

Wichita Cabin Coop - Boise Adaptation

Many thanks to the Baldessari Clan for posting the photos of their Wichita Cabin Coop.

We took their idea and ran it with a very few minor changes to account for my lower level of DIY expertise.

You can find their original coop design [here](#).

UPDATE 30 MARCH 2012: I've had several people ask me for plans and estimates on cost. The cost ran about \$1,400 (I'm guessing) but I paid for some mistakes I made. I don't, sadly, have plans. However, if you want to view more of the images from the building so you can get more ideas, you can find those [here](#).



Basic footprint: 5' x 10'

Roof dimensions: 8' x 12' (roof plywood was 3 sheets of 4' x 8')

Front height: 7'

Rear height: 6'

Each section of the coop (inside coop, front door, left side) is roughly 1/3 of the overall 10' length.

This is so that the 3' wide sections of hardware cloth (tough screen) will fit over the studs with room

to fasten it down with screws and washers. If the openings between the studs are more than about 34"

apart, you'll have trouble fastening the hardware cloth.

The only changes I made from the Baldessari design were as follows:

- Used concrete blocks for the foundation rather than flagstones set on edge.
- Used pressure treated lumber for the pieces in contact with the foundation.
- Put a double layer of chicken wire and landscaping cloth down over the floor of the coop to keep out burrowing predators.
- Created each of the frame walls and roof separately, and then stood them in place.
- Made the nest box removable (in theory, but it's a tight fit).
- Slightly different roof design.
- Included a washable linoleum floor for easy clean up.

All the other features were copied from the original design so let's give credit where it's due. Here are a few pictures from the process.



The foundation, it turned out, had to be arranged to accomodate the existing sprinkler lines.

What a pain. The large concrete blocks that are buried and topped with flag stones make it more difficult for predators to easily dig their way in.



Chicken wire placed across the floor of the coop. This is to keep predators from digging their way in from underneath.



I used bungee cords to hold the framed walls together until I could fasten them more permanently. The diagonal braces were temporary and were used to keep the true during the process.



Frame walls built separately and then connected. I wasn't able to manage the original approach so building on the ground worked better for me. Lumber from my daughter's old pressure treated play set came in handy for this part. The wall on the right side will house the nest box and window and so is framed differently from the left side.



Used hurricane braces for connecting the roof to the frame. We made the roof frame on the ground, like the walls, and then raised it into place when it was ready. That's definitely a two or three person job. Getting the measurements right is critical to getting the braces in the right places to connect the roof to the rest of the coop and required lots of patience and measuring things three or four times before screwing things down.



Built the roof frame with the the ends and only two rafters to get it into place (much lighter) and then once

It was up, I added the remaining rafters pretty easily.



Take time to paint the frame before you start adding walls and wire.
Otherwise you'll have
a more difficult time of it.



Built the floor of the inside coop, slanting it slightly toward the front to allow water to drain out when cleaning the inside. Attached the 1/2 inch hardware cloth (screen) with screws and fender washers.



Leading (front) edge of the roof to cut down on water running under the metal roofing material.



Completed roof.



Need an extra support so that both sides of the door between the coop and the run are supported equally. Note that I had to add an additional rafter to which to fasten these vertical pieces in place since the existing rafter didn't line up with where the wall was supposed to go.



Bottom hole is for the nest box, the top hole is for the window. Used old 2x6's on the back wall, and new 1x6s on the sides. I cut circular plugs out of the cross pieces between the rafters over the interior part of the coop. I then kept the plugs, put long carriage bolts/screws into the plugs and use them to adjust the ventilation in the coop during the summer and winter (again, this is borrowed from the original design).





Framed the outside of the guillotine door both to make it sturdier and for looks.



Measure carefully to allow slide rails on either side of the inside opening. And, remember those rails will need to be parallel and vertical. They need to be tall enough to accommodate the door when it is fully raised.



This shelf will help keep birds on the roosts from pooping into the nest boxes, as well as keeping out a tad more light... or at least that's the intent.



Wing nuts attached to carriage bolts allow the nest box to be removed. But it's a pain to do and I doubt I'll ever use this functionality.





The piece of old gray pressure treated 2x4 is to keep the litter in the nest boxes.



Protected the floor of the nest box with left over linoleum, and painted the inside black to keep it dark.



Framed the outside of the windows and nest box openings.



Rails for the guillotine door. I'm a novice so making this vertical and parallel wasn't a trivial task. If they're not, the door won't slide easily.



Guillotine door design (again, borrowed from the Wichita Cabin design).
However,
I placed the lifting eye screw on the cross piece instead of into the edge of
the plywood
door itself.





Slam strips (vertical unpainted furring strip) keep the door from closing too far when shut, thus keeping the hinges from tearing out. You can see the shims (small 1/4" spacers) in place to hold the door away from the frame while I'm making it.



Building inspectors at work. Clamps hold the vertical lumber in place while I'm fitting it.



The 1x6s fit into a groove routed on the back side of the 2x4 edges. Then they were glued and screwed into place



Window framed.



I was particularly puzzled about how to build the doors, never having done it before. A contractor friend of my suggested using shims to build it in place. I routed a groove into the outside 2x4s to set the 1x6 face panels in and glued/screwed them into place.

I'm not particularly confident in my measurements so doing it this way made sure when the door was finished it would fit the opening.



This door was built with the same shim/build-it-in-place approach.





There's a shelf under the highest (rear) roost that can be removed. It's intended (we'll see if it works) to catch a lot of the poop before it falls onto the floor. Not yet convinced it will work that well but

I guess we'll see. **UPDATE:** It works so well that I only have to clean the coop out every six months or so if I clean the board off every week.



Bent a support strap into a slot shape to hold the ramp fittings which were themselves created out of corner braces.



Corner braces on the bottom of the ramp fit into the slot below the ramp door.



Used non-skid flooring strip on the ramp and spaced the rungs about 4.5 inches apart.

Now that the hens are installed, they seem to be having no problems with the ramp given the non-skid surface and the spacing of the cross pieces.



Used single plexiglass pieces for the windows.



Installed an easy to clean linoleum floor. Yeah, I know. Overkill. But I hate cleaning activities.





Installed a removable kick board in a slot that is flush with the front door to keep litter from falling out when the door is opened. Again, thanks to the original design for this idea.



Finished! Installed decorative cross pieces on the windows but used single sheets of plexiglass so the cross pieces serve no functional purpose.



Finished view from the other side. The lumber resting on the foundation will have to be painted later, in about six months, after it has had time to cure and dry out.



My wife created a ceramic rooster art piece to place on the side of the coop.

This is, sadly, the closest these hens will ever get to a rooster. It measures about 1.5 feet square.

Again, an intense heartfelt thank you to all the designs which led to the successful completion of this project. And a particular thank you to the Baldessari Clan in Wichita, Kansas for the primary design features.

Outside detail of nesting box and lid. Sand in the run -- supposedly easier to clean and for chickens to scratch around in.



By early summer, I'd built and installed a couple windows. Will leave them propped open all summer for ventilation -- probably close them in the winter. Ventilation holes at top can be covered/shuttered as well, if necessary.



Evidently does not dig chickens...



By late July, hens are pretty much fully matured. Just waiting for the eggs to start... We have two Rhode Island Reds, two barred Plymouth Rocks, and an "Easter Egger" mutt.





Hand feeding. These are pretty tame/friendly birds so far.



A rude bedtime interruption.



First eggs started arriving around mid-August, 2010. Yay!!!

After garden was pretty much done for the season, we started letting the birds out every afternoon to roam the backyard freely. Note the nearby compost bins -- handy for taking care of chicken poop. One corner of the "foundation" (near corner in pic) settled enough where the raccoons were starting to have some success at prying out the top brick, so I've got it staked in for the time being until I can add a little more dirt around the edges.



Rigged up some lights when days started getting shorter to keep the birds laying regularly. Cut a corner out of the coop door to allow clearance for the power cord.



Had to modify the board that holds back the litter at doorway of coop. Hens kept kicking the shavings up into the gap between door and board, so attached a sloping top board that rests flush w/ the door when it's closed -- no more mess. Somebody had asked about how we rigged the pop-up door, and you can see the set-up fairly well here. The rope is guided through some larger eye screws at the corners, and uses knots (that won't fit through eye screws) as stops to control the travel limits.



Urban chickens...

These last few shots are taken near Thanksgiving 2010, almost exactly a year after I first started building the coop. It's been a fun project, and the birds are good "pets" and great layers so far!







Winter chickens:

Most chickens (and esp. northern breeds) are relatively cold-hardy, and can handle temps down to 0° F or so w/out much trouble, provided they can stay dry, out of wind / drafts, and have plenty to eat.

Based on this, we did not insulate or use a heater in our coop. However, we do close up the rear ventilation holes and side window in winter (also the pop door, on colder nights), while the front window and ventilation holes are left open. This provides a

draft-free "tunnel" area in back of coop for chickens to sleep in, while still allowing adequate ventilation to help combat moisture / humidity build-up.

We initially installed some removable wooden panels under the coop area of the run, to provide a wind break during the day.



However, on the coldest / stormiest days the birds preferred to just stay inside.





Next year (winter 2011), we fabricated some larger wind-break panels out of wooden lattice w/ clear Visqueen plastic stapled to the back side, which were then secured to existing side screening using a few wire ties.





Note the gaps at the top -- these allow plenty of ventilation, while keeping wind and most blowing snow out of the bottom. The clear plastic lets light in, and allows some visibility as well.





Our birds will come out in the snow, but tend to prefer staying in the run when it gets deeper.



Providing water for your chickens becomes more of a challenge in the winter. Some people haul fresh (warm) water to them a couple times a day in freezing weather. Alternately, you can buy a commercially available electrically heated waterer / dog dish / etc. to keep their water from freezing.

Another option is to build a home-made heater for your existing waterer. We've done so in the past using an upside-down flower pot and light bulb or heating element. You'll obviously want to use terra cotta / stone / ceramic components throughout (no plastic or other meltable / flammable materials), and maintain an adequate air gap between the heating element and pot top / sides (i.e. nothing touching the heating element). We've found that a 75W or 100W light bulb or heat element will keep our water from freezing down to around 10° F or so, if kept out of the wind. A thermostatic power source (e.g. "thermocube", or similar) can be used to automatically shut off power to the heat source when temps rise above freezing.





In areas where it gets REALLY cold in winter (e.g. northernmost states, Canada, Alaska), you will probably need to consider insulating your coop and/or providing some sort of supplemental heat for your birds if temps start dropping to -10°F , -20°F , or even colder. Even with additional heating, remember that the key is to keep

your chickens dry / well ventilated, out of wind / drafts, and make sure they have plenty of food to eat so they can stay warm.

If you do decide to use supplemental heat and/or a heated waterer, always use extreme caution to keep flammable materials away from heating elements, electrical sources, and similar. We know of at least couple other folks whose coops have caught fire or even burned to ground in the winter (!!!).

Coop cleaning:

The proper way to clean a chicken coop is, of course, to have your teenage kids do it! (if you have them) It's not quite as good as having a full-sized family farm for teaching work ethic and etc., but I'll take whatever I can get.

We periodically clean the run and coop out, about once a week or so. Just trying to get as much of the surface poop, feathers, and dirt out of the run and coop as possible.

Roughly twice a year (spring and fall), we do a more thorough "spring cleaning", taking it all apart, hosing everything down, and maybe scrubbing with a disinfectant solution if necessary (e.g. bleach and water).



We try to keep the sand in the run somewhat clean by raking all the poop, wasted food, etc. into a pile, and then using a shaker box (with screen on the bottom) to sift it. Sand comes out the bottom, and poop, feathers, and such remains in box, to be thrown into the compost pile.



Sifting box in action, in the background. Just like panning for gold, heh, heh...



A plastic-bladed snow shovel works great for removing poop and old bedding (won't scratch up the wood/paint too much). It all gets tossed into the compost pile.



Everything gets sprayed down with the hose (including inside of the coop and run), scrubbed a little if/as necessary, and then left to air dry.



Some of your customers may get impatient to have their nesting box back during the spring cleaning process. Note the built-in gaps at bottom of box -- makes it easier to sweep and hose all the dirt out.



Removable boards fit in at the bottom of the box to hold the nesting material in after you're done cleaning.



Spring cleaning accomplished, and fresh bedding in place. Your chickens will now dig around and eat all the food on the ground they've been ignoring for the past several weeks -- go figure...



Random construction details and other ideas:

Here's some detailed shots of how the pop door and side guides are constructed:

The door is just a piece of flat board or plywood with a couple reinforcement/guide pieces attached. You can put on some nylon or teflon sliders to help adjust the gap and ease the sliding action of it gets a little sticky.

The side guides are narrow strips of wood with a slightly wider pieces attached on top of them. The brace at the bottom is open across the door opening, to help keep the litter material from piling up and binding or holding the door open at the bottom.

The door's lower edge sits a ways below the bottom of the outside opening when closed, so that raccoons and other pests will have a hard time getting their paws under it to open the door from the outside.





The ramp in the run is removable (for cleaning convenience and etc.). The two eyebolts on the ramp have been modified into hooks by sawing a little off with hacksaw. Two more eyebolts are screwed into the door frame to hold the ramp up.

Shouldn't be able to slip or fall off, but still relatively easy to remove when you want to.



