

Material List

4 2" x 12" x 12' Treated Lumber

2" x 12" x 8' Treated Lumber

2 4" x 4" x 8' Treated Lumber

2" x 8" x 12' Treated Lumber

1 2" x 4" x 8' Treated Lumber

2 3' Clamps

2-8 6" or Larger Capacity Clamps

2 lb 2 ½" Exterior Screws rated for Treated Lumber

~3 Cubic Yards of Soil

Drill

Circular Saw

Kreg Jig

Square (e.g. speed square, combination square, etc.)

Note: These instructions will be for a 4'x12' accessible garden bed. However, at the end of these instructions are dimensions for several other sizes, which you can use in conjunction with these instructions to make various bed sizes.

Information About Raised Beds

Raised beds are a great way to grow edible and ornamental plants. Raised beds allow you to bring in high quality soil to grow plants, which is usually in short supply around houses where good topsoil was scraped off or mixed with much lower quality clay subsoil during construction. Bringing in soil for the raised bed also allows you to minimize the possible danger of soil contaminants like lead. The added height also makes working in the bed easier while creating a nice defined border for the garden that keeps everything looking neat and tidy.

In addition to the benefits above, the 2' height of the accessible raised bed with the attached seating ledge makes them easier for those with mobility constraints,

problems getting up and down, or problems bending down.

These beds have also proved themselves on impervious surfaces, such as asphalt and concrete, when a more suitable site was unavailable.

Deciding Where to Put the Raised Bed

Remember that if you want to grow vegetables, you should put your raised bed in an area that gets at least eight - ten hours of full sunlight a day during the growing season. If your bed receives less than eight - ten hours of sunlight, you can still grow vegetables, but it will result in lower yields. You also want to pick a spot that is level. It is fine if there is a slight slope. Fill in and level any wet or boggy areas and any holes to level the ground and help with drainage.

Once you have a general idea of where you want the raised bed to go, you can decide exactly where you want it. Although you can put the bed against something like a fence or wall, having at least 4 feet on each side will allow you to easily reach everything in the bed and provide enough space to get a wheelbarrow around all sides. Some gardeners recommend orienting the 12-foot side of the bed on the east west axis so that you can plant more tall plants without shading other shorter plants.

If desired, you can draw a sketch of your lot and move around a piece of paper representing the bed to decide where it looks best before you start assembling it. Be sure to make your sketch and bed to scale to avoid surprises.





Assembling the Raised Bed

Note: It is usually much easier to assemble the bed at its final location than to try and move the bed once assembled, they are very heavy.

Step 1 - Cut and Drill Pocket Holes for End Boards

From the two – $2'' \times 12'' \times 8'$ boards cut four – $2'' \times 12'' \times 4'$ pieces. Then using the Kreg Jig drill a pocket hole approximately every 8'' along one of the 4' lengths of the 12'' sides of two of these boards.



Step 2 - Assemble End-Boards

Using the 3' clamps, clamp one of the 4' boards you drilled pocket holes into in Step 1 to one of the 4' boards you did not drill pocket holes into. Clamp them together so that the 2" side closest to the pocket holes is flush with one of the 2" sides of the other board, as shown in the image below. Then screw together the two boards using the pocket holes you drilled. Unclamp the two boards and the end-board is complete. Repeat this process for the other two

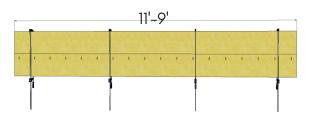
boards you cut in Step 1.

Step 3 - Cut and Assemble Side-Boards

Cut all four of the 2" x 12" x 12' boards to 11' 9" long. Drill pocket holes along one of the 11' 9" lengths of the 12" sides of two of the boards you just cut. Drill a pocket hole approximately every 8" just like you did in Step 1 for the end-boards.

Step 4 - Assemble Side-Boards

Clamp one of the 11' 9" boards you drilled pocket holes into in Step 3 to one of the 11' 9" boards you did not drill pocket holes into. Clamp them together so that the 2" side closest to the pocket holes is flush with the 2" side of the other board, as shown in the image below. Next screw together the two boards using the pocket holes you drilled. Then you can unclamp the two boards. Repeat this process for the other two boards you cut in Step 3.



Step 5 - Cut and Attach Support Blocks

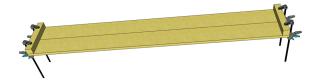
Measure how tall your side-boards will be. They should be approximately 23". Once you know the exact measurement cut eight - 4" x4" pieces that are the same length as the height of your side-boards.

Lay one of the side-boards down so that the side with pocket holes is facing down. Clamp one of the 4' x 4' blocks flush with the edge on both ends of the side board and flush with the 2" side of the 2" x 12" x 11' 9" board without any pocket holes drilled into it. You can also use a square to make sure the support blocks are straight.









Clamp two more of the $4'' \times 4''$ support blocks $3' \cdot 6 \frac{1}{2}''$ away from each of the support blocks on the end.



Then flip the whole side-board over. Screw the support blocks to the side-board with four screws in each support block, two in each of the 2" x 12" x 11' 9" boards.



Once you remove the clamps, the side-board is complete.

Repeat this process for the other side-board you made in Step 4.



Step 6 - Assemble the Bed

To assemble the bed you will set up one of the side-boards so the support blocks are facing the outside and so the board with the pocket holes drilled into it is on the bottom (this improves drainage, postponing rot). Orient one of the end-boards so that the pocket holes are facing in and the board with the pocket holes is on the bottom. Make the end-boards flush with the outside edge of the support block of the side-boards, as shown in the image below. Using four - six screws attach the end-board to the side-board support block. Repeat this for the remaining three corners.



Step 7 - Fill the Bed with Soil

Note: It is much easier to fill the bed before adding the seating ledge as it is laid out in these instructions vs. adding the seating ledge and then trying to fill it after that.

Once the raised bed is assembled and placed where you want it, we recommend lining the bottom of the bed with some sort of decomposable material to smother grass and weeds. Good materials for this are cardboard, several layers of newspaper, or even burlap bags. We do not recommend weed mat or plastic as these materials can restrict water flow and root growth.

Fill the bed with soil, mounding the soil over the top of the bed height since the soil will settle over time. It is ok if the top of the bed gets a little tore up while you are filling the bed because the seating ledge will hide it.



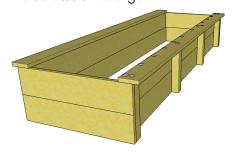


You will need approximately three cubic yards of soil to fill one $4' \times 12'$ accessible bed.

Note: St. Louis Composting's website has a soil calculator you can use if you build a bed of a different dimension. We recommend the "Garden Mix" soil from St. Louis Composting or an equivalent product. You can continue to top off your bed each year with compost, composted manure, leaf mulch, or another source of organic matter to maintain the fertility and keep the bed nice and full.

Step 8 - Attach the Seating Ledge to the Side Boards

Put the $2'' \times 8'' \times 12'$ boards on top of the side-boards so that the inside edge of the $2'' \times 8'' \times 12'$ board is flush with the inside edge of the side-board. Center the board with a little bit of overhang on each end of the bed. Then screw these boards to the side-board by screwing into the support blocks and the top of the side-board all along its length. This can be seen below with the circles on the seating ledge representing approximately where the screws should go.

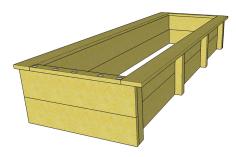


Step 9 - Cut and attach the seating ledge onto the end boards

Measure the distance between one of the ends of the two seating ledges you attached in step 8. Cut a piece of $2'' \times 4''$ to the length you measured. Slide the $2'' \times 4''$ piece on top of the end-board so that

the outside edge of it is flush with the ends of the $2'' \times 8'' \times 12'$ seating ledges. Screw the $2'' \times 4''$ seating ledge to the top of the end-board with four – five screws.

Repeat this process to create a seating ledge on the other end-board.



Resources

Lumber Source

Most of GGI's lumber for raised garden beds is Lifewood brand treated lumber from: Fehlig Brothers Lumber Company 1909 Cole Street

St. Louis, MO 63106

Phone: (314) 241-6900 Fax: (314) 436-0315

http://fehligbrotherslumber.com/

Soil Source

St. Louis Composting
(636) 861-3344
http://stlcompost.com
Call or see their website for locations in the St.
Louis region









