



## **Shade Arbor** installation instructions

NOTES: Please check for any damage caused by the shipping company and take appropriate steps to file a claim, if needed.

\*Please call **Digsafe** and check for any underground utilities before digging anywhere.

### **Materials needed (change as needed)**

Cordless driver, star drive bit, Phillips head bit, 1/4" hex drive bit, carpenters square, 4' piece of rebar to stir the concrete in the post holes, 16+ 5" structural screws, and 24 6" structural screws (in a bag), six pieces of 1x3 x8' strapping (from each of 4 pieces of strapping, cut off a 12" piece and make a point on the ends of the 12" pieces to make stakes), and 16 sheetrock screws, Post hole shovel, 6' level, tape measure, 80 lb bags of premixed concrete (not included). Concrete amounts can be easily calculated at <http://www.quikrete.com/Calculator/Main.asp>. Amount required depends on how deep you dig the holes.

- 1) Pull everything off the pallets, and spread them out so you can see what the kit consists of.
- 2) You should also find a bag of hardware.
- 3) Depending on whether you have the 8 ft.<sup>2</sup>, 10 ft.<sup>2</sup>, or 12 ft.<sup>2</sup> Shade Arbor, mark out the post holes following the foundation plan. The depth of the hole might be determined by two considerations: the first is the depth of the frost line in your area. The second might be whether you might want to try completely hiding the ship lap joint. Obviously, ground surface to underside of joist/perimeter beam should be taken into account.
- 4) We usually recommend placing 6 inches of drainage stone in the bottom of the holes at the base of each post. You can use this drainage stone to level up the posts to make sure that they are all at the same height.
- 5) Find the 6 x 6 posts, and the post extensions. To reduce shipping costs, these posts have a ship lap joint, so find the matching pieces, and lay them out on a very flat surface such as a sidewalk or parking lot, and using your 6 foot level to make sure the post surfaces are lined up in both directions, screw these posts together. If it needs it, sand any rough areas of the joint.
- 6) Place the posts in the holes with the cutouts/let-ins facing out. At this point, you could use the strapping and short stakes to plumb and hold the posts in two directions, using a single sheet rock screw in each end of the brace.
- 7) Find the short perimeter beams (the ones that do not have the 45° finish cut in the ends) and place them into the post notches/cutouts, making sure the ends of the beams are flush with the inside edges of the other cutouts. Check again that the posts are vertically plumbed, and lay your level across the beam to check. If everything is lined up, screw these two perimeter beams to the posts.
- 8) Find the long perimeter beams, the ones with the 45° finish cut on them, and place those in the other two cutouts of each post, with the cut off corner facing down. These should be marked, but make sure you center them on the posts, with the same

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amount sticking out of either side of the two posts. If you laid this out properly, these should be perpendicular to the joists that you will put on next.

- 9) Before screwing these into the posts, use the level once again to make sure that these beams are level. Make any necessary adjustments.
- 10) You are ready to pour concrete around the posts, but before you do, grab one or two of the joists with the cutouts in the bottoms, and place them at 2 or 3 points along the top of perimeter beams you just installed to make sure they fit. You may have to make some minor adjustments to make sure they do, but once it looks like everything will fit together nicely, you can either attach these joists in their marked locations, and then pour the concrete, or pour the concrete and then attach the joists.
- 11) Temporarily lay out all the joists in their marked locations. Check measurements all around to make sure there is equal spacing between joists, and that they are all perfectly parallel to each other. These are fastened using 3 inch deck screws toe-screwed (same as toenailing) on the top side of each joist, and on each side of the cutout.
- 12) NOTE if concrete gets on the posts, it will be unsightly and very difficult to remove, so you may want to temporarily protect the bases of the posts by wrapping them tightly with construction paper or thin vinyl just down to where the surface of the concrete will be.
- 13) You can either use premixed concrete to put into the holes around the posts, or you can pour in bagged, dry concrete mix alternating with the correct amount of water, and using the rebar in a vigorous up and down motion to mix the concrete in the hole. Whatever you do, however, keep the concrete off the post base, as it will be visible to the public and is difficult to remove.
- 14) If this shade Arbor is to be on a playground, the top of the concrete must be below the finished surface.
- 15) Allow 24 hours for the concrete to set up, then remove the paper/vinyl and the bracing.
- 16) Enjoy the Shade Arbor!
- 17) You can install plantings that will wind up the posts and then eventually cover the joists. If this is on a playground, make sure that the plants are non-toxic.
- 18) All this wood is treated with kid-friendly preservative, but as is the case with all wood facing the elements, it needs to be cared for, so check it periodically for rough spots, splinters, etc, and sand them out, and treat it with kid-friendly wood preservative (we have it available if you can't find it) once or twice a year to keep the wood from deteriorating.