

## **Raw Materials**

- (8) eight-foot 2x4's
- (6) eight-foot 2x6's
- (6) six-foot 2x4's
- (2) sheets of 3/4" OSB or Plywood
- (1 or 2) pounds of 3" deck screws
- (16) 3.5 inch-long 3/8" diameter carriage bolts, nuts and washers
- (60) 3/8" wood plugs
- (1) pound #10 finish nails
- (4) one-inch lag bolts of 3/8" diameter
- (18) inches of 1.5-inch wide bar stock of 1/8" thickness

## **MATERIAL LIST**

**4 CORNER POSTS 68"-LONG 2-BY-4'S**

**4 LONG FRAME PIECES 75"-LONG 2-BY-6'S**

**4 SHORT FRAME PIECES 41 1/2 " LONG 2-BY-6'S**

**4 SHORT GUARD RAILS 41 1/2" LONG 2-BY-4'S**

**4 LONG GUARD RAILS 75"-LONG 2-BY-4'S**

**8 FRAME SUPPORTS 38 1/2"-LONG 2-BY-4'S**

**(16) 3.5" CARRIAGE BOLTS, NUTS, WASHERS, ALL 3/8"**

**2 SHEETS OF 3/4" SUBFLOOR MATERIAL CUT TO 38 1/4" BY 74 3/4"**

**POUND OF 3" DECK SCREWS**

**60 3/8" WOOD PLUGS**

**POUND OF #10 FINISH NAILS**

**4 ONE-INCH LAG BOLTS, 18" BAR STOCK FOR LADDER.**

1. Construct 2 "boxes" from the eight 2-by-6 pieces described in the material list below. The outer dimensions for the finished boxes will be 41.5" by 78". Use 3-inch deck screws in shallow 3/8" holes with woodplugs as can be seen in Figures 1 & 2.



FIGURE 1

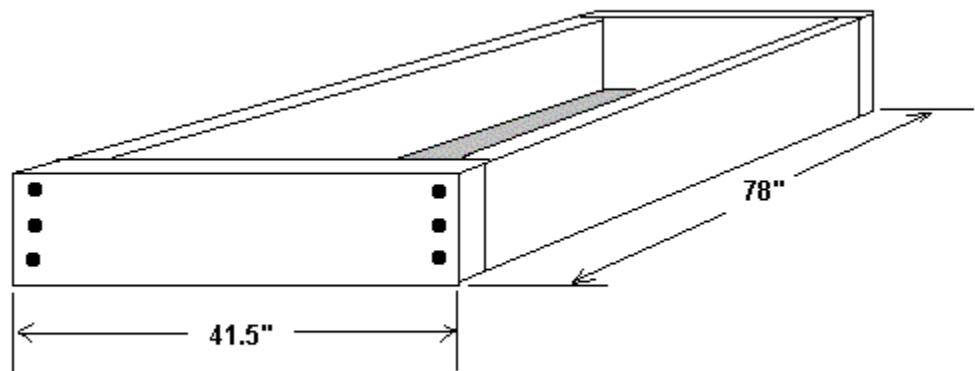
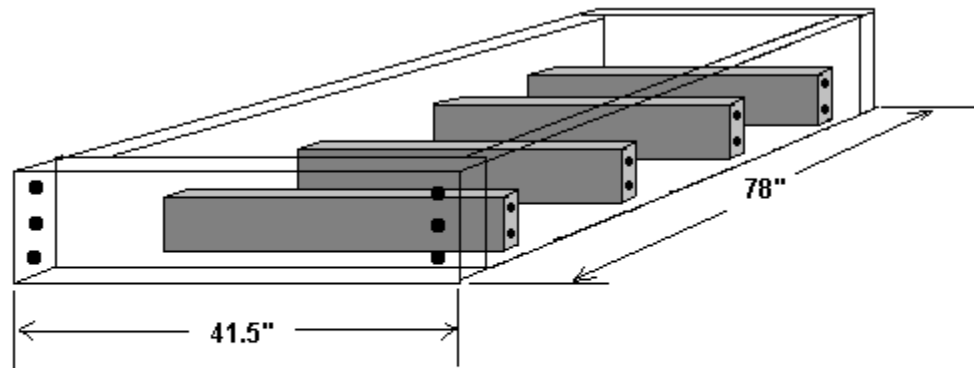


FIGURE 2

2. Attach bed supports to the inside "boxes" as shown in Figure 3 below and the side view diagram below (Figure 4). I drove 3" deck screws into the shallow 3/8 holes that were then covered with wood plugs. I also used several #10 finish nails at each location and later set and filled the nail holes. Provided your 2x4's are 1.5" thickness, the 38.5" frame supports should fit inside the (41.5-3)" boxes perfectly.



**Fasten bed supports with deck screws covered with wood plugs, as done in previous step.  
Space supports as shown in side view below.**

FIGURE 3

### BUNK BED - SIDE VIEW

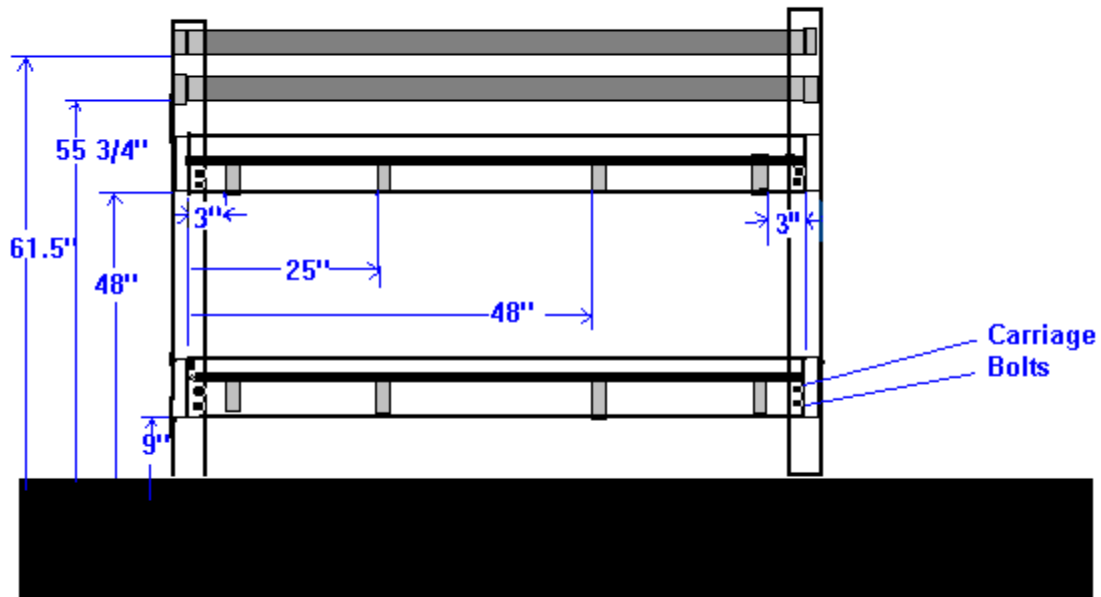


FIGURE 4

3. Mark the four corner posts as shown in Figure 4 with marks that are 9" and 48" up. Attach corner posts to boxes with #10 finish nails for the sake of holding things together while drilling holes for the carriage bolts
4. Check for square-ness. Drill 3/8 holes for the carriage bolts through corner posts and boxes. Attach the 4 corner posts. A CLOSE-UP photo is shown here in Fig 5.



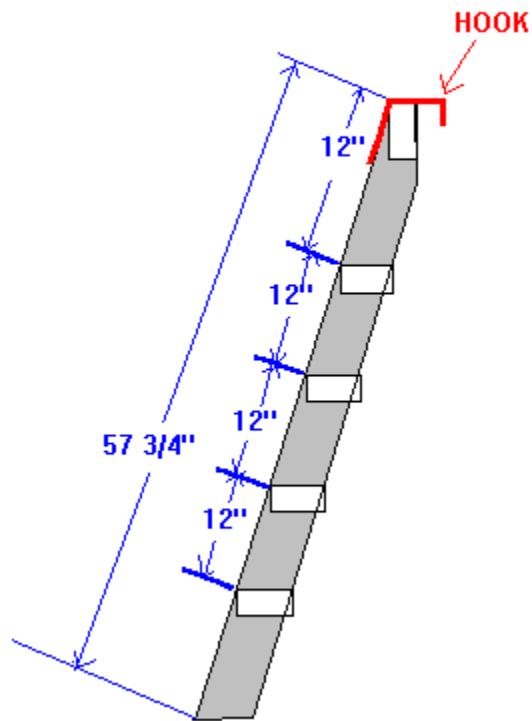
FIGURE 5

5. In a manner very similar to Step 1, construct two "boxes" for the guard rails of dimensions 78" by 41.5". Mark the 4 corner posts as shown below at 55 3/4" up and 61.5" up. Again, use deck or sheet rock screws with 3/8" wood plugs to hold these boxes together.

6. Attach guard rails inside bed frame as shown in Figure 4. I used sheet rock screws with no plugs so I could easily disassemble the bed. The screws are not visible.

7. Cut (2) mattress supports out of 3/4" 4x8 sheets to dimensions 38 1/4" by 74 3/4".

8. Build ladder as shown below in Figure 6. You will probably want "hooks" to hold the ladder to the bed. I used 1.5" by 1/8" steel bar stock. I cut the stock to (2) 8 1/8" lengths and bent them as shown in Figures 1 and 6. The hooks were secured with the lag bolts. Add padding of some sort to avoid marring the wood!



#### LADDER

CUT TWO 60" 2-BY-4'S TO THE GIVEN PATTERN

ATTACH 5 RUNGS, EACH 14 1/2" LONG AS SHOWN

NEED 1 1/2" BY 1/8" BAR STOCK FOR BRACKETS

NEED 4 HEX BOLTS 3/8" AND 1" LONG TO ATTACH LADDER BRACKETS TO LADDER

FIGURE 6

9. If you want, you can cut additional 2x4 pieces to "fill out" the corner posts to make them look like 4x4's and perhaps make the whole unit a bit sturdier. These pieces are about 3", 2 1/4", 33 1/2", & 8 3/4" You can see these pieces in Figure 1.

10. Fill any set nail holes and sand entire unit.

11. Finish as desired.