



Assembly Book

Revised April 26, 2012



the Brandon Building Size 12' x 20'

Manufactured by Reynolds Building Systems, Inc.

205 Arlington Drive

Greenville, PA 16125

724-646-3775

This manual is copyrighted. Under the copyright laws, this manual may not be copied, in whole or in part, without consent from Reynolds Building Systems, Inc. © Copyright 2011

IMPORTANT INFORMATION ABOUT YOUR SHED KIT

Thank you for purchasing our Brandon kit. These instructions will construct a 12'x20' building. **If you received two books, use the one with the latest revision date.**

The material that is included in our kit is listed on the back page. The optional floor package, *if ordered*, 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.

Our framing lumber is imported to provide you the highest quality available. However, if you need to replace any lumber for any reason please do so and we will reimburse you.

Our '*Deluxe Brandon*' includes pre-built barn doors, pre-cut siding and roof sheathing for EZ assembly.

IMPORTANT: Unpack the material from the pallet, then unscrew the bottom 2x4s from the pallet runners. The bit for the screws is packed in the hardware bag. Remove the OSB panel from the sheet goods pallet, it will be used for roof sheathing.

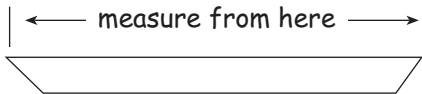
Stacking the boards, according to size, will make them easier to find when needed. Some boards have colored ends. All the wall studs have black ends, stack these boards together. **Do Not** discard any material until your building is complete.

If you have any questions about assembling the kit, call 800-245-1577. If you are calling after normal business hours, call 724-866-HELP (4357) or email to help@barnkits.com.

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



When measurements are given for a board length or width, it is from the longest side.

Tool List

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

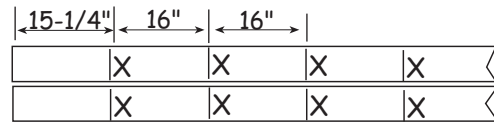
Always wear safety glasses when cutting or nailing!

Constructing Details for Deluxe Floor System

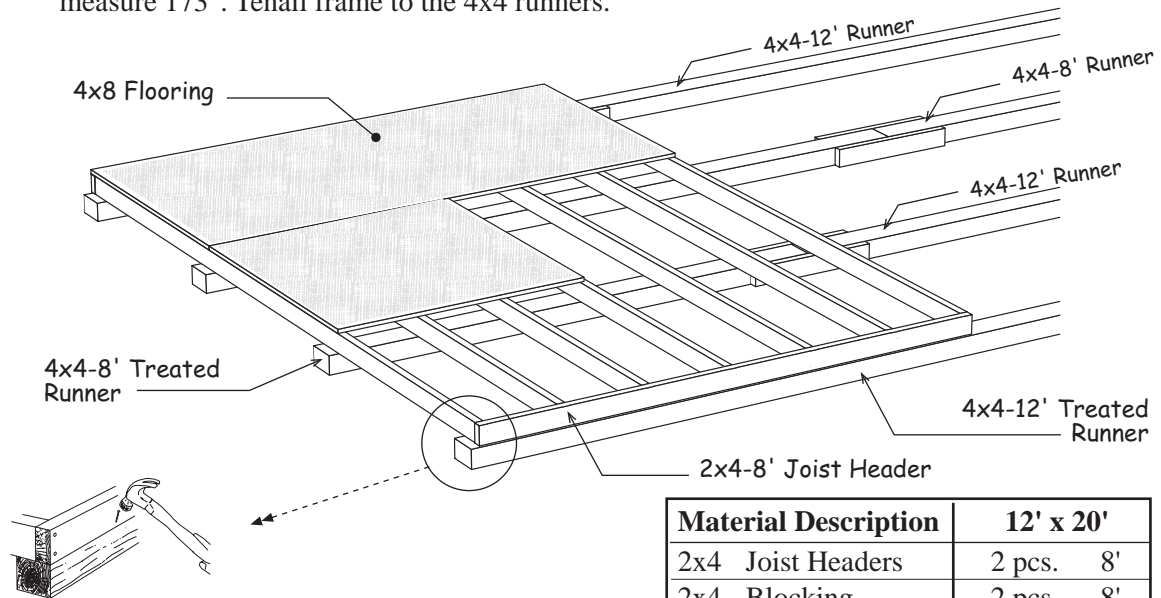
Deluxe floors include 4x4 runners, standard floors do not

Foundation size is 12'-0" x 20'-0". 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 (17) seventeen 2x4-12' treated boards to 11' 8-7/8". These will be the floor joists.
2. Stagger the 4x4 timbers as shown below. Cut (2) two 2x4-8' boards into 2' long blocks to secure the 4x4s where they butt together.
3. Cut (2) two 2x4-8' to a length of 8' -0". They will be used for the joist headers. Layout, from left, for 16" on center joist spacing. 'X' marks where floor joist will be placed.



4. Install the floor joists cut above between the 8' joist headers. Secure with 16d galv. deck nails.
5. Place floor assembly over the 4x4s. Square floor assembly. Measure the floor diagonally (corner to corner). These measurements will be the same if the floor is square. It should measure 173". Tenail frame to the 4x4 runners.



6. Cut (2) two 2x4-12' to a length of 12' -0". Layout for 16" joist spacing, *see above*.
7. Install floor joists between the joist headers. Square floor section. Measurement will be 203-5/8". Install this section against the section assembled above.
8. Install 4x8 flooring over the 2x4s. Use 8d galv. spiral nails.

Material Description	12' x 20'
2x4 Joist Headers	2 pcs. 8'
2x4 Blocking	2 pcs. 8'
2x4 Joist Headers	2 pcs. 12'
2x4 Floor Joist	17 pcs. 12'
4x4 Treated Runners	4 pcs. 8'
4x4 Treated Runners	4 pcs. 12'
Flooring 5/8" or 3/4"	8 pcs. 4x8
Screw Floor Nails	4 lb. 8d
Galv. Box Nails	5 lb. 16d

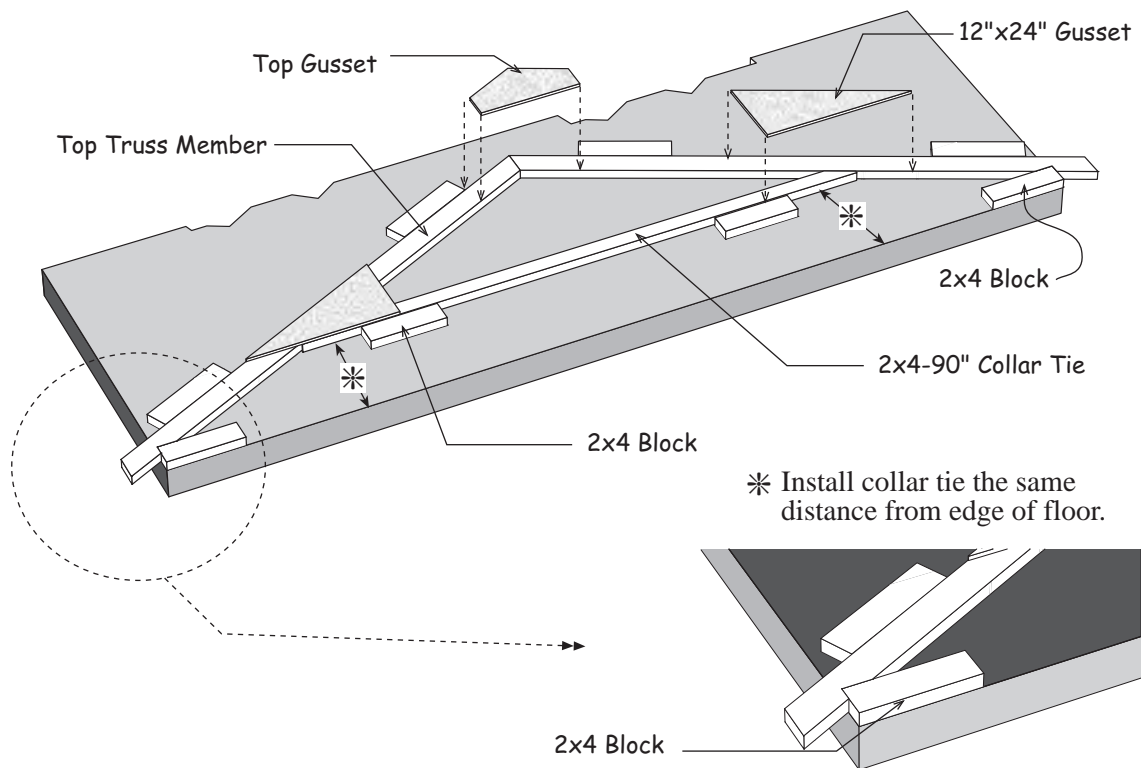
Step 1 Assemble Trusses



Building Tip: To aid in the assembly of the trusses, temporarily screw 2x4 blocks to the floor. There are short 2x4s, *that may have an angle on one end*, supplied in kit. This will insure that all the trusses are assembled the same.

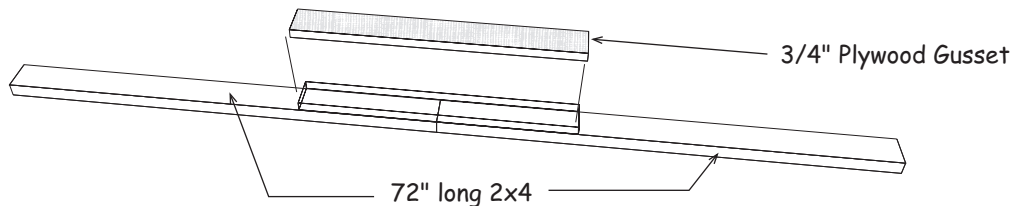
1. Screw (2) two 2x4 blocks to the 12' wide end of the floor at the corner, *see below*.
2. Place two truss legs together. Position the notch in the 2x4s (called a bird's mouth) into the 2x4 blocks. **Important:** You must have 12'-0" between the bird's mouth. Affix more 2x4 blocks above the truss legs to hold the truss members in place.
3. Secure the tops together with a wood gusset. Apply wood glue between the 2x4 boards and the gusset. Nail the gusset to the 2x4s with 6d common nails. Use 14 nails per gusset.
4. Install a 2x4-90° collar tie between the 2x4 boards. Hold in place with 2x4 blocks. Install 12"x24" gussets to the ends of the collar tie. Glue and nail using 14 nails per gusset.
5. Turn this truss over and apply wood gussets to the opposite side.
6. Repeat 2 through 5 to assemble (8) eight more trusses.

Do Not remove blocks from floor until completing **Step 2**.

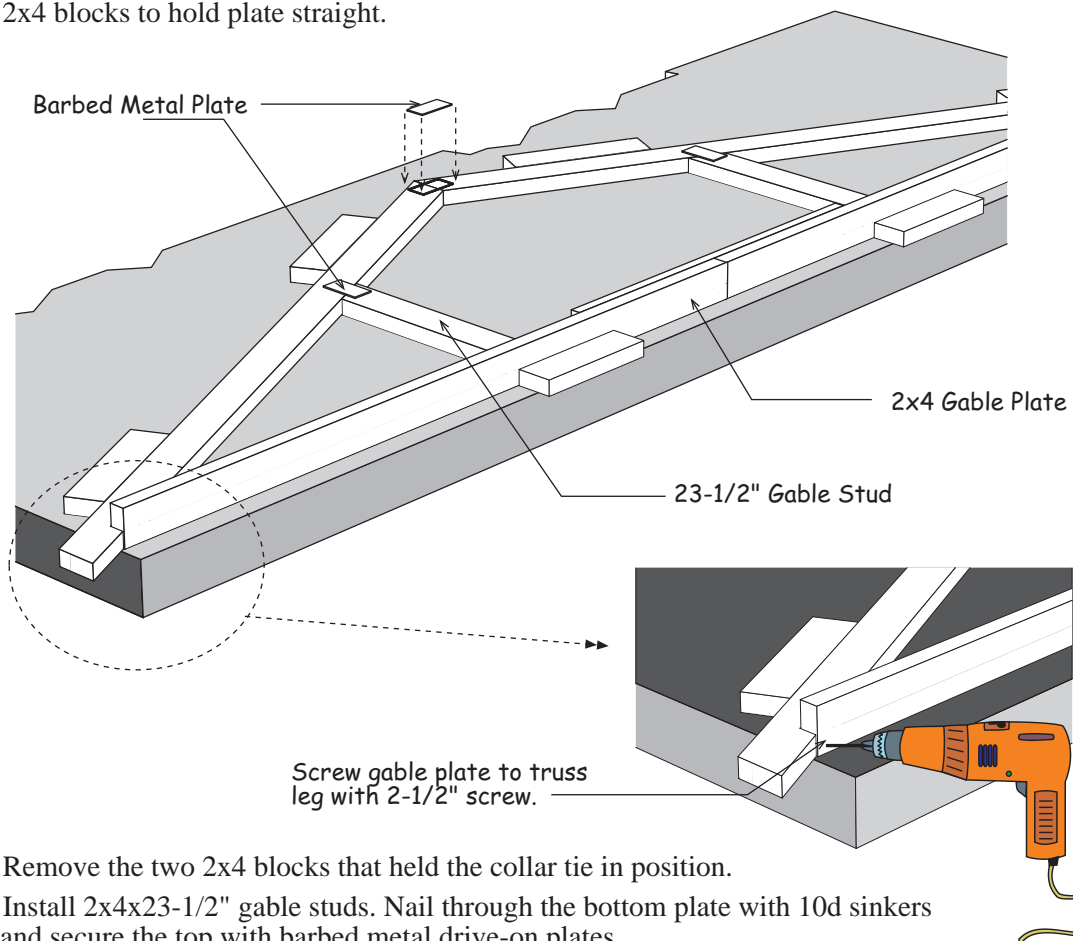


Step 2 Assemble Roof Gables

1. Butt (2) two 72" long 2x4s together and secure by nailing a 3-1/2" x 31-3/4" long plywood gusset across the top where they butt together. Use glue and 6d common nails.



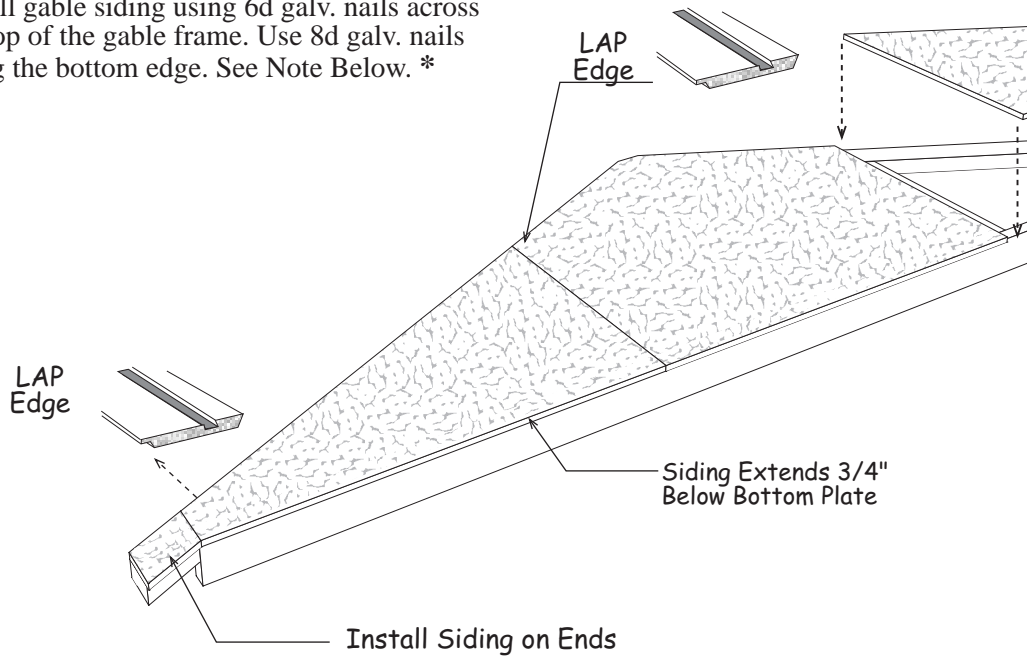
2. Place (2) two truss members in the jig. Secure the top together with a barbed metal plate.
3. Remove the 2x4 blocks at the corners of the floor and insert the gable plate assembled above into the bird's mouth. Make sure the 2x4 gable plate is straight. If necessary, tack 2x4 blocks to hold plate straight.



4. Remove the two 2x4 blocks that held the collar tie in position.
5. Install 2x4x23-1/2" gable studs. Nail through the bottom plate with 10d sinkers and secure the top with barbed metal drive-on plates.
7. Repeat to assemble another gable. Remove 2x4 blocks.

Step 3 Install Siding on Gables

1. Select one of the gable frames, Turn the gable over letting the bottom plate overhang the floor so the gable lays flat.
2. Install gable siding using 6d galv. nails across the top of the gable frame. Use 8d galv. nails along the bottom edge. See Note Below. *

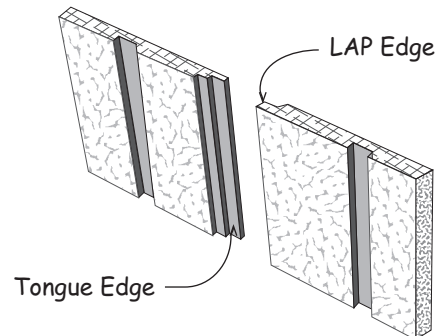


3. Install siding on the other gable frame.

* Exterior Siding

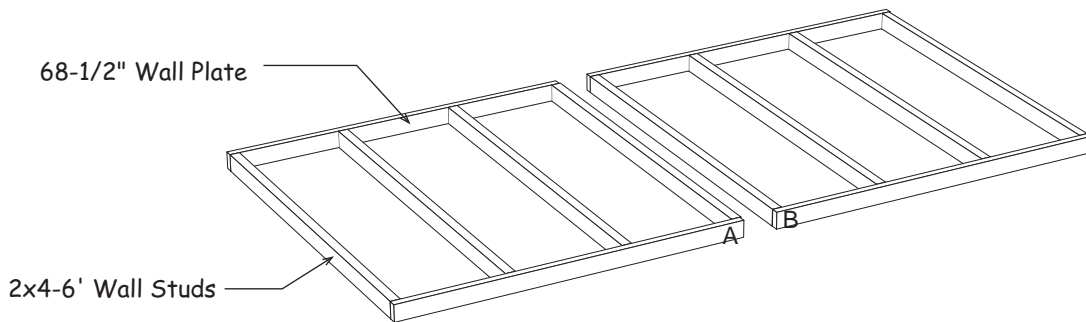
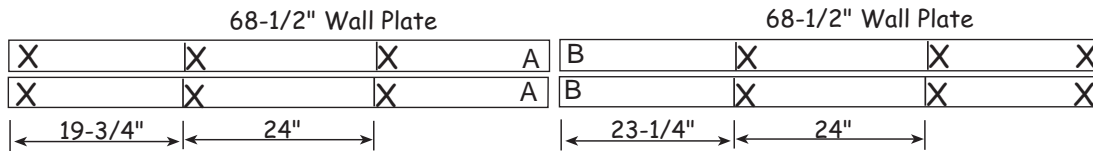
The siding is made in 4x8 sheets with grooves cut into the face, the long edge is beveled so that the siding overlays where they butt.

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 galv. nails, spaced 12" apart.




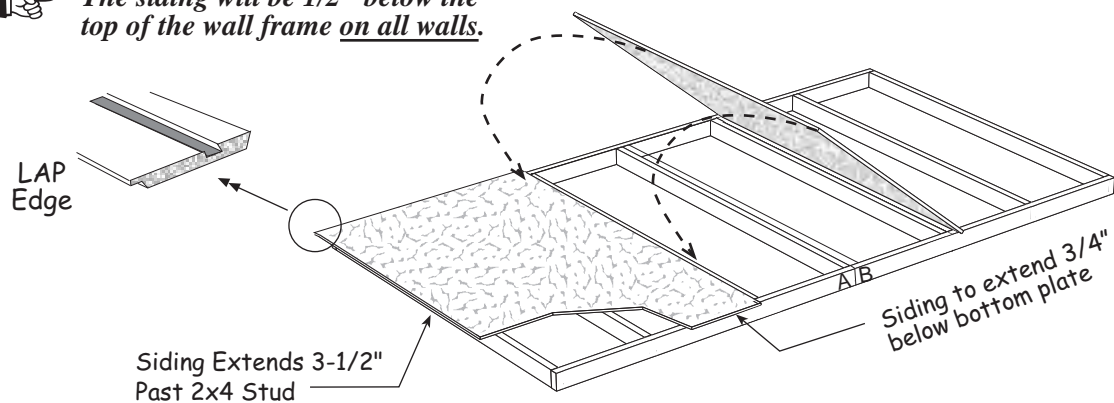
Step 4 Assemble 12' Back Wall

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



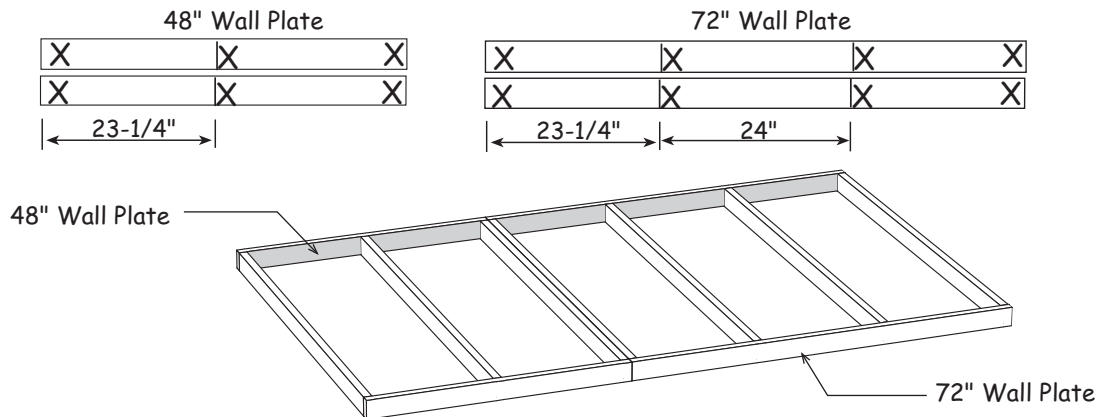
2. Install 72" wall studs between the top and bottom plates. Assemble wall frames with 10d sinkers, two (2) nails at each stud end. Nail both wall frames together.
3. Square wall frame. *Measure diagonally (corner to corner). The measurements will be the same when the wall is square.*
4. Install the 1st siding panel with the 'LAP' edge extending 3-1/2" past the wall frame. The bottom will extend 3/4" below the bottom plate. Tip: Use 3/4" trim board as a gauge.
5. Install the other siding panels. Cut the last panel to extend 3-1/2" beyond the wall frame.

 **The siding will be 1/2" below the top of the wall frame on all walls.**




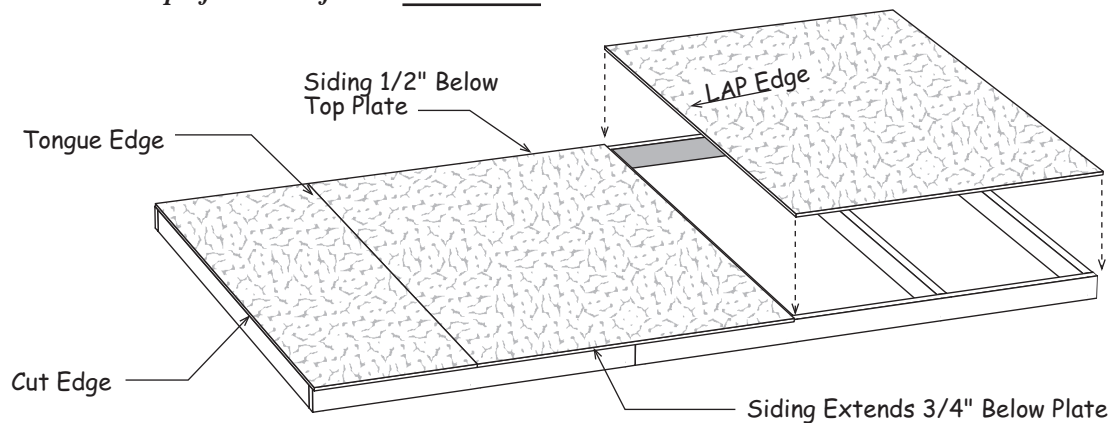
Step 5 Assemble 10' Long Sidewalls

1. Position (2) two 2x4-48" boards and (2) two 2x4-72" boards together and indicate with 'X' marks, where the wall studs will be located.



2. Install 72" wall studs between the top and bottom plates. Nail both wall frames together.
3. Repeat to assemble (3) three more 10' long sidewall frames.
4. Cut one of the 48" wide siding panels in half lengthways.
5. Square wall frame. Select one of the 2' wide panels with the 'tongue' edge and install this panel with the 'cut' edge 'flush with the end of the wall and extending 3/4" below the bottom plate.
6. Install (2) two more siding panels.

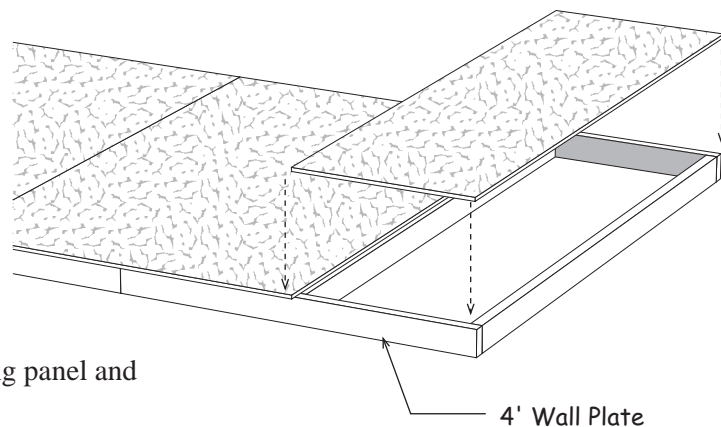
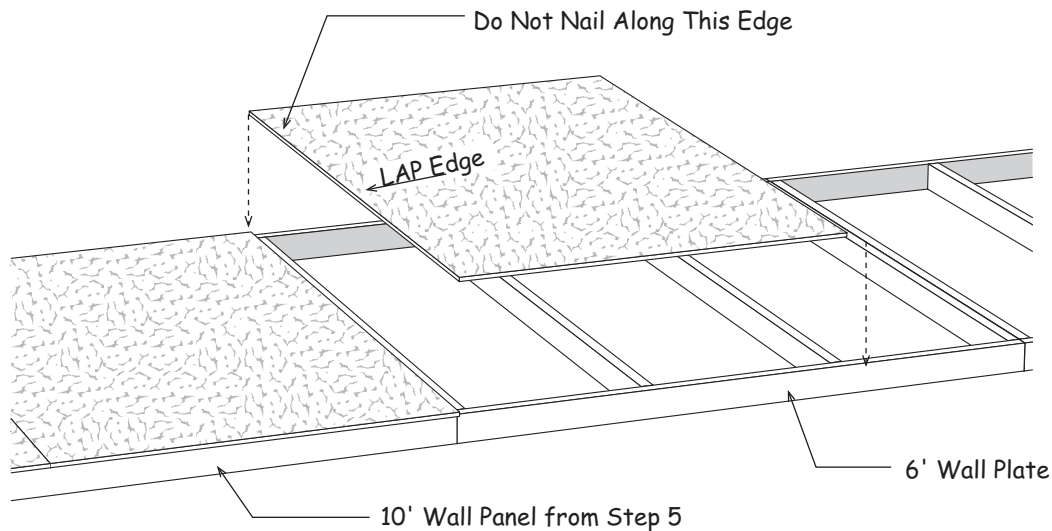
 ***The siding will be 1/2" below the top of the wall frame on all walls.***



7. Select (1) one of the 10' wall frames and repeat to apply siding to another sidewall frame.


Step 6 Assemble Sidewalls for 20' Building Length

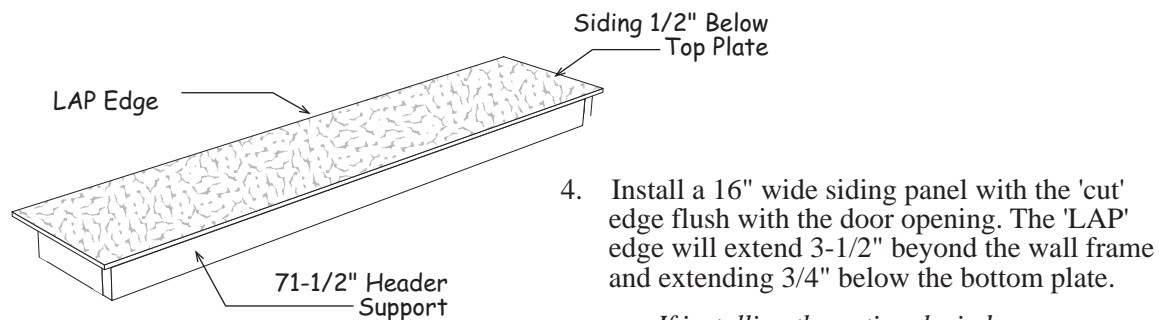
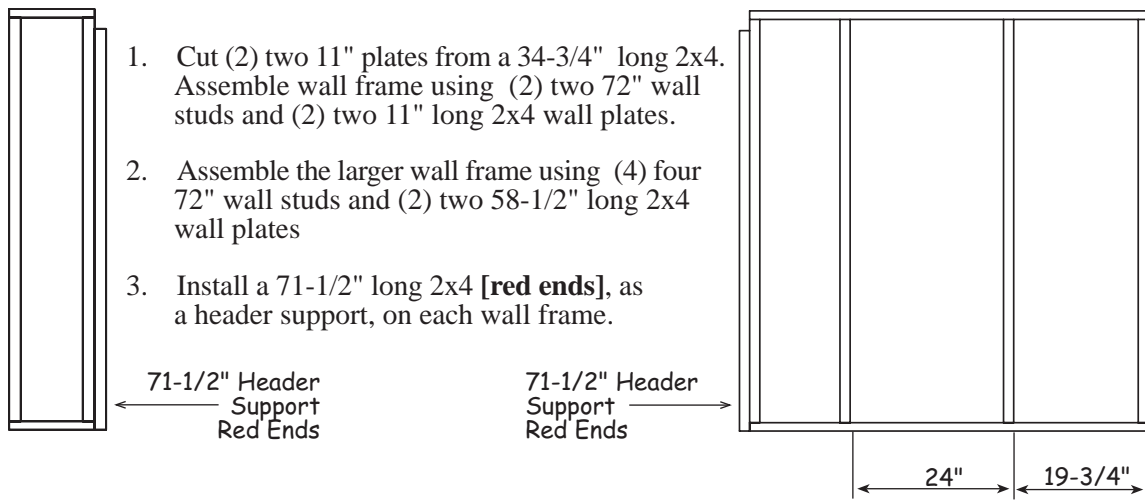
1. Select one of the 10' sidewalls assembled in **Step 5**. Butt a 10' wall frame against the wall with siding. **DO NOT** nail these frames together so they can be separated later.
2. Square the wall frame. Install a full width siding panel but do not nail along the long edge that overlaps the 10' wall frame. You can nail this edge after the wall panels are installed. This will enable you to separate the wall panels making them easier to handle.



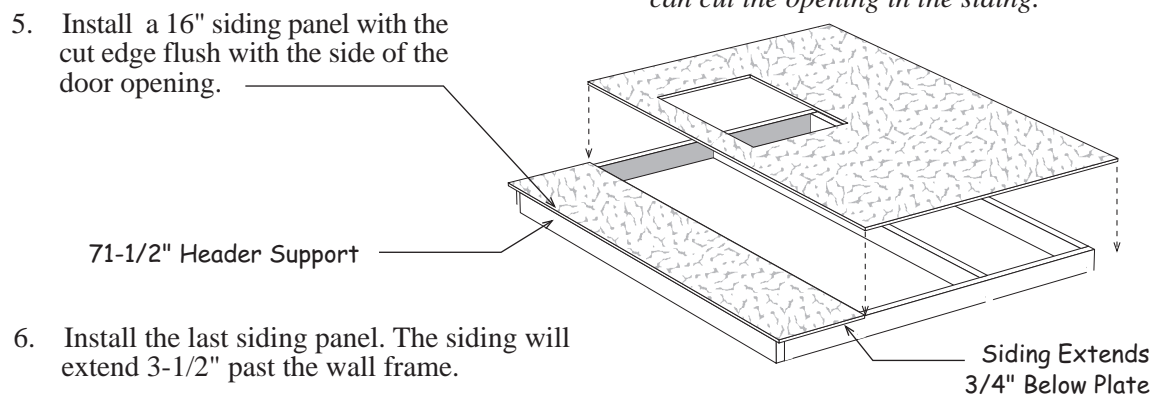
3. Install another full width siding panel and the 2' wide siding panel.
4. Repeat to apply siding to the other 10' wall frame.

Step 7 Assemble Door Wall - Offset Doors

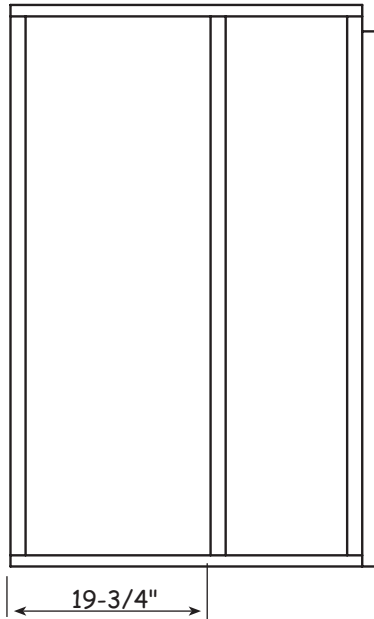
 **To position the door opening in the center of the wall, go to Step 8. To position the door opening on the right side of the front wall, flip the walls and apply siding to the opposite side of the wall frames.**



If installing the optional window you can cut the opening in the siding.



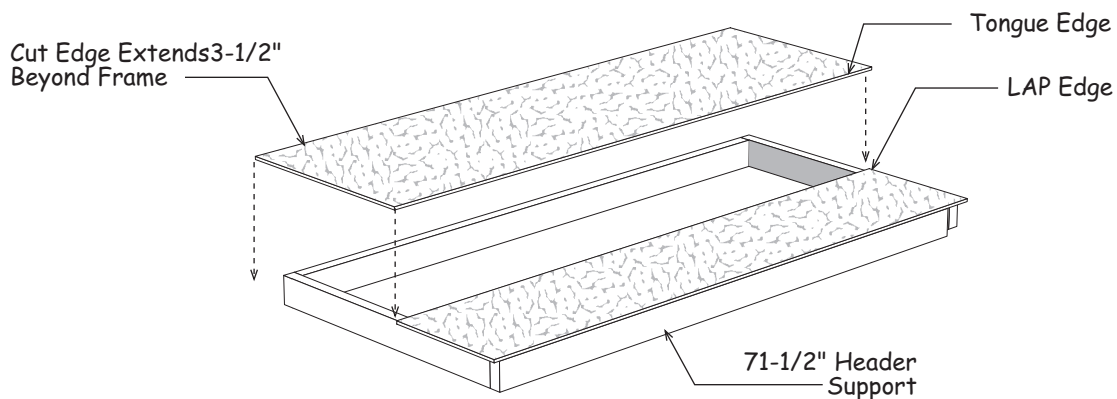
Step 8 Assemble Door Wall - Doors Centered



1. Assemble a wall frame using (3) three 72" wall studs and (2) two 34-3/4" long 2x4 wall plates. Use 10d sinkers.
2. Install a 71-1/2" long 2x4 [**red end**], as a header support, on each wall frame.

3. Cut (2) two more 34-3/4" plates from 58-1/2" long 2x4s and assemble another wall frame.

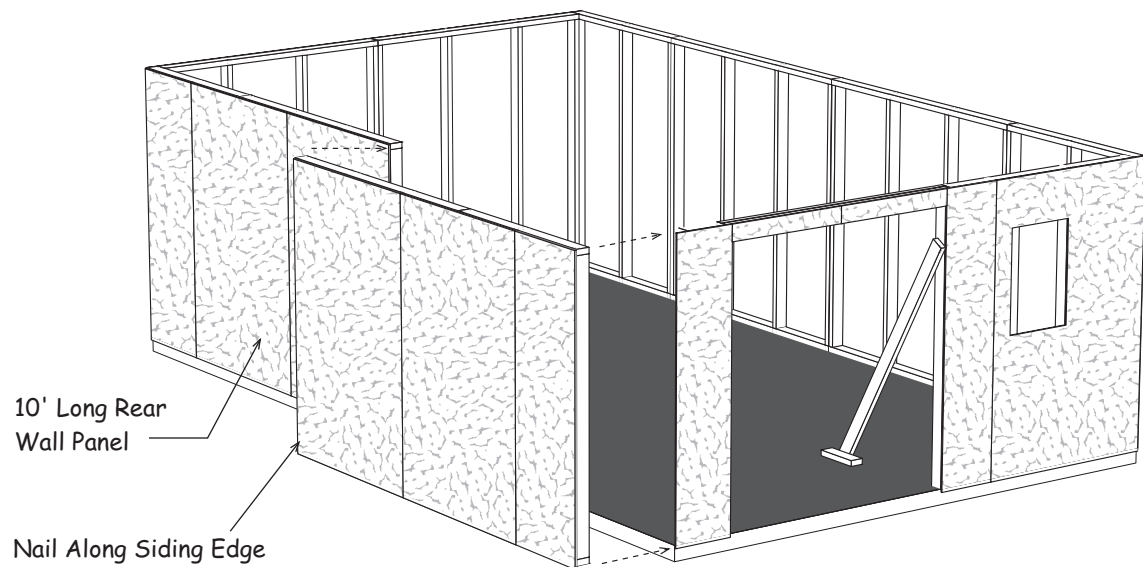
4. Locate a 16" wide siding panel that has a 'LAP' edge. Position this panel with the 'cut' edge flush with the 2x4 header support and extending 3/4" below the bottom plate. Do not nail along the LAP edge until the other siding panel is installed.
5. Cut a siding panel in half lengthways.
6. Select the panel with the 'tongue' edge'. Install this panel with the cut edge extending 3-1/2" beyond the end of the frame. The siding should extend 3/4" below the bottom plate.



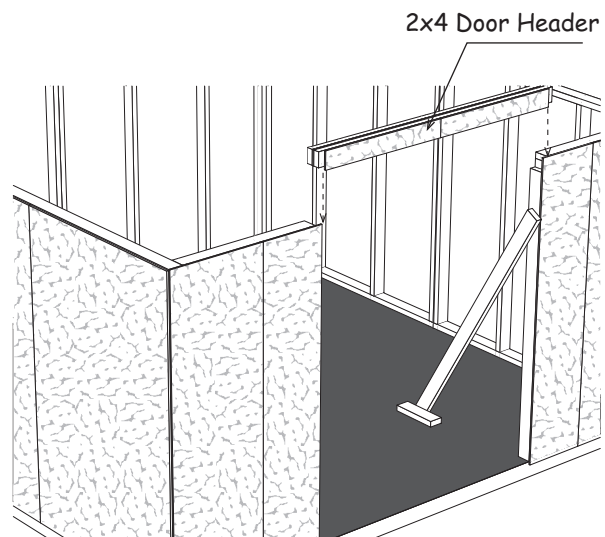
7. Install the remaining siding on the other front wall frame. Cut the 24" wide siding panel to extend 3-1/2" past the end of the wall frame.

Step 9 Set 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. Install the 2x4 door header between the front wall panels. Nail through the wall stud into the ends of the header. Toenail into the top wall plates. Wall trim, installed later, will hide where the siding butts the front wall panels.
3. Install a 2x4-6' boards at both sides of the door opening to hold the wall straight.
4. Nail along the siding edge where it overlaps the 10' long panel.

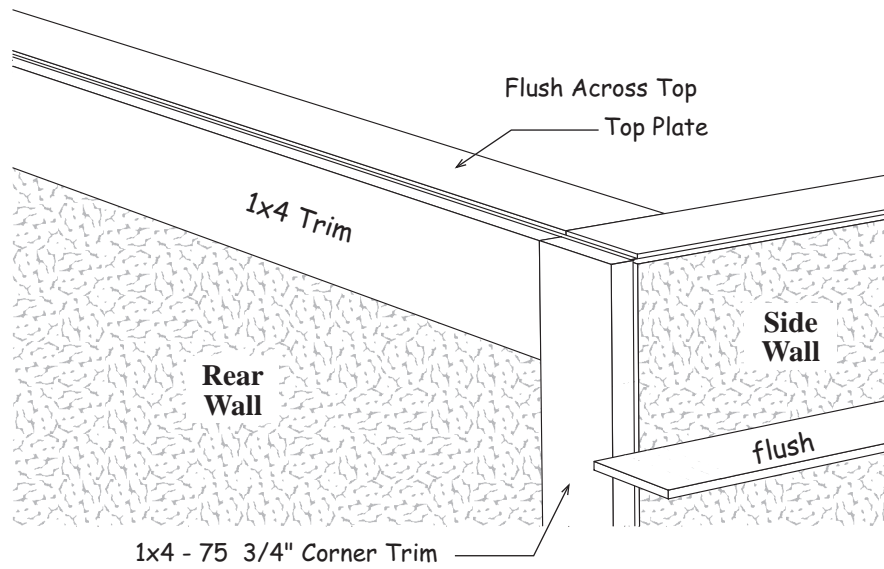


Drawing shows a building with the doors centered.



Step 10 Install Rear Trim

1. Install 1x4-75 3/4" corner trim boards to the rear wall. Install trim flush with the 2x4 top plate and flush with the siding on the sidewalls. Use 8d galv. nails, spaced 12" apart.
2. Cut 1x4-6' trim boards to fit between the corner trim boards.



3. Install trim on the front wall of the building.

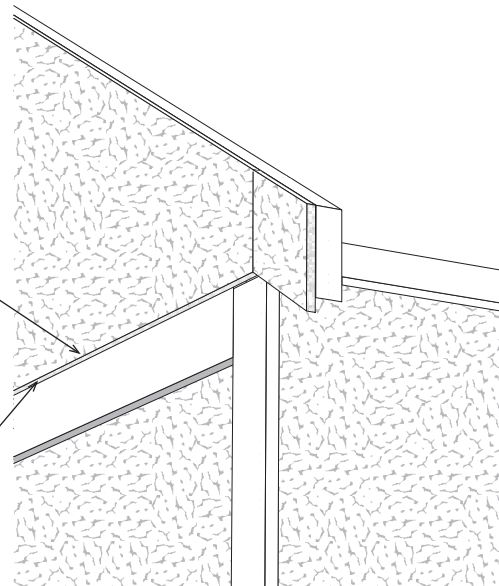
Step 11 Install Rear Gable

1. Install a gable on the rear wall. The gable siding will extend over the 1x4 trim on the lower wall. **NOT behind the trim!**

Secure gable to wall by nailing through the gable plate with 10d sinkers. Nail siding along the 1x4 trim board with 8d galv. nails.

2. Install gable on the front wall.

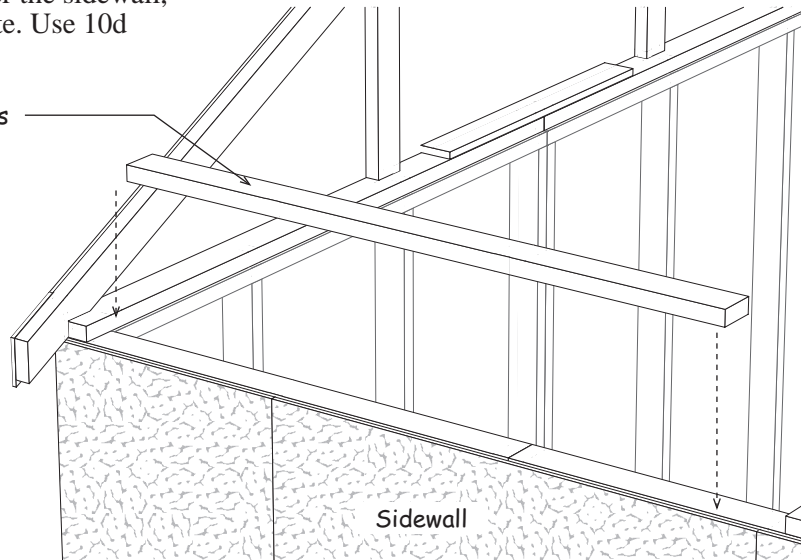
Important: Bottom edge of siding extends over 1x4 trim. Paint this edge.



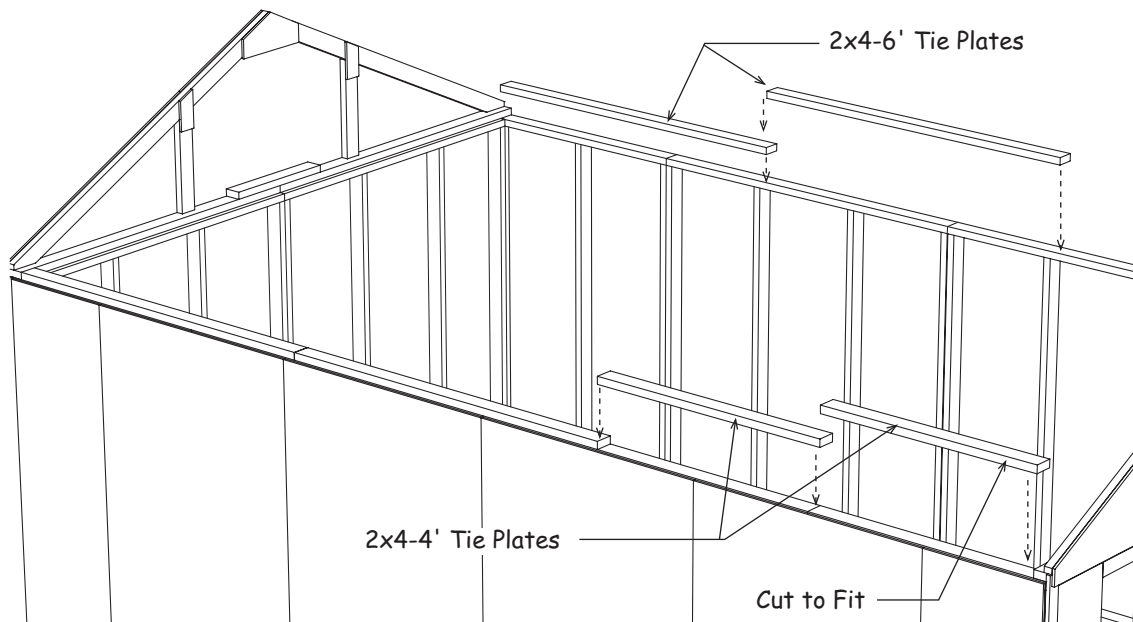
Step 12 Install 2x4 Tie Plates

1. Install a 2x4-6' board over the sidewall, against the rear gable plate. Use 10d sinkers.

2x4-6' Tie Plates

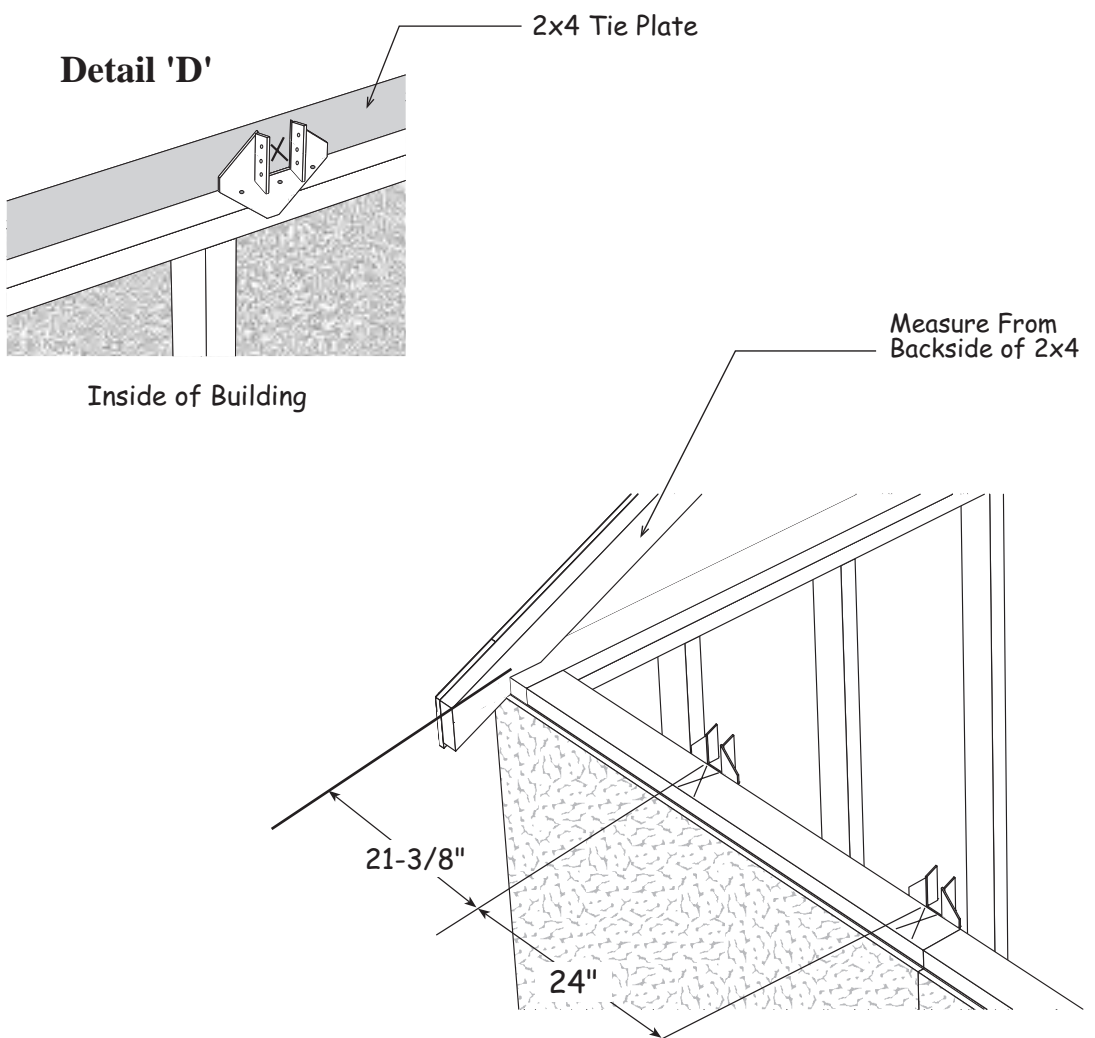


2. Install another 2x4-6' board next to the first one.
3. Install (2) two 48" long 2x4 at the front of the building.
4. Install 2x4 tie plates on the opposite sidewall.



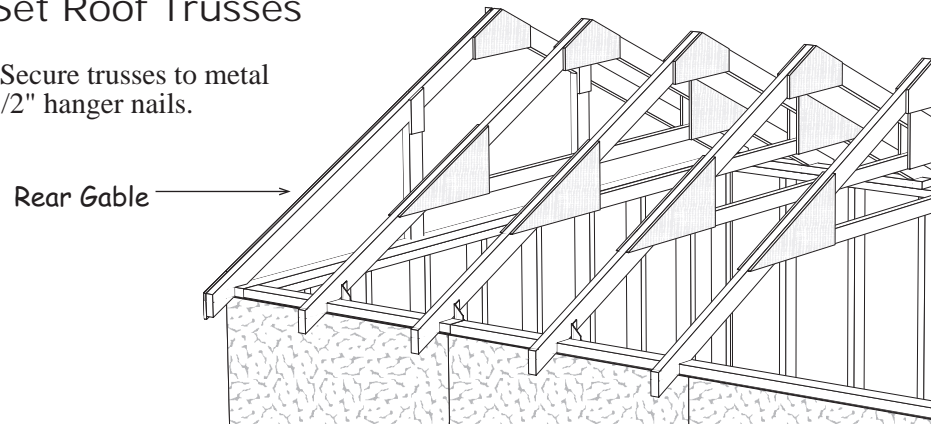
Step 13 Layout Roof Trusses

1. Layout the truss spacing from the rear of the building. Measure from the inside of the 2x4 gable frame when marking the location of the first truss. **Important:** When marking the opposite wall, place the 'X' mark on the same side of the line so your trusses are parallel when they are installed.
2. Install metal hangers to the tie plate with 1-1/2" hanger nails. The opening should line up with the 'X' mark, the bottom of the opening, flush with the 2x4 tie plate. **Detail 'D'**.



Step 14 Set Roof Trusses

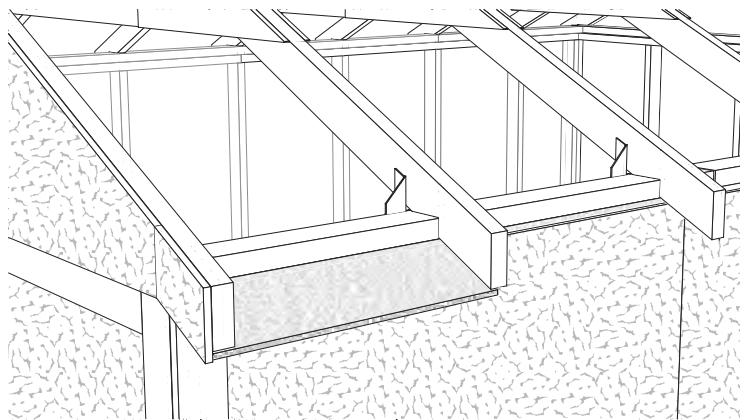
Set roof trusses. Secure trusses to metal hangers with 1-1/2" hanger nails.



Step 15 Install Eave Soffit & Corner Trim

1. Locate a 5" wide x 24" siding panel that has a 'tongue' edge. Install this panel under the truss overhang at the rear of the building. Install the siding/soffit panel with the beveled edge flush with the end of the trusses and the cut edge against the gable siding. Use 6d galv. nails.
2. Install (4) four more full length siding panel under the trusses. Cut the last panel to fit.

3. Install soffit panels on the opposite side. Start with a 24" long panel that has a 'LAP' edge.

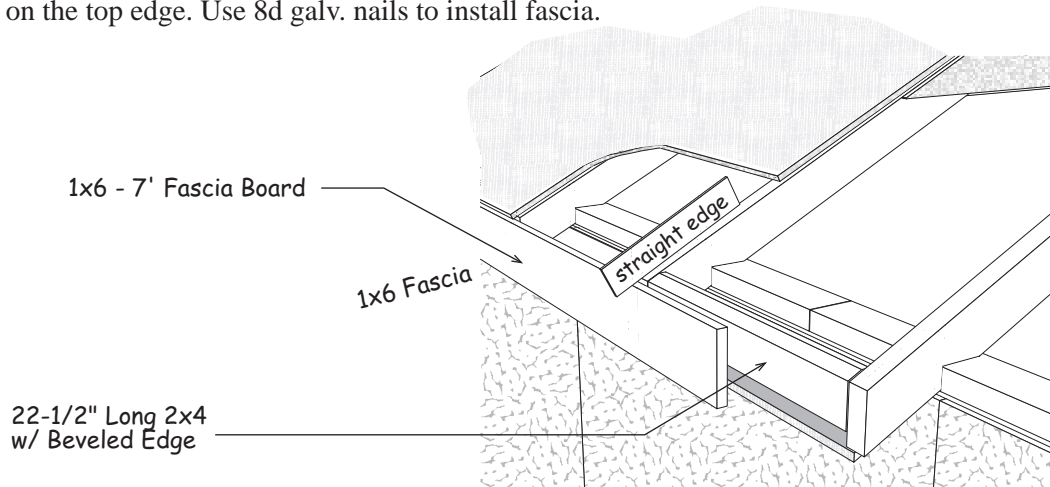


4. Cut 87-3/4" long 1x4 trim boards to length and install at the corners.

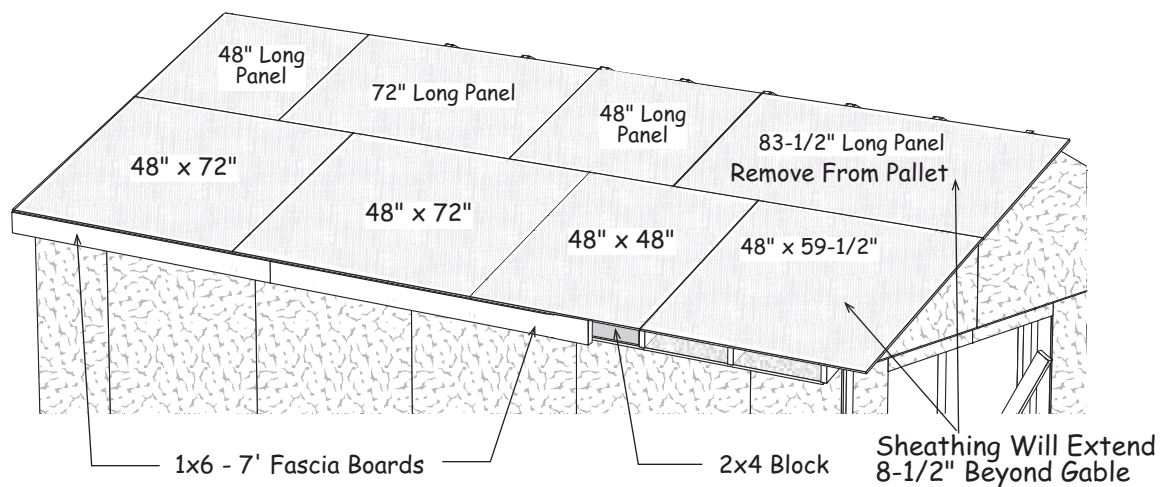
Soffit
Beveled Edge

Step 16 Install 1x6 Fascia & Roof Sheathing

- Starting at the rear of the building, install 4'x6' OSB roof panels and 1x6-7' white pine fascia boards on each side flush with the face of the siding on the back gable. Install the fascia so the bottom edge of the roof sheathing will rest on the 1x6. Install a 22-1/2" long 2x4 block between the trusses to receive the fascia where they join together. The 2x4 block has a bevel cut on the top edge. Use 8d galv. nails to install fascia.

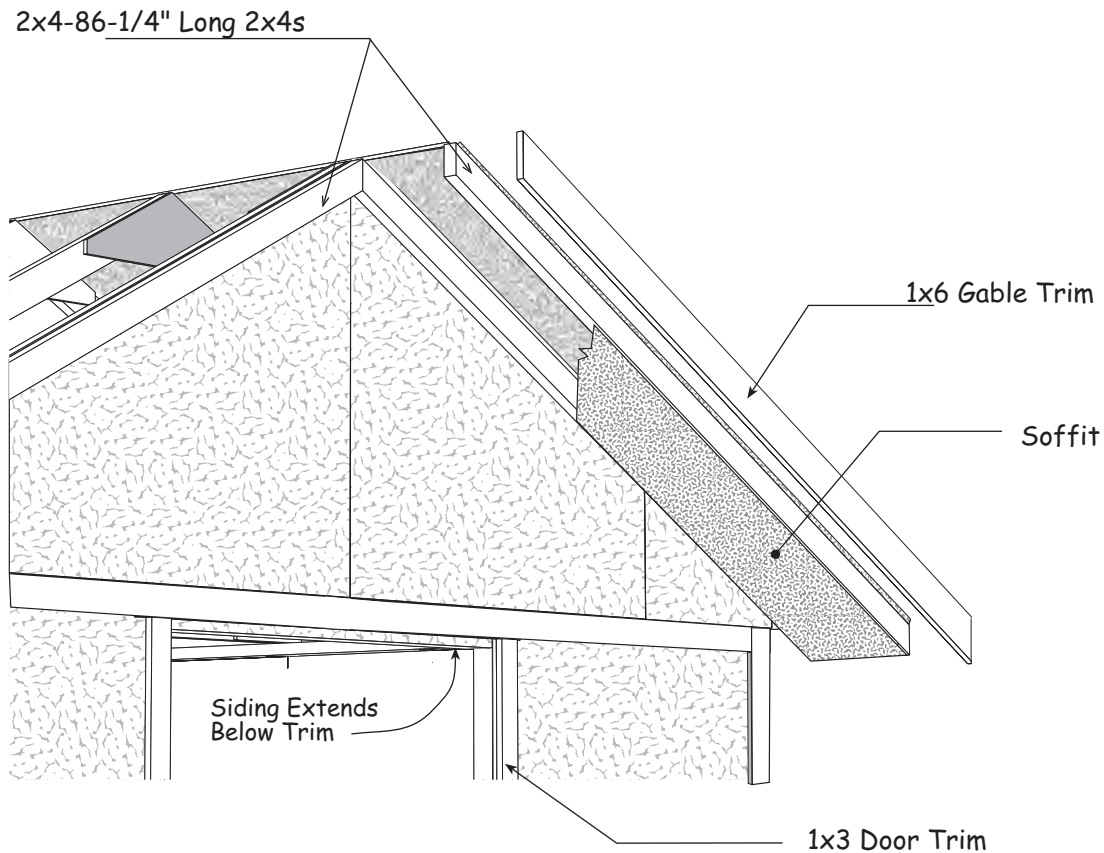


- Install roof sheathing per layout below. Make sure the trusses are plumb and the roof sheathing meets the center of the truss. Use 7d sinkers spaced 12" apart. The top row of roof sheathing will be about 1" below the ridge to allow for ventilation. **Important:** Make sure the front gable is plumb and the roof sheathing extends 8-1/2" past the siding along the face of the gable.
- Install a 1x6 - 7' fascia board. Install a 22-1/2" long 2x4 soffit block, *with beveled edge*, between the truss.
- Cut a 1x6 - 7' fascia board flush with the end of the roof sheathing.



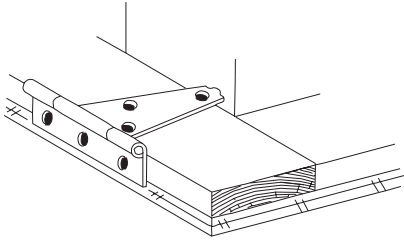
Step 17 Install Front Gable Soffit and Door Trim

1. Install 86-1/4" long 2x4s under the roof sheathing, against the front gable.
2. Install 86" long 2x4s under the front edge of the roof sheathing. Hold the 2x4s against the roof sheathing and screw through the sheathing into the 2x4 boards. Use 1-5/8" long screws.
3. Install 8-1/2" wide siding under the gable overhang as the soffit. Use 6d galv. nails.
4. Install (2) two 87" long 1x6 trim boards over the 2x4 boards, flush with the top of the roof sheathing. Use 8d galv. nails.
5. Install 1x6 trim on the back gable.

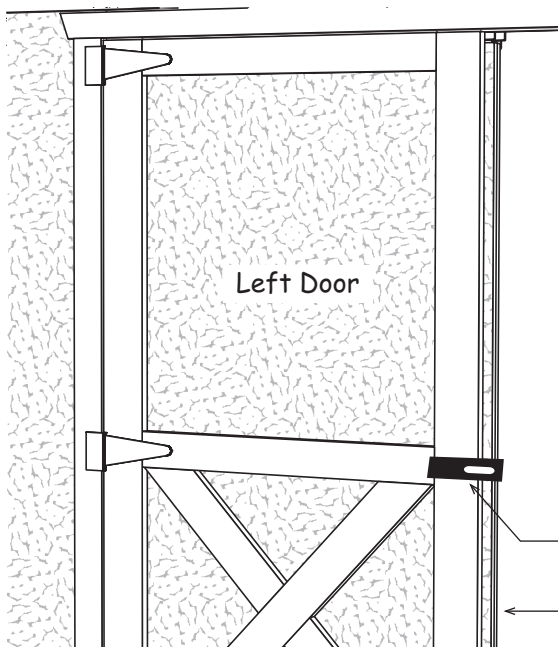


5. Locate (2) two 1x3-72" long trim boards. Tack these boards, *with a couple nails*, to each side of the door opening. You may want to move the trim later when you install the doors.

Step 18 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.



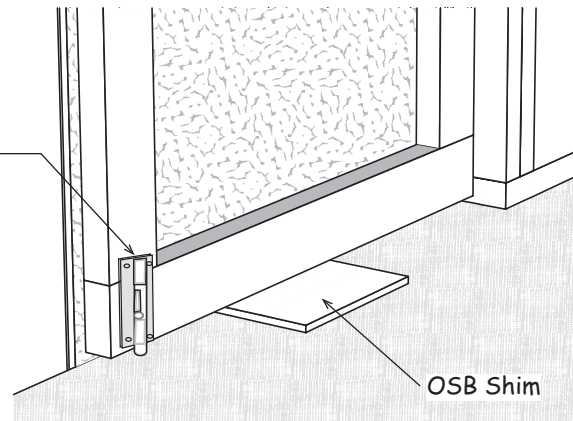
4. Before you fasten the hinges to the door trim, temporarily prop the doors in the opening. Leave a space at the top of the doors and between the doors and the side trim to allow room for the doors to expand when they absorb moisture.

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.



Material Packaged In Component Kit

9	Collar Ties	2x4	90"	5	1 lb. box	10d	Sinkers
26	Truss Rafters	2x4	86-1/4"	5	1 lb. box	8d	Galv.
60	Wall Studs	2x4	72"	4	1 lb. box	7d	Sinkers
2	Door Jacks	2x4	71-1/2"	1	1 lb. box	6d	Galv.
4	Wall Plates	2x4	68-1/2"	5	1 lb. box	6d	Common
2	Wall Plates	2x4	58-1/2"	4	1 lb. box	1-1/2"	Hanger Nails
12	Wall Plates	2x4	48"	6	ea.	5"	Door Hinges
2	Wall Plates	2x4	34-3/4"	1	ea.	4.5"	Door Latch
4	Gable Studs	2x4	23-1/2"	2	ea.	6"	Barrel Bolts
4	Fascia Blocks	2x4	22-1/2"	48	ea.	2"	Hinge Screws
18	Truss Gussets	7/16"	8" x 20"	6	ea.	1x4	Metal Plates
36	Truss Gussets	7/16"	12" x 24"	18	ea.	2x4	Metal Truss Hangers
8	Soffit Boards	3/8"	5" x 48"	2	ea.		Bottle Glue
2	Soffit Boards	3/8"	5" x 24"	2	ea.		Plywood Gussets 3-1/2" x 32"
4	Front Gable Soffit	8-1/2" x 48"		8	ea.	2x4	Truss Jig Blocks 10"
14	Siding Panels	48" x 75-1/4"		4	ea.	1x6	Gable Trim 87"
2	Siding Panels	16" x 75-1/4"		6	ea.	1x6	Fascia Trim 84"
2	Siding Panels-Gables	48" x 40"		8	ea.	1x4	Corner Trim 75-3/4"
4	Siding Panels-Gables	48" x 28"		4	ea.	1x4	Wall Trim 72"
2	Roof Sheathing	83-1/2" Lng		2	ea.	1x3	Door Trim-sides 72"
2	Roof Sheathing	59-1/2" Long		1	ea.	1x3	Door Trim-top 71-3/4"
6	Roof Sheathing	72" Long		2	ea.		Pre-built Doors 32" x 71-3/4"
6	Roof Sheathing	48" Long		1	ea.		Pre-built Door Header 67-1/2"

Install Optional Shingles

Install metal roof edge the perimeter of the building. Install shingles according to the instructions on the wrapper. If you need more detailed instructions on installing shingles, there are good publications at book stores or newsstands.

Purchase Optional Shingles

Roof Covering - not supplied in kit			
12	bdl.	Roof Shingles	
9	pcs.	Roof 'drip' Edge	10'