

Treeless Tree House



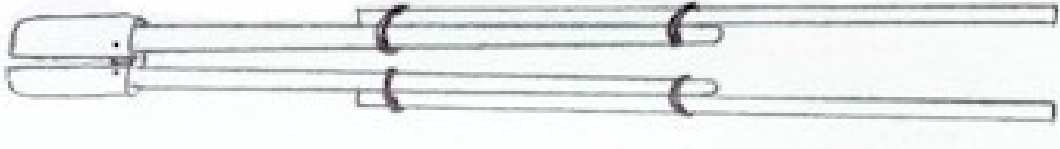
Right about now your saying, What do you mean TREELESS
I see a tree in that picture!"

You sure do...but let's face it, how many of us have the perfect tree in our back yard at the spot we want to build a children's playhouse?

That's right.....so we are going to build a tree house on a tree we will place exactly where we want it to be. A second benefit to this approach is that the woman in our life will probably have something to say if this project isn't "beautiful". We're going to make sure it's beautiful and enhances your back yard.

Because we normally don't have the perfect tree in the perfect location, we will use a substitute "tree". The tree we'll use will be a pole similar to a small telephone pole. You can purchase these at lumber yards (out in the country), or farm supply stores. For a 20' pole the cost is approximately \$50.00. The pole should be pressure treated and will be 20' long and approximately 8" in diameter.

POST HOLE DIGGER WITH HANDLE EXTENSIONS

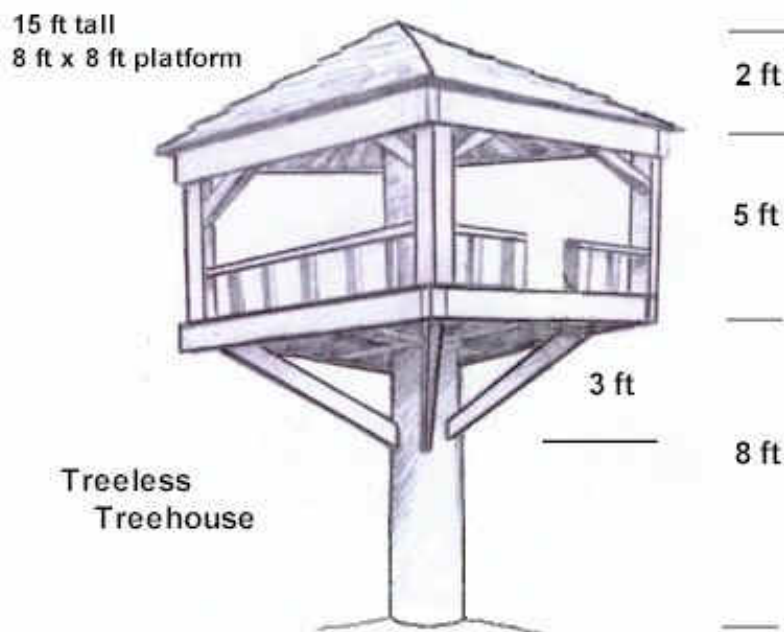


Step 1: Locate the spot. Now the interesting part....using a post hole digger, excavate a hole at least 4 feet deep by 16-18" in diameter. (Dig to 5' deep if possible)

Tip: Once your hole is about 3 ft deep, add 6 ft long 2x2 lumber to the post hole digger handles as extenders. Extenders can be taped on or fastened with stainless steel hose clamps so the handle and extender are tight together.

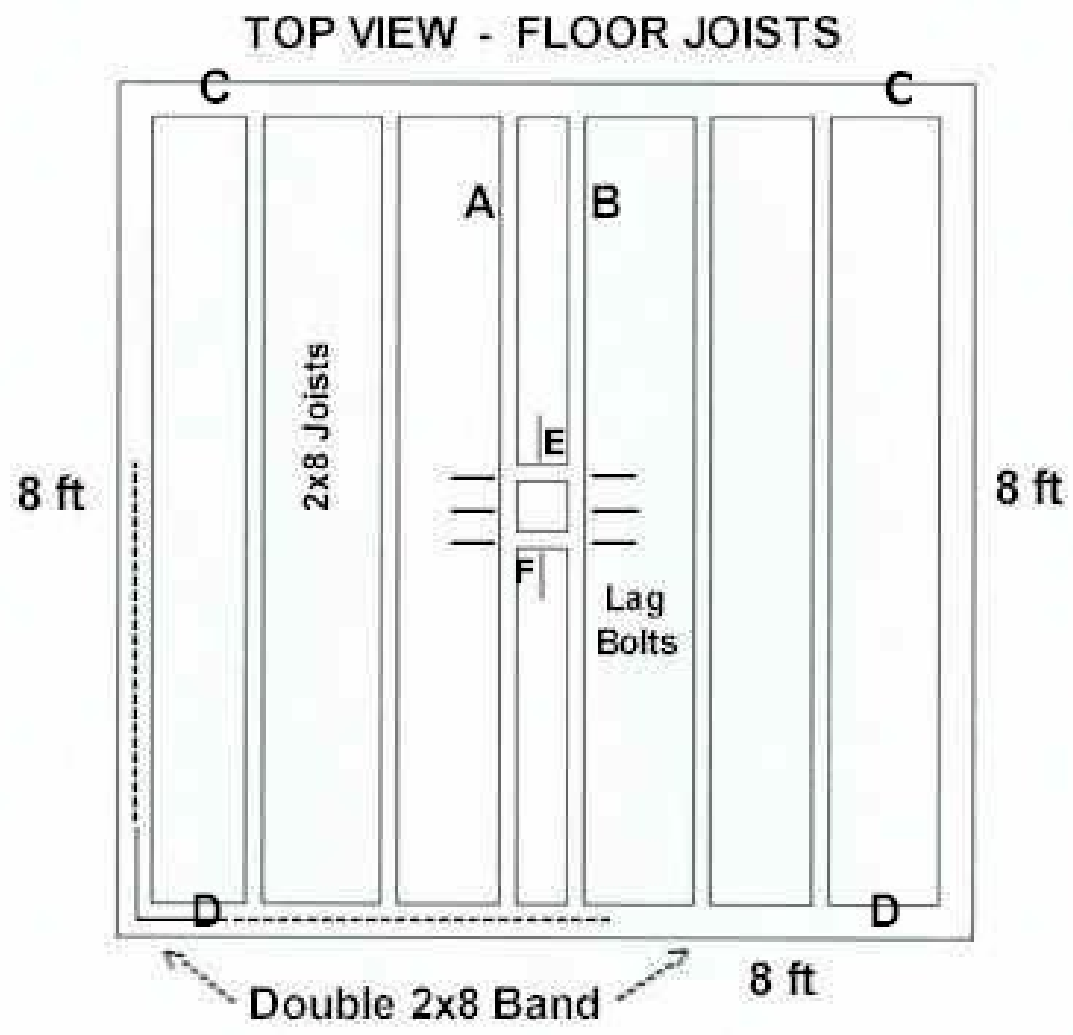
Step 2: Place 20 ft pole in center of 5 ft deep hole and brace with 4 - 12' long 2x4 braces at 45 degree angle. Nail one end of 2x4 brace to pole and other end to 2x4x2 ft. stake driven into ground 8 ft out from pole. Plumb and brace pole to be perpendicular to the ground.

Step 3: Mix and fill with bagged concrete for 18". Fill middle layer with dirt until 18" from top of hole and tamp tightly. Finish last layer with concrete mix to ground level. Cure for 2 days or longer.



Step 4: Measure down from the top of the pole 24" and make a mark. Measure down from that mark 70" and make another mark. This second mark is the bottom of your platform (floor joists). This is your starting point.

Step 5: Use 2x8 pressure treated SYP lumber for the platform. Start with boards "A" and "B" (90" long) and install them on the pole on the lower mark as described earlier. Nail them in place with 2 16d galvanized nails. Level these 2 joists. Install 2 - 1/2" x 6" galv. lag bolts into center line of wooden pole. (each 2x8 will have 2 bolts)



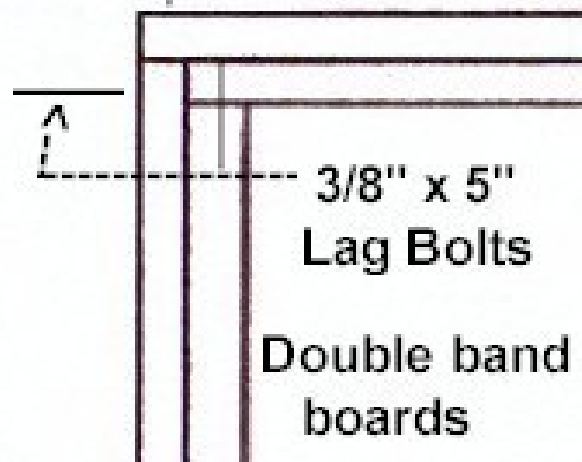
Overall finished size of platform should be 96"

Step 6: Measure, cut and install 2 small 2x8 joists (E & F), to wrap around the pole. Lag bolt into pole with 2 - 1/2" x 6" galv. bolts similar to step 5. Also Lag bolt through side of joists "A" and "B" into ends of "E & F" with 3/8" x 5" galv. lag bolts.

Step 7: Cut 2x8 band boards "C" and "D" 93" long and install on ends of joists "A" and "B" as shown. Bolt with lag bolts as previous joints were bolted. (2 lag bolts in each joint) Finish the outside frame of the platform by installing 2 - 2x8 joists (90" long) between "C" and "D".

Step 8: Measure, cut and install remaining floor joists (90" long). Use either lag bolts or joist hangers to secure the ends of the joists to the band board.

Platform Corner Framing with Overlapping Joints



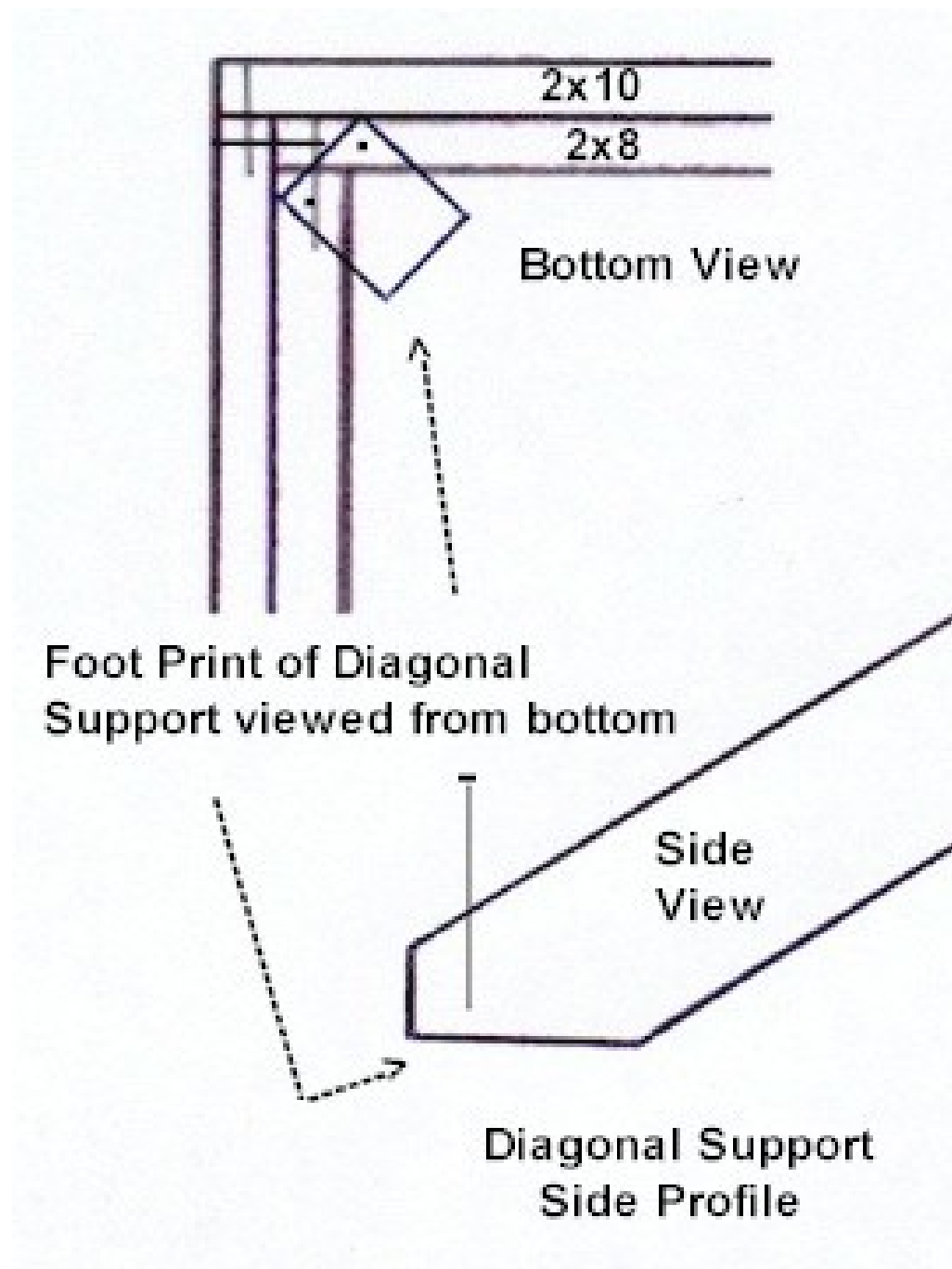
All Lag Bolts will use washers

Step 9: Measure, cut and install second band board around complete perimeter of platform. Fasten with nails every 16". Lag bolt only at corners. This outside band board will be 2x10 material. Fasten flush at top...overhang bottom.

Step 10: Install diagonal corner braces down to main pole as shown in drawing. These braces are made from pressure treated 4x6 landscaping timbers. The diagonal braces will meet the pole at approximately 4 ft down from the bottom of the platform. Measure to determine exact length and angle cut needed. (it will be very close to a 45 degree angle)

Step 11: The diagonal braces will be lag bolted to the center pole with 2 - 1/2" x 8" lag bolts and washers in each end of each leg. The drawing below shows how the brace is cut and bolted to the bottom of the platform.

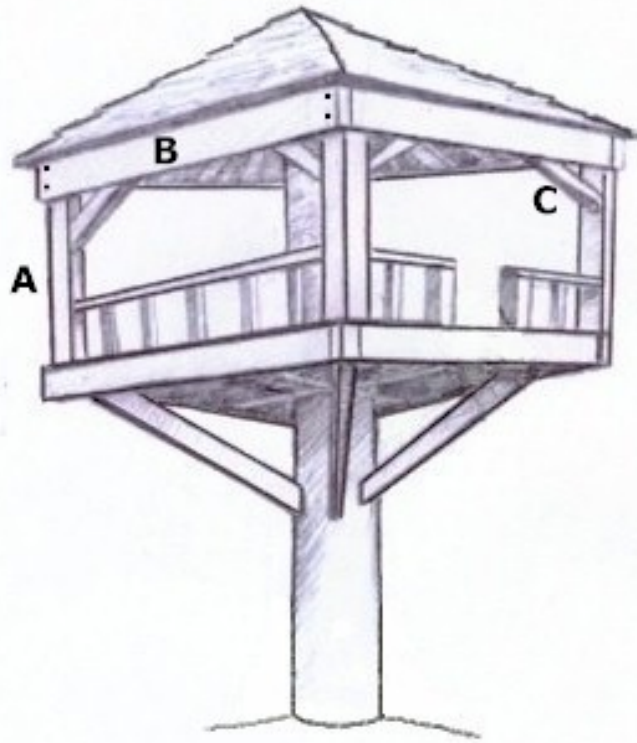
Step 12: Install 1/2" (or 5/8") pressure treated plywood to top of platform for flooring.



Step 13: Time to build the playhouse on top of the platform.

From here on our project is just an example. You can have the playhouse portion be anything you desire. Enclose or partially enclose your structure to suit your family needs.

Our project uses 2x8 corner boards nailed into a right angle as shown. (location "A") These will be 5'6" long, and will sit on top of the plywood floor in the corner as shown. Secure to platform by toe-nailing with 16d nails, then 3" angle brackets.



Step 14: Once all 4 corner boards are secured in place, measure, cut and install 2x8 headers (board "B"). (Temporarily nail in place) Secure each corner using a 3/8" x 4" carriage bolts, with 2 bolts in each end of each header. Diagonal brace "C" is a 2x4x36" secured with nails in location shown.

Step 15: The railing will need to have pickets with spacing no greater than 3 1/2" (unlike pictured railing) Make railing 36" high, with a top rail made from a 2x6x8'.

Step 16: The roof will be framed as a standard hip roof with the 4 corner hip rafters resting on the top of the pole. You will need to cut a small "birds mouth" cut at the top of these 4 rafters in order for the hip rafters to rest securely on the top of the pole. Down at the "gutter line", every rafter will be miter cut and nailed to the inside of the header (B)....so that the **top** of each rafter is flush with the **top** of header (B).

Note: If you are not familiar with how to make hip rafter cuts, secure a book on framing at the local library or home center. Subject: Carpentry. (framing techniques or practices)

Step 17: Make a safe ladder for your new playhouse. Use a 2x4 and dado in a 1 1/2" groove approximately 3/8" deep (at 15 degrees off perpendicular angle). Step spacing is 12". Use a 2x4 (or 2x6) for step tread.