

Wheelchair Accessible Gardening

Gardening has many benefits to health and wellness. According to horticultural therapist Jean Larson of the University of Minnesota, it not only provides exercise, but promotes eye-hand coordination and improved range-of-motion. Learning about new plants and techniques benefits the mind and stimulates the senses. Gardening also invites social interaction and relieves stress. A recent study by Virginia Tech University shows that 40% of Americans find being around plants makes them feel calm and more relaxed.

People of all ages and physical abilities can enjoy the satisfaction and benefits of gardening when the garden's design is accessible. Fresh vegetables, culinary herbs, and annual flowers can all be grown in raised beds, containers, and tabletop planters. Following are some tips for adapting a garden to the needs of an individual with limited mobility.

Pathways in the garden should have a firm, even surface, provide traction, and be wide enough for a wheelchair to maneuver. Closely mown Bermudagrass or buffalograss will work; fescue is not suitable. Wood is slippery when wet. Concrete and brick are good choices; if too costly, even old carpet or rubber mats will work.

Raised beds may be constructed of concrete blocks or certain types of lumber. They can range from 18 to 30 inches in height and up to four feet wide, as long as the gardener is able to bend and reach the middle from both sides. Containers should follow the same rules of thumb for size, and need to have drainage.

Detailed information on both raised beds and container gardening is available from K-State Research and Extension, and examples can be viewed at the Sedgwick County Extension Education Center Demonstration Garden at 21st and Ridge in Wichita.



A table height garden provides the added advantage of clearance for the knees, giving the gardener closer access. Extension Master Gardeners have designed a barrel planter that can be constructed by anyone with basic carpentry skills. It uses a plastic 30-gallon barrel (available locally from manufacturing facilities and trash services,) pressure-treated lumber, and hardware. (See materials list, dimensions, and drawing.)

Cut the barrel in half vertically; you'll just need one half per planter. Cut the legs and side pieces as directed and build the frame to fit the perimeter of the half-barrel lying on its side, making sure the legs are spaced far enough apart to allow the wheelchair to fit between them. The cut sides of the barrel should be 29 inches above the ground to allow the knees to fit underneath. Bolt the barrel in place. Drill a row of ten holes, each ½ inch in diameter, running the length of the barrel at its lowest point. Trim the top of the planter as directed.

Add a wooden box on one end for holding garden tools. Attach wheels if desired. Move the planter to desired location before filling it. Fill with soil-less potting mix (not dirt); holds about 3 cubic feet of mix.

Two of our barrel planters will be evaluated this summer by Extension Master Gardener volunteers in their own accessible gardens. One can also be seen in our Extension Demonstration Garden.

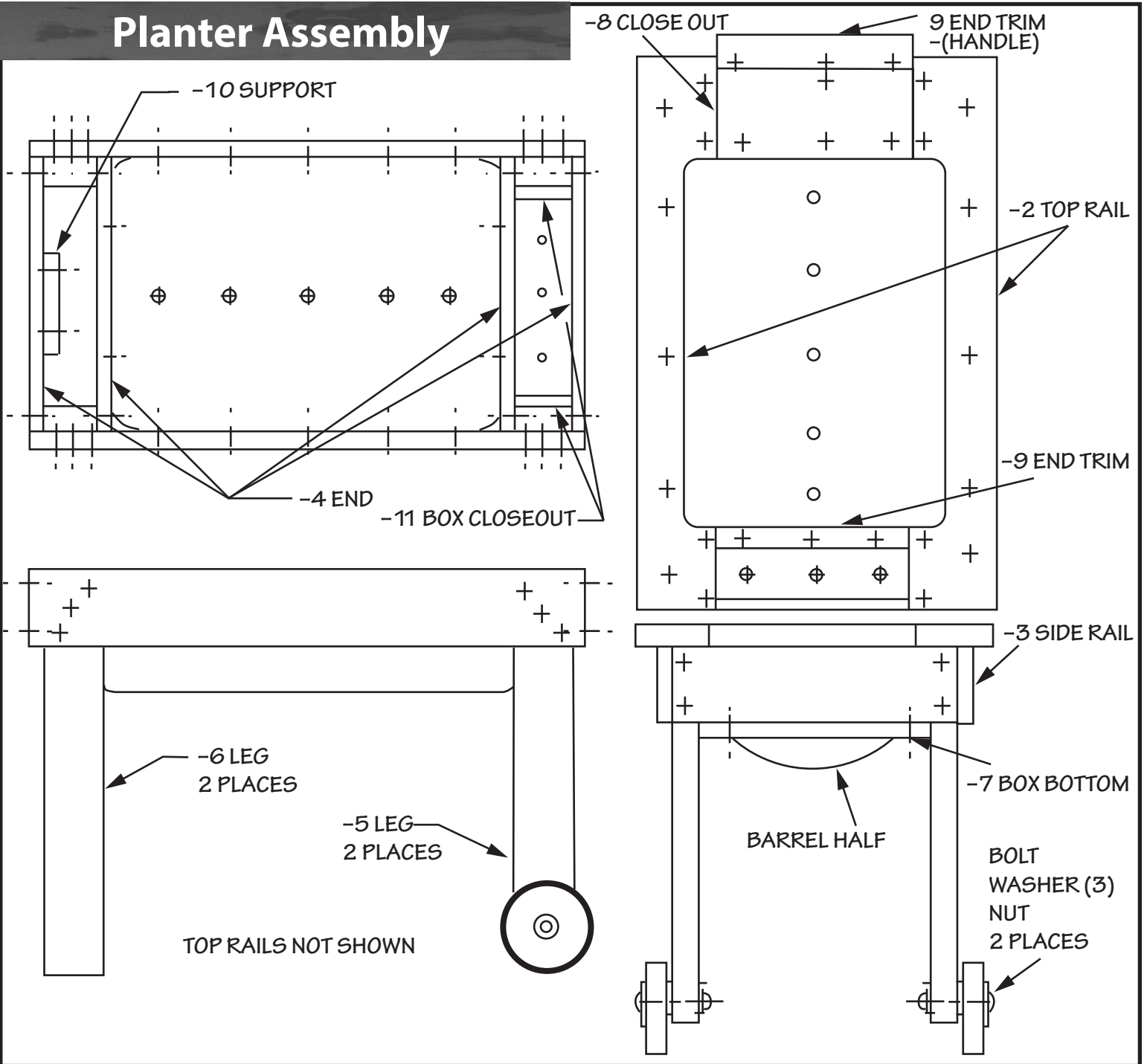
Sit'N Grow Barrel Planter Assembly Directions

1. Cut all pieces per drawing and sand sharp edges
2. Cut barrel in half lengthwise
3. Attach -4 End to front and back edge of -5 Leg assuring that ends are flush with legs side and top using 4 screws each located as shown
4. Attach -10 Support to one -4 end centered and flush with edge using one screw at each end
5. Attach -4 Ends to -6 Legs the same as for -5 with the -10 Support on the inside top .
6. Attach -3 side rails assuring that ends are flush with legs at top and with -4 Ends using 6 screws each located as shown. End with -10 support should be the outside end with support to inside
7. Attach wheels to -5 Legs using ½" bolts with a washer on both sides of wheel and one under nut
8. Attach barrel half flush with top of rails using 5 screws on each side and 2 on each end
9. Attach -11 Closeout each end of box with 2 screws each
10. Install -2 Top Rail with screws as shown with 7" length at wheel end and flush at both ends with a 1 ½" overlap on sides
11. Install -8 Closeout flush with inner (barrel) side of -2 Top Rail using 1 screw picking up -10 Support and 3 screws on inner -4
12. Install one -9 End Trim flush with -8 using 3 screws as shown
13. Install one -9 End Trim flush with -2 Top Rail at wheel end as shown using 3 screws.
14. To make tool box: At wheel end, attach -7 Box Bottom on wheel end bottom edge of -4 ends with 4 screws, one at each corner
15. Glue one -11 Box Closeout to inside of box at each end on - 5 Legs
16. Drill ¼" drain holes (5) in bottom of barrel and (3) in -7 Box

Materials List

- 2 ea. 2 x 4 x 8' treated lumber
- 3 ea. 5/4 x 6 x 8' decking lumber, treated
- 1 ea. ½ of a 30 gallon plastic barrel, approx.: 29 ¼" L x 19 ¼" W x 9 ½" D
- 2 ea. 6" wheels, plastic or metal core, rubber tread
- 2 ea. ½" x 4" hex bolt and ½" hex nut
- 6 ea. Washers, ½" hole
- Screws

Planter Assembly



Dimensions

Overall dimensions: 42" L x 25" W x 29" H

Dimensions of Parts:

Leg (without wheels)

2 pcs. 5/4" x 6" decking 19 1/2" long

2 pcs. 2 x 4 28" long

Leg (with wheels)

2 pcs. 5/4" x 6" decking 19 1/2" long

2 pcs. 2 x 4 26 1/2" long

2 ea. 6" wheels; 1/2"

6 ea. Washers

Side pieces

2 pcs. 5/4" x 6" decking 40 1/2" long

Top pieces

2 pcs. 5/4" x 6" decking 41" long

(these go in 4" from outer edge of frame and have a 2" deep cutout section 7" from each end, so about 27" long)

1 pc. 5/4" x 6" decking 13 1/2" long

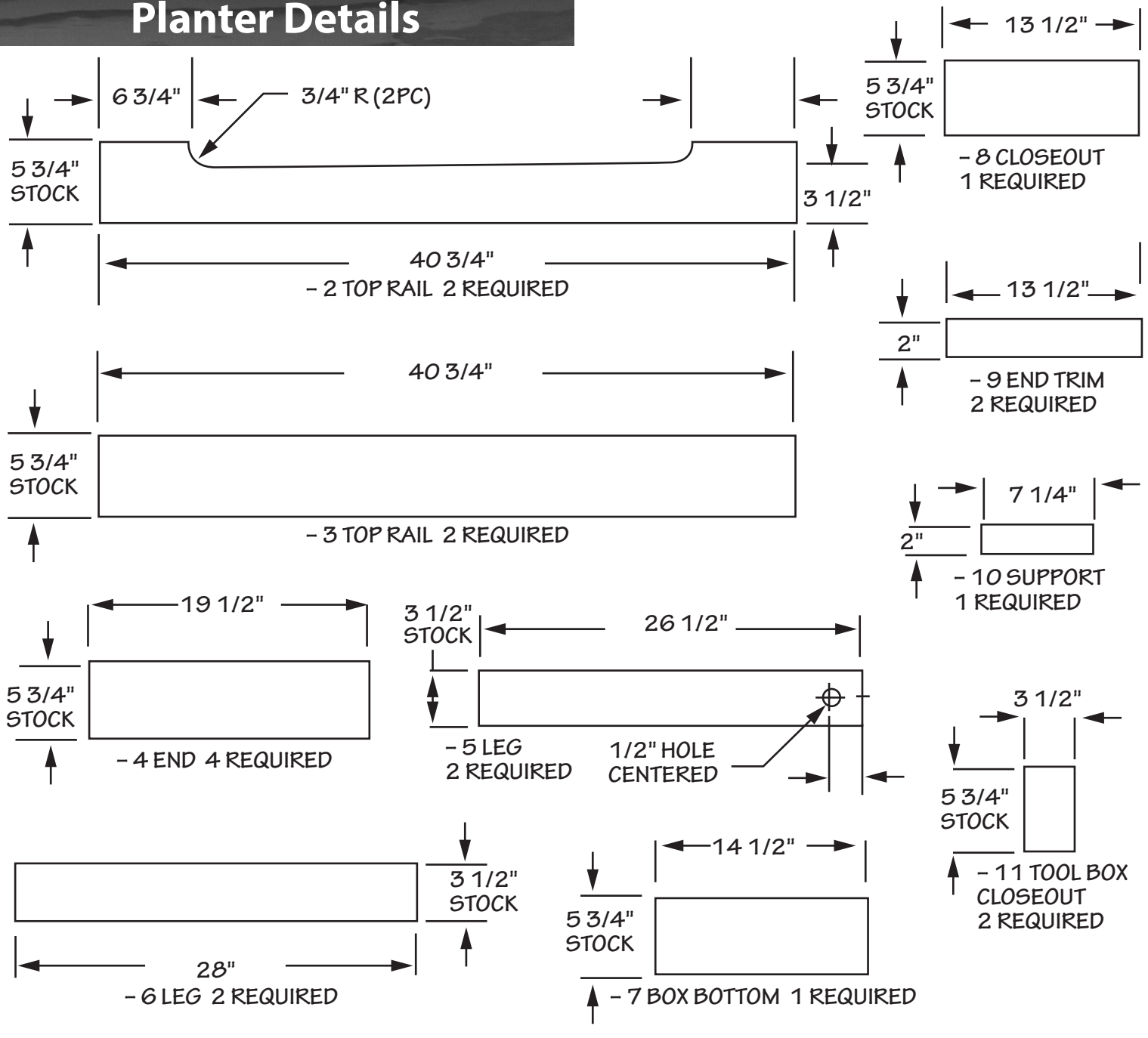
1 pc. 5/4" x 6" (cut down to 3") decking 13 1/2" long

1 pc. 5/4" x 6" (cut down to 2") decking 13 1/2" long to trim inner edge of box

Box

Use scrap 5/4" x 6" decking pieces as needed

Planter Details



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