

Eagle Scout Project Plan  
Candidate: Alex Bolick of Troop 328  
Valley Park School District  
Valley Park MO, 63088  
Revision Date: 11/13/05

# Building Water Fowl Cages for the Wildlife Center of Missouri in Ballwin, MO.

# **Eagle Scout Leadership Service Project Workbook**

Scout's name: **Raymond (Alex) Bolick**  
Address: **204 Lookout Ave. 63088**  
Telephone No.: **(636)-861-7105**  
Unit No.: **Troop 328**  
District: **New Horizon**  
Local council: **Greater St. Louis Area Council**  
Charter Organization: **Valley Park School District**

My project will be of benefit to the group because: **They are in need of cages for the injured and young water fowl that will be coming in to the rescue center this spring. Last year a staph infection invaded their old cages making them unusable for the upcoming season.**

Unit leader's name: **John Sander**  
Address: **425 Seton Hall Ct. 63088**  
Telephone No.: **(636)-861-1503**

Unit advancement committee person's name: **Larry Schutte**  
Address: **449 Seton Hall Ct. 63088**  
Telephone No.: **(636)-529-0889**

Representative's name: **Sue Leahy**  
Representative's Title: **Education Director**  
Phone No.: **(314)-962-2318**  
Date of meeting: **10/4/05**

What group will benefit from the project? **Wildlife Center of Missouri**  
Telephone No.: **(636)-394-1880**  
Street address: **1880 New Ballwin Road**  
City: **Ballwin**  
State: **Missouri**  
Zip code: **63021**

## Project description:

The following is a step by step plan for my project for one box and should be repeated for 4 more boxes:

*\*Dimensions were written in by hand*

*\*Before using screws pilot holes will be placed in wood where needed with a 3/8" bit.\**

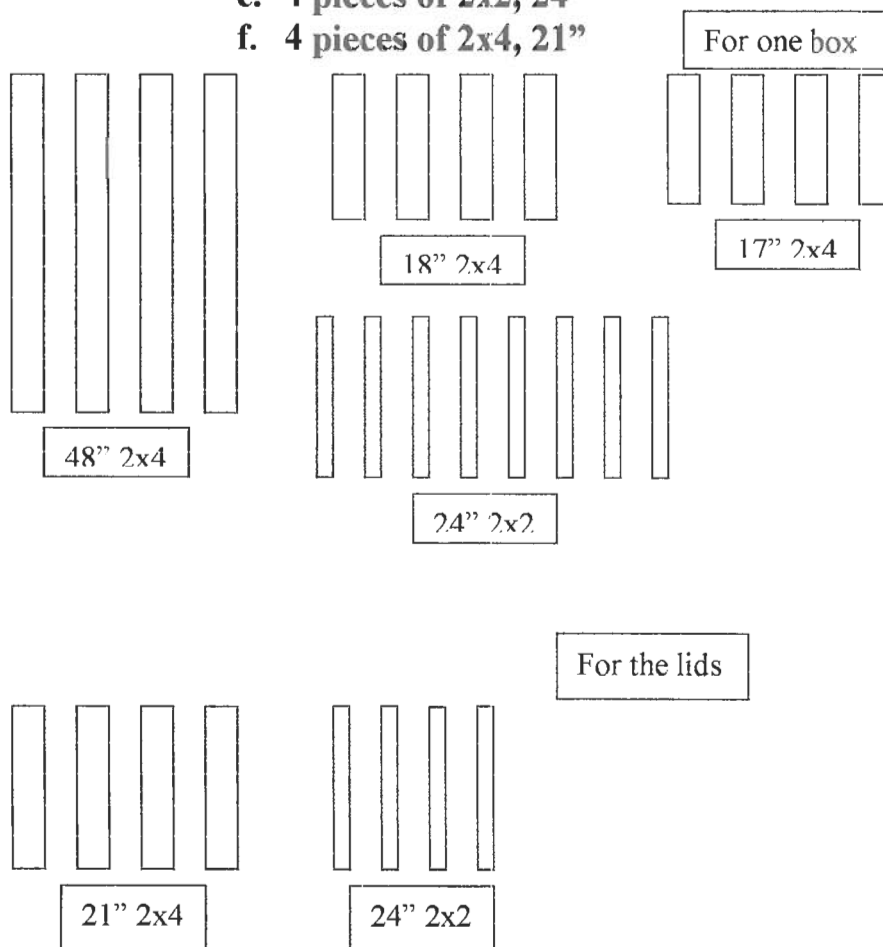
**1. Qualified adults should rip the 2x4 into 2x2 on the machine by ripping it down the middle of the 2x4 side of the 2x4x8.**

**2. Cut all wood. For the box:**

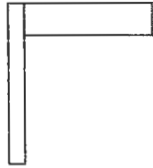
- a. 4 pieces of 2x4, 17"
- b. 4 pieces of 2x4, 48"
- c. 4 pieces of 2x4, 18"
- d. 8 pieces of 2x2, 24"

**For the lids:**

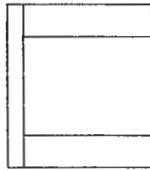
- e. 4 pieces of 2x2, 24"
- f. 4 pieces of 2x4, 21"



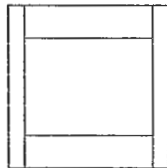
3. Take one piece of 2x4, 18" long and one piece of 2x2, 24" long and glue them so the 2x2 is on the out side of the 2x4 forming a 90° angle. While the glue is still wet screw 2 screws through the 2x2 and into the 2x4.



4. On that same piece of 2x2 on the other end glue another piece of 2x4 the same way as the first one and screw it into place.

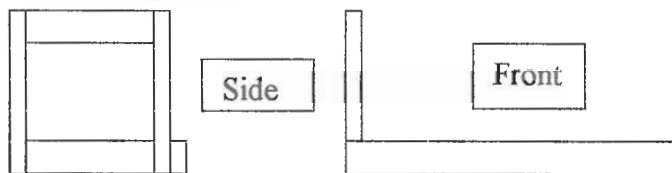


5. On the open end glue another 24" 2x2 and screw it into place.

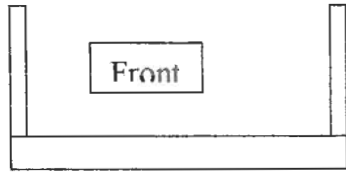


6. Set the created piece aside and let dry. Then repeat steps 2-4 for another piece and let it dry.

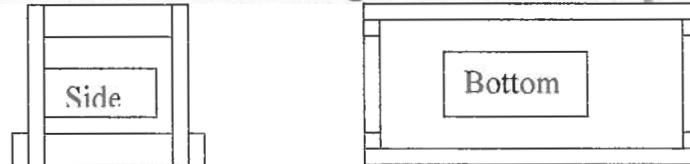
7. Take one 48" long piece of 2x4 and attach it using glue and screws to one side creating a 90° angle with the 2x4 end of the side piece.



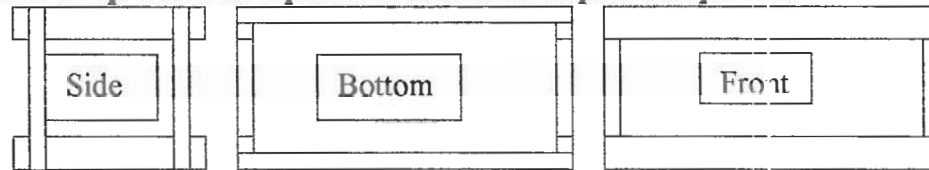
9. On that same 48" piece repeat step 6 for the other end.



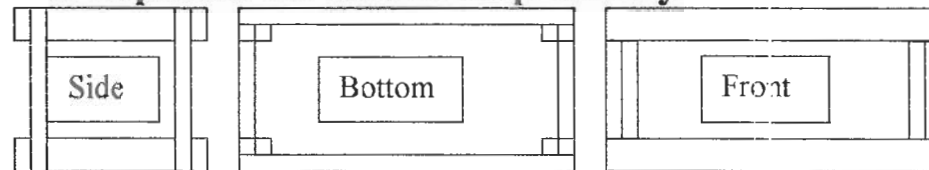
10. Repeat steps 6-7 for the other side of the side pieces. This should create a rectangle on either the top or the bottom.



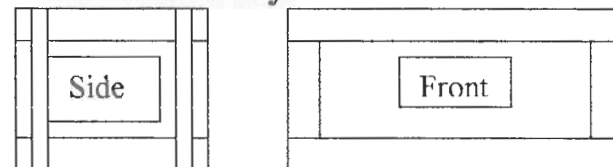
11. Flip the box upside-down and repeat steps 7-8.



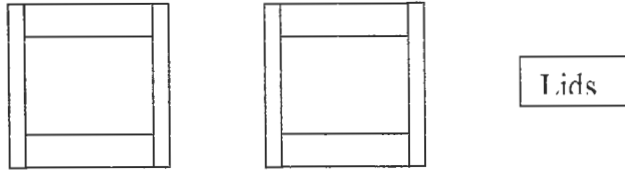
12. At this point you should attach on the inside of the box, with glue and screws, four 2x2 pieces, one in each corner so that the edge of the 2x2 is level with one edge of the box. This is to help brace the box and keep it sturdy.



13. The remaining 17" 2x4 pieces go on the outside of the box in the corner on each side where there is a gap between the two 48" 2x4's. These pieces should be flush with the edge of the box and should be glued and screwed into place. Let the box sit and dry.



14. To build the lids repeat steps 2-5. These lids are now ready for polyurethane.

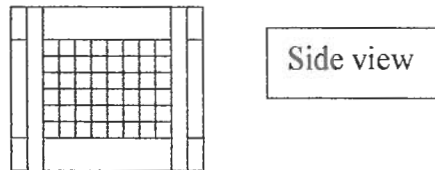


15. After all glue is dry, brush on three coats of polyurethane, letting the polyurethane dry between each coat. To keep the polyurethane from freezing it will be kept at my house.

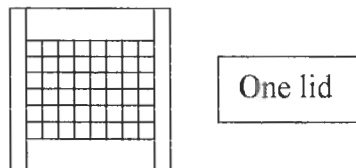
16. Cut all necessary pieces of hardware cloth.

- a. 2 pieces  $20\frac{1}{2}$ " x  $23\frac{1}{2}$ "
- b. 2 pieces  $23\frac{1}{2}$ " x  $23\frac{1}{2}$ "
- c. 2 pieces  $23\frac{1}{2}$ " x  $44\frac{1}{2}$ "

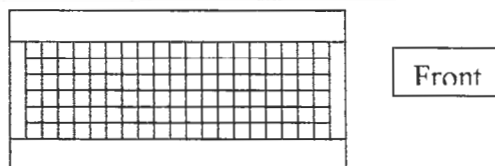
17. Using a staple gun, staple the  $20\frac{1}{2}$ " x  $23\frac{1}{2}$ " pieces to the short sides so that the  $23\frac{1}{2}$ " goes up and down. Be sure the cloth is  $\frac{1}{4}$ " from the outside edge and is pulled tight on the inside of the box.



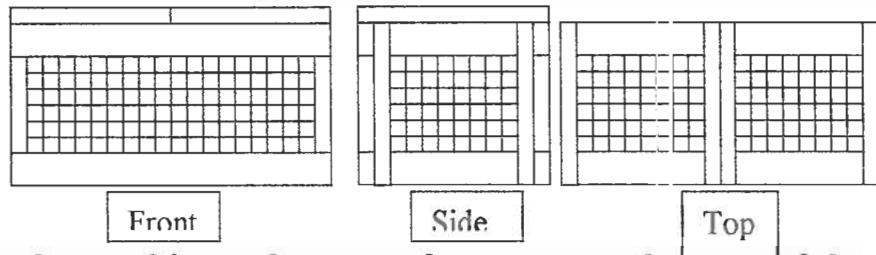
18. Do the same thing with the lids using the  $23\frac{1}{2}$ " x  $23\frac{1}{2}$ " pieces so they are  $\frac{1}{4}$ " from the outside edge of the lid and are pulled tight.



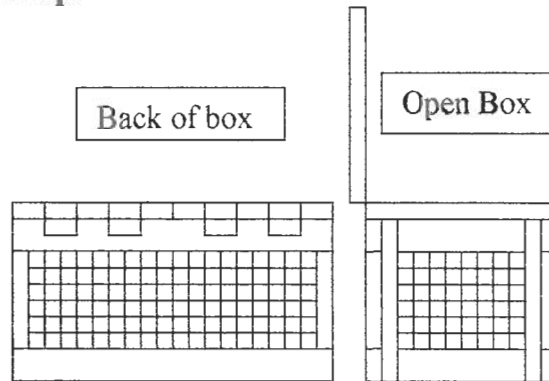
19. Do the same with the long sides using the  $23\frac{1}{2}$ " x  $44\frac{1}{2}$ " pieces so the  $23\frac{1}{2}$ " sides go up and down and the  $44\frac{1}{2}$ " sides go from side to side so the cloth is  $\frac{1}{4}$ " away from the outside edge and is pulled tight on the inside of the box.



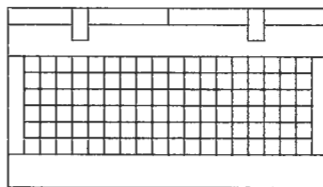
**20. Place your lids so they line up with the edges of the box with the mesh down to the inside of the box and the edges are squared with the edge of the box and nothing hangs over.**



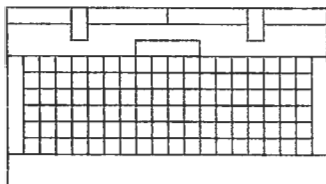
**21. Attach your hinges, however they come, to the back of the box on the outside so there are two hinges per lid and the lids should open and lean to the back of the box so they open up.**



**22. On the front of the box attach the latches; however they come, to the center of each lid. There should be one latch per lid.**



**23. Attach name plate and give boxes to the Wildlife Center of Missouri.**



## Materials Required for Completing the Project:

Name of Material	Cost of individual material	Number I need	Total
Hard Ware Clothe	\$5.89	8	\$47.12
2x4x8 piece of wood	\$2.49	24	\$56.76
3" flat head philips screws 1 box	\$3.97	3	\$11.91
5/8" staples 1 box	\$2.97	3	\$8.91
Hinges	\$0.97	20	\$19.40
Latches	\$1.97	10	\$19.70
Packs of Dust masks	\$1.97	4	\$7.88
Polyurethane 5 gallon	\$52.00	1	\$52.00
3" Brushes	\$1.34	10	\$13.40
Name Plates	\$5.95	5	\$29.75
Total cost for Materials			\$266.83

## Tools Required for Completing the Project:

Tape Measure	10
Safety Glasses	20
Power Drill Philips Bit	5
Spring powered Staple Gun	5
Philips Screwdriver	10
3/8 drill bit	5
Old Clothes	1 set per person
Work Gloves	20 pairs
Wire Cutters	10
First Aid Kit	2 Full Kits
Hand Saws	5

**All tools have been loaned**

**Total for all material for all 5 boxes \$266.83**

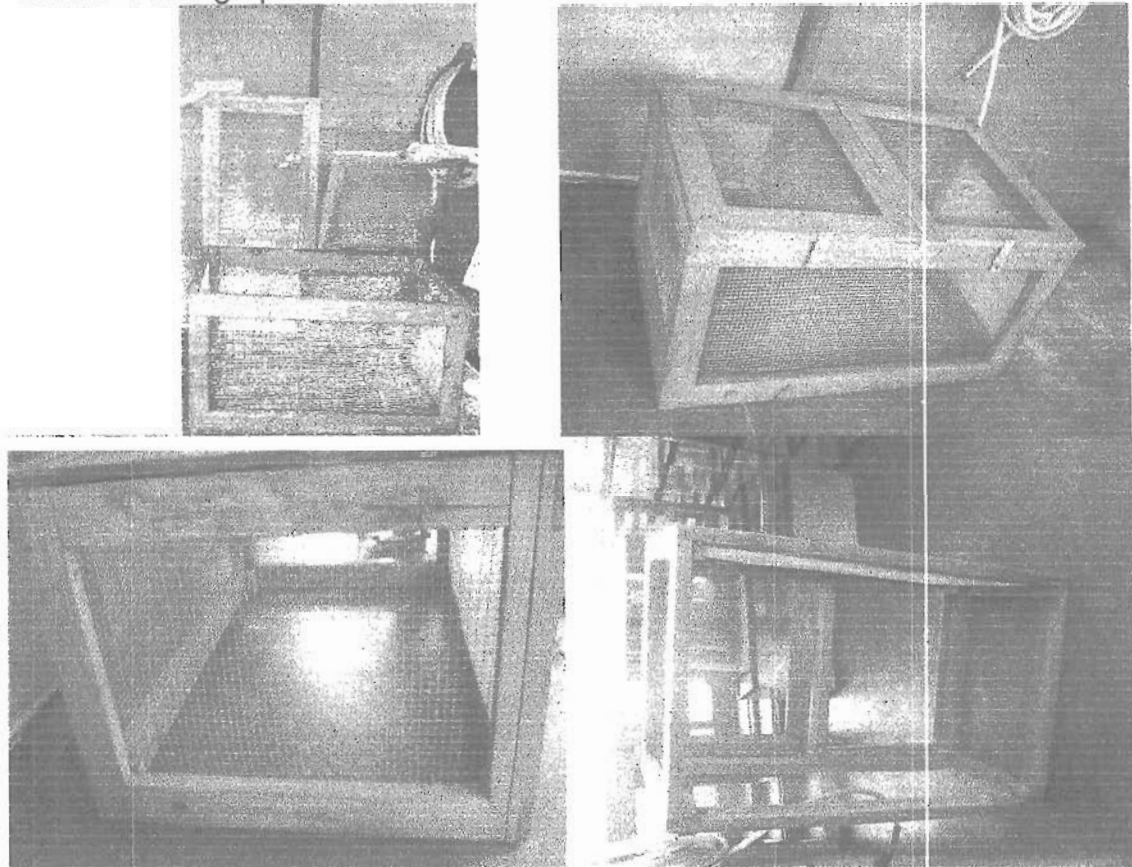
**All tools and materials will be kept at my house.**

## PROJECT DETAILS

Plan your work by describing the present condition, the method, materials to be used, project helpers, and a time schedule for carrying out the project. Describe any safety hazards you might face, and explain how you will ensure the safety of those carrying out the project.

If appropriate, include photographs of the area before you begin your project. Providing before-and-after photographs of your project area can give a clear example of your effort.

## "Before" Photographs



## Funding

**For funding I plan to ask many different businesses such as Wal-mart, Home Depot, and Lowes as well as sending them donation and thank you letters. Also there are people working next door to me who are building houses and I plan on asking them if my troop could have some of their scrap 2x4's for my Eagle Project. The following is an example of the donation and thank you letters I will send to the businesses.**

## **Donation Letter**

**Dear (business name),**

**My name is Alex Bolick. I am a life scout working toward Eagle and I was wondering if you would be willing to donate to my eagle Project. My eagle project is going to be building waterfowl cages for the Wildlife Center of Missouri. If you would be able to and/or are willing to make a donation or allow me to use a discount for supplies, that would be greatly appreciated. I may be contacted at home at (636)-861-7105 between 5pm and 9pm or at .**

**Sincerely,  
Alex Bolick**

## **Thank You Letter**

**Dear (business name),**

**Thank you for your contribution to my Eagle project. Anything you contributed was put to good use. Again thank you for the contribution.**

**Thanks,  
Alex Bolick**

## **Who does what?**

I have planned that only scouts with totin' chips will cut wood. Then I have planned on having the older scouts help me construct the boxes for accuracy purposes. Lastly I have planned for the younger scouts' to polyurethane the boxes and staple the hardware cloth on under adult supervision and my supervision, for their safety.

## **Safety Message:**

### **Attention Scouts and helping adults:**

There are many safety hazards that must be addressed before we begin the project. First of all, any one working on the project must wear safety glasses to keep items from getting into your eyes and work gloves to keep from getting glue and splinters in your hands. Next, is that scouts with a totin' chip are the only ones who will be allowed to use the saw. Also when polyurethane is being used everyone must have on a dust mask because the fumes are toxic. Lastly everyone must behave because there will be many objects around that people could get hurt on. Water and snacks will be provided to prevent dehydration and fatigue.

## **Time-Log:**

8/24/05-Project idea was discussed with Sue Leahy from Wildlife Center of Missouri. (45)

8/26/05-Idea of project was discussed with scoutmaster. (30)

8/30/05-Idea was discussed with committee member. (30)

10/1/05-Began writing up Eagle project. (30)

10/8/05-Looked at prices for material. (25)

10/13/05-Talked to some adults to see who could donate tools for my project. (30)

10/19/05-Finished preparing project. (45)

10/20/05-Got required signatures for pre-approval. (40)

10/26/05-Went before eagle board and got a not finished. (60)

10/29/05-Went to Lowes and talked with their donation coordinator.(10)

10/31/05-Began making recommended changes for project. (30)

11/3/05-Continued making recommended changes. (60)

11/5/05-Continued making recommended changes. (15)

11/6/05-Finished making recommended changes. (30)

11/8/05-Showed revised copy to Mr. Moore. (20)

11/9/05-Went back to the Eagle Board and got and got a pending. (60)

11/11/05-Made more recommended changes. (30)

11/13/05-Finished making more recommended changes. (20)

## **Recruiting Scouts:**

To recruit scouts I will go to different troops that I know. A presentation will be given at one of their meetings to recruit scouts to help with my project. I will include a description of what we will be doing and the safety message.

## **Box Delivery:**

All boxes will be placed in the back of my mom's truck and securely fastened down, then taken to the Wildlife Center of Missouri.

## **Project Time-Line:**

**Day 1:** Cut wood for 8 man hours.

**Day 2:** Assemble sides and lids for 32 man hours.

**Day 3:** Polyurethane assembled sides for 28 man hours.

**Day 4:** Build Box and take boxes to Wildlife Center of Missouri for 12 man hours.

## **Man Hours:**

Four people will be working for one box and 5 boxes will be built.

20 people at 4 hours per person.

80 man hours.

## Where the work will be done:

**All work will be done at the Dains Delivery Warehouse and the following are directions to get to the warehouse.**

: 204 Lookout Ave  
Valley Park, MO 63088

: **Dains Delivery**  
2517 Adie Rd  
Maryland Heights, MO 63043

Distance: 13.7 mi (about 23 mins)

- . Head **southeast** from **Lookout Ave** - go **0.1 mi**
- . Turn **left** at **Forest Ave** - go **0.7 mi**
- . Continue on **Dougherty Ferry Rd** - go **2.6 mi**
- . Turn **left** into the **I-270 N** entry ramp - go **7.8 mi**
- . Take the **Mo-D E** exit **16A** - go **0.4 mi**
- . Bear **right** at **Page Ave** - go **0.8 mi**
- . Bear **left** and head toward **Schuetz Rd** - go **0.0 mi**
- . Turn **left** at **Schuetz Rd** - go **0.5 mi**
- . Turn **right** at **Adie Rd** - go **0.8 mi**

**Cut diagram for all wood for all boxes.**

