ShedPlans®
.org

20'x20' Garage Plan

Compare our Free vs. Premium plan

This perfectly designed plan will guide you through the entire process of building your very own shed for any backyard or garden.

Check out the benefits you would get with our premium edition:

Features	Free plan	Premium edition
Steps count	12	30
Illustrations for Each Step	✓	✓
Print Ready	✓	✓
Step By Step Instructions	✓	✓
Full Materials and Cuttings List	✗	✓
Additional Illustrations	✗	✓
Additional Blueprints	✗	✓
Tools List	✗	✓
Fastening Elements List	✗	✓
Technical Support	✗	✓

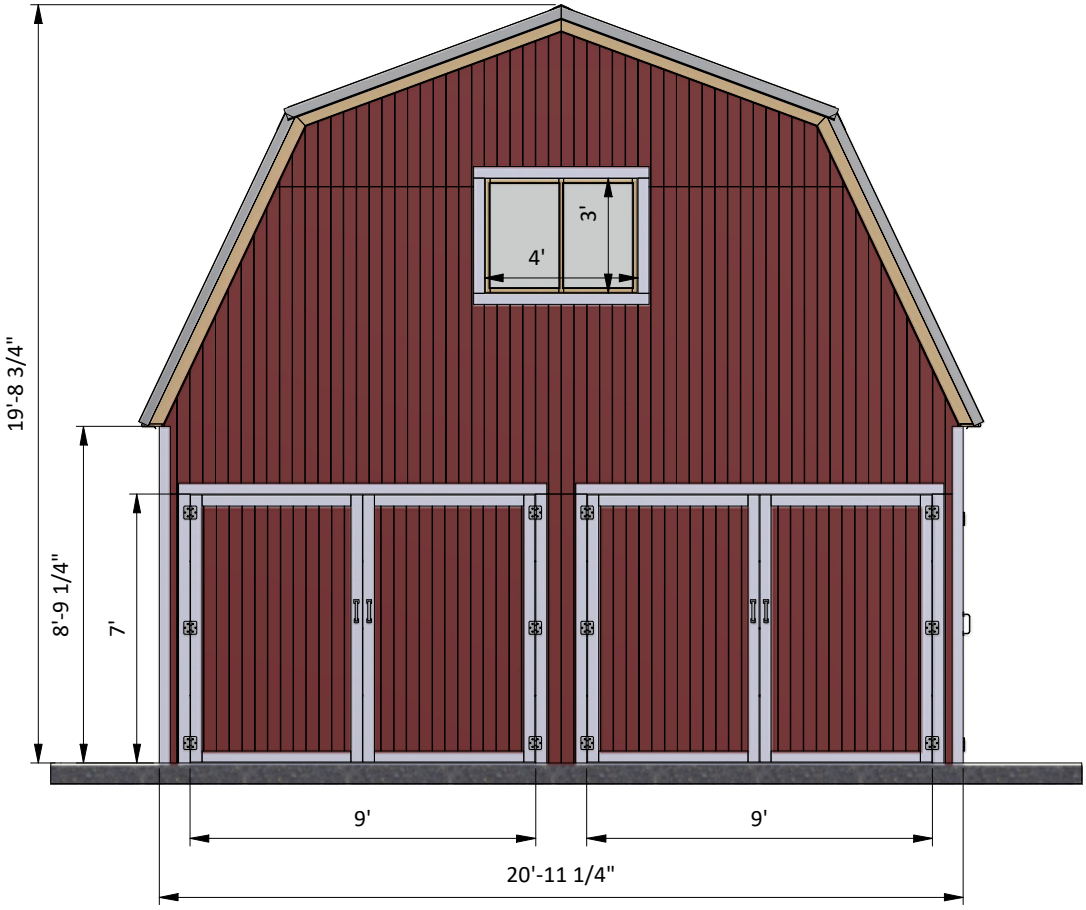
BUY NOW

20'x20' Garage shopping list

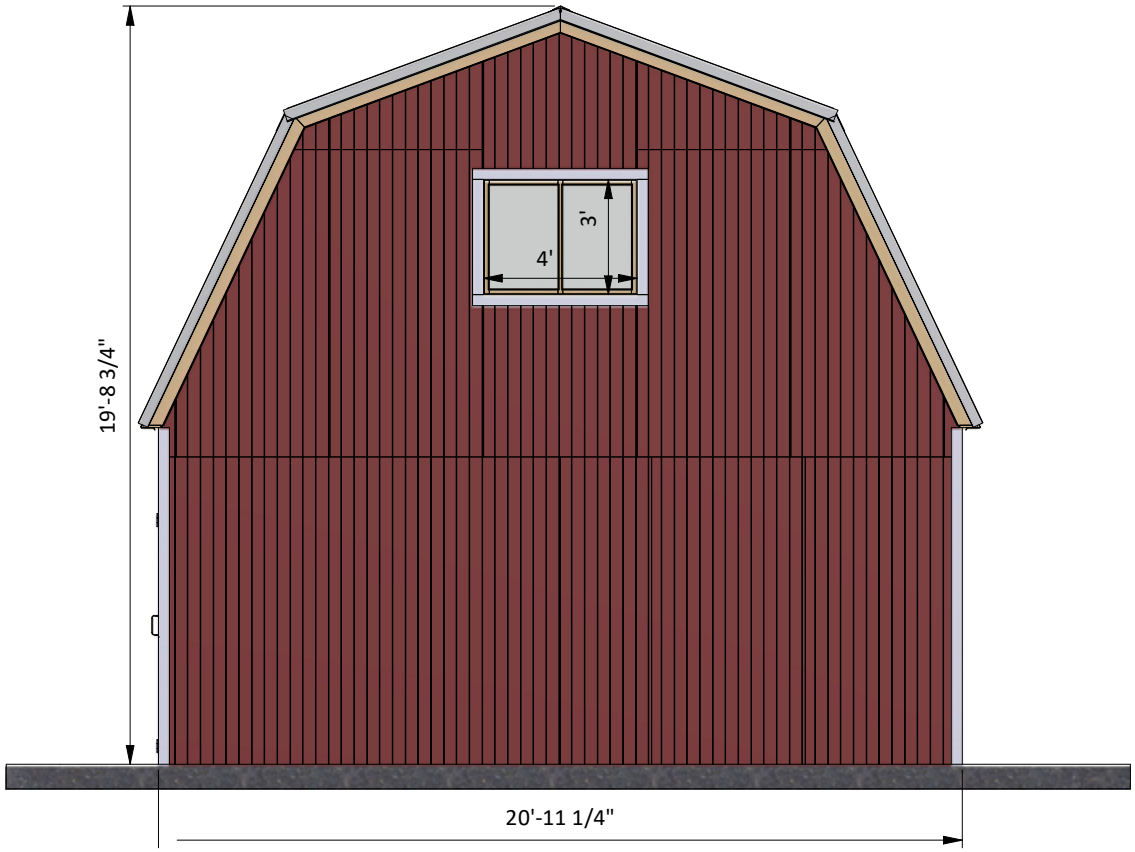
Item	Unit	Qty	Size
Lumber (1 x 4)	pcs	10	10'
Lumber (1 x 4)	pcs	26	8'
Lumber (1 x 6)	pcs	14	8'
Lumber (1 x 6)	pcs	8	10'
Lumber (2 x 2)	pcs	5	6'
Lumber (2 x 2)	pcs	2	8'
Lumber (2 x 4)	pcs	100	8'
Lumber (2 x 4)	pcs	13	10'
Lumber (2 x 4)	pcs	2	12'
Lumber (2 x 4)	pcs	4	14'
Lumber (2 x 6)	pcs	132	8'
Lumber (2 x 6)	pcs	34	10'
Lumber (2 x 6)	pcs	1	12'
Lumber (2 x 10)	pcs	6	10'
LVL 2x10	pcs	4	16'
LVL 2x10	pcs	2	20'

Size & Dimensions

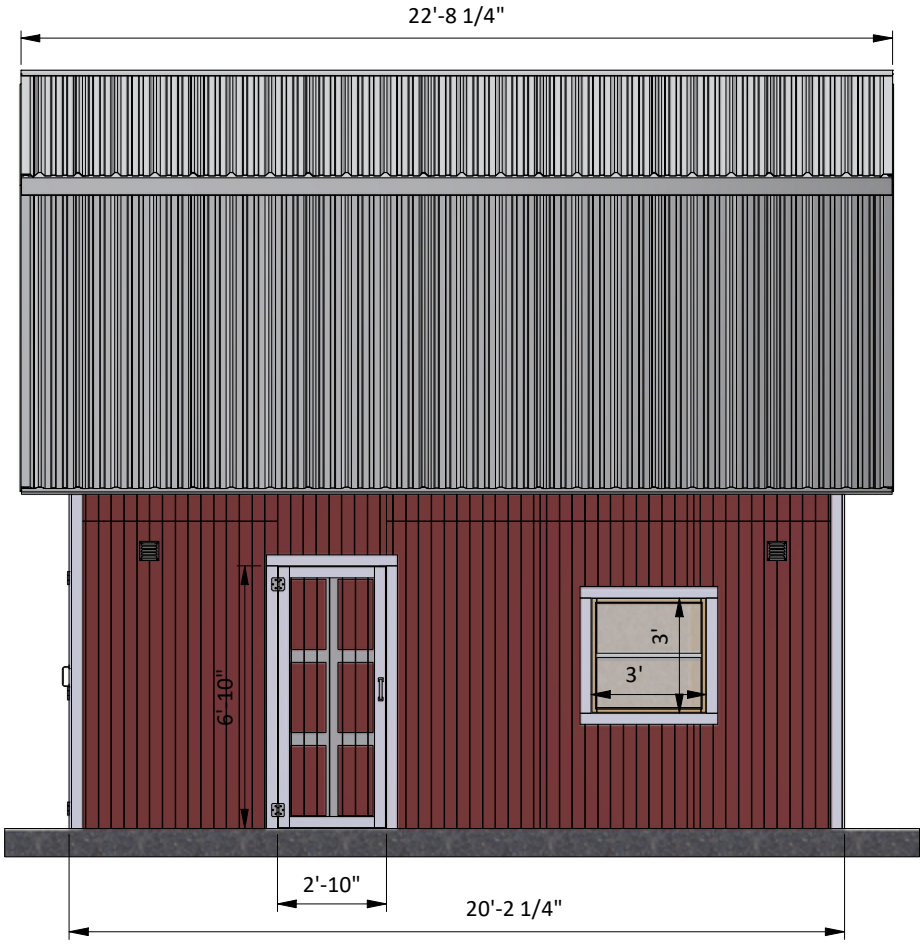
front



back



right



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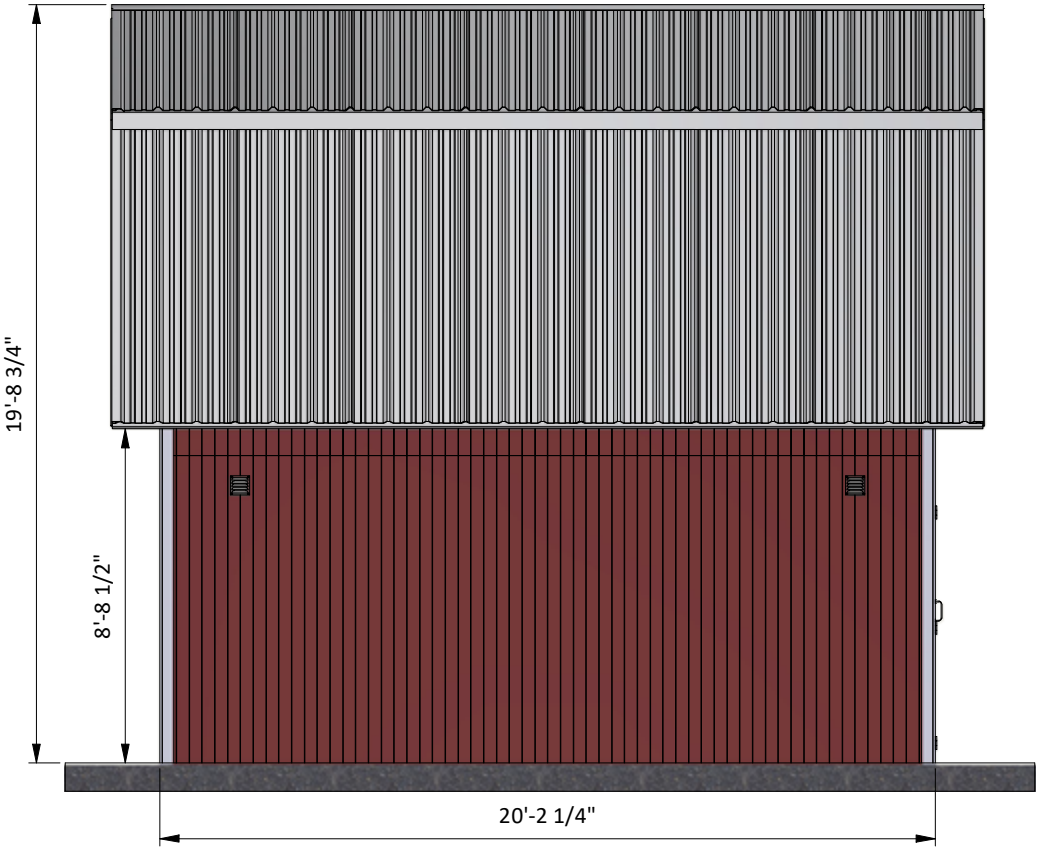
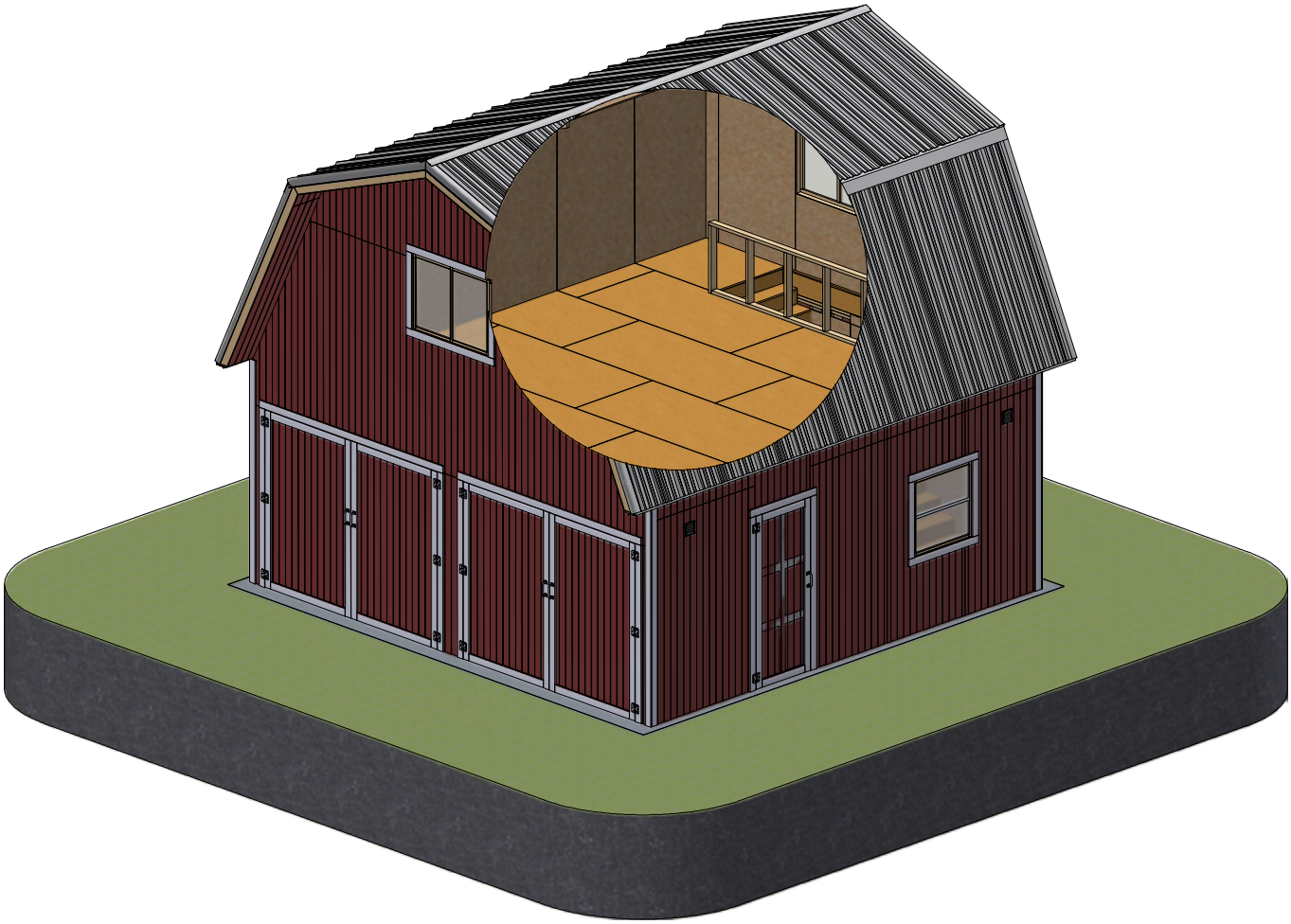


Interior view



STEP 1

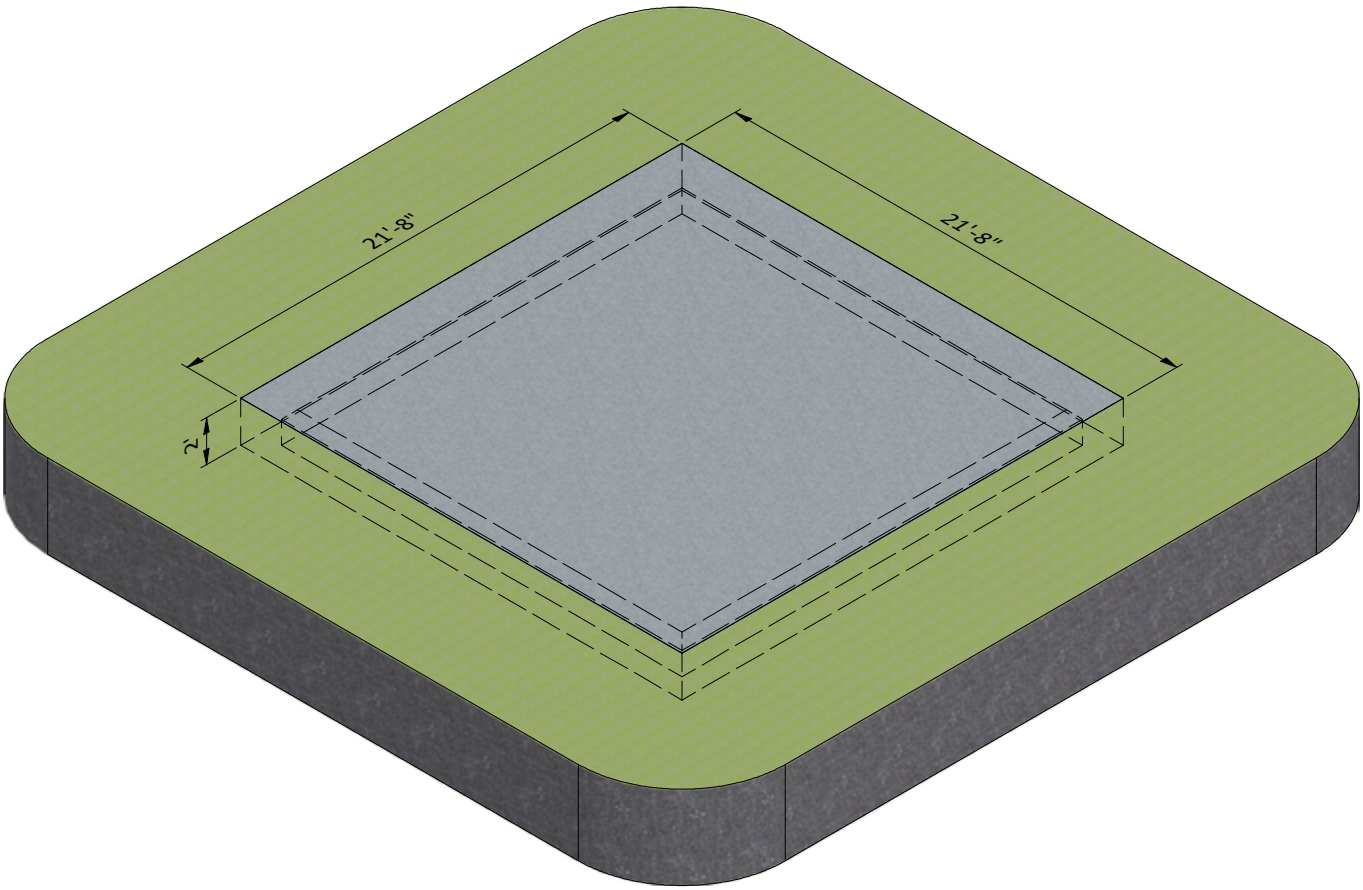
Foundation Preparation

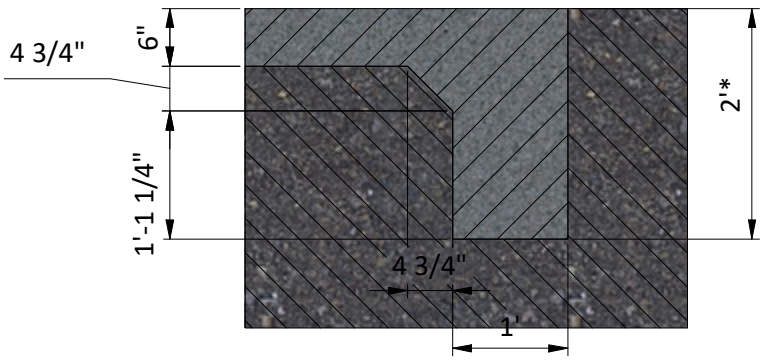
1.1 Clear the area where you want to build the garage and layout for the foundation. Use the illustration below as a guide.

1.2 For the foundation, dig the trenches at least 1' wide and 2' deep (use your local frost depth requirement if it's need to be deeper). Take off 6 inches of soil in the middle.

1.3 To reinforce the concrete slab, place number 4 reinforcement at 16 inch spacing and tie with binding wire at the intersection points of the resulting reinforcement mesh.

1.4 Fill the trenches to ground level with concrete and let cure, or harden. Since curing times vary between brands, read the packaging for recommended curing times.





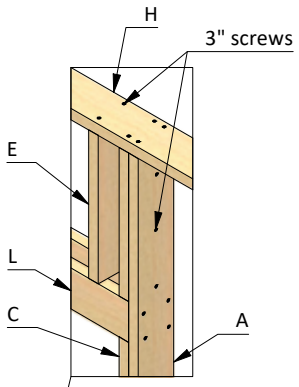
STEP 2

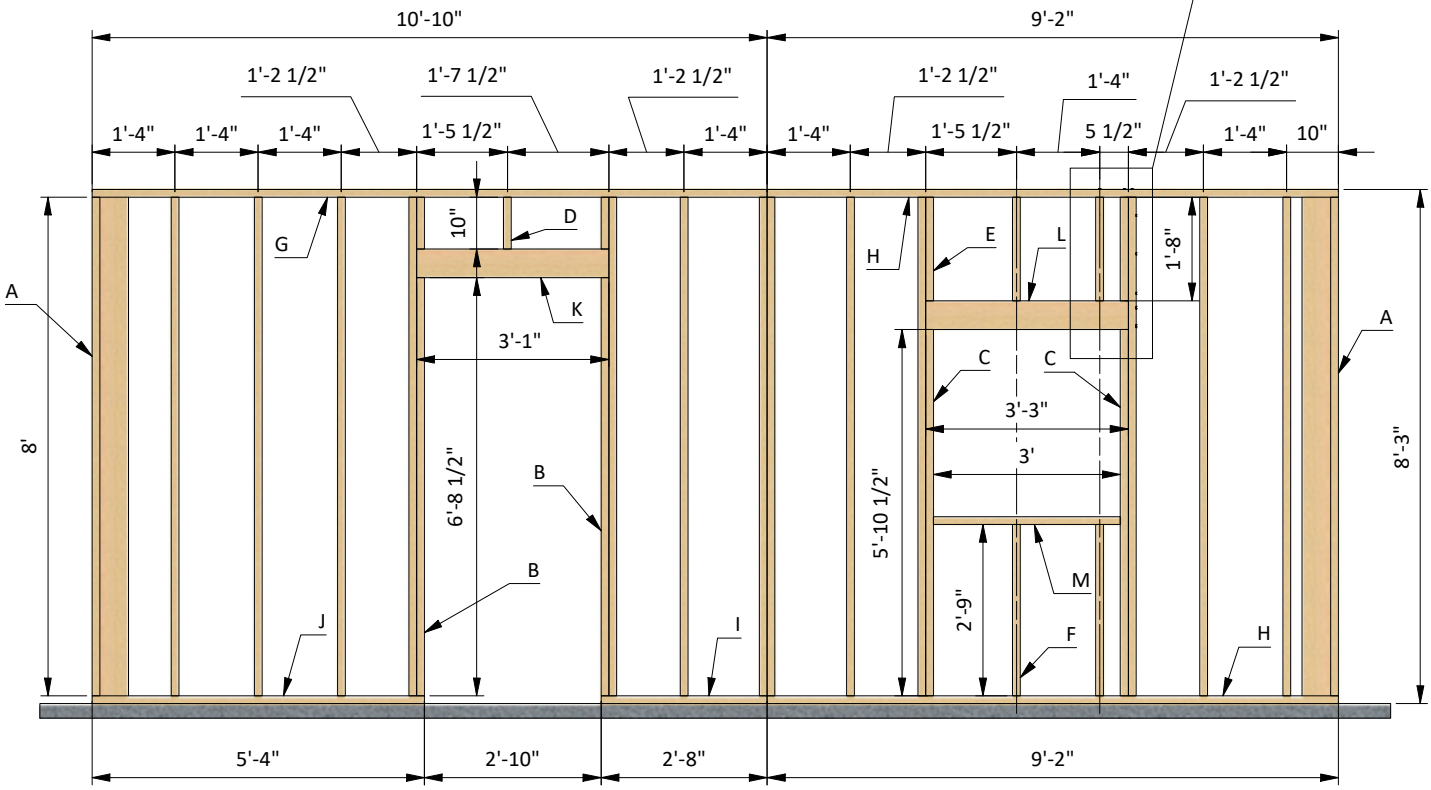
Assemble Right Wall Frame

2.1 Using 2x6 lumber, construct right wall frame using the drawing below as a reference. It is divided into two parts for easy assembly. You will need to prepare beams in necessary quantity according to the cutting list below.

2.2 Connect the beams with 3" wood screws.

Pos	Description	Material	Dimension	Qty
A	Stud	2x6	8'	17
B	Stud	2x6	6'-8 1/2"	2
C	Stud	2x6	5'-10 1/2"	2
D	Cripple stud	2x6	10"	3
E	Cripple stud	2x6	1'-8"	4
F	Stud	2x6	2'-9"	2
G	Top beam	2x6	10'-10"	1
H	Top/Bottom beam	2x6	9'-2"	2
I	Bottom beam	2x6	2'-8"	1
J	Bottom beam	2x6	5'-4"	1
K	Door header	2x6	3'-1"	2
L	Window header	2x6	3'-3"	2
M	Rough sill	2x6	3'	1





STEP 3

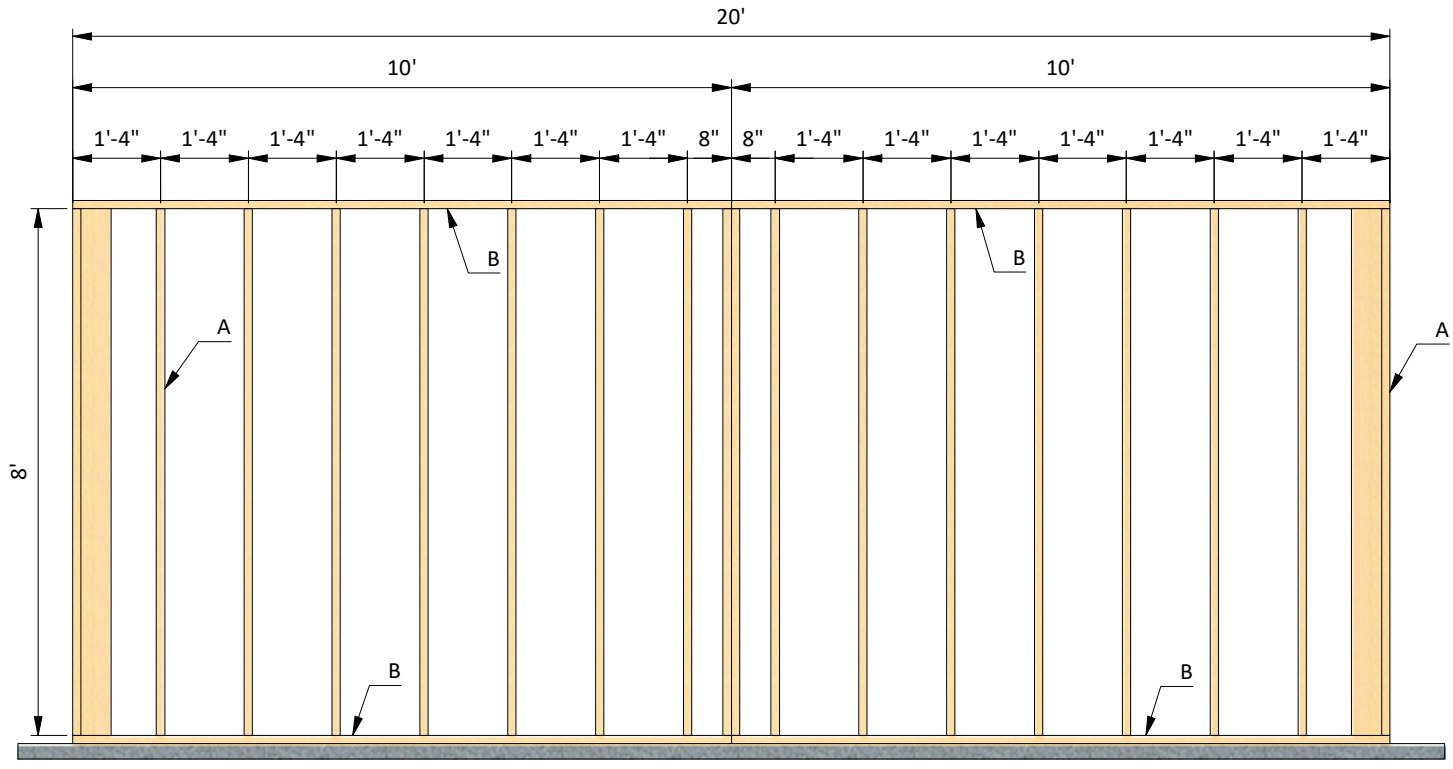
Assemble Left Wall Frame

3.1 Using 2x6 lumber, construct left wall frame using the drawing below as a reference.
You will need to prepare beams in necessary quantity according to the cutting list below.

3.2 Connect the beams with 3" wood screws.

3.3 Using a speed square or carpenter's square, check the corners to make sure they are 90°.

Pos	Description	Material	Dimension	Qty
A	Stud	2x6	8'	20
B	Top/bottom beam	2x6	10'	4



STEP 4

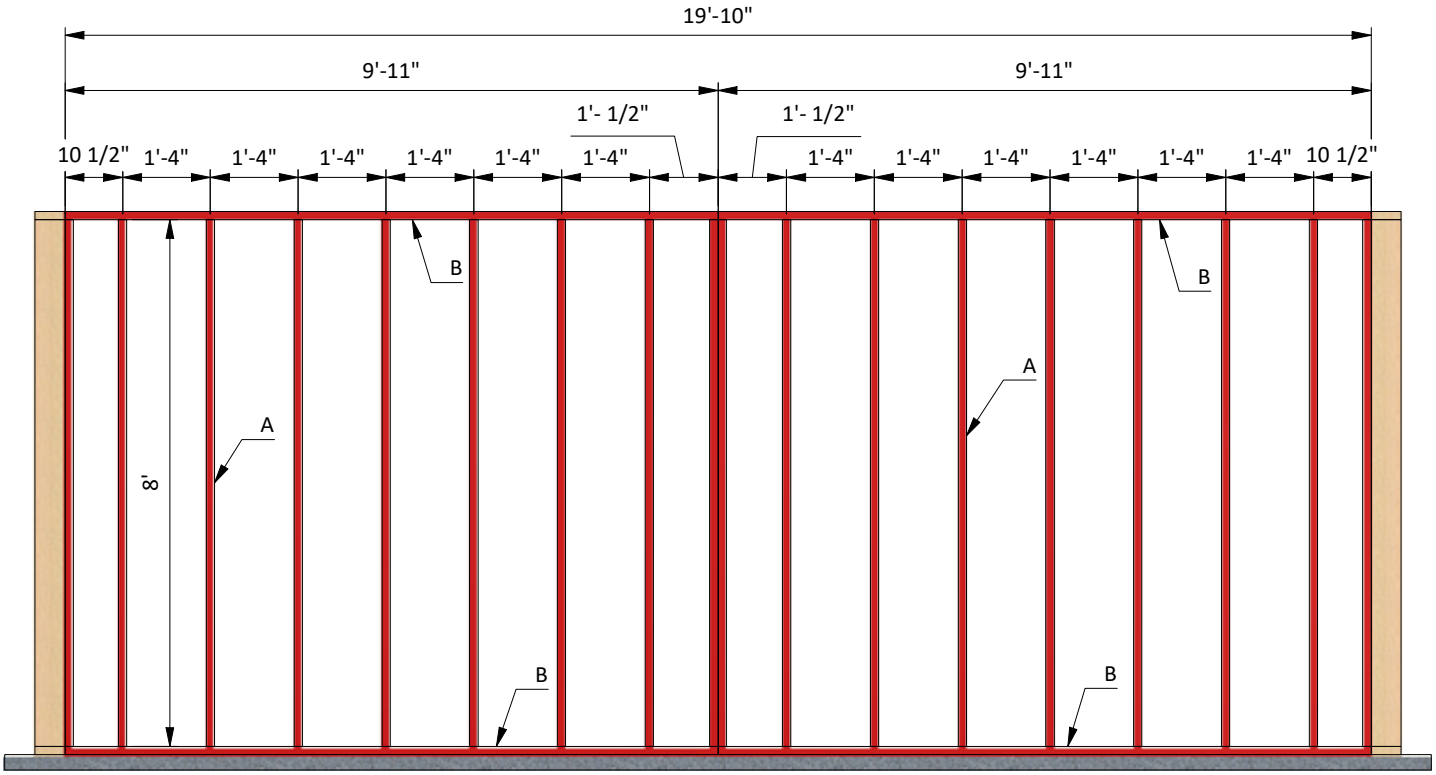
Assemble Back Wall Frame

4.1 Using 2x6 lumber, construct back wall frame using the drawing below as a reference. You will need to prepare beams in necessary quantity according to the cutting list below.

4.2 Connect the beams with 3" wood screws.

4.3 Using a speed square or carpenter's square, check the corners to make sure they are 90°.

Pos	Description	Material	Dimension	Qty
A	Stud	2x6	8'	18
B	Top/bottom beam	2x6	9'-11"	4



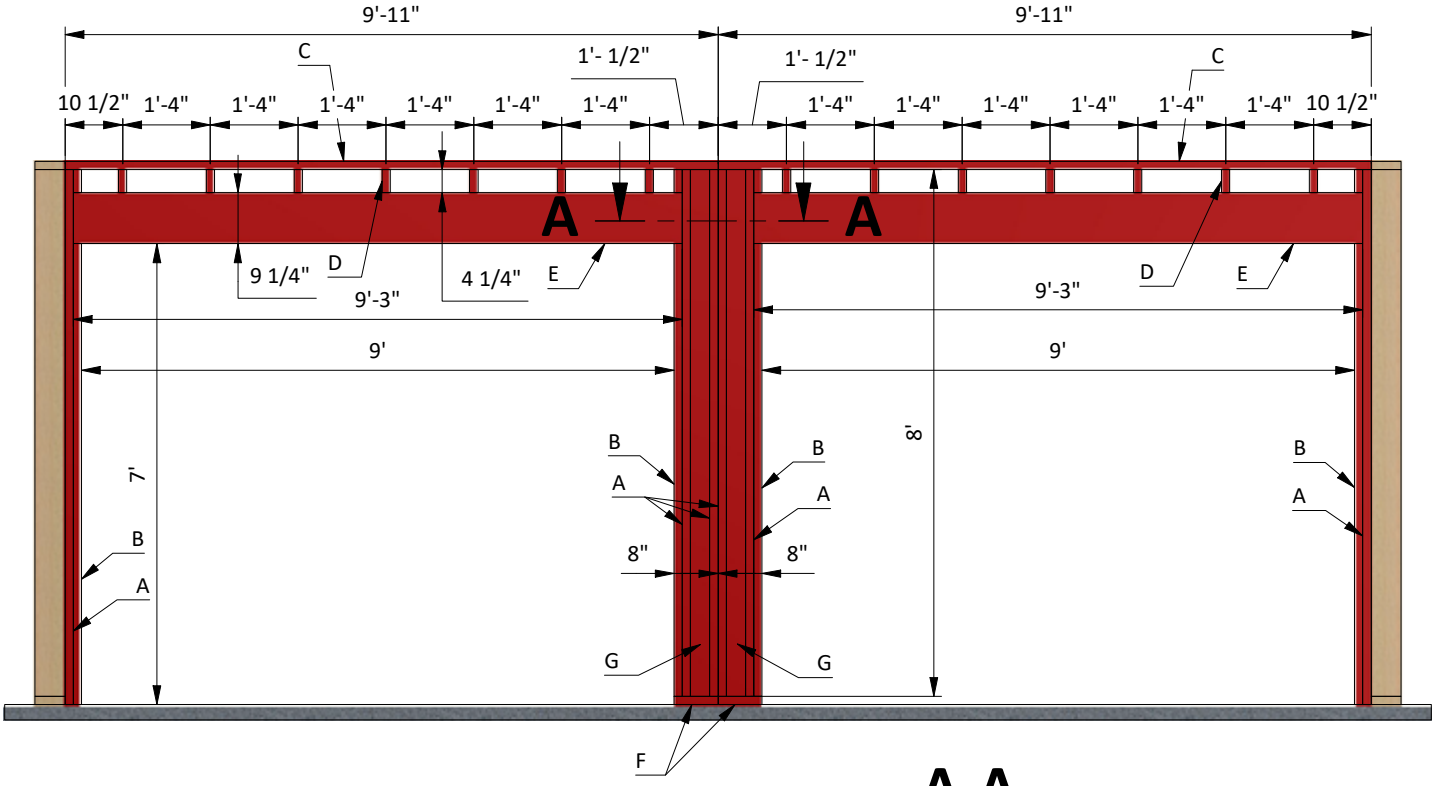
STEP 5

Assemble Front Wall Frame

5.1 Using 2x4, 2x6 and 2x10 lumber, construct front wall frame using the drawing below as a reference. You will need to prepare beams in necessary quantity according to the cutting list below.

5.2 Connect the beams with 3" and 5" wood screws.

Pos	Description	Material	Dimension	Qty
A	Stud	2x6	8'	6
B	Stud	2x6	7'	4
C	Top beam	2x6	9'-11"	2
D	Cripple stud	2x6	4'-1/4"	18
E	Door header	2x10	9'-3"	6
F	Bottom beam	2x6	8"	2
G	Stud	2x4	8'	2



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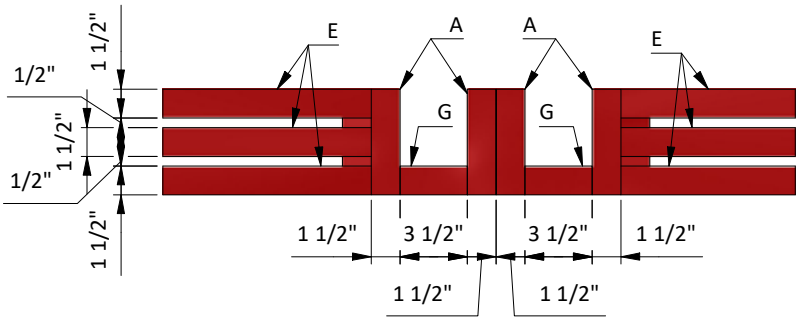


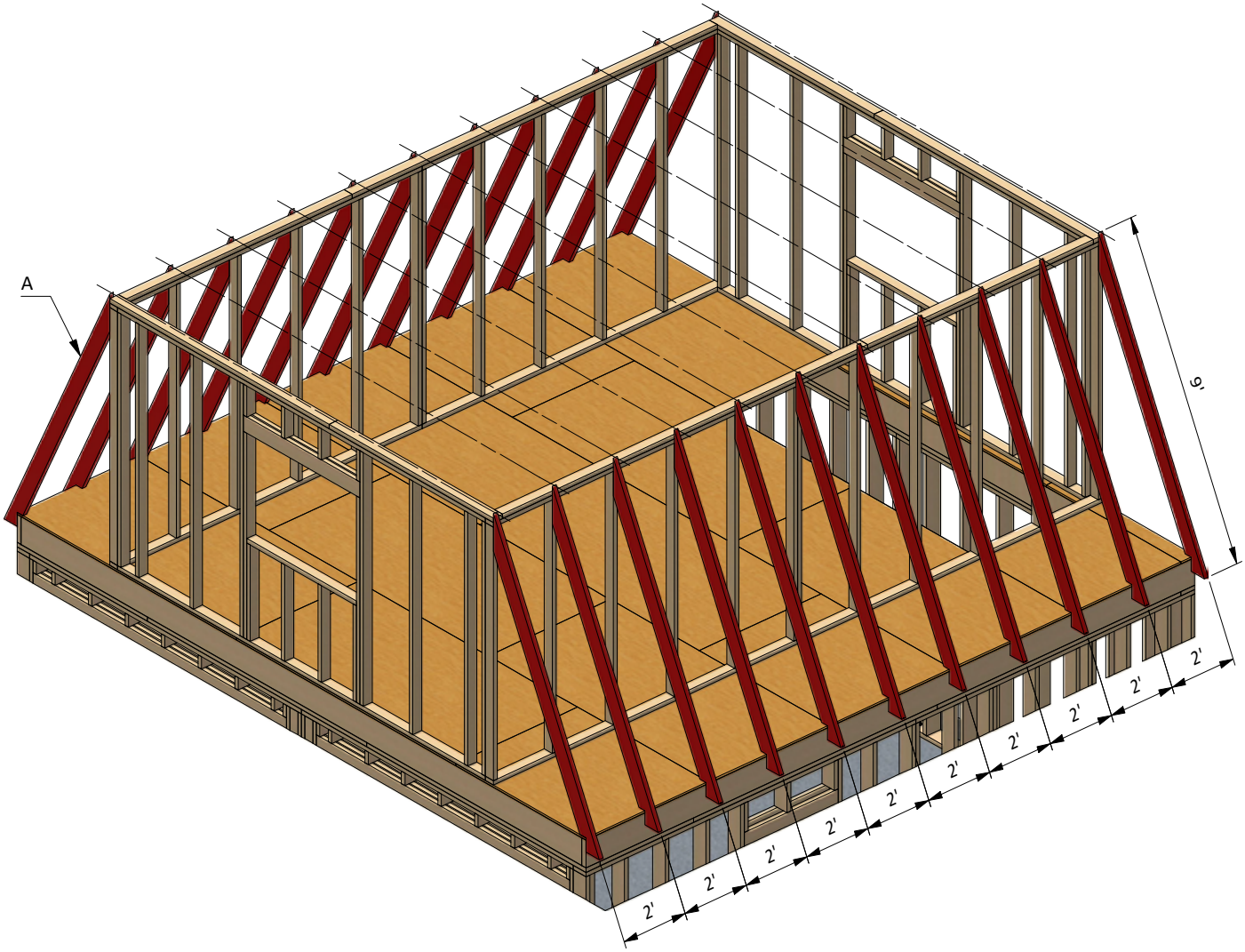
STEP 6

Assemble the Roof Frame

6.1 Using 2x6 lumber, construct roof frame using the drawing below as a reference.
You will need twenty two boards cut to 9' that will be rafters. Provide cuttings to fit the wall beams.

6.2 Connect the rafters with 5" wood screws.

Pos	Description	Material	Dimension	Qty
A	Rafters	2x6	9'	22



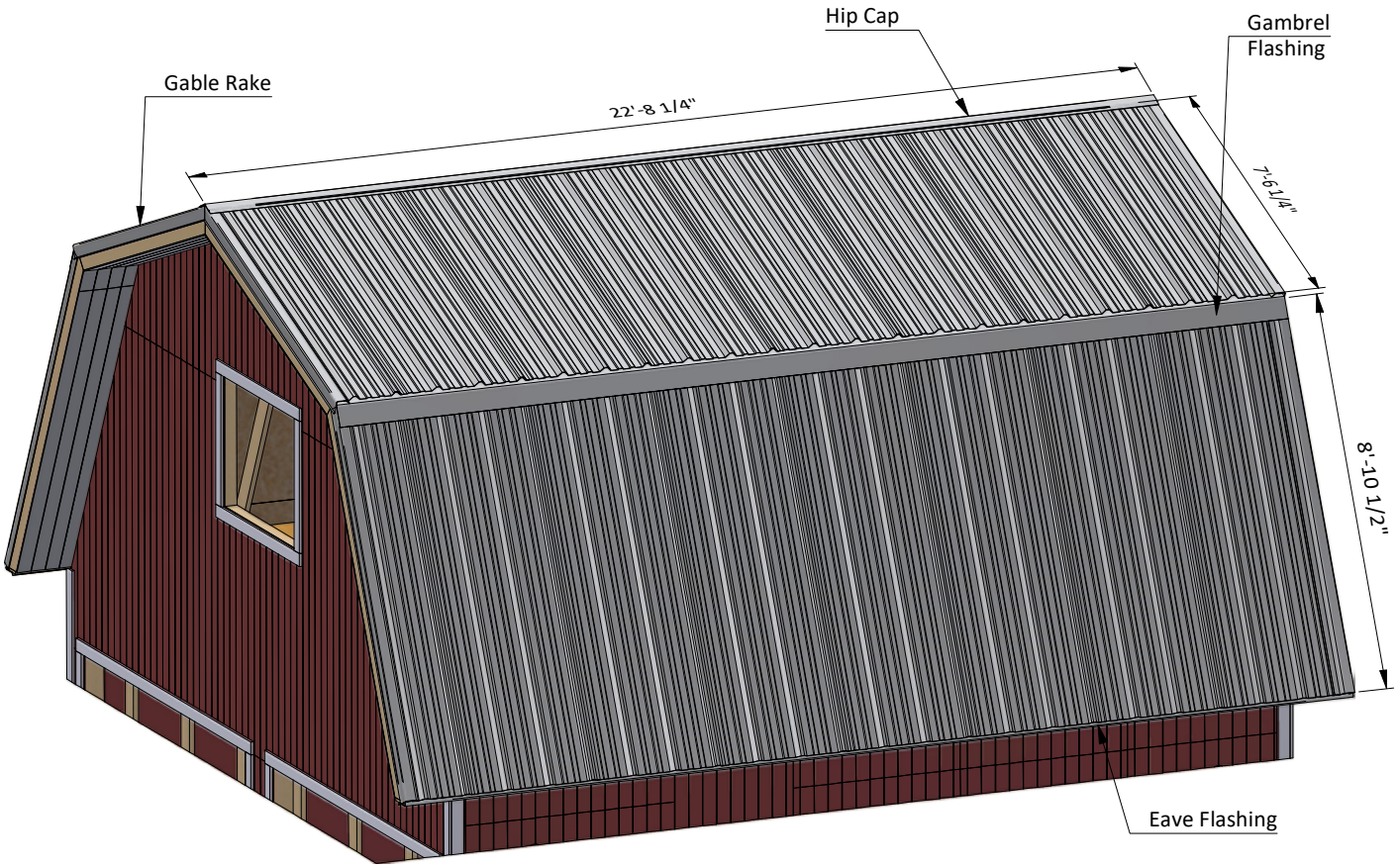
STEP 7

Garage Roof Sheathing Installation

7.1 Cover the OSB roof plane with #30 Felt Roofing Underlayment. Assemble the corrugated metal roof panels, you will need 760 square feet.

7.2 Fit the eaves flashing to cover the fascias. Install bottom level of panels. Use gambrel flashing to cover the rib between two levels of metal panels. Install the top level of panels. Cover the side edges with gable raking. Finally, install the Hip Cap on the top ridge to finish the assembly. See the nodes below for installation details.

7.3 Secure all elements with #9 x 1-1/2" and #9 x 2 1/2" screws.



STEP 8

Assemble and Install Garage Front Doors

You will need to assemble two mirrored double doors.

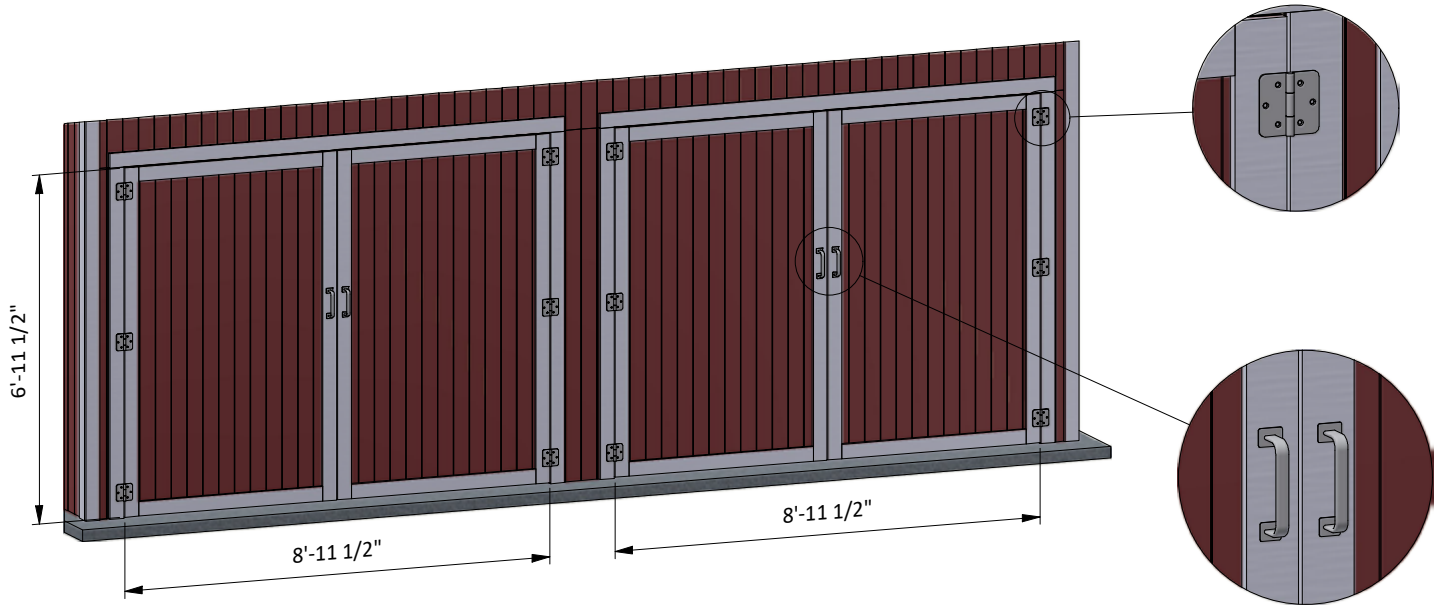
8.1 Build the door frame using 2x4 lumber. You will need two boards cut to 6'-11 1/2" that will be the vertical girts, two boards cut to 3'-10 3/4" that will be the horizontal girts and one board cut to 7'-5 1/2" that will be the cross brace.

8.2 Prepare the 11/32" plywood siding for outer sheathing. You will need to cut one 4' x 6'-11 1/2" sheet and one 5 3/4" x 6'-11 1/2" for the door according to the drawing.

8.3 Using 1x4 lumber, prepare trims and install with 2" wood screws to the walls.
You will need to prepare boards in necessary quantity according to the cutting list below

8.4 Install six 4" door hinges using 1" wood screws for each double door.
Finish the door installation by attaching two 6" door pulls.

Pos	Description	Material	Dimension	Qty
A	Girt	2x4	6'-11 1/2"	8
B	Girt	2x4	3'-10 3/4"	8
C	Cross brace	2x4	7'-5 1/2"	4
D	Door sheathing	11/32" plywood	4' x 6'-11 1/2"	4
E	Door sheathing	11/32" plywood	5 3/4" x 6'-11 1/2"	4
F	Door trim	1x4	3'-10 3/4"	8
G	Door trim	1x4	6'-11 1/2"	8



STEP 9

Assemble and Install Garage Side Door

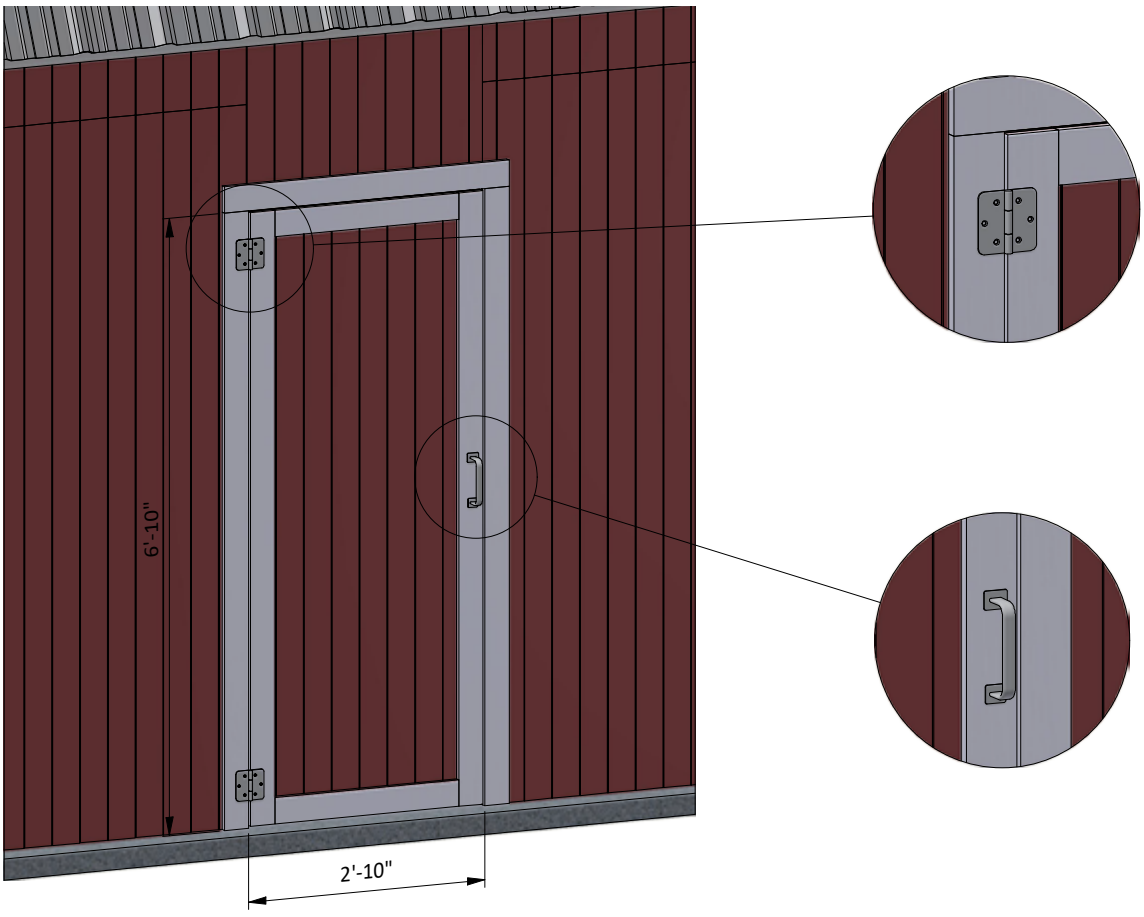
9.1 Build the door frame using 2x4 lumber. You will need two boards cut to 6'-9 1/2" that will be the vertical girts, two boards cut to 2'-2 1/2" that will be the horizontal girts and one board cut to 6'-7" that will be the cross brace.

9.2 Prepare the 11/32" plywood siding for outer sheathing.
You will need to cut one 2'-9 1/2" x 6'-9 1/2" sheet for the door according to the drawing.

9.3 Using 1x4 lumber, prepare trims and install with 2" wood screws to the walls.
You will need to prepare boards in necessary quantity according to the cutting list below

9.4 Install two 4" door hinges using 1" wood screws.
Finish the door installation by attaching two 6" door pull.

Pos	Description	Material	Dimension	Qty
A	Girt	2x4	6'-9 1/2"	2
B	Girt	2x4	2'-2 1/2"	2
C	Cross brace	2x4	6'-7"	1
D	Door sheathing	11/32" plywood	2'-9 1/2" x 6'-9 1/2"	1
E	Door trim	1x4	2'-2 1/2"	2
F	Door trim	1x4	6'-9 1/2"	2



STEP 10

Window Installation for the Right Wall

10.1 Using 2x2 lumber, assemble the outer frame for the window as shown in the drawing below. You will need four boards cut to 2'-11 1/2" that will be the vertical and horizontal girts. Cut the recesses in each beam for splicing connection and mill a recess for the glass.

10.2 Prepare and install glass into inner frame groove and fasten it by window beading from four sides. Use 1/2" galvanized nails.

10.3 Insert window into side wall openings and connect them with 8x2" wood screws to the wall beams.

Pos	Description	Material	Dimension	Qty
A	Vertical girts	2x2	2'-11 1/2"	2
B	Top/bottom beam	2x2	2'-11 1/2"	2
C	Glass	1/8"	2'-9 1/4" x 2'-9 1/4"	1
D	Window beading			12ft

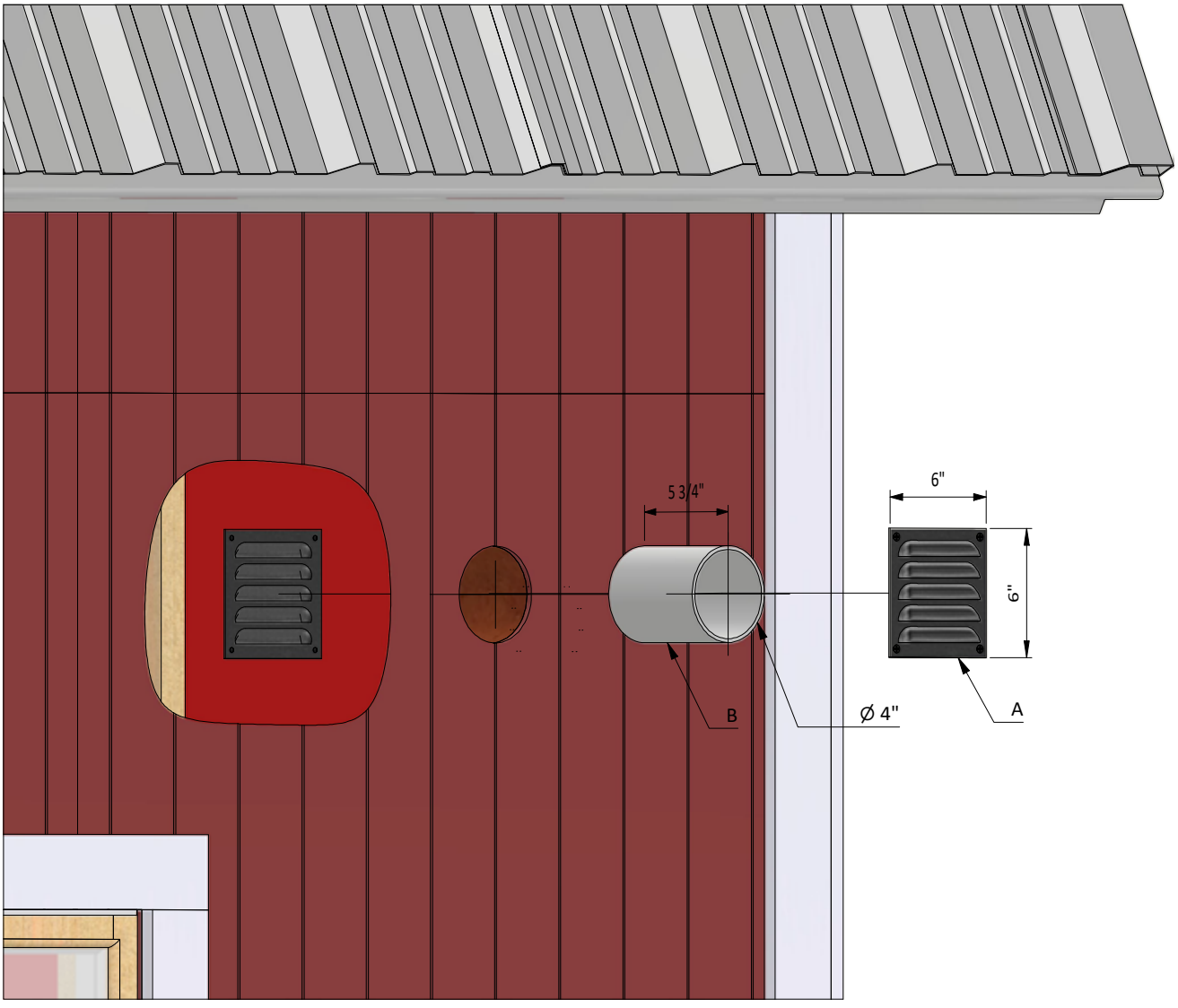
STEP 11

Install the Ventilation Louver

11.1 Insert the 4" ventilation pipe to isolate the inner space between walls.

11.2 Fix the louvers to the outer and inner walls, completely overlaying the opening.

Pos	Description	Material	Dimension	Qty
A	Ventilation louver	26 Gauge galvanized steel	6" x 6"	8
B	Ventilation pipe	4" pipe	4 1/4"	4



STEP 12

Final Touches

Now that your garage is all done, you are ready to decorate it any way you want using your favorite paint, stain, or preservative.

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Technical Support	✗	✓

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