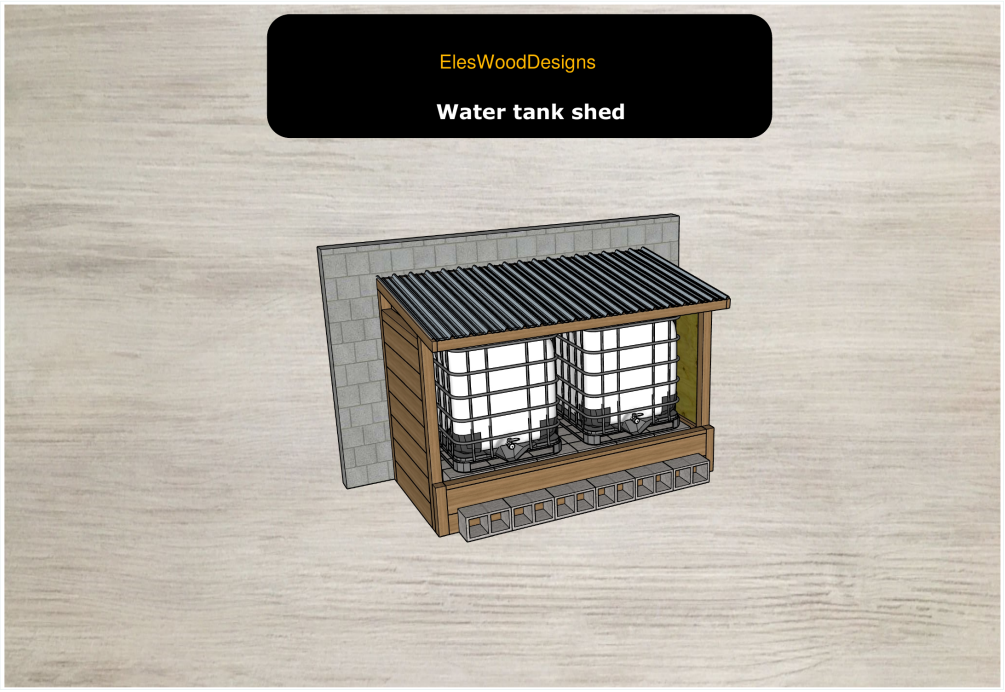
ElesWoodDesigns

WATER TANK SHED

Complete DIY Build Plan — Dual IBC Tote Rainwater Storage Enclosure



1

Full Cutting Diagrams | Detailed Cut List | Step-by-Step Assembly | Hardware & Cost Guide | Tools List

Rainwater Harvesting Shed · IBC Tote Tank Enclosure · Wood Water Storage Stand

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2. Safety Guidelines & Required PPE

Woodworking and masonry-anchoring both carry real risk of injury. Read this section fully before you begin, and keep it in mind throughout the build — not only during the cutting stage.

Required Personal Protective Equipment (PPE)

Item	Purpose	Notes
Safety glasses / goggles	Eye protection from sawdust and kickback debris	ANSI Z87.1 rated; wear at all times when cutting or driving fasteners
Hearing protection (ear muffs or plugs)	Protect hearing from circular saws, impact drivers, and hammer drills	NRR 25dB or higher recommended for extended use
Dust mask / N95 respirator	Protect lungs from sawdust, especially pressure-treated lumber and concrete dust	Use a proper respirator (not just a mask) when cutting CMU or drilling into masonry
Work gloves	Protect hands from splinters, sharp metal roofing edges, and concrete block abrasion	Avoid loose gloves near spinning blades; remove gloves when operating a table saw
Closed-toe boots	Protect feet from dropped lumber, concrete blocks, and tools	Steel or composite toe recommended
Long sleeves / pants	Protection from splinters and sun exposure during outdoor work	Avoid loose clothing near power tools

Jobsite Safety Rules

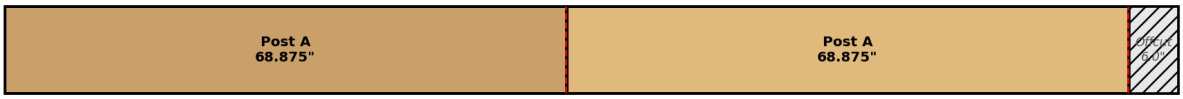
- Never cut lumber freehand without clamping it to a stable table or sawhorse.
- Keep the cut line and blade path clear of hands, cords, and bystanders at all times.
- Unplug or remove the battery from power tools before changing blades or bits.
- A full IBC tote weighs approximately 2,200–2,400 lbs when filled with water (275–330 gallons). Confirm the shed base, concrete blocks, and ground beneath are level, compacted, and rated to support roughly 4,800 lbs total live load before filling the tanks.
- Two people are strongly recommended for lifting 4x4 posts, wall panels, and especially for maneuvering the empty IBC totes into place.
- When anchoring the rear posts to an existing masonry or block wall, confirm the wall is structurally sound and use masonry-rated anchors (see Section 4).
- Check local building codes: some municipalities require a permit for permanent accessory structures or for large water storage installations. Contact your local building department before starting.

This is a general information plan and does not replace the advice of a licensed contractor, structural engineer, or your local building authority. ElesWoodDesigns is not responsible for structural failures resulting from deviations from this plan, substandard materials, improper anchoring, or unlevel/unsuitable ground conditions.

8. Cutting Diagrams — Board-by-Board Layouts

The diagrams below show exactly how to lay out your cuts on each purchased board to minimize waste. Red dashed lines indicate saw kerf (blade width) allowance of approximately 1/8". Always mark all cuts on a board **before** making the first cut, and always cut the longest pieces first in case of measuring error.

4x4 Board #1 — Post A (x2) — Stock: 12 ft 4x4 (144") (144" actual)



4x4 — Board 1 of 7: Post A (qty 2)

4x4 Board #2 & #3 — Post B (one per board, cut 2 boards) — Stock: 8 ft 4x4 (96") (96" actual)



4x4 — Boards 2-3 of 7: Post B (qty 2, one per board)

4x4 Board #4 & #5 — Front/Back Beam A (one per board, cut 2 boards) — Stock: 10 ft 4x4 (120") (120" actual)



4x4 — Boards 4-5 of 7: Front/Back Beam A (qty 2, one per board)

11. Assembly Step 1 — Building the Frames

Step 1 builds the three main structural frames (left, right, and front) and then joins them together with the front/back beams and the roof frame box. Work on a flat, level surface (garage floor, patio, or driveway) so every frame is built square before it goes vertical.

11.1 Left Frame

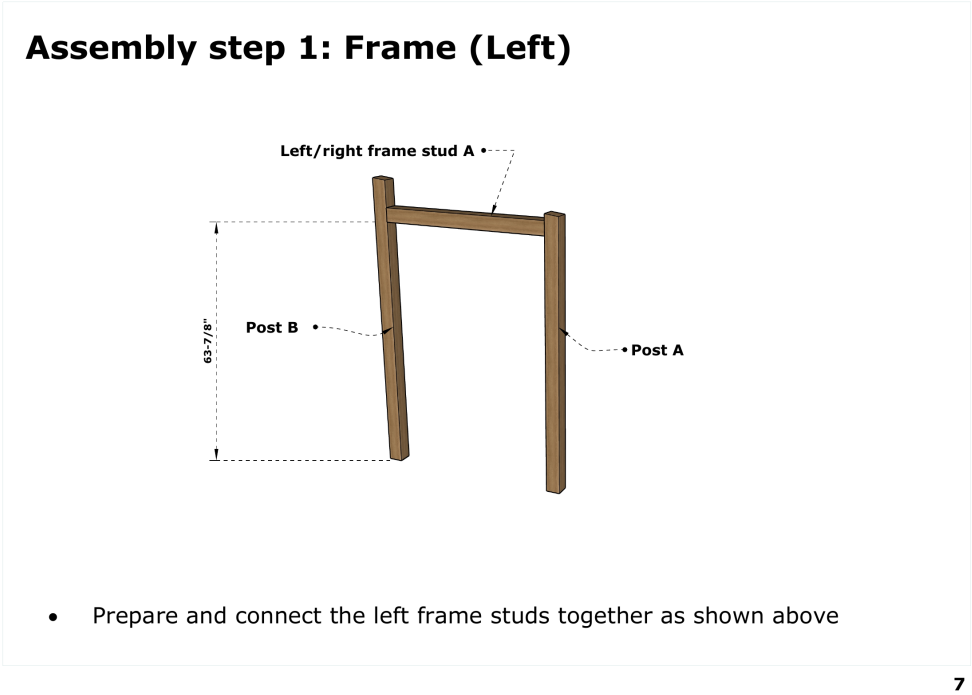


Figure 11.1 — Left frame assembly: Post A, Post B, and Left/Right Frame Stud A.

Lay Post A and Post B on the work surface with their outside faces down. Position one Left/Right Frame Stud A near the top, 63-7/8" up from the bottom ends as shown. Square the assembly with a framing square before fastening, then apply glue and drive 2x 6" structural screws through the stud face into each post. Recheck for square after fastening — a frame that racks even slightly out of square here will throw off the whole structure later.