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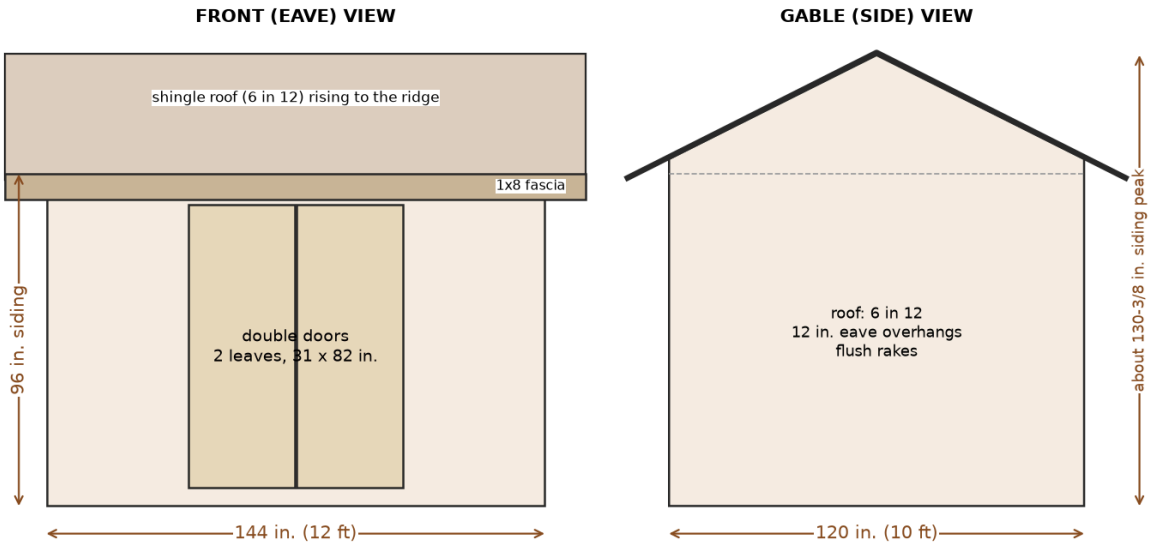
10x12 Gable Storage Shed: Printable Plan

Materials list, cut list, key steps, and diagrams. Free to print and use.

Not engineered. Check your local code first. No engineer has reviewed this plan. Framing sizes come from 2024 IRC tables for up to 70 psf ground snow load, 20 psf roof live load, and wind below 140 mph in Exposure B or 130 mph in Exposure C, with No. 2 lumber; the skids were checked against the IRC deck-beam table, which doesn't cover the wall, roof, and snow load on the outer skids, so have your building department confirm the block spacing. A 10x12 shed is exactly 120 sq ft, a common permit threshold: the 2024 IRC exempts one-story detached accessory structures up to 200 sq ft, the 2024 IBC exempts storage sheds not greater than 120 sq ft, and many cities amend both. Ask your building department about permits, snow and wind loads, frost depth, and setbacks before you buy materials.

At a glance: 120 x 144 in. floor on three 2-ply 2x6 skids and solid blocks (48 in. max. apart); 2x6 joists at 16 in.; 2x4 walls 89-3/4 in. tall; gable roof at 6 in 12 with 2x6 rafters at 16 in., 2x8 ridge board, 2x6 ceiling joists nailed to every interior rafter pair (5-16d common), 1x4 collar ties, H2.5A ties at every rafter; 60 x 79-1/2 in. door opening (2 king studs and 1 jack each side) with two 31 x 82 in. Z-frame leaves; 24 x 24 in. window. All sizes are actual lumber sizes. Full instructions, sizing tables, and sources: shedandbench.com/10x12-shed-plans/

10x12 gable shed: overall dimensions



Heights from the bottom of the floor rim. Add skid, block, and roofing thickness for total height. Window (24 x 24 in. RO) is in the back wall.

Overall dimensions

Materials list

Foundation and floor

- 6 – 2x6 x 12 ft treated lumber, rated for ground contact (three 2-ply skids)
- 12 – solid concrete blocks, at least 8 x 16 in. (three rows of four; see "Site and foundation")
- 12 – concrete pads or pavers, at least 16 x 16 in. (one under each block)
- Crushed gravel for a 12 x 14 ft pad (about 2 cubic yards at 4 in. deep) and landscape fabric
- 2 – 2x6 x 12 ft treated lumber (rim joists)
- 10 – 2x6 x 10 ft treated lumber (floor joists)
- 4 – 23/32 in. APA Rated Sturd-I-Floor panels, span rating 24 oc, tongue-and-groove, 4 ft x 8 ft
- 4 (minimum) ground anchors with cable and clamps, sized for your soil by the anchor maker

Wall framing

- 52 – 2x4 x 8 ft (42 studs, 4 jacks, sill and cripples, 8 gable studs and 2 ridge posts), plus a few spares
- 6 – 2x4 x 12 ft (front and back wall plates)
- 6 – 2x4 x 10 ft (gable wall plates)
- 1 – 2x8 x 12 ft (door header, 2 pieces)
- 1 – 2x6 x 8 ft (window header, 2 pieces)
- 1/2 in. plywood scraps for header spacers (from the roof sheathing offcuts)

Roof framing and roofing

- 21 – 2x6 x 8 ft, No. 2 (20 rafters + 1 spare)
- 8 – 2x6 x 10 ft, No. 2 (ceiling joists)
- 1 – 2x8 x 12 ft, No. 2 (ridge board)
- 3 – 1x4 x 8 ft (8 collar ties, three per board, 1 spare)
- 6 – 15/32 in. or 1/2 in. APA Rated Sheathing, span rating 32/16, 4 ft x 8 ft
- Roofing underlayment for about 161 sq ft plus laps
- Drip edge, 6 pieces x 10 ft (about 51 linear ft of eaves and rakes, plus laps)
- Architectural asphalt shingles, 6 bundles (GAF says 3 bundles of Timberline HDZ cover 98.4 sq ft; this roof is about 161 sq ft, plus cutting waste), plus starter strip shingles for about 51 linear ft and hip-and-ridge cap shingles for 12 ft of ridge, per the shingle maker
- Roofing nails: IRC R905.2.5 calls for galvanized steel, stainless steel, aluminum, or copper roofing nails with a 12-gauge minimum shank and 3/8 in. minimum head, long enough to go through the sheathing (it's thinner than 3/4 in.)
- 20 – Simpson Strong-Tie H2.5A hurricane ties, plus 200 – 0.131 x 2-1/2 in. nails (or Simpson SD9212 screws)

Siding, trim, doors, and window

- 15 – 4 ft x 8 ft panel siding sheets (this plan follows LP SmartSide Strand Substrate **76 Series** panel instructions): 6 for the eave walls, 5 for the gable walls, 2 for the gable triangles, 2 for the door leaves
- 2 – 1x8 x 12 ft exterior trim (fascia)
- 4 – 1x6 x 8 ft exterior trim (rake boards)
- 15 – 1x4 x 8 ft exterior trim (8 corner boards, 4 for door rails and braces, 1 astragal, 2 window trim)
- Z-flashing, 4 pieces x 10 ft (gable joints, over the doors and window)
- 1 – clear polycarbonate sheet, 1/4 in., cut 26 x 26 in. (fixed window); or a shed window whose rough opening fits the framing
- 6 – heavy-duty exterior T-hinges or strap hinges, 2 barrel bolts for the fixed leaf, a hasp or gate latch, 2 door pulls
- 1/4 in. hardware cloth, small roll (for the open rafter bays above the walls)

Fasteners and finishing

(nail sizes from IRC Table R602.3(1) unless noted; IRC R304.3.1 requires hot-dipped zinc-coated galvanized, stainless, silicon bronze, or copper fasteners in preservative-treated wood)

- 16d common nails (3-1/2 x 0.162 in.), hot-dip galvanized for treated lumber, for framing and heel joints
- 10d common nails (3 x 0.148 in.) for rafters, collar ties, and toenailing

- 10d nails (3 x 0.128 in.), hot-dip galvanized, for nailing the skid plies together (IRC R507.5)
- 8d common nails (2-1/2 x 0.131 in.) for the floor deck, roof sheathing, and ceiling joist toenails; hot-dip galvanized for toenailing joists to skids
- Siding nails: 6d (0.113 in. shank) hot-dipped galvanized, long enough to go at least 1-1/2 in. into framing (LP's minimum for 38 and 76 Series panels; not electroplated)
- 1-5/8 in. exterior screws (trim, doors)
- Exterior sealant (LP calls for ASTM C920, Class 25 minimum), exterior primer and paint

Cost: prices change often and vary by region, so price this list at your local store on the day you buy.

Cut list

Part	Material	Qty	Length / size	Notes
Skid plies	2x6 treated (ground contact)	6	144 in.	Nail in pairs: 3 skids
Rim joists	2x6 treated	2	144 in.	Front and back
Floor joists	2x6 treated	10	117 in.	120 in. minus two 1-1/2 in. rims
Floor deck	23/32 in. T&G panel	4	Full sheets; rip the last row to fit	Long edges across the joists; end joints on joists
Front wall plates	2x4	3	144, 144, 137 in.	Bottom, top, upper top (stops 3-1/2 in. short of each end)
Front wall studs	2x4	10	85-1/4 in.	2 end, 4 common, 4 king (2 each side of the door)
Door jack studs	2x4	2	78 in.	
Door header	2x8	2	63 in.	Plus 1/2 in. plywood spacer, 7-1/4 x 63 in.
Back wall plates	2x4	3	144, 144, 137 in.	As front
Back wall studs	2x4	10	85-1/4 in.	2 end, 6 common, 2 king
Window jack studs	2x4	2	79-3/4 in.	
Window header	2x6	2	27 in.	Plus 1/2 in. plywood spacer, 5-1/2 x 27 in.
Window sill	2x4	1	24 in.	Laid flat
Window cripples	2x4	2	54-1/4 in.	Under the sill at 64 and 80 in.
Gable wall plates	2x4	6	113, 113, 120 in. per wall	Upper top plate laps onto the eave walls
Gable wall studs	2x4	22	85-1/4 in.	11 per wall, 12 in. on center
Gable studs	2x4	16	Long points 4-5/8, 10-5/8, 16-5/8, 22-5/8 in. (4 of each)	Top cut at 6 in 12; cut to fit under the end rafters
Ridge posts	2x4	2	26-3/4 in.	One per gable, centered
Rafters	2x6 x 8 ft	20 (+1 spare)	79-5/8 in. along each edge	Ridge plumb cut, birdsmouth, plumb tail
Ceiling joists	2x6 x 10 ft	8	120 in.	Clip top corners about 1-1/8 in. at each end to the roof line
Ridge board	2x8 x 12 ft	1	144 in.	
Collar ties	1x4	8	28 in.	Three per 8-ft board; square-cut ends
Roof sheathing	1/2 in. rated sheathing	6 sheets	Per side: 48 in. course + about 32-3/8 in. rip, 144 in. long	About 80-3/8 in. down each slope
Eave wall siding	Panel siding	6	48 x 96 in.	Full sheets; notch the top edge about 1-5/8 x 2-1/8 in. at every rafter tail (10 per wall); door opening cut out after hanging

Gable wall siding	Panel siding	5	Two 48 x 96 in. and one 24 x 96 in. per wall	Flush with the front and back corners
Gable triangles	Panel siding	2	Cut to fit; one sheet per gable	Butt-and-flash joint at the top plate
Door leaves	Panel siding	2	31 x 82 in.	
Door rails	1x4	4	28 in.	
Door braces	1x4	2	Cut to fit (diagonal)	Low end at each leaf's hinge side
Astragal	1x4	1	82 in.	On the active leaf
Fascia	1x8	2	144 in.	Front and back rafter tails
Rake boards	1x6	4	Cut to fit (about 80 in.)	Over the end rafters
Corner boards	1x4	8	96 in.	Both faces of each corner

Walls are 89-3/4 in. tall so the siding runs exactly 96 in. from the bottom of the floor rim (6-1/4 in. floor frame + 89-3/4 in. wall). Rafters: 59-1/4 in. run to the ridge face + 12 in. overhang = 71-1/4 in. of run; at 6 in 12 that is about 79-5/8 in. along each edge, with the heel line about 66-1/4 in. from the ridge long point. Cut one pattern rafter and test it before cutting the rest.

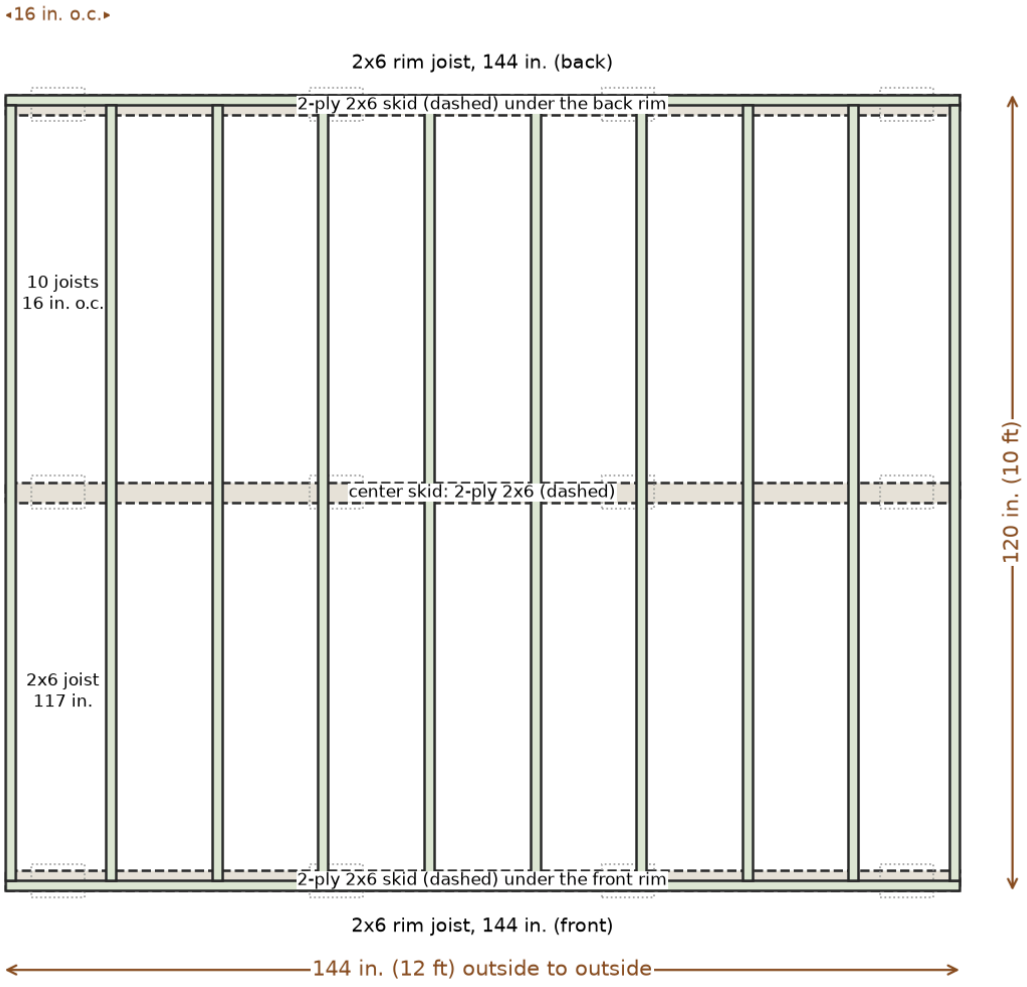
Key steps

1. **Site and foundation.** Level a gravel pad about 12 x 14 ft (12 in. past the shed on every side), excavated usually 4 to 6 in. per Suncast and local code, then compacted. Set three rows of solid concrete blocks (at least 8 x 16 in.), no more than 48 in. apart center to center, each on a 16 x 16 in. (or larger) concrete pad or paver; check soil and footing rules with your building department (IRC Table R401.4.1). The spacing passes IRC Table R507.5(1) in both the 2021 and 2024 editions (confirm the spacing with your building department: the outer skids also carry the walls, roof, and snow). The model 2024 IRC doesn't require frost protection for a free-standing light-frame accessory structure of 600 sq ft or less with an eave height of 10 ft or less (R403.1.4.1, Exception 1), but local rules can require frost footings; ask. Nail each skid's two 144-in. 2x6 plies with two rows of 10d (3 x 0.128 in.) nails 16 in. apart on each edge. Skid tops must put the siding at least 6 in. above grade.
2. **Floor.** Rims 144 in., ten 117-in. joists at 16 in. on center (3-16d common end nails). Square it (diagonals about 187-1/2 in.), toenail joists to skids (3-8d common), attach at least 4 ground anchors. 23/32 in. T&G Sturd-I-Floor, 8d common 6 in. at edges, 12 in. in the field.
3. **Front wall.** Plates 144/144/137 in.; 85-1/4 in. studs; two kings each side of the door (37-1/2 to 40-1/2 and 103-1/2 to 106-1/2 in.; IRC Table R602.7.5), face-nailed together; 78-in. jacks inside the inner kings; end-nail the inner king into each end of the header; header two 2x8 x 63 in. + 1/2 in. spacer (16d common 16 in. o.c. each edge), set tight under the top plate so the plate braces its top (no cripples above it). 60 x 79-1/2 in. opening. Leave the bottom plate in the opening until the siding is on.
4. **Back wall.** Same plates; ten studs; kings at 57 and 85-1/2 in.; 79-3/4 in. jacks; two 2x6 x 27 in. header; flat 24-in. sill on two 54-1/4 in. cripples. Rough opening 24 x 24 in.
5. **Gable walls.** 113-in. bottom and top plates, 120-in. upper top plate lapping the eave walls; eleven 85-1/4 in. studs at 12 in. on center. Corner studs 16d common 16 in. apart; 2-16d at each plate lap.
6. **Ridge and rafters.** 26-3/4 in. 2x4 post at the center of each gable wall; 144-in. 2x8 ridge on the posts. Pattern rafter: 79-5/8 in. along each edge, heel line 66-1/4 in. from the ridge, 3-1/2 in. seat, 1-3/4 in. plumb cut. Set 20 rafters in opposing pairs at 16 in. on center (3-10d toenails or 2-16d end nails at the ridge; 2-10d toenails at the plate (3 at the four end rafters)).
7. **Ties.** Eight 120-in. 2x6 ceiling joists, one beside each interior pair, ends clipped about 1-1/8 in. to the roof line; 3-8d common toenails to each plate; 5-16d common through each heel joint. 28-in. 1x4 collar tie on each interior pair, bottom edge 23 in. above the plates (top just under the ridge board), 3-10d each end. Simpson H2.5A at every rafter at both walls, on the inside face of the wall on the side away from the ceiling joist (ESR-2613), clear of the siding notches (5 + 5 nails, 0.131 x 2-1/2 in.; tie capacity is Simpson's manufacturer rating, not a code value). Gable studs cut to fit, 4-8d toenails each end.
8. **Roof.** 1/2 in. sheathing rated 32/16, 8d common 6 in. at edges and 6 in. at every rafter (IRC Table R602.3(1), item 31). If your design wind speed is over 130 mph in Exposure B or over 110 mph in Exposure C, space the nails 4 in. apart at every rafter instead. 1x8 fascia. Drip edge under the underlayment at the eaves, over it at the rakes. Shingles per the maker's instructions (4 nails per shingle).
9. **Siding and trim.** Notch the top edge of each eave-wall panel about 1-5/8 x 2-1/8 in. at every rafter tail, 10 per wall (the tails hang about 2-1/16 in. below the wall top at the siding face). Panel siding nailed 6 in. at edges, 12 in. in the field, 3/8 in. from edges, 1-1/2 in. into framing; 1/8 in. gaps at vertical joints, 3/16 in. at trim; 6 in. above grade. Gable triangles over Z-flashing with a 3/8 in. gap. Cut out the door and window openings. Corner boards, rake boards, hardware cloth over open rafter bays.
10. **Doors and window.** Two 31 x 82 in. leaves, 28-in. 1x4 rails, diagonal braces with the low end on each hinge side, three hinges per leaf, 1x4 astragal on the active leaf, barrel bolts on the fixed leaf. Polycarbonate window set in sealant behind 1x4 trim; flash above the door and window.

Wear eye and hearing protection, and get a helper to raise walls and set rafters. Call 811 before you dig or drive anchors.

Diagrams

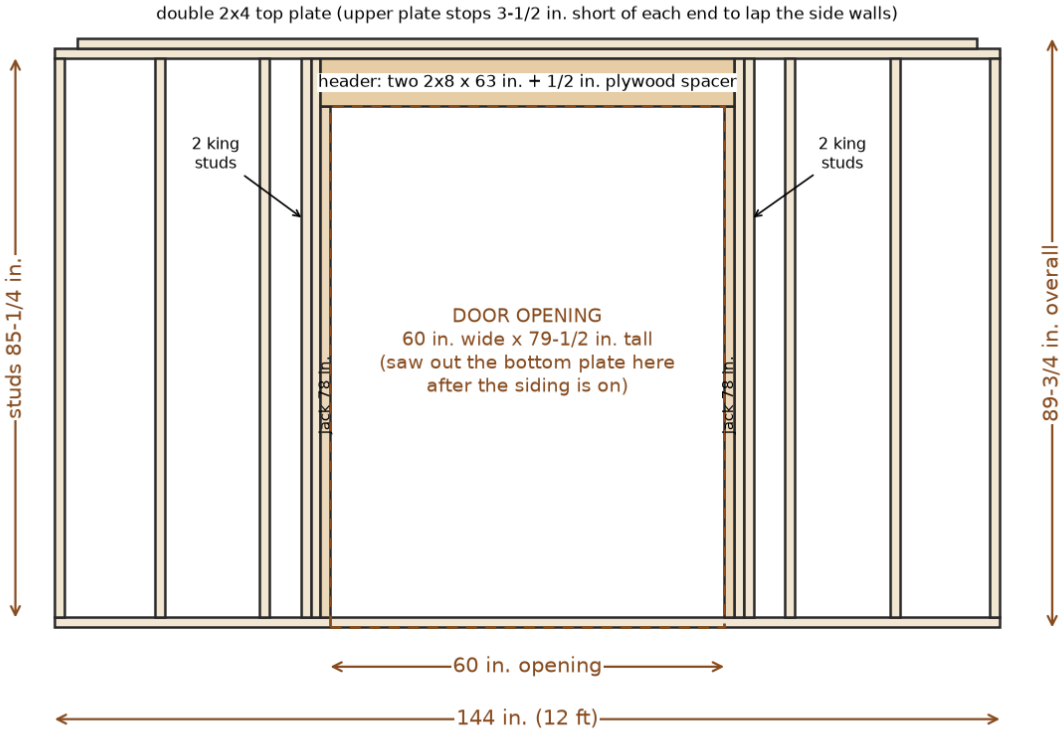
10x12 floor frame on three skids (top view)



Dotted boxes: solid concrete blocks under each skid, about 42-44 in. apart (48 in. maximum, center to center).

Joists: flush at each end, then centered at 16, 32, 48 ... 128 in. Deck: 23/32 in. tongue-and-groove panels, long edges across the joists.

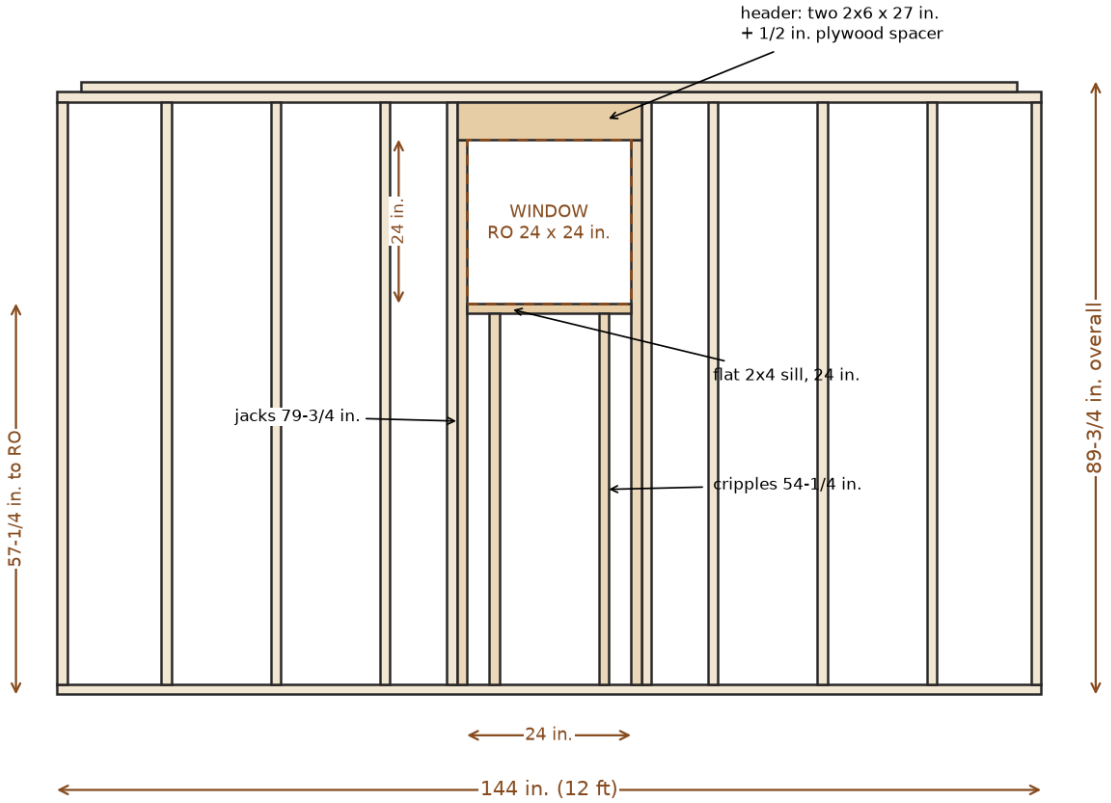
Front (eave) wall with 60 in. double-door opening



2 king studs and 1 jack stud each side of the door (IRC Table R602.7.5: 2 full-height studs at each end of a 5-ft header, wind below 140 mph Exposure B or 130 mph Exposure C). Face-nail the kings together; end-nail the inner king into the header.

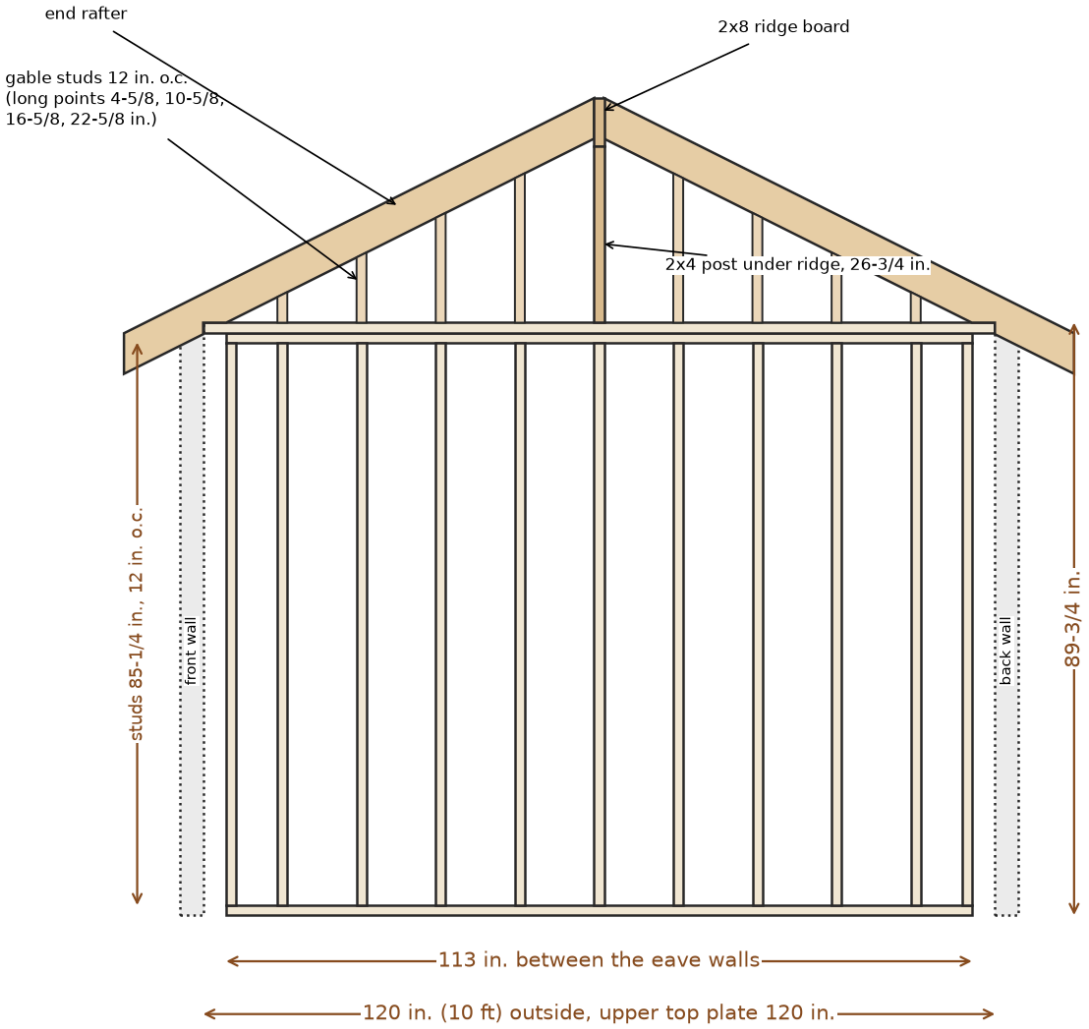
Front wall framing (2 king studs each side of the door)

Back (eave) wall with window opening



Back wall framing

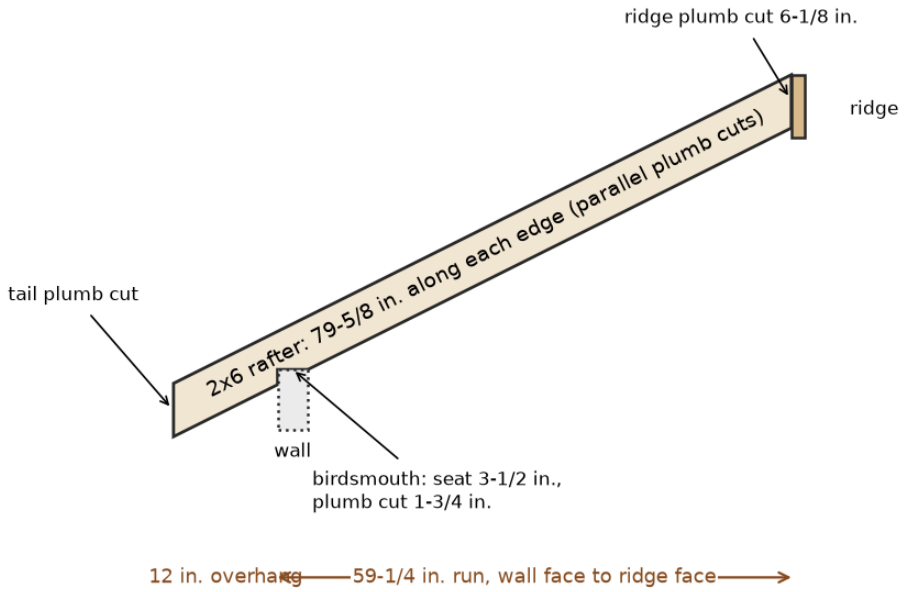
Gable (side) wall and gable-end framing



Studs at 12 in. on center put a stud under each siding joint (48 and 96 in.) and under the ridge post (60 in.).

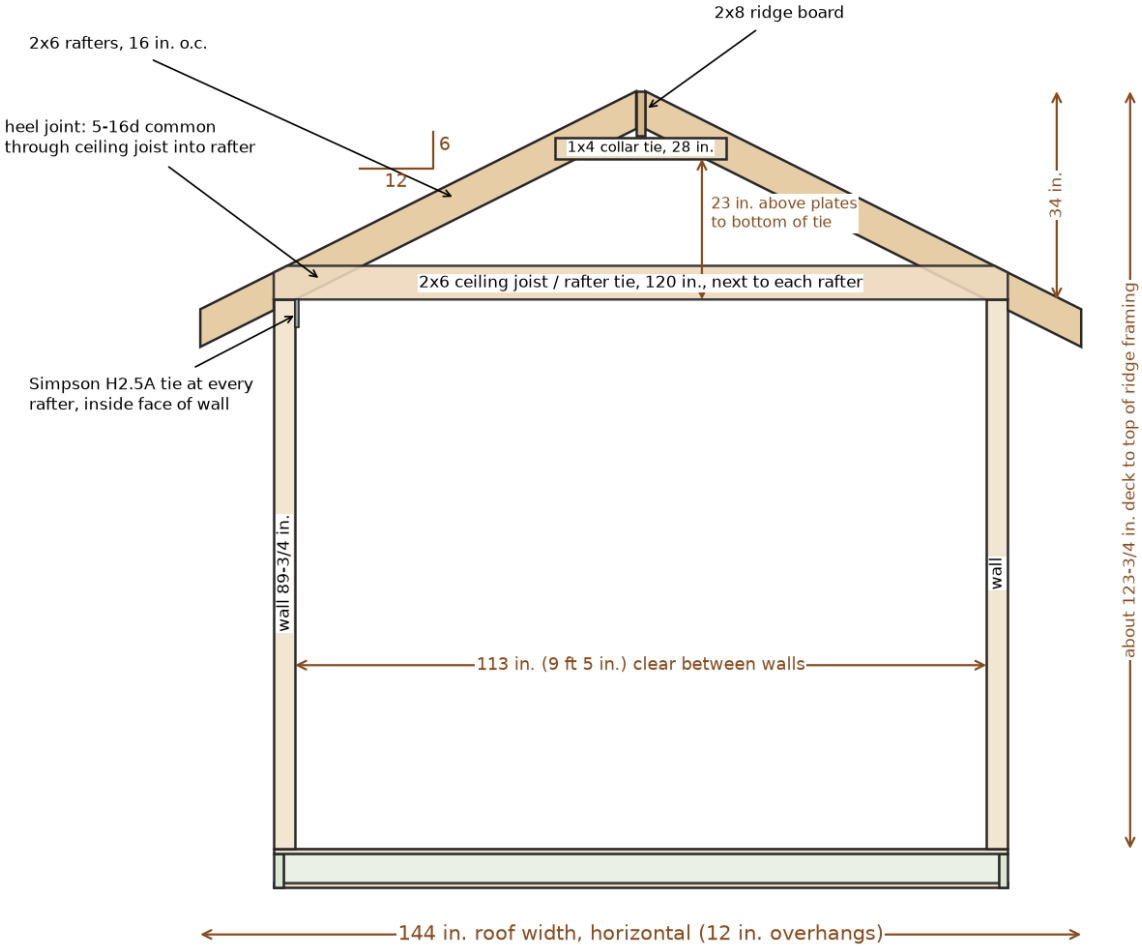
Gable wall and gable-end framing

Rafter pattern (cut one, test it, then copy it)



Along the top edge: 66-1/4 in. from the ridge long point to the heel line; 13-3/8 in. tail. Slope 6 in 12.

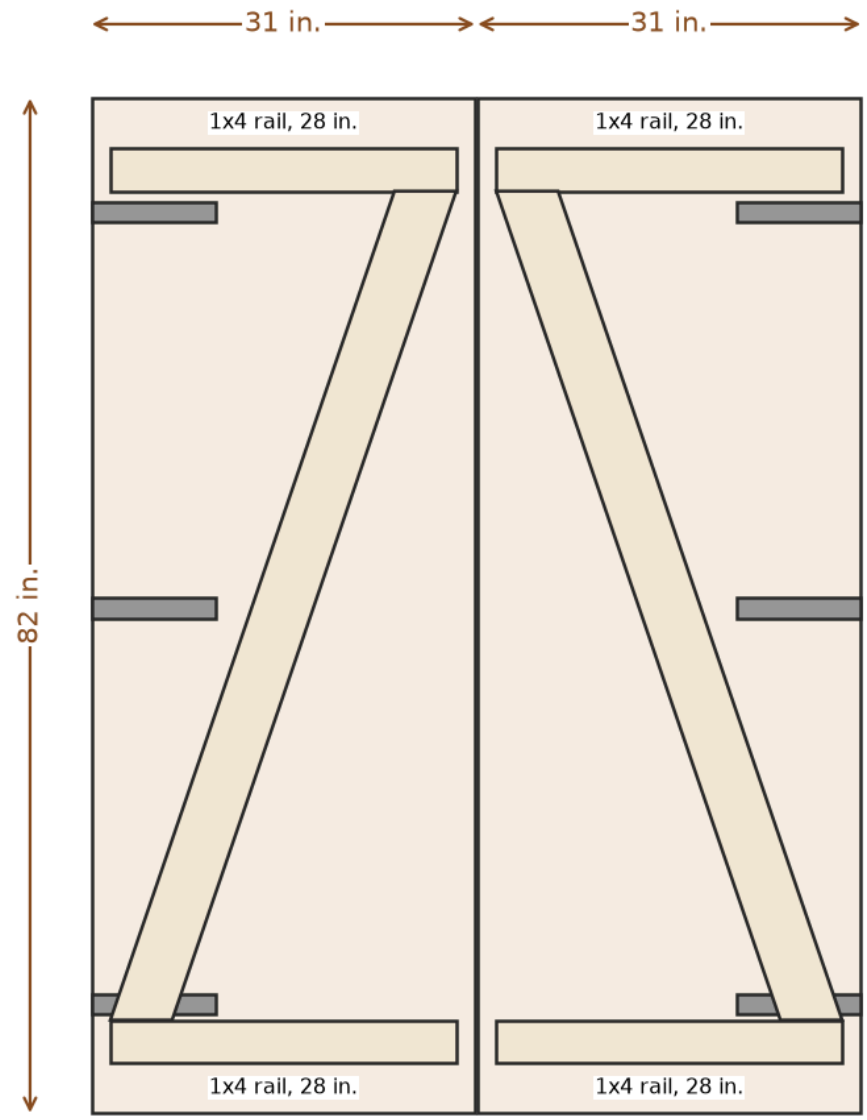
Section through the roof: what holds the walls together



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Roof section: ridge, ceiling joists, collar ties, ties (inside face)

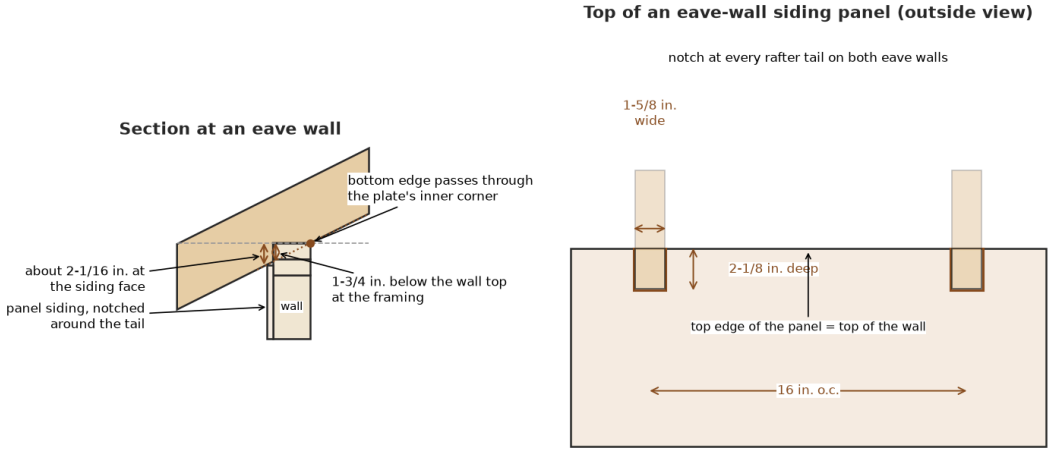
Double doors, Z-frame (inside face)



1/4 in. gap; 1x4 astragal on the outside of the active leaf covers it

Inside face. Hinges (gray) on the outer edges; each brace's low end is on its hinge side.

10x12 eave detail: notch the siding around each rafter tail



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Eave detail: notch the siding at every rafter tail