Fairbanks North Star Borough Air Quality Improvement Program

How To Build A Wood Shed

A step-by-step guide for building a wood shed that will hold one cord of firewood

**Remember to Split, Stack, & Store your firewood for
at least 6 warm months so that it is 20% moisture content or less!**

**For more information visit AQFairbanks.com
or call (907) 459-1005**

This wood shed will hold one cord of firewood and can be constructed by one person, in a full day's time, once all materials are present and available on site. An additional person is recommended, when possible, to assist with leveling, measuring, and holding boards in place.

The construction materials listed below were sourced locally for roughly $325 in August 2016.   The items on this list are recommended, and reflect the items used by the FNSB, but other materials may be suitable or preferred. Plan is based on the Modular Wood Shed Plan courtesy of The Makah Nation, WA found at: epa.gov/sites/production/files/documents/woodsheddiagram.pdf.

Materials List

- (2) Two   2" x 6" x 8' Pressure Treated (Frame)
- (3) Three   4" x 4" x 12' Pressure Treated (Corner & Center Posts)
- (8) Eight   2" x 4" x 8' Pressure Treated (Floor and Roof Joists)
- (13) Thirteen   1 ¼" x 4" x 12' Cedar "5/4" Deck Boards (Slats & Floor)
- (2) Two   26" x 8' Clear Commercial Grade Greenhouse Roofing
- (12) Twelve   Galvanized 1/4" x 5" Lag Bolts
- (1) One   1lb box 3" Coated Deck Screws
- (1) One   1lb box 1 5/8" Coated Deck Screws
- (1) One   7/8" self-tapping roofing screws (about 20-30ct)

Recommended Tools

15' Tape Measure

Quick Square / Framing Square

Level

Carpenters Pencil

Cordless Drill / Impact Driver

Circular Saw, Table Saw, or Hand Saw

1) Lay the 2" x 6" x 8' pressure treated frame boards on edge and parallel about four feet apart.

2) Cut all eight 2" x 4" x 8' boards into two 4' lengths. Fasten a 4' 2x4 flush with each end of the 2x8's and use one 3" coated deck screw in each joint.

3) Make sure the frame is square by measuring diagonally from corner to corner, and checking that the measurement is the same. Once squared, put a second screw in each 2x4 joint. Raise the frame up and place it on two of your 4x4 posts to elevate it for the next step.

4) Take a 4"x4"x12' post, and measure 6'3" from the end and mark the post. Cut the post at that mark and the two pieces should be 6'3" and 5'9". The long post will be used for the front, and shorter for the back. Place the longer post in the front corner of your frame, use a level or your square to make certain it is straight up and down.

5) Use one lag bolt to secure it through the 2x6 frame board from the outside in. If it is still level, place a second lag bolt through the 2x6 into the post.   Repeat this procedure on each corner, making certain the longer posts stay in front.

6) Check to verify the frame is still square. You can measure from the inside edge of the posts for ease of measurement.

7) Take the 4' 2x4 pieces and place them tightly against the 4x4 posts on the top of the 2x6 frame. Secure with screws. Measure the 2x6 frame and mark the inside center. Cut and place your 4x4 center posts, level and lag bolt into place. Sandwich the center posts between 4' 2x4's in the same manner as the corner posts.

8) Evenly space 6 of the 2x4's over the floor and screw into place using two of the 3" coated screws at board end.

9) Use the 4 remaining 4' 2x4's to span the top of the posts and secure with a 3" coated screw. The top of each 2x4 should be slightly raised, approximately ¼", over the top of the 4x4 posts. Check the height of the supports with a straight board or long level.

10) Put a second 3" coated screw in each of the roof supports. Cut three of the cedar 5/4 boards to the width of the roof. Place one on the leading edge of the roof, one at the trailing edge, and one directly in the center. Use 1 5/8" coated screws to fasten the cedar boards, eight screws per board (two per roof support).

11) Cut the greenhouse roofing sheets in half. Starting on one side, place the first piece so it squares with the corner and the overhang is even on the front and back. Secure the outside edge with a roofing screw in each of the cedar boards. Overlap the next sheet over the first sheet by about 2" so at least one ridge overlaps.

12) Lay out each of the other two sheets on the roof to confirm the placement and overlap. Place roofing screws though the top of each of the overlapped ridges, without crushing the ridge, securing both sheets together and to each of the supporting cedar boards.

13) Cut five cedar boards to 8' long and lay perpendicular to the 2x4 flooring boards, and space them evenly across between the posts. Place two 1 5/8" coated screws in the end of each cedar board into the end 2x4's. Follow with one screw into the center of the cedar each place it crosses a 2x4.

14) Using the 4' cedar scraps, measure the distance from outside edge to edge of the side posts and cut the short cedar boards to length and fasten with the 1 5/8" screws horizontally with 5 ½" between each board. Use a level to verify they are straight, and confirm uniform height with a tape measure from the 2x4 edge board in each corner.

15) After installation of four of the side slats on each side, measure the distance from outside edge of each side slat across the back of the shed. Cut the remaining long cedar boards and screw them into place even with the side boards. Use three of the 1 5/8" screws in each end of the boards, and two on the center post. The remaining 4' scraps can be used for side slats, and the last 4' cedar board can be cut to span three 2x4 floor boards and screwed in place to make a step between the center post and each side post. Check your work and make sure it's sturdy and no screws were missed. Congratulations! Your shed is complete.