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Hidden Park Tree Proposal

This is the proposal for new additions to hidden park. These are:

1. Replacement of the redwood snag;
2. Addition of shade trees;
3. Addition of future understory components and shrubbery around the shade trees

This initial plan is not comprehensive and may be changed as needed.

Overview

The park currently has 2 live trees as well as a dead redwood tree. There are 4 play areas and several benches in the park. Most of the area is lawn. The west side has an open area where late day sunshine can blind people near the swing set and other places; the north area has tall trees in neighboring yards.

Figure 1: the current layout of hidden park.

There are a few modifications which can be made to this area. They will be covered in the following sections.

Dead Redwood

The dead redwood represents a snag in the park. Snags in a forest offer a habitat for decomposing insects, woodpeckers, and other wildlife. However, a dead tree near human activity is a safety hazard which may drop branches on people nearby.

The tree has been removed by a professional tree service. The easiest replacement is a red oak (*Quercus rubra*), which is fast growing and can reach a height of 60-70 feet and a spread of 40-60 feet. Red oak is drought tolerant, provides food for animals both through acorns and as a larval host, and is suitable for large variety of potential companion plantings. Because this species is fast growing, planting a small specimen with a protective fence and watering twice a week is a good option for planting, as smaller trees are generally more resilient, establish drought tolerance more rapidly, and lose less momentum after being transplanted planted than larger trees. An 18”-36” specimen in 2 gallons, which balances transplant tolerance with size, would cost $18 from GoNative tree farms.

Shade trees

A persistent issue in the park is the excess sun that shines from the south of the park. Two plant species that may perform well in the park are hackberry (*Celtis occidentalis*). This is a fast-growing large tree (40-60 ft height, 40 ft spread) which tolerates a wide variety of conditions. It possesses unusual cork-like bark and edible berries. It requires little maintenance and does well as a shade tree. The second is american hornbeam (*Ostrya virginiana*). This is a slower growing small tree (up to 30 ft) which tolerates drought, poor soil, and clay. It has a brown bark which gains gray flakes. It is known for tolerating a wide variety of conditions and thriving well in areas where lawns currently grow. The locations for the hackberries in the picture are ~30 feet from the fence and the hop hornbeam is approximately 15 feet – this is far enough that the canopy will only reach that point.

Figure 2: overhead map of hidden park showing the placement of trees and white outline of understory areas.

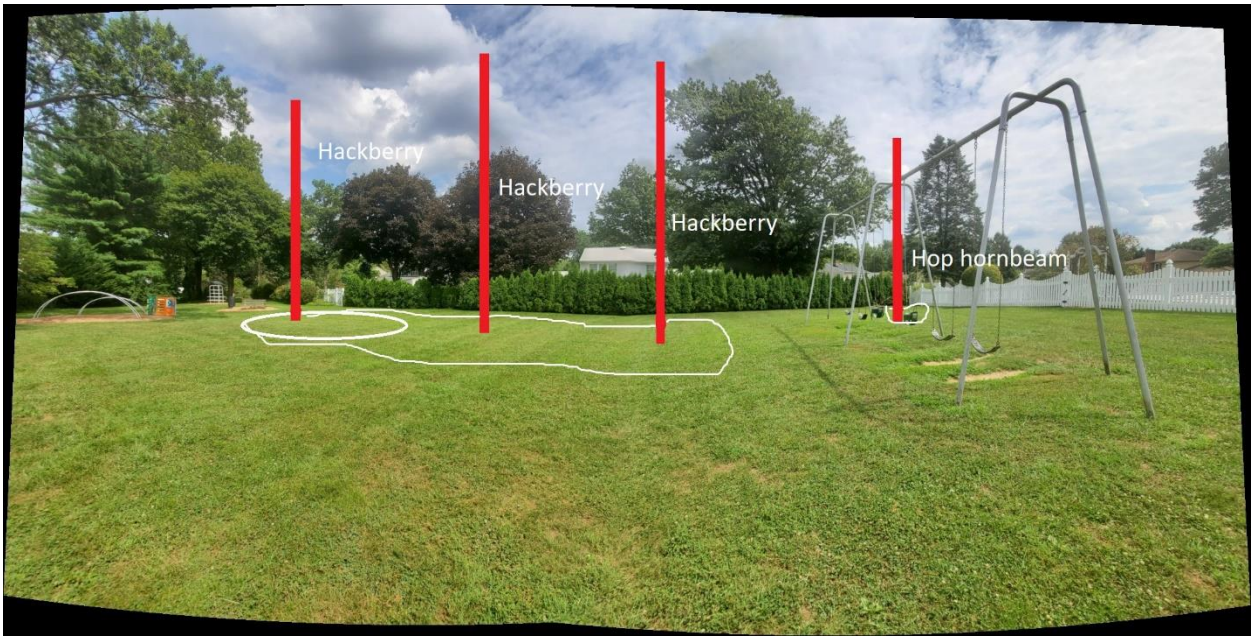

Figure 3: ground level panoramic image with approximate tree locations indicated.

These trees should be purchased in a small size. They will need periodic visits for watering – small trees (12” to 18”) require watering 2x a week as they establish and fencing to protect them from animals. Go Native tree farm sells hackberry at this size ($18/plant) and hornbeam at 48” – 60” for $24/plant ; Redbud Nurseries sells both species at various sizes not explicitly stated on their website. If they are purchased at a larger size, they will need irrigation bags. This might be handy for the hop hornbeam which is somewhat slower growing than the hackberry.

Understory Gardens

Both species of trees selected generally have deep roots and could grow with lawns. However, over the long term we may want to add other understory shrubs, spring ephemeral flowers, and garden features such as insect hotels to the areas. The areas around them are marked as optimal locations for understory plants around the hackberries. Northwest of the hornbeam, there is an area where evening sun bothers people on the swings – this s a great location for screening shrubs.

I need to add a few proposals here. I think Virginia bluebells, trillium, and ginger would be awesome spring flowering plants; columbine, native wood poppy, and geranium would also rock. We could add some American highbush cranberry, arrowwood viburnum, spice bush, and native bush honeysuckle as low level shrubs; witch hazel, red bud, and serviceberry as taller shrubs/understory trees; maybe Pennsylvania sedge, creeping sedge, and other sedges as ground covers/lawn replacements.

In the more open areas, elderberry, chokeberry, and others might be good.

Plant sources

DCNR list of native tree nurseries
https://www.dcnr.pa.gov/Conservation/WildPlants/LandscapingwithNativePlants/BuyNativePlants/Pages/default.aspx

Go Native Tree Farm

https://www.gonativetrees.com/

Redbud Native Plants

https://redbudnative.com/

Other references

Establishment time vs transplant size

https://ctufc.org/wp-content/uploads/2018/03/Establishment-and-Tree-Size.pdf