

# Chicken & Duck House

This project came about as a house to keep our Indian Runners in, just the one house, the chickens were to live in a commercially-built coop. Well, as it turns out the chickens went to lay in the duck house and the commercial coop just wasn't up to the weather so a second house was built. When we came to build the second the question was, "where are the plans?" well I had none when I built the first so the plan was "copy that one there". But, as they seem to be sturdy and look pretty good - better than the commercial one - so I thought I'd try and capture what we did do.

Here's the result, the two houses in the yard today.



Hopefully this is a reasonably accurate description of the process.

## Material

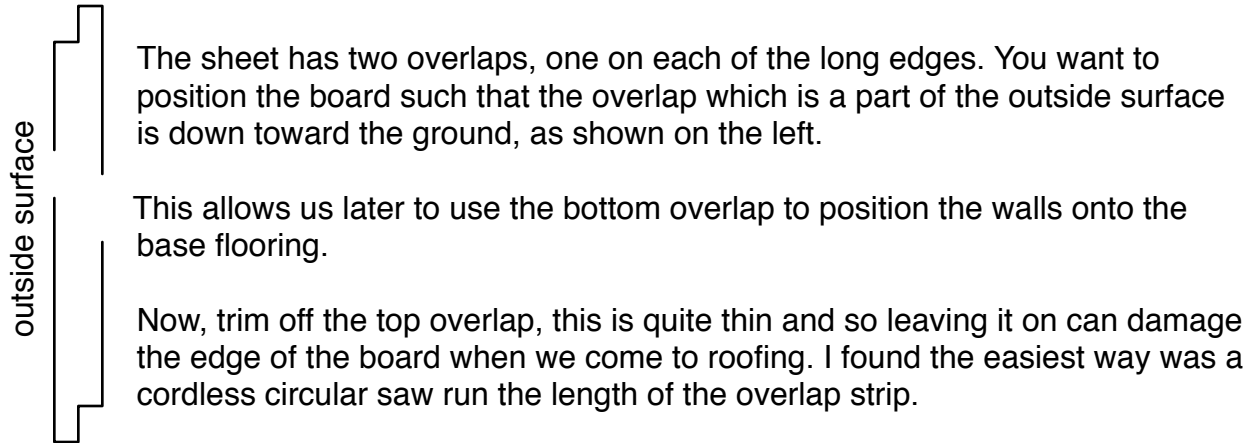
1	Sheet	8'x4' 3/4" Pressure Treated Ply
3	Sheets	8'x4' 3/8" Exterior Grade (Siding) Ply
14*	Lengths	8'x4"x2"
6*	Lengths	8'x3"x1"
4*	Lengths	8'x2"x1"
2	Lengths	8'x4"x4" Pressure Treated
(1	Length	8'x6"x4" Pressure Treated)
2		12'x? Galv. Roofing

1 5/8" Screws, 3 1/2" Screws, 1 3/4" Roofing Nails  
2 Large, 2 Small hinges  
2 Large Closing Brackets, 1 Small Hook/Eye Catch  
1 Area Poultry Net/Woven Wire for Window

*\* - can't be sure of exactly how many, we tended to buy as many as we were sure we needed then head back to buy the few we needed to finish up.*

## Getting Started

The first step is to cut the walls to size and get the frames built; I found it easiest to lay out the base (8'x4' sheet of 3/4" pressure treated plywood) on some of the 4'x4' beams to give a stable work platform. First take one of the 8'x4' plywood sheets and mark it as the front, for now the only cutting is to remove the edge from the top of the sheet.



The back wall has to be shorter than the front, first work out which of the long edges is the bottom as we did above and this time instead of just cutting the overlap off cut about 8"-10" off the long edge.

The two side panels are constructed by taking the third siding sheet and cutting in in half first then (pay attention to the overlap again so you know which edge is the bottom), measuring the exact cut off the triangle so that the side wall slopes from the front wall down to the back wall.

The frames are constructed from 2"x4", cut and jointed to make rectangular frames within each of the walls. If you refer to the drawings at the end you'll see that the frames do not go to the side edges of each wall, these offsets are important in getting the walls to joint well and seal at the end.



Basically you need to use the 8' lengths and trim off enough from each end for the thickness of your 2"x4" (which is rarely exactly 2 inches).

Joint the ends so they fit neatly, as shown on the left, and also notch and joint a center upright on each of the front and back walls.



The joints can be strengthened using the pressed steel joints shown on the left, the kind used for putting together roof trusses.

I did on the first one as I was making the frames entirely on my own. With a second pair of hands to steady things the second house frames were simply nailed together.

Note that we will construct a frame for each of the two side walls. In this case we simply put together a rectangle again, ignore the sloping top edge for now - oh and leave the 3/8" edge so that the sides fit neatly when we stand it up.

## The Base Details

I didn't want the floor touching the ground for obvious reasons, so I used 2 8' pressure treated 4"x4" beams and cut them in half to give me 4 4' lengths which I placed under the house from front to back. In the case of the chicken house I wanted some extra height so I used 4 8' lengths so the house sits on 8" of wood.

Unfortunately the site has quite a slope back to front so to ensure the floor was stable and flat I placed an 8' 6"x4" beam along the front (using the extra width of the 6"x4" for stability) so as to provide a base for the front-to-back beams.

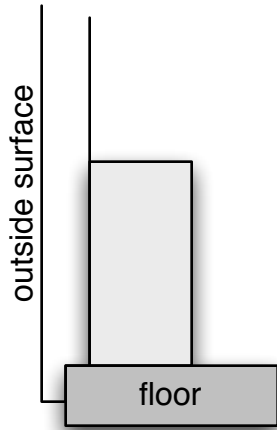


You can also see in the picture we had to dig out a few places and prop up a few others before we got the floor completely level (a long spirit level is important for this).

You could use concrete blocks for the base but if you don't have quite a bit of contact you'll find the floor flexes rather alarmingly when you go inside; the 4 lengths of 4"x4" are enough to support my weight inside.

## Standing It Up

Now the fun starts, with each of the four sides screwed to their frame (1 5/8" screws seem to work a treat for this) we need to stand up the walls and screw them together.

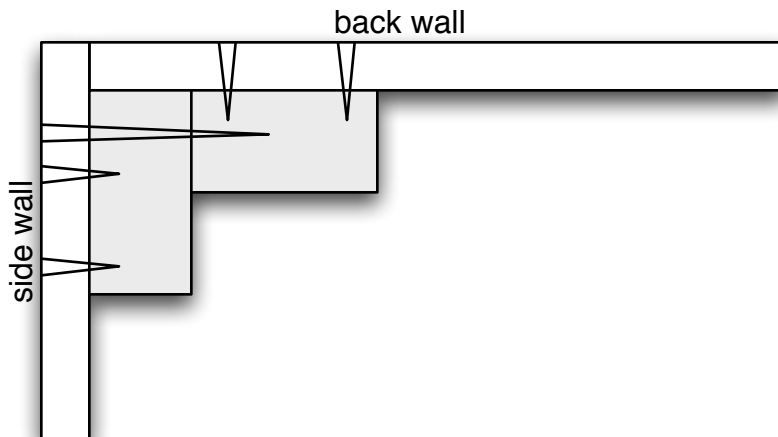


This is where we see why we left the overlaps on the bottom of each of the side walls; as we place the back first onto the floor we can easily position it with the overlap hanging over the edge of the floor (as shown left).

Firstly this ensures the shell can't fall off the floor once it's together, but also it provides some protection for the wood ensuring that rain runs down the sides and down the floor and doesn't seep into the house at all.

Oh, by the way, this part is *really* hard to do on your own!

Now, stand the back up first, then grab a side wall. You should find that it fits nicely with the frame for the side fitting into the edge we left along the side of the back wall and the side itself overlapping the edge of the back ply. This arrangement can be seen in the picture below.



Once you have the side fitting nicely you want to drill in a couple of holes and put some of the longer (3 1/2" or 4") screws right through the side plywood, frame and firmly into the frame for the back.

Now do the same for the other side and then the front. Now we have all four walls standing, no roof and no way it seems to get inside the thing either!

## Cutting Out

The next step is to cut the holes for the doors and window, but first a note on weather-proofing. In North Carolina we have long hot summers and while the winters can get cold they're rarely that cold and don't last all that long.

The houses we built have quite a bit of ventilation but do not have roof insulation; if you need to deal with the cold you might consider adding a sheet of ply/particle board before the roofing steel, you might prefer shingles to steel, etc.

Finally the size of window you make has an impact on ventilation as well as letting in bugs and so on, so you need to decide how big a hole you want in the front. Don't skimp on the big door, the house may look kinda big when you are done but it's cramped inside and squeezing through a small door is not nice.

So, to the cutting out. To do the cutting itself I used the cordless circular saw again, just pencil marking the outline then carefully cutting in with the saw. There's no need to be too precise here, after all each hole will be framed and painted so any mistakes can be easily hidden.



For the main door cut close to the edge, top and bottom frames, that way the 3" frame you put around the outside of the door you can screw into the framing for strength. Any edge you can't screw into a frame you'll need a piece of wood on the inside to screw into. This means that the frame is not just for show, it sandwiches the ply between good pieces of wood around each cut so you can easily paint and protect the edge of the ply (most likely to get weather damaged).

With the smaller door get the bottom as close as possible to the frame but the sides and top can be away from it. Use the smaller (2") size edging material around both the door hold and door itself, paint really, really well as this is where the birds bring in all the garden mud and moisture.

The window is simply a cut-out the size you want, but to ensure safety you need either some poultry netting or welded wire to fill in the hole. This bit is tricky, the technique I used was to cut the wire to size then staple it on the inside first then put the wood back and front to frame the window the screw from the front, through the ply, wire and firmly into the wood on the inside so the wire is sandwiched into the frame of the window.

## Chicken Additions

For the chicken house we needed to add a few things; nest boxes, a roost, etc. and this was done before roofing so we could get in and out easily. The shelf is held up with battens made from off-cuts of the 2"x4" with 1/2" plywood making both the shelf and the row of nest boxes.



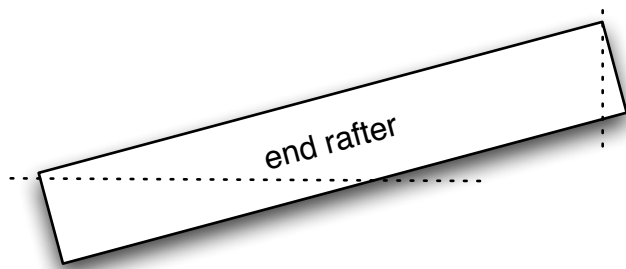
The roost is a length of 2"x3" edge-on with simple brackets either end made from 2"x4" off-cuts again.

## The Roof

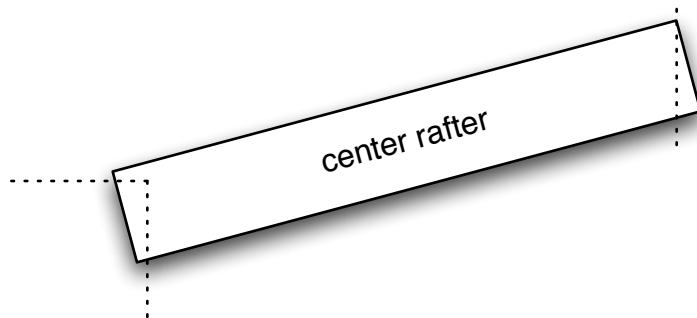
The roof consisted of putting in some front-to-back 2"x4" beams, then some smaller 2" cross pieces and finally the steel sheeting. The picture below shows the detail of the underside of the roof.



Cutting out these roof beams was probably the trickiest part, and consisted of 2 end rafters (screwed to the side walls) and 3 center rafters. Note before fitting the rafters cut out the slots for the cross-pieces.



The end rafters need to be cut so that they sit flush along the top of the side frame (see picture above). They also need the front end cut to match the angle of the wall. The actual angles depend on how tall you made the back wall. Screw these firmly to the existing side frame and through the wall from the outside.



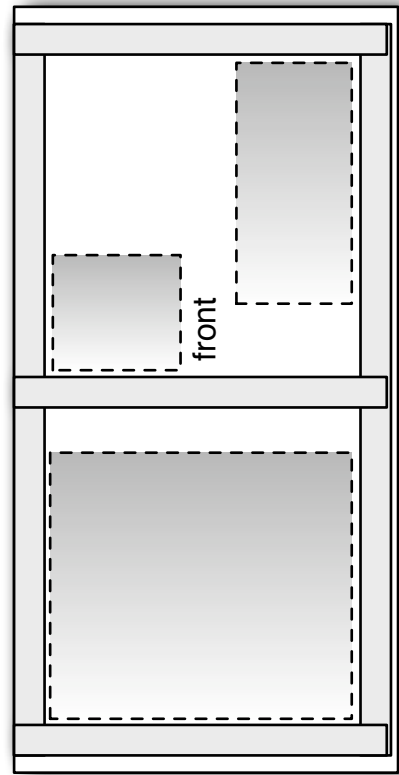
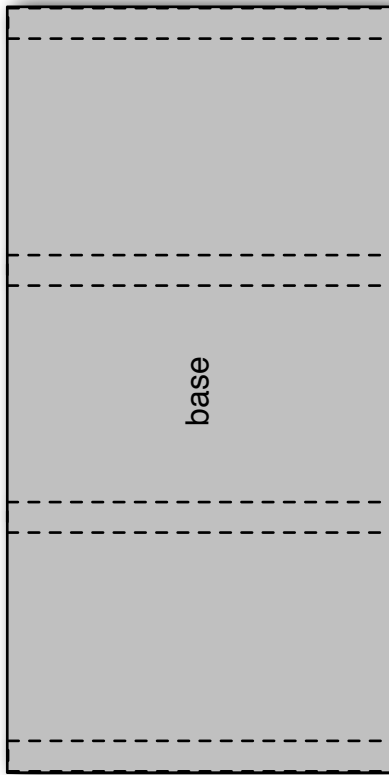
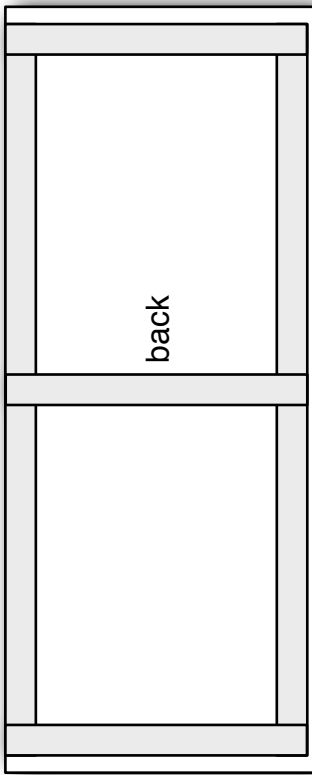
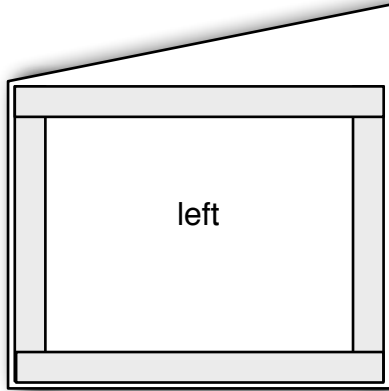
The center rafters are similar, however you should cut out a notch on the back so that they sit on the back frame and can't fall into the house before you get a chance to screw them in place.

Once you have these rafters in place and you've put in the cross pieces you need to arrange the roofing material and fit in. I used galvanized steel roofing, though almost anything would work that's good and weather-proof. I used 8' lengths on the first house and ended up with a lot left over; with the second I bought 2 12' lengths and cut them in

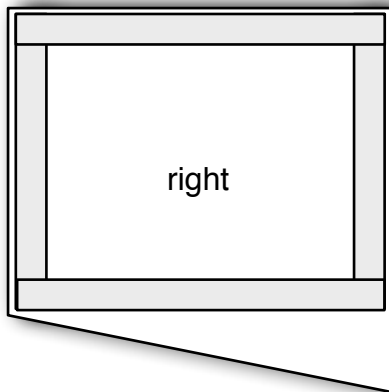
half and used all four 6' lengths side by side. drill holes firmly into the rafters and frames and use good long roofing nails. The metal roof really gets caught by strong winds so spend the time to make sure it's really firmly on there.

## **Finishing Up**

Finally go around with the caulk gun and do all of the edge joints and around the windows and doors then for paint I used red and white barn paint and two good coats. For inside to ensure the ducks (especially) didn't get everything soaking wet I painted all the inside doors and floor to about 18" high with Thompson's water seal.



2" edging



3/8" edging