



STAIR TREAD INSTALLATION

Step 7: Install the Remaining Treads

Repeat steps 2 to 6 for the remaining stair treads.

Step 8: Install the Fascia

1. Measure the riser height.
2. Rip the fascia to the riser height. Fascia is manufactured for 2x10's, however there are manufactured guidelines on the reverse side of the fascia for cutting down to 2x8's or 2x6's.
3. Install the fascia with construction adhesive, clamping until the glue has set. (See Figure 7). If clamping is not possible, drill small pilot holes and use 1-1/4" to 1-1/2" corrosion resistant finishing nails to secure the fascia into place.
4. Repeat for each riser.

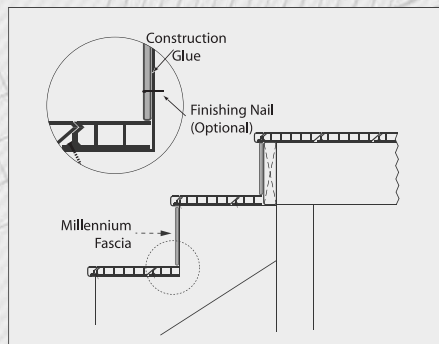


Figure 7: Decorative Fascia

Step 9: Install the Trim

Install the "L" or "U Trim" to the sides of each tread as shown in Figure 8, using construction adhesive.

Clamp the trim into place until the glue has set. If clamping is not possible, drill pilot holes and use 1-1/4" to 1-1/2" corrosion resistant finishing nails in inconspicuous locations.

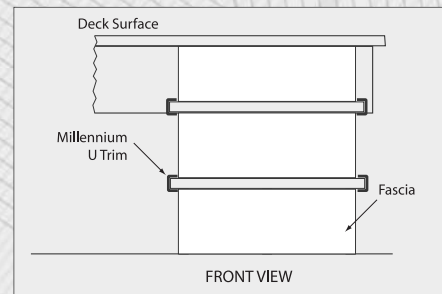


Figure 8: "Tread Trim"

Care and Cleaning

Pressure washers and mild detergents can be used for cleaning. For general cleaning, soap and water can be used, however for stains such as oil or grease, deck wash or a solution of TSP (trisodium phosphate) can be used. A light sanding with a synthetic steel wool pad or brushing with a fine wire brush will remove light surface burns.

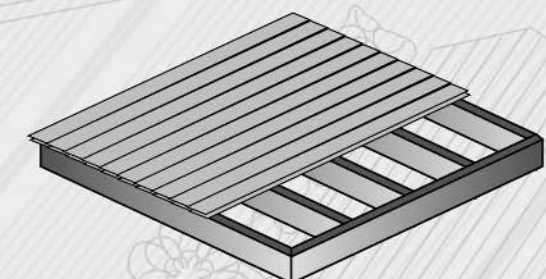
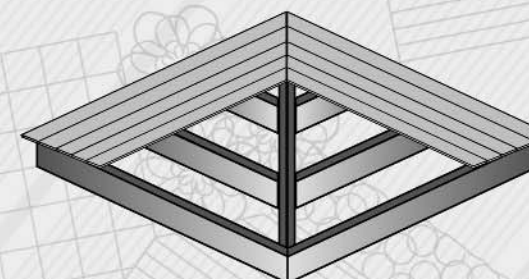
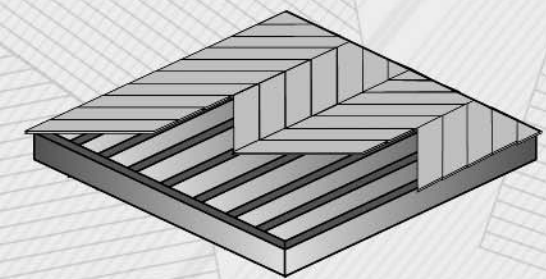
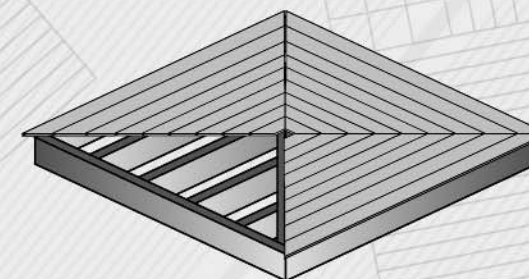
Although the deck boards are water resistant, and the majority of water will run off the surface of the deck, the system should not be considered a waterproof membrane, even when the joints are caulked to improve water tightness.



1408 7th Street
 Nisku, Alberta, Canada T9E 7P9
 Phone: 780 955-3525
 Fax: 780 955-7075
 Toll Free: 1-877-955-3525
www.mdecking.com

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DECKING INSTALLATION GUIDE





INSTALLATION INSTRUCTIONS

STAIR TREAD INSTALLATION



Before Installing Millennium Decking, please read these instructions in their entirety.

PRE-INSTALLATION

Safety

Compliance with all applicable local, state (provincial) and federal law remains the responsibility of the user. Please check with your local regulatory agency for any special code requirements, and follow any building codes for your area. Safety parameters should always be established when working with tools and other machines or equipment. As with other construction materials, safety glasses, gloves, dust mask and ear protection are recommended when working with Millennium Decking products.

Handling and Storage

Millennium Decking products should be handled and stored like other premium wood or lumber products. Store Millennium Decking products on a flat surface with proper supports spaced every 4 feet along its length. The product should be protected from the sun and inclement weather prior to use. Product scrap can be discarded with normal construction debris.

Tools

Millennium Decking is easy to work with and can be cut, routed, drilled or fastened with normal woodworking tools. Screws installed within 1" from the end of a plank will require a 1/8" pilot hole, in order to prevent splitting. Sharp 40-tooth carbide-tip saw blades are recommended for clean cuts.

Substructure

(Note: Millennium Decking must be applied directly to the joist and not over existing decking material or plywood.

The substructure must be square with all joists level to one another to ensure the end trim fits properly and the deck is free of undulations. The deck joists should have a slight slope, 1/4" per 8', to ensure water runs away from the home.

Installation of Millennium Decking for perpendicular applications (decking boards installed at right angles to the joists) should be installed on structural supporting members (joists) that are spaced at a maximum span of 16 inches on centre. Installation for 45-degree applications (decking boards installed at a 45 degree angle to the joists) should be installed on joists spaced at a maximum of 12 inches on centre. Adjoining boards are to be butt ended over a joist, and be gapped according to Table 1.

| Installation Temperature | Gapping/ Plank Length | | |
|--------------------------------------|--------------------------|-----------------|-----------------|
| | 3.66 m (12') | 4.88 m (16') | 6.10 m (20') |
| Greater than 15°C/59°F | 2 mm (3/32") | 3 mm (1/8") | 4 mm (5/32") |
| Between 5°C/41°F and 15°C/59°F | 3 mm (1/8") | 4 mm (5/32") | 5 mm (3/16") |
| Less than 5°C/41°F | 4 mm (5/32") | 5 mm (3/16") | 6 mm (7/32") |

Table 1: Longitudinal Gapping

Millennium Decking products do not require side gaps between boards.

Step 4: Install the Starter Board

Using 2-1/2" or 3" coated or stainless #8 screws, fasten the starter board to each joist along the screw ledge, as shown in Figure 3. To avoid splitting, drill pilot holes within 2" of board ends before driving the screws.

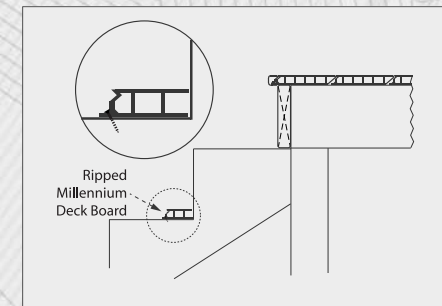


Figure 3: Starter Board

Step 5: Install Stair Tread Board(s)

Apply a small bead of construction glue to the groove of the starter board, using a quality construction adhesive, such as Franklin Titebond, PL Premium, or equivalent. Consult your supplier if you are unsure of the brand or type of construction glue to use.

Place the Millennium board into position and lightly clamp the board to ensure proper contact, as shown in Figure 4. Fasten the board at each stringer using 2-1/2" or 3" coated or stainless #8 screws.

Repeat for any additional stair tread boards.

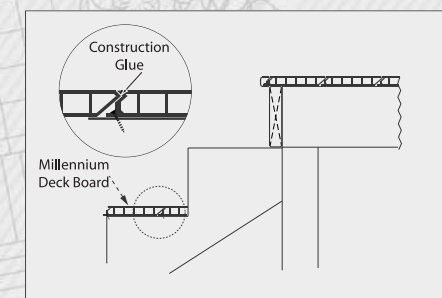


Figure 4: Tread Board Installation

Step 5: Continued

Countersink the screw heads in the foremost deck board that will accommodate the "Edge Trim".

Step 6: Install the "Edge Trim"

Run a small bead of glue along the screw ledge.

To ensure proper alignment of the "Edge Trim", starting 2" from one edge (labeled "A" in Figure 5) "snap" the "Edge Trim" into place using a rubber mallet. **Using a metal hammer may damage the "Edge Trim"**. Tap the "End Trim" into place, working toward the short end "A".

Check your alignment, and adjust if necessary by tapping the "Edge Trim" on the end toward "A" or "B".

Start again at the 2" point, and work across to the opposite end (labeled "B"). A cross section of how the "Edge Trim" fits into place is shown in Figure 6.

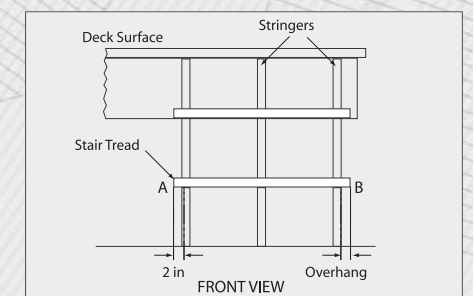


Figure 5: "Edge Trim"

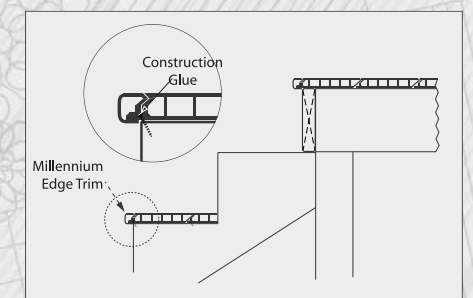


Figure 6: "Edge Trim" Installation



STAIR TREAD INSTALLATION

Step 1: Plan Your Project

Prior to starting any construction project, check with your local regulatory agency for special code requirements in your area regarding stair construction. Millennium decking requires stair stringers to be 12" on centre.

Read these instructions completely to get an understanding of how the product goes together.

A cross section of the stair treads will look like this:

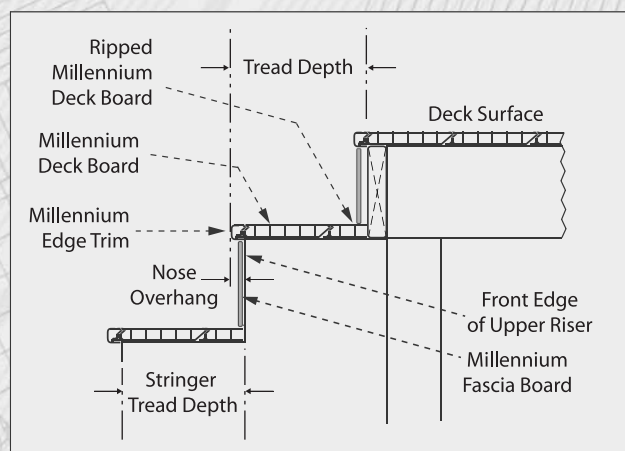


Figure 1: Stairs Cross Section

When measuring the width of the stairs, allow enough overhang at each end to accommodate the "U" or "L Trims":

Add a minimum of 1-1/4" at each end when using the "U Trim" and fascia.

Add a minimum of 1/4" at each end when using the "L Trim" with fascia.

Step 2: Rip Your Starter Board

In order to properly size the nose overhang, the width of the board closest to the back of the stairs may need to be ripped. To determine the amount to be cut, follow this procedure:

1. Measure the stringer tread depth.
2. Subtract 6-1/8" from this measurement.
3. Continue to subtract an additional 6" from the total until the result is less than 6".

The result is the width you must remove from the tongue side of the starter board, (including the width of the tongue), as shown in Figure 2. This assumes a 1" nosing overhang. For less of an overhang, increase the amount removed. For more of an overhang, decrease the amount removed.

Measure carefully!

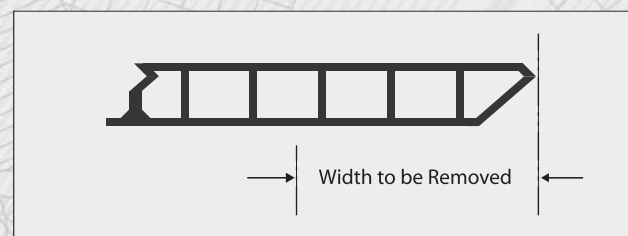


Figure 2: Width to be Removed

Step 3: Dry Fit the Stair Treads

Without using any adhesives or fasteners, lay-out the starter board and any full size boards to check for proper sizing.

DO NOT DRY FIT OR INSTALL THE "EDGE TRIM". Once installed, it is difficult to remove the "Edge Trim".

DECKING INSTALLATION



PRE-INSTALLATION: Continued

Fasteners & Glues

For ease of installation of the decking surface, we suggest using #8, 2 or 2-1/2" ceramic coated wood deck screws, although the decking can be installed using #8, 2 or 2-1/2" stainless steel or other corrosion resistant coarse thread deck screws. The decking surface is to be fastened to the supporting structure at each joist, as described in the instructions below. We recommend using #8, 3" screws where two boards are butt ended (*Note an extra 1/2" of material is supplied so ends can be finished squared in the field – meet end-to-end*) over a joist, as well as along the final board. Predrill all deck screws (*regardless of type*) that are within 1" of the end of the deck board to avoid splitting.

Use good quality (*premium*) construction adhesive such as PL Premium, Franklin Titebond, or equivalent, for gluing trims, fascia or deck boards. Follow the directions of the adhesive manufacturer including application temperatures and size of glue bead.

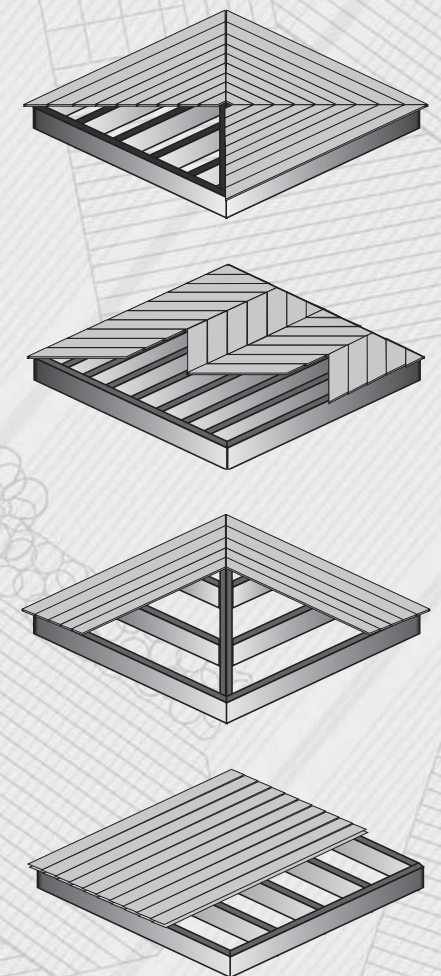


Figure 1: Sample Deck Layouts

INSTALLATION INSTRUCTIONS

Step 1: Plan Your Project

Shape and Decking Pattern

A deck can be any shape or pattern you want (*see Figure 1*), and in fact, simple changes like an angled corner or a 45-degree decking pattern can dress up a house with a long, plain wall. However, the more complicated a decking pattern, the more difficult it is to build, and often requires more materials.

The pattern you choose will determine the configuration of the supporting joists and beams. Always check with your supplier for the proper configuration of your substructure.

Railings and Stairs

Millennium Decking should not be used for structural support of the railing or stairs system. Railing and stairs systems are always to be secured to the underlying supporting substructure. Always follow the manufacturer's installation instructions for the railing and guardrail system.

Depending on whether a railing or stairs system is chosen, it may be advantageous to install the railing posts before installing the decking surface, and cut the decking surface around the posts.



DECKING INSTALLATION

STAIR TREAD INSTALLATION GUIDE

Step 1: Continued

Cut-outs

A spa or hot tub can be set on the deck if the underlying structure is reinforced to carry the weight of the water, or it can be set directly on a concrete slab on the ground, with the deck built around it. Existing trees and rocks can also be integrated into the deck by framing around them. If you work around a tree, leave sufficient space on all sides to allow for growth. Around a stationary object such as a boulder, leave about 6.5mm/1/4" so the decking can expand and contract with temperature and moisture changes. Millennium Decking should not be used for structural support of any structure on or around the deck.

Step 2: Install the Starter Board

Millennium Decking is installed from the "Wall Side" to the Deck Edge Skirt.

If you are using the "Edge Trim" to finish the edge of the deck:

1. Measure the width of the deck surface (see Figure 2). This measurement will be used to determine the amount of material to be removed from the starter board.

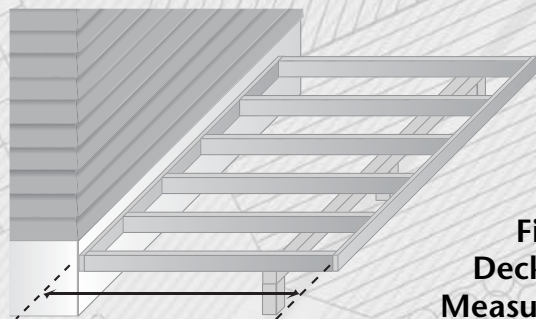


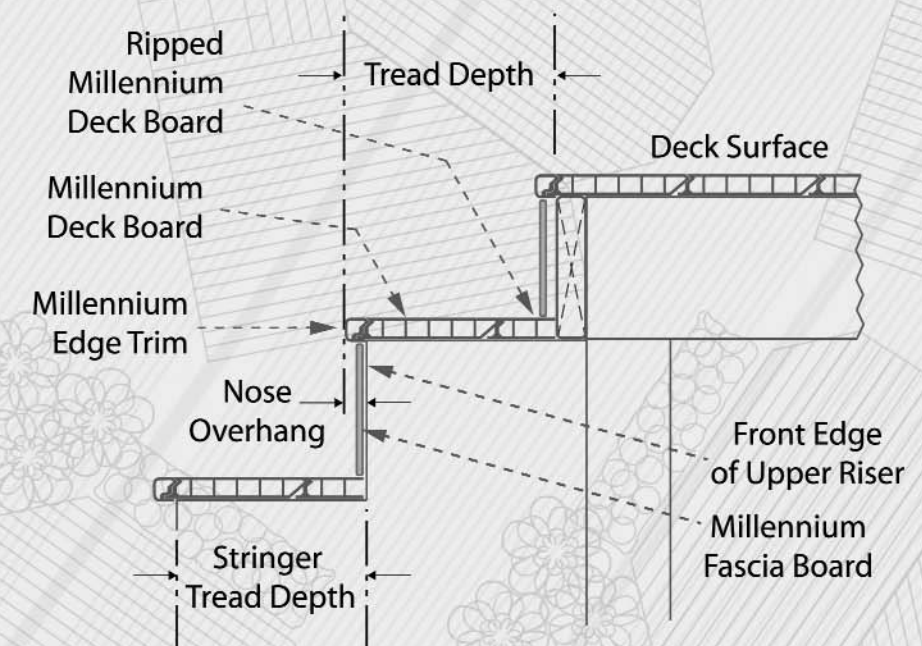
Figure 2:
Deck Width
Measurement

2. Subtract 6-1/8" from this measurement. Continue to subtract an additional 6" from the total until the result is less than 6". The result is the width you must remove from the tongue side of the starter board, (including the width of the tongue). See Figure 3a.

This assumes a 1" nosing overhang. For less of an overhang, increase the amount removed. For more of an overhang, decrease the amount removed. The "Edge Trim" requires a minimum of 1/2" overhang.

If you are using the "U Trim" or "L Trim" to finish the edge of the deck:

1. Proceed to the step below.
2. Rip the tongue from the starter board. The starter board can be installed with the tongue if desired, however by doing so, the contact area with the ledger board is lessened. See Figure 3b.





DECKING INSTALLATION



Step 5: Continued

The "Edge Trim" should be cut to be flush with the board ends. After the Edge Trim is installed, "L Trim" can be used to cover the exposed board ends (Figure 8a). The "L Trim" can be mitred (as shown in the figure), or can be brought square to the corner of the "Edge Trim".

If you choose to use "U" or "L Trim" as deck edging, they need to be mitred at the deck corners (Figure 8b). Take this into consideration when measuring the proper length of the trim piece.

Step 6: Installing Fascia

Millennium fascia is manufactured for 2x10's, however there are manufactured guidelines on the reverse side of the fascia for cutting down to cover 2x8's or 2x6's. Install cut fascia ripped side up. Install the fascia with premium construction adhesive, clamping until the glue has set. If clamping is not possible, drill small pilot holes and use 1-1/4" to 1-1/2" corrosion resistant finishing nails to secure the fascia into place.

Figure 8a:
Trimming
the Exposed
Board Ends
with "L Trim"

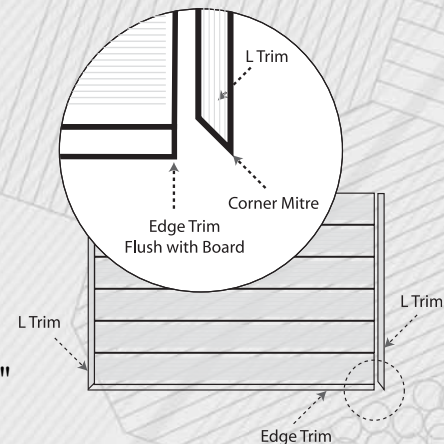


Figure 8b:
Trimming the
Exposed Board
Ends with "U"
or "L Trim"

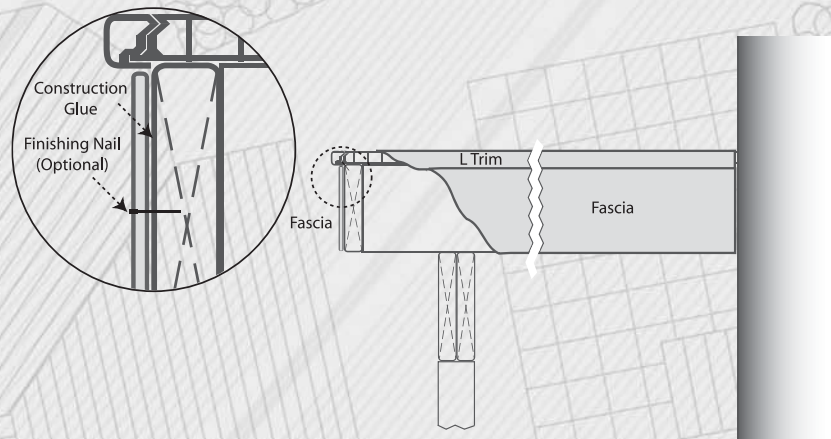
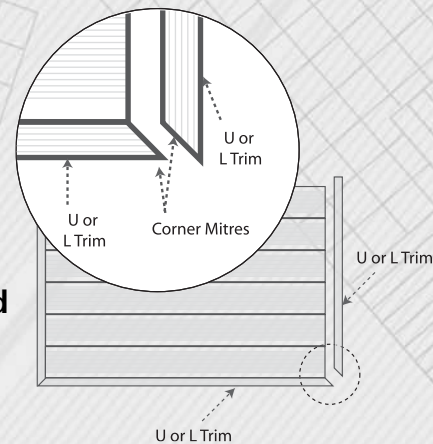


Figure 9: Millennium Fascia

Step 2: Continued

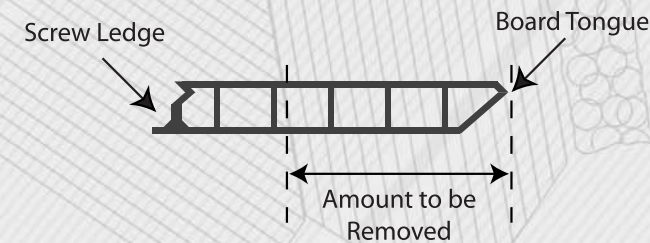


Figure 3a: Starter Board

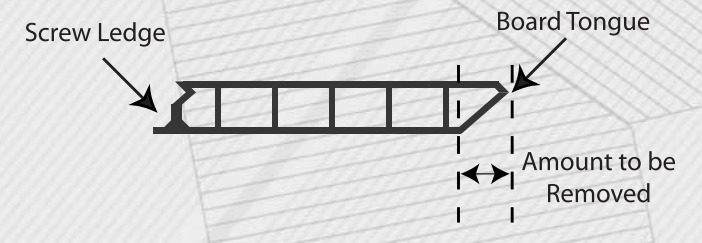


Figure 3b: Starter Board

3. Install the starter board by running a bead of construction glue along the ledger board (Figure 4). Using #8, 2 to 2-1/2" screws, fasten the starter board at each joist along the screw ledge. To avoid splitting, drill pilot holes within 1" of board ends before driving the screws.

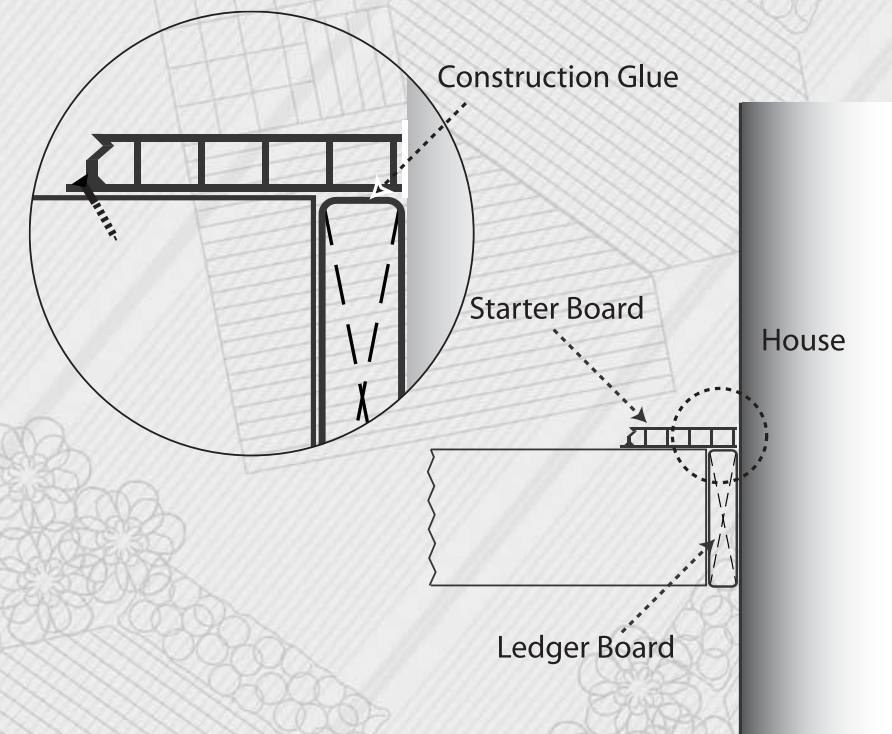


Figure 4: Starter Board Installation



DECKING INSTALLATION

Step 3: Install the Second Row of Boards

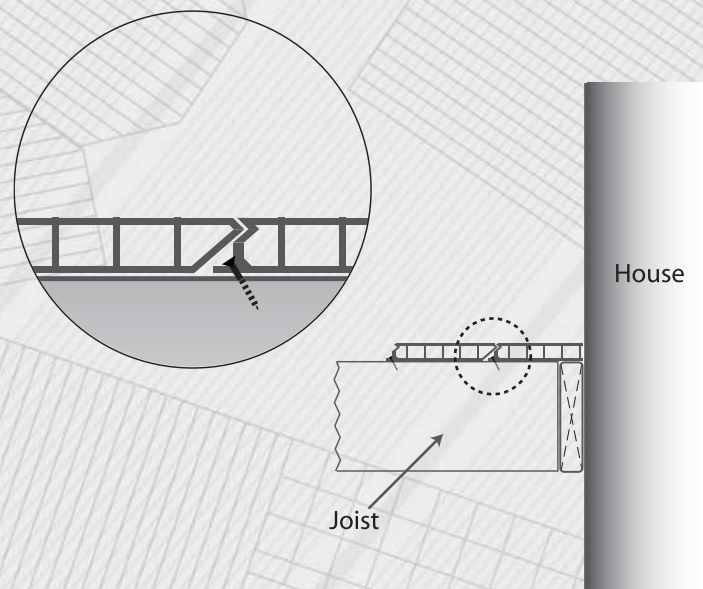


Figure 5: Second Row of Decking Boards

Fit the "tongue" into the "groove" of the starter board (Figure 5). Using #8, 2 to 2-1/2" screws, fasten the second row of boards at each joist along the screw ledge. To avoid splitting, drill pilot holes within 1" of board ends.

Step 4: Complete Installing the Remainder of the Deck

Repeat Step 3 for the remainder of the deck boards.

If you are using the "Edge Trim" to finish the edge of the deck:

If you have measured correctly, the final deck board should overhang the deck skirt structural board by at least 1/2". Apply construction glue along the top of the deck skirt structural board, and use a #8, 3" screw to fasten the last Millennium Decking board (Figure 6a).

Because the "Edge Trim" fits snugly to the deck board, you will need to **countersink screw heads with a countersink drill bit**. To avoid cracking, do not force the screw head into the groove of the screw ledge. Drill pilot holes if necessary.

If you are using the "U Trim" or "L Trim" to finish the edge of the deck:

The "groove" from the final board needs to be ripped in order to accommodate the "U" or "L Trim". The "U Trim" requires a **minimum of a 1/2" overhang** (Figure 6b) in order to wrap snugly around the final board. The "L Trim" can be flush with the deck skirt structural board, however, we recommend at least a 1/8" overhang to accommodate Millennium fascia.

Apply construction glue along the deck skirt structural board, and secure the board in place. Pre-drill and install a screw through the lower web, if possible.

Step 4: Continued

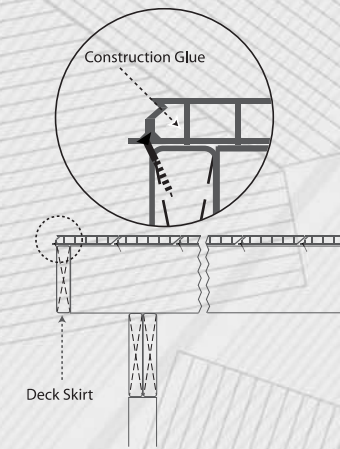


Figure 6a: Final Deck Board Installation

Step 5: Trim the Edges

If you are using the "Edge Trim" to finish the edge of the deck:

Cut the "Edge Trim" pieces to length. Run a glue bead along the screw ledge to help secure the "Edge Trim" in place. Snap the "Edge Trim" into place using a rubber mallet, starting from one end and working toward the opposite end (Figure 7a).

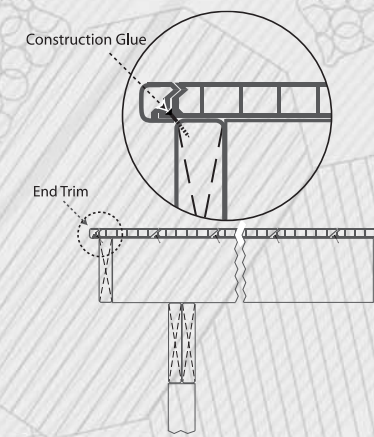


Figure 7a: Edge Trim

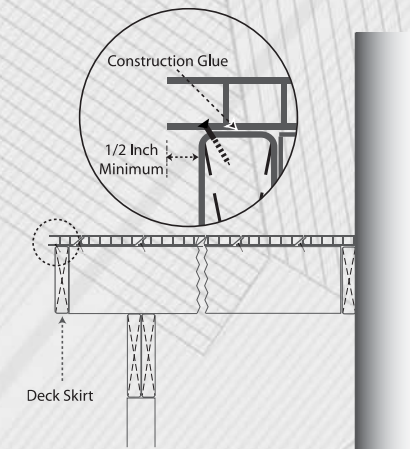


Figure 6b: Final Deck Board Installation

If you are using the "U Trim" or "L Trim" to finish the edge of the deck:

Cut the "U" or "L Trim" pieces to length, making note of the corner mitre (Figure 8). Run a glue bead along the upper and lower contact surfaces to secure the "U" or "L Trim" in place. Using a rubber mallet, or the heel of your hand, tap the trim into place starting at one end and working toward the opposite end (Figure 7b).

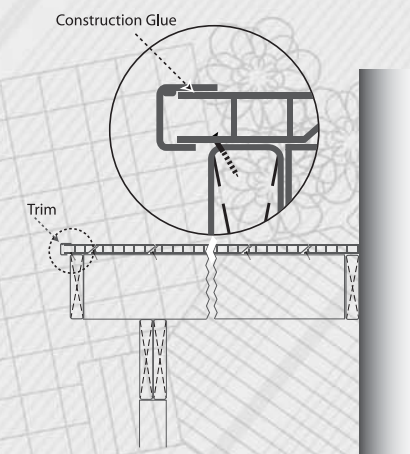


Figure 7b: U Trim



DECKING INSTALLATION