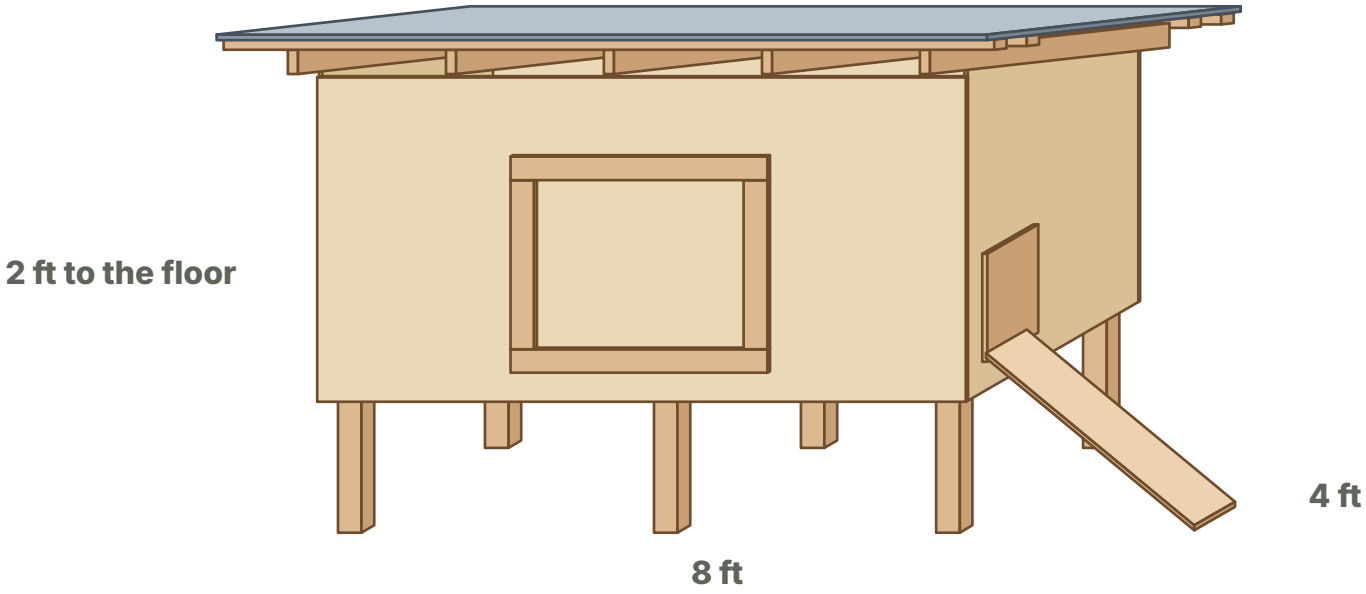
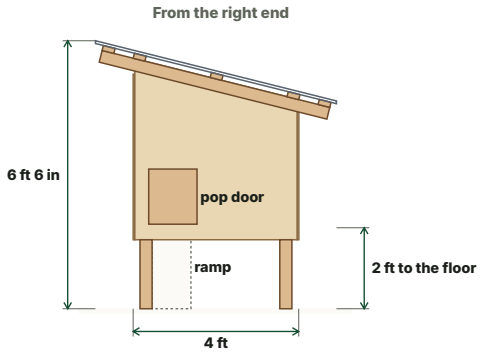
Chicken Coop Plans

The full-size coop, one sheet long · Hens: 8 · Space: 14 × 8 ft

Coop for your flock: **24 sq ft of floor inside**
Outside size: **8 ft long, 4 ft deep, floor 2 ft up**
Nest boxes: **2 boxes**
Roosts: **1 roost, 7 ft 10 in long, for 8 hens**





This is one size of a free plan from FigureYard. For your own size, open https://figureyard.com/plans/chicken-coop-plans/ and enter your measurements; the shopping list, cuts and drawings change with them. Check local building codes before you build.

Shopping list

Item	Qty
4×4 post, ground-contact treated, 12 ft long	1 post
2×4 lumber, 10 ft long	18 boards
2×4 lumber, 8 ft long	7 boards
1×4 board, 10 ft long	2 boards
1×4 board, 8 ft long	1 board
1×12 board, 8 ft long	2 boards
1/2 in exterior plywood, 4 ft × 8 ft sheet	4 sheets
Exterior wood screws, 3 in, for the frame (218 needed plus 22 spares)	240 screws
Exterior wood screws, 1 5/8 in, for plywood and the nest boxes (324 needed plus 33 spares)	357 screws
Exterior wood screws, 1 1/4 in, for hinges, latches, trim and the ramp	90 screws
Hurricane ties (rafter ties) for 2×4, galvanized (one where each rafter crosses the front and the back wall)	10 ties
Connector screws or nails listed on the tie package (fill every hole of each tie; check the count on the package)	100 pieces
Roofing screws with sealing washers, 2 in (about five across each panel at every purlin; follow the panel maker’s pattern)	125 screws
T-hinges, galvanized, about 4 in (clean-out door)	2 hinges
Small hinges, galvanized, about 3 in (two for the pop door, two for the ramp)	4 hinges
Barrel bolt latches, galvanized (two on the clean-out door, one on the pop door)	3 latches
Small snap hooks (carabiners) to lock each latch (a latch that needs two steps keeps raccoons out)	3 hooks
Fender washers, 1 in, with 1 1/4 in screws, for the vent mesh (one every 4 in around each screen)	106 sets
Corrugated roof panels, 26 in wide, 6 ft long (polycarbonate or metal; no cutting needed)	5 panels
Closure strips to match the panels (under the panels along the low and high edges)	19 ft
Galvanized hardware cloth, 1/2 in mesh, 24 in × 10 ft roll (screens the vents under the roof)	1 roll
Concrete paver or patio block for each leg (keeps the legs off wet ground)	6 pavers

Tools

- Tape measure, pencil and a speed square
- Circular saw or miter saw, and a jigsaw for the door openings
- Drill/driver with pilot drill bits for your screws and a driver bit that fits them
- Two clamps, a level and a long straightedge for the plywood cuts
- Tin snips for the hardware cloth, and work gloves for handling it
- Safety glasses, hearing protection and a dust mask

Cut list

Part	What it is	Lumber	Size	Cut
A	Floor frame, front and back	2×4 lumber	95 in	2
B	Floor joist (the two end joists close the frame)	2×4 lumber	44 in	7
C	Leg (four corners, plus two in the middle)	4×4 post, ground-contact treated	23 1/2 in	6
E	Floor	1/2 in exterior plywood	95 × 47 in	1
F	Front wall plate (top and bottom)	2×4 lumber	95 in	2
G	Front wall stud	2×4 lumber	41 in	6
H	Door header (above the clean-out door)	2×4 lumber	36 in	1
J	Back wall plate (top and bottom)	2×4 lumber	95 in	2
K	Back wall stud	2×4 lumber	30 1/8 in	5
L	Side wall plate (top and bottom, two side walls)	2×4 lumber	40 in	4
M	Side wall end stud	2×4 lumber	30 1/8 in	4
N	Roost rail (one in each side wall; the roosts rest on it)	2×4 lumber	37 in	2
P	Pop door stud (one in each side wall)	2×4 lumber	19 1/2 in	2
R	Rafter (square cut at both ends)	2×4 lumber	68 in	5
S	Purlin (laid flat across the rafters)	2×4 lumber	114 in	5
T	Roost (laid flat, wide side up)	2×4 lumber	94 in	1
U	Front siding (the clean-out door is cut from it)	1/2 in exterior plywood	96 × 48 in	1
V	Back siding	1/2 in exterior plywood	96 × 37 1/8 in	1
W	Side sidings, cut as a pair (cut on the diagonal into both side walls)	1/2 in exterior plywood	93 3/16 × 47 in	1
X1	Door trim, top and bottom	1×4 board	38 in	2
X2	Door trim, sides	1×4 board	25 in	2
Y1	Pop door trim, top and bottom	1×4 board	14 in	2
Y2	Pop door trim, sides	1×4 board	9 in	2
Y3	Ramp	1×12 board	40 in	1

Part	What it is	Lumber	Size	Cut
Y4	Ramp cleat	1×4 board	11 1/4 in	6
Z1	Nest floor	1×12 board	24 3/4 in	1
Z2	Nest top	1×12 board	24 3/4 in	1
Z3	Nest end	1×12 board	30 3/4 in	2
Z4	Nest divider	1×12 board	12 in	1
Z5	Nest lip (keeps the bedding and eggs in)	1/2 in exterior plywood	26 1/4 × 4 3/4 in	1
Z6	Nest back rail	1×4 board	26 1/4 in	2

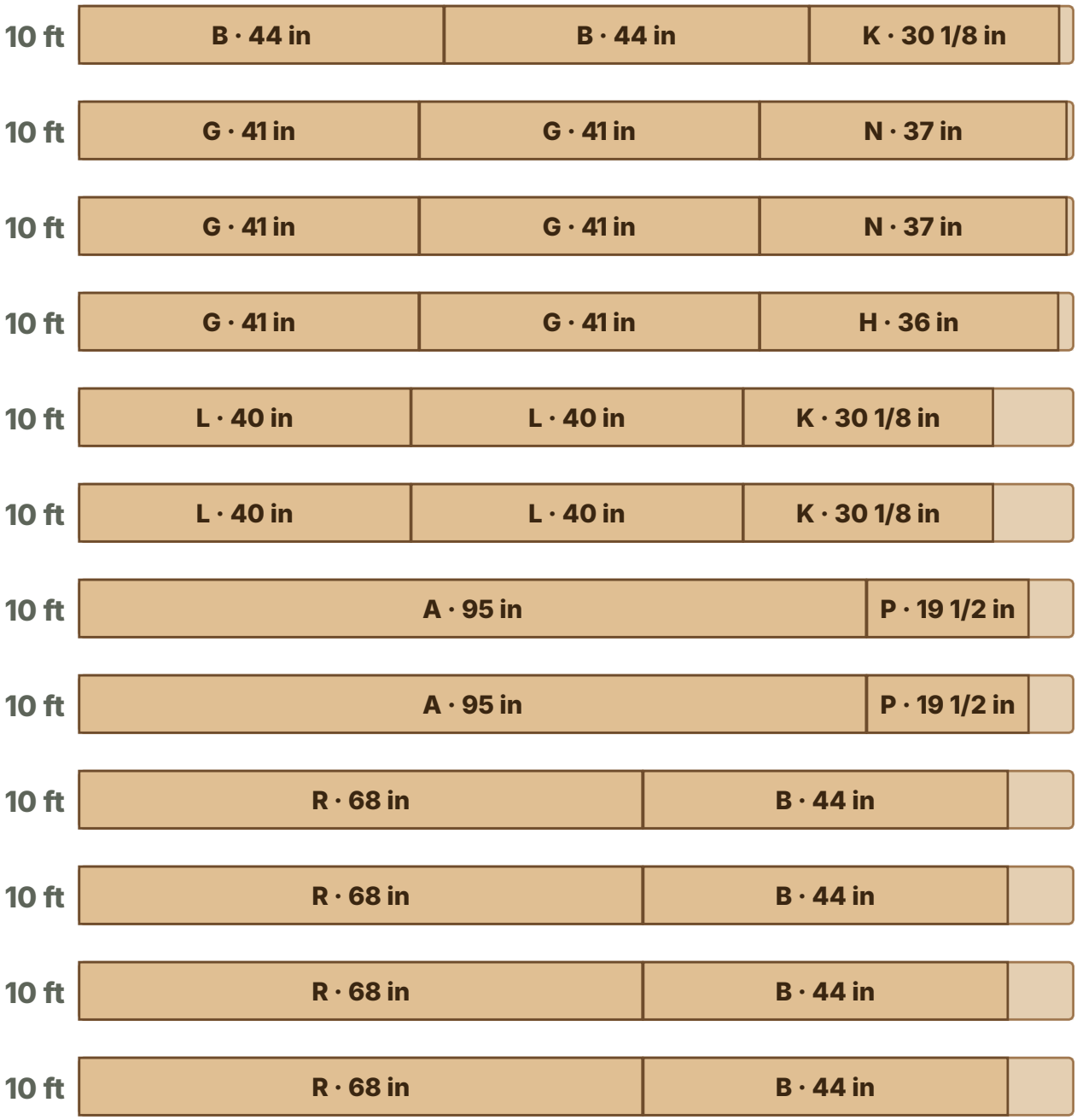
Where to cut each board

Each bar is one board you buy, drawn to scale. Measure from the left end, cut, then measure the next piece from the fresh cut; the saw blade takes about 3/32 in each time. Hatched ends are offcuts.

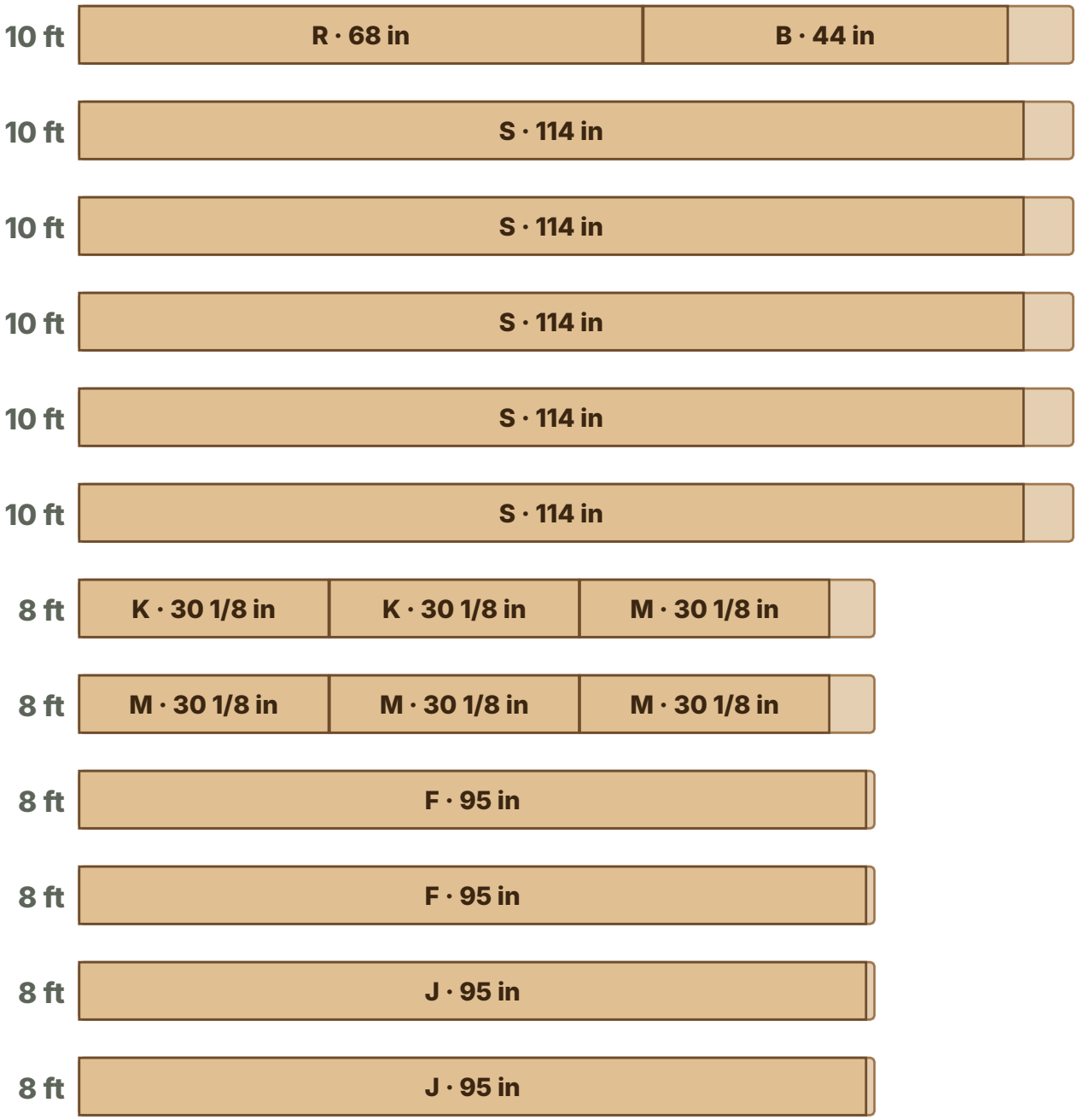
4×4 post, ground-contact treated



2×4 lumber (boards 1–12 of 25)



2×4 lumber (boards 13–24 of 25)



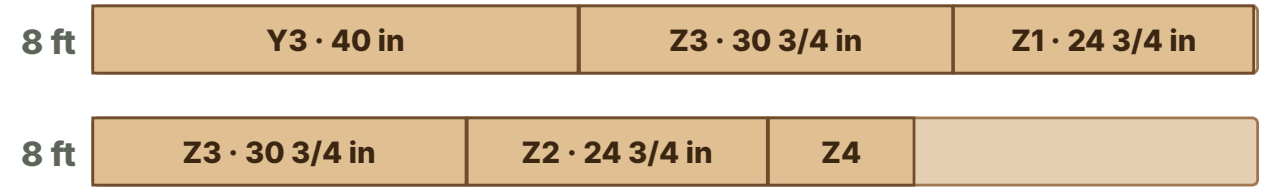
2×4 lumber (boards 25–25 of 25)



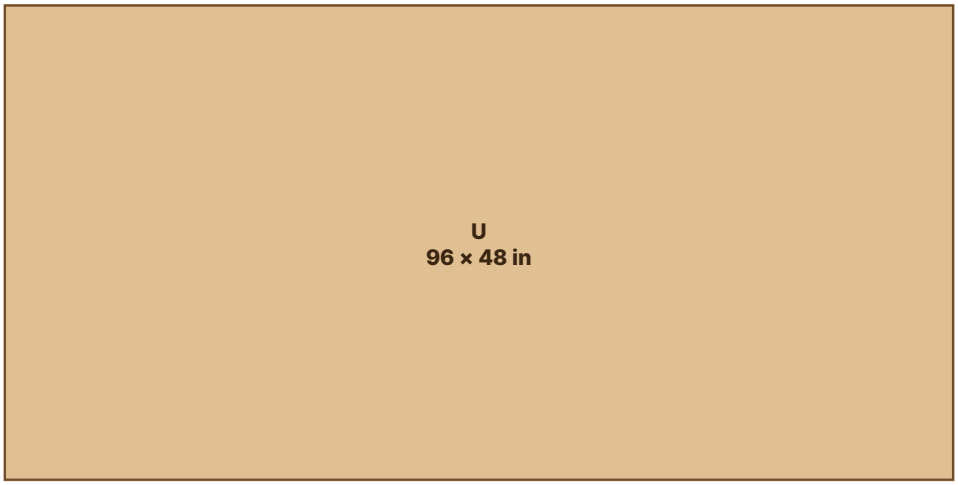
1×4 board



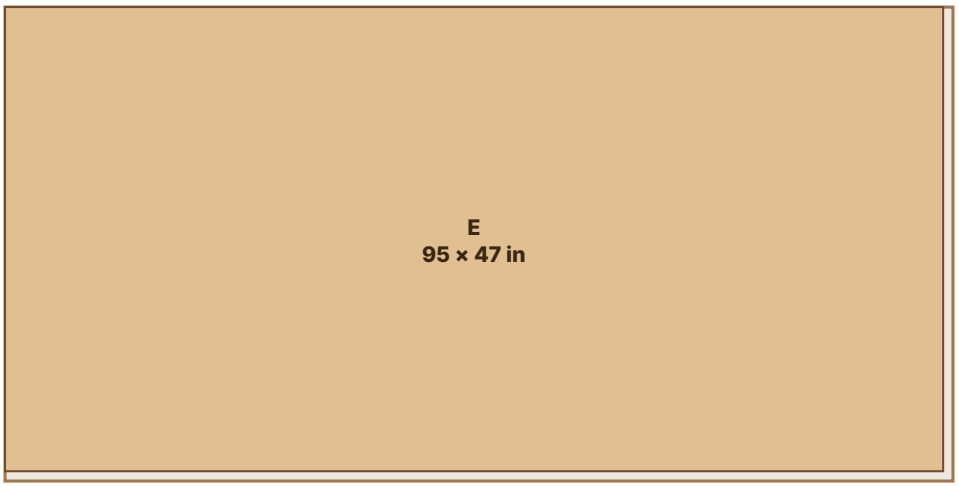
1×12 board



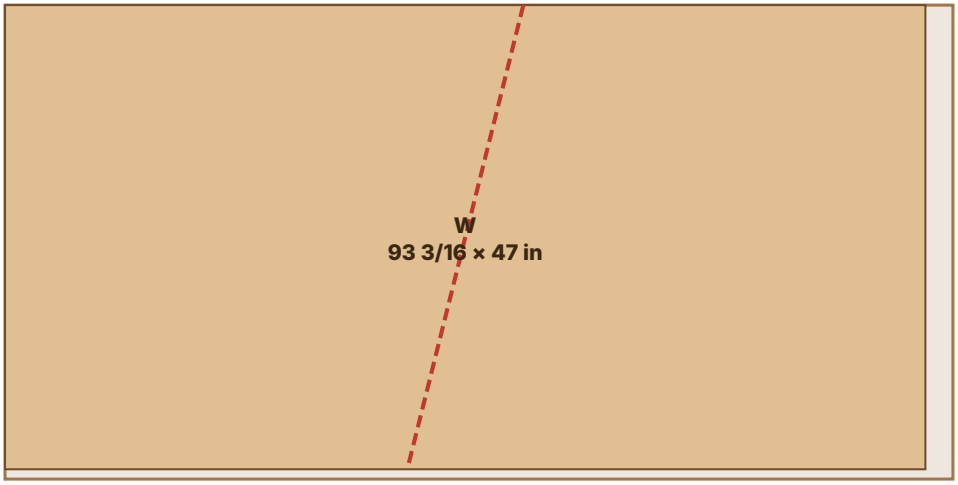
1/2 in exterior plywood, sheet 1 of 4



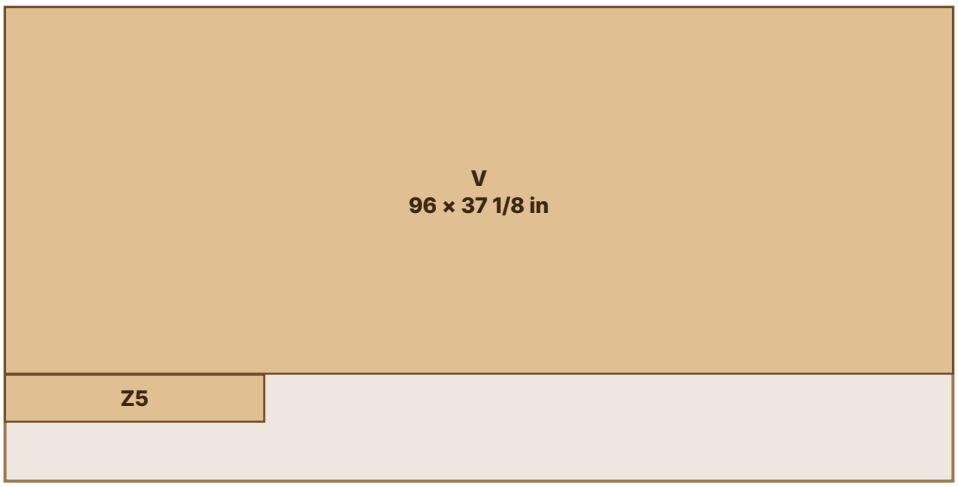
1/2 in exterior plywood, sheet 2 of 4



1/2 in exterior plywood, sheet 3 of 4



1/2 in exterior plywood, sheet 4 of 4



Step by step

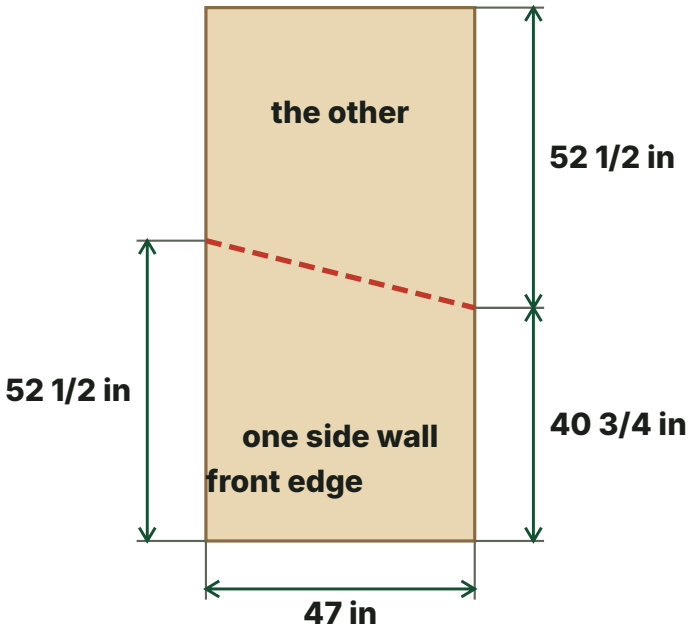
1. Cut the pieces

Square one end of each board, measure from it and mark the length with a square line across the board. Cut on the waste side of the line, and write each piece's letter on it in pencil.

Cut the plywood with the good face down when you use a circular saw, so splinters stay on the back. The side walls (W) come from one piece: mark 52 1/2 in up one long edge and the same down from the top of the other, join the marks with a straight line, and cut along it.

Leave the door openings for later: you cut them once the siding is on the coop, so they line up with the frame.

Side walls: one piece, cut corner to corner

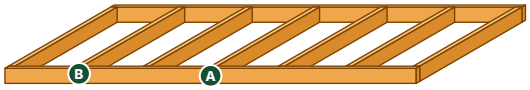


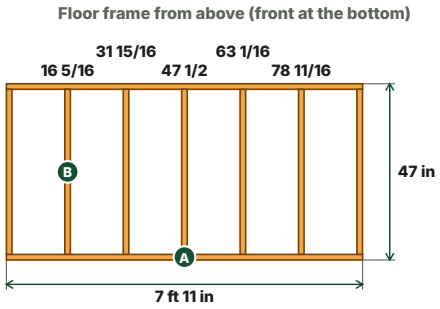
2. Build the floor frame

Lay the front and back frame pieces (A) on edge, 47 in apart on the outside. Mark the joist centers on both, measuring from the same end: 16 5/16, 31 15/16, 47 1/2, 63 1/16, 78 11/16 in.

Set the two end joists (B) flush with the ends, then the rest on the marks. Drill two pilot holes through (A) into each joist end, 7/8 in from the top and bottom edges, and drive the 3 in screws.

Measure both diagonals; when they match (about 8 ft 10 in), the frame is square.







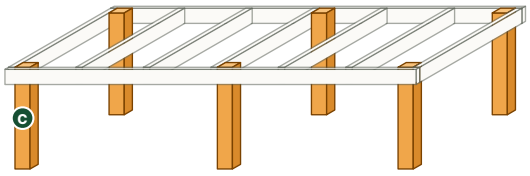
Screw: drill a pilot hole first, then drive the screw

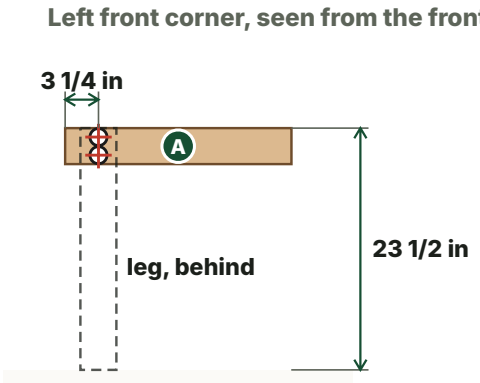
3. Add the legs

Turn the frame upside down on a flat surface. Stand a leg (C) in each inside corner, tight against the frame side (A) and the end joist (B), and two more against the middle joist, one at the front and one at the back.

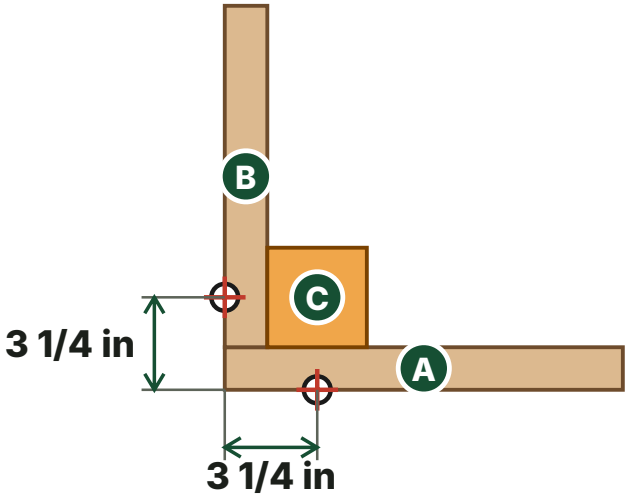
Drive two 3 in screws through (A) into each leg, 3 1/4 in from the end, and two through the joist into the leg. Turn the frame over onto its legs.

Set a paver under each leg on firm ground and level the floor frame both ways, adding soil or gravel under the low pavers. The top of the frame should be 23 1/2 in above the ground.





The same corner from above



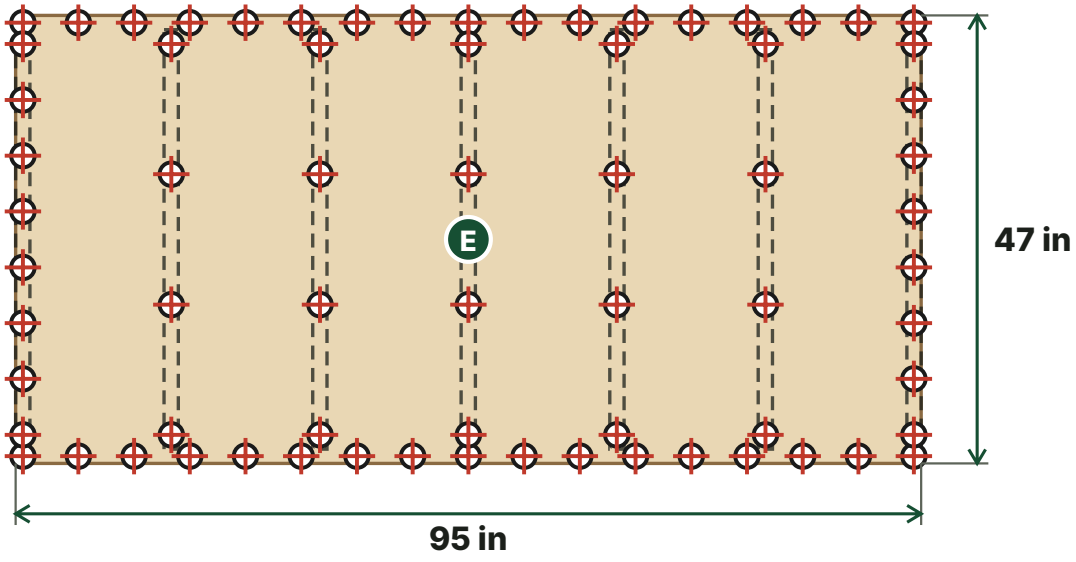
Screw: drill a pilot hole first, then drive the screw

4. Lay the floor

Set the floor sheet (E) on the frame with its edges flush all round. Draw lines across it over each joist center, so the screws find the wood.

Drive 1 5/8 in screws every 6 in along the edges and every 12 in along the joist lines.

Floor from above: screws into the frame and every joist



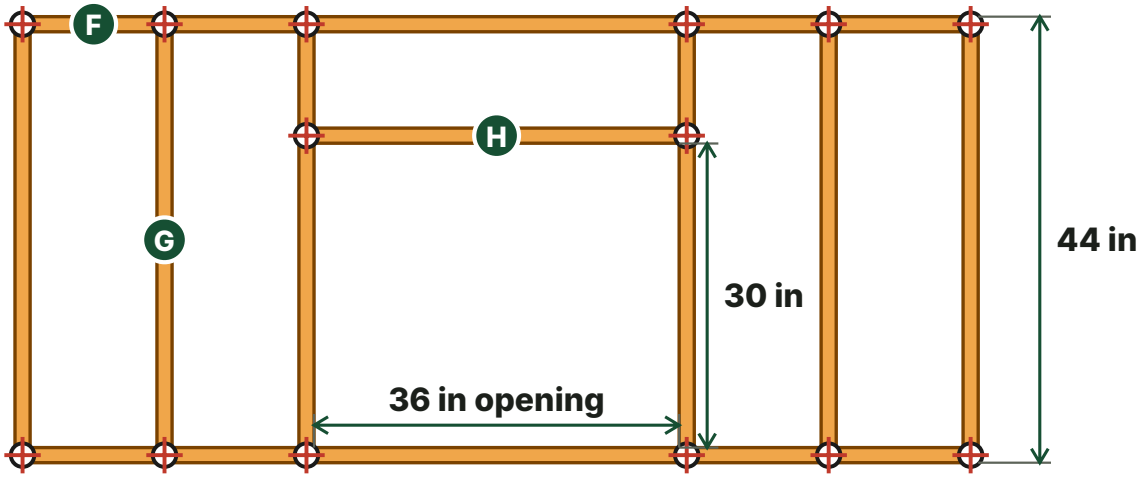
Screw: drill a pilot hole first, then drive the screw

5. Build the front wall

Lay the two plates (F) side by side and mark the studs on both at once: 0, 14, 28, 65 1/2, 79 1/2, 93 1/2 in from the left end to the left edge of each stud. The two in the middle frame the clean-out door.

Set the studs (G) between the plates on the marks and drive two 3 in screws through each plate into each stud end. Fit the header (H) between the door studs with its underside 31 1/2 in above the bottom of the frame, and screw through the studs into it.

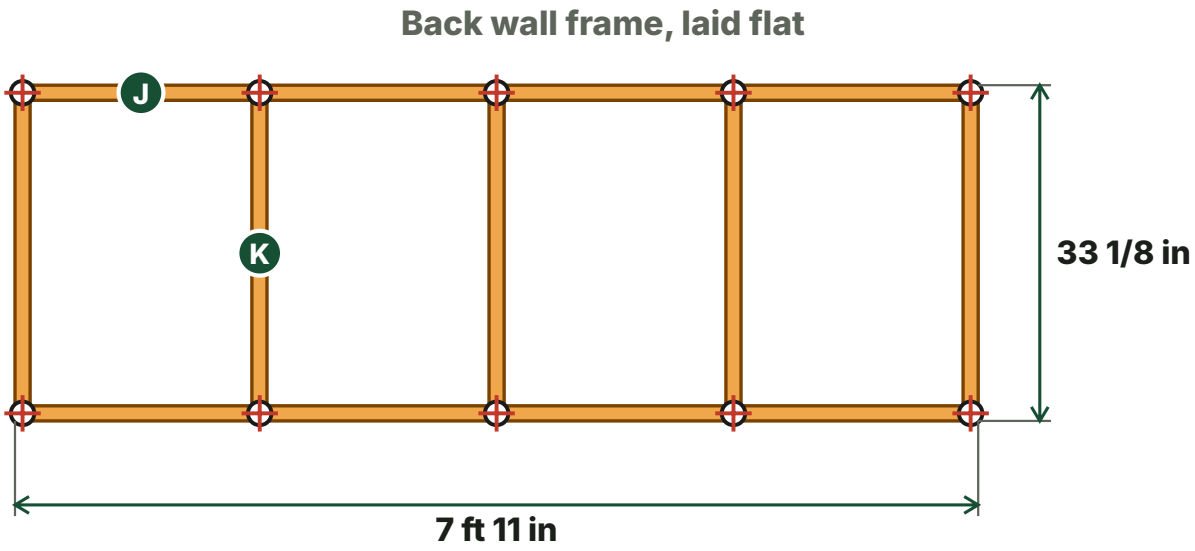
Front wall frame, laid flat (seen from outside)



Screw: drill a pilot hole first, then drive the screw

6. Build the back wall

Build the back wall the same way, with the plates (J) and the studs (K) on these marks: 0, 23 3/8, 46 3/4, 70 1/8, 93 1/2 in. It is lower than the front wall, so the roof slopes to the back.

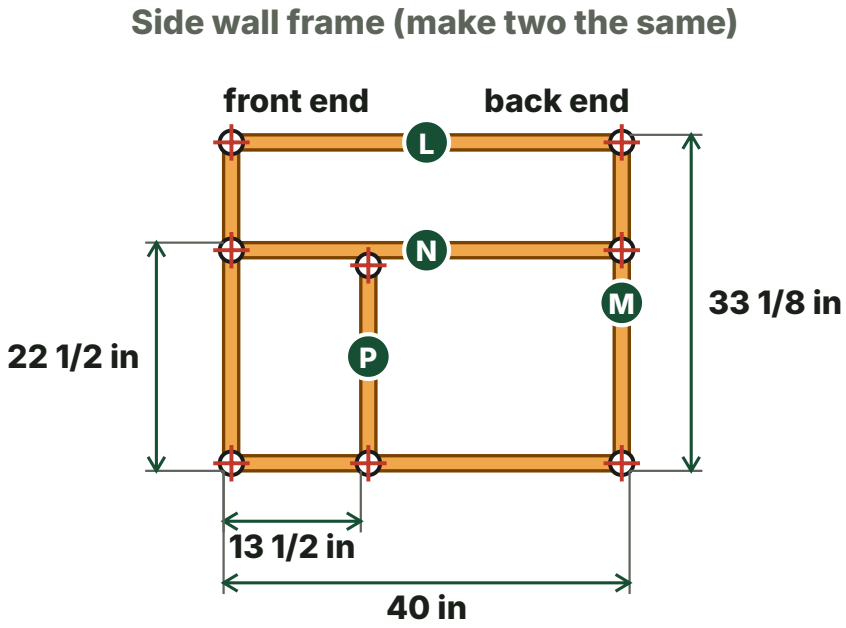


Screw: drill a pilot hole first, then drive the screw

7. Build the two side walls

Each side wall has two end studs (M) between its plates (L). Screw the roost rail (N) flat between the end studs with its top 22 1/2 in above the bottom of the frame: the roosts will rest on it at 24 in above the floor.

Add the pop door stud (P) under the rail, its front edge 13 1/2 in from the front end. Build the second side wall the same; the pop door goes in only one of them.



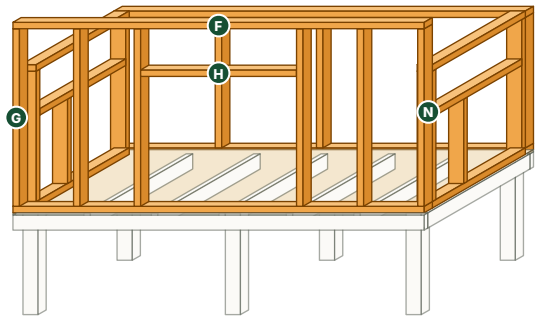
Screw: drill a pilot hole first, then drive the screw

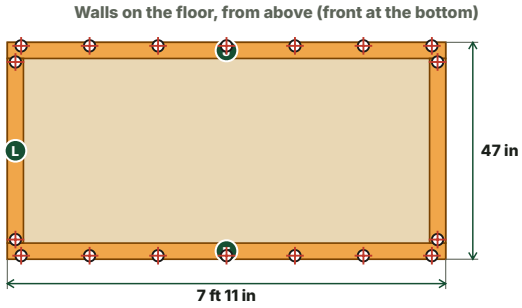
8. Stand the walls up

Stand the front and back walls on the floor, flush with its edges, then set the side walls between them.

Screw through each side wall end stud into the front or back wall with three 3 in screws, top, middle and bottom.

Screw down through the bottom plates into the floor frame every 16 in or so, so the walls cannot lift.



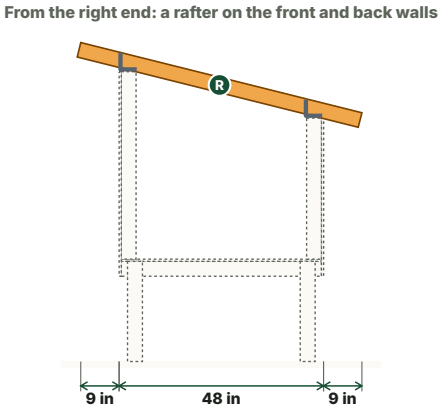


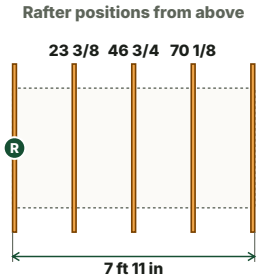
Screw: drill a pilot hole first, then drive the screw

9. Set the rafters

Mark the rafter positions on the top plates of the front and back walls: 0, 23 3/8, 46 3/4, 70 1/8, 93 1/2 in from the left end. The end rafters sit flush with the outside of the side walls.

Lay each rafter (R) across both walls so it hangs 9 in past the front siding line and the same past the back. Fix it to each wall with a hurricane tie, filling every hole with the fasteners the tie maker lists.





Hurricane tie

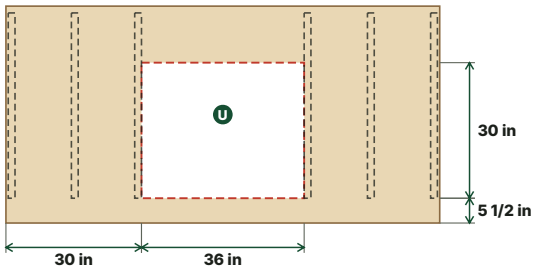
10. Put on the siding

Hold the front siding (U) against the front wall with its bottom edge flush with the bottom of the floor frame and its ends flush with the outside of the side walls. Screw it on, then do the back (V).

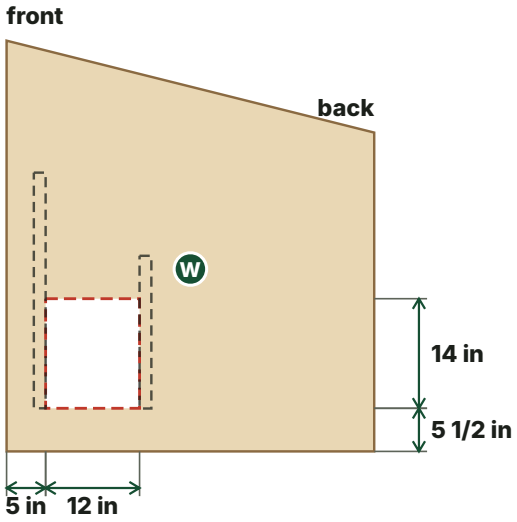
The side walls (W) fit between the front and back siding, with their sloped edge along the top of the end rafters.

Cut the door openings through the siding where the drawings show, along the inside of the frame: drill a hole in each corner, then join the holes with a jigsaw. Keep the pieces you cut out: they become the doors.

Front siding, seen from outside: cut the door opening



Right side wall, seen from outside: cut the pop door

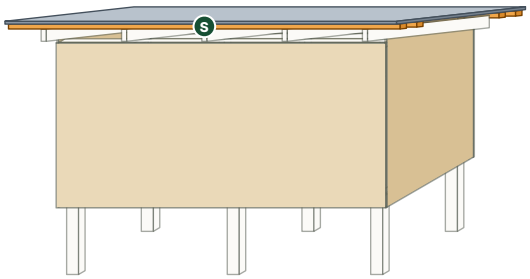


11. Roof it

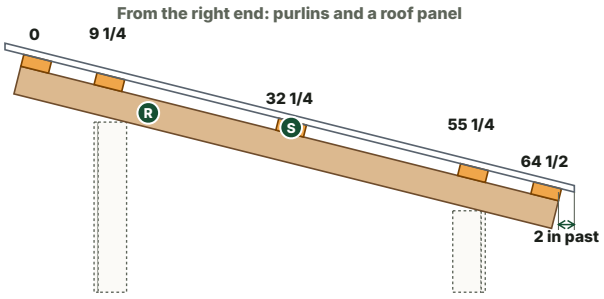
Screw the purlins (S) flat across the rafters with two 3 in screws at every crossing. Measure along the top of each rafter from its front end to the front edge of each purlin: 0, 9 1/4, 32 1/4, 55 1/4, 64 1/2 in. Let the purlins stand out 9 in past each side wall.

On each end rafter, between the purlins above the walls, screw a gable filler (S1) flat, so no gap is left under the roof for a weasel to slip through.

Lay closure strips along the lowest and highest purlins. Start the first panel at one end with its lower edge 2 in past the back purlin, overlap each next panel as its maker shows, pre-drill and screw through the washers.



From the right end: purlins and a roof panel

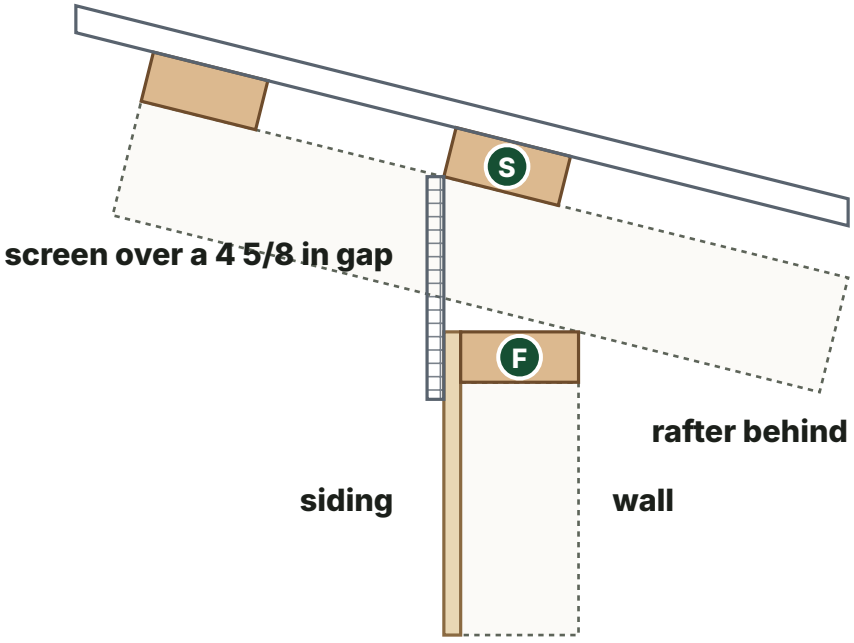


12. Screen the vents

Under the roof, the space between each pair of rafters above the front and back walls is left open for air. Cut a piece of 1/2 in hardware cloth for each, about 1 in bigger than the gap all round.

Fold the edges, then screw it with fender washers every 4 in to the wall top, both rafters and the purlin above.

Top of the front wall, from the right end (the back is the same)

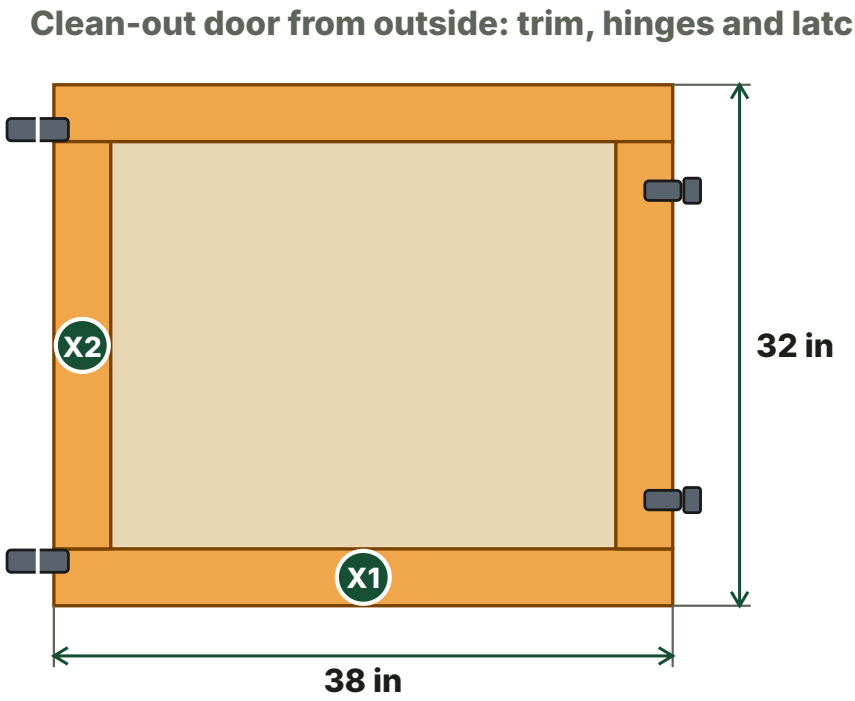


13. Hang the doors

Screw the trim boards (X1) and (X2) to the outside of the clean-out door, letting them stand 1 in past each edge: they stop the door against the siding, so it cannot be pushed in. Screw from the inside with the 1 1/4 in screws.

Hinge the door on the left with the T-hinges, the long leaves on the door, and fit the two barrel bolts on the right, each with a snap hook through it.

Make the pop door the same way with the trims (Y1) and (Y2), hinged on the front side, with one latch.



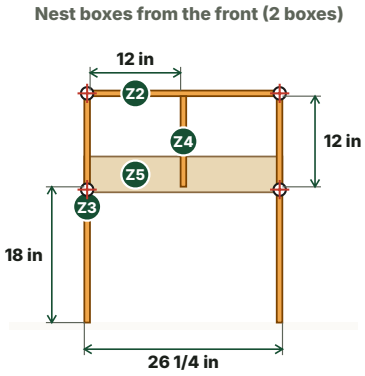
Hinge   Latch

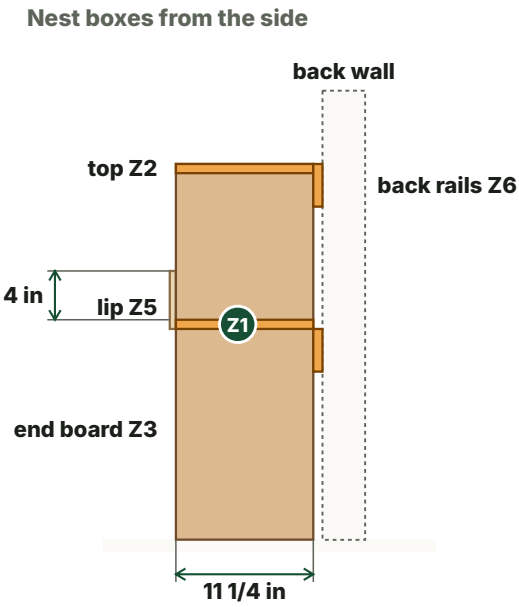
14. Build the nest boxes

2 nest boxes. Screw the end boards (Z3) to the nest floor (Z1) with its top 18 in up, and to the top (Z2). Set the dividers (Z4) between them, one box width apart.

Screw the lip (Z5) across the front so it stands 4 in above the nest floor, and the two back rails (Z6) across the back at the top and under the floor.

Stand the boxes against the back wall at the left end and screw through the back rails into the studs.





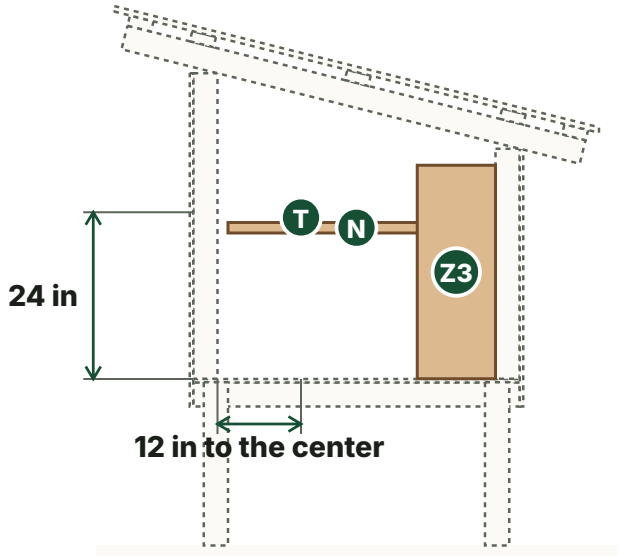
Screw: drill a pilot hole first, then drive the screw

15. Add the roosts

Lay the roost (T) flat across the coop on the two rails, 12 in from the front wall to the center. Drive one screw down at each end, so you can lift them out for cleaning.

The roosts are higher than the nest floors, so hens sleep on the roosts, not in the nests.

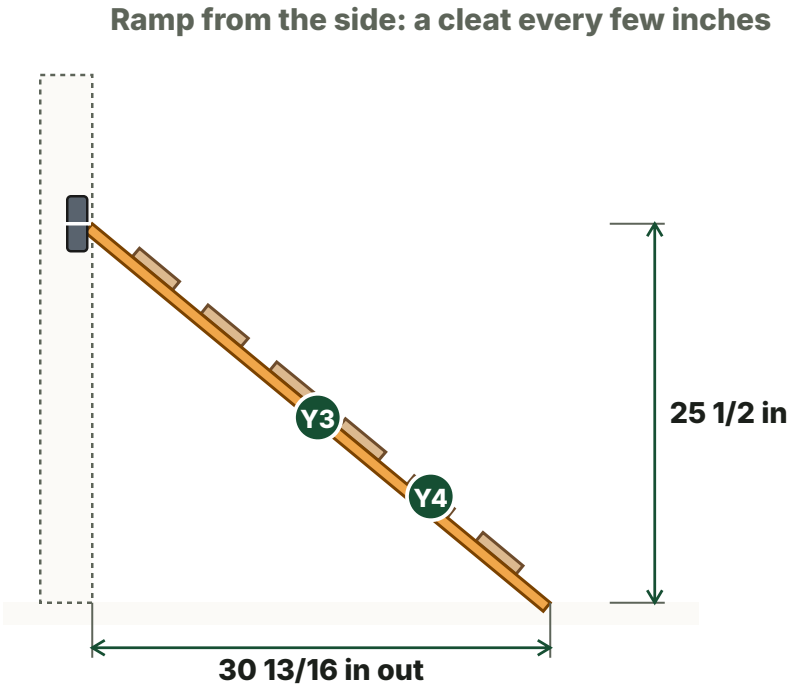
From the right end: roosts on the rails, nests at the back



16. Fit the ramp

Screw the cleats (Y4) across the ramp (Y3) every 6 in, starting 3 in from the bottom, as footholds.

Hinge the top end of the ramp under the pop door, screwing into the frame through the siding, so it folds up when you move the coop.



Hinge

Good to know

- Use ground-contact treated 4×4s for the legs. The rest can be untreated lumber, painted or stained on the outside.
- Paint or stain every outside face of the plywood, its edges most of all, before the first rain.
- Shut the pop door every evening, and screen every opening with 1/2 in hardware cloth: chicken wire keeps hens in, but it does not keep predators out.
- Put a layer of pine shavings or straw on the floor and in the nests, and rake it out through the clean-out door when it gets damp.
- Hens with outside time need about 80 sq ft of run or fenced yard. Your space leaves only about 46 sq ft beside the coop, so let them out into a larger fenced yard.