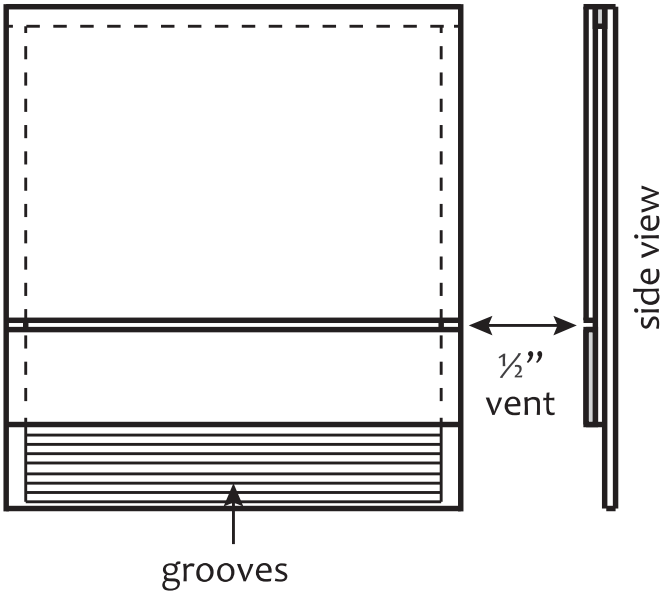
Bat Box Plans

Bats need a rough surface to hang from. Don't forget to use rough-cut wood or score the inside of the box. Alternatively, you can line the inside of the box with 0.3 cm plastic mesh netting which is available in hardware stores.

You may also lengthen or add a partial bottom to the box to ensure that predators, such as cats and raccoons, cannot reach inside. Longer vertical partitions allow for greater temperature variance within the box. Bats can move up for maximum warmth or climb down to cool off.

Research indicates that bats seem to occupy boxes whether you evict them or not. Therefore, boxes are multipurpose and may be used before evicting bats or to offer housing for bats in the area. A large box or boxes with several partitions have greater occupancy rates than smaller or simpler boxes.

The boxes are bottomless so fecal material drops out. No cleaning necessary!

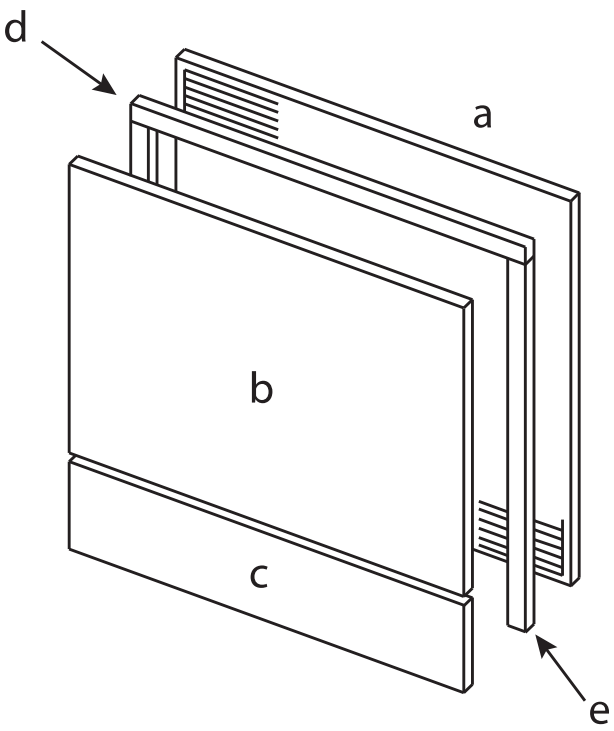


Single-chamber Bat House

This basic house will accomodate a small colony of bats. Small houses like this should be mounted on the side of a heated building to obtain a sufficient amount of heat to attract bats.

Materials

¼ sheet of ½" plywood (outdoor grade)
1" x 2" x 8' furring strip
latex caulk
1" exterior-grade screws
dark coloured, water-based, exterior-grade paint



Assembly

1. Cut the following pieces of plywood:
    a. backboard 26½" x 24"
    b. front (upper) 16½" x 24"
    c. front (lower) 5" x 24"

2. Cut the furring strip into the following pieces:
    d. top spacer 24"
    e. side spacers (2) 20½"

3. Roughen the inside of the backboard by cutting shallow horizontal grooves, ½" apart

4. Apply caulking to the back side of each furring strip and screw them to the backboard. Use at least three screws for each strip.

5. Apply caulking to the front side of each attached furring strip, and screw the front pieces (upper and lower) to the strips. Leave a ½" vent between the upper and lower pieces.

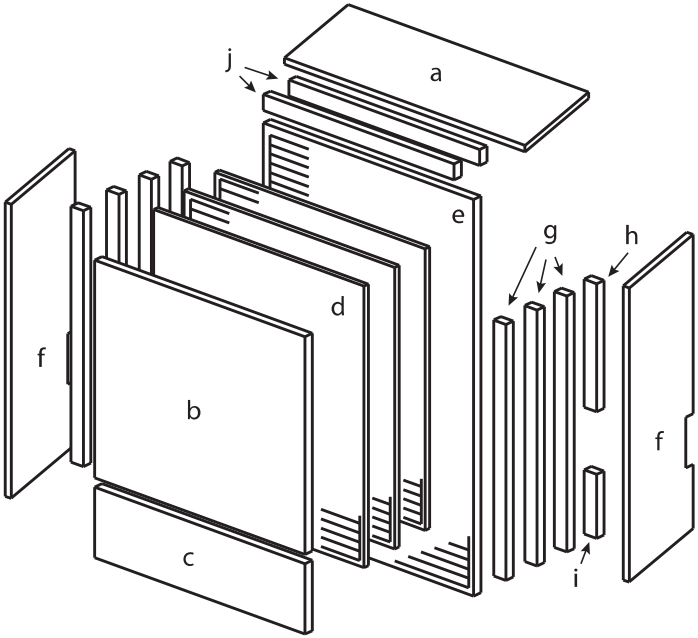
6. Apply caulking to all gaps along the sides and top of the house to fully seal the chamber.

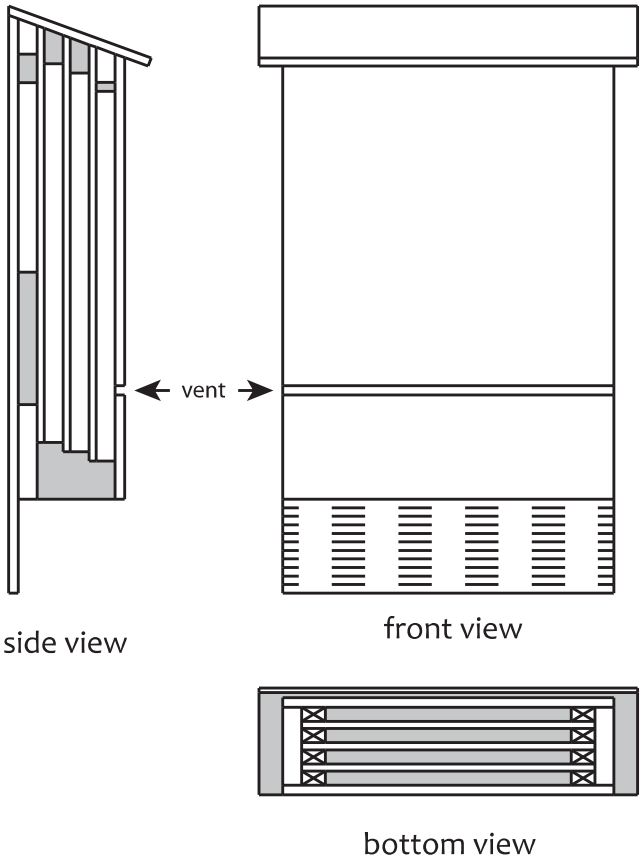
7. Apply up to three coats of paint to the exterior of the bat box. Do not paint the inside of the house as the paint will fill in the backboard grooves.

8. Mount the bat house on a vertical surface, such as the side of a building.

Four-chamber Bat Nursery

This house will accomodate a larger colony of bats or act as a nursery for mother bats and their offspring.





Materials

¼ sheet of ½" plywood (outdoor grade)
¼ sheet of ⅜" plywood (outdoor grade)
1" x 6" x 8' board
exterior-grade screws, 1⅝"
exterior-grade screws, 1¼"
exterior-grade screws, 1"
latex caulk
water-based, exterior-grade primer
water-based, exterior-grade paint/stain
black asphalt shingles
roofing nails, 7/8"

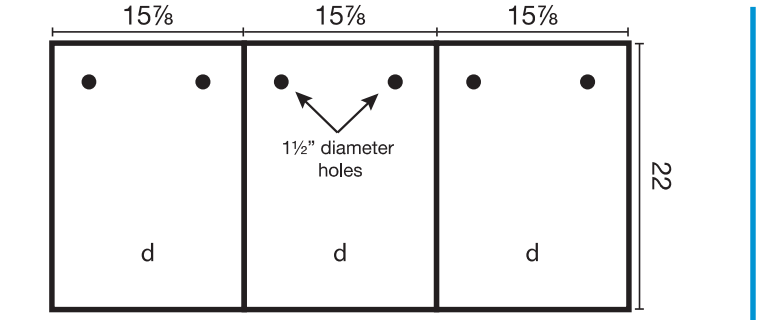
Assembly

1. Cut the plywood and board according to the directions on the opposite page. All dimensions are in inches.

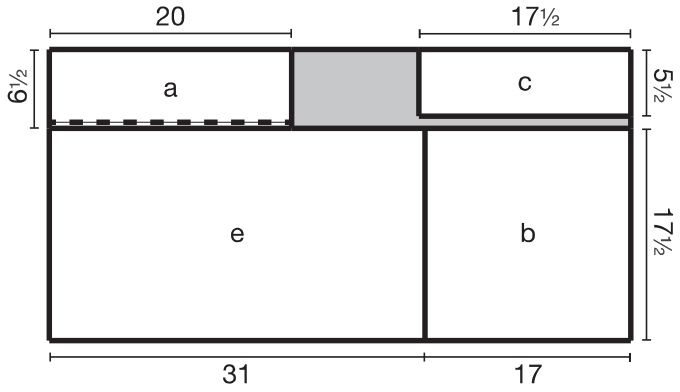
2. Roughen the interior surfaces (b,d,e) by cutting shallow, horizontal grooves approximately ½-¼" apart,

3. Apply caulking and screw the side pieces (f) to the uppermost sides of the backboard (a), using 1⅝" screws.

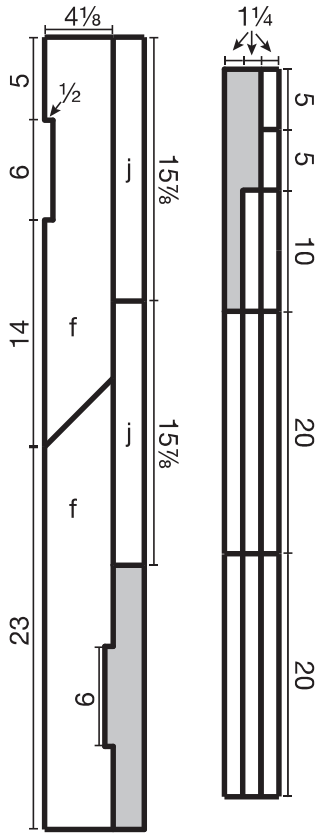
4. Using 1" screws, attach the 5" (i) and 10" (h) spacers to the backboard as seen in the side view on the opposite page. Do not block the vents in the side pieces (f).



½" plywood



⅜"plywood



1" board

5. Place a partition (d) on the already-mounted spacers (h,i) even with the bottom edge of the roof. Place a 20" spacer (g) on each side of the partition and attach them by screwing through the spacer (g), partition (d) and into the already-mounted spacers. Use 1⅝" screws. Repeat for the remaining partitions (d) and spacers (g).

6. Attach the front pieces (b,c) to the sides (f). Attach the upper front (b) first and leave a ½" vent in between the upper and lower pieces. Caulk the seams.