



# Best Barns USA Assembly Book

*Revised September 19, 2017*



**the Woodville**

**10' x 12'**

**Manufactured by Reynolds Building Systems, Inc.**

205 Arlington Drive Greenville, PA 16125

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## IMPORTANT INFORMATION ABOUT YOUR SHED KIT

Download the most current instruction book at [www.barnkits.com](http://www.barnkits.com); use the "manuals" link on the menu bar and then select your building kit and size.

The foundation size should measure 10'-0" wide by 11'-9" long. **Do Not** make the foundation larger than the building size. The siding should project beyond the foundation for water to expel properly from the sidewalls.

Read the instructions before starting the assembly of the building. If you have any questions about assembling the kit, call 800-245-1577; business hours (8:00-5:00 ET) Monday thru Friday. After business hours call 724-866-HELP (4357) or email to [help@barnkits.com](mailto:help@barnkits.com).

The material that is included in our kit is listed on the back page. The optional floor package, if purchased, will be supplied by a local lumber supplier.

Our kit does not include the shingles, the quantity needed is listed on the back page. The siding is primed. You will need to apply a finish coat using latex acrylic paint.

Some of the framing lumber was used in the shipping pallet. Unpack the material from the pallets, then unscrew the OSB sheathing, it will be used for the loft flooring. Unscrew the 2x4s from the shipping pallet. This material will be used for wall bracing and wall plates. The bit for the screws is packed in the hardware bag.

Stacking the boards, according to size, will make them easier to find when needed. Some boards may have colored ends.

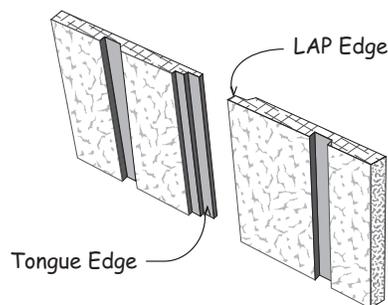
Before you begin construction, be sure to study this assembly manual. Also, obtain a building permit and check all pertinent building code regulations.

Thank you for your purchase.

Bill & Linda Rinella, owners

The siding is made in 4x8 sheets with grooves cut into the face, the long edge is beveled so that the siding overlays where they butt.

To identify which edge we want you to use, we will refer to the edge as either the 'LAP' Edge or the Tongue Edge. Nail siding with 8d galvanized box nails spaced 8" apart.



### Tool List

- |  |  |
|--|--|
| <input type="checkbox"/> Hammer & Phillips Screwdriver | <input type="checkbox"/> Power Drill/Screwdriver |
| <input type="checkbox"/> Framing Square & Level        | <input type="checkbox"/> Measuring Tape          |
| <input type="checkbox"/> Hand or Circular Saw          | <input type="checkbox"/> 2 - 8' Step Ladders     |

**Always wear safety glasses when cutting or nailing!**

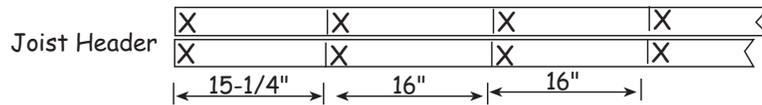
## Constructing Details for Deluxe Floor System

*Deluxe floors include 4x4 runners, standard floors do not*

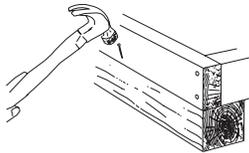
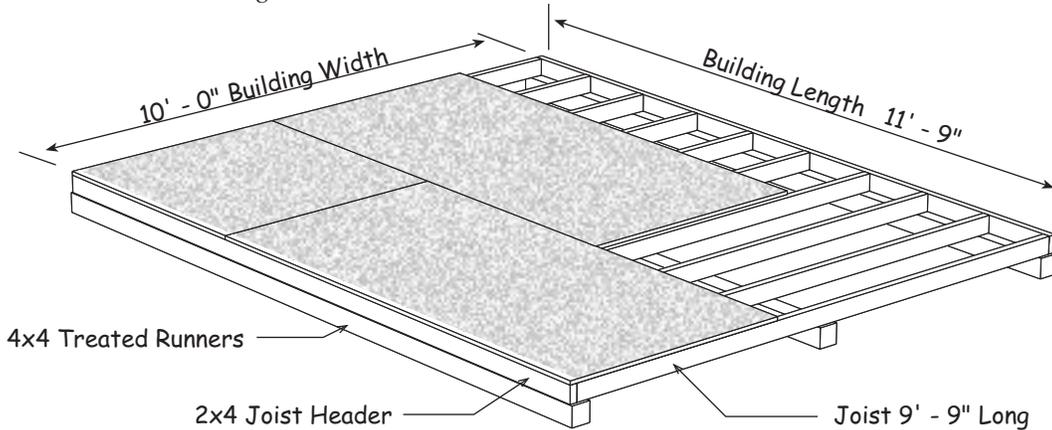
Foundation size is 10'-0" x 11'-9". Check local building codes in your area, the construction may have to change. For a concrete slab, install sill sealer as a moisture barrier between the concrete and the wall plates. Foam sill sealer can be purchased at home centers in rolls 3-1/2" or wider.

1. Cut 2x4-12' joist headers to 11' - 9".

Layout for 16" on center joist spacing. 'X' marks where floor joist will be placed.



2. Cut 2x4-10' floor joist to 9'-9". *Treated lumber may be thicker than 1-1/2". Take this into account when cutting the length of floor joists. Shorten joist measurements if necessary to obtain 10'-0" building width.*



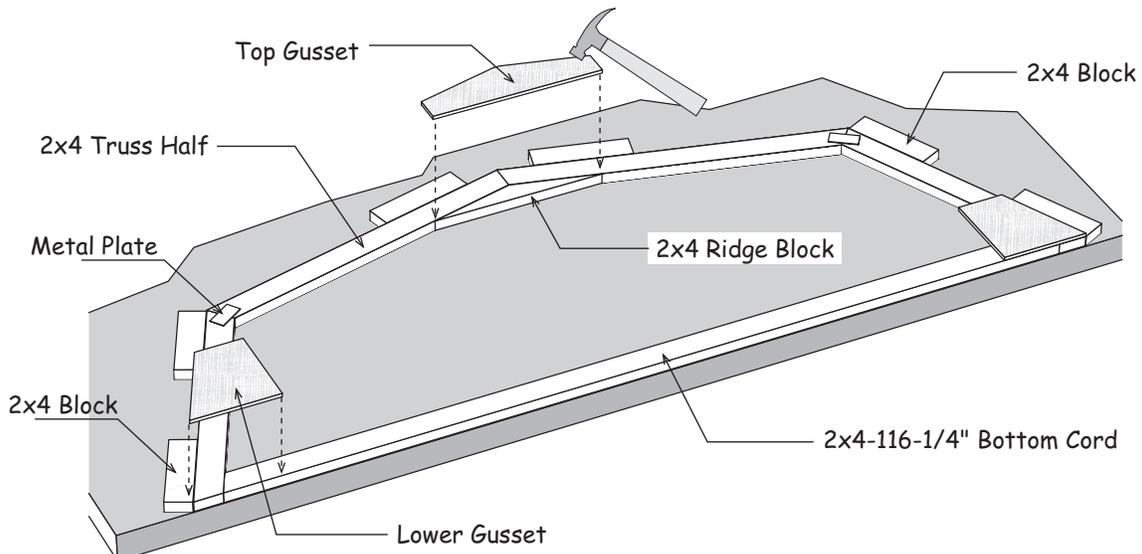
Nail the 2x4s to the 4x4 runners to keep the 2x4 frame from moving.

It is important that the floor be level and square. Before nailing the flooring, measure the floor diagonally (corner to corner); then measure the opposite corners. These measurements will be the same when the floor is square.

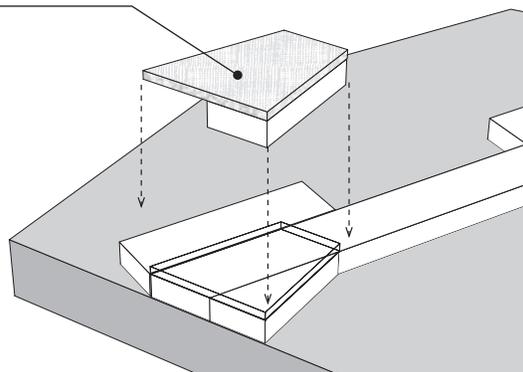
Material Description	10' x 12' shed	10' x 16' shed
2x4 Joist Headers	2 pcs. 12'	2 pcs. 16'
2x4 Floor Joist	10 pcs. 10'	13 pcs. 10'
4x4 Treated Runners	3 pcs. 12'	6 pcs. 8'
Flooring 5/8" or 3/4"	4 pcs. 4x8	5 pcs. 4x8
Screw Floor Nails	1 lb. 8d	2 lb. 8d
Galv. Box Nails	1 lb. 16d	1 lb. 16d

## Step 1 Assemble Trusses

1. Position (2) two truss halves together so that a 116-1/4" long 2x4 bottom cord may be placed between them.
2. Hold truss parts in place by temporarily screwing 2x4 blocks to the floor. There are short 2x4 blocks supplied in the kit for this purpose. Use 2-1/2" wood screws.
3. Secure the tops together with a 22-3/4" long ridge block and wood gusset. Nail the gusset with (16) sixteen 6d common nails. Space nails evenly.
4. Secure the truss bottom legs to the bottom cord with wood gussets. **Note:** You may have to spread the truss bottom to fit the bottom 2x4. Use 12 nails per gusset. Space nails evenly.
5. Assemble (3) three more trusses.
6. Turn trusses over and apply wood gussets to the opposite side.



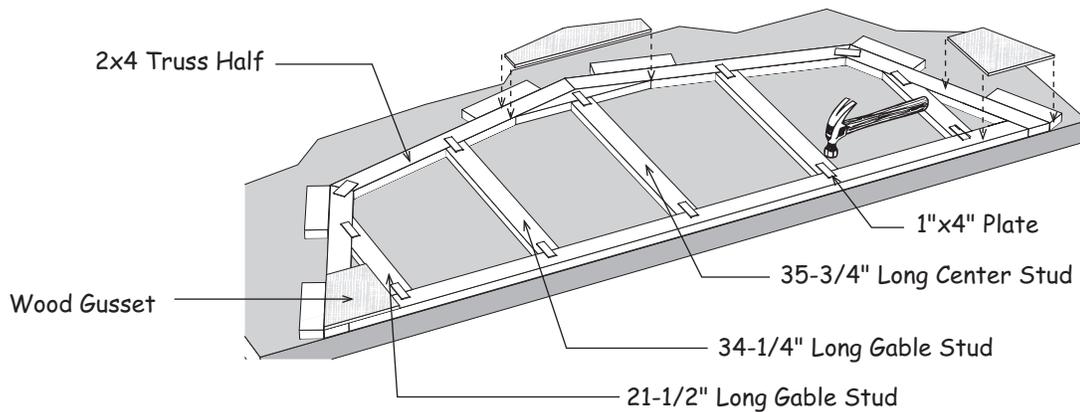
7. Assemble another truss without a bottom cord. Locate wood gussets with a 2x4 block attached to one side.
8. Attach this block/gusset to the bottom of each truss leg. Secure to leg with 6d common nails.
9. Turn truss over and apply gussets.



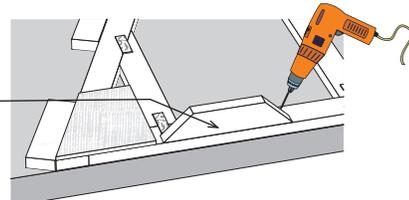
Do Not remove blocks from floor until **Step 2** is completed.

## Step 2 Assemble Rear Gable

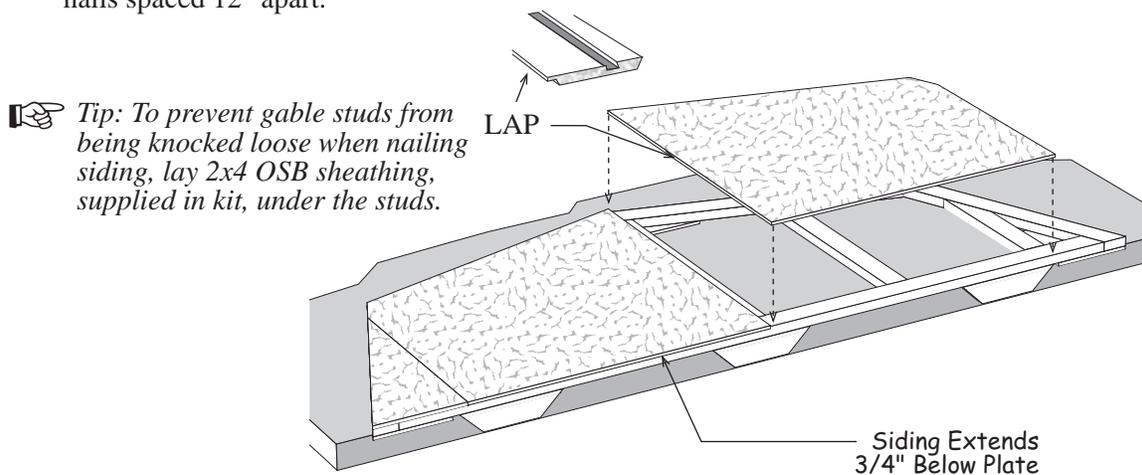
1. Place (2) two truss halves in jig. Position ridge block at peak. Locate (1) one 35-3/4" 2x4 center stud and secure to ridge block with 1"x4" metal plate. Nail gusset to ridge block and truss.
2. Install 116-1/4" bottom cord and nail gussets to bottom of truss.
3. Install (2) two 21-1/2" and (2) two 34-1/4" with angle cut on one end. Secure 2x4 gable studs to the truss with (9) nine 1"x4" metal plates at top and bottom.



4. Screw (3) three 16" long 2x4 blocks flush with bottom of the 2x4 bottom cord. One on each end and one in the center. Use (2) two 2-1/2" screws.

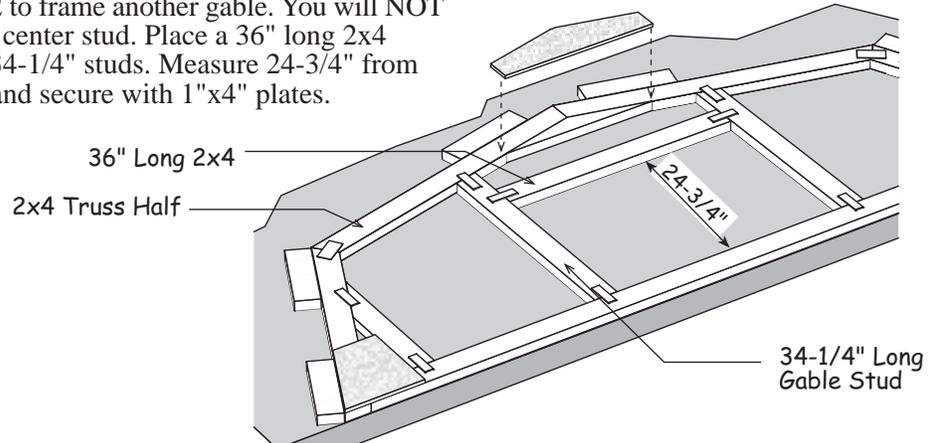


5. Turn the gable over. Locate pre-cut gable siding. Starting from left install the siding extending 3/4" below the bottom 2x4. Insure the siding does not extend above the top frame. Use 6d galv. nails spaced 12" apart.



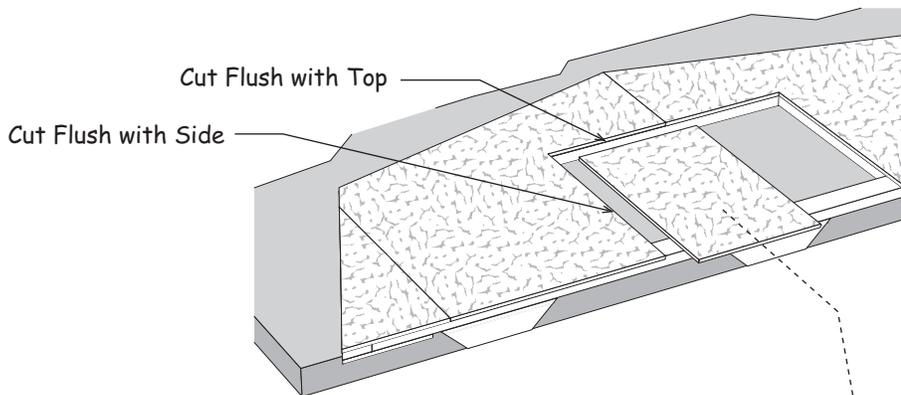
### Step 3 Assemble Front Gable

1. Repeat Step 2 to frame another gable. You will NOT use a 35-3/4" center stud. Place a 36" long 2x4 between the 34-1/4" studs. Measure 24-3/4" from bottom cord and secure with 1"x4" plates.

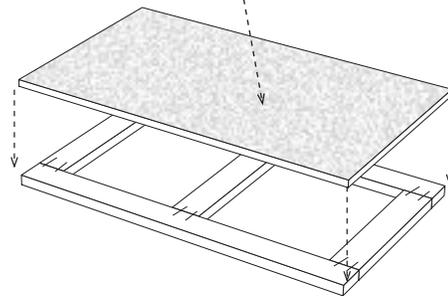


 *If you don't need loft access from the outside, attach loft door frames to the gable to create a decorative look and weather tight storage area.*

2. Turn the gable over. Lay out the first (2) two pieces of siding on frame. **Important: Do not nail to frame.** Mark and cut so siding is flush with top and left side of opening. Cut to bottom of siding below gable plate. Nail first two pieces of siding to frame. Lay out next siding panel, do not nail, and repeat cut for right side door opening. Nail last two pieces of siding to frame.

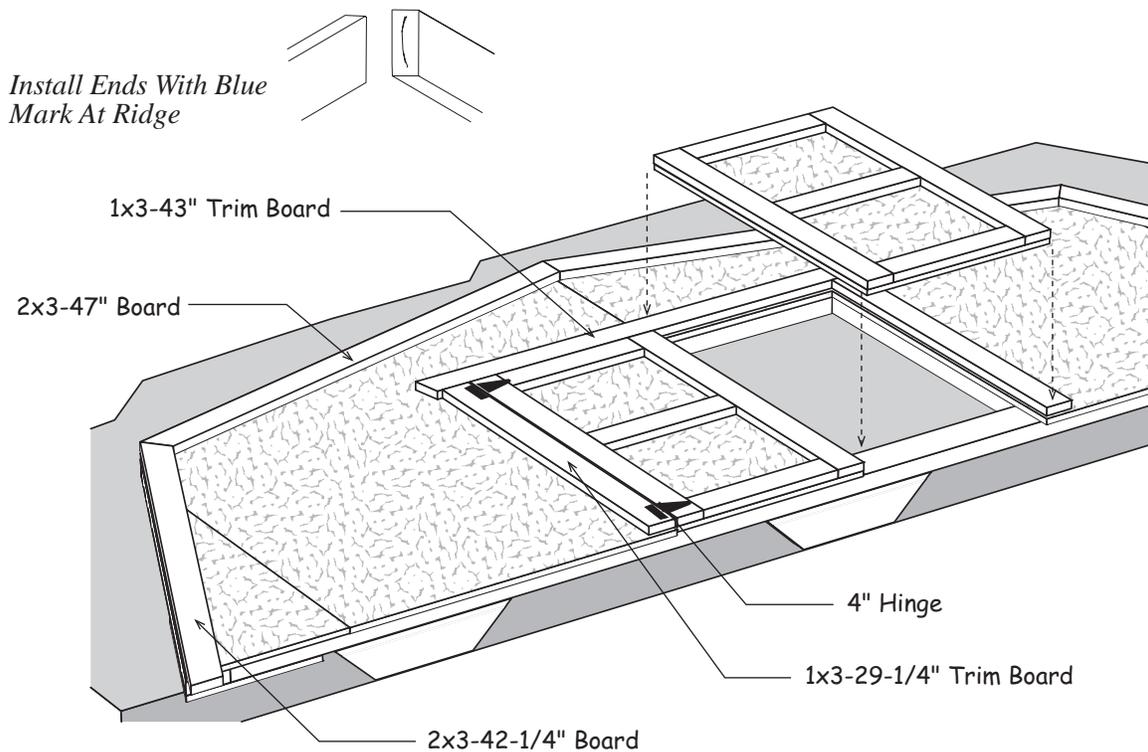


3. Assemble the loft doors. The loft door frames are temporarily held together with corrugated fasteners, this is the back side of the door frame. Place the doors on level surface, face side down. Cut the siding from above step to the size of the door frame. Secure the siding panel to the frame with 1" screws provided.



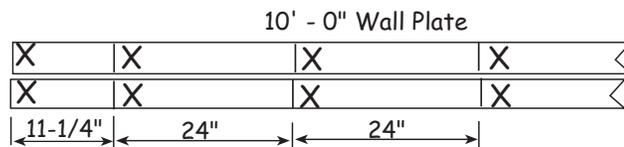
## Step 4 Install Front Gable Overhang and Front Loft Doors

1. Apply 47" long 2x3 boards to the front gable. These boards have a blue marking on one end. Install this end at the top. Install flush with the top of the gable frame. Use 10d sinkers
2. Install a 42-1/4" long 2x3 at the sides of the gable, flush with the frame. Board will extend below siding.
3. Install 29-1/4" long 1x3 trim boards on each side of the loft door opening. Install a 43" long trim board across the top.
4. Install loft doors using 4" hinges and 1-1/4" long hinge screws. The screws have a square head. The bit is packed with the screws. Install barrel bolts to the inside top of the doors to secure doors when closed. When door is closed mark where bolt will hit 2x4 gable frame. You will need to drill a 1/4" hole into the underside of the 2x4.



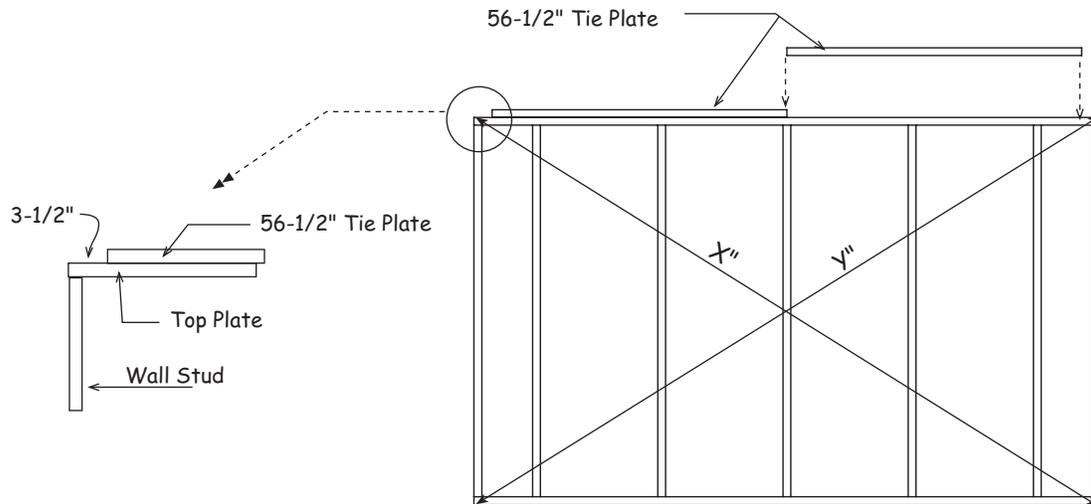
## Step 5 Layout Plates for Back Wall

Position (2) two 2x4-10' boards together and indicate with 'X' marks, where the wall studs will be located.

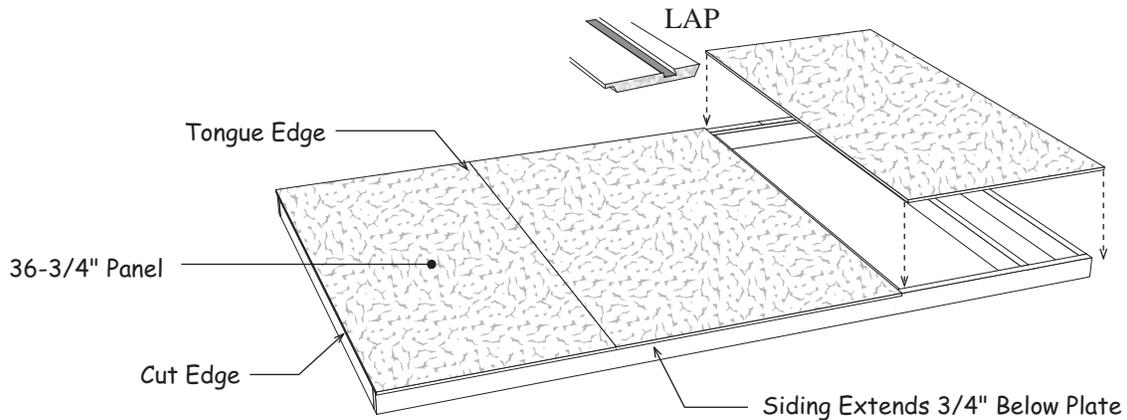


## Step 6 Assemble Back Wall

1. Install 72" wall studs between the top and bottom plates. Nail studs to plate using (2) two 10d sinkers on each end of the stud.
2. Install (2) two 56-1/2" long 2x4 as tie plates over the top plate. The 2x4s will be 3-1/2" short of the end of the wall frame.

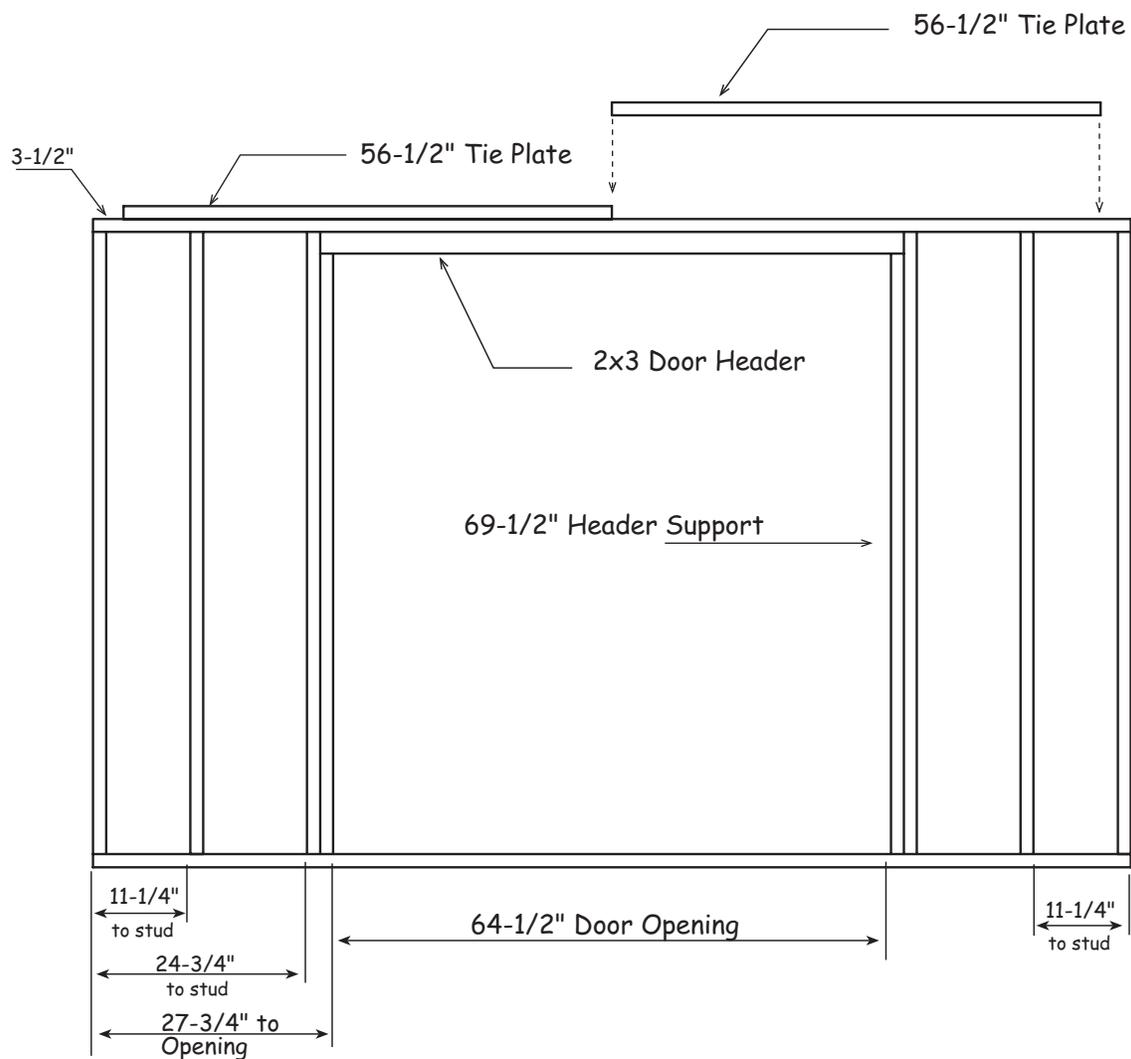


3. Square wall frame. *Measure diagonally (corner to corner).* The two measurements (x" and y") will be the same when the wall is square.
4. Locate a 36-3/4" x 77-1/4" siding panel with the 'Tongue' edge. Install the siding panel on the left corner, with the 'cut edge' flush with the end of the wall and flush with the top of the 2x4 tie plate. The siding should extend below the bottom plate. Use the 8d galv. nails spaced 12" on center.
5. Install a 48-3/4" x 77-1/4" siding panel in the center of the wall frame.
6. Install a 36" x 77-1-4" panel with the 'LAP' edge last.



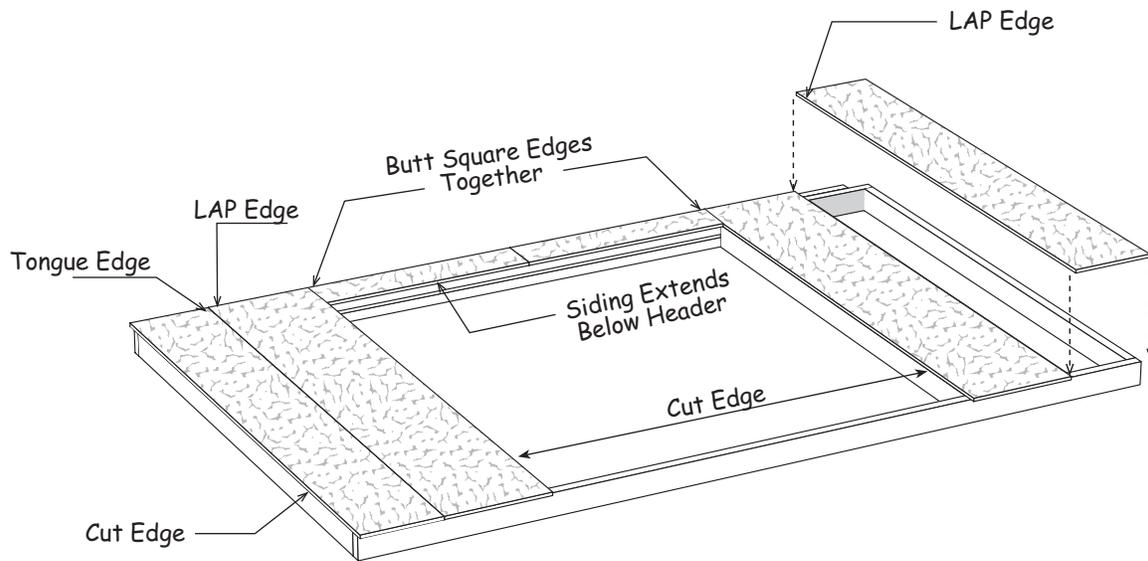
## Step 7 Assemble Front Wall Panels

1. Install (6) six 72" wall studs between 2x4 - 10' top and bottom plates.
2. Cut (2) two 2x4-6' boards to 69-1/2" in length. Install a pre-built 2x3 door header and the 2x4s as header support under the door header.
3. Install (2) two 56-1/2" long 2x4 as tie plates over the top plate. The 2x4s will be 3-1/2" short of the end of the wall frame.
4. Square wall frame.



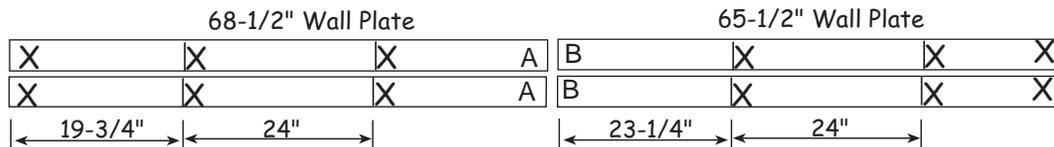
## Step 7 Assemble Front Wall Continued

5. Locate a 16" x 77-1/4" siding panel that has a 'LAP' edge. Position the 'cut' edge flush with the left side of the door opening. Do not nail the LAP edge until the other siding is applied.
6. Locate the 12-3/4" wide siding with a 'tongue edge' and install on the left end of the front wall.
7. Install (2) two 6" siding panels over the door opening, flush with the top plate.
8. Install another 16" wide siding panel with the 'cut' edge flush with the side of the door opening.
9. Install the last siding panel..



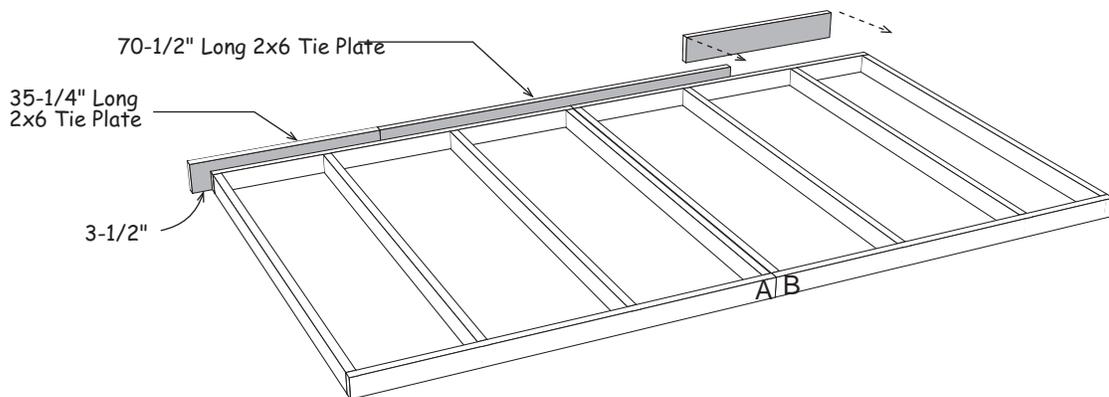
## Step 8 Assemble Sidewalls

1. Position 68-1/2" and 65-1/2" long 2x4 boards together and indicate where the wall studs will be located. Mark the ends that will butt together with the letters 'A' and 'B'.

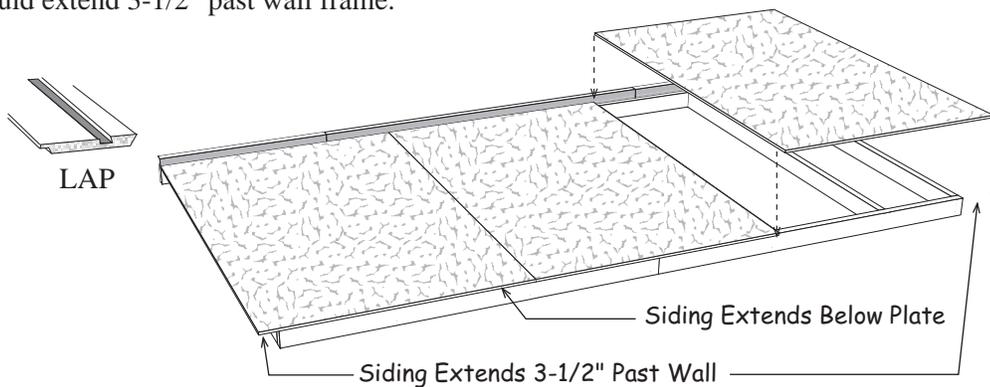


## Step 8 Assemble Sidewalls Continued

2. Install 72" wall studs between the top and bottom plates.
3. Nail frames together. Use 10d sinkers.
4. For a 12' long building, cut a 70-1/2" long 2x6 board in half so the center 2x6 tie plate will span where the sidewalls meet..
5. Install (2) two 35-1/4" and a 70-1/2" long 2x6 boards as tie plates over the top plate. The 2x6s will extend 3-1/2" beyond the end of the wall frame.
6. Square wall frame.



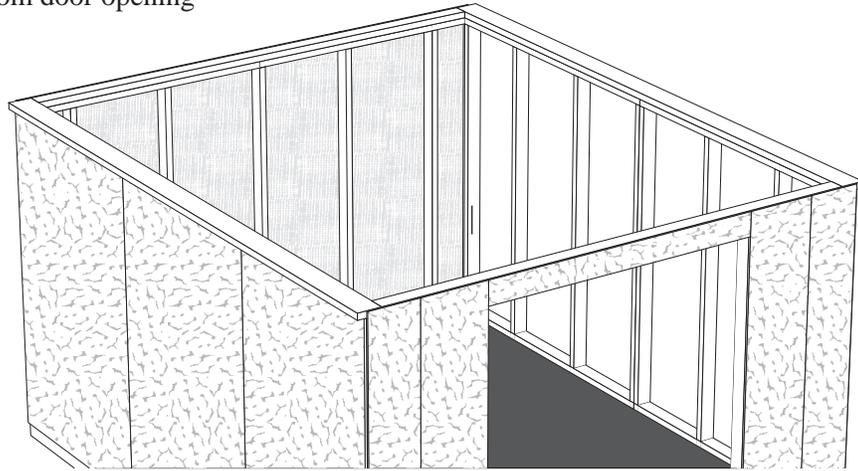
7. Locate (2) two siding panels that are 77-1/4" long and cut them to a length of 75-3/4"
8. Install a 75-3/4" long siding panel with the 'LAP' edge extending 3-1/2" beyond the frame.
9. Install another siding panel in the center.
10. Cut and install the last siding panel. Siding should extend 3-1/2" past wall frame.



11. Assemble another sidewall frame.

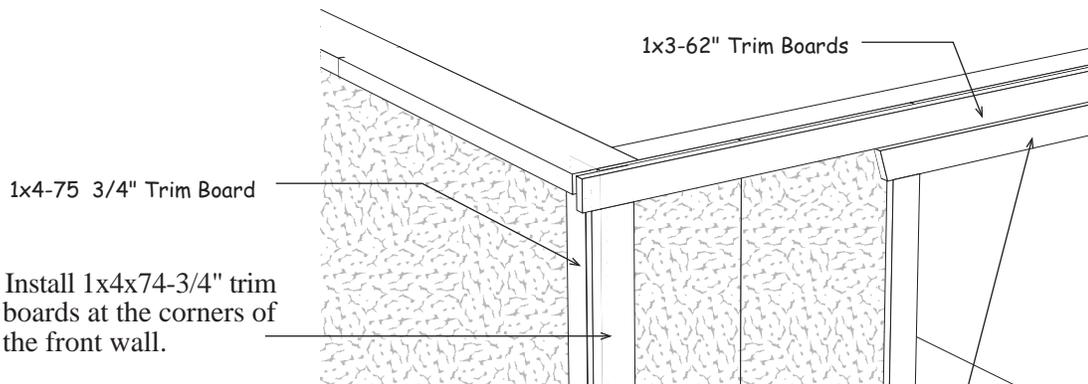
## Step 9 Set Lower Walls

1. Secure wall panels together at the corners. Use (4) four 10d coated nails per corner. Nail wall panels to the floor. Nail through the bottom plate. Space 10d sinkers 24" apart.
2. Cut the 2x4 from door opening



## Step 10 Install Trim

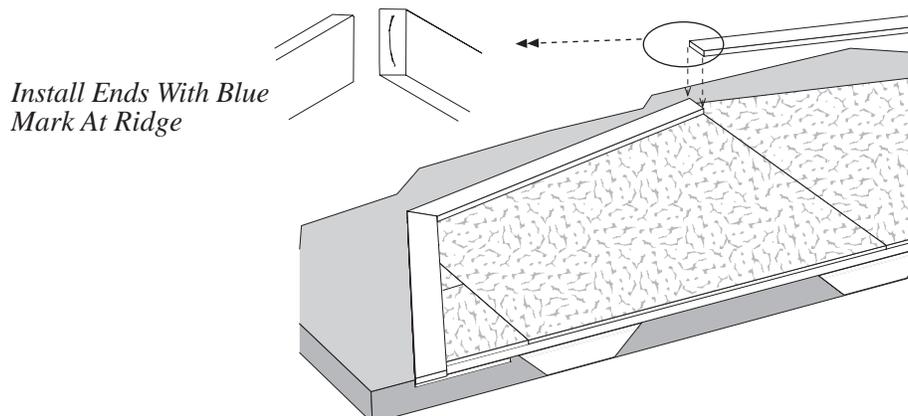
1. Install (2) two 1x3-62" long trim boards flush with the top of the front wall. Use 8d galv. nails.
2. Install 1x4-75 3/4" trim boards at the front corners of the sidewall. Install the trim flush with siding on the front wall.



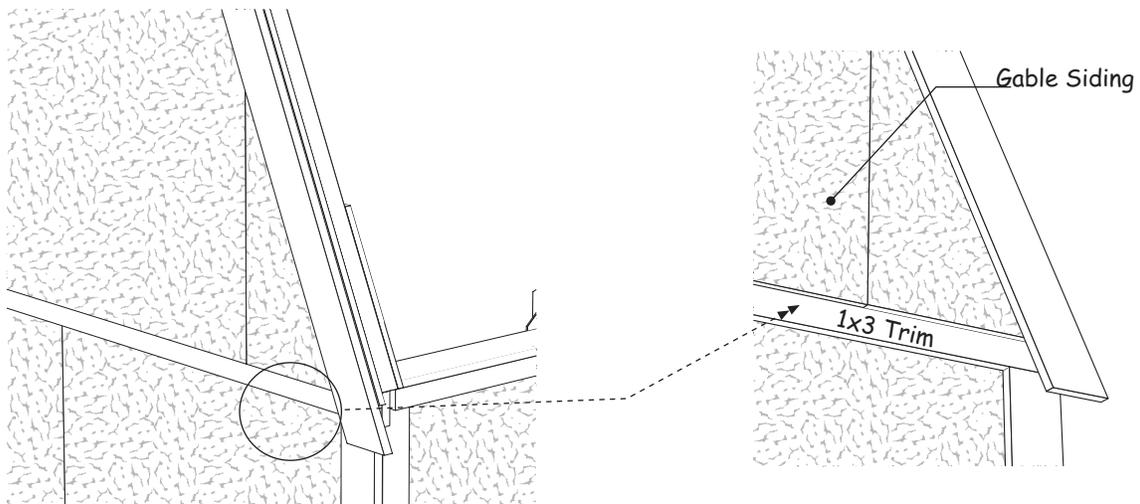
3. Install 1x4x74-3/4" trim boards at the corners of the front wall.
4. Install 1x4x72" boards along each side of the door opening. Tack these boards with a couple nails; you may want to move the trim later when you install the doors.
5. Install a 1x3x72" board over the door opening.
6. Install trim on the back of the building.

## Step 11 Install Rear Gable

1. Apply 1x4 white pine trim to gable. Install a 47-1/2" long 1x4 at the top of the gable. These boards have a blue marking on one end. Install this end at the peak. Install the 1x4 gable trim extending 1/2" above the siding on the gable. When installed later, the roof sheathing will be flush with the top of the trim.
2. Install a 43" long 1x4 at the sides of the gable, 1/2" above the siding on the gable.

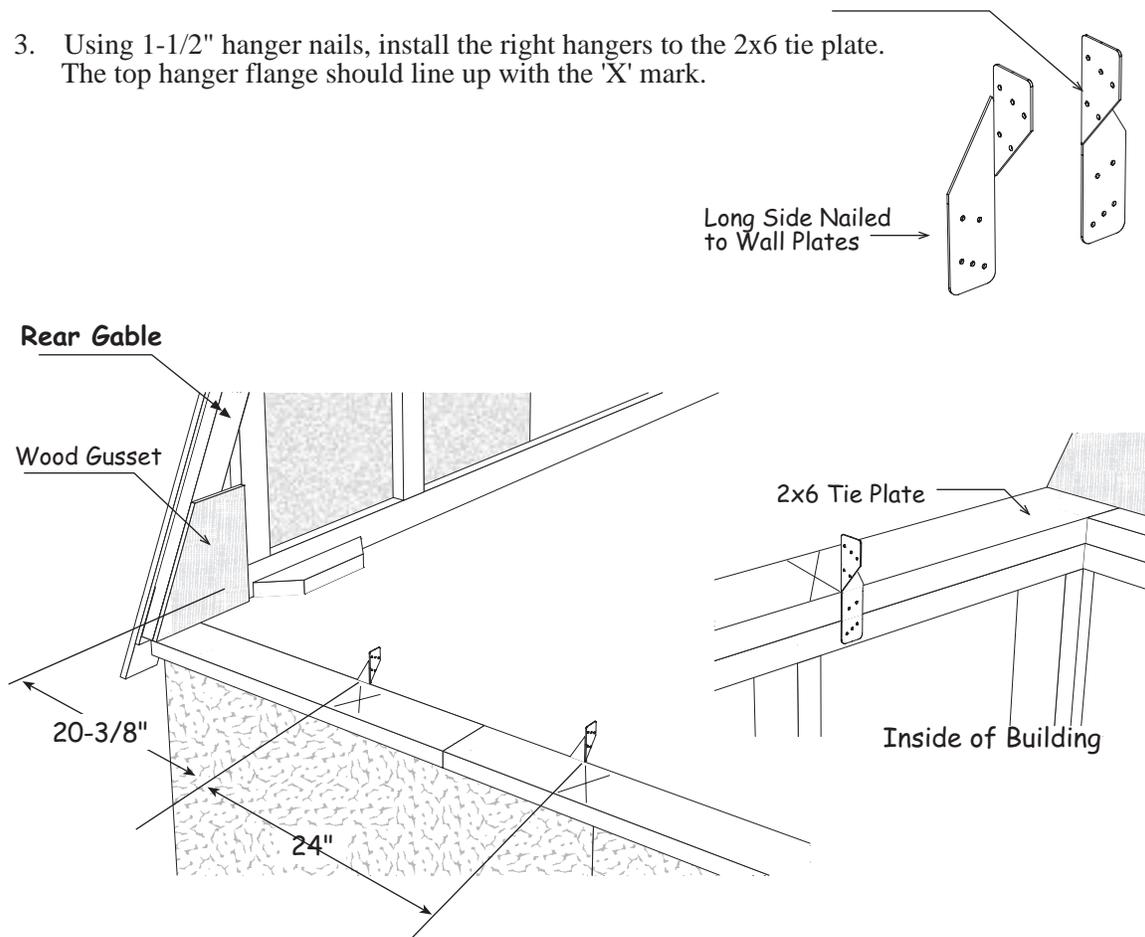


3. Install the rear gable on the back wall. The gable siding will extend over the 1x3 trim on the lower wall. **NOT behind the trim!** Secure gable to wall by nailing through the gable blocks with 10d sinkers. Nail siding along the 1x3 trim board with 6d galv. nails.



## Step 12 Layout for Truss Spacing

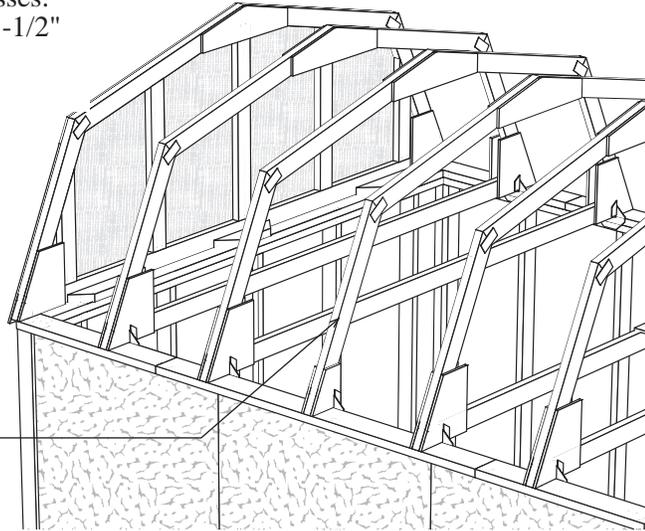
1. Layout the truss spacing on the left sidewall, facing building. Start at the back of the building. Measure from the inside face of the wood gusset when marking the location of the first truss.
2. Locate the truss hangers, there are left and right hangers. Select the right hangers.
3. Using 1-1/2" hanger nails, install the right hangers to the 2x6 tie plate. The top hanger flange should line up with the 'X' mark.



**Important:** When marking the opposite wall, use the left hangers and place the 'X' mark on the same side of the line so your trusses are parallel when they are installed.

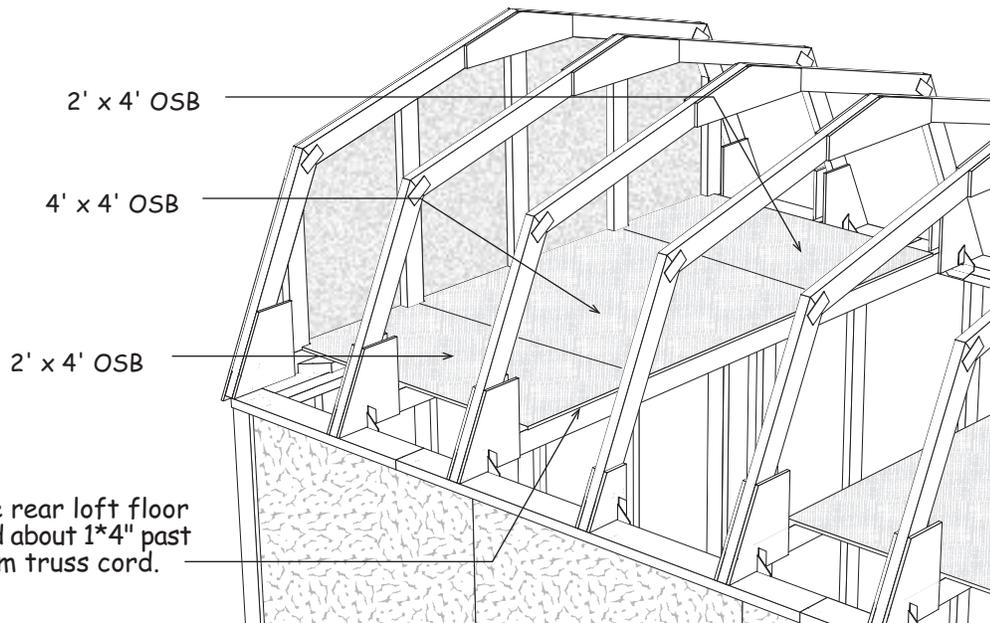
## Step 13 Install Trusses & Loft Floor

1. Install the trusses over the 'X' marks. Install hanger to the opposite side of the trusses. Secure truss to metal hangers using 1-1/2" hanger nails.



Note: The center truss will not have a bottom cord.

2. Install front gable.
3. Install OSB loft flooring over the rear and front trusses. Notch the flooring around the gable studs on the rear and front gables. Secure floor with 7d sinkers. Note: Some OSB panels may be attached to the shipping pallet.

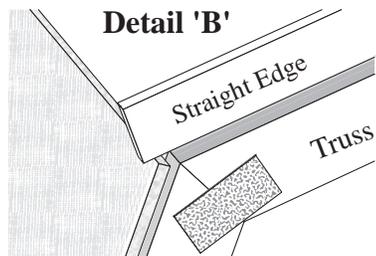
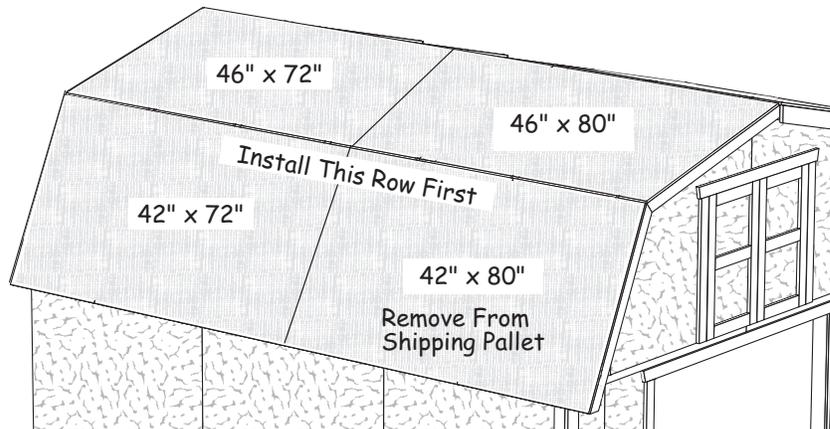


Note: The rear loft floor will extend about 1\*4" past the bottom truss cord.

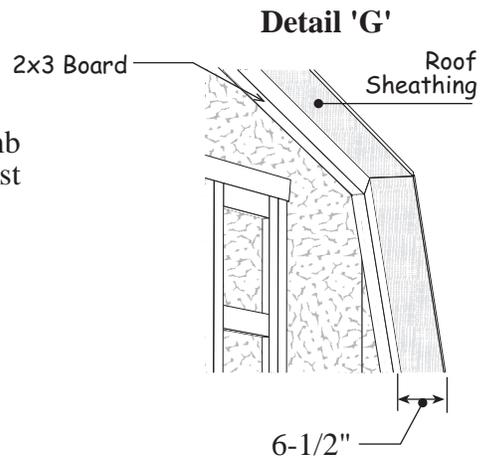
## Step 14 Install Roof Sheathing

Install roof sheathing on the steep side of the roof. Use a straight edge to align the top of the sheathing with the top of the truss; see **Detail 'B'**. Make sure the trusses are plumb and the roof sheathing meets the center of the truss. Use 7d sinkers spaced 6" apart.

The top roof sheathing will not extend to the ridge. This will allow an opening for air ventilation when you install a ridge vent.



 **Important:** Make sure the gable is plumb and the roof sheathing extends 6-1/2" past the 2x3s along the face of the gable; see **Detail 'G'**



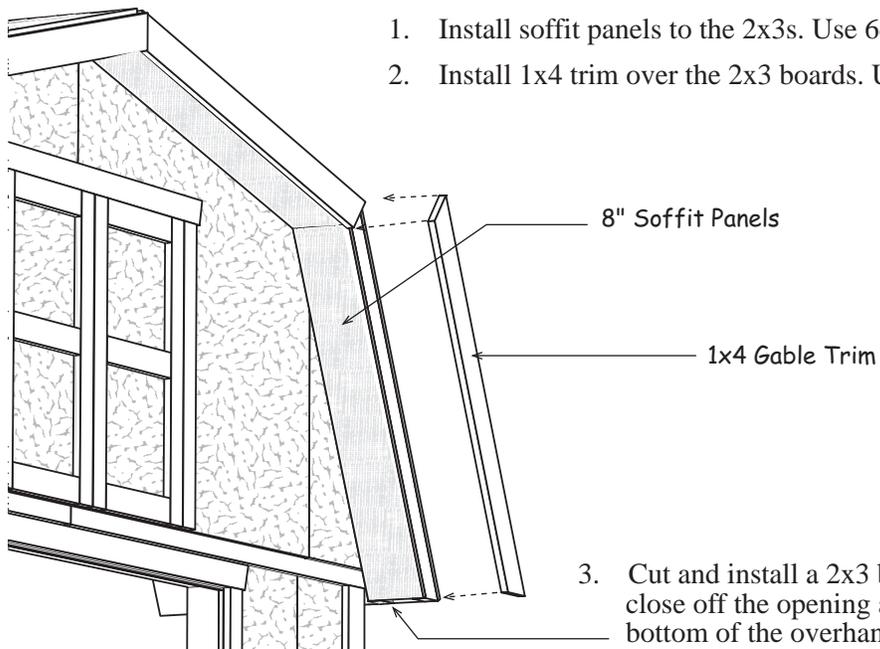
## Step 15 Install Gable Overhang

1. While a helper holds the 47" long 2x3s against the front edge of the roof sheathing. Screw the sheathing to the 2x3s with 1-1/2" long screws.
2. Install the 42-1/4" 2x3s on the side roof sheathing in the same manner.



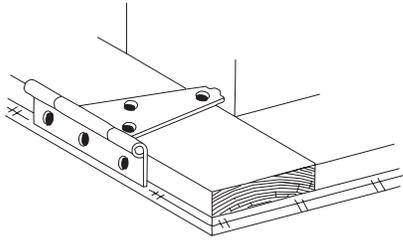
## Step 16 Install Gable Soffit and Trim

1. Install soffit panels to the 2x3s. Use 6d galv. nails
2. Install 1x4 trim over the 2x3 boards. Use 8d galv. nails.

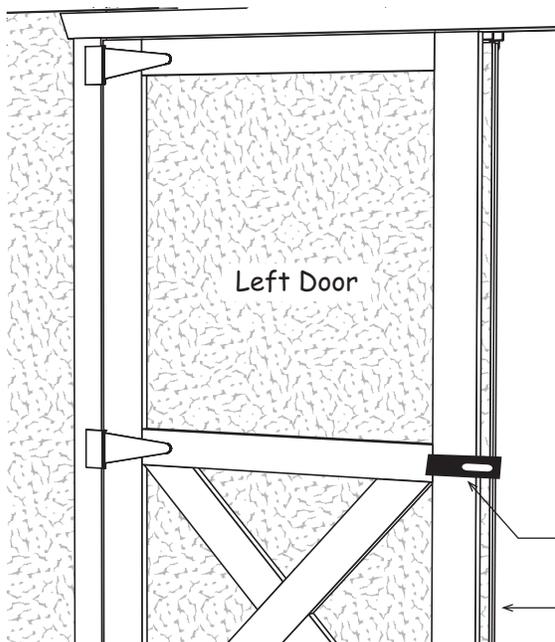


3. Cut and install a 2x3 block to close off the opening at the bottom of the overhang.

## Step 17 Install Doors & Hardware



1. Lay the left door with the trim facing up. The siding on the left door extends past the door trim. See detail below.
2. Install 5" hinges to the left side of the door frame. To position the hinge properly, hold the rectangular plate against the frame. Use 1-3/4" black screws.
3. Install hinges to the right side of the other door.



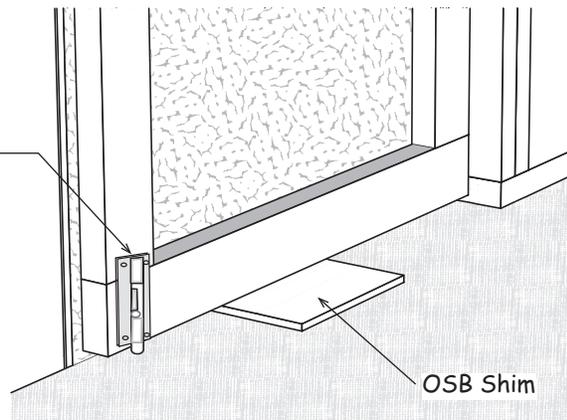
4. Before you fasten the hinges to the door trim, temporarily prop the doors in the opening. Leave a space at the top of the doors and between the doors and the side trim to allow room for the doors to expand when they absorb moisture.

If your door opening is out of square, the space around the doors will not be even. You can remove and reposition the side trim to make allowances for this. The side trim does not have to be flush with the frame of the door opening. You can move the trim in or out to make the door spacing equal.

5. Install hinges to trim with 2" screws.

Barrel Bolt on the back of left door

6. Install a barrel bolt on the lower back of the door to secure this door in place when closed. You will need to drill a hole for the round shaft to drop into.
7. Install another barrel bolt at the top of the door.



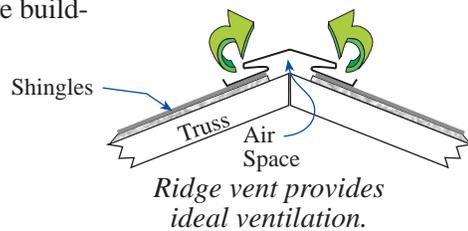
## Install Shingles - not included in kit

Install felt paper and metal roof edge the perimeter of the building. If you are not installing shingles at this time, you can purchase felt paper to protect the sheathing. Install the felt paper before you install the metal roof edge.

Install shingles according to the instructions on the wrapper. Additional information and tutorials can be found on various online sources.

**Building Tip:** Install ridge vent in lieu of shingles caps. Ridge vent provides ideal ventilation, preventing heat or moisture build-up from damaging your building or its contents.

Material Description	Building Length	
	10'x12'	10'x16'
Roof Shingles	7 bdl.	10 bdl.
Roof 'drip' Edge	6 pcs.	7 pcs.



### Meadowbrook and Woodville 10'x 12' Barn kit

Qty.	2x4 & 2x6 Framing	Size		Qty.	Description	Size
4	Wall Plates	120	"		<b>White Pine Trim</b>	
8	Truss - Bottom Cords	116	1/4"	4	1x4 Gable Trim	47 1/2"
8	2x4 Boards Attached to Pallet	80	"	4	1x4 Gable Trim	43 "
31	Wall Studs	72	"	4	1x4 Corner Trim	75 3/4"
4	Wall Plates	68	1/2"	4	1x4 Corner Trim	74 3/4"
4	Wall Plates	65	1/2"	2	1x4 Door Trim	72 "
4	Wall Plates	56	1/2"	1	1x3 Top Door Trim	72 "
1	Gable Studs & Framing	36	"	4	1x3 Lower Wall Trim	62 "
1	Gable Studs & Framing	35	3/4"	2	1x3 Loft Door Trim	29 1/4"
4	Gable Studs & Framing	34	1/4"	1	1x3 Loft Door Trim	43 "
4	Gable Studs & Framing	21	1/2"		<b>Exterior Siding &amp; Soffit</b>	
9	Truss Ridge Blocks	22	3/4"	3	48" x 77-1/4"	2 12" x 77-1/4"
6	Gable Nailing Blocks	15	3/4"	2	36" x 77-1/4"	4 48" x 75-3/4"
4	2x6 Tie Plates for Sidewalls	70	1/2"	2	16" x 77-1/4"	2 6" x 32-1/4"
	<b>2x3 Framing</b>			4	Siding for Roof Gables	48" x 48"
4	Gable Overhangs	47	"	4	Siding for Roof Gables	16" x 30"
4	Gable Overhangs	42	1/4"	2	Siding For Door Header	6" x 32-3/4"
2	Gable Blocks	6	1/4"	4	8" x 48" Front Soffit Panels (Woodville model)	
	<b>Pre-built Components</b>				<b>Hardware</b>	
14	Pre-built Truss Halves			3	lb. 10d Sinkers	20 Truss Hangers
2	32" x 72" Pre-built Barn Doors			3	lb. 8d Galv.	75 Hinge Screws
2	18" x 29" Loft Door Frames			2	lb. 7d Sinkers	1 Door Hasp
1	2x3 Door Header	67-1/2"		3	lb. 6d Common	2 4" Barrel Bolts
	<b>Loft Floor &amp; Roof Sheathing</b>			1	lb. 6d Galv.	2 6" Barrel Bolts
2	42" x 80"	2	42" x 72"	3	lb. Hanger Nails	12 2-1/2" Screws
2	46" x 80"	2	46" x 72"	4	4" Door Hinges	36 1" Screws
2	48" x 48"	4	24" x 48"	6	5" Door Hinges	24 1-5/8" Screws
	<b>Miscellaneous Lumber</b>			22	1x4 Drive-on Plate	
12	Wood Truss Ridge Gussets	8" x 24"			<b>Miscellaneous</b>	
20	Wood Bottom Truss Gussets	12" x 12"		2	Center Truss Blocks w/gusset	3-1/2"x7-1/2"

Roof Material  
by Owner

Roof Shingles	7 bdl.
Roof 'drip' Edge	6 pcs.