

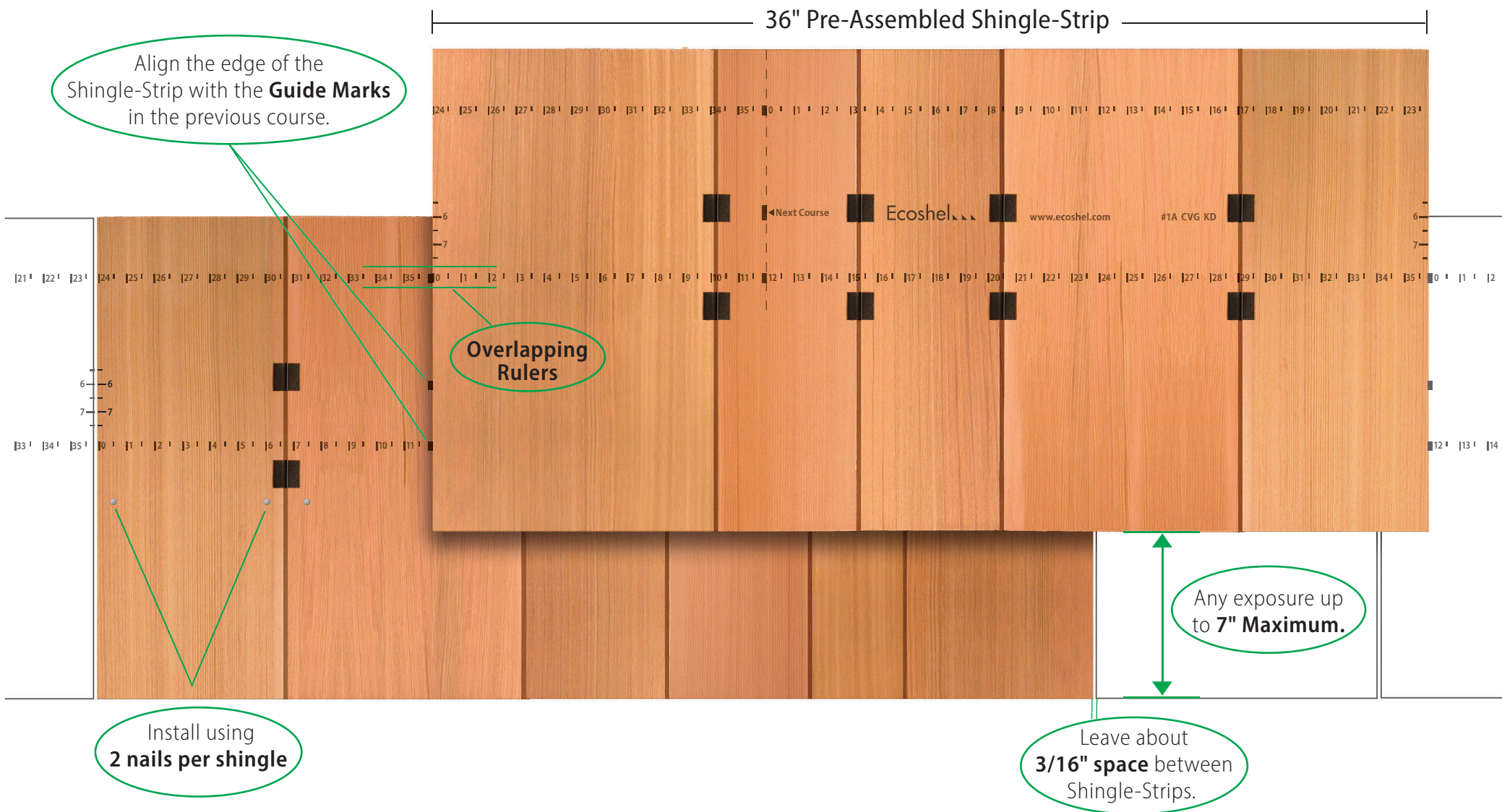
Installation Instructions for Walls Vers 7.1

36" Pre-Assembled Shingle-Strip



For installation assistance call (617) 383-4988, or email tech@ecoshel.com

Installation Basics



- For each new course, position the first Shingle-Strip anywhere in the course, with the left edge aligned with the Guide Marks in the previous course. Then continue installing Shingle-Strips to the left and right, working toward the corners.
- The numbers in the overlapping rulers will be continuous: 0 - 36 - 0 - 36 - 0 . . .
If the course crosses a window, just align the first Shingle-Strip on the other side of the window with the Guide Marks in the previous course. To install partial Shingle-Strips (cut-off sections), position the section so the numbers in the overlapping rulers are continuous.
- When properly installed, all keyway joints between shingles will be offset at least 1-1/2" over 3 courses.

Installation Step-by-Step

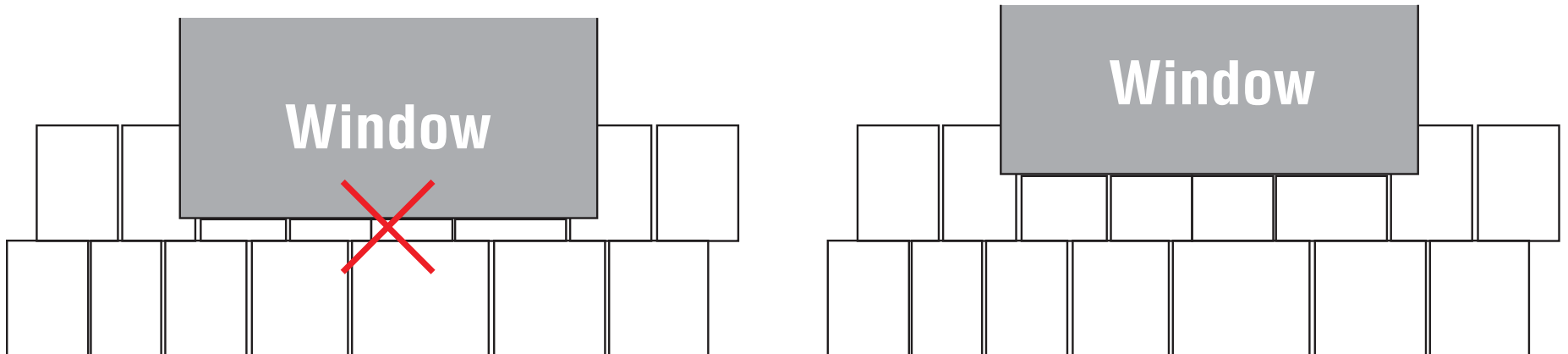
1. Plan the Installation

Install Ecoshel on the large open wall areas first. Finish by using the Shingle-Strip cut-offs for narrow sections between windows and doors, etc.. You don't need to use the installation system for narrow spaces. Just recut some of the Shingle-Strip cut-off sections to the width of the space and install, making sure that the joints in adjacent courses are offset.

2. Plan the Exposure

Determine the "exposure" you will use (how much of the shingle will be exposed - the height of each course).

The maximum exposure is 7". Measure to determine where the butt lines will fall, and make adjustments to the exposure to control how each course will align with doors, windows, etc.



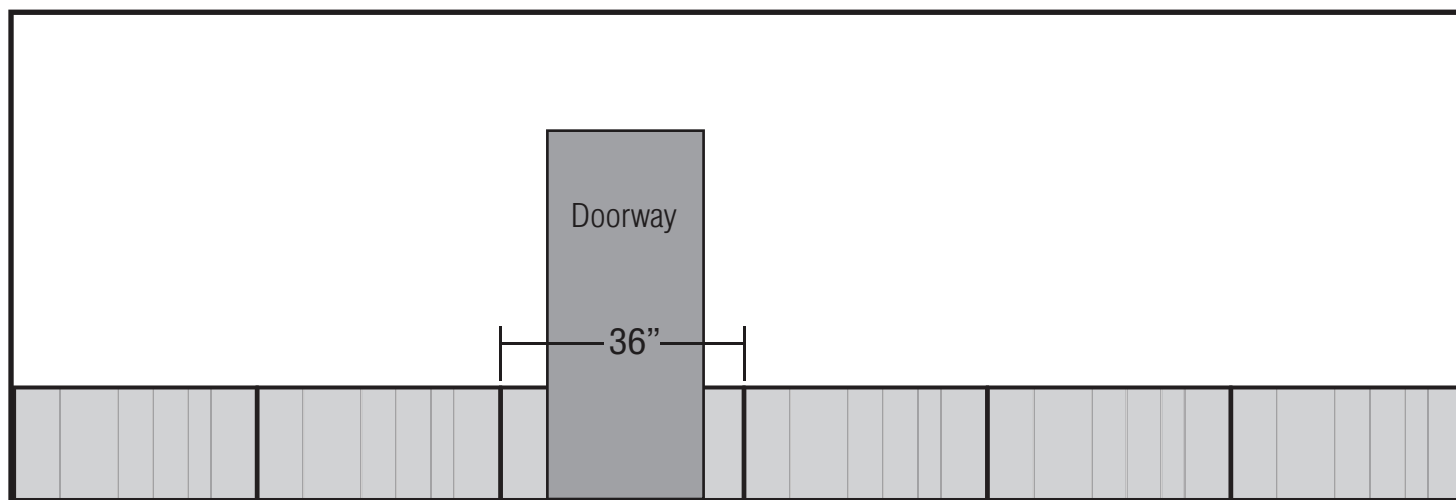
Avoid alignments that require attaching small sections of shingles below windows, or at the top of the wall.

Some installers like to align the shingle butts with the window trim. We think it looks best to allow an offset, with the windows "nested" in the shingles, as long as the offset isn't too small. The amount of exposure can be gradually changed to provide better alignment at different horizontal trim points, and at the top of the wall. Slight variations in the amount of exposure are not very noticeable.

3. Install The First Course

Install the first course maintaining the full 36" Shingle-Strip pattern across any openings. You can start installing from the left corner, or start at any convenient point in the middle of the wall, and work toward the corners.

Allow a $\frac{3}{16}$ " gap between Shingle-Strips. Most installers do this by eye.

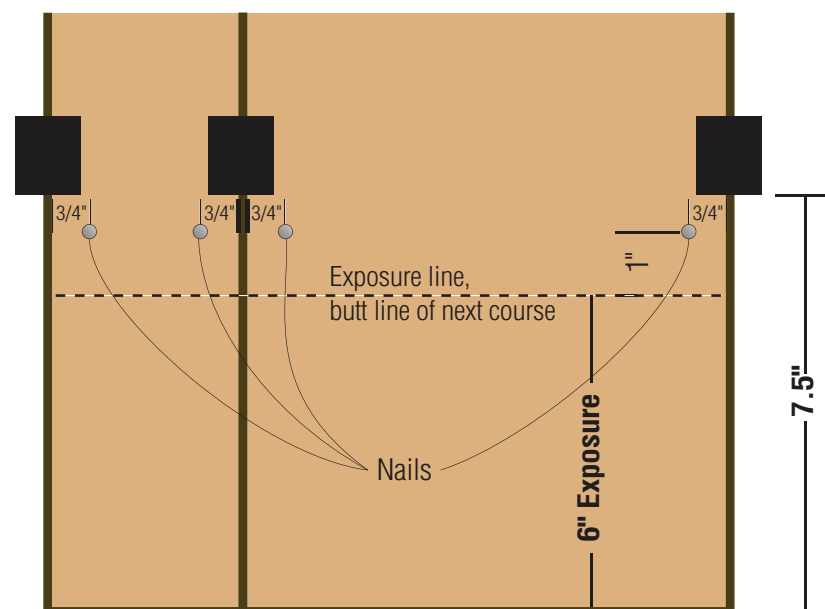


Fasten Each Shingle

Fasten each shingle using two nails per shingle. Position fasteners about $\frac{3}{4}$ " in from each edge, and approximately 1" above the exposure line (the butt line of the next course).

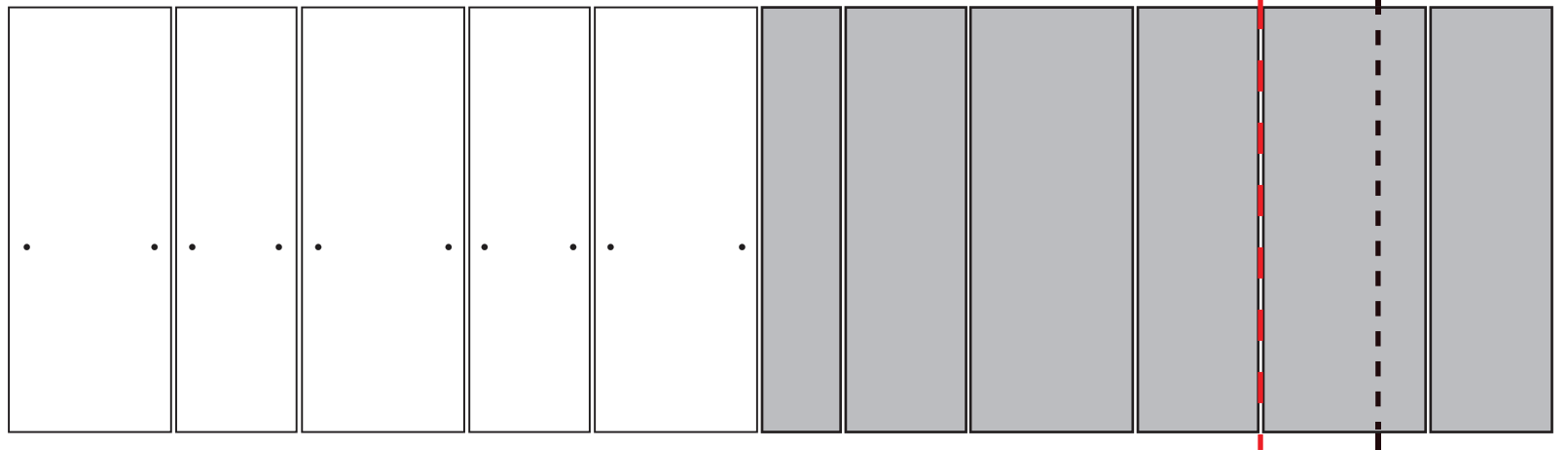
The shingle clip is 7.5" above the butt, and overlaps the shingle $\frac{1}{2}$ ". The clip can be used as a visual reference for the nail position.

Don't overdrive the nails.
Nailheads should not penetrate the shingle.

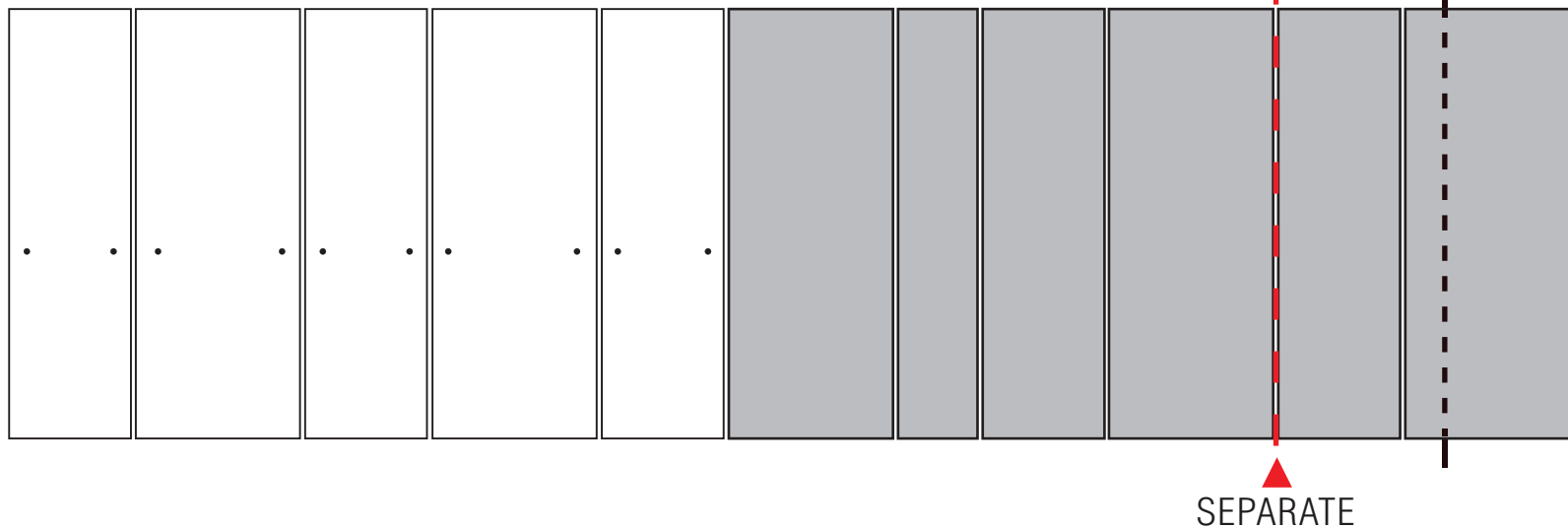


4. Ending the Course at a Corner or Trim boards

At the end of a course, just cut the Shingle-Strip to the correct length. Sometimes it's easier to separate the shingles at the joint after the last full shingle, and then cut and install the last shingle using a shingle from the cut-off sections. Shingles can be separated by prying out the plastic clips on the front using a small flat blade screwdriver. Bend the clip up on the front and then pull it out of the slot on the back.



If the last shingle will be too narrow (less than 3"), then separate the shingle-strip at the previous joint.



5. Position and Install the Next Course

For each new course, position the first Shingle-Strip anywhere in the course, aligned with the Guide Marks in the previous course. Then continue installing Shingle-Strips toward the corners. The numbers in the overlapping rulers will be continuous (0 - 36 - 0 - 36 ...).

If the course crosses a window, just align another Shingle-Strip on the other side of the window with the Guide Marks in the previous course. To install partial Shingle-Strips (cut-off sections), position the section so the numbers in the overlapping rulers are continuous.

Align the left edge of the Shingle-Strip with the right edge of the Guide Marks. The **Guide Marks** represent the 3/16" keyway space.



NOTE: THE FIRST COURSE MUST BE DOUBLED. For the doubled first course, align the Shingle-Strips in the top course with the guide marks in the undercourse, but use an exposure = 0.

Installation Details

General Information

Ecoshel Shingle-Strips come in different shingle patterns that are evenly distributed in the cartons. This provides a random widths appearance. You don't need to be aware of the different patterns.

Each Shingle-Strip includes includes **Guide Marks** at 12" from the left edge. This is where you wil align the edge of the Shingle-Strips in the next course. By following this installation procedure, each course is offset 12" from the previous course, and all joints are offset at least 1-1/2" from the joints in the next two courses.

Ecoshel uses select premium quality Western Red Cedar shingles. Minor defects, saw marks, and dimensional variations are part of the character of the product. If a Shingle-Strip is damaged, set it aside to cut up for detail work or corners, or to be used as a partial strip at the beginning or end of a course.

Ecoshel shingles are kiln dried to 12%, which is necessary for proper finishing. The gap between shingles (the "keyway") is necessary to allow the shingles to expand when they absorb moisture. When the shingles expand the keyway will become more narrow.

Sheathing, Underlayment, and Flashing

Ecoshel Cedar Shingles must be installed on solid sheathing with a minimum thickness of 7/16", or on 1 x ___ board sheathing. Plywood, OSB, or solid lumber may be used. The recommended underlayment is 30 pound asphalt impregnated felt. Non-dimensional housewraps (WRBs) may also be used. Proper standard flashing must be used above windows, doors and water tables. Contact us if you have questions about flashing or WRB selection.

Cutting Shingle-Strips

Ecoshel Shingle-Strips can be separated into individual shingles by bending and removing the plastic clips, or by cutting the clips with a sharp utility knife. Individual shingles can be cut to specific widths or shapes for detail work, or they can be used for woven corners. Shingle-Strips can also be cut with circular saws, jigsaws, or on a table saw. Small battery powered circular saws work very well.

For the fastest and most precise installation, use a long saw table with a saw guide. If you don't have a saw table, you can make one easily with a half sheet of plywood or OSB. See the Saw Table section in these instructions.

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

Fasteners

Stainless steel fasteners are essential to avoid black streaks. Stainless steel ring shank coil siding nails are recommended. If the exposure is 7" or greater, use a minimum length of 1-1/2" . If the exposure is less than 7", use a 1-3/4" nail. If there is rigid foam between the sheathing and the Shingle-Strips, increase the length of the nail by the thickness of the foam. Medium crown staples of the correct length may also be used. Roofing nails for composite shingles, with the oversize head and wider shank, should not be used.

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.

Corners

Installing Corners with Ecoshel is the same as with conventional shingles. You can use corner boards or make woven corners. Install the last Shingle-Strip in the course without the corner shingle, then cut and install the corner shingle separately. You can separate shingles from the strip by bending and removing the plastic clips.

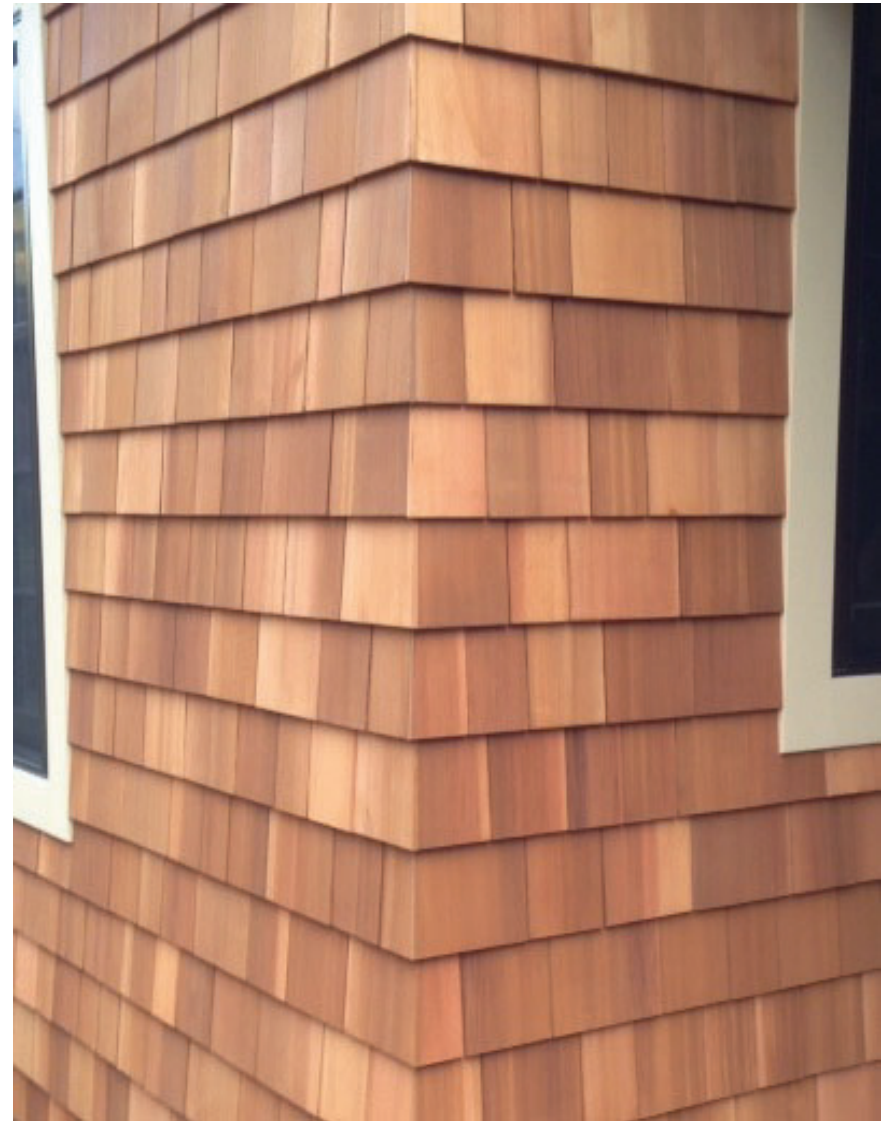
Corners Boards

Installing corner boards is the easiest corner method. Just cut the last shingle to butt up against the corner board. If the last shingle will be less than 2-1/2-3" wide, you should cut the Shingle-Strip at the previous joint and install a wider shingle for the corner. Run a bead of caulk on the upper unseen part of the joint between the shingle and the corner board.

Corner boards should extend out further than the butts of the shingles. Shingles will build to a thickness of up to 1.125" at the butts, so corner boards should be 1-1/4" thick. With 3/4" trim, you can pad out the trim using 1/2" exterior plywood. You can also make 1-1/4" trim boards using 2 x 6 lumber. Recut or plane the lumber to provide crisp corners.

Woven Corners

For woven corners, you alternate the overlap with each course. See the detailed instructions on the next page.



Woven
Corners

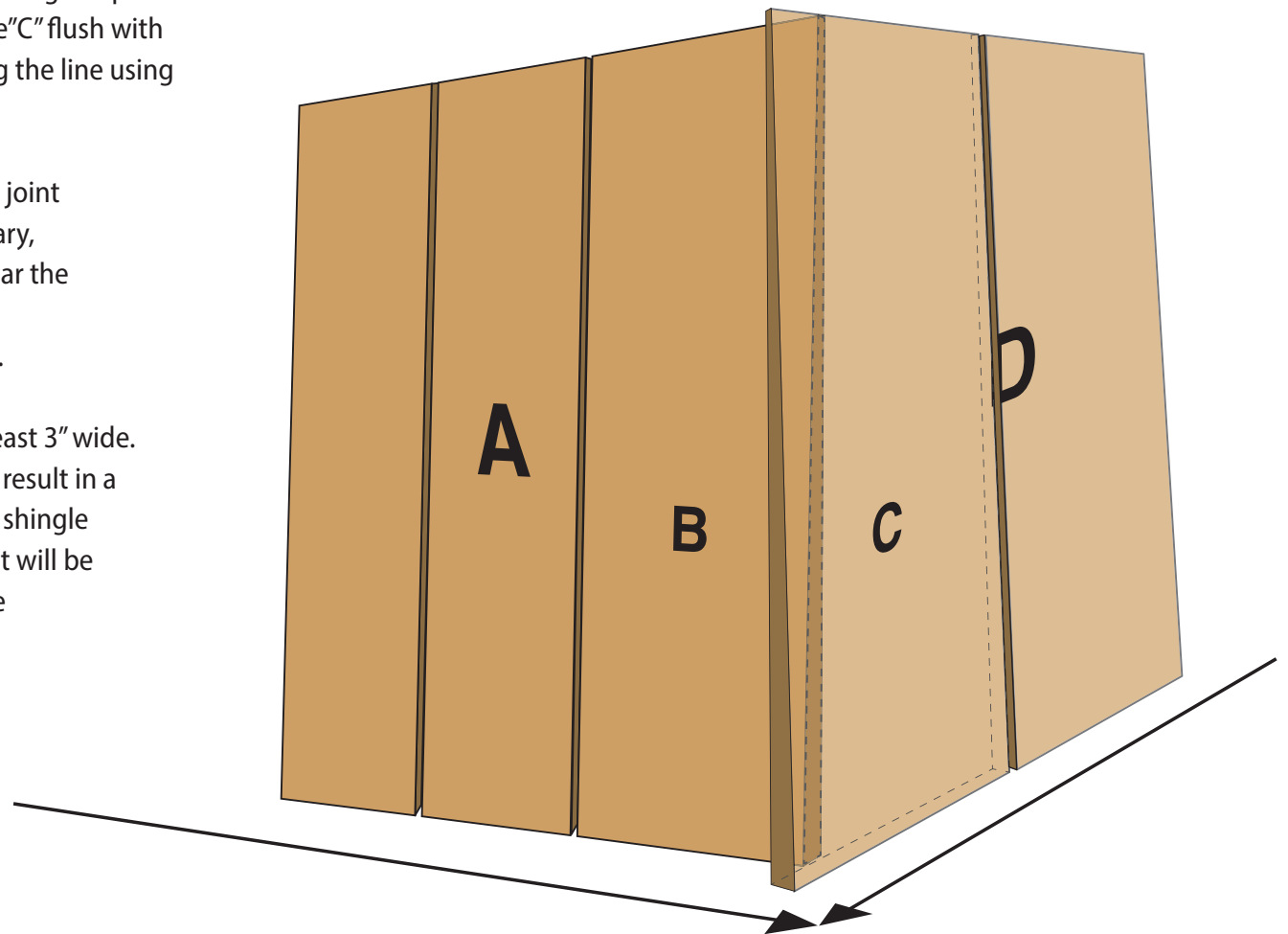
Making Woven Corners

Position Shingle-Strip A with shingle B extending out past the corner. Trace a line on the back of shingle "B" flush with the surface of the intersecting wall (shingle). Cut shingle B along the line and then install Shingle-Strip A, making sure the corner is flush. The cut line will be curved as it follows the surface of the intersecting shingle, so you will need to cut the shingle with a jigsaw or a knife. For a perfect corner, cut shingle B a little past the line and install the Shingle-Strip. Then plane the edge flush to the intersecting wall (shingle) using a block plane. You can also cut the corner flush using a portable router with a flush cutting bit. The roller bearing on the router bit rides along the surface of the intersecting shingle.

Position Shingle-Strip D with shingle C extending out past the corner. Trace a line on the back of shingle "C" flush with the surface of shingle "B". Cut shingle C along the line using one of the methods described above.

Continue installing as above, alternating the joint from side to side with each course. If necessary, install a small stainless steel finishing nail near the butt ends to keep the joint tight and flush. Pre-drill a hole for the nail in the top shingle.

Shingles that form the corner should be at least 3" wide. If cutting the Shingle-Strip at the corner will result in a narrower shingle, install an individual (scrap) shingle flush to the corner first, making sure the joint will be offset from the course below, then install the Shingle-Strip up to the corner shingle.



Making a Saw Table

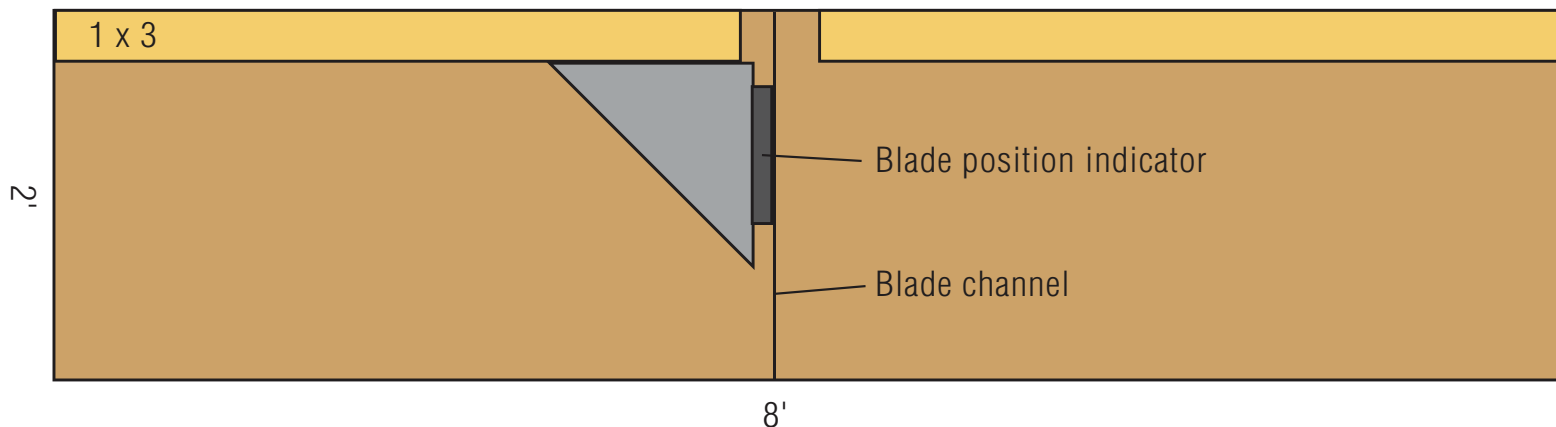
A portable saw table makes installation much easier. The easiest way to set up a table is to make a 2' x 8' top using OSB or plywood mounted on a 2 x 4 frame. Place the table top on saw horses so it can be easily moved.

A small lightweight battery powered circular saw works well for cutting the shingles.

Install a 1 x 3 strip along the back of the table, with a gap in the strip to allow the circular saw to pass through.

Use a large triangle as a saw guide. Tape a thin plastic sheet to the bottom of the triangle and cut it with the saw guided by the triangle. This provides a blade position indicator.

Place the Shingle-Strip on the table with the cut mark in line with the blade channel. Then place the triangle on the Shingle-Strip with the blade position indicator at the cut mark. Cut the Shingle-Strip with the saw guided by the triangle.



Flared Wall Installation

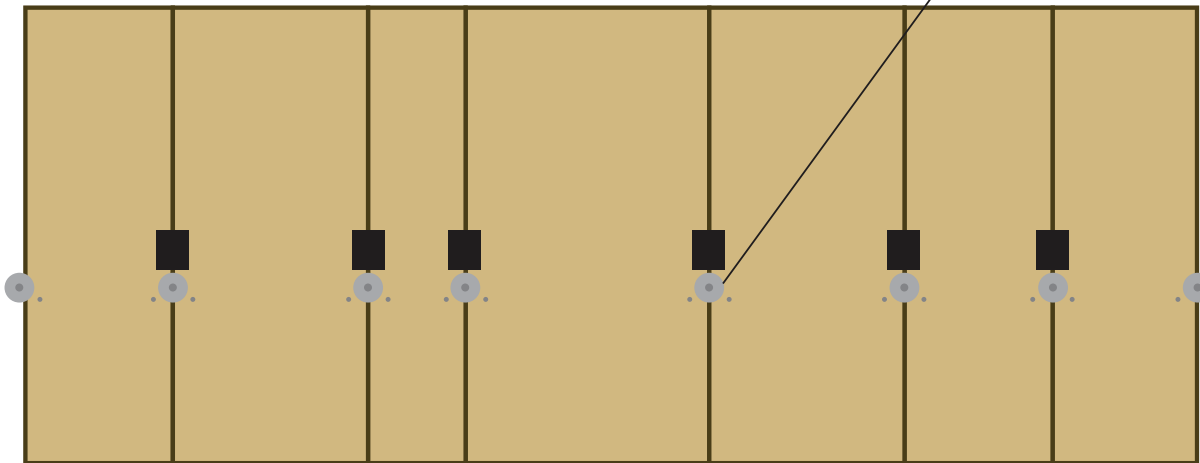
To install Ecoshel on flared wall sections, you will bend the whole panel at the same time.

For slight to moderate flare, shoot nails in the normal nail position, but with decreased air pressure. Then tap in all the nails together using a hammer to draw the panel tight to the sheathing.

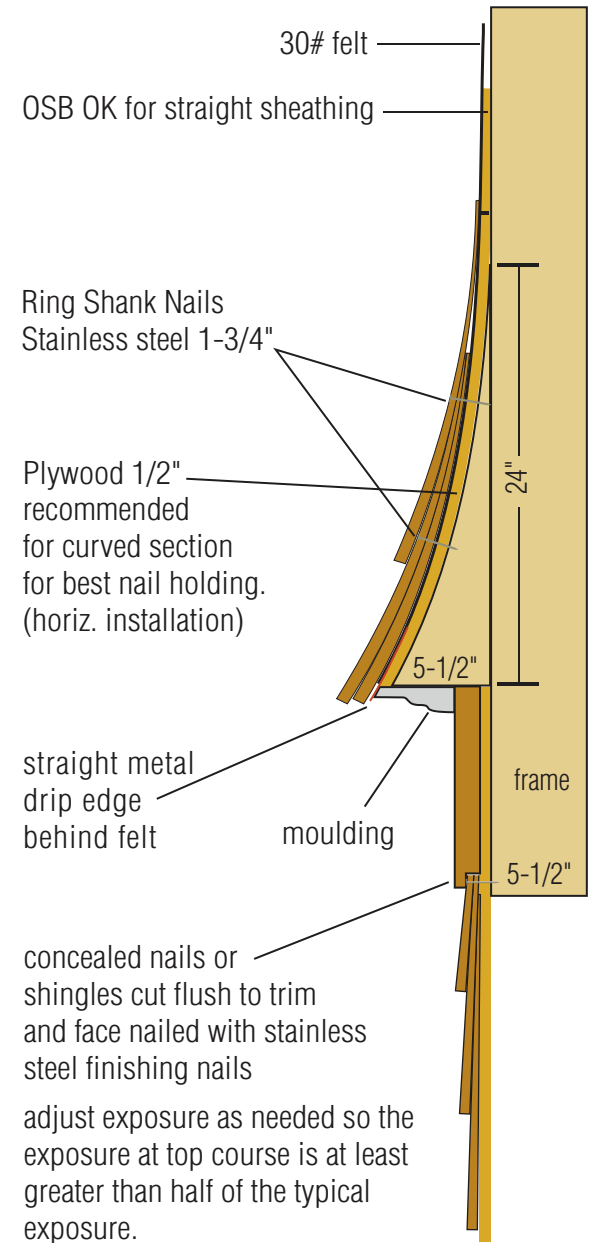
Make sure to keep the gun perpendicular to the shingle so all the nails are at the same angle. Turn the pressure down. You want to drive the nails just enough to slightly bow the the shingles. Then finish by tapping in all the nails together. You may need to use longer nails than you are using for the rest of the installation.

For more extreme flare, bow the whole panel at the same time by using narrow screws with fender washers in the keyway spaces between the shingles. Tighten the screws together, then fasten with nails in the normal position and remove the screws.

fender washers and screws



Shingle Strip



30# felt
OSB OK for straight sheathing

Ring Shank Nails
Stainless steel 1-3/4"

Plywood 1/2"
recommended
for curved section
for best nail holding.
(horiz. installation)

straight metal
drip edge
behind felt

moulding

frame

concealed nails or
shingles cut flush to trim
and face nailed with stainless
steel finishing nails

adjust exposure as needed so the
exposure at top course is at least
greater than half of the typical
exposure.

Base of Wall Details

