

Firewood-Garbage Shed

Includes: Step-By-Step Instructions, Complete Details & Materials Lists

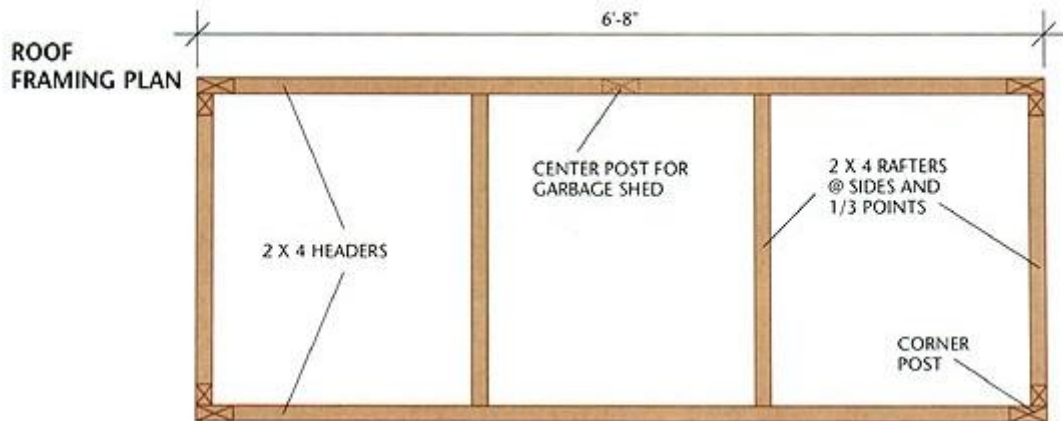
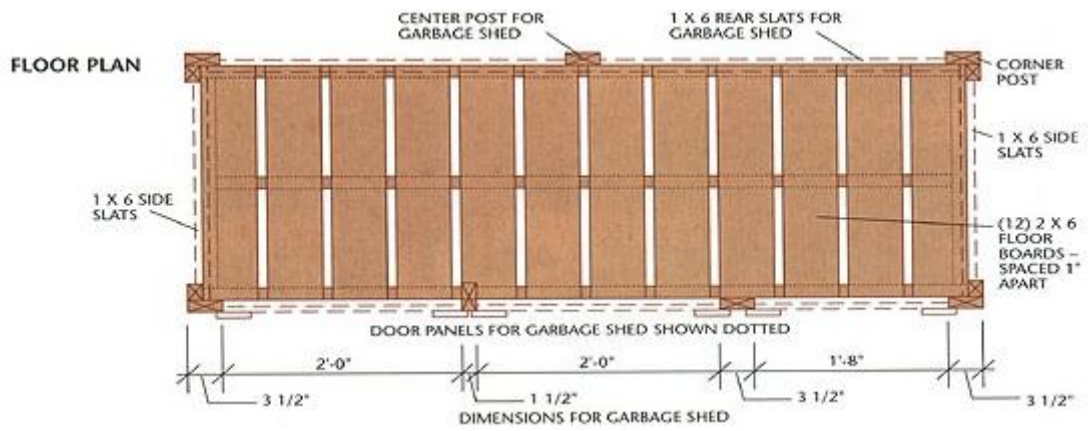
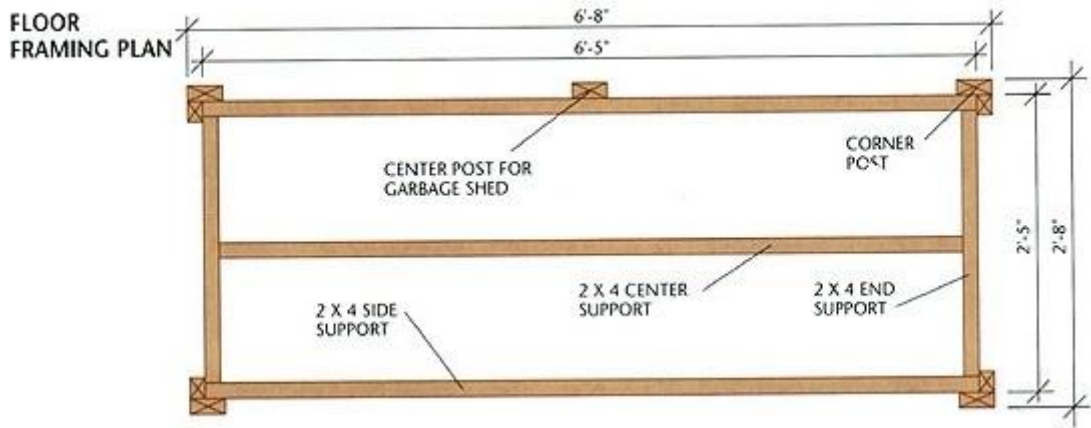


This versatile shed is actually two projects in one: by using the same central design, you can build a firewood shelter or a garbage and recycling bin. The differences between the two are clearly shown in the illustrations. Both projects have four posts, a rectangular floor frame decked with 2 × 6s, and spaced side slats that provide ventilation. The plywood, shed-style roof is covered with cedar shingles, but you can use any type of roofing. When adapted as a garbage shed, the project includes a center post and slats on the rear wall, two posts on the front wall that define the door openings, a shelf for recycling, and three frame-and-panel cedar doors.

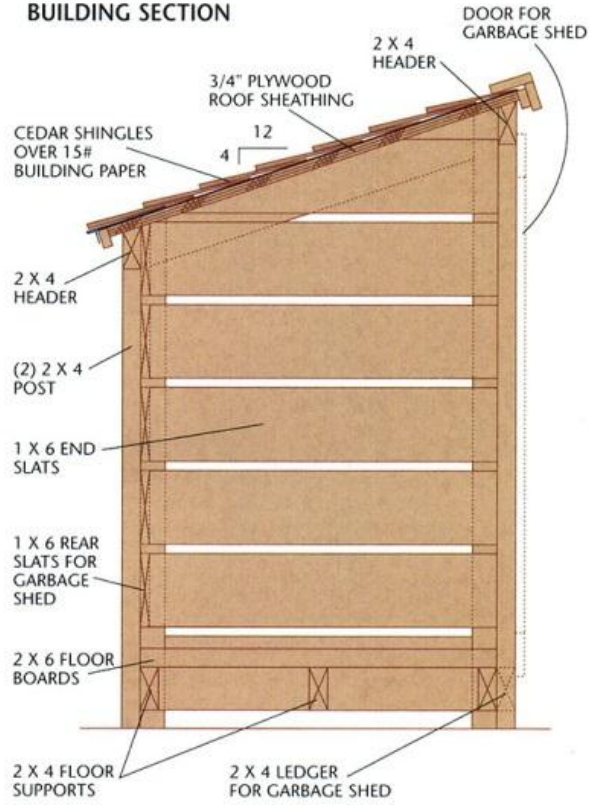
To save on expenses, you can build the entire shed with pressure-treated lumber or use cedar only for the most visible parts.

Materials			
Description	Quantity/Size- Firewood Shed	Quantity/Size- Garbage Shed	Material
Framing			
Side & end floor supports	2 @ 10'-0"	2 @ 10'-0"	2 × 4 pressure-treated
Center floor support	1 @ 8'-0"	1 @ 8'-0"	2 × 4 pressure-treated
Floor boards	3 @ 10'-0"	3 @ 10'-0"	2 × 6 pressure-treated
Corner posts	4 @ 8'-0"	4 @ 8'-0"	2 × 4 cedar
Headers	2 @ 8'-0"	2 @ 8'-0"	2 × 4 cedar
Rafters	1 @ 8'-0", 1 @ 4'-0"	1 @ 8'-0", 1 @ 4'-0"	2 × 4 cedar
Rear center post	14 @ 8'-0", 8 @ 6'-0"	1 @ 4'-0"	2 × 4 cedar
Door posts	2 @ 6'-0"	1 @ 8'-0"	2 × 4 cedar
Door ledger	1 piece @ 6'-0"	1 @ 8'-0"	2 × 4 cedar
Slats			
End slats	5 @ 8'-0"	5 @ 8'-0"	1 × 6 cedar
Back slats		5 @ 8'-0"	1 × 6 cedar
Roofing			
Sheathing	1 sheet @ 4 × 8'	1 sheet @ 4 × 8'	3/4" CDX plywood
Roof edging	2 @ 10'-0"	2 @ 10'-0"	1 × 2 cedar
15# building paper	37 sq. ft.	37 sq. ft.	1 × 4 S4S cedar
Shingles	25 sq. ft.	25 sq. ft.	1 × 8 S4S cedar 1 × 4 S4S cedar
Roof cap	1 @ 8'-0" 1 @ 8'-0"	1 @ 8'-0" 1 @ 8'-0"	1 × 4 cedar 1 × 3 cedar

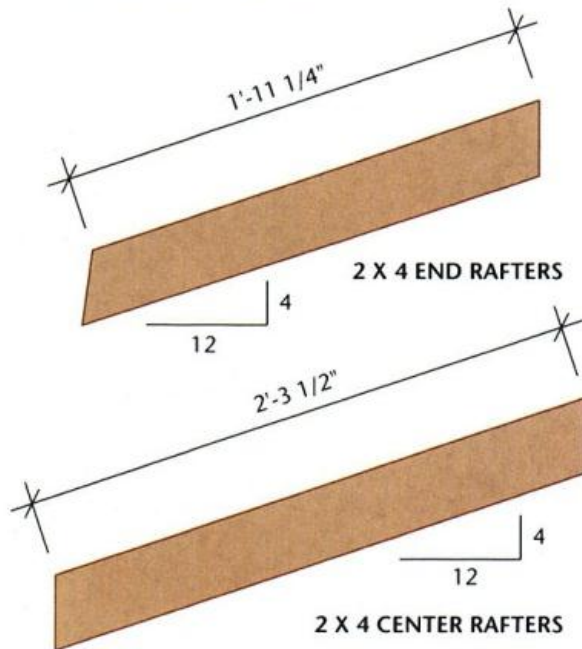
Shelf Doors			
Shelf	2 sheets 4 × 8'	1 @ 24 5/8 × 28 1/8"	3/4" ext.-grade plywood
Shelf cleats	30 sq. ft.	1 @ 6'-0"	1 × 3 cedar
Door panels	7 linear ft.	1 sheet @ 4 × 8'	1/2" rough cedar plywood
Stiles	30 sq. ft.	3 @ 8'-0" (wide doors) 1 @ 10'-0" (narrow door)	1 × 4 cedar
Hinges	24 linear ft.	6	Exterior hinges
Door handles	1 tube	3	Exterior handles
Fasteners			
1/4" × 3" lag screws	8, with washers	10, with washers	
Deck screws:			
3 1/2"	12	12	
3"	62	62	
2 1/2"	36	48	
2"	50	62	
1 5/8"	100	160	
1 1/4"		16	
1"		100	
6d galvanized finish nails	30	30	
3d galvanized roofing nails	1 lb.	1 lb.	



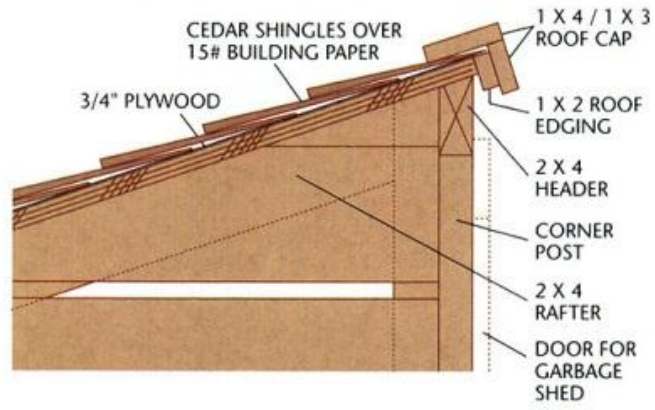
BUILDING SECTION



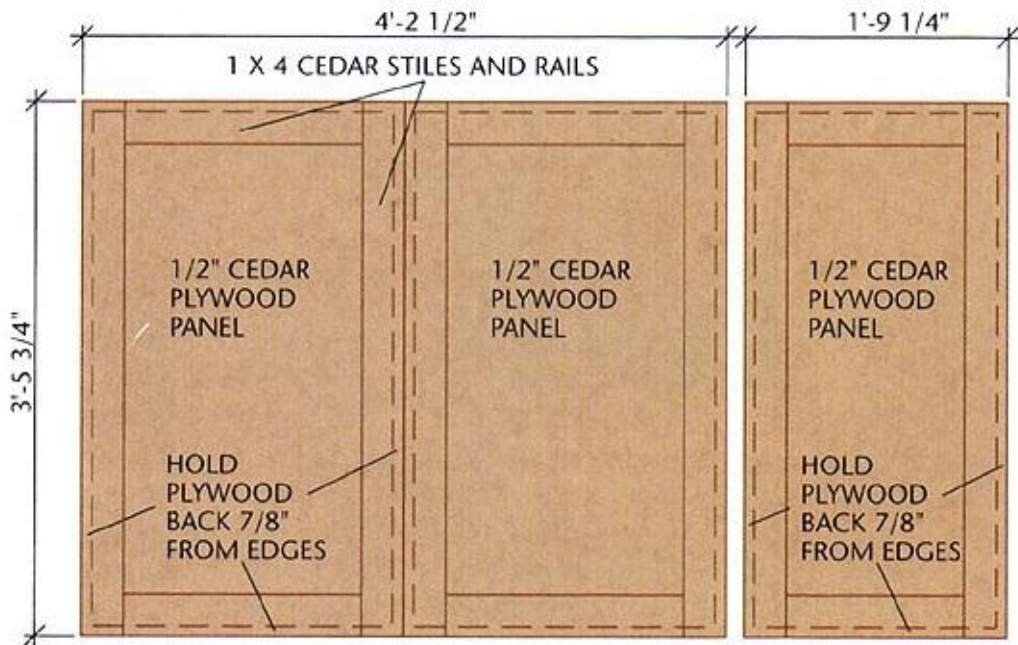
RAFTER TEMPLATES



UPPER ROOF EDGE DETAIL



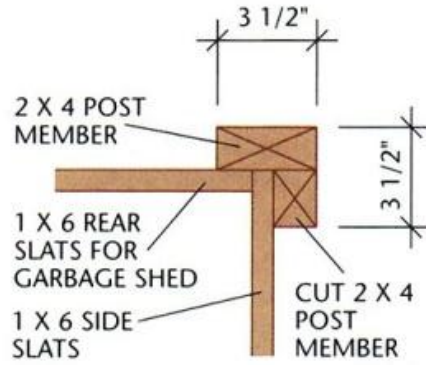
DOOR ELEVATION



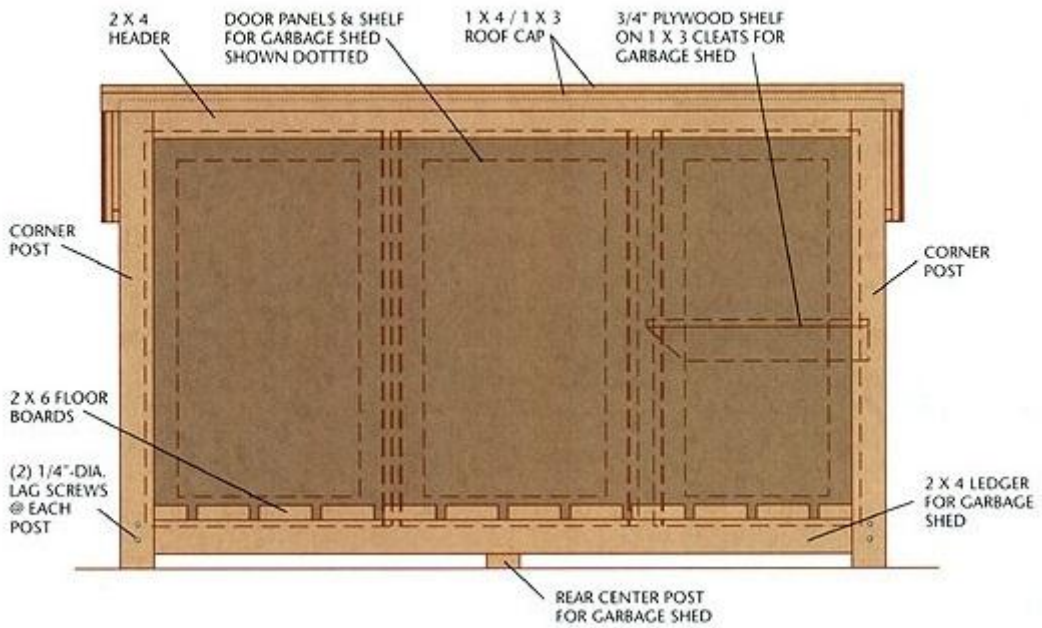
DOOR EDGE DETAIL



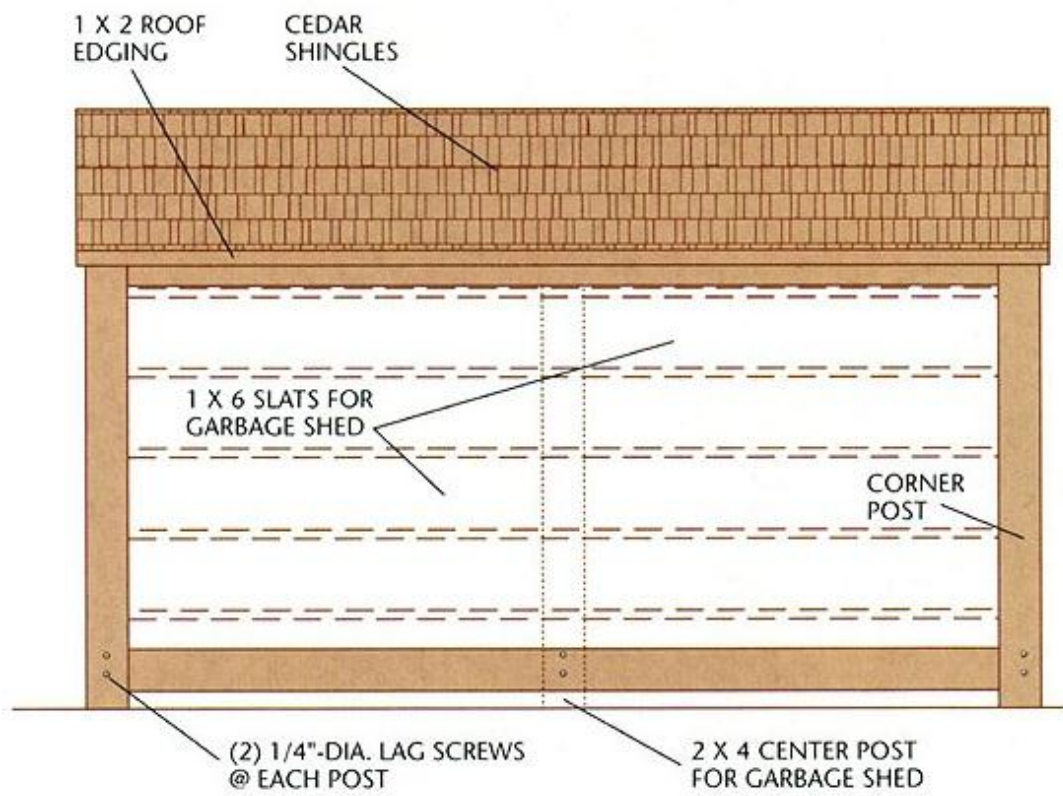
CORNER POST DETAIL



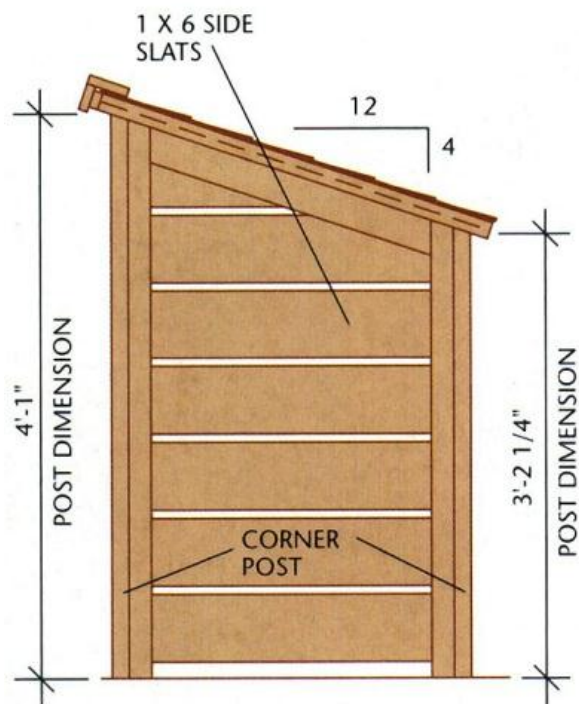
FRONT ELEVATION



REAR ELEVATION



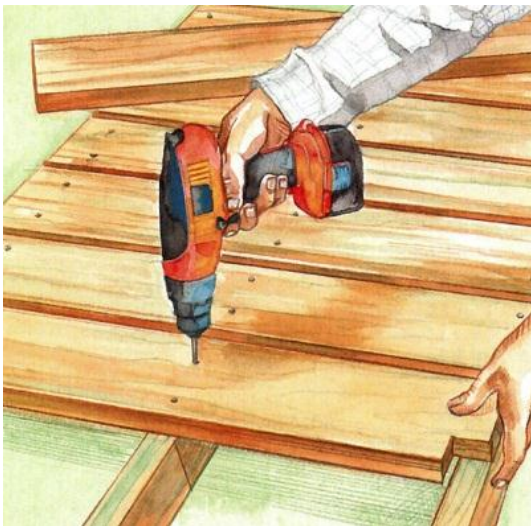
SIDE ELEVATION



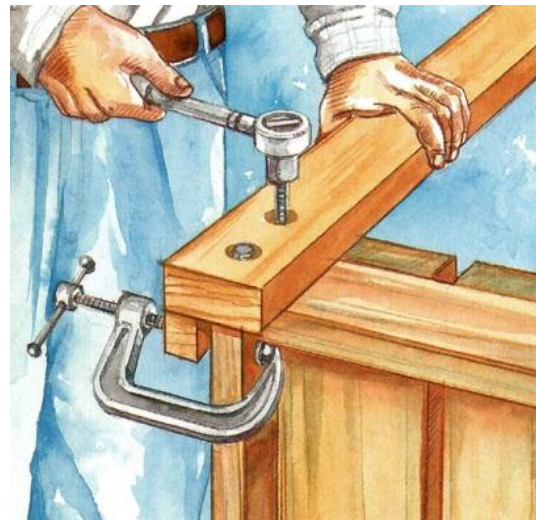
BUILDING THE FIREWOOD/GARBAGE SHED

Step A: Build the Floor Frame

1. Cut the two side supports at 77" and the two end supports at 26". Cut the center support at 74".
2. Fasten the ends between the sides with 3 1/2" deck screws driven through the sides into the ends, following the FLOOR FRAMING PLAN. Position the screws where they won't interfere with the lag screws that will anchor the corner posts to the floor frame (see the FRONT and REAR ELEVATIONS). Fasten the center support between the ends so it's centered between the side supports.
3. Cut twelve 2 × 6 floor boards at 29". Make sure the floor frame is square by measuring diagonally from corner to corner: The frame is square when the measurements are equal. Starting at one end, place the first board flush with the side and end supports. Drill pilot holes and attach the board with 3" deck screws.
4. Cut two 1" spacers from scrap lumber and use them to install the remaining floor boards. If you are building the garbage shed, cut a 1 1/2"-wide × 2" deep notch for the left door post, starting 26" from the left end of the floor frame. If necessary, rip the final board so it's flush with the end support.



Attach the floor boards to the frame, setting 1" gaps. For the garbage shed, cut a notch for the left door post.



Attach the posts to the floor frame with lag screws driven through pilot holes counterbored to accept the lag washers.

Step B: Build & Install the Corner Posts

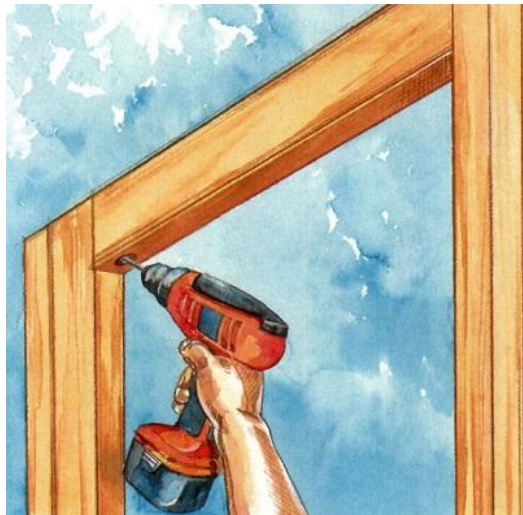
Note: Each corner post is made from one full-width 2 × 4 and one 2 × 4 ripped to 2"; the boards are screwed together to form an L. The top ends of both boards are cut at an 18° angle to match the roof slope. The garbage

shed also has a center post—made from a single 2 × 4—at the rear side of the frame (this is installed in Step C).

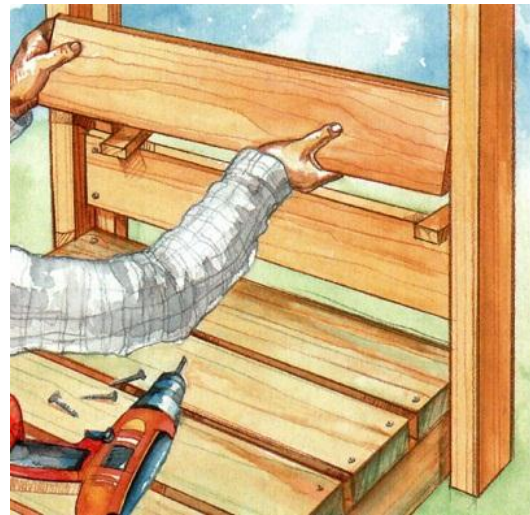
1. Rip two 8 ft.-long 2 × 4s to 2" in width. Make an 18° angled cut at about 53", leaving one 43" piece from each. Cut two full-width 2 × 4s at 53" and two at 43", beveling the top ends at 18°.
2. Assemble each front post by placing the cut edge of one 53"-long ripped board against the face of a 53" 2 × 4 so their angled ends are flush (see the FLOOR PLAN and the CORNER POST DETAIL). Drill pilot holes and join the pieces with 3" deck screws driven through the full-width 2 × 4 and into the ripped piece. Assemble the two rear posts the same way.
3. Cut the posts to length with square cuts: Cut the front posts at 49", measuring from the longest point of the angled ends; cut the rear posts at 38 1/4", measuring from the shortest point of the angled ends.
4. Mark the insides of the posts 1 1/2" from the ends. Position each post on the floor frame so the mark is aligned with the bottom edge of the frame. Use a framing square to make sure the post is perpendicular to the frame and clamp the post in place. Drill counterbored pilot holes for the lag screws and washers and fasten each post with two 1/4" × 3" lag screws.

Step C: Frame the Roof

1. Cut two 2 × 4 roof headers at 73". Bevel the top edge of each header at 18° (the broader face should still measure 3 1/2" after the board is beveled).
2. Position the headers between the corner posts so their outside faces are flush with the outside post faces and their beveled edges are flush with the tops of the posts. Toescrew the headers to the posts with 2 1/2" deck screws.
3. Cut two of each type of 2 × 4 rafters, following the RAFTER TEMPLATES. Position the outer rafters between the corner posts so their outside faces and top edges are flush with the outsides and tops of the posts. Toescrew the rafters to the posts with 2 1/2" deck screws.
4. Position the two inner rafters between the headers, 25" in from the outer rafters. Toescrew the rafters in place with 2 1/2" deck screws.
5. If you're building the garbage shed, cut the 2 × 4 rear center post to length so it runs from the bottom edge of the rear header to 1 1/2" below the bottom of the floor frame. Install the center post, centered between the corner posts; anchor the bottom end to the floor frame with lag screws, and toescrew the top end to the rear header.



Fasten the outer rafters between the posts with screws. Drive two screws on the inside face and one at the bottom.



Attach the end slats to the inside faces of the corner posts. Set consistent gaps between all of the slats.

Step D: Add the 1 × 6 Slats

Note: The firewood shed has slats along the ends only; the garbage shed has slats along the ends and back side. Determining the size of the gap between slats is up to you—test your layout carefully before installing the slats.

1. On each end, cut the bottom slat to fit between the corner posts. Position the slat between the posts so its bottom edge is flush with the bottom of the floor frame and fasten it to the frame with 1 5/8" deck screws.
2. Cut the remaining slats to fit between the insides of the posts. Space the slats as desired, and fasten them to the posts with 1 5/8" deck screws driven through the backs of the slats and into the posts.
3. If you're building the garbage shed, install two bottom slats between the center post and the two corner posts, keeping their bottom edges flush with the floor frame. Install the remaining slats against the insides of the posts.

Step E: Install the Sheathing & Roofing

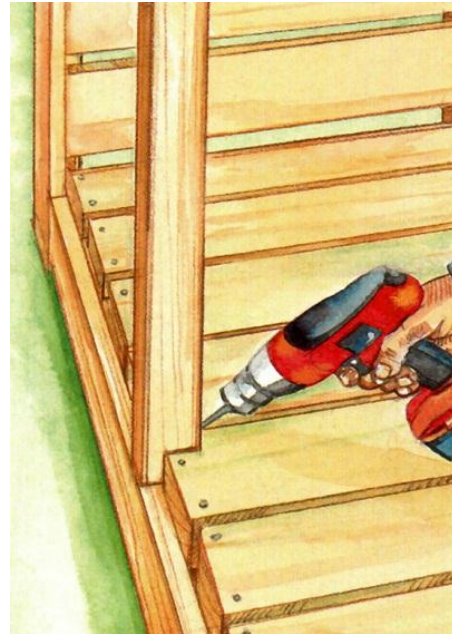
1. Cut the 3/4" plywood roof sheathing at 35 1/2" × 81 1/2". Position the sheathing over the roof frame so it overhangs the posts by 3/4" on all sides. Secure the sheathing to the posts, headers, and rafters with 2" deck screws.
2. Add 1 × 2 trim along all edges of the sheathing, mitering the ends at the corners. Fasten the trim with 6d galv. finish nails so the top edges are flush with the plywood.
3. Apply 15# building paper to the sheathing and edging. Overhang the bottom edge by 1" and the sides by 1/2". Install the cedar shingles.

4. Build the roof cap from a cedar 1 × 3 and 1 × 4. Cut both pieces to span the length of the roof along the front edge. Set the 1 × 4 over the edge of the 1 × 3 and nail them together with 6d galvanized finish nails.

Note: If you're building the firewood shed, you have finished. If you're building the garbage shed, you have two more steps to go.



Cover the shingle ends at the top edge of the roof with a 1 × roof cap.



Install the door posts flush with the door ledger and header.

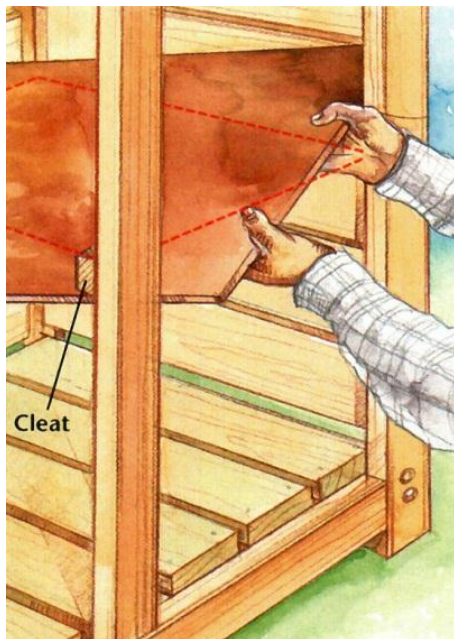
Step F: Complete the Garbage Shed Framing

1. Cut the 2 × 4 door ledger at 73". Position the ledger between the front corner posts so its top edge is flush with the top edge of the side support of the floor frame. Fasten the ledger with 2 1/2" deck screws driven through the side support and into the ledger.
2. Cut the 2 × 4 door posts to fit between the ledger and the front header. Position the door posts following the FLOOR FRAMING PLAN (note that the left post is on-edge and the right post is flat). Make sure the posts are plumb, and fasten them with 2 1/2" deck screws.

Step G: Add the Shelf & Doors

1. Mark the positions of the shelf cleats onto the inside faces of the rear, side and end slats and the right door post. Measure up from the shed floor and make marks at 17".
2. Cut the 1 × 3 shelf cleats, one each at 26 1/2", 24 1/2", and 3 1/2". Position the cleats with their top edges on the 17" height marks, and fasten them to the slats and post with 1 1/4" deck screws.

3. Cut the 3/4" plywood shelf at $24 \frac{5}{8} \times 28 \frac{1}{8}$ ". Fasten the shelf to the cleats with 1 5/8" deck screws.
4. Cut the 1 × 4 pieces for the door frames: From three 8-ft. 1 × 4s, cut four stiles at $41 \frac{3}{4}$ " and four rails at $18 \frac{1}{4}$ "; from one 10-ft. 1 × 4, cut two stiles at $41 \frac{3}{4}$ " and two rails at $14 \frac{1}{4}$ ". Cut the door panels from 1/2" cedar plywood: two panels at $23 \frac{1}{2} \times 40$ " and one panel at $19 \frac{1}{2} \times 40$ ".
5. Assemble the doors following the DOOR ELEVATION. To assemble each door, place the frame pieces facedown, with the rails between the stiles. Set the door panel facedown over the frame so there is 7/8" between the edge of the panel and the frame on all sides. Fasten the pieces together with 1" deck screws driven through the panel and into the frame pieces. Use a framing square to make sure the frame is square as you work.
6. Attach hinges and handles to the doors. Install the doors on the shed so they overlap the openings by 5/8" on all sides. Note: Use exterior hinges. A sash hinge with an offset that matches the thickness of the door stiles works well. To use standard strap hinges, mount the hinges on blocks attached to the door posts, so the doors can open all the way.



Add cleats to the door post and side and rear walls, then install the shelf.