

Three Chamber Nursery House

Cut the following pieces from a 4'X4' piece of untreated plywood, 1/2" thick:

Back: 16" wide X 24" tall

Upper Front: 16" wide X 11.5" tall

Lower Front: 16" wide X 5.5" tall

Sides, 2 each: 3" wide X 18" tall (see detail in drawings)

Roof: 7" wide X 18" long

Cut the following partitions from untreated plywood, 3/8" thick:

Partition 1: 14.25" wide X 15" tall

Partition 2: 14.25" wide X 14" tall

Cut the partition spacers from a 1"X6", 4' long: Cut the board into 1" wide strips and then cut to length

Caution: Do not use cedar wood for bat houses as it is heavily infused with aromatic oils and may repel bats.

Tools You'll Need:

Cordless or electric drill

Caulking gun

1 pint water-based stain, dark brown

Paint brushes, rags

Phillips head bit

1/8" bit for pilot holes (optional)

Exterior latex house paint, medium brown or grey

Please use gloves and safety glasses during construction to protect yourself from splinters.

Cut out all the pieces using the dimensions above. Make sure to use unpressured-treated lumber. Plywood works well but make sure to seal all cut edges extra well with Painter's caulk and good quality stain or paint. This will greatly reduce delamination and extend the life of the bat house.

After cutting out the pieces, etch the indicated surfaces with shallow horizontal grooves. This is best done by using a table saw, but a circular saw, saber saw, or cross-cut hand saw can be used. Exercise extreme caution if using power saws and be sure to cut very shallow grooves, just barely etching the wood's surface. This will help the bats cling to the interior of the bat house and will make the roost more attractive to reproductive females who will choose to birth and rear their pups (baby bats) in the house.

Stain all the interior surfaces of the bat house with two coats of water-based wood stain. Dark brown or black is the preferred color. Surfaces which should be stained include the etched surface of the back, both sides of the two interior partitions, the interior surfaces of the two side sections, all the partition spacers, the inside surface of the roof, and the interior surfaces of the upper and lower front panels. DO NOT use paint because it will fill the grooves. Allow all pieces to dry overnight.

Attach the side pieces to the back on the etched and stained side, with the cut-outs (air vents) facing the back. The longest side (18") of the piece should be positioned at the top edge of the back board; the angle created by the long and short sides of the side pieces will create the roof pitch. Use water-based painter's caulk on the seams before screwing the boards into place. Attach the side pieces with 1-5/8" exterior deck screws, securing through the back piece and into the sides. Use 4 screws on each side.

Attach the 4" long and 9" long $\frac{3}{4}$ " spacers to the inside of the house along each vertical side. **Be careful not to block the side air vents.** All spacers should be positioned so that the $\frac{3}{4}$ " thickness is oriented front to back; this will allow a $\frac{3}{4}$ " gap between the partitions, the spacing which bats prefer. Use two 1-1/4" exterior deck screws on each of the four pieces. Make sure that the partition spacers are nested snugly against the sides and bottom of the back board.

Lay the longest interior partition on top of the spacers with **the etched lines running horizontally** and with the bottom of the partition flush with the bottom of the spacers. (There will be an open space at the top.) Do not screw down yet. Next place two of the 14" long spacers on top of the partition, one down each side of the box. Once again, make sure that the $\frac{3}{4}$ " thickness is oriented front to back and the spacers are aligned with the other spacers. Screw into place using three 1-5/8" exterior deck screws on each side, driving the screws through the top spacer, the partition, and into the first spacer on the bottom.

Attach the other partition in the same manner as the first, making sure the bottoms of the spacers and partitions are aligned. Once again, there will be a space at the top of the bat house. This open area will allow the bats to move from one partition to another without having to exit the box. You should end with the last set of 14" long spacers on top of the second partition.

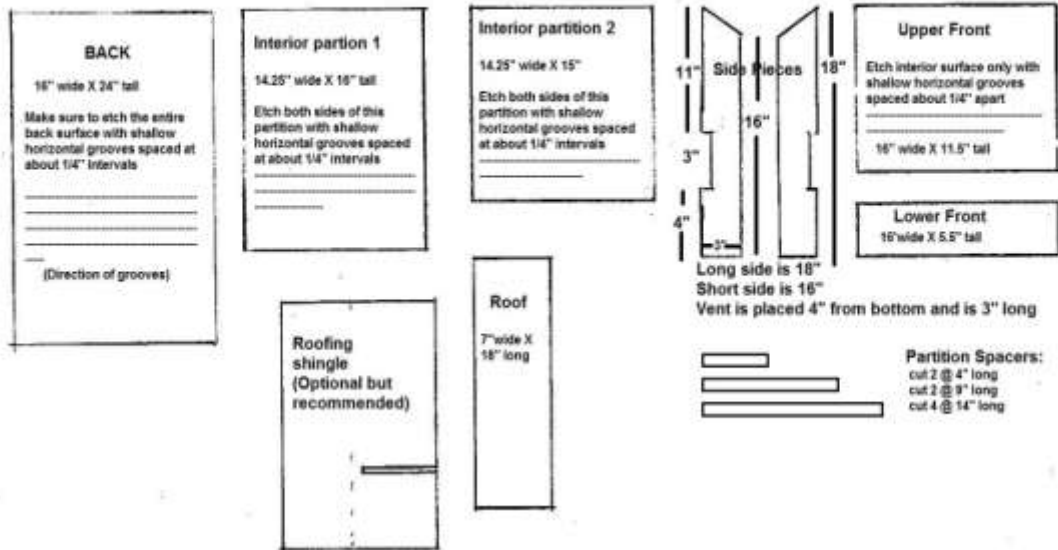
Place the upper front piece on the box, making sure it aligns with both sides. The upper edge of this piece should sit at the lowest point of the angled side pieces. After insuring a good fit, caulk both side seams where the front pieces will attach to the sides, and using three 1-5/8" exterior deck screws on each side, attach the upper front. Place the lower front piece so that a $\frac{1}{2}$ " air vent is left between the two front pieces. This may cause the lower edge of the front section to hang below the partition edges. No problem. Caulk both vertical sides and attach the lower front panel using two 1-5/8" exterior grade screws on each side of the panel.

Dry fit the roof panel, positioning it so it sits flush at the back of the box and is centered over the two sides. If necessary, sand the front and back edges of the box to ensure a good fit with the roof. Caulk all four edges and attach the roof using six 1-5/8" exterior grade screws, one at each corner and one in the center of each long side. Make sure no screws protrude into the roosting chamber by shining a strong light into the house and inspecting.

Paint the exterior of the box with a medium brown or grey water-based exterior paint. It's best to use a water based wood primer first, followed by two coats of good quality exterior grade house paint. **DO NOT USE OIL-BASED SEALERS, STAINS, OR PAINT!**

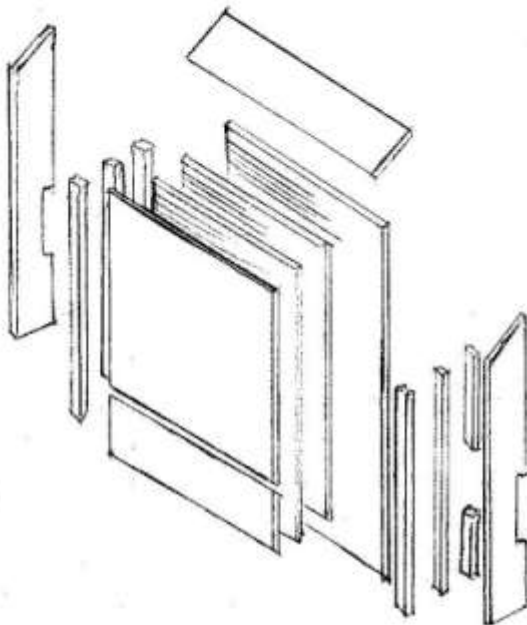
After the paint dries fit a shingle to the roof; asphalt house shingles, metal roofing, or roll roofing can be cut to fit the bat house. Use roofing nails to attach the roofing material to the roof, lining up the edges. Make sure the nails are set back a couple inches from the front edge and that they are positioned over the side pieces so they don't penetrate into the roosting chamber.

To learn more about Florida's bats, visit the Florida Bat Conservancy at www.floridabats.org



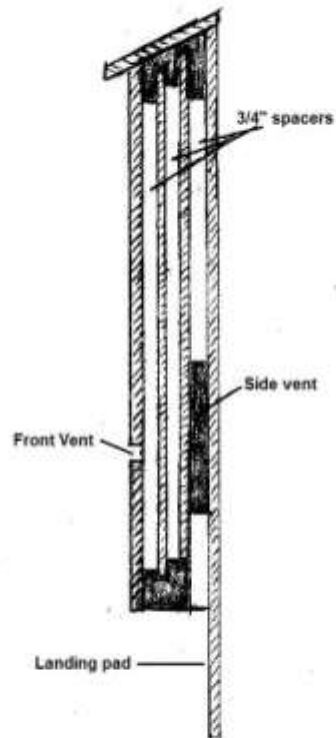
Drawing 1: Blow-up View

Note location of partitions to avoid conflict with side vents



Drawing 2: Side View

Placement of partitions and spacers



Drawing 3: Bottom View

