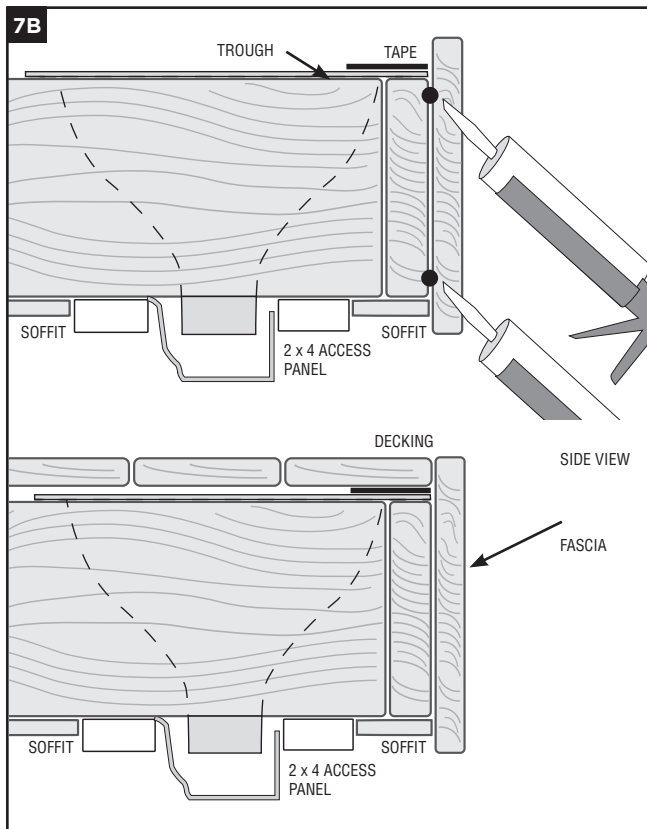
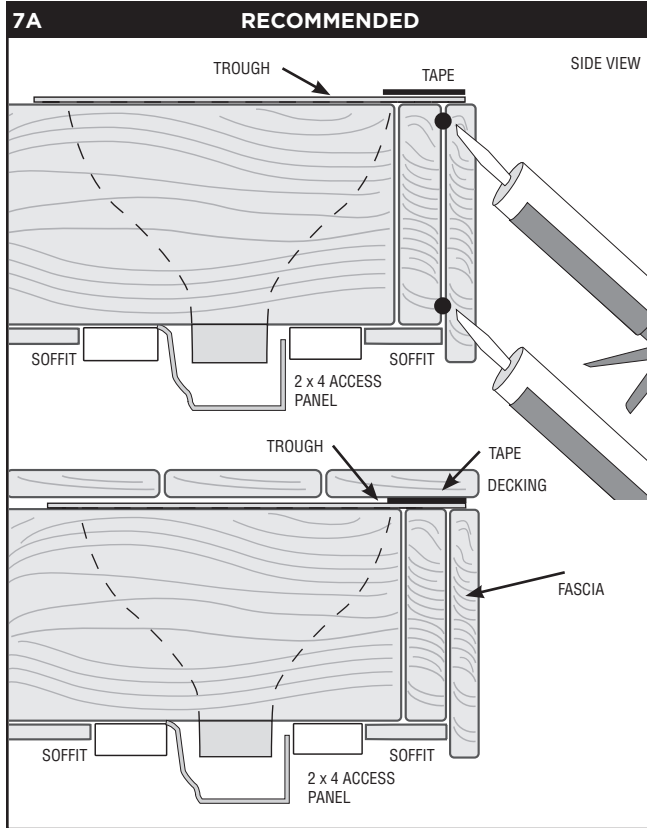
»Push first deck board up against house to compress wall flash. Then secure decking. (6C)



7. INSTALLATION OF FASCIA

» Two suggested ways to seal fascia:

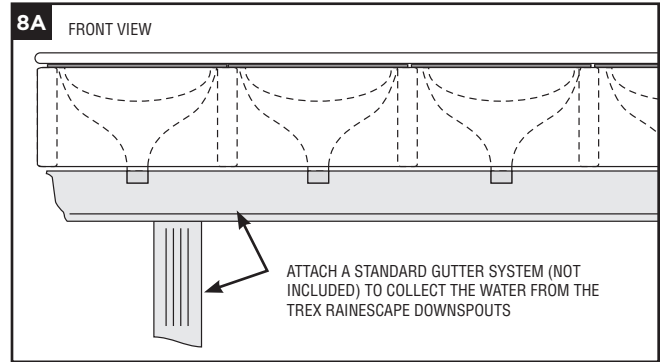
- Deck board go over fascia (7A)
- Deck board butt against fascia (7B)



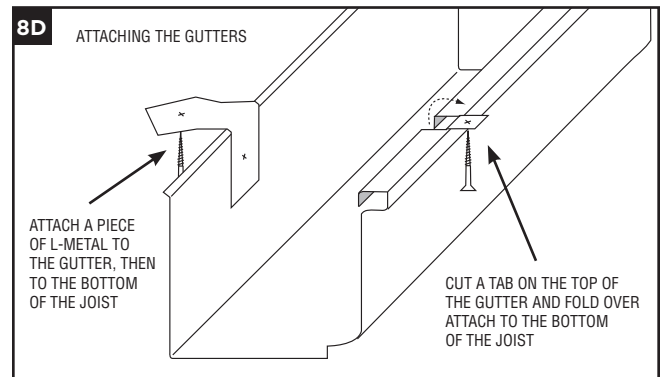
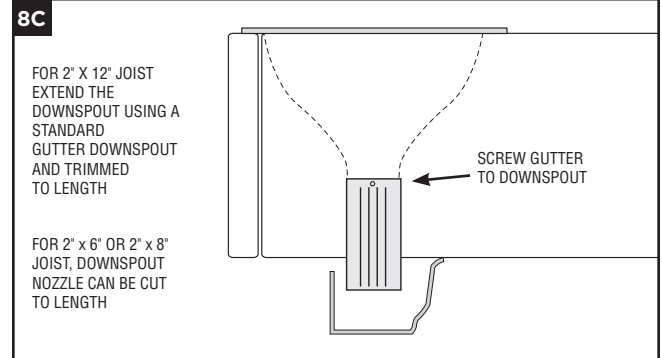
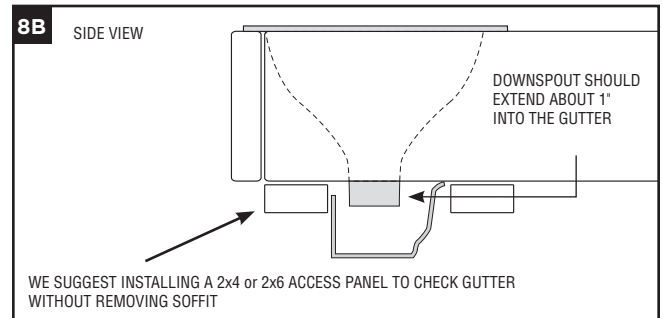
8. INSTALLING A GUTTER SYSTEM

(not included)

- » Before installing a gutter system perform a water test to clean out the system and check for any leaks.
- » Attach a standard gutter system to collect the water from the Trex RainEscape downspouts.

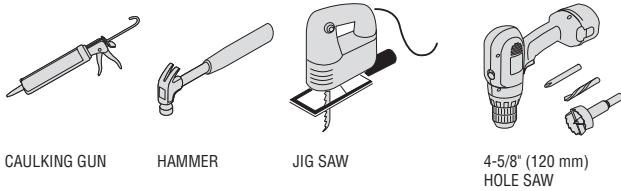


NOTE: Installing a clean-out trim piece will allow access to gutter line after installation.

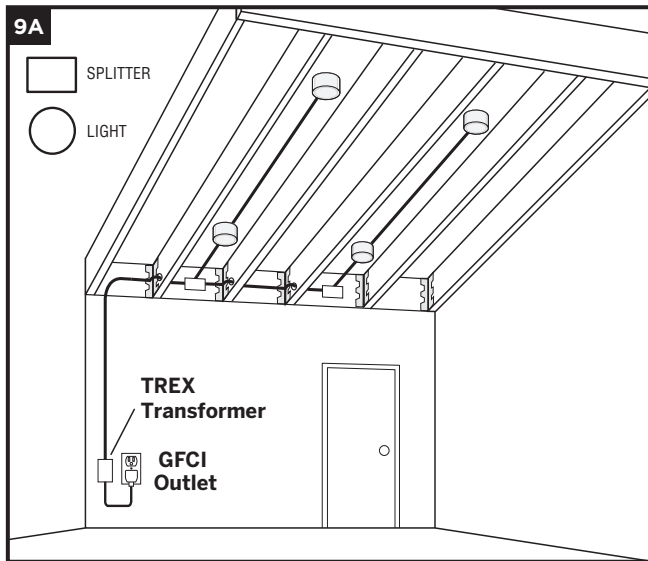


9. INSTALLING TREX RAINESCAPE SOFFIT LIGHTS

TOOLS NEEDED



LIGHTING LAYOUT



»Space lights every 6' (1.82 m) or to desired span.

GENERAL INFORMATION

- »**ALWAYS** consult local codes before beginning a project.
- »**USE TREX TRANSFORMER ONLY.**
Use of any other transformer voids warranty.
- »Lights must be installed in a dry area.
- »Allow light to cool before removing.
- »The light requires an unobstructed cooling zone around and above the light. Under no circumstance is this 2" zone to be reduced either through insulation or construction materials.

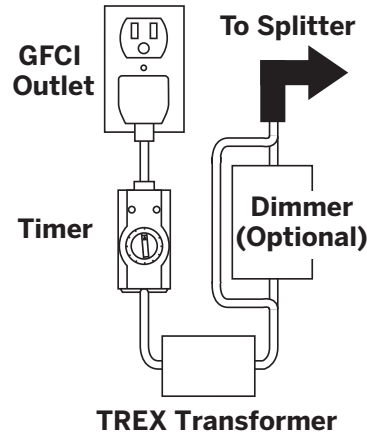
TRANSFORMER CAPACITY BY TYPE

Type of Light	8.3A Transformer (83 DL TRANSFORMER)	2.5A Transformer (25 DL TRANSFORMER)
Soffit Light	23	7

Above listing is for maximum number of each individual light. If mixing and matching lighting, contact Trex to determine if more than one transformer is required.

PLANNING

NOTE: When designing your deck, plan locations of lights, power supply, timer, and dimmer. These should be accessible for service. Installing a GFCI outlet is **REQUIRED** to help prevent damage to lighting from electrical surges. (9A)



1. The dimmer remote will work in a 30' (9.1 m) radius of the unit.
2. Dimmer should be installed in a dry location.
3. Timer must be installed vertically with receptacle facing downwards. Timer must be at least 1' (.30 m) from ground level when installed as per federal safety code height regulations. Timer must be in view of the sun to use the dusk/dawn feature.

NOTE: For installations where the transformer is hardwired to an AC switch, please consult a licensed electrician.

INSTALLING WIRING

NOTE: It is recommended to install wiring and splitters before decking and railing is installed.

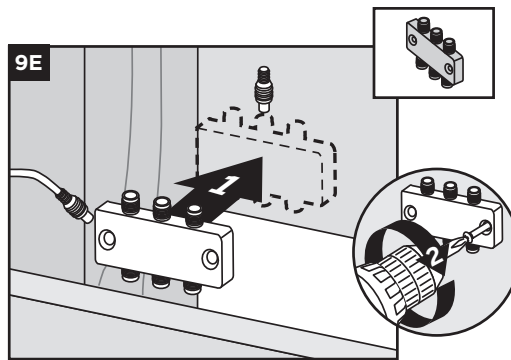
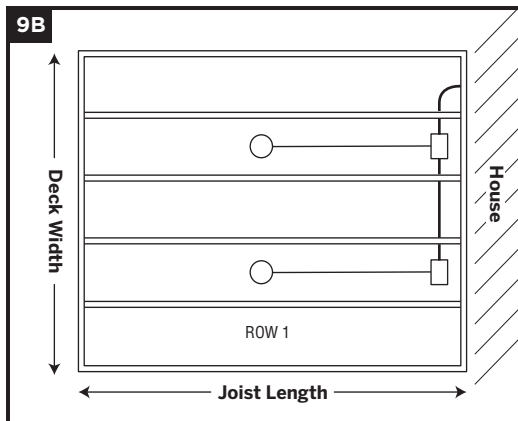
- »Use male-to-male connection wire (lengths vary) that will connect to each required splitter.
1. Wiring must be run through deck joist at desired location. **DO NOT** run wires between deck boards and joists. Staple to frame with cable staples at least 1/4" (0.6 cm) wide. **DO NOT** crush wire insulation with staple.

MEASURING

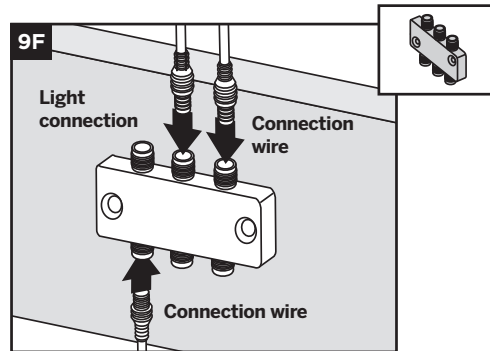
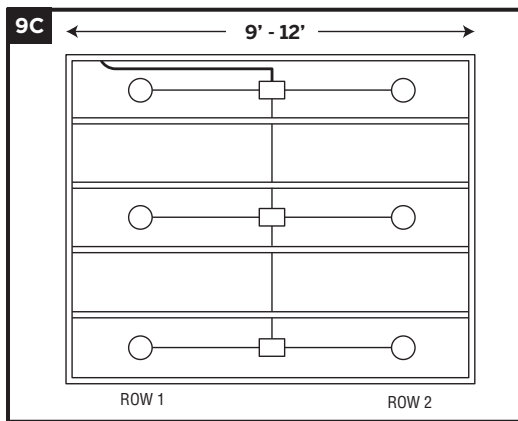
1. Measure joist length and divide by 5.
2. Measure deck width and divide by 5.
3. Take the answer from #1 and multiply by the answer of #2 = the total number of lights. (9B)

NOTE: It is better to over light your area. A dimmer switch can be added later to soften the lighting.

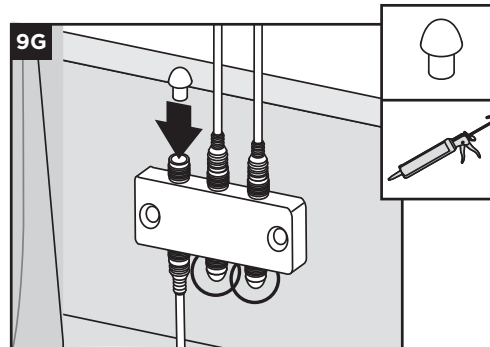
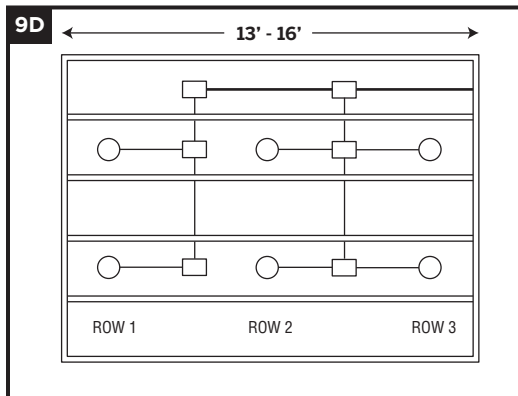
EXAMPLE OF A 1 ROW LIGHT INSTALLATION FOR JOISTS LESS THAN 8'



EXAMPLE OF A 2 ROW LIGHT INSTALLATION FOR JOISTS BETWEEN 9' AND 12' (2.76 - 3.65 M)



EXAMPLE OF A 3 ROW LIGHT INSTALLATION FOR JOISTS BETWEEN 13' AND 16' (3.96 - 4.87 M)



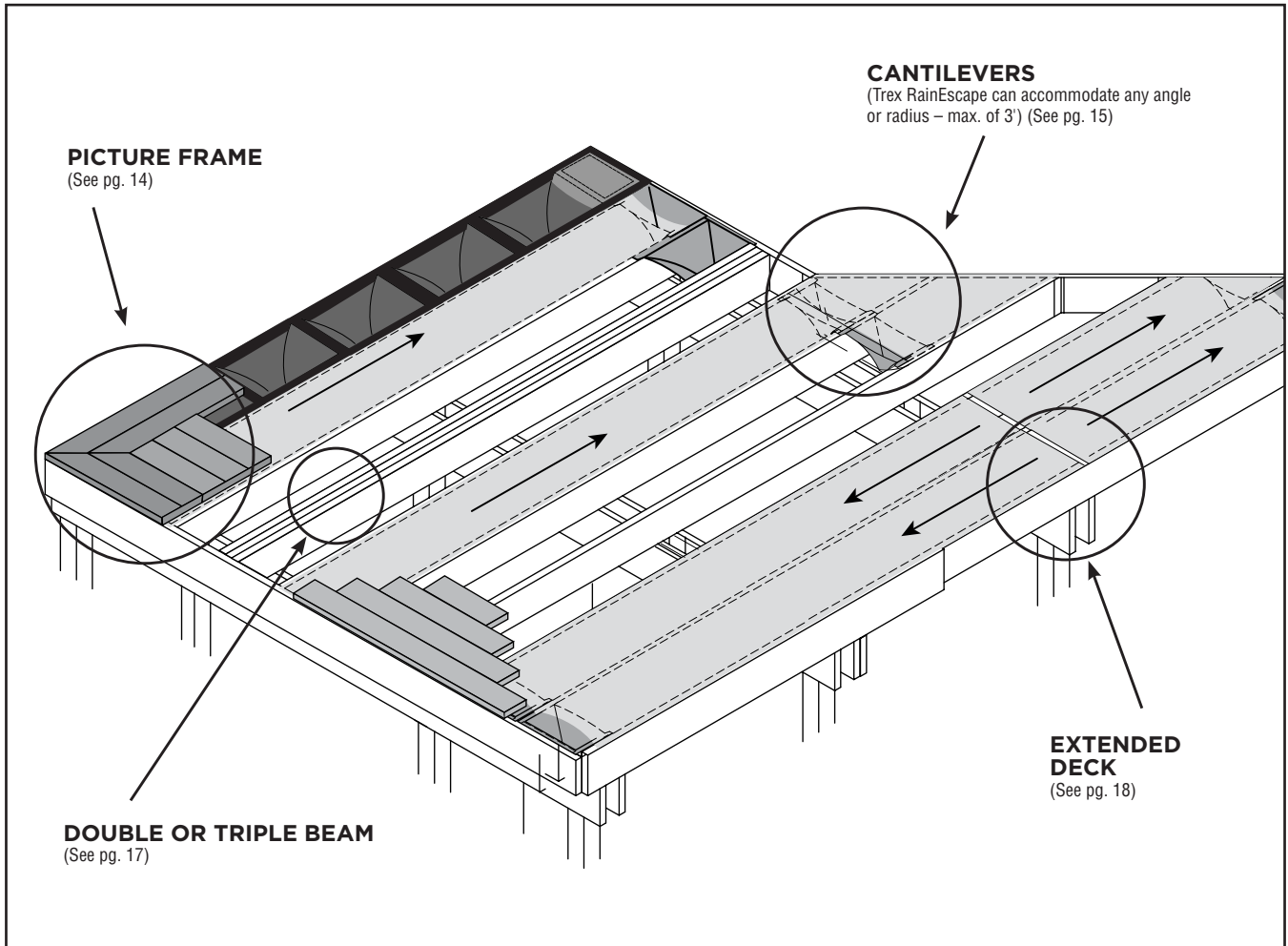
MAKING CONNECTIONS

1. Install splitters to inside of framing using hardware provided. Install a splitter at every junction where you will run a row of lights. (9E)
2. Run wire through joist and roll up 1' - 2' (0.30 m - 0.60 m) extra wire in area the light will be installed. Staple to the side of the joist (making sure not to staple through the wire).
3. Cap off all unused female connections on splitters using caps provided or weather resistant silicone. (9G)

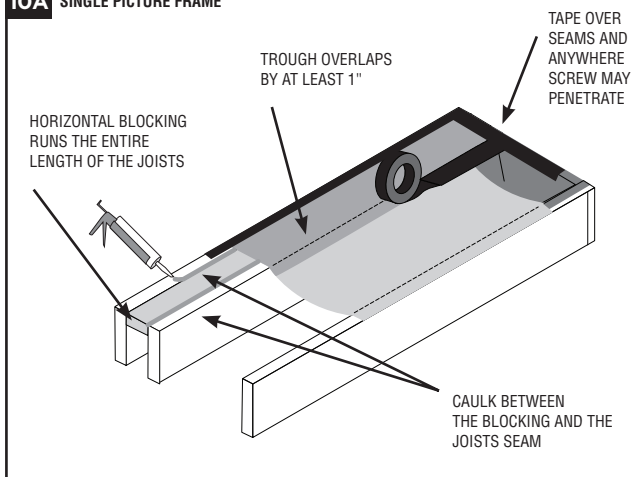
INSTALLING THE LIGHTS

- » Install ceiling of your choice. Make sure to remember where wire end is located.
- » Mark where the light is to be installed and use 4-5/8" or 120 mm hole saw to bore hole, (a jig saw can be used instead of a hole saw).
- » Reach up through the hole and pull out wire end and attach to light.
- » Fold orange springs up and push light into opening. The springs will fold down and hold light in place.
- » If using directional feature, spin light so it shines on desired area.

MODIFICATIONS AND SPECIAL CASES



10A SINGLE PICTURE FRAME



10A. SINGLE PICTURE FRAME OR BREAKER BOARD

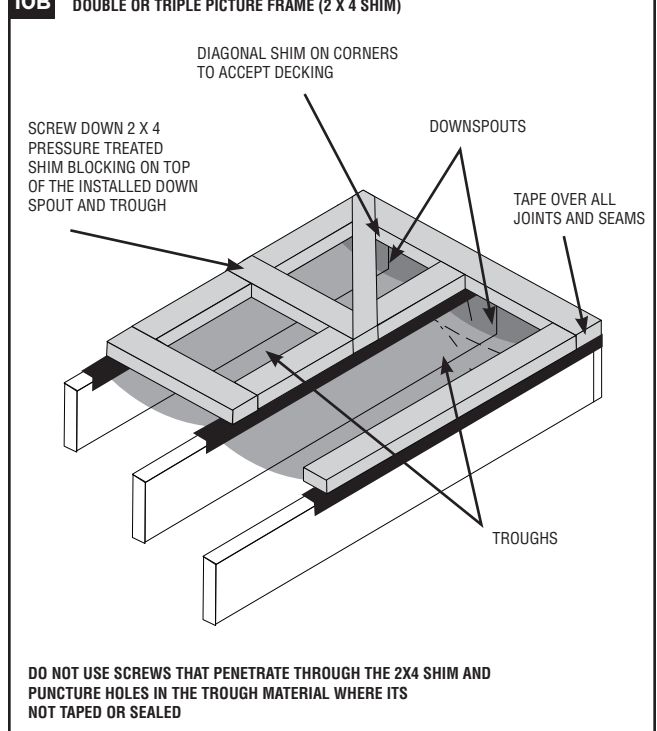
- »Place a horizontal nailer flush with the top of the joist from the ledger board to the rim joist.
- »Caulk between the blocking and the joists seam.
- »Cover nailer with trough, making sure to overlap adjoining downspout and trough.
- »Cover all seams and anywhere screws may penetrate with tape.

NOTE: Do not use larger than 2" x 6" flat blocking.

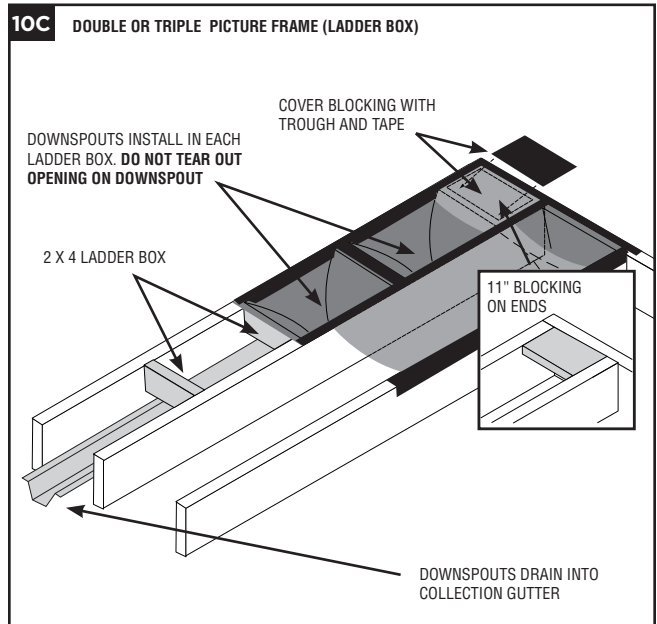
10B. DOUBLE OR TRIPLE PICTURE FRAME: 2 X 4 SHIMS

- »Install the Trex RainEscape system as per previous instructions. (Pages 5-9)
- »Tape all joints and seams.
- »Screw down 2" x 4" pressure-treated shim blocking on top of the installed the RainEscape system over the joists and wherever blocking is needed to support deck boards.
- »Attach decking. (When attaching decking use fasteners that do not penetrate all the way through the 2 "x 4" shim).

10B DOUBLE OR TRIPLE PICTURE FRAME (2 X 4 SHIM)



10C DOUBLE OR TRIPLE PICTURE FRAME (LADDER BOX)

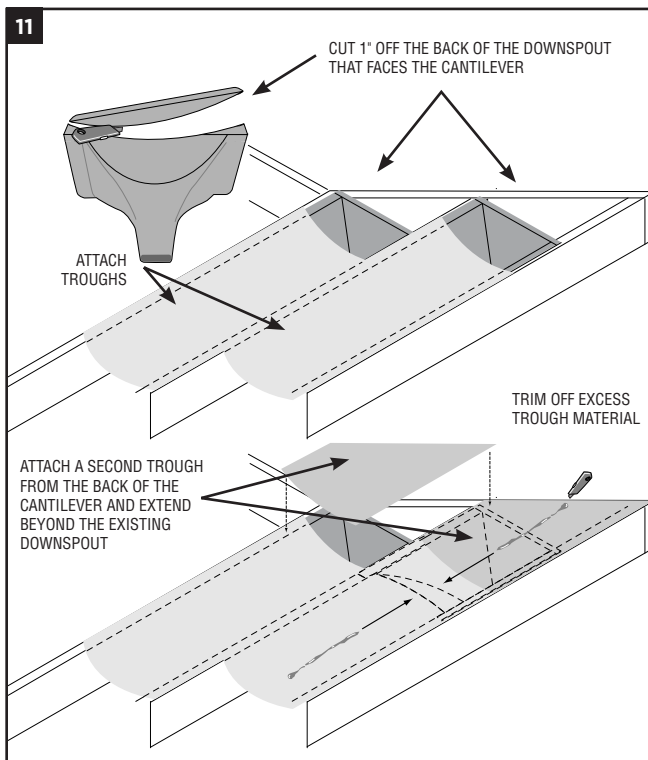


10C. DOUBLE OR TRIPLE PICTURE FRAME: LADDER BOX

- »Place a 11" blocking horizontally on the ends of the bay to support 45° decking.
- »Install a 2 x 4 ladder box to support downspouts.
- »Trim off all downspout nozzles to accommodate gutter.
- »Place downspouts into ladder box (DO NOT REMOVE OPENINGS).
- »Install a piece of trough material over the 11" blocking, making sure to overlap downspouts and the adjoining trough.
- »Tape over blocking, joints and seams making sure that all screw penetrations go through trough and tape.

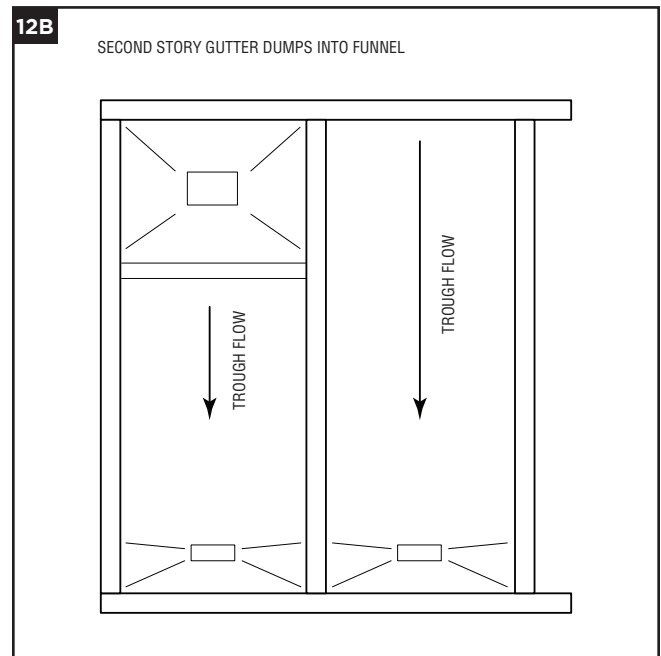
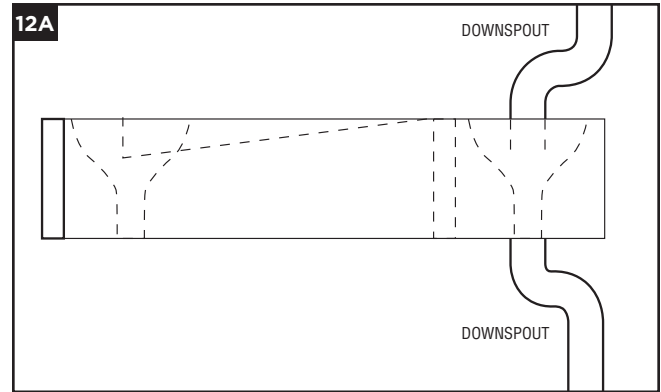
11. CANTILEVERED DOWNSPOUT

- »Tear off the cut-out on the front panel of the downspout.
- »On the back side of the downspout draw a line from corner to corner extending down 1". Cut the downspout following the line. (Some downspouts may have this line pre-indicated)
- »Staple the trough material from the end of the cantilever over the existing trough. Repeat all the steps as necessary for trough installation.
- »Tape over all joists and seams.



12. DRAINING SECOND STORY GUTTER ON DECK

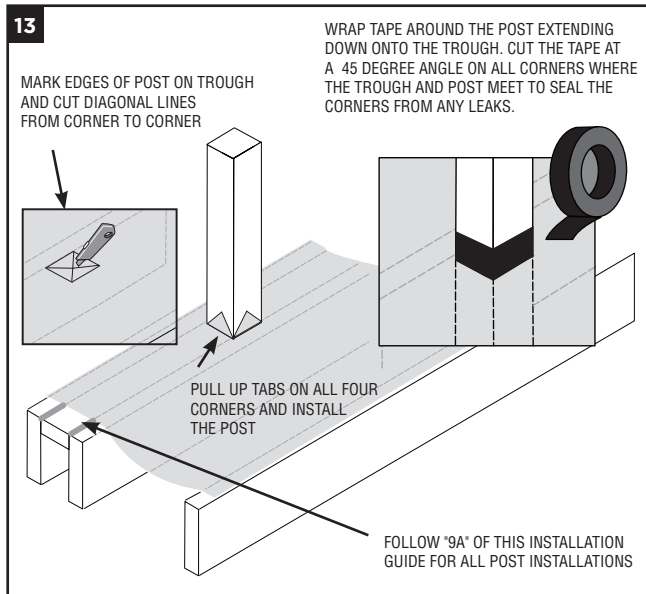
- »Block out a 14" x 16" o.c. rectangle where the second story gutter discharges onto the deck. (12B)



- »Place downspout in rectangle (do not remove openings).
- »Tape downspout in place.

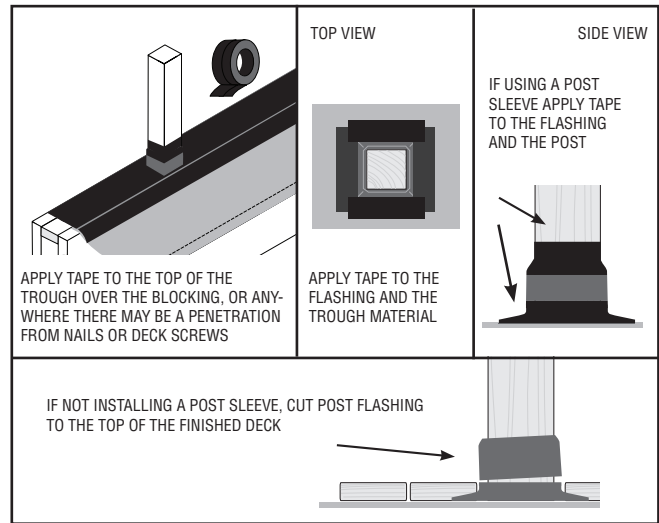
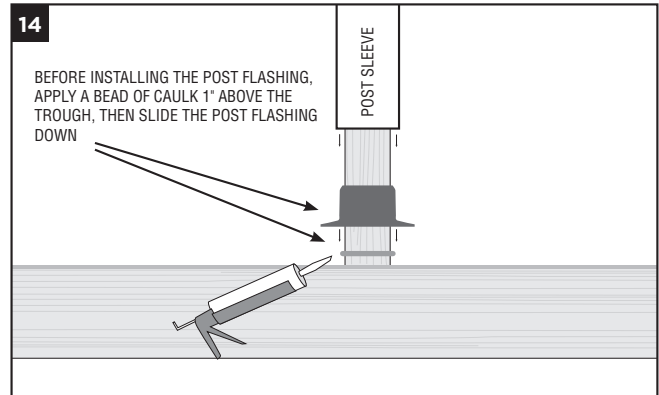
13. RAILING POSTS, 6X6 POSTS AND OBSTRUCTIONS WHEN NOT USING 4X4 POST FLASH

- »To install a post or obstruction on the inside rim joist, first mark the edges of the post on the trough and draw two lines, corner to corner. Cut along the diagonal lines.
- »Pull up tabs and install the post.
- »Staple trough as per the previous instructions.
- »Tape starting at bottom of the trough, up the post overlapping layers to assure a water tight seal working up around the post extending down onto the trough. Cut the tape at a 45-degree angle on all corners. Place a small piece of tape over the corners where the trough and post meet, to seal the corners from any leaks.



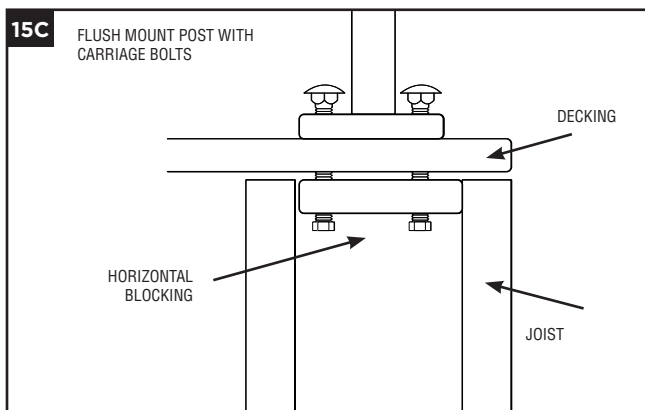
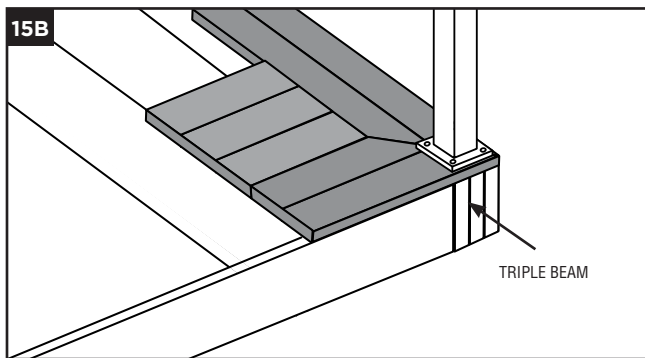
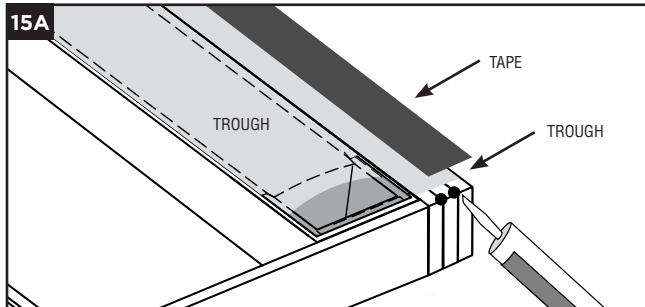
14. USING THE TREX RAINESCAPE 4X4 POST FLASH

- »Install the trough as shown in number 12 of this installation guide.
- »Run a bead of caulk around the post, no more than 1" above the base of the post.
- »Slide the post flash down over the bead of caulk, and tape the flanges to the top of the trough and then tape the top of the post flash to the 4x4 post.
- »After decking is installed, attach the post sleeve.
- »If no post sleeve is used for the final deck, trim the post flash to the height of the finished deck.
- »**NOTE:** Post flash only available for 4 x 4 posts. See section 12 for other sizes and obstructions.



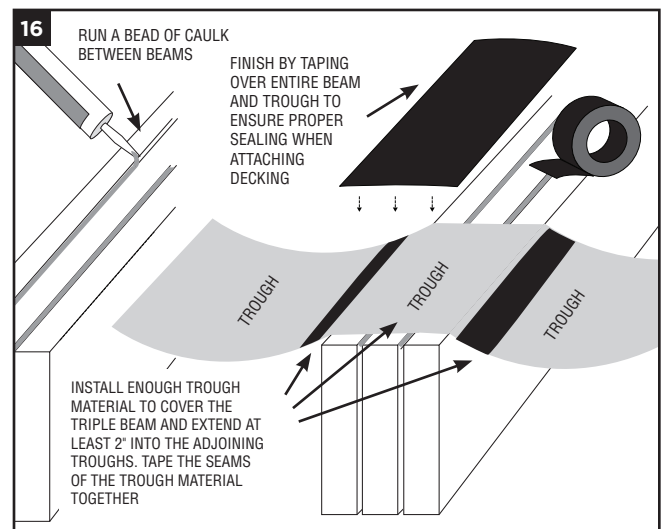
15. SURFACE MOUNT POST TO SOLID BEAM OR FLAT BLOCKING

- »When using surface mount post, pre-drill holes then use a small amount of butyl caulk on screw threads to seal holes.
- »DO NOT use too much caulk or it will overflow on deck and post mount.



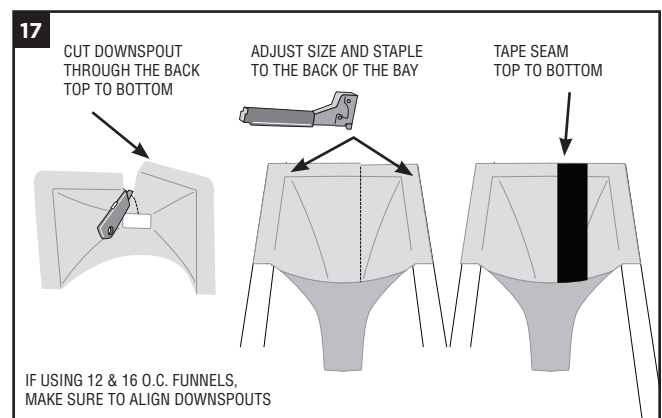
16. INSTALLING A TROUGH OVER A DOUBLE OR TRIPLE BEAM

- »Caulk between each beam to ensure a water tight seal between the beams.
- »Cover the top of the beam with the trough material that overlaps into both adjacent bays. Tape seams and trough material where screw penetration may occur.
- »Tape over the top of the triple beam and trough material that sits on top of the beam.
- »NOTE: All wood must be covered with trough material and taped wherever decking will be screwed.



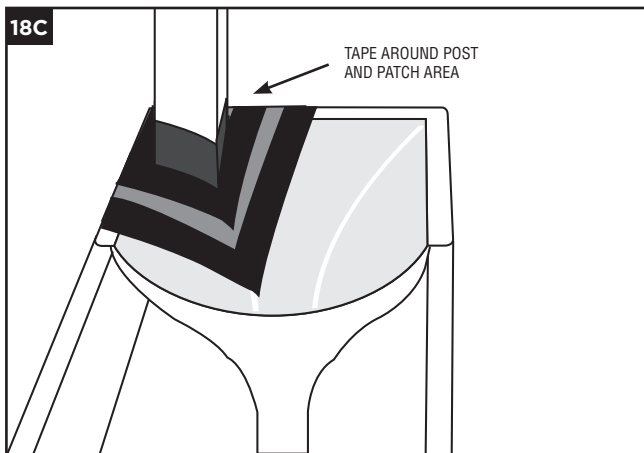
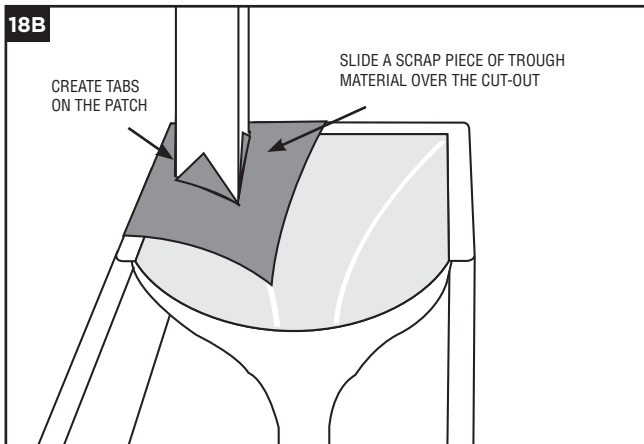
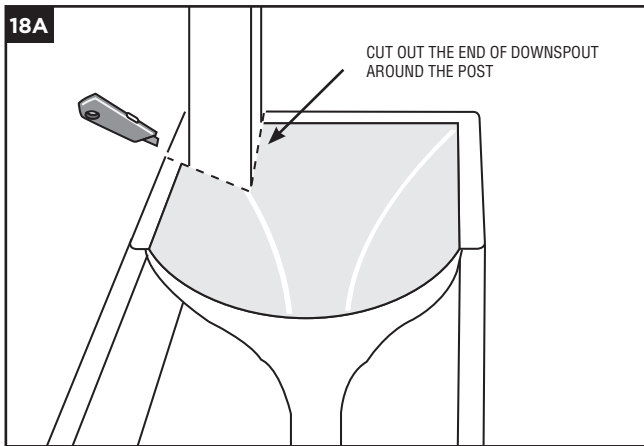
17. MODIFIED DOWNSPOUTS

- »For odd joist spacing you must modify the downspout.
- »Tear or cut out the front opening.
- »Cut through the back of the downspout half way down, so that downspout fits bay opening.
- »Adjust the downspout to fit in the bay and staple to secure.
- »Adjust the downspout to fit in the bay and staple to secure.
- »Finish by taping the seam from top to bottom.



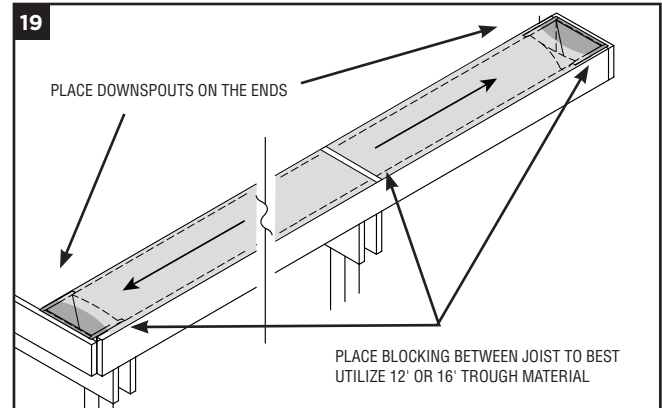
18. MODIFYING DOWNSPOUT FOR OBSTRUCTIONS

- » Trace the obstruction on the downspout and remove the material with a knife. (18A)
- » Cut a patch of trough material 2" larger than the opening and create flaps on patch as per previous instructions (obstructions and posts) and slide over the top of the obstruction. (18B)
- » Tape over trough material, using caulking if necessary. (18C)



19. DOUBLE EXTENDED DECKS (OVER 19')

- » Place downspouts on the opposite ends from where the existing deck and the deck extension meet.
- » Install a trough from the blocking of the extension to the downspout.
- » Tape all seams & edges as per previous instructions.

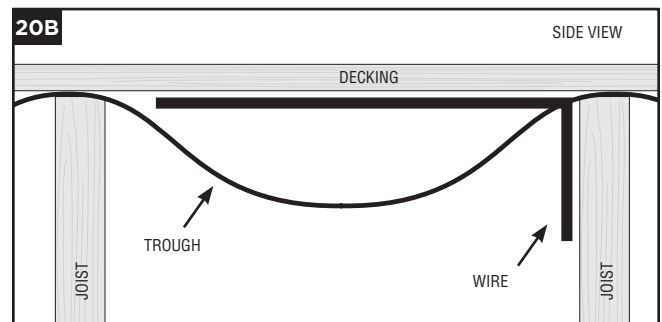
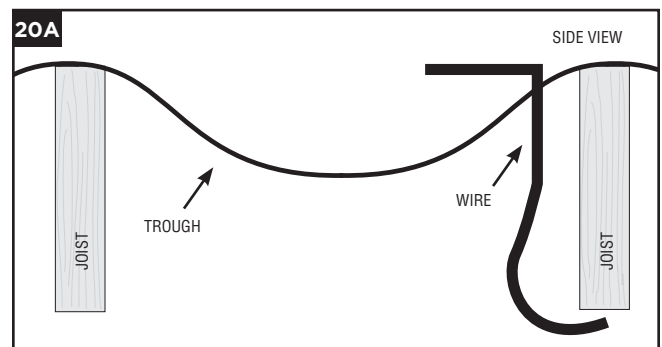


20. RUNNING WIRES OR OBSTRUCTIONS THROUGH TROUGH OR DOWNSPOUT

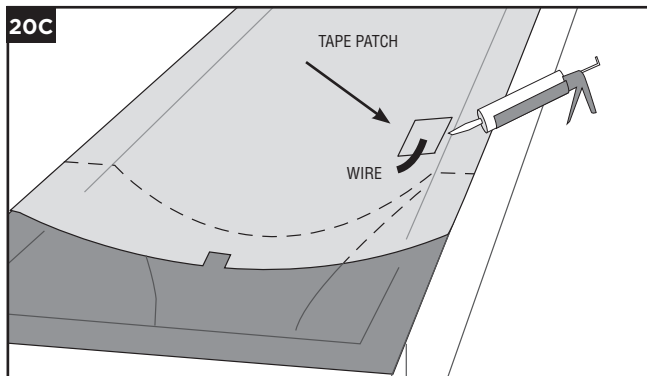
- » Two ways to run wire through Trex Rainescape System:

#1 PENETRATION THROUGH TROUGH

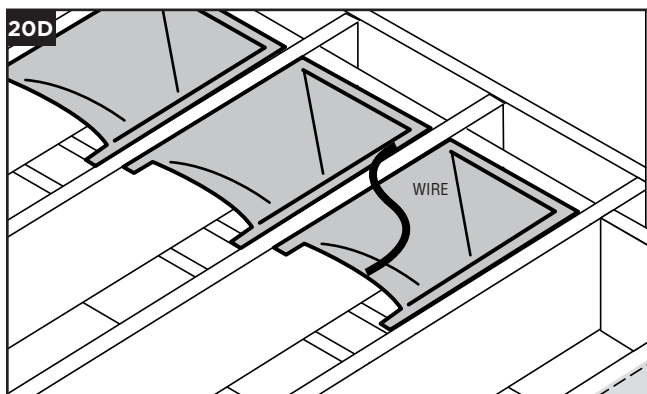
- » Pick bay for penetration. Poke hole large enough for wire.
- » Mark near joist where wire will penetrate. Keeping it close to joist helps with connection point and hole is at highest point of trough. (20A)



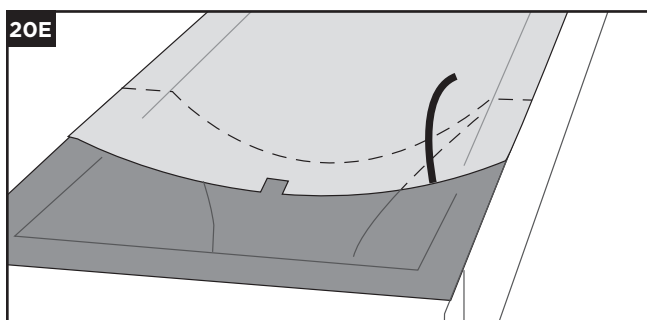
» Cut hole to fish wire going up through side of joists. Caulk around wire piece and tape over wire. (20C)



#2 THROUGH OPENING WHERE DOWNSPOUTS MEET TROUGH

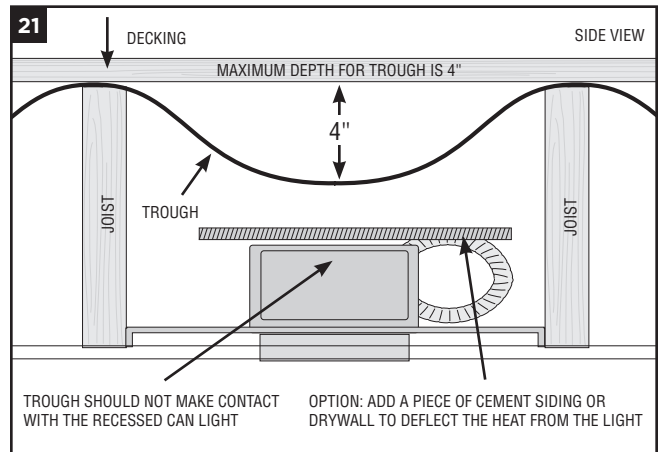


» Fish wire up through the gap between the trough and downspout. (20D)



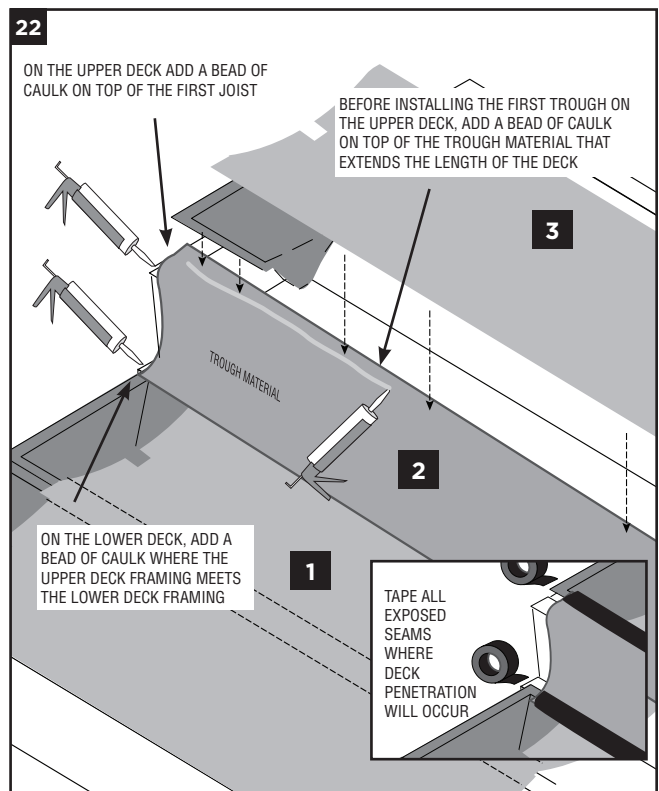
21. INSTALLING LOW PROFILE CAN LIGHTS

»When installing low profile can lights below the trough, make sure the light does not come in contact with the trough material. (21)



22. DECK STEP

- »Install the downspouts and troughs on the lower deck. (1)
- »Install trough material starting from the lower deck working your way up the stair tread to the upper deck. Overlap the trough material from step 1. (2)
- »Install the trough and downspouts on the top deck. (3)
- »After step 3 is complete, finish the installation of the troughs and downspouts on the upper deck.
- »Tape over all exposed seams and where deck screws will penetrate.



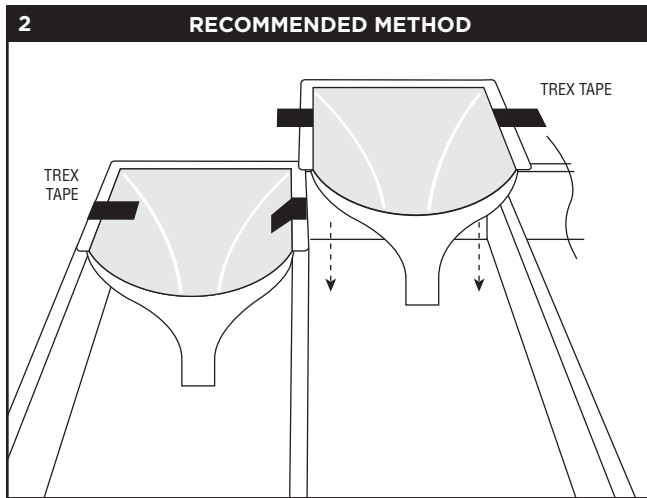
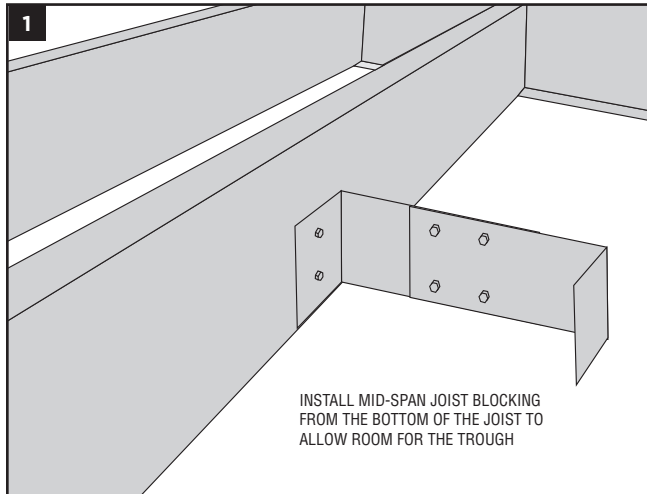
INSTALLATION USING A STEEL JOIST SYSTEM

TWO METHODS:

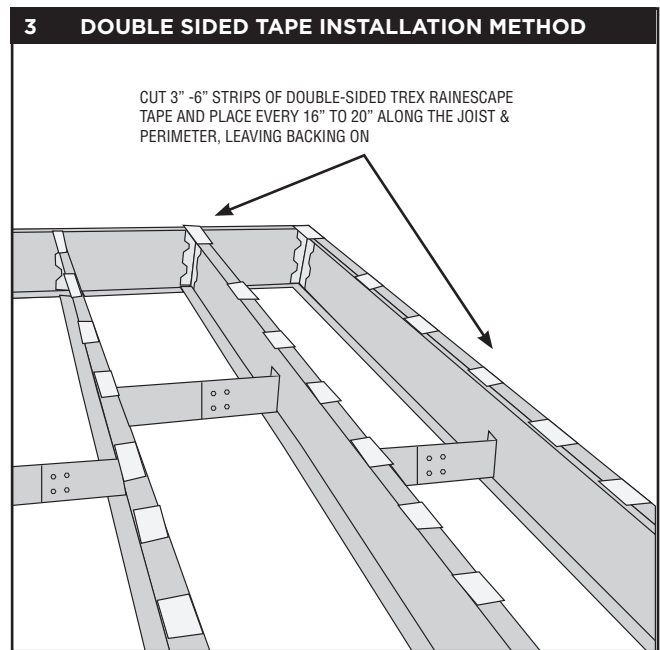
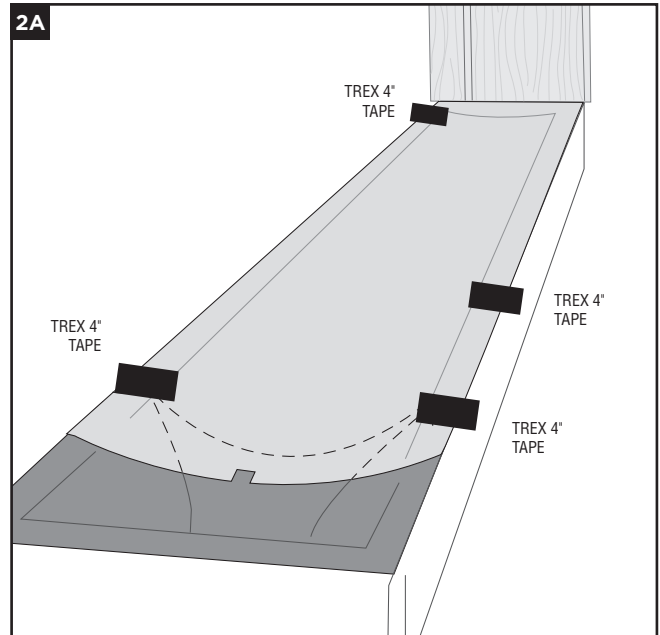
1. PREP

»Apply blocking mid-span between joists.

NOTE: To properly install the Trex RainEscape system over the steel joist system requires a minimum of two people.



- »Take 3-4" strips of our Trex butyl tape to hold downspouts to deck joists. Tape on either side of downspout to secure.
- »Instead of using staples, attach the trough material with tape using the same pattern as wood joist. (2A).

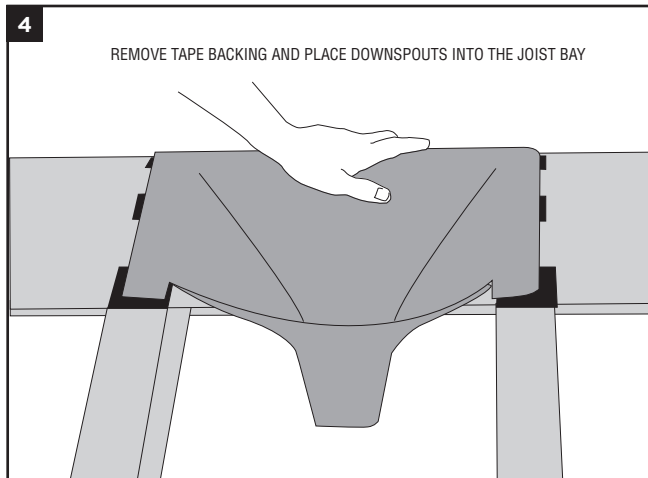


3. TAPE AROUND JOIST AND PERIMETER

- »Cut 3" - 6" strips of the Trex RainEscape double-sided tape and place every 16" - 20" along the joists and perimeter leaving backing on.
- »Stagger tape on second layer of trough to keep flush and level.

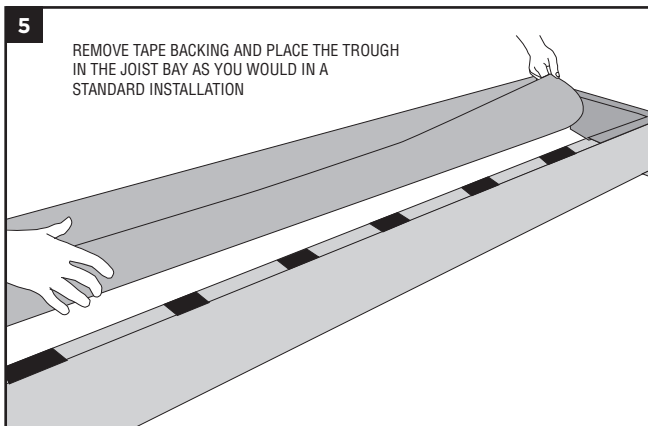
4. DOWNSPOUTS

- »Remove the backing on the double-sided tape and place the downspout in the joist bay.
- »Repeat the process the same as you would in a standard Trex RainEscape installation.



5. TROUGHS

- »Remove the backing on the double-sided tape on one side of the joist and place the first side of the trough as you would in a standard installation.
- »Place new strips of the Trex RainEscape double-sided tape along the top of the adjoining trough and install as you would in a standard installation. (5A)
- »In order to keep the trough from getting too bulky, stagger the placement for the second row of tape so as not to position it on top of the tape below.



SEALING THE SYSTEM

- »Tape the finished system with 4" Trex RainEscape Tape as you would for a standard installation.

