# Bobcat Animal Den (Insulated) <br> Interior Space <br> 24" W x 40" L x 28" H 

## Materials needed:

10 - Treated 8' $2 \times 4 s$
5 - Treated 4' x 8' sheets $1^{1 / 2 "}$ plywood
1 - roll of R13, $15^{\prime \prime}$ wide insulation
4 -pounds $3^{\prime \prime}$ galvanized star head screws
1 - sheets of \#150 2" pink rigid foam insulation
SEE MATERIALS CUTLIST (Last 2 pages of instructions)

Equipment needed:

10" miter saw (optional, but useful)
Circular saw
Jig/Sabre saw
4' level (also use as a straight-edge)
hammer
tape measure ( $\mathbf{1 0}^{\prime}$ minimum)
utility knife
electric drill with phillips bits and at least a $3 / \mathbf{8 "}^{\prime \prime}$ drill bit
carpenter's pencil and black marker
small speed square for $2 \times 4$ 's
2-4 sawhorses

Initial assembly is accomplished after the base and four sides have been built. The back wall is placed on the base first, followed by the side walls, and then the front wall; use level to determine if walls are vertical (they don't have to be absolutely perfect). Any adjustment should be made to the wall base plate. Use a couple of screws to secure wall at bottom overhang if necessary. The sidewalls will fit snugly (this is where the hammer is used with a scrap piece of wood to prevent damage to the plywood). After the roof is built and installed to ensure proper fit, the entire unit should be disassembled for transport.

Base: $2 \times 4$ 's on edge


Materials needed:
2x4's:
2 @ 48"
2 @ 29"
2 @ 32"

## Plywood:

1 @ 32" x 48"
Rigid Foam:
1 @ 29" x 45"

Use 3" screws to put together $2 \times 4$ 's as diagrammed. Use 3 " screws to adhere floor to the base frame. Before attaching the 32" skids to the bottom, glue the rigid foam in place in the cavity under the floor.
Use $3^{\prime \prime}$ screws to attach
two 32" $2 \times 4$ 's on the bottom of the base (not on edge) so there is a 4 " gap from the outside edge of the $2 \times 4$ and the outside edge of the base. These are used as skids and to keep the base off the ground to promote air circulation.

## Back Wall



Materials needed:
2x4's:
2 @ 48"
2 @ 29"
Plywood:
1 @ 32" x 48" (inside wall)
1 @ 35" X 48" (Outside wall)
R13 Insulation:
3 @ 29" lengths

Use $3^{\prime \prime}$ screws to put together frame as diagrammed. Use $3^{\prime \prime}$ screws to attach exterior plywood to frame with $3^{\prime \prime}$ overhang on the bottom. Place finished exterior side face down on ground. Place 3 lengths of insulation in the cavity, paper side up. Use $3^{\prime \prime}$ screws to attach the interior plywood to the frame.

Sidewalls (2)


Materials needed:
2x4's:
4 @ 24"
4 @ 29"
Plywood:
2 @ 32" x 24" (inside walls)
2 @ $35^{\prime \prime} \times 32^{\prime \prime}$ (outside walls)
R13 Insulation
4 @ 29" Lengths

Use $3^{\prime \prime}$ screws to put together $2 \times 4$ 's as diagrammed. Use $3^{\prime \prime}$ screws to attach exterior plywood to the frame with a $3^{\prime \prime}$ overhang on the bottom and a $4.5 "$ overhang on both sides. Place finished exterior side face down on ground. Place two lengths of insulation in the cavity, paper side up. Use $3^{\prime \prime}$ screws to attach interior plywood to the frame.

## Bobcat Front Wall



Materials needed:
2x4's:
2 @ 48"
2 @ 29"
2 @ 18 1/2"
2 @ 16"
Plywood:
1 @ 32" x 48" (inside wall)
1 @ 35" x 48" (outside wall)
R13 Insulation:
3 Lengths cut to fit vertically

Use 3" screws to put frame together as diagrammed. Position frame on exterior plywood piece so the door opening is to the right, the top edge and side edges are even, and the bottom edge overhangs by 3". Trace the INSIDE edges of the door opening on the plywood with a black marker and set the frame aside. Increase the height of the door outline by 1.5 ",
drill holes in the corners, and use a jig/sabre saw to cut the opening.

Place the interior wall on the ground and position the frame on it so the door opening is to the left and all edges are lined up evenly. Use a black marker to trace the INSIDE edges of the door opening on to the plywood. Remove the frame, drill holes at the corners, and cut the opening with a jig/sabre saw.

Use 3" screws to attach the exterior wall to the frame, making sure the door opening is to the left. The end result should have a 1 1/2" edge of $2 \times 4$ exposed in the door opening at the top. Turn the completed unit over and insert the insulation in the cavities, cutting to fit. Use 3" screws to attach the interior wall to the frame.

## Roof



Materials needed:
2x4's:
2 @ 39 1/2"
2 @ 20 1/2 "
Plywood:
1 @ 53" x 38" (roof exterior)
R13 Insulation
2 @ 20 1/2" Lengths

After the den is assembled, measure the roof opening for width and length. It should measure 40" L x 24" W. The cut measurements below are based on that information so the roof frame is 1/2" of an inch smaller (this is done so the roof can be removed and replaced easily for den cleaning). Adjust if necessary.

Use 3" screws to attach the bottom, making sure all edges are even. Turn the frame over and insert the 3 lengths of insulation in the cavity, cutting to fit, with paper side down. Use $3^{\prime \prime}$ screws to attach the top, making sure there is about a $6.5^{\prime \prime}$ overhang on the two sides and the back and about a 7.5" overhang on the front (the overhang accomdates the walls and will result in a drip edge of about $3^{\text {¹ }}$ ). Removeable floor can be placed inside den.

## False Floor

The den requires a false floor placed on top of the base floor after the den is assembled. This false floor absorbs the moisture and other detritus that accumulates over time and can be thrown away and replaced with ease when it wears out - preserving the primary floor and extending the life of the den.

The false floor measures 23 1/2" $\times 39$ 1/2".


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