



Construction Trades Virtual Learning

Project Book 2

Lesson 29

May 14, 2020

Construction Trades

Lesson 19: April 30, 2020

Objective/Learning Target:

What You Will Know

- How to gather materials, lay-out, gather tools for and build a curved picnic table

Building a Garden Tool Shed

What skills and tools do you think we will use to build the garden tool shed?

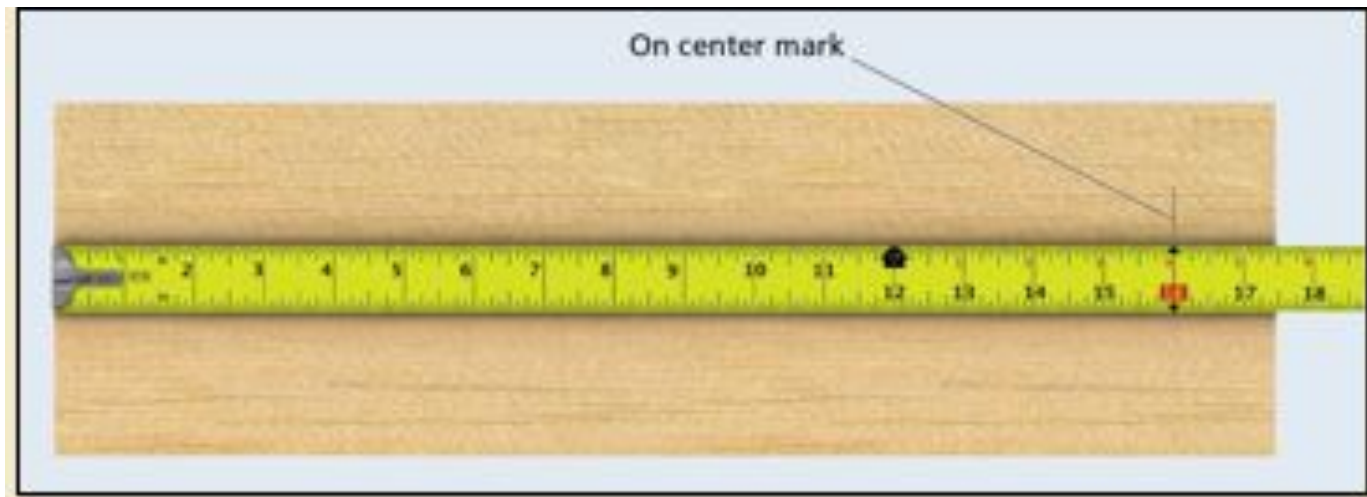


Garden Tool Shed cont.

What's New

On-Center Layout

- Framing parts are spaced at regular layouts 16" on-center (O.C)
- One end of the board to the center of the framing parts is 16"



Garden Tool Shed cont.

Sinker

- Funnel-shaped head with a grid pattern.
- Coated with an adhesive

Galvanized Nails

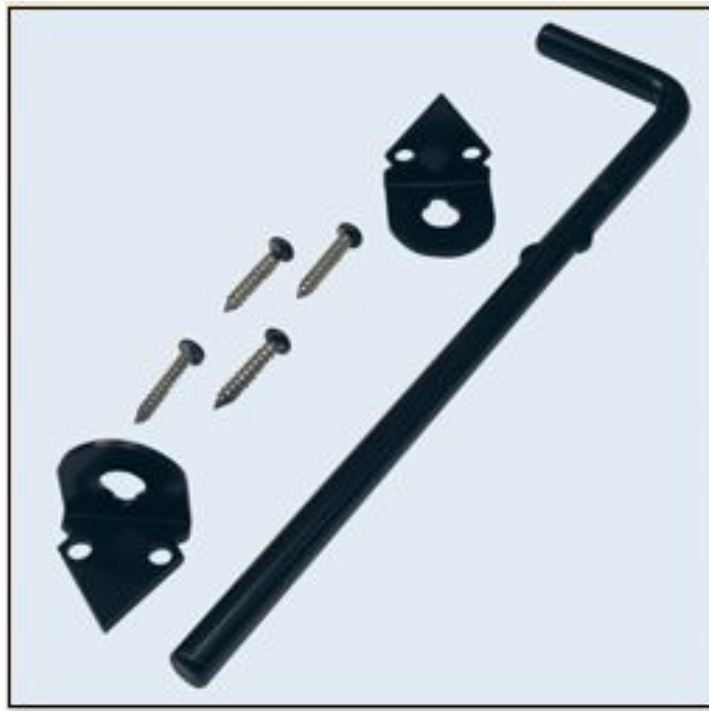
- Coated with zinc



Garden Tool Shed cont.

Cane Bolt

- L-shaped door hardware
- Vertical locking device that secures a door by sliding into a recess in the floor.



Garden Tool Shed cont.

Hasp

- Hinged metal device with a slot to accept a bolt.



Garden Tool Shed cont.

Floor Framing

Floor Joists

-Horizontal framing members that support the sheathing

Rim Joist

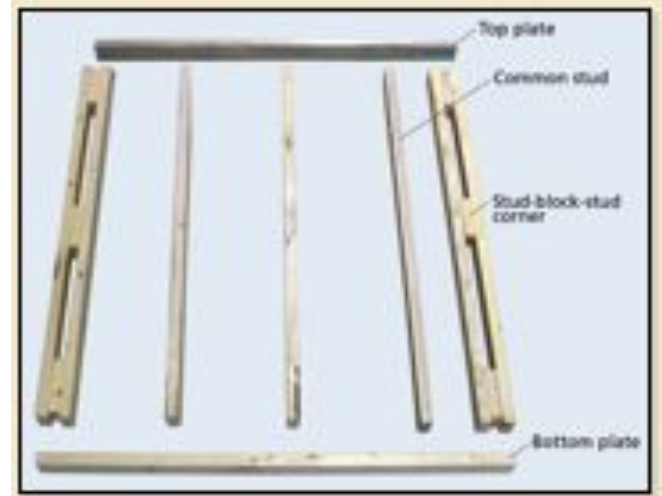
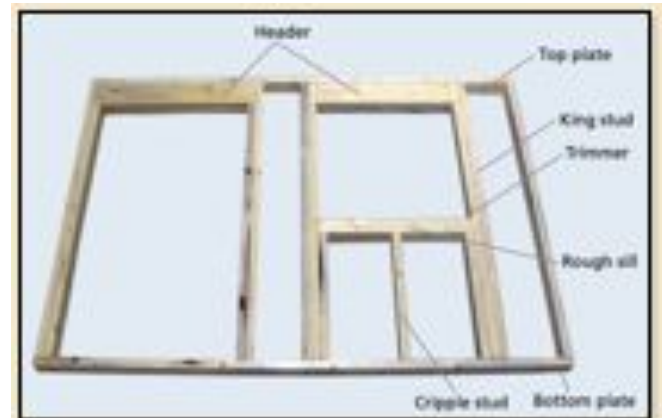
-Nailed along the end of floor joists to prevent them from twisting



Gardent Tool Shed cont.

Wall Framing

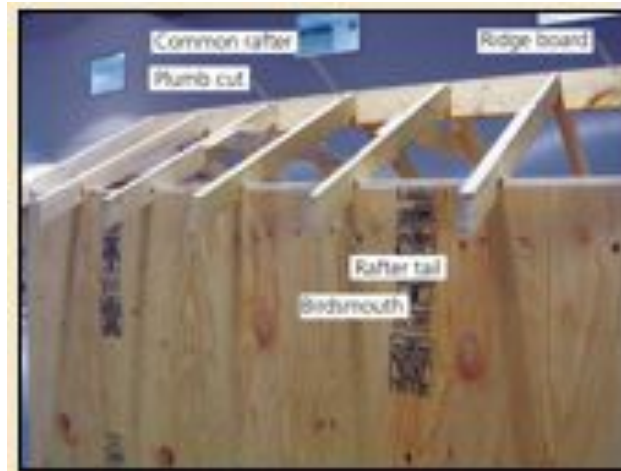
- Common studs
- King studs
- Trimmers
- Cripple studs
- Stud-block-stud corner
- Plates
- Headers
- Sills



Garden Tool Shed cont.

Roof Framing

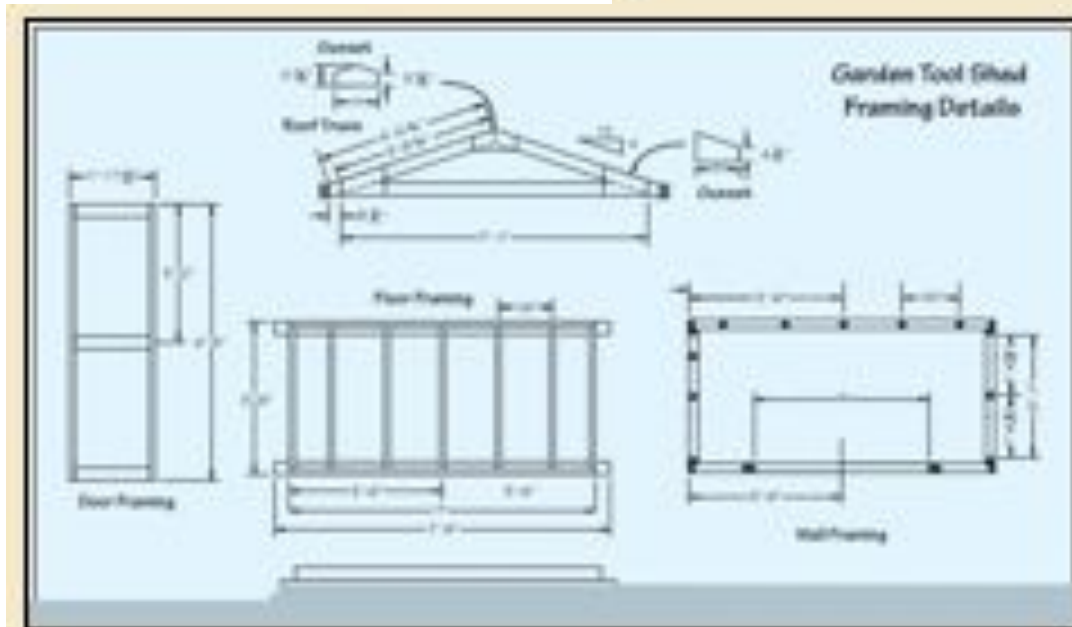
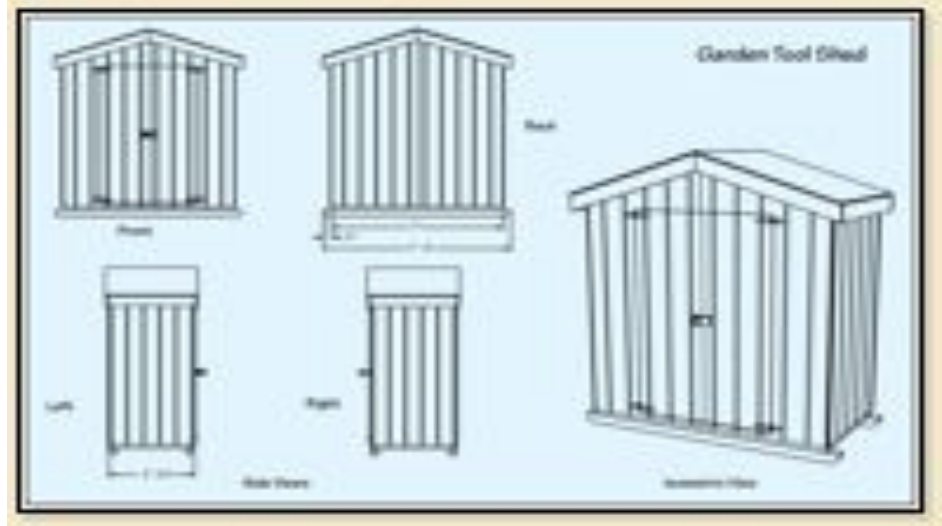
- Common rafter
- Ridge board
- Plumb Cut
- Birdsmouth
- Seat Cut
- Rafter tail



Garden Tool Shed cont.

Cut List

-How many pieces should be on your cut list?



Garden Tool Shed cont.

Procedure - Build the Floor System and Skids

-Step 1 - Cut two 4 x 4 x 7'-8" skids and bevel both ends.

Tip

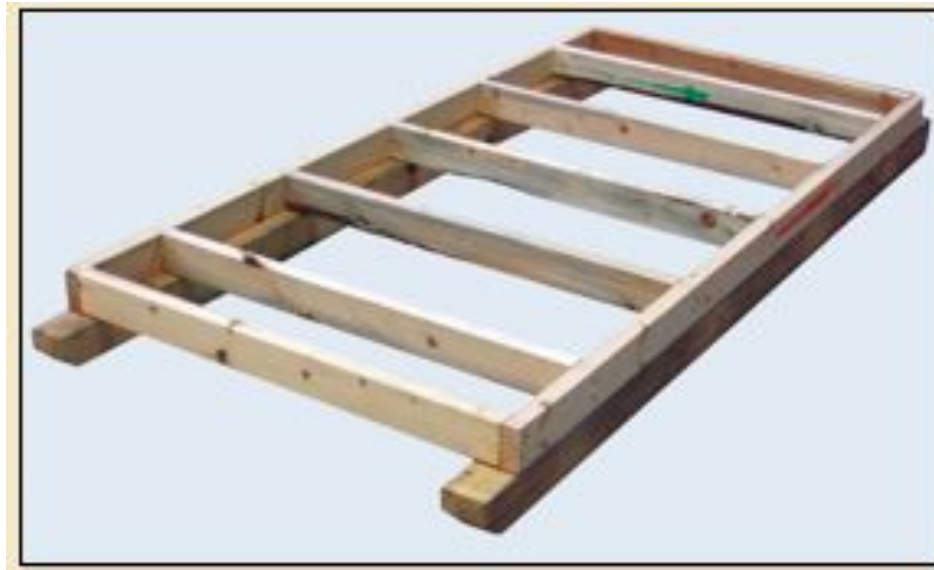
Due to the thickness of the 4 x 4, it will have to be cut from 2 sides



Garden Tool Shed cont.

Procedure - Build the Floor System and Skids cont.

-Center the floor system framing on the 4 x 4 skids, aligning the outside face of the rim joists with the outside face of the skids.



Garden Tool Shed cont.

Procedure - Build the Floor System and Skids cont.

Fasten the plywood onto the floor joist system with 6d hot-dipped galvanized nails, aligning the edges of the plywood to the edges of the floor system.



Garden Tool Shed cont.

Procedure - Build the Rear Wall

- Measure 6'-10" from the bottom of the siding along each cut end of the wall and place a mark.
- Mark a line from the marks through the center point of the top edge of the siding.



Garden Tool Shed cont.

Procedure - Build the Front Wall

-Snap a line through the marks made in steps 9 and 13.

Tip

The distance between the two door cut lines should be equal top and bottom.



Garden Tool Shed cont.

Procedure - Build the Front Wall cont.

-Cut the door panels by making a saw cut through the overlap of both sheets of siding, from the bottom of the sheets to the top door cut line, both door side cut lines, and across the top cut line.



Garden Tool Shed cont.

Procedure - Build the End Walls.

-Center the siding panels on the wall frames side to side while aligning the top edges with the top plates and fasten.

Tip

Be certain that the distance from the edge of the siding

panel to the side of the end studs is equal at the top, center and bottom of the stud.



Garden Tool Shed cont.

Procedure - Attach the Walls to the Floor System

- Stand the rear wall on the floor system, aligning the ends of the wall with the ends of the floor system, and temporarily support it.
- Press the bottom edge of the wall panel against the rim joist and fasten the siding to the rim joist.



Garden Tool Shed cont.

Procedure - Cut and Assemble the Roof Trusses.

-Fasten the ridge gusset and bottom chord gussets to the truss.

Tip

Trace the outline of the first truss on the work surface to use as a guide when assembling the remaining trusses.



Garden Tool Shed cont.

Procedure - Cut and Assemble the Roof Trusses

- Nail 16d c.c.sinkers through the end stud of the end wall into the end stud of the rear wall, while maintain contact of the siding of the end wall with the end stud of the rear wall.
- Nail the edge of the overlapping siding to the end stud of the rear wall.



Garden Tool Shed cont.

Procedure - Set the Trusses and Fly Rafters

-Center the third truss on the end walls and use a straightedge placed against the tails of the front and rear trusses to align the tail of the center truss. Tack the third truss to the temporary spreader.



Garden Tool Shed cont.

Procedure - Set the Trusses and Fly Rafters cont.

- Fasten sub fascia boards to the top chord tails on each side of the truss.
- Position one fly rafter against the back side of the sub fascia and against the underside of the temporary spreader.



Garden Tool Shed cont.

Procedure - Make and Install the Doors

-Adjust the door to maintain a $\frac{1}{8}$ " margin on the hinge side and a $\frac{1}{8}$ " margin at the top

Tip

The $\frac{1}{4}$ " shim placed on the floor may require adjusting to maintain the desired clearance at the top of the door.



Garden Tool Shed cont.

Procedure - Make and Install the Doors cont.

- Center and install the hasp.
- Drill a hole for the cane bolt and install.



Garden Tool Shed Conclusion

