

Eagle Scout Project

Presentation on Eagle Scout Project

- Sam Lynch
- Troop 15 – Our Lady Queen of Peace Parish



BOY SCOUTS OF AMERICA®

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Background

- Joined Scouting early in grade school
 - Attended Queen of Peace Grade School
 - Beginning sophomore year at West High School
 - Participate on Basketball and Baseball teams at West High
 - On the West High honor roll
- Am a Life Scout and have earned all merit badges necessary for Eagle badge
- Need to do Eagle Scout Service project and would like to complete it this year.
- I live three blocks south of Hoyt Park on Hillcrest Drive in the Sunset Hills neighborhood with parents and sister and brother.



Proposed Eagle Projects

- ▶ Bat house – Place by upper shelter (North end of location of old basketball court – see next slide and slides 8 & 9)



Discover Hoyt Park! Trails and Facilities

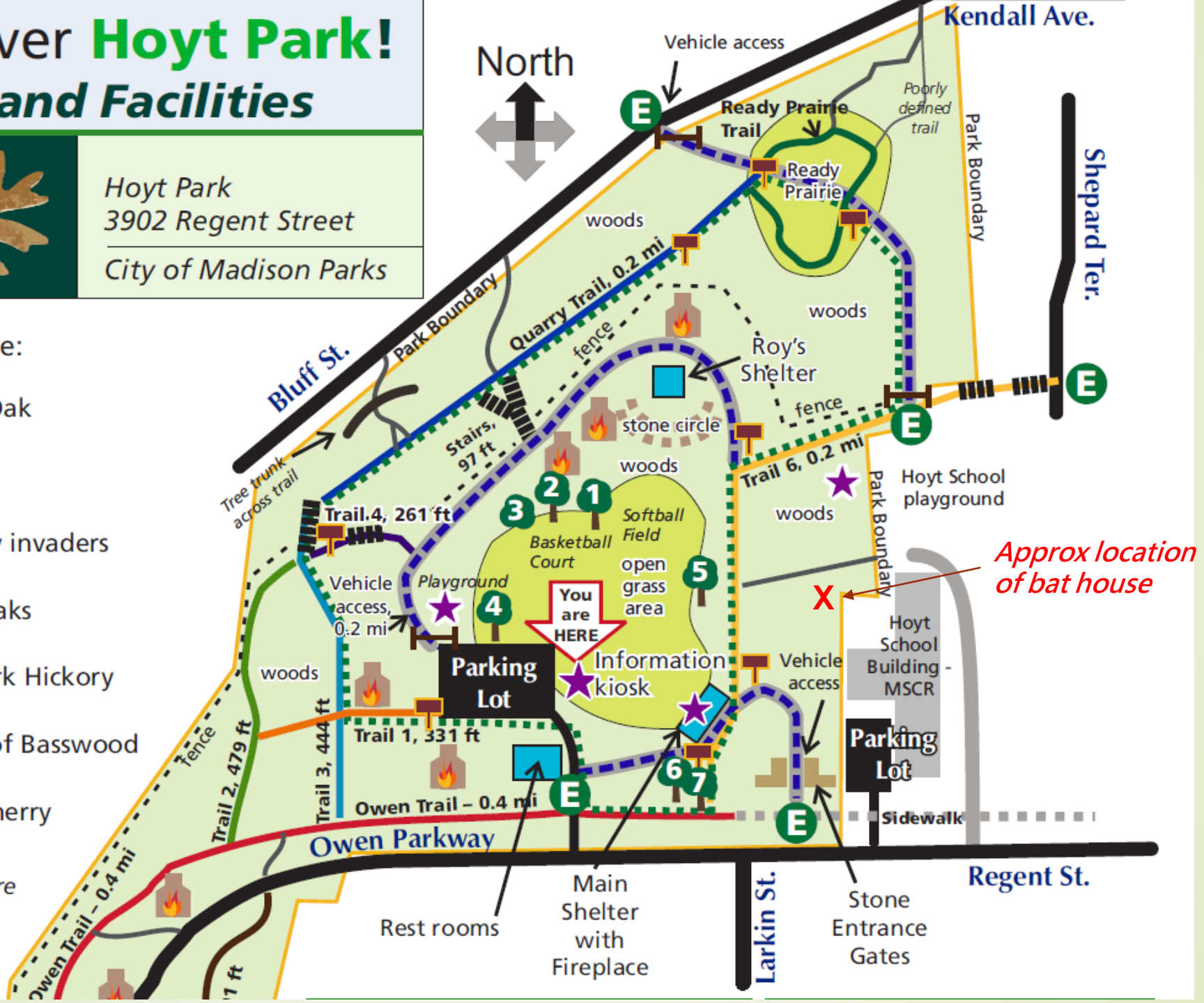


Hoyt Park
3902 Regent Street
City of Madison Parks

Trees of note:

- 1 White Oak
- 2 Bur Oak
- 3 Shrubby invaders
- 4 Black Oaks
- 5 Shagbark Hickory
- 6 Clump of Basswood
- 7 Black Cherry

see poster in kiosk for more information about these trees



Bat house project

- Why
- Where
- Design
- Materials & Budget
- When



Why a bat house?

- Bats consume about half their weight in mosquitos and flying bugs each night (up to 8000 bugs per night).
- By addressing insect issues, help with concerns about West Nile virus and other mosquito or insect borne diseases.
- Bat houses help bats survive white nose syndrome.

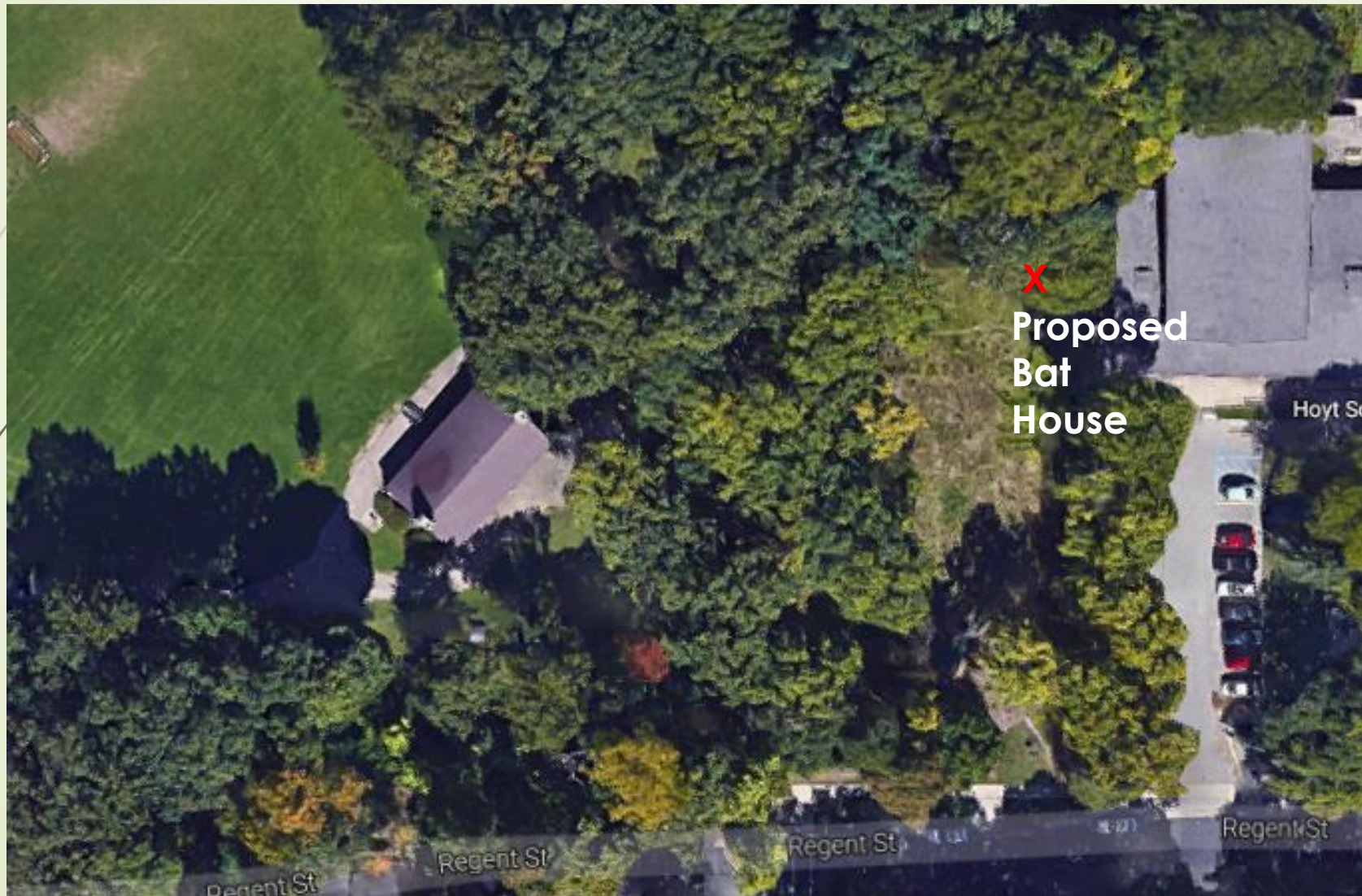


Where?

- On top of the hill between the upper park shelter and Hoyt School. Many years ago there was a basketball court at this area.
- South facing; want mid – afternoon sun
- Do not want to place within trees but close to provide protection from predators.
- See figure on next two slides (Slides 8 & 9)



Proposed location



Photos

General location for bat house.



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Design

- Rocket house – slide 12
- Based on National Forest Service design
- Holds up to 300 bats
- Made from rough untreated lumber – stain black or brown - All the wood will be cedar.
- Bat house would be roughly 6 ¼" X 6 ¼" X 3' mounted on a 12 to 16' - 4" X 4" post
- Looks nicer than traditional bat box design



Construction

- The bat house will be a rocket box as shown on next slide.
- This design holds up to 300 bats (Consume up to 2.4 million bugs / per night)
- The wood for the bat house will pre-cut. The house will then be assembled / built on-site and attached over the top of the pole. Joints where wood meets will be caulked, fasteners will be corrosion resistant, and the exterior of the cedar will be painted. Other than battery operated hand held drills / drivers, there will be no power tools used.
- The pole (with the bat house on top) will be placed in a hole 3 - 4 feet deep as identified in presentation. The hole will be dug using shovels and a post hole digger (I don't have a power auger to dig the hole). The pole will be set to vertical and the hole will be backfilled with concrete to within 6 – 12 inches of the surface. I will come back the next day to remove bracing and manage any residual dirt.
- While we hope the bat house has a long and useful life in providing shelter to bats, if there is a reason for it to be removed, then that is fine. I realize the park is public property.



Bat House

Bend shingle roofing in half, and screw roofing to top of box.

Rough angles for roosting

Attach screen to cover 3/4-inch vent.

Use sandpaper to round off corners inside box.

Screw 2-inch by 2-inch by 3/4-inch thick wood spacer blocks to post.

More rough angles for roosting

Make sure 3/4 inches of space is between post and inside of box; bats need this space to climb inside.

Build a rocket-style house for bats where you live! Follow these directions to build a box for up to 300 bats. Make sure to ask a grown-up to help you!

Take a trip together to your local hardware store or lumber company, and ask a store clerk to give you the listed materials. Then build the house!

MATERIALS / For the bat house:

- Four 3/4-inch thick pine boards, 6 1/4 inches wide by 3 feet long. Ask the store clerk to drill a 3/4-inch diameter hole in the center of one board about 3 inches from its end. The hole will be a vent to let air circulate.
- A 2-inch square piece of screen to cover the vent
- Staples and a staple gun to attach the screen
- Shingle roofing
- A screwdriver and galvanized screws.

top view of box



Use galvanized screws to attach pine boards together to create box.

For the post:

- A rough cut, 4-inch by 4-inch oak post, 12 to 16 feet long. On one end of the post, ask the store clerk to cut two opposite sides at sharp angles so the sides come to a steep point (see picture). Ask the clerk to roughen the angled sides; this is where the bats will roost. You may want to ask the clerk to make a couple more rough cuts further down on the post to increase the roosting area. (Note: Make sure you get a rough cut post made of non-treated wood. A rough cut allows the bats to climb the post.)
- A screwdriver and galvanized screws
- Two 2-inch by 2-inch by 3/4-inch thick wood spacer blocks
- Sandpaper

4-inch by 4-inch rough cut oak post, 12 to 16 feet long

Place post at least 2 1/2 feet to 3 feet in ground.

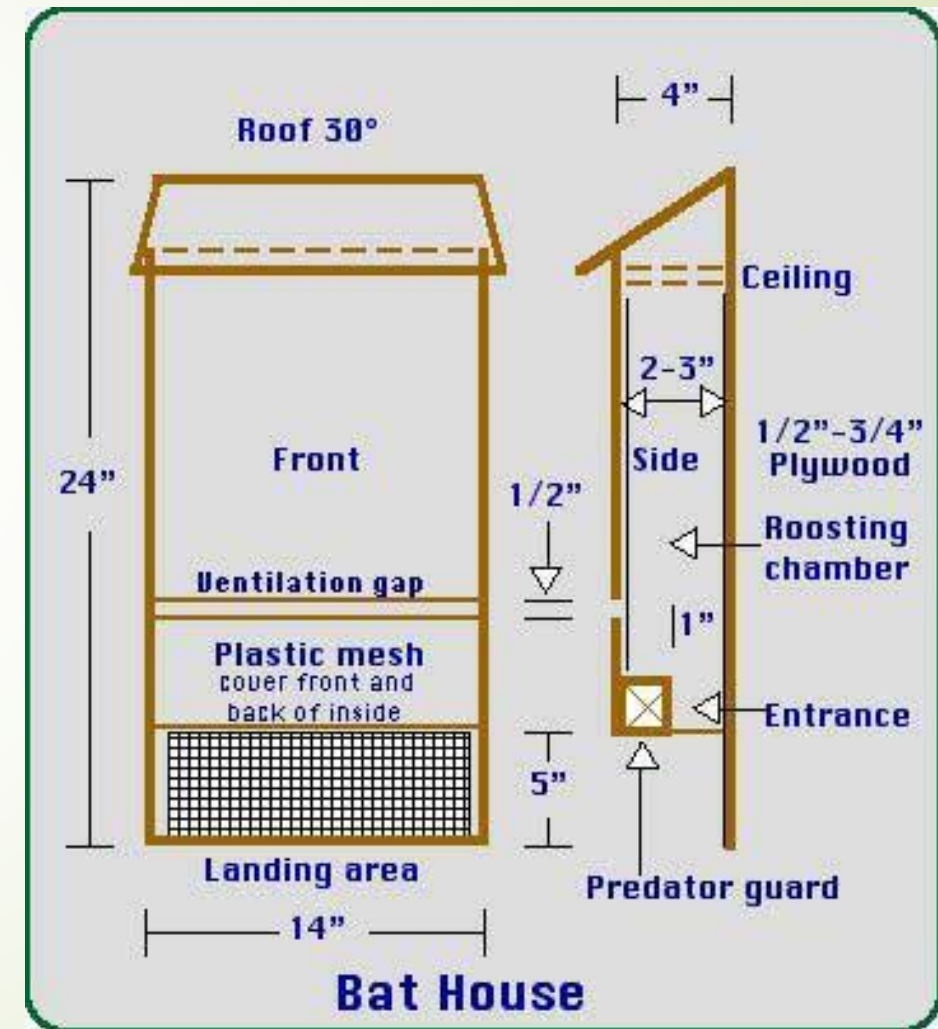
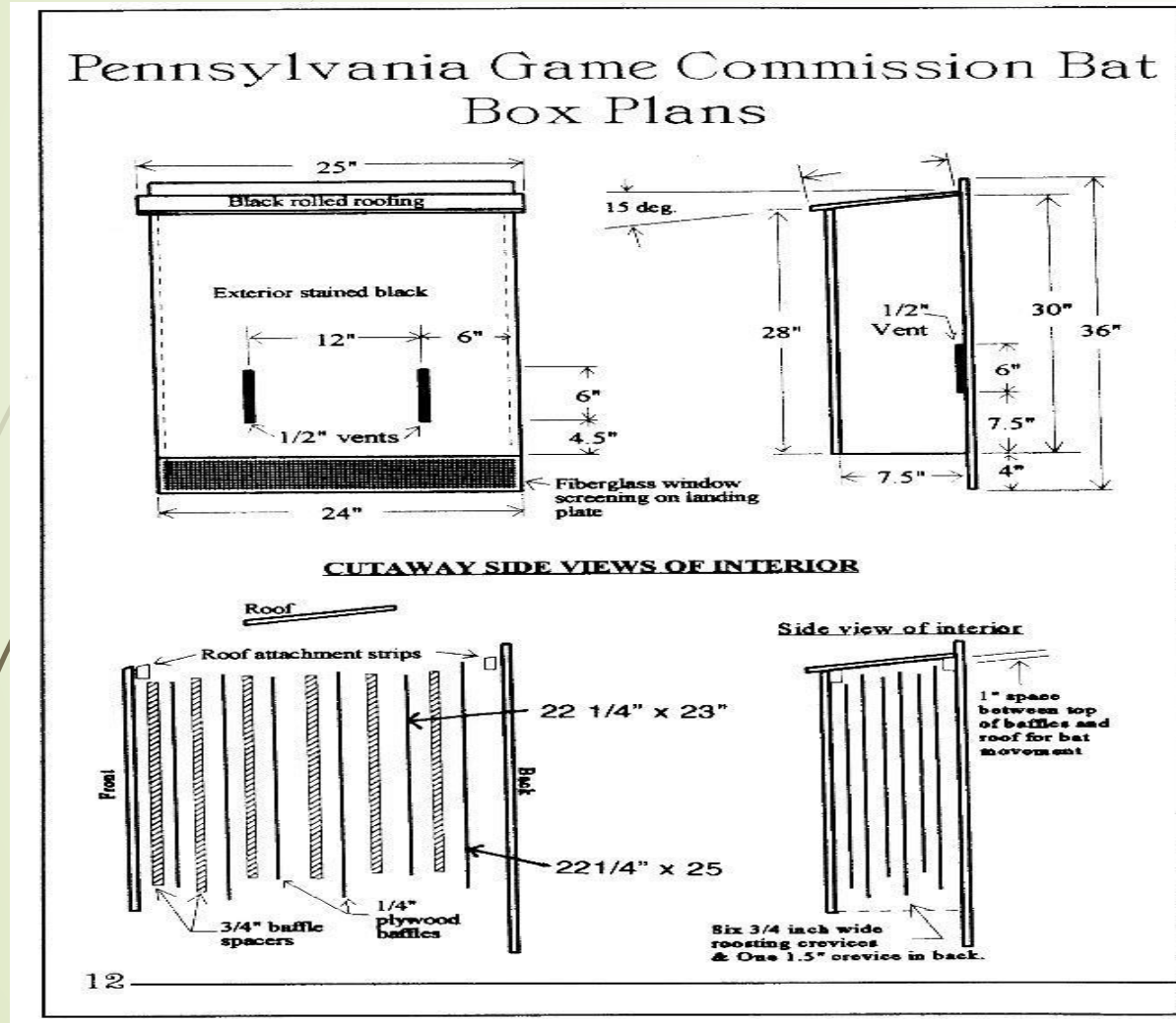
Bats enter and exit here.

Illustrations by Linda Oliver

For best results, place your bat house in a location that gets

Other Options Considered

- more traditional



Materials & Budget

Materials

- ▶ Untreated Wood
- ▶ Screws & nails
- ▶ Caulk
- ▶ Concrete
- ▶ Shingles
- ▶ Sandpaper
- ▶ Small screen
- ▶ Water based stain
- ▶ Post hole digger

Tools

- ▶ Drill Drivers & Screw Drivers
- ▶ Saw & sawhorses
- ▶ Post hole digger & shovels
- ▶ Hammer
- ▶ Staple Gun
- ▶ Level
- ▶ Paint / stain brushes
- ▶ Wheelbarrow
- ▶ Gloves
- ▶ Safety goggles
- ▶ Tub to mix concrete

Budget Approximate

- ▶ Wood \$75
- ▶ Concrete 3 bags \$20
- ▶ Screws \$10
- ▶ Water based stain \$20
- ▶ Brushes \$15 – 20
- ▶ Labor free
- ▶ Tools would be borrowed
- ▶ Total estimated budget ~ \$150



When – This fall

- Along with my brother and other members of Troop 15, we would plan to do the construction this fall – This allows for the house to be ready for occupancy next spring to give bats time to “move in” and raise pups over the summer.



Friends of Hoyt Park

- The Friends of Hoyt Park (FHP) is a neighborhood association that supports planning efforts with the City of Madison Parks Department for Hoyt Park. FHP assists with the protection and maintenance of Hoyt Park's diverse natural areas, historic structures, and recreational land.
- This bat house project was presented to the FHP at their September 14, 2017 meeting. The FHP approved the project by a voice vote. FHP suggested that monitoring the box after construction to gather data on use.
- A copy of the Sept 14 minutes has been provided to the city with this PowerPoint. The language is include on the next slide.



Approved minutes from Sept 14 FHP meeting concerning Bat House proposal

Sam Lynch introduced himself as a sophomore at West High who has been a Boy Scout since 1st grade. His service project proposal was to build a rocket style bat house on a 12 ft pole at the edge of the tree canopy between the large shelter and the school. It was suggested that because of the shallow bedrock in the park Sam may want to consider secondary site alternatives in that area of the park. Sam is waiting to hear back from the City Parks Dept westside operations director Laura B. for approval and was asking FOHP to approve the concept. After discussion which included Anne Reis suggesting that Sam consider monitoring the box after construction to gather data on use. Anne has DNR bat monitoring equipment available for use. The project was approved by a voice vote.

City of Madison

Parks Commission & Parks Department

- Scouts have worked with the city on Hoyt Park Projects
- This Bat House project still needs to go to the City Park Commission and will be on the agenda for their Nov 8th meeting.
- Following that meeting, we will be able to obtain the city's OK.
- Other comments or reactions?



Other next steps

- City Parks Staff has reviewed the project and now it must go to Board of Parks commission for formal approval.
- Will need to set dates for construction once final approval has been received.
- Call Digger's hotline

