

Chapter 16 - Siding

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Things to Consider

- The siding J-blocks should have been installed during the Rough-in Mechanical phase.
- Plans for upper level access should have been documented in the Fall Protection plan developed in the Pre-Construction meeting.

Safety Issues

- Plan for upper level access in the “Fall Protection Plan”.
- Installing siding while standing on porch or lower roofs requires the use of fall protection gear.
- Inspect ladders, pump jacks, and fall protection gear daily before use.
- Ladders must be positioned securely and tied in, as necessary. Outriggers should be used if a flat surface is not available.
- Do not lean out away from the ladder. Keep your belt buckle inside the ladder.
- For gable end work above porch and lower roofs, harnesses and gable end anchors must be used until the last anchor has to be removed.
- The edges of the aluminum cornice returns and soffits are very sharp. Gloves should always be worn.

Timing & Prerequisites

- This phase of the project cannot begin until the exterior insulation, windows and doors are installed, and the porch framing is complete.
- If any section of siding will be installed above a porch or lower roof, that section cannot be installed until the shingles have been installed.
- The House/Project Lead will work with the Construction Superintendent to coordinate these volunteer activities.

Materials & Tools

Phase Specific Tools Needed
<i>Cornice Returns and Fascia</i>
<ul style="list-style-type: none"> ○ Tin Snips ○ Small Aluminum Break ○ 6” Hand Seam Brake ○ Utility Knives ○ Nail Punch ○ Trim Nail Set
<i>Vinyl</i>
<ul style="list-style-type: none"> ○ Combination Square ○ Guillotine Siding or Flooring Cutter ○ Siding Scissors ○ Snap Lock Punch / Crimping Tool ○ Zip Lock Tool / Unlocking Tool

Cutting Siding/Soffit

Critical Issues

- **Vinyl must be warm when it is cut or it will shatter.**

- Siding cutters and jigs can be used to improve speed and accuracy when cutting siding and soffits. Tools for cutting siding include:
 - a guillotine siding/flooring cutter. This cutter has been designed for cutting flooring but works very well for cutting 90° cuts. (See Figure 16.2a).
 - a sliding floor saw. This saw is useful for most angle cuts. (See Figure 16.2b).
 - a siding table jig. These jigs must be built on site. (See Figure 16.3a & 16.3b). When using a siding jig, install a fine-tooth blade with the teeth reversed into a circular saw. Mark this saw “*siding only*”.
 - or free-hand with siding scissors or snips.

Figure 16.2a - Guillotine Cutter



Figure 16.2b – Sliding Flooring Saw



Figure 16.3a – Straight Cut Siding Jig

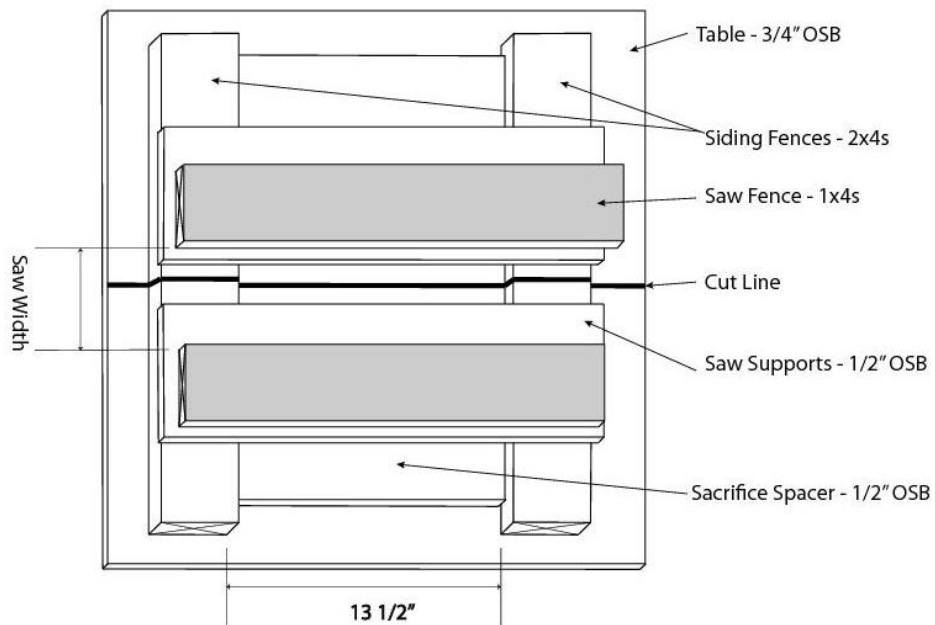
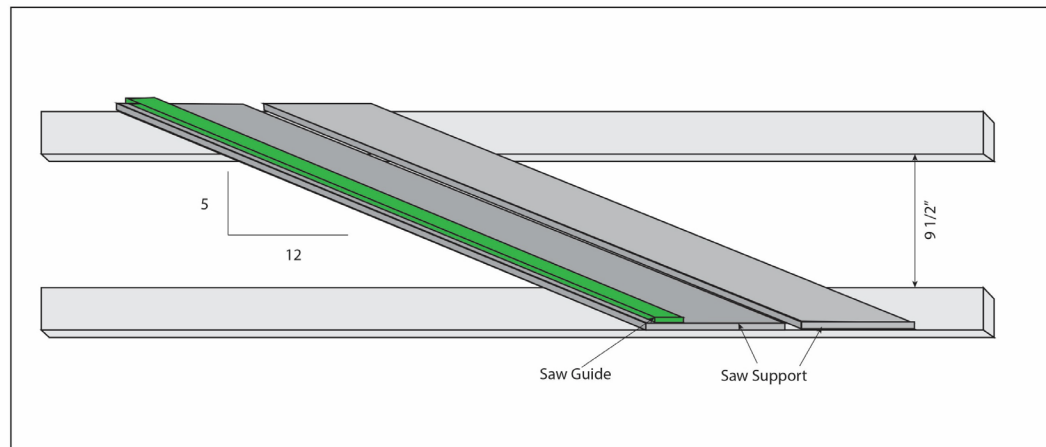


Figure 16.3 – Diagonal Cut Siding Jig



Vinyl Siding Trim Parts



Vinyl siding trim includes.

- F-Channel (figure 16.1a)
 - Holds the edges of the soffit panels. Installed:
 - under the roof truss tails
 - under the gable roof rakes.
- J-Channel (figure 16.1b)
 - Creates siding pockets for the various edges of the siding. Installed:
 - around doors and windows
 - around porch beams where they connect to the house

- around the meter mounting panel
- along the bottom of siding walls over porch decks
- along the bottom edges of siding walls above roof shingles
- along the upper and lower edges of the frieze boards
- under the F-Channel on the roof eaves
- Utility Trim / Finish Trim / P-Channel (figure 16.1c)
 - Used any time the top lock has been removed from the siding, to secure a siding panel. Installed horizontally:
 - below the F-Channel along the eaves
 - below the windows.
- Outside Corner Post (figure 16.1d)
 - Creates siding pockets for the ends of the siding rows where two non-facing walls of siding join vertically.
- Inside Corner Post (figure 16.1e)
 - Creates siding pockets for the ends of the siding rows where two facing walls of siding join vertically.
- Frieze Board (figure 16.1f)
 - Divides two sections of siding, such as, dividing the gable siding from the lower section of the house. Install horizontally:
 - across the bottom of the gables
 - between vertical and horizontal siding; such as between porch shed roof and the outside corner post.
- Starter Strip (figure 16.1g)
 - Used to secure the first course of siding. Installed horizontally along the bottom of the siding; in areas where there are no roofs or decks below.
- Perforated Soffit (figure 16.1h)
 - Covers the underside of the roof trusses and rakes. Installed:
 - under eaves
 - under roof rakes
 - as a porch ceiling.
 - Soffit is designed to be installed lengthwise from wall to fascia.
- Window Trim (figure 16.1i)
 - Wraps around the exterior window frames to give the house a style which fits into the neighborhood.
- Gable Vents (figure 16.j)
 - This trim is decorative only.
 - It is available only on front gables with horizontal Dutch-Lap siding.
- Shutters (figure 16.1k)
 - Habitat no longer will install shutters.

Aluminum Trim

White coil stock aluminum will be cut and bent to be installed as:

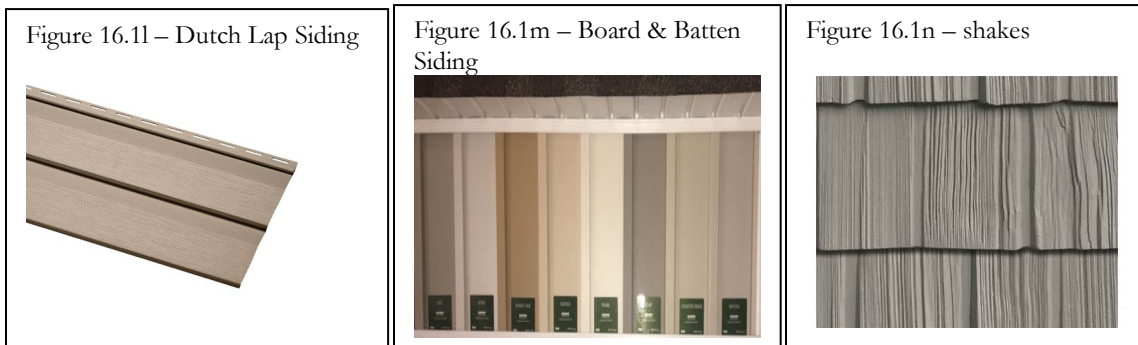
- Fascia – Wrapped over the sub-fascia and cornice returns.
- Cornice Return Covers – Wrapped around the cornice returns.
- Diverter Flashing – Inserted behind an over pieces of siding to divert water at points where lower roofs meet a house wall.
- Z-Flashing – Inserted above door frames and frieze boards to divert water.

- Frieze Board Covers – Wrapped around the frieze boards.

Vinyl Siding

The siding options include:

- Dutch Lap Siding (figure 16.1l)
 - Installed horizontally on walls and gables.
- Shakes (figure 16.1m) (Optional when the prints call for them)
 - Installed on front gables.
- Board & Batten Siding (figure 16.1n) (Optional when the prints call for them)
 - Installed vertically on:
 - front gables.
 - front porch walls.



Additional Materials Needed	
<i>Siding and Soffits</i>	<i>Porch Ceilings</i>
Siding Nails (2 1/2") 1 1/4" Roofing Nails White Aluminum Nails	2 1/2" Decking Screws 2x4s spacers
<i>Frieze Boards</i>	
1x6 SPF 2" Roofing Nails Construction Tape	

Vinyl Siding Installation Techniques

Critical Issues

- All of the nailing should be in the center of the nailing slots and there should be a space of 1/32" (dimes width) between the nail heads and the vinyl nail fin.
- Install siding trim pieces with a nail into the nail fins of the trim every 10".
- Install Dutch-Lap siding with nails through the nail fin into the studs behind.
- Locate the framing using the cap nails used to install the Styrofoam insulation.
- The siding and trim is installed with 2 1/2" siding nails through the Styrofoam insulation; 1/2" OSB; and then into the framing.
- For J-Channel install horizontally with the solid side down, add 3/16" weep holes to J-Channel at a maximum of 24".
- The siding will be installed horizontally (parallel to the top and bottom plates). Vertical siding is only an option for front porches and front gables.

Introduction Videos

The following link is to 9 videos from the Vinyl Siding Institute. These videos should be reviewed prior to starting the siding project.

[Getting Started Video](#)

Organizing Materials

Critical Issues

- The various pieces of trim should be separated and inventoried. Trim should be kept off the floor and out of traffic areas. These pieces are easily damaged.

1. Verify you have all materials needed.
2. Build temporary racks in the storage container or basement to hold materials.
3. Place all aluminum and trim pieces on the racks to protect them from damage. These materials can be easily dented and / or damaged.
4. Stack soffit boxes separately from the siding boxes for easier access.
5. During cold weather, if the siding is not kept in a warm storage area, bring the siding into a warm area ½ hour before cutting it.

Siding Order of Operations

Critical Issues

- Frieze boards must be installed prior to siding.
- Frieze boards cannot be installed until the cornice return covers have been installed.
- The cornice returns must be installed before the soffits.
- Do not install the soffits until the porch framing and fire-rated wall assemblies have been inspected.
- For doors without an overhead porch roof, Z-flashing must be installed over top of the brick molding prior to installing the J-channel.

Main Roof Gables Trim & Siding

Many House Leads prefer to side the gable end trusses before they are installed on the house, but they can be trimmed later as time and resources are available.

- Considerations for prepping gable trusses before setting them:
 - No high ladder work is required.
 - Several more work days will be needed to prep the gable end trusses.
 - Increases the care needed to rig; set and secure the gable end trusses.
- If the gable end truss is being prepped before it is installed, ensure the OSB sheathing extends over the bottom edge of the truss and the Styrofoam insulation extends below the cornice return covers. Staggering the joints will help with air sealing.

- Steps:
 - Cornice return covers
 - F-Channel under the gable eaves
 - Soffits under the gable eaves
 - Soffit joint cover
 - Fascia on gables
 - Frieze board on gables
 - Z-Flashing above frieze board
 - J-Channel under gable rakes
 - J-Channel above frieze board
 - Gable vent (If selected)
 - Gable siding (Dutch-Lap, Board and Batten, or Shakes)

Pump Jacks

If pump jacks are to be used, see setup procedures in section “10-Scaffolding”.

Main Roof Eaves

- Steps:
 - F-channel under the eaves
 - J-Channel under the F-Channel
 - Finish/Utility Trim inside the J-Channel
 - Soffit under the eaves
 - Fascia over the sub-fascia

Siding Layout Lines

- Reference line
- Starter strip reference lines
- Layout lines

Porch Trim

- Steps:
 - F-Channel on the house wall above the door
 - J-Channel under the F-Channel
 - Finish/UtilityTrim under the J-Channel
 - Z-Flashing above doors brick molding
 - J-Channel around the door
 - J-Channel around the beams
 - J-Channel along the porch deck

Wall Trim & Siding

- Steps:
 - Corner Posts (Outside & Inside)
 - Window Trim
 - J-Channel above porch roofs
 - J-Channel around meter mounting board
 - Starter strip
 - Diverter flashing
 - Dutch-Lap siding

Porch Ceilings

- Steps:

- 2x4 blocking
- Soffit panels

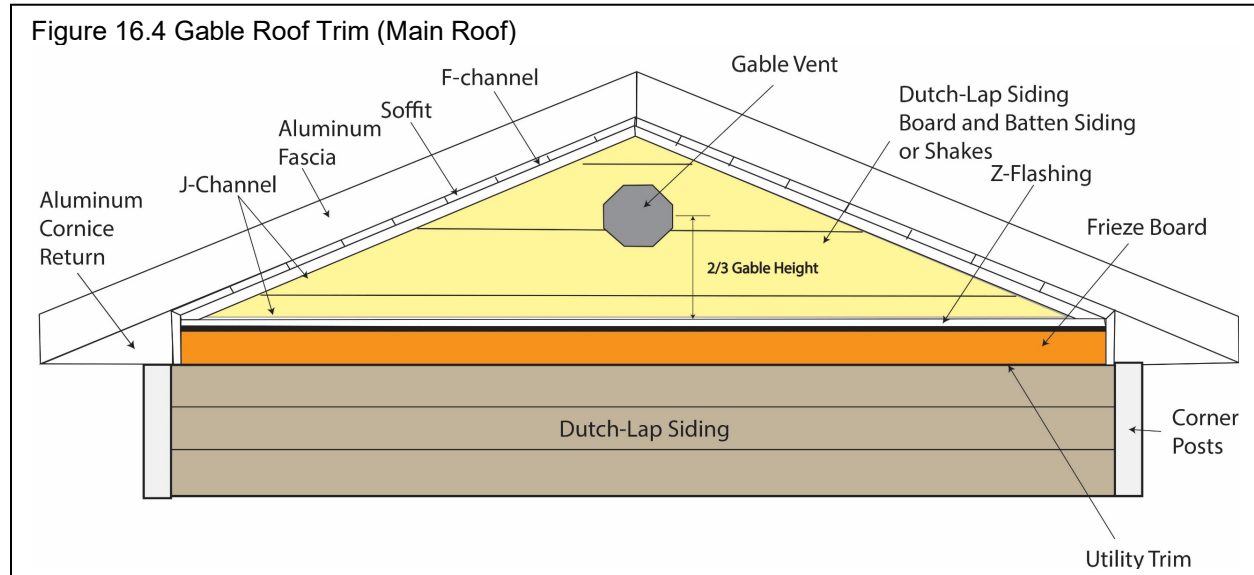
Porch Roof Gables & Eaves

- Steps:
 - F-channel under the eaves
 - J-Channel under the F-Channel
 - Soffit under the eaves
 - Fascia over the sub-fascia
 - J-Channel up the house wall
 - J-Channel above porch beams
 - Dutch-Lap siding

Siding Trim Installation

The siding trim is installed before the siding to create pockets for the edges of the siding to slide into. The following sections describe installing the trim for the main roof gables, the eaves, the porches, and the house walls.

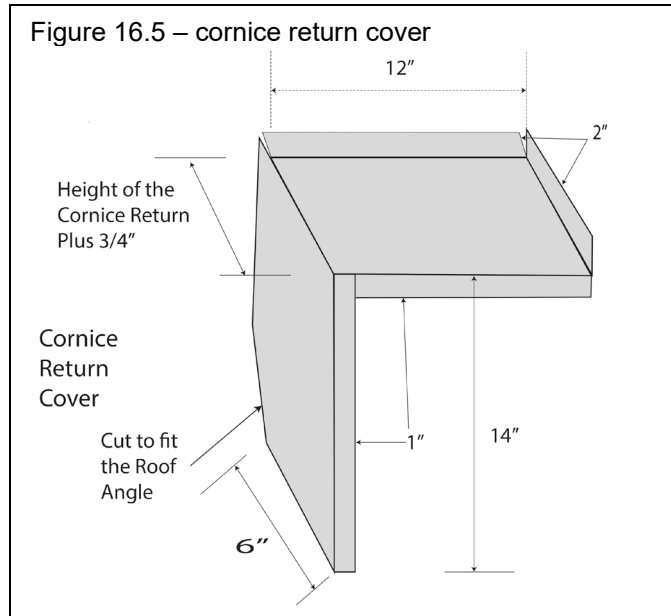
Main Roof Gable Trim & Siding



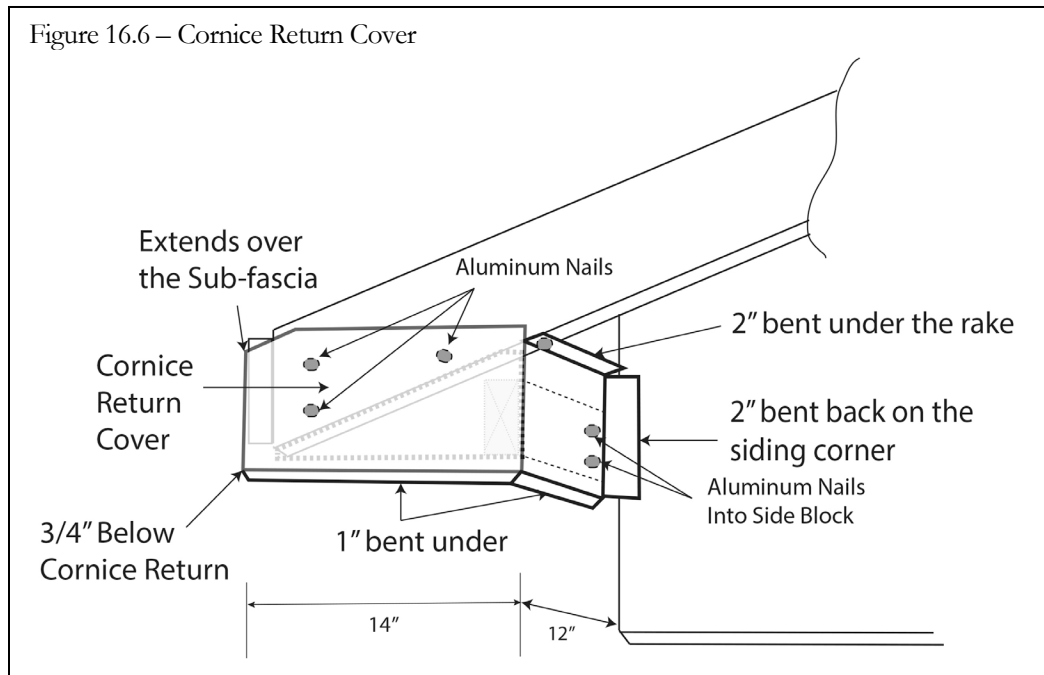
Cornice Return Covers (Bird Boxes)

Cut and bend pieces of white aluminum coil stock to cover the fronts and sides of the cornice returns. (See Figure 16.5).

1. Cut a piece of white aluminum coil stock for each cornice return cover.
2. Bend a 1" lip along the bottom edge.
3. Identify which half of the material will cover the front of the cornice return and which half will fit over the side of the return, then make a cut in the 1" lip at 14" from the end of the front side.
4. Lay the metal over a sharp edge at the 14" mark and bend it at 90° angle. A metal break will make a sharper bend.
5. Slice the top 2" of the 90° bend; then on the side which returns to the house, bend the top 2" of the metal at a slight angle which will fit under the rake.
6. On the outside edge of the front side of the metal, make a mark 6" up from the bottom. Draw a line from the mark at the roof angle. Remove the part above the line. This will allow the cover to fit under the roof.
7. 2" from the end of the metal which runs back to the house, bend a 90° angle. The flap will fit against the house. Remove the 1" bottom bend and the top 2" bend from the flap.

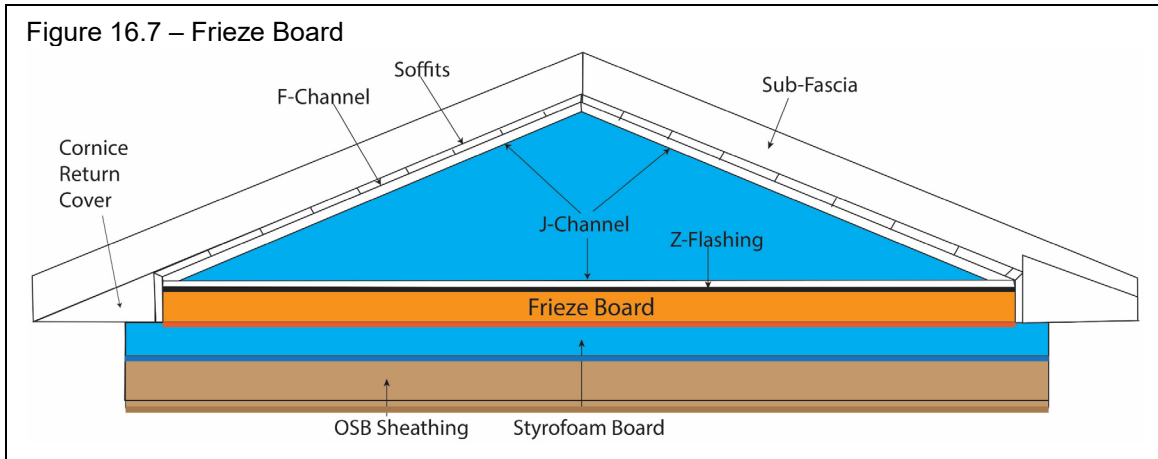


8. Nail the cornice return cover in place with white aluminum nails; 1 through the part under the rake into the bottom edge of the 2x6 rake; 3 in the face into the 2x6 rake; and 2 through the back edge of the side into the 2x4 back brace. Ensure the bottom of the cornice return cover is spaced $\frac{3}{4}$ " below the bottom of the cornice return to allow for the soffit which will be installed later.



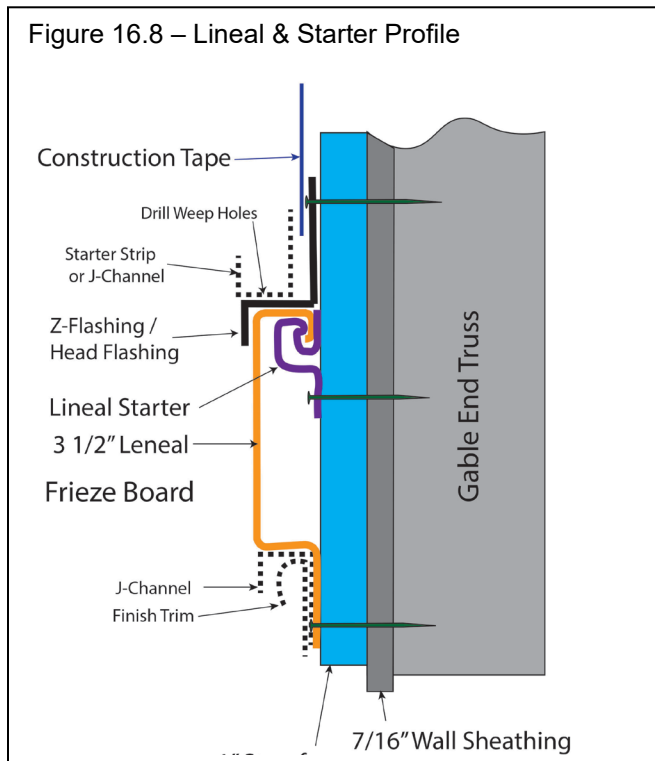
Frieze Board on Gables

- o Frieze boards will be installed on all gables of two-story homes. Frieze boards are installed across the bottom of the gable end trusses, in line with the cornice returns. The top edge of the frieze board should be in line with the top edge of the cornice return. (See Figure 16.7).



Lineal & Starter – Frieze boards on gables will be created with 3 ½” lineal vinyl. Install pieces of 3 ½” vinyl lineal & starter between the cornice returns. (See Figure 16.8).

1. Snap a chalk line across the bottom of the gable, even with the top of the cornice returns.
2. Cut pieces of lineal starter to fit between the cornice returns. Leave the pieces short by ¼” for expansion. Install them just below the chalk line. When the lineal is snapped into the starter, it should be flush to the chalk line.
3. Cut pieces of 3 ½” vinyl lineal long enough to cover the areas between the cornice returns. Leave the pieces short by ¼” for expansion.
4. Snap the lineal into the starter; then insert 2 ½” siding nails through the nail fin of the lineal.



F-Channel under Gable Rakes

F-channel will be installed under the gable rakes of the house's main roof.

1. Using a framing square, make marks on the Styrofoam insulation even with the bottom of the sub-fascia at the bottom and top of the gable. Snap a chalk line between the marks.
2. Measure down perpendicular to the line the width of the F-channel and make a second set of marks. Snap another chalk line with the new marks.
3. Install strips of F channel with the nail fin pointed down and with the bottom edge flush to the bottom chalk line.
4. The F-channel will run from the side of the cornice return cover to the peak. Cut the bottom edge of the bottom piece at an angle to fit even with the side of the cornice return. At the ridge, plumb cut the top edge of the top piece.
5. Install the F-Channel with the nail fin pointing down.
6. If more than 1 strip of F-channel is required; leave ¼" between the nail fins for expansion.

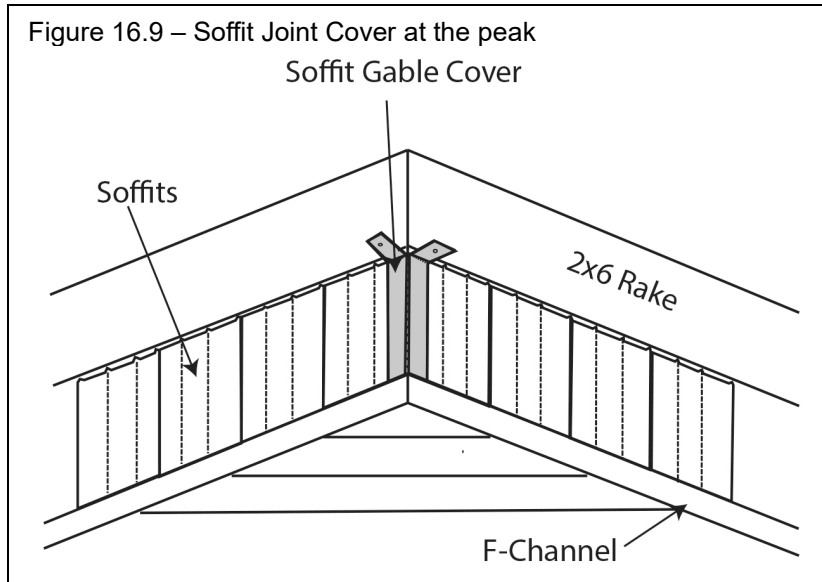
Soffits under Gable Eaves

- 12" perforated soffit panels will be installed under the eaves of the main roof. The panels are installed with the nail flange perpendicular to the house.
- The inside edge of the soffits will fit into the F-channel installed above and the outside edge will be nailed to the sub-fascia. White aluminum fascia will be added to cover the outside edge.
- Install the soffit panels by locking them into the previous piece; pull the panel so the pieces are locked tight; then insert one (1) 1 ¼" roofing nail through the nail fin into the sub-fascia.
- If additional nails are required to hold the pieces, the nails should be installed so nail heads will be covered by the aluminum fascia and will not be visible.

Gable Soffit Joint Cover

Cover the area where the soffit panels meet at the top of the rake by fabricating the soffit joint cover. (See figure 16.9)

1. Cut a piece of white aluminum 3" wide by 15" long.
2. Fold the aluminum lengthwise at a 90° angle.
3. Cut the fold at one end to create flaps.
4. Insert the not-cut end into the F-channel between the soffit panels and the F-channel.
5. Fold the flaps over the front of the sub-fascia holding the soffit tight to the sub-fascia.
6. Nail the cover in place with 1 ¼" roofing nails; 1 nail through each flap.



Fascia on Gable Rakes

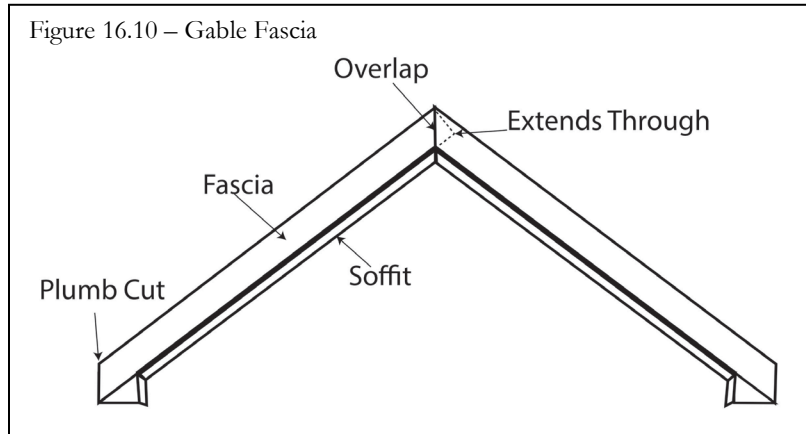
Critical Issues

- Extreme care must be taken not to bend the panels. Two sets of hands should always be used.
- The white aluminum nails used to install the fascia bend very easily. Care must be taken to drive them straight and not to dent the fascia.

Cover Gable Ends Sub-Fascia with Aluminum

1. Cover the sub-fascia boards with “L” shaped aluminum.
2. Begin at the lowest point and work up; overlapping the pieces from bottom up to prevent water from running under the panels.
3. Using tin snips, cut the bottom end of the first piece at an angle to allow it to sit flush with the vertical edge of the cornice return.
4. Mark the bottom edge of the fascia at the point where it will intersect the inside edge of the cornice return cover. Snip the bottom edge at that point. Remove the ½” seam from the portion of the bottom edge which fits over the cornice return. Bend over the remaining ½” of the bottom edge to form a new seam fitting over the cornice return.
5. Pre-drill a 1/16” hole in the bottom edge of the fascia every 24”.
6. Position the aluminum fascia on the sub-fascia and push it up under the drip edge.
7. Nail through the holes in the bottom edge using white aluminum nails. Do not nail tight to prevent rippling.
8. The upper panel should overlap the lower panel by 1”.

9. To overlap the panels at the ridge, cut the first piece to extend to the drip edge on the other side of the roof. Cut off enough of the bottom lip to allow the panel to overlay the sub-fascia of the other side of the roof.
10. On the other side, plumb cut the panel down from the peak, overlaying the first piece. Nail through the top edge of the second panel with two (2) white aluminum nails.



J-Channel on Main Roof Gables

Install J-Channel around the perimeter of the area to be covered with siding.

- Install J-Channel over the top of the Frieze Board to hold the bottom edges of the gable siding.
- Install J-Channel under the F-Channel to hold the top edges of the gable siding. (See Figure 16.4).

Gable Vent (If Specified)

Critical Issues

- **The gable vent is decorative only. Do not cut the Styrofoam insulation behind the vent.**
- **A gable vent can only be installed on gables with horizontal Dutch-Lap siding.**

1. If the Home Owner's Selection sheet specifies a gable vent, install the gable vent on the front gable truss. The front elevation in the prints should show the position. (See figure 16.4).
2. The vent should be positioned in the upper 1/3 of the gable.
3. Locate the placement of the gable vent by:
 - At the midpoint of the frieze board draw a vertical line; extending from the frieze board to the peak of the gable.
 - The center of the gable vent will be at the 1/3 point from the peak along this line.
 - Draw a 24" horizontal line through the center point.

- Install the gable vent over the center point using the intersecting lines to center the vent. Align the center point of each nail fin to the lines, then install the vent with 2 ½” siding nails; 2 per nail fin.

Eaves

On the house main roof, the soffit and fascia will be installed on the eaves from the front to the back cornice returns. On the porch roof, the soffit and fascia will be installed along the sides and front beams.

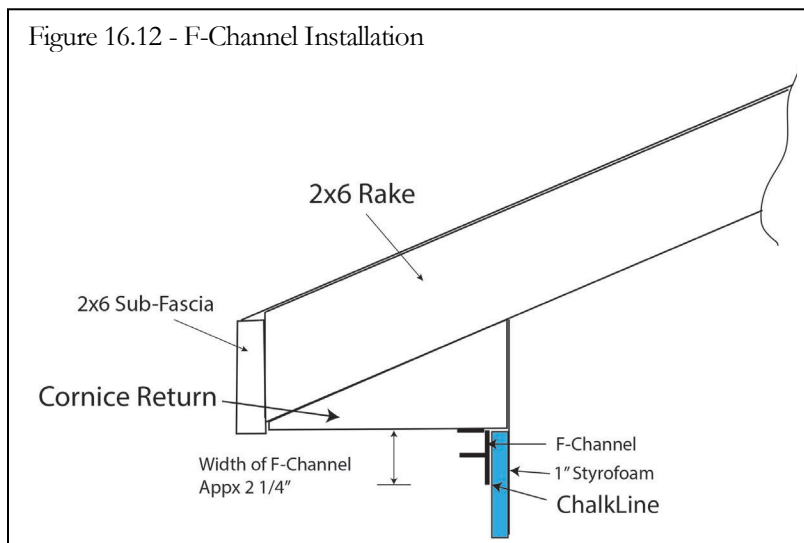
Figure 16.11 – Soffit panels



F-Channel Under the Eaves

- F-channel will be installed horizontally under the eaves of the main roof and porch roof.

Figure 16.12 - F-Channel Installation



Install F-channel under Eaves

- Measure down from the bottom edge of both the front and back cornice returns the width of the F-channel and make a mark. Snap a chalk line

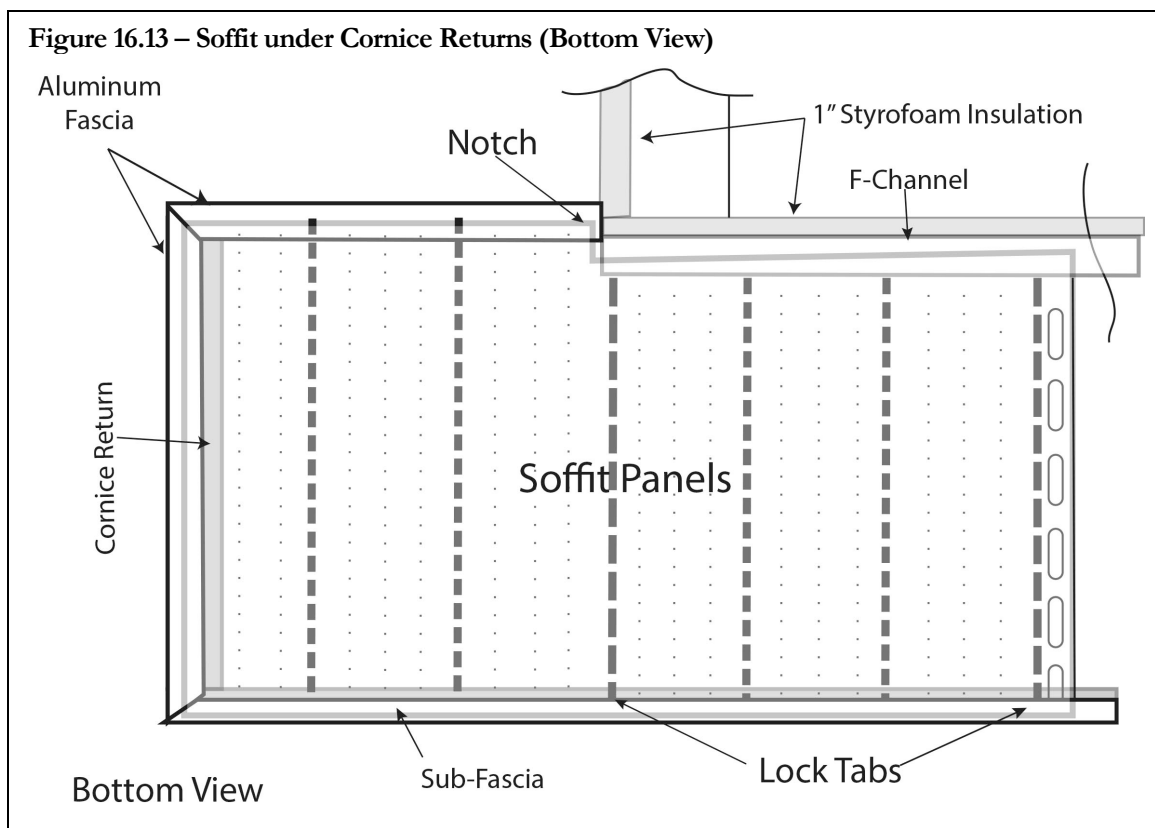
between the two points on the Styrofoam insulation. Hold the line tight to ensure the line is straight. (See figure 16.12).

- Install strips of F-channel with the nail fin pointed down and with the bottom edge flush to the chalk line. The F-channel runs from one end of the house to the other and is cut flush to the Styrofoam insulation at each end.
- If more than one strip of F-channel is required to span the house, leave a $\frac{1}{4}$ " gap between the nail fins.

Soffits

Install Soffit Panels under the Eaves

- 12" wide perforated soffit panels will be installed under the eaves of the main roof and porch roofs. The panels are installed with the nail flange perpendicular to the house or porch beam.
- The inside edge of the soffits will fit into the F-channel installed above and the outside edge will be nailed to the sub-fascia. White aluminum fascia will be added later to cover the outside edge.
- Install the soffit panels by locking them into the previous piece; pull the panel so the pieces are locked tight; then insert one (1) $1 \frac{1}{4}$ " roofing nail through the nail fin into the sub-fascia.
- Cut the panels $\frac{1}{4}$ " short to allow for expansion. The length will not be consistent over the entire length of the eave. Cut 2 or 3 panels and then re-measure.
- The first and last panels will need to be cut with a notch to cover the area under the cornice return. (See Figure 16.13).
- The end pieces should slide into the bottom of the cornice return cover. If the cover has not been installed yet, install nails along the edge ensuring the fascia will cover them later.
- For eaves covered with DensGlass, ensure the DensGlass does not extend below the sub-fascia. The soffits must fit snugly to the bottom of the sub-fascia.



Fascia

Cover Sub-Fascia with Aluminum Fascia

Cover the sub-fascia with “L” shaped aluminum, wrapping 1” around the ends. Tuck the 1” bend under the aluminum cornice return cover, then nail the cornice return cover to the sub-fascia with 2 white aluminum nails.

1. Bend the first and last piece to fit over the end of the sub-fascia by 1”
 - Using tin snips, cut off the first 1” of the bottom lip of the L-shaped aluminum.
 - Using a hand brake, bend the first inch of the panel into a 90° angle back away from the front.
2. Predrill a 1/16” hole in the bottom edge of the fascia every 24”.
3. Position the aluminum fascia on the sub-fascia and push it up under the drip edge and under the cornice return cover.
4. Bring the lip up against the soffit. Use light pressure. The bottom edge of the panel must stay straight to keep it from rippling.
5. Secure the fascia using white aluminum nails through each hole. Do not nail the fascia type to prevent rippling.

Porches

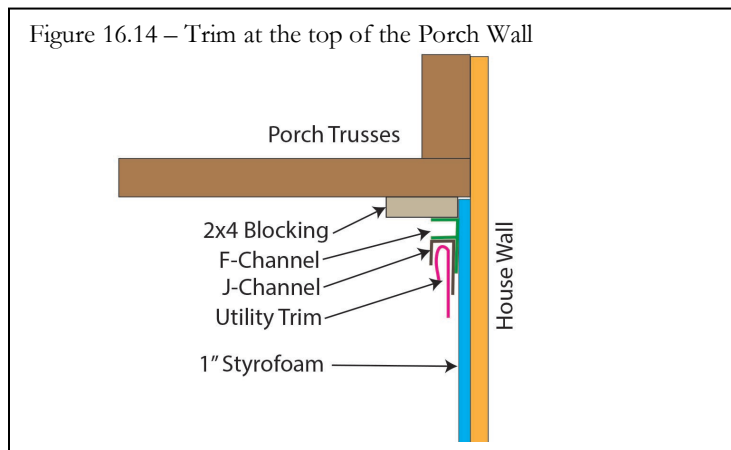
The porch trim is divided into two sections: the trim on the house wall and the porch ceilings. The porch ceiling cannot be completed until the porch framing has been inspected; therefore, it is likely the porch wall will be covered first.

The siding on the porch wall may either be Dutch-Lap, or Board and Batten.

Porch Wall

Install F-Channel along the top of the porch wall just below the trusses.

- Pieces of F-Channel will be installed just below the trusses to hold the ceiling which will be installed later. This trim defines the top of the siding.
- 2x4 nailers will be added below the trusses to hold the soffit panels; therefore, the F-channel must be held down from the bottom of the trusses by 1 ½".
 1. Cut pieces of F-Channel to fit the width of the porch. The pieces should fit between the beams. Leave ¼" gap on each side for expansion.
 2. Using a 2x4 block up against the bottom of the porch roof trusses, space the F-Channel down 1 ½" and secure it to the wall with 2 ½" siding nails; 1 nail every 10". The F-Channel will be installed with the nail fin pointing down.

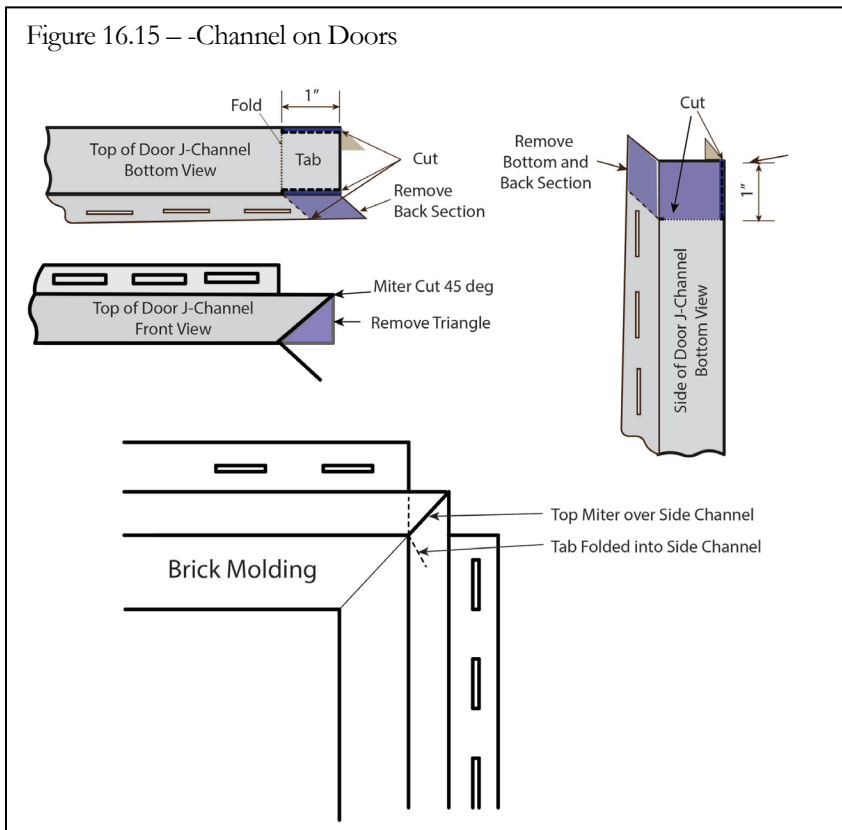


J-Channel

Install J-Channel around the exterior doors

- Ensure the brick-molding has been painted prior to installing the J-channel.
 1. Cut the J-channel for the sides longer than the height of the door brick-molding by 7/8". The pieces will extend above the brick-molding by the width of the J-channel (1") and must be held off the floor by 1/8".
 2. Cut and remove the top 1" from the back and bottom sides of the channel. The cut line for the notch must be even with the top of the brick-molding. (See Figure 16.15)

3. Hold the notches even with the top of the brick-molding and nail in place with 2 ½" siding nails every 8" to 10". Do not nail tight except the top nail will be nailed tight to hold the J-channel in place.

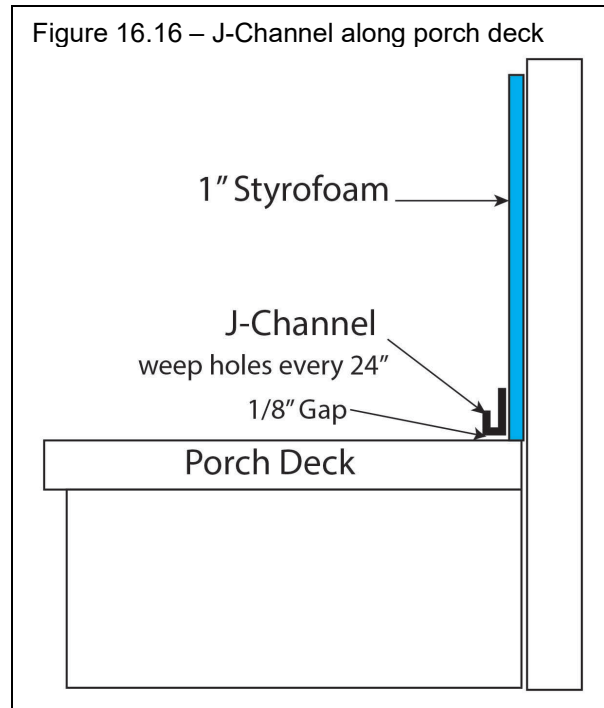


4. Cut the top piece of J-channel longer than the width of the door by 2 times the width of a J-channel. It must extend to the outside edges of the side J-channel installed above.
5. Cut a tab on the "bottom" of the channel on both ends. This tab should be the length of the overhang. Leave the tab attached. Do not remove the material.
6. Miter cut the front flange on both ends to 45°. (See Figure 16.15)
7. Set the J-channel into place with the 45° miter extending over the side J-channel.
8. Bend the tabs down on both ends over the J-channels on the sides and nail the top J-Channel in place.

Install J-Channel for walls along porch decks

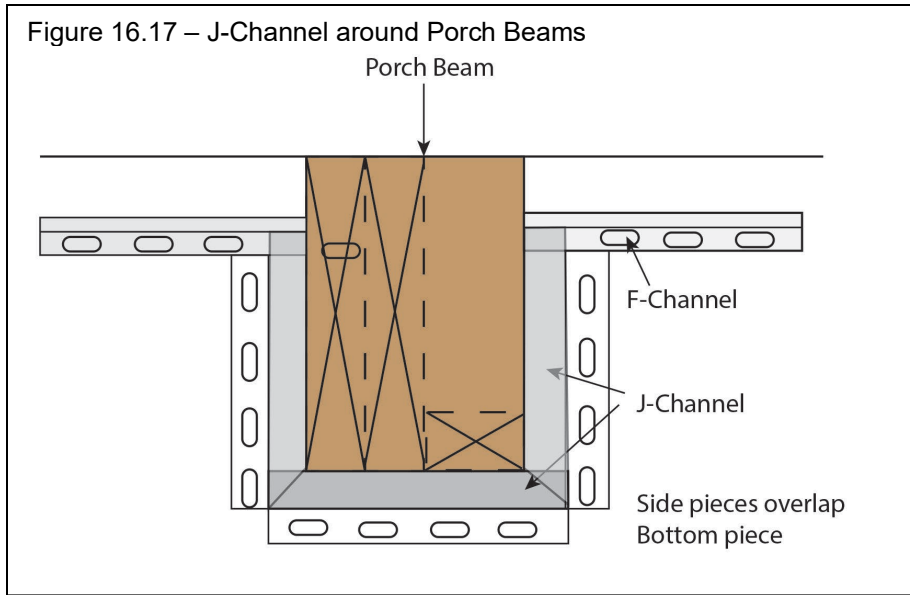
- Install J-Channel along the edges where the porch deck meets the house wall. Run the J-Channel up the sides and across the top of the deck.
- Hold the J-channel off the concrete floor by 1/8".

- Drill holes into the bottom of the J-Channel at a minimum of 24”.
- Leave a ¼” gap where the J-channel meets the corner posts and the door J-channel.
- If the porch does not extend to the corner of the house, miter cut the J-Channel to fit over the J-Channel running up the sides of the porch similar to the J-Channel around the door. (See Figure 16.15).
- Cut scrap pieces of utility trim or the nail flange to fit into the horizontal J-channel. This will sit behind the siding to keep it from rattling.

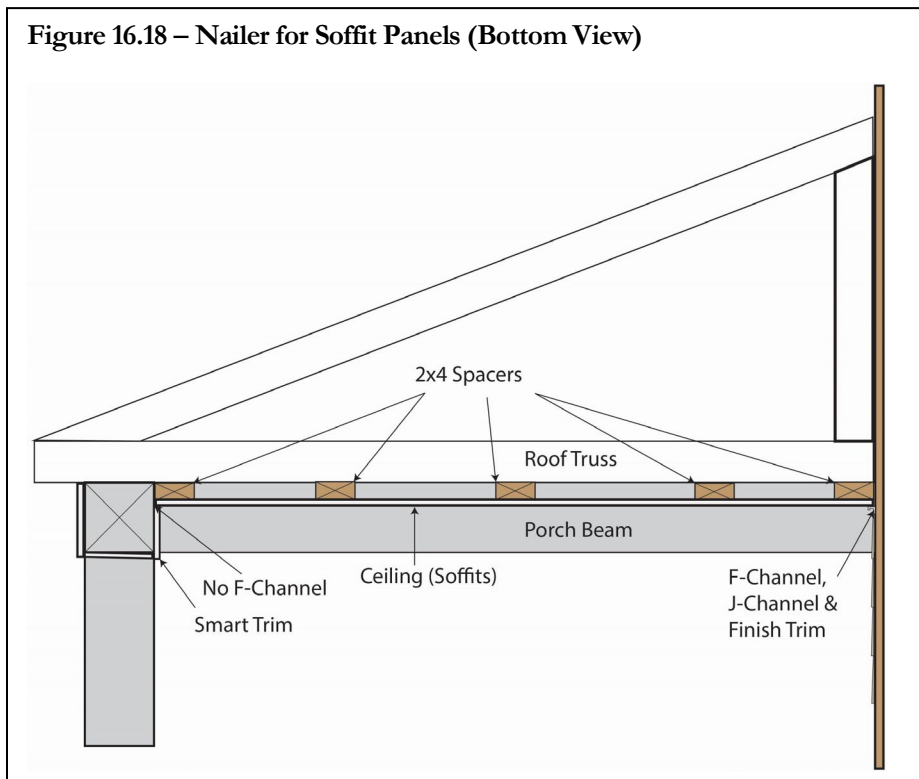


Install J-Channel under the F-Channel and around the Porch Beams.

- Install the J-channel around the beam before the Smart Trim on the beams.
- Wrap the porch beams with pieces of J-channel. Cut pieces to run down the inside face, across the bottom, and up the outside.
- Interlock the ends similarly to installing J-channel around doors and nail in place. (See Figure 16.15).



Porch Ceiling



Install 2x4 spacers

- Install 2x4 spacers to the bottom of the porch roof trusses. (See Figure 16.18).

- For porches with trusses which run perpendicular to the house, install the spacers across the bottom of the trusses using 2 ½” wood screws, 1 through the spacer into each truss above.
- For porches with the trusses running parallel to the house, install the spacers along the bottoms of the trusses.

Install soffit panels under the Porch Roof

- Cut the soffit panels to fit the width of the porch ceiling. Cut the panels ½” shorter to allow for expansion.
- Insert the soffit panels into the F-channel on the house and then raise and hold the panels to the spacers.
- Nail the soffit panels into the spacers using 1 ¼” roofing nails; 1 per intersection.
- Lock the panels together using the previous panel’s lock tab.

Trim for Porch Gables

Critical Issues

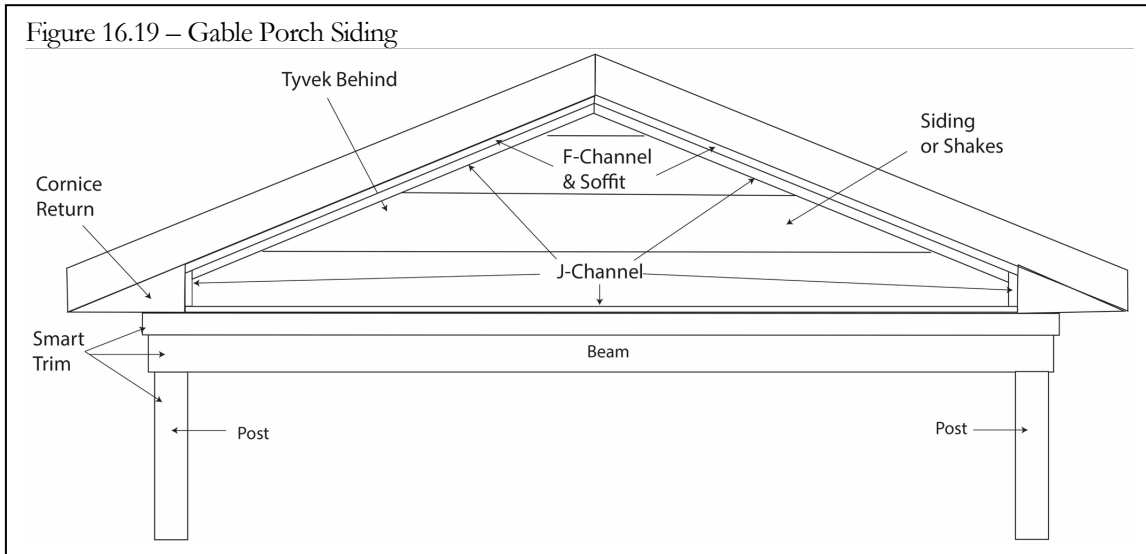
- **The trim on porch gables should not be installed until the Smart Trim has been installed.**
- **Ensure the Tyvek wrap has been installed on the gable ends before installing the trim.**

The trim required for the porch gables will vary upon the type of porch gable. Types of porch gables are:

- Gabled
- shed with rakes
- shed without rakes.

Gable Porch Roofs

Gable roof porches are porches which have full gable trusses which sit parallel to the front or back of the house. (See Figure 16.19).

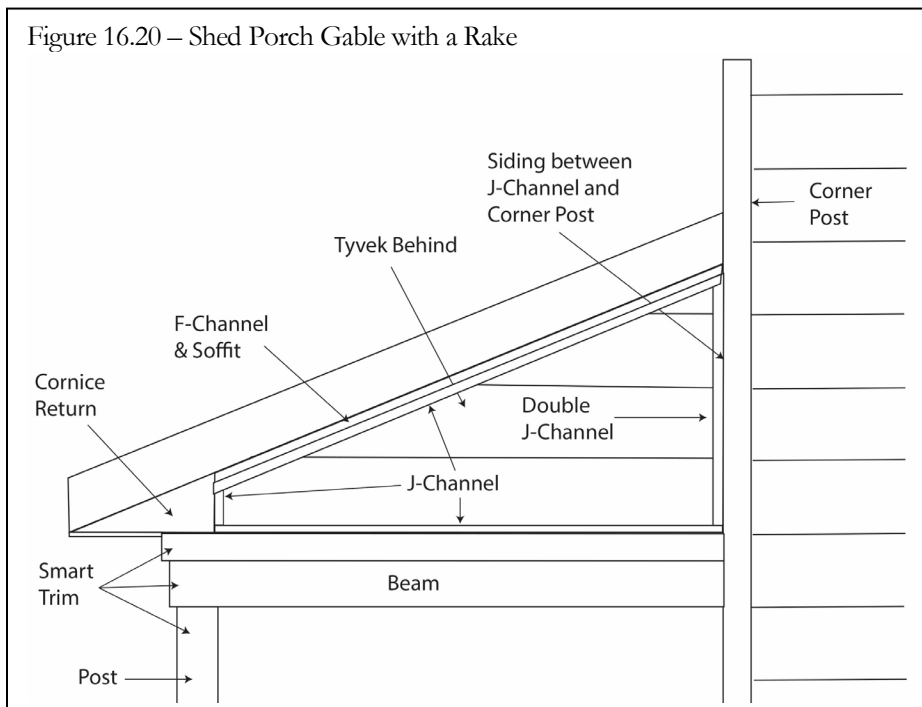


Install J-channel on the gable of a gable porch roof

Cut pieces of J-channel to fit above the Smart Trim on the beam, along the sides of the cornice returns and up the eaves. Install the vertical pieces first and fit the horizontal and diagonal pieces to the verticals. (See Figure 16.19).

Shed Porch Roofs with a Rake

Shed roof porches with rakes are porches with roofs which slope away from the house and have rakes extending from the sides. (See Figure 16.20).

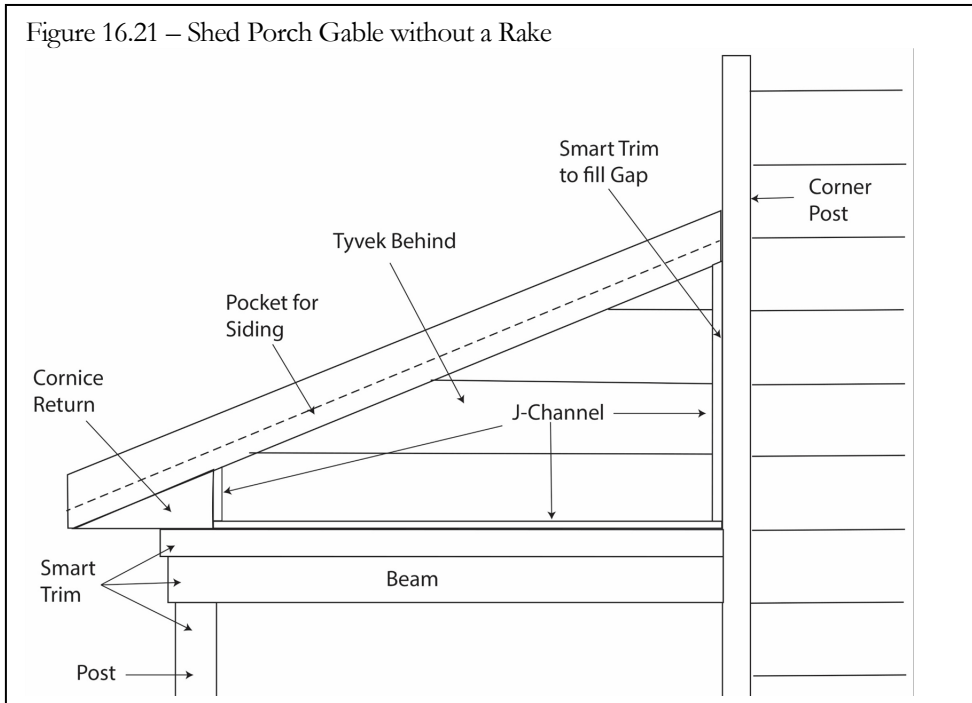


Install J-channel on the gable of a shed porch roof with a rake

- Cut pieces of J-channel to fit above the Smart Trim on the beam, under the F-channel under the eave, and up the side of the cornice return. (See Figure 16.20).
- Add a pair of J-channels up the seam between the gable and the house siding. One channel will face the siding on the house and one channel will face the siding on the gable.

Shed Porch Roofs with no Rake

Shed roof porches without rakes are porches with roofs which sloped away from the house and have a siding pocket instead of a rake. (See Figure 16.21).



Install J-channel on the gable of a shed porch roof without a rake

- Install pieces of J-channel above the Smart Trim on the beam and up the side of the cornice return. (See Figure 16.21).

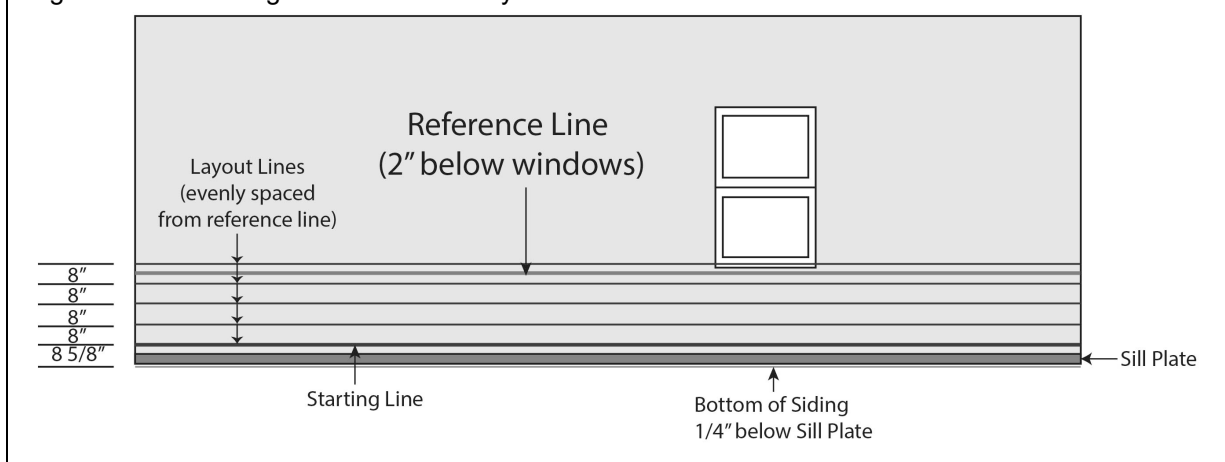
Siding Layout

Critical Issues

- It is important the siding be even on all sides of the house.

- For less experienced volunteers, using siding layout lines will help keep the siding straight and level around corners. (See Figure 16.28)
- Siding layout lines run horizontally around the house indicating where the tops of the siding should be installed. Lines should be made above the location for every or every other row of siding.

Figure 16.28 – Siding Reference and Layout Lines



Critical Issues

- Creating a level horizontal line around the entire house before starting will provide a good starting point for the siding.
- Create the starting line and reference lines before installing the corner posts. This will make it easier to continue the lines evenly around the corners. Chalk lines must be pulled very tight to create a straight line. Installing nails at one end of the house allows for pulling the string tight.
- When snapping the chalk line, only raise the chalk line 1" above the Styrofoam insulation. Pulling too far creates slack in the line resulting in a curvy line.
- Red chalk lines work best as the blue chalk is difficult to see on the blue Styrofoam.

Reference Line

- Siding layout lines are created at set intervals above the starter strip, but some areas such as porches, do not have starter strip. A uniform reference point entirely around the house can be created with a single level and contiguous reference line just below the first-floor windows.
- The reference line can be created by either:
 - Measuring a uniform distance up from the bottom of the sill plate, or
 - Measuring a uniform distance down from the soffits. On two-story houses this is not as easy.
- The reference line should be verified to be accurate by:
 - Measuring the line to be level with a long level,
 - Measuring its distances below the windows. Most windows are installed very close to the same height.

Starter Strip Reference Line

- Getting the starter strip straight is an important step in ensuring the siding will be installed straight.
 - The starter strip will extend below the sill plate by $\frac{1}{4}$ "; therefore, the top of the starter strip should be above the sill plate by the width of the starter strip minus $\frac{1}{4}$ ".
 - Create a reference line for the top of the starter strip using one of the following methods:
 - **No Reference Line:** at each corner, measure up from the bottom of the sill plate the distance calculated for the top of the starter strip, then snap a chalk line across each wall using these marks. For corners without a sill plate below, no starter strip reference line is needed.
 - **With Reference Line:** at each corner, measure down from the reference line a distance calculated as:
 - the distance between the reference line and the bottom of the sill plate
 - minus the width of the starter strip
 - Plus $\frac{1}{4}$.
- Snap chalk lines across each wall at these points.

Siding Layout Lines

- The siding layout lines indicate the height of the tops of the siding nail fin. (See Figure 16.23).
- The interval between the siding layout lines will vary depending on the experience of the siding crew. Rookies may need a line for each row of siding; more experience crews may only need lines every other or every third row.
- The intervals above the first row will be a multiple of the siding reveal. Habitat siding comes with an 8" reveal.
- Ensure the siding layout lines are parallel to the reference line.
- When making the layout lines, keep the chalk line taut. Installing an 8d common nail at one end of the wall to hold the line will allow the line to be pulled tighter.

First Row Layout Line

- Create a reference line for the top of the first row of siding.
- Measure up from the bottom of the starter strip the height of the siding including the siding nail fin to locate the height of the siding layout reference line. Figure 16.23 shows the height of the first row as $8 \frac{5}{8}$ ". Measure the siding to get an exact height.

House Wall Trim

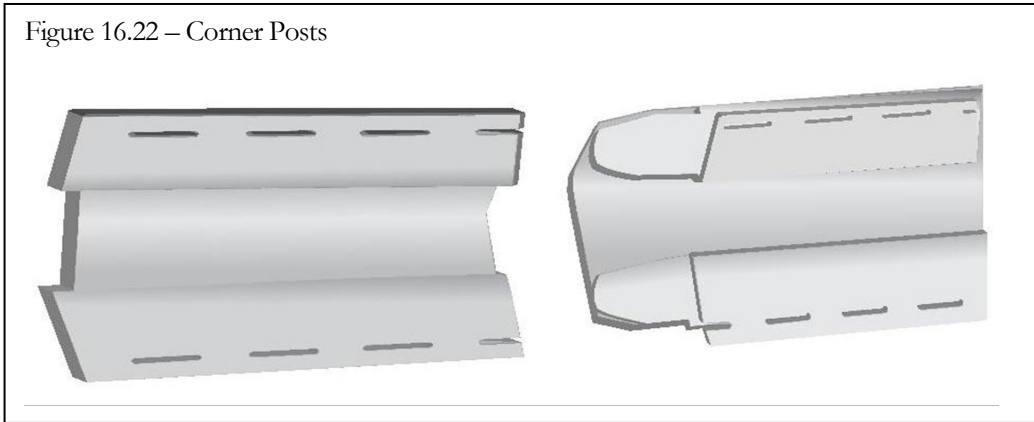
- Before installing the siding corner posts, create the “Reference Line” for the siding. Extending the “Reference Line” around the corners of the house without the corner post will allow the line to be continuous.

Outside / Inside Corner Posts

Critical Issues

- Siding corners should be installed using chalk lines to keep them straight.

Figure 16.22 – Corner Posts



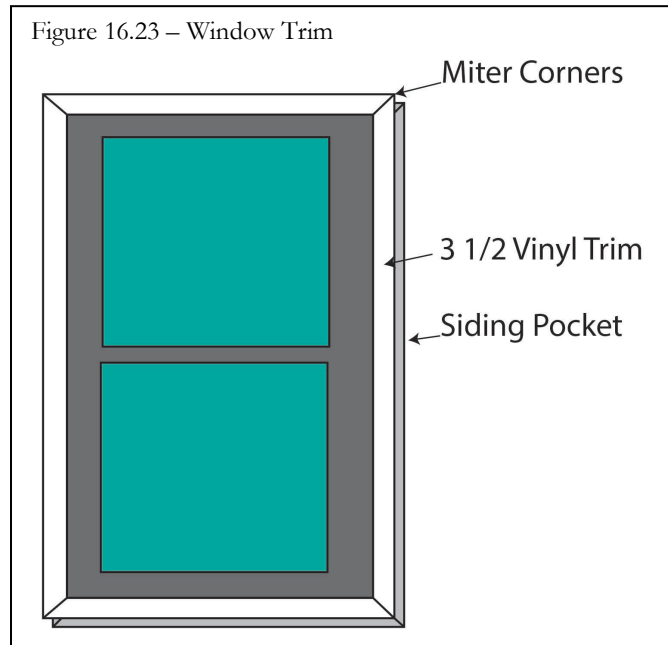
Install Outside / Inside Corner Posts

1. The bottom of the corner posts should extend $\frac{3}{4}$ " below the bottom of the sill.
2. The top of the corner posts should end $\frac{1}{4}$ " below the soffit.
3. To help align the corner posts, make a mark on the Styrofoam insulation at the sill and one below the soffit, 3" in from the corner of the house. It may be difficult to identify where the exact corner is; therefore, you will need to extend the plane of the opposite wall edge using a straight edge and measure in from the straight edge. Mark both faces of the corner. Snap a chalk line vertically between the 2 points on the same face. Repeat for the other face.
4. Position the nail flange of the corner along the chalk lines. Nail the corner into place starting at the top of the nail flange.
 - Nail the top nail in tight.
 - Nail every 8" to 10".
 - Do not nail the rest of the nails tightly.
5. Ensure the vinyl corners are square by using a combination square on the corners as they are nailed.
6. If more than one corner post is needed, the upper post overlaps the bottom post. (See figure 16.22).
 - Cut off 1" of the nailing flanges.

- Overlap $\frac{3}{4}$ ".
7. Trim the nail flange from the bottom 1" of the corners which extend below the starter strip.

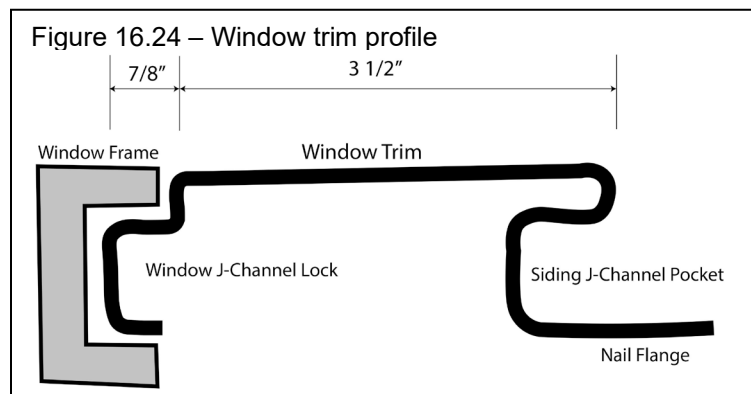
Window Trim

- Install 3 $\frac{1}{2}$ " vinyl window trim around the window frames.
- Ensure the window nail flanges have been taped before installing the window trim.
- Miter the ends of the trim so the built in J-Channel is continuous. Joints should be mitered so the piece above is mitered and lays over the straight cut piece below.



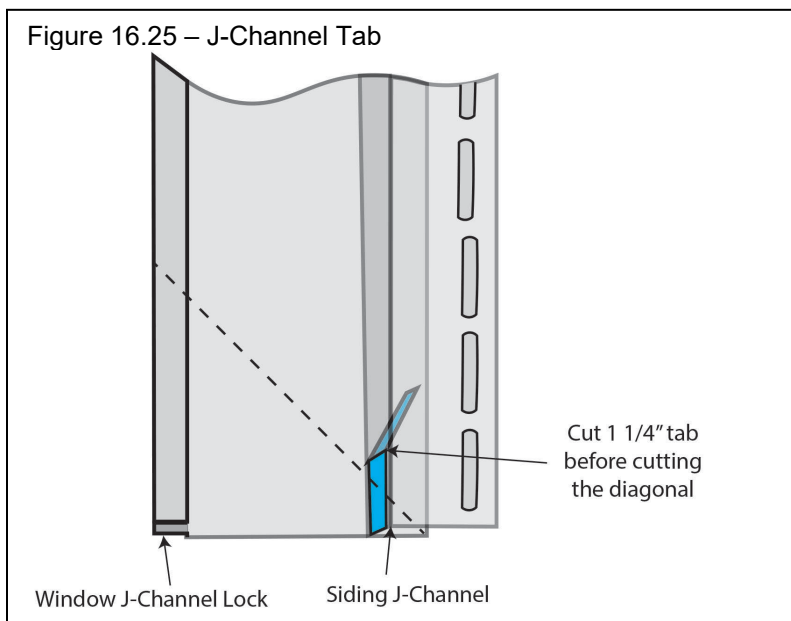
Window Trim Profile (See Figure 16.24).

- On one side of the window trim is a bump out which slides into the J-Channel on the window frame to lock the trim in place.
- On the other side of the trim is a standard J-Channel which will cover the ends of the siding panels.
- The face of the profile is 3 $\frac{1}{2}$ ".



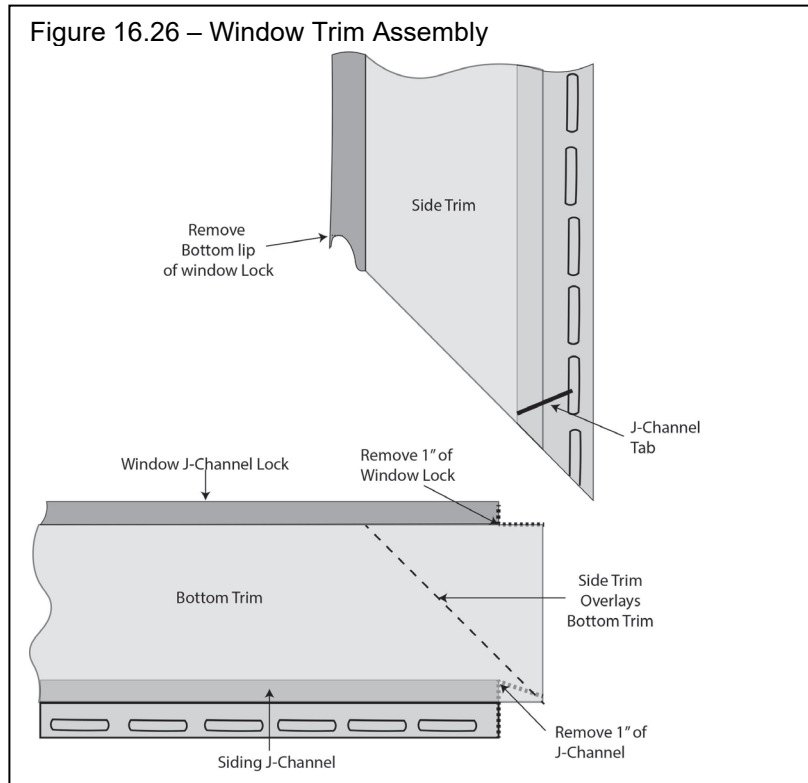
Installing the Window Trim

- To provide the proper overlaps, the bottom piece will be installed first, then the sides, and finally the top.
- At each corner, one piece will be cut at a 90-degree angle and one piece at a 45 degree angle. Cut the pieces so the piece above overlays the piece below.
- The pieces are cut as:
 - The bottom piece will be 42 ½” long with straight ends.
 - The side pieces for a 5-2 x 3-0 window will be 68 ½” long with a straight cut on top and a diagonal cut at the bottom. Side pieces for a 3-0 x 3-0 window will be 42 ½”.
 - The top piece will be 42 ½” long with diagonal cuts on both ends.
- Diagonal ends
 - Before making the diagonal cut, snip a 1 ¼” tab into the back of the window trim J-Channel and bend it out towards the nail flange. This tab will be used to lock the pieces together at the corners. (See Figure 16.25). The tab must be cut deep enough into the J-Channel and bent up enough, so it is not cut off when the diagonal cut is made.
 - Make the diagonal cut across the face of the window trim using a miter saw. Slowly lower the blade so it does not chip the edges.
 - Square off the cut through the window lock. The side and bottom of the bump which locks into the window frame must be squared off to allow the intersecting J-Channel to pass through.



- Straight ends. (See Figure 16.26).
 - Remove 1” of the J-channel to allow the J-Channel tab cut in the adjacent piece to lock over into this piece.

- Remove 1" of the window lock to allow the J-Channel of the adjacent piece to pass through.



- Ensure the trim fits tightly to the window frame
- Lock the trim into the window J-Channel, then insert siding nails through the nail flange; 1 nail every 10".
- Install the pieces from bottom up.
- Lock the pieces together by bending the J-Channel tabs over into the adjacent piece.

Install J-Channel around the Meter Mount Block

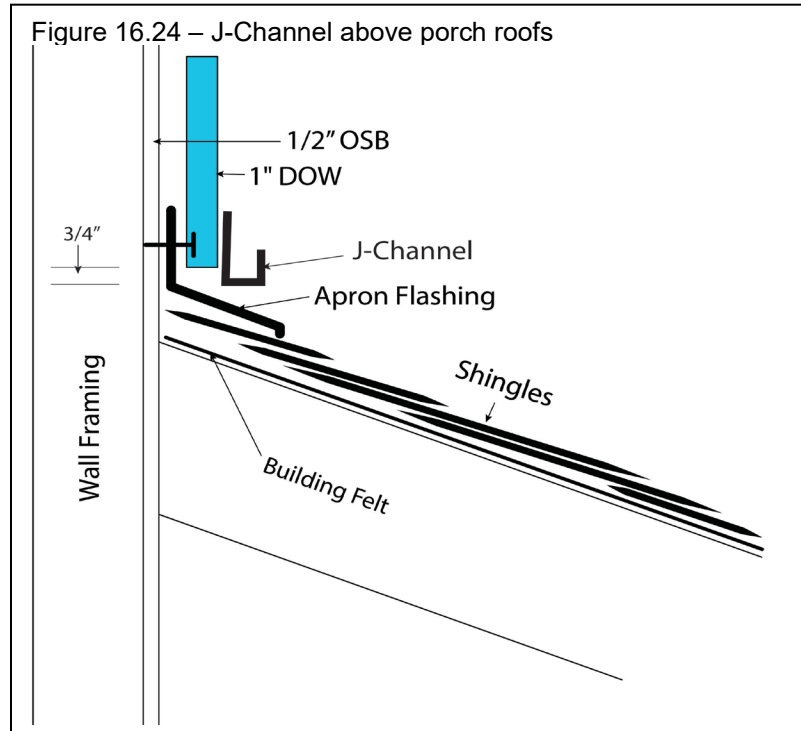
- Install pieces of J-channel to wrap around the meter mounting board. Cut and interlock the ends similarly to installing J-channel around doors. (See Figure 16.15).
- Ensure the Smart Trim has been painted before installing the J-Channel.

Install J-Channel around Porch Decks

- Install J-Channel up the sides of the porch deck, from $\frac{3}{4}$ " below the sill plate to 1" above the porch deck.
- Install J-channel along the top of the porch decks.
- Cut, miter, and interlock the corners similar to the J-Channel around the door.

Install J-Channel above Porch Roofs

- If siding will be installed above a roof, such as over a porch roof or section of the house which steps up, then the bottom panels of siding will sit in a section of J-channel.



1. The bottom of the J-channel should be $\frac{3}{4}$ " above the shingles or flashing.
 2. The J channel should end $\frac{1}{4}$ " from the edge of the corner posts or even with the end of the shingles.
- If more than one length of J channel is required, the pieces should overlap $\frac{3}{4}$ ". Cut 1" from the nailing hem of one side. Allow $\frac{1}{4}$ " for expansion. Install the top piece over the lower piece.

Install J-Channel under the horizontal eaves

- The Vinyl Siding Institute recommends using both J-Channel and Finish Trim at the top of the walls, below the soffits. Some installers feel the job looks better without the J-Channel.
- If double Finish Trim will be needed to level out the top row of siding, the J-Channel option will look best. It is the installer's option.
 1. Install the J-channel directly under the F-Channel used to install the soffits.
 2. Cut pieces of J-channel to fit each length of F-Channel. When more than one length of J-Channel is needed, overlap the pieces by $\frac{3}{4}$ ".
 - a. Remove 1" of the nail fins of the J-channel of the piece which will overlap the other.

- b. Overlap the front and bottom edges by $\frac{3}{4}$ ".

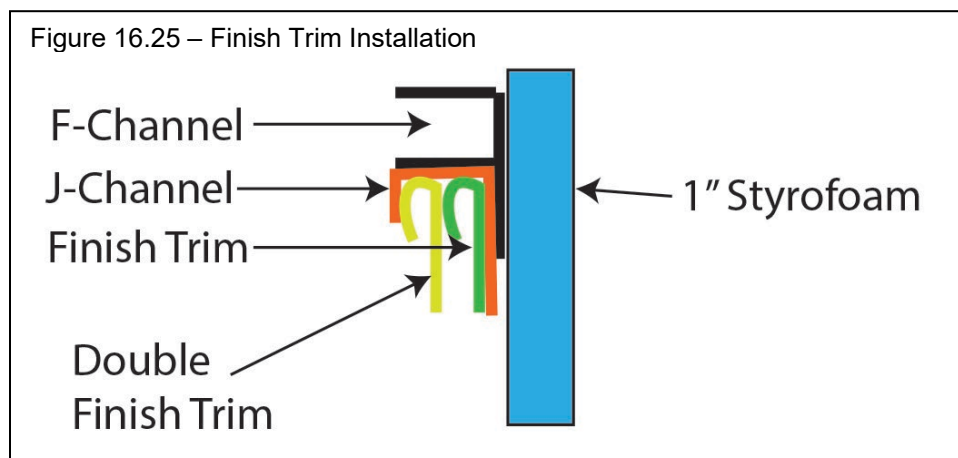
Finish Trim / Utility Trim (P-Channel)

Critical Issues

- Double Finish Trim may be required to keep the top row of siding level.
- Double Finish Trim may also be required in vertical receiving pockets (corner posts and J-Channels) for Board and Batten Siding.

Install utility trim along the horizontal eaves

1. If J-Channel has been installed under the F-Channel, install the trim inside of the J-Channel. If no J-Channel has been installed, install the trim directly under the F-Channel. Install it with the nail fin down. (See Figure 6.25)
2. If the top row of siding will be cut too narrow to fit into the J-Channel without bending, a second Finish Trim will be needed. Install the second Finish Trim directly over the first and nail through the first with 2 1/2" siding nails.



Install finish trim under windows

Install finish trim under the bottom of the window trim. Cut the trim 2" shorter than the bottom window trim. Hold the trim in the bottom pocket of the window trim with the nail fin down and install using 2 1/2" siding nails; 1 every 8".

If Board and Batten siding will be installed around the windows, do not install finish trim below that window.

Install utility trim in vertical receiving pockets for Board and Batten siding.

If Board and Batten siding will be installed on the front porch, install utility/finish trim in the vertical siding pockets including:

- J-Channel up the sides of the door

- Window trim up the sides of the windows. Do not install finish trim below the window.
- Outside/Inside corner posts.

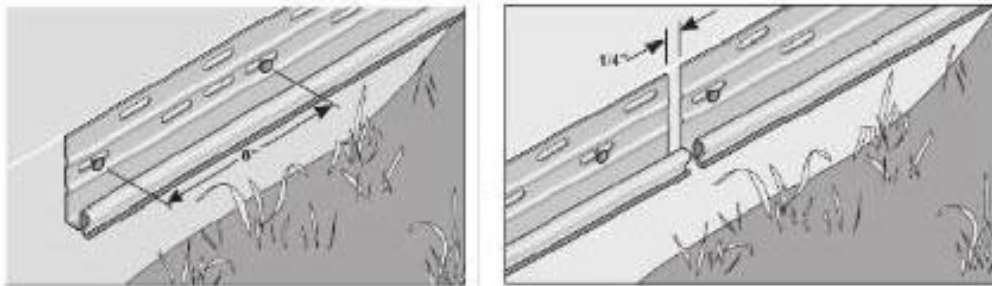
Starter Strips

Critical Issues

- Place nails in both top and bottom holes in the nail fin.
- Place nails 10” apart.

- Install pieces of starter strip horizontally along the bottom of the walls; in areas where there are no roofs or decks below.
- The bottom of the starter strip will extend below the sill plate by $\frac{1}{4}$ ”.
- Leave a minimum of $\frac{1}{4}$ ” between pieces of starter strip and 1” to 2” between the starter strip and the corner posts.
- Ensure the breaks in the starter strips are offset by more than 12” from the breaks in the first row of siding.
- Align the top of the nail fin to the “Starter Strip Reference Line”, then nail it to the house using 2 $\frac{1}{2}$ ” siding nails. (See “Starter Strip Reference Line” above).
 - Nail at 10” intervals.
 - Alternate nails in top and bottom nail slots
 - Nail in the center of the nailing slots.
 - Do not nail tightly.
 - Ends of strips should be $\frac{1}{4}$ ” apart. (Do not butt or overlap).

Figure 16.26 – Starter Strip



Starter Strip Installation Technique

Installing starter strips can be difficult. Problems include bending over to align the strip to the line and starter strips which are not a consistent width. The following technique makes it a little easier.

1. Cut a 12” scrap of siding. This will be used to position the starter strip.
2. Snap the scrap of siding on the middle of the starter strip to be installed.
3. Hold the top of the scrap of siding even with the “First Siding Layout Line” made above.
4. Hold the starter strip tight to the bottom of the scrap of siding.

5. Insert nails into the holes in the top row in the starter strip closest to the edges of the scrap of siding. (See Figure 16.27).
6. Slide the siding scrap left and right, holding it even with the Starting Line. As the scrap of siding moves along, continue nailing the strip in place.

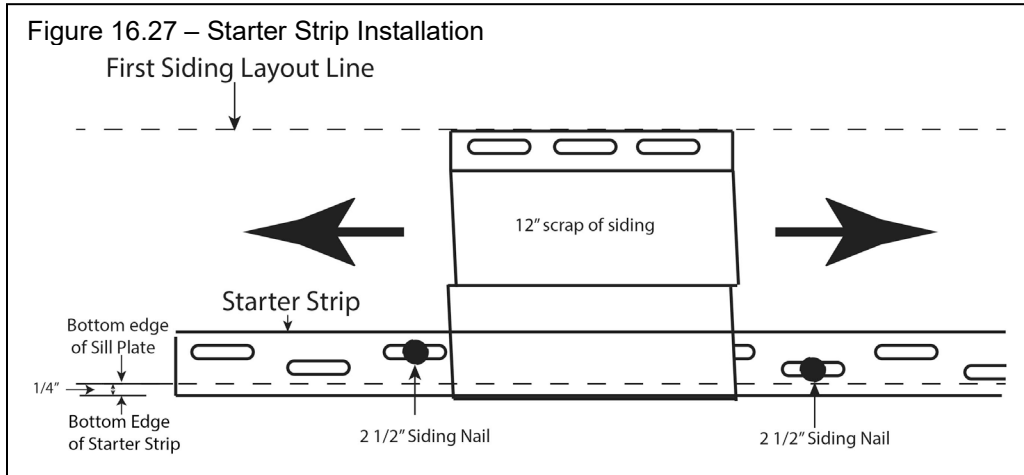


Figure 16.32 – Dutch Lap Siding



Figure 16.33 – Board & Batten Siding



Figure 16.34 – shakes



Dutch-Lap Siding Panels

Critical Issues

Installation Do's and Don'ts:

- Leave a ¼" gap at the end of the panels inside the corner post pocket.
- Overlap the panels by 1".
- The panels are nailed into place using 2 ½" aluminum siding nails.
- The nails are installed in the center of the nailing slots
- There should be a 1/32" gap between the nail heads and the vinyl.
- The nails are installed into the framing lumber. (The location of the cap nails in the Styrofoam insulation should tell you where the studs are located.)
- "Nail Slot Punch to expand holes in nail flange when they do not fall on a stud" is not needed since we are installing the siding over OSB. Nailing as close as possible to studs is recommended.
- A factory cut edge must be visible (on top) at the overlaps.
- The overlaps should not be visible on the sides of the house when looking from the front of the house.
- On the sides, begin at the rear of the house and work forward. On the front and back of the house, install the siding in the same direction.
- Stagger the overlaps so no two courses have overlaps that are aligned vertically unless they are separated by at least 3 rows.
- Start and end each row with a piece which is at least 2' long.

- Ensure the panel has locked onto the panel(s) beneath it.
- Panels are manufactured so the laps are 4” wide. Pull the panels up tight so each lap measures a multiple of 4” from the laps below.
- Hold the distance between the top of the nail flange to the next reference lines to a multiple of 8” to keep the tops even.

Planning- It is important to spend some time planning. Plan the layout of the siding to include:

- Installing the siding from the back of the house to the front of the house. Installing the back piece first will cause the front piece to overlap the back, which will hide the seams.
- The front and back sides should be installed so that the seams are least visible from the highest traffic area.
- Create a random pattern. One technique is:
 - After installing the first row, the cutoff piece from the last piece in the first row will become the first piece in the second row.
 - Continue this pattern as long as the cutoff piece is larger than 2’.
 - If the previous row cutoff is too short, start with a full sheet.
 - This technique should produce a fairly random look.
- No panels smaller than 2’. This may mean that both the first and last panel in the rows may need to be cut.
- The seams in the first row above or below a window or door must **not** occur directly under or over a window or door. Adjust the size of the pieces in the rows as needed.

Cutting - Cut the siding such that:

- The edge towards the back of the house is a manufactured edge. This will ensure that the visible edges of the siding panels are straight and clean cut.
- The panels in the field are cut perpendicular. Using the guillotine cutter is recommended.
- The panels under the gable rakes are cut at the appropriate angle. A jig can be built with the “Cut Line” set at the roof angle or a template piece can be created. Mark the siding with the template and cut it with snips.

First Row over Starter Strip

- Cut and position the first panel as described above.
- Snap the locking tab of the panels in the first row into the starter strip. These tabs are difficult to snap into the starter strip; double check that

they are locked. The top of the first row should align with the reference line, described previously.

First Row over J-Channel

- If the first row is over a porch deck, the first row will sit in a J-channel.
- Measure down from the lowest siding layout line to the bottom of the J-channel.
- On the panel to be installed, measure down from the nail fin that distance, then draw a line indicating where to trim the panel.
- Trim the panel with snips or by scoring the line with a utility knife then snapping it off.
- Verify the panel is the width you need before nailing it into place.

Rows between the First and Last Rows

- Measure and cut the panels as above.
- Snap the panels into the nail flange of the panel below. Hold the panel up tight and nail in place.
- Ensure the panels are pulled up to the Siding Layout lines.

Siding for Under Windows

Note: Do not seam siding just under or over windows or doors.

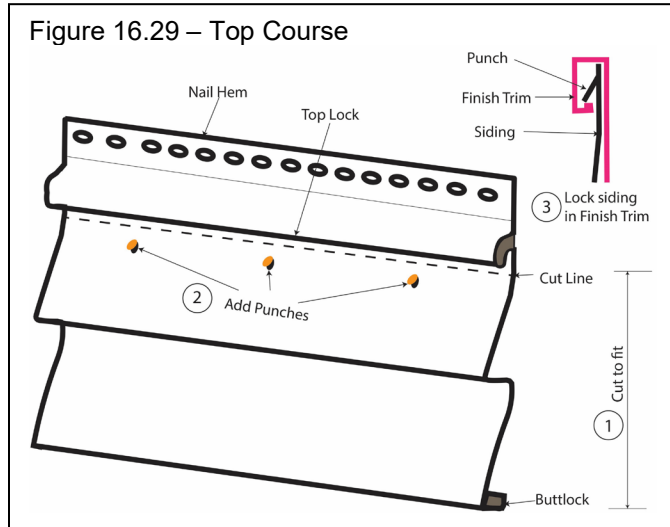
1. Hold a panel beneath the window trim. Mark the location of the sides of the window trim on the panel. Mark the location of the actual window sides; not the edge of the J-channel, then adjust the marks to allow the panel to extend into the side J-Channels by $\frac{1}{2}$ ".
2. Measure down from the bottom (inside the J-channel) to the bottom of the lock tab. Transfer this measurement to the panel.
3. Cut out the space for the window using tin snips and a utility knife.
4. Using a snap lock punch put lugs along the horizontal cut out area every 6". The raised part of the lug should be on the outside of the panel.
5. Ensure the panel fits correctly, the lugs are locked into the utility trim, and the panel is hooked onto the panels beneath it, then nail in place.

The Last Course Horizontal Row

The last course of siding will need to be trimmed and punched to fit into the utility trim.

1. Measure from the top of the utility trim to the base of the lock tab on the previous course.
2. Make this same measurement at several locations along the wall.
3. Measuring from the bottom of the panel to be installed mark the dimensions obtained above minus $\frac{1}{4}$ ".

4. Trim the panel as indicated by your marks.
5. Using a snap lock punch put lugs into the cut edge every 6". (The raised lug should be on the outside of the panel). Do not place punches within the last 6" of the panels.

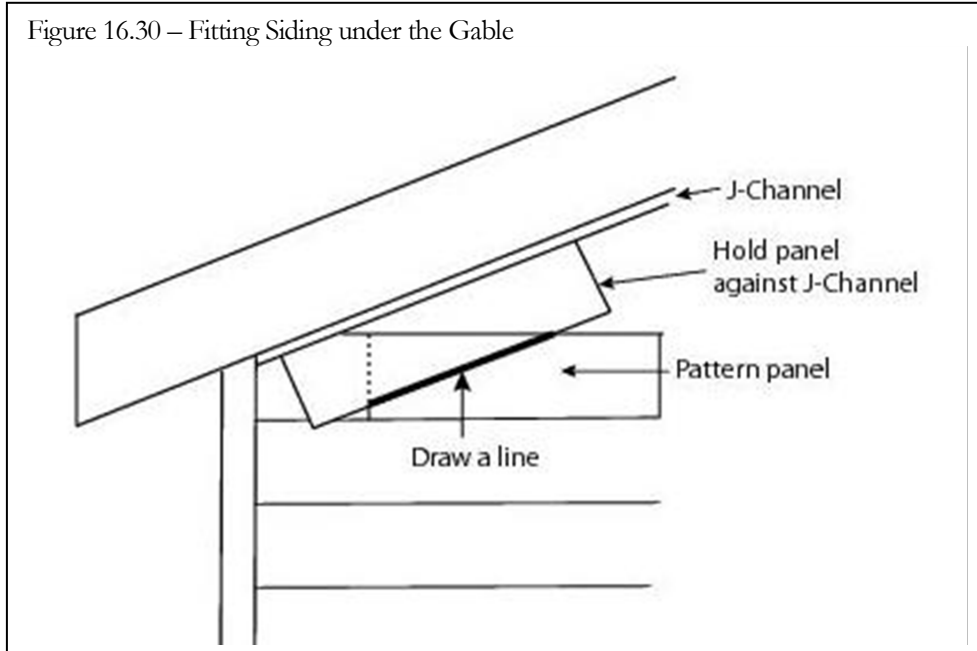


6. Push the panel up into the utility trim while ensuring it is locked onto the row beneath it.
7. Verify this piece is correctly locked into place along its entire length.

Prepare Patterns for Gabled Ends (See Figure 16.30)

1. Lock a scrap piece of siding into the last course below the gable. This will become the pattern piece.
2. Hold a second piece of siding against the J- channel under the roof.
3. Make a pencil line on the pattern piece of siding along the edge of the second piece of siding.
4. Cut along the pencil line. Use this piece as the pattern for this side of the gable.
5. Repeat this procedure for the opposite side of the roof.

Figure 16.30 – Fitting Siding under the Gable



Install Panels for Gabled Ends

1. Using the patterns made above, cut the end panels under the gable.
2. The last piece at the peak of the gable will need to be held in place with 1 white aluminum nail.

Sidewall Flashing at Roof Lines (See Figures 16.31 a, b, c, & d)

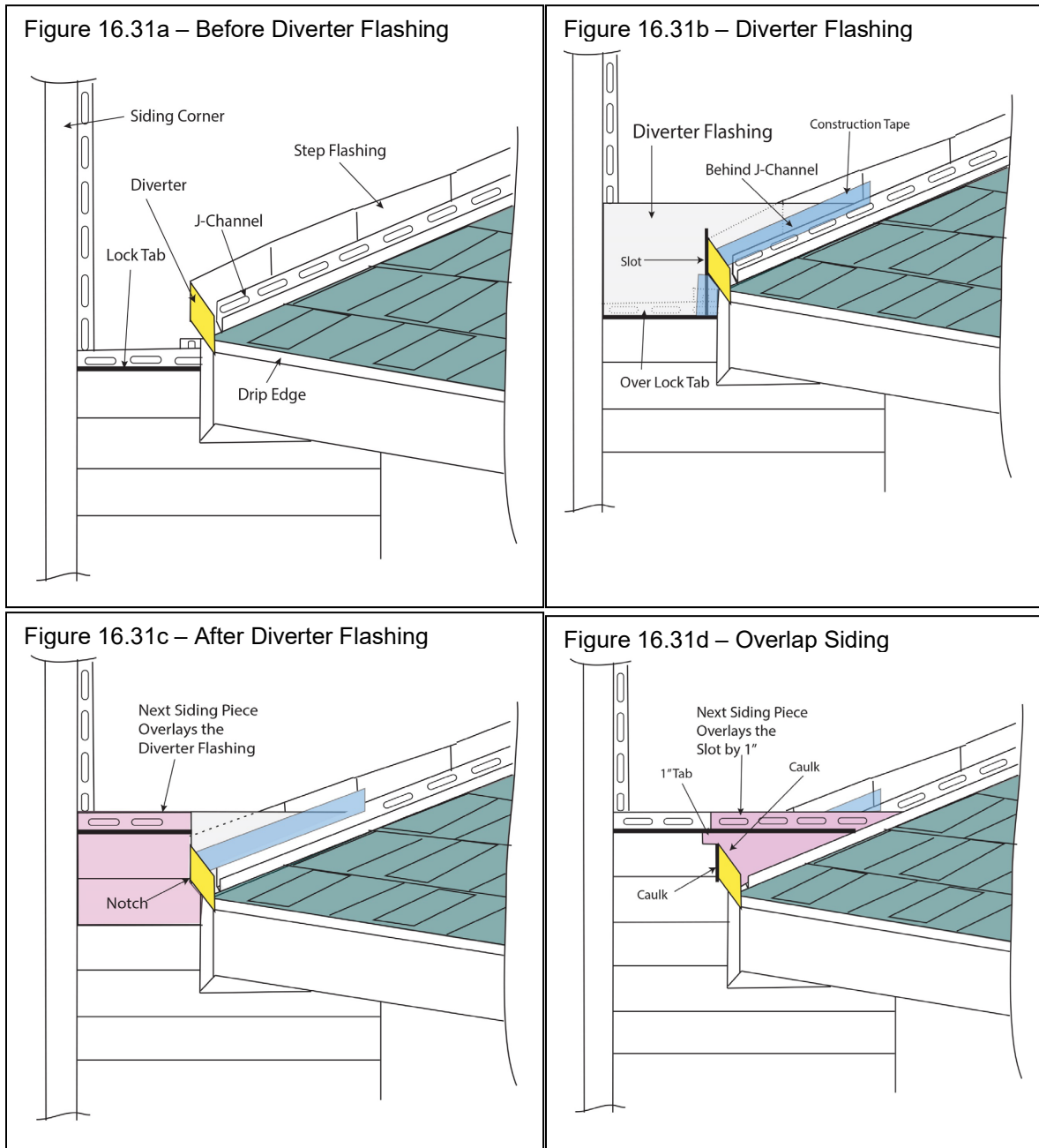
When a roof line runs along a sidewall and stops before the bottom edge of the sidewall, step flashing and a piece of diverter flashing is required.

The roofer will install a “kick-out flashing” at the bottom edge of the roof over the first row of shingles. He will continue integrating pieces of step flashing along the edge of each following row of shingles. The siding must be cut to fit around the “kick-out flashing”. (See Figures 16.31a – 16.31d).

Do not cover the kick-out.

1. Install siding until the nail fin is above the bottom of the roof eave. (see Figure 16.31a).
2. Install J-channel over the shingles along the edge of the roof, from the kick-out flashing up to the ridge. Leave a ½” gap below the J-channel.
3. Cut a piece of aluminum flashing for the diverter. Cut a slice in the bottom edge of the flashing to slide down over the “kick out flashing”. Position the diverter flashing over the “kick out flashing”, over the nail fin of the last full course, and behind the nail fin of the J-channel on the roof.
4. Tape the J-channel to the diverter flashing with construction tape.

5. Cut a piece of siding to fit from the outside corner post to the horizontal J-channel on the fascia. Notch the piece to fit around the “kick out flashing”. Install the piece of siding over the diverter flashing. Ensure the piece locks in place. (See Figure 16.31c).
6. Cut a second piece of siding to extend 1” over the previous pieces and back to the roof. Cut the end which extends over the “kick out flashing” into a 1” tab. Install the piece even with and overlapping the first piece. This piece of siding will be installed into the J-channel on the roof. (See Figure 16.31d).



Board and Batten

Critical Issues

Installation Do's and Don'ts:

- The first and last panel should be roughly the same size so the panels look centered on the wall.
- J-Channel is required above and below the panels.
- Finish trim must be installed in the siding pockets of the corner post or J-Channel on each side of the panels.
- The outside edges of the end panels lock into finish trim, similarly to the top edges of Dutch-Lap siding.
- No finish trim under windows.
- The panels must be held up to maintain a 3/8" gap in the bottom J-Channel and a 1/4" gap in the top J-Channel.
- The panels are nailed into place using 2 1/2" aluminum siding nails; 12" apart.
- The nails are installed in the center of the nailing slots; except the top nail which will be installed at the top of the slot to hold the panel up 3/8".
- There should be a 1/32" gap between the nail heads and the vinyl.
- Ensure the panel has locked onto the panel(s) beside it.

1. Plan your work.

Divide the width of the wall to be covered (for gables use the length of the frieze board below) by the width of the panels. Divide the remainder by 2 and use that number for the width of the first and last panel.

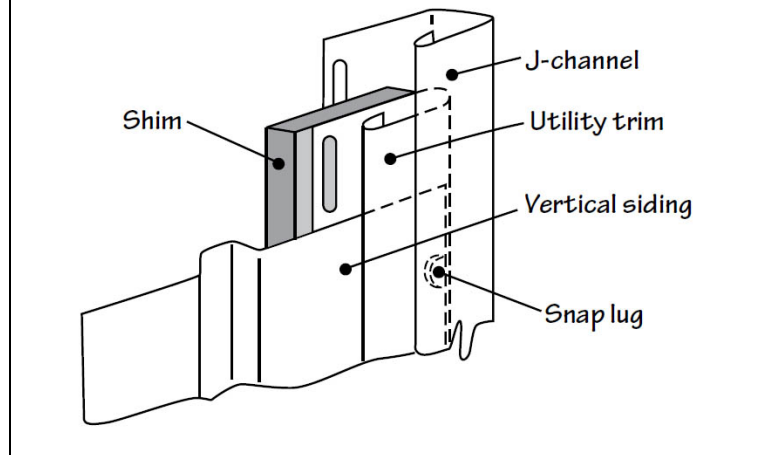
2. Install J-Channel, Head Flashing.

The board and batten siding requires siding pockets across the top and bottom and up the sides. See "Main Roof Gable Trim & Siding" above for placement of the J-Channel on the gables.

3. Install the Utility Trim.

Board and batten siding on the front porch will require utility trim in the siding pockets on each side of the wall. A shim may be needed behind the utility trim to allow the siding to lock in. (See Figure 16.32).

Figure 16.32 – Utility Trim Shim



4. Install Board & Batten Siding

- Cut the board to fit between the bottom and top J-Channels; less 5/8". The boards are installed with a 3/8" gap at the bottom and a 1/4" gap at the top.
- The tops of the boards for the gables will need to be trimmed to a roof angle, then cut to length.
- Trim the width of the first and last board to the width calculated above. Punch lock tabs into the cut edge. Snap the panel into the utility trim along the side.
- Hold the boards in place, then place a nail at the top of the top slot to hold the panel 3/8" from the bottom of the bottom J-Channel.
- Continue nailing the panel in place with a nail every 12" down the boards. The remaining nails will be inserted in the center of the slots.

Shakes (as specified in design sheet)

Critical Issues

- Read and carefully follow the directions on the box.

1. Plan your work.
 - a. The first row will be locked into a starter strip. The starter strip will be visible from below. A J-Channel will be required to cover the starter strip and the bottom of the first row.
 - i. If the shakes are installed over a porch beam or porch roof, install the J-channel with the channel facing up and install the bottom of the starter strip 1/2" inside the channel. The J-channel may or may not be the same color as the siding of the shakes.
 - ii. If the shakes are installed over a siding area, install the J-channel with the fin down and the utility trim for the siding

below inside the J-channel. Install the shake starter strip above the J-channel. The J-channel will need to be the same color as the siding.

- b. Under the gable rakes, install J-channel flush to the F-channel holding the soffit. This J-channel will cover the edges on the sides of the shakes. This J-channel must be either white to match the F-channel or match the color of the shakes.
2. Install J-channel and starter strip.
 - a. Install the J-channel and starter strip using the same procedures as for vinyl siding.
 3. Install the shakes.
 - a. The procedure for installing the shakes is printed on the box. Be sure to examine the shakes to:
 - Identify the temperature gauge and marking on the shakes for the correct spacing.
 - Identify the nailing points.
 - Identify the locking tabs and locking process.
 - b. Install the shakes from the left to the right.
 - c. Calculate the size of the left-most shake. The left shake may need to be shortened to ensure the right most shake has enough nail fin left.
 - Before installing each row, measure the distance to be covered by that row (measure the imaginary line across the lock tabs).
 - Divide this distance by 48" (the length of a shake).
 - If the remainder is greater than 30", start with a full shake.
 - If the remainder is less than 30" but greater than 12", subtract the remainder from 30" and shorten the shake by the difference.
 - If the remainder is less than 12", either the left or right shake must be installed with a 3" roofing nail through the face. Start with a full shake and drill a hole in the last shake for the installing nail. Cover the head of the nail with paint to match the color of the shake.
 - a. Cut the left edge to fit into the J-channel using the calculation above.
 - b. Install the shakes using the process defined on the box.
 - c. Remove the cap from a 3" cap nail and use the nail to install the last shake placing the nail through the face of the shake.

Tips & Techniques

- When installing siding during a light rain, the water runs down the roof and drips on the volunteers. A simple solution is to insert a piece of drip edge upside down under the bottom edge of the bottom row of shingles above the existing drip edge. The lip will extend upward funneling the water down the roof away from the volunteers.

Quality Assurance Checklist



Before continuing, stop and complete the “**Siding, Soffit and Fascia Checklist**” found in Procore/Inspections.

Glossary

- **Lap**—to overlap the ends of two siding panels or accessory pieces to allow for expansion and contraction of the vinyl product.
- **Lug/Crimp**—the raised “ears” or tabs on a siding panel, created by a snap lock punch, which can be used to lock a siding panel into place when the nailing hem has been removed.
- **Miter**—to make a diagonal cut, beveled to a specific angle (usually 45°). Sometimes miter cuts are made into an overlapping siding or soffit panel surface, to provide a neater appearance.
- **Nail Hem (or Flange)**—the section of siding or accessories where the nailing slots are located.
- **Nailing Strip**—an additional framing member installed to facilitate soffit installation.
- **Nail Hole Slot Punch**—refer to page 10 for illustration and use.
- **Plumb**—a position or measurement that is truly and exactly vertical, 90° from a level surface.
- **Scoring**—running a utility knife blade, sharpened awl, scoring tool, or other sharp implement across a soffit or siding panel face without cutting all the way through the panel. This weakens the vinyl surface in a specific area and allows the panel to be bent and broken off cleanly.
- **Sealant**—any of a variety of compounds used to fill or seal joints in wood, metal, masonry, vinyl, and other materials.
- **Shim**—a building material used to even a surface prior to installing vinyl siding.
- **Weep Holes**—openings cut into siding or accessories to allow for water runoff.

