

THE DIYCRAFT PLAN COLLECTION

8x16 ft

Lean-to Storage Shed Plan

A timber storage shed on treated skids and compacted gravel, with double doors and dark asphalt shingles.



FREE EDITION

10 illustrated stages

128 sq ft / 3:12 lean-to roof

COMPARE THE TWO EDITIONS

Free or premium?

Follow the grouped overview first. Premium separates the assemblies and adds model cut schedules, close-up views and the coordinated roof layout.

What you get	Free plan	Premium plan
Illustrated assembly stages	10	21
Dimensioned build sequence	✓	✓
Skid-foundation section	✓	✓
Printable PDF	✓	✓
Model timber and panel schedules	—	✓
Floor, roof, door and ramp details	—	✓
Four exterior elevations	—	✓

Green check = included Dash = not included

YOUR PREMIUM CHECKLIST

- ✓ See every assembly in its own stage.
- ✓ Coordinate framing, panels and the low-slope roof.
- ✓ Keep the added detail views and model schedules nearby.

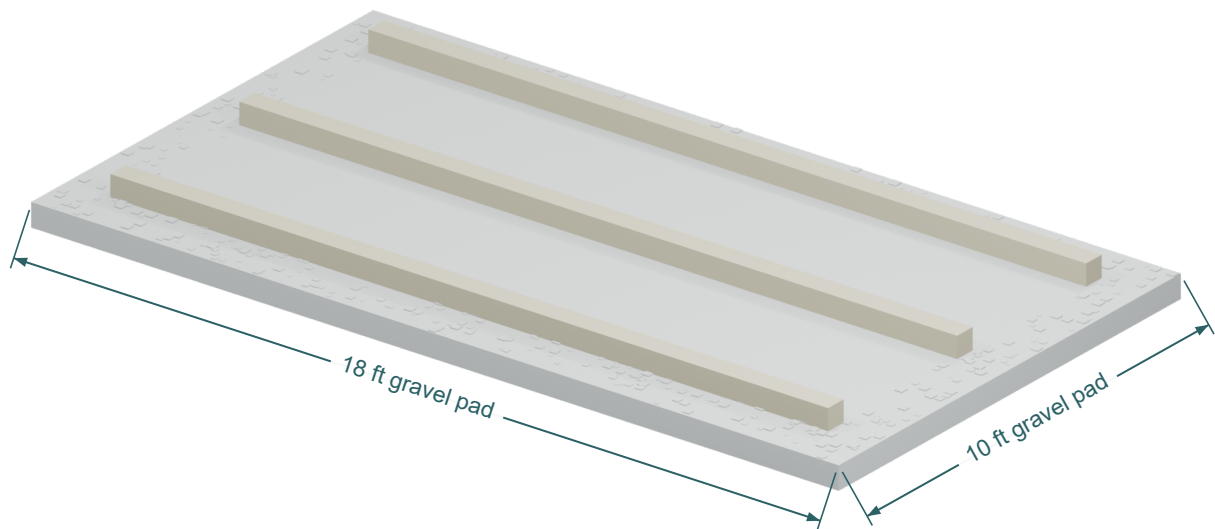
Buy Now

Model-based design package. Site-specific engineering, final connections and verified load ratings are not included. Resolve these before construction.

STEP 01 / 10

Build the gravel and skid base

Set out an on-grade base with room for drainage around the 8 x 16 ft floor.



Pad: 18 x 10 ft | 6 in compacted depth modeled | 3.33 cu yd compacted stone, net.

- 1.1** Set out an 18 x 10 ft pad, remove soft organic soil and lay permeable separator fabric on firm support.
- 1.2** Place and compact crushed stone in lifts to a level bearing surface. The model uses 6 in; confirm the depth and drainage for this site.
- 1.3** Place three ground-contact 6x6 skids, each 16 ft long, on centre lines 2 3/4, 48 and 93 1/4 in. Confirm anchorage before framing.

Foundation method: Shedplans.org skid-foundation guide

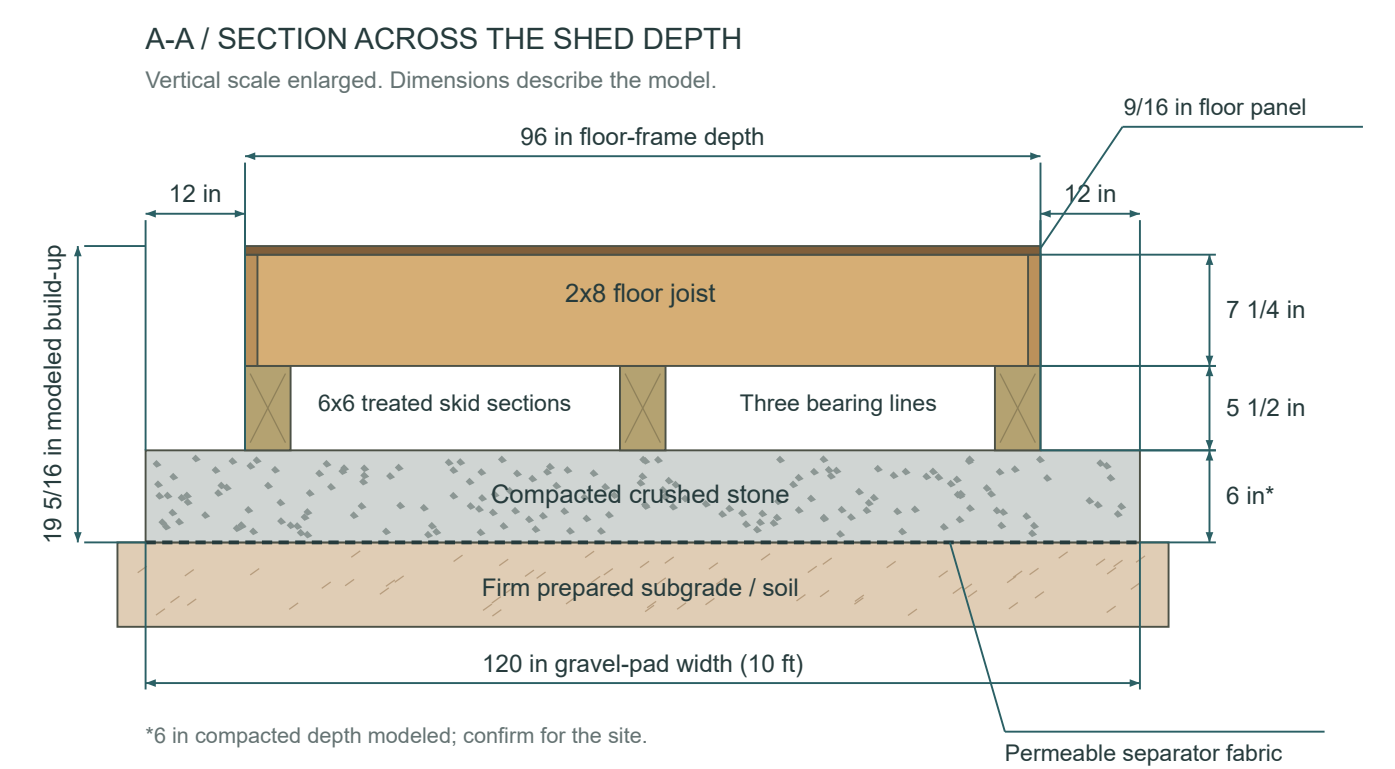
CHECK BEFORE CONTINUING

Ground bearing, wind restraint, frost movement and anchor capacities need a site-specific decision.

SKID FOUNDATION / SECTION A-A

Foundation layers and heights

Section across the 8 ft depth, perpendicular to three 16 ft skids. Soil and fabric are schematic; the timber and gravel dimensions match the model.



Layer / part	Model dimension	Installation meaning
Floor panel	9/16 in	Confirm floor span and load rating.
Floor joists	7 1/4 in depth	Nominal 2x8; bear on all three skids.
Ground-contact skids	5 1/2 x 5 1/2 in	Nominal 6x6; continuous bearing.
Compacted stone	6 in modeled depth	Site conditions govern depth and drainage.
Permeable fabric	Thickness schematic	Separate firm soil from crushed stone.

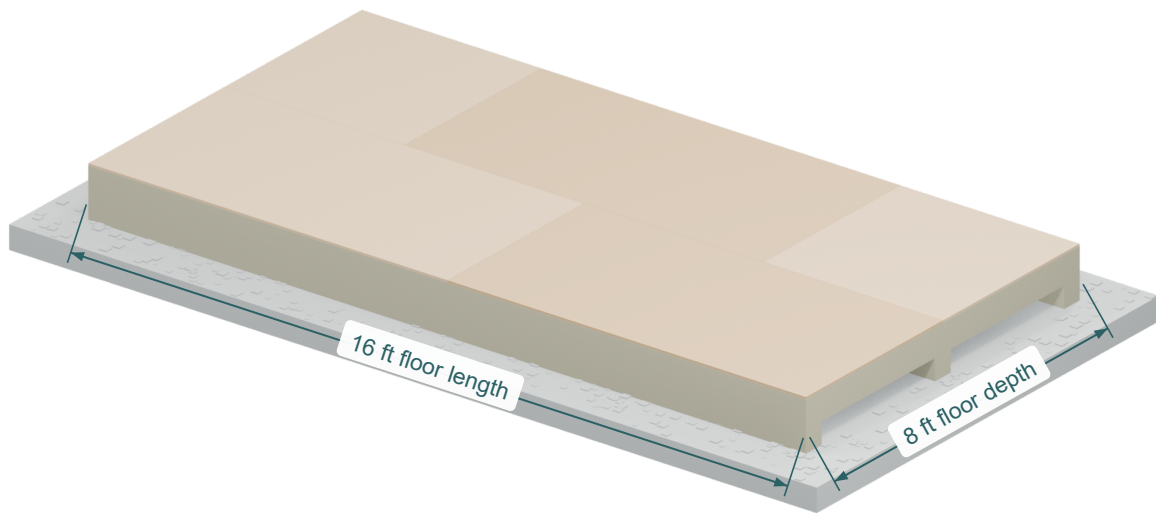
SITE LEVELS

19 5/16 in is the modeled build-up from subgrade to floor top, not a required height above surrounding grade.

STEP 02 / 10

Frame and cover the floor

Build the 16 x 8 ft outside rectangle directly over the bearing lines.



16 x 8 ft frame | 13 joists, including ends | 3 skids | 4 floor-sheet blanks.

- 2.1** Square the 192 x 96 in outside frame. Fit eleven internal 93 in joists at 16 in centres between the end joists.
- 2.2** Add the 48 in seam-blocking line, then lay the five panel pieces from four 4 x 8 ft sheets with staggered end joints.
- 2.3** Place the sheet strength axis across the joists. Use rated panels, specified gaps and the final fastener schedule.

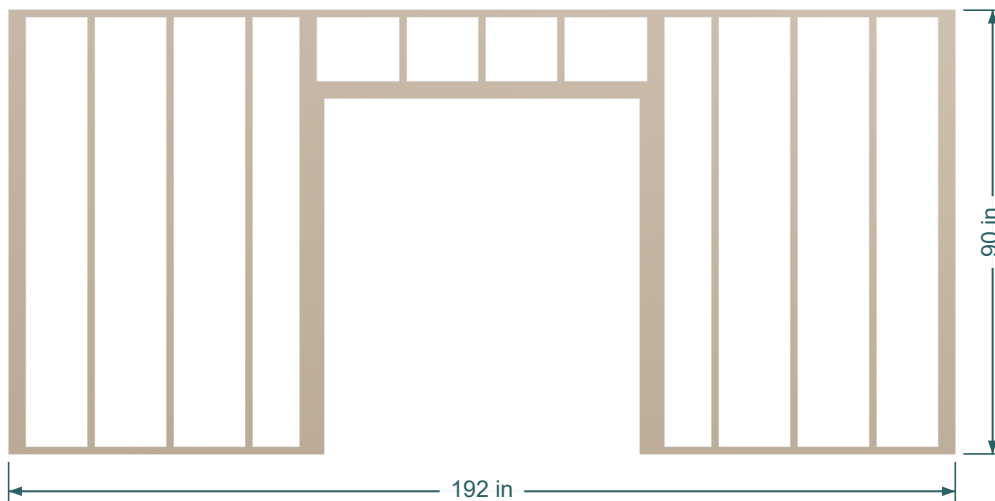
CHECK BEFORE CONTINUING

Panel thickness comes from the reference geometry; confirm its span and load rating before purchase.

STEP 03 / 10

Raise the front wall

Keep a centred 64 x 72 in clear opening, with explicit support at each header end.

FRONT / FRAMING


Front studs: 87 in | Header model: 67 x 3 1/2 x 3 1/2 in | 2 jacks: 70 1/2 in.

- 3.1** Lay out the two 64 in bottom plates and the 192 in top plate. Assemble the full-height studs as shown.
- 3.2** Set the inside jack faces 64 in apart. The illustrated 67 in header has 1 1/2 in bearing at each end; add three 13 in cripples.
- 3.3** Square the frame on the floor, raise it with help, brace it plumb and use the specified wall-to-floor connections.

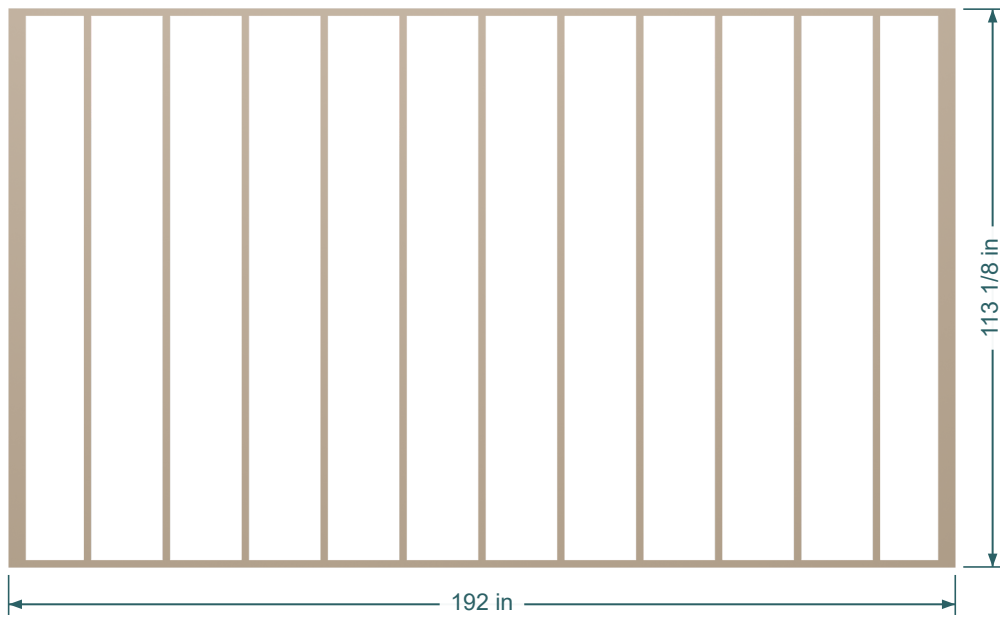
CHECK BEFORE CONTINUING

Header size and bearing capacity need structural review; the source 64 in header had no allowance for end bearing.

STEP 04 / 10

Raise the taller back wall

The rear frame is 23 1/8 in taller than the front, establishing the lean-to roof fall.

REAR / FRAMING


11 studs: 110 1/8 in, nominal 2x4 | 2 corner posts: 110 1/8 in, nominal 4x4 | Plates: 192 in.

- 4.1** Lay out the rear plates together. Fit the 110 1/8 in studs and corner posts between the bottom and top plates.
- 4.2** Check diagonals, then raise the wall with sufficient help and temporary bracing.
- 4.3** Verify the rear frame is plumb and parallel to the front. Keep its outside face on the 8 ft floor edge.

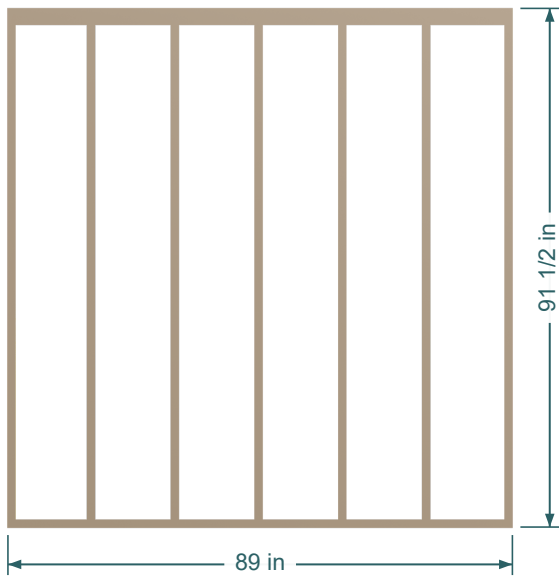
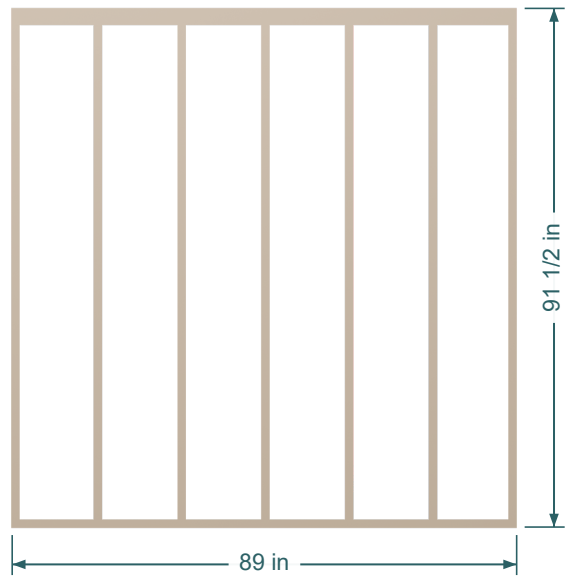
CHECK BEFORE CONTINUING

Do not remove temporary bracing until the permanent bracing and connections are complete.

STEP 05 / 10

Assemble the sides and top plates

Fit the side walls between the front and rear frames; their lower rectangular portions match the front height.

LEFT / CAPPED

RIGHT / CAPPED


Per side: 7 studs at 87 in and 2 plates at 89 in | Actual stock 1 1/2 x 3 1/2 in.

- 5.1** Fit the side walls between the front and rear frames; their lower rectangular portions match the front height. Confirm the side vent locations and coordinated backing. Keep the sloping infill for the later roof-fitting stage.
- 5.2** Cap the walls and prepare the two roof-bearing lines. The model rises 23 1/8 in over 92 1/2 in between bearing centres: 3:12, or 14.04 degrees.

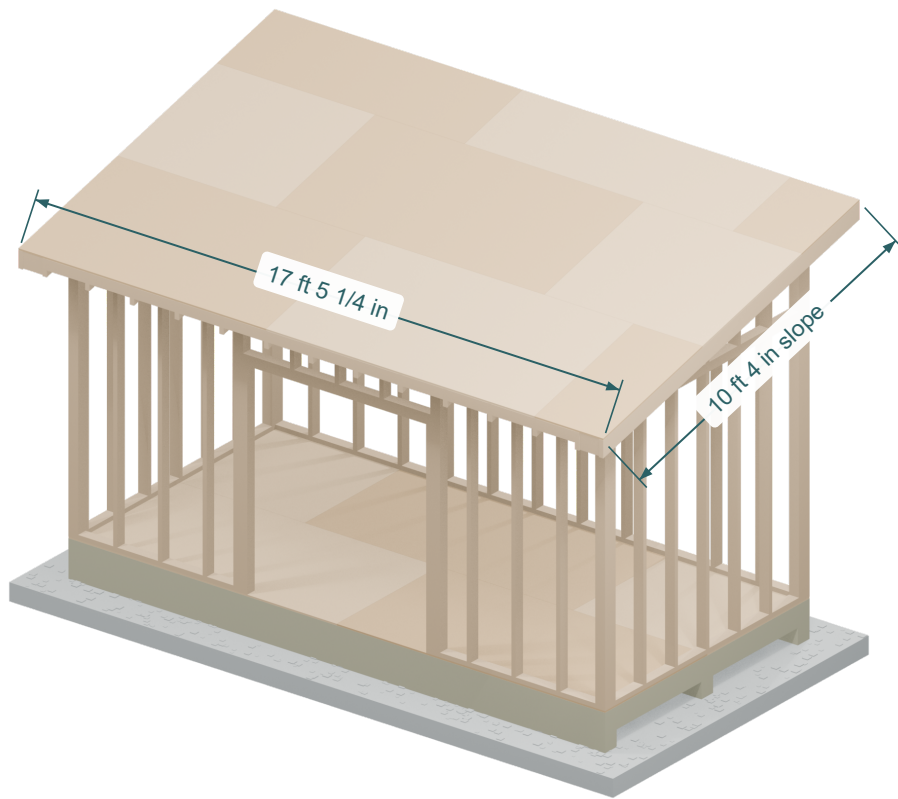
CHECK BEFORE CONTINUING

The 3:12 roof uses asphalt shingles with the selected manufacturer's low-slope underlayment and flashing details.

STEP 06 / 10

Frame and deck the lean-to roof

Use the revised roof length and rafter layout, with edge and panel-joint support.



13 bearing rafters + 2 rake members: 124 in slope length | Nominal 2x6.

- 6.1** Use the revised roof length and rafter layout, with edge and panel-joint support. Resolve rafter span, seats, residual depth, uplift ties and overhang connections before cutting or loading the roof.
- 6.2** Fit the short infill pieces to the coordinated roof line above each side wall. Add the vent and sheathing backing required by the selected enclosure and bracing detail.
- 6.3** Arrange nine panel blanks across three courses, with staggered joints on framing. Use rated dry sheathing, prescribed expansion gaps and the final fixing schedule. Keep the deck smooth for the chosen shingle underlayment.

CHECK BEFORE CONTINUING

The scheduled sizes are blanks before joint gaps and fitted edge trimming.

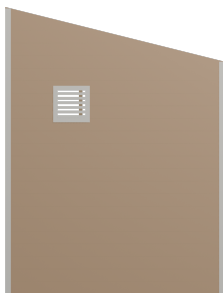
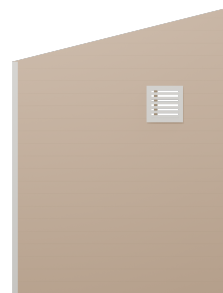
STEP 07 / 10

Enclose the walls

Add coordinated sheathing, a drainage layer and siding, keeping both vent openings clear.

FRONT / SIDING

REAR / SIDING

LEFT / SIDING

RIGHT / SIDING


Horizontal 1/2 x 6 in siding basis | 12 x 12 in clear vent aperture at each side.

- 7.1** Add coordinated sheathing, a drainage layer and siding, keeping both vent openings clear. Fit horizontal siding and corner trim to the slope. Follow the product requirements for lap, fasteners and ground clearance.
- 7.2** Carry the weather layers continuously around the taller rear wall. Work the siding from a level starter line, then fit the vertical corner trims and top closure.
- 7.3** Keep the doorway square while finishing the low front wall. Install the door trim and threshold detail without reducing the intended clear opening. Plan runoff away from the entrance.

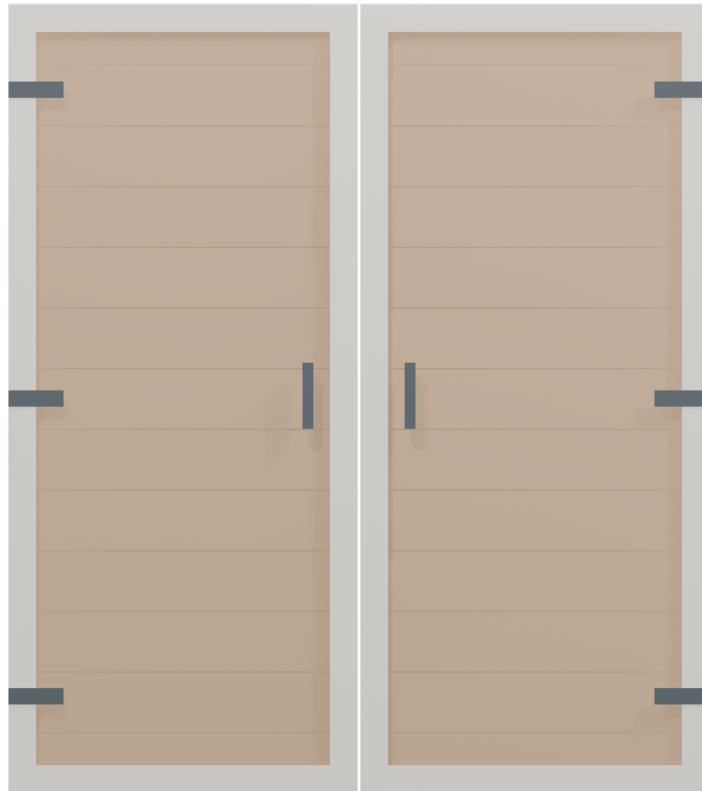
CHECK BEFORE CONTINUING

The low roof drains toward the door side. Coordinate drip edges and any gutter/downspout to keep the threshold dry.

STEP 08 / 10

Fit doors, trims and vents

Fit two leaves to the measured opening, allowing operating gaps.



Model leaf: 31 5/8 x 71 1/2 in | 1/4 in outer gaps and 1/4 in centre gap.

- 8.1** Fit two leaves to the measured opening, allowing operating gaps. Use hardware rated for the finished leaf weight. Fix hinges into structural backing; fit pulls, bolts and stops.
- 8.2** Close the rafter ends and support the shingle-system edge details. Coordinate edge metal and shingle terminations with the roofing system. Keep the drainage edge open.
- 8.3** Vent the shed interior through protected, flashed side-wall openings. Fasten to backing, then confirm air paths remain clear inside. Size the net free area for the actual enclosure.

CHECK BEFORE CONTINUING

A nominal 12 in vent does not establish a ventilation rating or the required total vent area.

STEP 09 / 10

Install the shingle roof

Install dark asphalt shingles with the selected low-slope underlayment and flashing system.



3:12 model pitch | 180.2 sq ft net deck | Dark asphalt shingles and low-slope underlayment.

- 9.1** Confirm the selected system is suitable for the slope, deck, climate and use. Read its current installation instructions.
- 9.2** At 3:12, follow the selected shingle instructions for low-slope deck protection. GAF guidance calls for two layers; use its specified laps and eave leak protection.
- 9.3** Install starter, shingles, edge and high-eave flashings to the chosen product details. Use its exposure and fastening pattern; inspect drainage and terminations.

Roofing basis: GAF low-slope shingle bulletin

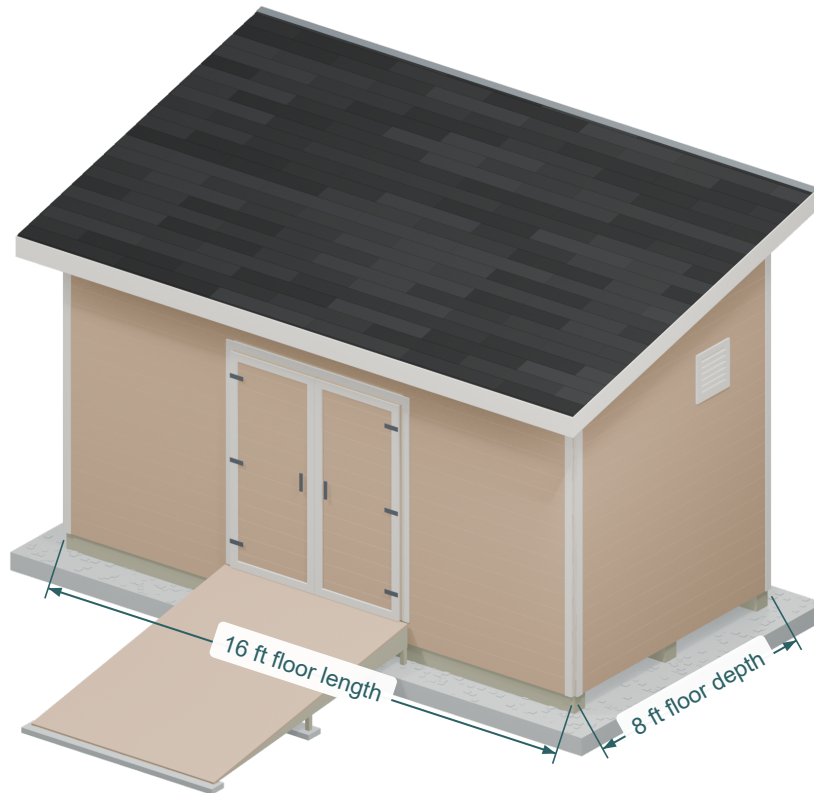
CHECK BEFORE CONTINUING

The shingle meshes show appearance only. Use product-specific exposure, nails, flashing and low-slope requirements; do not copy mesh courses as a fixing layout.

STEP 10 / 10

Finish and plan the approach

The raised skid base requires a new ramp layout based on the actual site levels.



Concept only: 69 in width x 96 in horizontal run | Model rise about 16 11/16 in.

- 10.1** The raised skid base requires a new ramp layout based on the actual site levels. Use a slip-resistant exterior surface, protect end grain and drain the approach. Keep the ramp clear of door swing and runoff.
- 10.2** Complete coatings, checks and your record of the final construction details. Keep the final specifications, product instructions and maintenance dates with this plan. Recheck levels and fixings after initial settlement.

CHECK BEFORE CONTINUING

This is an illustrated design package, not an engineered or permit-ready set. Resolve site and structural items before building.

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DIYCRAFT / USE AND SOURCES

Keep your project records

Complete the design before construction

- Resolve soil bearing, drainage, frost and anchors; floor loads; wall bracing and header capacity; roof spans, seats, uplift and overhangs; and any ramp.
- Use current instructions for the actual roofing, sheathing, siding, treated timber and hardware. The pictures are not tested connection or load specifications.

Drawing basis

Dimensional reference: the supplied 8x16 Lean-to Storage Shed Plan free and premium plans. This package uses newly authored Blender geometry, drawings and instructions. It replaces the reference foundation and reconciles documented dimension conflicts. It does not reproduce the reference page artwork.

Foundation method: Shedplans.org - How to Build a Skid Foundation

Roofing basis: GAF low-slope shingle bulletin

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