INSTALLING VINYL SIDING AND ALUMINUM TRIM

Tools and Equipment - Siding

Site Tools

Framing square
Large speed square
4’ level
Chalk box and chalk
Ear protection (person running cutting station)
Circular saw (with plywood blade installed backwards)
Siding snips and/or aviation shears
Snap lock punch
Pre-built jig for cutting vinyl siding panels straight and angled cuts
SIDING CUT DISPLAY BOARD

Equipment and Supplies

First Aid kit
Water
(4) electric drops and splitter
16’ extension ladder
(2) 8’ step ladders
(2) 6’ step ladders
(4) saw horses
Vinyl siding package
Starter strip
Vented soffit
Solid soffit
Brooms
Garbage bags
Scaffolding
Pre- Bent Aluminum Fascia
VINYL TRIM BLOCKS

Volunteer Tools

Hard hat
Hammer
Nail apron
Measuring tape
Carpenter’s pencil
Utility knife
Speed square
Safety glasses
Gloves

Fasteners

1- 1/2” roofing nails
2-1/2” roofing nails
White aluminum Trim nails

Habitat’s tools and equipment are valuable assets and are essential to the success of this, and future projects. Please help to ensure that all tools are cared for and use caution to prevent their breakage or loss.

Keep track of tools while they are being used and return them when you are done, when changing jobs, or when your shift is over.

Nail pouches should be emptied and nails returned to correct nail buckets.

SIDING TERMS:

BASIC SIDING INSTALATION GUIDELINES:

Installed panels must move freely from side to side.

When installing a siding panel, push up from the bottom until the lock is fully engaged with the piece below it.

With experience, you will become familiar with a distinctive sound made when the panel is fully engaged. Problem areas for locking the siding are the overlap in the row below.

Fasten nails in the center of the nailing slot, 16”oc between nails, which is about the length of your hammer handle.

Leave a minimum of ¼" clearance at “J” channel, inside corners, integral “J” around windows and corner posts to allow for expansion and contraction.

Do NOT drive the head of the nail tightly against the siding nail hem.

PANEL OVERLAPS MUST BE FACTORY EDGE TO FACTORY EDGE.

Do **NOT** face-nail through siding. Vinyl siding expands and contracts with outside temperature changes.

Safety glasses/goggles are required when cutting or nailing siding.

CUTTING THE SIDING:

Only cut siding with a circular saw, equipped with a fine-toothed (plywood) blade BACKWARDS, on the saw OR snips.

NOTE: Do not attempt to cut materials other than vinyl WITH THIS SAW/BLADE ARRANGEMENT.

Pre-made wooden jigs will be provided for straight cuts and for the angled cuts in the gables.

When cutting with a circular saw a steady feed rate will achieve the best results. The lower the temperature the slower the feed.

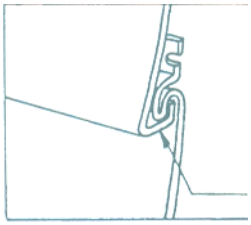
For RIP cuts (cutting parallel with the panel) score the panel with a utility knife several times then snap it, (similar to drywall). Cutting with snips will also provide good results.

When using tin snips, avoid closing the blades completely at the end of the stroke for a neater, cleaner cut.

SIDING FASTENING PROCEDURES:

Vinyl siding can expand and contract ½" or more over a 12' 6" panel with changes in temperature. The following basic rules must be followed.

Make sure the panel is fully locked in to the panel below, but do not force them up tight when fastening.



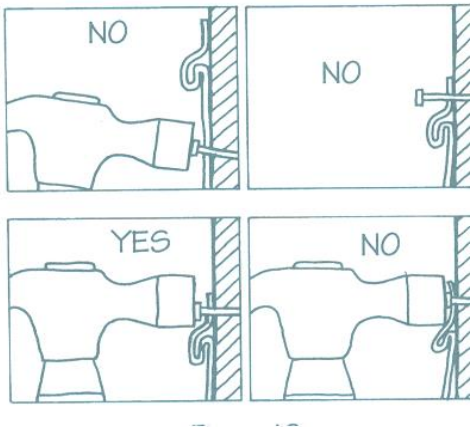
Do NOT drive the head of the nail tightly against the siding nail hem.

Allow 1/16 to 1/8" clearance (approximately the thickness of a dime) between the nail head and the vinyl. ***Tight nailing will cause the vinyl siding to buckle with changes in temperature***.

When fastening, start at the CENTER of the panel and work to the ends, but do not put a nail in the 1st or 2nd hole from the end.

Center the nails in the slots to permit expansion and contraction of the siding in **both** directions.

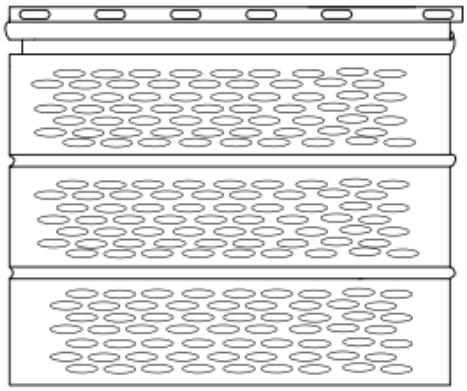
Drive the nails straight and level to prevent distortion and buckling of the panel.



INSTALLING VENTED SOFFITT IN OPEN EAVES:

Habitat uses open eaves soffitt to provide proper ventilation into the attic and out the roof ridge vent.

Vented soffit material is used in the side wall overhangs and front and rear of the garage, to provide air intake into the attic.



Vented Perforated Soffit

PREPARATION:

"F Channel" will be used along the exterior wall at a height that is even with the bottom edge of the fascia board.

To establish this height, use a framing square, and place the short leg against the wall with the long leg touching the bottom side of the fascia.

Mark the blue board when the top of the framing square touches. Do this at each end and in the middle of the wall.

PIC 258

Cut a small (6”-8”) piece of “F” channel and hold it with the NAILING SLOTS POINTING DOWN.

Hold the “F” channel at the mark on the blue board and then MARK THE BOTTOM OF THE “F” AT BOTH ENDS AND THE MIDDLE of the wall.

Hold the chalk line tight, with a person in the middle, holding it against the wall on the mark.

Snap the chalk line on both sides to establish a reference line.

Install the "F” channel with the nail slots DOWN and the reference line visible at the BOTTOM of the “F” channel.

Measure from inside the “F” channel to the outside edge of the fascia board at several spots along the wall, to check for variations.

Then subtract ½" to allow for expansion. Give the dimension to the saw person to make the cuts.

Only cut about 10-12 pieces, then re-check measurement.

Insert the panel into the "F-channel" on the wall, then nail through the nail slot , **“snugly”** into the fascia board, with 1 ½” roofing nails.

End soffit panels nailed are fitted around and nailed to the pork chop and fascia board ¼" from edge of outside edge.

Using 1-1/4” WHITE TRIM NAILS, nail through the holes in the soffitt material, letting the panel “float” on the nails.

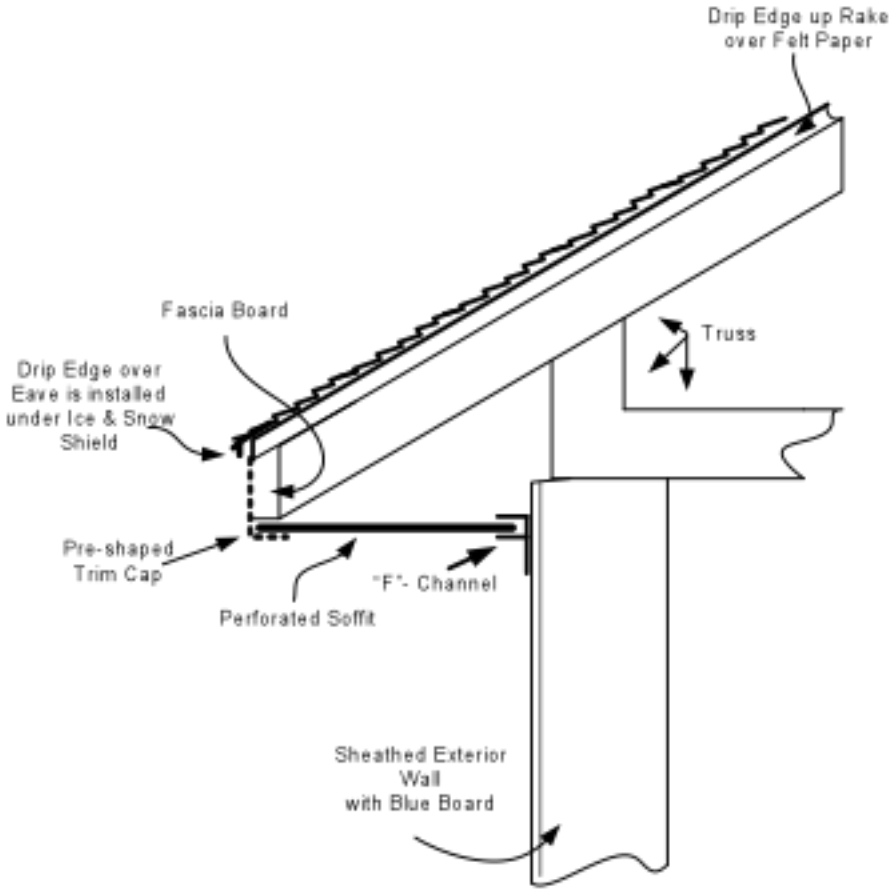
CORNER “J” CHANNEL:

The inside corners created where the front and rear house and garage soffitts meet will need special cuts.

A piece of 2 x 6 will be installed, with a point on the end, against the house and fit to the angle at the fascia.

Then, 2- back to back, “J” channels with 45 degree angles on each end will be nailed to the 2 x 6. Measure and cut the angles on the soffitt and install.

The last piece will not be able to be nailed.



NOTE: Drawing not to Scale

FASCIA INSTALL:

Pre-formed aluminum fascia will be installed, with painted trim nails, **AFTER** the soffit is installed. .

The seams created by the 12' panels **must not** be visible from the street.

START the install of these panels from the **REAR** of the house and work towards the front.

Allow a 2" overlap at each seam.

Use 4, 1-1/4 white trim nails, evenly spaced, nailed through the **FACE of EACH panel.**

NAILING THROUGH THE FACE OF THE ALUMINUM IS **DONE HERE ONLY** BECAUSE IT WILL BE COVERED BY A GUTTER.

Additional trim nails (3) should be driven through bottom of the panel.

On **inside** corners, create a 1" tab on one of the pieces. The other piece will overlap the tab.

SIDING PREPARATION:

Before any siding can be installed some prep work must be done.

A laser will be used to establish a level **REFERENCE** line on all sides of the house and garage. Measuring down from the reference line will establish the TOP of the starter strip.

INSTALLING STARTER STRIP:

To ensure that the siding is properly installed, the starter strip at the bottom of the walls must be level.

The starter will installed over a Rip of blueboard during the “deck” building process.

If NOT, measure down from the **reference line** to point ½” below the blue board,

Subtract the width of the starter strip and cut a piece of 1 X wood to that length.

Use this “story board” to mark the top of starter strip at several places along the **HOUSE** wall.

Repeat the procedure around the house.

Leave the porch alone at this time, as starter strip will not be used on the front porch siding.

The garage may also require some adjustment to this procedure.

Pull the chalk line tight, with a person in the middle, pressing the line against the house/garage, making sure the line is touching the reference marks and snap a chalk line from corner to corner.

Using the chalk line as a reference, align the TOP edge of the starter strips along the chalk line, nailing at 8” to 10" intervals.

To be consistent, nail in the center of the starter strip nailing slots.

Hold the starter back 5" from the corner of the house and 2” for “J” channel.

Check starter strip at corners to ensure they match each other going around the corner.

Habitat uses metal starter strip in 10’ lengths. Keep the ends of the starter strips about a ½” apart**.**

ALTERNATE STARTER STRIP:

“J” channel and utility trim will be used as a starter strip in certain applications such as:

the front wall above the porch slab
the bottom of the side porch side beams
the front porch gable area

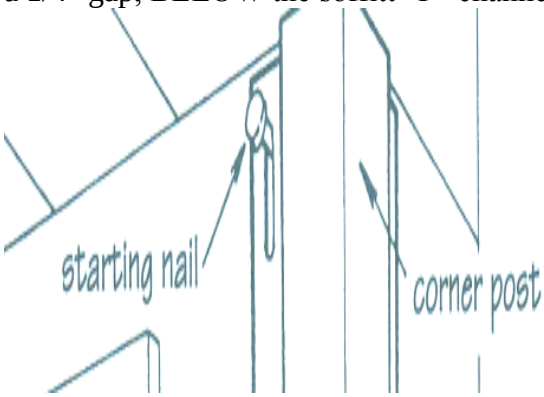
Weep holes, 3/16”, must be drilled, through the “J” channel ONLY, every 24”.

INSTALLING CORNERS:

After the corners are flashed with House Wrap tape, a **CREW LEADER** will attach the corner posts.

Place 1st nails in the top of the uppermost slots to hold them in position. Place all other nails in the center of the slots at 12" apart.

The bottom of the corner post should extend ¾ inch past the bottom of the starter strip. Leave a 1/4" gap, BELOW the soffitt “F” channel at the top of corner posts.



INSTALLING TRIM BLOCKS:

Special trims blocks are installed to minimize attaching "stuff" directly to the vinyl and limiting its natural movement.

Examples are for electrical outlets, lights, hose bibs and where the furnace PVC pipes leave the house.

NOTE: MAKE SURE ALL TRIM BLOCK LOCATIONS ARE MARKED AND/OR INSTALLED.

SECURITY LIGHT LOCATION:

A light block will be installed in the REAR gable wall for a security light.

Cut a piece of Pressure Treated 2 x 6, that will fit inside the Light Block.

Drill a ¾" hole **centered** in the 2 x 6.

AFTER REMOVING THE BLUE BOARD. place the 2 x 6 over the wire and nail securely to the wall.

Place the Vinyl Trim Block over the 2 x 6 and secure to the wall. Side around the light block leaving ¼" gaps and install the trim ring.

There will also be 2 holes for ERV intakes that will be cut directly into the siding. A cover for the intakes will attached directly to the siding with 4 deck screws.

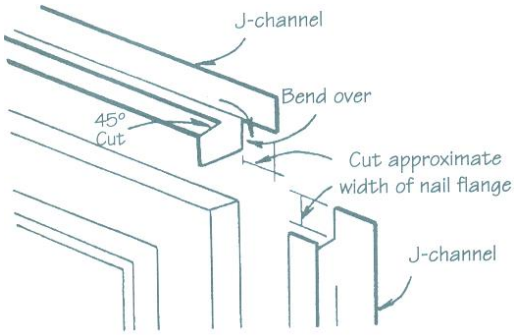
INSTALLING "J" CHANNEL AROUND EXTERIOR DOOR MOLDING:

"J" channel is used around the doors to receive the siding.

Cut the side J-channel pieces 1" longer than the height of the door and notch the channel at the top.

Cut and bend the 1" tab of the top piece of J-channel down to provide flashing over the side J-channel

Miter cut the free flange at a 45 degree angle. The J-channel should fit snug to the door molding.


J-channel
Bend over
45°
Cut
Cut approximate
width of nail flange
J-channel


Top


Top
SIDE

INSTALLING HORIZONTAL SIDING PANELS:

The first row of panels should be “HOOKED” on the starter strip and **securely locked along the entire length of the siding panel.** Make sure the panel is securely locked before fastening.

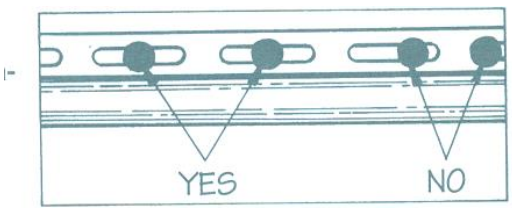
Fasten the panels in the CENTER of the nailing slots.

Allow for expansion and contraction by leaving ¼" gap between the siding and all corner posts, channels, windows and specialty blocks for lights, plugs etc...

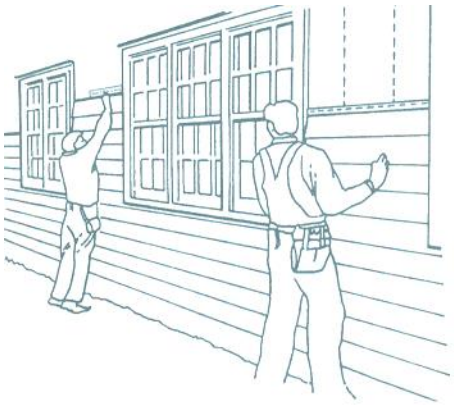
Do not **force** the panels up when fastening.

Since vinyl siding moves as the temperature changes, make sure that the panels can move freely, side-to-side, before fastening panels.

Place nails in the center of the slots ONLY. **Use 2 ½” nails through the Foam.**



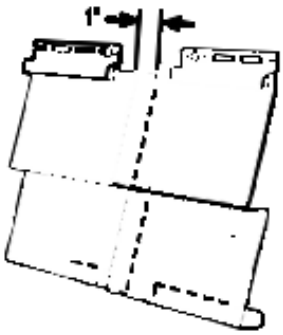
Check every 2 rows for horizontal alignment, around corners to adjoining walls and where siding meets at the tops of windows and doors.



NOTE: INSTALLING AROUND GAS PIPE BY METER:

Special cuts will be made in the siding to go around the gas pipe. See Pic below for this procedure.

IMPORTANT NOTE: Panels should overlap each other by 1-11/8" with **FACTORY EDGES** top and bottom.



Stagger the siding end laps so that no two rows are aligned vertically, unless separated by at least three courses (rows of panels).

Panels must not overlap directly BELOW or within 3 rows OVER a door or window.

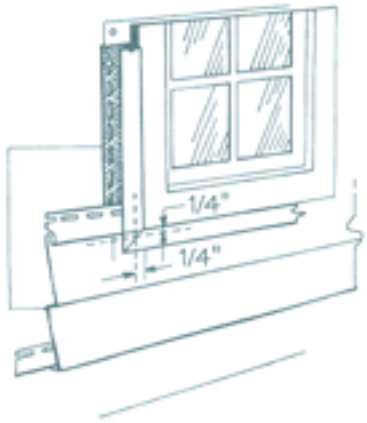
Always overlap joints **away** from entrances and away from the point of greatest traffic.

DO NOT USE using pieces of siding less than **3 feet** in length **except** between the rear garage utility door and the house and the front of garage.

FITIING UNDER WINDOWS:

Hold the panel under the window and mark the width of the window FRAME on the panel.

Add ¼" to both sides of the window to allow for expansion.



Note: Universal channel is not shown in the following illustration. It is positioned to fit with the receiving end of the channel pointed down toward the ground.

Lock a small piece of scrap siding into the lower panel next to the window to determine if Utility trim is needed.

If yes. Cut a piece of material, ¼" less than the width of the window frame.

Install carefully so you don't hit the "J" channel, built in to the window.

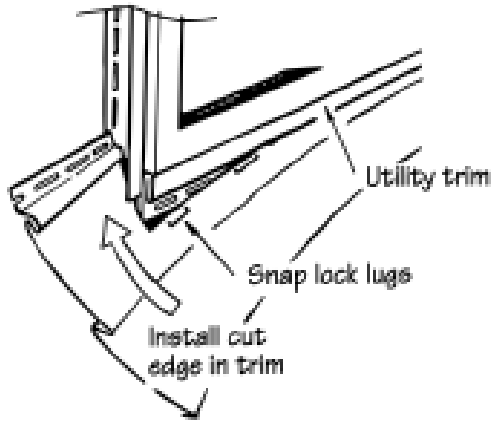
Measure up from the BOTTOM of the siding nail hem to the TOP of the universal and subtract ¼".

Layout and cut the panel with tin snips and/or a utility knife.

The panel is now ready for installation under the window. Follow these steps:

Using a snap lock punch, punch the vinyl siding along the cut edge, every 12", so the raised lug is on the outside face.

Install the siding panel making sure the lugs lock into the utility trim.



FITTING <u>OVER</u> WINDOWS AND DOORS (WITH FOAM):

The procedure for cutting panels for installation over windows and doors is the same as explained for UNDER windows, including installation of utility.

Checking for use of utility.

If you are BELOW or ABOVE the panel projection by 1-1/2", cut a piece of utility ¼" shorter than the outside of the brick mold or window integrated "J" channel, and install.

Make the cut from the **BOTTOM** of the panel. Ensure ¼" is allowed for expansion.

FITTING OVER DOORS WITH HOUSE WRAP:

The procedure is basically the same, except for the placing of the House wrap.

It will be used over the **Garage Door** and the **Utility** door at the rear of the garage.

Before installing the **TOP "J",** cut a 45 degree diagonal, 6" long, at the top corners of the door.

Then fold the House wrap UP to expose the OSB.

Install the "J" against the OSB and fold the house wrap down inside the "J".

Then, if needed, install the utility.

Finally, use House wrap tape to seal the diagonal cut at the corners and continue siding..

FITTING THE LAST PIECE OF WALL SIDING:

The last course of siding will require cutting to fit the opening.

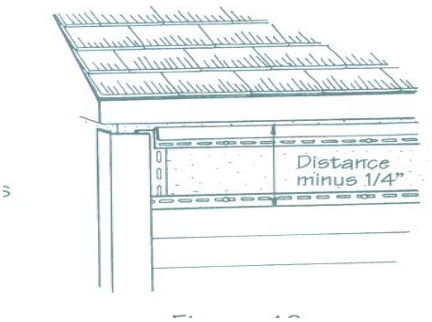
Install "J" channel, with a few nails, across the wall. **STOP**

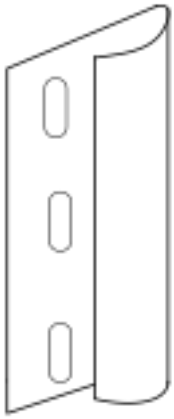
NOTE: It may be necessary to lower the utility, compared to the "J" so the siding will "catch" the utility**. Fit a test piece BEFORE fully nailing the utility**

Measure from the bottom of the "lock" on the previous panel the top of the "J" channel.

Take a measurement every 24" and record the dimensions**, MINUS ¼",** on the piece to be cut.

Mark this dimension on the panel to be cut, measuring from the **BOTTOM** edge of the panel.





"Universal"
Channel

NOTE: Drawing not to scale

Using a snap lock punch, punch the vinyl siding along the cut, edge every 12", so the raised lug is on the outside face.

Push the siding into the utility trim . There will a “click” as the raised lugs catch and hold the siding firmly in place.

Maintain the same overlap, using FACTORY EDGES, as the other panels.

INSTALLING SOLID SOFFITT:

Before siding the Garage and Front Porch Gables**, SOLID** soffit material will be installed in the overhang.

NOTE: Make sure house wrap has been installed BEFORE this step.

F-channel is installed along the wall to receive the soffit by measuring from the peak to the back of the Pork Chop.

Cut the angles (22.5 deg) and install with 1-1/2” (NO FOAM) roofing nails.

Start installing the SOLID soffit from the PEAK working toward the BOTTOM.

Cut first 2 pieces as shown to start the instalation.

The last piece of soffitt will be installed **AFTER** the aluminum trim is installed on the pork chops.

Next, the “J” channel for the siding will be installed, snug against the “F” channel,

A miter cut should be made on the face of the “J” channel for better appearance.

Fasten the J-channel every 8"-12".

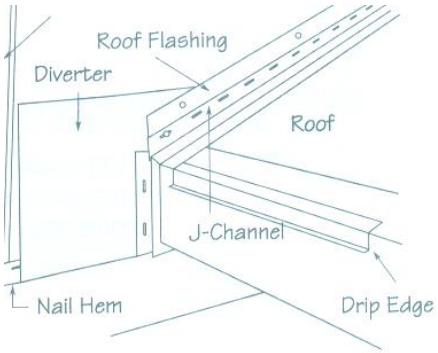
INSTALLING SIDING OVER ROOF LLINES:

The front Gable wall will have a wide piece of blueboard cutout where the porch roof meets the Gable wall.

BEFORE SIDING, the front porch MUST be roofed, with the necessary ice and water shield.

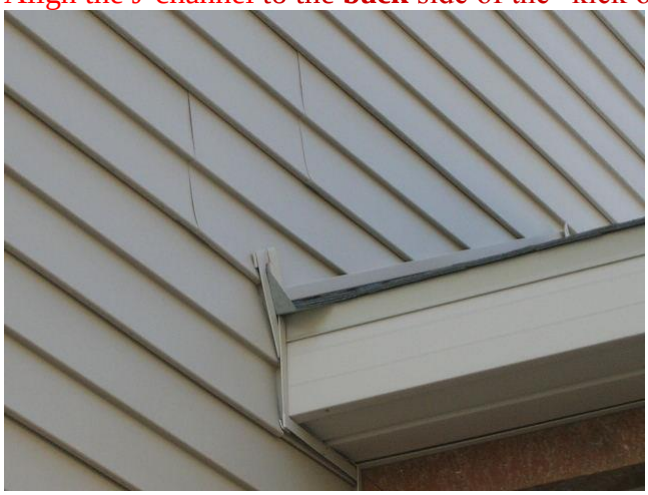
The blue board will be re-installed, step and kick out flashing installed before you can side the wall above the porch.

Run the siding until the last full course under the overhang area.



Install the J-channel loosely up the roofline and into the “J” channel under the soffitt.

Align the J-channel to the **back** side of the “kick out” flashing and nail into house wall..



INSTALLING GABLE WALL SIDING:

The solid/unvented soffitt **and** the J-channel have been installed as the House gable walls are pre-built on the deck.

When siding the HOUSE gable wall, use standard procedures used on the other walls.

REMEMBER NO SEAMS UNDER OR AT LEAST 3 ROWS ABOVE THE WINDOWS

An angled “siding jig’ will be used to cut the angles going into the Gable.

FINISHING GABLE WALL AT THE TOP:

Utility trim and the punch lock tool, described earlier, will used to complete the install at the peak.

Cut 2 pieces of utility about 4” long. Place near the peak. Use the punch lock tool and put 2 lugs on either side of the last panel and install.

INSTALLING SOLID SOFFITT ON PORCH CEILING:

Begin by installing "J" channel on all four sides of the porch. The “J” channel will not reach the full length of the porch.

Start with a **full piece** at the **side beam near the door** and put the short piece at the **opposite** end of the porch. Follow this layout along the HOUSE and the BEAM.

In the corners, cut one of the two intersecting "J" channels' ends at 45 degrees to provide an attractive joint.

A special Vinyl Light Block will be installed on the OSB. It should be centered over the wire showing thru the OSB. Nail securely to the OSB.

Notch around the Block leaving a ¼" gap on all sides. Install the trim ring after the soffitt.

Use **SOLID** soffit material only, and install it perpendicular to the front wall.

Plan the layout of the ceiling panels to achieve an even balance.

Install the first panel into the "J" channel at the DOOR end of the porch. Be sure to leave room for expansion.

Nail every panel at 12"-16" intervals, positioning the nails in the centers of the slots nailing "snugly"

It may be necessary to cut the final panel to custom width.

After measuring and scoring the panel (like drywall), snap the piece off.

Use a Snap Lock Punch (red handle) to create tabs every 12" along the cut edge. Attach utility trim and insert the panel.

SIDING THE PORCH BEAMS AND PORCH GABLE WALL:

NOTE: Make sure the porch beams have been "packed out" to match the side wall.

NOTE: Install Dow Weather Mate on Porch Gable Wall with just enough staples to hold until siding is installed.

Drill 3/16" holes every 24" in the bottom of the "J" channel.

Install "J" channel around porch side beams and the porch Gable Wall**, FLUSH** with the bottom of the beam(s).

NOTE: Fold the house wrap in to the "J" channel before installing the utility **.**

Install utility in the TOP and BOTTOM "J" channels on the sides and in the bottom ONLY on the front.

Siding from the long side wall will continue on to the side porch beam.

Cut the bottom and top of the siding to fit into the J/Utility **matching the siding layout on the long side wall.**

NOTE: The layout continues to the **FRONT** of the Porch Gable Wall and on to **opposite side beam.**

Cut a 2nd piece of siding to match the layout from the long wall and install on the **OPPOSITE** side beam.

EXTEND SIDING LAYOUT TO FRONT WALL:

Establish the top of the SIDE WALL panel on the front wall and mark on each side.

Snap a chalk line across the front of the wall, following the pattern from the side beams.

This line will be the **top** of the first siding panel on the front wall.

Cut and Install the first panel into the J/Utility with the top of the panel on the chalk line.

Continue siding up the wall to the peak.

GARAGE GABLE WALLS:

The garage GABLE and the FRONT and REAR walls will need “house wrap” installed prior to siding.

NOTE: When siding the **GARAGE WALLS**, special care is need to insure the nails **ALWAYS HIT A STUD.**

After placing the house wrap, locate each wall stud and mark one edge on top of the house wrap.

Drive a nail thru the wall at the **street side edge of first stud from the front.**

Place 1 person inside the garage and 1 person outside the garage.

The INSIDE person will hook their tape measure on the edge of the first stud and move toward the rear, calling out the numbers at each stud.

The person on the OUTSIDE will move toward the rear, marking the edge of the studs, based on dimensions form the inside.

With a 6’ level, extend the lines to the top of the double wall plate.

Using the door openings as a reference point, repeat the process on the front and rear walls.

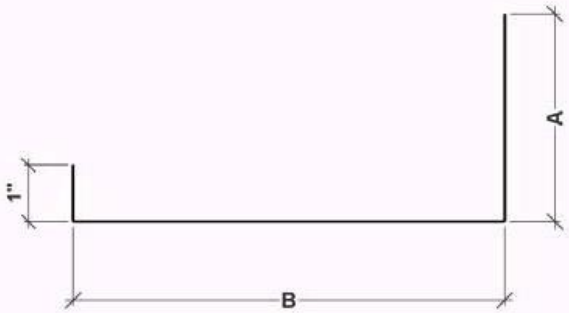
Layout, snap a chalk line and install the starter strip.

The “J” channel can be installed around the pork chops as you side up the wall.

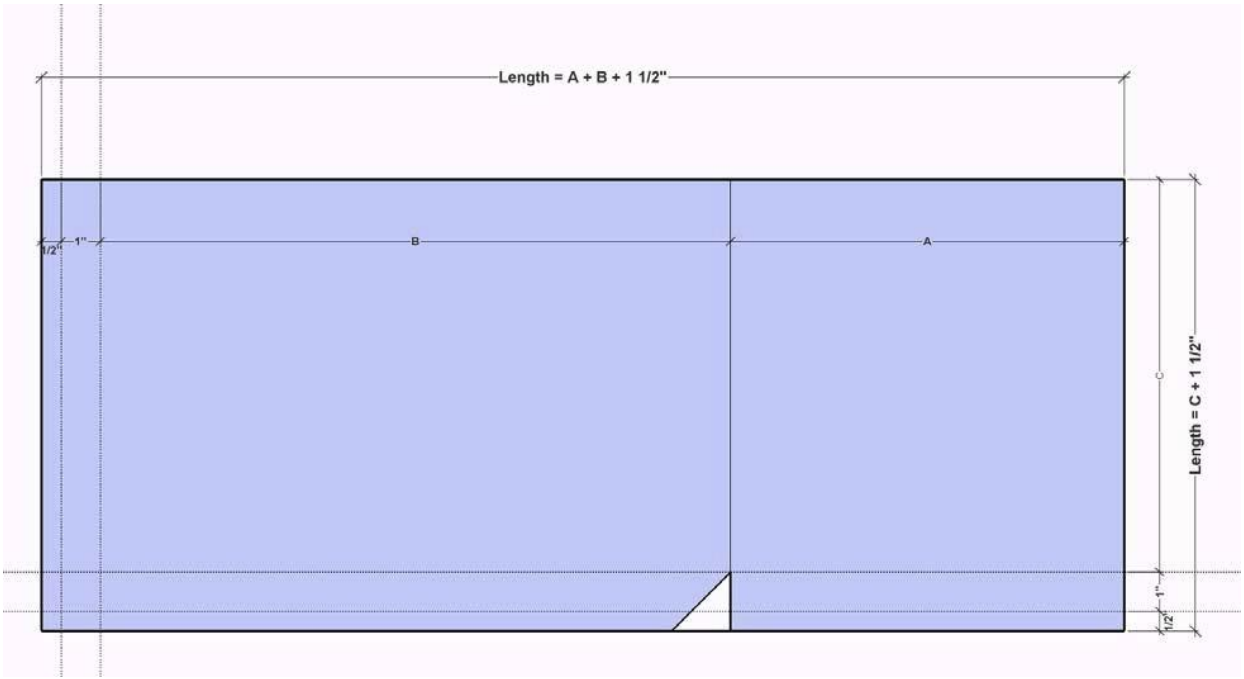
Check for panel alignment with front and rear walls as you move up the wall.

Use the angled jig to cut the siding after passing the pork chops.

BEND ALUMINUM FOR PROK CHOP:



Simple Sketch - Think of this sketch as a top view. The little hook on the left is the 1” ,90 degree angle, with a 3/4” hem wrapping around the far corner.



This diagram shows the typical layout for the Pork chop. It must be adapted to LEFT or RIGHT.

White metal is cut and bent to clad the Pork chop at the gable ends.

Measure each Pork chop and make a simple sketch showing where the bends need to be.

The finished white metal Pork chop will cover the edges of the soffit and slip in between the J and the Pork chop at the house wall.

It will also need to slip in behind the J at the bottom end of the soffit on the gable. There will be a 3/4" hemmed lip which wraps around to the face of the gutter board, and the entire bottom will have a 3/4" hemmed lip.

Measure from the outside corner back to the house. If already sided add ¾" for the "J" channel ("A" in the sketches above.)

Measure from the outside corner across to the face of the gutter board. ("B" in the sketches above).

Measure the height from the bottom of the soffit to THE TOP OF THE PORK CHOP. (Height is "C" in the sketches above.)

Width: A + B + 1-3/4" Height: C + 2"

First put ¾" hem on the bottom edge of the entire piece.

On what will become the inside of the piece mark the following layout lines:

One for the 90 degree bend to form the A-B corner

One to form the 90 deg lip at the Fascia end of B, which will wrap around to the face of the Fascia.

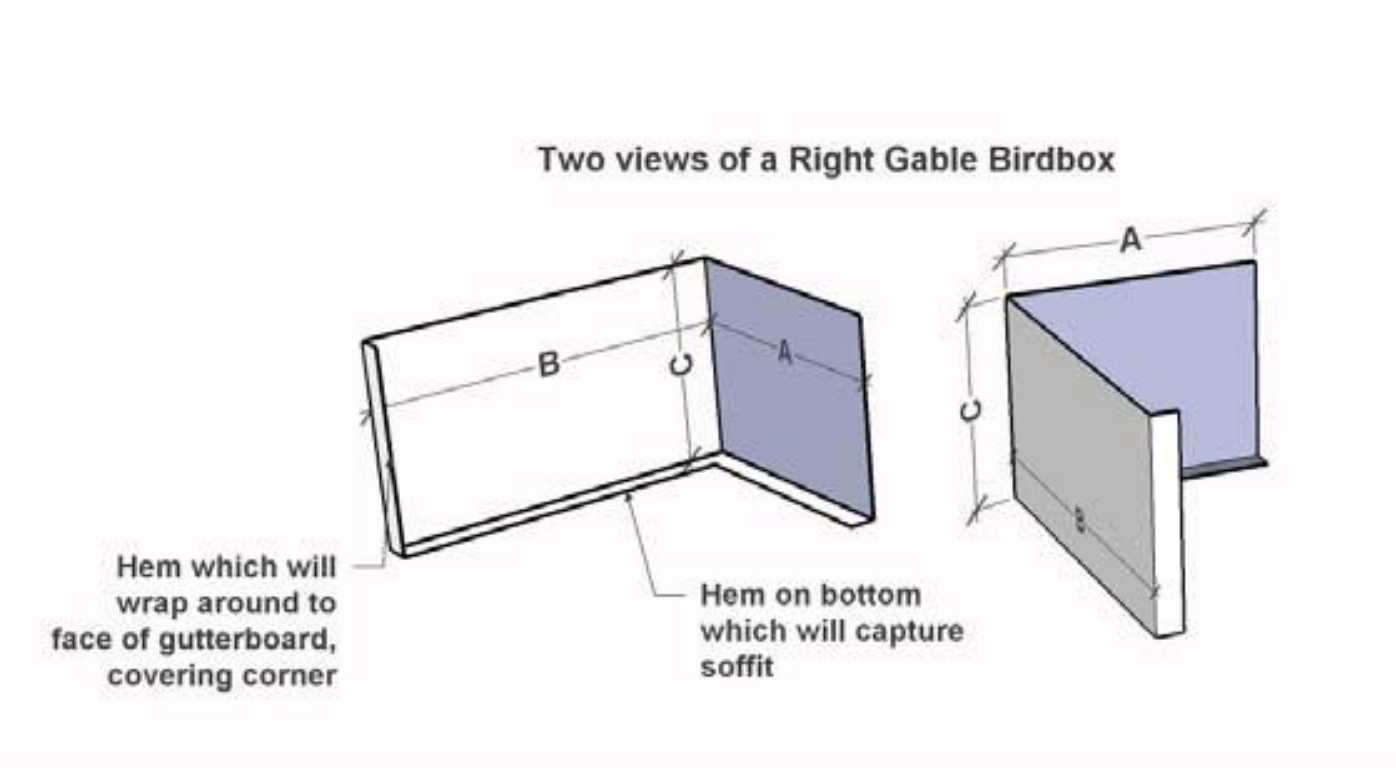
NOTE: Pay careful attention to the layout - Pork chop for Right and Left gable ends are **NOT** interchangeable.

Use a framing square to form the A_B bend.

Use a small hand brake to form the lip around the fascia.

The Pork Chop cover, will need to be trimmed to fit when it's installed.

Use 1 WHITE trim nail into the Rake board and 1 nail into the back of the Pork Chop.



Layout, cut and install the last piece of fascia to cover the bottom of the rake board and the pork chop.

Attach with trim nails through the BOTTOM off the lip and 2 or 3 nails at the corner.

TT 2/24/2015