Building a Gable Style Shed or Playhouse

This is a straight forward design of the most popular style the basic gable shed or playhouse.

This instruction is for building a 7 foot by 12 foot fronted by a centrally located door with symmetrically placed windows on both sides.

Let's get started, the overall size of this shed/playhouse requires only concrete blocks, skids or concrete piers for a foundation. We recommend this to give the building better stability especially if it is being used as a playhouse.

First examine your site area to make sure that it will handle the size structure that you are planning to build. This design can be easily adapted by adjusting the front and back walls to the desired dimensions.

The roof construction is made-up of very simple trusses, which are simple to build and will make the structure more stable. The materials can vary depending on your preference and if the region that your shed/playhouse is located allows. For our example we will use asphalt which we will lay over plywood sheathing and 15-pound roofing felt.

Other materials we will need are as follows:

- Pressure treated 4x6 lumber for skids, precast concrete piers or concrete for footings
- 2x4s for the floor joists, top and bottom plates as well as the wall studs, ceiling joists, rafters and truss supports. Prefer Pressure treated for flooring joists.
- Treated 2x6s to be used as runners
- 5/8-inch plywood for gussets, flooring and roof sheathing.
- 15-lb roofing felt, asphalt shingles and roof caps
- Galvanized nails or outdoor screws
- Anchor Bolts
- Metal framing brackets and fasteners
- Windows
- Door hardware (locking "T" Handles, Hinges and Barrel Bolts
- Vents
- Truss Plates

Now that the planning is done it is time to get started constructing your shed/playhouse.

The easiest and least expensive foundation is a skid foundation there are several other types to choose from depending on your various needs but this offers you the flexibility to move your shed at a later date if needed. Plus it is offers a very stable foundation for this type of shed.

Let's get started following the following steps:

Preparing the site is very important in keeping your shed stable and level. Start by scraping away all grass or weed material from the shed site area. If this area or the soil condition does not drain well, remove 4 to 6 inches of earth from this area and replace it with 4 inches of pea gravel, this will help increase the drainage and minimize the wood to soil contact.

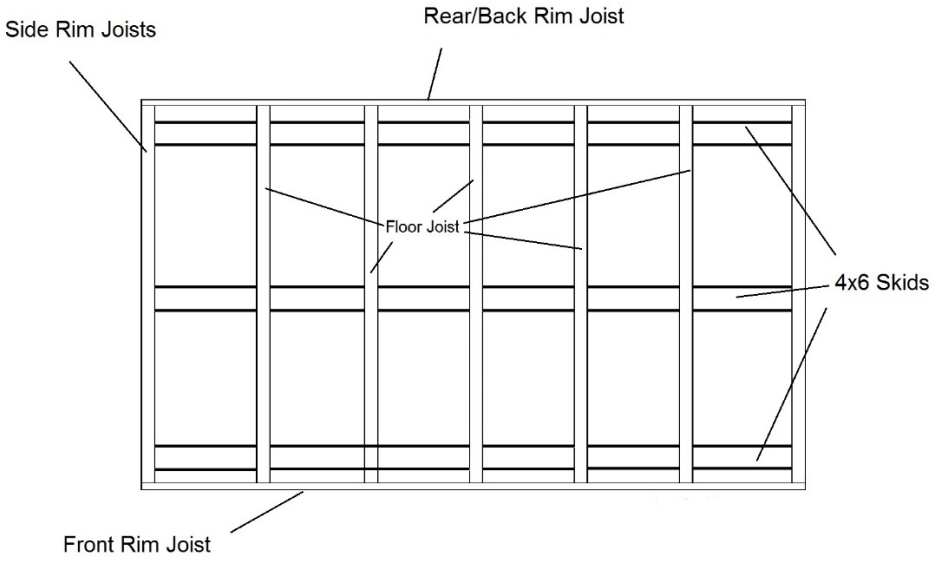
With the site prepared now it is time to place the skids. The skids should be 4x6s of pressure treated wood to prevent them from decay if they come in contact with the ground or moisture. Place the 4x6s (12 feet in length) by placing one in the center and the other two 3 feet from centerline to centerline and make sure that the skids are level using additional pea gravel where needed.

Next we need to nail the outer rim joist to the skid starting with the side joists using 2x8s toe nailing them to the skid then adding the front and rear rim joist.

Now we are ready to construct the floor frame, first make sure that the floor frame is square.

Once that is done we are ready to complete the floor framing by adding the remaining 2x8 floor joists at 16 – inch centers to the rim joists by either using at least 3-16 d coated sinkers at each end or for extra strength metal joist hangers.

You're now to install the 4x8 foot x ¾-inch CDX plywood to construct the floor. Fasten the plywood to the floor joist using 8d nails 6-inches on center at the edge of the sheets and 10 inches on center along the secondary



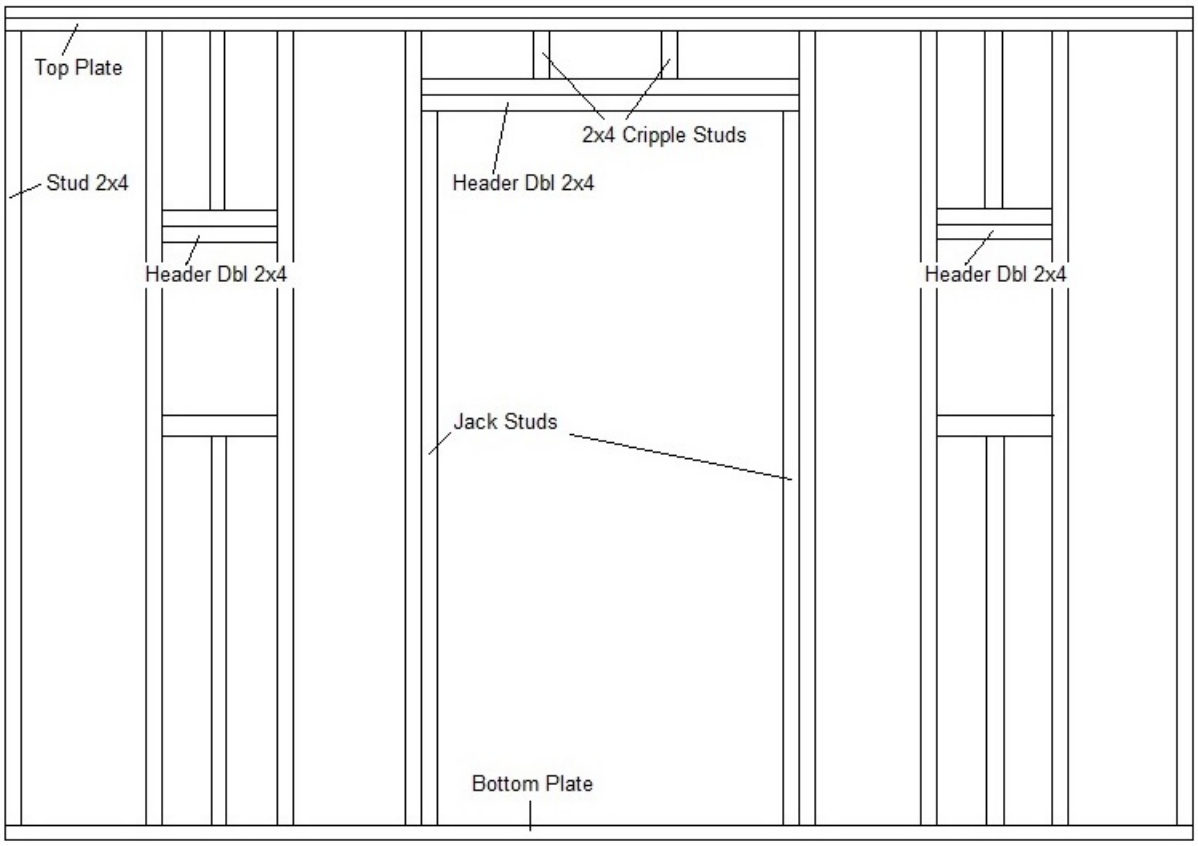
Wood Skid Foundation

joists.

Walls

The walls are easy as you construct them independently and then raise them. First you start by cutting the 2x4s for the top and bottom plates and the wall studs. For the studs you will need ten (10) 6-foot long 2x4s spaced 16 inches on center. Once the frames are assembled, you can now make cuts for the doors and

window openings. Add the required headers, cripple studs and jack studs where needed. (see detail drawings)

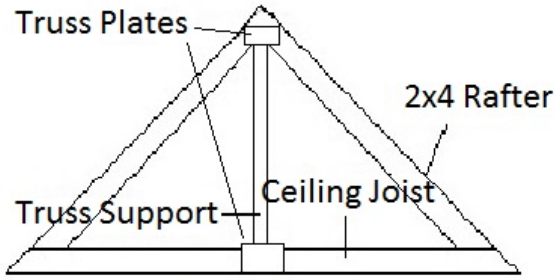


Front View

To attach the walls start by raising the first wall and drive 3-inch screws through the bottom plate into the frame. Brace it in place and repeat the process with the other three walls. After we check that the walls are plumb attach them at the corners. Now we need to mark the locations for the roof trusses. They need to be placed on 24-inch centers on the double top plate. Make sure to cut the bottom plate for the door before moving on at this point. It is much easier to do this after the wall is in place.

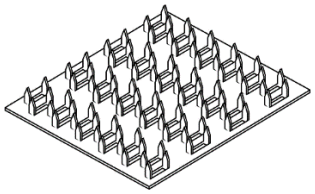
Trusses

The roof framing consists of seven premade trusses that are placed, as we said earlier on 24-inch centers. These are constructed of an 8-foot long ceiling joist and two 50-inch long rafters that meet a 21-inch long truss support. These pieces are held together with a Truss Plate. (see detail drawing)



Truss Detail

Truss Plate



After we have made the trusses it is now time to attach them to the top plate. Start with the end trusses first. Place the truss on the end plate so that they hang over the front and back equally and flush with the wall frame on the side. Now take the other five trusses and place them on the marks you made previously on the top plate aligning them with the end trusses and attach them.

Since we are using asphalt shingles, lay down 5/8-inch plywood sheathing on top of the trusses. This is done by starting at the bottom and working your way upward. Now cover it with the 15-pound roofing felt, the shingles and ridge caps. If you are working with another type of roofing material please make sure to follow the manufacturer's recommendations for installation.

Finishing Walls

Finishing the walls can be done using multiple materials such as vinyl siding, cedar siding etc.

For our shed in this we are going to use what is called t-111 sheets. Start by placing the first sheet ¾-inch below the bottom plate and install the siding vertically until you reach the top plate. Now finish installing all the exterior trim as desired.

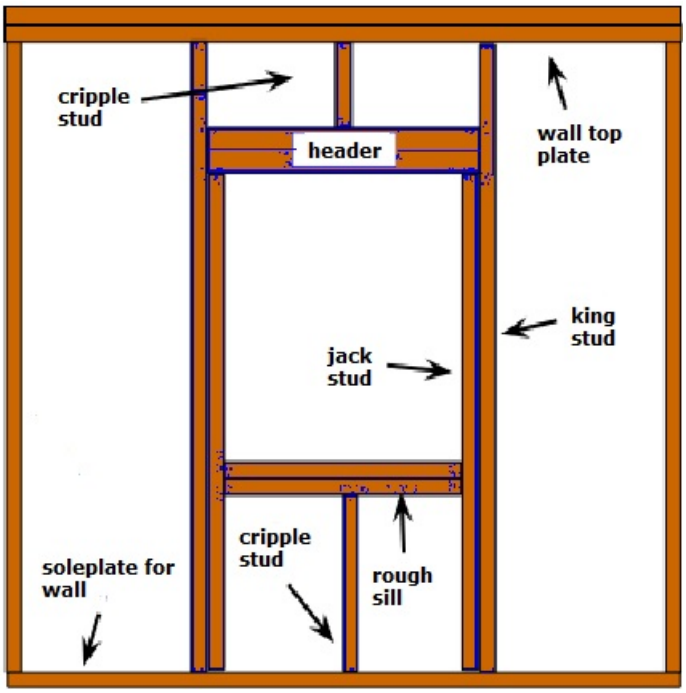
Windows and Doors

Installing the windows for sheds / playhouses is easy.

Window Framing and Installing

At Shed Windows and More, Inc. we offer a wide range of window sizes and shapes. For our purpose here we will just address the vertical slider (single hung type) windows.

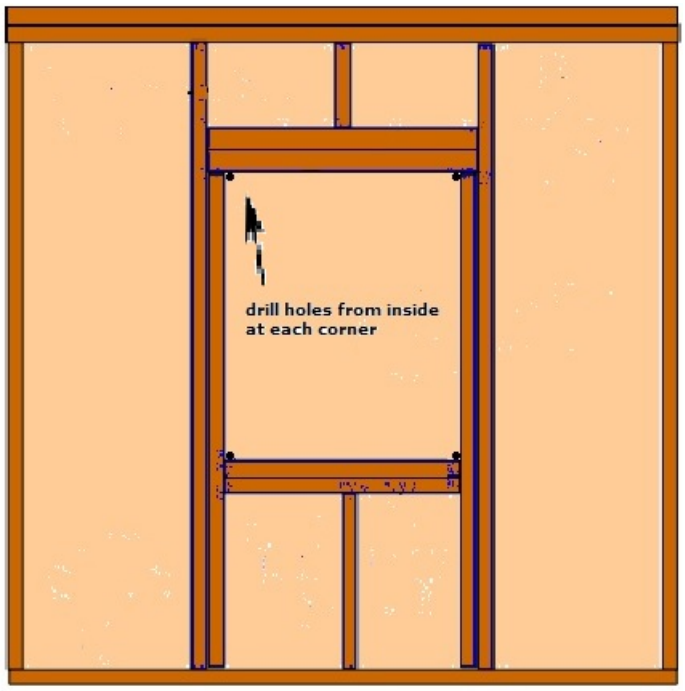
The window frame is important when building a shed since it supports the weight of the wall around the opening using the various studs to transfer the load to the foundation. Starting at the top wall plate the stud called the cripple stud transfers the load from the top plate to the header (two 2x4's nailed together) (for home construction a 2x6 is generally used). At the sides both the jack and king studs support the header and transfers the load to the soleplate or floor. The bottom of the window opening we again use two, 2x4's that are nailed together to form what is called a sill (some call it a rough sill) which while supported by a cripple stud does itself not support any of the wall weight, but merely acts as a place to anchor the base of the window. (see figure 1.)



Framing for Window

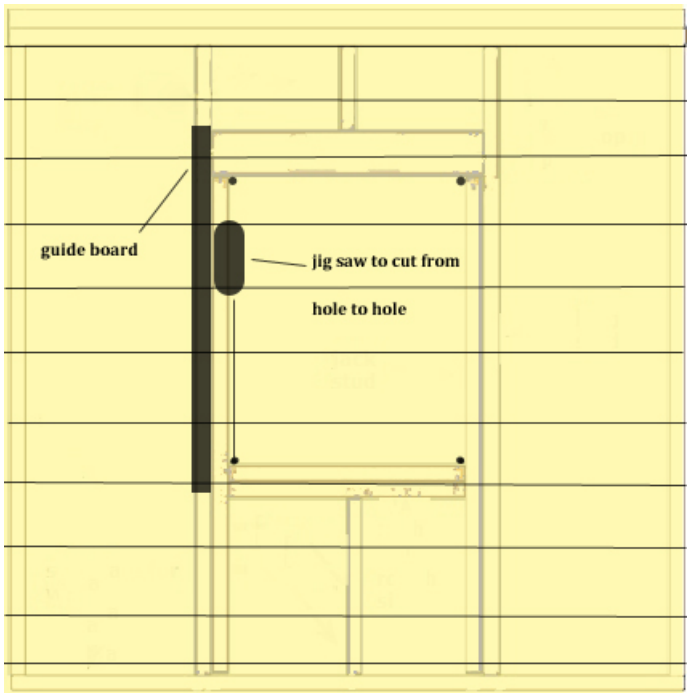
Figure 1.

The rough opening or buck size can be obtained by going to our catalog page. If you are using an out-door T-111 type siding on the outside of your shed you can use either the flush mounted window or J channel (sometimes called J lapp) window. After attaching the T-111 to the outside of the framing it is time to cutout the opening for the window. Drill a hole at each corner using a 5/8" drill bit in-order to make the holes large enough to accept a tape measure for marking your cutting lines on the outer siding and the saw blade of your saber saw to cutout the opening. Before cutting you should fasten a straight, 1x3 board to the siding along the lines to use as a fence to guide the saw blade. Be sure when fastening this guide board that the holes left by these fasteners can be covered by any molding you are going to use. (see Figure 2 & 3) Be sure to take the width of your saws base-plate (including width of the blade) into account when setting the fence board.



Inside Wall

Figure 2.



Outside Wall

Figure 3.

If you are using a vinyl siding, the J channel window should be used since it offers a separate channel to accept the vinyl siding. Some people also like to use this channel on the T-111 to use with their trim boards around the windows. (see Figure 4.)

"J" Channel Window

Figure 4.

Remember whenever you are cutting out a hole to add a vent or some other items to always make note where your studs are located and to plan ahead if at all possible.

How to Make a Shed Door

Making a shed door is fairly simple even if you have never done so before. These instructions are for making a single door just make the necessary adjustments for the double door application.

First you measure the height and width of the opening for the door carefully. (Split in Half for Double Door) Then transfer these measurements to a sheet of t-111 plywood marking the dimensions with a pencil. Cut the sheet along the marks with your circular saw. Next hold the cut sheet of plywood in place over the opening to verify the measurements. Mark any adjustments needed onto the wood and trim with your saw.

With the t-111 Plywood ready now cut two 2-inch-by-4-inch planks to the width of the door with a saw. Hold the planks against the cut plywood to verify the size. The ends of the plank should be flush with each edge of the t-111 plywood sheet.

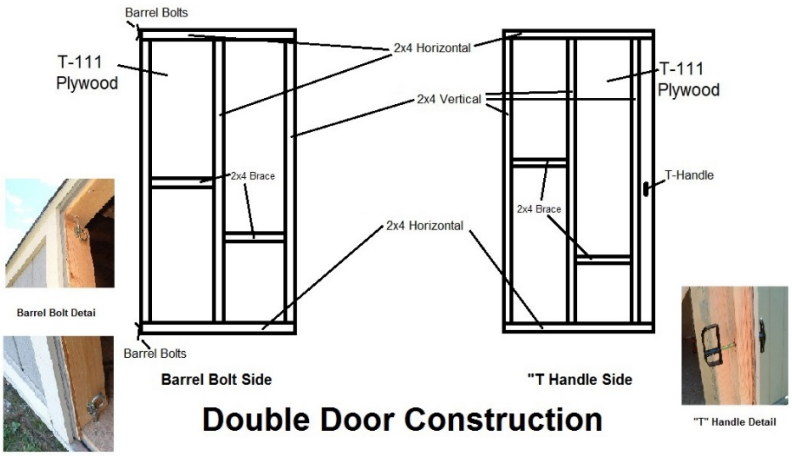
Spread wood glue along the face of each plank and press the glued face against the plywood so that one plank is flush with each side of the t-111 plywood and the top of the plywood, while the other plank is flush with the bottom and sides. Clamp the planks to the t-111 plywood.

Drive 2-inch screws or nail every 8 inches through the face of the t-111 plywood into the sides of the planks.

Repeat the process with three additional planks that will stand vertically flush with the edges and pressed against the edges of the upper and lower horizontal planks. Cut the vertical planks to the height measurement minus the width of the top and bottom 2x4s. Attach the planks to the plywood with glue and screw or nail. The side that you plan to have the “T” Handle Lock should have one 2x4 laying on the 4-inch side flush with the end of the t-111 plywood and another 2x4 butted up against it. See the “T” Handle Detail.

Measure the distance from the inside edge of top vertical plank to the inside edge of the second. Cut a fifth plank to that measurement. Install the plank in the center of the door from the top to the bottom and pressed against the inside edges of the vertical planks with glue, screws or nails.

A door brace (either 42-inch or 50-inch, depends on door size) to add stability to the door can also be added if desired.



How to Install A “T” Hinge

A "**T"-hinge** is a very common type of hinge shaped like the letter "T." This hinge is known for placing practicality over good looks but at times can be most decretive. They are often used on barn and shed doors, lids for toolboxes and cabinets. Because they are not recessed like some other types of hinges, installing them is very easy and can be done by anyone even you.

Step 1 – Drill Pilot Holes For Screws

Dry fit the **"T"-hinge** onto the items to which it is going to be attached and mark where the screws are to go. If you where to hold the **"T"-hinge** upright so that it resembles the letter "T," the shorter horizontal portion would be the base and should be attached to the anchored non-moving part of the project. For example, if the **"T"- hinge** is being attached to a door, the horizontal part of the "T" shape should be attached to the frame and the longer vertical piece should be connected to the door itself. Once you have the screw holes marked, drill pilot holes to keep the material from splitting when the screws are installed or simply use a screw with an arbor tip.

Step 2 – Securing the Screws

Once you are ready to secure the **"T"-hinge** and have either pre-drilled the pilot holes, or are using the arbor tipped screws, the thread screws through the holes provided on the hinge. Be sure to screw them into the anchored or non-moving side first. Use a screwdriver or power driver to tighten them down fully. Next, install the screws just the way you just have done on the door or other swinging item the hinge will be moving.