

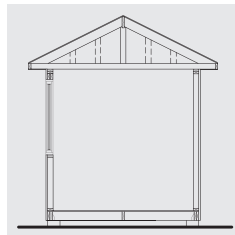
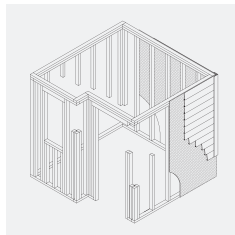
BUILD A BACKYARD SHED

CONSTRUCTION PLAN



Difficulty level: **||||| EXPERT**

Completion time: **7 days**



BUILD A BACKYARD SHED

A shed is the perfect backyard storage solution and a great project for any homeowner with strong carpentry skills.

With these free plans, you can build a functional 96" x 96" shed in three or four weekends. It's a versatile, low-maintenance design that's easy to customize both inside and out.

This article covers the basics of how to construct the shed and can help you decide where to build and whether you need a permit before you begin. To get started, download a free building plan for this shed. You'll find all the materials you need at your local home store or lumberyard.



TOOLS AND MATERIALS NEEDED

TOOLS

- > Niveau de 48" ou 72"
- > 48" or 72" level
- > 5 lb sledge hammer
- > Carpenter's level
- > Caulking gun
- > Chaulk line
- > Circular saw
- > Electric drill & bits
- > Had saw (cross cut)
- > Hammer and/or Nail gun
- > Measuring tape
- > Miter saw
- > Plumb bob
- > Punch
- > Router
- > Set square
- > Shovel
- > Spade drills
- > Stakes
- > Stapler
- > String
- > Table saw
- > Utility knife

MATERIALS

Floor

- > 13 - 2" X 6" single joist hangers
- > 5 - 2" x 6" X 96" joists
- > 2 - 2" X 6" X 168" joists
- > 7 - 2" X 6" X 96" ribbon joists
- > 2 - 5/8" plywood floor sheeting

Wall

- > 9 - 7/16" X 48" X 96" OSB sheets
- > 12 - 2" X 4" X 96" sill plate
- > 32 - 2" X 4" X 93 1/4" boards
- > 1 - 2" X 4" X 144" lintel

Roofing

- > 1 - 2" X 4" X 144" gable
- > 4 - 2" X 4" X 96" ceiling joists
- > 2 - 2" X 4" X 168" ceiling joists
- > 8 - 2" X 6" X 144" rafters
- > 2 - 2" X 6" X 120" sub-fascia
- > 1 - 2" X 6" X 144" sub-fascia
- > 1 - 2" X 6" X 192" sub-fascia
- > 1 - 2" X 8" X 96" ridge board
- > 4 - 1/2" plywood roof sheeting
- > 1 - 50 lb asphalt paper roll
- > 4 - 20 year asphalt shingles packs
- > 6 In ft - 10" galvanized flashing
- > 2 - 120" Aluminum face-drip moulding
- > 3 - 120" Aluminum side-drip moulding
- > 5 - 6" X 120" aluminum fascia
- > 2 - 16" X 144" aluminum ventilated soffit
- > 4 - 1/2" X 144" aluminum soffit "J" trim

Exterior finish

- > 39 - 144" Vinyl horizontal D-4 siding
- > 3 - 144" Vinyl starter strip
- > 5 - 120" Vinyl exterior corner
- > 1 - 120" Vinyl interior corner
- > 3 - 1/2" X 144" Vinyl "J" trim
- > 1 - 144" Vinyl window top drip moulding
- > 18 In ft - 1" X 4" pine
- > 24" X 48" window
- > Exterior door and hardware

Interior

- > Single pole electrical switch
- > Electrical outlet
- > Interior ceiling fixture
- > Exterior wall mounted fixture

Hardware

- > 7 lb - 3 1/2" common nails, bright
- > 1 lb - 2 1/2" box nails, coated
- > 1 lb - 1 1/2" roofing nails
- > 1 lb - 1" nails for vinyl siding
- > 1 lb - 1" nails for vinyl soffit/fascia

Foundation (concrete block)

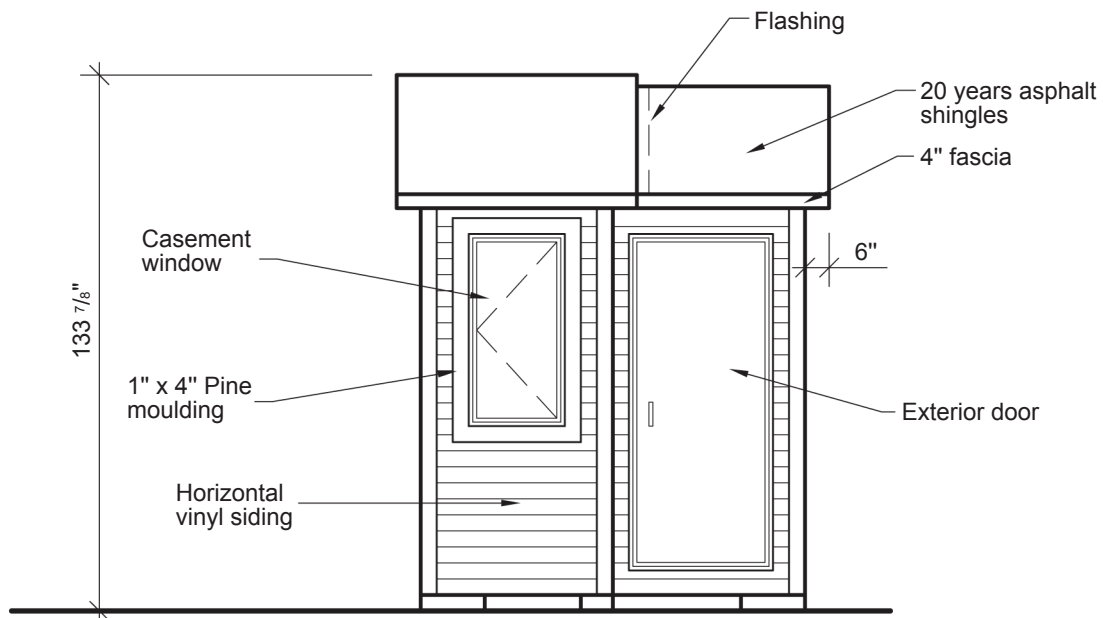
- > 9 - 4" X 8" X 16" concrete blocks
- > 3.25 cubic yd - 3/8" crushed gravel

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NOTES

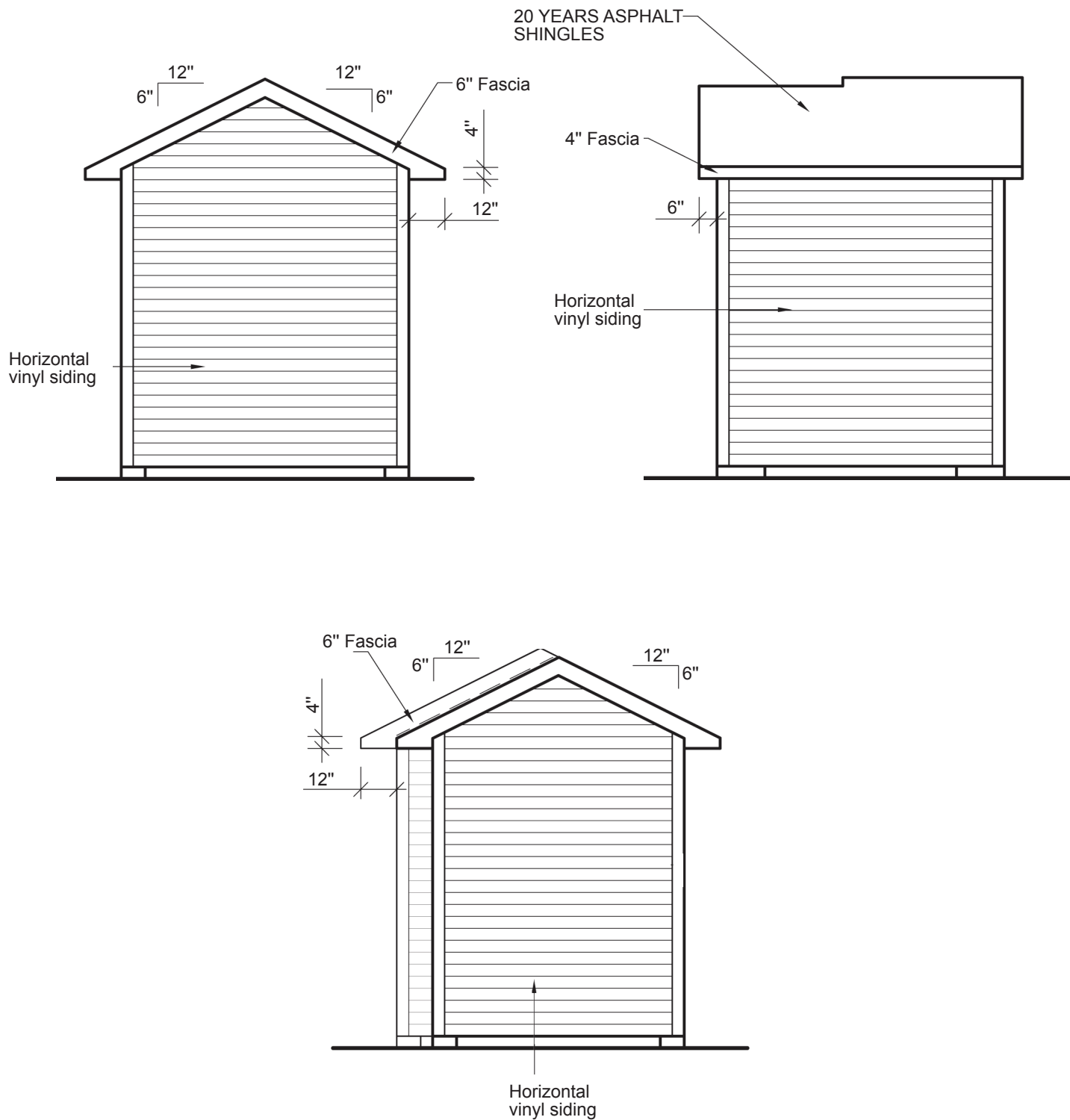
- You can easily modify this shed design to an 96" X 96" square floor plan if you want to simplify construction or modify the plan to include additional windows or wider door opening.
- Several weeks before you plan to start your project, talk to your municipal building office about permits or any specific conditions you're required to meet given the size and scope of your project. Also contact your local utility company to locate and mark any buried power, water, or gas lines.
- Before you begin, read the plan from start to finish. Get a feel for the steps in the assembly process and the materials involved.
- Set aside enough time to do the job, taking daylight and preparation time into account. Check the weather; it's important to work on calm days when no wind or rain is in the forecast.
- Expect to devote one full weekend (or one-third of your total project time) to preparing your building site and constructing a foundation, especially if you're using concrete piers. They take time to dig, level, and square, and for the cement to set.
- Don't forget about shelving, hooks, and other storage options for your finished shed. If the door to your shed is higher than the ground, a ramp will make it easier to wheel out items like lawnmowers, wheelbarrows, or bikes.
- Over time, an on-grade foundation can shift out of square or level especially in areas with significant or prolonged freezes. It's possible to jack up the building and shim or adjust the blocks to level the foundation, but it may be difficult to make the shed as square as it was when you built it.
- If at any point you're unsure of what you're doing, call a qualified professional. The money you spend will be returned in the benefits of a quality job.

ELEVATIONS



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ELEVATIONS

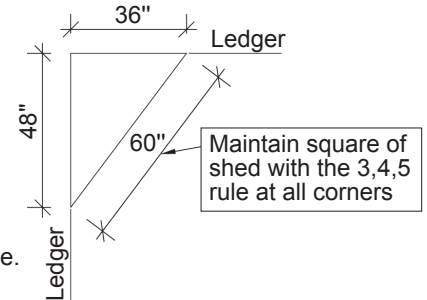


BUILD A BACKYARD SHED

ASSEMBLY

1 PREPARE YOUR BUILDING SITE

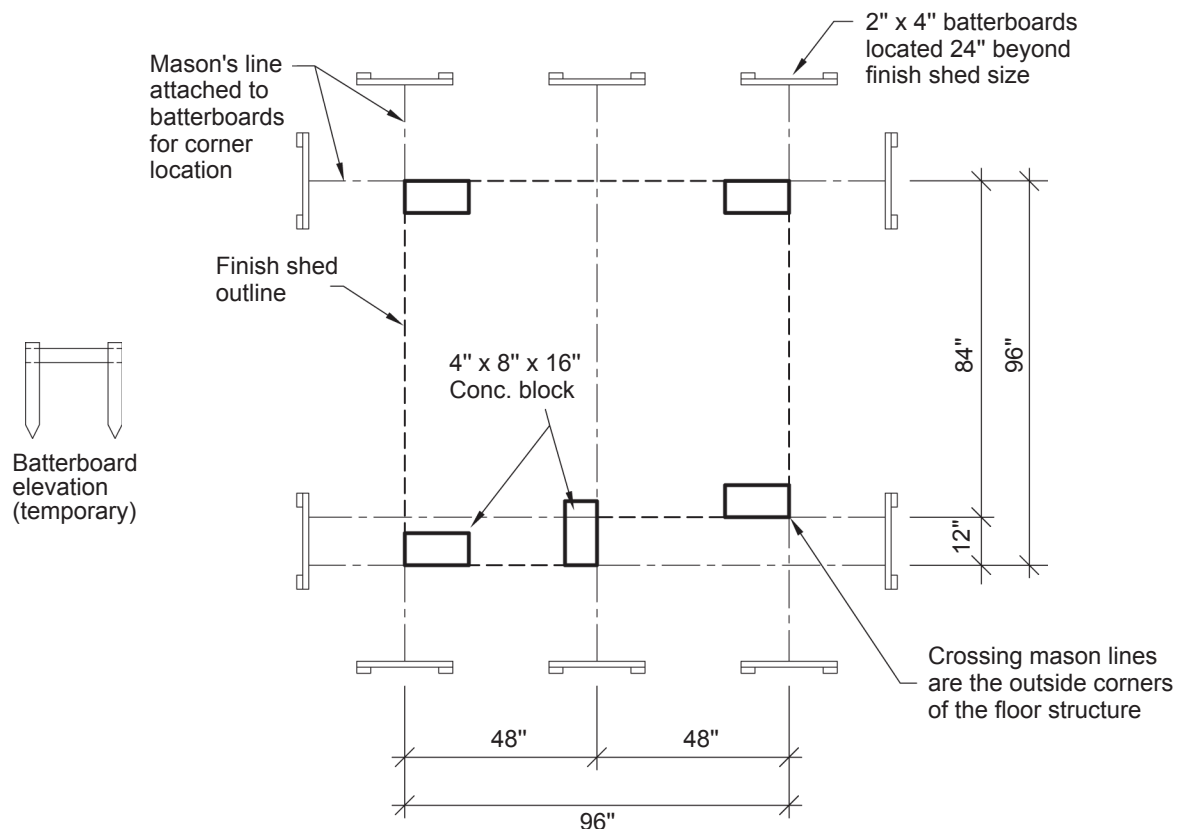
- 1.1 Clear your building site of all shrubs, trees, rocks, and stumps.
- 1.2 Protect nearby landscaping, pavement, and other structures from damage during construction of your shed.
- 1.3 Use stakes and string to outline an 96" X 96" perimeter.
- 1.4 Measure the distance between the stakes, making sure the diagonal measurements are equal. TIP: To ensure the string perimeter is square, use the 3-4-5 Rule. Measure 36" and 48" on the adjacent sides. If the corner is square, the diagonal measure should be 60".



2 PREPARE THE CONCRETE BLOCK FOUNDATION

This shed needs a flat, level base that drains well. Our guide Design and build a foundation for your storage shed outlines several choices including an economical and simple foundation that uses concrete blocks set directly on top of a gravel bed.

- 2.1 To reduce weeds and improve drainage, excavate sod and soil inside the staked perimeter to a depth of 4". Cover the area with landscape fabric and top with 4" of pea gravel. This can be compacted with a mechanical compactor.



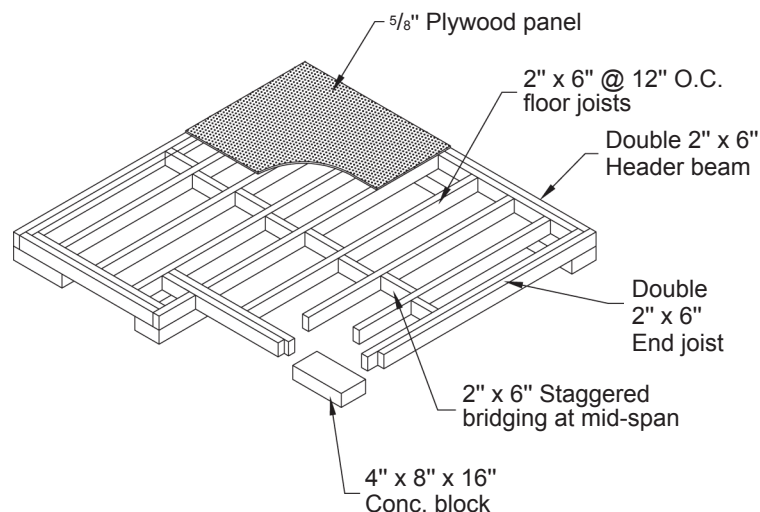
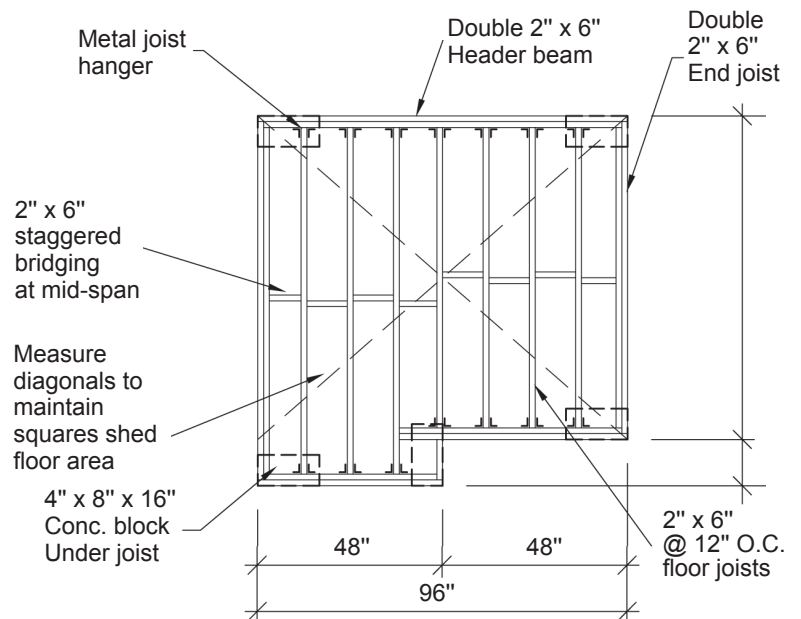
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ASSEMBLY

- 2** **2.2** Set pre-cast concrete blocks in place around the shed perimeter, according to the plan. Align the outside edges with the string. For a small or medium-sized shed like this one, you'll need at least eight blocks plus one for the centre, or three rows of three blocks each, to support your shed floor.
- 2.3** Dig holes 24" square by 12" deep at each location of the concrete blocks.
- 2.4** Fill the holes with 0-¾" pea gravel in three successive coats of 4".
- 2.5** Lay the concrete blocks in place.
- 2.6** Level the blocks. You have to level the top of the block itself and also level the blocks to each other. If a block is too high, remove dirt from underneath it; if you need to add back material, use more pea gravel. Fine-tune with a 48" or longer level. TIP: Take your time: an out-of-level foundation will create problems later when you build your walls and roof.

3 BUILD THE FLOOR

- 3.1** Install double 2" X 6" ribbon and end joists to form the shape and dimensions of the shed floor according to plan. Make sure the beams are square and level with one another.
- 3.2** Nail 2" X 6" joist hangers every 12" on centre. Slide in the joists and secure them with nails.
- 3.3** Add 2" X 6" staggered cross-bridging or blocking between the joists to prevent them from twisting.
- 3.4** Nail ⅝" plywood to the floor joists, covering the entire floor surface. For maximum rigidity, place the plywood perpendicular to the joists. TIP: For a stiffer floor, apply construction adhesive to the joists before you lay down the plywood.



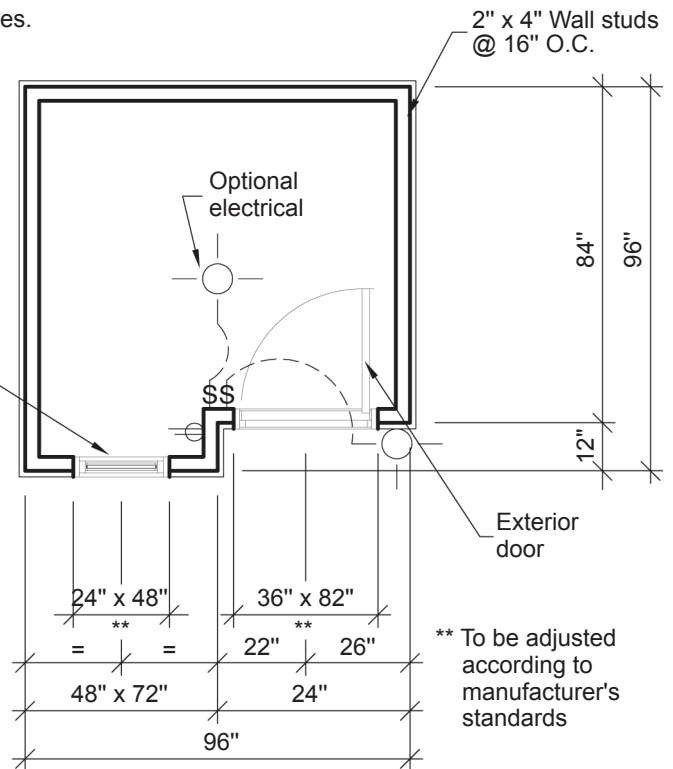
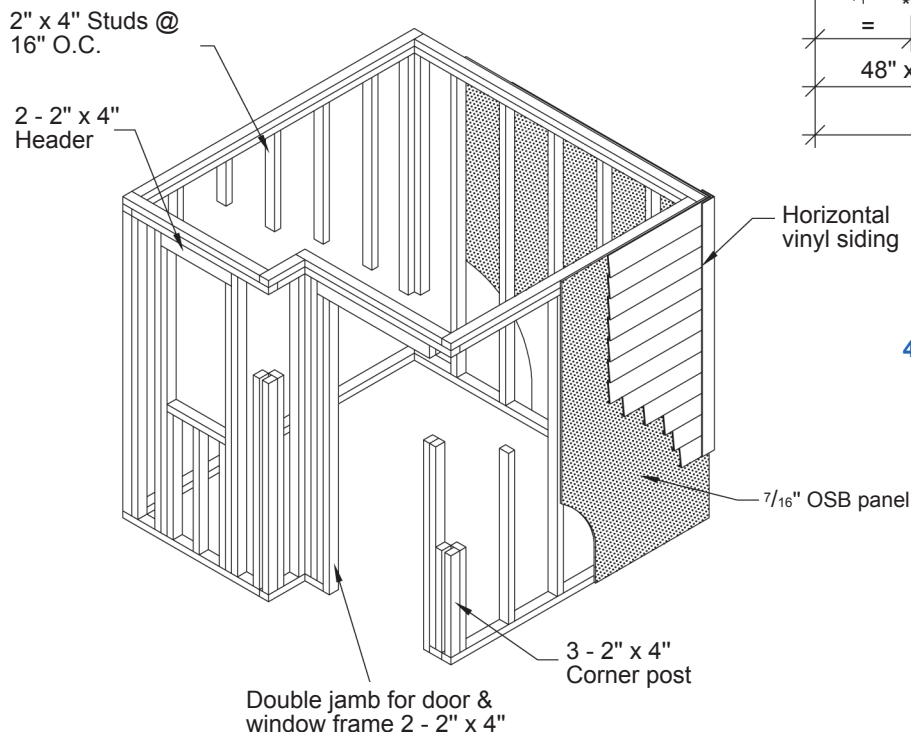
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ASSEMBLY

4 BUILD THE WALLS

Frame the walls one at a time, using the shed floor as a work surface. It's a sturdy place to build and you can make sure the walls' outside dimensions match those of the floor, less the width of the corner post (4"). TIP: Build the long walls first, and when you stand and brace the longer walls, tilt them slightly outward. You'll have a little extra room when you stand the shorter walls.

- 4.1 Determine the locations of the door and window openings.
- 4.2 Assemble the wall studs, structural components, and wall plates.
Nail each 2" X 4" stud at both ends and every 16". If the wall has a window or door, the opening should include a king stud to support the window or door header. To build the header attach a 2" X 4" to one face of the wall and a second one to the other face.
- 4.3 Install the $\frac{7}{16}$ " OSB panels on the wall framing.
- 4.4 Raise, plumb, and install temporary bracing for each wall.
TIP: Check for plumb with a long level at the corner and adjust as necessary. Brace diagonally from top to bottom.
- 4.5 With the walls up and standing, check again to make sure they are plumb, level, and square.



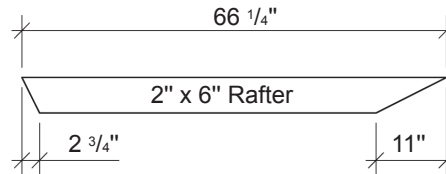
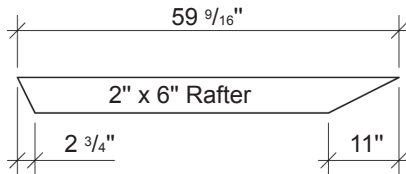
- 4.6 Nail the walls together at the corners.
Join the top plate from one wall to the other by staggering the joints.

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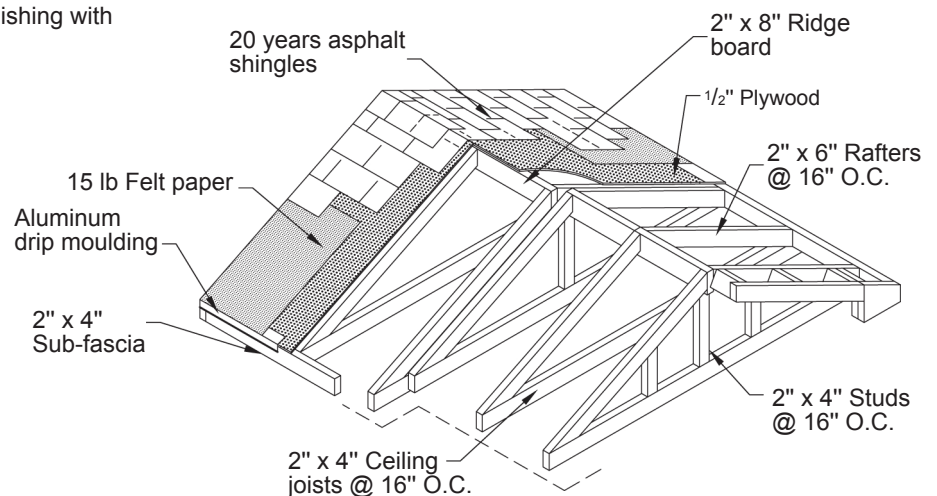
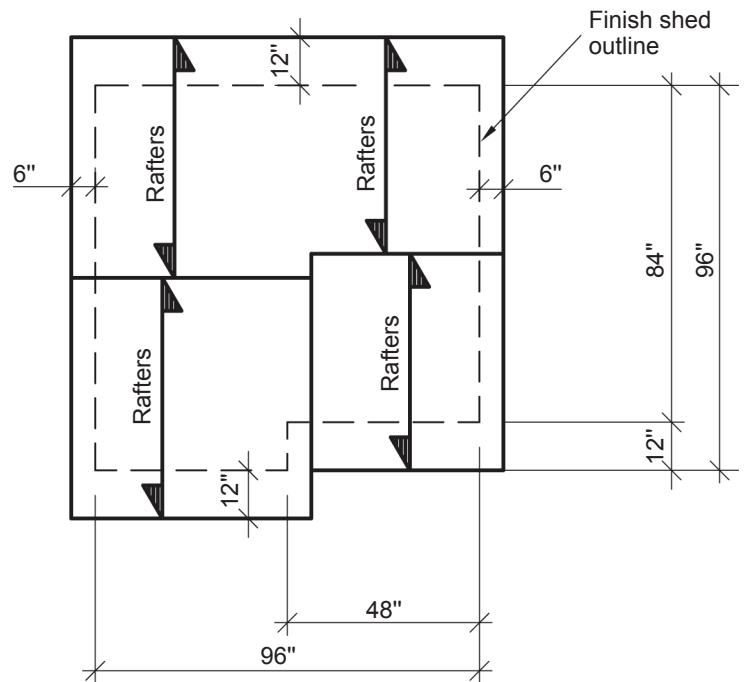
ASSEMBLY

5 BUILD THE ROOF

- 5.1** Cut the ridge board and rafters according to the shed plan. Mark the 2" X 8" ridge board every 16" where the rafters will be installed and prop it up with temporary supports. Note that each rafter will be installed every 16" on-centre.



- 5.2** Check the walls again to make sure they're perfectly straight. If necessary, push or pull them into alignment and brace them.
- 5.3** Install the rafters in pairs, lining them up over the wall studs. Nail the bottom of each rafter to the wall's top plate, to the 2" X 4" ceiling joist, and to the top to the ridge board.
- 5.4** Once the roof structure is complete, align the 2" X 4" sub-fascia boards with the top of the rafters and fasten in place. TIP: Remember to rip a slight bevel on the lower edge of the sub-fascia so the soffit boards will fit tight to the rafter ends.
- 5.5** Sheath the roof with 1/2" plywood, taking care to stagger the joints and align them with the centre line of the roof trusses. Leave 1/8" of space at the joints to allow for swelling.
- 5.6** Nail aluminum drip mouldings along the perimeter of the roof.
- 5.7** Attach one strip of roofing felt paper along the roof's edges and install the shingles, finishing with a ridge cap.



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ASSEMBLY

6 FINISH THE EXTERIOR

- 6.1 Install the door in the opening according to the manufacturer specifications.
- 6.2 Install the window according to the manufacturer specifications.
- 6.3 Install all the decorative trim needed for the exterior siding
- 6.4 Install the vinyl siding.
- 6.5 Install the aluminum fascia, the mouldings for the soffit and then the soffit.
- 6.6 Caulk around the door and the window as well as spot where water may seep in.

Roof & Ceiling

20 Years Asphalt Shingles
15 lb Felt paper
1/2" Plywood + "H" Clips
2" x 6" Rafters @ 16" O.C.
2" x 4" Ceiling joist @ 16" O.C.

