

YOUR FREE READER'S COMPANION

The Shed Build Pack

A companion to The Backyard Shed Building Bible · by Wade Garrison

Thanks for picking up the book. This is the companion you tack to the inside of the shed door once it's up, and the one you carry to the lumberyard before it is: the foundation chooser that matches your ground to the right base, a material takeoff sheet so you buy your lumber once instead of making the second trip, the wall and roof numbers you'll reach for on the deck, and a permit-and-inspection checklist that keeps the building legal and standing. Print it, fold it, keep it in the truck.

Sheds almost never fail from the roof down. They failed from the ground up — set on the wrong foundation, on bare dirt, with the water trapped underneath. Get the base right and the rest of the build is just carpentry. — Wade

1. The Foundation Chooser

A backyard shed uses one of four foundations. That's it. Match it to your ground, your frost, and how permanent you want the building, and you've made the most important decision in the whole project. Every one of these sits on a compacted gravel base, and every one of them sheds water away on all sides — that detail matters more than which type you pick.

Foundation	Best shed size	Pick it when	Think twice when
Skids (treated 4x4/6x6 on gravel)	up to ~10x16	Mild frost, tight budget, might move it someday; the default	Very soft/wet ground, or you want a hard floor
Gravel pad (contained, compacted)	small to medium	You want the most forgiving build and great drainage; pairs with skids	Steeply sloping lot, or you need a finished floor
Concrete piers (blocks or poured tube footings below frost)	any	Hard-frost country, sloping ground, or code wants footings below frost	Simple mild-climate build where a skid does the same job
Poured slab (4" reinforced, is the floor)	workshop/garage type	Permanent, heavy equipment, a floor that never rots or bounces	You might move it, tight budget, or serious frost

Read your ground first

- Strip the sod down to firm subsoil before anything — organic topsoil holds water, rots, and compresses.
- Use angular crushed gravel, the kind that locks when compacted, not round pea gravel that rolls.
- Build the pad a touch higher than the surrounding yard so it drains, never lower — a low pad becomes a bathtub.
- Below frost or float, don't fight it. In hard-frost country, run piers below your local frost line (often 42–48" up north). In mild frost, a floating skid or pad rides the seasonal movement and settles back — that's fine for a shed.
- Call 811 before you dig, every time, even for skids. It's free and it's the law.

The honest trade-off: gravel and skids cost you labor and save you money. A slab costs you both but buys permanence. Piers sit in the middle and buy frost protection nothing else gives. Match it to your budget, your back, and your winters.

2. Material Takeoff — Buy It Once

Use this to turn a plan into a lumberyard list. The shed in these numbers is the 8x10 gable storage shed on skids — the one to build first. Adjust quantities for your footprint, and always buy a little extra on sheet goods and trim, because everyone miscuts a board or two and a spare stud is cheaper than a second trip.

Item	Qty	Size	Use
Treated 6x6	2	10 ft	Skids
Treated 2x6	11	8 ft	Floor joists + ends
Treated 2x6	2	10 ft	Floor rim (sides)
3/4" T&G plywood	3	4x8	Subfloor
2x4 studs (precut 92-5/8)	60	—	Wall framing
2x4	8	10 ft	Plates
2x6	8	8 ft	Truss rafters
2x4	5	8 ft	Truss bottom chords
1/2" plywood	1	4x8	Truss gussets
7/16" OSB	5	4x8	Roof sheathing
T1-11 siding	9	4x8	Walls (siding + sheathing in one)
Asphalt shingles	2	bundles	Roof (~120 sq ft + starter/ridge)
Synthetic underlayment	1	roll	Roof
Drip edge	6	10 ft	Eaves + rakes
Strap/T hinges	6	heavy	Door (3 per leaf)
Hurricane ties	12	—	Rafter-to-plate
1x4	8	8 ft	Corner/door trim
Crushed gravel	~1.5	cu yd	Pad
Fasteners	—	16d, 8d, 3" structural, screws	Throughout

Budget, 2026 dollars: roughly \$1,600–\$2,200 for this shed, depending on lumber prices and siding choice. The lean-to runs less; a slab-floored 10x12 workshop runs more.

Three takeoff rules that save real money

1. Buy treated only where it's wet. Skids and bottom plate touch the moisture — those are ground-contact treated. Joists, rim, and studs sit up in the open air on the foundation and can be untreated SPF. Don't pay treated prices for the whole frame.
2. Order sheet goods to land on 16-inch layout. At 16" o.c., a 4x8 sheet's edges land dead center on a stud or joist every time. Buy to that grid and you cut almost nothing.

3. Round gravel up, not down. Running short mid-pour means a second delivery fee. A half-yard of extra crushed stone is cheap insurance.

3. Wall Framing & Roof-Pitch Quick Reference

Walls — the numbers you'll use on the deck

- 2x4 at 16" o.c. for storage and workshop sheds; 2x6 only if it's an insulated, heated studio.
- First stud mark at 15-1/4", then every 16" after (31-1/4, 47-1/4...). That 3/4" setback puts the stud center at 16" so the sheet edge still lands on framing.
- Stud length = wall height minus 3" (two plates at 1-1/2" each). For an 8-ft wall, that's a standard 92-5/8" precut stud, plus the double top plate on top.
- Double top plate, joints overlapped at least 16" past the joint below. That's what ties four walls into one rigid box.
- Headers: a doubled 2x6 spans a 4-ft opening; step to a doubled 2x8 for a wider door. When in doubt, go up a size — header lumber is cheap, a sagging door header is not.
- Frame to the rough opening off the door/window box, not to the unit size — always a hair bigger so you can shim it plumb.

Roof pitch — pick the slope, then trace one rafter

Pitch	Rise per 12" run	Good for
3/12	3"	Lean-to, low-slope; pair with metal panels
4/12	4"	Gable storage shed; sheds water and snow fine
5/12	5"	The sweet spot — sheds well, looks right, friendly angles
6/12	6"	Steeper gable; more headroom, more lumber

- Flatter than 4/12 fights water and snow; steeper than 6/12 eats lumber and looks tall.
- Cut one rafter, test-fit it on the actual building, then trace every other rafter from it. A roof full of traced rafters goes together tight; a roof full of "measured fresh" rafters goes together crooked.
- Each rafter has three cuts: the plumb cut at the ridge, the birdsmouth (level seat + plumb heel) where it sits on the plate, and the tail cut out at the overhang.
- Account for the ridge board: subtract half its thickness (3/4") from each rafter's run, or the roof spreads a hair wide.
- 8–12" of overhang keeps water off the siding without acting like a sail.
- For a rectangular shed, site-built trusses in a jig beat stick-framing for a beginner: every truss comes out identical, you build them flat on the ground, and the bottom chord gives you a loft or a place to hang a light.

The one number that runs through the whole build is 16 on center — floor, walls, and roof. The lumber and the sheet goods are sized to agree at that spacing. Follow it and everything fits. Wander off it and you'll be cutting sheets and adding blocking to land on bearing.

4. Permit & Inspection-Ready Checklist

Build with permits or don't build at all. For most backyard sheds the permit question is simple and the fee is small, but tearing down a finished building over a setback you never checked is the worst day in this trade. Work this list before you order a board.

Before you design

- ☐ Call the building department and ask three things in order: do I need a permit for this size at this address; what are my setbacks from each line and easement; is there a height limit or foundation restriction?
- ☐ Write down the answers with the date and the name of who you talked to. That note is your record that you asked.
- ☐ Know the thresholds. Most places exempt sheds under 120 sq ft or 200 sq ft from a building permit. An 8x10 (80 sq ft) usually slides under; a 10x12 (120 sq ft) sits right on the common line.
- ☐ No permit ≠ no rules. Even permit-free, you still owe setbacks, easements, height limits, and your HOA.

Before you site it

- ☐ Measure setbacks from the real property line, not the fence. Find your survey pins or pay for a survey — a few hundred dollars beats moving a finished shed.
- ☐ Clear every easement. You can't build on a utility easement; the utility can make you remove whatever's in the way and never put it back.
- ☐ Read your HOA covenants (CC&Rs) on outbuildings — size, placement, roof pitch, siding, color. If approval is required, get it in writing first.
- ☐ Call 811 and get the underground utilities marked.

The three numbers your region sets

- ☐ Frost depth — how deep any pier or footing must go to beat heave.
- ☐ Snow load — sizes your rafters and their spacing.
- ☐ Wind load — why the hurricane ties and connectors aren't optional in coastal or tornado country.

If it needs inspections

- ☐ Footing inspection before you pour or backfill — so the inspector sees the holes are deep and below frost.
- ☐ Framing inspection before you sheathe the walls — so connectors and framing are visible.
- ☐ Don't cover work the inspector needs to see. Build it right, call when they ask, and the inspection is a five-minute handshake.

That's the pack. The one habit worth more than any tool in the truck: get the foundation right, on

compacted gravel that drains, before you frame a single wall. Build the 8x10 storage shed first to learn the moves, then the 10x12 workshop when you're ready to actually work out there — both are drawn up complete with cut lists in the back of the book. When you've stood up your first shed on your own pad, I'd love to hear about it, and in a couple of emails I'll tell you how a quick word from you helps this book reach the next person standing in their backyard with a pile of lumber and an idea.

Build it once, build it right,
Wade Garrison