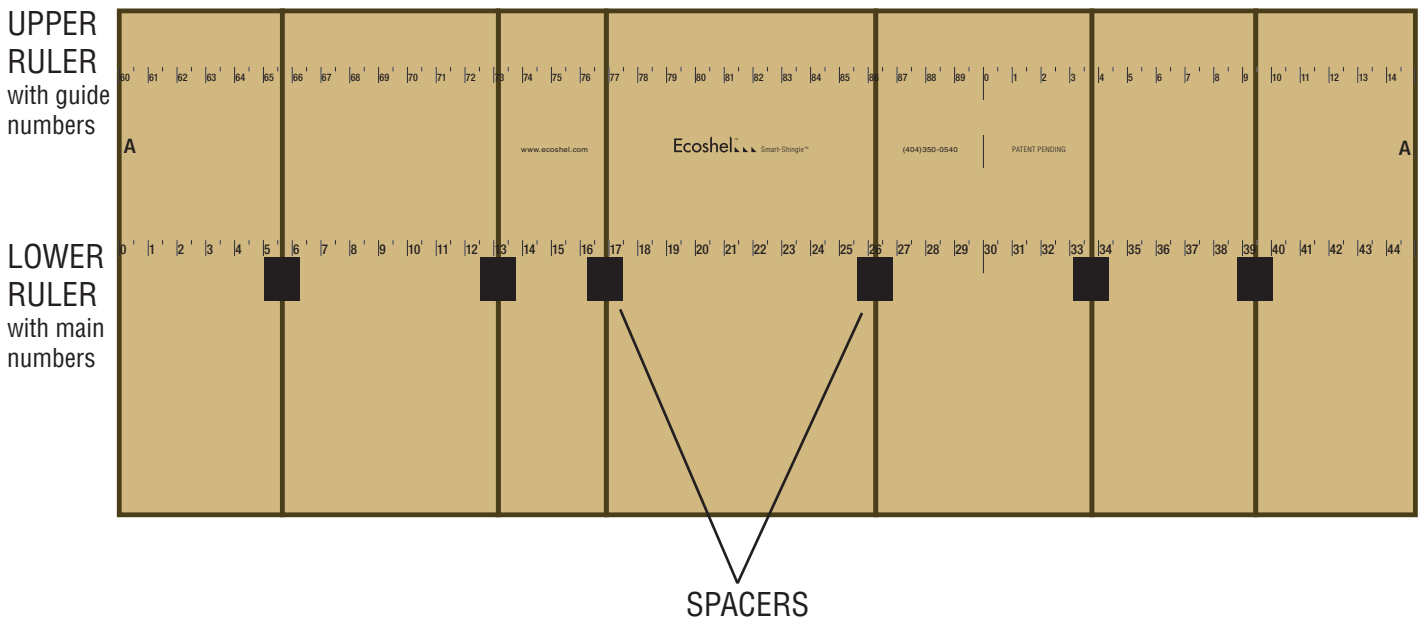


## Installation Instructions for Roofing



For installation assistance call (404)350-0540, or email [info@ecoschel.com](mailto:info@ecoschel.com)

# Basic Information

Ecoshel shingle strips come in two different configurations, A and B.

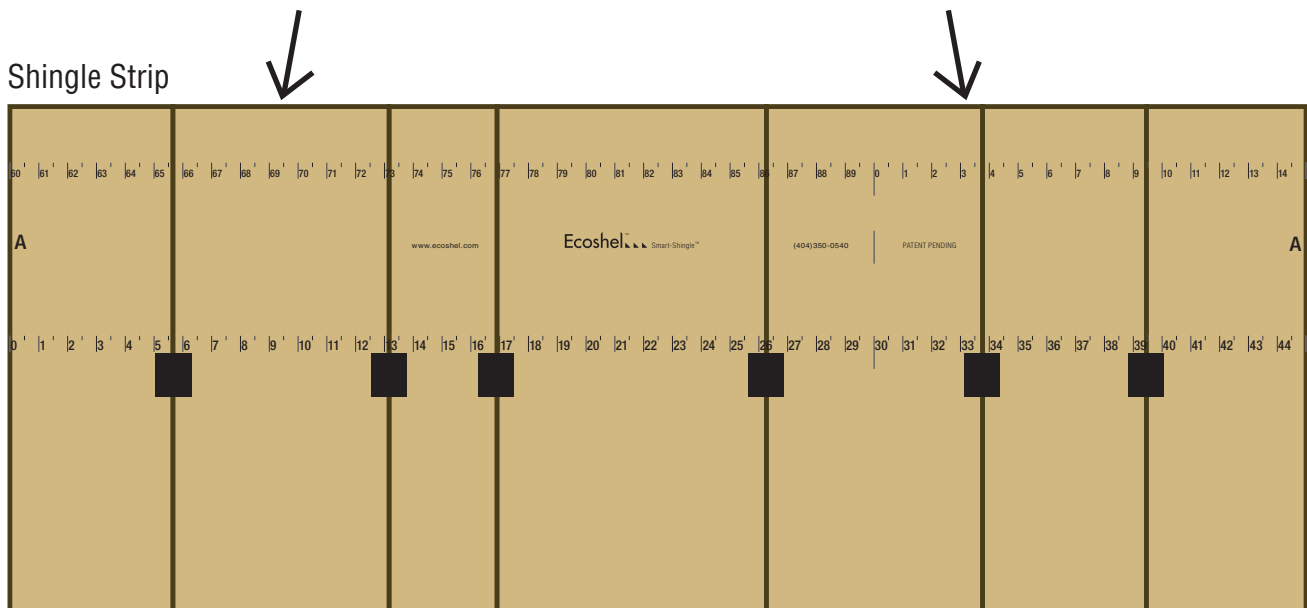
**Maintain the installation pattern** of alternating the A and B shingle-strips, and matching the numbers from course to course. This will automatically offset the joints between shingles over two courses, providing a code-perfect installation that won't leak, even in extreme weather.

Ecoshel cedar shingles are real wood. They are sanded to reduce the amount of raised grain, but they are deliberately not sanded perfectly. Minor defects, saw marks, etc. are part of the character of the product.

Ecoshel shingles are kiln dried. The gap between shingles is necessary to allow the shingles to expand when they absorb moisture.

The prefabricated assembly is non-structural. It holds the shingles in position until they are fastened conventionally. The flexible assembly helps prevent damage to the shingles if they are dropped or mishandled.

Always pick up and handle shingle-strips (panels) by holding the top edge.



If a shingle becomes damaged, use the shingle-strip as a cut section at the beginning or end of a course.

Store boxes of shingle-strips in a dry location, or cover with a tarp.

Follow the enclosed instructions carefully to insure that the shingles are properly installed.

# Sheathing, underlayment, and flashing

Ecoshel Cedar Shingles must be installed on solid sheathing with a minimum thickness of 1/2", or on 1 x 4 spaced sheathing. Plywood, oriented strand board, or solid lumber may be used.

The recommended underlayment is 30 pound asphalt impregnated felt. An eave protection material, such as ice and water shield should be used at the eaves at a width specified by local codes. Proper standard flashing must be used at all intersections with vertical surfaces (walls, chimneys, dormers, etc.). Choose a flashing material that will last at least 50 years in you environment. Copper and zinc flashings will help preserve the shingles (see the hip and ridge section for more information).

## Fasteners

Stainless steel ring shank nails are recommended and should pass completely through the sheathing. About 7/8" of the shank will be in the shingles and the felt, so use 4D 1-1/2" ring shank nails or longer. If the underlayment or sheathing is thicker, then use a 1-3/4" nail. Siding nails, or box nails are recommended. Typical roofing nails with the oversize head and wider shank are not recommended.

Using a coil siding nail gun will provide the fastest installation. Drive nails tight to the surface of the shingle, but don't overdrive. Nail heads should not be buried in the wood fiber. Medium crown staple are approved by code, but will not hold as well as ring shank nails.

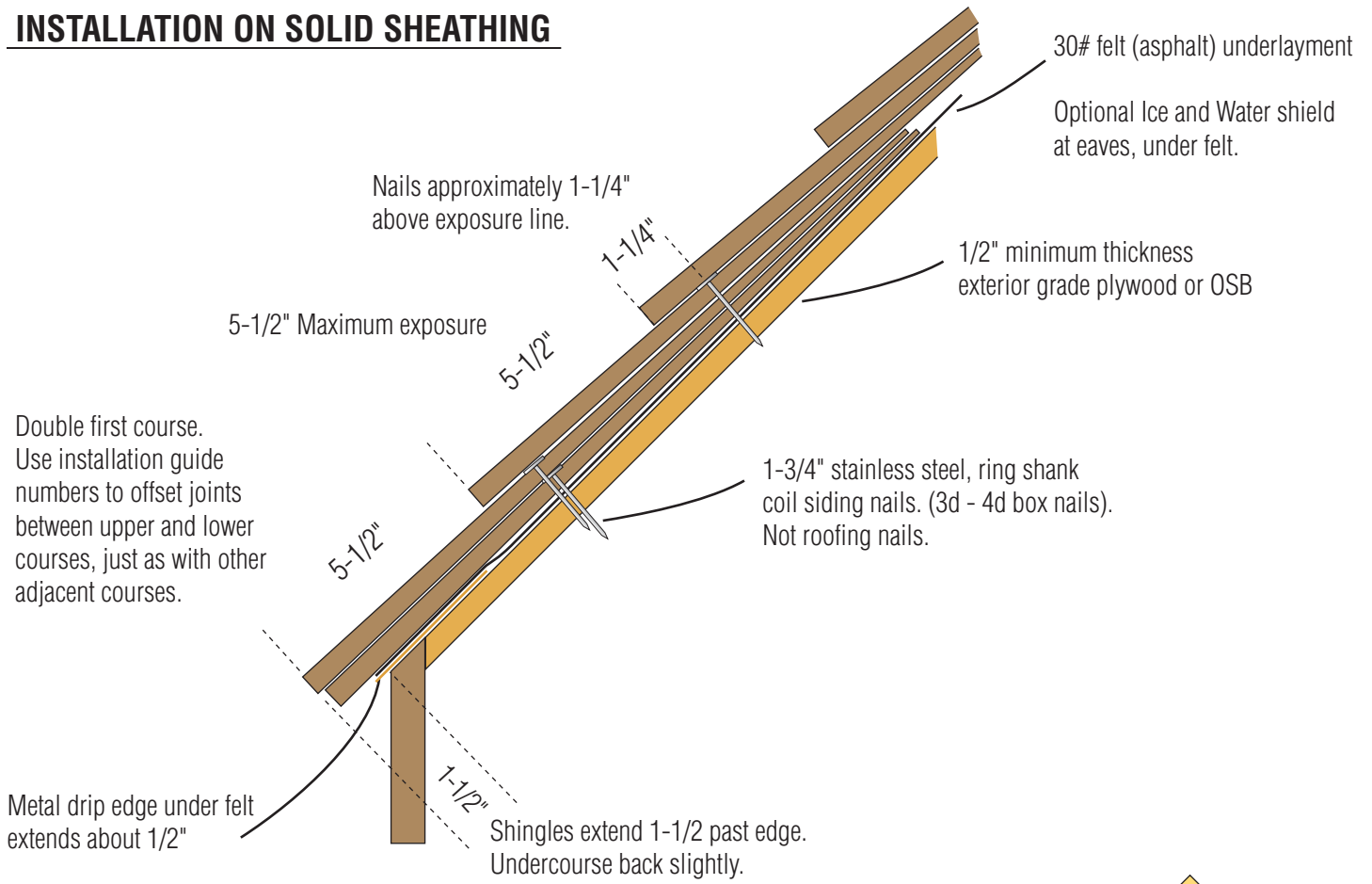
Install 2 fasteners only per shingle, 3/4" in from the left and right edges, and approximately 1-1/4" above the exposure line.

## Cutting

For high volume work use a saw table that will allow you to easily cut the shingle strips at right angles. Shingles can also be removed from the shingle strip and cut on a table saw, or cut on a table with a fence and a battery powered compact circular saw. Shingle-strips can be easily cut with a utility knife at the joints between shingles, and unclipped.

Establish a location where shingle-strip cut-offs can be kept until they are needed.

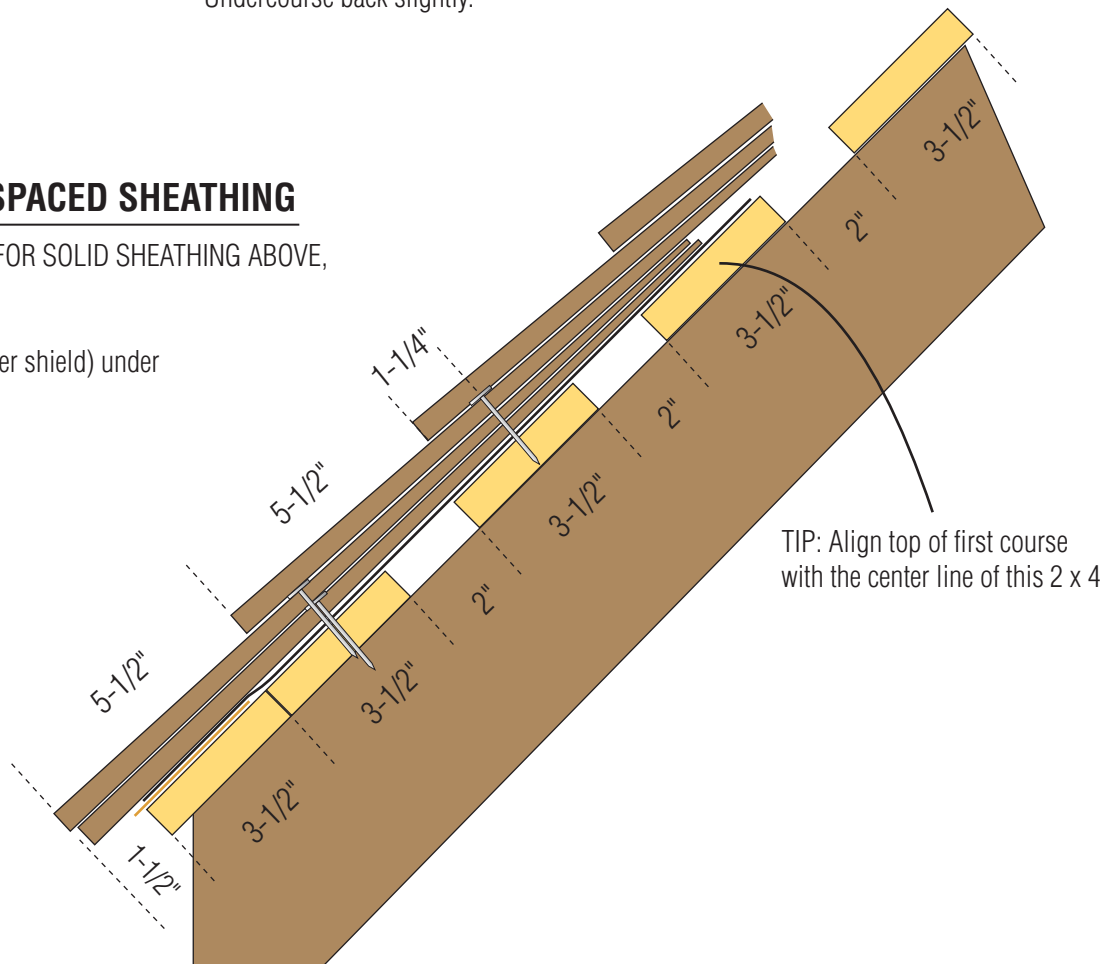
## INSTALLATION ON SOLID SHEATHING



## INSTALLATION ON SPACED SHEATHING

SAME SPECIFICATIONS AS FOR SOLID SHEATHING ABOVE, plus 1 x 4s spaced as shown.

Felt (and optional ice and water shield) under at least 1st course.

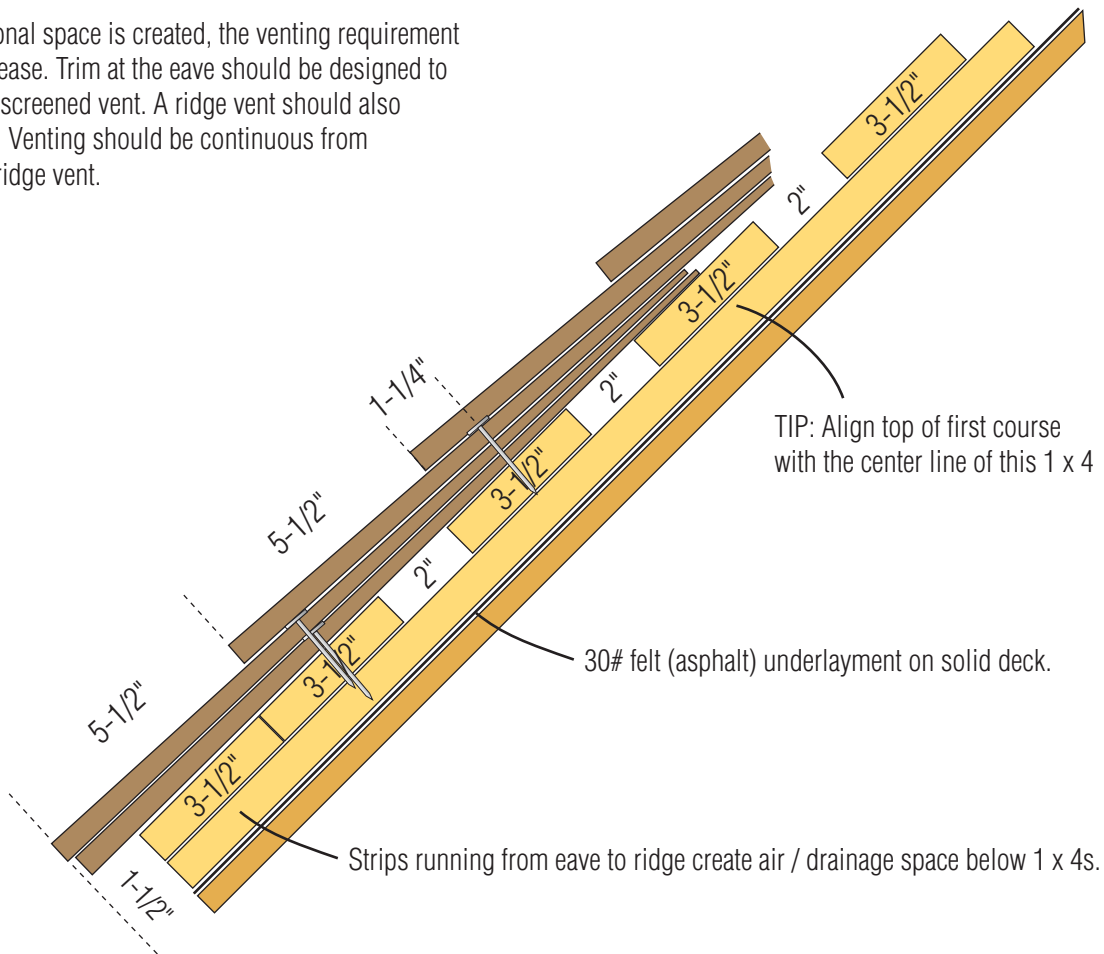


## INSTALLATION ON FURRING STRIPS OVER SOLID SHEATHING

SAME SPECIFICATIONS AS FOR SOLID SHEATHING ABOVE, plus 1 x 4s spaced on vertical strips as shown.

The Ecoshel System includes a built-in ventilated rain-screen that provides a slight vent space and capillary break between shingle courses, and between shingles and the underlayment. Additional air space is not required.

If additional space is created, the venting requirement will increase. Trim at the eave should be designed to create a screened vent. A ridge vent should also be used. Venting should be continuous from eave to ridge vent.

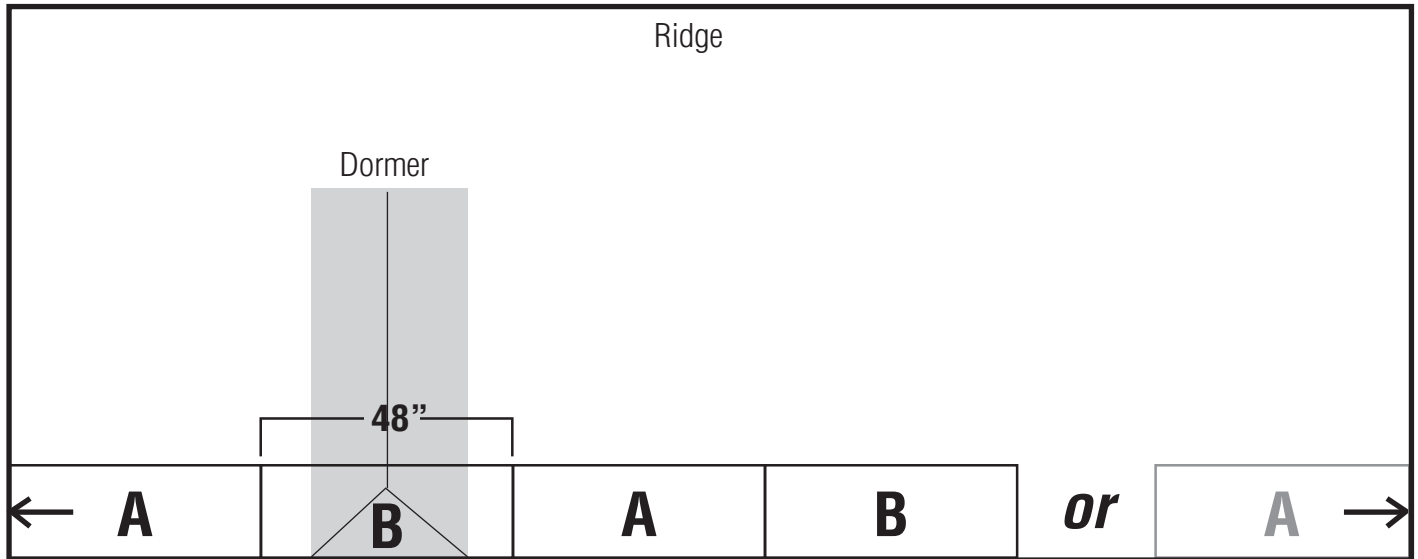


Trim at eave should be designed to allow airspace to be vented from eave to ridge vent.

# General Instructions

## Install Each Course Alternating Shingle-strips A & B

Install each course all the way across the roof alternating A and B panels. Continue the A-B-A-B-A . . . pattern right through interruptions like chimneys or dormers as if they didn't exist. It's 45" from the start of one shingle-strip to the start of the next.

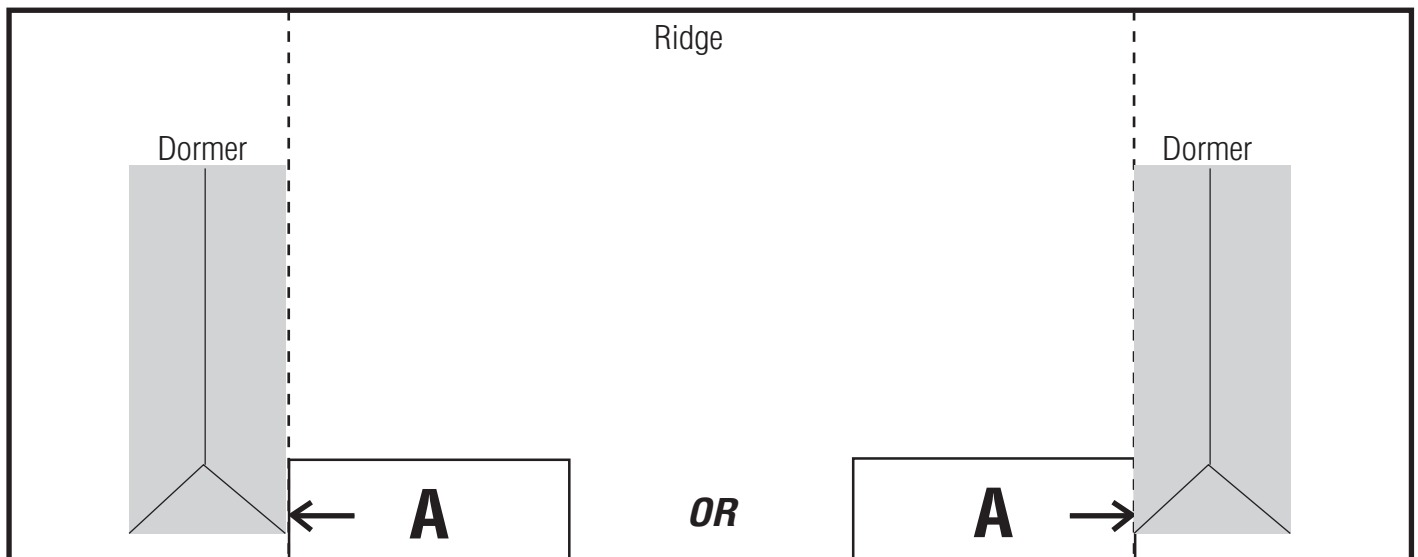


**Start the first course with the "A" shingle-strip at the left or right edge.**

(Shingles should extend 1" past the edge at the gable ends and 1-1/4" past the fascia at the eaves.)

**OR**

**If the roof starts with narrow sections, start the "A" shingle-strip at a major edge.**

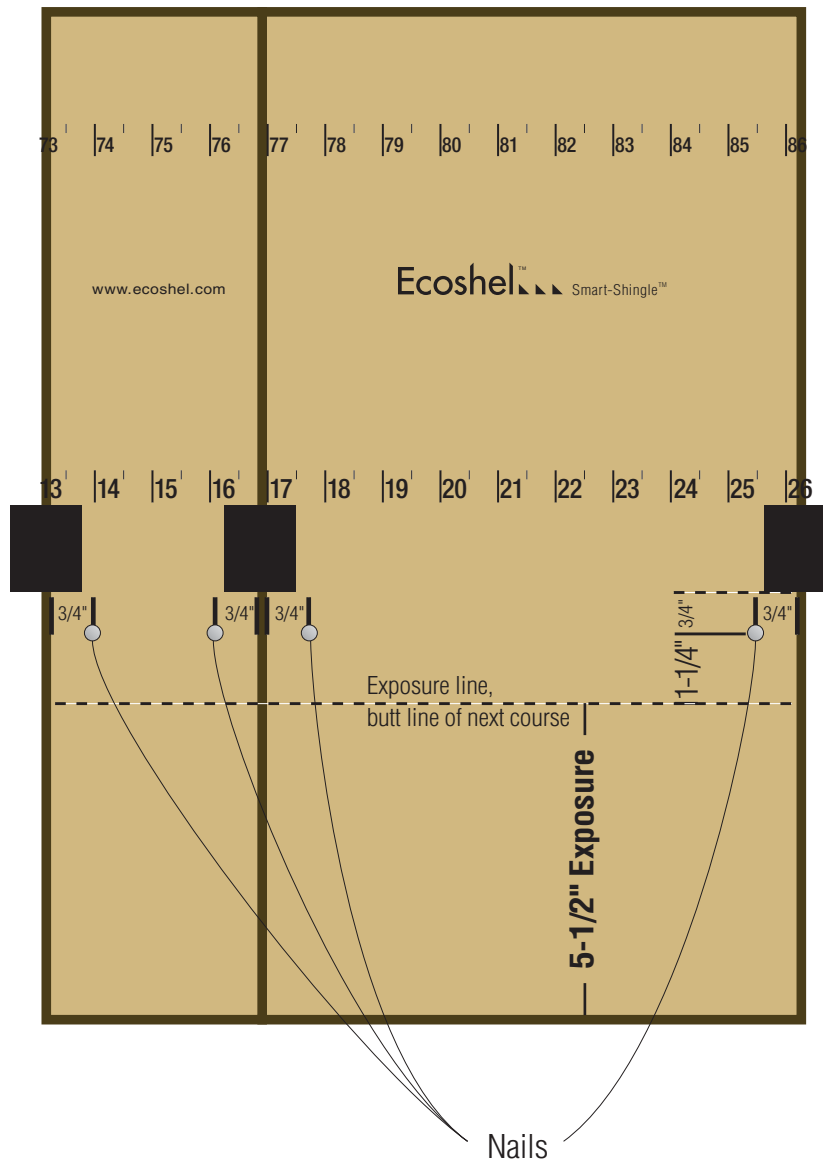


**USE ONLY ONE STARTING POINT FOR EACH CONTINUOUS ROOF PLANE**

## Fasten Each Shingle

Fasten each shingle using ONLY two nails per shingle, 3/4" in from each edge, and approximately 1-1/4" above the exposure line (the butt line of the next course). Stainless steel, ring shank, 1-3/4" coil siding nails are recommended.

The bottom of the shingle clip is 2" above the exposure line for roofing (5-1/2"), and can be used as a visual reference for the nail position. The nail head should be flush to the inside of the clip, and 3/4" below the bottom edge. The exact position of the nail isn't critical. Try to be within about a half inch of the target.



## Position and install the next course.

**NOTE: THE FIRST COURSE MUST BE DOUBLED. TO DOUBLE THE FIRST COURSE, USE THIS SAME ALIGNMENT PROCEDURE WITH AN EXPOSURE = 0.**

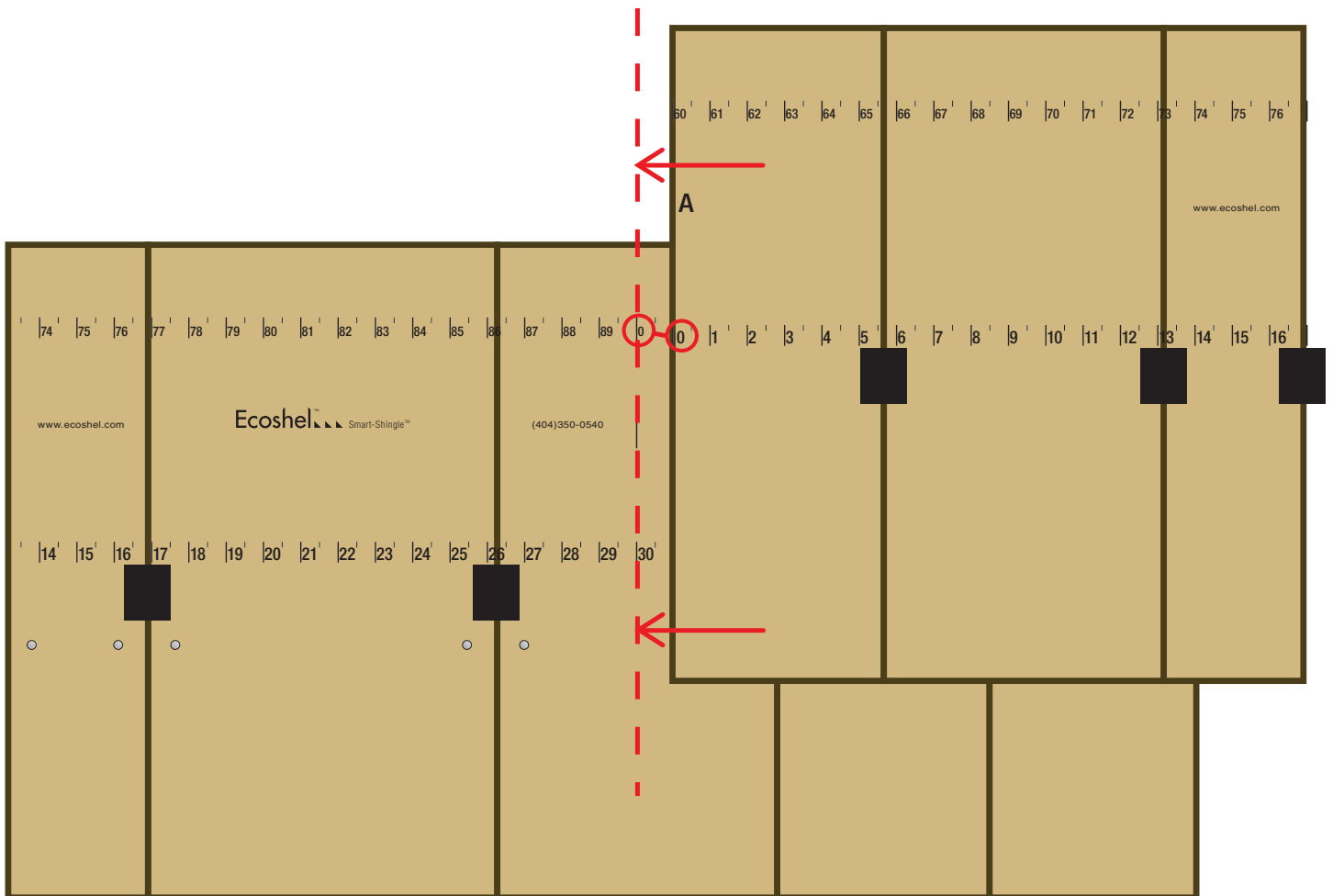
Use chalk lines as your guide to position each course. Ecoshel shingle-strips are trimmed to 17-1/2". The maximum exposure for roofing is 5-1/2". Snap a chalk line on the felt paper, 5-1/2" above the top edge of the first course. Make additional lines every 5-1/2" all the way up to the ridge. You may want to adjust the exposure slightly to control how much of the last course is exposed.

**Alignment Procedure:** Start by installing an uncut A or B panel somewhere in the next course.

**Line up the LOWER numbers of the new course with the UPPER numbers of the previous course.**

"A" panels start with 0, and "B" panels start with 45, so look for 0 or 45 anywhere in the upper ruler of the first course and install your first panel for the next course at that point. Then just finish installing the course by alternating "A" and "B" to the left and to the right.

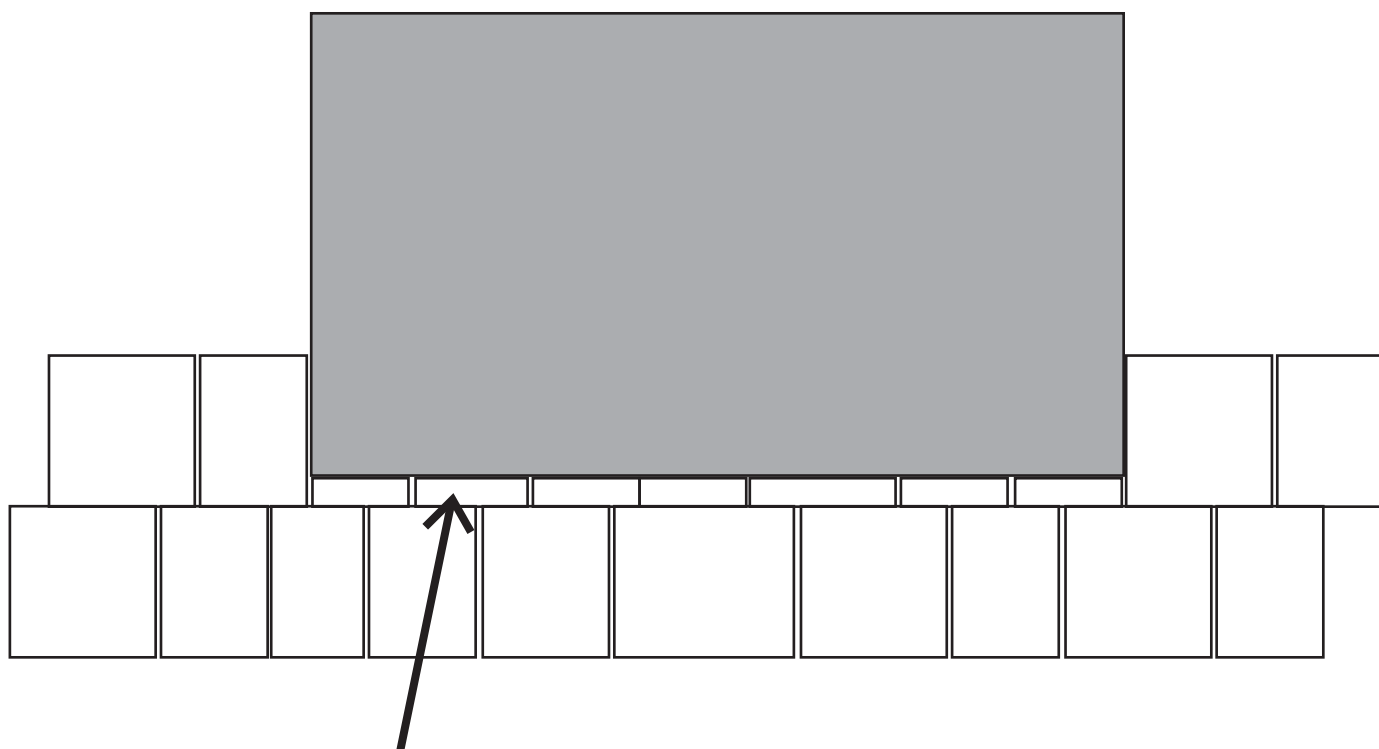
If the roof is divided into sections by dormers, chimneys, etc., match the numbers once at some point in each roof section.



# Plan the Installation

Determine the “exposure” you will use (how much of the shingle will be exposed - the height of each course). The maximum recommended exposure for slopes of 4 in 12 or steeper is 5-1/2”.

Make adjustments to the exposure to control how each course aligns with dormers, chimneys, etc.



**Avoid** alignments that require attaching small sections of shingles below dormers or chimneys, or at the ridge.

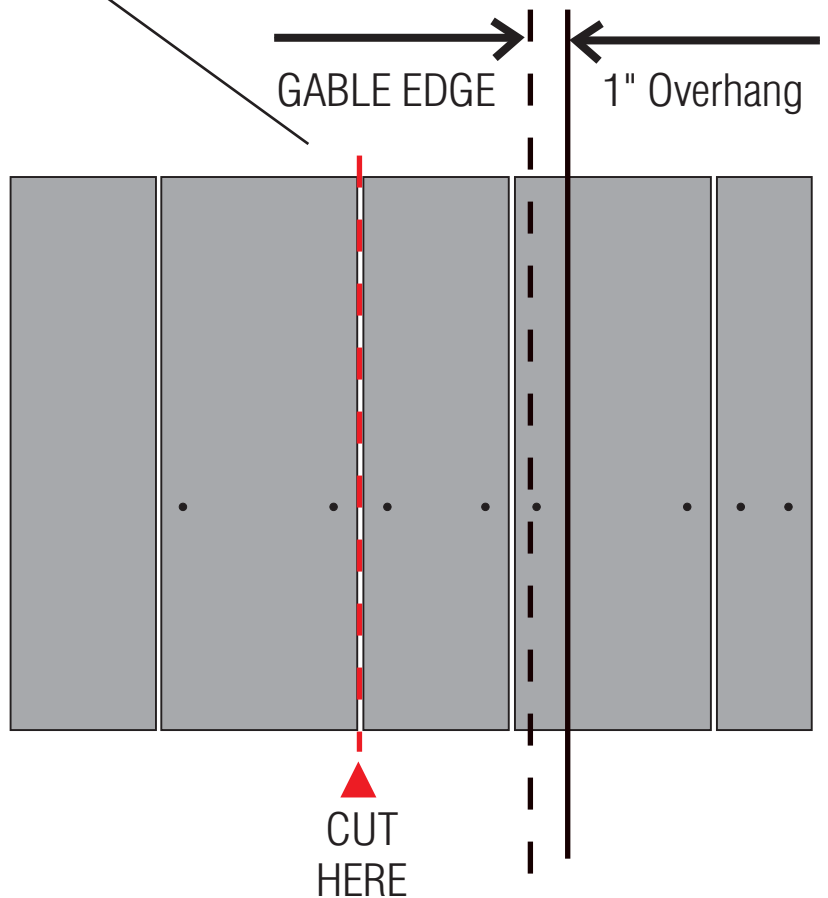
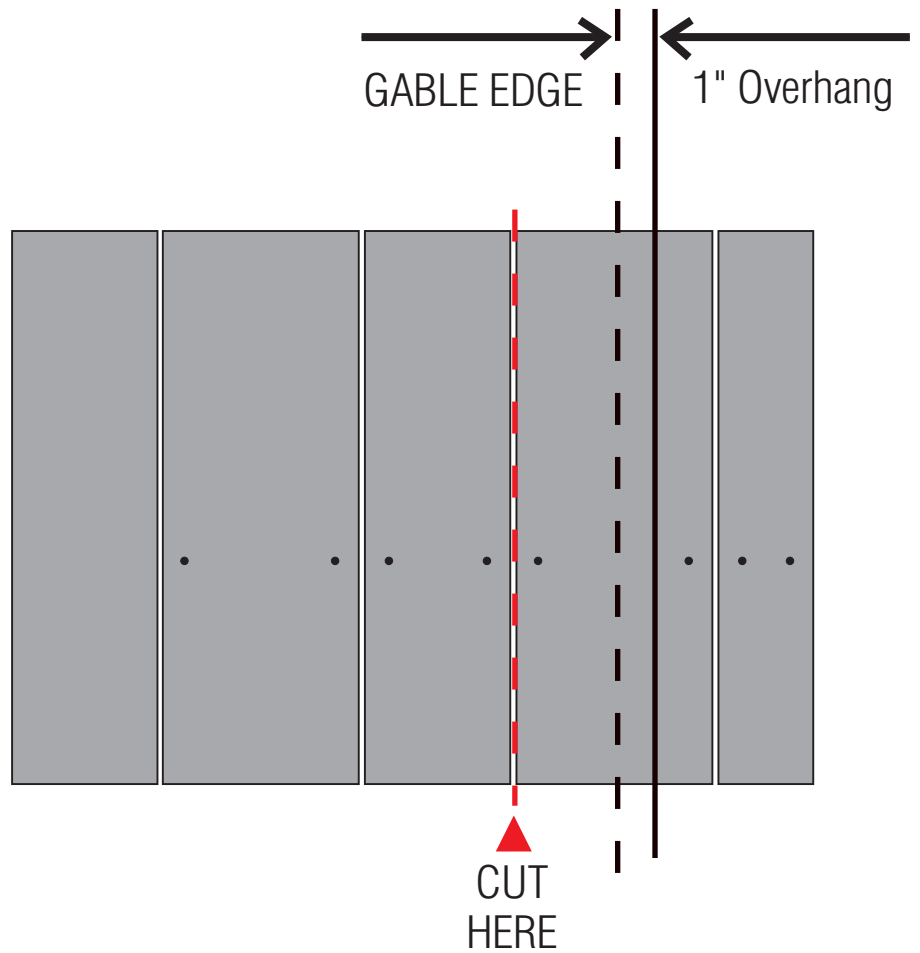
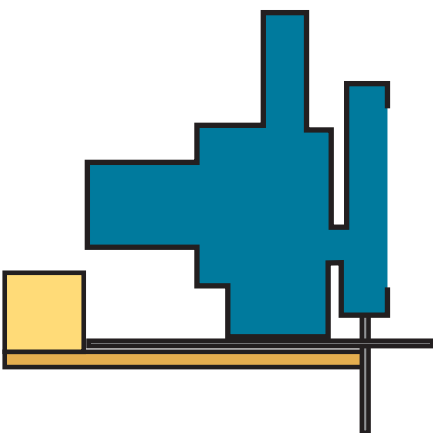
The amount of exposure can be gradually changed to provide better alignment.

# Ending a Course

At the end of a course, (gable edge, wall, chimney, etc.) it's easiest to cut the shingle-strip with a knife at the last joint, and install it. Then cut and install the last shingle from any of the cut-off sections. A helper can be cutting the last shingle while you are installing the shingle-strip, rather than passing it back and forth.

If the last shingle will be too narrow, cut the shingle-strip at the previous joint.

**TIP:**  
You can save a lot of time by letting the shingles run "wild" (past the 1" overhang) and then trimming all of them at once. You can also ruin a lot of work fast with this procedure. A saw guide is recommended. A 1/4" PVC or plywood base attached to a 2 x 2 works well. (below)



# Hip and Ridge Shingles

Pre-assembled hip and ridge shingles are available from Ecoshel.

Felt, or flashing should be installed under the hip and ridge units.

Zinc, galvanized, or copper flashing that extends out beyond the edge of the ridge shingles by at least an inch, will help to preserve the shingles for a distance of up to 15 feet below the flashing.

The zinc or copper dissolves slightly into rain water and washes the shingles below with a solution that kills decay fungi and anything else that might grow on the surface. For roofs with a slope longer than 15 feet, a second copper band can be tucked under a course of shingles further down the slope. At least 1" of the copper should be exposed to the weather.

Install hip and ridge shingles starting with the butt end at the eave or rake edge. Use a 5-1/2" exposure and concealed nailing, just like the shingles in the field. Use two nails in each unit, 3/4" in from the edge, and 1 to 2" under the butt of the next shingles. Longer nails are required for the hip and ridge shingles, typically at least 2-1/8 inch. The first course should be doubled. Joints should alternate left and right for all adjacent courses.

Using a formed copper ridge cap rather than ridge shingles, will also provide excellent protection for the shingles below.