How to build a Play House

This 7 1/2 × 8-ft. playhouse has many of the architectural details you'll find on a real house, making it a truly special place for play—and a fun project to build. With two homemade windows and a door-window, the 5 × 8-ft. interior of the main house is a bright but private space. Outside, a 2 1/2-ft.-deep covered porch provides additional shelter for playing, lounging, or welcoming guests. The entire building is supported by a single floor frame attached to a wooden skid foundation, which helps make the playhouse easy to move.

As shown, the playhouse is a complete building, ready for play, but its simple design leaves plenty of room for you and your children to do some of your own decorating. For starters, the plan suggests the option of finishing the house interior with 1/4" pre finished plywood panelling. You can also finish the ceiling by installing a few extra collar ties between the rafters and panelling over the roof frame.

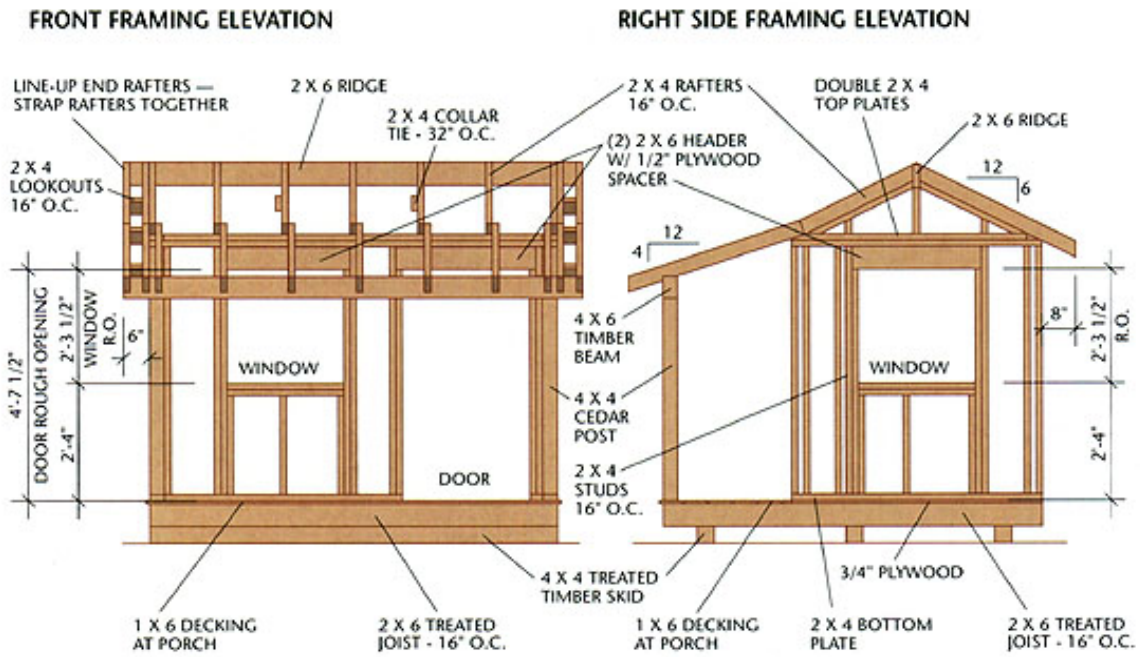
For decorations and hardware, look through some home accessory and restoration catalogues—they're full of decorative curiosities and interesting replica pieces perfect for adding charm to a little house.

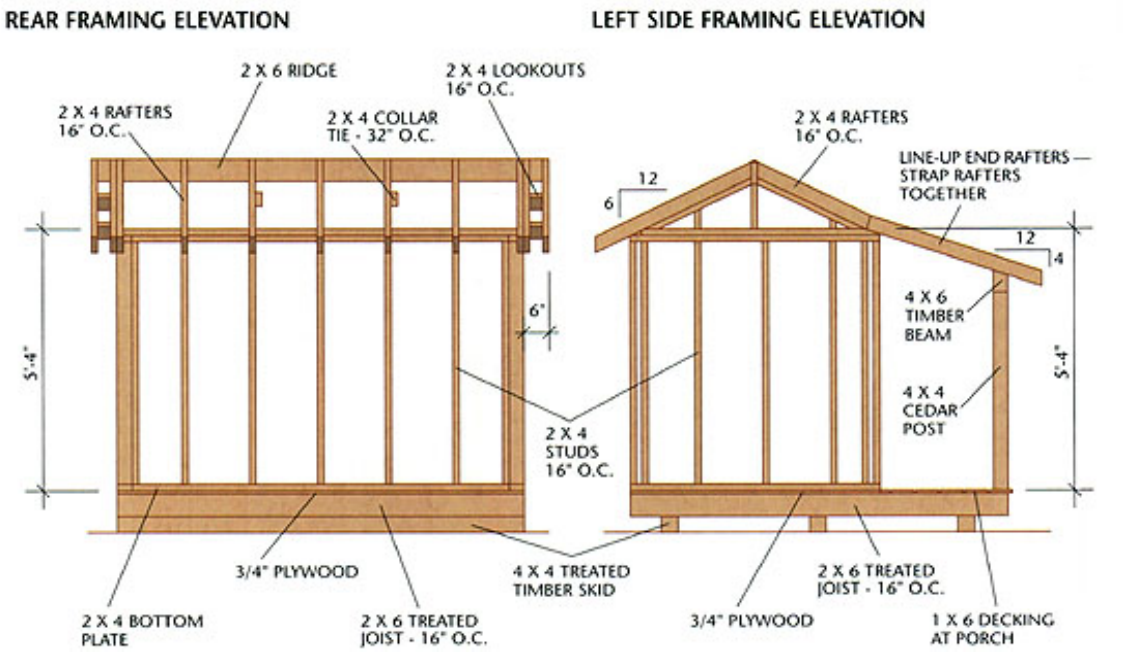
Materials

Description	Quantity/Size	Material
Foundation		
Drainage material	1 cu. yd.	Compactable gravel
Skids	3 @ 8'-0"	4 × 4 treated timbers
Floor Framing		
Rim joists	2 @ 8'-0"	2 × 6 pressure-treated
Joists	7 @ 8'-0"	2 × 6 pressure-treated
Joist clip angles	14	3" × 3" × 3" × 16-gauge galvanized
Floor sheathing	2 sheets @ 4 × 8'	3/4" tongue-and-groove, exterior-grade plywood
Decking	6 @ 9-0"	1 × 6 pressure-treated
Wall Framing		
Plates	4 @ 8'-0", 4 @ 6'-0"	2 × 4
Studs	32 @ 6'-0", 2 @ 8'-0"	2 × 4
Headers	3 @ 6'-0"	2 × 6
Header spacers	3 @ 3'-0"	1/2" plywood-5" wide
Misc. framing	4 @ 10'-0"	2 × 4
Sheathing	7 sheets @ 4 × 8'	1/2" ext.-grade plywood
Interior panelling (optional)	7 sheets @ 4 × 8'	1/4" plywood panelling
Porch Framing		
Posts	2 @ 5'-0"	4 × 4 cedar
Beam	1 @ 10'-0"	4 × 6 cedar
Post bases	2, with nails	Simpson BC40
Post/beam caps	2, with nails	Simpson BC4
Roof Framing		
Rafters	16 @ 8'-0"	2 × 4
Metal anchors-rafters	23, with nails	Simpson H2.5
Rafter straps	8 @ 12"-long	Simpson LSTA
Ridge board	1 @ 10'-0"	2 × 6
Lookouts	1 @ 6-0"	2 × 4
Collar ties	1 @ 8-0"	2 × 4
Roofing		
Roof sheathing	4 sheets @ 4 × 8'	1/2" ext.-grade plywood
Shingles	100 sq. ft.	250# per square (min.
15# building paper	100 sq. ft.	
Metal drip edge	4 @ 10'-0"	Galvanized metal
Roof vents (optional)	2	
Exterior Finishes		
Siding	248 linear ft.	8" cedar lap siding (6" exposure)
Subfascia	2 @ 10'-0"	1 × 4 pine
Fascia	2 @ 10'-0", 3 @ 8'-0"	1 × 6 S4S cedar

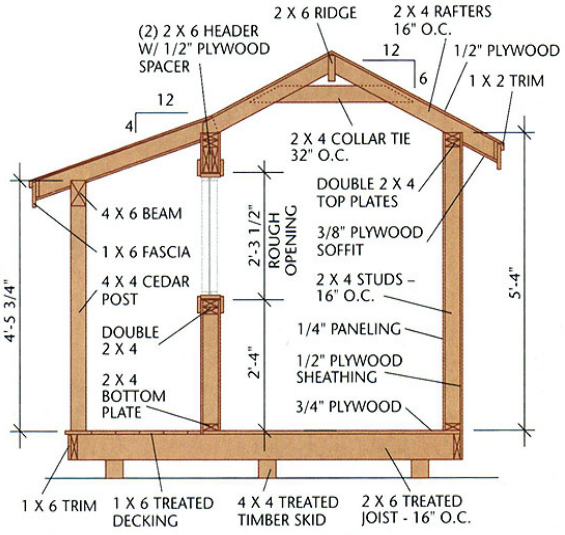
Fascia trim	2 @ 10'-0", 3 @ 8'-0"	1 × 2 S4S cedar
Corner Trim	8 @ 6'-0"	1 × 4 S4S cedar
Deck Trim	1 @ 9'-0", 1 @ 6'-0"	1 × 6 S4S cedar
Flashing-right side window	3'-0"	Galvanized-18-gauge
Plywood soffits	2 sheets @ 4 × 8'	3/4" cedar or fir plywood
Soffit vents	4 @ 4'-12"	Louver w/bug screen
Window		
Frame	4 @ 6'-0"	1/4 × 4 1/4" (actual) S4S cedar
Stops	8 @ 6'-0"	1 × 2 S4S cedar
Trim	8 @ 6-0"	1 × 3 S4S cedar
Glazing tape	40 linear ft.	
Glass	2 pieces—field measure	1/4" clear, tempered
Window grid	2 @ 6'-0"	1 × 1 S4S cedar
Door		
Frame	2 @ 5'-0", 1 @ 3'-0"	3/4 × 4 1/4" (actual) S4S cedar
Stops	2 @ 5'-0", 1 @ 3'-0"	1 × 2 S4S cedar
Panel material	8 @ 8'-0"	1 × 6 T&G V-joint S4S cedar
Window trim	4 @ 8'-0"	1 × 3 S4S cedar
Trim	5 @ 5'-0"	1 × 3 S4S cedar
Glass	1 piece—field measure	1/4"clear, tempered
Strap hinges	3	
Railings (Optional)		
Top rail	1 @ 64"	2 × 4 S4S cedar
Nailers	1 @ 64"	2 × 4 S4S cedar
Balusters	8 @ 3'-0"	2 × 4 S4S cedar
Fasteners		
16d galvanized common nails	3 1/2 lbs.	
16d common nails	2 lbs.	
10d common nails	1 lb.	
8d galvanized box nails	1 1/2 lbs.	
8d galvanized box nails	2 1/2 lbs.	
8d galvanized box nails	24 nails	
8d galvanized box nails	1/2 lb.	
6d box nails	2 lbs.	
6d galvanized finish nails	1/2 lb.	
5d siding nails	2 lbs.	
3d galvanized box nails	1/4 lb.	
1 1/2" joist hanger nails	60 nails	
7/8" galvanized roofing nails	1 lb.	
2 1/2" deck screws	36 screws	
2" deck screws	120 screws	
1 1/4" wood screws	60 screws	

Construction adhesive	4 tubes
Silicone-latex caulk	2 tubes

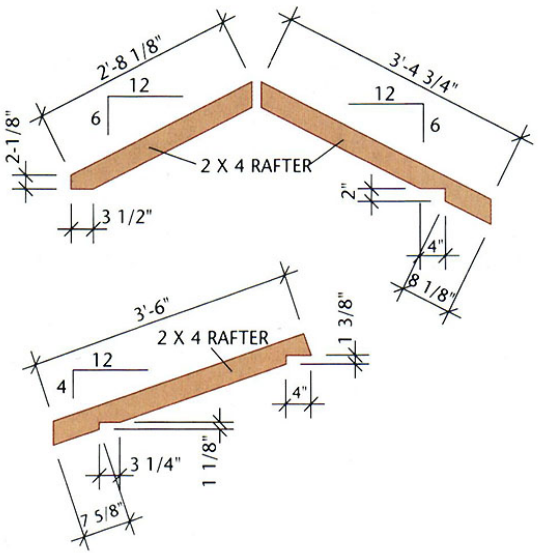




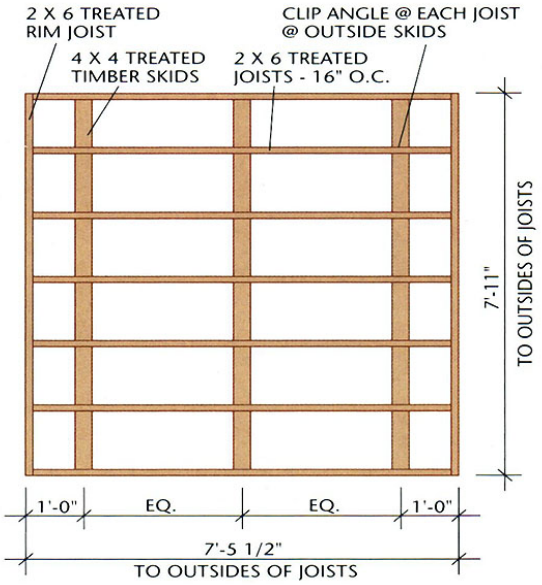
BUILDING SECTION



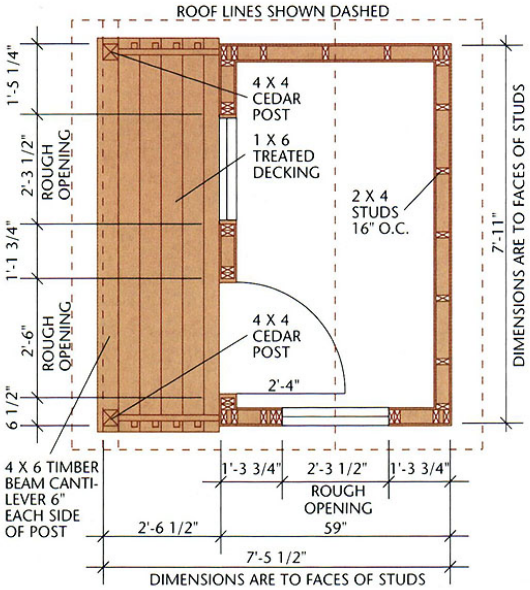
RAFTER TEMPLATES



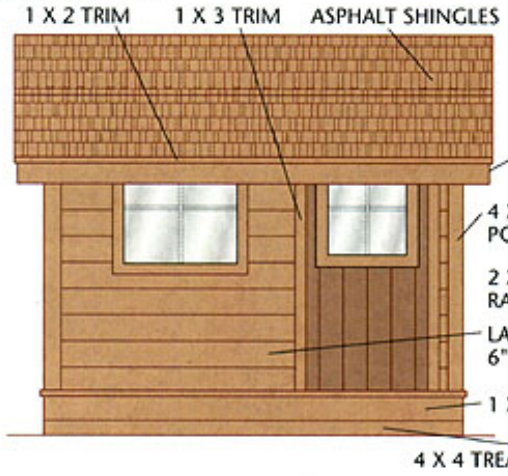
FLOOR FRAMING PLAN



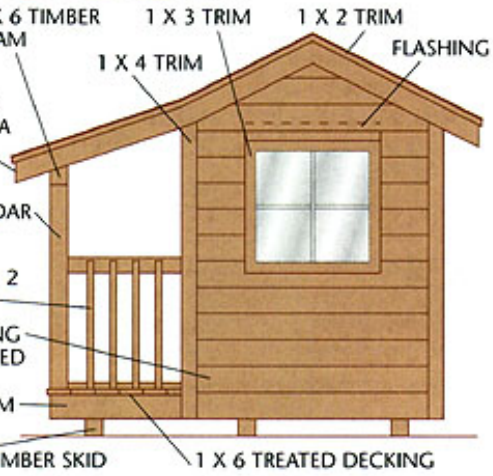
FLOOR PLAN



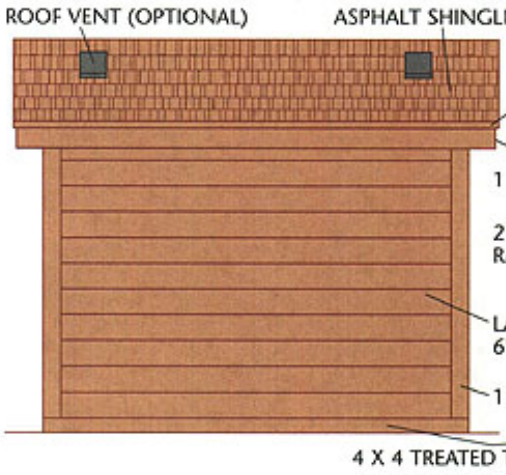
FRONT ELEVATION



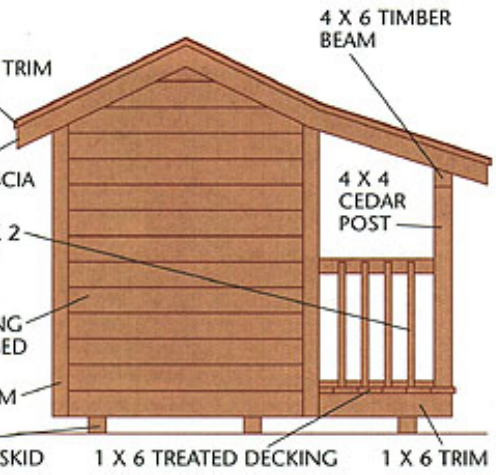
LEFT SIDE ELEVATION



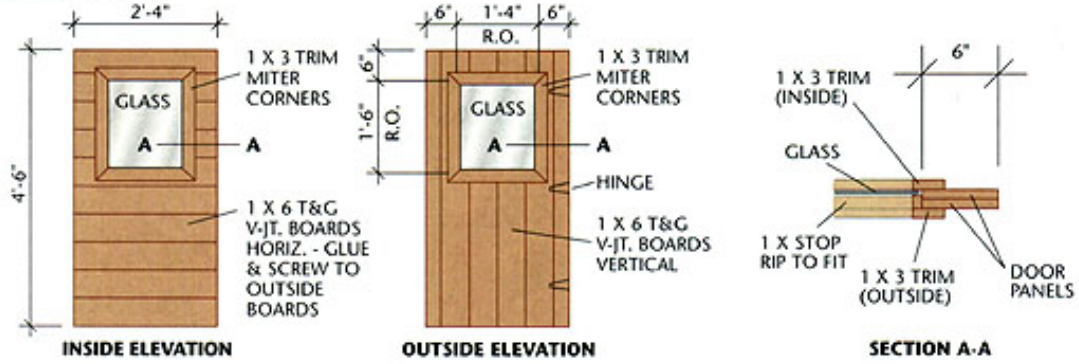
REAR ELEVATION



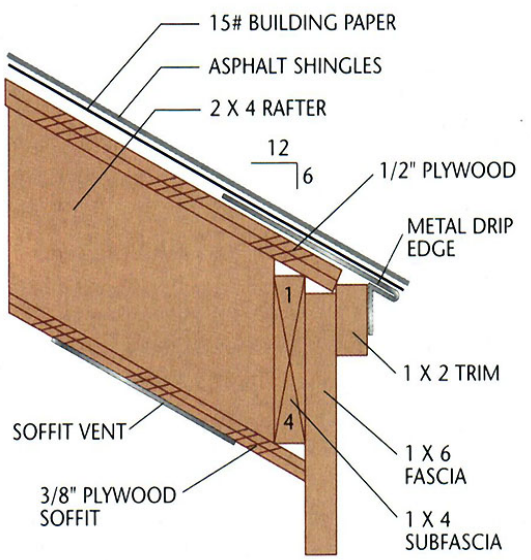
RIGHT SIDE ELEVATION



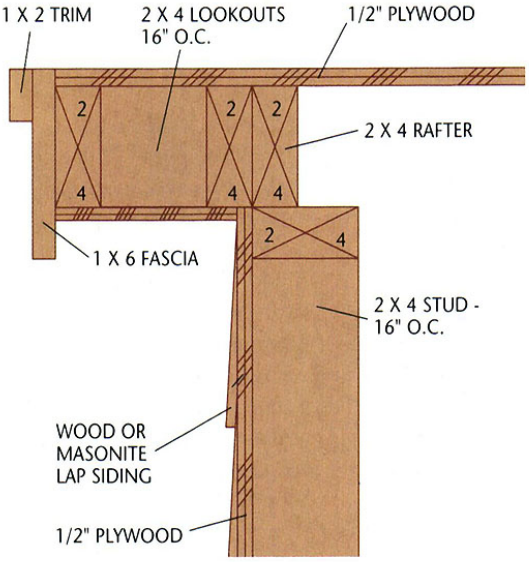
DOOR ELEVATIONS



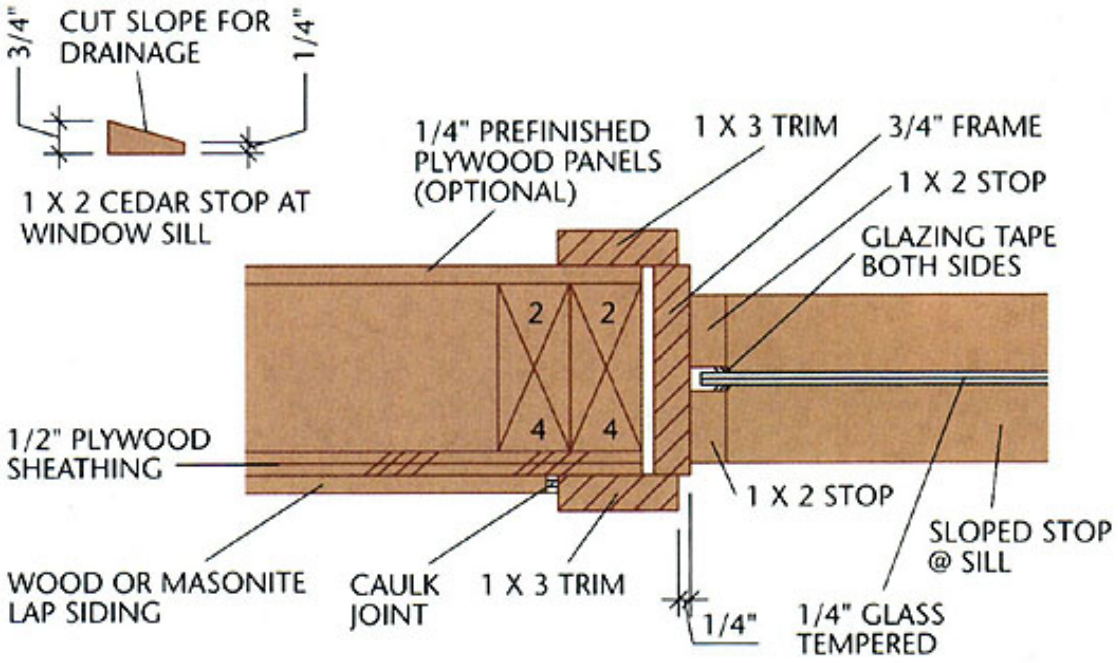
EAVE DETAIL (REAR)



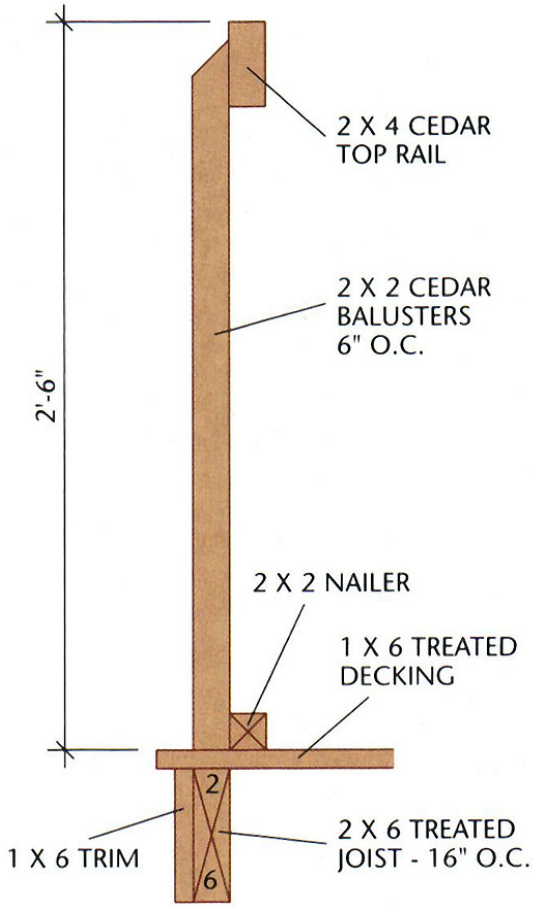
GABLE OVERHANG DETAIL



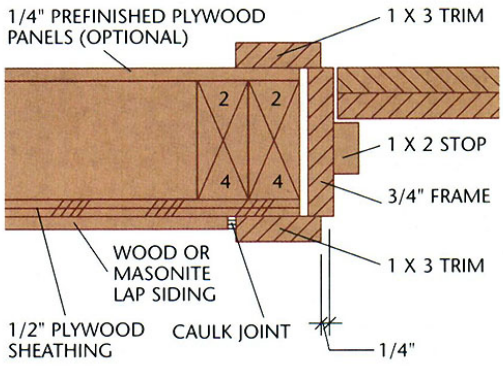
WINDOW JAMB DETAIL



RAILING SECTION



DOOR JAMB DETAIL



BUILDING THE PLAYHOUSE

Step A: Build the Foundation & Floor Frame

1. Excavate the building site and add a 4" layer of compactable gravel. Tamp the gravel thoroughly, making sure it is level.

2. Cut three 4 × 4 treated timber skids at 95". Arrange and level the skids on the gravel bed, following the FLOOR FRAMING PLAN.

3. Cut two 2 × 6 rim joists at 95" and seven joists at 86 1/2". Mark the joist layout onto the rim joists, following the plan. Assemble the frame with 16d galv. common nails—be sure to check each joist for crowning and install it with the crowned edge up.

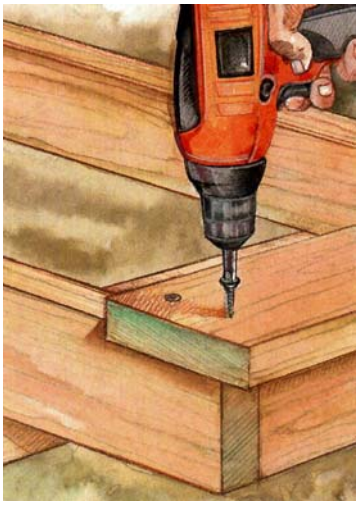
4. Set the floor frame on top of the skids and measure the diagonals to make sure it's square. Install joist clip angles at each joist along the two outer skids, using 1 1/2" joist hanger nails, and toenail each joist to the centre skid with 16d galv. nails.

5. Cut two pieces of plywood floor sheathing at 59". Install the first piece so the groove edge is flush with an end joist and one end is flush with the rear rim joist. Rip the tongue side of the second piece to fit and install

it flush to the rear rim joist and opposite end joist. Use 8d galv. box nails driven every 6" along the edges and every 12" in the field.

6. Cut six 1 × 6 decking boards at 98". Position the first board along the front edge of the floor frame so it overhangs the rim joist and both end joists by 1 1/2". Fasten the board with 2" deck screws.

7. Install four more deck boards, gapping between them, if desired. You'll install the sixth board after adding the wall sheathing (Step G).



Screw the first deck board along the front edge of the floor frame, over hanging the front and sides by 1 1/2".

Frame and raise the walls one at a time. Install the front wall flush with the edge of the plywood floor sheathing.

Step B: Frame the Walls

1. Snap chalk lines on the floor for the wall plates.

2. Cut four side-wall plates at 59" and four front- and rear-wall plates at 88". Mark the stud layouts onto the plates following the FLOOR PLAN.

3. Cut twenty-six studs at 59 1/2". Cut six jack studs at 54" for the window and door frames, and cut four sills at 27 1/2" and six cripple studs at 23 1/2".

4. Build the headers with two 2 × 6s and 1/2" plywood: two at 30 1/2" for the windows and one at 33" for the door.

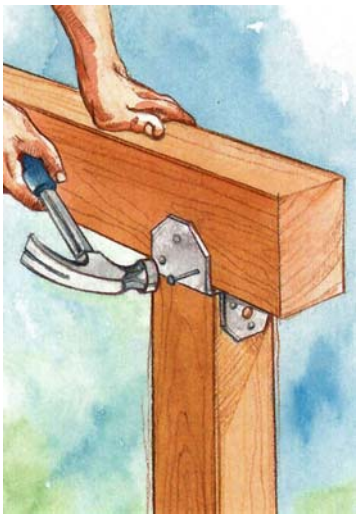
5. Assemble, raise, and brace the walls one at a time, then add the double top plates.

Step C: Install the Porch Posts & Beam

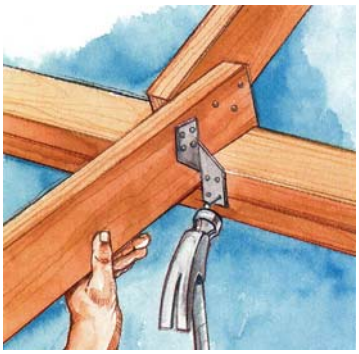
1. Cut two 4 × 4 posts at 48 1/4". Position the posts at the front corners of the porch 1 1/2" in from the front edge and ends of the decking. Secure each post to the floor decking and frame with a metal post base, using 16d galv. nails. Plumb the posts and install temporary cross braces to keep them in place.

2. Install a post beam cap on top of each post, using the manufacturer-recommended nails.

3. Cut the 4 × 6 beam at 107". Set the beam on top of the posts so it overhangs them 6" on each end. Measure diagonally between the posts to make sure the posts and beam are square, then fasten the beam to the post caps.



Set the porch beam over the posts so it overhangs by 6" at each end, and secure the beam with nails.



Install the rafters, adding anchors where they meet the front and rear house wall and the porch beam.

Step D: Frame the Roof

1. Cut two pattern rafters of each rafter type, following the RAFTER TEMPLATES. Test-fit the rafters, using a 2 × 6 spacer block. Cut the remaining common rafters, so that you have a total of seven of each type. For the gable overhang, cut four porch rafters without the upper bird's mouth; cut four rear house rafters (long ones) without bird's mouths; and cut four front house rafters without the level cut on the bottom end.

2. Cut the 2 × 6 ridge board at 107". Mark the rafter layout onto the wall plates and porch beam following the FRAMING ELEVATIONS. Lay out the ridge board so the outsides of the outer common rafters are 6" from the ends.

3. Install the common rafters and ridge board. Secure the lower ends of the rafters to the wall plates and porch beam with metal anchors. Face nail the porch rafters to the house rafters with 10d nails.

4. Cut two 2 × 4 collar ties at 39", mitre the ends at about 26°. Position the ties against the rafter pairs that fall to either side of the centre rafters—make sure they are level and their ends are 1/2" away from the top edges of the rafters. Face nail the ties to the rafters with three 10d common nails at each end.

5. Cut the gable-wall plates to reach from the ridge to the wall plates. Install them with their outside edges flush with the outer rafters. Cut and install the gable studs, following the FRAMING ELEVATIONS.

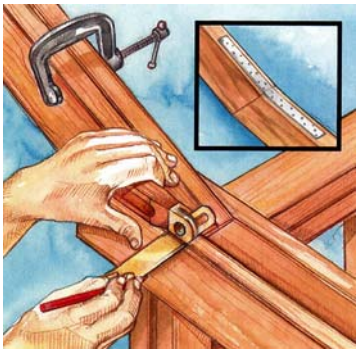
Step E: Build the Gable Overhangs

1. Mark and cut the front and porch overhang rafters so they meet end-to-end: Clamp an overhang rafter against an outer house rafter. Set a porch overhang rafter in position so the end overhangs the clamped rafter, using a straightedge to align it with the other porch rafters. Mark the two overhang rafters where they meet at the top and bottom edges. Draw a cutting line between the two marks, then make the cuts. Test-fit the rafters, then use them as patterns to mark and cut three more pairs of overhang rafters.

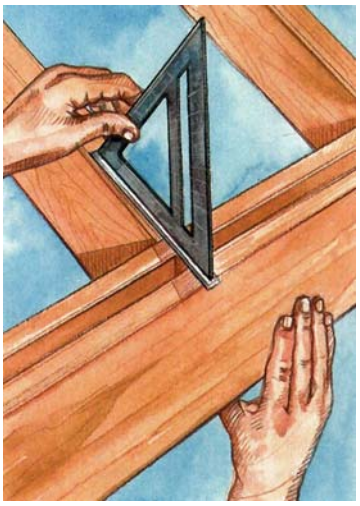
2. Cut ten 2 × 4 lookouts at 3". End nail the lookouts to each of the inner overhang rafters and porch rafters, using 16" on-centre spacing with 16d nails (see the FRAMING ELEVATIONS and the GABLE OVERHANG DETAIL).

3. Face nail the inner overhang rafters to the outer common rafters with 10d nails. Butt together the ends of the porch and front rafters and join them with metal straps and 8d galv. box nails.

4. Fasten the outer overhang rafters to the ridge and lookouts. Anchor the porch rafters with straps.



Mark the gable overhang rafters for cutting so their ends can be butted together and joined with metap straps (inset).



Use a square or straightedge set on a rafter to position the fascia.

Step F: Install the Fascia, Sheathing & Roofing

1. Cut and install the 1 × 4 subfascia, along the eaves (see the EAVE DETAIL), using 8d box nails.

2. Install the 1 × 6 fascia and 1 × 2 fascia trim along the gable overhangs. Hold the fascia 1/2" above the rafters so it will be flush with the sheathing—use 6d galv. finish nails.

3. Install the fascia along the eaves, flush with the tops of the rafters, using a square or straightedge to align the fascia with the rafters. Install the 1 × 2 fascia trim so its top edge will be flush with the top of the roof sheathing. Use a square and a scrap of 1/2" plywood to position the trim.

4. Install the 1/2" plywood sheathing, using 8d box nails. At the point where the house roof meets the porch roof, make sure the sheathing joints are aligned with the rafter joints.

5. Attach metal drip edge along the eaves, then apply 15# building paper over the sheathing. Add drip edge along the gable ends, over the paper.

6. Install the asphalt shingles, starting at the eave edge. If desired, install roof vents on the rear side of the roof (see the REAR ELEVATION).

Step G: Install the Wall Sheathing & Soffits

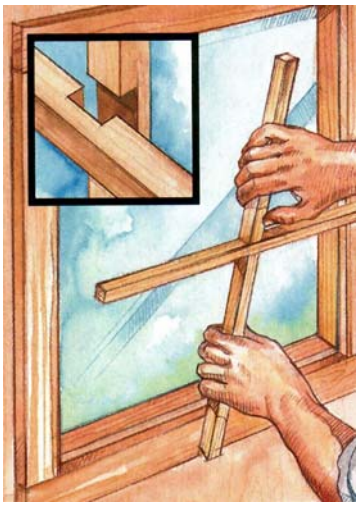
1. Install the 1/2" plywood wall sheathing to the framing with 6d box nails. Extend the sheathing from the bottom of the floor frame to the bottoms of the rafters, and overlap the sheets at the wall corners.

2. Rip the final decking board to fit and install it.

3. Install the 3/8" plywood soffit panels, using 3d galv. box nails. Bevel the soffit edges where they meet the fascia along the eave, at the front of the porch, at the back side of the porch beam, and wherever two panels meet.

4. Cut holes for four soffit vents. Locate one vent in each of the two outer rafter bays, along the rear eave and near the house under the porch roof. Install the soffit vents with screws.

Add soffit vents underneath the rear eaves and beneath the porch roof.



Create muntins with two 1 × 1s joined with a half-lap joint (inset).

Step H: Apply the Interior Finish (Optional), Build & Install the Windows

1. If desired, install 1/4" pre finished plywood panelling over the framing, using 1" finish nails. Cut the panelling flush with the rough openings.

2. Using 3/4" × 4 1/4" stock, cut the window frame pieces to form two 27 × 27" frames (outer dimensions). Assemble the frame with 2" deck screws.

3. Install each frame in its rough opening, using shims and 8d casing nails.

4. Cut sixteen 1 × 2 stops. Bevel the two outer sill stops as shown in the WINDOW JAMB DETAIL. Attach the inner stops with 6d galv. finish nails. Order the glass to fit.

5. Install the glass and outer stops, applying glazing tape to the stops on both sides of the glass.

6. Cut and install the 1 × 3 window trim. Make sure the outer trim pieces are plumb and level. To create the appearance of divided window panes, build window muntin bars from 1 × 1 cedar, and attach them to the outer stops.

Step I: Build & Install the Door

1. Cut the head jamb for the door frame at 29 5/8" and the two side jambs at 54 1/4". Position the head jamb over the ends of the side jambs and fasten the pieces with 2" deck screws. Cut and install the 1 × 2 stops 1 1/2" from the inside edges of the frame (see the DOOR JAMB DETAIL). If you want the door to swing out, install the stops 1 1/2" from the outside edges.

2. Cut out the bottom plate from the door rough opening. Install the frame, using shims and 8d casing nails—make sure the frame is square and plumb.

3. Cut six 1 × 6 tongue-and-groove boards at 54". Fit them together and trim the two outer boards so the total width is 28" (see the DOOR ELEVATIONS).

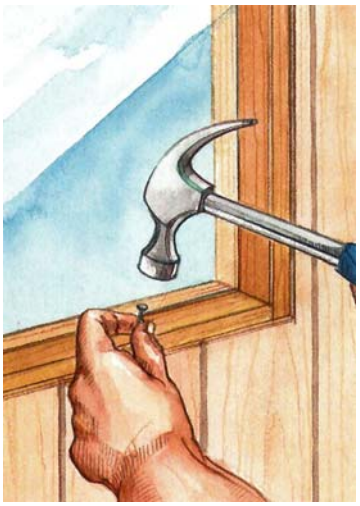
4. Cut eleven pieces at 28". Fit the boards together with their ends flush, then trim the outer boards so the total length is 54".

5. Mark the rough opening for the door window onto the outside face of the door, following the DOOR ELEVATION. Glue the two sides of the door together with construction adhesive, then drive 1 1/4" screws through the back side. Cut out the window opening with a circular saw and handsaw.

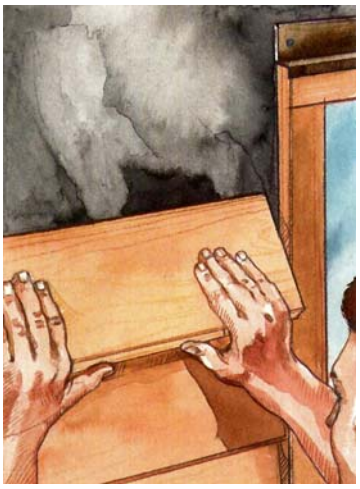
6. Cut the 1 × 3 trim to fit around the window opening, so that it overlaps the opening by 3/4". Attach the trim to the inside door face with 6d galv. finish nails. Order the glass to fit.

7. Install the glass with glazing tape on both sides, then rip-cut 1 × 3 stops to fit between the glass and the outside door face. Install the stops with 6d finish nails, then cut and install the trim on the outside face. If desired, install 1 × 1 muntins (see Step H).

8. Mount the hinges and hang the door, then install the 1 × 3 trim on both sides of the door; make sure the trim is plumb and level.



Install stops against the glass, with their edges flush with the door face.



Cut the lap siding to fit snugly between the trim boards.

Step J: Install the Corner Trim & Siding

1. Install the 1 × 4 corner trim with 8d galv. finish nails. Hold the trim 3/4" below the bottom of the floor frame and overlap the trim at the comers. Install 1 × 6 trim along the porch portion of the floor frame, as shown in the RAILING SECTION.

2. Install flashing above the right-side window, then install the lap siding. Start the first courses flush with the trim ends, and butt the siding ends against the trim.

3. Caulk all joints where siding meets trim.

Step K: Install the Railings (Optional)

1. Cut two 2 × 4 cedar top rails to fit between the corner trim and the porch posts. Install the rails so their outer faces are 1 1/2" from the outsides of the posts and their top edges are 30" above the porch deck—use 2 1/2" deck screws.

2. Cut two 2 × 2 nailers between the corner trim and posts, 1 1/2" in from the outsides of the posts—attach them to the decking with 2 1/2" deck screws.

3. Cut eight 2 × 2 cedar balusters at 28 1/2", bevelling the top ends at 45°. Screw the balusters to the rails and nailers, maintaining even spacing between the balusters.

Attach the balusters to the railings and nailers with 2 1/2" deck screws.