10 complete coop plans
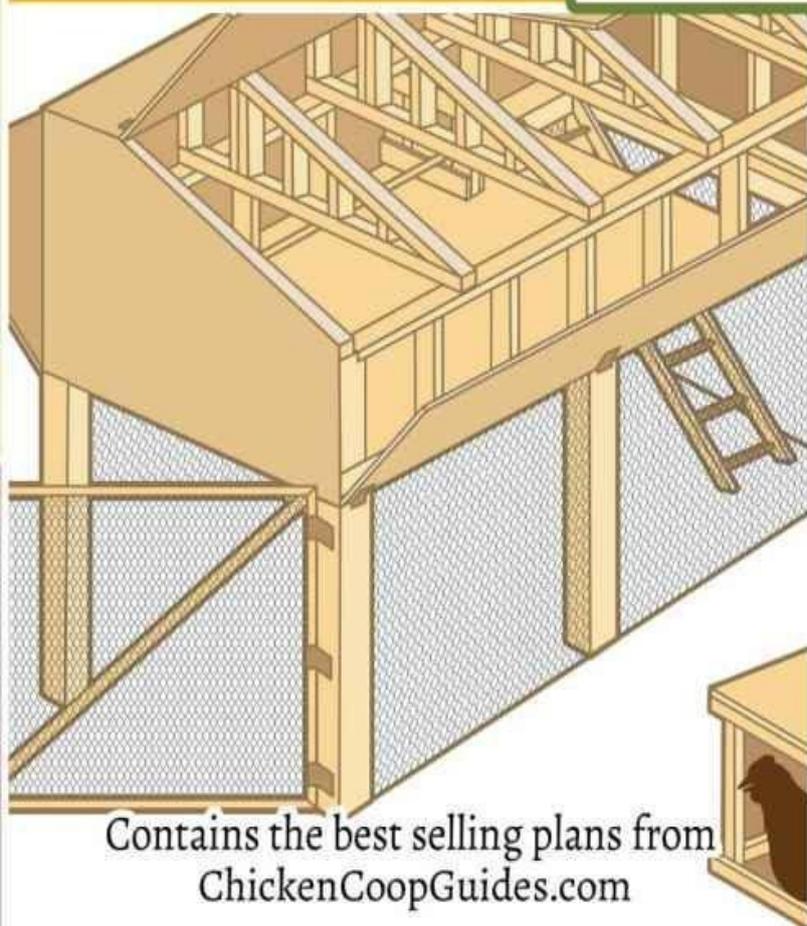
100+ pages full of tips & building basics

DIY Chicken COOPS

The Complete Guide to Building Your Own Chicken Coop

more than 349 step-by-step illustrations

Contains the best selling plans from ChickenCoopGuides.com

by **John White**

IMPORTANT DISCLAIMER

READ BEFORE YOU BEGIN! THE PLANS INCLUDED IN THIS GUIDE ARE INTENDED AS GUIDE ONLY. READ THE INSTRUCTIONS THROUGHOUT ONCE AND UNDERSTAND WHAT IS REQUIRED BEOFRE YOU BEGIN WORKING.

We will not be held responsible for any accidents or injuries anyone may sustain. Builder assumes all risks associated with construction work involved in building a coop.

We assume some builder competency in the use of tools, safety and equipment.

If you are unsure of any procedures, please contact a professional. The methods in our plans assume a minimum use of power tools. Also, if you know of alternate methods of construction, feel free to use them!

Using other tools to speed the work process is just fine.
Work safely and wear proper safety equipment such as gloves, ear protection and eye protection.

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Introduction

Introduction

Congratulations on deciding to be a great poultry farmer and building your own coop! People who build their own coops tend to have happier hens and to be more engaged in their chicken's lives. Happier hens mean healthier hens, and better eggs and meat. Your overall experience with your chickens will also be better because you've committed to making sure your chickens have the best coop you can provide.

In this guide you'll find a variety of coops to choose from. I urge you to read the chapter on "Chicken Coop Essentials" before selecting your coop. New, and even experienced poultry farmers often don't realize the importance of space and the role it plays in the health of their chickens. Other owners think about the chicken, but neglect to consider the fact the coop is a place they'll be spending time collecting eggs, cleaning out chicken poop and feeding and watering their birds. They need to be able to access the coop easily and comfortably.

Depending on where you are in the country (cold or warm climate) your hens may be spending more time cooped up during the winter months and will need a larger coop. All these issues and more are covered in the chapter on Chicken Coop Essentials. Please read it before making your final coop selection.

All chicken farms, and farmers, are different. Some farmers spend a lot of time with their chickens, and others spend a minimal amount of time with them. Believe it or not, either schedule is okay, if you have the right kind of coop. That's why I've included such a variety of plans.

Selecting the right chicken coop is a lot like buying a car, a home or a major appliance. You need to determine what you'll be using it for, what features you need, and what your budget is. Picking the right car, home or appliance can make you happy, or miserable if you select the wrong one. That's why I don't just give you the plans and building instruction. I'm also concerned that you understand that the right coop can make or break your decision to keep chickens. If you get too small a coop your chickens will get sick more, fight more, be noisier and more aggressive and won't lay the eggs you want. You'll have behavioral issues and health issues with the birds and you'll eventually become frustrated with your hens.

Getting the right coop and the right size coop can make raising chickens a delight. They need lots of space, fresh water, and room to run and roost and socialize. If they're happy, you'll be happy. So please take time to read the chapter on Chicken Coop Essentials before selecting your coop. Picking the right coop is more than picking a design that catches your eye. It must include a coop that meets yours and your chicken's needs. Only you can determine what those needs are, but I help you decide in the following chapters. Again, thank you and welcome our coop guide.

Chicken Coop Essentials

Putting your chickens into a new coop is a lot like finding a new house for yourself. You have to consider things like how much space will you need, what features do you want, how much can you afford to spend and of course the all important "location, location, location."

Just like you need certain essentials in your home, so will your chickens. Here are the essentials to make sure you include when selecting a chicken coup plan:

SPACE

How many chickens do you have, and how many do you plan to acquire over the next six months to a year? Space is the number one consideration for any chicken farmer, no matter what the size of their operation.

Chickens, like humans, need a certain amount of living space to stay healthy, warm and happy. When they're crowded into small quarters they react like humans do. They get moody, argumentative and have all kinds of health, stress and aggression issues.

Overcrowding your chickens can result in problems like feather picking, stress, and bullying, fighting and even cannibalism. Smaller coups mean more poop management too. Do the math. If you can get out to the coop frequently to clean it, then size might not matter as much. But if you can't get to the coop daily or weekly for a big clean, then a larger coup is the solution. If you have six chickens now, but plan on adding more within the year, build a coup for the number of chickens you anticipate having.

Space varies from a city setting to a rural setting. In suburbia the rule is generally four square feet per chicken in the coup and 10 square feet per chicken in the run simply because of space restrictions most people have in their back yards. Those are the minimum numbers your hens will need to stay healthy. If you can give each hen more space, then do. So, if you have six hens pick a coup that has at least 40-50 square feet with 600 square feet for their run. Remember, that's the minimum.

Bantam hens will require less space than standard size hens. Some larger breeds of chickens will require more than the average four square feet. Some breeds of chicken hate confinement and will do poorly in small quarters.

What state do you live in? If you're in a northern state with harsh winters you'll need to plan on an even larger than average coup because your chickens will be "cooped up" for much of the winter and will need more space to move around in.

How many roosters do you have? The more roosters you have, the more space you need. Roosters are territorial and will need more space than your chickens to both move around and to protect.

Chickens get along well, once they've established a pecking order that is. To do that they often get involved in violent confrontations or scuffles. The weaker chicken, the one lower on the pecking order, runs away to signal their submission. But, they need a place to run to in order not to be killed and cannibalized. So, make sure you provide enough space to let Mother Nature and her feathered friends do their thing. Some chickens need more space

than others because of personality differences. Yes. Chickens have personalities and some of them are extroverts who like to roam, socialize and take up room while others, who are more introverted, are happy with a tiny corner. The problem is, you don't know what kind of hens you have until you've had them a while. Err on the side of more space.

Have you ever had to jump off of something or maneuver through a crowed room? It's no fun having to dodge furniture, toys and coffee tables or other obstacles. When your hens jump down from their roosts every morning they don't want to have to dodge hanging lights, food and water bowls or stations, other hens or tight quarters. They like to start the day off feeling good and nothing helps more than spacious digs where they don't have to maneuver around things in the coop. Conversely, bed time is a lot quieter if everyone has plenty of room to roost without crowding their neighbor. Yes, in cold weather they may (or may not) huddle together for warmth, but like people, most of them don't like being crammed into tight sleeping quarters. They like to fluff, spread their wings, decide who sleeps next to whom, and even have hen parties with their best friends. In general they like to move about freely. Make sure they can do that and you'll cut down on evening stress.

It's not just squabbling hens that need space. So do new chicks. If you have broody hens and plan to raise chickens from eggs, then allow a lot more space — space that can also be sectioned off for the chicks to run around in when they're able. A fence or gate in the coup will work.

Everyone loses hens — to disease, old age, predators and harvesting for meat. Integration of new hens goes much better and easier if there is lots of space.

How much time will your chickens spend outside? The more they're outside and the more space they have to run, feed and play outdoors, the less space they'll need inside.

Feed and water have to be placed somewhere the chickens can't and won't poop in it. You'll need to factor in space for that. The more hens you have the more feeders you'll need.

You may also want to store grain or feed or straw in the coup. You don't have to, but it beats hauling it from the house every day. You may want to keep coop cleaning supplies, rake, shovel, gloves or other supplies, in the coop, or not. It's up to you, but that's also a space consideration.

HUMAN ACCESS

Believe it or not, you will be spending a lot of time in your chicken coup. You'll need to access it to clean it, to collect eggs, to tend to sick or dead birds, to feed and to water your hens and to tend to your hens. When selecting a coup consider how easy, convenient or accessible the coup is to you as well. Will you require an entrance you can crawl, stoop or walk into?

Many chicken farmers access their coops daily to collect eggs. Pick a design that allows you to approach the access door to the nesting boxes without having to cross the chicken run. It will keep your shoes clean if you don't have to walk through the chicken run to get to the access doors.

ROOSTS

Chickens, at least most breeds, feel the need to roost. They will instinctively go to the highest point in the coop to do so. This means if your nesting boxes are higher than the roost, you'll find your hens sleeping in the boxes, not on the perch you've so carefully created for them. Make sure your roosts are the highest point in the coop. You can place some lower roosts in if you want, but make sure everyone has plenty of room and the option to roost up high.

That said, the urge to seek higher ground comes from a need to be safe and protected in the wild. If you have a secure coop and the birds feel safe they may actually prefer to sleep on the floor, or near the door, or their food or in some warm comfy corner they've discovered. As long as they're locked up, safe from predators, weather and are warm, it doesn't matter where they sleep.

Sometimes younger hens don't know any better and will roost or sleep in nesting boxes or even on the floor of the coop. They will eventually figure it out, or you can help them by placing them on the roost every night until they get the idea. Some breeds, like Silkies, like to sleep in a heap on the floor like so many Labrador puppies. Other breeds who have feathers that block their vision, simply may not be able to see the roost. Trim their feathers around their eyes and see if that helps.

Roosts in our plans are 2x4's, but feel free to get creative. Some chicken farmers like to strip the bark from fallen trees and put the limbs in the coop to give the hens something more natural to roost on. The best limbs for this range in diameter from 2.5 to 4-inches, preferably with limbs who have varying diameters so the chickens can find their own spot.

Many websites and chicken owners will tell you that hens need at least 18-inches to 2-feet of roosting space per chicken. That's the minimum. The more roosting area you can provide the better. Chickens are like children. They like to sit and sleep next to their friends. They will squawk, flutter and fuss until they find the perfect roosting spot near their friends. So give them options.

Their favorite roosting spot may change as the weather does. Just ensure that everyone has enough room to stretch their wings and they'll be happy. Give them options – such as flat roosts, which enable them to sit on their feet and keep their toes from freezing in cold weather; to round roosts like dowel rods or natural limbs, to allow them to cool off better in hot weather.

Make sure whatever kind of perch you use is free from splinters, nails and sharp points.
NESTING BOXES

Chickens lay their eggs, most of the time, in nesting boxes. On average a chicken will lay an egg every 2-to-3 days. They're not particular about where they lay their eggs, as you may learn. The purpose of a nesting box is to give the chicken a safe, quiet place to lay her eggs, and to give the farmer a clean, easily accessible place to collect the eggs.

Nesting boxes come in a variety of shapes, sizes and materials, but the most important thing about them is the hen feels safe inside. It's true chickens aren't particular about where they lay their eggs, but given a choice, chickens love to lay their eggs in small, dark places. Whether you make your boxes out of wood or plastic storage boxes, make sure whatever you select or build for a nesting box is cozy.

You should have one nesting box for every 2-to-4 hens. The box should be large enough for your chicken to stand in comfortably. Many sites and experts advise at least a 12-inch by 12-inch box, but it's definitely okay to go larger, especially if you have standard to large chickens. The entrance to the box should be at least 12-inches high. It should be higher inside the box.

The nesting box should be off of the floor of the coop, but not too high. It definitely shouldn't be the highest point in the henhouse or your chickens will sleep in them. The whole purpose for having the boxes off of the floor is keep rats, mice and critters from getting in them. Have them at least 12 inches high, but not so high that getting out of them is worrisome to the hen.

Slope the top of the box so your chickens don't try to roost on top of it. Make sure the angle of the slope is at least 45 degrees—steep enough to dissuade even the most determined chicken. Chickens poop when they're roosting and you don't want that mess on top of the nesting box.

Your nesting boxes will need some kind of nesting material. I suggest wood shavings rather than straw, but whatever works for you is good. Straw has empty chambers inside the stalk that harbor bacteria and mold and is less hygienic than wood shavings. Wood is a natural antibacterial substance and is healthier than straw and less likely to host mold, mites and things not good for your chicken. Sawdust is good too. There are also padded rubber mats sold just for nesting boxes. They're easy to clean and less likely to develop mold.

No matter what you use, straw, wood shavings, shredded newspaper or sawdust, your hen is going to kick some of it out on the floor. To reduce the amount they do kick out, make the front and sides of the nesting box higher. It won't eliminate the mess on the floor, but it will reduce it. Don't make it hard for the hen to get in. Four inches is plenty of deterrent. Not all chickens will kick out their nesting box material. You may be one of the lucky farmers with neat hens, but don't count on it.

Material: Wooden boxes are harder to clean. Boxes made out of plastic storage containers or metal are easier to sanitize and clean and they won't retain the odor of chicken feces. Consider using pet carriers, plastic storage containers with lids and access holes cut in the side. Buckets filled with straw or even grass clippings if you don't use pesticide on your lawn, are good. Old wine casks cut in half, plastic milk and soda crates set on their sides, 5-gallon buckets laid on their side, and even small trash cans laid on their sides and filled with nesting material, old cat litter boxes, will work.

You can staple or nail a piece of burlap over the front of the nest to ensure even more privacy and darkness.

If you pick a coop design with outside access to the nesting boxes, make sure you can secure the lid to the nesting box. Predators, like raccoons, have no problem unlatching or unhooking closures. So either lock the lid, or use a two-latch system that will deter the smartest raccoons.

CHICKEN RUNS

A chicken run is an enclosed place for your chickens to run around in when they're not

inside their coop. Chicken runs are where your chickens will eat, play, scratch and spend most of their waking hours without worrying about predators. Build your run larger than you first think you'll need. There's no such thing as a run that is "too big."

The run needs to be large enough so that the chickens don't feel crowded. Crowded chickens are unhappy chickens. They not only fight more, they are also noisier and more stressed, and when stressed they tend to lay fewer eggs. Give your chickens as much room as you possibly can; no less than 10 square feet per chicken.

You can use any kind of sturdy, predator proof material for the roof of the run, including metal, tin, plywood, tarps, plastic etc. The roof will not only keep flying predators at bay, it will also provide shade and protection from rain and the elements.

The sides of the run should be of ¼-inch hardware cloth. Don't be tempted to use less expensive chicken wire. Too many predators can squeeze through it.

Don't forget the floor of the run. Predators like to dig, so use hardware cloth on the floor to discourage them from digging under the run.

If you have a secure run you can also save yourself the trouble of putting your chickens in the coop at night, and letting them out again in the morning.

Many people prefer what's called a "chicken tractor." A chicken tractor is a movable run (and/or coop). It is rolled to various areas on the property and left for the chickens to run inside. Because the tractor is rolled to a new area every few days the feces left by the chickens can break down, providing natural fertilizer for your lawn or land. Unlike a permanently installed run, it doesn't need to be cleaned out.

CHICKEN LITTER

Chicken litter is the bedding that goes inside your chicken's nesting boxes and on the floor of your run to catch chicken droppings. Coops, nests and runs must be kept clean, particularly if you don't like cleaning poop off of your eggs. Once a hen lays her eggs the dirt and feces comes from other chickens trampling over the top of the eggs another hen has laid. So you need to either collect the eggs shortly after they're hatched, or make sure you keep the coop, run and nests clean.

Common litter people use:
Shredded newspapers.

Pros: Very cheap and accessible. May also be easily burned or composted.
Cons: Tends to attract mold and to smell when its wet.
Straw and Hay.
Pros: Cheap, easily available and lightweight, easy to spread and to rake up when its dirty.

Cons: Straw and hay have hollow stems and tend to harbor mites, bacteria and mold in those stems, making them a poorer choice of litter unless you are obsessive about cleaning regularly.

Wood Shavings.

Pros: Most sanitary of all litter. Wood is a natural antibacterial substance so it actually fights mold and bacteria and is more sanitary than other litters, even straw and hay. It's

readily available at most farm supply or pet stores. Smells good

Cons: Not many. It may cost a little bit more than straw or hay, but the advantages far outweigh the costs.

Pine Needles.

Pros: Cheap, or free if you live around pine trees. Smells good, hens love it and it's a great litter, easy to clean up.

Cons: Expensive if you have to buy it. Sawdust.

Pros: Has the same advantages as wood shavings, natural antibacterial properties. Cheap and easy to find in many areas.

Cons: May kill your chickens as they tend to eat it, or it gets in their crops, get wet and swells. Not a great choice. Also irritates the chicken's lungs, even if they don't eat it.

Sand.
Pros: Cheap and easy to find and can be scooped and cleaned much like cat litter.

Cons: Sand is known to harbor e.Coli and coccidiosis. Like sawdust it can kill chicks. It can coat feces, leading chickens not to realize what it is, and then they end up eating the sand covered feces.

What do I advise? Wood shavings, hands down. It's safe, a natural anti-bacterial material, chickens like it and even though it's a bit more expensive the benefits outweigh the extra cost.

RAMPS

A chicken ramp is the way your chickens access their coop. It looks very similar to the fretted neck of a guitar, what with the ramp and the cross bars that make it easier for the chickens to walk up and down the ramp.

A stiff board at least 10-inches wide with cleats or half-round placed every 4-to-5 inches all the way up the ramp is a good basic ramp. You can get as fancy or as stay as simple as you like.

The lower the angle of the ramp, the better, but chickens will still use it, or fly if they need to, to get into the coop. Chickens will also use a steeper ramp if they need to. To make it easier for them to access a steeper ramp consider painting the ramp with sand impregnated paint or use rubber treads to give their feet something to grasp.

Don't think you have to stop at just one ramp. You can use ramps that allow your chickens to access a beneath the coop run, or an outside run as well.

FOOD AND WATER

One of the biggest complaints chicken farmers have with their chickens is that they tend to get into the water bowls, fouling the water with their poop. It's messy, nasty to clean and annoying, but most of all it's bad for the chicken's health. Contaminated water can spread disease throughout your coop faster than it takes to fill a water bowl. Dirty food or water dishes are bad news. Ensuring your coop is large enough that your birds aren't crowded and forced to perch on their food or water dispensers helps, but so do bowls designed to

help keep chickens off of and out of the bowls.

VENTILATION

We don't think of chickens as needing ventilation, but they do. They get hot and cold too. And, ventilation is also needed to keep mold from growing in your coop. A steady breeze blowing through the coop will keep it cool and dry. Make sure any flaps, windows or openings are covered with ¼-inch hardware cloth to make sure predators don't find an easy way in. Close the flaps at night unless it's really just too hot inside.

INSULATION

Chickens are just as sensitive to heat and cold as we are, maybe more so. Unless you live in a southern or tropical climate where temperatures stay mild year round, insulate your coop. Because chickens will use any kind of insulation to feather their nests, make sure you put a sheath or some sort of wood cladding (plywood) over the insulation. They will peck through plastic, so use wood to cover any areas you insulate. To ensure your chickens are comfortable make sure the floor and ceiling are insulated too. The amount and type of insulation you need depends on where you live. Someone in Michigan, where temps hover around zero and below in the winter, will need considerably more insulation than someone living in Florida.

HEATING AND LIGHTS

Chickens, hot elements and straw, wood shavings and heaters and lights spell out a recipe for disaster and fire. Believe it or not, experts say all chickens need to survive extremely cold weather is a place to stay dry and out of any breeze, wind or draft. Having a well insulated coop is better than having a heater. If you absolutely must have heat for your chickens, hire a qualified electrician to wire the coop for you. They must also understand that they must be installed in such a way that chickens can't knock them down and that they are out of the reach of anything (including hens kicking straw up) combustible.

You don't have to have straw or wood shavings close or touching the heat source either. Radiant heat is enough to cause materials to combust.

If you're worried about your bird's water freezing, use a submersible bird bath heater or any of the approved drinking water heaters on the market.

If you're concerned about winter egg production, which drops because of the reduced light in winter, then install a 25 watt full-spectrum (not blue or white light) bulb in the coop. Chickens need 16 hours of light a day, but it doesn't have to be a lot of light. Twenty-five watts is plenty. Again, have an electrician wire the house and install the light where chickens can't fly up and knock it down or kick straw up onto it.
¼-inche Hardware Cloth

WIRE

Predators, including foxes, raccoons, opossums, rats, hawks and snakes are pretty crafty creatures. Mice can sneak into a hole no larger than the size of a nickel and snakes require less room than that. Larger predators can dig, tunnel or squeeze through the heaviest gauge of chicken wire too. That's why using ¼-inch hardware cloth is the only way to ensure your coop is secure and your chickens are safe.

Chickens are natural omnivores, and given the opportunity to catch and kill rats, mice and snakes, or even other birds, will do so. However, they're at a disadvantage when they're sleeping and predators get in the hen-house. Make sure every hole, crack, crevice, or opening is covered with hardware cloth, not chicken wire.

Chicken Coop Building Basics

Chicken coop construction requires patience, especially if you are a new or beginning carpenter. Before getting out your tools, or buying wood, create a plan. It will make building your coop so much easier and faster. Plans don't have to be elaborate or etched in stone, and you can change them as you go, but you should start out with a plan. To create this plan you need to first:

Decide on a location for your coop before you start building. Consider things like:

Water. How far away from water are you? You'll need to either carry water, or run a hose or other water source to the coop for watering, cleaning and other chores. Decide how far you want to carry water, or what it will take to get water to the site.

Electricity. If you plan to light or heat your coop you'll need a power source. Solar is one option if you don't want to run power to the coop. Otherwise, decide if you prefer to insulate the coop or use another means to heat it in winter. Chickens won't lay eggs in the winter. There's just not enough daylight. Lighting your coop can help extend the laying season and keep them warm and healthy.

Odors. Odor is always going to be a factor in having chickens, no matter how clean you keep the coop. Determine prevailing winds in your area and build accordingly. You don't want every breeze to bring the fragrance of your hens into your house. Chickens raised for their meat are said to be smellier than egg layers. Either way, the average distance is about 40-to-60 feet, further if you have more than a dozen chickens. A lot of the distance decision has to do with how far you don't mind walking twice a day. That may have to do with snow, rain and terrain (up or downhill). Choose your location wisely. Unless you're building a chicken tractor the coop won't move for a long time.

Level ground. Is the location level and away from trees and features that could harbor predators or make it easy for them to drop in on your coop?

. Which direction do you want your Wind
coop to face? This has to do with prevailing winds again. Make sure you site the coop where you can open windows to create a breeze that keeps the coop fresh, helps it dry out after a rain or cleaning, and gives the hens the most light possible year round.

Approach. When determining where to site or locate your coop, try to angle the coop so that you don't have to walk around it to get to the nesting boxes, and you don't have to walk across the chicken yard or run to get to the coop. This will keep your feet cleaner and ensure you're less likely to spread chicken poop around your yard if you're a suburban chicken owner.
Pick a plan for your coop. If you've read the chapter on Chicken Coop Essentials you have a good idea of what kind of coop you want and what size you'll need and what your budget is. It's better to wait until you can afford a larger coop than to build a coop that is too small. Pick a plan according to the number of chickens you plan to have, rather than the number of chickens you currently have. Owning chickens is addictive and most new

chicken owners double the number of chickens they have after the first year. Build bigger. Your hens will thank you by being healthier, happier and laying more eggs.

Prepare. Now that you've selected a site, picked a plan and are ready to build it's time to prepare.

Tools. Gather all your tools and supplies before starting to build. This means having enough nails, screws, bolts, lumber, paint, stain, brushes and roofing tiles etc. on hand before starting. If you're building in stages make sure you have all the supplies and tools you need for each stage. Keep your nails in a closed container, like a plastic bin, coffee can or other container so nails don't end up in the chicken run.

Organization. Organize your construction site. Have a table or other designated area to use as a "command center" where you keep your blueprints, tools you're not using and other items. A piece of plywood on two sawhorses, your deck or porch or a table or stool or tree stump will all work. It doesn't have to be elaborate, but it does have to be a designated spot where you can work. Having it be covered in case of rain, or sun, is a bonus.

Keep your work site clean and free of debris, rubbish, scrap boards etc. Either clean up as you go, or clean at the end of each work period or the end of the day. Put scrap lumber in a bin or pile away from the site so you don't trip over it.

If you're using reclaimed, found or recycled lumber make sure it is free of nails, staples and metal before cutting or using it. Old pallets, reclaimed wood and other sources of lumber can bring a special beauty and wood patina to a coop that new lumber can't. It's also often free wood, making it very attractive to many chicken farmers. However, pallets and reclaimed or recycled wood often contains nails, staples and metal embedded in the wood that can be struck by power tools when cutting or drilling and cause severe injuries. Check all reclaimed wood carefully for nails and fasteners before cutting.

Seal, stain or paint all wood before assembly. Where possible, and unless you're using a spray gun, seal, stain or paint your wood after cutting and before assembly. Use treated wood where possible. Numerous studies, including one by the Texas A&M Agricultural Extension service, show that pressure treated lumber is not toxic to chickens or eggs.

Safety first. This should be obvious, but people forget. Wear protective eyewear, gloves and other safety gear when building. Don't use power tools in the rain; beware of overhead wires when moving lumber, and wear sturdy boots to avoid food damage when you drop things (tools, lumber etc.).

Level your site. If you're planning on placing your coop on a foundation (either concrete blocks, or a concrete slab, gravel etc. then you'll need to level the site and stake it out so you know where you're building. If you're putting the coop on posts (like you would a deck), then stake out the corners where the posts are and ensure they're square and at right angles and your posts are plumb.

Build. Your site is level. Your tools are organized. You have a central point where your lumber and supplies are. Your cutting station is ready, you have your plans in hand and it's time to build.

Be methodical about your building so you don't have to keep fixing mistakes. Do one thing at a time. Don't try to multitask. You'll just make more mistakes.

Dry fit pieces first to make sure you've got everything in the right place. Don't be afraid to write down notes to yourself on the wood itself (like, top, bottom, coop foundation) to help you remember what the piece is for. You can paint over the notes later, especially if you use a pencil to write them.

Once you're sure that you have all the right pieces in the right place and they fit, use wood glue to secure them before assembly. The glue will ensure waterproof joints that are more secure and stable. Make sure you get wood glue for outside applications.

Take your time and double check your work periodically to ensure everything is in the right place and that you haven't made a mistake you can't easily correct.

The Introduction Chicken

The Chicken Fun Run is a very comfortable 16x16 feet so any poultry will have room to roam comfortably. A bird mesh on top is optional

Fun Run

depending on the area being built. The total cost for this chicken run is less than $300 and well worth it to protect your clucking investments. This is the perfect accessory to any chicken coop, large or small!

Building Plans: Chicken Fun Run

4' - 1 1/2" 3' - 7 1/4" 3' - 7 1/4" 4' - 1 1/2" ^{**4 '- 2 1/4"**} **3' - 8 1/4" 3' - 8 1/4" 4' - 2 1/4"**
15' - 5 1/2" 15' - 9" Back Wall (x1) Scale 1:1000 Side Wall (x2) Scale 1:1000

Material List Description Dimensions Base plate 2x4x16' Top plate 2x4x16' Vertical support 2x4x8'

Quantity
2
2
18

4' - 1 1/2" 4' - 7 1/4" 4' - 3" 3' - 5 3/4" Instructions:
1. Measure and layout boards as detailed 2. Screw or nail vertical supports to top and bottom plates
3. Screw or nail front wall to sidewalls. Make sure to square edges
4. Attach mesh over top of walls and drape **15' - 5 1/2"** over sides. Tighten and attach from the top **Front Wall (x1)** down. Be sure to pull mesh tight. **Scale 1:1000** 5. Measure and cut pieces for door. 6. Nail or screw pieces together. Make sure **2' - 9 3/4"** door frame is square and fits in door frame 7. Attach latch and hinges (by builder)
Coop Door (x1) Scale 1:1000

Description Base plate
Top plate
Vertical support
Door frame
Material List

Dimensions Quantity
2x4x16'
2x4x16'
2x4x8'
1x1x22'

The

Introduction
The wheeler chicken coop is a small, lightweight

Wheeler

coop that can be placed almost anywhere. With a small footprint and sturdy construction, this coop is the perfect addition for starter growers or to use as a warmer during hatching. The builder can add wheels and mesh where needed and depending on what you have lying around; this coop could be constructed for less than $100.00.

Building Plans: The Wheeler
Note: 2x4" Typical
3'-7¼"
1
Base Plate (x4)
Scale 1:500
2
Nest Door Plate (x1)
Scale 1:500
1'-7¾" *60° Both sides*$_{10¾"}$

60°
3
Nesting Header (x1)
Scale 1:500
$_4$ General Header (x4)
Scale 1:500
Description Material List Measurements Quantity
Base plate 2x4x4' 4 Nesting door plate 2x4x2' 1 Nesting header 2x4x2' 1 General header 2x4x1' 4
3'-11¼"
1'-7¼" 60°
5
Side Plate (x8)$_6$ Top Spacer (x6)
Scale 1:500 Scale 1:500
¾"
$^{1:200}$ 1'-6¼"3'-11¼"
$_7$ Bottom Tract (x1)$_8$
Scale 1:500
Bottom Spacer (x6)
Scale 1:500
60° 60°$_{1:200}$
2'-1½" ¾"
9
Top Tract (x1)
Scale 1:500
Description Material List Measurements Quantity
Side plate 2x4x4' 8 Bottom spacer 2x4x2' 6 Top spacer 2x4x2' 6 Bottom track 2x4x4' 1 Top track 2x4x4' 1
Instructions

1. Use 1 base plate, 2 side plates, 2 bottom spacers, 2 top spacers and general header.

2. Carefully connect plats as shown using #20 to #30 torque head screws 2½in straight into connecting piece (or equivalent)

3. Measure header location as detailed and mark location on side plates. Connect by screwing in straight into the header

4. Mark spacers to make sure horizontal support will fit between

Note: 45×90 [2×4] Typical

*1'-6¼"*Spacer Header 10¾"

1'-7¼"
Spacer
Side Plate
Base Plate

3'-7¼" 3'-11¼"

Scale spacer

Side Plate^spacer
1
spacer Side Plate Header
spacer
Base Plate

Description Material List Measurements Quantity
Top spacer 2x4x2' 2 Bottom spacer 2x4x2' 2 Side plate 2x4x4' 2 Base plate 2x4x4' 1 Header 2x4x1' 1
2

1. Use 1 base plate and 2 side plates.

2. Carefully connect as shown using #20 to #30 2½in torque head screws (or equivalent) straight into the connecting piece.

NOTE: If connecting to a platform, the base plate may be used as a spacer. Tack the baseplate to the side plates for easy removal and anchor the side plates to the platform.

Side Plate Side Plate
Base Plate

Description Material List Measurements Quantity
Side plate 2x4x4' 2 Bottom plate 2x4x2' 1
Instructions

1. Use 1 base plate, 2 side plates, 2 bottom spacers, 2 top spacers and a general header

2. Carefully connect plates as shown using #20 to #30 2½in torque head screws (or equivalent) straight into the connecting piece

3. Mark the centerline of the baseplate and crew bottom of the baseplate into door plate

1'-6¼" Spacer
Door Header
1'-7¼"
Spacer
Side Plate 1'-9¼"
Base Plate

3'-7¼"
spacer spacer
3
spacer Door Header
Side Plate$_{spacer}$ Door Plate
Base Plate Side Plate

Description Material List Measurements Quantity
Top spacer 2x4x3' 2 Bottom spacer 2x4x3' 2 Door jamb 2x4x2' 1 Door header 2x4x2' 1 Side plate 2x4x4' 2 Base plate 2x4x4' 1

1. Use 1 base plate, 2 side plates, 2 bottom spacers, 2 top spacers and a general header

2. Carefully connect plates as shown using #20 to #30 2½in torque head screws (or equivalent) straight into the connecting piece

3. Measure header location as detailed and mark location on side plates. Connect by screwing into the header

4. Mark spacers to make sure horizontal supports will fit between
Note: 45×90 [2×4] Typical

1'-6¼"$_{Spacer}$ Header 10¾"

1'-7¼"

Spacer
Side Plate

Base Plate
3'-7¼" 3'-11¼"

4

spacer Side Plate
spacer
spacer Side Plate Header
spacer
Base Plate

Description Material List Measurements Quantity
Top spacer 2x4x2' 2 Bottom spacer 2x4x2' 2 Side plate 2x4x4' 2 Base plate 2x4x4' 1 Header 2x4x1' 1

Sheating
both sides
Top Spacer Sheating shown with veneer
Bottom Spacer
Nest Entrance Sheating (x2)

Scale 1:500
9¾"
*1'-7¾"*₃½"
SEE
DETAIL₁'-7¾" 1¾" 3'-11¼"

Coop Entrance (x2)

Scale 1:500

Sheating both sides
Top Spacer Sheating shown with veneer
Bottom Spacer

3'-11¼"
Notes:

1. Layout cuts and openings on sheets and check for accuracy against dimensions of actual lumber

2. These drawings assume plywood sheet sizes of 4'x8'x3/4". If using different sheet thickness, adjust measurements accordingly.

3. All examples show veneer siding (not required)
Description Measurements Quantity

Coop
entrance 2'x8x¾" 2 sheathing

Nest
entrance 4'x8'x¾" 2 sheathing
3'-11¼"*1¾"*

Nest Back Wall (x1)
Scale 1:500

[4] 3
2 2
1 1
4'-3¼" 4'-3¼"

Coop Back Wall (x1)
Scale 1:500

Notes:

1. Layout cuts and openings on sheets and check for accuracy against dimensions of actual lumber

2. These drawings assume plywood sheets sizes of 4'x8'x¾". If using different sheet thickness, adjust measurements accordingly

3. All examples show veneer siding (not required)
Description Measurements Quantity

Nest
back wall 4'x8'x¾" 1 sheathing

Coop
black wall 4'x8'x¾" 1 sheathing
1. Before attaching supports, make sure nest

door is installed and slides freely (See details earlier in this guide)

2. Level and attach bottom track making sure angles are flush with nest wall sheathing and slide plate. Measure and drill pilot holes in both tracks to prevent cracking tracks.

3. Use nest door as a guide to place top track. Make sure nest door slides freely before anchoring top track

Make sure nest door is in place and working BEFORE attaching side supports or it will be difficult to install afterwards

4. Cut and rip bottom support as detailed. (If longer or shorter structure is required, adjust dimensions accordingly)

5. Flush back of bottom support with back sheathing. Support should fit in seat, flush with bottom of base plate. Repeat for opposite side.

If needed, remove bottom plates from middle wall before attaching to bottom support to prevent tripping hazard

6. Measure and layout position of remaining walls. Remember to check for vertical level before attaching to bottom support

7. Repeat for remaining supports and crown

3'-1¼" 4'-1½" 4'-3¼"

Back Nest Entrance MIddle Entrance_{Nest Wall Support WallWall Wall}
Crown
Top Support
Top Support
Bottom Support

May omit middle base plate to prevent tripping hazard

90×90 59°

60°

Description Measurements Quantity

Bottom support 2x4x12' 2
Mid and top support 2x4x12' 4
Crown 4x4x12' 1

1. Turn entire structure on side so base plates are facing up.
2. Starting at one end, track floor mesh to the bottom edge of base plates

3. Repeat for top edge
4. Repeat for remaining 3 walls

5. Once floor mesh is tacked to all walls and measurements are good, attach floor mesh with 16 gauge 1" staples (or equivalent)

6. Attach to each wall in order, checking tightness per wall before stapling to prevent pockets

For longer or shorter structures, be sure to adjust measurements accordingly. (Material list

on the following page)

1'-0¼"
1'-10"
1'-11¼"
Instructions for installing roof mesh

1. Unroll mesh cover over structure and make sure there is enough mesh to completely cover structure

2. Pull tight over cover crown
3. Attach with 16 gauge 1" staples (or equivalent)

4. Working down, pull the mesh tight and permanently attach to horizontal supports

5. Fold edges of mesh over bottom support and pull tight around bottom of structure

6. Attach and cut away any excess Description Measurements Quantity
Floor mesh By builder By builder
Top track By builder By builder
Cut mesh to mid point of nest entrance wall
Notes:
1. Door shown with veneer. If adding veneer, adjust base measurements accordingly.
2. If door does not swing freely, sand down sides and round off edges.
3. Always take hinge type and placement into account when installing a door.
Door shown with veneer
11¾" Entrance Door (x1)
SScale 1:500l 1 500
Nest access (Both sides)
Nest access (Both sides) 3'-7¼"

Note: Hinges and g
latches determined by builder

Nest side wall (shown with veneer for clarity

Entrance Door 3′-3″

Nest Side Wall (x2)
Scale 1:500

3′-3″

Nest Access Panel (x2)
Scale 1:500

Description Measurements Quantity

Entrance door 4'x4'x¾" 1
Nest slide wall 4'x4'x¾" 2
Nest access panel 4'x4'x¾" 2

Instructions

1. Cut caster support timber as detailed and attach #20-#30x 2½-3" screws. If structure is

longer or shorter, be sure to adjust measurements accordingly.

2. Tip coop structure on side and ensure caster support fits as desired

3. Layout casters and mark positions of bolts holes. 4 lock casters each corner and 2 free casters at long support, 2 for middle

Angle Iron support

4. Sink nut holes 3/4 ", or until nuts are, at minimum, flush with top of sink hole and caster bolts do not interfere with caster support

If casters do not include bolts, compare Draught Board (x1) bolts to those on the caster plate to ensure a correct fit

5. Use 1½" bolts to attach casters to caster support. Leave at least 1" of timber to anchor casters to support.

6. Once casters are attached and tightened against caster support and caster support fits as desired, anchor entire caster support using #20-30x 1½" torque head screws roughly

$_{1x2"}$ every 1'-0"

~typ~$_{45°}$ $_{TYP}$ 7. A draught board can be constructed with plywood and 3 pieces of 60° angle iron with rounded edges to prevent tearing mesh (If desired, cut slats into the draught board to allow for air flow (see details in illustrations below and on the next page)

12′-0″ NOTE:

Casters determined by builder. Be sure to have at least 4 lock casters in each corner to keep coop from rolling freely.

Angle Iron (x3)
Brake Caster (x4)
Caster Support
Caster (x2)
Draught Board (x1)
Description Measurements Quantity
Long caster support 2x4x12' 1 Cross caster support 2x4x6' 2 Caster By builder By builder
Draught board 4'x8'x1" 1 60 degrees angle iron 4x4⅜ min. 3

The Cluck Carrier

Introduction

The Cluck Carrier is the ultimate accessory for anyone with 1-5 chickens. Any other backyard chicken coops cannot compare to the convenience of a Cluck Carrier. With three opening panels for cleaning and easy chicken removal, the Cluck Carrier offers unparalleled ease-of-use.

With the optional nesting boxes, gathering eggs has never been easier. Neither has been transporting chickens, cleaning the chicken coop, moving the coop or accessing the chickens from every available vantage point for doctoring.

The Cluck Carrier is small 4x8' which maximizes available space by resting the chicken run below the coop. With built in roosts, ventilation, access panels, a clean-out door and a convenient chicken ladder, the Cluck Carrier is the ultimate project for your prized poultry.

4 -0
Building Plans: The Cluck Carrier
3 -5 3 -9

To begin with the base, we need to make sure it's very clear this base NEEDS TO BE INSULATED! We are constructing this coop based on the assumption that it will be insulated on both the top and bottom surfaces!

Materials:
2×4×8 plank -9

Build the frame something like the illustration on the top right. We are constructing this to use as a little slag (debris, garbage, spare parts etc.) as possible.

It's not necessary to miter (angle) the Note: corners of the side planks, but if you want a more professional finish, it's well worth the little extra time.

Cut two sheets of plywood as shown to the bottom right.

Note: We recommend using oak or cedar plywood. Both species are superior in insect 3 and water retention. In this example we use ½"
sheet on both sides, but you may wish to opt for a thicker sheet on top. DO NOT FORGET TO INSULATE THE JOISTS BEFORE ENCLOSING!

4 -0
3 -5
Materials
4×8 Plywood Sheet -2
4 -0
Nailer Materials: 2×4×8 plank - 4

Starting at the short edges of the plywood sheet, construct the wall as shown to the left. You will need two of these structures, one for each end.

7 -5
1 -7 1 -2 1 -2 1 -2 1 -2 1 -2

For the front and the rear walls, the construction is a little different. You can go ahead and attach the planks as shown in the diagram to the left.

Materials:
2×4
2×4

Once you have two of each type of wall go ahead and attach them as shown to the left. Method doesn't really matter, but we do recommend using at least 2½" screws to ensure a tight connection. Make sure all edges are flush!

When you connect the walls to the base, make sure you use a level to ensure the supports are leveled vertically! You MUST ensure the supports are straight up and down or else your risk not being able to get the nesting boxes out of the side of the coop!

Toe-nailing the supports is fine as long as you be sure to hit the floor joists below. Screw the side frames down directly into the frame joists. If the screw hits the frame joists, depending upon the strength of your drill, it should either stop completely or continue to pull itself into the planks. If you miss the joists below, your screws will most likely sit there and spin with nothing to pull into.

Before the frame gets too heavy to lift easily, you may want to construct the chicken run beneath the coop. The run gives the chicken some place to just get out, wander around and stretch out. Most people also use the run for feeding and watering.

1' 7" opening this side
ni m
Make ABSOLUTEL SURE the wide ope
are towards the opening in the base fra

In this example, you will notice we have "slid" the posts out 3/4" on all slides, this is not necessary if you do not wish. We are taking the exterior sheathing into account. You may do the same if you wish, but this is not required.

As you can see from the illustration on your right, the run is nothing more than 6 sections of 4x4 post. You will wrap chicken wire around the run. Attach the posts to the base of the coop. Center the middle posts with the middle of the coop base. We would recommend using angle brackets or post sleeves to attach to the coop base.

Materials:
4x4x10' post - 2
3

Door measurements
Door on this end!

For the door, it's pretty simple, the main frame is 1x4, and the diagonal support is 2x4 cut to fit. Now, here's the key, depending upon the area you choose to put the coop, you may have to adjust the door size slightly. ALWAYS check the frame for easy swing BEFORE inserting the diagonal.

Attach the door to the end without the coop opening. You don't want to give anything a chance of getting out when you open the door. Does the term "herding chickens" mean anything to you? NOT FUN, put the door at the opposite end!

Once the door is in place, the coop is level and the door swings freely. You may want to get the chicken ladder in place before you surround the run with chicken wire.

Note: This step is purely up to you. You will have to install a ladder to give the chickens access to the coop, we just recommend completing and installing the ladder before you have to fight with chicken wire.

Note: We would recommend adding a handle and a latch. We recommend using a slide pin or at least a hook and eye-pin to lock the fence.

For ease of cleaning you MAY prefer to construct two doors and place one on each end! Make sure your chickens are safely tucked away either in the nesting boxes or the coop before opening both run doors at once, though!

The ladder can be as simple or as complex as you want. We are showing details on making a simple dowel ladder that your chickens can use to get exercise, use as a roost on hot days and will enhance the look of your coop.

We recommend not less than ½"ø $^{3/8}$" dowel. Cut the ladder as shown and mark the sinks. Use a drill with a spade bit just barely larger than the size of the dowel to use. If you are fortunate enough to have access to a drill press, then use that. Be careful not to drill through the stringer!

Materials: 1

Materials:
1x4x6' plank - 2
min 1/2" Ø x 8' dowel - 1

Attach the ladder in place with a single screw in each side of the coop base. Use a tape to make sure the screws are in the same position on each side. The screws can act as a "pivot" should you ever need to put the ladder up for cleaning! (Smart huh?)

Now, go ahead and wrap the base posts with chicken wire (if you haven't already)
4 10"

Once you have the base solid on a flat surface, the chicken wire attached, you will want to complete the roost for the inside of the coop before you start getting everything enclosed.

The roost is possibly one of the easiest steps. All you need is something to support a dowel a few inches off the floor of the coop.

Construction methods may vary for the roost, but if you follow the steps below, you should have a nice roost for your chickens

1. Cut two 2x4 pieces @ 1'-1½"
2. Align the sink for the dowel in the center of each piece cut in step 1.
3. Anchor one of the pieces cut in step 1 to the first support on the side wall

4. Anchor the other piece LOOSELY onto the rear wall supports using 1x4 as shown in the diagram on your left

5. Measure and cut the dowel to be used for the roost
6. Place the dowel in position and solidify the free end

Note: Should you wish, anchor brackets work fantastically instead of 1x4 to anchor the floating end of the roost support.

Once the roost is in place, we can get to the roof frame. In case you are wondering about the nesting box, we will get to that later, but for now we will put the roof frame in place.

If you follow the diagram on your right carefully, you should have no problem constructing the truss as shown.

Materials: 2×4×8 plank - 10

The trusses are easily placed, one on each end, one in the center and two centered between the center and the $_2$ exterior trusses. There should be a total of 5 trusses as shown below.

Now the fun begins. While sheathing the exterior, be as creative as you want. We have made the front wall, the rear wall and the large, slanged sheet of the roof able to be opened through the use of hinges.

Be creative and have fun. The front and rear walls can be opened for cleaning and easy removal of the nesting boxes. The nesting boxes have front panels that can be opened and closed, so we have made the roof able to be opened for access to the top of the nesting boxes and for ease of getting to the eggs.

Sheathing is not hard as long as you measure your cuts. We do not detail sheathing because construction techniques may differ.

We do recommend putting a strip of weatherproofing across any pivot point as shown to the left. You can use anything from glue-on weather proofing to old bicycle tubing. We want to make sure no water will intrude upon the joints and cause premature weathering or wear.

Trim details are up to the builder. Once the $_{Rubberized}$ sheeting is completed, the coop is

practically ^{Weatherproofing} ready for use. We recommend using 1x4 trim board. Remember to measure carefully and make sure the trim does not cause any hang-ups on any opening components.

For the nesting boxes, start by ripping 2x4x8' _{figure. A} planks down the center. You need to make two 1-0 frames as shown below. (figure. *A*)

Either purchase some 1x2 post or rip another 2x4x8' plank down the center. Cut as shown and attach to the frame pieces on the side corners. (figure. *B*)

Rip pieces of plywood sheet to wrap around three sides. Be sure to measure and lay out the cuts to make and be sure they fit flush. Start with the longest sides, cut a rear piece to cover ^{figure. B} both ends. Attach a handle if you would like. (figure. *C*)

^{Cut a dowel to just fit snugly inside the nesting W}box. Use a rubber mallet or dead-blow hammer to tap the dowel in place just as below the top rim of the nesting box. Attach the dowel to plywood with screws through the exterior face of the plywood. (figure. *D*)

Tip the nesting box on its top and cut a piece of plywood to fir the bottom. Attach to the frame with screws. Make sure the bottom is cut to fit ^{figure. C} (even slightly smaller) so the nesting box will fit in the spaces on the completed coop. (figure. *E*)

Use a hinge to attach the front piece of plywood to the top, front edge. You will want to attach the hinge to the plywood before attaching the hinge to the nesting box frame. This way you can ensure the nesting box opens and closes properly. Use a hook and eye-pin to lock the nesting box closed. (figure. *F*)

figure. *D* figure. *E* figure. *F*

The Olde Shack

Introduction

The Olde Shack is a classic take on a timeless structure. This chicken coop offers convenient egg collection, clean-up and poultry transportation all in one.

The spacious 8x10' floor plan is large enough to keep between 10 and 20 chickens depending upon the breed. With the ability to "stack" the Olde Shack side-by-side, you can increase your poultry count to over 50, 100, 200, however many you need.

With a fully covered chicken run attached, your chickens will be able to wander freely without any worry of predators either on the ground or in the air. The convenient nesting box offers easy access for collection and the structure is safe to insulate and electrify for cold, winter months with large windows to offer ventilation in the heat of summer.

The 3D diagrams show you how to cut and assemble your Olde Shack with ease and a full materials list helps with purchasing materials and setting a budget.

Building Plans: The Olde Shack

Description
2x4 plank
2x4 plank
2x4 plank
4x4 pressure treated post
4x4 pressure treated post
4x6 plank
Plywood sheet
Paneling sheet
Material List
Dimensions Quantity 2x4x8' 37 2x4x6' 47 2x4x10' 18 4x4x8' 3 4x4x10' 7 2x6x8' 1 4x8x¾" 5 4x8' 12 Miscellaneous
Chicken wire Sealant/paint Hinges
Latches
Roofing
8 2

8'-0" To begin, cut 4x4x10' & 8' planks as **1'-4" 1'-4" 1'-4" 1'-4" 1'-4" 1'-4"** dimensioned to the left (figure. *A*). Mitering the ends is NOT required, but we recommend it for a professional-looking finish!

Add ¾" cedar or oak plywood flooring. We recommend at least cedar or oak for their insect and water resistant properties. (figure. *B*)

For the side walls, it is important to remember you can build the walls to connect two or more coops together with minimal adjustments. (figure. *C*)

Remember, if you wish to connect two or more of these coops together, you may do so. Just remember to use this wall with the opening so you can access both coops.

If you connect three or more, ensure the middle support walls have an opening for access

figure

and cleaning.

. *A*

8'-0"₈'-0"

4'-0" 4'-0"⁶"

3'-11 1/4" 4'-0 1/4" 1'-3 1/4" 8'-0"

figure. *B* figure. *C*

7'-5"
1'-0 1/2" 1'-4" 1'-4" 1'-4" 1'-4" 1'-0 1/2"

For the rear wall, you will be ensuring that you leave space for the chickens to have access to the nesting box.

3'-8 1/2" 3'-8 1/2" 7'-5"
7'-5"
1'-0 1/2" 1'-4" 1'-4" 1'-4" 1'-4" 1'-0 1/2"

For the front wall, be sure to remember the chicken access at the bottom. Follow the diagram and you should be just fine.

1'-2 1/2" 1'-1 1/2"
2'-3 3/4" 1'-5 1/2" 3'-7 3/4" 7'-5"
1'-4" 1'-4" 1'-4"⁸'-0" 1'-4" 1'-4" 1'-4"

For the sidewalls, it's important to remember you can build the walls to connect two or more coops together with minimal adjustments.

8'-0"

Construct the walls around the base. If you make your cuts carefully, the walls should tie together cleanly on the constructed base. Ensure edges are flush and corners are square before continuing on.

Once you have the wall frames up, it's time to start construction on the roof structure. Before you begin:

ALWAYS use extreme caution when working at heights. Serious injury can occur from even a short fall. Make sure you work with assistance at all times and sue any and all proper safety measurements!

To begin, construct a basic frame on top of the walls that tie the walls together on the top. There is no need to miter these ends as they ₈'₀"will be covered with board and batten anyway. figure. *A(* figure. *A*)

Add the rim joists around the exterior rim of the tie plate. (figure. *B*)

Lay down roof joists as shown below.figure. *B* (figure. *C*) & (figure. *D*)

7'-9"

Continue the roof construction by cutting supports as shown.
8'0" 1'-4" 1'-4" 1'-4" 1'-4" 1'-4" 1'-4"

80

80

x7 x7 x7

Use angle brackets to ensure the roof supports are sturdy and straight vertically.

For the rafters, cut 2x4 planks as shown below. If you open span exceeds 6 feet, you will want to use 2x6 or larger. Consult with a professional for spans larger than shown below.

3'-10 1/2" x8

x8

3'-11 1/2"*170°*

Once the roof structure is in place you should have a structure that looks like the diagram below. For the nesting box frame behind the rear wall, start constructing the side frames as shown below.

2'-1 1/2"

2'-0"

For the rear wall panel if you attach the frame with hinges you will be able to open the back for cleanouts. Construct the frame as shown below:

2x6
1'-0 1/2" 1'-4" 1'-4" 1'-4" 1'-4" 1'-0 1/2" 7'-5"
8'-6"
8'-4 1/2"

For the top panel, construct the frame as
shown. For professional look, you will want to
router the depth of the panel material around the
interior edge so you can "lay" the paneling into ^{figure. *A*} the frame. (figure. *A*)

Hinge the top panel by drilling and bolting the back of the top panel frame directly through the studs of the rear wall. HINT: To stabilize the bolt, thread a nut on BOTH sides of the bolt and hold it in place with washers.

From this point on, the sheathing and trim work is up to the builder. As sheathing materials and trim materials can vary, it's impossible to anticipate materials for a variety of reasons.

A few tips on the sheathing:

1. Sheath the roof with a water-resistant material such as cedar or oak plywood BEFORE laying any roofing such as shingles or tin

2. Use at least ½" plywood sheathing around the exterior. Apply a coat of water proofing such as paint, veneer, or polyurethane once the sheathing is up

3. Apply a water-proof epoxy sealant on all seams and around the roof to prevent water intrusion

4. Apply a piece of rubber stripping along the nesting box top panel to prevent water

intrusion (inner tube works very well in a pinch)

Follow the diagrams below and to the left for a guide on how the paneling should look.

The trim, roofing, windows and doors are up to the builder. While we do have drawings for door and windows, we recommend purchase any doors and windows for a professional finish.

For the chicken run, construct a basic box frame as diagrammed below. Make sure to attach the frame of the run directly to the coop and make sure the top of the run fits under the trim of the coop.

8'-0"
2'-2 2/4" 3'-6 1/2" 2'-2 2/4" 8'-0"
For the door:
3'-2 1/2"
1'-0"

For the nesting boxes, start by ripping 2x4x8' planks down the center. You need to make two frames as shown to the right.

Either purchase some 1x2 post or rip another 2x4x8' plank down the center. Cut as shown and attach to the frame pieces on the side corners.

Rip pieces of plywood sheet to wrap around three sides. Be sure to measure and lay out the cuts to make and be sure they fit flush. Start with the longest sides, cut a rear piece to cover both ends. Attach a handle if you would like.

Cut a dowel to just fit snugly inside the nesting box. Use a rubber mallet or dead-blow hammer to tap the dowel in place just as below the top rim of the nesting box. Attach the dowel to plywood with screws through the exterior face of the plywood.

Tip the nesting box on its top and cut a piece of plywood to fir the bottom. Attach to the frame with screws. Make sure the bottom is cut to fit (even slightly smaller) so the nesting box will fit

1'-0" in the spaces on the completed coop.

Use a hinge to attach the front piece of plywood to the top, front edge. You will want to attach the hinge to the plywood before attaching the hinge to the nesting box frame. This way you can ensure the nesting box opens and closes properly. Use a hook and eye-pin to lock the nesting box closed.

For the door, construction is relatively simple.**Opening minus 1/2"** If you want to install a latch, that is up to you. We
do not show the details because there are special
tools involved, most of which the normal person
does not have. However, if you DO happen to
come across such tools, you will be able to add a **47-48° r**doorknob and catch should you desire. ***ie***

s

As with the window, this is a very simple door
and you do NOT have to construct the door in

this way.

If you prefer to purchase a door, make sure
the rough opening size is adequate. The frame
rough opening in this instance can be anything.
Just tweak the dimensions to match your rough
opening. Be sure you subtract ½" from the rough
opening to allow for swing!

To begin, we are using 1'4 planks and ½" _{figure. A} plywood sheeting. Cut the frame pieces
as
shown (figure. *A*). You DO NOT have to miter
the corners, we just recommend it for aesthetic
purposes.

We will show the door in this example with a
pattern cut out of the front and back sheeting, but
this is not required. It's purely for looks and does
not affect the integrity of the door at all.

Before you attach the panel to the doorframe,
you will want to check the swing in the doorway.
We have allowed for ½" swing, but depending on
construction methods and accuracy, swing may
be affected by as much as 1".

Please ensure the frame will swing in the
opening without getting stuck or caught. You
should allow more swing once you add the door
panels so check after each step to ensure swing is **4 1/2"** not impeded.
Description

Planks
Plywood sheet
Hinges

Dimensions Quantity 1x4x6' 5
4x8x½" 2
3

Opening Width
figure. *A*
5/8" 5/8" 3" 5/8" 5/8"_{5 1/2"} 5/8"
figure. *B*

Attach the front panel to the doorframe, and MAKE SURE THE CORNERS ARE
SQUARE and edges are flush. You may even want to sand the corners of the inside swing
so they are rounded a little bit.

Insulate the door with either blow foam or regular R-13 roll insulation will work.
Enclose the door with the second panel. You may want to round the edges on this side
also.

A single side bolt works wonders on the outside and inside to lock the door shut. If you don't want your kids to be able to lock the door, only install the slide bolt on the outside! The slide bolt also offers a grip to pull the door open.

Windows are complicated to design and when at all possible, should be purchased. These details are for very simple sliding windows. You will need, and know how to use, a miter saw, a router (preferably with a guide) or table saw with an adjustable gouging blade.

Cut and miter 1x6 planks as shown. DO NOT ASSEMBLE YET! (figure. *A*)

Rip a 1x4x8' into strips 5/8" thick. These will serve many purposes in the future but for now, we just want for of them to match the opening, so either rip and cut one piece or rip an entire board into 5/8" strips and place the pieces to the side for later. (figure. *B*)

Using 1" screws and a level, screw two runners onto one of the exterior frame pieces. Repeat for the second side.

Check to make sure the runners will fit inside the frame when assembled. Make any adjustments if necessary, but do not assemble yet. (figure. *A*)

Rip a 8'-2x6 down the center lengthwise.
figure. *A*

Use a router to gouge a ¾"x¾" groove down the center of one side. Flip the board over and gouge a ¼x¼" groove down the center of the other side. (figure. *B*)

For
pane 1/4" Onmaterial
runners
3/4" figure. *B*
45°

Miter the ends. Make sure the narrow (1/4x1/4") groove is facing inwards! The wide (3/4x3/4") grooves go out toward the runners, the inside grooves will hold a pane of window material. (figure. *C*)

figure. *C*

Rip a 2x6 lengthwise down the middle and miter ends as shown below. Run a 1/4x1/4" groove down the middle, just as with the 2x6. Hold them together and MAKRE SURE THE GROOVES ALIGN PROPERLY! You will need to gouge a ¾x¾" groove out of the ends. (figure. *D*)

figure. *D* Frame Opening Width
3/4" groove 1/4" grooves_{aligns with runners}_{align}

Description Planks
Planks
Planks

Dimensions Quantity
2x6x6' 24
1x6x8' 6
1x4x8' 6

Groove Width

Lastly, before construction, you will need to determine what type of pane material you want to use.

If you decide to use glass, we highly recommend purchasing ¼" thick professional cut panes. You will need 2 per window on this set that equals 12 panes of glass total.

Should you decide to cut your own class, you do so at your own risk! Use all safety procedures and equipment when handling glass!

figure. *A*

Assemble the window frame around the pane. Run a bead of epoxy or polyethylene (or equivalent) seal down the frame pieces as you assemble the window to get a good, weather-tight bond. You could increase rotting and mildew growth if you choose not to. (figure. *A*)

figure. *B*

Cap off the window with the top piece and connect all pieces with 1" small radius (1/4" or smaller) screws. Be sure you don't screw down into the windowpane.

Repeat the same for the second window. Once you have two windows assemblies, two exterior frame pieces with runners on them, and two exterior frame pieces for the top and bottom, carefully assemble the exterior window frames AROUND the window assemblies

Cap off the window assembly. Ensure the windows slide easily and there is about 1/16-1/8" gap between the window assemblies so they will not impede each other's movement.

Place the window in the window frame. Screw the exterior frame to the opening provided. You may have to use a soft mallet or a deadblow hammer to get the window centered in the opening.

How the windows stay up or down is up to the builder. We recommend getting a slide bolt and installing at least one on the movable assembly. Which assembly moves or stays stationary is up to the builder.

Additional notes for the window assemblies:

1. Use weather striping along the seam between the window assemblies to keep wind, and the weather out as much as possible.

2. We recommend having one stationary, and one movable window. Most often the anchor the exterior window to the top of the assembly and let the interior window slide up and down.

a. Drill a ¼" pin hole in the interior, left or right, side of the movable window assembly.

b. While the window is closed, drill into the runner about ¼"

c. Keeping the drill bit inside the pin hole, pull the drill bit back out a little, raise the window and drill back in about ¼" into the runner. We recommend about 3" increments

d. Repeat as necessary for how much you wish the window to open. Cut a length of ¼" dowel (may need sanding to slide freely) to use a pin.

e. Add a slide pin to both the top and the bottom of the movable window so the windows

can be "locked" shut if you wish

The Mobile Coop

Introduction

The Mobile coop is designed for 5-8 chickens and offers spacious nesting boxes, an attached run below the coop and the ease and convenience of being able to move around to different locations with just a little help.

Only 4x8', the compact design offers a cute little hut to raise a few chickens in or the convenience of an excellent hot box with to raise chicks.

The coop access is accessible with a little access panel in the floor and an easy-to-make ladder. This step-by-step plan offers you the ultimate in convenience for constructing a rough frame, finishing is up to you. Make it your own with paint, veneers and materials to match your preferences. The mobile coop is excellent for anyone with a hobby peck looking to keep a small amount of chickens' safe and secure.

Building Plans: The Mobile Coop

Description Pressure treated post Connectors
Caster 6"ø or larger 2x4 plank
4x8 plywood sheet Bracket
Dowel

2x4 plank
Plywood sheathing Door panel assembly

2x4 plank
Plywood sheathing Window assembly

2x2 post
2x4 plank
Plywood or OSB Roofing
Hinges

2x6 plank
Plywood sheet
Roofing, siding, trim board etc.

Material list Measurements 4x4x8'
By builder
By builder
2x4x8'
4x8'x½"
By builder
8'x¾ min.
Panel wall
2x4x8'
4x8'x½ min.
By builder

Window wall
2x4x8'
2x4x8'
2x2'
Side walls
2x2x8'
2x4x4'
44x8'x5/8" min.
By builder
By builder
Roofing
2x6x8'
4x8'x½" min.
Quantity 6
By builder By builder 7
1
32
1

6
1
By builder

5
1
1

4
2
2
By builder By builder

7
1

7'-5″ To begin with the legs, you need to make sure that you are using pressure treated post connector plates. Do NOT use screws! Screws are not strong enough to support the torque necessary for the

45° weight of the load above.

8'-0″ Again, using 4x4 pressure treated post,

Now, bolt angle brackets in place.Tip* Use a minimum of

construct the legs as diagrammed on the left. Use 5" torx head screws to initially connect the pieces. Now, bolt angle brackets in place. Tip: Use a minimum of 3/8" Ø round headed bolts.

Make sure you purchase the proper bolts with the angle brackets! Face the flat edges inward or down to prevent serious injury from trips and falls.

Make sure the whole structure rigid with connector plates (available at any home hardware

store). We show 90 and 45° Simpson ties.

And, finally, make the assembly mobile with casters. NOTE: Casters from a general hardware store will work alright, but they have a tendency to sink into the ground and act more as a stake than wheels. Spend the extra money for some high-quality, air filled, vulcanized rubber 6" or larger diameter casters. You will be thankful you did!

Now, start the interior framing as dimensioned **8′-0″** in (figure. *A*). You will need to frame in the **1′-4″ 1′-4″ 1′-4″ 1′-4″ 1′-4″ 1′-4″** chicken access so follow the plans carefully! We recommend placing the cross support with joist hangers because they offer greater strength and **1'-2½"** stability than just screws online.

Attach the rim of the frame with Simpson angle braces or general angle brackets. Ensure corners are square and ends are flush. (figure. *B*)_{figure. *A*}

Attach the leg frames. Making sure to center the 4x4 posts with the flooring. The legs should end up flush. Attach a rim board to the exterior for a nailer. (figure. *C*)

Using some joist hangers or bolt some bottom cross braces in place to keep the legs spaced properly. Once done with that, you should have a rally strong base with which to construct the rest! (figure. *D*) figure. *B*

Ext. Rim Board

figure . *D* Bottom cross brace held in place with joist hangers.

figure. *C*

Cut the flooring as detailed in (figure . *A*) KEEP THE PANEL YOU REMOVE! ATTACH SOME HINGES AND YOU CAN MAKE A DOOR TO CLOSE IN

COLD OR INCLEMENT WEATHER! **1'-5½" 1'-2½" 1′-4″** (figure. *A*)

If you feel uncomfortable with your precision or simply don't want to layout and pre-cut the flooring, just:

1. Lay the 4x8 sheet over the top 2. Make sure the edges are flush and corners are square 3. Anchor the flooring down around the braces and around the rim 4. Get under the frame with a **4′-0″** reciprocating saw (Sawz-All) and cut the opening out that way.

figure. *A*

For the ladder, all you really need is a spade bit, ½"ø dowels, and 2-2x2 posts.

Mark the location of the dowels with a pencil on both posts. Make sure to use a speed square or something that will ensure the dowels will be placed in exactly the same place on both posts.

Cut each dowel to about 1' wide. Using the spade bit, drill the holes for the dowels about 3/8" deep.

Make sure the dowels fit snugly in the holes. Run some glue around the inside of the holes

and use a hammer with a wood buffer block to pound the posts onto the dowels. Do NOT hammer the dowels directly! This can cause the ends to split out and will make placement tougher!

After the glue has set and the dowels are holding fast, drill a small lead hole in the end of each dowel through the 2x2 post. Use a small diameter screw (wider than the sink hole) 1½-2" long and screw the dowels to the post. This will ensure two things:

1. If the glue torques off, the any dowel will not just be free-spinning in the hole and…

2. Using a screw with a larger diameter than the sink hole will crack the end of the dowel, spreading it in an already tight hole. This will make friction hold the dowel from, again, free spinning in its hole. **7′-5″** For this wall frame, follow the diagram in **7′-2″** (figure. *A*) carefully. Be sure you use cripples

to keep the panel access from settling!
3′-7″ 1′-4″ 1′-4″ 1′-2″
figure. *A*

Sheath the frame in place or square up the frame and sheath before placing the framing. Make sure the frame is square before attaching the sheathing! We recommend sheathing the frame in place on the flooring.

figure. *B* (figure. *B*)

Attach the door panel. You MAY construct a hinge door if you wish. figure. *C* (figure. *C*)

For the window wall, follow the diagram in (figure. *A*). Make sure to layout the opening for your window first to make sure it will fit. You will want to add roughly ½" to all sides to ensure the window will fit in the opening properly.

Once you have the framing figures out, you will want to cut the sheathing and put it in place. Leave extra on the top and bottom to match the rest of the walls.

The easiest way is to center the sheathing. DO NOT CUT OFF THE OVERLAP! The 3½" on each side will wrap around the framing on the end walls!

As for vertically, center the sheathing ¾" into the top plate.
Leave the overhang on both sides

7'-5"
1'-0 1/2" 1'-4" Opening may Vary 1'-4" 1'-0 1/2"

This rough opening assumes a 2x2'
window. If your
window is longer you will have to adjust the opening accordingly.

figure. *A*

Finish off the wall with the window of your
preference. Anchor in place on the floor frame.

Centered lengthwise along the top plate
To begin on the wall, cut and assemble the nesting box wall as shown in (figure. *A*).

Remember to leave yourself about 1/8" around all openings for "wiggle room". Just so you can be sure the nesting box assembly will fit in the opening (you can seal it after you

are done). (figure. *B*)

You will want to sheath the wall and cut out the opening for the nesting box before continuing on. Some measurements will require you to take the sheathing into account. (figure. *C*)

4′-0″ 4" 1′-4″ 1′-4″ 3¼"
3'-3¼"

figure. *A* figure. *B* figure. *C*

Top 1

For the nesting box, you need to figure around ^{View} 12-18" per chicken depending upon breed._{4"}

Now, the nesting box is not complex structure
to build, but it does need to have some better materials underneath. We recommend ¾"
cedar
or oak plywood. If you wish, you may use OSB
to offset the cost of plywood; you are just going to Flooring have to clean the nesting boxes
more often!

Now, having said that, start by constructing a
"frame of sorts to fit in the opening of the coop
wall" (figure. *A*)

If you have the skills and the tools, we actually
recommend routering dados into the 2x2 frame
and insetting the flooring. The plywood flooring
will end up looking like a big fat "T". Either that,
or use metal connector plates to hold the flooring
tight. A combination of the two works quite nicely… (figure. *B*)

Now, cut out the dividers as shown in (figure .
C). You can use down to ¼" OSB or plywood
sheet.

Separate them according to the expected size
of the chickens you have. A good size is about
every 10-12" apart. This will create a snug, enclosed, personal space for the chickens to lay
and nest their eggs.

figure. *B*

figure . *C* Bottom View

Connector ₁ Plates
Flooring
figure. *A*
1

OK, lay out the dividers. We recommend using brackets to hold them for a longer life and a sturdier wall. You MAY use screws through the bottom, but really hitting a ¼" target by "eyeballing" is tough and you may just end up shredding the base of the divider and putting unnecessary holes in the floor of the nesting box.

If you live in a colder climate, do NOT screw through the bottom! The holes can create "vents" and let cold are into a space that is supposed to be warm!

The nesting box assembly thus far should fit in the opening of the wall frame.

You need to attach a front brace across the front of the wall. Both as a main support and as a stop and as a frame to help keep the straw in the nesting box.

You will want to anchor the nesting box to the sheathing with an angle bracket to make sure the frame stays in place.

Once the floor framing is in place, assemble the rear panel out of a piece of sheathing. You will want to attach some paneling before using a hinge to ensure the rear panels open freely.

Add sliding to the outside walls of the nesting boxes (should you desire)

The only thing left to do is to complete the roof. Start off by framing the roofing slightly larger than the largest dimensions of the nesting box. (figure. *A*)

Frame the roof panels similar to the flooring.

You will have to miter the hinge ends of the frame and mitering the sub roof panel is a good idea as to not impede with the swing of the hinge above.

figure. *A*
Depth +

You will have to attach any roofing material before attaching the hinge to the nesting box roof panel assembly and the wall.

Congratulations! The nesting box is completed! Repeat the process as necessary for as many nesting boxes you want.

Once you have the wall frames constructed you can go ahead and work on tying the walls together.

You will want some assistance to keep the walls level vertically. If you need to tack a piece of 1x4 as a holder, you may do so.

You should have the nesting boxes to finish of the walls.

This shed roof is very simple considering the small distance of open span to cross. At just over 4' wide, each rafter can simply be ripped off with a table saw or a circular saw. Be sure to lay out your cuts before actually making them!

89°

3′-9″

1′-4″ 1′-4″ 1′-4″ 1′-4″ 1′-4″ 1′-4″

You will need to add a front and rear $^{8′-0″}$ rim to frame in the rafters. This is a light frame structure so you can simply drill screws through the outside frame into the rafters. (figure. *A*)

Once you have the frame completed,

you can go ahead and attach a sheet of figure. *A* ½" minimum thickness plywood. You will need a

small, 2" or so strip to make up for the diagonal distance across the top. We would NOT recommend OSB (oriented-strand board) as the plywood has greater water and weather resistance. (figure. *B*)

8′-0″
figure. *B*

Now, go ahead and add some waterproofing. Tin, cedar shingles, asphalt shingles, whatever your preference will work. It's up to you. We recommend adding the roofing before finishing off the roofing with trimming and siding.

Place the roof in place. Make sure you frame it in properly BEFORE sheathing the outside! (figure. *A*)

figure. *B*
figure. *A*

Then the sub-roofing. If you live in a warmer climate, you MAY opt to just tin over the top. Choice is yours. (figure. *B*)

Some optional finishing touches like trim, paint etc. and the coop is complete! Good job! (figure. *C*)

figure. *C*

The Chicken

Introduction

The Chicken Hut is designed to meet the every need of your precious poultry. With built in roosts, a handy, cleanable nesting box, two large

Hut

accesses and a handy, closable chicken access, the Chicken Hut has it all! Let your chickens roam freely about or open the available undercarriage and let your chickens hang out in the shade.

A spacious 8x8 foot floor plan allows for between 10-20 chickens depending upon breed. A built-in roost and above ground chicken access lets your chickens wander freely while feeling incredibly secure.

With abundant convenient accesses for egg-gathering and cleanouts, the Chicken Hut is the perfect accessory for any startup poultry farmer!

Building Plans: The Chicken Hut
Description Material List Measurements Quantity 2x4 plank 2x4x8' 80

4x4 pressure treated post 4x4x8' 5
2x6 plank 2x6x8' 10
Plywood 4x8x¾" 6

2x2 post 2x2x8' 8 Exterior sheeting 4x8x¾" 10 Handle By builder 6 Hinge By builder 12 Chicken wire By builder By builder

To begin, cut 2x4x8' planks as dimensioned in (figure. *A*). Mitering the ends is NOT required, but we recommend it for a professional-looking finish!

Connect the planks with screws (figure. *B*)

Cut a 4x4 pressure-treated post into 2' sections and attach to the inside corners of the base planks. (figure. *C*)

Repeat the base frame with 2x6 planks $\mathbf{8'\text{-}0''}$ around the rim (figure. *D*)
figure. *A*

Follow the diagram in (figure . *E*) for spacing the 2x4 floor joists. Make sure the joists are flush with the top of the 2x6 rim!

You will need to trim the edges of two sheets of plywood to make the plywood fit the frame correctly. Just follow the diagram in (figure. *F*) on the next page and you should have no problems. Make sure the centers align over the floor joists properly!

figure. *B*
figure. *C*
8'-0"
7'-9"
figure. *D* figure. *E*
8'-0"
figure. *F*

Before you get too far along, you will want to build an access under the flooring (for clean-out, feeding etc.). For this example, we use 2x2 post as they are already cut, but feel free to substitute 2x4 plank, ripped lengthwise in half. (figure. *A*)

Use hinges along the top or bottom to create an access so you can get beneath the coop for cleaning.

7′-0″
figure. *A*
8′-0″ ₄′-₀″

For the walls, we will start with the
sidewalls. Each wall will have a full access
door for convenience. follow the diagram in

(figure
. *A*
) to frame in the sidewalls.
1′-1″ 1′-0″ 1′-0″ 1′-1″ 4′-2″

You will want to construct two of these
walls. If constructed properly, they should fit
each 8' side of the base. Just attach the wall
frames with screws. Make sure the screws are
long enough to penetrate the sidewall base
plate, the plywood flooring and into the joists
below the flooring!

2¾" 4'-3½" 9¾" 1′-6″ 11

¼

" 2¾" 8′-0″
figure. *A*

For the rear wall, we are going to start with a 4x4 pressure treated post. The nesting boxes
will hang off of the rear of the coop for easy eggs collecting, so you will want a nice, solid
base to

₇'-₃½" build the rest of the rear wall on. 11'¾ 1'-4""11'1'-4″ 1′-4″ ¾"
1′-4″
Next, since the nesting box will be attached
to the rear wall, you need to build the floor and ₂′-₀″center it on the structure.

Inset 4x4 post under the corners and construct a frame around the base. The frame will act
as something to attach chicken wire to. You will need to inset the 4x4 post just to the
inside edge of each corner (that's what the reinforced inside is for).

While you are at it, why not slap down some flooring for the nesting boxes?
For the nesting box, construct two frames as shown below and attach to the nesting box
floor.

Construct the rear wall of the nesting box as shown below. You do NOT need to use a 2x6,
but we do recommend ripping the top plate so it flush with the rest of the wall.

2′-4″
75°
2′-3″
7'-0½" 7'-3½"

For the front wall, you will need to

remember to leave an opening for the
chicken access. Follow the diagram in
(figure. *A*) and fit it in between the
sidewalls. Make sure faces are flush and
edges are square!

Congratulations, the main framing
is complete. Before continuing onto the **4′-6″** roof or putting sheathing u, you should
think about installing some roosts and the
chicken access.

For the roosts, just use 2x4 planks cut
to fit between the sidewalls. Space them
between 12 and 18 inches apart. Stagger
the placement along the sidewall studs to
give the chickens something to climb.

figure. *A*
Roost

For the chicken access, we offer different sort of alternative. Feel free to adjust as you see fit! A good chicken access needs to be:

1. Accessible
13"

[16] 2. Convenient
3. Easy to open

We recommend using a router or table saw to create a dado just deeper than the panel material. figure. *A* In this example we use ¾" cedar plywood, so the
dado should be AT MINIMUM 1/16" deeper than ¾" or 13/16".

From the diagram in (figure . *A*) you will need two of these. Ensure the tracks are long enough that they will hold the access panel sheet but short enough to actually be able to get the access panel into the slides.

IF you intend on running the slides the entire length of the coop, be sure to FIT the access panel BEFORE anchoring the top slide.

HINT: It's not shown in these plans, but adding ball-bearing slides to the panel will ensure it glides easily. Should you decide to add ball-bearing slides, make sure to adjust the dimensions accordingly!

Be sure to put a handle on both sides of the access panel so you can easily open it from both sides!

Ok, up to now, your coop should look something like the diagram on the next page.
8′-0″ 4′-0″

We generally leave sheathing up to the builder
as differences in tools, techniques and preferences
differ. In this example we use board and batten,
which is thicker than plywood. You MAY opt

to use plywood if you wish. Board and batten is NOT required! Just ensure the plywood sheathing is oak, cedar or some other hardwood with good weather and insect resistance properties. Your local building supplier should be able to assist you with any questions you may have.

As always, VERIFY DIMENSIONS BEFORE CUTTING SHEETING. Layout cuts in pencil on your sheets before cutting and ALWAYS uses proper safety gear and follow tool manufacturer **3½"** instructions for proper use!**4′-2″**

For door openings, allow about 1" for swing. Use weather proofing to fill in any air gaps and ensure a tight seal when closed. Always be sure to

7'-11½" construct your doorframe slightly smaller (½" on **3'-11¾"** **3'-11¾"** all slides, 1" overall) to ensure proper swing and to guard against the door being too tight.

We have included details on constructing a GENERAL door and window towards the end of these plans, but feel free to purchase doors and

window if you wish! **7'-3½"**

We recommend you begin with the sidewalls first, as the front and rear wall will overlap the sidewalls! It will make squaring up the structure much easier!

For the rear wall, we miter the sheathing to figure. *A* ensure a snug fit with the nesting box frame. You may or may not make this cut at your discretion. (figure. *A*)

The front wall is pretty self-explanatory. Be ^7'-11½" ₃'-11¾" sure to lay out your cuts and attach each sheet one at a time. Make sure outsides edges are flush and square! (figure. *B*)

4′-6″ 1'-8¾" 2'-3″ 2'-3″ 1'-8¾"
2'-10″ 2'-3½" 2'-10″
figure. *B*

Sheathing the exterior of the nesting box is trickier since we want to be able to actually OPEN the nesting box portion of the coop. In this example, we frame in the sheeting for a more professional finish. You may opt to skip this step if you wish.

The coop will be fully functional whether or not the nesting box sheathing is framed in. Just make sure that your sheathing fits square and the ends are flush.

Add weatherproof stripping to every movable end and we recommend a hook and eye-pin latch to hold the rear panel and top access in place. You may even hook them together if you wish. (figure. *A*)

For the top, the important thing to remember is to allow for swing. Construct the frame a little larger (½" on all slides) to allow for proper setting and closure. You may use hinges if you have a flat panel such as plywood sheathing.(figure. *B*)

For textured or rough panel, you may want to bolt the frame onto the sidewall. Leave the bolt slightly loose so you can pivot the top panel as needed. Use a regular nut and lock-nut

behind that to keep the bolt properly tightened.

Dado exactly as with the front panel. Dado the frame thickness and depth of the sheathing material and assemble top access panel around the sheeting. Make sure corners are square and edges are flush!

7'-11½"

Dado width and depth of sheeting material

figure. *A*
figure. *B*
2'-9¼"

We have saved the side sheathing for last,
although it is technically the simplest. If you are
NOT going to frame the paneling, you will want Nesting box to ensure the paneling runs up the entire height of^frame the nesting box frame. In this example, we have
inset the side paneling to accommodate the top
access. (figure. *A*)

Up to this point, your coop should look someting like (figure. *B*) the diagram below. All that is left is the roof, trim and doors and
windows.·figure. *A*
figure. *B*

For the roof, we recommend picking up some 2x6 joist hangars and laying 2x6 joists across the ceiling. See the diagram below for details. For areas with heavy snow loads, you may want to consider 2x8 or larger depending upon your yearly snowfall.

You should be able to lay your plywood roof sheathing on top of your roof joists. Align the edges so they center above the middle joist. Attach to the frame with screws.

Be careful with working at height! Even a small fall can cause serious injury! When at all possible, work with a partner and lay roofing carefully, using all possible safety precautions!

Start on the middle
of your frame walls
and center the joists*c*outward at 16" O.C. *ent ed*

ers

All that is left is to construct the doors, the windows, add roofing and finish trim. We allow these to be left up to the builder. While we recommend purchasing doors and windows, we have included some BASIC instructions to construct them on the pages that follow.

A few tips:
1. Remember to insulate the coop if you live in a cold climate
2. Always use weatherproof sealant at every exterior seam

3. Use weather-stripping at all sealed edges such as the door jamb and around the nesting box

4. We recommend at least a coat of paint around the exterior to protect from premature

weathering

5. If you do NOT want your chickens to roam "free-range", you will have to build a chicken run around the structure. The base may be used as a run, but is intended more as temporary protection from the elements. You may also use the base as storage for stuff such as feed, feeding pans, water troughs, etc.

figure. *A*

$1'\text{-}0''$ For the nesting box, start with ripping a 2x4x8'
plank down the center. You need to make two
frames as shown to the right. (figure. *A*)

Either purchase some 1x2 post or rip another
2x4x8' plank down the center. Cut as shown and
attach to the frame pieces on the inside corners.
(figure. *B*)

Rip pieces of plywood sheet to wrap around ^{figure. *B*} three sides. Be sure to measure and layout the cuts
and be sure they fit flush. Start with the longest
sides, cut a rear piece to cover both ends. Attach a
handle if you would like. (figure. *C*)

Cut a dowel just fit snugly inside the nesting
box. Use a rubber mallet or dead-blow hammer
to tap the dowel in place just below the top rim of_{figure. *C*} the nesting box. Attach the dowel
to plywood with
screws through the exterior face of the plywood.
(figure. *D*)

Tip the nesting box on its top and cut a piece
of plywood to fit the bottom. Attach to the frame
with screws. Make sure the bottom is cut to fit
(even slightly smaller) so the nesting box will fit _{figure. *D*} in the spaces on the completed
coop. (figure. *E*)

Use a hinge to attach the front piece of plywood
to the top, front edge. You will want to attach the
hinge to the plywood before attaching the hinge
to the nesting box frame. This way you can ensure
the nesting box opens and closes properly. Use a
hook and eye-pin to lock the nesting box closed.
(figure. *F*)

figure. *E*_{$1'\text{-}0''$} figure. *F*

For the door, construction is relatively simple. If you want to install a latch, that is up to you. We do not show the details because there are special tools involved, most of which the normal person does not have. However, if you DO happen to come across such tools, you will be able to add a

Opening minus 1/2" doorknob and catch should you desire.

As with the window, this is a very simple door and you do NOT have to construct the door in this way.

If you prefer to purchase a door, make sure the rough opening size is adequate. The frame

47-48°

r rough opening in this instance can be anything.

e

i

s Just tweak the dimensions to match your rough opening. Be sure you subtract ½" from the rough opening to allow for swing!

To begin, we are using 1'4 planks and ½" plywood sheeting. Cut the frame pieces as shown in (figure. *A*). You DO NOT have to miter the corners; we just recommend it for aesthetic purposes.

We will show the door in this example with a pattern cut out of the front and back sheeting, but this is not required. It is purely for looks and does not affect the integrity of the door at all.

Before you attach the panel to the doorframe, you will want to check the swing in the doorway. We have allowed for ½" swing, but depending on construction methods and accuracy, swing may

figure. *A* be affected by as much as 1".

Please ensure the frame will swing in the opening without getting stuck or caught. You should allow more swing once you add the door panels so check after each step to ensure swing is not impeded.

Attach the front panel to the doorframe, and
MAKE SURE THE CORNERS ARE SQUARE
and edges are flush. You may even want to
sand the corners of the inside swing so they are
rounded a little bit.

Insulate the door with either blow foam or
regular R-13 roll insulation will work.
Enclose the door with the second panel. You
may want to round the edges on this side also.

A single slide bolt works wonders on the
outside and inside to lock the door shut. If you
don't want your kids to be able to lock the door,
only install the slide bolt on the outside! The slide
bolt also offers a grip to pull the door open. *4½"*

Materials

Description: Qty.
1x4x6' Planks 5
4x8'x1/2" Plywood Sheet 2

Opening Width

figure . *A*Windows are complicated to design and when
at all possible, should be purchased. These details
are for a very simple sliding window. You will, and
know how to use, a miter saw, a router (preferably
with a guide) or table saw with an adjustable
gouging blade (or blade kit, and a square speed
square, carpenter square, either works)

1. Cut and miter 1x6 planks as shown in
(figure. *A*). DO NOT ASSEMBLE YET!

2. Rip a 1x4x8' into strips 5/8" thick. These
will serve many purposes in the future
but for now, we just want four of them to
match the opening, so either rip and cut one
piece or rip an entire board into 5/8" strips **3"**and place the pieces to the side for late. figure. *B* **5½"**(
figure. *B*)

For On pane runners material

figure. *C*
45°

3. Using 1" screws and a level, screw two runners onto one of the exterior frame pieces. Repeat for the second side (see previous page).

4. Check to make sure the runners will fit inside the frame when assembled. Make any adjustments if necessary. DO NOT ASSEMBLE!

5. Rip a 8'-2x6 down the center lengthwise

6. Use a router to gouge ¾"x¾" groove down the center of one side. Flip the board over the gouge a ¼x¼" groove down the center of the other side (figure. *C*)

7. Miter the ends. Make sure the narrow (¼x¼") groove is facing inwards! The wide (¾x¾") grooves go out toward the runners, the inside grooves will hold a pane of window material.

8. Rip a 2x6 lengthwise down the middle and miter ends as shown below. Run ¼x¼" groove down the middle, just as with the 2x6 above. Hold them together and MAKE SURE THE GROOVES ALIGN PROPERLY! You will need to gouge a ¾x¾" groove out of the ends. (figure. *E*)

figure. *D*
Frame Opening Width 3/4" groove aligns 1/4" grooves with runners align
Materials^{figure. *E*}

24 pcs. 2x6x6' Planks
6 pcs. 1x6x8' Planks
6 pcs. 1x4x8' Planks 9. Lastly, before constructing, you will need to

determine what type of pane material you want to use.

IF YOU DECIDE TO USE GLASS, WE HIGHLY RECOMMEND PURCHASING ¼" THICK PROFESSIONAL CUT PANES. YOU WILL NEED 2 PER WINDOW. ON THIS SET THAT EQUALS 12 PANES$_{\text{Groove Width}}$ OF GLASS TOTAL.

SHOULD YOU DECIDE TO CUT YOUR OWN CLASS, YOU DO SO AT YOUR RISK! USE ALL THE SAFETY PROCEDURES AND EQUIPMENT WHEN HANDLING GLASS!

10. Assemble the window frame around the pane. Run a bead of epoxy or polyethylene (or equivalent) seal down the frame pieces as you assemble the window to get a good, weather-tight, bond. You could increase rotting and mildew growth if you choose not to.

11. Cap off the window with the top piece and connect all pieces with 1" small radius (¼" or smaller) screws. Be sure you don't screw down into the windowpane!

12. Repeat for second window.

13. Once you have two window assemblies, two exterior frame pieces with runners on them, and two exterior frame pieces for the top and bottom, carefully assemble the exterior window frames AROUND the window assemblies.

14. Cap off the window assembly. Ensure the windows slide easily and there is about 1/16-1/8" gap between the window assemblies so they will no impede each other's movement.

15. Place the window in the window frame. Screw the exterior frame to the opening provided. You may have to use a soft mallet or dead-blow hammer to get the window centered in the opening.

16. How the windows stay up or down is up to the user. We recommend getting a slider bolt and installing at least one on the movable assembly. Which assembly moves or stays stationary is up to the builder.

17. Lastly, before construction, you will need to determine what type of pane material you want to use.

IF YOU DECIDE TO USE GLASS, WE HIGHLY RECOMMEND PURCHASING ¼" THICK PROFESSIONALLY CUT PANES YOU WILL NEED 2 PER WINDOW. ON THIS SET THAT EQUALS 12 PANES OF GLASS TOTAL.

SHOULD YOU DECIDE TO CUT ^{Groove Width} YOUR OWN GLASS, YOU DO SO AT YOUR RISK! USE ALL SAFETY PROCEDURES AND EQUIPMENT WHEN HANDLING GLASS!

18. Assemble the window frame around the pane. Run a bead of epoxy or polyethylene (or equivalent) seal down the frame pieces as you assemble the window to get a good, weather-tight band. You should increase rotting and mildew growth if you choose not to. Additional stuff for the window assembles:

1. Use weather striping along the seam between the window assemblies to keep wind, and weather out as much as possible.

2. We recommend having one stationary, and one movable window. Most often, anchor the exteriors window to the top of the assembly and let the interior window side up and down.

a. Drill a ¼" pin hole in the interior, left or right, side of the movable window assembly

b. While the window is closed, drill the runner about ¼"

c. Keeping the drill bit inside the pin hole, pull the drill bit back out a little, raise the window and drill back in about ¼" into the runner. We recommend about 3" increments

d. Repeat as necessary for how much you wish the window to open. Cut a lengthy of ¼" dowel (may need sanding to slide freely) to use a pin.

e. Add a slide pin to both the top and the bottom of the movable window so the windows can be "locked" shut if you wish.

Gambrel Poultry Shed

Introduction

The Gambrel Poultry Shed is the perfect accessory for anyone with advanced knowledge of carpentry.

This is a fashionable addition that goes with any small farm set-up. It could come as a kit for as much as $5000.00! Depending on the materials used, to build this coop cost less than $1000!

With such easy cleanup in the design, why would anyone ever pay six times as much and still have to put in the work?

Building Plans: Gambrel Poultry Shed
Description

Sled
Long Plank
Short Planks
Plywood Sheet Fiberglass Board

Planks
Plywood Sheathing

Rear Support Plank Rear Ridge Plank Rear Sheathing
2x6 Rear Sill

Nesting Box Support Nesting Box Base Plywood Sheet

Door Planks
Front Wall and Door Sheath Front Wall Support Plank Material List

Dimensions Quantity BASE
4x4x10' 7 2x4x10' 2

2x4x8' 7
4x8x¾" 4
By builder
Side Walls
2x4x8' 24
4x8x¾" 6
Rear Wall
2x4x8' 9
2x4x10' 1
4x8x¾" 2
2x6x10' 1
Nesting Boxes
2x4x10' 10
4x8x¾" 2

4x8x½ -¾" 4
Front Wall & Doors
2x4x8' 6
4x8x½-¾" 10
2x4x10' 4
Roost
Roost Support 2x4x8' 2 Roost Planks 2x4x8' 3 Roof
Roof Planks 2x4x8' 16 Sheathing 4x8'x¾" 6

Long 1x4 planks Short 1x4 plank

Handles
Hinges
Veneer/Siding Wood Sealant Paint
Screws
Shingles
Latches

Trim
1x4x10'
1x4x8'
Miscellaneous: To be determined by builder By builder
By builder
By builder
By builder
By builder
By builder
By builder
By builder
4
14

4
12
300 cu. Ft. 2 Gallons 2 Gallons 300 Min. 1 box min. 4 min.

If this coop will not be moved, we recommend
setting it on a concrete base to prevent water
intrusion. Begin by laying out the EXTERIOR
perimeter of the concrete base. Feel free to use
the completed base platform as a guide. You can
use stakes and string (figure. *A*).

Dig a trench at least 8" wide by 6" deep around
the entire perimeter of the platform. You need to
at least be able to align the outside edge of the
platform with the trench below. The platform is
going to "sit" on this concrete form.

Construct a wooden brace around both the

exterior AND interior edges of the trench (as

shown). Now would be a good time to get some figure. ^Athreaded rebar at least 3/8"ø at least 1'-6'"

wooden braces. Follow manufacturer instructions
on mixing and pouring the concrete. Tamp the
rebar THREADS UP at regular intervals down
the center of the trench. (figure. *B*)

Exterior Box Rebar

Make sure to use a level ensure the rebar runs
straight vertically! It is OK if you aren't exactly

equidistant just as long as each rebar piece runs ^{Interior Brace} close to the center of the
platform's edge. Fill the
concrete to the top edges of the braces and use
water to smooth over the top.

This method may be a little unorthodox, but it
sure is easy. After the concrete sets and the rebar
is thoroughly set, lay the platform on top of the figure. ^Brebar, being square, it should sit easy enough.

MAKE SURE THE PLATFORM IS SQUARE!

Once the platform is square on the rebar, give
it a good "whack" with a hammer or soft mallet,
just enough to make a good indent on the wood
where the rebar is located. Be sure to hit the board
wherever it touches rebar or you will miss a piece!

Flip the platform structure over and you will
see exactly where to drill through the structure to
attach it to the rebar. Make sure your drill bit is
just as big as the indent for the snug fit.

Lay a layer of sealant foam along the inside and outside edge of the platform structure and
let dry.

Flip the structure back over and carefully align the holes with the rebar. You may need to
smack the structure down to get a good, solid connection with the concrete below.

Using washers, anchor the structure to the concrete. Use a grinder to remove any excess
rebar sticking up over the nut. If desired, use a torch to weld the nut and rebar together.

You can feel free to try and remove the wooden braces if you would like. It may take some
hitting with a hammer or even a crowbar.

Before we get started, it's important that the builder choose pressure treated lumber for
10′-0″

the base of this coop. This coop is going to be designed to be relocated. The sleds on the
bottom are to be constructed of pressure treated lumber to prevent water intrusion and rot.
IF a concrete base is going to be used, pressure treated timber is still recommended but not
vital.

1. To begin, start by cutting two 4x4's 10'0". You will need to cut a total of ten 4x4 horizontal supports at 7'-5". This should give you an even 10' length by 8' width base for the coop.

2. At this point, attachments are very important. You MAY choose to use screws $_{1'-1¾''}$ or a pneumatic nailer (nail gun). Being this $_{3'-0''}$ is the base and this coop will be heavy, IF 4'-10¼" you are going to move it, we recommend $^{6'-8½''}$ using at least 3/8Ø5" lag screws to hold the $^{8'-6¾''}$ sled components together. You will want to 9'-8½" countersink the heads so they are not in the way of the final trim later on.

For those who wish to move the coop, the base will be constructed as detailed below. It is easiest to determine which side will be the top and which side will be the bottom. Tip the platform bottomup and construct from the bottom of the platform up.

1. With your main platform constructed, you will need to cut the pieces detailed below. All pieces are 4x4 lumber

Runner (×2) 7'-8½"
7'-5"
45°
Diagonal Support (×4) Vertical Support (×6)

3. Attach the vertical supports to the end of the diagonal supports and through the top of the platform structure down into the vertical supports. Attach two vertical supports to the center of the long platform side as shown below.

1'-7 "

2. Attach the horizontal support to the very exterior edges of the platform as shown below. Be sure they align with the LONG side of the structure

4. Attach the sleds with lag screws. The sleds will hold the brunt of the force while the coop is in motion, you will want to use very heavy-duty connectors if not lag screws.

5. Remember those extra three short horizontal supports left over from the construction of the platform? Attach those between the bottoms of the vertical supports for stability.

6. After you tip the structure back onto its top, this is what you should have up to this point.

Once the platform structure is complete, use a circular or table saw to cut four sheets of plywood into 4x5' sheets. Set the 3x4' sheets aside for later.

Square up one corner of the platform with one of the sheets of plywood.
Repeat for the remaining three sheets. The sheets should align in the center of the platform $_{figure.\ B}$ on the center support as shown in (figure. *B*).

This step is recommended but not required: Attach a glass board veneer over the top of the sheeting. Follow manufacturer instructions carefully and be sure to drill into supports beneath plywood flooring.

Begin construction on the entrance wall as shown below. Be sure to cut carefully and wear ' safety equipment.

2'-0 "

1$_{15_{16}}$

2'-1

15$_1$ *"0"* *1* *2*

30$_5$

2'-11 "

30

13

1'-5 "

7 16

4'-5 "

16

5'-11¼" 7'-10½"

$_1$*1'-7 "*

1'-7 "

1 16

13

1'-8 "

16$^{2'-1}$ *1* *"* *1 2*

Now for the sidewall: it's very much the same *2'-0 "*

1

as the entrance wall but without a door header.*16*

13

1'-5 "

5 16

2'-11 "8 7

4'-5 " 16

1 5'-11 " 4

7'-10½"

If you have noticed the wall is 1½" short, this is because the nesting box front will be set on the front of the platform and we will need the space for the wall.

Align each of the walls with the rear of the platform and attach with screws. We recommend against a nail gun because screws will give you a tighter hold AND nail guns may crack the glass board (if used).

3

2'-0 "

4'-1 "

1

[2] For the rear wall, measure and cut planks as shown below. The sill is a 2x6. You will need to use a circular or table saw to rip the end flush with the rear of the sidewall supports (figure. *B*).

1

1'-8 "

2 3

2'-7 "

1 4

6'-9 "

4

1

7'-8 "

2

9'-5″ figure. *B*

5½"

Make sure the top of the 2x6 sill sits flush with the bottom of the sill plates on the side

walls. You will add more rafters and need to attach them to the rear wall sill. This will ensure the sheathing is flat and even.

Now would be a good time to build and attach the roost structure. Start by ripping five 10' 2x4 planks down the center lengthwise. Assemble as shown below. Attach one side to the side walls and attach the other support structure flush with the inside edge of the user access frame.

15
4'-2 " 16

For the nesting box, rip a 8' 2x4 down the middle lengthwise. Assemble as shown below. Repeat this process for as many nesting boxes as needed. Space these at the minimum 12" apart. Spacing will be determined by the average size of fowl to be housed.

2'-0 "
1 16
1'-11¼"

For the nesting box front panel you will need to start by determining what size and type of plywood sheeting you are going to use to sheath the exterior and enclose the structure. We recommend ½" oak plywood as it is strong and weather resistant.

Router down the center length of two 10' planks on end (we recommend a guard) and a 6' plank on end (as shown below). Make sure the router matches the width of the plywood to be used. If the bit is too large, the plywood will shift around in the gouge. If the bit is too small the plywood won't fit.

Miter the ends and make sure they come together as shown below.
10′-0″

You should have a small piece of the 6' piece left with a gouge in one side. Measure and cut the ends square as detailed above. Router down the center of the opposite end so you have a piece with two gouges.

Cut a sheet of plywood into two sections as shown below.
4'-8¾"

Without glue or attachments, assemble as shown to the right. Do NOT attach until you are certain the pieces will come together snugly.

If the pieces fit together and everything looks good, go ahead and run a bead of glue down each gouge and assemble all of the pieces to form the front panel as shown to the right. We recommend allowing the glue time to dry before attaching with screws as a nail gun can break the oak plywood. Also, drill pilot holes for the screws; you will only have one shot at getting the screw in the right place. Hold the drill straight up or sideways and drill straight into the plywood sheet from the outside.

So far, the structure should start coming together as shown to the right. If you want to open the front panel DO NOT attach it to the structure. We are going to make it so the user can clean the nesting boxes easily. If you do not want the front panel to open, go ahead and attach it to the structure.

Door Frame

You will need to rip boards as shown. The pitch of the angle will be determined by the pitch of the roof it is going to support. If the plank is going in between a 15° pitch, you need to rip the end at 15°, same fore 30° (see illustration to the right)

Place the rafters in place as shown above (inside the side supports). You can use 5" screws, but if you want a really strong structure, use a metal plate and bolt the rafters through the rafters and through the side support. You may even use two plates and bolt completely through.

Bolt Plate through
rafter and support frame

Crown
Support
Header
Entrance Sill
You will need this face smooth use a lag screw from the back

Also, be careful around the front crown. If you decide to use bolts and plates use lag screws through the frame and crown. You will need a smooth face and you are also going to use the front rafter as a front wall plank

Door Frame Top Plank

Cut purlins EXACTLY as those cut for the side and entrance wall sill plates. Center them at 2' across the top of the rafters as shown below.

Side Sill
Purlins
Entrance Sill

Now, we need to complete the front wall. You should have had one 10' plank left over from the rafters. Flip this one over and set it on top of the nesting box framework.

Now would be a good time to think about the windows for the coop. We have included diagrams on building your own basic windows with vents. If you wish to purchase a manufactured window, follow all manufacturer instructions for installation.

$1_{16}1$

1'-7 " ^{16} Now to begin with the sheathing. We started $^{150°}$

with the side and entrance because they are very *60° 105° 60°*similar. NOTE: When you layout the entrance, *120° 1½"*
make sure your saw blade cuts INSIDE the line
for the door area, the width of the saw blade will
add up all around the perimeter and allow you
to close the door. KEEP this sheet as your door
panel. Label and mark so you don't accidentally $_{105°}$ cut it. (figure. *A*)

Layout each sheet carefully! It's an awful lot of
waste if you don't. Verify each dimension! Make $_2$
sure edges are square and flush.

The side sheeting is much the same as the
1'-5¼"^{13} 3'-6″ 3'-0 "

8′-0″
entrance, only no door. If your nesting box opens, figure. ^Ado not attach to the nesting box panel, attach the
sheeting to the nesting box frame!

The rear sheeting is pretty simple compared to the side and entrance sheeting. You may want to use scraps from the side and entrance sheeting. Make sure you don't use the entrance door panel! Notice the top of the sheeting needs to be angled to flush with the pitch of the roof, this will make sheeting the roof MUCH easier, don't forget this step!

Layout each sheet carefully; it's an awful lot
of waste if you don't. Verify every dimension! 10½" 10½" Make sure edges are square and flush.

(figure. *B*)
4′-0″ 4′-0″
figure. *B* Front Crown
Window Frame Window Frame
Front Wall Base Plank 1′-6″
4′-6″
5′-6″
8′-6″ 10′-0″
figure. *A*

Now we need to finish the front wall before you put the sheathing around the front. You should already have your window frames constructed so here we go…

Measure and locate where you want to put the windows. Feel free to adjust the measurements provided but remember you will need to adjust the measurements on the front wall sheathing.

Cut the window frame planks and attach them to the front wall with 5" screws. Be sure to screw through the crown and the base plank into the frame supports. Make sure the supports are straight vertically! We recommend having an assistant hold the window frame in place before attaching any screws.

Attach the vent through the rear of the front wall. YOU may have to use a soft mallet or deadblow hammer to "tap" the screen into place. It should be a snug fit. Attach with nails or screws up through the front of the frame. Make sure the screen frame is flush with the rear face of the window frame. (figure. *A*)

Use hinges to attach the window. Which side you choose to hinge is up to you. If you attach the hinges to the top, you will need some type of support system to keep the windows open. We recommend attaching the hinges on the side and using pin or hook and eye-pin to latch.

4′-8½" 5′-5″
3′-0″

You will need to MEASURE all openings and make sure the dimensions are accurate. Lay out and cut two sheets of plywood as shown in (figure. *B*)

Don't forget to measure and cut the miter on the plywood sheets so they fit snug into the space provided. You should be able to "tip" the sheets into place around the window frames.

2'-0 " 1
16

You should probably cut some nesting box dividers and attach them to the nesting box frames before we get too far.

1'-11¼"
3'-10½" 2

Now let's work on the frames for the doors. These are simple compared to some you have already done. Simply miter 2x6 planks as shown to the right.

Attach the doorframes with ¾" overhang. You will end up trimming the outside and the overhang will stick out the width of a 1x4 plank. Use a piece of 1x4 to get the correct overhang as shown below.

3/4" (19mm) overhang 3/4" (19mm) overhang

First thing you are going to want to do upon completion of the nesting box lid is miter on edge so it sits flush with the wall when closed. (figure. *A*)

figure. *A*

If you wish use a ¾" thick piece of weather tape to cushion the lid. The weather tape should absorb any of the lip and keep the nesting box weather tight.

Attach hinges to the exterior of each of the rear doors and hang in place on the rear doorframe. Use a slide bolt on top and bottom to keep the doors locked in place. If you wish, you may also install the side pins vertically on the inside top and bottom. Use a drill to drill a hole for the slide pin to anchor the door closed. (figure. *B*)

If you are going to let your chickens run out of the coop run, you may put a slide bolt in the center so you can open the doors to let them out

figure. *B* and slide the pin to close them in.
2 2
2

One more time, use a router with a guide or a
table saw to rip a groove down the center edges
of a 14' plank. Cut the entrance door frame and figure. *A* panel as shown below. Assemble in the same
manner as rear doors. (figure. *A*)

1"

Attach hinges to the door frame and hang in the entrance frame. We have allowed ¼" swing to allow the door to swing freely. Apply a strip of weather tape to all slides of the door frame to ensure a weather-right seal. (figure. *B*)

figure. *B*

3′-0″

For the windows, we are going to build a custom window size. WARNING: Always use protective equipment when cutting or breaking glass. Use caution with all glass panels to prevent breakage. Lay glass panels in safe, dry place until ready to use.

Cut a 10' 2x4 plank as shown in (figure . *C*). All corners are mitered at 45°. You will need two of these sill frames.

2′-9″

Go ahead and glue all of the corners and screw or nail together. Just make sure the frames are square and all edges are flush.

Rip a 10' 2x4 down the center using a table saw or circular saw with a guard. You will end up with two 10' planks that are about 1½x1¾".

Cut each piece as shown in (figure. *D*). The pieces should just fit inside the frame built earlier.
figure. *D*
figure. *E*
½"

figure. *F*

We have allowed ¼" (6-7mm) of clearance. Make sure the window swings freely. Before gluing or assembling the window, check to make sure the swing is unimpeded.
DO NOT ATTACH THE VENT OR THE WINDOW TO THE FRAME YET, YOU STILL NEED TO ATTACH THE FRAM TO THE FRONT WALL!

Cut a sheet of screen large enough to overlap the edges of the frame roughly by half. (figure. *E*) Make two of these vent frames.

Rip another 10' plank in half just like for the vent frames. You will need a router with a guide or a table saw with the applicable attachments.

Router a ½" gouge down the center of each piece. Be sure you router the entire piece BEFORE cutting to length as shown in (figure. *F*). This will ensure a continuous gouge the entire length of the window frame.

Place the glass sheet (you don't need to use glass, feel free to substitute any clear material such as PVC or plastic) into the frame and check to make sure the frame fits around the pane snugly.

Run a bead of silicone sealant (or equivalent) down the length of each gouge and glue the ends together around the pane.

Allow to set before attaching with screws or nails. We recommend screws, as pneumatic nails can break the seal. ALWAYS use extreme caution to ensure the screws or nails go straight into the frame. Make sure you don't impact the pane material as such may cause cracking or breakage.

You will also need two of these windows. We recommend working on one at a time ensure the correct frame pieces do not get mixed up.

You are nearing completion on your new coop! It's time to sheath the roof. Start by cutting

five sheets of plywood as detailed below. Keep both sides.

1
1'-7 " 1
16 16 1'-7 "
2'-1 1½" 1116"

You can really sheath how you wish, but for
a little guide we have numbered the detail to the ₃ ₂ right and below to show where sheathing can go
to reduce the amount of waste.₅ ₅

44 4₄ ₁
1
⁴ ²32 1
2 1 4₃
32 1³ ₂ 5
3
32 1
2'-1½" 4'-0" 4'-0"
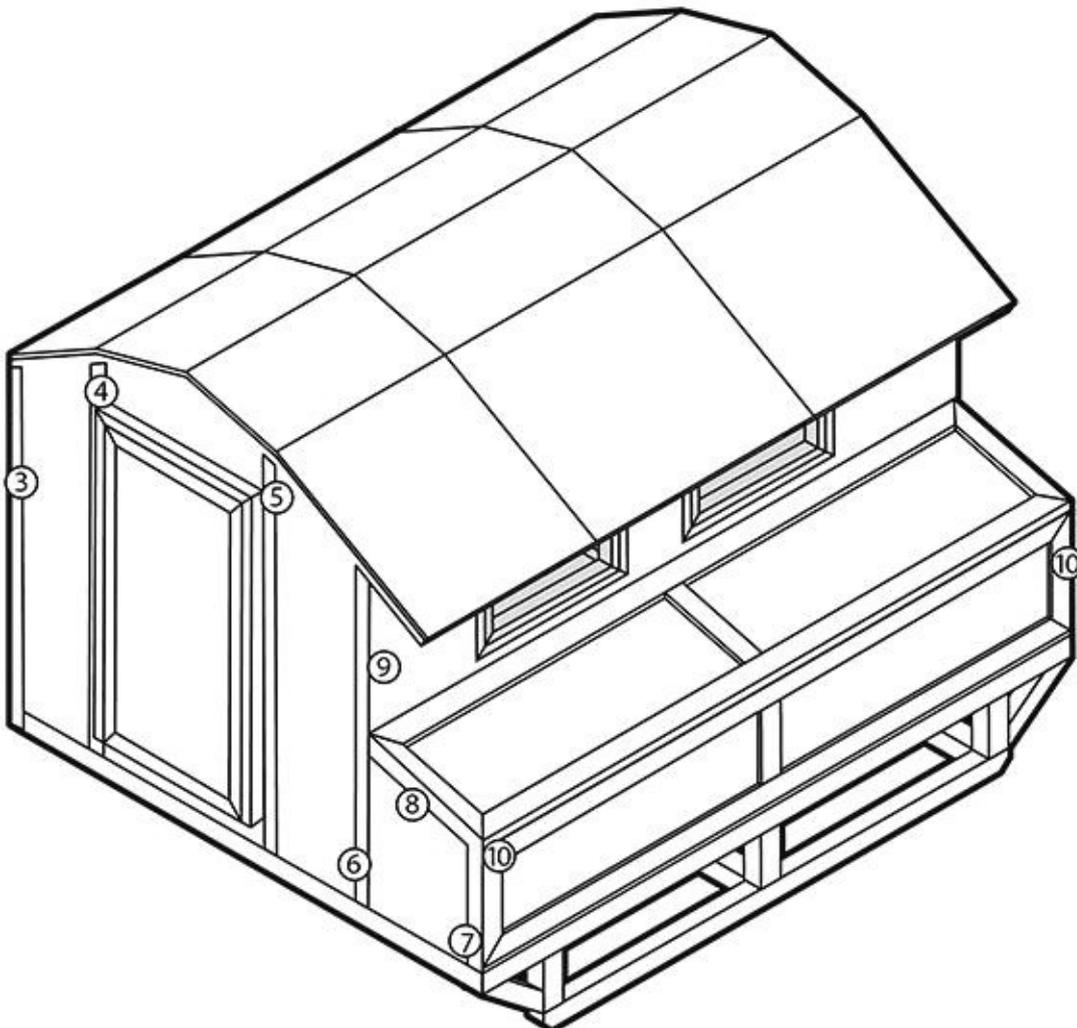
Now, all you need is a 1x4 plank to put across the top, front of the overhang. Also, the roof should be strong enough to support most snow loads, but if you live in a high elevation area, add some braces to the overhang on the front. These are detailed in the following pages.

If you are intending on adding trim, do not attach anything to the front of the overhang! Trim will be detailed in the following pages!

Now, for all intensive purposes you are done with the coop! Congratulations! We have included a list of trim pieces that will enhance the look and overall aesthetics of the coop. Those are continued on the next page but NOT REQUIRED.

Some general notes:

These drawings are intended as guide ONLY! While the drawings are complete and may be followed carefully, you should ALWAYS check measurements to confirm. Saw blades vary in thickness with age; lumber thickness can vary by country or standard. Too many variables exist, not to mention the construction competency of the builder.

While these plans are written with the most basic steps laid out, some builder competency, especially with the trim, is expected, as the pieces need to be tailored very specifically to fit just right. You also need to know how to use your own tools and to know what types of tools are listed in these drawings.

The chicken access, for all purposes is the rear door. We will be installing a smaller access in the rear of the coop, but this is up to the builder and NOT required.

Ramps and chicken runs are simple structures but drawings are included in the following pages. Don't forget the brace in the front. Simply hold a 3-4' plank against the side and mark your cuts.

This next section is intended for those who wish to trim out the coop. Trim may be applied for many reasons, but the most popular reason is simply to make the coop look aesthetically pleasing. The trim's primary purpose in these drawings is to cover any plywood seams or wood edges.

In these plans we made the entire overhang and roof rafters plumb cut. This means the overhang and the rafter's end is straight vertically. If you want to make trimming a little easier feel free to leave the ends square. It will require a little additional fore-planning and some adjustments to these plans, but it is YOUR coop.

We will provide the overall dimensions of the trim pieces. All pieces are 1x4. How the trim gets cut is up to you. Measure carefully, trim can be a tricky item and there are construction professionals dedicated solely to its installation. As always, use extreme caution to prevent waste and injury!

We will start the easy stuff. The base trim is nothing you haven't done before. Simply measure and miter the ends. If your front panel on the nesting box opens, do NOT attach the front trim to the side trim (you will close the box permanently). Leave the corners "free floating" and attach the trim to the panel structure.

2

2 10′-3″
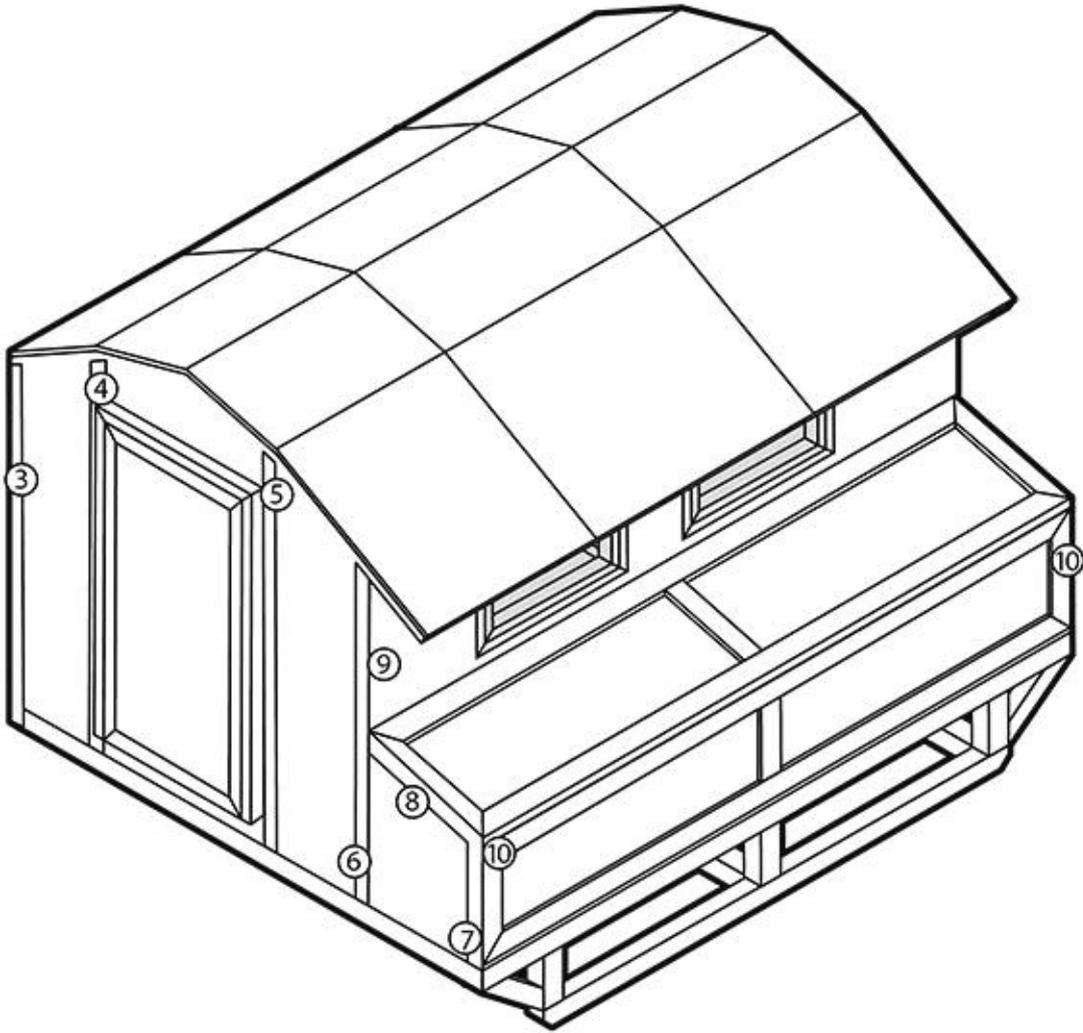
Working your way up, you will need two each of the pieces below. The mitered edge will be for the corners. For piece 10, you will need to router the edges down ¾" so it blends with the trim.

30°
11
16"
30°15°

11
1 "
16 4

3 5*9*

10

9 8

10*8* *45°¹¹* *45°6 10*

Miter3*4 5 6 7*Miter 7

13 11

45° 13*9*

8

Miter$_{2\ 712\ 6\ 1}$

$_{11}$ 12^{11} $_3$

$_5$

$_4$

"Around the back, cut as many pieces as detailed"

Now we need to work on the roof.

17 19 18

1'-7 "

5 5

17

1'-7 "

16

^{16} 17 $16^5{}_{16}$ *16*

^{16} 18 ^{15}15 15 *1'-9 "* 19

14 14

10′-3″

This next section break is intended as guidance to help you personalize your coop. These suggestions are for the little projects that will truly make the coop uniquely yours. In this section we'll cover adding chicken access and a ramp. This coop was designed to use the larger access doors in the rear as a chicken access, but should you live in colder climates, you will want a smaller chicken access to keep the cold out of the coop and to keep warmth in.

Also, on that note: If you live where the weather can get really cold, we recommend at least insulating the interior walls. You will want to put some interior sheathing inside or else the chickens will use the insulation in their nests. The insulation is not good for the overall health of the chickens.

Ok, so for the chicken access: pick a spot on the rear wall that you can cut out. Keep the scrap for a door. If you live in inclement weather, you will also want to frame in the access as shown. We have chosen the space between the door supports and the nearest stud. IF you have a larger fowl, the space to the left is also a good spot. Either way, you will have to frame in around the opening. Especially if you live in a colder region (insulation will have to go around it.

Use the scrap cut from the opening for a door that can be opened and closed. We recommend just putting hinges on one side and use a hook and eye-pin latch to keep it closed (figure. *A*).

Now, weather you have a chicken access or not, you will need a ramp to let the chickens get into and out of the coop. You can simply slap a rough ramp together with scrap plywood at least 3 feet long and 1 foot wide, but since this is such a nice coop, we are going to show you how to make a nicer ramp. (figure. *B*).

You will need a piece of scrap plywood roughly 3-4' by 6", 2 scrap wood pieces 3-4 feet long and plenty of 6" 1x4 or 2x4.

1. Rip a groove down the center of the planks $_{\text{figure. }A}$

(you have routered enough by now to almost be a professional). Make sure to rip through

the thin edge.

2. Cut the plywood to a nice rectangle the length of your router planks.
3. Run a bead of glue in each groove and assemble the ramp as shown in figure B 4. Cut the scrap pieces into squares that will fit in between the sides of the ramp
5. Screw or nail the ramp and the pieces together and you are done!
figure. *B* 10'-0¼"

The chicken run is a little more than a big box covered with chicken wire. We will provide the dimensions but after what you've done, we think you should be able to figure out how to construct the run. For those who cut the roof ends square, you will need to measure your maximum height!

1'-1¾"
3'-1¾"
4'-10¼"
6'-10¼"
8'-10¼" 10'-0¼"
3'-7½"
Once the run is completed, slide it over next to the coop; cut the chicken wire around the chicken 3′-4″ access and the rear access, staple and you are done! Congratulations, your coop is ready to go!
Access Door
3′-7″ 2'-0¾" 1'-11¼" 5"
8′-0″

The Poultry Condo

Introduction

The Chicken Condo is a very good project for anyone with decent carpentry skills. It makes a beautiful addition to any backyard or full-time farm. Sturdy construction and crystal-clear windows wraps your chickens in maximum comfort. With the windows on both coop accesses, you can see your chickens at a glance. The nesting box allows for quick, easy access to eggs and the spacious attached run gives your chickens room to roam. The human access allows for easy clean-up with a nice, wide 4 foot entrance. With kits costing up to $4500, the coop could be constructed for much less than $1000 depending on materials used.

Building Plans: The Poultry Condo

1. Measure and cut first nest floorboard to fit between vertical supports. Use small angle between vertical supports. Use small angle #30x 3/4" torque screws to support all nest floorboards.

2. Measure and cut floor boards and anchor between front and back horizontal slats with small angle brackets and screws. Be sure to fit boards tight against each other and that boards are flush with top of both front and back slats.

3. Measure and cut nest filler board (highlighted in illustrations) to fit in space between posts (see diagram in illustrations). Use small brackets and scews to anchor to side horizontal slats.

4. Continue attaching floorboards for nesting box in same manner. Attach first floorboard to side horizontal slat and nest front and back plats. Attach last board to all nest plates as well.

If desired, a diagonal support can be connected to the corners of the nest plates to support the weight of the nesting box during construction.

1"
1"
1"
1½"
BOTTOM VIEW
flooring bottom view flooring top view

Nest Filler Board

Scale 1:500

Description Floor board
Filler board
Angle bracket
Material List

Dimensions Quantity
2x4x4' 12

2x4x2' 1 By builder 30

3¼" 1'-9¾" 3¼"
Nest Front
Wall 4½" 1½"

Nest Front Wall

Scale 1:500
4¾"
3¼"2'-6″ 5°
2'-1¼"2¼" 1'-3¾"

all 1'-0½" 1½"
Nest Side Wall

Scale 1:500

Ne

Sca

1. Measure and cut pieces for each wall. Be sure to label the pieces carefully to prevent mixing them up

2. Starting with the front wall, attach a small angle bracket using torque screws to each piece connecting to the front post

3. Starting at the nest floor, stack the wall pieces on top of one another (7) rows high, connecting each row to the corner post.

4. Once all rows are stacked, use a door frame piece and align the rows by drilling through the door moulding using a #20-#30x1½" torque screw. Make sure to align and flush the pieces before each subsequent row.

5. Once all pieces are attached to the door moulding, screw a small angle bracket at the of the wall to the wall floor. Make sure wall is flush with exterior of nest floor.

6. Attach opposing pieces directly to exterior of vertical support using #20-#30x1-1½" torque screws. Make sure pieces are flush with exterior corner of vertical support.

7. Attach other door moulding in same manner as above. Make sure to align each piece before attaching. Drill through moulding before attaching to prevent cracking moulding.

8. Attach wall piece to nest floor using a small angle bracket. Make sure to check 1'-9¾"2½" alignment and flush with exterior.

9. Measure and cut top moulding piece. Attach
to side moulding pieces by drilling through
corner of moulding to prevent cracking.

10. Attach longer wall pieces in same manner
as horizontal slats. Connect to coner posts
using small angle brackets and attach

directly to vertical supports using #20-#30x
1¼" torque scews.

11. Repeat steps 1-10 for opposing wall 1½" 4½"

12. For slide wall, attach pieces either by angle Nest Back Wall_{bracket or} screw directly through exterior Scale 1:500using #20-#30x3½"-4 torque screws. Make

sure to check flush and alignment on every
piece.
13. Follow previous steps for slide door.
14. Make sure top wall pieces do not interfere
with top angle.

Description Wall pieces (TOTAL) Door moulding
Material List

Dimensions Quantity 1x4x10' 5
1x1x2' 2

2¼"₅° 6½" 3" 2'-9½"

Nest Divider Wall (×1)

Scale 1:500
4½" 1'-4¾"
2" 1'-9¼"

Nesting Box Side Wall (×2)

Scale 1:500
1. Measure, lay out and cut boards for nesting box side walls

2. Use brackets and screws to attach walls to nesting box floor and corner posts. Make sure to check for flush and alignment to exterior edge of nesting box floor and corner post

3. Measure and cut boards for nesting box back wall. Remember to rip top board of nesting box back wall at 5 degrees so top board aligns with slope of nesting box side boards

4. Screw ends of back wall directly into ends of side wall

5. Measure and cut boards for divider wall. Screw divider wallboards directly to corner post. Make sure top board aligns with top slope of coop as to prevent interference with the roof

6. Measure and cut hinge plate and screw directly to nesting box sidewalls. Make sure to flush tight against divider wall.

5°
Top Board
2" 2'-9½"

Nesting Box Back Wall (×1)

Material List Description Dimensions

Nesting box wall (TOTAL) 2x4x10' Quantity 10

1. Measure and cut pieces for nesting box access door (figure. *A*).

2. Measure and cut ½" plyboard sheet to interior dimensions (figure. *A*).
3. Construct frame by attaching pieces as diagrammed. Use #20-1½" torque head screws. Be sure all edges are flush and pieces are square (figure. *A*).

4. Lay frame on flat, clean surface and place plyboard sheet inside. Tap sheet into place if necessary and attach through outside of frame with #20-1½" torque screws. Be sure to screw straight and level to prevent breaking surface of plyboard.

5. Measure lumber long enough to include both door frame pieces and width of saw blade (at minimum)

6. Router slide doorframe piece to depth specified. Use a guard to prevent gouging.
7. Measure and cut door frame pieces

8. Attach bottom doorframe. Be sure to check flush and level. Presink drill holes to prevent cracking bottom door frame

9. Measure and cut door from 1/2" plyboard sheet
10. Attach door handle by builder

11. Use door as a guide for placement of top doorframe. Mark placement of top frame and attach. Presink drill holes to prevent door frame from cracking

12. Make sure door does not bind along track
½" 2'-6″
½" 1" figure. *A*
1" ½"
1'-3¾"
½" ½" ½"
Note: Door is 11mm plyboard
Sliding Door Frame (×2)
Scale 1:100 Slide Door (×1)

Scale 1:500

Access Door Top Frame Access Doo Side Frame

Access Door Side Frame Slide Door Frame
Nesting Box Access Panel
Box
Panel
Nesting Box Access
Slide Door
1'-5¾"
1'-4″

Nesting Box Access (×1)
Scale 1:100

Description Sliding door frame
Sliding door
Access door side frame Access door top frame Nesting box access panel

Dimensions Quantity 1x1x4' 2
2'x2'x1/2" 1
1x1x4' 2
1x1x2' 2
2'x4'x1/2" 1

1⁄5" 1⁄5"
1"
1⁄5" 1⁄5"
1"

1. Clamp 1x1x47" frame board to a solid surface

2. Use a guide to router a 1/5x1/5x1/5" seat for the window plates along entire length of board

3. Flip board over and reclamp to working surface
4. Using a guide, router opposing side of board 1/5x1/5x1/5" so both sides are a mirror of the other (see details in illustrations)

5. Layout along entire length of frame board and CAREFULLY rip board along ½"
entire length to make 2 mirror pieces. USE A TABLE SAW or RIP SAW if available. 6. Cut 2 pieces each for top, bottom and sides of window frame square to measurements

7. Lay out each window piece with respect to location and angle required. Starting with the top piece, CAREFULLY angle cut frame pieces at 45 degrees. Make sure

½" routered edges are flush and form a seat for window panes

8. When all pieces are cut and seats align, glue edge of each piece and assemble into a square. Clamp and let sit until dry. Once try, screw edges together using #20-11⁄5" torque scews. Make sure edges are flush with each other and assembly is square!
9. For center muntins, clamp remaining 1'-2" 3½"L-shaped pieces to stable work surface with

the routered edge on the inside bottom. 1" Router opposite side of frame board to
a "T" with 1/5x1/5x1/5mm seats on
both sides

10. Layout of both top and side frame.
Measure and cut middle cross piece and 6" align of piece and sides. Make sure seat is flush with both sides.

11. Glue and clamp sides together and let try.¾"
Attach with screws.
12. Measure and cut divider muntins and align
of muntins with of both top and bottom

frame pieces. ¾"13. Glue and clamp top and bottom intersecting
middle. Make sure plate seat remains flush Door Plan⁴½" and aligns all around the frame.

Once try,
attach with screws from exterior edge of top
and bottom plates

14. Construct 2nd half of frame as above
15. Measure and cut 4 window panes and make
sure they sit in the seat

16. Place second hall of frame on top and
make sure frames fit together and panes fit
between

17. Glue and clamp frame halves and window
panes together

18. Glue top and bottom of frame to 1x3 1/2 "
cut to width of doorframe. Clamp and let
try

19. Attach hinges (by builder) to top and bottom
1x3 1/2"
20. Repeat steps 1-19 for second door frame

Description Window frame Window pane

Dimensions Quantity 1x1x12' 2
6"x7½"x¼" 8

1′-8″ Coop Door
Top Frame

Coop Door Side Frame
Coop Door
Bottom Frame

Door Frame
Scale 1:500
Roof Frame Sheathing
2'-11¼" 2'-9½"

1. Frame in doorway as detailed as detailed in illustrations
2. Square door and cut mesh to fit

3. Attach mesh to door frame (the mesh will act as a backing to keep the frame square)

4. Measure, cut and attach mesh to exterior frame of coop. Attach every 6-12". Make sure
to tighten mesh as attaching to prevent bowing

5. Once exterior is meshed, measure and cut roof frame board. Make sure to rip top of roof
frame to flush with coop frame top

6. Attach to exterior of coop making sure edges are flush and corners are even 7. Cut
plywood sheet to dimensions of roof frame

8. Lay plywood sheet on top of roof frame and attach #20-30x1½" torque screws. Be sure
to drill straight down into the roof frame

9. Cover the roof and nesting box access panel with cedar or asphalt shingles in accordance with avian bird flu prevention specifications

Roof Frame Rear Board Roof Frame Side Board
Roof Frame Front Board
6'-9½"

Roof Frame
Scale 1:500

Description Roof frame side board Roof frame front board Roof frame rear board Roof Sheathing
Coop door top frame Coop door bottom frame Door side frame
Material List

Dimensions Quantity
1x4x4' 2
1x4x8' 1
1x4x8' 1
4'x8'x¾" 1
1x1x4' 1
1x1x4' 1
1x1x8' 2

The Poultry Farmer

Introduction

The Poultry Farmer easily holds 50+ chickens with enough nesting boxes to allow your poultry room to roam. The easy slide-in, slide-out design of the waste pans reduces labor and cleanup time.

Large doors allow spacious entry and exit through both ends with a smaller chicken access on both ends. This large structure easily sells for over $5000 in a kit you have to assemble yourself anyway.

Why not save yourself at least $4000 either way? The coop is the perfect addition to any farm where space is needed in warmer weather and heat may even be installed in cooler climates! Perfect for any poultry grower!

Building Plans: The Poultry Farmer
Instructions: 1. Measure and cut floor header and floor boards
1'-5¾"
2. Lay out floor header boards and mark location of floor boards 2'-1¾"

3. Attach floor boards to header board using #20-#30x2⅓-2¾" torque screws (or equivalent). Make sure edges are flush

4. Cut and measure plywood floor sheets
5. Square foot structure and lay floor sheets on top
6. Tack with #20-#30x2⅓-2¾" torque screws straight down
7. Make sure edges are flush and structure is 7'-3"square

8. Once structure is square and edges are flush, attach sheet permanently with screws or nail gun.

1'-5¾"
2'-1¾"

NOTE: Floor boards are treated 2x4" attached with #20-#30x2½-3" torque screws

Floor Sheeting
Floor Header Board
Floor Board

Description Floor header board Floor board Floor sheeting

Dimensions Quantity
2x4x12' 2
2x4x12' 5

4'x8'x¾" 2

[2'-11½"]

[2'-1¾"]

Instructions:

[2'-1¾"]

1. Layout and mark location of support posts as detailed

2. Measure, cut and label support posts 3. Layout posts and make sure each post is located properly

4. Attach post to floor sheet using angle brackets and #30x½" screws, or drill holes and use bolts and washers (by builder). Make sure posts are flush, level vertically, and faced as shown below

60° ~typ~ Note: All supports are 90×90mm

60°

~typ~

Exterior Vertical Support (x6)

Interior Vertical Support (x6)

Description Interior vertical support Exterior vertical support Angle bracket

Material List

Dimensions

4x4x6'

4x4x6'

By builder

Interior Vertical Support (x6)

Quantity

6

6

35

NOTE: Horizontal Roof Support is 3½"x3½"

Instructions:

1. Brace support posts vertically

Top Sheating

Horizontal Roof Support

2. Measure and cut horizontal roof support. Rip top edges at 60°

3. Attach to top of exterior support posts using angle brackets and #30x1½" torque screws. Make sure angle is flush with support posts

4. Measure and cut two exterior plywood sheets

5. Layout and mark connection lines on plywood

6. Attach plywood sheathing to exterior of posts

7. Measure and cut two top plywood sheets. Rip top edge at 60° angle as detailed

8. Tack top piece of sheathing above bottom piece and ensure angle does not impede with roof slope

9. Attach top sheathing. Make sure top sheet is tight against the bottom sheet and all edges are flush

10. Repeat steps for opposing slide with second sheets of sheathing

Bottom Sheating
60° 9"
Bottom Sheathing
7'-10¼"
3½"
3'-5¾"

Description Bottom sheathing
Top sheathing

Dimensions Quantity
4'x8'x¾" 2
4'x8'x¾" 1

4'-1 1¼"⁶⁰°
120°
60°
Roof Rafter
Interior Support 7¾"
Post Exterior
Support Post

Instructions:

1. Measure and cut six roof rafters as dimensioned

2. Layout three pairs of two rafters each 3. Attach rafters with 120° angle brackets for greater support

4. Place roof rafter on top of support posts and connect with #30x4¾" torque screws. Be sure posts are centered and overhangs are even on both sides

5. Connect to interior support posts. Be sure to screw straight down into support posts. If desired, use 60° roof brackets for added strength

6. Repeat steps 3-5 for remaining

Horizontal Roof Support
Roof Rafter
Interior Support Post
Exterior Support Post

Description Base plate
Nesting door plate Nesting header
General header

Instructions:
Material List Dimensions 2x4x4' 2x4x2' 2x4x2' 2x4x1'

1. Measure and cut roost support as detailed 2. Measure and mark placement of roost support on inside of exterior posts

3. Clamp roost supports in place and attach to inside of exterior posts using #30x2⅓-2¾" torque screws

4. Repeat steps 2 & 3 for remaining roost supports. Make sure roost supports are same distance vertically so roost planks are level

5. Measure and cut poo pan support pieces (16 long and 16 short)

6. Frame poo pan support as detailed with #30x1½" torque screws. Drill screw holes 1'-11½" to prevent supports from cracking

7. Repeat 6 for seven more poo pan supports (8 poo pan supports total)

8. Mark placement of poo pan support on 1'-8¼"exterior and interior vertical support posts

9. Attach poo pan support to posts with #30x1½"-#30x1½" torque screws. Make sure supports are level and attached tight to posts

10. Place 1x1" in planks across roost supports. Measure and cut planks where needed. Attach to roost supports with #30x1½" torque screws

Quantity

4
1
1
4

Roost plank
Roost support (x16)
Poo pan short support (x16) Poo pan long support (x16)

Exterior Support Post
Interior Support Post

Roost Support (×16) 1'-11½"

Poo Pan
Short
Support
(×16)

3"
2'-3½" Roof Rafter
3'-2¼"

Description Roost support
Poo pan long support Poo pan short support Roost plank

Dimensions Quantity
2x4x4' 16
1x1x4' 16
1x1x4' 16
1x1x8' 20

Instructions:
1. Measure and cut roof sheathing as detailed (2 sheets)

2. Mark of sheathing and tack into place on roof supports using #20-#40x1½" torque screws

3. Repeat step 2 for other roof sheet

4. Measure and cut 3'11¼" x 7'10½" x 3/4" plywood sheet to rough dimensions of two doors and two poo pan access doors

5. Layout doors and cut angle of coop and poo pan access door @60°

6. Layout and cut chicken access door out of the coop doors. Keep the waste plate as the access door. Attach chicken access to door plate with two hinges

7. Lay out doors and screw hinges to edge of doors. Make sure doors will swing out!

8. Place door against support posts and use spacers to hold door at right height and make sure door fits in opening. Tack hinges to support posts of first door and put second in place to make sure both doors open and close easily and shut correctly

9. Once both doors open and shut completely $60°$
and easily, attach slide bolt (by builder) to $_{60°}$both coop and chicken access to lock Hinge

10. Attach poo pan access doors to interior ^{Coop} support posts in same manner as coop ^{Door} doors. Make sure doors fit flush in openings
and swing freely$_{Coop}$

Access
11. Attach side bolt to poo access doors and
exterior posts and lock$_{1'-4''\ 1'-8½''}$ 12. Repeat step 1-11 for opposing side of the coop 1'-3¾"

Description Roof sheathing
Coop door and coop access Poo pan access door
Hinge and slide bolt
Material List

Dimensions Quantity
4'x8'x¾" 2
4'x8'x¾" 1
4'x8'x¾" 1
By builder #

Instructions:
1. Measure and cut nesting box frame pieces

2. Connect frame pieces with #30x1 ½" torque screws. Drill holes to prevent cracking pieces. Be sure to check for flush and level vertically on each piece.

3. Measure and cut nesting box sheathing

4. Construct nesting boxes using angle brackets and attach frames to cross supports to make one nesting box with four compartments

5. Construct nesting boxes using angle brackets and attach frames to cross supports to make one nesting box with four compartments

1'-7¾"
6. Measure and cut nesting box back wall Cross piece
8¾"
1'-7¾"
8"
9½"
9½"

8"

Note: *If you do not require the front panel to be removable, attach the front panel to the nesting box permanently with #20x1½" torque screws. If you do require the front panel to be removed, continue with these instructions.*

7. Attach nesting box back wall across entire length and attach to cross pieces using #30x1½" torque screws

8. Measure and cut nesting box back wall

9. Attach nesting box back wall across entire length and attach to cross pieces using #30x1½" in torque screws

10. Cut and drill holes in back wall for wall connector hooks (by builder). Make sure holes clear the top cross supports and will not interfere with hanging nesting box

11. Measure and cut nesting box proof 12. Attach nesting box proof hinges (by builder). Make sure roof opens up

13. Measure and lay out hooks for nesting box. If possible, bolt hook to sheathing rather than screw

14. Hang completed nesting box on hooks and make sure nesting box stays in place, fits correctly and removes easily

15. Cut 1x1" panel track
16. Measure and cut removable front wall

17. Tack front wall against nesting boxes and layout panel track

18. Attach front removable panel track to nesting box floor sheet. Make sure panel slides easily but is tight enough to hold itself against nesting box
Description

Nesting box frame
Nesting box cross piece Nesting box floor
Nesting box front panel Nesting box floor
Nesting box panel track Nesting box back wall Material List

Dimensions Quantity
1x1x6' 18
2x4x2' 48
4'x4'x¾" 2
4'x4'x¾" 2
4'x4'x¾" 2
1x1x6' 2
2x4x2' 2

NOTE: Nesting box frame pieces are 1x1"

The Mul-T Coop

Introduction

The Mul-T-Coop is our most versatile coop structure to date! With a storage and work area with direct access into either coop. You can keep chickens in one, turkeys or geese in another. Separate more aggressive breeds out from your laying hens. Add only one chicken run and convert one side into a coop! Keep the other side for a potting shed, hot box or additional storage! Store large machinery such as a lawn tractor and accessories in the large, spacious 12x16 foot main shed! The 8x8 foot lean-to sheds offer enough space for up to 30 chickens in each side! Designed to handle electricity and insulation, you can make the Mul-T-Coop the ultimate back yard structure!

Building Plans: The Mul-T Coop

Description
2x4 plank
2x4 plank
2x4 plank
Plywood flooring

2x4 plank
Plywood flooring

2x4 plank
2x4 plank
Plywood sheathing

2x4 plank
2x4 plank
2x4 plank
Plywood sheathing

2x4 plank
4x4 post
Plywood Sheathing

2x4 plank Material List

Dimensions Quantity
2x4x12' 6
2x4x16' 2
2x4x8' 20 4'x8'x¾" 6
8x8 floors
2x4x8' 26 4'x8'x¾" 8
Front Walls
2x4x8' 28
2x4x12' 4
4'x8'x3/8" min. 6
Side Walls

2x4x8' 34
2x4x16' 4
2x4x12' 2
4'x8'x3/8" min. 8
Shed Walls
2x4x8' 16
4x4x10' 2
4'x8'x3/8" min. 4
End Shed Walls
2x4x8' 20 Plywood Sheathing

2x6 (min) pr. treat. Plank Joist Hangers

2x6 plank
Rafter Plate
Plywood Sub-Roofing 2x4 Rafter Post

2x6 plank
Plywood Subroofing
2x4 plank
Chicken Wire

2x2 post
Plywood sheet Plywood sheet

2x4 plank
1x2 or 2x2 post

Roofing
Pain, veneer, siding etc. Sealant (if desired)
Nails, screws, fasteners Hinges, latches, hardware 4'x8'x3/8" 4 Roof Joists

2x6x12' 11
By builder 22
Roofing
2x6x8' 26
By builder 104 4x8'x¾" 8
2x4x8' 8
Shed Roof
2x6x10' 10
4x8'x¾" 8
Chicken Run
2x4x8' 84
By builder
Nesting Box
2x2x8' 48
4x8'x¾" 4
4x8'x½" 4
Roost
2x4x8' 8

1 or 2x2x8' 8
Miscellaneous
By builder
By builder
By builder
By builder

To begin with, start by finding a level plot of$_{12\text{-}0}$ ground to put the base on. The ground should be
solid and rocky with decent drainage. You may
want to clear grass and shrubbery from the inside
area of the foundation.

Now, to begin, start by constructing the foundation rim joist out of 2x4 planks as shown in (figure. *A*).

11 9

figure. *A*

11 -9

1-0$^1_2$ 1-4 1-4 1-4 1-4 1-4 1-4 1-4 1-0$^1_2$

Then move on to construct the joists. (figure. *B*)

Now, there are actually different ways to do this. The important thing is to make sure the flooring will have something to nail to. As you can see from the illustration below in (figure. *B*), we have already taken one construction method into account. Follow the diagram and you shouldn't have many problems.

figure. *B*

Again, this is NOT the only method to do this. You may choose an alternate method if you have construction experience. We chose this method because it offers extra support for the exterior walls with a nice "backbone" down the middle with which to attach the flooring.

Also, notice you can build this layout in two equal, but separate, sections. Work carefully and thoroughly and make sure pieces are laid out properly before connecting. Make sure of your measurements! If cut properly, it will be a snug fit, but the pieces should fit inside the rim joist with little effort.

It will probably be easiest to loosen the screws in the rim joist and shimmy it into place over the joists.

The rim joists can be mitered on the ends to give the corners a professional look. If you are at all uncomfortable cutting miters, feel free to

figure . *C* skip the miter and just connect the ends with screws. We do recommend at least 2½" #15 torx head screws or larger. A pneumatic nailer (or equivalent) MAY be used, just know that nails have a tendency to work themselves loose and may need occasional maintenance. (figure. *C*)

Make sure the base is square before laying the first piece of plywood. Once you have the first piece aligned properly, the rest will assist you in squaring up the foundation as you go along. Place 6 sheets of ¾" (minimum) plywood down for the flooring. DO NOT USE OSB (Oriented-strand Board) for flooring. The adhesive has a tendency to rot under moist

conditions and you could risk a weak floor! (figure. *D*)

figure. *D*

To begin, start by cutting the planks for the rim joists. You do NOT need to miter the ends, but it gives it a more professional finish. (figure. *E*)

8-0 7-9
figure. *E*
Assemble the interior joists as shown in (figure. *A*)

Again, this is NOT the only method to choose! You ma y choose an alternate method if you have construction experience. We chose this method because it offers extra support for the exterior walls and a niec "backbone" down the middle with which to attach the flooring.

Also, notice you can build this layout in two equal, but separate, sections. Work carefully and thoroughly and make sure pieces are laid out properly before connecting. Make sure of your measurements! If cut properly, it will be a snug fir, but the pieces should fit inside the rim joists with little effort.

$2 \ 1 \ -0^1{}_2 \ 1 \ -4 \ 1 \ -4^{7 \ -9} \ 1 \ -4 \ 1 \ -4 \ 1 \ -0^1{}_2 \ 2$

figure.*B*

For the front wall, follow the diagram as $_{12 \ 0}$ shown.$^{11 \ 5}$

Notice the double header over the door and
the cheater on either side of the doorframe. Do $^{3 \ -101}$ not skip these, they are essential to the overall
integrity of the door frame.

You may however, wait with the top tie plate.
It will be necessary to tie the top together, but it's
not necessary right at this moment. You may opt
to add it now for easier construction.

$_{2}$
$1 \ -4_{3 \ -101}$ studs @ 16 Q.C. $_{2}$
6
-8
$_{3}$
Assemble the floor platform as shown. Make $^{1 \ -43 \ 4 \ 4}$
sure the edges are square and the flooring is flush.

Screw the frame into the flooring. Make sure to screw into the joists below and no into only the plywood flooring. (figure. *A*)

figure. *A*
16 0
1
-0
$_{1}$
15 5
$_{2} \ 1 \ -0^1{}_2 \ 1 \ -4 \ 1 \ -4 \ 1 \ -4 \ 1 \ -4 \ 1 \ -4 \ 1 \ -4 \ 1 \ -4 \ 1 \ -4 \ 1 \ -4 \ 1 \ -4$
For the sidewall, follow the diagram below in

$^{-101}$ (figure. *B*). Your window and door openings may differ from those shown.

$^{-61}$ You do not necessarily need to attach the top plate until you are done with assembly of the walls. The top plate ties the tops of the walls together and provides extra support for rafters or trusses.

1
-1
$_1$ 10 -5^{1}4
$_4$

Screw the frame to the floor. Make sure the screws go into the joists below and not only the plywood flooring. Attach the side walls to the front and rear walls. Make sure the screws go into the frame.

The top plate of the sidewalls should match up with the top plate on the front and rear walls.
9-0
-
For the shed wall, follow the diagram as shown $^{-612}$ to the right.
-3^1$_2$ - - - - -
- 11^1$_2$

Make sure the studs are straight vertically. Layout the frame on the ground before attempting to stand up. (figure. *A*)

Once you have the main walls together and sheathed, go ahead and start putting the shed
4x4 post
walls in place. As with the main walls, make sure the frame is attached to the joists below the flooring. (figure. *B*)

9-0
3 -10^1$_2$

For the shed wall with a door, follow the diagram in (figure. *C*). Make sure the studs are vertical as possible. Construct the frame on the ground before standing upright. Make sure angles are square end edges are flush.

1 -4^{1}4 3 -10^1$_2$ 2 -8^{3}4 7 -11^1$_2$
figure. *C*

For the door, follow the diagram in (figure . *D*) 3 -6^{3}4 to construct the doorframe. Make sure the wall
frame is square before installing.

Notice you need to make the hinge side of the
door frame with 2 planks. This is to reinforce the

frame and keep it from bowing once hinges are in ⎯ place.

Construct the doorframe on the ground and
make sure the frame is square and edges are flush.
You'll also need to add paneling, hinges and
handle to the door. figure. *D*

$1 -0^{1}{}_{2}$ 1 -4 1 -4^{7} $^{-5}$ 1 -4 1 -4 1 -0$^{1}{}_{2}$
Follow the diagram below in (figure. *E*) for construction on the wall.
Notice the double top plate. This will help support the weight of the rafters.

The structure should start looking something like the illustration below.

Depending on the type of door you use on the main walls, you may have to cut a notch out of the shed wall to take the slide rod into account.

The end walls should fit just inside the two shed walls. Important: Make sure the top plates sit flush with the bottom of the 4x4 top plates along the sidewalls! You will be putting the rafters bottoms on the end wall double top plate, so it's critical that the top plates be the correct height!

For the flat rafter, it's simple. Just cut a 2x6
(minimum) as shown in (figure. *A*). 11 -5
figure. *A*

For a 12x16 shed, layout the joists as shown
in (figure. *B*). You should be able to use joist
hangers on the frame. Make sure the joists are
flush with the top plate.

Make sure the joists are a minimum of 2x6
pressure treated joists for the 12' span. Always
cross the shortest span possible! If unsure
about constructing roof components, HIRE A
PROFESSIONAL! Also, you may want to check
your local building requirements for snow load
information in your particular area.

figure. *B*

Once you have the rafters in place, the structure should start looking something like the illustration below. We do recommend using joist hangers to seat the rafters.

Notice how the rafters are flush with the top edge of the side wall frame. Also notice how the top plates ties the rear wall to the side wall.

From the inside your roof joists should look something similar to the diagram in (figure. *A*) Notice how we are using t he studs on the sidewalls to connect the joist hangers. This method will depend on the type of hanger you purchase.

figure. *A*

For the 2x6 rafters, follow the diagrams in
(figure. *B*). Make sure edges are flush and corners
are square and fit well. You can use either a rafter $_{12}$ *6-3$_7$* or square or a speed square to
cut the seats at the 4^8 crown. If unsure about constructing roofs you 3^3 $_4$ should consider
contacting a professional. We $_{12}$ $_{-0}$have also included general instructions on how

to use a speed square and a rafter square in the $^{figure.}$ *^{B}* appendix of this book.

Once you have your rafters cut, you need to connect them. How they are connected is really up to the builder, but we recommend rafter plates. These rafters are intended to be constructed on top of rafter joists!

The rafters should look something like the illustration in (figure. *C*).
figure. *C*

Once you have the rafters constructed and ready to put into place, carefully align the rafters so they are vertical over the roof joists below.

Nail or screw the rafters plates down tightly to the joists. Make sure you have assistance and if you feel at all uncomfortable working at heights you should contact a professional.
To construct shed rafters, you will need *Varies*either a rafter square or a speed square. We have

included general instructions on how to use both $_{7-83}$ $_{312}$ ^{8}in the appendix of this book. Cut

the rafters as $_{varies}$ diagrammed in (figure. *A*) and you shouldn't^{7} $^{-8}$
have any problems. figure. *A*

You may wish to mark the location of your cut
by hanging the rafters in place before you begin
cutting. Have an assistant hold the ends of the
rafters against the wall or in rafter hangers that
have already been located.

How long of an overhang you add to the end
of the rafter is completely up to you, but you will
need a board at least 9' long to account for the
slope of the rafter.

For an 8x8' lean-to, you will need 5 of these
rafters to cross the span. We do recommend a $_{figure.}$ *$_B$*minimum of 2x6 pressure-treated lumber for the

rafters. You may wish to consult a professional
on advised rafter thickness for your local snow
load! As always, if comfortable working at
heights or with roof components, HIRE A
PROFESSIONAL! (figure. *B*)

These rafters are intended to be held in place with the rafter hangers (available at most home construction supply retailers). (figure. *C*)

figure. *C*

Once the shed rafters are in place, go ahead and add the roofing. You will want to add subroof sheet.

And sub-roof finish to the main roof. Install widows per manufacturer instructions. We have included a basic slide window design
should you wish to use it, but we recommend
purchasing windows and doors.^{figure. A}

For the nesting box, begin by cutting 2x2 post as shown below. You will need 14 lengths the same dimensions. (figure. *A*)

Using a router with a guide or a table saw and
dado blade, rip a groove down the center of 10 of
the legs.

Now, these dados (grooves) will be the same
thickness as the plywood or OSD you intend to
use as separators between the nesting boxes. We ½"½" ½" have used ½" as an example, but you MAY wish 1½" to go as thin as ¼" if you desire. (figure. *B*)

figure. *B*

Once you have the grooves cut for the divider
panels, follow the diagram below for assembly of
the dividers. First the exterior panels: For the divider panels:

10 7
1^1_2 1^1_2

3 -8^1 $_2$ Once you have the dividers assembled, you will need to cut out the top panels as diagrammed in (figure. *A*).

figure. *A*
Assemble the nesting box section as outlined in the diagram (figure. *B*)
figure. *B*

Make sure the legs are located as shown in (figure. *B*) You should be able to put the dividers in place as shown in (figure. *C*). Use smaller panels on the exterior sides.

figure. *C*

Once you have the nesting box section complete, you can cut the primary 2x2 roost legs as shown in (figure. *D*). You will need 4 of these.

figure. *D*

^{After you have the upright cut, put them aside} 3 -51 ^{2}and cut out the bottom legs. These are shorter and hold the nesting boxes off of the ground. It is a
simple construction, just follow the diagrams in 2^1 $_2$
(figure. *E*)_{figure. *E*}

Next, cut the nesting box floor out of ¾" You'll need two of these. plywood sheet (we recommend such a thick sheet
because of the resistance it will have to rotting)
(figure. *F*)

Cut and attach the longer feet:

Go ahead and attach the uprights cut previously to the floor of the nesting box. (figure. *A*)

Insert the nesting box assembly constructed earlier onto the floor: (figure. *B*)

The complete assembly should look something like the diagram in (figure. *C*).

Complete more nesting box assemblies and figure. *D* layer them upon each other until you have the completed nesting box as shown in (figure. *D*):

Add strips of fascia to keep straw in the nesting boxes

5

1

-0

The roost is one of the easiest part of a chicken

4

-0

coop to construct. The side framing is constructed

figure

1. *E*

-0

just like the stringers on a set of stairs. (figure. *E*)

1

-0

7

You will need 3 of these. One for both ends and the middle: (Figure. *F*)

Measure the space to put the roost and use this measurement for the roosts themselves. Cut four 2x2x8' to the size you just measured. You MAY need to contruct the roost in place!

Attach the roosts to the frame as shown in figure. *A* the diagram in (figure. *A*). That's it! The roost is ready to keep your chickens comfy and secure!

8 -0³ ₈

A run is one of the most important things you $^{2\,-61\,2}$ can build to protect your chickens. It's literally a big cage, not just to keep your chickens together, but also to protect against predators.

To begin, start by cutting the planks for the front wall as diagrammed in (figure. *B*). Layout on the ground before standing upright. Make sure the studs are level vertically and that all edges are

$_{2\,-3^{1}\,2}$ flush.

1 -4 1 -4 1 -4₈ ₋₀ 2 -8 1 -4 Don't forget the double header over the top of the door frame and the cheathers to hold the figure. *B* weight of the door assembly.

^{3} ₈₈ ₋₀

For the rear wall, follow the diagram in (figure. *C*). Remember to allow for the chicken access:

figure. *C*

1 -4 1 -4$_8$ -$_0$ 4 -0 1 -4

The short wall should be easy compared to the rest. Remember to rip the top plate as shown. Use a table saw or circular saw with a guide. (figure. *D*)

1 -8^1 $_2$ 2 -0 2 -0 1 -8^1 $_2$ 7 -5

figure. *D*

For the tall wall, follow the diagram in (figure. *E*) for dimensions. As for construction, it is exactly the same as for the short wall.

1 -8^1 $_2$ 2 -0$_7$ -$_5$ 2 -0 1 -8^1 $_2$

figure. *E*

For the run door, it's a simple frame with a supporting diagonal. It shouldn't be too hard to construct. (figure. *F*)

figure. *F*

2 -3

Attach the chicken wire after you ensure the door frame is square. The wire will act as a backing and keep the frame from warping.

For the door, construction is relatively simple. If you want to install a latch, that is up to you. We do not show the details because there are special

Opening minus

$_1$ $_2$ tools involved, most of which the normal person do not have. However, if you DO happen to come across such tools, you will need to be able to add a doorknob and catch should you desire.

As with the windows, this is a very simple door $^{4\,7\,4\,8\,V}$ and you do NOT have to construct the door in this way. If you prefer to purchase a door, make sure the rough opening size is adequate. The frame rough opening in this instance can be anything. Just tweak the dimensions to match your rough opening. Be sure you subtract ½" from the rough opening to allow for swing!

1. To begin, we are using 1'4 planks and ½" plywood sheeting. Cut the frame pieces as shown in (figure. *A*). You DO NOT have to miter the corners, we just recommend it

figure. *A* for aesthetic purposes.

We will show the door in this example with a pattern cut out of the front and back sheeting, but this is not required. It's purely for the looks and does not affect the integrity of the door at all.

Before you attach the panel to the door frame, you will want to check the swing in the doorway. We have allowed for ½" swing, but depending on construction methods and accuracy, you may be affected

by as much as 1".

Please ensure the frame will swing in the
opening without gettting stuck or caught.
You should allow more swing once you add
the door panels so check after each step to $4\frac{1}{2}$ ensure swing is not impeded.

Description Planks
Plywood sheet
Hinges
Material List

Dimensions Quantity 1x4x6' 5
4x'8x½" 2
3

2. Attach the front panel to the door frame, and MAKE SURE THE CORNERS ARE SQUARE end edges are flush. You may even want to sand the corners of the inside swing so they are rounded a little bit.

3. Insulate the door with either blow foam or regular R-13 roll instulation will work

4. Enclose the door with the second panel. You may want to round the edges on this side also.

5. A single slide bolt works wonders on the outside and inside to lock the door shut. If you don't want your kids to be able to lock the door, only install the slide bolt on the outside. The slide bolt offers a grip to pull the door open.

Opening Width

Windows are complicated to design and when at all possible, should be purchased. These _{figure. A} details are for a very simple sliding window. You will need, and know how to use, a miter saw, a router (preferably with a guide) or table saw with an adjustable gouging blade (or blade kit, and a square, speed square, carpenter square, either works.)

1. Cut and miter 1x6 planks as shown in (figure. *A*). DO NOT ASSEMBLE YET!

2. Rip a 1x4x8' into strips 5/8" thick. These _{3"} will serve many purposes in the future 5½" but for now, we just want four of them to match the opening, so either rip and cut one _{figure. B} piece or rip an entire board into 5/8" strips and place the pieces to the side for later. (figure. *B*)

3. Using 1" screws and a level, screw two ^{figure. C} runners onto one of the exterior frame pieces. Repeat for the second side (see above).

4. Check to make sure the runners will fit inside the frame when assembled. Make any adjustments if necessary. DO NOT ASSEMBLE YET! (figure. *C*)
5. Rip a 8'-2x6 down the center lenghtwise

6. Use a router to gouge a ¾"x¾" groove down the center of one side. Flip the board over and gouge a ¼x¼" groove down the center of the other side (see detail) (figure. *D*)

^{For ¼"}pane

material
On
runners

¾"
figure. *D*

7. Miter the ends. Make sure the narrow (1/4x1/4") groove is facing inwards! The wide (3/4x3/4") grooves go out toward the runners, the inside grooves will hold a pane of window material. (figure. *E*)

45°

8. Rip a 2x6 lengthwise down the middle and miter ends as shown in (figure. *F*). Run a ¼x¼" groove down the middle, just as with the 2x6 above. Hold them together and MAKE SURE THE GROOVES ALIGN PROPERLY! You will need to gouge a

figure. *E*
¾x¾" groove out of the ends.
3/4" groove 1/4" grooves aligns with runners align

Frame Opening Width
figure. *F*

Description Planks
Planks
Planks
Material List

Dimensions
2x6x6'
1x6x8'
1x4x8'
Quantity 24
6
6

9. Lastly, before construction, you will need to determine what type of pane material you want to use.

If you decide to use glass, we highly recommend purchasing ¼" thick professionally cut panes. You will need 2 per window. On this set that equals 12 panes of glass total.

Should you decide to cut your own glass, Groove Width you do so at your own risk. Use all safety
figure
. *G*
procedures and equipment when handling glass. (figure. *G*)

10. Assemble the window frame around the pane. Run a bead of epoxy or polythylene (or equivalent) seal down the frame pieces as you assemble the window to get a good, weather-tight bond. You culd increase rotting and mildew growth if you choose not to. (figure. *H*)

figure. *H*

11. Cap off the window with the top piece and connect all pieces with 1" small radius

(1/4" or smaller) screws. Be sure you don't screw down into the window pane! (Figure. *I*)

12. Repeat for the 2nd window

figure. *I*

13. Once you have two window assemblies, two exterior frame pieces with runners on them, and two exterior frame pieces for the top and bottom, carefully assemble the exterior window frames around the window assemblies

14. Cap off the window assembly. Ensure the

14. Cap off the window assembly. Ensure the 1/8" gap between the window assemblies so they will not impede each other's movement.

15. Place the window in the window frame. Screw the exterior frame to the opening provided. You may have to use a soft mallet or a dead-blow hammer to get the window centered in the opening.

16. How the windows stay up or down is up to the user. We recommend getting a slide bolt and installing at least one on the movable assembly. Which assembly moves or stays stationary is up to the builder.

17. Lastly, beofre construction, you will need to detmine what type of material you want to use.
If you decide to use glass, we highly recommend purchasing ¼" thick professionally cut panes. You will need 2 per window. On this set that equals 12 panes of glass total.

Should you decide to cut your own glass, you do so at your risk! Use all the safety procedures and equipment when handling glass!

18. Assemble the window frame around the pane. Run a bead of epoxy or polythylene (or equivalent) seal down the frame pices as you assemble the window to get a good, weather-tight bond. You could increase rotting and mildew growth if you choose not to.

Additional notes
for the window assemblies:

1. Use weather striping along the seam between the window assemblies to keep wind, and weather out as much as possible

2. We recommend having one stationary, and one movable window. Most often, anchor the exterior window to the top of the assembly and let the interior window slide up and down.

a. Drill a ¼" pin hole in the interior, left or right, side of the movable window assembly

b. While the window is closed, drill into the runner about ¼"

c. Keeping the drill bit inside the pin hole, pull the drill bit back out a little, raise the window and drill back in about ¼" into the runner. We recommend about 3" increments

d. Repeat as necessary for how much you wish the window to open. Cut a length of ¼" dowel (may need sanding to slide freely) to use as a pin.

e. Add a slide pin to both the top and bottom of the movable window so the windows can

be "locked" shut if you wish

Appendix

Using a speed square and a rafter square
Follow the steps below to determine the rafter lengths:

1. Divide the entire span by two, for example: if the roof span is 20 ft., divided by 2 = 10 ft., 0 inches.

ft., 0 inches.

inch overhang makes the length 11 ft. 6 inches.

3. Now, convert the 6 inches of the 11 ft. 6
inches into a fraction. It happens to be 0.5
(6 divided by 12). Thus 11 ft. 6 inches is now 11.5

4. Suppose you desire a 5/12 roof pitch, or for every 12 inches horizontally, you get 5 inches up and 12 inches vertically. Convert that number by using the rafter conversion chart below or can be found on any framing square.

5. For the purpose of this article, the 5/12 roof pitch converts to 1.083 on the rafter conversion chart found on any framing square. Therefore, 11.5x1.083 = 12.4545 feet is what the rafter length will be.

6. Obviously, getting to the thousands of an inch is a feat in itself, so let's just round to the nearest 1/8" which is 12.5 feet or 12'-6" 3:12 1.031

4:12 1.054
5:12 1.083
6:12 1.118
7:12 1.158
8:12 1.202
9:12 1.250
10:12 1.302
11:12 1.357
12:12 1.414
13:12 1.474
14:12 1.537
15:12 1.601
16:12 1.667
17:12 1.734
18:12 1.803
19:12 1.873
20:12 1.943
21:12 2.015
22:12 2.088
23:12 2.162

Roof Slope Factor Flat 1 1:12 1.003 2:12 1.014

If you feel at all uncomfortable constructing roof elements, consult a professional. Also,

you will need to be comfortable with heights and please use all safety precautions when placing the rafters. Not every rafter will be directly above a solid surface and there will be open spans beneath. We recommend use of a ladder and assistant(s) to help you get the rafters into position.

1 23456 7 8910111213 14 15 16 18 18 19 20 21 22 1. If you need to be introduced to the tools

most professionals work with when cutting *80*

80

75 rafters. There are basically two tools used *70* *75* *70* commonly, the speed-square and the *60* carpenter square. Both are shown on the

55 *50**45* *50*

40

*60**55* following two pages.

45
40
*30**30*
0 15 20
*25**25*
20
15
*51**51*

For the speed square, start by lining up your plumb cut by aligning the pivot point on the speed square with the desired pitch. This example is going to use a 5-12 slope but the principle is the same with any slope. See the diagram below:

See how the red lines up with the little notch in the back of the speed square and the number 5 in the "common". The common simply refers to a common rafter. Notice also, "HIP/VAL" lines up quite nicely with 7? For a 5/12 slope, the corresponding hip/ valley slop should be 7

2. Anyway, mark your line along the y-axis

(illustration to the right) with the side with all the numbers. To make your seat cut, simply plump the other side at the length you need and follow the diagram below for a nice 3½" seat cut.

Align the diamond sight so the line cuts
the sight down the center and your pivot
point is flush against the outside edge of the ^{Up toward} rafters to be cut.^{roof crown}

The mid line represents the mark you just
made for plumb. Now again, mark along the
green line for your seat cut. See the nice "L"
shaped seat? Cut you seat out and it should
look something like like the illustration to Add for the right. tail or

eave

The previous page contains instructions
with a table, which will help you measure
the overall rafter length.

For a framing (rafter) square it is basically
the same principle. Align the 56 and the 12 ₅as shown below. Mark the x-axis line shown
in 1 for plumb.

Q: *What size coop do I need?*
The size coop you need depends on:A:

• Breed of chicken. Do they like or hate confinement? Are they Bantams or Standard hens?

• Number of roosters. The more roosters you have the more space you'll need. Roosters are territorial and will fight if confined in a small space with other roosters.

• Size of run and amount of time outdoors. If your chickens will mostly be staying outside all day, every day, then your coop can be smaller. If you must keep your hens closed inside the coop for long periods of time due to weather, your schedule or availability etc. then build a bigger coop.

• Number of chickens. If you plan to get more chickens, to raise chicks, to integrate new chickens or to regularly harvest your hens, get a bigger coop.

• See the chapter on Chicken Coop Essentials for more details and information.
Q: *Is there such a thing as too large a coop?*

No. Chickens, like humans, love space. They A:
will be healthier, happy and better laying hens if they have more room. Just because you find a lot of websites or books that give you a minimum square footage, don't assume that's all the size you need. A minimum square footage is just that—the absolute minimum. There's a reason chickens crammed into cages at large poultry farms need so many antibiotics. They're sick from being overcrowded. The more room your chickens have to run, play, feed, roost and lay eggs, the healthier they'll be and the fewer veterinary bills and losses you'll have. Chickens who have enough space are also quieter and less prone to fighting and bullying and behavioral issues.

Q: *Do I need to be a skilled carpenter to build these coops?*

A: Certainly not! It helps if you are, but even rank beginners who have never built anything in their lives have told me they were easily able to build a chicken coop. It takes more patience and an ability to follow the plans than it does anything. If you can swing a hammer, operate a drill, use a screwdriver and a saw; chances are very good you have all you need to build a coop. I advise you to find a partner, spouse or friend to help you simply because two minds are better than one, and it's nice to have someone to talk to and brainstorm with while you're building if you like to do that sort of thing. If you're still not convinced you have the skills to build it, consider hiring a local handyman or carpenter to build it for you. Check your local classified ads, Craigslist or ask your local feed or farm store, co-op or hardware store to recommend a carpenter.

Q: *How long will it take me to build?*

A: That depends on how skilled you are, the coop you select and the size of the coop. You can create temporary coops for your hens while working on larger structures. Some of these plans can be constructed in a weekend, but many of our customers report it takes them two to four weekends, or about 24 to 72 hours.

Q: *Which coop is best for me?*
A lot of that depends on:A:
• How many chickens you have
• How many roosters you have
• Where you live—city, suburbs or rural area
• What breed of chicken you have

• What size chicken you have (Bantam or Standard)
• What personality of chicken you have – do they hate or like confinement?
• Your work schedule and availability to let your hens in and out on a daily basis
• Your building skills and expertise. Larger coops may require more carpentry skills

• How much space you have
• Whether you intend to raise chicks

Only you know your circumstances. Every chicken farmer and their situation are different. The only thing common to them all is they need to ensure that the coop they choose has enough space for their flock. Read the chapter on Chicken Coop Essentials for more information.

Q: *Is it safe to use pressure treated lumber for my chicken coop?*

A: Yes! Many studies have proven that pressure treated lumber is safe for chickens and humans. Older pressure treated lumber was treated with Chromated Copper Arsenate (CCA), which contains arsenic which almost always leached into the soil and was toxic to touch or breathe in when cutting or burning. The newer treated lumber is treated with Micronized Copper Quaternary (MCC), not arsenic, making it non-toxic to handle, touch or cut. If you're still worried you can seal any wood before using it to ensure the preservatives don't leach, or you can also use a new kind of treated lumber called "Accoya wood." It outperforms all pressure treated lumber, is 100% natural, sustainable, non-warping and very strong wood. Read the labels of any wood you buy to ensure its safe to handle and to use around livestock and people.

Q: *Can I use branches instead of lumber for roosts?*

A: Yes. You can adapt your plans any way you like. Hens like natural roosts. Just make sure the branches you use aren't too wide or too narrow for them to grasp. About a 2.5 to 4-inch diameter is good, but use branches that have a variety of diameters. Their comfort is usually dependent more on who's roosting next to them than on their roost. Make sure you put up enough roosts so they can move around and find a good spot next to someone they like. You might also want to consider using both natural roosts like tree limbs, but also the standard 2x4 on end. A 2x4 roost allows them to sit on their feet. In the winter this prevents frostbite of their toes. If you're in a warm state or heat your coop this may not be a problem.

Q: *What if I like one of your plans, but I need something larger?*

A: All of our plans are easily adapted and may be expanded to accommodate any size of flock. We designed all of our coops to be flexible and easy to change right from the blueprints. There is no rule that says you have to build the coop exactly to the plan specifications for it to work for you. We do advise you observe standard building practices

regarding loads and spans etc. but we do provide instructions on how to increase the size proportionately.

Q: What tools will I need to build my coop?

A: At the bare minimum you will need a saw, hammer, nails, a square, a level, screws and screwdriver, drill. You may also want to use a heavy duty staple gun to attach hardware cloth to your run or coop. These tools can be hand or power tools. You can use a hand held saw, hammer and nails, or you can use a nail gun and a circular saw or other power saw. You can even use alternative methods if you choose. Review the plans carefully to see what you will need.

Q: *Do you have other publications about chickens?*

A: Yes, we do. Visit our website at: *http:// chickencoopguides.com* for more information about selecting the right chicken breed and more.