

10×12 Lean-To Shed (Enclosed)

Automated woodworking cut list, grouped board cutting diagrams, and step-by-step 3D assembly guide.

Specifications

Overall Dimensions	144" W × 127.4" D × 99.9" H
Total Parts Count	48 pieces (21 unique sizes)
Dimensional Stock Lumber	33 boards (14 unique cutting patterns)
Plywood Sheet Panels	14 panels
Wood Screws	99 screws

3D Project Overview

benchbuild.app

Cut List Summary

Identical pieces are grouped together. Check off each row as you cut your lumber and sheet goods.

Qty	Material	Cut Dimensions	Miter / Angle Cuts	Piece Names
2×	2x6	144"	Square (90°)	2× Rim Joists
5×	2x6	117"	Square (90°)	5× Floor Joists
2×	plywood	60" × 144" (0.75" thick)	Square (90°)	2× Floor Decks
2×	4x4	91.5"	Square (90°)	2× Corner Posts
2×	4x4	75.5"	Square (90°)	2× Corner Posts
3×	2x4	135.5"	Square (90°)	Sill Plate · 2× Plates

Qty	Material	Cut Dimensions	Miter / Angle Cuts	Piece Names
4×	2x4	111.5"	Square (90°)	2× Sill Plates · 2× Plates
2×	2x4	36.3"	Square (90°)	2× Sills
4×	2x4	69"	Square (90°)	4× Studs
2×	2x4	86.5"	Square (90°)	2× Door King Studs
1×	2x6	60"	Square (90°)	Double Door Header
1×	plywood	144" × 72" (0.75" thick)	Square (90°)	Wall Sheathing
2×	plywood	118.5" × 72" (0.75" thick)	Square (90°)	2× Wall Sheathings
2×	plywood	42" × 88" (0.75" thick)	Square (90°)	2× Wall Panels
1×	plywood	60" × 7" (0.75" thick)	Square (90°)	Transom Panel
5×	2x4	125"	7.9° miter (both ends)	2× End Rafters · 3× Rafters
2×	2x4	144"	Square (90°)	2× Roof Fascias
2×	plywood	64" × 144" (0.75" thick)	Square (90°)	2× Roof Decks
2×	plywood	118.5" × 20.4" (0.75" thick)	7.92° miter (Start)	2× Gable Sheathings
1×	plywood	144" × 4.4" (0.75" thick)	Square (90°)	Clerestory Infill Panel
1×	plywood	144" × 3.8" (0.75" thick)	Square (90°)	Eave Infill Panel

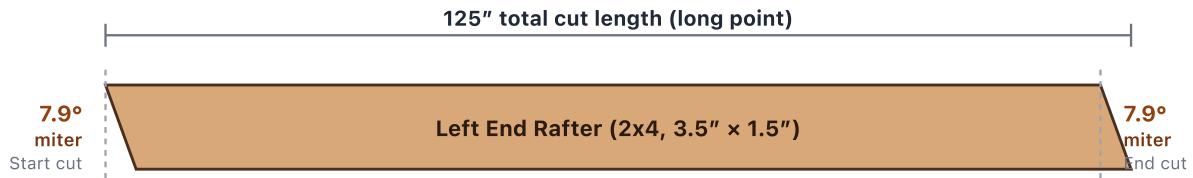
Miter & Angle Cut Details

Pieces requiring angled saw settings before assembly. Reference the angle guide on each diagram to set your miter saw gauge or track saw bevel.

5× **2x4 (125")**

7.9° miter (both ends)

Produces: 2× End Rafters • 3× Rafters

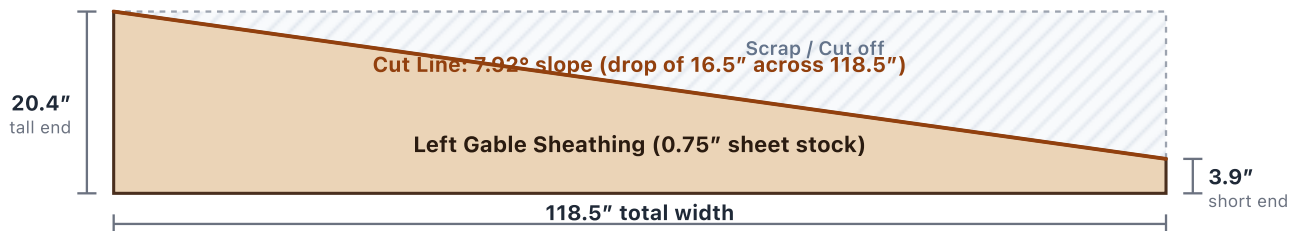


Saw Setting: Set miter saw to 7.9°. Make parallel plumb cuts at both ends.

2× **plywood (118.5" x 20.4" (0.75" thick))**

7.92° miter (Start)

Produces: 2× Gable Sheathings



Cut Guide: Mark 20.4" at tall end, 3.9" at short end. Cut straight across (7.92° pitch).

Board Cutting Diagrams

Boards with identical cuts are grouped with a multiplier badge (e.g., 5× **Boards**) so you only read each cutting layout once. Includes 1/8" blade kerf.

2× **Boards** **2x6 (12' / 144" stock)**

1 cut/board • 144" used • 0" scrap

Cut this pattern **2 times** (2 boards total). Makes: Front Rim Joist, Back Rim Joist

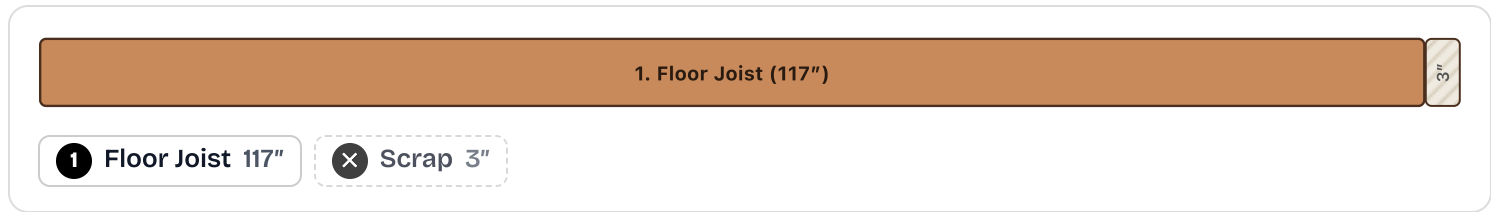


1 Rim Joist 144"

5× Boards 2x6 (10' / 120" stock)

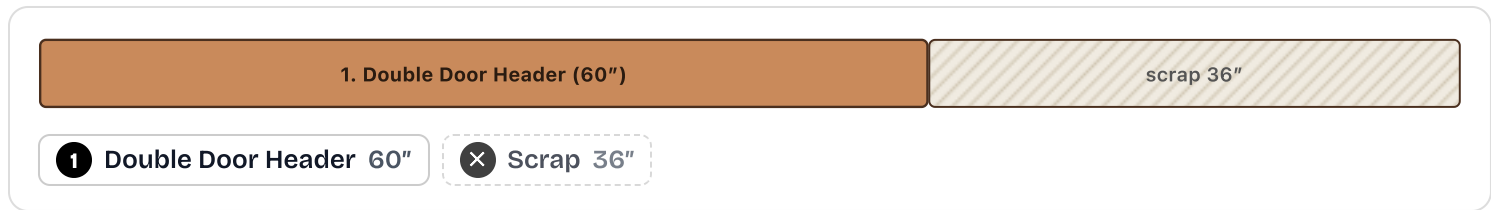
1 cut/board • 117" used • 3" scrap

Cut this pattern **5 times** (5 boards total). Makes: Floor Joist Left, Floor Joist Mid-Left, Floor Joist Center, Floor Joist Mid-Right, Floor Joist Right

**1× Board 2x6 (8' / 96" stock)**

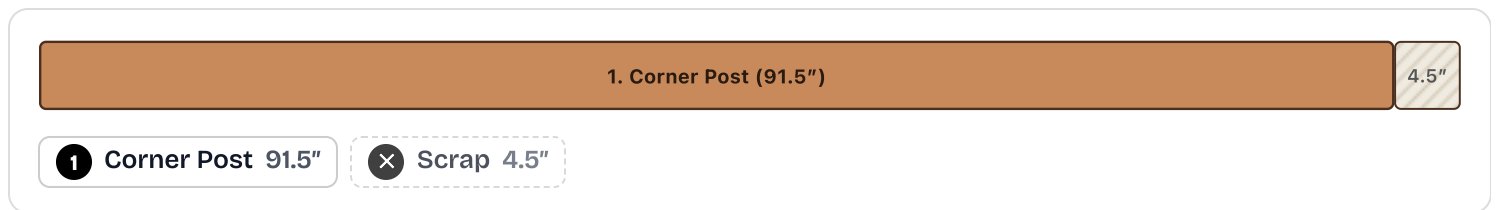
1 cut/board • 60" used • 36" scrap

Produces: Double Door Header

**2× Boards 4x4 (8' / 96" stock)**

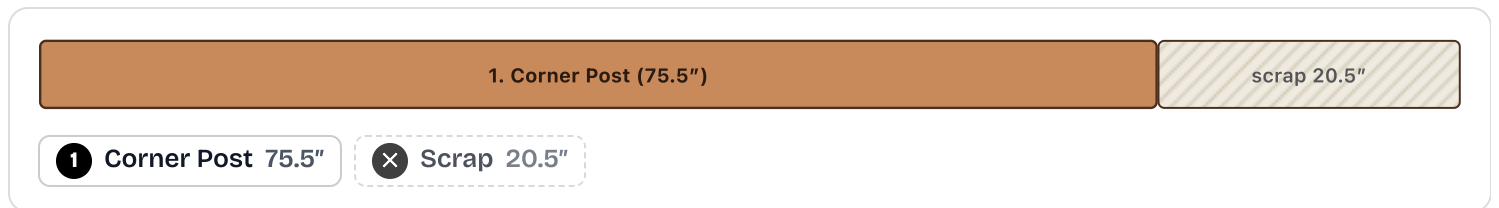
1 cut/board • 91.5" used • 4.5" scrap

Cut this pattern **2 times** (2 boards total). Makes: Corner Post FL, Corner Post FR

**2× Boards 4x4 (8' / 96" stock)**

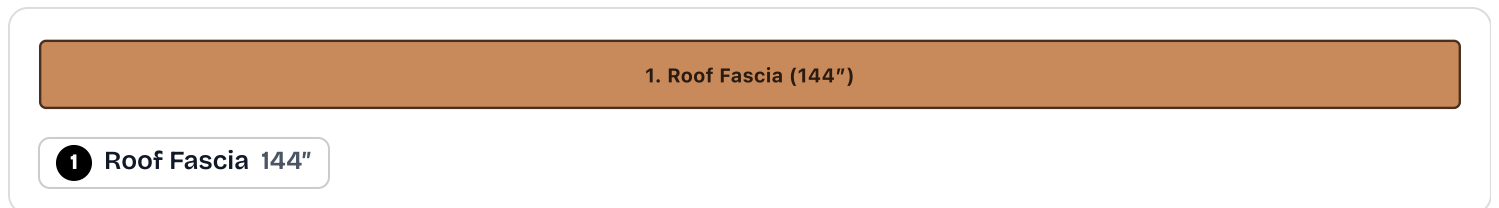
1 cut/board • 75.5" used • 20.5" scrap

Cut this pattern **2 times** (2 boards total). Makes: Corner Post BL, Corner Post BR

**2× Boards 2x4 (12' / 144" stock)**

1 cut/board • 144" used • 0" scrap

Cut this pattern **2 times** (2 boards total). Makes: Front Roof Fascia, Back Roof Fascia



1x Board

2x4 (12' / 144" stock)

1 cut/board • 135.5" used • 8.5" scrap

Produces: Back Sill Plate

1. Back Sill Plate (135.5")

8.5"

1 Back Sill Plate 135.5"

✕ Scrap 8.5"

2x Boards

2x4 (12' / 144" stock)

1 cut/board • 135.5" used • 8.5" scrap

Cut this pattern 2 times (2 boards total). Makes: Back Top Plate, Front Top Plate

1. Top Plate (135.5")

8.5"

1 Top Plate 135.5"

✕ Scrap 8.5"

5x Boards

2x4 (12' / 144" stock)

1 cut/board • 125" used • 19" scrap

Cut this pattern 5 times (5 boards total). Makes: Left End Rafter, Mid-Left Rafter, Center Rafter, Mid-Right Rafter, Right End Rafter

1. Rafter (125" • 7.9° miter (both ends))

scrap 19"

1 Rafter 125" 7.9° miter (both ends)

✕ Scrap 19"

2x Boards

2x4 (10' / 120" stock)

1 cut/board • 111.5" used • 8.5" scrap

Cut this pattern 2 times (2 boards total). Makes: Left Sill Plate, Right Sill Plate

1. Sill Plate (111.5")

8.5"

1 Sill Plate 111.5"

✕ Scrap 8.5"

2x Boards

2x4 (10' / 120" stock)

1 cut/board • 111.5" used • 8.5" scrap

Cut this pattern 2 times (2 boards total). Makes: Left Top Plate, Right Top Plate

1. Top Plate (111.5")

8.5"

1 Top Plate 111.5"

✕ Scrap 8.5"

2× Boards

2x4 (8' / 96" stock)

1 cut/board • 86.5" used • 9.5" scrap

Cut this pattern 2 times (2 boards total). Makes: Door King Stud Left, Door King Stud Right

1. Door King Stud (86.5")

scrap 9.5"

1 Door King Stud 86.5"

Scrap 9.5"

4× Boards

2x4 (8' / 96" stock)

1 cut/board • 69" used • 27" scrap

Cut this pattern 4 times (4 boards total). Makes: Back Stud 1, Back Stud 2, Left Center Stud, Right Center Stud

1. Stud (69")

scrap 27"

1 Stud 69"

Scrap 27"

1× Board

2x4 (8' / 96" stock)

2 cuts/board • 72.7" used • 23.3" scrap

Produces: Front Sill Left + Front Sill Right

1. Front Sill Left (36.3")

2. Front Sill Right (36.3")

scrap 23.3"

1 Front Sill Left 36.3"

2 Front Sill Right 36.3"

Scrap 23.3"

Step-by-Step Assembly Guide

Pieces highlighted in warm amber are added in the current step. Muted beige pieces are already assembled from previous steps.

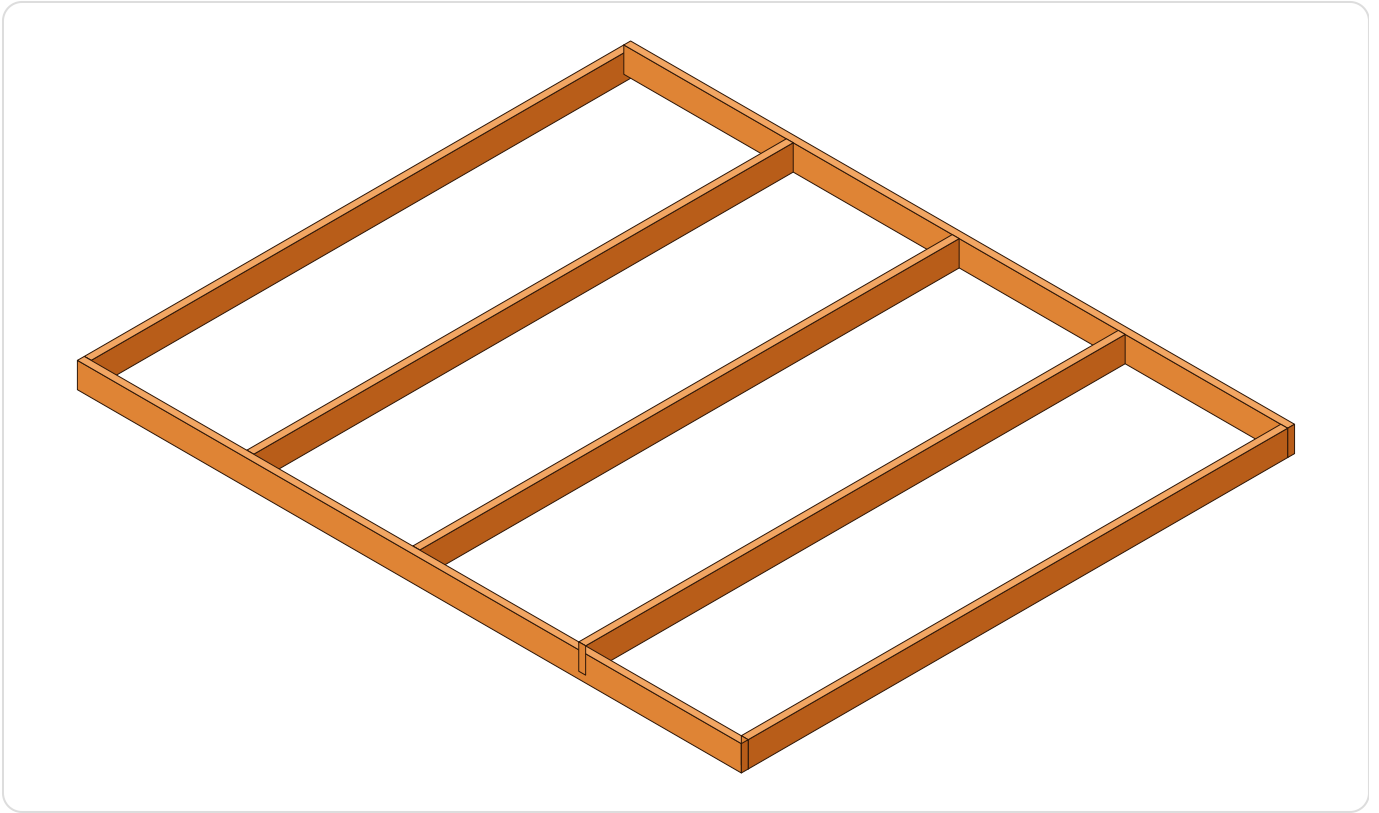
1

Floor Joist Frame

2× Rim Joist (2x6, 144")

5× Floor Joist (2x6, 117")

- Drive 10× 2.5" screws through **Rim Joist** into **Floor Joist**

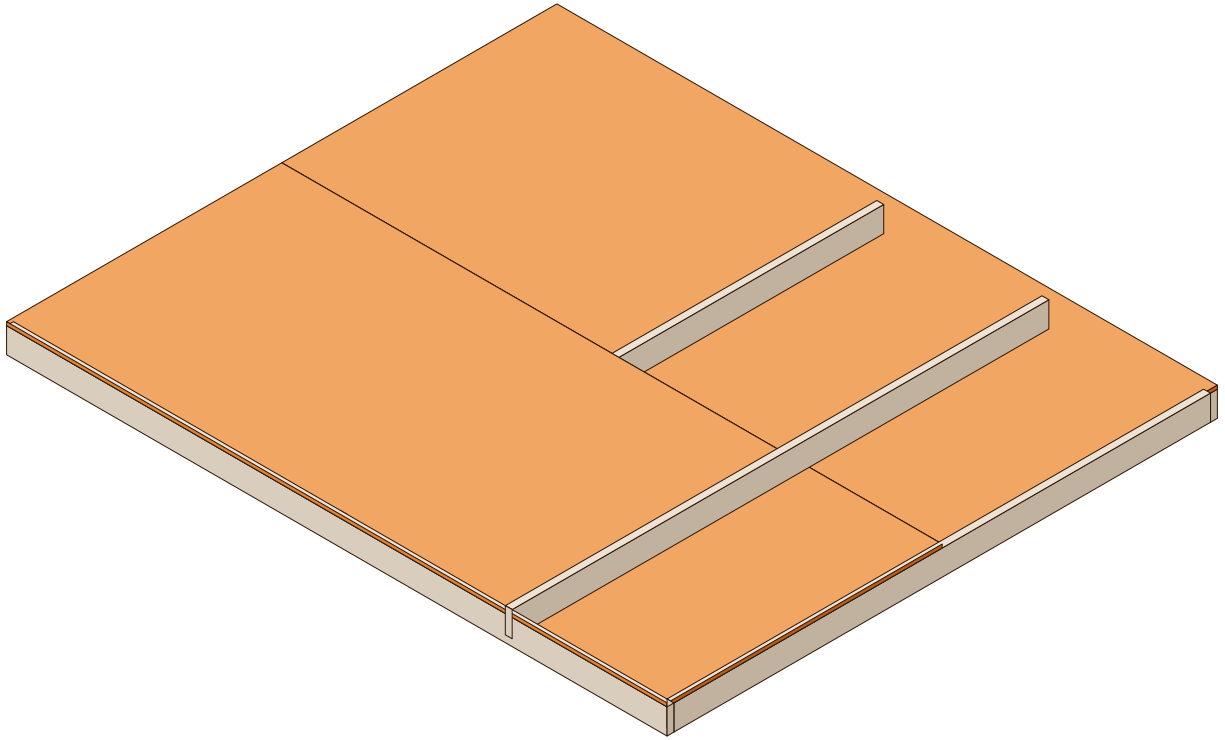


2

Plywood Floor Deck

2× Floor Deck (*plywood, 60" × 144"*)

- Drive 6× 2" screws through **Floor Deck** into **Rim Joist**
- Drive 2× 2" screws through **Floor Deck** into **Floor Joist**



3

Corner Posts & Sill Plates

2× Corner Post (4x4, 91.5")

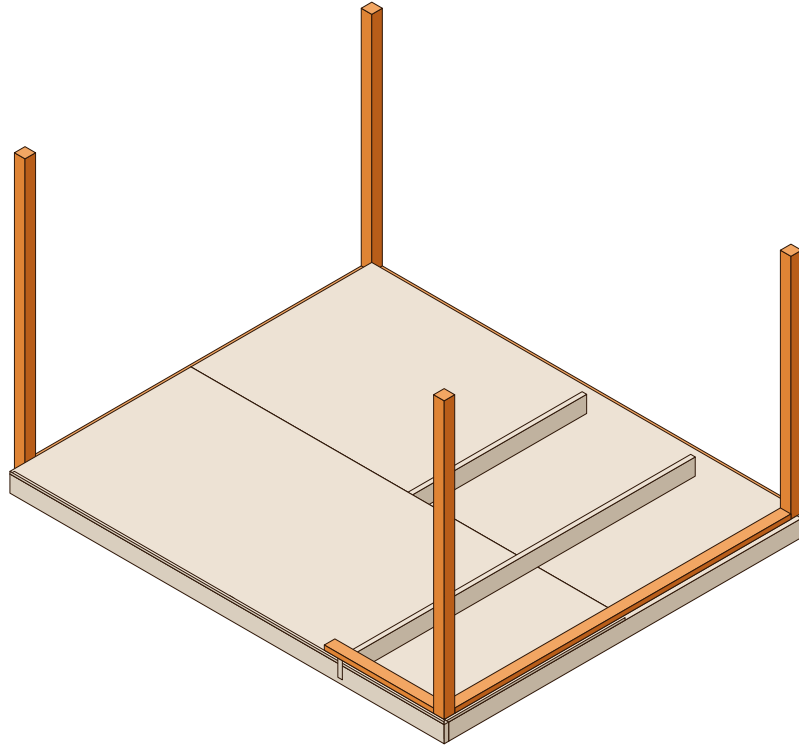
2× Corner Post (4x4, 75.5")

1× Back Sill Plate (2x4, 135.5")

2× Sill Plate (2x4, 111.5")

2× Sill (2x4, 36.3")

- Drive 6× 2" screws through **Sill Plate** into **Floor Deck**
- Drive 2× 2" screws through **Sill** into **Floor Deck**



4

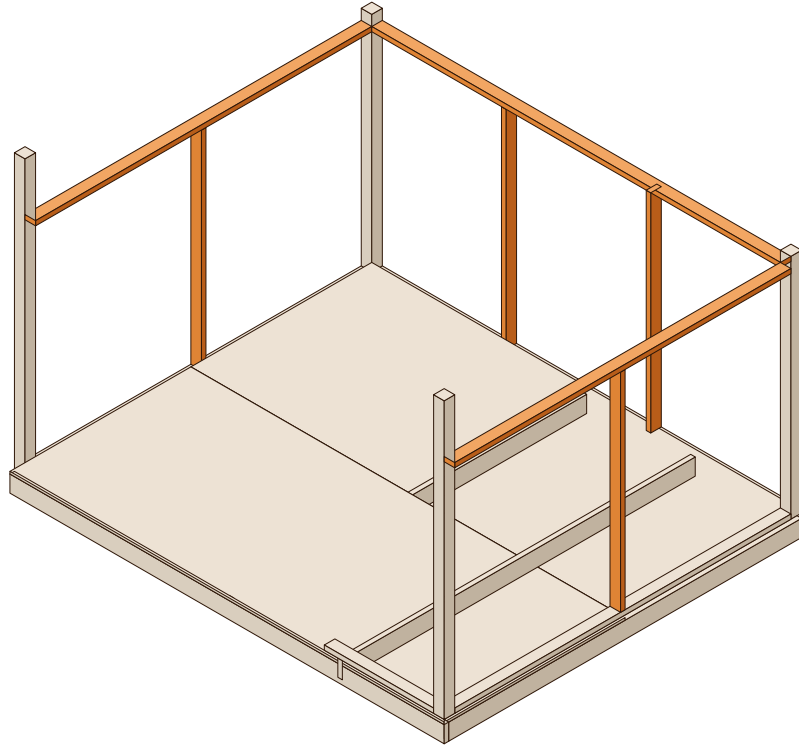
Back & Side Wall Framing

1× Back Top Plate (2x4, 135.5")

4× Stud (2x4, 69")

2× Top Plate (2x4, 111.5")

- Drive 4× 2.5" screws through **Top Plate** into **Stud**



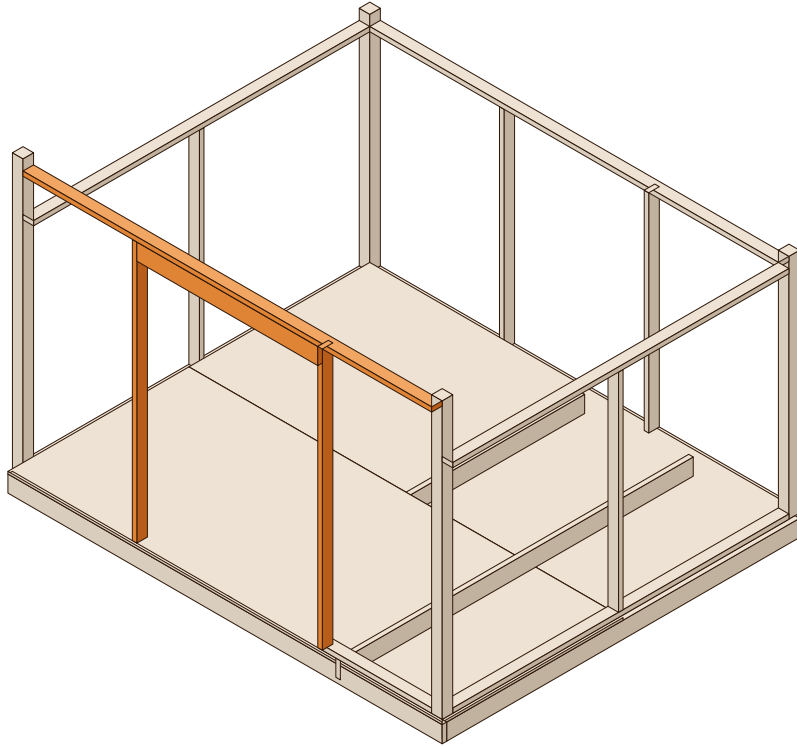
Front Doorway Framing

1× Front Top Plate (2x4, 135.5")

2× Door King Stud (2x4, 86.5")

1× Double Door Header (2x6, 60")

- Drive 2× 2.5" screws through **Top Plate** into **Door King Stud**



Exterior Wall Sheathing

1× Back Wall Sheathing (plywood, 144" × 72")

2× Wall Sheathing (plywood, 118.5" × 72")

2× Wall Panel (plywood, 42" × 88")

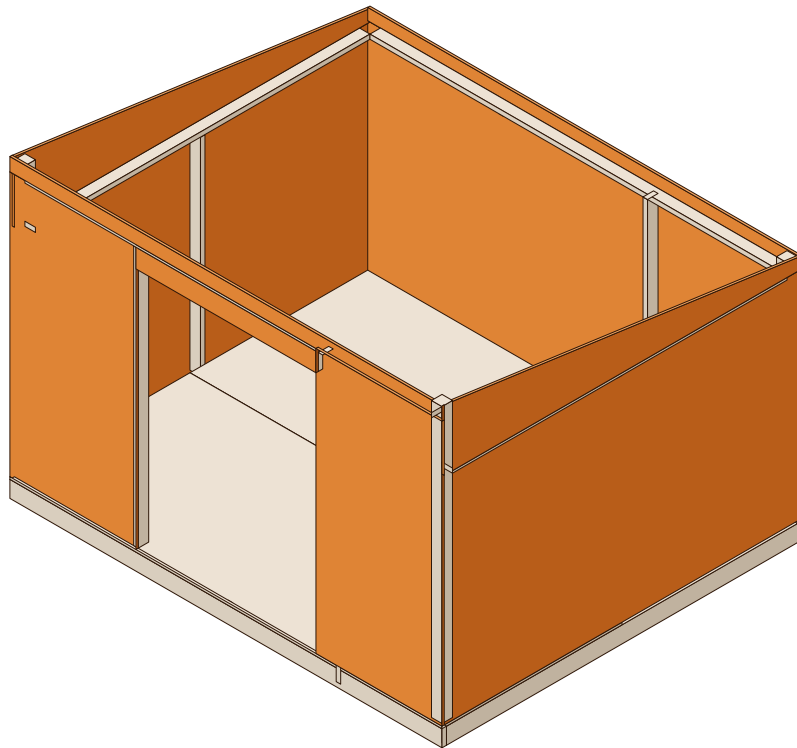
1× Front Transom Panel (plywood, 60" × 7")

2× Gable Sheathing (plywood, 118.5" × 20.4", 7.92° miter (Start))

1× Front Clerestory Infill Panel (plywood, 144" × 4.4")

1× Back Eave Infill Panel (plywood, 144" × 3.8")

- Drive 12× 2" screws through **Wall Sheathing** into **Corner Post**
- Drive 3× 2" screws through **Wall Sheathing** into **Sill Plate**
- Drive 3× 2" screws through **Wall Sheathing** into **Top Plate**
- Drive 4× 2" screws through **Wall Sheathing** into **Stud**
- Drive 4× 2" screws through **Wall Panel** into **Corner Post**
- Drive 4× 2" screws through **Wall Panel** into **Door King Stud**
- Drive 2× 2" screws through **Wall Panel** into **Sill**
- Drive 1× 2" screw through **Transom Panel** into **Top Plate**
- Drive 2× 2" screws through **Transom Panel** into **Double Door Header**
- Drive 2× 2" screws through **Gable Sheathing** into **Corner Post**
- Drive 2× 2" screws through **Gable Sheathing** into **Top Plate**
- Drive 2× 2" screws through **Clerestory Infill Panel** into **Top Plate**
- Drive 2× 2" screws through **Eave Infill Panel** into **Top Plate**

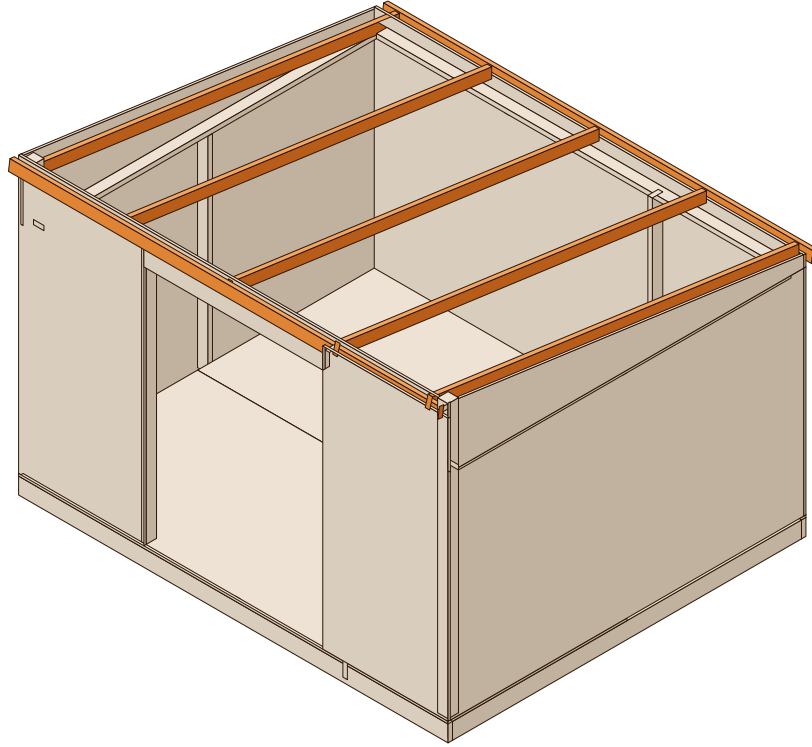


Angled Roof Rafters & Fascia

5× Rafter (2x4, 125", 7.9° miter (both ends))

2× Roof Fascia (2x4, 144")

- Drive 4× 2.5" screws through **Rafter** into **Corner Post**
- Drive 10× 2.5" screws through **Roof Fascia** into **Rafter**



Plywood Roof Deck

2× Roof Deck (*plywood, 64" × 144"*)

- Drive 10× 2" screws through **Roof Deck** into **Rafter**

