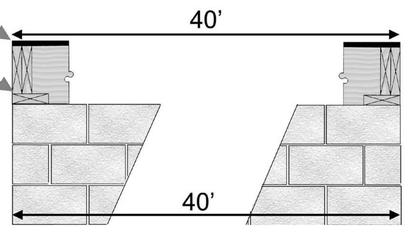
GABLE LOG HOMES

LOG CONSTRUCTION DETAILS

1 Prepare The Subfloor

Trim Sheathing as needed.

Keep Main sill and Mudsill flush with foundation.



IMPORTANT NOTE ABOUT LOGS,FOUNDATIONS AND SUBFLOORS

The logs in your Gable log home are precision cut to exact lengths. If the subfloor is larger than what the foundation plan specifies, then the logs will not overhang properly and this will cause the log siding that covers the sill to not match up with the logs above it.

If your subfloor is smaller than what the foundation plans specify, this problem is more easily corrected. Shims can be added to the main sills to bring the log siding out flush with the logs.

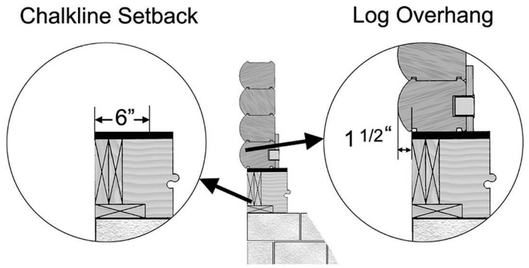
2 Striking Chalklines

Setback Chart

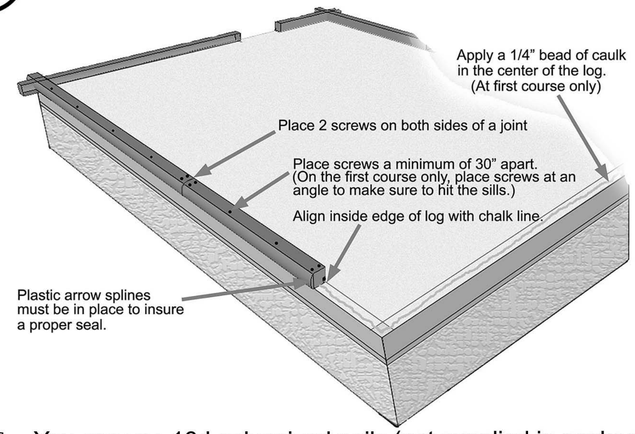
LOG SIZE	SIDING THICKNESS	SETBACK FOR CHALKLINES
4 X 8	1’	2 1/2”
4 X12	1”	2 1/2”
6 X12	1”	4 1/2”
6 X 8 H	1 1/2”	4”
8 X 6	1 1/2”	6”
8 X 8	1 1/2”	6”

Setback Example

8x6 Log Style

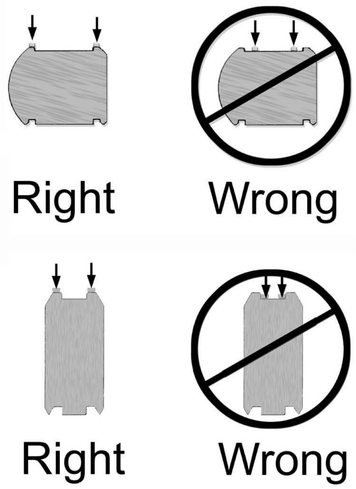


3 Setting The First Course



You can use 16d galvanized nails (not supplied in package) to tack down the first course to hold it on the chalkline until the screws are put in place.

4 Butyl Gaskets



IMPORTANT

Always place the butyl gaskets on top of the tongues as shown in the examples above.

Always remove the paper from the gaskets after they are applied to the tongues. Failure to do this will cause an improper seal between the logs.

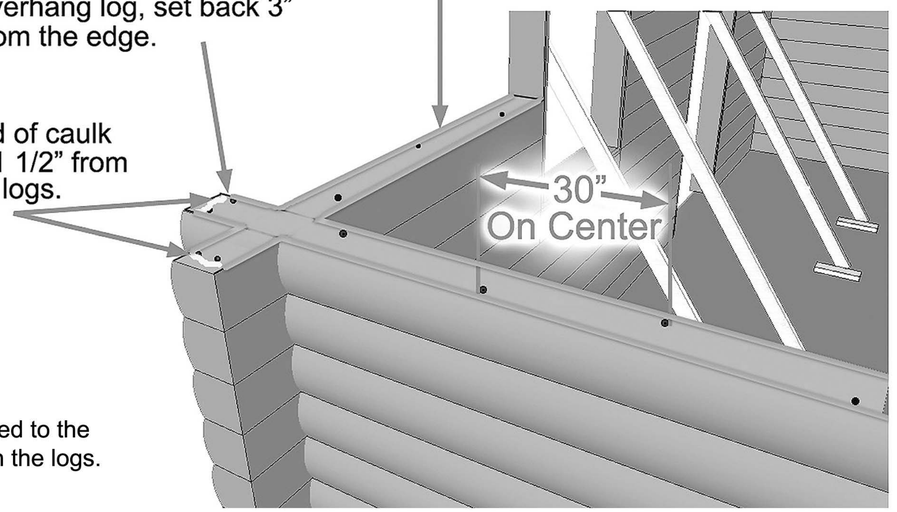
5 Stacking The Logs

Place Butyl rubber gaskets on all tongues leaving a 1” setback from the ends of the logs.

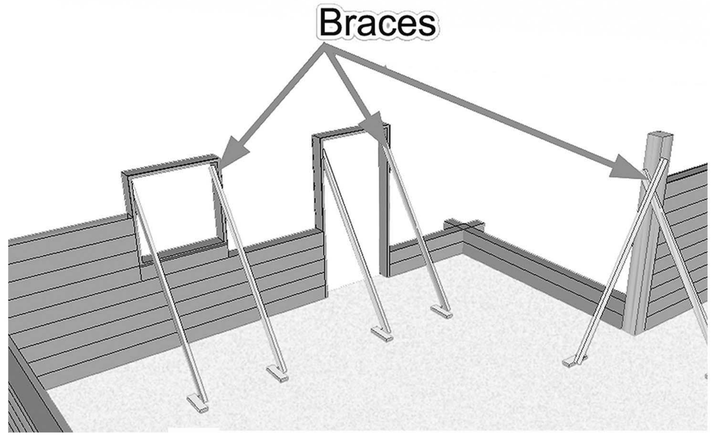
NOTE: BUTYL MUST GO ON TONGUES ONLY TO INSURE PROPER STACK HEIGHT OF LOGS

Place two screws at each overhang log, set back 3” from the edge.

Apply 1/4” bead of caulk approximately 1 1/2” from the ends of the logs.



6 Bracing The Walls

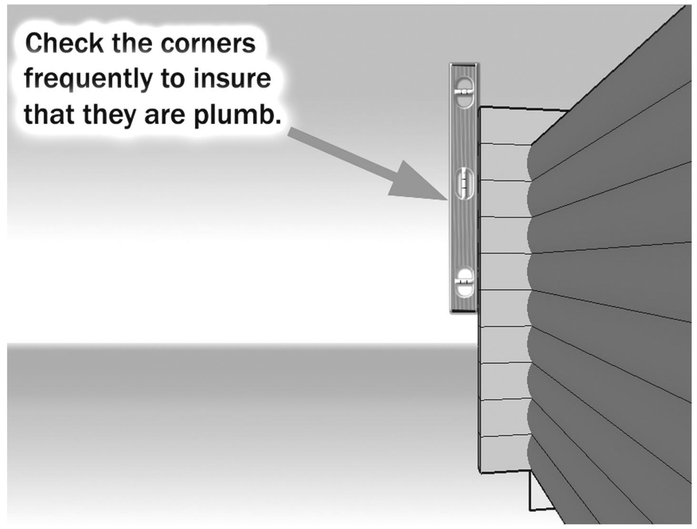


IMPORTANT

Make sure to build the window and door jambs first and install them as you are stacking the logs.

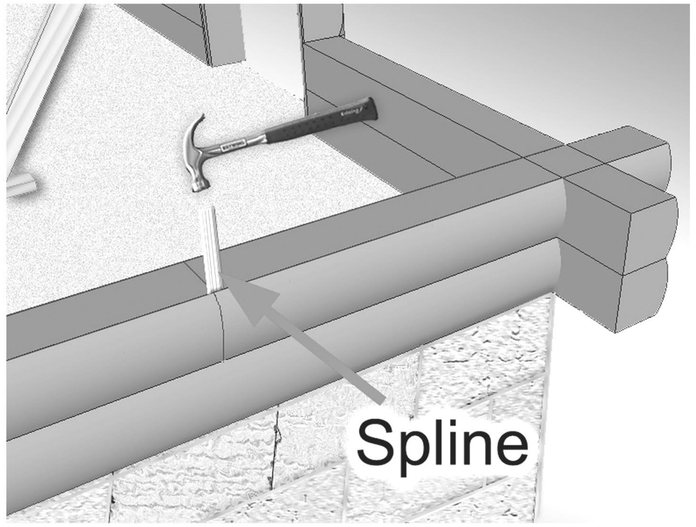
By bracing your windows and doors as soon as possible it will provide a guide and force the log walls to stack plumb.

7 Keeping the walls “Plumb”



Check the corners frquently with a level to make sure they are plumb. Always try to keep the ends of the logs flush and smooth It is easier to make small corrections as you stack each course rather than trying to straighten the entire corner after it has been stacked.

8 Spline Placement

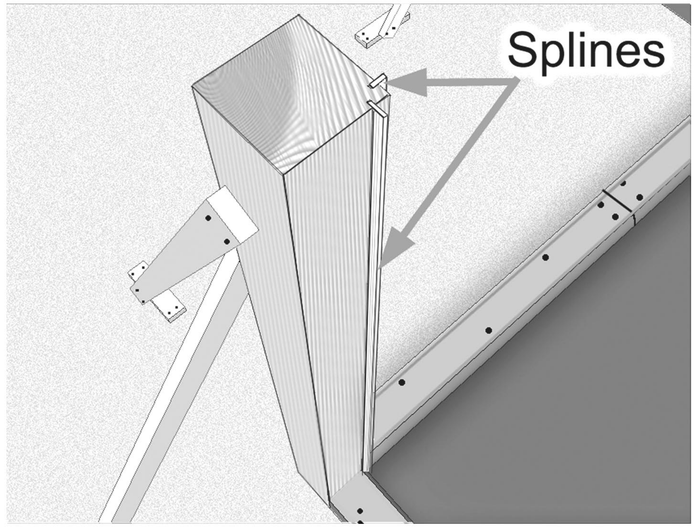


1. When installing splines at log joints, a hammer works best to drive them in. Make sure to drive them all the way down until they bury into the butyl gasket on the course below. The top of the spline should be flush with the tongue. Trim off excess if necessary.

IMPORTANT

Do not trim off the soft rubber material to make the Splines drive in easier. Doing so may cause air and water to leak in.
NEVER LEAVE A SPLINE OUT

9 Splined post



If your log package is designed with a splined post, follow these steps.

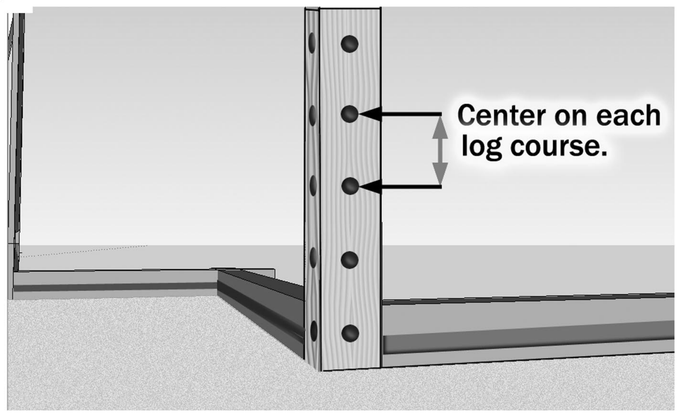
1. Use temporary braces to keep the post “Plumb” during the log
2. Drill 1 1/4” holes at the center of each log course and put one screw in each hole. It may be necessary to slant the screws to avoid hitting each other. Use 10” Logboss screws (supplied)
3. Put in the plastic splines in the slots of the post.

*It may be necessary to use one whole spline and a peice of another to go from the top to the bottom of the post.

IMPORTANT

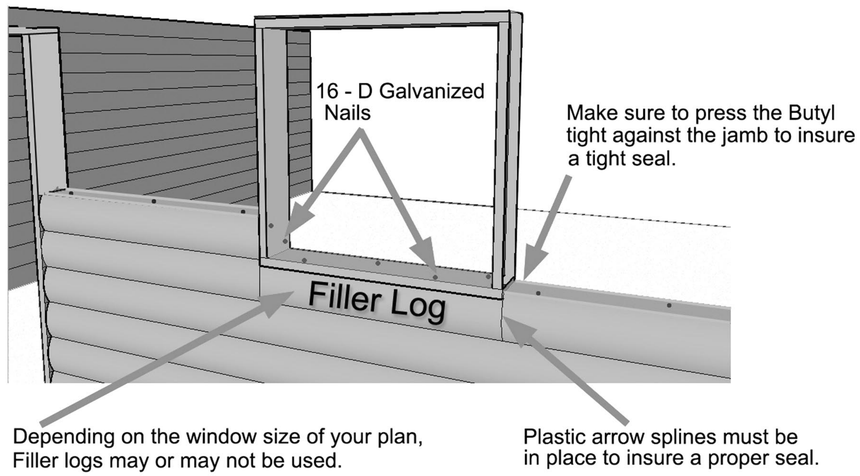
DO NOT LEAVE THE SPLINES OUT

10 Splined post (Continued)

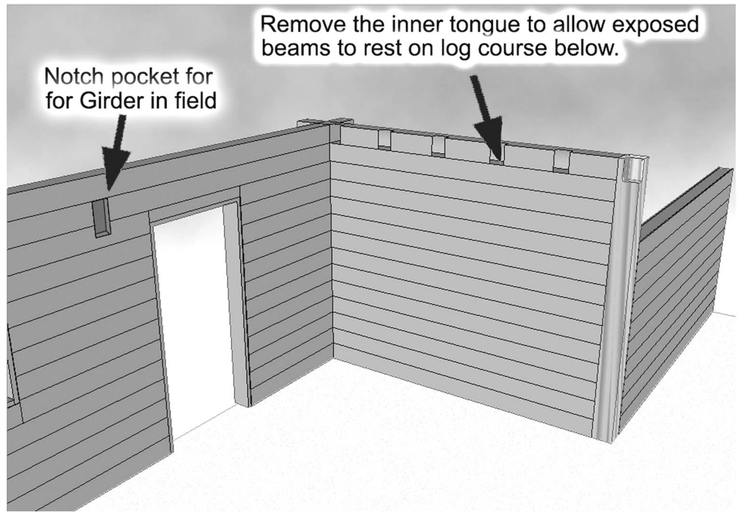


Wooden plugs may be used to plug the holes made in the splined post. A 1 - 1/4” dowel cut in small lengths works great for this job.

11 Filler Logs



11 Setting Interior Posts and Girders

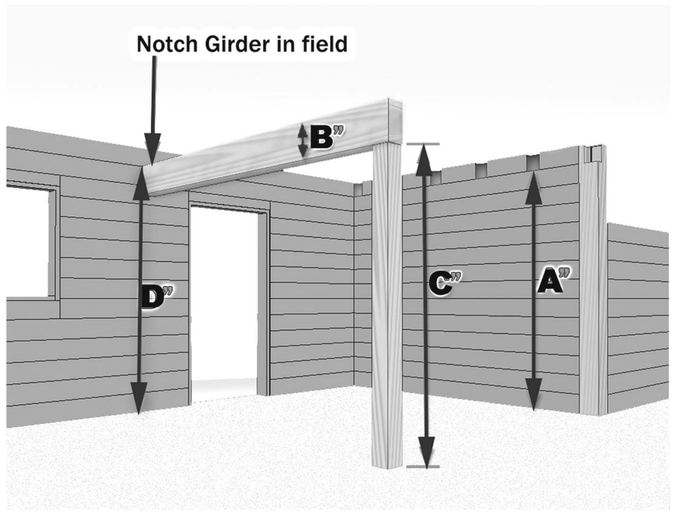


If your log package has an exposed beam system for the second floor, you will need to notch in the Girders and cut the interior posts to length in field.

IMPORTANT

Make sure to remove the inner tongue located in the notched pockets before setting the exposed beams. This will allow the beams to sit firmly on the log course below.

12 Calculating girder location & post height



1. Measure the end of the Girder, top to bottom and left to right to get the exact dimensions, then add enough to those measurements to allow some “Play” so the girder will fit tight but can still easily be put in place.
2. Using a pencil and square, transfer the dimensions to the log wall.
3. Using a Skilsaw with a sharp blade, cut along the lines that you have laid out. Make sure to make the cut half the depth of the wall, or depending on the log style, a minimum of 3” deep to allow enough bearing surface for the girder.
4. Now remove the wood to form the pocket notch. A round Forstner bit works well or you can make several cuts with a skilsaw and then clean up the notch with a chisel.

FORMULAS

A = (The distance from the sub floor to the log that the exposed beam will sit on)

B = (The size of the girder from top to bottom)

C = (The height that the post will be cut to)

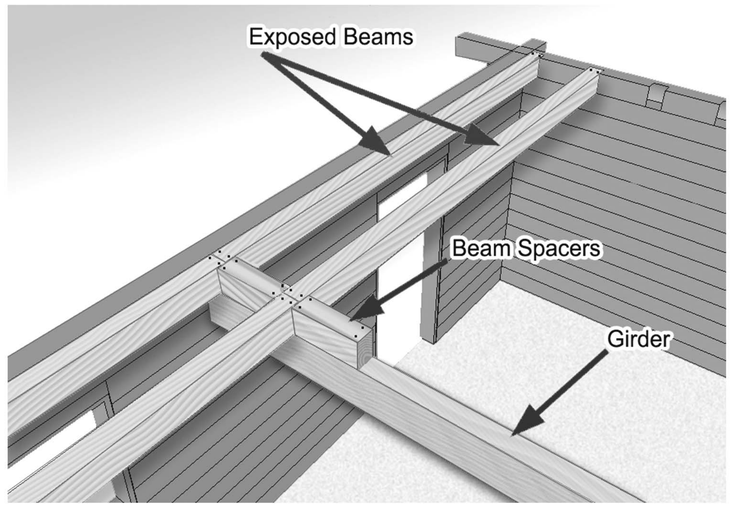
D = (The distance from the sub floor to the bottom of the girder)

To determine the height of the post:

A - B = C

D + B = A

13 Setting Exposed Beams



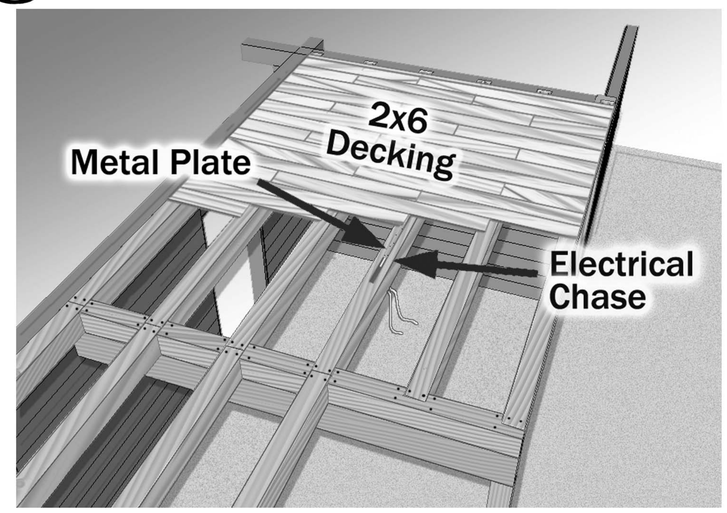
After the exposed beam pockets have been prepared and the posts and girders have been set, it is now time to set the exposed beams. To insure a good job, follow the steps below:

1. Make sure the walls that the exposed beams set on are plumb. If the walls need to be moved, braces may be used on the inside or outside of the house to push the walls until they are plumb.
2. Starting at the exterior wall end of the beam layout, place the first set of beams in their pockets. When setting the beams on top of the girder, make sure they both meet in the middle. A line can be drawn on the top of the girder to use as a guide to center the beams.
3. Put two screws at the end of each exposed beam.
4. After the first set of exposed beams are in place, it is now time to put in a beam spacer. beam spacers are used to keep exposed beams lined up and to fill the opening between the beams.

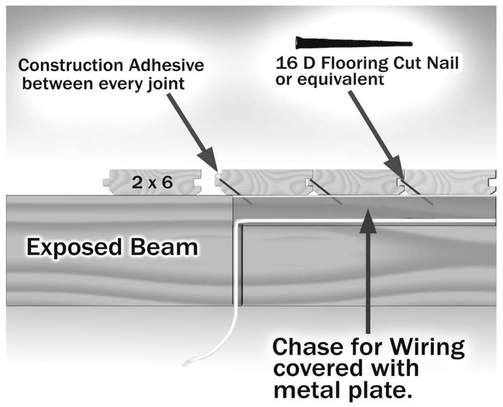
IMPORTANT - NOTE ABOUT BEAM SPACERS

Due to the unpredictability of wood, it may be nessecary to trim the ends of the spacers to keep the exposed beams in line.
It is a good idea to run a string line down the side of the exposed beams(from the front of the house to the back) just to make sure everthing is still in line. Beam spacers may be trimmed accordingly to get back on track.

14 Installing Inerior Decking

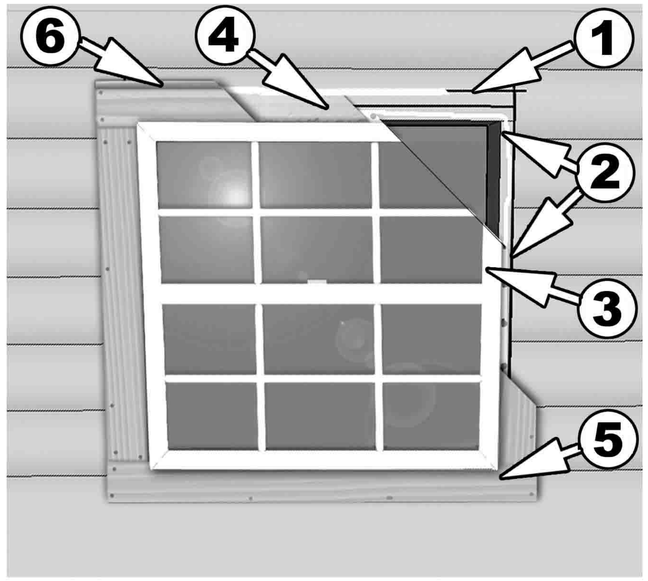


1. If at all possible, install the decking after the roof has been put on. **The decking needs to stay dry at all times!** If the decking gets wet, this will cause the wood to swell, which will result in large cracks between the boards months down the road after the house is completed and the boards have dried out. If the decking must be put in place due to the design of the home, take great care to keep it covered until the roof is on.



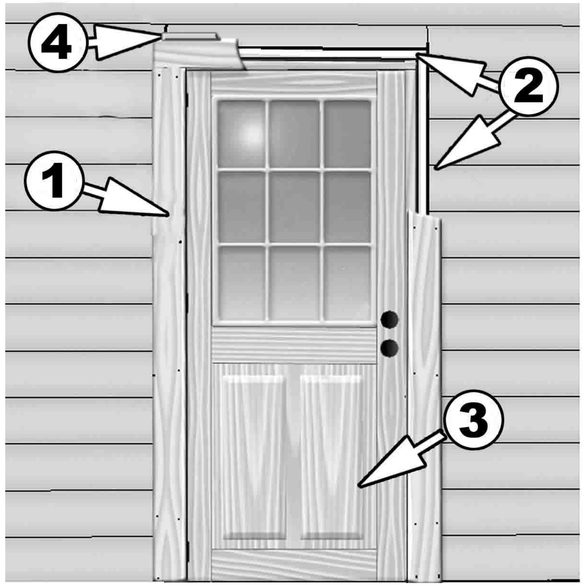
2. Route any electrical chases in the exposed beams if necessary before the decking is put in place. Make sure to route the chase deep enough to provide protection from the nails in the decking. Put a metal plate over the chase to provide added protection.
3. Use 16 D flooring cut nails (or equivalent) to nail down the decking. Make sure to nail through the tongue. Take care to avoid hitting the electrical chase with the nails.
4. Use construction adhesive (Such as Liquid Nails) on the top of the tongue of every board. The adhesive will prevent squeaks between the decking.

15 Window Installation



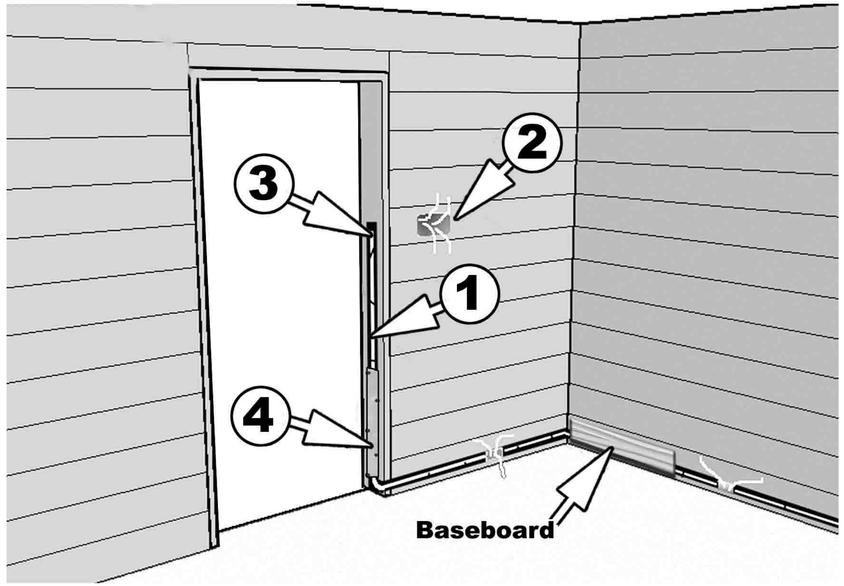
1. Cut a 1” deep slot just above the jamb to accept the flashing then apply a 1/4” bead of caulk onto the face of the jambs.
2. Apply a 1/4” bead of caulk to the jamb so that the nailing fin of the window will embed into the caulk. Apply caulk to the ends of all of the logs that butt up to window jamb.
3. Now set the window into place and nail it to the jambs
4. Bend a peice of aluminum in the shape of a “L”. Make the smallest part of the bend 3/4” then insert that into the slot above the jamb. Make sure the flashing sets into the the “J”channel of the window, overlapping the top edge to keep water out.
5. Install the 1x6 trim using galvanized nails.
6. Cut a peice of Cypress or treated wood with a 45-degree angle to go over the top of the trim to shed water. Make sure to apply a bead of caulk behind the drip cap before nailing it (always use galvanized nails)

16 Door Installation



1. Using galvanized nails, nail the 1x6 trim to the door.
2. Apply a 1/4” bead of caulk to the jamb so that the trim on the door will embed into the caulk. Apply caulk to the ends of all of the logs that butt up to the door jamb. It is a good idea to install any light switches and run wiring before you set the door. (see exmple to the right)
3. Now set the door into place and nail it to the jambs.
4. Cut a peice of Cypress or treated wood with a 45-degree angle to go over the top of the trim to shed water. Make sure to apply a bead of caulk behind the drip cap before nailing it (always use galvanized nails)

Door Installation (Cont.) Wiring



1. Before the exterior doors are installed, it is a good idea to run your wiring for the light switches. Using a Skilsaw, router or the tool of your choice, create a slot in the doorjamb that is 1-1/2” wide by 1-1/2” deep (or the thickness of the jamb)
2. With a pencil, trace an outline of the swithbox to be used in the log wall. Once you have a pattern of the switchbox traced on the wall, you can remove the wood to create a pocket for the switchbox to set in. The tools of choice for this job are: Routers,large Forstner bits anything to remove the wood.
3. Using a large bit, drill a hole into the end of the log that is in line with the switchbox. Wires can be fed through this hole to attach to the switch box.
4. After the wires are in place in the channel, it is a good idea to put a metal plate over the wires to prevent nails from hitting them.

Installing Decorative rafters and collar ties

To install decorative rafters and collar ties on conventionally framed roofs, follow the steps below:

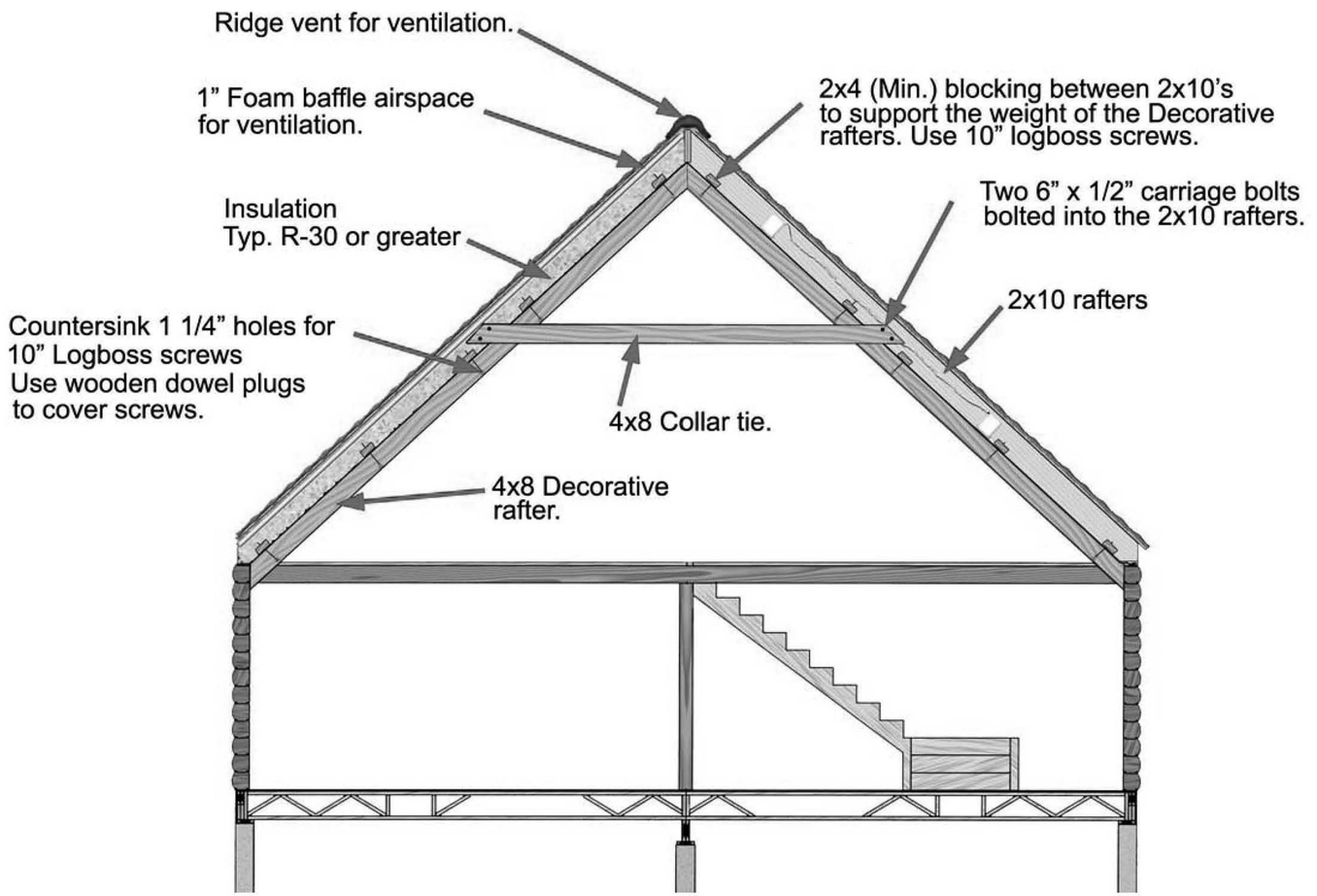
Collar Ties – Collar ties should be the first piece of the decorative truss system that is installed. Collar ties are not only decorative but are structural. They serve to prevent the whole roof system from spreading at the base of the rafters.

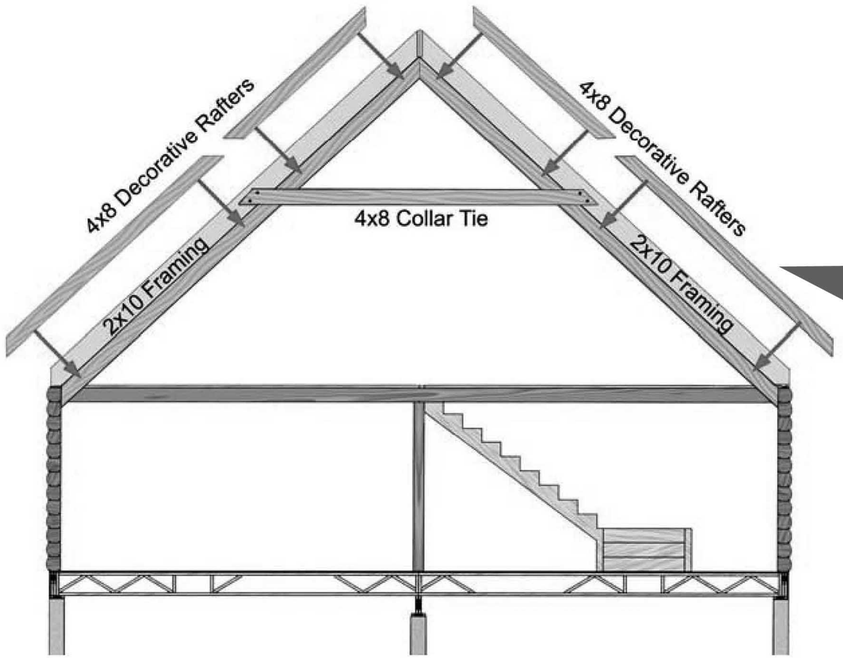
Decorative Rafters – Decorative rafters may be installed at any time after the collar ties are in place. There are advantages to installing them after the 1x6 V-joint ceiling has been installed because this will eliminate the need to apply trim on each side to cover the ends of the 1x6 v-joint. Remember, the decorative rafters are installed above and below the collars, which means they are divided into two pieces per side. *(See Example Below)*

☑ **IMPORTANT**

MAKE SURE TO INSTALL THE COLLAR TIES BEFORE THE SHINGLES OR METAL ROOF IS INSTALLED.

1. Use chalk lines on the 2x10 rafters to mark the spots where the collar ties will be installed.
2. Use ½' x 6" Carriage bolts (2 on each end) to bolt the collar tie to the 2x10 rafters
3. Cut the angles on the decorative rafters and install them a piece at the time





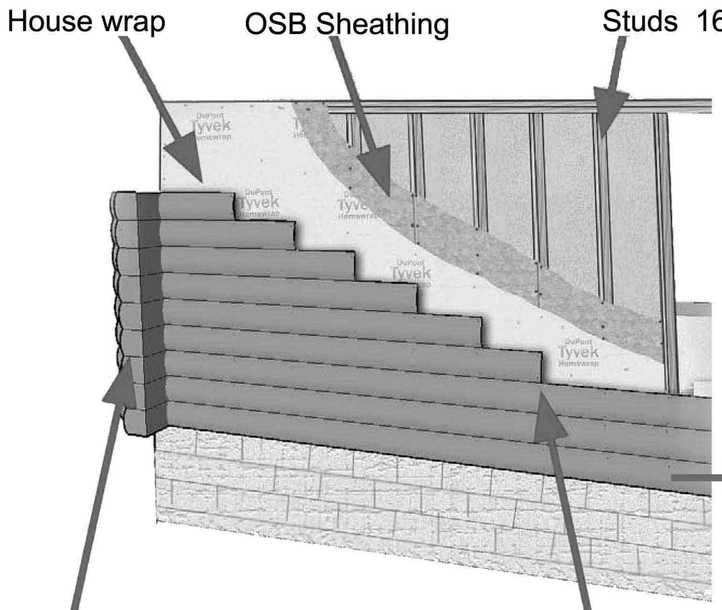
Decorative Rafters are figured as separate peices
i.e. one peice above the collar tie and one peice below.
The angles on the decorative rafters are determined and cut in field.

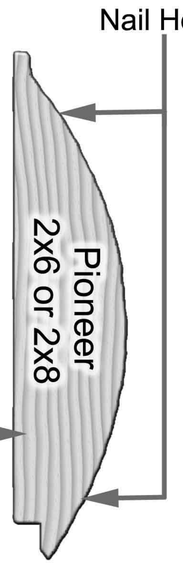
GABLE LOG HOMES

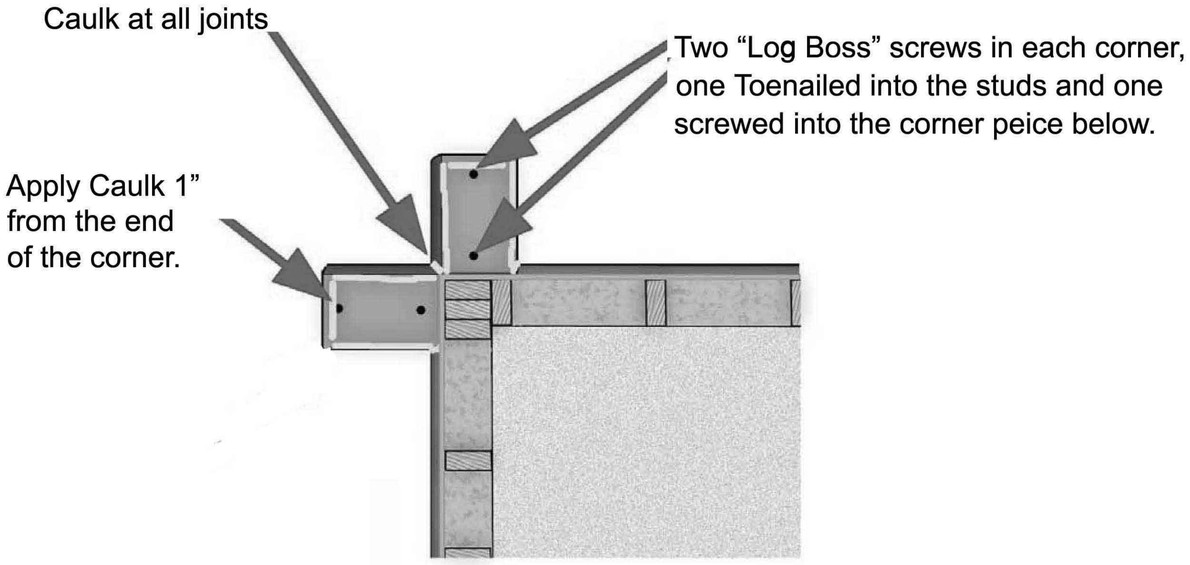
Decorative Rafter & Collar Tie Instructions

www.gableloghomes.com

2x6 / 2x8 Log siding with Interlocking corner pieces

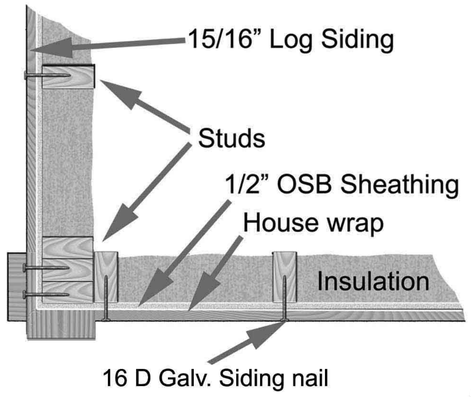


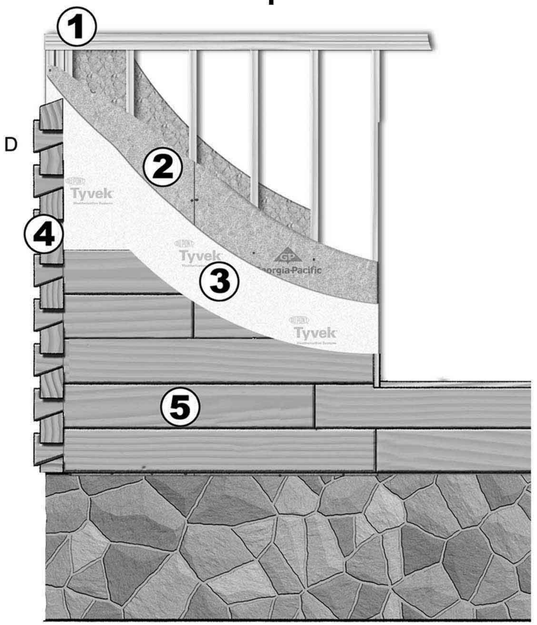




1“ Log siding with dovetail corner pieces

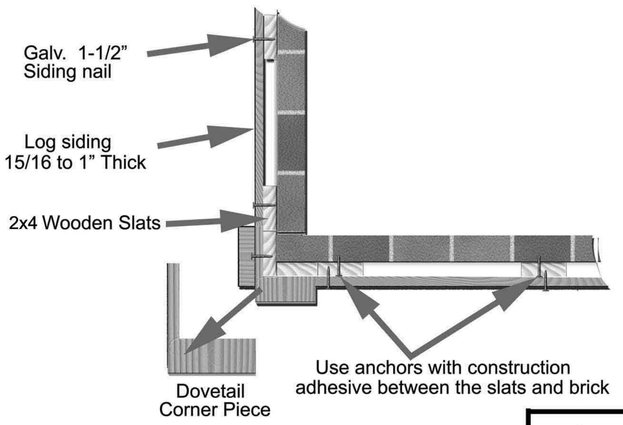
1. ***Stud walls*** - 2x4 or 2x6 Stud wall construction 16” O.C
2. ***OSB Sheathing*** - 1/2’ OSB nailed over the studs
3. ***House Wrap*** - House wrap moisture barrier Ex. Tyvek
4. ***Dovetail Corner Pieces*** - Nailed into corner studs. Use 16 D galvanized siding nails.
5. ***Log Siding*** - Siding can be 1x12 or 1x8 x 1’ thick
   French Canadian (V-Joints)
   Appalachian (Chinkjoints)

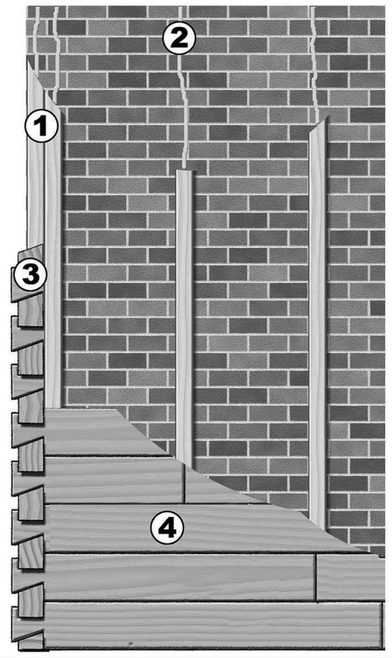




Over Brick

1. *2x4 Slats* - 2x4 slats attached to the brick wall. 24” O.C , use anchors ex: “Tapcon”
2. ***Construction Adhesive***
3. ***Log Corner Pieces -*** Use 1 -1/2” Galv siding nails
4. ***Log Siding -*** Use 1-1/2” Galv siding nails





GABLE LOG HOMES

Log Siding Details

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IMPORTANT

Handling and Storing Material During Construction

It is the Builder and the Homeowner's responsibility to ensure that all material is covered and properly stored during the construction process FAILURE TO DO SO MAY CAUSE DAMAGE! The material is lumber wrapped at our mill to protect it during shipment and is not intended for for protection for long term storage.

1. When opening a bundle of logs, pull the Lumber Wrap covering from underneath the bundles. The Lumber wrap is stapled from underneath.
2. Do not slice open the top of the covering, doing so will allow water to seep in and promote mildew. Try to keep the lumber wrap in one piece.
3. It is a good idea to periodcally remove the lumber wrap so that any condensation that may have occured can dry out.

THE LUMBER WRAP IS NOT INTENDED FOR LONG TERM STORAGE!

1.As soon as possible textured plywood (used for porch ceilings and cornice) should be stored in an enclosed building (or out of the weather) until it is ready to be installed.
2. DO NOT LET THE PLYWOOD GET WET! DOING SO WILL CAUSE MOISTURE DAMAGE,MILDEW STAINS AND DELAMINATION!
3. Keep the plywood off of the ground!!!

1. As soon as possible the decking needs to be stored in an enclosed building.
2. Do not leave the decking on skids in the yard. Ground moisture can cause the decking to swell up and then shrink months down the road after it is installed.
3. Do not let the decking get wet!

THE LUMBER WRAP IS NOT INTENDED FOR LONG TERM STORAGE!

1. Keep the 1x6 dry and out of the weather. Do not slice open the lumber wrap. (doing so will allow water to seep in and cause mildew)
2. Periodically remove the lumber wrap to allow any condensation that may have occured to escape. (air out the wood)
3. THE LUMBER WRAP IS NOT INTENDED FOR LONG TERM STORAGE.

1. As soon as possible the v-joint needs to be stored in an enclosed building.
2. Do not leave the v-joint on skids in the yard. Ground moisture can cause v-joint to swell up and then shrink months down the road after after it is installed
3. Do not let the V-joint get wet

THE LUMBER WRAP IS NOT INTENDED FOR LONG TERM STORAGE!

1.Normally your log package will include a pallet that contains: gaskets,screws, plastic splines, stain, caulk and other hardware.
2.Keep the butyl gaskets in a cool area in the summer to prevent them from melting together. Keep them in a warm place in the winter so they will stick to the logs better.
3. Store the caulk in a warm place in the winter to prevent freezing.

GABLE LOG HOMES

MATERIAL HANDLING

www.gableloghomes.com