



# Best Barns USA Assembly Book

Revised December 2, 2012



*the Aspen*

10' x 8' or 12' x 8'

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

205 Arlington Drive

Greenville, PA 16125

724-646-3775

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## IMPORTANT INFORMATION ABOUT YOUR SHED KIT

Thank you for purchasing our Aspen shed kit. These instructions will construct a 10'x8' or 12'x8' building. **If you received two books, use the one with the latest revision date.**

The siding and roof sheathing, along with the optional floor package, will be supplied by a local supplier. The material breakdown is listed on the back page.

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.

**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.

Stacking the boards, according to size, will make them easier to find when needed. Some boards have colored ends. **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](mailto: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.

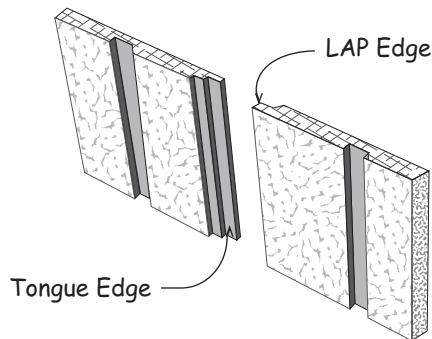
Thank you for your purchase.

Bill & Linda Rinella, owners

### 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.



## 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 - Caulking Gun |
| <input type="checkbox"/> Hand or Circular Saw          | <input type="checkbox"/> <b>2-6' Step Ladders</b>      |

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

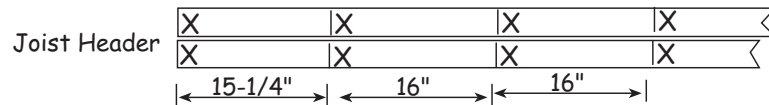
## Constructing Details for Deluxe Floor System

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

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.

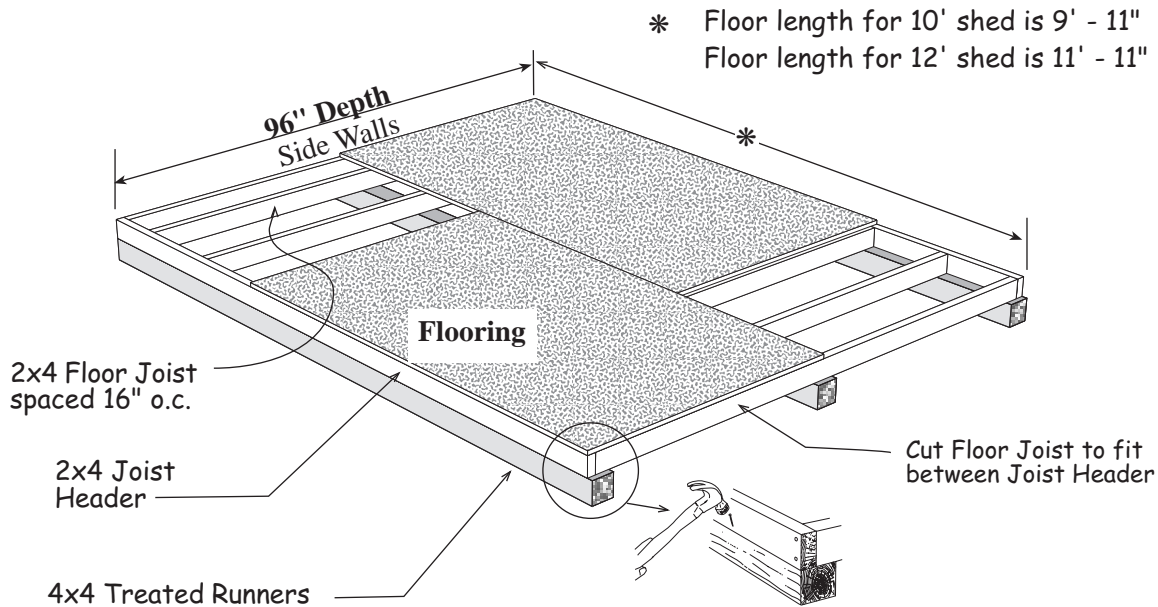
1. Cut joist headers to floor length. See Below.

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



2. Cut 2x4-8' floor joist to 7'-9". See note below.

*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 8'-0" building length.*

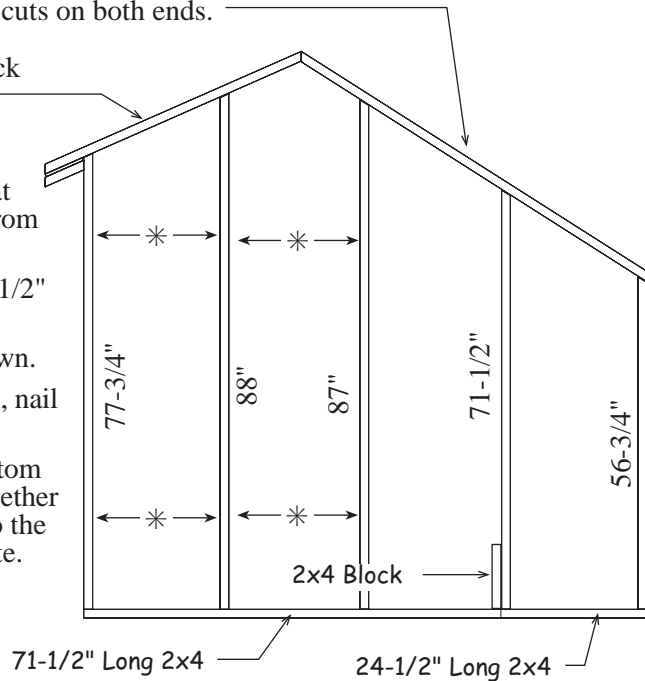


It is important that the floor be level and square. Square the floor as follows: before nailing the flooring, measure the floor diagonally (corner to corner). Then measure the opposite corners. These measurements will be the same if the floor is square.

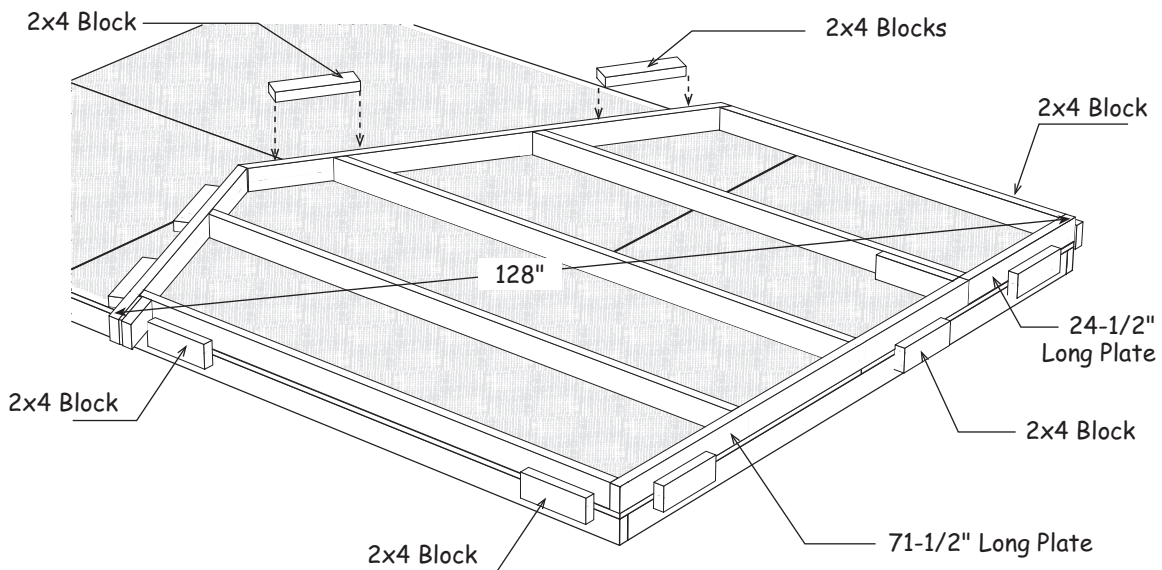
Material Description	10' x 8' shed	12' x 8' shed
2x4 Joist Headers	2 pcs. 10'	2 pcs. 12'
2x4 Floor Joist	9 pcs. 8'	10 pcs. 8'
4x4 Treated Runners	3 pcs. 10'	3 pcs. 12'
Flooring 5/8" or 3/4"	3 pcs. 4x8	3 pcs. 4x8
Screw Floor Nails	1 lb. 8d	1 lb. 8d
Galv. Box Nails	1 lb. 16d	2 lb. 16d

## Step 1 Assemble End Walls

1. Locate a 69-1/2" long 2x4 with angle cuts on both ends.
2. Locate a 47" long 2x4 with a 2x4 block attached to one end.
3. Locate wall studs, *see detail right*, that measure the length shown. Measure from the longest side of the board.
4. Locate a 71-1/2" (Red End) and a 24-1/2" long 2x4.
5. Place this framing on the floor as shown.
6. To hold the perimeter 2x4's in position, nail 14-1/2" long 2x4 blocks to the floor.
7. Nail 2x4 wall studs to the top and bottom plates using 10d sinkers. Nail 2x4s together at the peak. Nail a 14-1/2" long 2x4 to the 4th stud to help secure the bottom plate.

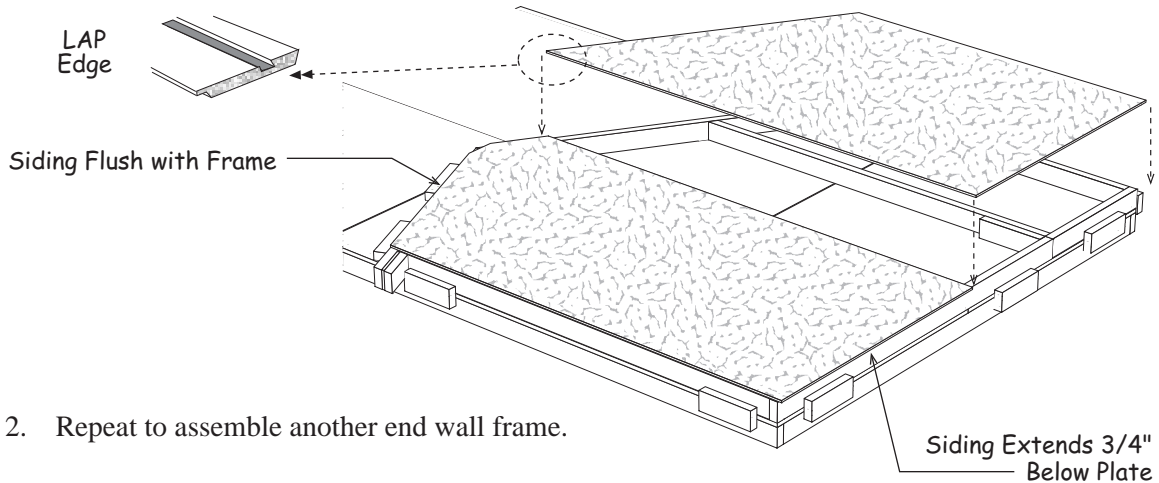


**Note:** The angle measurement of the wall should be 128". See drawing below.  
 Overall frame height will be approximately 96-1/2".



## Step 2 Install Siding on End Walls

1. Install siding panels. Install the siding to extend 3/4" below the bottom 2x4 plate. Cut the top and sides flush with the top and side of the frame.



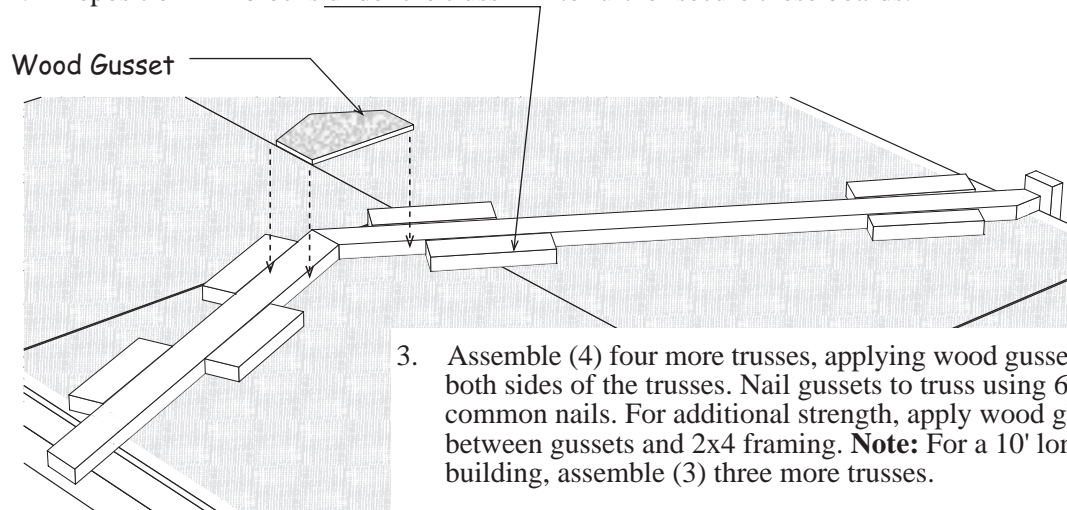
2. Repeat to assemble another end wall frame.



**WARNING:** Before you apply siding on the other end wall frame, you will need to turn the wall frame over before applying siding! If you don't, the siding will face the inside of the building!

## Step 3 Assemble Roof Trusses

1. Before removing the 2x4 blocks, assemble the roof trusses. This will insure the trusses will match the shape of the end wall. Locate a 47" long 2x4 and a 69-1/2" long 2x4 and place against the upper blocks nailed on the floor.
2. Reposition 2x4 blocks under the truss 2x4 to further secure these boards.

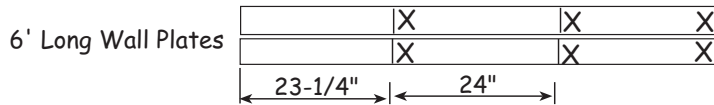


3. Assemble (4) four more trusses, applying wood gussets to both sides of the trusses. Nail gussets to truss using 6d common nails. For additional strength, apply wood glue between gussets and 2x4 framing. **Note:** For a 10' long building, assemble (3) three more trusses.

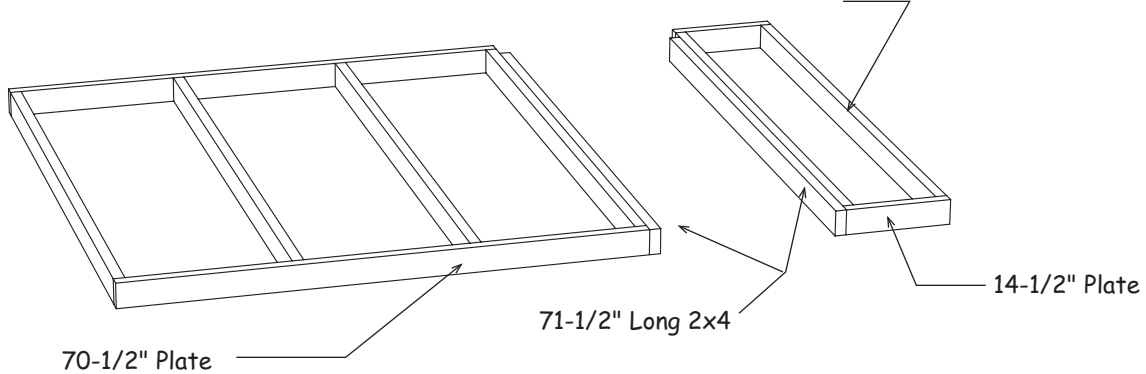
## Step 4 Build 12' Front Wall Panel

 **If you are constructing a 10' long building, go to Step 5.**

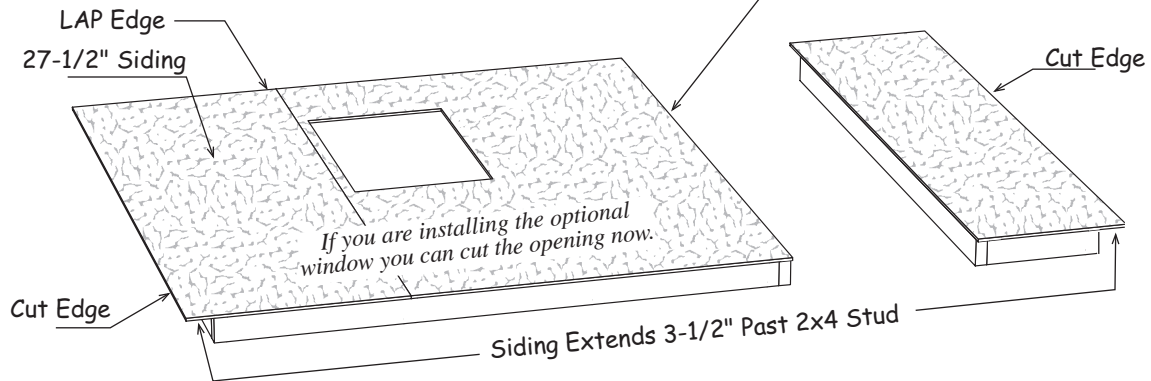
1. Install (4) four 6' long wall studs between (2) two 70-1/2 long wall plates as shown below.



2. Locate (2) two of the 14-1/2" long 2x4's and install (2) two studs between them.



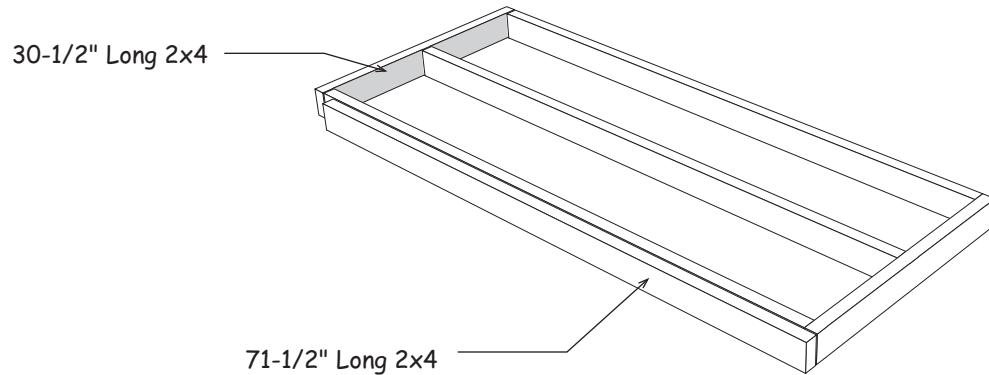
3. Install 71-1/2" (Red End) long 2x4 boards on each side of the wall panels.
4. Square frames. Cut (2) siding panels to a length of 77". Install a siding panel on the right side of the 6' wall panel with the 'LAP' edge flush with the right end of the wall frame. The siding should extend 3/4" below the bottom plate. Siding will extend 1-1/4" above the top plate.



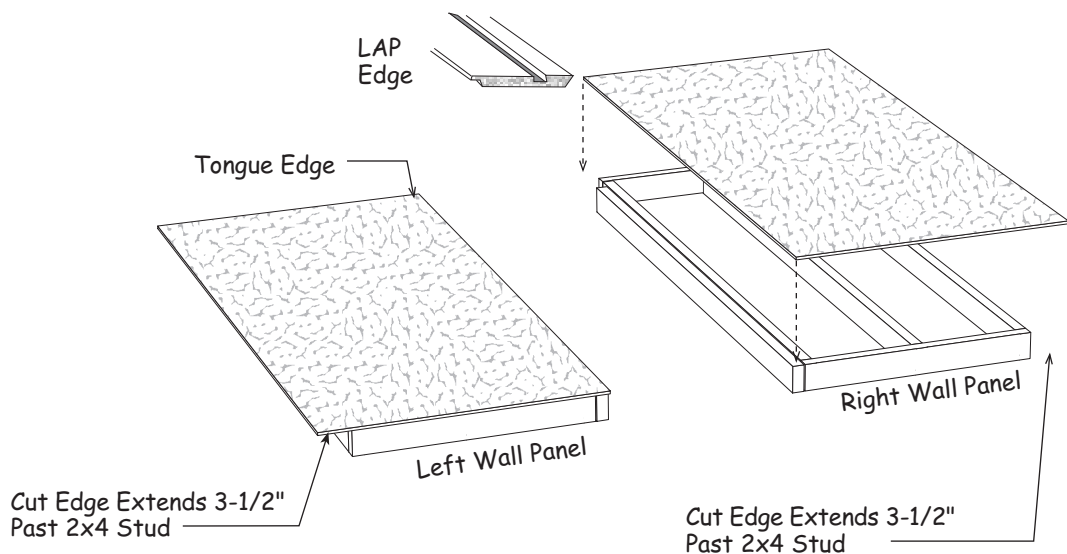
5. Measuring from the 'LAP' edge, cut the width of the 2nd siding panel to 27-1/2". The cut edge should extend 3-1/2" past the side of the wall frame.
6. Cut the remaining siding panel so the cut edge will extend 3-1/2" past the right side.

## Step 5 Build 10' Wide Front Wall (doors centered)

1. Locate (2) two 70-1/2" long boards and cut them into (4) four wall plates 30-1/2" long.
2. Install (3) three 6' wall studs between the wall plates.
3. Install 71-1/2" long 2x4 boards on each side of the wall panels.
4. Build another wall frame.



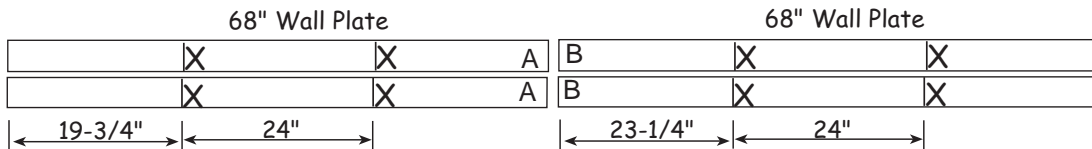
5. Square wall frames. Cut a (2) two 4x8 siding panel to a length of 77".
6. Cut the siding panels to the 35-1/2". Save the 12" wide cutoffs. When installed the siding should extend 3-1/2" past the outside edge of the wall frames and flush with the inside edges of the wall frames. Install this siding panel with the cut edge extending 3-1/2" past the side of the wall frame as shown below. The bottom edge of the siding will extend 3/4" below the bottom plate. Siding will extend 1-1/4" above the top plate.



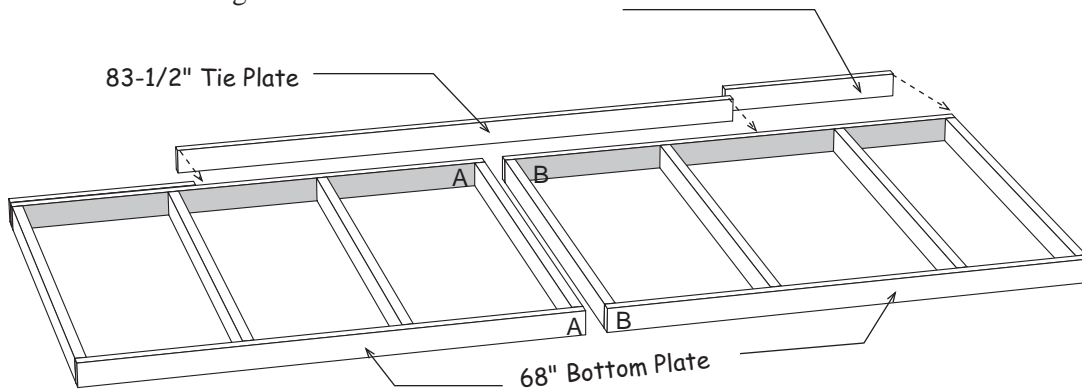
## Step 6 Build Back Wall For 12' Building

 **If you are constructing a 10' long building, go to Step 7.**

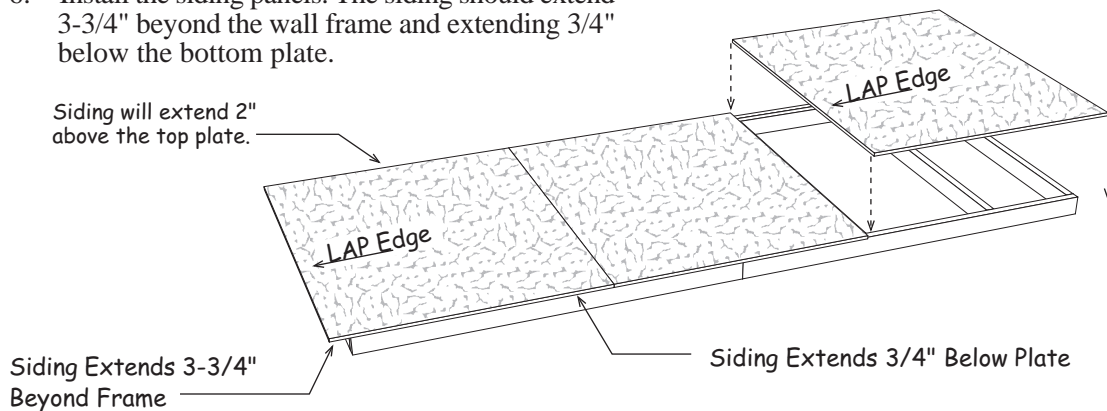
1. Position (4) four 68" long 2x4s together and indicate with 'X' marks, where the wall studs will be located. Mark the ends that will butt together with the letters 'A' and 'B'.



2. Install 52-1/2" long wall studs, between the wall plates, over the 'X' marks and where the plates meet. Use 10d sinkers. Nail wall frames together.
3. Install a 83-1/2" long 2x4 in the center of the wall frame. Square wall frame.
4. Cut a 52-1/2" long 2x4 in half and install on each end of the wall frame.



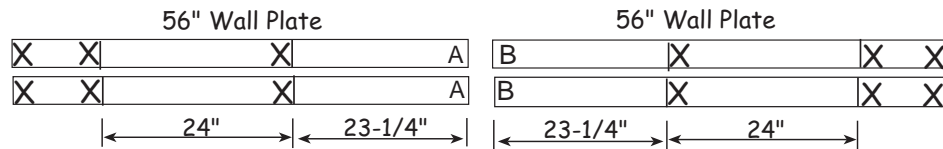
5. Cut (3) three siding panels to a length of 59-3/4". Save the cutoffs.
6. Install the siding panels. The siding should extend 3-3/4" beyond the wall frame and extending 3/4" below the bottom plate.



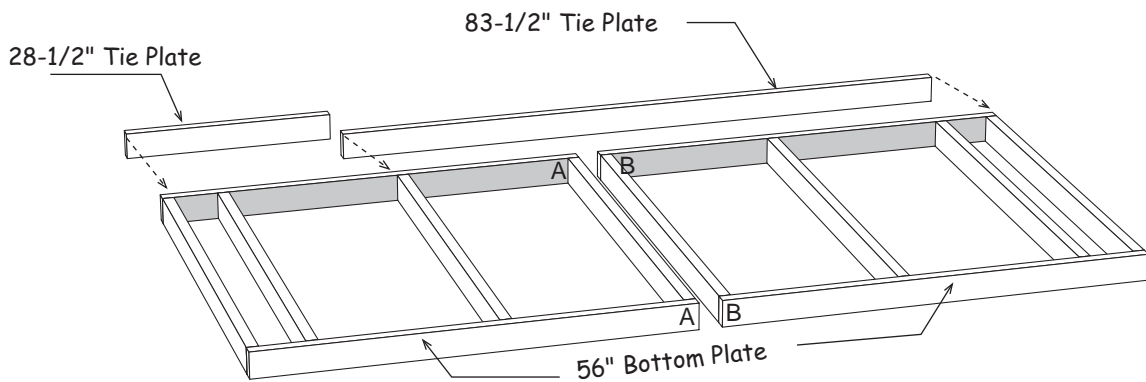


## Step 7 Build Back Wall For 10' Building

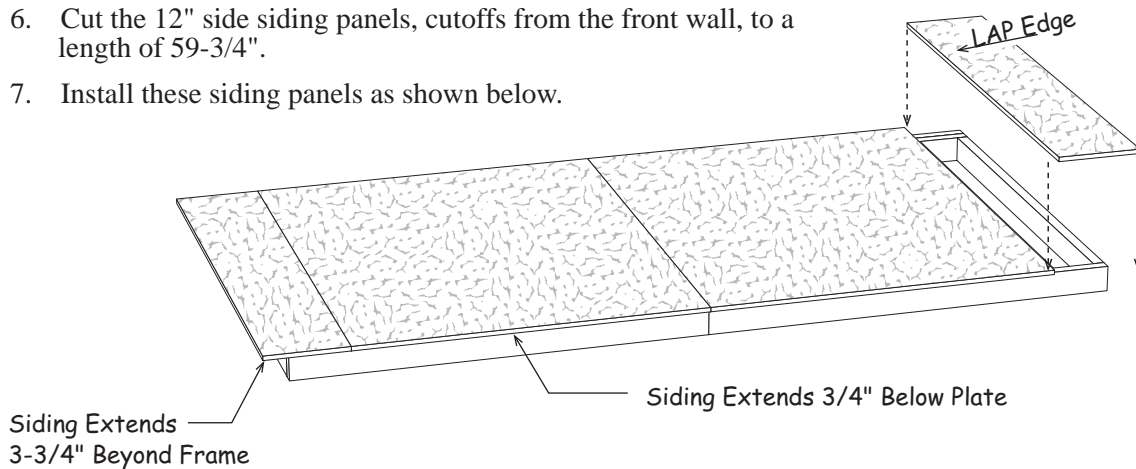
1. Cut (4) four 68" long 2x4s to a length of 56". Position these 2x4s together and indicate with 'X' marks, where the wall studs will be located. Mark the ends that will butt together with the letters 'A' and 'B'.



2. Install 52-1/2" long wall studs, between the wall plates, over the 'X' marks and where the plates meet. Use 10d sinkers. Nail wall frames together.
3. Install a 83-1/2" long tie plate flush with the end of the wall frame.
4. Cut a 52-1/2" long 2x4 and install at the end of the wall frame.

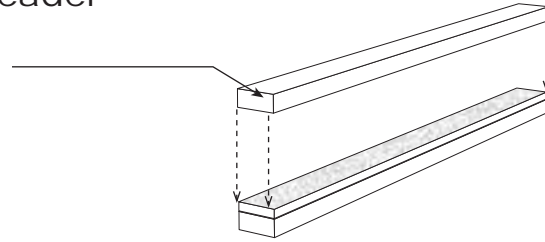


5. Cut (2) two siding panels to a length of 59-3/4". Save the cutoffs.
6. Cut the 12" side siding panels, cutoffs from the front wall, to a length of 59-3/4".
7. Install these siding panels as shown below.



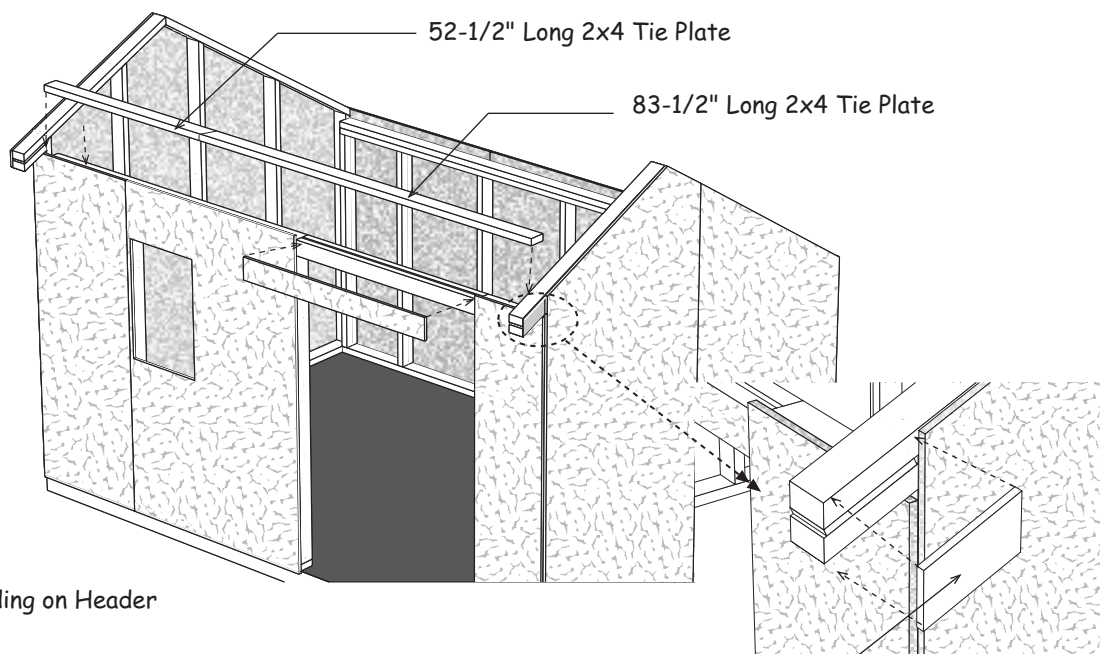
## Step 8 Assemble Door Header

1. Locate (2) two 2x4 boards that are 51" in length and OSB filler
2. Nail boards together.



## Step 9 Set Walls

1. With a helper, set the back wall and end wall on floor. Secure walls at corner with 10d coated sinkers. Nail bottom plate to floor. **Warning:** Use 'Pressure Treated Nails' when nailing into treated boards. Use leftover nails from the floor assembly.
2. Install the other end wall and front wall panels together using the same procedure. Make sure you have 48" between the front wall panels.
3. Plumb the end walls and make sure the door opening is square. Trim off any siding on the back wall that extends past the siding on the end walls.
4. Install a 83-1/2" and 52-1/2" long 2x4 tie plate across the top of the front walls.
5. Install 2x4 door header between front wall panels. Nail header to the wall studs and top plate.



6. Cut and install a small piece of siding over the 2x4 that overhangs the front wall. Cut the height of the siding to 4" to receive the soffit that will be installed later.
7. Install a 5-1/4" x 48" siding panel on the door header. The siding will extend 1/2" below the door header. This will serve as a door stop when the doors close.

## Step 10 Install Roof Trusses

- Layout front and rear 2x4 wall plates for trusses. The 'X' marks where the trusses will be placed.
- Install metal truss supports, on the front tie plate, where the trusses will be located. Install with roof nails.
- Toenail the back of the truss to the wall plate. Also secure the truss by nailing through the rear siding into the end of the trusses. *See detail bottom right.*
- Install trusses over the 'X' marks on the front of the building. Make sure the front wall is straight. Measure each truss so the overhang is the same. Secure the trusses to the metal brackets.
- Install a 1x3x66-1/2" long board as a collar tie on one of the center trusses for support.

*Important:* When marking the front wall plate for the truss location, place the 'X' on the correct side of the lines to keep the trusses parallel.

*inside of building*

2x4 Tie Plate

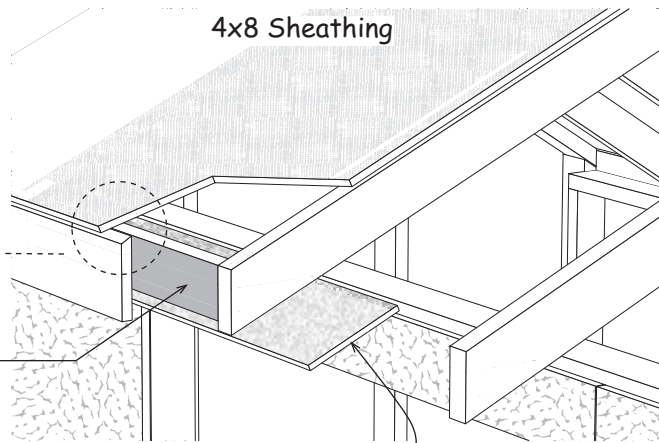
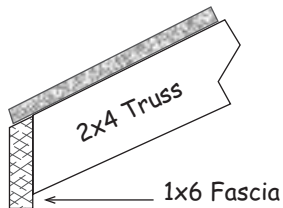
Metal Bracket

1x3 Collar Tie

Nail Through Siding

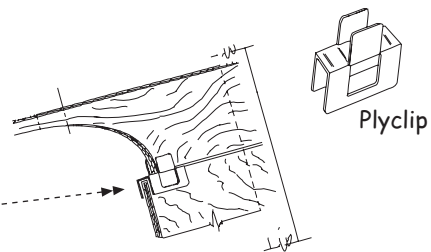
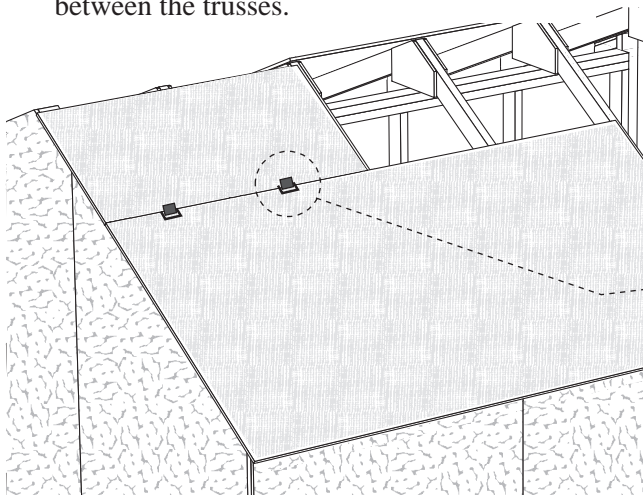
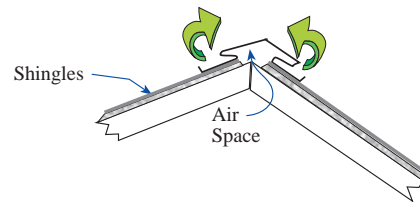
## Step 11 Install Roof Sheathing & Soffit

1. Install 4x8 roof sheathing across the top of the roof. The bottom edge of sheathing should extend past the end of the 2x4 truss to receive the 1x6 fascia. Secure sheathing with 7d sinkers. Space nails 12" apart. Note: If you are installing optional ridge vent allow a 1" space at the peak of the trusses for air flow. *See detail below.*



2. Install a 22-1/2" long 2x4 block between the center truss to support the 1x6 fascia board.
3. Cut leftover siding and install as soffit under the truss overhang.
4. Install 1x6 fascia over the ends of the trusses, flush with the top of the roof sheathing. The 1x6 should extend 3/4" beyond the siding on the side walls to receive the 1x4 gable trim installed next. Use 8d galv. nails.

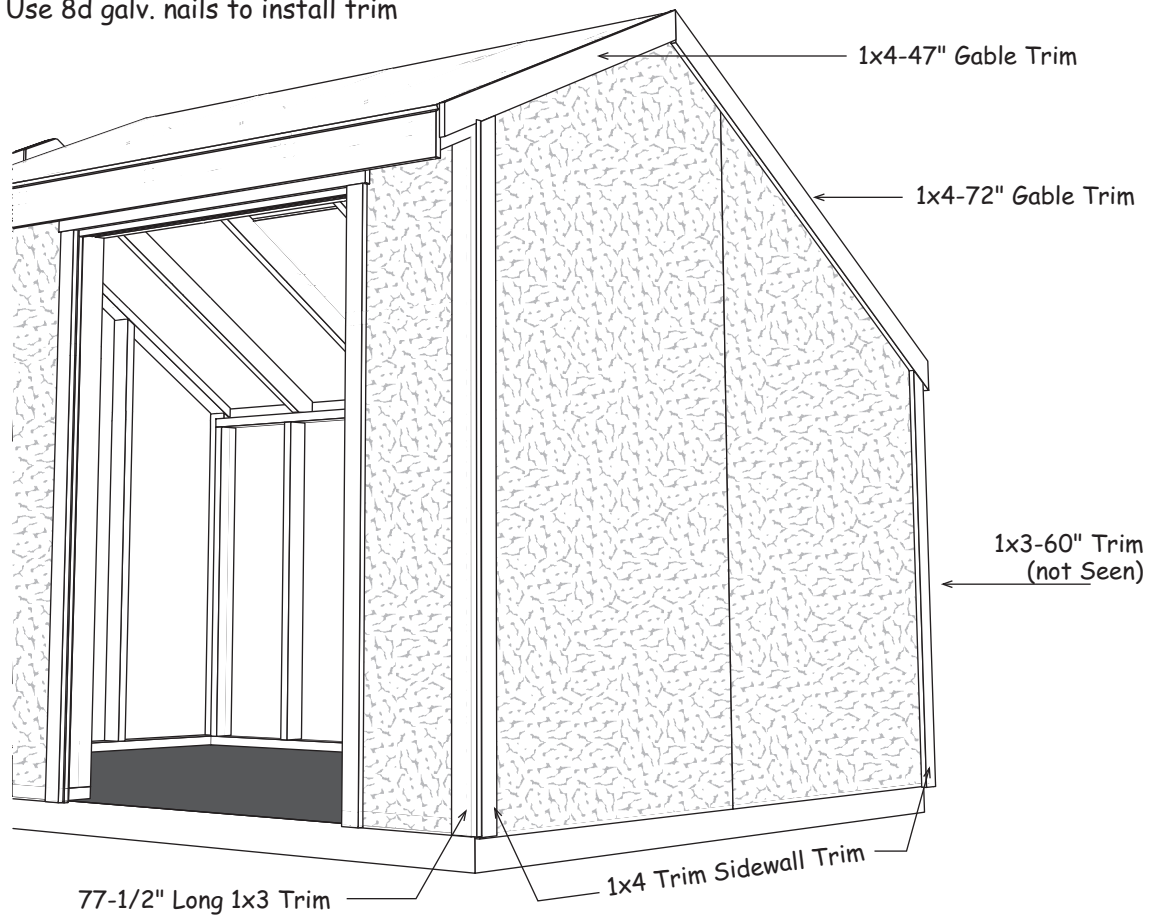
5. Install a full sheet at the lower portion of the rear of the building. Install 2' wide roof sheathing at the top rear of the building. Insert a plyclip where the rear roof sheathing butts together between the trusses.



## Step 12 Install Trim

1. Install 47" and 72" long gable trim, flush with the top of the roof sheathing.
2. Install 77-1/2" long 1x3 trim, *at the front corner*, flush with the siding on the sidewall.
3. Install 60" long 1x3 trim, *at the rear corner*, flush with the siding on the sidewall.
4. Install the remaining 1x4 trim boards at the sidewall corners.

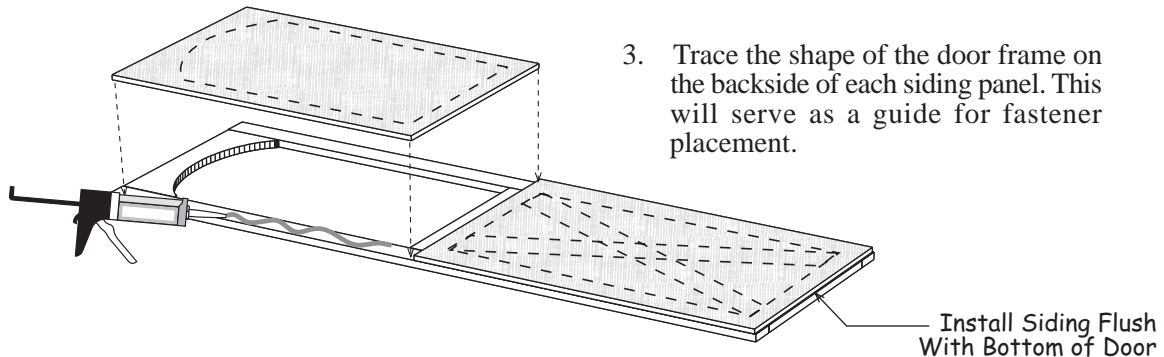
Use 8d galv. nails to install trim



5. Install (2) two 1x3x72" boards along each side of the door opening, flush with the bottom edge of the siding. Tack these boards with a couple nails; you may want to move the trim later when you install the doors. Install a 1x3x55-1/4" board, *that has angle cuts on both ends*, across the top of the side trim.

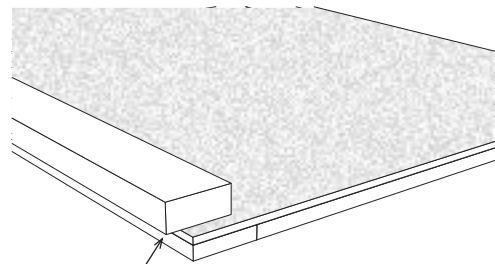
## Step 13 Assemble Doors

1. Locate (2) two siding panels left over from the back wall.
2. Cut the siding to the width of the door frame. Measure and cut the bottom siding panel flush with the bottom edge of the door frame and the top edge centered in the 1x4 center trim board. Cut the top siding panel length allowing the door frame to extend 3/4" beyond the top of the siding.



4. Place door on level surface, face side down. Position siding on frame. Secure siding to door frame with construction adhesive and 1" screws provided.
5. Install a 2x4 x 69-1/2" long board to the back of the door. Position this board flush at the top of the siding and extending 3/4" past the edge of the door. This board will serve as a door stop. Secure with 2-1/2" long wood screws.
6. Apply siding to the other door frame.

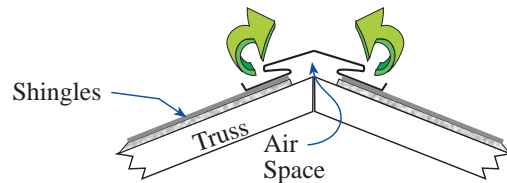
2x4 Extends 3/4" Past Door



## Step 14 Install Roofing — Not Supplied in Kit

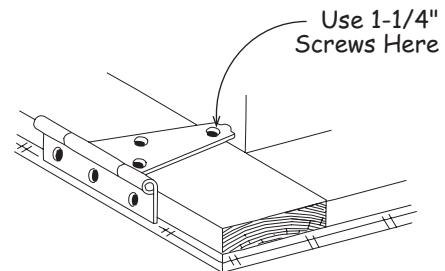
1. Install metal roof edging perimeter of the roof area.
2. Install shingles according to the instructions on the wrapper. If you need more detailed instructions on installing shingles, there are good publications at book stores or newsstands.

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

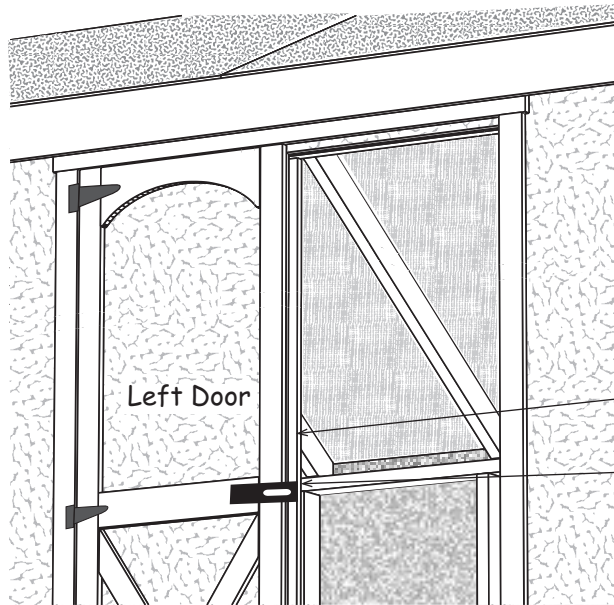


## Step 15 Install Doors

1. Lay the left door with the trim facing up. The 2x4 door stop on the left door extends past the trim. See detail below.
2. Install hinges to the left side of the door frame with 1-1/4" long screws. To position the hinge properly, hold the rectangular plate against the frame.
3. Install hinges to the right side of the other door.



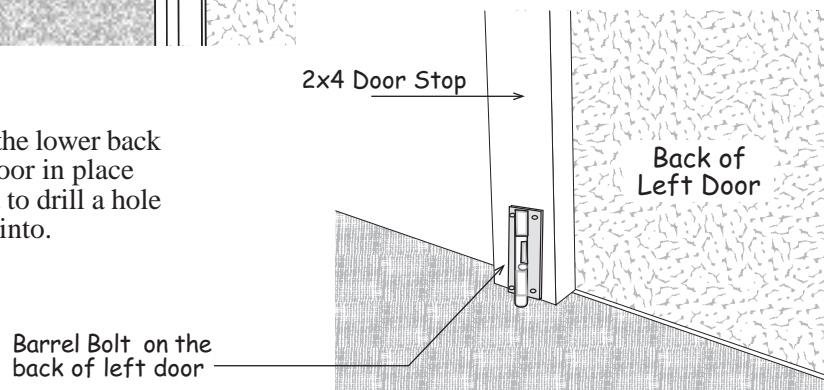
4. Before you fasten the hinges to the door trim, temporarily prop the doors in the opening. Set the door on a piece of OSB, see detail below. Leave a space at the top of the doors and between the doors and the side trim to allow room for the doors to expand when they absorb moisture.



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.

Secure hinges to door trim with 2" screws.

5. 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.



***Material Packaged In Component Kit***

2	2x4	Sidewall Studs	88"	2	1x3	Corner Trim	77-1/2"
2	2x4	Sidewall Studs	87"	2	1x3	Corner Trim	60"
2	2x4	Sidewall Studs	77-3/4"	2	1x4	Corner Trim	79-3/8"
2	2x4	Sidewall Studs	71-1/2"	2	1x4	Corner Trim	58"
2	2x4	Sidewall Studs	56-3/4"	2	1x3	Door Trim	72"
2	2x4	Top Plates - sidewalls	47-1/8"	1	1x3	Door Trim	55-1/4"
2	2x4	Top Plates - sidewalls	69-1/2"	1	1x3	Collar Tie	66-1/2"
5	2x4	Truss/Rafters - rear	69-1/2"	2	1x4	Gable Trim	47-1/8"
1	2x4	Door Stop	69-1/2"	2	1x4	Gable Trim	72"
5	2x4	Truss/Rafters - front	47-1/8"	2	1x6	Fascia Trim	75"
4	2x4	Bottom Plate & Door Jack	71-1/2"	2	1 lb. box	10d Sinkers	
2	2x4	Bottom Plates - sidewall	24-1/2"	2	1 lb. box	8d Galv.	
6	2x4	Wall Studs - front wall	72"	1	1 lb. box	7d Sinkers	
2	2x4	Wall Plates - front wall	70-1/2"	2	1 lb. box	6d Common	
4	2x4	Wall Plates - back wall	68"	2	1 lb. box	1-1/4 Shingle	
8	2x4	Wall Studs - back wall	52-1/2"	6	ea.	4" Door Hinges	
2	2x4	Tie Plates - back wall	52-1/2"	1	ea.	Swivel Door Hasp	
2	2x4	Tie Plates - front & back	83-1/2"	2	ea.	Barrel Bolts	
2	2x4	Door Header	51"	5	ea.	2x4 Truss Hangers	
1	2x4	Fascia Block	22-1/2"	5	ea.	7/16" Plyclips	
12	2x4	Blocks - Truss Jig	14-1/2"	1	bag	Screws & Screw Bit	
1	7/16"	Header Filler	3-1/2"x51"	1	ea.	Bottle Wood Glue	
10	7/16"	Truss Gussets	8-1/2"x12"	1	ea.	Tube Construction Adhesive	
2		Door Trim Panels	24" x 71-3/4"				

***Material Supplied by Local Supplier***

Building Size		Material List	
10' x 8'	12' x 8'		
8 pcs.	9 pcs.	Exterior Siding	4x8
4 pcs.	4 pcs.	OSB Sheathing	4x8

Building Size		Optional Shingles
10' x 8'	12' x 8'	
4 bdl.	5 bdl.	Roof Shingles
5 pcs.	5 pcs.	Roof 'drip' Edge 10'