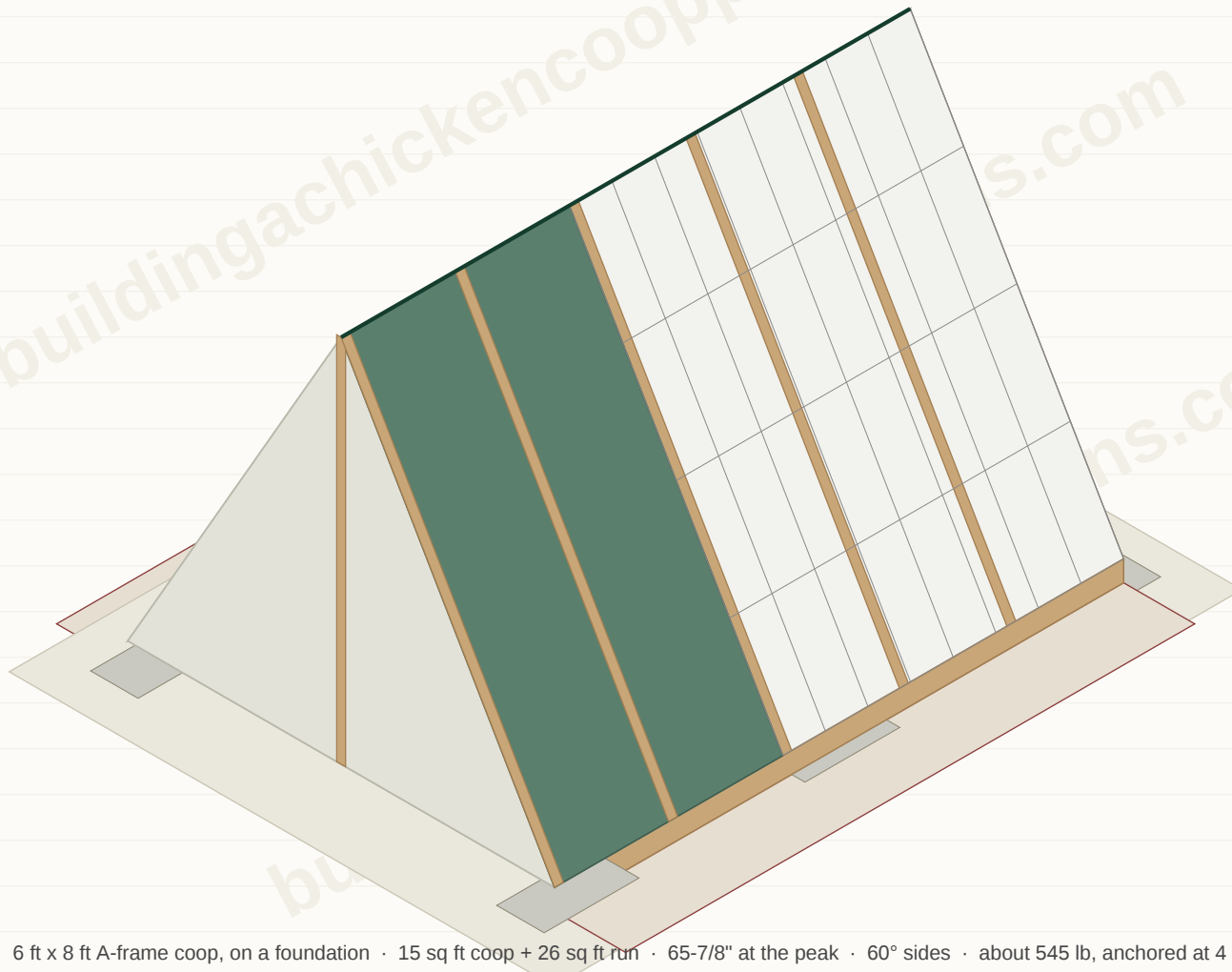


6X8 A-FRAME CHICKEN COOP WITH RUN

15 sq ft coop · 26 sq ft run · 3-5 hens



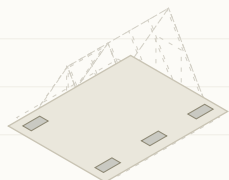
6 ft x 8 ft A-frame coop, on a foundation · 15 sq ft coop + 26 sq ft run · 65-7/8" at the peak · 60° sides · about 545 lb, anchored at 4 corners

Revision 1.0 · July 2026 · corrections and updates: buildingachickencoopplans.com/errata

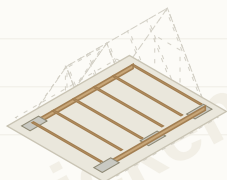
Check the revision before you cut. If yours is older than the one on that page, something in it has been corrected.

THE BUILD, STAGE BY STAGE

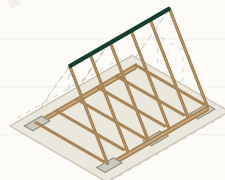
16 stages, in order. Solid is what you have built by the end of that step; the dotted outline is what is still to come. Check your work against the matching picture before you move on — it is much cheaper to notice a wall in the wrong place here than three steps later.



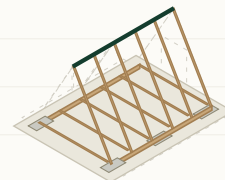
1. Site, pad and foundation blo...



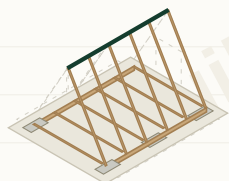
2. Base frame — pressure-treate...



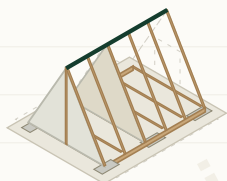
3. Rib assembly — the rafter pa...



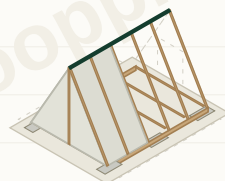
4. Stand the ribs and add the p...



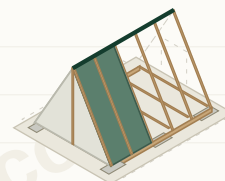
5. Ridge joint, ridge vent and ...



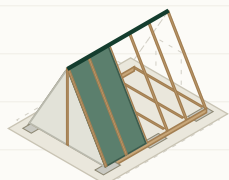
6. Coop floor and its joists



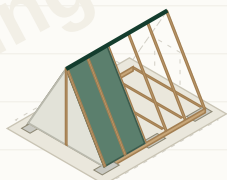
7. Slope cladding — the coop sk...



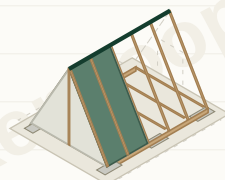
8. Roof covering over the coop



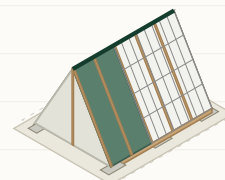
9. Cleanout door — the whole ri...



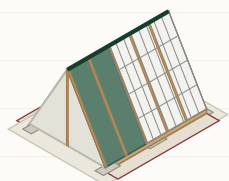
10. Nest box bank



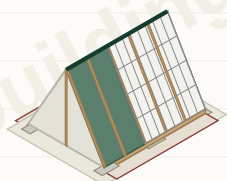
11. Pop door — and why there is ...



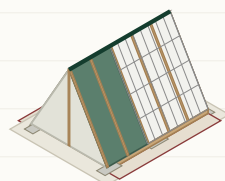
12. Run hardware cloth — slopes ...



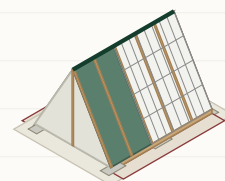
13. Buried apron — the skirt a s...



14. Run end door



15. Roost bars and droppings tray



16. Run floor — drainage and bed...

CONTENTS

1	6x8 A-Frame Chicken Coop with Run	33	Step 13: Buried apron — the skirt a stationary coop must have
2	The build, stage by stage	34	Step 14: Run end door
3	Contents	35	Step 15: Roost bars and droppings tray
4	Before you begin	36	Step 16: Run floor — drainage and bedding
5	Tools you will need	37	Important — please read before building
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7	Material list	39	Plans complete
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23	Step 4: Stand the ribs and add the purlins		
24	Step 5: Ridge joint, ridge vent and flashing		
25	Step 6a: Coop floor and its joists		
26	Step 6b: The closed end and the partition — two triangles, t...		
27	Step 7: Slope cladding — the coop skin and the egg hatch		
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29	Step 9: Cleanout door — the whole right coop slope		
30	Step 10: Nest box bank		
31	Step 11: Pop door — and why there is no ramp		
32	Step 12: Run hardware cloth — slopes and the end triangle		

39 pages. Read the whole set once before the first cut.

BEFORE YOU BEGIN

Wear safety gear

Safety glasses, gloves and ear protection. A circular saw and a framing nailer both throw debris.

Read the whole plan first

Understand every step and have the full material list on hand before the first cut.

Check your local rules

The number a building department measures is the BUILDING FOOTPRINT: 48 sq ft for the coop, or 74 sq ft if your jurisdiction counts the covered run. That is NOT the same as the capacity figure on the cover. Many jurisdictions require a permit past 100, 120 or 144 sq ft of footprint, and most require a setback from property lines. Confirm both before you buy lumber.

Work on a level base

Build the base frame square and dead flat on the ground before anything stands on it. The ribs, the panels and both doors are all cut to what the base frame ACTUALLY measures, so every error here compounds through the rest of the build.

Use hardware cloth, never chicken wire

Chicken wire keeps chickens in. It does not keep raccoons, weasels or foxes out. Quarter-inch 19-gauge hardware cloth, stapled and then screwed through fender washers. Quarter-inch, not half: a least weasel gets through a half-inch opening and does not get through a quarter-inch one.

Cut one, test-fit, then batch

Cut a single instance of each part, fit it, confirm it against the drawing, and only then cut the rest.

TOOLS YOU WILL NEED

Nothing in this plan needs a table saw, a compound mitre saw, or pocket-hole joinery.

ESSENTIAL

Circular saw	Every cut in this plan. A sharp 24-tooth framing blade is enough.
Drill / driver	Two is better than one - one drilling pilot holes, one driving.
Tape measure	25 ft. Check it against a second tape before you start.
Speed square	Marking square cuts and the 30-degree rafter cuts.
4 ft level	The base ring and the first wall decide everything after them.
Hammer	Staples, adjustments, persuasion.
Tin snips	Cutting hardware cloth. Wear gloves - the cut edges are vicious.
Staple gun	Tacking hardware cloth before you screw the washers.
Safety glasses, gloves, ear protection	Non-negotiable with a circular saw.
Spade and a garden rake	Stripping the turf, the stone pockets and levelling the run bedding.
Hand tamper	Every stone pocket gets tamped in two lifts. A block bedded on loose stone settles and racks the frame.
5/8in spade or auger bit	The ground-anchor holes through the skids.

MAKES IT MUCH EASIER

Mitre saw	The repetitive stud and rafter cuts go 3x faster and squarer.
Impact driver	Driving several hundred screws by drill is punishing.
Sawhorses (pair)	Cutting on the ground is slow and inaccurate.
Clamps (4+)	Holding a wall square while you fasten it.
Chalk line	Siding courses and deck fastening lines.
Carpenter's pencil + marking knife	A pencil line is 1/32 wide; that adds up.
Mason's line and line level	Getting every block top into one plane.
Straightedge for bending flashing	A scrap 2x4 and a firm hand does it.

NOTES ON LUMBER DIMENSIONS

Nominal vs actual

The material list uses nominal sizes (2x4, 4x4). The drawings use actual finished sizes: a 2x4 really measures 1-1/2" x 3-1/2", and a 4x4 measures 3-1/2" x 3-1/2".

Measure your own stock

Mills vary. Check the lumber you actually bought against the drawings before cutting; a sixteenth of an inch compounds fast across an 8-foot wall.

Buy a little extra

The material list has no waste allowance. Add two or three 2x4s if you are new to framing.

Crown matters

Sight down every joist and rafter and mark the crown. Install them all crown-up.

MATERIAL LIST

Material	Size	Quantity	Find it
1x2 lumber	10 feet	2 pcs	search Home Depot ■
1x2 lumber	8 feet	12 pcs	search Home Depot ■
2x2 lumber	10 feet	6 pcs	search Home Depot ■
2x2 lumber	8 feet	4 pcs	search Home Depot ■
2x4 lumber	8 feet	22 pcs	search Home Depot ■
4x4 lumber, PRESSURE TREATED	10 feet	2 pcs	
— of the 2x4 above, GROUND CONTACT PRESSURE-TREATED		6 rungs + 2 floor joists	
Solid concrete block	16" x 8" x 4"	6 pcs (3 under each ski	
Crushed stone, 3/4" clean, under the blocks	bagged or bulk	5.3 cu ft (16" square x	
Coarse washed sand or wood chips, run floor	bagged or bulk	8.2 cu ft (4" deep over	
Drainage stone under the run bedding	bagged or bulk	4.1 cu ft (2" deep)	
Drip-strip stone along both eaves	bagged or bulk	2.7 cu ft (12" wide x 2	
Ground anchor, deformed steel rebar	1/2" x 24"	4 pcs (one through each	
1/4" plywood, exterior grade (skins, doors, gussets)	4' x 8'	4 pcs (~79 sq ft of par	
1/2" plywood, exterior grade (floor, nest, tray)	4' x 8'	2 pcs (~31 sq ft of par	search Home Depot ■
Mineral-surface roll roofing	36in x 36 ft roll	1 roll (35 sq ft of coo	
Aluminium roll flashing, ridge cap	10" x 10 ft	1 pc (bend to 60 deg ov	
Roofing nails, galvanised	7/8"	1 lb	
Roof / flashing screws, neoprene washer	1"	50 pcs	
1/4" hardware cloth, 19 ga	36" roll	50 ft + 25 ft (52 ft ne	search Home Depot ■
Fender washers + screws for cloth	1" washer	208 pcs	search Home Depot ■
Heavy-duty staples	1/2"	1 box (1000)	search Home Depot ■
Sod staples, for the buried apron leg	6"	60 pcs	search Home Depot ■
Angle brackets, rafter feet	3" galvanised	12 pcs	

MATERIAL LIST (CONTINUED)

Material	Size	Quantity	Find it
Structural screws, skid to block-bearing and centre	3-1/2"	40 pcs	search Home Depot ■
2-1/2" exterior screws	5 lb box	1 boxes	search Home Depot ■
1-1/4" exterior screws	5 lb box	1 box	search Home Depot ■
Exterior primer + paint	1 qt each	1 + 1	search Home Depot ■
Hinges	—	9 (4 openable parts)	search Home Depot ■
Two-action latches	—	5	search Home Depot ■

Estimated materials cost at 2026 big-box prices: \$975-\$1,275. This is priced off THIS list — every line above, including piers, gravel, run surface, fasteners, caulk and paint. Every line links to a Home Depot SEARCH, not to a product page — item numbers change and a dead link is worse than none, but the search terms keep working. Two specs are worth knowing about before you go: 1/4in hardware cloth is widely stocked in 23 gauge and you want 19, which is usually a special order or online; and corrugated panels are sold 26in wide (24in of coverage) in even foot lengths, not in 4x8 sheets.

MASTER CUT LIST

Every cut in the build, grouped by stock. Take this to the saw. The board-count buy list follows it.

1X2

Part	Step	Qty	Length	Note
Apron batten, sides	13	2	96"	screwed over the cloth into the skid
Apron batten, ends	13	2	72"	
Door frame, short	9	2	64-1/2"	
Vent screen cleat	5	4	37"	staple the cloth to this
Drip edge	8	2	37"	bevelled, at the foot of each coop slope
Hinge ledger	9	1	37"	4" below the peak
Door frame, long	9	2	36-1/2"	
Door prop	9	1	34"	drilled both ends
Door stop, sides	14	2	34"	inside the opening, for the door to close on
Door mid-rail	9	1	33-1/2"	halfway up — a 1x2 stile this long racks without it
Run door stile	14	2	33-1/2"	
Door stop, head	14	1	24"	
Tray cleat	15	2	22-1/2"	under the tray edges
Run door rail	14	2	20-1/2"	
Hatch frame side	7	2	16-1/2"	
Pop door threshold	11	1	15"	bevelled, on the sill — the bedding stops here
Hatch frame	7	2	13-1/2"	top and bottom
Nest cleat	10	2	13"	under the bank floor

1/2" PLYWOOD

Part	Step	Qty	Length	Note
Coop floor, closed-end sheet	6a	1	67-15/16" x 18-1/2"	
Coop floor, partition sheet	6a	1	67-15/16" x 18-1/2"	
Nest bank floor	10	1	24-1/2" x 13"	
Nest bank back	10	1	24-1/2" x 16"	
Nest divider	10	1	12" x 13"	
Nest litter lip	10	1	24-1/2" x 3-1/2"	
Nest bank top	10	1	24-1/2" x 14"	
Roost support	15	4	5" x 6" gusset	
Droppings tray	15	1	22-1/2" x 24"	

MASTER CUT LIST (CONTINUED)

1/4" PLYWOOD

Part	Step	Qty	Length	Note
Peak gusset	3	12	9" x 14"	
Closed end panel half	6b	2	36" x 62-3/8" right triangle	
Partition panel half	6b	2	36" x 62-3/8" right triangle	
Left coop slope panel	7	1	37" x 68", hatch cut out	
Egg hatch slab	7	1	13-1/2" x 19-1/2"	
Cleanout door slab	9	1	36-1/2" x 67-1/2"	
Pop door slab	11	1	12-1/2" x 14-1/2"	

2X2

Part	Step	Qty	Length	Note
Purlin	4	6	96"	inside face of the rafters, full length
Floor cleat	6a	2	37"	inside the skid, under the floor edge
Roost bar	15	2	35-1/2"	top corners eased
Run door jamb	14	2	34"	plumb, foot on the base rung
Run door header	14	1	27"	across the jambs
Pop door header	6b	1	15"	across the jambs
Pop door jamb	6b	2	14-1/2"	either side of the opening

2X4

Part	Step	Qty	Length	Note
Rafter	3	12	72"	30 deg both ends, cuts parallel
Base rung	2	6	65"	PRESSURE TREATED, on edge between the skids
Floor joist	6a	2	65"	PRESSURE TREATED, flush with the rung tops
End centre post	6b	1	62-3/8"	30 deg BOTH ways at the top — a point, same saw sett
Partition centre post	6b	1	47-7/8"	pointed top, foot on the pop-door header

HARDWARE CLOTH

Part	Step	Qty	Length	Note
Run slope cloth	12	2	72" x 54-1/2"	
Run end cloth	12	1	72" x 62-3/8" triangle, door opening cut out	
Ridge vent cloth	12	2	37" x 8"	
Buried apron cloth	13	1	27-1/2" x 28 ft run	
Run door cloth	14	1	24" x 34"	

MASTER CUT LIST (CONTINUED)

CRUSHED STONE

Part	Step	Qty	Length	Note
Crushed stone, tamped under each block	1	1	5.3 cu ft	
Drip-strip stone, both eaves	13	1	2.7 cu ft, 12" wide x 2" deep	
Drainage stone, run floor	16	1	4.1 cu ft (2" deep)	

ROLL ROOFING

Part	Step	Qty	Length	Note
Roll roofing, left slope	8	1	37" x 68"	
Roll roofing, cleanout door	8	1	37" x 68"	

4X4

Part	Step	Qty	Length	Note
Skid	2	2	96"	PRESSURE TREATED, ground contact

ALUMINIUM FLASHING

Part	Step	Qty	Length	Note
Ridge flashing	5	2	10" x 48"	

ANGLE BRACKET

Part	Step	Qty	Length	Note
Rafter foot bracket	4	12	3"	

BEDDING

Part	Step	Qty	Length	Note
Coarse sand or wood chips, run floor	16	1	8.2 cu ft (4" deep)	

CONCRETE BLOCK

Part	Step	Qty	Length	Note
Solid concrete block	1	6	16" x 8" x 4"	

REBAR

Part	Step	Qty	Length	Note
Ground anchor	2	4	1/2" x 24"	

MASTER CUT LIST (CONTINUED)

SOD STAPLE

Part	Step	Qty	Length	Note
Sod staple	13	1	6", 60 pcs	

63 part lines in total — if your copy shows fewer, a page is missing.

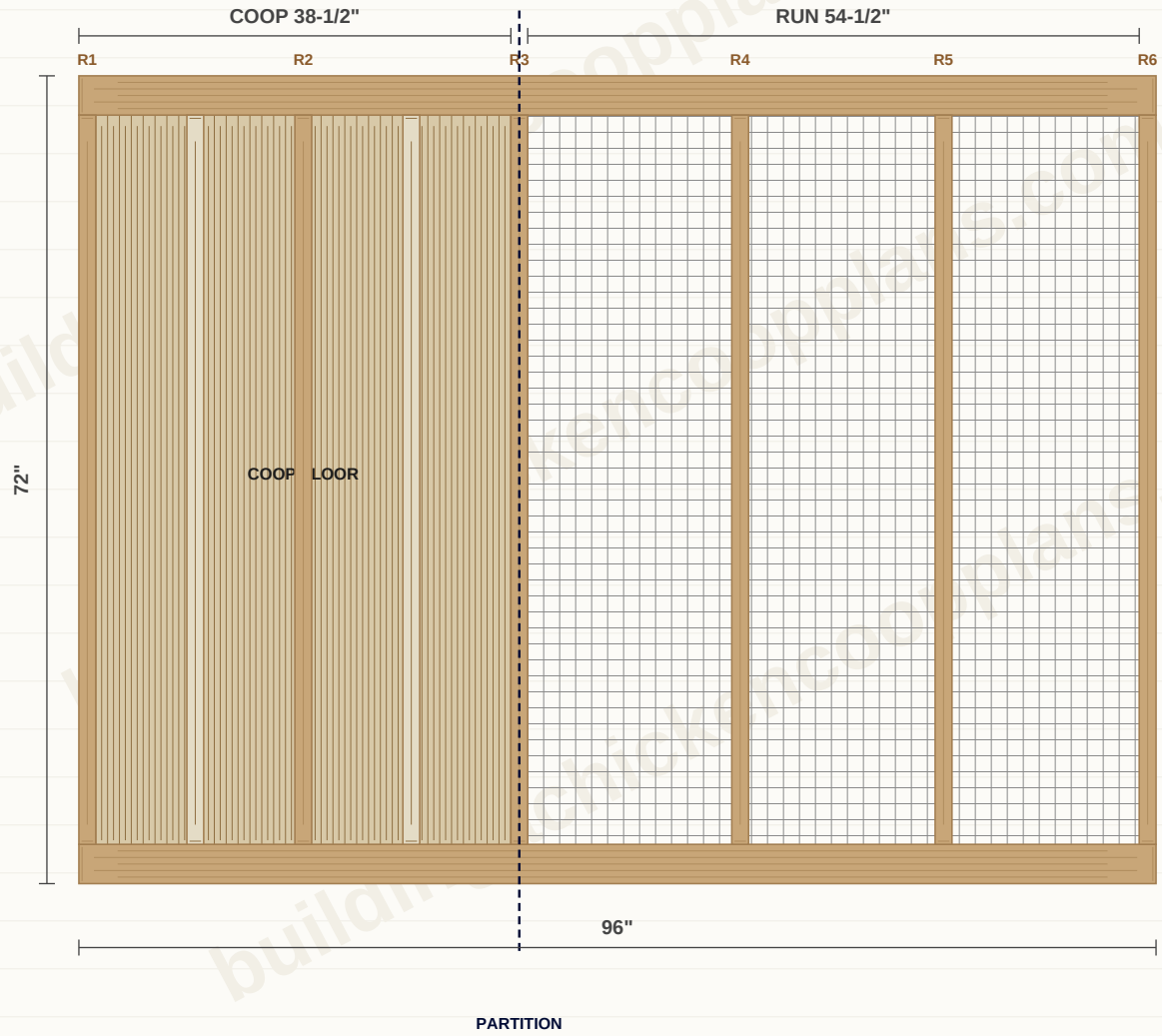
WHAT TO BUY - BOARD COUNT

These counts come from actually packing the cut list onto real stock, allowing 1/8 inch per saw kerf and 4 inches of margin on any cut over 8 feet. **The material list on page 7 is generated from this same packing**, so the two pages cannot disagree — they used to, by sixteen boards on the 2x4 line and by a three-board shortfall on the 4x4.

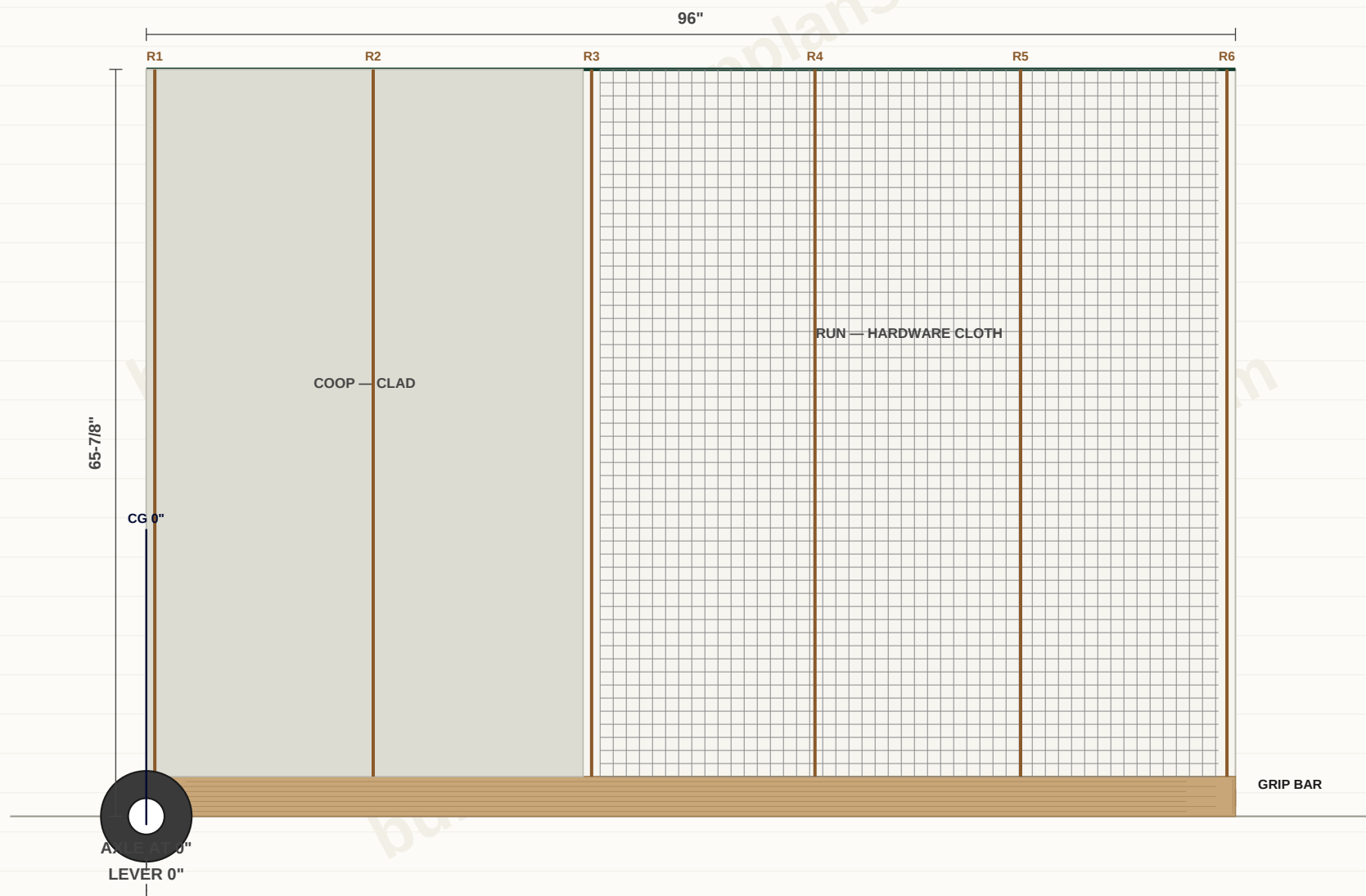
Stock	Buy this length	How many	Longest cut on it	Note
1x2	10 ft	2	96"	cut from full-length stock
1x2	8 ft	12	72"	general framing
2x2	10 ft	6	96"	cut from full-length stock
2x2	8 ft	4	37"	general framing
2x4	8 ft	22	72"	general framing
4x4	10 ft	2	96"	cut from full-length stock

Buy two or three extra 2x4s beyond this count if you are new to framing — one bad cut costs less than a second trip to the yard. Sheet goods, mesh, fasteners and hardware are all on the material list and already carry their allowances.

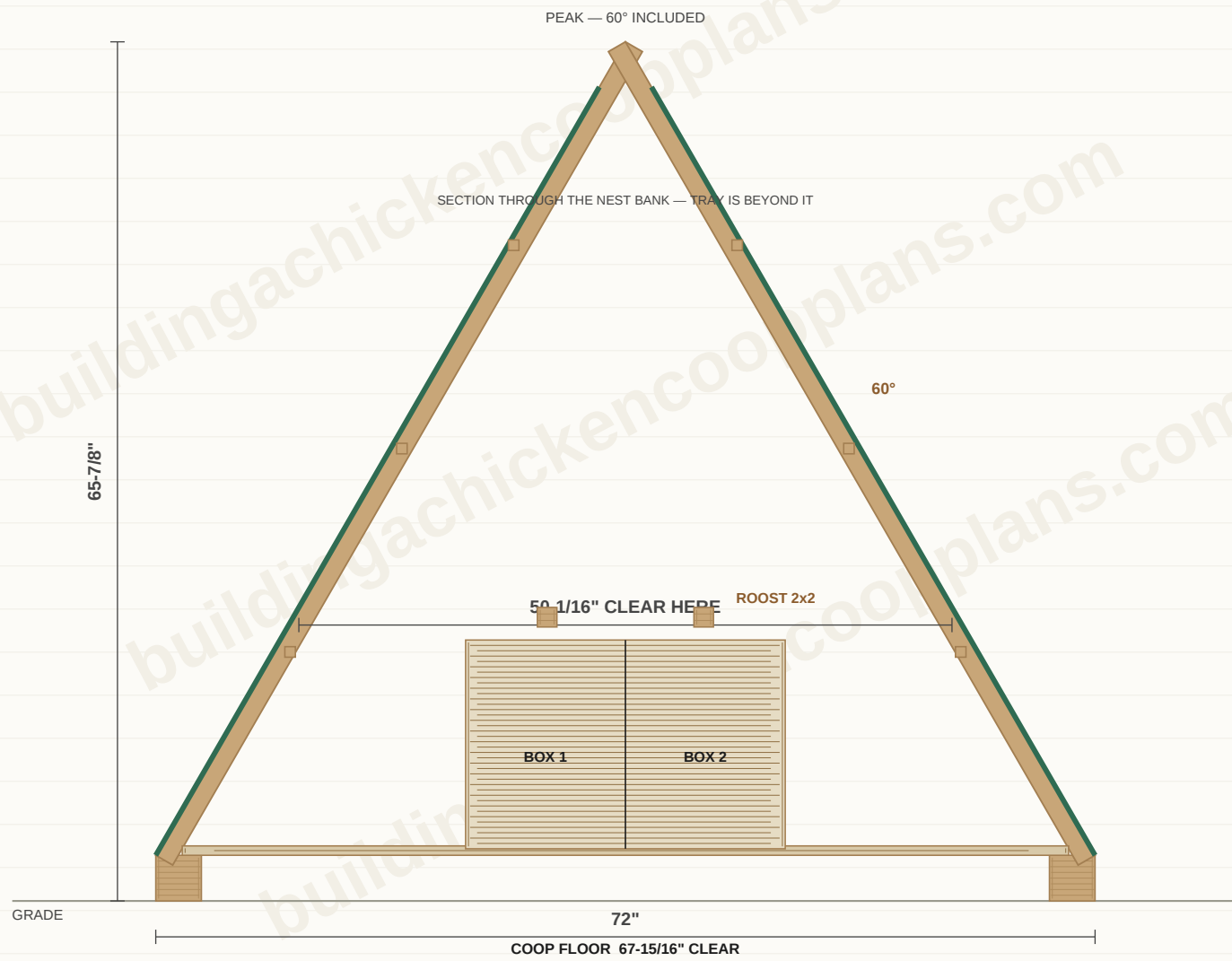
MAIN DIMENSIONS: PLAN VIEW



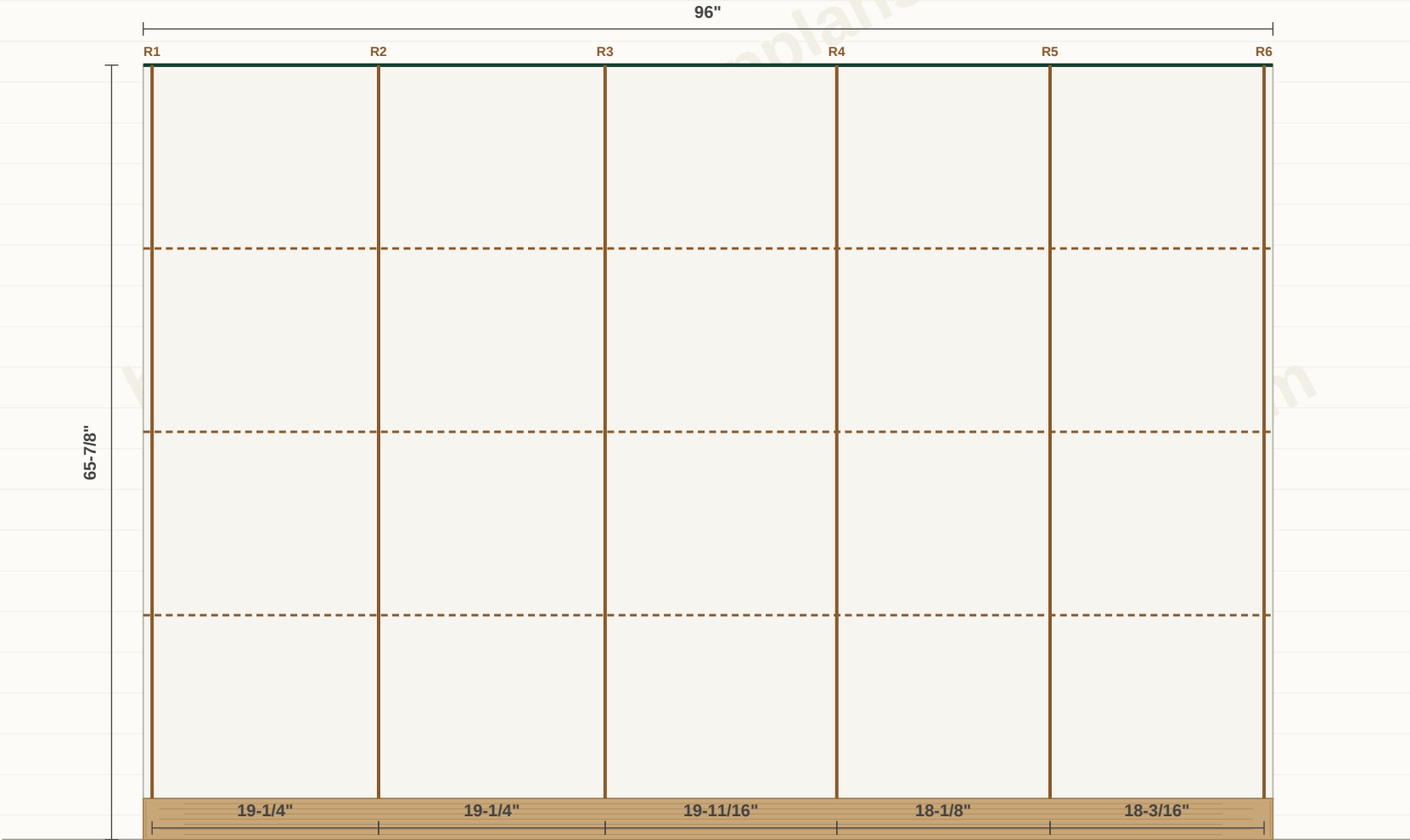
MAIN DIMENSIONS: SIDE ELEVATION



MAIN DIMENSIONS: CROSS SECTION



RIB LAYOUT AND PURLINS



WHAT THE WORDS MEAN

Every term this plan uses that is not ordinary English. If a step says something you do not recognise, it is on this page — you should not have to leave the document to understand it.

Apron

A skirt of hardware cloth turned OUTWARD at the base of the wall, buried a few inches down. It works by being in the way rather than by being deep: a digging animal starts where it meets the wall, and that is exactly where the apron is.

Crown

The natural bow along a board's edge. Sight down it, mark the high side, and install every piece with the crown the same way.

Eave

The lower edge of a roof, where it meets the wall. On a shed roof one long wall is the LOW eave and the other is the HIGH eave.

Gusset

A flat plate — here 1/4in plywood — screwed across a joint on both faces to hold two members together. The butted end grain at the peak carries nothing on its own; the gussets are the joint.

Kerf

The width of material a saw blade removes — about 1/8in. It matters when you cut several pieces from one board.

Lap

Where one piece runs past another and they overlap, rather than meeting end to end.

On centre (OC)

Spacing measured from the CENTRE of one stud to the centre of the next, not the gap between them. 16in OC means centres 16in apart.

Plumb / level / square

Plumb is vertical, level is horizontal, square is a true 90 degrees. Check square by measuring both diagonals of a rectangle — equal diagonals means square.

Proud

Standing out past the surface beside it, deliberately, to be trimmed later.

Purlin

A member running the LENGTH of the roof, across the rafters, tying them to each other and giving the cladding something to land on between ribs.

Rib

One pair of rafters meeting at the peak. The A-frame is a row of ribs standing on a base frame; there are no walls between them.

Ridge vent

The permanently open, screened gap left at the peak where the cladding stops short on each side, sheltered by the flashing above it.

Rough opening (R.O.)

The framed hole, measured between the jack studs and from the sill to the underside of the header. Always bigger than the door or window that goes in it.

Scribe

To mark a piece by holding it in place and tracing the thing it must fit, rather than measuring.

Skid

The pressure-treated runner the whole coop bears on, spanning block to block. Also the tie that stops the two sides of the A from spreading.

Toe-screw

To drive a screw at an angle through the end of one piece into the face of another, where you cannot get at it straight on.

Two-action latch

A latch needing two different motions to open — lift and slide, or squeeze and turn. Raccoons defeat anything that needs only one.

CUT PLAN — WHAT TO CUT FROM EACH BOARD

Label every board as you pick it up, then cut it in the order shown. This is the same packing the buy list is counted from, so if you follow it you will not run out and you will not be left holding offcuts you needed. Waste is what is left after the last cut on that board.

1x2 8ft #1	72"	22-1/2"		1-1/4" left	
1x2 8ft #2	72"	22-1/2"		1-1/4" left	
1x2 8ft #3	64-1/2"	24"		7-1/4" left	
1x2 8ft #4	64-1/2"	20-1/2"		10-3/4" left	
1x2 8ft #5	37"	37"	20-1/2"	1-1/8" left	
1x2 8ft #6	37"	37"	16-1/2"	5-1/8" left	
1x2 8ft #7	37"	37"	16-1/2"	5-1/8" left	
1x2 8ft #8	37"	36-1/2"	15"	7-1/8" left	
1x2 8ft #9	36-1/2"	34"	13-1/2"	11-5/8" left	
1x2 8ft #10	34"	34"	13-1/2"	13"	1" left
1x2 8ft #11	33-1/2"	33-1/2"	13"	15-5/8" left	
1x2 8ft #12	33-1/2"			62-3/8" left	
2x2 8ft #1	37"	37"	15"	6-5/8" left	
2x2 8ft #2	35-1/2"	35-1/2"	14-1/2"	10-1/8" left	
2x2 8ft #3	34"	34"	27"	5/8" left	
2x2 8ft #4	14-1/2"			81-3/8" left	
2x4 8ft #1	72"			23-7/8" left	
2x4 8ft #2	72"			23-7/8" left	
2x4 8ft #3	72"			23-7/8" left	
2x4 8ft #4	72"			23-7/8" left	
2x4 8ft #5	72"			23-7/8" left	
2x4 8ft #6	72"			23-7/8" left	
2x4 8ft #7	72"			23-7/8" left	
2x4 8ft #8	72"			23-7/8" left	
2x4 8ft #9	72"			23-7/8" left	
2x4 8ft #10	72"			23-7/8" left	
2x4 8ft #11	72"			23-7/8" left	
2x4 8ft #12	72"			23-7/8" left	
2x4 8ft #13	65"			30-7/8" left	
2x4 8ft #14	65"			30-7/8" left	
2x4 8ft #15	65"			30-7/8" left	
2x4 8ft #16	65"			30-7/8" left	
2x4 8ft #17	65"			30-7/8" left	
2x4 8ft #18	65"			30-7/8" left	
2x4 8ft #19	65"			30-7/8" left	
2x4 8ft #20	65"			30-7/8" left	
2x4 8ft #21	62-3/8"			33-1/2" left	
2x4 8ft #22	47-7/8"			48" left	

STEP 1: SITE, PAD AND FOUNDATION BLOCKS

This one does not move, so the ground under it is a permanent part of the structure and it is worth a morning.

Pick a spot that **DRAINS**. The single thing that kills a fixed coop is standing water: wet ground under a run is mud, mud is coccidia and bumblefoot, and no amount of good carpentry above it fixes it. Slope away from the site, never toward it, and never put it at the bottom of a lawn.

Clear a rectangle a foot bigger than 6 ft x 8 ft all round and take the turf off. Set 6 **solid concrete blocks** — 3 under each skid, at 4", 48", 92" from the closed end. Nothing spans more than 44" between blocks.

Each block sits on a 16" square of 6"-deep crushed stone, tamped hard in two lifts. Solid blocks, not hollow ones: a hollow core cracks under a point load and it is a mouse hotel.

Then get all 6 tops in ONE plane. String a line, use a long level on a straight board, and take stone out rather than packing soil in.

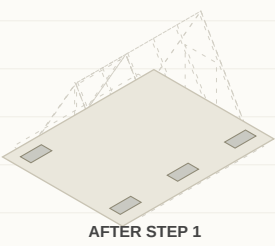
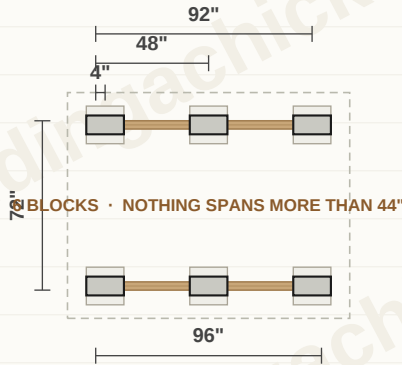
Part	Qty	Length	Stock	Note
Solid concrete block	6	16" x 8" x 4"	Concrete block	
Crushed stone, tamped under each block	1	5.3 cu ft	Crushed stone	

STOP AND MEASURE BEFORE THE NEXT STEP

Diagonal to diagonal across the block layout, corner block to corner block

equal within 1/4in

CLEAR AND STRIP THE TURF ONE FOOT PROUD ALL ROUND



WATCH OUT

! Level matters more than height. The frame is a rigid triangle: bed one block low and the whole coop racks and the cleanout door stops closing.

! If your ground freezes, dig the stone pockets deeper rather than wider. 6" of clean stone is a drainage layer, and water that cannot sit under a block cannot lift it.

Each block bedded on a 16" square of 6"-deep tamped crushed stone. Get all 6 tops in ONE plane before the skids go down.

STEP 2: BASE FRAME — PRESSURE-TREATED SKIDS, RUNGS AND GROUND ANCHORS

The base frame is the foundation, the floor frame and the tie that stops the A from spreading, all in one — the same job it does on the tractor, in ground-contact timber because it lives on stone for twenty years.

Cut two **skids** 96" long from PRESSURE-TREATED 4x4 and lay them flat on the blocks, 72" apart at the outside faces. The 4x4 is not the tractor's 2x4 on edge: same 3-1/2" of height, but 3-1/2" of width, and that is why every rung here is 65" and not 69".

Cut 6 **rungs** 65" long, also pressure treated, and screw them between the skids on edge, flush with the skid tops — one at each rib position, so every rafter foot lands on solid framing.

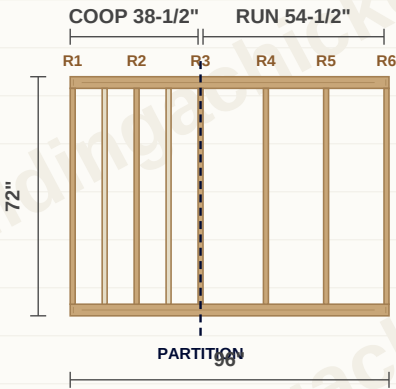
Anchor it. Drill a 5/8" hole down through each corner of the frame and drive a 24" steel rebar pin flush. The finished coop weighs about 545 lb and shows 41.6 sq ft of side elevation to the wind. It is a sail with nothing but its own weight holding it down, and 4 pins cost less than a lunch.

Part	Qty	Length	Stock	Note
Skid	2	96"	4x4	PRESSURE TREATED, ground contact
Base rung	6	65"	2x4	PRESSURE TREATED, on edge between the skids
Ground anchor	4	1/2" x 24"	Rebar	

STOP AND MEASURE BEFORE THE NEXT STEP

Diagonal to diagonal across the base frame, corner to corner

equal within 1/8in



WATCH OUT

! Square it now. Every rib, panel and door downstream is cut to the 72" the base frame ends up, not the 72" on the paper.

! Ground-contact treated, not above-ground treated. They are different retentions and they are stocked side by side.

PT 4x4 skids on the blocks, 6 rungs 65" between them, one at every rib position. A 24" rebar pin down through each corner: 41.6 sq ft of side elevation and only 545 lb holding it down.

STEP 3: RIB ASSEMBLY — THE RAFTER PAIRS

A rib is two rafters meeting at the peak. Build all 6 of them flat on the ground before you stand any, off one set of marks, so they are identical.

Every rafter is the same part: a 2x4 72" on the long edge — exactly 6 ft — cut at **30 degrees off square at BOTH ends** , with the two cuts **PARALLEL**, not mirrored. Set the saw once and cut all 12.

2x4 here, where the tractor uses 2x2. The strut got 50 per cent longer and slenderness is what governs a compression member: at 2x2 and 72" the ratio is 48 against a limit of 50, which is inside it with nothing in hand, and this roof holds snow all winter instead of being dragged into a shed. The tractor's 2x2 bought 40 lb off something a person lifts every morning. Nobody lifts this.

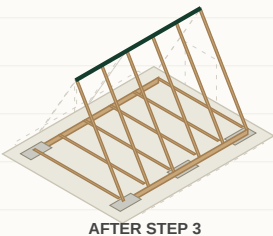
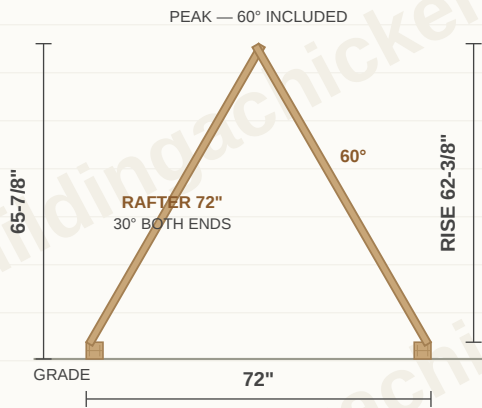
Stand a pair on edge with the 30-degree top cuts butted plumb against each other, then screw a **peak gusset** across the joint on each face. The gussets **ARE** the joint — butted end grain carries nothing on its own.

Part	Qty	Length	Stock	Note
Rafter	12	72"	2x4	30 deg both ends, cuts parallel
Peak gusset	12	9" x 14"	1/4" plywood	

STOP AND MEASURE BEFORE THE NEXT STEP

Foot to foot across a finished rib, outside to outside

72"



WATCH OUT

! Each rafter is one 8-ft 2x4 with a 24" offcut left over, and nothing else on this coop is that length. That waste is real, it is on the buy page, and it is the price of a pitch that lands the rafter on a whole 6 ft.

! The rise from skid top to peak is 62-3/8". Check the first rib against it before you build the other 5.

STEP 4: STAND THE RIBS AND ADD THE PURLINS

Stand each rib on its rung, outside faces of the rafter feet flush with the outside of the skids, and fix each foot with an **angle bracket** plus one screw skewed through the bevel. Brace it upright as you go.

Rib spacing runs 19-1/4", 19-1/4", 19-11/16", 18-1/8", 18-3/16" from the closed end. They are not evenly spaced on purpose: a rib has to land at 38-1/2" so the partition has framing to screw to. Nothing exceeds 24".

Then run 6 **purlins** the full 96", 3 per side, screwed to the **INSIDE** faces of the rafters. Three a side, not the tractor's two: the slope is 72" here and both the skin and the cleanout door want a fixing at least every two feet.

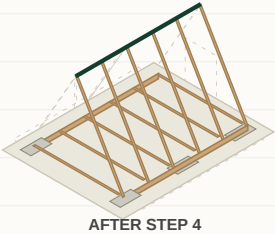
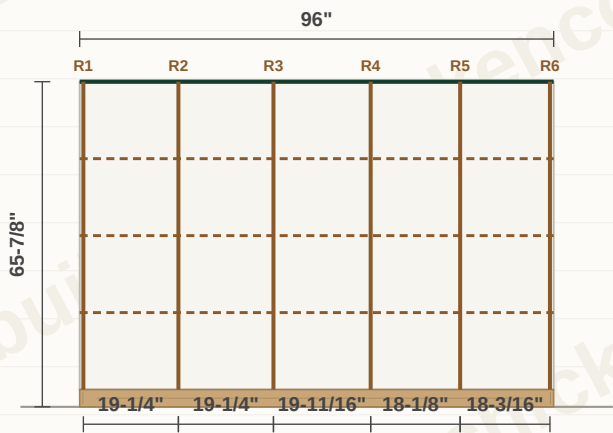
Inside, not outside — the slope panels and the big door have to lie flat on the outside face, and a purlin out there is what stops a door ever closing.

Part	Qty	Length	Stock	Note
Purlin	6	96"	2x2	inside face of the rafters, full length
Rafter foot bracket	12	3"	Angle bracket	

STOP AND MEASURE BEFORE THE NEXT STEP

Peak of the closed-end rib to the peak of the far rib, measured along the ridge line

96"



WATCH OUT

! Sight down the ridge before the purlins go on. Once six purlins are screwed to the inside faces, whatever lean the ribs had is permanent.

Purlins on the **INSIDE** faces — the doors have to lie flat on the outside.

STEP 5: RIDGE JOINT, RIDGE VENT AND FLASHING

The peak is a 60-degree vee, sharper than any ridge cap sold for a house roof. Bend your own from 10in aluminium roll flashing over the edge of a board.

The flashing does two jobs. It sheds rain off the butted rafter joint, and it shelters the **ridge vent** : the coop cladding stops 4" short of the peak on each side, and that continuous gap — 37" long, both sides, 2.1 sq ft in total — is the ventilation.

4" a side here, where the tractor has 3". The floor under it grew with the square of the base and a slot only grows with length, so holding 3" would have landed this exactly on the extension figure with nothing in hand.

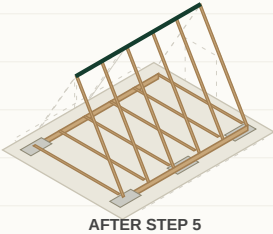
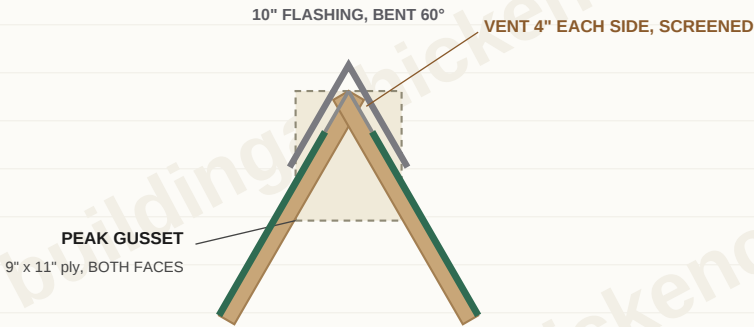
Screen it with hardware cloth stapled to the rafter edges BEFORE the flashing goes on. Screw the flashing to the cladding 2" below its top edge, on a bead of sealant, so the fasteners sit above the water line.

Part	Qty	Length	Stock	Note
Ridge flashing	2	10" x 48"	Aluminium flashing	
Vent screen cleat	4	37"	1x2	staple the cloth to this

STOP AND MEASURE BEFORE THE NEXT STEP

Cladding top edge to the peak, both sides

4"



WATCH OUT

!

That vent is 0.14 sq ft per sq ft of floor against an extension figure of 0.10, and it stays open all winter. Ammonia and damp kill far more birds in a small coop than cold does.

!

Do not close it up in a cold snap. A draught at bird level is the problem; an opening at the peak, above their heads, is the cure.

STEP 6A: COOP FLOOR AND ITS JOISTS

The closed end gets a solid floor; the run end stays open to the ground.

Floor joists first. The rungs sit at the rib positions, which are set by the panels and the partition, not by the floor — and they come out further apart than 1/2in plywood will carry. Drop 2 more 65" pieces in on edge at 9-5/8", 28-7/8" from the closed end. No run of floor then spans more than 9-5/8", against the 16" that grade of ply is rated for.

The floor is **two sheets** , not one: it is 67-15/16" across and plywood is 48in wide, so it lands the long way and the seam falls on the centreline of the middle rung, 18-1/2" in from the closed-end rib. 67-15/16" x 18-1/2" and 67-15/16" x 18-1/2".

That 67-15/16" is narrower than the 72" outside width and narrower than the gap between the skids, because the rafters lean in over the floor. Measure it in place.

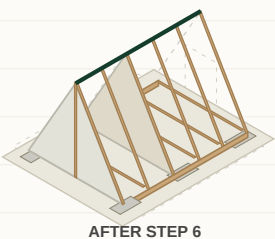
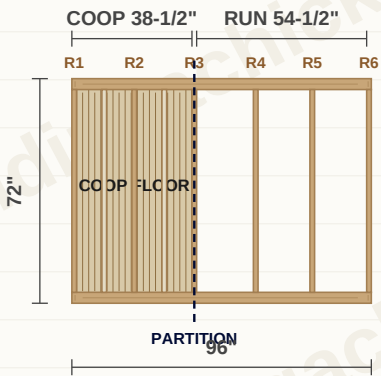
Screw a **floor cleat** along the inside of each skid under the sheet edges, so the long edges bear on something too.

Part	Qty	Length	Stock	Note
Floor joist	2	65"	2x4	PRESSURE TREATED, flush with the rung tops
Coop floor, closed-end sheet	1	67-15/16" x 18-1/2"	1/2" plywood	
Coop floor, partition sheet	1	67-15/16" x 18-1/2"	1/2" plywood	
Floor cleat	2	37"	2x2	inside the skid, under the floor edge

STOP AND MEASURE BEFORE THE NEXT STEP

Clear width across the finished coop floor

67-15/16"



WATCH OUT

- ! Fasten the floor down before the centre posts go up in the next step. Once the posts are in you cannot slide a full sheet past them.
- ! Every joist and rung under this floor is ground-contact treated. It is 3-1/2" off the soil and it will be damp under there for the life of the coop.

The coop floor is 67-15/16" wide, not 72" — the rafters lean in over it.

Pale bays are the 2 extra floor joists: no run of 1/2in ply spans more than 9-5/8". Two sheets, seam on the middle rung at 18-1/2".

STEP 6B: THE CLOSED END AND THE PARTITION — TWO TRIANGLES, TWO CENTRE POST

This is the biggest single difference from the 4-ft tractor, and it is the one thing that does not scale: a 72" triangle does not come off a 48in sheet.

Cut the **closed end panel** and the **partition** as pairs of right triangles 36" by 62-3/8", and join each pair over a **centre post** . The post is not a workaround for the joint — it is what a 1/4in skin this wide needs anyway, and it gives the pop door a jamb.

The end post is a 62-3/8" 2x4 running rung to peak, its top cut to a point with the same 30-degree saw setting as the rafters. Two cuts, one setting, and it beds straight into the vee.

The partition's post cannot run the full height — the pop door is on the centreline. Frame the **pop opening** first, 12" wide by 14" tall sitting on the floor, with two 14-1/2" jambs and a 15" header across them. Then stand a 47-7/8" post on that header up to the peak. The two partition halves land on the jambs below the header and on the post above it.

Both panels are notched around the 6 purlins that pass through them.

Part	Qty	Length	Stock	Note
End centre post	1	62-3/8"	2x4	30 deg BOTH ways at the top — a point, same saw setti...
Partition centre post	1	47-7/8"	2x4	pointed top, foot on the pop-door header
Pop door jamb	2	14-1/2"	2x2	either side of the opening
Pop door header	1	15"	2x2	across the jambs
Closed end panel half	2	36" x 62-3/8" right triangle	1/4" plywood	
Partition panel half	2	36" x 62-3/8" right triangle	1/4" plywood	

STOP AND MEASURE BEFORE THE NEXT STEP

Point of the end centre post to the underside of the peak gusset

hard up, no gap

WATCH OUT

- ! Cut the four triangle halves as two pairs. Two 36" right triangles laid hypotenuse to hypotenuse are a rectangle 36" by 62-3/8", and that is one clean sheet layout with the offcut in one piece.
- ! Screw the two halves to the post from the OUTSIDE, into its face. A skin fastened only at its edges peels at the joint in the first gale.

STEP 7: SLOPE CLADDING — THE COOP SKIN AND THE EGG HATCH

Only the coop section gets skinned. The run stays open mesh, which is the point of the shape.

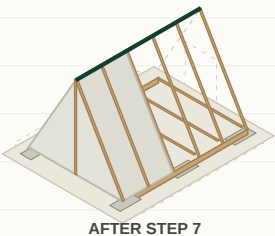
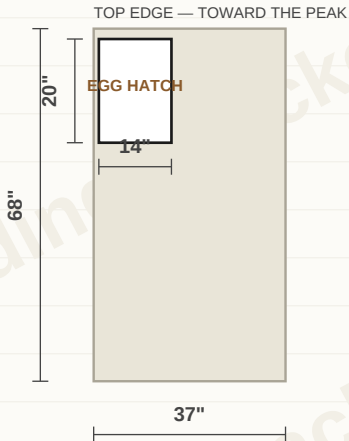
The **left slope panel** is one piece, 37" by 68", screwed to the outside faces of the coop ribs and to the three purlins behind them. Its top edge stops 4" below the peak for the vent.

Cut the **egg hatch** opening in it now, hard against the closed end, 14" along the length by 20" up the slope. The hatch opens the outer wall of the near nest box and lets you reach over the divider into the far one, so both boxes are served by one opening — and you collect eggs without opening the coop.

The right slope is not clad here. That whole panel is the cleanout door, and it goes on in step 9.

Part	Qty	Length	Stock	Note
Left coop slope panel	1	37" x 68", hatch cut out	1/4" plywood	
Egg hatch slab	1	13-1/2" x 19-1/2"	1/4" plywood	
Hatch frame	2	13-1/2"	1x2	top and bottom
Hatch frame side	2	16-1/2"	1x2	

LEFT COOP SLOPE PANEL, AS CUT



WATCH OUT

! 37" by 68" comes off one 4x8 sheet with the long side running up the slope. Check that before you cut — turn it the other way and it does not fit.

STEP 8: ROOF COVERING OVER THE COOP

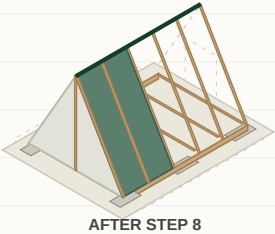
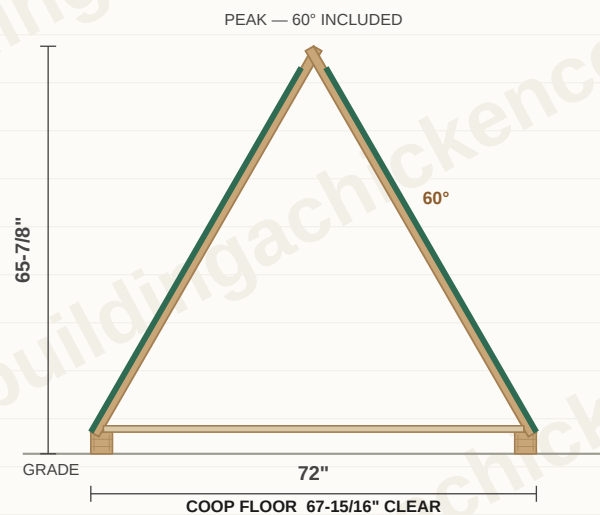
Mineral-surface roll roofing over the two coop slopes — 35 sq ft, comfortably inside one 36in roll.

Metal is the usual answer on a coop that stays put, and it is the wrong one here. The peak is a 60-degree vee and nobody sells a ridge cap for that angle, so the cap is bent from flat flashing — and flat flashing has to bed on a flat deck, not on corrugations. Roll roofing over the plywood gives the flashing something to seal against.

Roll it UP the slope, not along it, so no seam runs downhill. Nail the top edge where the flashing will cover it, work down, and lap the lower course over the upper by 4" on a bead of lap cement.

The right slope gets its roofing AFTER the cleanout door is built, on the door itself.

Part	Qty	Length	Stock	Note
Roll roofing, left slope	1	37" x 68"	Roll roofing	
Roll roofing, cleanout door	1	37" x 68"	Roll roofing	
Drip edge	2	37"	1x2	bevelled, at the foot of each coop slope



WATCH OUT

- ! Warm the roll in the sun for an hour before you unroll it. Cold roll roofing cracks along the fold and every crack is a leak over a roost.
- ! At 60 degrees this roof sheds everything, including snow, in one slab. Do not put the water bucket, or yourself, at the foot of it.

Roll roofing on both coop slopes — 35 sq ft, laid UP the slope so no seam runs downhill.

STEP 9: CLEANOUT DOOR — THE WHOLE RIGHT COOP SLOPE

The single most useful thing on the coop. The entire right slope of the coop section lifts, so you clean, catch a bird or change bedding from outside standing up, instead of crawling in.

Build the slab 36-1/2" by 67-1/2" out of 1/4in ply on a 1x2 perimeter frame, **plus a mid-rail halfway up** . The tractor's door has no mid-rail and does not need one; this one is 67-1/2" up the slope and a 1x2 stile that long racks into a parallelogram on its own.

Hang it on **three** hinges along the top edge, to a 1x2 ledger screwed to the rafters 4" below the peak. Two two-action latches at the bottom edge, into the skid. Two-action, both: raccoons open hooks, and this door is the whole side of the coop.

Fit the **prop** and use it. This slab with its roofing on weighs enough to hurt you, and it comes down on the back of your neck while your hands are full of bedding. That is the accident this design has to design out.

Part	Qty	Length	Stock	Note
Cleanout door slab	1	36-1/2" x 67-1/2"	1/4" plywood	
Door frame, long	2	36-1/2"	1x2	
Door frame, short	2	64-1/2"	1x2	
Door mid-rail	1	33-1/2"	1x2	halfway up — a 1x2 stile this long racks without it
Hinge ledger	1	37"	1x2	4" below the peak
Door prop	1	34"	1x2	drilled both ends

STOP AND MEASURE BEFORE THE NEXT STEP

Gap all round the closed door

1/4in or less, even

WATCH OUT

! Hang the door before the roofing goes on it. Hanging a panel that already carries its own roll roofing, on a slope, on your own, is how hinges get started crooked.

STEP 10: NEST BOX BANK

2 boxes across the closed end, sitting on the coop floor. There is no wall to hang them from, so they stand on it and they genuinely take 2.2 sq ft of floor — already out of the capacity figure on the cover.

The bank is 24-1/2" across and 13" deep, with 1 divider. The sloping sides are the outer walls of the outer boxes, so only the partition BETWEEN boxes gets plywood.

A **litter lip** 3-1/2" tall across the front keeps the shavings in, so the opening a hen steps through is 12" tall with its sill 4" off the floor. Slope the **top** so nobody roosts on it and fouls the eggs.

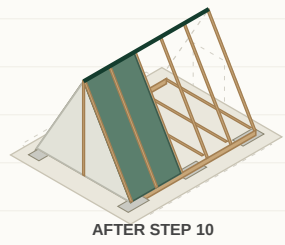
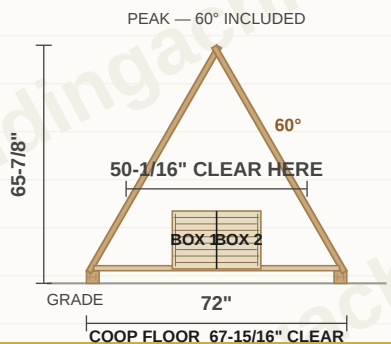
At the top of that opening the triangle is 50-1/16" wide, so the bank drops in with room either side.

Part	Qty	Length	Stock	Note
Nest bank floor	1	24-1/2" x 13"	1/2" plywood	
Nest bank back	1	24-1/2" x 16"	1/2" plywood	
Nest divider	1	12" x 13"	1/2" plywood	
Nest litter lip	1	24-1/2" x 3-1/2"	1/2" plywood	
Nest bank top	1	24-1/2" x 14"	1/2" plywood	
Nest cleat	2	13"	1x2	under the bank floor

STOP AND MEASURE BEFORE THE NEXT STEP

Clear width inside ONE finished box

12"



WATCH OUT

! 2 boxes for 5 hens is generous — the extension figure is one per five. They will all use the same one anyway.

! Two boxes and not three, deliberately. A third box costs floor the flock needs more than it needs somewhere else to lay.

The sloping sides ARE the outer walls of the outer boxes. One divider, not three.

STEP 11: POP DOOR — AND WHY THERE IS NO RAMP

The pop door is the hens' way between the coop floor and the run, and it is the only opening that gets shut every single night.

The opening is already framed in the partition, 12" by 14", sitting on the floor between the two jambs. Hang the slab on the RUN side so it swings against the frame and cannot be pushed inwards: two hinges and a two-action latch.

No ramp. The tractor needs one because its floor stands 4" above the grass. Here the run is bedded up to the top of the skid in step 16, which leaves the coop floor 1/2" above the finished run surface — a doorstep, not a drop. Screw a bevelled **threshold** on the sill instead; it is what stops the run bedding being kicked into the coop.

If you ever let the run bedding wear down, the step grows. Top it up.

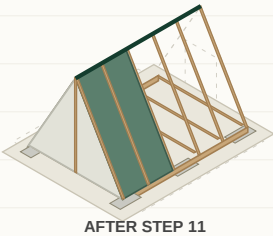
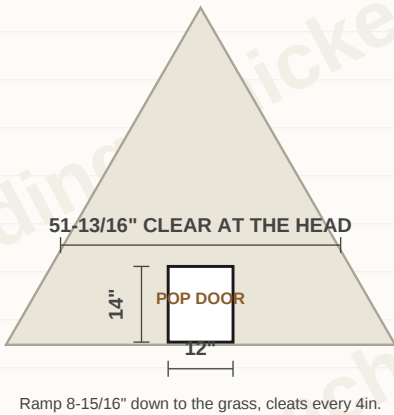
Part	Qty	Length	Stock	Note
Pop door slab	1	12-1/2" x 14-1/2"	1/4" plywood	
Pop door threshold	1	15"	1x2	bevelled, on the sill — the bedding stops here

STOP AND MEASURE BEFORE THE NEXT STEP

Coop floor down to the finished run bedding, at the pop door

1/2"

PARTITION PANEL, FROM THE RUN SIDE



WATCH OUT

! Shut it at dusk and open it after sunrise. It is the one hole a raccoon can reach through if the run mesh is ever damaged.

STEP 12: RUN HARDWARE CLOTH — SLOPES AND THE END TRIANGLE

1/4in hardware cloth, 19 gauge. Never chicken wire — chicken wire keeps chickens in and keeps nothing at all out; a raccoon opens it with its fingers.

Cover both **run slopes** , 72" up the slope by 54-1/2" long, and the **end triangle** , cutting the door opening out of it as you go.

Fasten with staples every 2in AND fender washers every 8in along every edge. Staples alone pull through — that is the failure everyone finds out about the morning after. Overlap adjoining pieces by 2in and washer through both layers.

Screen the ridge vent the same way if you have not already: two strips 37" by 8", stapled to the rafter edges under the flashing.

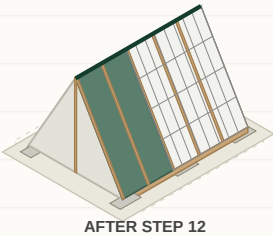
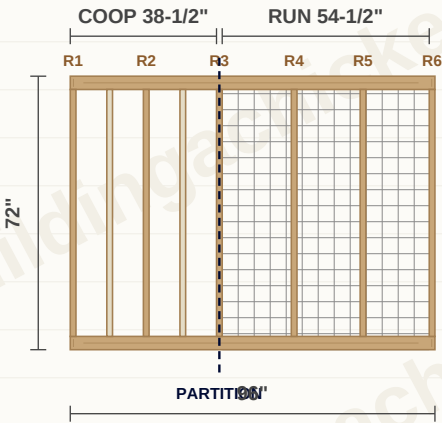
This is the cloth ABOVE ground. What stops something digging under it is the next step, and on a coop that does not move it is a different answer from the tractor's.

Part	Qty	Length	Stock	Note
Run slope cloth	2	72" x 54-1/2"	Hardware cloth	
Run end cloth	1	72" x 62-3/8" triangle, door opening cut out	Hardware cloth	
Ridge vent cloth	2	37" x 8"	Hardware cloth	

STOP AND MEASURE BEFORE THE NEXT STEP

Cloth pulled hard by hand at the middle of a run slope bay

no visible movement at the fixings



WATCH OUT

! Cut cloth with tin snips and wear gloves. The cut edge of 19-gauge cloth will open your hand.

Slopes and the end triangle only. There is NO cloth floor here — the birds are on real ground, and what stops a digger is the buried apron in the next step.

STEP 13: BURIED APRON — THE SKIRT A STATIONARY COOP MUST HAVE

This is the predator strategy, and it is the one thing that genuinely could not be done on the tractor.

A tractor gets dragged across the lawn, so nothing can be buried under it and the answer there is a mesh floor the birds stand on. This coop never moves, which means it gets the better answer: an **apron**, and an apron beats a mesh floor because the birds are on real ground and the cloth is not being walked on and dragged over grass until it opens up.

Cut a 27-1/2" strip and fold it into an L with **three** legs. Up the outside face of the skid, 3-1/2" — the skid stands that proud on its blocks and the cloth has to close it. Then 12" straight down BELOW GRADE against a spade-cut trench. Then 12" turned outward at ninety degrees, flat, and buried.

The whole 28 ft perimeter — all four sides, including under the coop end. Screw the top leg through a 1x2 **batten** into the skid so the edge cannot be lifted, then pin the flat leg down with sod staples and cover it with the turf you took off in step 1.

The apron works by being IN THE WAY, not by being deep. A digging animal starts where it meets the wall, hits cloth it cannot see the edge of, and gives up. That is why the outward leg matters at least as much as the buried one, and why the corners have to lap rather than butt.

Then cover the outward leg on the two long sides with a drip strip — 12" wide by 2" deep of the same crushed stone, 2.7 cu ft. This is the one thing on the coop that exists only because it stopped moving. A 60-degree roof throws its entire catchment onto a line a few inches off the skid, and on the tractor that line is somewhere new every morning. Here it is the same line for twenty years: turf there dies, the backfill scours out and exposes the apron, and the skid never dries. The two ends need nothing — they are gables and shed nothing.

Part	Qty	Length	Stock	Note
Buried apron cloth	1	27-1/2" x 28 ft run	Hardware cloth	
Apron batten, sides	2	96"	1x2	screwed over the cloth into the skid
Apron batten, ends	2	72"	1x2	
Sod staple	1	6", 60 pcs	Sod staple	
Drip-strip stone, both eaves	1	2.7 cu ft, 12" wide x 2" deep	Crushed stone	

STOP AND MEASURE BEFORE THE NEXT STEP

Apron cloth from the skid face outward, after backfilling

12" flat, and no gap where it meets the skid

WATCH OUT

- ! Lap the apron corners by a hand's width and wire them to each other. A butted corner is a door with a sign on it.
- ! Grass grows through the apron in a season and then a mower goes over the top. That is the intended finish, not a compromise — but keep the drip strip clear of soil, or it silts up and stops draining.

STEP 14: RUN END DOOR

A stationary coop needs a way IN to the run. You cannot tip this one up and you cannot reach the far corner from outside, so the far end triangle carries a door: 24" wide by 34" tall, which is a crouch, not a walk.

That size is set by the triangle, not by taste. At 34" up, the sloping sides leave 29-1/4" of clear width, so a 24" leaf goes in with room for jambs and nothing wider does.

Frame the opening with two 34" jambs standing on the base rung and a 27" header across them, all notched to the end rib. Build the leaf as a 1x2 frame covered with the same hardware cloth — light, and it does not blind you to what is in the run.

Hinge it on ONE side, swinging OUT, with door stops inside the opening so it cannot be pushed in. One two-action latch at a height a raccoon standing on the ground can reach — which is all of them, so it has to be two-action.

Part	Qty	Length	Stock	Note
Run door jamb	2	34"	2x2	plumb, foot on the base rung
Run door header	1	27"	2x2	across the jambs
Run door stile	2	33-1/2"	1x2	
Run door rail	2	20-1/2"	1x2	
Run door cloth	1	24" x 34"	Hardware cloth	
Door stop, sides	2	34"	1x2	inside the opening, for the door to close on
Door stop, head	1	24"	1x2	

STOP AND MEASURE BEFORE THE NEXT STEP

Clear width at the head of the finished opening

29-1/4"

WATCH OUT

- ! Step over the base rung, do not stand on it. It is a floor joist, not a threshold.
- ! Hang the leaf so it swings toward the latch side downhill if your site has any fall. A run door that swings itself open is how birds get out.

STEP 15: ROOST BARS AND DROPPINGS TRAY

2 bars, running the length of the coop, straddling the centreline 12" apart. Two, not one: 5 hens need 50in of perch and one bar delivers 35-1/2".

A 2x2 with the top two corners eased — flat side up, not a dowel. A hen grips with a flat foot, and in cold weather she has to be able to sit down ON her feet to cover them; a round bar leaves her toes out and is how you get frostbite in a coop that is otherwise fine.

Set the TOPS of the bars 18-1/2" above the COOP FLOOR — not off the grass. The floor is 4" up already (3-1/2" of skid and 1/2" of ply), so the same bar is 22-1/2" off the grass and the peak is 65-7/8".

Floor to the peak is 61-7/8", which leaves 43-3/8" to the peak line — but no bird sits on the centreline. Each bar is 6" out from it, and in a 60-degree triangle every inch sideways costs 1.73in of height, so what a hen on a bar actually has over her head is 29-15/16". That is the number on the check line and the one your tape will read.

That height keeps the birds above the nest bank top, so they roost on the bar rather than in the eggs.

Slide the **droppings tray** underneath on two cleats — 22-1/2" by 24", wide enough to catch under both bars. It is not the full 35-1/2" of the bars: the first 13" of that floor is where the nest bank stands. Pull it out, tip it on the compost, slide it back.

Part	Qty	Length	Stock	Note
Roost bar	2	35-1/2"	2x2	top corners eased
Roost support	4	5" x 6" gusset	1/2" plywood	
Droppings tray	1	22-1/2" x 24"	1/2" plywood	
Tray cleat	2	22-1/2"	1x2	under the tray edges

STOP AND MEASURE BEFORE THE NEXT STEP

Top of a roost bar, plumb to the rafter above it

29-15/16"

WATCH OUT

- ! 12" between bars is the minimum that stops the birds on one fouling the birds on the other.
- ! The tray comes out through the cleanout door, which is the whole side of the coop. That is thirty seconds a day and it is the difference between a coop that smells and one that does not.

STEP 16: RUN FLOOR — DRAINAGE AND BEDDING

A fixed run turns to bare mud in one wet season if you leave it as lawn, and mud is where worms, coccidia and bumblefoot start. This step is not optional and it is not decoration.

Scrape the run area between the skids — 65" by 54-1/2" — down 2-1/2" below grade. Lay 2" of clean drainage stone, then 4" of coarse washed sand or coarse wood chips over it: 4.1 cu ft and 8.2 cu ft.

Those depths are chosen so the finished surface comes up FLUSH with the top of the skid, which is what leaves the pop door a 1/2" step instead of a drop. Bed on top of grade instead and the run floor ends up above the sill and the bedding walks into the coop.

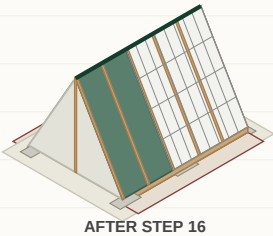
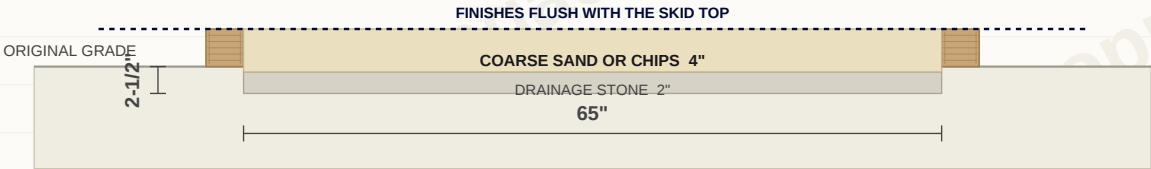
Coarse washed sand, not play sand and not builder's sand. Play sand is fine dust and the birds breathe it. Rake it over once a week and take the solids out; done that way the run does not smell and does not need replacing for years.

Part	Qty	Length	Stock	Note
Drainage stone, run floor	1	4.1 cu ft (2" deep)	Crushed stone	
Coarse sand or wood chips, run floor	1	8.2 cu ft (4" deep)	Bedding	

STOP AND MEASURE BEFORE THE NEXT STEP

Finished bedding surface to the top of the skid, at the middle of the run

flush, within 1/2in



WATCH OUT

! 26 sq ft of run for 5 hens is over the 5 sq ft extension minimum but it is a FIXED run — they will strip it to the bedding in a week and that is expected. The bedding, not the grass, is the surface.

! Do not concrete it. A sealed floor holds water at the edges and gives you nowhere for the wet to go.

The depths are picked so the bedding finishes level with the skid, which leaves the pop-door sill a 1/2" step. Bed on top of grade instead and the run floor ends up above the sill.

IMPORTANT — PLEASE READ BEFORE BUILDING

What these plans are

rafters are checked as compression struts against the NDS slenderness limit, and the welfare, ventilation and predator figures are taken from published extension guidance tables rather than estimated.

What these plans are NOT

They are not stamped engineered drawings. No licensed professional engineer has reviewed, sealed or certified this design, and it is not site-specific. Prescriptive tables are conservative by design, but they are not a substitute for an engineer's analysis of your particular soil, snow load, wind exposure and seismic conditions.

You are responsible for local code and permits

Building codes, permit thresholds, setbacks, frost depth, snow load and livestock ordinances vary by state, county, city and HOA, and they change. The IRC exempts detached accessory structures under 200 sq ft from a building permit, but many jurisdictions tighten that to 100, 120 or 144 sq ft, and zoning setbacks are entirely local. Confirm with your building department and zoning office BEFORE you buy materials.

Heat is a design load too

An uninsulated metal roof in desert or deep-south sun is the most common way a flock gets hurt in a coop that is otherwise built correctly. Hens have no sweat glands and start to suffer above about 85F. If that is your summer: use a light-coloured or reflective roof panel rather than a dark one, add a radiant barrier or rigid foam under the deck, shade the run with cloth or a vine, put the waterers in the shade and add a second one, and consider leaving the top of one gable-end bay permanently open as extra cross-ventilation. None of this is in the framing above because it is climate-specific — but in the wrong climate it matters more than anything that is.

Snow, wind and seismic loads are your call

The rafter sizing here assumes a moderate roof load. If your ground snow load exceeds 30 psf, or you are in a high-wind or seismic zone, have the roof and anchorage reviewed locally — upsizing rafters is cheap; a collapsed roof in February is not.

Build safely

Power tools cause serious injury. Wear eye, ear and hand protection, use tools only as the manufacturer intends, and get help lifting walls and roof panels. If a step is beyond your skill or equipment, hire it out.

Verify before you cut

Check every dimension against your own materials before cutting. Lumber varies between mills and nominal sizes are not actual sizes. We have checked these numbers carefully, but you are the last line of defence against an error.

Limitation of liability

These plans are provided "as is," without warranty of any kind, express or implied, including any implied warranty of merchantability or fitness for a particular purpose. To the fullest extent permitted by law, buildingachickencoopplans.com and its authors accept no liability for any loss, injury, property damage, animal loss, code violation or cost arising from the use of these plans. By building from them you accept full responsibility for the finished structure and for compliance with all applicable laws.

IMPORTANT — PLEASE READ (CONTINUED)

Animal welfare

Capacity assumes 4 sq ft of coop floor per standard-breed hen — comfortably inside the 3-4 sq ft that Virginia Cooperative Extension and Oregon State give for birds WITH run access. This coop gives 15 sq ft of bird floor for 5 hens.

Outdoors, the run is 26 sq ft, or 5.1 sq ft per bird. Extension services genuinely disagree here: Cornell says 4-5 sq ft is enough, Virginia says 10. We are comfortably over the first and under the second. If you want to meet the stricter figure, either build the run longer or keep 2 birds rather than 5.

The number that actually bites is winter. Where birds are shut in for days at a time, Oregon State escalates to 8-10 sq ft of INDOOR floor per bird — for 5 hens that is 40-50 sq ft, and this coop has 15. In a climate with long confinement, size the flock off the indoor figure, not the summer one: 1 hens, not 5. Crowding causes feather-pecking, disease and ammonia problems. Fewer birds is always safe; more is not.

PLANS COMPLETE

You're done. A few things worth doing before the birds move in.

- Feeder and waterer: hang or stand them so the lip is at the birds' back height (about 8in off the floor for standard breeds) — it stops them scratching bedding into the feed. Allow 4in of feeder edge and 1in of drinker edge per bird: for 5 hens that is one 30in tube feeder and two 3-gallon founts, sited AWAY from under the roosts.
- Bedding: 4 to 6 inches of pine shavings or chopped straw, never cedar. Stir it weekly, top it up rather than replacing it, and strip it out when it stops smelling of nothing.
- Give them a dust bath — a shallow box of dry soil with a little wood ash or sand, kept under cover so it stays dry. It is how a hen treats her own mites, and there is nowhere in this coop to do it unless you build one.
- Keep one spare crate or a corner of the feed room free. You will need somewhere to isolate a sick bird or a new one, and working that out on the day is too late.
- Run a bead of exterior caulk anywhere siding meets trim, and prime every cut end.
- Fit two-action latches on the pop door and every people-door. Raccoons are dextrous and keepers widely report them working simple hooks and slide bolts open, so a latch that needs two different motions is cheap insurance.
- Bury the hardware-cloth apron 12 inches down and 12 inches out before you add bedding.
- Confirm the vents are above roosting height so moisture leaves without drafting the birds.
- Give the flock a week to learn the coop before you let them into the run unsupervised.

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