

## **IMPORTANT INFORMATION ABOUT YOUR KIT**

Thank you for purchasing our kit. Please read the following information before beginning construction. Always check with your local HOA or building code office for any requirements or restrictions.

#### Inventory all items received within 30 days of delivery.

Should there be missing items or sub-par material contact Best Barns Customer Service. Best Barns cannot guarantee replacement of items beyond 30 days notification.

Floor: Wood flooring is sold optionally. You may choose to build your own or pour a cement pad.

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

Tools Required: Hand or Circular Saw Cordless Drill Hammer Pencil Level Measuring Tape 6'-8' Ladder(s) Safety Glasses Dust Mask Screwdriver with Bits Framing Square 

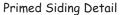
#### Additional Materials - Not included in kit:

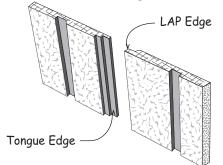
Required: Shingles or metal roofing, Drip Edge, Roofing Nails or Screws, Paint, Class 25 Sealant

Optional: Caulk, Ridge Vent

#### Terminology:

Square - Confirm corners are at 90 degrees Plumb - Confirm walls and trusses are straight vertically Wall Plate - Top and bottom 2x4s used to frame walls Tie Plate - 2x4s connecting wall sections together Header - Spans top of door opening OSB - Oriented Strand Board LAP - Edge of siding that overlaps Tongue Tongue - Edge of siding that is overlapped





Organize:

Unpack all items & organize according to size and type. This will make items easier to find when instructed. If you are not immediately building the kit stack items tightly to prevent lumber from warping. Cover to protect from the elements.

DO NOT discard any material including the pallet until your project is complete.

#### Assembly:

Review all instructions before you begin. Please follow steps carefully and in sequence for successful results.

If you have any questions we are happy to assist you. Please contact us at:

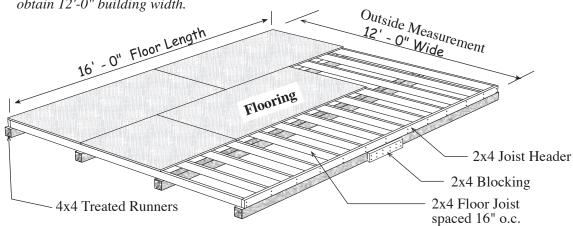
800-245-1577 - Mon - Fri 8AM - 5PM EST 724-866-4357 - After hours and weekends Email - help@barnkits.com

#### **Constructing Details for Deluxe Floor System**

Foundation size is  $12'-0" \times 16'-0"$ . 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 (2) two 2x4-8' boards into 2' long blocks. Butt the 4x4-8' timbers together to make 16' runners. Secure the 4x4s together with the 2' long 2x4 blocks and 16d galvanized nails.
- 2. Cut (2) two 2x4 joist headers to 16' 0". Layout for 16" on center joist spacing. 'X' marks where floor joist will be placed.

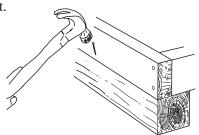
3. Cut 2x4-12' floor joist to 11'-9". Treated lumber may be thicker than 1-1/2". Take this into account when cutting the length of floor joists. Shorten joist measurements if necessary to obtain 12'-0" building width.



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 when the floor is square. Toenail frame to the 4x4 runners.

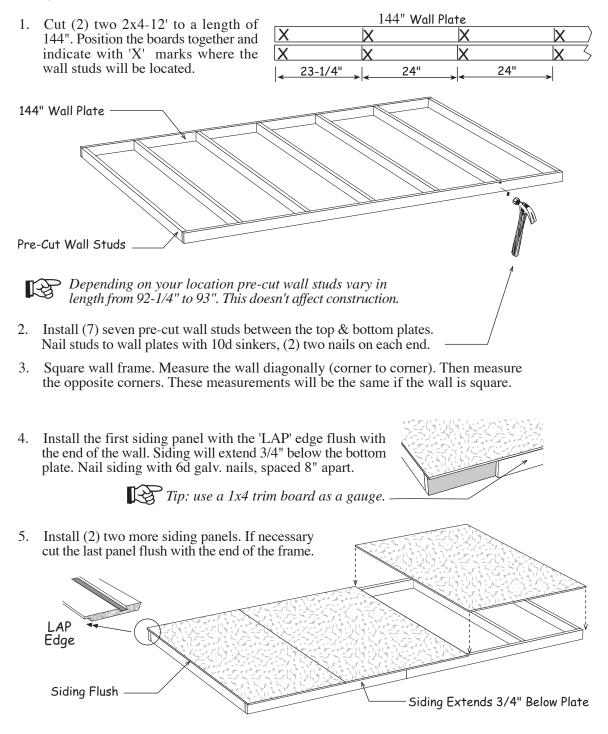
Install the flooring with 6d galvanized nails spaced 8" apart.

Material Description	Qty. & Size
2x4 Treated Blocking	2 pcs. 8'
2x4 Treated Floor Joists	13 pcs. 12'
2x4 Treated Joist Headers	2 pcs. 16'
4x4 Treated Runners	8 pcs. 8'
Flooring: 5/8" or 3/4"	6 pcs. 4x8
Galv. Spiral Floor Nails	3 lbs. 8d
Galvanized Deck Nails	3 lbs. 16d

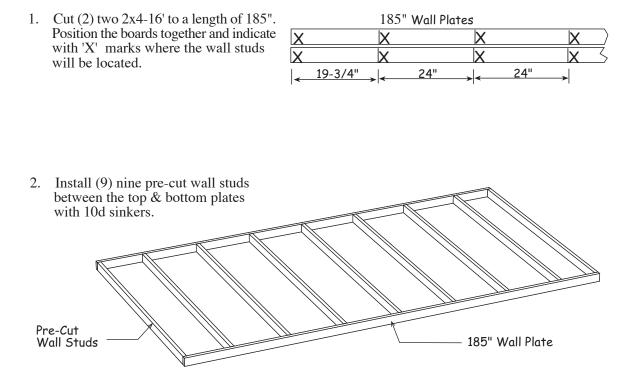


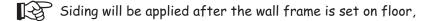
Nail 2x4 joist headers and floor joist to 4x4 runners.

#### Step 1 Assemble 12' Back Wall



#### Step 2 Assemble Side Wall without Door

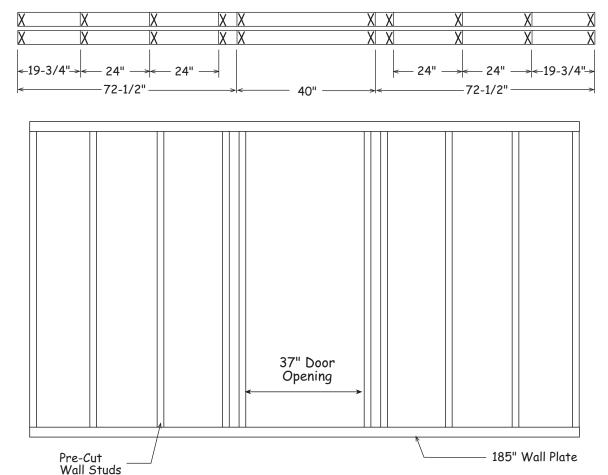




## Step 3A Assemble Side Wall with Door

## **Refer to door manufacturers specifications for rough** opening size. Adjust measurements accordingly.

1. Cut (2) two 16' long 2x4 boards to a length of 185"'. Positions the boards together and indicate with 'X' marks where the wall studs will be located.

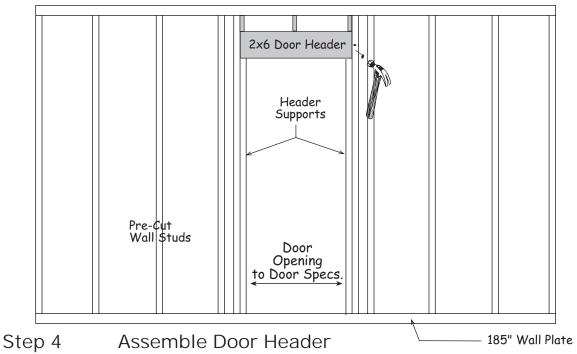


2. Install (10) ten pre-cut wall studs between the 2x4s. Nail studs to wall plates with 10d sinkers, (2) two nails on each end.

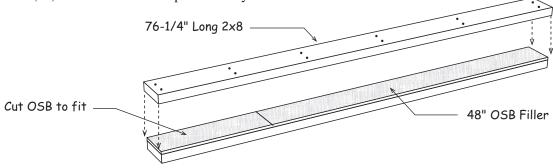
#### Step 3B Assemble Side Wall with Door continued

3. Locate pre-built door header, packed in dormer carton

4. Refer to the door manufacturers specifications for correct rough opening size. Cut (2) two pre-cut wall studs to correct length (remember to account for 2x4 bottom plate). Install these as header supports and the pre-built door header between the center wall studs. Nail through bottom plate and wall studs. Use 10d sinkers. Cut (3) three 2x4 blocks to fit above header. Nail through top plate and toenail to header.

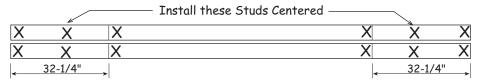


- 1. Locate (2) two 2x8-8' boards. Cut these boards to a length of 76-1/4''.
- 2. Assemble the door header using 2x8 boards and (2) two 7-1/4" x 48" OSB filler included in our kit. Install (1) one 48" long filler flush with end of 2x8. Cut to fit second OSB filler. Nail together with (12) twelve 10d sinkers spaced evenly on each side.



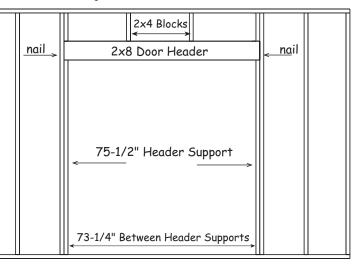
## Step 5 Assemble Front Wall Frame

1. Cut (2) two 2x4-12' boards to a length of 144" for wall plates. Position the boards together and indicate with 'X' Marks where the wall studs will be located.

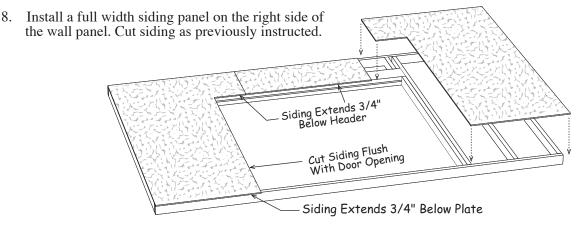


- 2. Install (6) six pre-cut wall studs between the wall plates where shown.
- 3. Cut (2) two pre-cut studs to a length of 75-1/2" and install as header supports. Nail to studs with 10d sinkers.

- 4. Install the door header on the 2x4 header supports. Nail to the stud with 10d sinkers.
- 5. Measure space between header and top plate. Cut from a pre-cut stud (4) four pieces to this length. Evenly space pieces and nail through top plate and toenail to header. Use 10d sinkers.

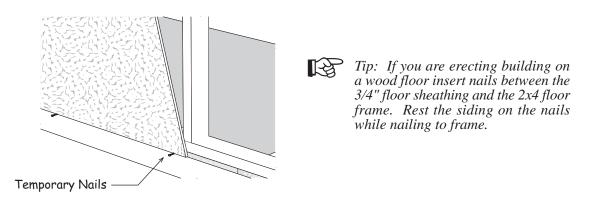


- 6. Place a full width siding panel with the 'LAP' edge flush with left side of wall frame. Siding should extend 3/4" below bottom plate. Before nailing siding, cut the siding flush with the side of the door opening and 3/4" below the door header.
- 7. Install a 20"x48" siding panel above the door opening. This siding must extend 3/4" below the door header. Top of siding might not be even with left or right siding.

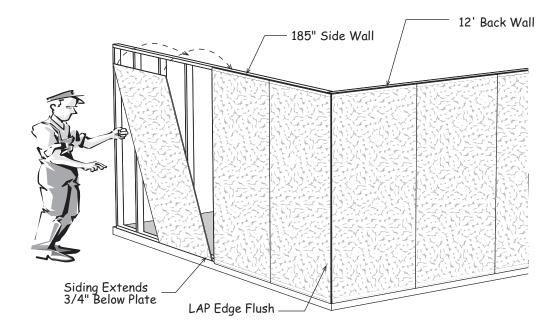


#### Step 6A Set Walls

- 1. Erect the back wall and and side wall without door. Secure walls together at the corner. Use (4) four 10d sinkers. Brace walls with pre-cut wall studs to hold secure and plumb.
- 2. Starting at the corner install a full width siding panel with the 'LAP' edge flush with the siding on back wall. Siding should extend 3/4" below bottom plate. Nail siding to side wall and all 2x4s using 6d galv. nails spaced 8" apart.



3. Install (3) three more siding panels. Last panel will extend approximately 3-1/2" past wall frame to receive the front wall panel.

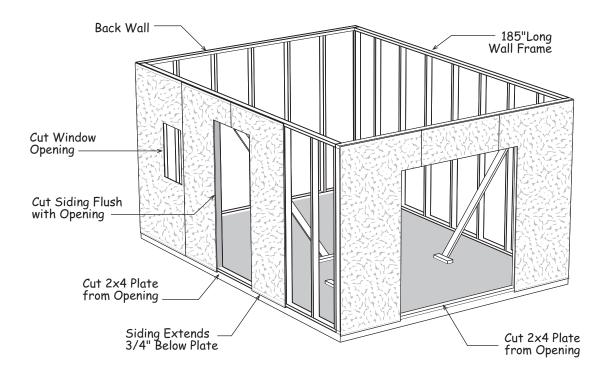


#### Step 6B Set Walls Continued

4. Erect the front wall panel and the side wall with door opening. Secure all walls together at the corners. Use (4) four 10d sinkers per corner. Brace walls with pre-cut wall studs to hold walls secure and plumb.

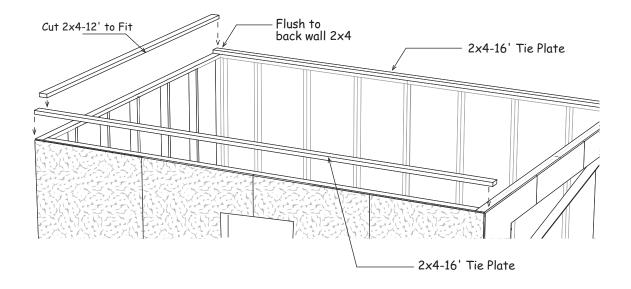
- 5. Starting at left corner install a full width siding panel with the 'LAP' edge flush with the siding on the back wall. Siding should extend 3/4" below bottom plate. Nail siding to side wall and all 2x4s using 6d galv. nails spaced 8" apart.
- 6. Install (2) two full width siding panels next. Before installing siding, cut the siding flush with the sides and top of door opening.
- 7. Install a fourth siding panel.

- 8. Locate where you want the windows, *packed in the dormer carton*, and cut openings in siding. Window installation instructions are in the window box.
- 9. Cut and remove bottom 2x4 from door openings.
- 10. Nail walls to floor through bottom plate. Space 10d sinkers or, if erecting on a concrete slab, concrete anchors (not included) spaced 24" apart.

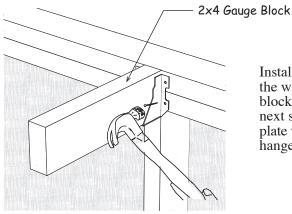


#### Step 7 Install 2x4 Tie Plates

- 1. Install a 2x4-16' board on a side wall, flush with the 2x4s on the front and back walls. Cut length to fit. Use 10d sinkers to secure this tie plate to front and back walls and along length.
- 2. Repeat to install 2x4 on the opposite side wall.
- 3. Cut (2) two 12' long 2x4s to fit between side wall tie plates and install on front and back walls.



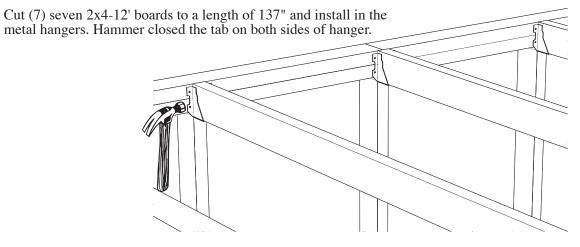




Install (14) fourteen 2x4 joist hangers aligned with the wall studs on both side walls. Use a short 2x4 block as a gauge to ensure the 2x4s, installed in next step, will be flush with the top of the 2x4 tie plate when installed. Secure the hanger with 1-1/2" hanger nails.

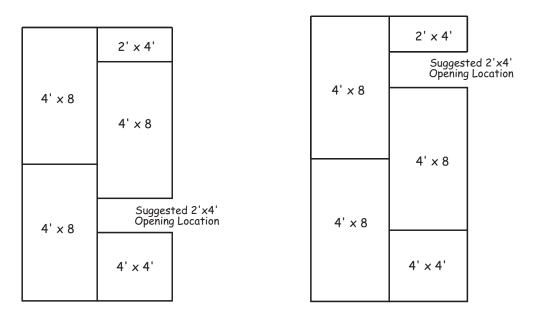
## Step 9 Install Loft Floor

Important: Before securing the 2x4 floor joists make sure the side walls are plumb. The building width should be 12'-0'' measuring from the outside of the 2x4 tie plates.

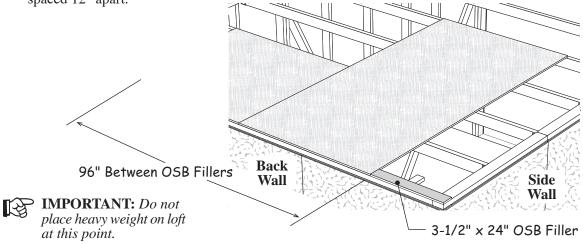


#### Step 10 Install Loft Floor Sheathing

Before installing floor sheathing consider where to locate the 2' x 4' access opening. The detail below shows two possibilities. Regardless of desired layout it is important to install sheathing staggered.



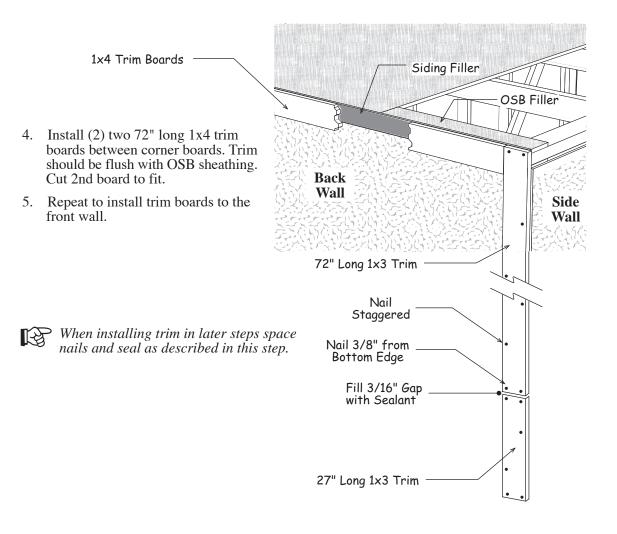
- 1. Locate (4) four 3-1/2" x 24" OSB fillers. Install at front and back corners on top of 2x4 tie plates. Use (4) four 6d common nails each. Insure the space between fillers is 96".
- 2. Install loft flooring between OSB fillers. Edge of sheathing should be flush with front and back wall tie plates. Refer to the suggested lay out above. Install flooring using 6d common nails spaced 12" apart.



#### Step 11 Install Corner Trim

#### **IMPORTANT: Trim Must Be Installed Before Installing Roof Gables!**

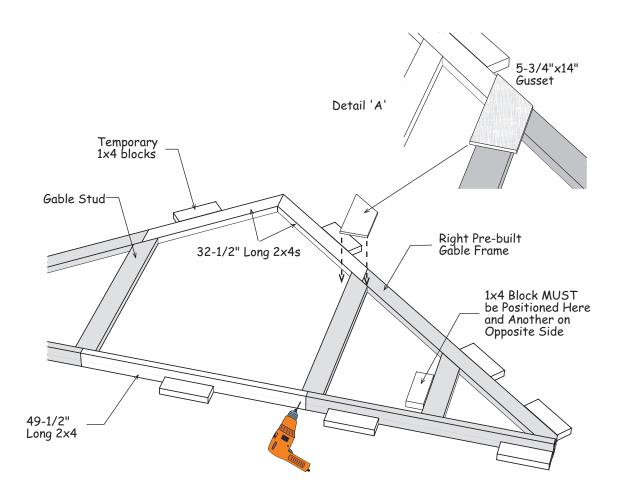
- 1. Locate (3) three 2" x 48-3/4" Siding filler strips. Nail these on top of the siding on the back wall. Use a few 6d galv. nails. More nails will be used on trim.
- 2. Locate (4) four 27" long and (4) four 72" long 1x3 trim boards. Install 72" long boards on the back wall at corners flush with side wall siding and top of OSB filler. Nail with (2) two 6d galv. nails 3/8" from top and bottom of board. Then nail staggered along board 12" apart. *See diagram below.*
- 3. Install 27" long boards under 72" long boards. Leave a gap of 3/16" to allow for sealant to fill gap. If necessary cut trim to be flush with bottom of siding. Fill gap with sealant.



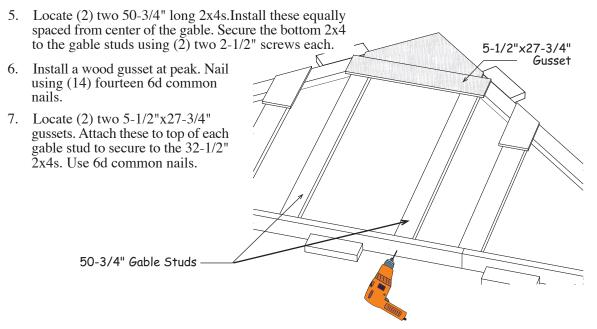
#### Step 12A Assemble Gables

1. Gather pre-built gable end frames, (1) one left and (1) right, (1) one 49-1/2" long 2x4 and (2) two 32-1/2" long 2x4s with angled ends.

- 2. Position these components together as shown below. When aligned correctly the bottom 2x4s will be straight and measure 12'-0" from end to end. *Pre-built gable ends highlighted in gray.*
- 3. Temporarily tack 1x4 blocks to loft flooring around the frame members. These blocks will be 8"-12" long and may have angled ends. Make sure (2) two of these blocks are positioned inside each pre-built gable end frame as shown. Position the rest of the blocks appropriately spaced to hold 2x4s in place. These will insure that all trusses and gables are built exactly the same. DO NOT nail blocks to gable.
- 4. Secure the bottom 2x4 to the gable stud using (2) two 2-1/2" screws.
- 5. Locate (2) two 5-3/4"x14" OSB gussets. Attach these to top of each gable stud to secure frame to 32-1/2" 2x4s. Use 6d common nails. See Detail 'A'.



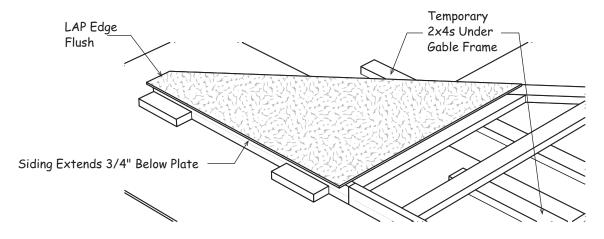
#### Step 12B Assemble Gables Continued



#### Step 13A Install Front Gable Siding

Gable siding is factory cut to be installed either working from left to right or right to left. Regardless of the direction always begin with the 'LAP' Edge flush with end of the gable.

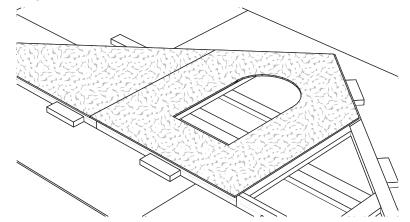
- 1. Carefully turn the gable frame over. Temporarily place 2x4s under the gable frame to keep the frame level while installing the gable siding.
- 2. Locate pre-cut gable siding. Install siding with 'LAP' edge flush with end of gable. Install with siding extending 3/4" below the bottom 2x4 plate. Use 6d galv. nails spaced 8" apart.



#### Step 13B Install Gable Siding continued

This model has 3 sunburst windows included for dormers and one gable end. Cut out window opening in one gable only unless an additional sunburst window was purchased.

3. Install center siding panel. Locate sunburst window, *packed in dormer carton*, and cut out siding according to window instructions. It is advisable to install the window after gable is set.

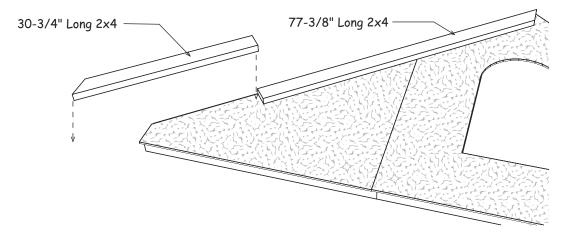


4. Install last siding panel.

#### Step 14 Install Gable Overhang

- 1. Locate (2) two 77-3/8" long 2x4 rafters on gable. Install 2x4s flush with the top of gable frame. Use 10d sinkers.
- 2. Locate (2) two 30-3/4" long 2x4 rafters and install to finish. 2x4s will extend beyond end of gable.

Do not remove the temporary 1x4 blocks until the roof trusses and back gable are assembled.



#### Step 15 Set Front Gable

Important: Temporarily brace the gables with 2x4s to secure gables until the model. to secure gables until the roof sheathing is installed!

- 1. Install gable on the front wall. Secure bottom of gable to loft floor and OSB fillers using 10d sinkers.
- 2. Nail the bottom edge of the siding into the 1x4 trim. Use 6d galv. nails.

Bottom edge of gable siding extends over 1x4 trim

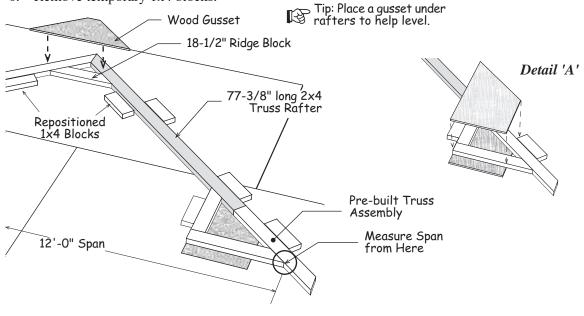
# Front Wall

#### Assemble Rear Gable Step 16

Repeat Steps 12 through 15 to assemble and set rear gable.

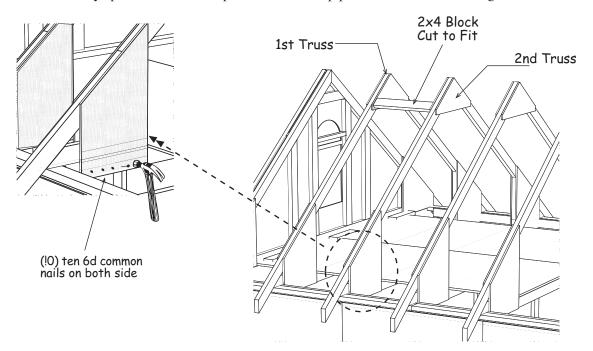
#### Step 17 Assemble Roof Trusses

- 1. Insert left and right pre-built truss ends into the blocks that held the gable frames in place. Insure span is 12'-0" between truss ends as indicated in drawing below.
- 2. Butt (2) two 77-3/8" long 2x4s against the truss ends. Remove the 1x4 blocks that secured the bottom gable plate and reposition to keep rafters aligned. Locate a 18-1/2" long 2x4 ridge block with angled ends and install at peak. Secure rafters and ridge block at peak with a wood gusset. Install with (14) fourteen 6d common nails.
- 3. Install gussets on truss ends. See Detail A. Install with (20) twenty 6d common nails.
- 4. Carefully flip truss over and install another gusset at the peak.
- 5. Set truss aside. Repeat steps to build (6) six more trusses.
- 6. Remove temporary 1x4 blocks.

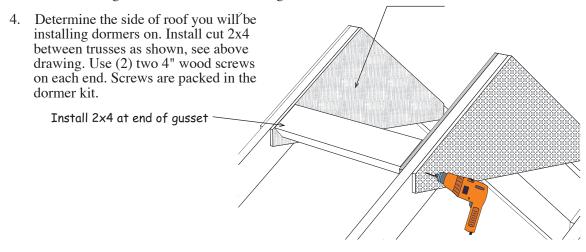


#### Step 18A Set Trusses

- 1. Starting at back gable set a truss by sliding ends over 2x4 floor joist. Truss ends should set flat atop floor joist. Secure with (10) ten 6d common nails on both sides.
- 2. Continue standing trusses to front of building. Make sure trusses and gables are plumb. If necessary span a 2x4 across tops and tack to keep plumb until roof sheathing is installed.

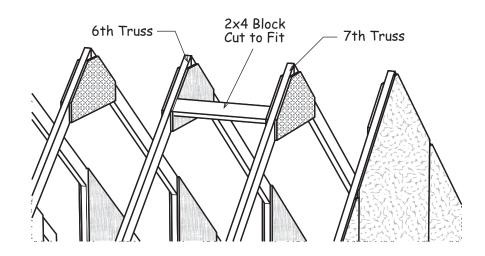


3. Locate the 2x4 that was cut and removed from the door opening on the 12' end wall. Measure and cut to length a 2x4 to fit between the gussets on the 1st and 2nd trusses.



#### Step 18B Set Trusses continued

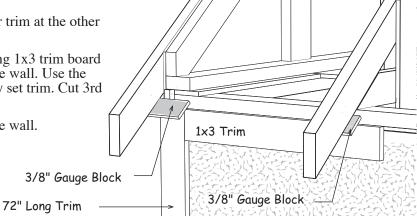
4. Cut to length and install another 2x4 between the truss gussets where shown below.



#### Step 19 Install Side Wall Trim

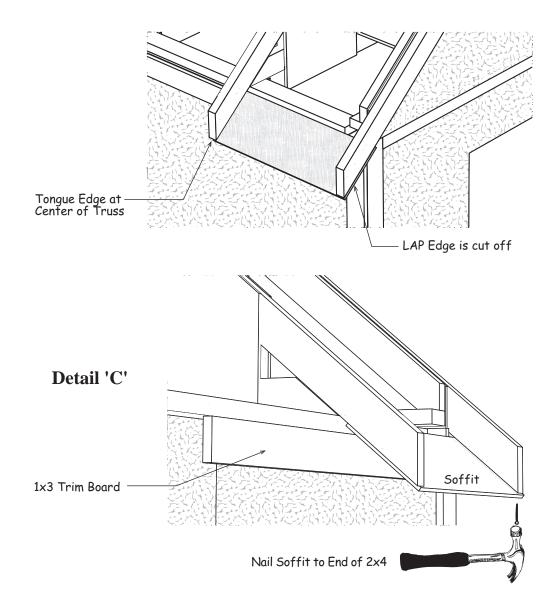
It's easier to install the soffit if the corner and side wall trim are installed first. This enables the soffit to rest on the trim where it meets the building. See lower detail.

- 1. Locate a 3/8" x 3" x 8" siding gauge block packed in the hardware bag. Place this gauge block under the 2x4 overhang and butt a 72" long 1x4 trim board against it. Install trim flush with the corner trim on the back of the building. Use 6d galv. nails.
- 2. Install a 27" long 1x4 under 72" board.
- 3. Repeat to install corner trim at the other three corners.
- 4. Install (3) three 72" long 1x3 trim board along the top of the side wall. Use the gauge block to properly set trim. Cut 3rd board to finish.
- 5. Repeat on opposite side wall.



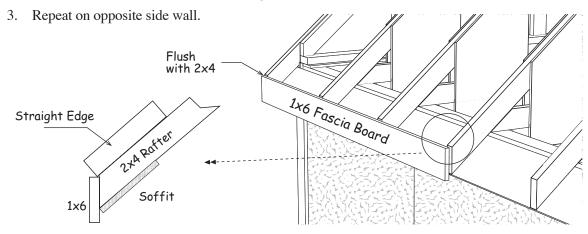
#### Step 20 Install Soffit

- 1. Locate a 9-3/4" x 48" soffit panel. Measure from center of first truss to face of the 2x4 installed on the front gable. <u>Mark this length from tongue edge side cut off 'LAP' edge end of panel</u>.
- 2. Nail the soffit panel to the end of the 2x4s. See **Detail 'C'** below.
- 3. Install (4) four 9-3/4" x 48" soffit panels along the side of the building cutting the last soffit panel flush with the 2x4 on the rear gable.
- 4. Repeat to install soffit panels on the opposite side wall.



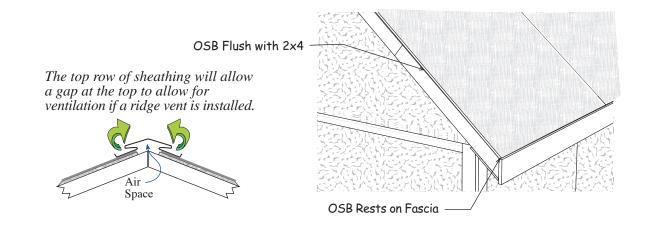
#### Step 21 Install 1x6 Fascia on Side Walls

- 1. Starting at the back gable, install a 75" long 1x6 trim board flush with the face of the 2x4 on gable. Install the 1x6 board so the top of the board is aligned with the top of the trusses. The roof sheathing, *installed later*, should rest on the fascia. Use a straight edge as shown below. Use 6d galv. nails.
- 2. Install (2) two 1x6-6' trim boards next. Cut the last trim board flush with 2x4 on front gable.



### Step 22A Install Roof Sheathing

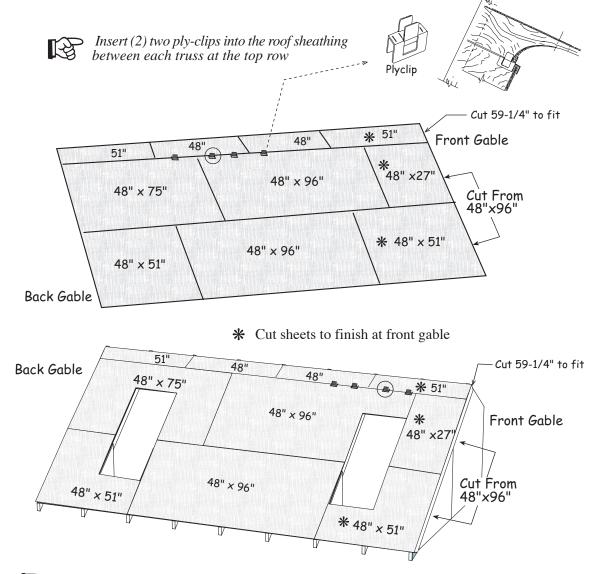
- Locate (2) 48"x 96" sheets of OSB. Cut from these (2) two 48"x 51" sheets. From drops cut (2) two 48"x 27" sheets.
- 2. Before installing roof sheathing make sure the trusses and gables are plumb. Starting at the rear gable install sheathing per the layout on the next page. Secure sheathing with 6d common nails. Space nails 12" apart.



#### Step 22B Install Rear Roof Sheathing continued

- 3. When installing sheets at front gable cut flush with the 2x4s on the gable.
- 4. Insert (2) two ply-clips into the roof sheathing between each truss at the top row, see drawing below.
- 5. Cut a 59-1/4" piece on top row so to be flush with front gable 2x4s.

6. Determine location for dormers and follow instructions in dormer kit.

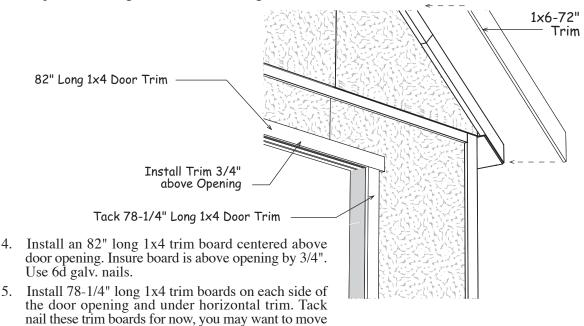


*Refer to dormer kit instructions for installing the roof dormers.* 

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#### Step 23 Install Gable Trim

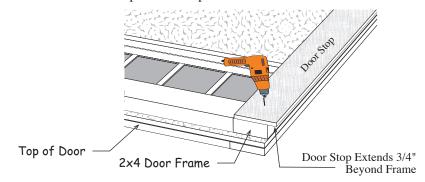
- 1. On front gable install (2) two 38-3/4" long 1x6 trim boards with angle cut on one end over the 2x4 boards at the peak. Trim should be flush with the top of the OSB roof sheathing. Use 6d galv. nails.
- 2. Finish with (2) two 72" long 1x6 trim boards.
- 3. Repeat to install gable trim on the rear gable.



## Step 24 Install Door Stop on Left Door

the trim when you want to installed the doors.

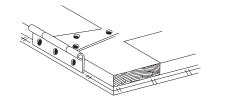
Select a door without a pre-drilled hole for handle and lay trim side down. Install a 4-1/4" x 75-1/4" long siding panel as a door stop to the right side of door. *See detail below*. The door stop should extend 3/4" beyond the side frame of the door and be flush with top of 2x4. Install with 1-1/2" exterior screws spaced 12" apart.

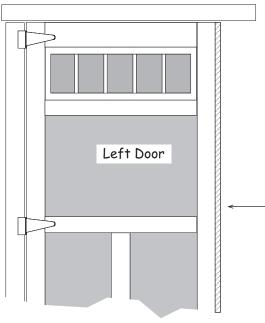


#### Step 25 Install Doors

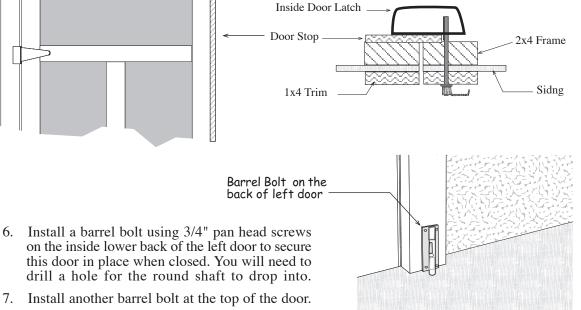


If your door opening is out of square, the space around the doors will not be even. You can remove and re-position the side trim to make allowances for this. The side trim does not have to be flush with the frame of the door opening. You can move the trim in or out to make the door spacing equal.

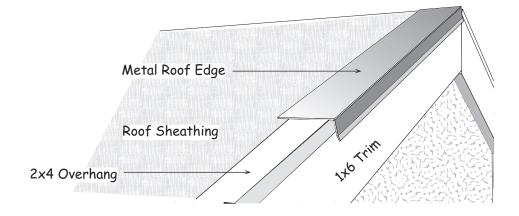




- 1. Install (3) three 5" hinges to sides of the doors. To position the hinge properly, hold the rectangular plate against the frame. Use 1-1/4" black screws.
- 2. Before fastening the hinges to the trim, temporarily prop the doors in the opening. Leave a space at the top and and between the doors and the side trim to allow room for the doors to expand due to humidity.
- 3 Determine position of hinges and install to side trim with 2" screws.
- 4. Install the window using the short white screws.
- 5. Install door handle using 2" black screws into the pre-drilled hole on right side door. When the handle is turned the inside latch will hold doors closed. Tighten set screw to finish.



## Install Roofing - Not Supplied in Kit



- 1. Install metal roof edging along the end walls and the front edge of the roof sheathing.
- 2. Install felt paper and shingles according to manufacture's instructions.

<b>Optional Roof Covering</b>			
12	bdl.	Roof Shingles	
8	pcs.	Roof 'drip' Edge-10'	

	Material Supplied by Local Supplier		
39 pcs.	2x4 Pre-cut Wall Studs		
13 pcs.	2x4 - 12' Wall & Tie Plates		
6 pcs.	2x4 - 16' Wall & Tie Plates		
2 pcs.	2x8 - 8' Door Header		
13 pcs.	Exterior Siding 4x8		
9 pcs.	OSB Sheathing 4x8		
1 pc.	9-Lite Exterior Door		
1 pc.	Lock Set		

Qty.	Material Shipped in 36" Door Kit		
2	ea.	36" x 76" Pre-built Doors	
2	ea.	12" x 31" Transon Windows	
2	ea.	1x4" x 78-1/4" Door Trim	
1	ea.	1x4" x 82" Door Trim	
1	ea.	4-1/4" x 75-1/2" Door Stop	
6	ea.	5" Door Hinges	
1	ea.	Door Handle & Latch	
2	ea.	6" Barrel Bolt	
25	ea.	1-1/4" Hinge Screws	
27	ea.	2" Hinge Screws	
16	ea.	3/4" Pan Head Screws	
10	ea.	1-1/2" Exterior Screws	
32	ea.	White Window Screws	

Qty.	Material Pac	kaged on	Pallet	Qty.	М
20	Truss Rafters	2x4	77-3/8"	1	7/16"
	2 Not used in this mo	del		2	7/16"
7	Ridge Block	2x4	18-1/2"	1	7/16"
6	Gable Overhang	2x4	30-3/4"	2	7/16"
	2 Not used in this mo	del		4	7/16"
4	Gable Rafters	2x4	32-3/8"	2	7/16"
2	Gable Plates	2x4	49-1/2"	2	7/16"
4	Gable Studs	2x4	50-3/4"	4	7/16"
10	Trim	1x3	72"	2	7/16"
4	Trim	1x3	27"	14	3/8"
8	Trim	1x4	72"		4 Not
4	Trim	1x4	27"	6	3/8"
2	Trim	1x6	75"	4	lbs.
4	Trim	1x6	72"	5	lbs.
4	Trim w/Angle Cut	1x6	72"	7	lbs.
4	Trim w/Angle Cut	1x6	38-3/4"	1	lb.
2	Pre-built Gable Frame	es - lefthan	d	25	2-1/2
2	Pre-built Gable Frame	es - rightha	nd	14	2x4
7	Pre-built Truss Ends -	- lefthand		50	Plycli
7	Pre-built Truss Ends -	- righthand		14	Wood
2	Pre-cut 46" High Gab	le Siding -	tongue edge	16	Wood
2	Pre-cut 46" High Gab	le Siding -	lap edge	4	Wood
2	Pre-cut 66" High Gable Siding - center			2	Wood
2	Pre-cut Siding 20" x 4	48-3/4"		12	1x4
	1 Not used in this mo	del		2	3/8"

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Qty.	Mat	erial Pa	ckaged on Pallet	
1	7/16" 48" x 24" OSB Sheathing			
2	7/16" 48" x 51" OSB Sheathing			
1	7/16" 48" x 48" OSB Sheathing			
2	7/16"	48" x 7	5" OSB Sheathing	
4	7/16"	9-3/4" >	48" OSB Sheathing	
2	7/16"	9-3/4" >	9-3/4" x 51" OSB Sheathing	
2	7/16"	9-3/4" x	9-3/4" x 59-1/4" OSB Sheathing	
4	7/16"			
2	7/16"	7-1/4" x	48" OSB Header Fillers	
14	3/8"	Soffit B	oards 9-3/4"x 48-3/4"	
	4 Not used in this model			
6	3/8"	Filler B	oards 2" x 48-3/4"	
4	lbs.	10d	Sinkers	
5	lbs.	6d	Galv. Nails	
7	lbs.	6d	Common	
1	lb.	1-1/2"	Hanger Nails	
25	2-1/2"	Wood S	crews	
14	2x4	Joist Ha	ingers	
50	Plyclips for Roof Sheathing			
14	Wood Gussets 15-3/4" x 27-1/2"			
16	Wood Gussets		24" x 11"	
4	Wood Gussets		5-3/4" x 14"	
2	Wood C	Bussets	5-1/2" x 27-3/4"	
12	1x4	Jig Bloo	cks 18"-10" long approx.	
2	3/8" Gauge Blocks 3" x 8"			