

# WOODSSHIRE PARK

## MASTER AND MAINTENANCE PLAN 2023





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Bed 6 - Creeping Buttercup - *Ranunculus repens* - Aggressive non-native ground cover.



# PROJECT ROADMAP

The Woodsshire Neighborhood Association reached out to the Nebraska Statewide Arboretum in the spring of 2023 to meet up and discuss what we were seeing in the Woodsshire Park landscape. This included our opinions about how to manage the space, what species we could identify, tree health, and comments on invasive plants. From this initial conversation we noted that management of the park needed to be thought of holistically and a master and maintenance plan could help facilitate a more integrated approach to managing the landscape. The document that follows is our honest attempt at this goal.

## SCOPE OF WORK

## Historical documentation

- Analysis of Herminghaus and Sutton plans
- Cultural landscape designation

### Existing conditions of the site

- Tree inventory
- Neighborhood survey
- Additional site analysis

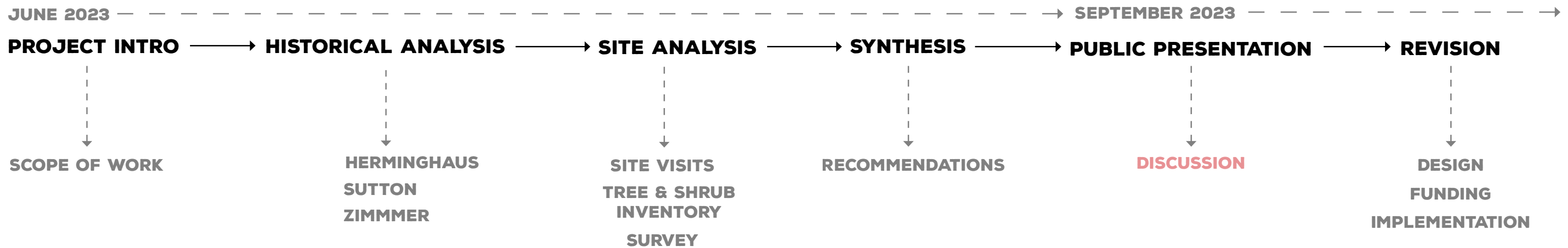
### Future planting recommendations and maintenance plan

- Plant recommendations, species and locations
- Best practices for working with the areas you have



## Justin and Rusty talk understory plantings

## PROJECT TIMELINE





# SITE PHOTOS

These photos represent various landscape types seen at Woodshire Residential Park including:

- 1. Woodland habitat
- 2. Turfgrass
- 3. Shrub and flower beds
- 4. Mature trees
- 5. Drainage way





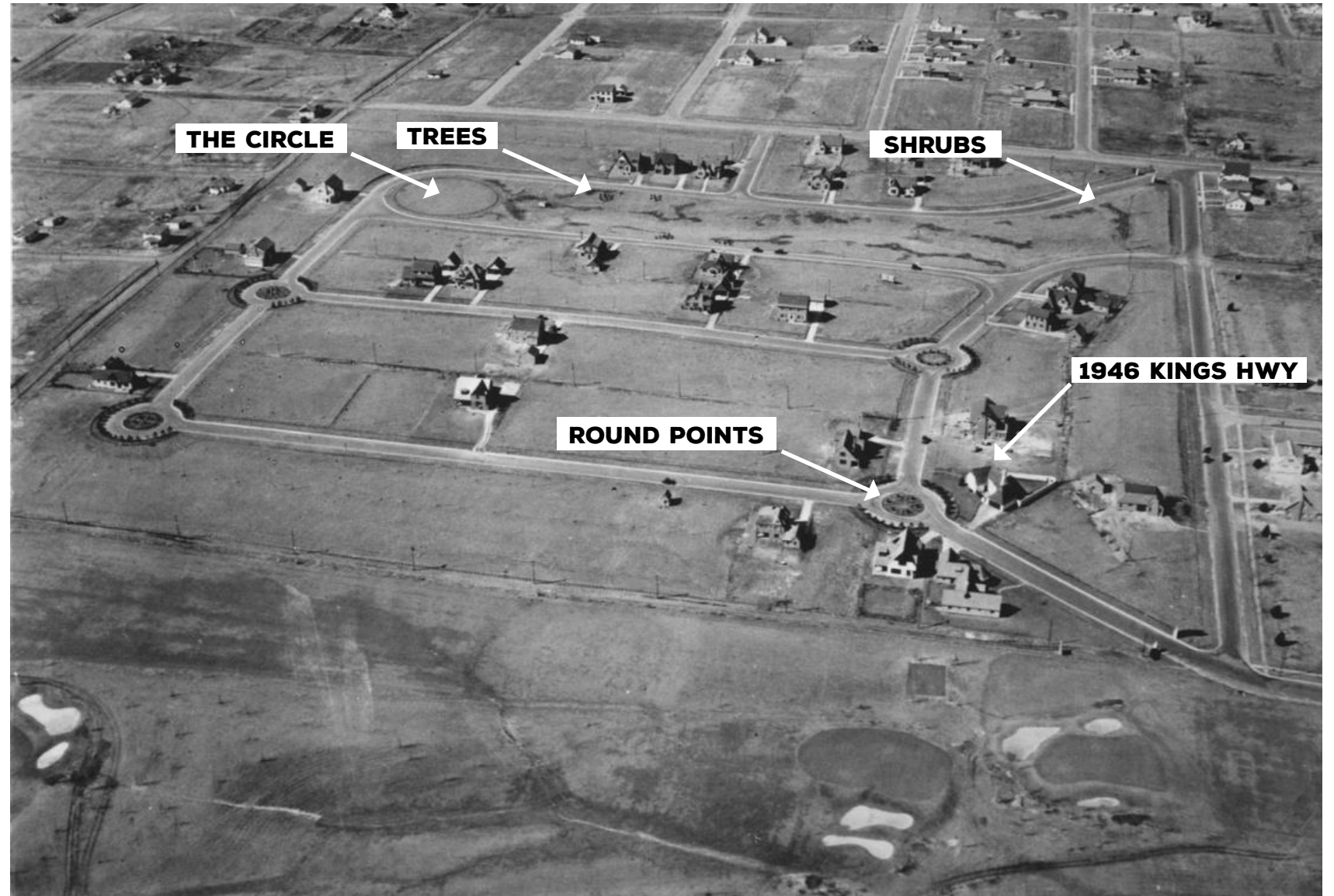
# HISTORY

**HERMINGHAUS**

The 1926 advertisement “Woodsshire - A modern English Garden Subdivision in Lincoln, Nebr.” authored by Ernst Hemminghaus is an instructive document to dissect in trying to better understand the design intent and features of Woodsshire Park. In this document, Hemminghaus makes several statements about his design thinking for the neighborhood, park, and plant materials featured therein. Additionally, there are several drawings that showcase original neighborhood design concepts and the use and placement of plant materials for their enhancement. Through the analysis of this document several notable statements by Hemminghaus have been recorded below to better reveal historical landscape design intent.

## DESIGN INTENT

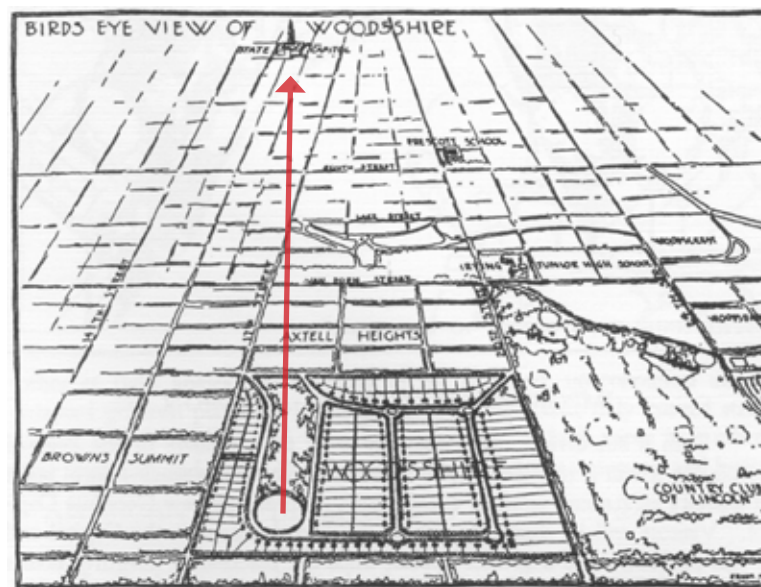
- Page 10 Street Design - "round points" divide the street into short lengths giving more or less court effects to each and to permit a variety of trees to be planted in the various segments"
- Page 11 Woodsshire Park - Its design recognized that no road would pass through it but encircle it instead. As a great majority of the people will see it from the auto it was designed to be viewed from the street. This required the violation of the principal rule of landscape architecture; that, the center should be open and the sides planted. In its place we have established that the vistas from the street are of more importance than vistas within. We have made another departure in design in planting large groups of one variety of shrub instead of using the usual hodge-podge of every possible shrub with-in a group.
- Page 11-12 Woodsshire Park - At the south end we have fashioned a play circle for children. This is an area 17ft in diameter and surrounded by a row of trees and one of shrubs.
- Page 12-13 Some 2600 shrubs and 300 hundred trees were used in the planting of this park-way. "Round Points"..formal in design..surrounding a plating of Red Pines and a Barberry Hedge.
- Page 13 - Entrances - Flanking the piers will be an Arbor Vitae hedge, 5' in height.
- Page 13-14 Lot Planting - Two large Elms are placed on each lot; these Elms were planted in the Autumn of 1925. After the sewers have been laid a row of Chinese Lilacs will be planted. These Lilacs, with those planted in Woodsshire Park, will exceed 1000 in number; thus, Woodsshire should be noted for its lilacs. A Privet Hedge planted uniformly and contiguously along all frontages.



Circa 1928



Circa 1928

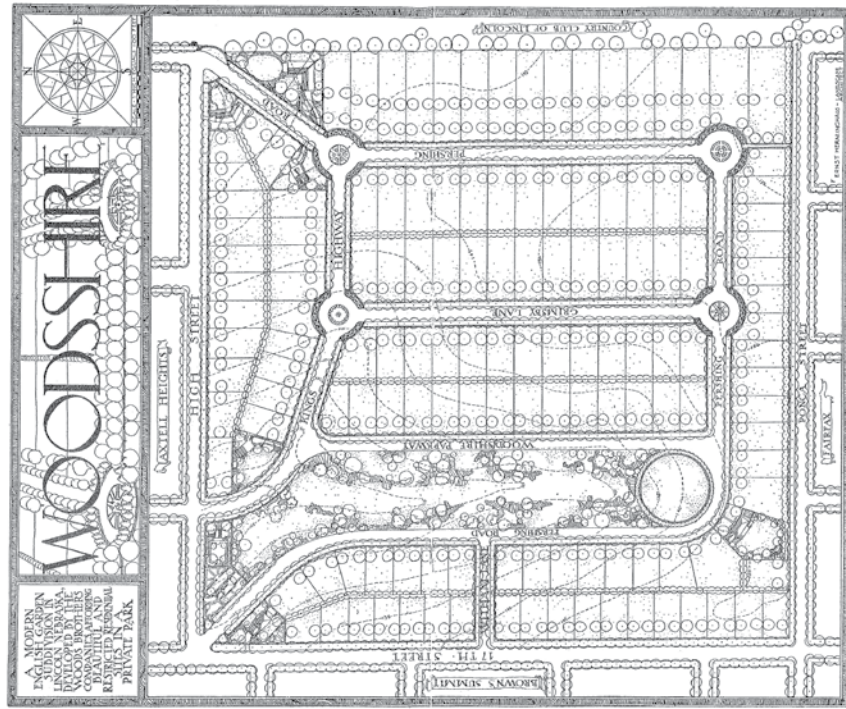


Designed view towards State Capitol Building



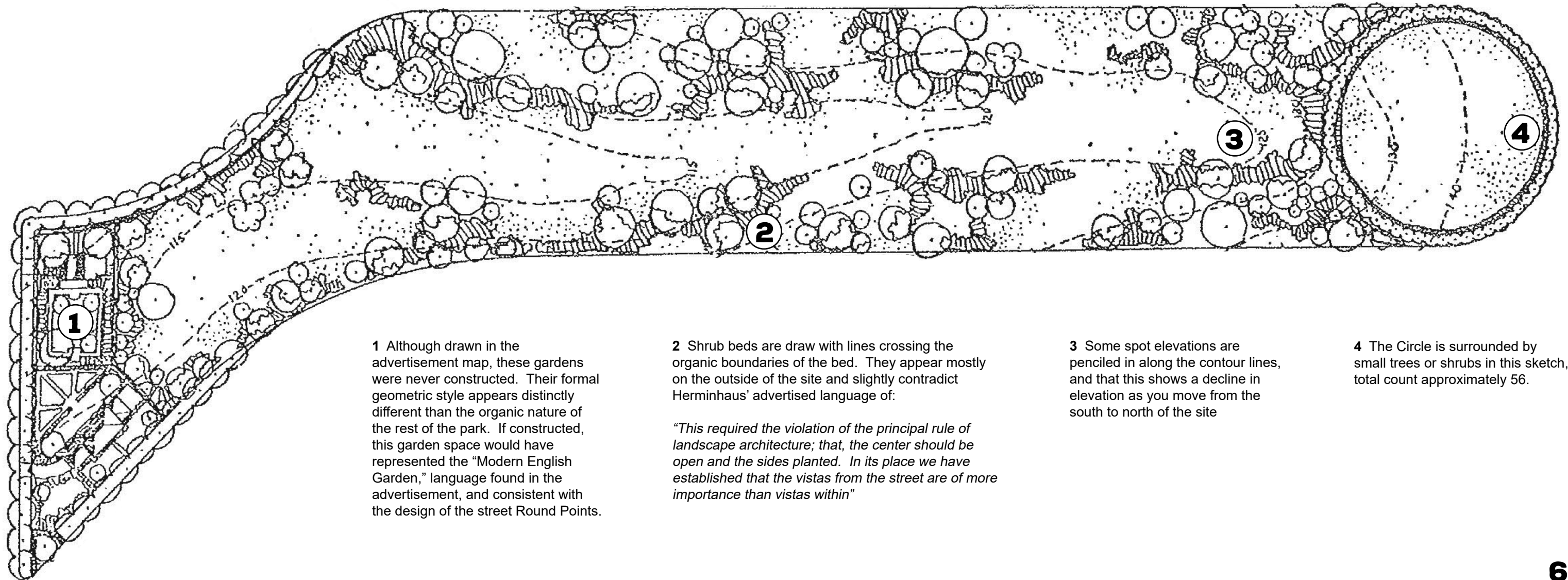
Circa 1928 - 1946 Kings Hwy - Residence of Herminghuas in Woodsshire





## HERMINGHAUS PARK DRAWING

The enlarged graphic above has been taken from the original Herminghaus park drawing and showcases a conceptual idea of how the park trees, shrub beds, designed features, and topography interact. The drawing by Herminghaus should be considered a Schematic Plan as it doesn't possess the finished details that would accompany a Final Plan document, including a detailed Planting Plan with species names.



**1** Although drawn in the advertisement map, these gardens were never constructed. Their formal geometric style appears distinctly different than the organic nature of the rest of the park. If constructed, this garden space would have represented the "Modern English Garden," language found in the advertisement, and consistent with the design of the street Round Points.

**2** Shrub beds are drawn with lines crossing the organic boundaries of the bed. They appear mostly on the outside of the site and slightly contradict Herminghaus' advertised language of:

*"This required the violation of the principal rule of landscape architecture; that, the center should be open and the sides planted. In its place we have established that the vistas from the street are of more importance than vistas within"*

**3** Some spot elevations are penciled in along the contour lines, and that this shows a decline in elevation as you move from the south to north of the site

**4** The Circle is surrounded by small trees or shrubs in this sketch, total count approximately 56.



## SUTTON PLAN

The 1987 “Landscape Restoration and Management Master Plan” and several accompanying hand drawn plans by Richard Sutton detail the results of a workshop with the Park Committee of the Woodssshire HOA. Several goals and objectives are revealed in this document and contain relevant statements to the current discussion of maintenance of the park. NSA believes that this 1987 master plan provides a framework for additional planning and plant material selection and it would **serve the neighborhood well to revisit some of the conclusions** that were discussed at that time. We recommend revisiting the following:

- Revisit “**Goals and Objectives statements for Preservation, Design Enhancement, Management and Users and Activities**” sections to see how they can be applied today.
  - Preserve the historical layout and materials as closely as possible.
  - Create cost effective management plan structure, and specifications to be evaluated along with the park itself and reported on annually by the Park Committee.
  - Any and all design enhancements shall be in character with the overall natural, informal character of the park.
  - Make the park a continued focus for neighborhood interaction while allowing flexibility for future activities.
- Revisit Site Analysis and Design Concept pages.
  - We appreciated the comment in the Site Analysis section that noted, “ An off-sight vista to the Nebraska State Capitol tower allows the visitor to orient themselves and the park within the larger context of the city. This **vista also counterbalances the tight inward focused spaced within the park.**
  - Site Analysis map indicates the need to “pursue off site preservation of Capitol View through zoning and easement.
- Priority Listings for Landscape Projects provides a detail of landscape work and restoration in 1987. It would be worth revisiting today as some of the **work and plantings were completed and some were not.**
- **Appendix I** is a valuable document to investigate as it details **Existing and Proposed** plant materials. Appendix II and III are documents that may only be of interest to the dedicated horticulturalist or landscape professional.



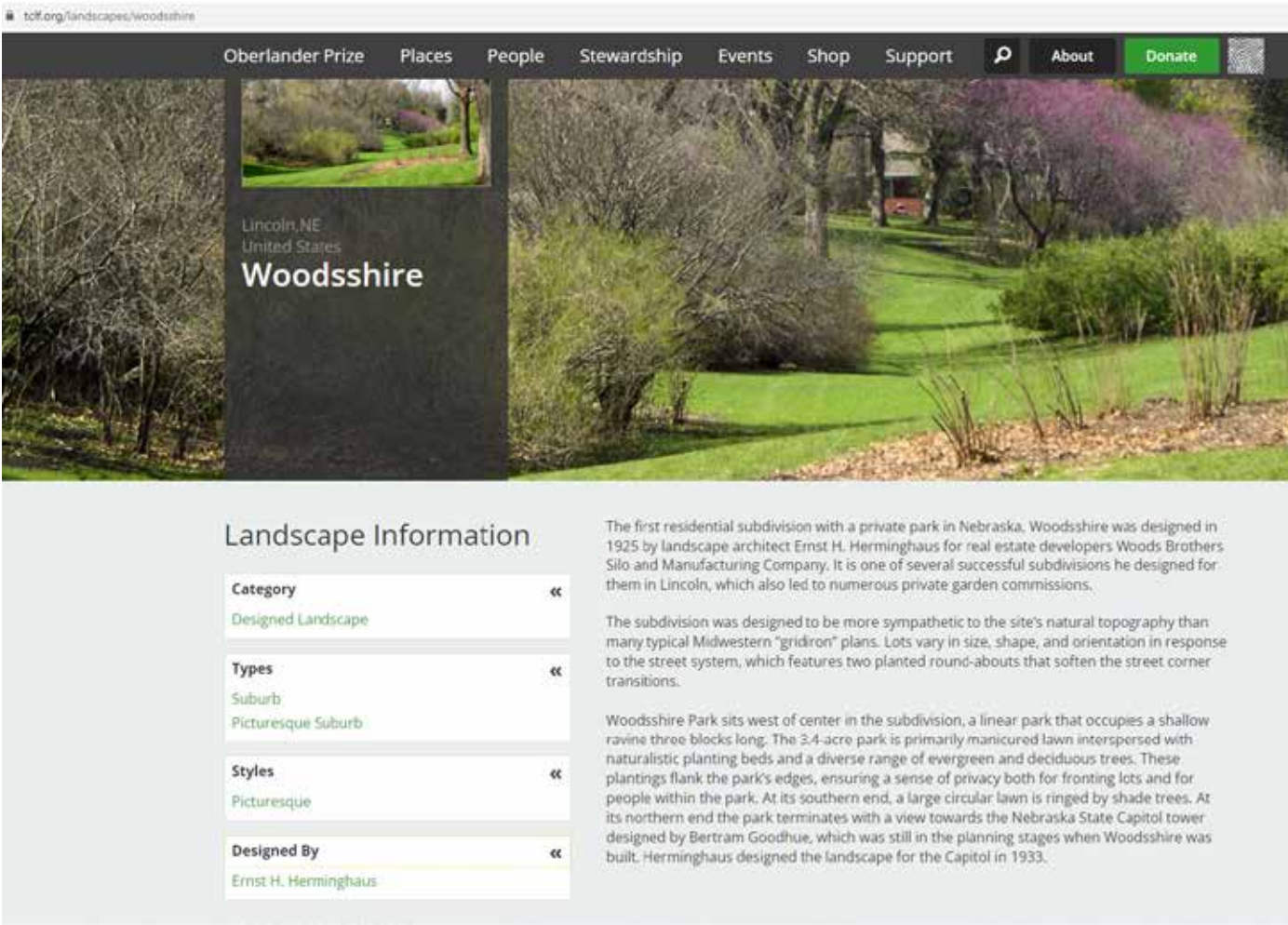


# CULTURAL LANDSCAPE

Woodsshire Residential Park is considered a “Designed Landscape” by The Cultural Landscape Foundation (CFL). This is defined as “a cultural landscape that was consciously designed or laid out by a landscape architect, master gardener, architect or horticulturist according to design principles or an amateur gardener working in a recognized style or tradition.” In this instance the landscape was designed in 1925 by Ernst Heminghaus, who also helped to design the landscape for the State Capitol in 1933.

The style of design is defined as “Picturesque” with a Type categorization of “Suburb / Picturesque Suburb.”

Source: <https://www.tclf.org/landscapes/woodsshire>



<https://www.tclf.org/landscapes/woodsshire>

## PICTURESQUE

“Evolved predominantly from mid-eighteenth century British landscape design theory, this style sought to evoke “natural” landscape appearance of rougher terrain and dramatic asymmetric composition in contrast to the axial geometry of earlier Renaissance and Baroque landscapes, such as Versailles. While British landscape critics distinguished the “Beautiful” (as seen in the rolling pastoral designs of Lancelot “Capability” Brown) from the wildly dramatic “Picturesque” (replete with ravines, dead trees, and artificial ruins), America combined these alternative approaches to the “natural” landscape aesthetic within the term “The Picturesque.” In fact, both approaches often were used at a single site. Olmsted, Downing, and Weidenmann all created Picturesque landscapes, including many public parks. The Picturesque style remained popular from the 1840s well into the early twentieth century.”

<https://www.tclf.org/category/designed-landscape-style/picturesque>

## PICTURESQUE SUBURB

“Residential communities designed according to naturalistic principles conceived as a therapeutic respite from the city, with curvilinear streets and irregularly shaped lots laid out in reference to the natural topography. Derived from the English gardening tradition and writings of English practitioners Humphry Repton and John Claudius Loudon, the design of such suburbs flourished in the United States in the late nineteenth century through the influence of Andrew Jackson Downing, Frederick Law Olmsted, Sr., Calvert Vaux, H.W.S. Cleveland, and Jacob Weidenmann.

Plans often provided for the retention of original trees and a natural system of drainage through low-lying areas or stream valleys reserved as wild areas or parks. Setback requirements, recessed carriage roads, gatehouses, scenic drives, railroad stations, and village centers were also common characteristics of the earliest of these planned suburbs.”

<https://www.tclf.org/category/designed-landscape-types/picturesque-suburb>



# HISTORICAL PHOTO IMAGERY

The below six aerial images were taken from Google Earth and show Woodsshire Park between April 1993 and September of 2022. There are no large observable changes indicated in comparing the timeline of photos. However, it should be noted that the central open space, turf grass, tree canopy and circle of trees are clearly present over the past 30 years of aerial documentation.



April 1993



April 2002



July 2017



April 1999



June 2010



September 2022

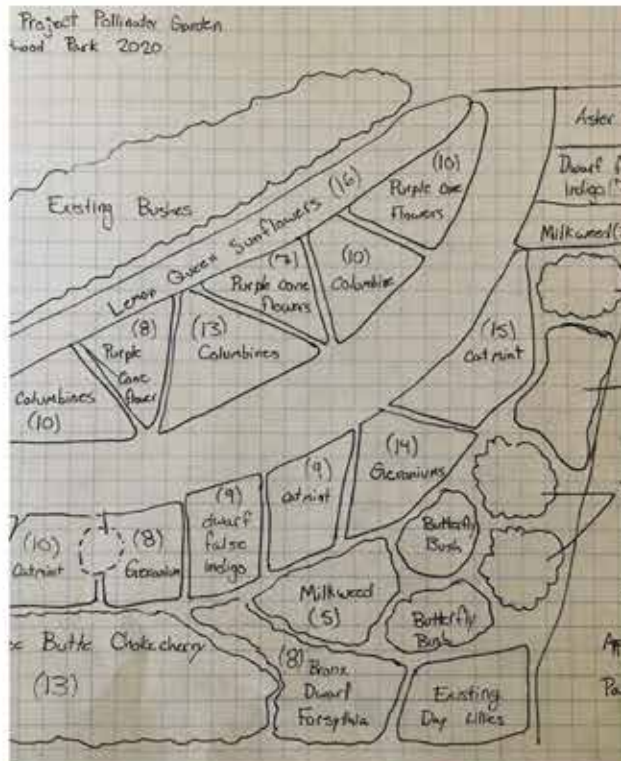


## 2020 GREENER TOWNS POLLINATOR PLANTING

This 2020 Greener Towns grant project helped Woodsshire Neighborhood residents install a pollinator planting in the west central portion of the park. This was initiated by a neighborhood resident Caden Connolly and was used to satisfy a Eagle Scout project requirement.

The garden is currently maintained by the neighborhood and has brought a splash of color and biodiversity to the landscape. Project cost Approximately \$4000.

## Garden photos - 2023



# Woodshire Neighborhood Pollinator Garden

## GREENER TOWNS

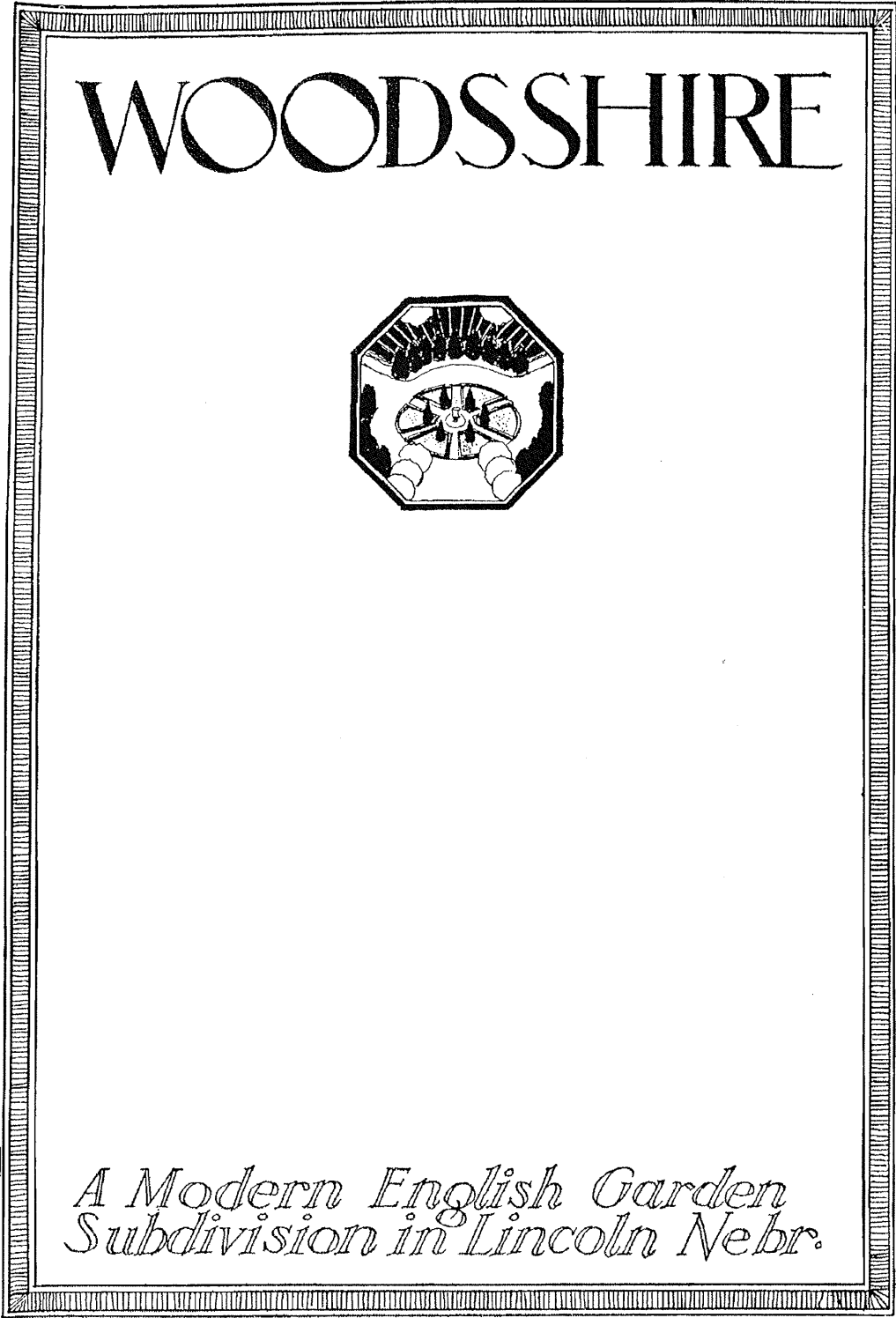




# HISTORY

## CONCLUSIONS

- NSA believes maintenance or planting changes in the landscape **should be evaluated** relative to the original design intent of Herminghaus. This helps to **maintain historical integrity in the landscape** and allows **future users of the park an opportunity** to participate in Herminghaus’ aesthetic concept.
- As large trees age out and are removed, **consider smaller tree choices** near the Circle that will offer an **opportunity to view the State Capitol**. We do not favor easements or zoning outside of the park, but a dialogue with the wider community to see this view enhanced.
- Maintain large **shrubs beds of one species of shrub as designed by Herminghaus**. Species may differ from those currently planted, please see both Sutton and NSA plant recommendations for choices.
- There is no historical violation about imagining Woodsshire Park’s plant resources and distribution in a different way. Much of what Herminghaus advertised may have not been planted, and the English style gardens on the north end were never built. Adding beauty and color to the landscape through the use of flowers and other species will enhance the park and has the potential to satisfy a garden element that was designed but never realized.
- In conversation with local Lincoln Historian Ed Zimmer, he noted that having the site on the National Historic Registry doesn’t bind the neighborhood on changes unless there is federal funding involved in the project. The National Historic Registry provides background and good guidance for how to maintain the site. Ed acknowledged that landscapes must have replacements and changes, but that it is important to think about the broad strokes of the landscape style and not fuss over too many individual shrubs. He also recommended that he would advocate for limiting large over-story trees that may interfere with the view of the State Capitol in the years to come. Lastly, the English Style aspect of the Woodsshire Neighborhood is best seen in the layout Herminghaus designed for the streets and Round Points.
- In the original Herminghaus document there is no discussion about turf grass or its maintenance. Most of the horticultural writing in the document is given over to discussions of trees, shrubs, and their improving effects on the neighborhood. Turf grass maintenance recommendations and found in the Sutton document and are provided by Terry Riordan.



1926 Advertisement Cover



# PARK INVENTORY

The updated tree and shrub inventory was conducted over four different site visits. The inventory represents our best attempt to identify species and locations and can be used to give neighborhood decision makers a better idea of what original plant materials are still present on the site, the health of the current trees, and direction for future tree replacements, substitutions, and enhancements.

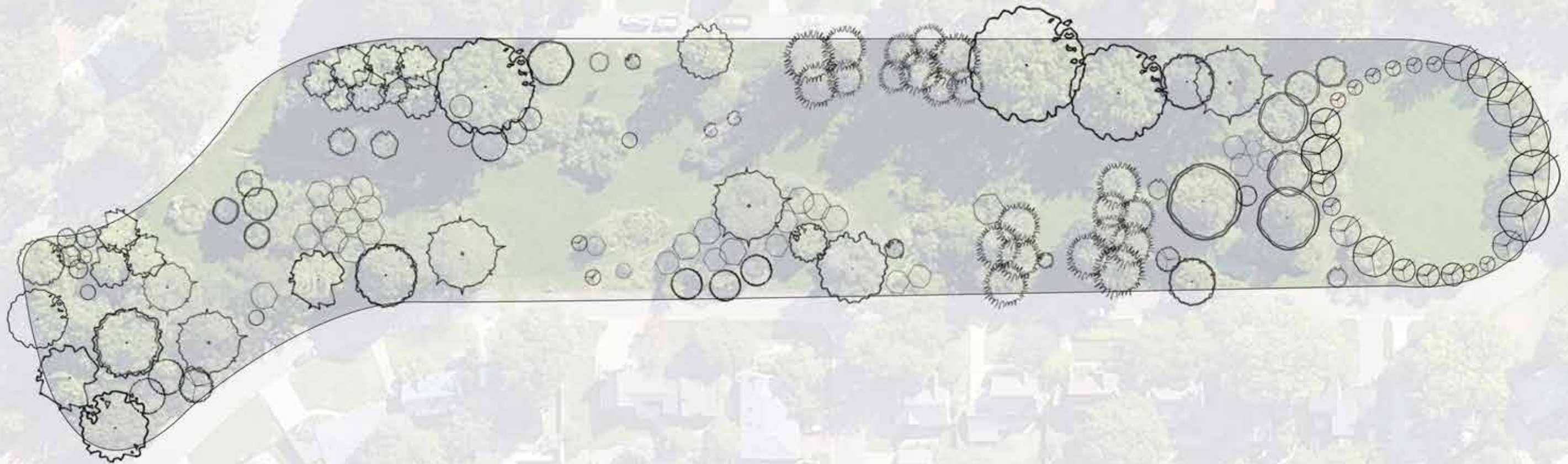
This survey was conducted using a Quartics online interface and was sent to neighborhood members via a email link as well as a QR code flier distributed door to door. It represents neighborhood feedback about how the park is viewed and used in 2023.

- TREE INVENTORY
- SHRUB INVENTORY
- OPINION INVENTORY





# TREE INVENTORY

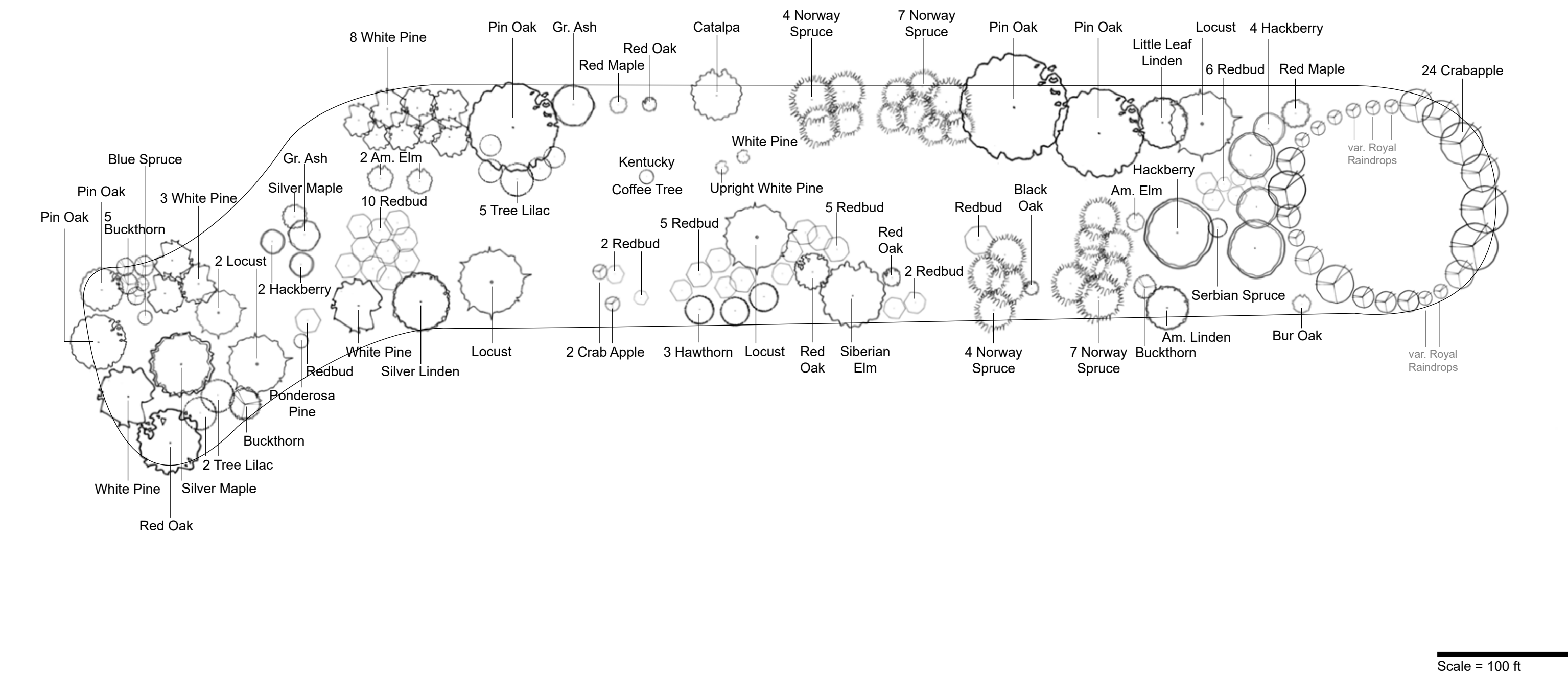


Scale = 100 ft



# TREE INVENTORY

Tree canopy species, sizes, and locations are based off of field observations (July 2023) and underlaying Google Earth imagery (2022). Tree locations on the map may vary slightly from their actual positions.





# TREE RECOMMENDATIONS

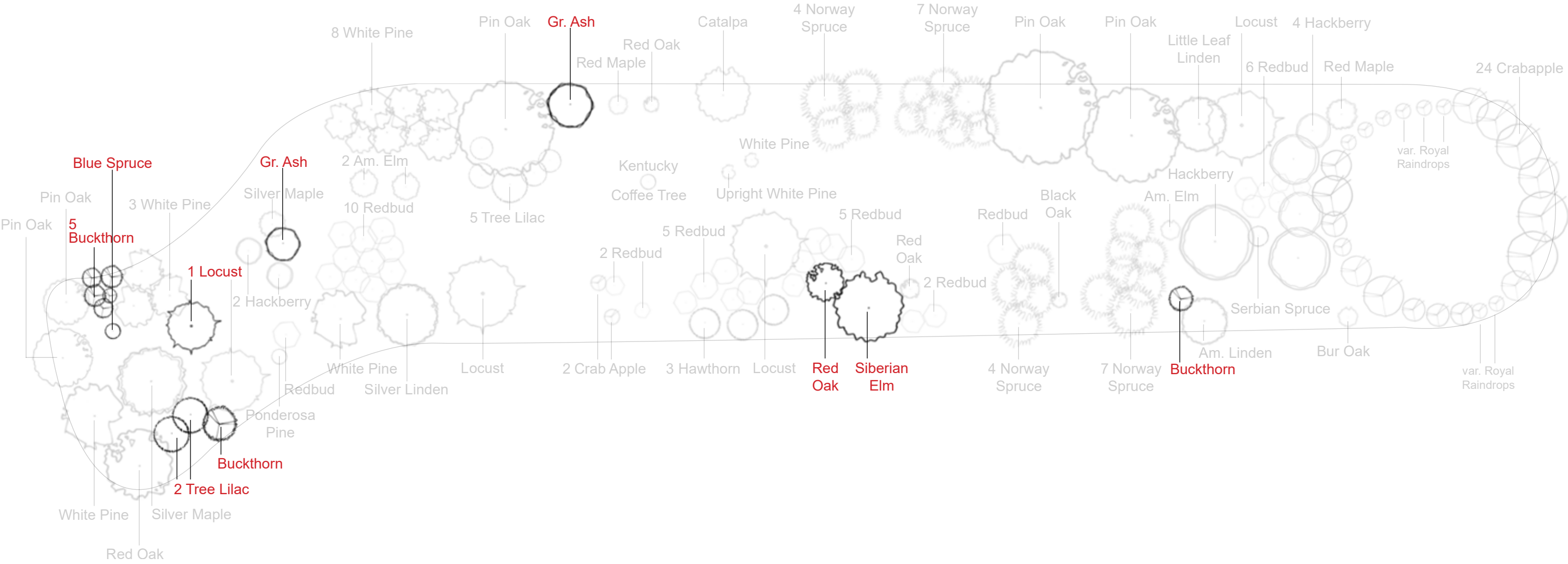
The below table represents a list of tree species and quantities present at Woodsshire Park in July of 2023. The notes section contains recommendations for actions to be taken. The designation of **(native)** is an indication of native to Nebraska

| Tree Species                         | Scientific Name                          | Quantity | Notes   |
|--------------------------------------|--|----------|---|
| Pin Oak                              | <i>Quercus palustris</i>                 | 6        | The largest trees on the site are most likely 80 -100 years old. Many houses have a large pin oak in the front yard that was most likely planted the year the house was built.  |
| Norway Spruce                        | <i>Picea abeis</i>                       | 22       | It appears to us that several of the larger groves of these trees are original 1920's plantings.  |
| Honey Locust <b>(native)</b>         | <i>Glenditsia triacanthos</i>            | 5        | <b>Remove</b> Large dead locust on the north end of the property.   |
| Little Leaf Linden                   | <i>Tilia cordata</i>                     | 1        |   |
| American Linden <b>(native)</b>      | <i>Tilia americana</i>                   | 1        |   |
| Silver Linden                        | <i>Tilia tormentosa</i>                  | 1        |   |
| Hackberry <b>(native)</b>            | <i>Celtis occidentalis</i>               | 7        | Several of these large trees directly north of The Circle screen views to the Capitol. Consider lower growing trees as these age out and are removed.   |
| Northern Catalpa <b>(native)</b>     | <i>Catalpa speciosa</i>                  | 1        |   |
| Siberian Elm                         | <i>Ulmus pumila</i>                      | 1        | <b>Possible removal and replacement.</b> This is only a recommendation based off of the reality that this tree is an exotic heavy seeder, however, it has been kept at bay to date.   |
| American Elm <b>(native)</b>         | <i>Ulmus americana</i>                   | 3        | Depending on species planted, there is a possibility of infection with Dutch Elm Disease. Resistant varieties include, Princeton, Prairie Spirit, Jefferson,  |
| Red Oak <b>(native)</b>              | <i>Quercus rubra</i>                     | 3        | <b>Remove</b> 1 due to compromised structure and overall health.  |
| Black Oak <b>(native)</b>            | <i>Quercus velutina</i>                  | 2        | This small tree (4-5' tall) may or may not be a black oak, however this is the ID that we feel best is best ascribed given its identifying characteristics.   |
| Green Ash <b>(native)</b>            | <i>Fraxinis pennsylvanica</i>            | 2        | <b>Remove and replace</b> with different species as Emerald Ash Borer will kill these species.  |
| White Pine                           | <i>Pinus strobus</i>                     | 14       |   |
| Upright White Pine                   | <i>Pinus strobus "Fastigiata"</i>        | 1        |   |
| Crabapple                            | <i>Malus spp.</i>                        | 25       | Prune dead limbs. See Circle of Crabapple section for further discussion.   |
| Bur Oak <b>(native)</b>              | <i>Quercus macrocarpa</i>                | 1        | Bur Oak is a Nebraska native tree and will be beneficial to plant when other oaks on the site age out or are removed.   |
| Red Maple                            | <i>Acer rubrum</i>                       | 2        | Limit the number of red maple and freeman maples that are planted in the park moving forward, they are over represented in our community forests. Alternative for fall color, sugar maple, service berry, and black gum trees   |
| Silver Maple <b>(native)</b>         | <i>Acer saccharinum</i>                  | 2        |   |
| Thornless Cockspur Hawthorn          | <i>Crataegus crus-galli var. inermis</i> | 3        |   |
| Red Bud <b>(native)</b>              | <i>Cercis canadensis</i>                 | 21       | Cupping of leaves is a result of herbicide damage either from park lawn treatments or nearby spray drift.   |
| Japanese Tree Lilac                  | <i>Syringa reticulata</i>                | 7        | <b>Remove and replace</b> two large specimens on the northwest corner of the park as they are decline. Note that these trees are most likely original plantings from the park and that trunk wood may be of use to a wood turner as it is novel and rare. Several other smaller and healthier trees still exist in the park. Herminghaus describes Chinese Lilac planted. |
| Buckthorn <b>(invasive)</b>          | <i>Rhamnus cathartica</i>                | 5        | <b>Remove all</b> as it is considered an invasive species and is showing why. Priority removal grind or treat stumps with Buckthron Blaster to prevent resprouting.   |
| Serbian Spruce                       | <i>Picea omorika</i>                     | 1        |   |
| Kentucky Coffee Tree <b>(native)</b> | <i>Gymnocladus dioicus</i>               | 1        | A good landscape tree, in beds it can often send up root suckers and for groves, which might not be bad in this context.  |
| Ponderosa Pine <b>(native)</b>       | <i>Pinus ponderosa</i>                   | 1        |   |
| Blue Spruce                          | <i>Picea pungens</i>                     | 1        | <b>Consider relocation or removal</b> as these trees do not grow well or survive long in shade. Humid warm nights and climate change are forcing us to reconsider planting this tree.   |
| Tree Total                           |  | 140      |   |



# TREE REMOVAL

The trees listed in red below are species that NSA believes should be considered for removal and replacement.





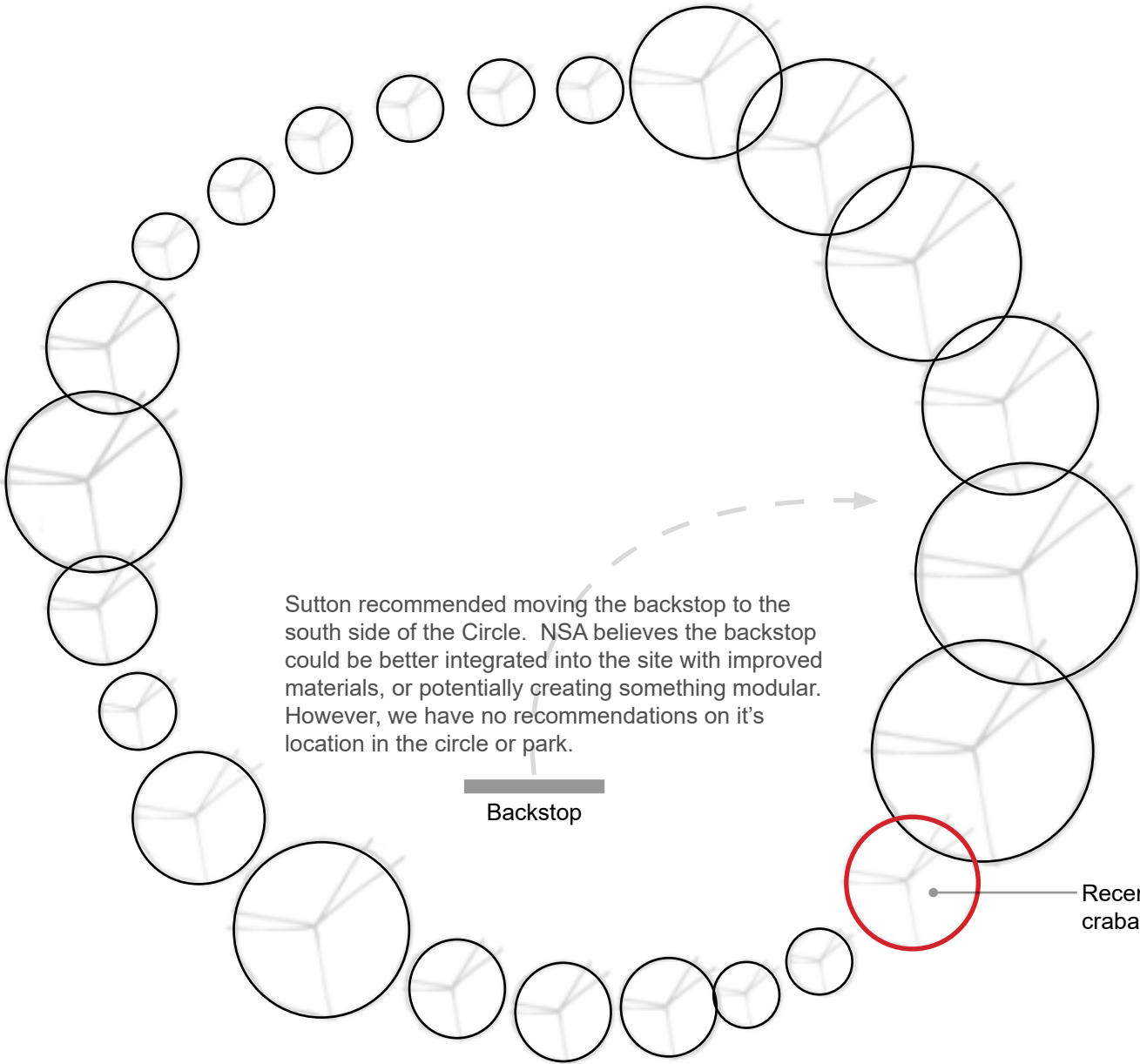
# CIRCLE OF CRABAPPLES

“The Circle” in Woodsshire Park is how this area was originally described by Herminghaus in the neighborhood advertisement. In this document it is suggested that this area is a play circle for kids and is lined by a circle of shrubs and trees. The historical 1926 photo appears to show a planted circle, most likely with shrubs. At present it is enclosed by a circle of 24 crabapple trees at various ages of maturity. We are not sure when the oldest of these trees were planted, however some of them are clearly 30+ years old. The 1987 Sutton document specifies “Spring Snow” crabapple for replacement plantings on the north and west sides.

Currently, Royal Raindrops is the cultivar of crab apple that is being used to replant the circle when trees come out. There are many varieties of crab apple to choose from with the most important characteristics for the selection of the tree being **flower color, disease resistance, and mature height**. We would recommend selecting **semi-dwarf trees with a mature height of 12-15’**. We would advocate to not select dwarf (small) or standard (large) rootstock crabapple trees when replanting.



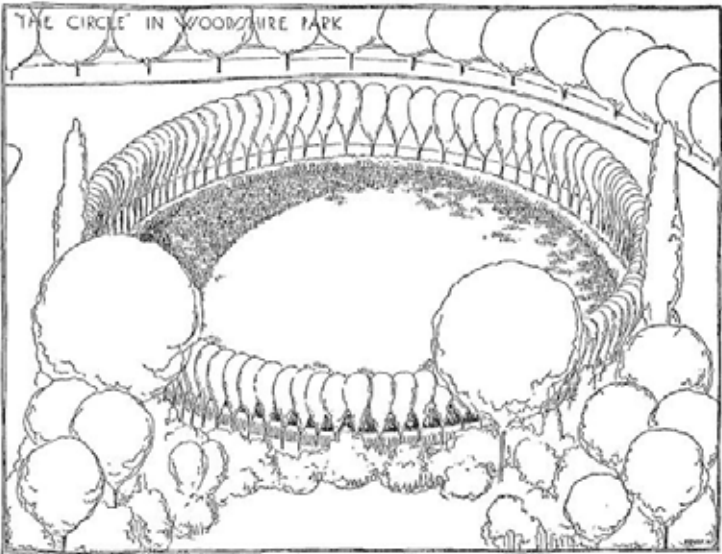
Panorama



Sutton recommended moving the backstop to the south side of the Circle. NSA believes the backstop could be better integrated into the site with improved materials, or potentially creating something modular. However, we have no recommendations on it’s location in the circle or park.

Backstop

Recently removed, replace with crabapple as soon as possible



Original Herminghaus sketch



South end - missing tree



Royal raindrops cultivar



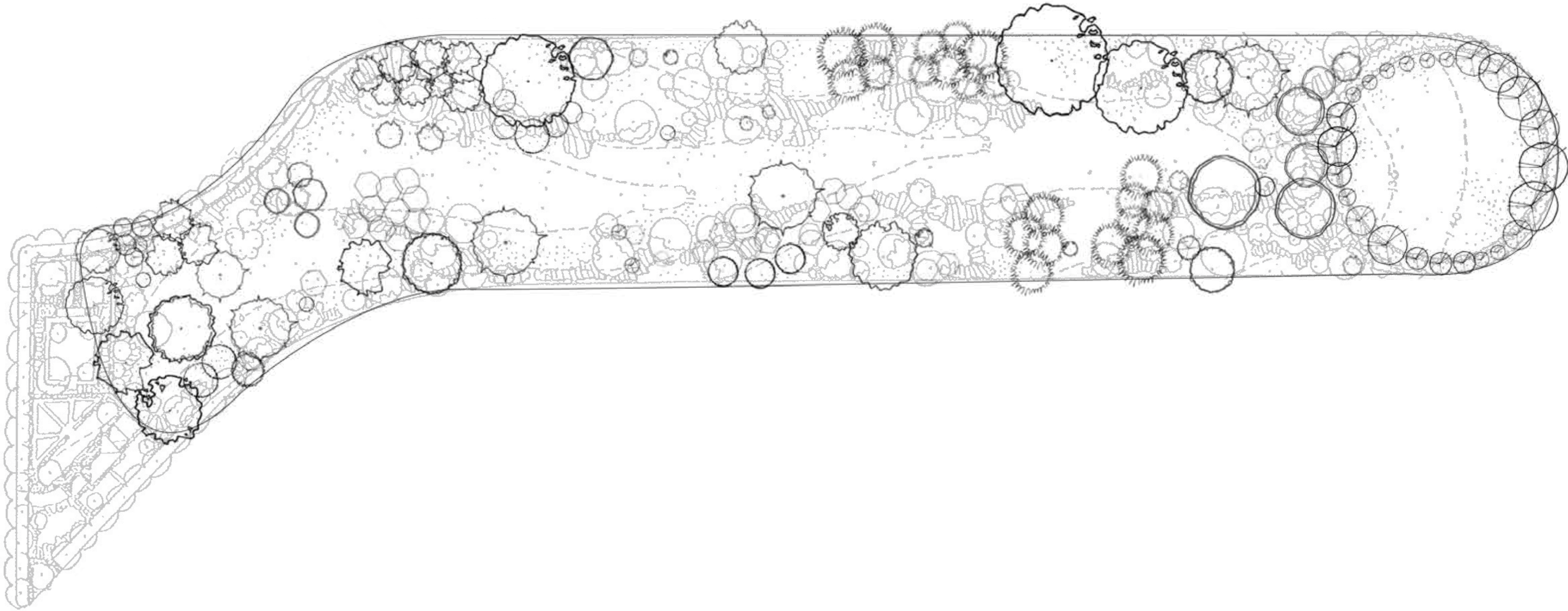
Recent removal on the north side



# HISTORICAL TREE OVERLAY

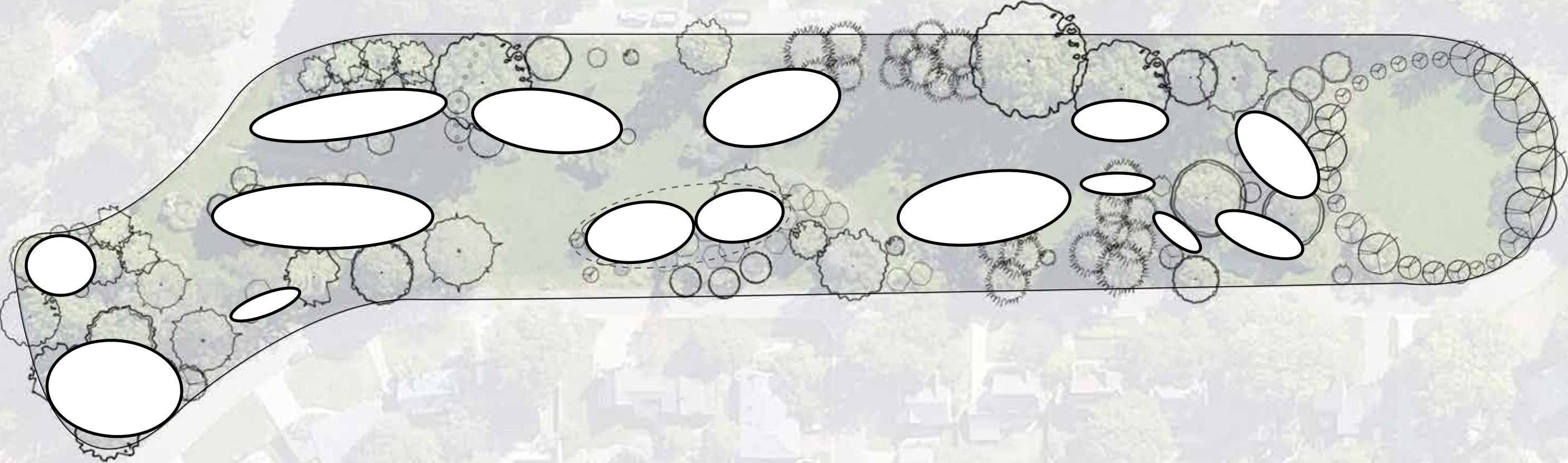
We have included this Overlay of Herminghaus' schematic sketch with the current placement of trees. Again, it is possible that some of the groves or Norway Spruce and larger Pin Oaks are original plantings. However, there is not definitive overlap in the schematic plan and current tree collection to conclude that the species of planting arrangement is firm and necessary to maintain.

Planting of trees in Woodsshire Park should however be strategic, and conform a well thought out strategy of replacement with a diversity of species to improve resilience, habitat, and wildlife forage.





# SHRUB BED INVENTORY





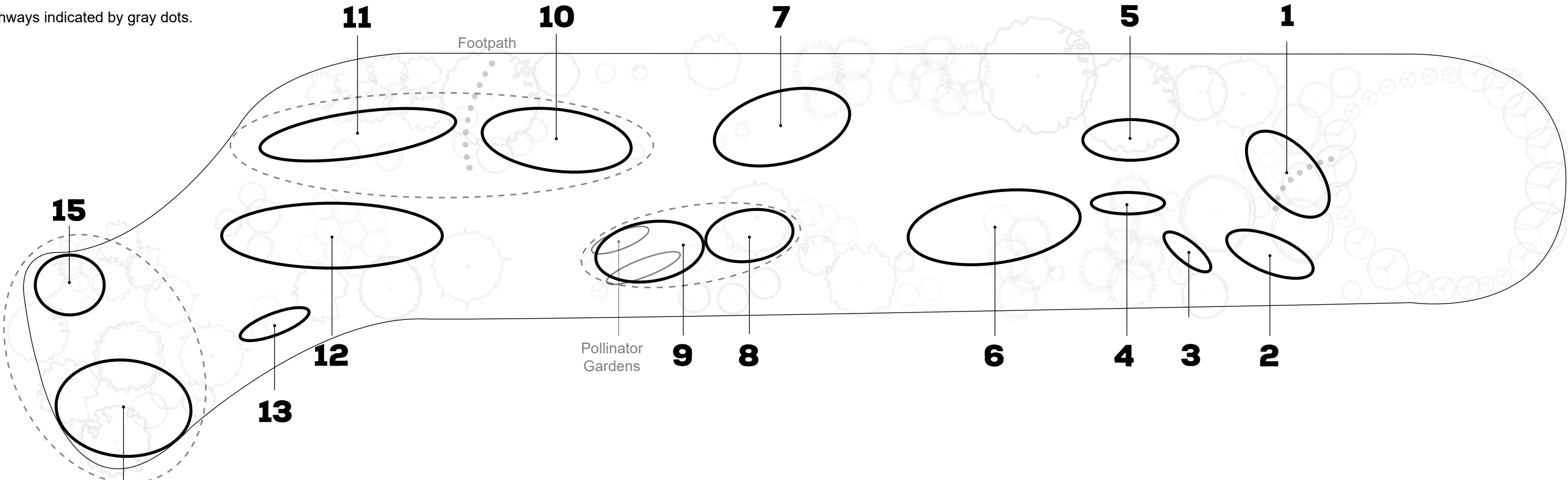
# SHRUB BEDS

Shrub bed sizes and locations are based off of field observations (July 2023) and underlying Google Earth imagery (2022). Shrub bed locations on the map are indicated with ovals and don't represent the actual shape of the beds.

Black ovals indicate bed locations and provide a system to identify approximate location and a numbering program for maintenance recommendations.

Gray dotted lines that group two beds indicate that these beds are in fact one bed, but should be managed as different spaces because of distance and species composition.

Informal pathways indicated by gray dots.



- 11. Honeysuckle, Spirea edge
- 12. Spirea edge, redbud, elderberry
- 13. Dwarf lilacs
- 14. Vinca groundcover, Honeysuckle
- 15. Spirea edge, buckthorns

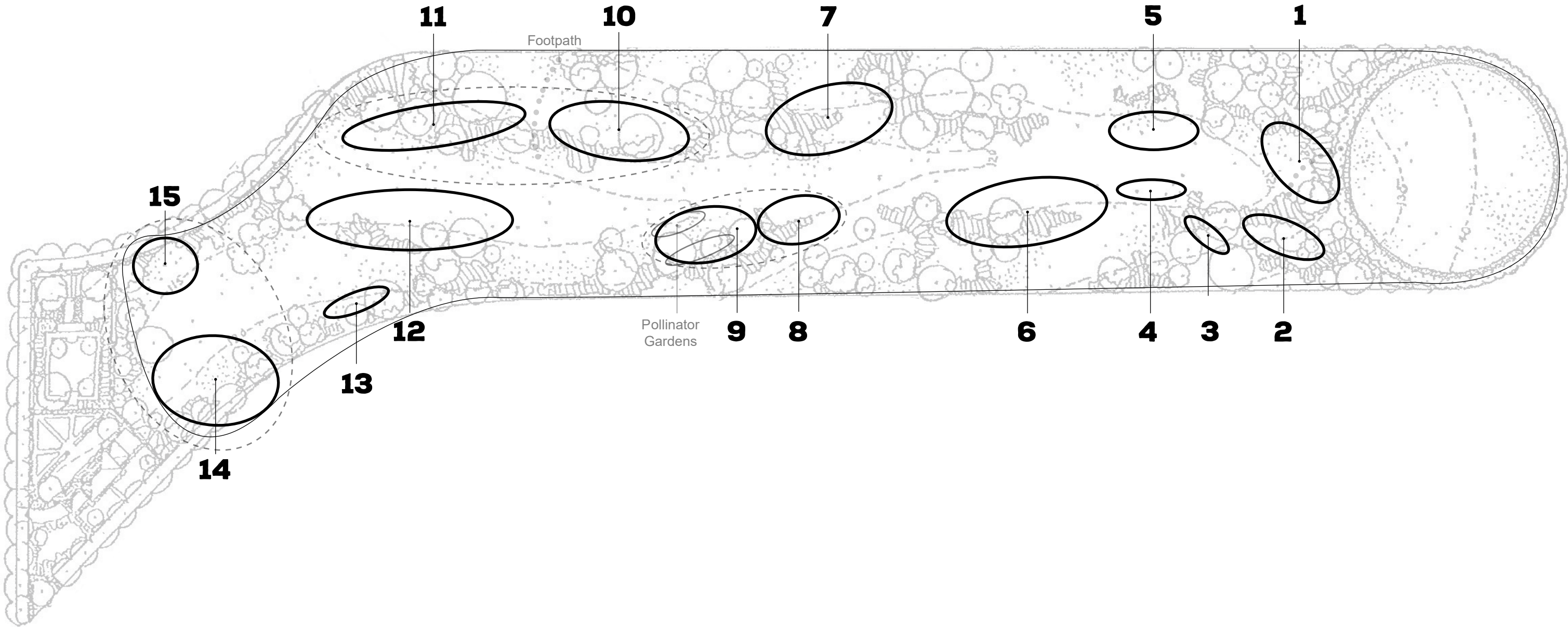
- 7. Honeysuckle, wildflower mix
- 8. Spirea edge and Woodland understory
- 9. Pollinator garden area
- 10. Honeysuckle, Spirea edge

- 1. Forsythia and Redbud
- 2. Burning Bush
- 3. Lilac
- 4. Honeysuckle
- 5. Spirea
- 6. Privet, Nannyberry Viburnum, Elderberry



# HISTORICAL SHRUB OVERLAY

This overlay of the historic Schematic drawing and the current shrub bed arrangement indicates to NSA that there is no obvious design overlap between the two. Current shrub beds are in approximate locations to the historic design intent but are not firm in their arrangement, shape, or number.





# SHRUB MAINTENANCE PLAN

The below number corresponds to the number on the Shrub Beds map.

## 1 FORSYTHIA AND REDBUD

Forsythia is a spring flowering deciduous shrub that should be pruned back after flowers have faded. Keeping a natural rounded shape is preferable to turning it into a hedge. If these shrubs have become too big and unruly it is possible to renewal prune Forsythia by cutting them back to 4-6” from the ground and allowing new shoots to derive new shrub masses. **Not native to Nebraska.**

Redbud are small, short-lived understory trees that flower in the spring. Prune off any dead or broken branches. These are great plantings for this area as they will thrive on the edge of the canopy of Hackberry trees. When Hackberry’s come out it would be preferable to keep low growing trees in this area to preserve the view of the Capitol. **Native to Nebraska.**



## 2 BURNING BUSH

Burning bush is a deciduous shrub that has brilliant red autumn color. These shrubs can become large and will fill a bed over the course of a few years unless they are managed. Burning bush will respond well to a hard pruning and can be renewal pruned by cutting them back to the ground and selecting sprouts for new shrub development. Additionally, they can be kept small by annual pruning.

Consider removal and replanting of dying burning bush. Renewal pruning may also be an option. **Not native to Nebraska**



## 3 LILAC

Herminghaus is noted as saying that in time Woodsshire will be known for it’s lilacs. At present this lilac bed is rather overgrown and is in need of renewal pruning. Prune to the ground the largest and oldest lilac stems and allow for the younger stems to become dominant.

Remove buckthron growing in bed. Consider leaving the American Elm growing in this bed. **Not native to Nebraska**





# SHRUB MAINTENANCE PLAN

The below number corresponds to the number on the Shrub Beds map.

## 4 HONEYSUCKLE

This entire bed consists of Amur Honeysuckle and should be removed. Removal can be done by cutting and treating the stumps. Or dig plants by roots and spray the bed to kill remaining vegetation. It should be considered that the most effective approach to Honeysuckle removal will be thorough **mechanical means with a mini-excavator**. This work can be done in late fall to avoid tearing up turf and adjacent beds, reseeding and regrading can be done before spring planting.

Apply new mulch and plant with other recommended native shrubs.  
**Not native to Nebraska**



## 5 SPIREA

Spirea flower in spring and mid summer depending on what type of cultivar you have. According to Sutton’s plan Vanhouttei spirea were specified, however until spring flowering it is tough to determine the exact variety. These shrubs are forgiving to pruning and a rounded form is a preferable shape. Prune after flowering has ended. Cut back as much as you’d like as it will readily regrow.

This shrub mass has done a good job of resisting encroachment by other weedy species as it forms a dense mass. Consider planting more spirea as they also attract pollinators.  
**Not native to Nebraska**



## 6 PRIVET, NANNYBERRY VIBURNUM, ELDERBERRY

This larger shrub bed is in need of some attention. At present there are privet, elderberry, nannyberry viburnum (**native**), mulberry suckers and elm suckers growing in the bed along with ground covers or ground ivy, creeping buttercup and Virginia creeper.

We would advocate to cut back most of this bed to the ground except for the viburnum species. If it is determined that Privet species are to remain renewal prune by cutting the largest stems back to the ground. If this plant is to go, consider mechanical removal of the shrubs.

Other undesired species can be removed during privet removal or can be cut back to the ground and treated with herbicide. **Elderberry is a native shrub** and a useful pollinator and wildlife plant.



Nannyberry viburnum



Elderberry



# SHRUB MAINTENANCE PLAN

The below number corresponds to the number on the Shrub Beds map.

## 7 HONEYSUCKLE, WILDFLOWERS

Amur Honeysuckle and should be removed. Removal can be done by cutting and treating the stumps. Or dig plants by roots and spray the bed to kill remaining vegetation. Apply new mulch and plant with other recommended native shrubs.

Consider a mixture of more meadow and shrub plantings in this area.



## 8 SPIREA EDGE, UNDERSTORY

Spirea can be managed as noted previously. Understory has been covered in landscape fabric, however there are still elm, mulberry, and other woody seedlings coming up in the understory.

This area could be mowed once a year to discourage woody growth. This may have to be done using a flail, brush, or sickle-bar mower. This is a specialized tool and may need to be rented or hired out.

There is also an opportunity for bench seating in and around this area of high shade and canopy cover.



## 9 POLLINATOR GARDEN AREA

At present the maintenance of this area is done by neighborhood volunteers. NSA is impressed by the look of this garden and commends the residents who have been diligently keeping this planting up.





# SHRUB MAINTENANCE PLAN

The below number corresponds to the number on the Shrub Beds map.

## 10 HONEYSUCKLE, SPIREA EDGE

NSA would recommend the complete removal of honeysuckle in this area. Spirea can be renewal pruned and if necessary relocated to more productive areas.

The newer Kentucky Coffee tree planted in this area should be encouraged to grow. However, we feel that the south half of this bed could be completely renovated and potentially planted with a mixture of meadow and new shrub species.



## 11 HONEYSUCKLE, SPIREA EDGE

NSA would recommend the complete removal of honeysuckle in this area. Spirea can be renewal pruned and if necessary relocated to more productive areas of the bed.

Encourage Chinese lilac trees to grow in this area, however if they become too numerous consider selecting preferred trees and removing others as needed.



## 12 SPIREA EDGE, REDBUD, ELDERBERRY

Renewal prune spirea hedge. Cut back Elderberry annually or as needed. Manage redbud for dead and broken branches.





# SHRUB MAINTENANCE PLAN

The below number corresponds to the number on the Shrub Beds map.

## 13 LILACS

There are several varieties of dwarf lilacs, the Sutton plan calls out planting Miss Kim and Late Lilac varieties. NSA would echo these plant recommendations and note that this bed would have the space to plant a few more specimens in order to create more density. Existing large stem lilacs can be renewal pruned. The redbud trees in this area will work, however, we question if the lone Ponderosa Pine in this bed is in the right location as it appears to be yellowing.



## 14 VINCA GROUNDCOVER, HONEYSUCKLE

The vinca ground cover (*Vinca minor*) in this area is working to keep other weedy species out. It may not be native nor preferable in other locations, but in this north bed it is creating a carpet of green and reducing maintenance. NSA would recommend the vinca remain and that the trees in this area scheduled to be removed are replanted with a diversity of species. All honeysuckle should be removed.

Not native to Nebraska



## 15 SPIREA EDGE, BUCKTHORNS

This small area of the northeast corner is on the periphery of the site. For this reason the few large buckthorn in this area have escaped cutting and treatment. We would recommend prioritizing removal of these trees and replanting with something that is shade tolerant but also attractive as this area can be viewed from the road.





# WEED CONTROL

It is worth noting that weed control in shrub beds is of primary concern for both aesthetic and ecological reasons. Weed control first begins with knowing the difference between what you want to grow in the bed and what you do not. This requires species identification and also some knowledge about its growth habit, if it is a desirable species, or if it has the potential to overwhelm. Ultimately, that which you would like to remove from the garden can then be considered a weed, and there are differing approaches to removal.

The primary species that we observed in our walk through of the garden included many weed trees, including some invasive species. These can be controlled by cutting them out and treating the stumps with a weed killer like Round Up or Buckthorn Blaster. They can also be pulled or dug for chemical free options.

We also noticed a variety of annual weed species, these are weed species that set seed every year and regrow from the new seed. This is in contrast with perennial weed species, which return year after year from the same root system or stems. It is then notable that work performed to control perennial weed species will be effective over many seasons, while annual weed control may only last a short while.

Soil disturbance, rain and weather patterns, existing weed seed in the soil, and sunlight all affect annual weed growth. Options like pre-emergent herbicides can help to control annual weed pressure, as well as timely applications of herbicides to young weeds that are just beginning to get established. It is also possible to kill annual weeds by hand pulling, suppression through weed barrier fabric, mulch, mowing or line trimming, or creating the garden conditions that suppress weed growth...i.e. shade and competition.

The reality is that there is not shortage of weed growth in a garden and the park has to balance the ability to control all weedy species with their willingness to participate in removal, a budget for removal, weed suppression timing, and a multi-year strategy to renovating the shrub beds.



This images shows instances of invasive garlic mustard, poke weed, Virginia creeper, ground ivy



Climbing nightshade - *Solanum dulcamara*



Buckthorn blaster - <https://landscape-restoration.com/>

Buckthorn blaster is contained in a bottle with an easy application top that facilitates specific herbicide placement to a recently cut stem or trunk. This method creates less chance for non-target herbicide application or contact with the human applicator.



The question of, What stay and What goes? is a good question for an area like this. Some residents may find this appealing while others view it as “weedy.”



Unknown thistle - native thistles often have white under-sides of leaves, this one did not.



Mulberry Tree



# MAINTENANCE SCHEDULE

The below schedule is an example of how to prioritize the maintenance of the existing shrub beds over a multi-year period.

Priority 1 - NSA believes that immediate attention should be paid to the north side of the park as this was indicated as resident's least favorite place in the park. Cleaning up invasive honeysuckle, cutting out dead trees, replanting removed trees, addressing drainage area, and potentially enhancing the park with further seating or trail access could improve the perception of this area.

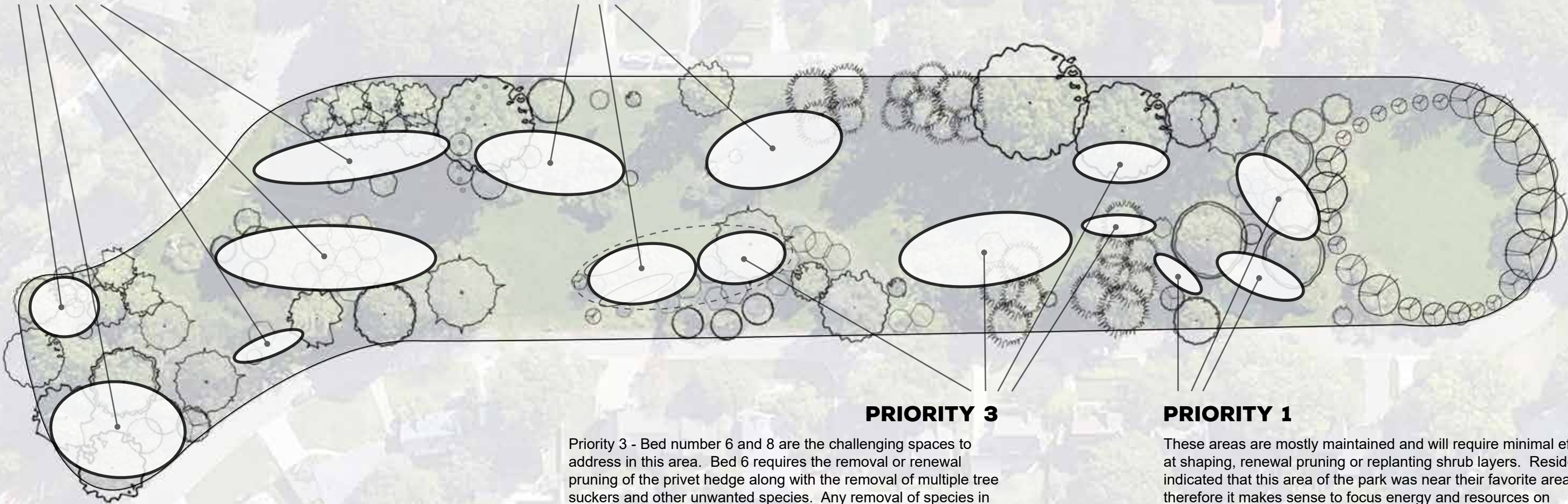
## PRIORITY 1

Priority 2 - Address the interior of the park with the complete removal of the massive honeysuckle shrubs that are pervasive in this area. These shrubs could be removed with a **mini-excavator to eliminate them from the root**, the beds could be prepped for replanting with a mixture of shrub masses and meadow areas. Connecting both sides of the park with meadow and pollinator plantings in the area is effective as it contains few trees and is in full sun, which many native species prefer. This connection would also build on the success of the existing pollinator planting and satisfy residents interest in environmental landscaping and native pollinator species.

## PRIORITY 2

# ANNUAL MAINTENANCE

Once the shrub beds have been attended to, NSA believes that annual **shrub bed maintenance should be prioritized in the park budgeting process**. There are many local landscaping contractors who are familiar with turf work, however it takes the right team to understand the horticultural care that is needed for shrub, tree, and perennial plantings. We believe that the right contractor could keep the park shrub bed areas looking good and would recommend conversation with Kinghorn Gardens, Campbells Nursery, or Scott John of Aesthetics Inc.



## PRIORITY 3

Priority 3 - Bed number 6 and 8 are the challenging spaces to address in this area. Bed 6 requires the removal or renewal pruning of the privet hedge along with the removal of multiple tree suckers and other unwanted species. Any removal of species in this area should be coupled with replanting to reestablish a shrub layer to compete with weed pressure.

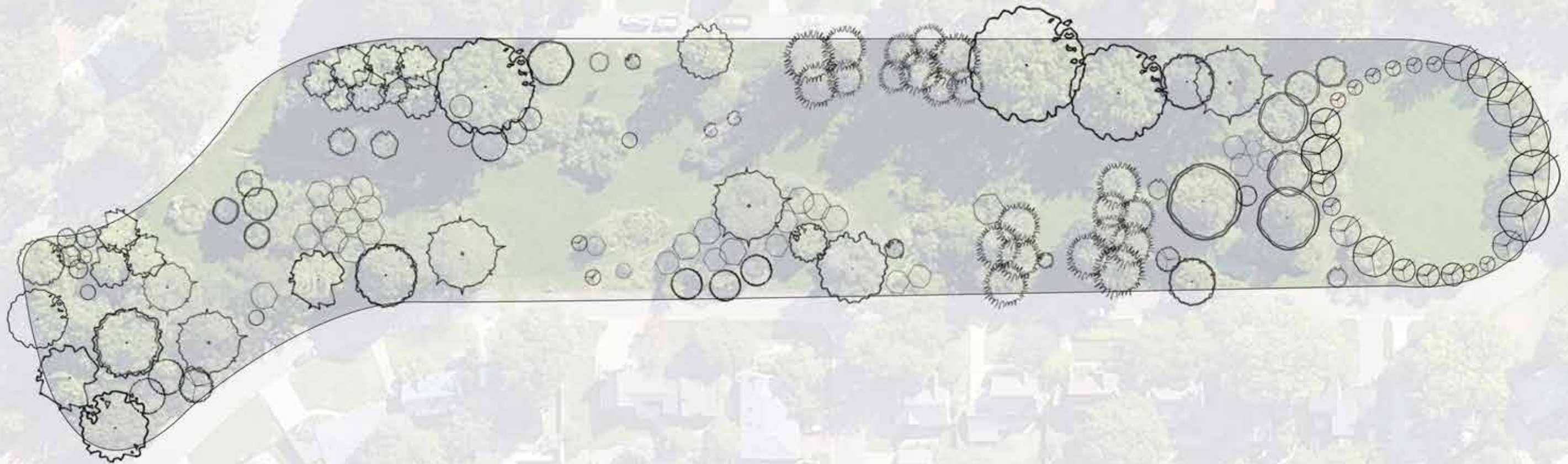
Bed 8 is mostly an understory bed that has been maintained in the past with landscape fabric. NSA believes it would be best to remove the landscape fabric and proceed with a brush mowing program in this area once to twice per season. Placement of bench seating in this shady area is a possibility.

## PRIORITY 1

These areas are mostly maintained and will require minimal effort at shaping, renewal pruning or replanting shrub layers. Residents indicated that this area of the park was near their favorite area, therefore it makes sense to focus energy and resources on enhancing these beds as they will be seen regularly, therefore we consider them a Priority 1.



# QUALTRICS SURVEY





# NEIGHBORHOOD SURVEY RESULTS

## SUMMARY

This neighborhood survey was conducted in response to a dialogue with the Woodsshire Park Committee about how to best engage residents about their opinions and perceptions of the park. The questions were drafted by NSA, however, park committee members weighed in with edits and improvements prior to the surveys release. The survey was emailed to neighborhood residents, and it was also presented to residents through a QR code paper flier. Both the email and QR code directed residents to a Qualtrics survey page where all responses could be kept anonymous and independent of email addresses. The accompanying report pages were generated in Qualtrics software and formatted by NSA staff.

In total there were 57 responses to the questions presented. Not every respondent answered every question, therefore not every question has 57 answers. There is an accompanying Excel document that contains the raw data of this survey and this has been given to the park committee.

## NSA COMMENTS

**Question 1** - Most respondents are Walking, Walking Dogs, and Bringing Children to the park.

Improvements and maintenance program changes can be targeted to positively impact these majority users. This may be an enhancement of trails, access into the park, amenities for dogs, children's programming.

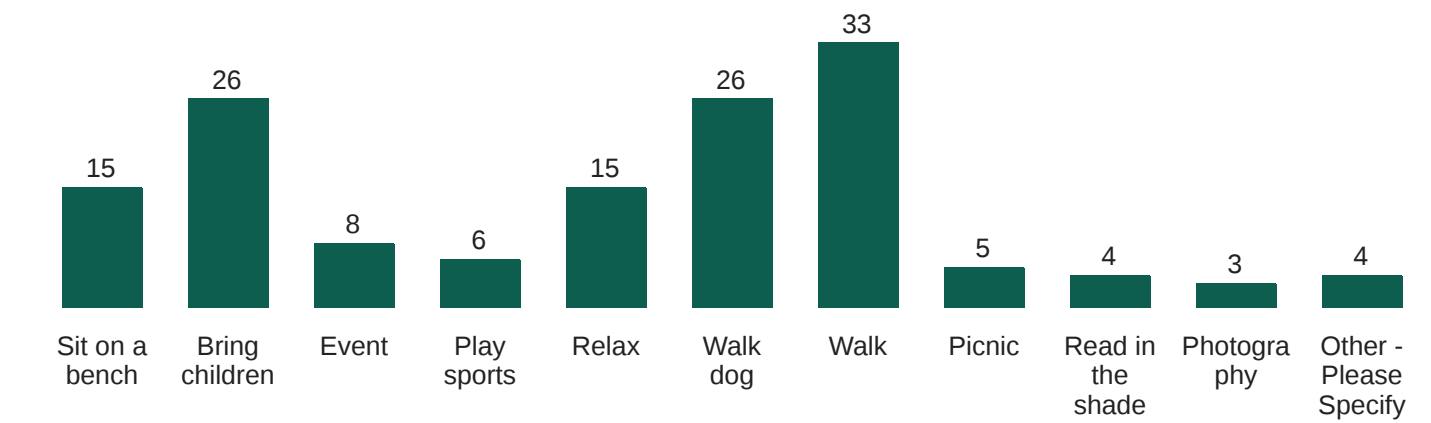
Relax and Sit on Bench also had a high number of users, and it should be considered how to enhance these experiences. Currently several benches exist in the park, however it's possible to target additional seating areas or enhance current spaces.

Low use activities include, Photography, Picnic, Read in Shade, Play Sports, and Events.

**Woodsshire Park Regions** map was generated in Qualtrics to accompany answers to questions 2 and 3.



What are the primary reasons for your typical visit to Woodsshire Park? You may select up to 3 choices.



What are the primary reasons for your typical visit to Woodsshire Park?  
Other - Please Specify

I live across the street. I sit on the porch and just admire the setting. I love the peacefulness it brings to our neighborhood.

View from porch. Lower population density. Raise house values.

Weed and tend to the beds

walking through

## Woodsshire Park Regions





NSA COMMENTS

This “Heat Map” of responses shows Red, highest response, while green indicates less responses. From south to north the respondents favorite areas include the crab apple circle and the area directly to the north of the circle.

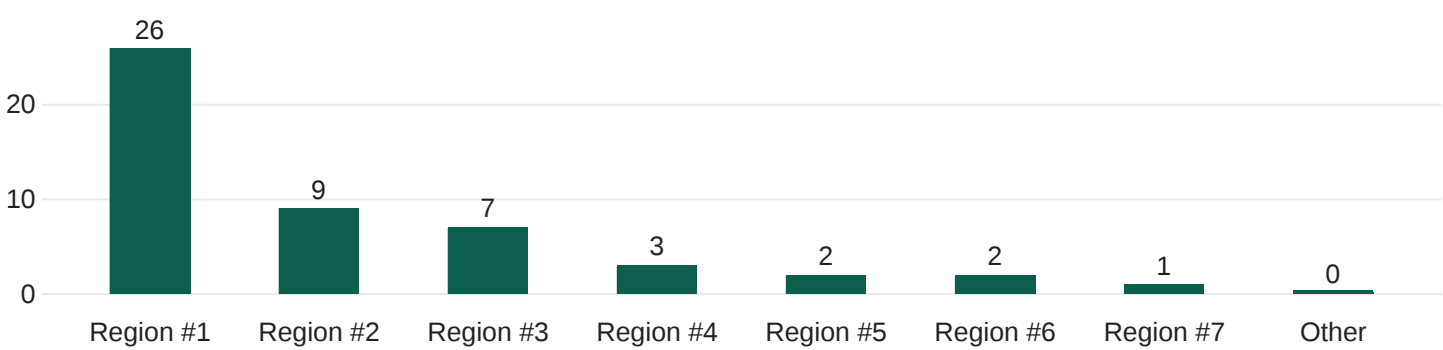
Respondents least favorite area of the park was found at the north end, with only a few marking a southern location.

NSA believes that it would be appropriate to invest in enhancements to both the Favorite and Least favorite areas as it would enhance visitors experience in the south of the park and ameliorate some of the issues found in the north. This investment could take the form of enhanced maintenance, seating or play amenity, new plantings of trees and shrubs, or trail areas.

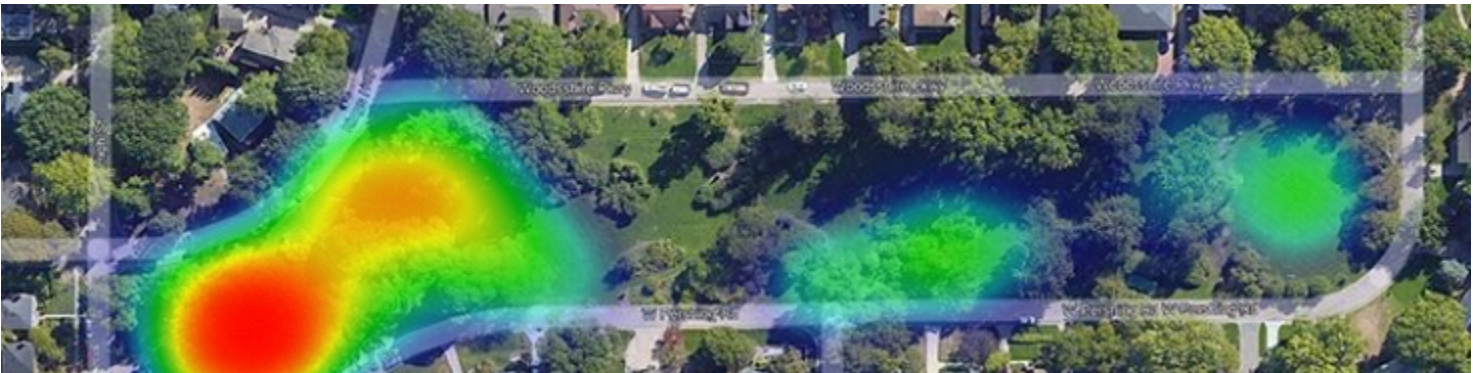
My favorite place in Woodsshire Park is?



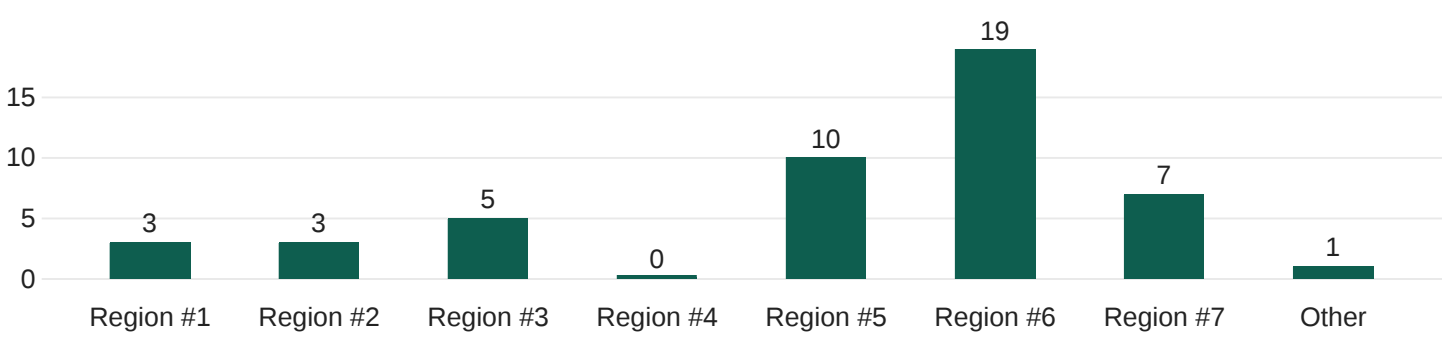
Please click on your favorite place within Woodsshire Park. - Regions



My least favorite place in Woodsshire Park is?



My least favorite place in Woodsshire Park is? - Regions





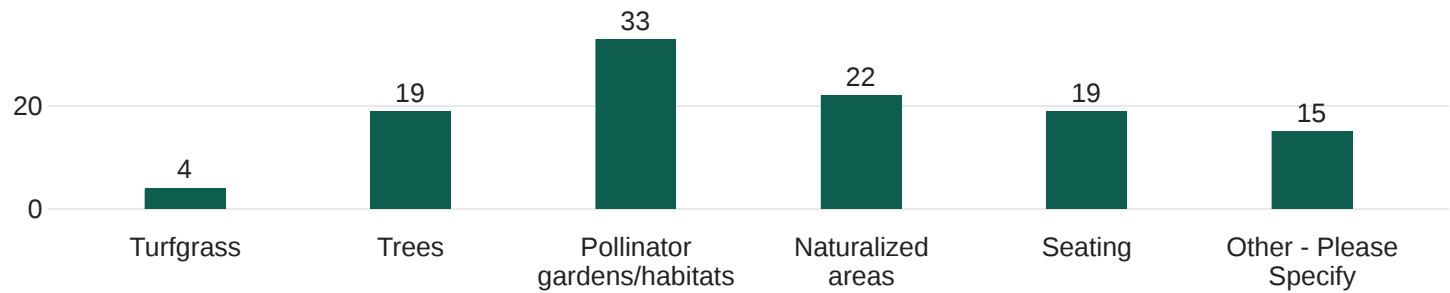
NSA COMMENTS

This is a valuable question as it begins to better understand the neighborhoods perception of additions to the park.

Pollinator, Naturalized Areas,Trees, and Seating all record high levels of support. Turf grass ranks lowest. It is instructive to note that many folks commented in the Other section and reading their responses indicated a demand for children’s play areas.

The existing pollinator garden in the park was a project with NSA, we are happy to discuss additions, however any further pollinator plantings need to be discussed within a context of the neighborhoods willingness to maintain them. Additionally, pollinator habitat can be created with shrub and tree layers.

What would you like to see more of in the park?  
You may select up to 3 choices.



What would you like to see more of in the park? - Other

- Trees for shade
- I don't have any agenda for change either way
- Bees are important to me
- Not really sure.
- native tree species
- Keep it as is. No change.
- Not pollinator gardens. This is the country club with well kept houses, not the countryside. A little bit is OK. But no more.
- Replace older trees
- I'd like to see the use of indigenous plants that are drought resistant, ie. prairie grasses and forbes that naturally occur in our environment.
- nature explore outdoor children's items
- Fun areas for children to play.
- I would like to see the original landscaping restored.
- Thick brushy areas more purposeful.
- Picnic bench, maybe a fire pit, boulders for beauty and kids climbing
- Horseshoes



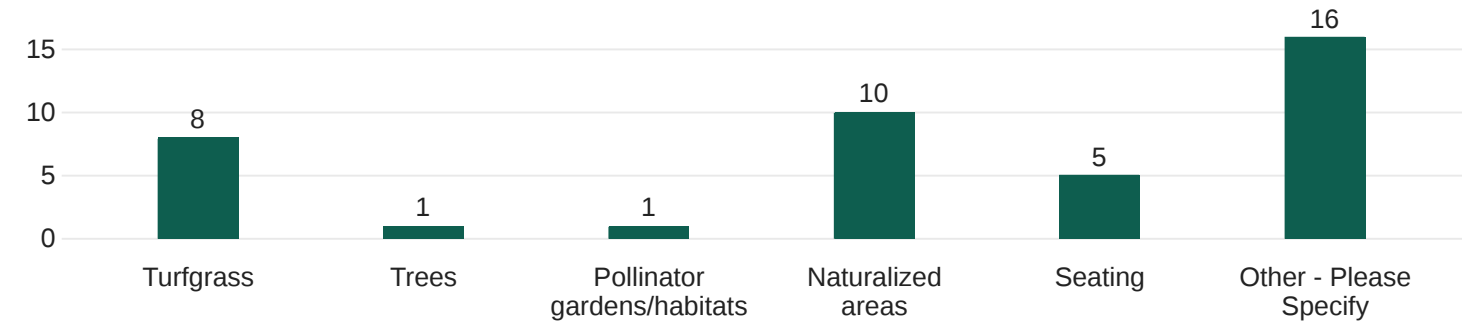


NSA COMMENTS

The largest response category to this question was Other, whereby respondents were able to individually chime in on their desire to see less of in the park.

Notable comments to NSA were people would like to see less weeds and invasive plants, non-native plants, and messy areas. It was also noted somebody would like to see less use of pesticides and herbicides.

What would you like to see less of in the park?  
You may select up to 3 choices.



What would you like to see less of in the park? - Other

- I like it the way it is mostly
- Not really sure.
- nonnative plants
- No change.
- Messy gardens.
- None
- WEEDS and VINES! Volunteer trees such as buckthorn.
- Invasive weeds choking bushes and trees.
- Creeping vines ground cover
- Pollinator gardens were not a part of the original plan.
- Weeds :)
- We need less dogs running free. i.e.: not on a leash, and less dog crap that visitors don't pickup
- pesticides and herbicides
- we need better weed control strategy to protect the pollinator garden and the brushy areas from overgrowth.
- Too many placards. Looks like a cemetery
- off leash dogs when other people are nearby





NSA COMMENTS

A large majority of respondents were familiar with the historic design intent of Woodsshire Park.

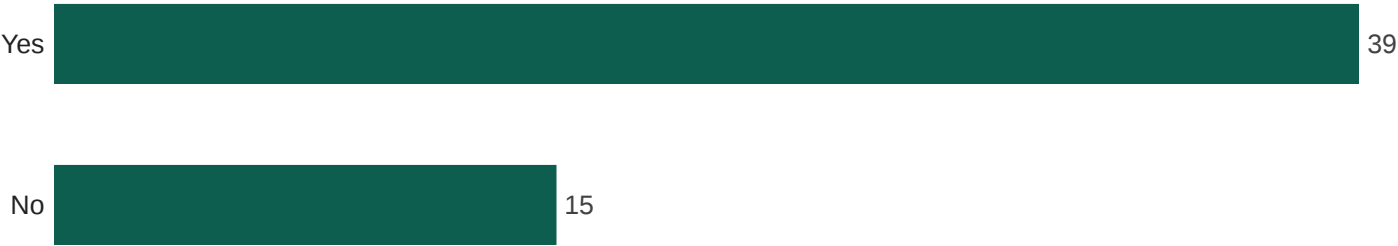
A majority of respondents indicated this historic design was important to them.

A majority of respondents indicated environmental landscaping is of interest to them.

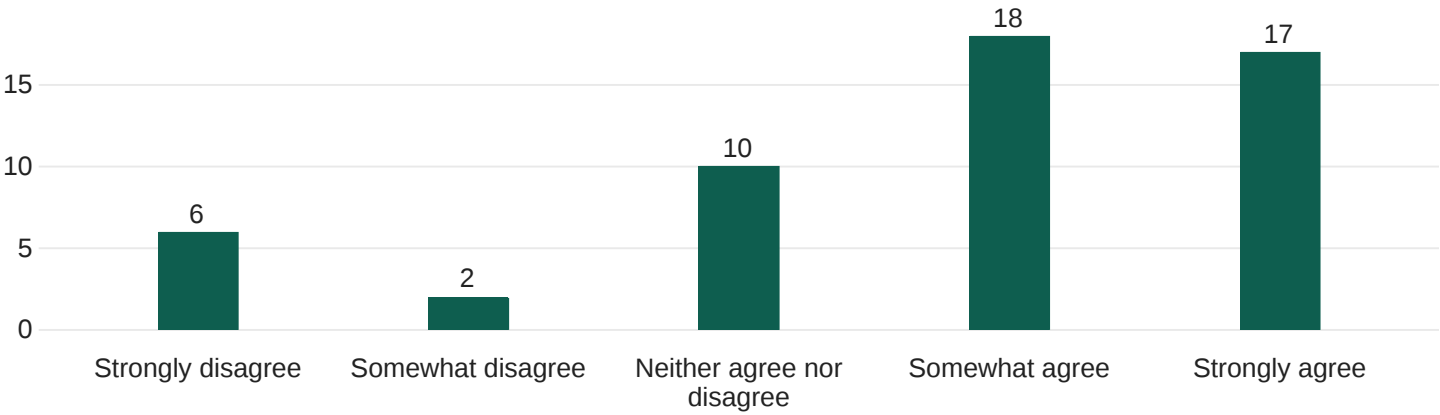
NSA would be happy to assist with further investigation into what environmental landscaping might look like at Woodsshire Park. However, as a basis for beginning discussion we would advocate that environmental landscaping consist of the following:

- use of native or near native species in the landscape
- diversity of species planted
- the reduction or elimination of pesticide use in the park - if applicable
- targeted herbicide use to control invasive and unwanted species
- reduction of nitrogen fertilizers, especially near concrete waterway
- diversification of turf grass species to include other broadleaf and flowering forbs

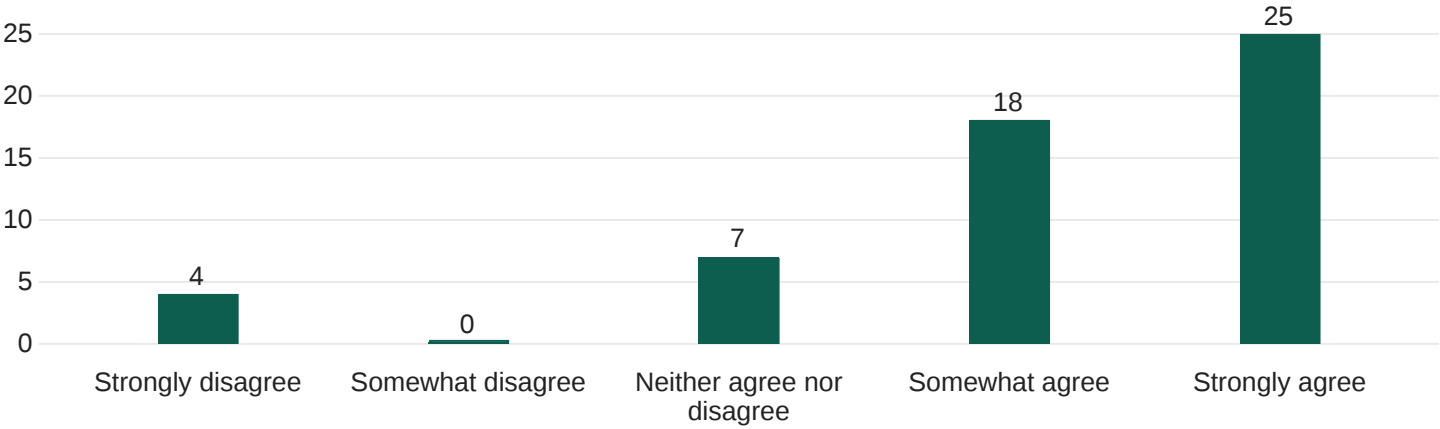
I am familiar with the historic design intent of Woodsshire Park.



The historic design of Woodsshire Park is important to me.



Wildlife and environmental landscaping are of interest to me.





NSA COMMENTS

The majority of respondents to the question of annual dues indicated that they are satisfied with what they pay for the landscaping. Some also indicated that they would pay more for an improved park.

Budget notes:

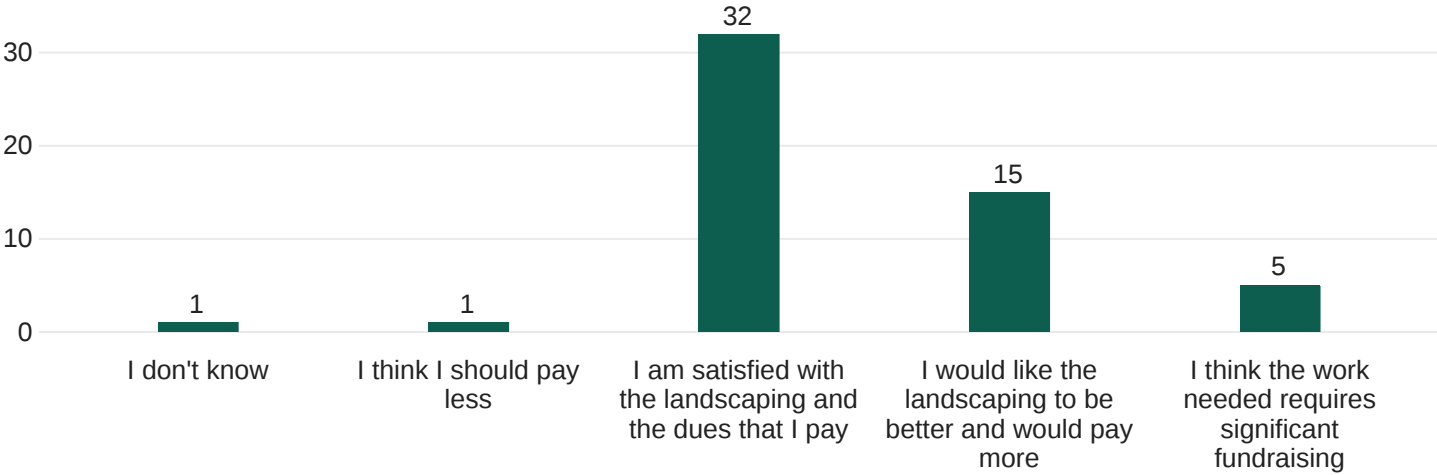
At present the annual operational budget for the park is \$30,050  
Tree fund has a balance of \$8300  
Well fund has a balance of \$1500

NSA believes this is a adequate budget to be able to maintain the park and Round Points. We would recommend evaluating the budget to prioritize money for annual shrub bed renewal and maintenance. Additionally, annual tree trimming. removal, and replanting should be prioritized.

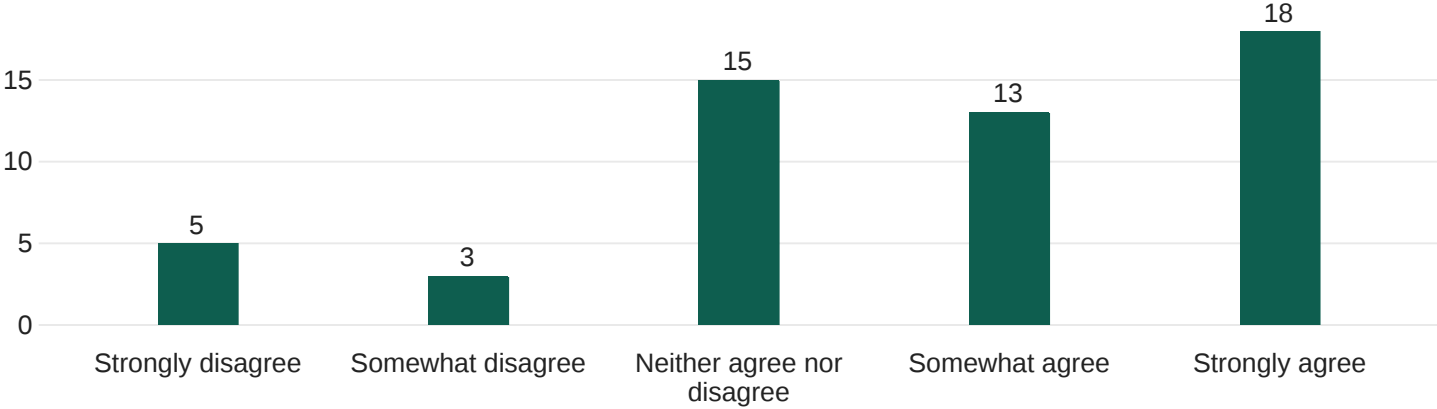
There was also positive feedback on the willingness to occasionally help to maintain the park. This is an encouraging response and something that NSA thinks should be pursued as community work days help to mitigate problems in the landscape before they develop. They also help to impart a sense of ownership and belonging to the landscape, furthering identity and pride in the park. In a cyclical manner, identity and pride in a space reinforce the ethic of a willingness to help maintain it.

Board of Directors question - N/A to NSA comment.

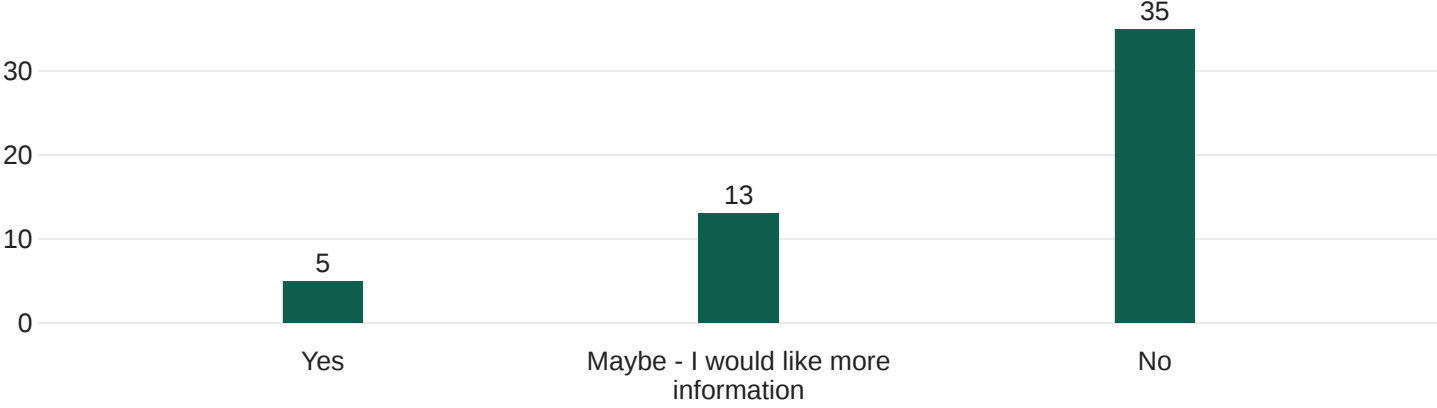
My share of the annual dues that help maintain the park, circles, and entrances in its current state is worth it.



I would be willing to occasionally help maintain the park.



Are you interested in serving on the Board of Directors for Woodsshire Park?





## Any additional comments about Woodsshire Park?

The turfgrass in the park is currently over-managed with excessive watering, excessive fertilization, and (probably) excessive pesticide applications. As a recently retired UNL plant pathologist who taught classes in managing turf diseases, I preached that over watering and over fertilization contributes to increased disease problems, which increases the need for pesticidal chemicals. I am very concerned about the acute and long-term effects of pesticide applications on health (human and pets) and the environment. What is particularly risky is the fact that the chemicals applied in our park could be some of same hazardous chemical that are used in growing crops. But whereas chemicals used in agricultural settings are applied under very strict regulations (including forewarning of neighbors, and posting of the type of chemical applied and the date when people can reenter the treated area), we are not notified ahead of time exactly what chemicals are applied in our park and exactly when we can re-enter the park safely. This creates a risk of people and pets being acutely poisoned by chemicals or suffering cancers and other long-term health issues (and grounds for law suits!). We should not try to make our park look like a golf course, which requires regular watering, fertilization, and chemical applications. Instead, we should use Lincoln's public parks as models for how to maintain safer, more sustainable lawns. I would be very happy to meet with the board or other Woodsshire residents to explain my perspective.

I like the trash can at far end. Great hidden and good for dog poop. Can one be hidden other end?

We love it here. I just wish the city would improve the streets. For example, why repave only half the park area? The whole neighborhood needs work.

I don't think we need to change anything, it is gorgeous.

The current lawn care service seems to longer edge the street edges of the whole park, nor do they cut the weeds and grass growing in the water collection "tube" and both seem unsightly now and are over grown.

its a vital ammenity to our neighborhood. we enjoy using it daily.

Thank you for you hard work. I know there are many opinions to satisfy. I personally feel there is plenty of money in the neighborhood to raises dues to maintain the gardens within the park at a higher level.

It needs our attention. Although it looks healthy from the street, stepping into it reveals that we have some important issues with honeysuckle, vines, invasive species and just plain old weeds that are so opportunistic. We are incredibly fortunate to have an irrigation system that has kept it green, but spaces need attention, especially the shrub areas and where we taken out volunteer trees. This is an opportunity to both maintain the historic nature of this area and to enhance and build its sustainability as the climate challenges us.

Thank you, park committees, for all you do!

I willing to pay more for the annual dues.

What do others think of kid centered climbing equipment?

I would really like to see dogs leashed in the park; not only is it city ordinance, regardless of how well behaved a dog is, we've noticed owners who sit on the bench and do not pay attention to their off leash dogs and thus miss it when the dog goes to the bathroom...this means they don't clean up their messes, which is a problem for children and others playing/walking in the grass.

I strongly believe the original historic landscape should be preserved/restored. I am not physically able to help with maintenance.

It looks absolutely beautiful right now and I really appreciate the insect prevention and maintenance. Thank you!!

We need to balance the historic intent with the modern situation. I think keeping the bed outlines and basic feel of the park is great, but adding little flourishes like the pollinator garden, a picnic table, a fire pit, some boulders, some wildflowers, and other special areas would serve to amplify the beauty of our park.

Rip out the concrete drain and design it more natural !

Park has improved quite a bit over the years thanks to the efforts of the board and volunteers. We are lucky to have one of the best neighborhood parks in the city. Happy that this effort if happening. One note though - The grass in the "cement river" that drains to the north is an ongoing issue so if there is a practical solution on how to manage it, would be great to include in this process.

This is the best neighborhood in Lincoln, hands down!

The neighbors need to be more accepting of children running and playing in the park, climbing in trees, etc... the park is not a museum, it's a place for people to come together as a community

terrific place-raise dues if needed-I wish we could get something going with the parkways along 20th and Calvert-they do not represent us well and people do not take care of them!

Let's be a better friend to the environment and not worry about weeds. Let's take the pressure off perfect grass and stop using herbicides and pesticides.

the possible answers regarding how to fund park maintenance are not mutually exclusive. For example, I think significant fundraising is necessary, yet I am also willing to pay more dues to help that along.

I'm not at the place to help with the board at this point, but would enjoy it in the future.



# RECOMMENDATIONS

## PLANTS

There are thousands of options to choose from when it comes to replacing and planting new species at Woodsshire Park. However, NSA first recommends that you consider **native Nebraska species**, followed by near native species endemic to the Midwest and then wider North America. Lastly, there are naturalized and non-native species that are acceptable species to plant when other options are not available. We also recommend looking towards the Proven Winners series of commercially available native shrubs and perennials as these are more likely to succeed and require less replacement.

It is also worth noting that we feel the species recommendations presented by Richard Sutton in 1987 are still appropriate species to plant. We would advocate for the removal of Green Ash and Bradford pears from the list as both were labeled as “Existing” in the Sutton document.

## TREES

- Urban Forestry principles state that no more than 30% of the trees in an area come from the same Family of plants, 20% from the same Genus, and 10% from the same Species. This ensures a diversity of species are planted making the tree canopy more resilient to pest pressure, diseases, and weather events.
- According to popular nature writer and entomologist Doug Tallamy Oaks, Willows, Cherry, are the three most important tree Genera for supporting native insects. Nebraska native species that we would recommend planting include:

Oaks: Bur, Red, Black, Blackjack, Chinkapin, White. Large trees  
Willow : Black Willow, *Salix nigra* - This would be a good choice near the drainage. Med. tree  
Cherry: Black Cherry, *Prunus serotina* - Large tree, can be planted near other groves. Med. tree

- A full list of NSA recommended Large, Med. and Small trees and Shrubs can be found at the end of the document.
- Beside the various species recommend in the NSA document we feel the following trees would complement the park.

Large size tree - Northern Pecan, American Yellowwood,

Medium size tree - Sugar Maple, Hybrid buckeyes, Turkish Filbert

Small size tree, part-sun - American Hornbeam (*Carpinus*), Ironwood (*Ostrya*), Pawpaw, Serviceberry - *Amelanchier spp.*

Sugar Maple - *Acer saccharum*



Yellowwood - *Cladrastis kentukea*



Buckeye - *Aesculus glabra*



Bur Oak - *Quercus macrocarpa*



Ninebark - *Physocarpus*



*Rhus aromatica* - Gro-low sumac



## SHRUBS

- Because Herminghaus designed the landscape with large single shrub masses in mind, NSA believes it is a good idea to honor this design intent and continue to place large shrub masses into the landscape as beds are renovated.

To this end, there is a whole range of native and near native shrub varieties that would serve to both enhance beauty and ecological value in the park. Additionally, it will be critical to select species that are tough, fill in quickly, respond well to pruning, and can withstand the various types of weather that we find in Nebraska. Lastly, it should be noted that once a shrub bed is established, irrigation water from the sprinkler systems should not be directed towards the bed, this will greatly reduce annual weed pressure. During establishment it would also be possible to snake a soaker hose or drip irrigation system around the shrub masses to more efficiently water them.

### Recommended shrub species:

Sumac - *Rhus typhina* - Cutleaf staghorn sumac, *Rhus aromatica* - Gro-low sumac - native  
American Plum - thicket forming, native pollinator and wildlife plant, control spread by mowing - native  
Dogwoods - *Cornus spp.* Silky dogwood, Roughleaf Dogwood, Muskingum Gray dogwood - native  
Buttonbush - *Cephalanthus occidentalis*- Sugar Shack - native  
Aronia - *Aronia melanocarpa* - Several varieties of both large and low growing - native  
Viburnums - Nannyberry, Judd’s, Korean spice  
Ninebark - *Physocarpus opulifolius* - Multiple varieties with red foliage, great mass shrub planting for full sun.  
Beautyberry - *Callicarpa americana*  
Spirea - Vanhouttei aka Bridal Wreath are large attractive spring flowering shrubs  
Lilac - Miss Kim, Tinkerbelle, dwarf Korean lilacs are tougher than French lilacs.  
Diervilla spp. - Can be used in masses of naturalistic plantings. Great color throughout the season.  
Bottlebrush buckeye - *Aesculus parviflora* - Large shrub with interesting foliage and flowers. Takes up a lot of space  
American Hazelnut - This large native shrub can create a large mass that produces edible nuts. Can take heavy pruning.  
Coralberry - *Symphoricarpos orbiculatus* - Small understory shrub that supports late summer pollinators - native

Beautyberry - *Callicarpa americana*



*Aronia melanocarpa*



Diervilla





# NSA TURF MANAGEMENT IDEAS

Whether or not a more ecological landscape is the direction of Woodsshire Park, an important question to ask is, “should we manage all of the park’s turfgrass the same?”

We know that residents have differing opinions on turf management, we know that they have different favorite places in the park, and we know that turf mowing and fertilization take up roughly 1/3rd of the annual park budget.

The adjacent options for turf management are provided to initiate a conversation about alternatives to traditional lawn practices and how they might look different.



A Lawn in the Circle (Above) B lawn in less used areas (below)



## A LAWN

A Turf is managed in a way that presents the best possible grass with the least amount of chemical and mechanical inputs. These lawns are located in areas of high visibility and activity and will be used for gatherings and play.

Watering will need to be performed in these areas when less than 1” of rain has fallen over a 5-7 day period.

As compaction on A Turf lawns will occur from use and mowing it is recommended to think about a management plan that incorporates aerating and over-seeding lawn every 1-3 years.

Over-seeding should utilize a high quality tall fescue blend. It may be accompanied with a starter fertilizer, however all sidewalks should be swept or blown off afterwards so nutrients stay in contact with the lawn. An alternative to conventional fertilizer could be a compost amendment or a whole host of other organically derived sources of nitrogen.

Lastly, it can’t be overstated that in order to have high quality turf adequate moisture is necessary to keep the grass green and growing during hot and dry seasons. Supplemental watering is necessary for A Turf. Modern sprinkler systems that are properly sized and timed for the area of turf they are designed for can be more water efficient as they water in the early morning hours and produce a uniform distribution of water for the lawn.

If chemical management is an option for A Lawn, we recommend that it follows the UNL Cool Season Lawn Calendar - See attached.

- Water is an important element of quality turf
- Reduce compaction through aeration on a schedule
- Overseed with high quality fescue blends
- Consider an integrated irrigation system for the landscape that monitors water needs.

## B LAWN

B Lawn is turf that we recommend managing with less inputs and attention. It will be used and seen less than A lawn but still function as path and play space for visitors. All B Lawn areas we recommend seeding with white Dutch clover to provide forage for pollinators and nitrogen fixation.

B Lawn areas encompass the majority of the lawn on the site and should be thought of as spaces of reduced management, but still a valuable part of the wider landscape. Because of their size integrating white Dutch clover with an intentional mowing program can have a big impact on forage for insects and reduced mowing costs.

In order to establish white Dutch clover we recommend spring time aeration and the broadcast seeding of white Dutch clover at a rate of 2lbs / 1000sqft. If this is not possible then we would recommend mowing low and then broadcasting the seed onto the soil before a rain or snow event in order to get good soil seed contact.

It would be possible to also mix white Dutch clover seeding with an over-seeding of fescue in B Lawn areas in an attempt to enhance the lawns simultaneously.

Mowing height of B Lawns should be 3.5 - 4” throughout the year. This height allows the lawn to shade out other potential weed species and supports a robust height for white Dutch clover to grow and spread.

Taking care of designated B Lawn areas allows for future expansion of native landscaping. The soil in the area will be protected from erosion and enhanced with nitrogen fixation and carbon.

- Incorporate white Dutch clover into all B Lawn areas
- Mow at a height of 3.5 -4”
- Overseed fescue if you want better turf
- Fescue species include: Sheep’s Fescue, creeping red fescue, chewings fescue and hard fescue
- Potential to expand native plantings into these areas

## BEE LAWN

A Bee Lawn will be established using the Bee Lawn 2.0 seed mix purchased from Twin City Seed Co. The 3lbs of seed purchased will cover approximately 600ft.

We recommend that this 600sqft. area be approximately 15 feet tall and 40 feet wide or 20 feet tall and 30 feet wide. The edges of the bee lawn should be prepared so that mowing can be performed easily, preferably curvilinear. Preparation for the space should eliminate current vegetation and be sown directly into a tilled seed bed and watered for good establishment.

Mowing height of the Bee Mix 2.0 is recommended at 6” in height to accommodate all three flowering species. The Bee Mix 1.0 recommends a height of 3.5”-4”.

## POLY CULTURE MIX

A Polyculture Mix lawn is similar to a Bee Lawn and features a combination of fescue blends with additional flowering and tolerated species.

There is a fescue Eco-Grass blend from Prairie Moon Nursery that includes. a blend of 5-6 fescues, including sheep fescue, chewings fescue, hard fescue, and creeping red fescue, at 15-20% each. 5lbs will do 1000sqft.

<https://www.prairiemoon.com/eco-grass>

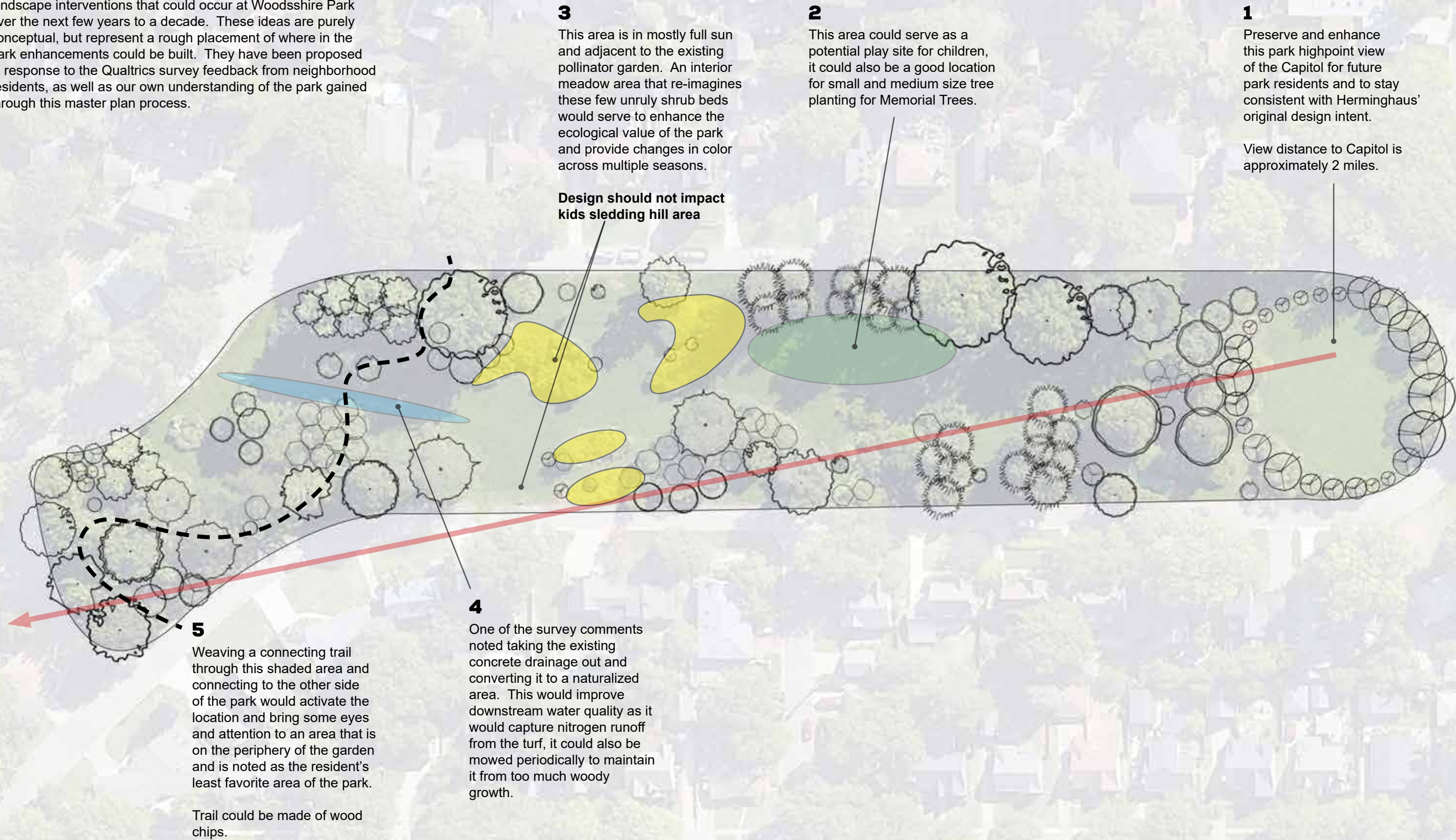
This could be planted with additional forbs to create a polyculture. Some these include:

- Dutch White Clover (Introduced) - Trifolium repens
- Microclover (Introduced) – Trifolium repens “Pirouette” - can be mown shorter
- Alsike Clover (Introduced) – Trifolium hybridum - pink flower clover
- Common Selfheal (Introduced) - Prunella vulgaris -
- Common Yarrow (Introduced) - Achillea millefolium -
- Creeping Thyme (Introduced) - Thymus serpyllum –
- Wild petunia – ruellia humilis – native



# PROJECT IDEAS

The below graphic showcases the possibility of several landscape interventions that could occur at Woodsshire Park over the next few years to a decade. These ideas are purely conceptual, but represent a rough placement of where in the park enhancements could be built. They have been proposed in response to the Qualtrics survey feedback from neighborhood residents, as well as our own understanding of the park gained through this master plan process.





# IRRIGATION SCHEDULE

## OVERVIEW

This irrigation map was provided by the Woodsshire Park Neighborhood Association and details the location and model of all turf irrigation lines, control boxes, and heads.

Irrigation comes from an on-site private well.

Estimated costs - provided by Woodsshire Park

\$500/year set aside for new pump replacement - 20ys  
\$700/year in maintenance  
\$640/year in electricity (it's \$33/month just to have electricity even when we don't use it)  
\$160/yr well permit

Total: \$2,000/year

Does this system have a **rain sensor** or know when soil moisture is adequate? It would be worth considering so as to save on water and watering costs.

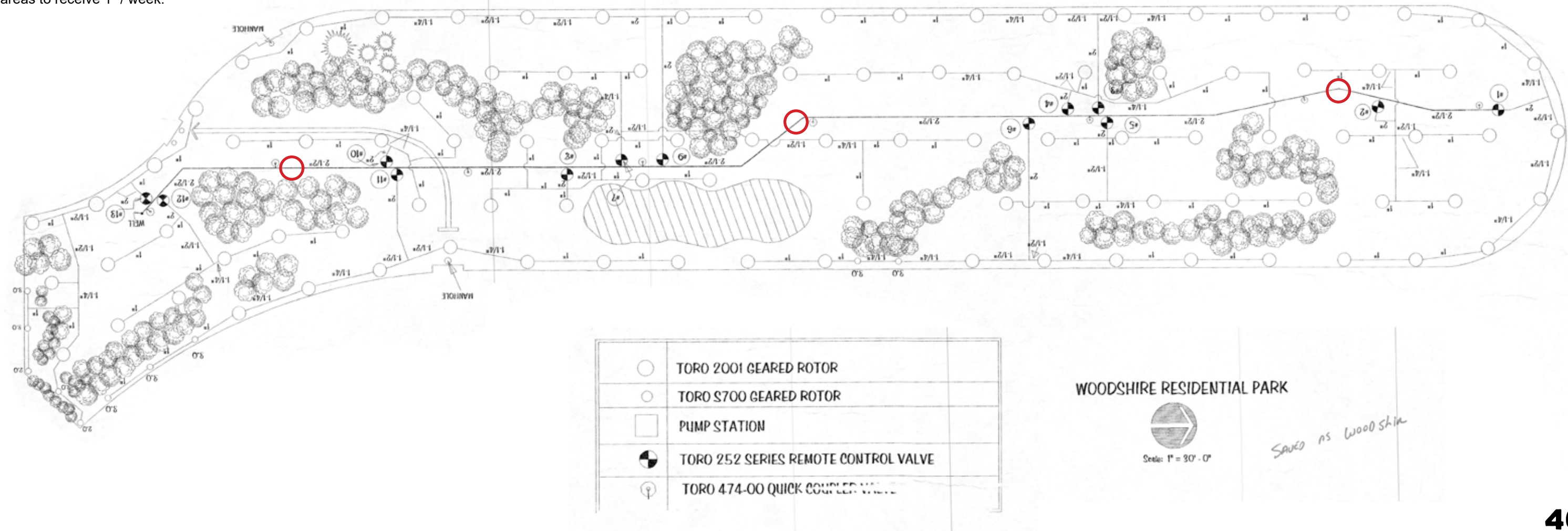
NSA recommends a program of infrequent deep watering over frequent shallow watering.

Turf areas to receive 1" / week.

## QUICK COUPLER INSTALL

The installation of 2 - 3 quick couplers in the north, middle, and south areas (red circle) of the park would greatly improve your ability to spot water certain trees and shrubs. Additionally, they could be connected to soaker hoses or drip irrigation systems to more efficiently water shrub beds.

They can be integrated into existing lines, however, it is important to know if your irrigation lines stay charged between waterings or drain. If they drain, water with the quick coupler will only be available when the system is running.







# Cool Season Lawn Calendar—Eastern Nebraska

Sarah Browning, University of Nebraska Extension Educator

John Fech, University of Nebraska Extension Educator

Amanda Folck, University of Nebraska Turfgrass Extension Educator, Agronomy and Horticulture

Roch Gaussoin, University of Nebraska Turfgrass Specialist, Agronomy and Horticulture

A complicating factor in today’s garden market is turfgrass fertilizers and preemergence weed control products are often available only as combined products. Newer (less than 20 years old) and older lawns should be managed differently for resource efficiency and environmental stewardship. This publication provides timely information for Kentucky bluegrass, tall fescue and other cool season grasses (perennial ryegrass and fine fescues.)

**Newer lawns** often struggle due to soil low in nutritional value and high weed pressure. They are best managed by making a fertilizer plus preemergence herbicide application in late April/early May followed by a second application in early June.

**Older lawns** need less fertilization to perform well and have lower weed pressure. Preemergence weed control plus fertilizer applications are optional based on need and desired outcome.

### RESOURCES

Proper Lawn Aeration—<https://bit.ly/CSUaeration>  
Bluegrass Billbug—<https://bit.ly/UMNbillbug>  
Managing Billbugs in Turfgrass—<https://bit.ly/PUBillbug>  
Broadleaf weed control—<https://go.unl.edu/NEbroadleafweed>  
Brown Patch—<https://byf.unl.edu/brown-patch>  
Crabgrass control—<https://go.unl.edu/NEcrabgrass>  
Establishing Lawns from Seed—<https://go.unl.edu/NEturf-seed>  
Improving Turf in Fall—<https://go.unl.edu/NEturf-fall>  
Irrigation audit—<https://go.unl.edu/NEirrigation-audit>  
Summer Patch—<https://bit.ly/PSUsummer-patch>  
White Grubs—<https://bit.ly/PUwhite-grub>

This publication has been peer reviewed.  
Nebraska Extension publications are available  
online at <http://extensionpubs.unl.edu/>.

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Turf Talk

Current turf fertilization program.

Application 1 & 2:  
\* Applies 16-0-5 (Nitrogen - Phosphate - Potash)  
\* Applies pre-emergent

3: Applies 28-0-3  
4: Applies 16-0-5

Although ratios of NPK are given we are unsure of the rates being applied per sq.ft. We would advocate for a management practice similar to what UNL recommend for Older Lawns.

That being said, NSA does not regularly consult on turf management and has actively tried to encourage citizens from intensive management of turf for purely aesthetic reasons. Areas of high use and visibility we consider useful turf and can be managed differently than areas of less traffic and use.

We would advocate that you think about if it is necessary or not to treat the entire lawn of Woodsshire Park with the same fertility and program. Would it be possible to prioritize certain areas of intensive management while other areas management and inputs are reduced or even eliminated on an annual basis.

2

| Fertilization    |                                    | Cultural Practices                            | Pest Control  | Notes  |
|------------------|------------------------------------|---|---|--|
| Dates            | Newer Lawn                         |   |   |  |
| April            |                                    | Begin mowing as needed.                       |   | Mow at 3–3.5 inches all summer. Avoid removing more than 1/3 leaf height at one time.  |
| April 25-May 1   | 0.75—1 lbs N/1000 sq.ft.           | <sup>0</sup> Optional - 0.25 lbs N/1000 sq.ft | Aerate <sup>1</sup><br>Summer patch prevention <sup>2</sup> | Billbugs <sup>3</sup><br>Preemergence weed control—1 <sup>st</sup> application <sup>4</sup><br><br><sup>0</sup> If turf characteristics, such as color and density, are not ideal in early season, fertilization can be made. Otherwise, it can be skipped.<br><sup>1</sup> Use hollow tines for maximum compaction reduction.<br><sup>2</sup> When 2-inch soil depth reaches 65F temp., apply fungicides to lawns with history of infection. Repeat application 4 weeks later.<br><sup>3</sup> If lawn has a history of billbug damage. Look for adult feeding symptoms or activity in full sun near sidewalks.<br><sup>4</sup> When a 4-inch soil depth reaches 55F temp, apply fertilizer plus preemergence herbicide for annual weed control, including crabgrass and foxtail. |
| April 25-May 15  |                                    |   | Overseed <sup>5</sup>                                       | <sup>5</sup> Core aerify before or power rake after seeding for good seed-soil contact. With new seedings, use only a preemergence products containing mesotrione or topramezone to prevent seedling death.  |
| June 1–15        | 0.5 lbs N/1000 sq.ft.              | 0.5 lbs N/1000 sq.ft.                         |   | Preemergence weed control—2 <sup>nd</sup> application  |
| June-Sept.       | Irrigate to prevent drought stress | Irrigation/sprinkler audit <sup>6</sup>       | Scout for dollar spot and brown patch. <sup>7</sup>         | <sup>6</sup> Check uniformity of sprinkler output and equipment function. Turf requires 1” water/week for good growth, including both rain and irrigation. Overwatering weakens the turf.<br><sup>7</sup> Fungicides are not usually recommended for home lawns except in extreme cases.   |
| June 25-July 4   |                                    |   | White grub control  | Apply preventive insecticides if lawn has a history of white grub damage.  |
| Aug. 15-Sept. 15 |                                    |   | Overseed <sup>5</sup>                                       |  |
| Aug. 25-Sept. 5  | 0.75—1 lbs N/1000 sq.ft.           |   |   |  |
| Sept 1-Oct 15    |                                    |   | Winter annual weed control.                                 | For lawns with a history of winter annual weeds, such as henbit and annual bluegrass, apply a fall preemergence herbicide to kill germinating seeds.   |
| Sept 15          |                                    | 0.5–1 lb.                                     |   | One fall application with 30–50% quick release/water soluble nitrogen. This will provide even release throughout fall.   |
| Sept. 20-Oct. 20 |                                    |   | Aerate <sup>1</sup>   | Broadleaf perennial weed control<br>Spot spray as needed. Fall is ideal time to control broadleaf weeds. Second best time is in spring shortly after flowering of dandelions.  |
| Oct. 15–30       | 0.5 lbs N/1000 sq.ft.              | Optional - 0.25 lbs N/1000 sq.ft.             |   | Only needed on new lawns or areas that are thin or have suffered pest damage.  |
| Oct. 15-Nov. 1   |                                    |   | Continue mowing until grass stops growing.                  |  |





THE NEBRASKA STATEWIDE ARBORETUM PRESENTS

# TREES FOR EASTERN NEBRASKA

Justin Evertson & Bob Henrickson. For more plant information, visit [plantnebraska.org](http://plantnebraska.org) or [retreenbraska.unl.edu](http://retreenbraska.unl.edu)

The following species are recommended for areas in the eastern half of Nebraska and/or typically receive more than 20” of moisture per year. Size Range: The size range indicated for each plant is the expected average mature height x spread for Nebraska.

## Large Deciduous Trees – typically over 40’ tall

1. **Baldcypress** - *Taxodium distichum* (a graceful, deciduous conifer; great for wet areas; also drought tolerant; good cimmamon-brown fall color; state champion in Maxwell Arboretum, UNL has a 5’ diameter trunk; 50’x 30’)
2. **Catalpa, Northern** - *Catalpa speciosa* (native; tough tree; large, heart-shaped leaves, showy flowers and long seed pods; very adaptable; tolerates confined root space. 50’x 35’)
3. **Coffeetree, Kentucky** - *Gymnocladus dioicus* (native; amazingly adaptable; beautiful winter form; female trees have showy pods throughout winter; plant in areas where plant litter is not a problem or mulch to the drip line. 50’x 40’)
4. **Elm, American** - *Ulmus americana* (disease resistant varieties include ‘Princeton’ & ‘Jefferson’; 50’x50’)
5. **Elm, ‘Accolade’** (hybrid) - looks like American elm; Morton Arboretum hybrid of *U. japonica* and *U. wilsoniana*; 50’x 40’
6. **Elm, ‘Frontier’** - smaller, glossy leaves; lacy bark pattern; purple fall color; *U. parvifolia* x *U. carpinifolia*; 40’ x 30’
7. **Elm, ‘Triumph’** - cross between ‘Vanguard’ and ‘Accolade’; very adaptable; vigorous upright growth habit; 60’x 40’
8. **Ginkgo** - *Ginkgo biloba* (very interesting leaf; good yellow fall color; distinctive upright habit; tolerant of poor soils; impressive specimens at Arbor Lodge, Forest Lawn Memorial Arboretum in Omaha; female trees produce malodorous fruit; 45’x 35’)
9. **Hackberry** - *Celtis occidentalis* (great old Great Plains tree with legendary tolerance; irregular habit when young but matures to stately rounded crown; interesting corky knobbed bark; ‘Prairie Pride’ resistant to nibble gall and witches broom)
10. **Hickory, Bitternut** - *Carya cordiformis* (most common native hickory; sulphur-yellow buds; transplant when small; big specimens in NE City at Wyuka Cemetery; makes an outstanding shade tree and deserves to be planted more. 40’x 30’)
11. **Hickory, Shagbark** - *Carya ovata* (native to se NE; shaggy bark forms on mature trees; handsome, clean foliage turns yellow in fall; prefers moist, fertile soil; transplant when small; 50’x45)
12. **Hickory, Shellbark** - *Carya laciniosa* (similar to *C. ovata* but with tastier nut; big seeds and husks, so plant in open area; 60’ tree in Alvo property, trials at UNL and NE nutgrowers show it is reliably hardy to zone 5; 40’x 35’)
13. **Honeylocust** - *Gleditsia triacanthos* (a very tough, adaptable tree that thrives on neglect; many great seedless and thornless forms available, including ‘Shademaster’, ‘Skyline’ and ‘Sunburst’; graceful habit and rich golden yellow fall color)
14. **Linden, American** - *Tilia americana* (native to eastern 1/3; distinctive, large leaves; has proven to be dependable throughout Nebraska landscapes; drought tolerant; casts heavy shade; fragrant flowers a favorite of bees; 60’x 40’)
15. **Linden, Littleleaf** - *Tilia cordata* (very pyramidal shape; good yard tree that tolerates wet or dry soils; densely branched and leaves turn a reasonable yellow in fall; ‘Greenspire’, ‘Glenleven’, ‘Legend’ and ‘Chancellor’ are excellent selections)
16. **Linden, Silver** - *Tilia tomentosa* (dark, shiny leaves have silvery underside; doing well in Lincoln after 20 years. 50’x 40’)
17. **Maple, Black** - *Acer nigrum* (eastern native as far west as central Iowa; large, droopy leaves; yellow-orange fall color; ‘Green Column’ an upright form; nice specimens at UNL and Lincoln Regional Center, Ralph Steyer Arboretum in Blair. 45’x 35’)
18. **Maple, Freeman** - *Acer x freemanii* (a fast growing hybrid between red and silver maples; good on tough sites; ‘Autumn Blaze’ has nice central leader, fall color; ‘Celebration’ for upright habit and ‘Marmo’ selected from Morton Arboretum near Chicago)
19. **Maple, Norway** - *Acer platanoides* (over planted but still good on many sites; ‘Crimson King’, ‘Emerald Lustre’, ‘Emerald Queen’, ‘Deborah’, and ‘Superform’ are all improved selections for branch habit and cold hardiness)
20. **Maple, Red**- *Acer rubrum* (nice specimen tree with beautiful fall color; will not tolerate polluted or stressful sites and best planted in deep, organic soils, avoiding heavy clay and high pH; ‘Red Sunset’, ‘October Glory’, ‘Sun Valley’ all highly rated)
21. **Maple, Sugar** - *Acer saccharum* (beautiful tree that should be planted more; nice fall color and attractive chalky bark; 50’x 50’; suitable cultivars and selections include Caddo, ‘Fall Fiesta’, ‘Green Mountain’, ‘Legacy’, ‘Table Rock’, ‘Wright Brothers’)
22. **Oak, Black** - *Quercus velutina* (native to se NE; glossy, dark-green leaf; great spring and fall color; needs to be used more; 50’x 45’)
23. **Oak, Bur** - *Quercus macrocarpa* (outstanding native; big and majestic; very tough and reliable; 60’x 75’)
24. **Oak, Chestnut** - *Quercus montana* (interesting chestnut-like leaf; prefers moist, fertile soils; avoid high pH soil; 50’x 35’)
25. **Oak, Chinkapin** - *Quercus muehlenbergii* (great native tree; tolerates high pH soils; narrow, chestnut-like leaves; 50’x 40’)
26. **Oak, English** - *Quercus robur* (good across Nebraska; many forms)
27. **Oak, Hill’s** - *Quercus ellipsoidalis* (Minnesota, Wisconsin native; good, eary red/maroon fall color; 50’x 35’)
28. **Oak, Red** - *Quercus rubra* (a very reliable native oak with large lustrous leaves and beautiful fall color from russet to bright red in fall; try to locate trees that came from seeds collected in the Midwest for reliable performance and fall color)
29. **Oak, Sawtooth** - *Quercus acutissima* (fast growing oak from Asia; unique, sawtooth leaves; upright growth; 50’x 35’)
30. **Oak, Scarlet** - *Quercus coccinea* (rich glossy leaves turn a beautiful scarlet color in fall; avoid high pH soils; more rounded outline when mature; drought tolerant but prefers a protected site; native as far west as Missouri and Minnesota)

31. **Oak, Shingle** - *Quercus imbricaria* (KS, MO native; very distinctive narrow, smooth leaves that are held through winter; 45’x 35’)
32. **Oak, Shumard** - *Quercus shumardii* (rarely planted; drought tolerant; similar to red oak; good fall color; 45’x 40’)
33. **Oak, White** - *Quercus alba* (native to Southeastern Nebraska; great majestic tree; good rich red to wine fall color; a durable long lived tree; somewhat slow growing but worth the wait)
34. **Osage Orange** - *Maclura pomifera* (new thornless, fruitless cultivars available including ‘White Shield’ and ‘Wichita’; display vigorous growth with lustrous, dark green leaves; a very durable, extremely drought tolerant tree)
35. **Pecan** - *Carya illinoensis* (makes a nice yard tree; underutilized; seek northern seed sources; transplant when small; 50’x 50’)
36. **Tulip Tree** - *Liriodendron tulipifera* (tulip-like, upturned, orange-yellow flowers; distinctive tulip-shaped leaves can turn butter yellow in fall; specimen trees in Oakland, Humphrey, Lincoln, Fremont, Omaha. 60’x 45’)
37. **Walnut, Black** - *Juglans nigra* (native; proven throughout Nebraska; tough and reliable; good lumber tree; 60’x 45’)
38. **Zelkova** - *Zelkova serrata* (related to elm; attractive smooth bark; upright habit when young; glossy leaves; 40’x 30’)

## Medium Deciduous Trees – typically 20 to 40’ tall

39. **Alder, Black (common)** - *Alnus glutinosa* (useful for wet soils and water’s edge; attractive glossy leaves; cone-like fruit; 30’x 20’)
40. **Aspen, Bigtooth** - *Populus grandidentata* (native to northern U.S.; attractive green/white bark; narrow habit; 35’x 25’)
41. **Aspen, Quaking** - *Populus tremuloides* (native selection Prairie Gold; attractive creamy bark & fluttering leaves turn golden-yellow; main trunk short-lived with re-sprouting from roots; best planted in confined area with room to colonize; 30’x 15’)
42. **Beech, European** - *Fagus sylvatica* (smooth bark; nice habit; avoid windy sites; hardy purple leaf forms exist; several nice specimens in Lincoln and Blair; 35’x 25’)
43. **Birch, Paper** - *Betula papyrifera* (native to Niobrara valley; bark exfoliates in papery strips to reveal orange-brown inner bark; wet, well-drained sandy or rocky loams in part, preferably afternoon, shade.)
44. **Birch, River** - *Betula nigra* (a beautiful tree with exfoliating cinnamon brown bark; avoid high pH soils; ‘Heritage’ has lighter bark and ‘Little King’ is a nice dwarf form; native to wet areas as far west as Iowa; performs well on upland soils as well)
45. **Birch, Sweet** - *Betula lenta* (eastern U.S. native; one of the best birches; beautiful yellow fall color; reddish-brown bark)
46. **Black Gum** - *Nyssa sylvatica* (doing well in Lincoln, Tekamah, Stanton; handsome, blemish-free foliage turns red-purple in fall; slow growing, but strong, horizontal branches; 30’x 25’)
47. **Buckeye, Ohio** - *Aesculus glabra* (native; very tough & adaptable; rounded form; interesting ‘buckeye’ fruit; 30’x 30’)
48. **Buckeye, Yellow** - *Aesculus flava* (overlooked shade tree with handsome, tropical-looking foliage; smooth fruit capsule; adaptable, easy to grow; nice yellow-orange fall color; 40’x 30’)
49. **Cherry, Black** - *Prunus serotina* (overlooked se NE native; eye-catching when in flower, similar to chokecherry; fast growing, adaptable; handsome reddish bark; small cherries relished by song birds; State Champion near Barada, NE; 45’x 35’)
50. **Chestnut, Chinese** - *Castanea mollissima* (similar to American Chestnut but smaller and more rounded; 35’x 30’)
51. **Corktree, Amur** - *Phellodendron amurense* (furrowed, corky bark; drought tolerant; low/broad branching; watch for invasiveness 30’x 30’)
52. **Elm, David (‘Discovery’)** - *Ulmus davidiana* var. *japonica* (very cold tolerant; rounded habit; glossy green; 45’x 45’)
53. **Filbert, Turkish** - *Corylus colurna* (also called Turkish tree hazel; pyramidal shape in youth, eventually rounded; scaly bark; handsome dark green foliage offers no fall color; interesting winter catkins; doing well in Lincoln, North Platte. 45’x 35’)
54. **Goldenrain Tree** - *Koelreuteria paniculata* - beautiful in flower and fruit set; tough, adaptable tree; very drought tolerant.
55. **Horsechestnut** - *Aesculus hippocastanum* (sticky, shiny winter buds; beautiful creamy flowers; prone to leaf diseases; 35’x 30’)
56. **Larch, Japanese/Common** - *Larix kaempferi* or *L. decidua* (deciduous conifers; cold hardy; prefer moist soils; 60’x 40’)
57. **Lilac, Japanese Tree** - *Syringa reticulata* (nice ornamental with fragrant white flower clusters in late spring; cherry-like bark)
58. **Magnolia, Cucumbertree** - *Magnolia acuminata* (thick lustrous leaves; cucumber like fruit; 40’x 30’; the green-yellow flowers are not showy, however the hybrid form ‘Elizabeth’ was selected for its very attractive yellow flowers)
59. **Maple, Miyabe** - *Acer miyabei* (thick, glossy foliage turns yellow in fall; ‘State Street’ nice upright cultivar; 30’x 25’)
60. **Maple, Paperbark** - *Acer griseum* (small tree; cinnamon red exfoliating bark is great for the winter landscape; doing well in SE NE)
61. **Maple, Three-flower** - *Acer triflorum* (newer selection from Asia; papery bark; 3-leaf maple with nice orange-red fall color; very hard to find at the nursery due to propagation difficulties; worth looking for; nice trees in Bellevue, Lincoln; 20’x 15’)
62. **Pagodatree, Japanese** - *Sophora japonica* (uniformly round; attractive, late summer flowers in creamy panicles; 30’x 30’)
63. **Pear, Callery** - *Pyrus calleryana* (**DO NOT PLANT THIS TREE – it is overplanted and an invasive pest.** Upright ornamental with showy white flowers in early spring; maroon-red fall color; 30’x 25’;
64. **Persimmon** - *Diospyros virginiana* (native to e. G.P.; distinctive blocky bark; tasty fruit; prefers moist, fertile soil; 30’x 20’)
65. **Sweetgum** - *Liquidambar styraciflua* (star-like leaves; interesting spiked seed balls; yellow-purple fall color; doing well in southeast NE; ‘Morraine’ selected for upright habit, hardiness; 40’x 35’)
66. **Willow, Black** - *Salix nigra*. (native willows such as black willow are great for habitat and biodiversity; 50’x 50’)
67. **Willow, Laurel** - *Salix pentandra* (attractive, glossy foliage; fast growth; needs consistent moisture; short lived; 35’x 30’)
68. **Yellowwood** - *Cladrastis kentukea* (unique creamy-white, panicked flowers; attractive smooth bark; 35’x 35’)



Small Deciduous Trees - typically under 20’ tall

69. **Birch, Rocky Mountain** - *Betula occidentalis* (native to Sioux CO; attractive cherry-like bark; often multistemmed; tough and adaptable, but prefers part shade and even moisture)
70. **Buckeye, Red** - *Aesculus pavia* (large shrub or small tree; attractive red flowers; glossy foliage; 15’x 12’)
71. **Chokecherry** - *Prunus virginiana* (tough reliable native; suckers to form thickets; easily kept confined with mowing; ‘Canada Red’ and ‘Shubert’ are purple-leaf forms of this)
72. **Crabapple** - *Malus* spp. (dozens of cultivars available; consider disease resistant cultivars with persistent fruit- ‘Adams’, ‘Cardinal’, ‘Prairiefire’, ‘Don Wyman’, ‘Harvest Gold’, ‘Red Jewel’, ‘Pink Spires’ are all highly rated)
73. **Devil’s Walking Stick** – *Aralia spinosa* (tough, adaptable tree native to eastern U.S.; attractive, compound foliage; often suckers from base to form a multi-stemmed small tree)
74. **Dogwood, Corneliancherry** - *Cornus mas* (tough, reliable; large shrub or small tree; early yellow flowers; red fruit; 15’x 15’)
75. **Dogwood, Gray** - *Cornus racemosa* (native; large shrub or small tree; good dusty-red fall color; multi-stem habit; 15’x 10’)
76. **Dogwood, Pagoda** - *Cornus alternifolia* (beautiful, horizontally layered small tree or large shrub; short-lived; 15’x 15’)
77. **Euonymus, Winterberry** - *Euonymus bungeanus* (very attractive with red fall fruits; tough and adaptable; look for ‘Prairie Radiance’ newer selection out of NDSU and Dale Herman; 20’x 20’)
78. **Evodia, Korean** - *Evodia daniellii* -seldom seen; nice elderberry like fruit; great bark; seen at Arbor Lodge.
79. **Fringetree** - *Chionanthus virginicus* (large shrub or small tree; wispy, fragrant flowers; attractive blue fruit; 15’x 15’)
80. **Fringetree, Chinese** – *Chionanthus retusus* ( fragrant white flowers in May/June; good fall color; showy fruit attracts birds; 15’)
81. **Hawthorn, Cockspur** - *Crataegus crusgalli* (nice white flowers; glossy green leaves; abundant red fruit; 15’x 15’; variety *inermis* is a nice thornless form; Lavalle Hawthorn (*Crataegus* × *lavallei*) is a striking hybrid that grows 15’x 10’)
82. **Hawthorn, Downy** - *Crataegus mollis* (native to northern and western GP; downy leaves in spring; low, spreading habit; 15’x 15’)
83. **Hawthorn, Washington** - *Crataegus phaenopyrum* (E; attractive foliage, flower and fruit; tough; relatively disease free; 20’x 20’)
84. **Hophornbeam, American**- *Ostrya virginiana* (SE NE north along Missouri and Niobrara River area; native understory tree; shaggy bark; yellow fall color; hop like fruit; slow growth develops strong wood; very resistant to ice storms; 20’x 15’)
85. **Hornbeam, American** - *Carpinus caroliniana* (nice sinewy-smooth steel gray bark; low spreading habit; 20’x 20’)
86. **Lilac, Pekin** - *Syringa pekinensis* (creamy white flowers; attractive, flaky bark; similar to Jap. tree lilac; 20-30’ trees in Blair Arboretum, North Platte Research Station; ‘Copper Curls’ new selection from NDSU; 20’x 15’)
87. **Maackia, Amur** - *Maackia amurensis* (seldom seen legume; worth a closer look; attractive summer flowers; 25’x 20’)
88. **Magnolia**, - *Magnolia* spp. (Loebner Magnolia (*Magnolia* × *loebneri*) with very fragrant, early white flowers - ‘Merrill’ and ‘Leonard Messel’ are common cultivars that can grow 15-20’x 15-20’)
89. **Maple, Hedge** - *Acer campestre* (yellow fall color; drought tolerant; grown as a hedge in Europe; doing well in Lincoln, Blair; 30’x 25’)
90. **Maple, Shantung** - *Acer truncatum* (China native with glossy, star-shaped leaves; rounded form; proving to be tough/reliable; nice trees in Wayne, Lincoln, Omaha, young tree in Scottsbluff; 15’x 15’)
91. **Oak, Dwarf Chinkapin** - *Quercus prinoides* (se NE native; variable habit but usually shrubby; prolific acorn producer; sulfur yellow catkins in early spring; best in full sun; gets mildew in shade; this oak loves the heat and sun; 15-20’x 10-15’)
92. **Pawpaw**- *Asimina triloba* (SE NE native understory tree; large, tropical foliage turns yellow in fall; edible fruit; suckers from roots to form colony; plant and confine in groups; nice trees in Omaha, Lincoln, Falls City, Louisville; 20’ x 15’)
93. **Plum, American** - *Prunus americana* (shrubby but can be grown as a small tree; tough and adaptable; edible fruit; 15’ x 12’)
94. **Redbud** - *Cercis canadensis* (native; attractive purple flowers in early spring; select from hardy seed source; 20’x 15’)
95. **Sassafras** - *Sassafras albidum* (interesting mitten like leaves with orange fall color; spicy-aromatic branches; 30’x 20’)
96. **Serviceberry (Juneberry)** - *Amelanchier* spp. (serviceberries are multi-season plants with early-spring white flowers, glossy leaves, tasty fruit and nice fall color; many cultivars available including ‘Autumn Brilliance’, ‘Cole’s Select’, ‘Snowcloud’; tree-form serviceberries prefer some protection or part shade; wide size range from 10-20’x 10-20’)
97. **Seven-Son Flower** – *Heptacodium miconoides* (gangly in youth; develops into an attractive small tree; small white flowers in August followed by rose calyx that persist into fall; handsome, exfoliating bark)
98. **Smoketree, American** - *Cotinus obovatus* (blue-green leaves; yellow-orange fall color; plummy, smoke-like flowers; 20’x 15’)

Evergreen Trees

99. **Douglasfir, Rocky Mnt** - *Pseudotsuga menziesii* var *glauca* (soft blue-green needles; distinctive cones; graceful habit; avoid open, windswept sites; this subspecies is recommended for the Great Plains; 50’x 30’)
100. **Fir, Canaan** - *Abies balsamea* var. *phanerolepis* (common Christmas tree; nice specimens in eastern 1/3 of NE; 45’x 20’)
101. **Fir, Concolor** - *Abies concolor* (attractive blue-green, long, upswept needles; most reliable fir for Nebraska; 50’x 25’)
102. **Fir, Korean** - *Abies koreana* (E; beautiful blue cones; very graceful; needs to be tested more; 50’x 25’)
103. **Hemlock, Eastern** - *Tsuga Canadensis* (refined evergreen for protected spots; tolerates up to ½- 2/3 shade; 25’x 15’)
104. **Pine, Bosnian** - *Pinus heldreichii* var. *leucodermis* (☼; short needles, tufted branch tips; dark green;; 45’x 30’)
105. **Pine, Eastern White** - *Pinus strobus* (tolerates wetter conditions than most pines; nice soft needles)
106. **Pine, Japanese White** - *Pinus parviflora* (graceful open natural habit; attractive large cones; 30’x 20’)
107. **Pine, Korean** - *Pinus koraiensis* (edible nut; soft, attractive needles in groups of five; looks promising; growing well in Lincoln, York and Pierce; needs to be planted more to determine wider use. 40’x 30’)
108. **Pine, Lacebark** - *Pinus bungeana* (slow growing but graceful; beautiful mottled bark; tends to grow multi-stem habit; more open habit; unfortunately is prone to pine wilt disease; 45’x 20’)
109. **Pine, Limber** - *Pinus flexilis* (native; slow growing; soft needles; very flexible branches; plant on well-drained soils; 50’x 30’)
110. **Pine, Ponderosa** - *Pinus ponderosa* (native; best on well-drained soils; attractive cinnamon-brown-black bark; 65’x 30’)

111. **Pine, Red** - *Pinus resinosa* (Minnesota native; slow growing; reddish bark; several trees at Halsey, Maskenthine, UNL; 40’x 30’)
112. **Pine, Southwestern White** - *Pinus reflexa* (graceful five-needle pine; ‘Vanderwolfs’ a common form; 35’x 20’)
113. **Pine, Swiss Stone** - *Pinus cembra* (to 40’ tall; seldom seen; edible nut; soft foliage; ‘Chalet’ common selection)
114. **Spruce, Black Hills** - *Picea glauca* var. *densata* (nice alternative to blue spruce; tolerates tough sites and conditions)
115. **Spruce, Colorado** - *Picea pungens* (the old standby; many cultivars with wide color and habit range; somewhat overplanted)
116. **Spruce, Norway** - *Picea abies* (pendulous (weeping) branch tips; tolerates moist sites; largest of the spruce growing to 70’x 40’)
117. **Spruce, Oriental** - *Picea orientalis* (graceful habit; attractive pendulous branches similar to *P. omorika*; slow growing; 45’x 20’)
118. **Spruce, Serbian** - *Picea omorika* (upright habit; weeping, graceful branches; attractive dark cones; slower growing; 35’x 18’)

Trees for the Collector - uncommon in NE but worth a try in the right location

119. **Ash, Manchurian** - *Fraxinus mandshurica* (from Asia; upright growth; drought tolerant; nice yellow fall color; ‘Mancana’ common cultivar; may be resistant to EAB; 40’x 30’)
120. **Beech, American** - *Fagus grandiflora* (eastern U.S. native; attractive smooth bark; needs fertile, moist soil; State Champion at Arbor Lodge; beautiful foliage; 40’x 30’)
121. **Dogwood, Flowering** - *Cornus florida* (E; eastern G.P. only; needs extra protection; attractive but unreliable flowers; 15’x 10’)
122. **Dogwood, Kousa** - *Cornus kousa* (E; star-like creamy-white flowers; very attractive mottled bark; needs protection; 15’x 10’)
123. **Hickory, Mockernut** - *Carya tomentosa* (dark gray bark with furrowed, diamond pattern; nut meat is hard to extract; trials at UNL and NE nutgrowers show it is reliably hardy to zone 5; beautiful deep yellow fall color; 35’x 30’)
124. **Hornbeam, European** - *Carpinus betulus* (smooth gray bark; upright; tight, uniform branching; attractive leaf; 30’x 20’)
125. **Katsuratree** – *Cercidiphyllum japonicum* (beautiful multi-stemmed tree with handsome bark; heart-shaped leaves; 35’ x 25’)
126. **Maple, Korean** - *Acer pseudosieboldianum* (hardier alternative to Japanese maple; patio size tree; red fall color; 20’x 15’)
127. **Maple, Trident** - *Acer buergerianum* (scaly bark; brilliant wine red color in fall; prefers protected sites; doing fine in Lincoln area;; holds foliage late; tends to grow upright; strong branches, slower growing, 20’x 15’)
128. **Oak, Gambel** - *Quercus gambelii* (native to Rocky Mountains; variable multi-stem habit; prefers well-drained soils; 20’x 15’)
129. **Oak, Bebb**s - *Quercus* × *bebbiana* (hybrid between bur oak and white oak; vigorous grower; very hardy; 50’x 50’)
130. **Oak, Mongolian** - *Quercus mongolica* (similar in appearance to Bur Oak; performing well in N. Dakota; reportedly good red fall color; 20’ trees at NSA Affiliate sites in Lincoln & Blair; 50’x 45’)
131. **Oak, Overcup** - *Quercus lyrata* (refined appearance; prefers consistent moisture; avoid high pH soils; 50’ specimens surround a church in Auburn; Lincoln, Blair Arboretum sites; 60’x 45’)
132. **Oak, Pin** - *Quercus palustris* (E, often chlorotic on high pH soils and not generally recommended; 70’x 40’)
133. **Oak, Post** - *Quercus stellata* (tough, corky bark; medium rounded tree; ideal for hot, dry sites; native to southern KS; 30’x 25’)
134. **Oak, Scarlet** - *Quercus coccinea* (similar in habit to pin oak; beautiful scarlet color in fall; avoid high pH soils; 50’x 40’)
135. **Oak, Willow** - *Quercus phellos* (very narrow distinctive leaves; 30’ trees in Fairbury, Brownville, Falls City; 45’x 40’)
136. **Parrotia** - *Parrotia persica* (lustrous green witchhazel like leaves turn yellow-orange in fall; exfoliating bark; nice specimen at Lincoln Regional Center Arboretum; likes part-shade, protection from winds; 20’x 15’)
137. **Sugarberry** - *Celtis laevigata* (related to hackberry but with smooth bark; marginally hardy here)





THE NEBRASKA STATEWIDE ARBORETUM PRESENTS

# SHRUBS FOR NEBRASKA

Justin Evertson & Bob Henrickson. For more plant information, visit [plantnebraska.org](http://plantnebraska.org) or [retreenbraska.unl.edu](http://retreenbraska.unl.edu)

**Geographic Adaptability:** An **E** indicates plants suitable primarily to the Eastern 1/3 of the state while a **W** is for plants that are better adapted to the more arid environment of western Nebraska. All others are considered to be adaptable to most of Nebraska.

**Drought/Wet Adaptability:** ☼ indicates plants with exceptional drought tolerance while a ♠ indicates plants that tolerate wet soils.

**Size Range:** The size range indicated for each plant is the expected average mature height x spread for Nebraska.

## Large Deciduous Shrubs (typically over 5' tall/wide at maturity)

1. **Amorpha, Indigobush** - *Amorpha fruticosa* (native; good for massing and along pond edges; attractive purple flowers; 6-12'x 4-10')
2. **Buffaloberry, Silver** - *Shepherdia argentea* (☼; tough western native; fragrant flowers and edible fruit; silver foliage; 10-15'x 10-12')
3. **Burning Bush (Winged Euonymus)** - *Euonymus alatus* (♠; commonly planted for fiery red fall color; 10-12'x 6-10')
4. **Buttonbush** - *Cephalanthus occidentalis* (♠; native to moist sites; interesting button-like flowers; glossy foliage; 6-10'x 5-8')
5. **Cherry, Nanking** - *Prunus tomentosa* (☼; early white, fragrant flowers; exfoliating bark; glossy foliage; edible fruit; 6-12'x 6-12')
6. **Chokeberry, Black** - *Aronia melanocarpa* (♠; upright habit; glossy leaves; white flowers in May, black fruit and red fall color; 5-8'x 4-6'; variety *elata* has wonderfully glossy foliage; 'Autumn Magic' is more compact with showy fruit clusters)
7. **Chokeberry, Red** - *Aronia arbutifolia* (E; ♠; similar to Black Chokeberry but with red fruit and scarlet leaves in fall; 5-7'x 4-6')
8. **Chokecherry** - *Prunus virginiana* (☼; common native; sometimes a small tree; multi-stem, suckering habit; 10-15'x 6-12')
9. **Cotoneaster, Hedge** - *Cotoneaster lucidus* (☼; semi-evergreen; very hardy and reliable; glossy leaves; good fruit; 6-8'x 5-6')
10. **Currant, Clove** - *Ribes odoratum* (☼; native; tough and adaptable; edible fruit; good for wildlife; clove scented yellow flowers; 5-6'x 5-6'; Golden Currant (*Ribes aureum*) is a very similar and even more hardy)
11. **Dogwood, Corneliancherry** - *Cornus mas* (☼; sulfur yellow flowers in early spring; mottled bark; sometimes a small tree; 8-15'x 6-12')
12. **Dogwood, Flowering** - *Cornus florida* (E; eastern G.P. only; needs extra protection; attractive but unreliable flowers; 15'x 10')
13. **Dogwood, Gray** - *Cornus racemosa* (☼; native; good dusty red fall color; can be grown as a small tree; 10-15'x 6-12')
14. **Dogwood, Kousa** - *Cornus kousa* (E; nice small tree; star-like creamy-white flowers; attractive bark; needs protection; 15'x 10')
15. **Dogwood, Pagoda** - *Cornus alternifolia* (E; beautifully layered branching; large white flowers; glossy leaves; 10-15'x 10-15')
16. **Dogwood, Redstem** - *Cornus sericea* (♠; beautiful red stems are vibrant against a snowy backdrop; spreading; 8-10'x 8-10')
17. **Dogwood, Silky** – *Cornus amomum* (♠; good for wet areas; attractive white to porcelain blue fruit in fall; 6-10'x 5-8')
18. **Dogwood, Variegated** - *Cornus alba* (♠; similar to redstem dogwood, but leaves have creamy margins; 'Ivory Halo' is 5-6'x 5-6')
19. **Elderberry** - *Sambucus canadensis* (♠; found naturally in moist areas; suckering habit; edible black fruit; 8-10'x 8-10')
20. **Forsythia** - *Forsythia* spp. (☼; golden flowers often cover the plant in early spring; flowers not always reliable; many cultivars and types available including 'Meadowlark', 'Northern Sun', 'Lynwood Gold'; 5-8'x 5-8')
21. **Hazelnut, American** - *Corylus americana* (♠; native to northern G.P.; edible nuts; bronze fall color; good for massing; 6-8'x 6-8')
22. **Lilac, Common** - *Syringa vulgaris* (☼; very common; great fragrance in spring; many cultivars to choose from; 6-12'x 6-10')
23. **Lilac, Miss Kim** - *Syringa patula* (☼; common mid-sized lilac; purple fragrant blooms later than most; 6-7'x 5-6')
24. **Lilac, misc.** - *Syringa* spp. (☼; several species and types of lilac are available including later blooming forms, smaller leaf forms, a cutleaf type, spreading habits, etc.; consult with local nurseries for availability)
25. **Locust, New Mexico** - *Robinia neomexicana* (W; ☼; western native; purple flowers; thicket forming; drought tolerant; 10-12'x 10-12')
26. **Magnolia, Star** - *Magnolia stellata* (E; hardest of the magnolias for Nebraska; reliable white flowers; 6-10'x 5-8')
27. **Mahogany, Curl-leaf Mountain** - *Cercocarpus ledifolius* (W; ☼; semi-evergreen western native; dry soils only; 8'x 5')
28. **Mahogany, Mountain** - *Cercocarpus montanus* (W; ☼; native west. G.P.; sparse foliage; upright habit; dry soils only; 5-8'x 4-6')
29. **Mockorange** - *Philadelphus* spp. (☼; old fashioned shrubs grown for their sweetly fragrant white flowers in June; 5-10'x 4-8')
30. **Ninebark, Common** - *Physocarpus opulifolious* (☼; native; attractive exfoliating bark; rounded habit; tough, easy to grow; 5-8'x 5-8'; 'Diabolo' and 'Summer Wine' are newer purple-foliage forms; dwarf forms available)
31. **Oak, Dwarf Chinkapin** - *Quercus prinoides* (☼; native; prolific and early acorn producer; spreading, variable habit; 6-15'x 6-15')
32. **Peashrub, Siberian** - *Caragana arborescens* (W; ☼; very drought tolerant; best in west; open habit; 10-15'x 6-10')
33. **Plum, American** - *Prunus americana* (☼; native; very tough; attractive white flowers in spring smell of grape candy; 6-12'x 6-12')
34. **Privet** - *Ligustrum vulgare* (☼; tough shrub often used for hedges; showy, pungent flowers in June; compact forms available; 4-8'x 3-6')
35. **Rose** - *Rosa* spp. (☼; many species and cultivars to choose from; see entry under medium shrubs)
36. **Serviceberry (Juneberry), Downy** - *Amelanchier arborea* (E; native; often a multi-stem small tree; great flowers, fruit; 15'x 10')
37. **Serviceberry, Saskatoon** - *Amelanchier alnifolia* (☼; native to north. G.P.; attractive spring flowers; spreads by stolons; 5-15'x 5-10')
38. **Serviceberry, Shadblow** - *Amelanchier canadensis* (E; ♠; white flowers in spring; edible fruit; suckering habit; 8-12'x 8-12')
39. **Smoketree, Common** - *Cotinus coggygia* (E; plummy, smoke-like inflorescence; purple-leaf forms most common; 8-10'x 8-10')
40. **Spirea, Bridalwreath** - *Spiraea prunifolia* (old favorite with double white flowers in spring; arching habit similar to Vanhoutte; 5'x 6')
41. **Spirea, Vanhoutte** - *Spiraea* x *vanhouttei* (old fashioned type; arching stems covered in white flowers mid spring; 5'x 6')
42. **Sumac, Fragrant** - *Rhus aromatica* (☼; tough native; fragrant leaves; nice fall color; attractive fuzzy fruit; good in mass; 5-8'x 5-8')
43. **Sumac, Smooth** - *Rhus glabra* (☼; native; good fall color; can spread aggressively in the landscape; suckering habit; 10-20'x 6-12')

44. **Sumac, Staghorn** - *Rhus typhina* (☼; similar to smooth sumac but with fuzzy branch tips; distinctive seed horn; 6-12'x 6-12')
45. **Viburnum, American Cranberrybush** - *Viburnum trilobum* (♠; attractive creamy-white flowers in flat clusters; nice red fruit and fall color; very adaptable; 'Wentworth' is a common form grown for abundant, showy fruit; 8-12'x 8-12')
46. **Viburnum, Arrowwood** - *Viburnum dentatum* (♠; clean, shiny, upright foliage; attractive black fruit in fall; many proven cultivars including 'Autumn Jazz', 'Chicago Lustre' and 'Northern Burgundy'; 6-10'x 6-10')
47. **Viburnum, Blackhaw** - *Viburnum prunifolium* (☼; white spring flowers & good fall color; can be grown as a small tree; 10-15'x 8-10')
48. **Viburnum, Burkwood** - *Viburnum* x *burkwoodii* (☼; shiny leaves; fragrant flowers; rounded, open habit; 6-10'x 6-10')
49. **Viburnum, Doublefile** - *Viburnum plicatum* var. *tomentosum* (E; very attractive, layered habit; beautiful white, plate-like flowers; often suffers stem dieback in winter; 5-8'x 5-8'; cultivars include 'Shasta', 'Maries', 'Pink Beauty', 'Shoshoni')
50. **Viburnum, European Cranberrybush** - *Viburnum opulus* (☼; attractive flowers and fruit; birds love it; tough and adaptable; compact forms available; the common snowball bush is a form with large balls of white flowers but is aphid infested; 6-12'x 6-12')
51. **Viburnum, Manchurian** - *Viburnum burejaeticum* (☼; similar to *V. lantana*; fragrant flowers; very hardy; nice fruit; 8-12'x 8-12')
52. **Viburnum, Lantanaphyllum** - *Viburnum* x *rhytidophylloides* (E; ♠; large, leathery leaves hold year-round; 'Alleghany' and 'Willowood' are common cultivars that grow 10-12'x 10-12')
53. **Viburnum, Nannyberry** - *Viburnum lentago* (☼; native to north. G.P.; attractive white flowers in spring and purple-red fall color; susceptible to mildew in wet years; can be grown as a small tree; 10-15'x 10-15')
54. **Viburnum, Rusty Blackhaw** - *Viburnum rufidulum* (E; ♠; beautiful and lustrous dark green foliage; very attractive; 8-12'x 8-12')
55. **Viburnum, Sargent** - *Viburnum sargentii* (☼; similar to *Viburnum trilobum* with attractive flowers and nice fruit; 'Onondoga' is a variety with maroon tinged foliage and purple tinged pink flowers; 6-10'x 6-10')
56. **Viburnum, Siebold** - *Viburnum sieboldii* (E; lustrous, tough, leathery leaves; can grow quite large; 12-15'x 10-12')
57. **Viburnum, Wayfaringtree** - *Viburnum lantana* (☼; long planted; very tough and adaptable; creamy white flowers give way to red fruits that ripen to black; good red fall color; 'Mohican' is a compact selection with abundant fruit; 6-10'x 5-8')
58. **Wafer-ash (Hop Tree)** - *Ptelea trifoliata* (☼; native; unusual compound leaf and interesting wafer-like fruit; 8-12'x 8-12')
59. **Wahoo, Eastern** - *Euonymus atropurpureus* (☼; native shrub with good red fruit and fall color; 8-12' x 6-10')
60. **Witchhazel, Common** - *Hamamelis virginiana* (E; ♠; native; late fall flowers; good yellow/orange fall color; 6-10' x 5-8')

## Small/Medium Deciduous Shrubs (under 5' tall/wide at maturity)

61. **Apache Plume** - *Fallugia paradoxa* (W; ☼; western native; white rose-like spring flowers; plume-like seed bracts; 3-5'x 3-5')
62. **Azalea** - *Rhododendron* spp. (E; ♠; deciduous leathery leaves; prefer acid soils, part shade, protected sites; very attractive flowers; 4-5'x 4-5'; Minnesota selected "Lights" series including 'Golden Lights', 'Northern Lights' and 'Rosy Lights' are the hardiest)
63. **Barberry, Japanese** - *Berberis thunbergii* (common plant; thorny stems; rounded form; good barrier plant; green, yellow, red and purple forms exist; many size ranges; typically 3-5'x 3-5')
64. **Barberry, Korean** - *Berberis koreana* (very hardy; thorny stems; deep green in summer; reddish purple in fall; 4-5'x 4-5')
65. **Barberry, Mentor** - *Berberis* x *mentorensis* (☼; good as hedge; bright green; golden yellow flower; thorny; 5'x 5')
66. **Bearberry** - *Arctostaphylos uva-ursi* (broadleaf evergreen groundcover; very cold hardy; prefers acid soil; 6-12"x 2-4')
67. **Beautyberry, Purple** - *Callicarpa dichotoma* (E; striking metallic purple berries in fall; needs protection; 3-5'x 3-5')
68. **Bluebeard (Blue Mist Spirea)** - *Caryopteris* x *clandonensis* (E; similar to spirea but with blue flowers most of summer; not long lived; treat as herbaceous perennial and cut back to the ground in spring; 'Blue Mist' and 'Dark Knight' are common cultivars; 4'x 4')
69. **Buckeye, Bottlebrush** - *Aesculus parviflora* (E; ♠; attractive panicle of white flowers in summer; prefers protected site; 5-8'x 5-8')
70. **Burning Bush, Dwarf** - *Euonymus alatus* 'Compactus' (♠; commonly planted for fiery red fall color; corky stems; 5-6'x 4-5')
71. **Butterfly Bush** - *Buddleia davidii* (E; herbaceous in Nebraska; multi-stem habit; lilac like flowers in summer attract butterflies; 4-6'x 3-5'; many cultivars available including 'Black Knight', 'Nanho Blue', and 'Pink Delight')
72. **Cherry, Sand** - *Prunus besseyi* (W; ☼; native to western G.P.; prefers sandy and well-drained soils; 3-5'x 3-5'; 'Pawnee Buttes' is a low, spreading cultivar growing to 2' x 10')
73. **Clethra, Summersweet** - *Clethra alnifolia* (uncommon; sweet smelling flowers in July; shade tolerant; 3-5'x 3-4')
74. **Coralberry** - *Symphoricarpos orbiculatus* (☼; native suckering shrub; often grows in a twining low thicket; attractive purple-red fruit in fall and winter; birds love it; 3-4'x 3-4'; 'Chenault' is a refined form with striking fruit; 'Hancock' is a low, groundcover 1-2'x 3-4')
75. **Cotoneaster, Cranberry** - *Cotoneaster apiculatus* (arching stems in unique herring bone pattern; bright red fruit; 2-3'x 3-5')
76. **Cotoneaster, Spreading** - *Cotoneaster divaricatus* (☼; semi-evergreen; glossy leaves; attractive dark red fruit; 3-5'x 5-6')
77. **Currant** - *Ribes* spp. (☼; several species and types adaptable to Nebraska; good for massing, wildlife and tough sites)
78. **Deutzia** - *Deutzia gracilis* (old-fashioned but forgotten; pure white flowers smother the plant in May; 3-5'x 2-4')
79. **Dogwood, Redstem** - *Cornus sericea* (♠; attractive red stems in winter; shorter forms include 'Isanti' 4-5' and 'Kelsey' 2-3')
80. **Falsespirea, Ural** - *Sorbaria sorbifolia* (☼; very aggressive, spreading plant; white flowers similar to spirea; 3-5'x spreading)
81. **Forsythia, Bronx** - *Forsythia viridissima* (groundcover habit; sparse yellow flowers; bronze in fall; 2-3'x 2-3')
82. **Fothergilla** - *Fothergilla gardenii* (♠; fragrant, bottlebrush-like flowers; witchhazel-like leaves; good fall color; 3-5' x 3-5')
83. **Holly, Winterberry** - *Ilex verticillata*. (E; ♠; need male and female for striking fruit set; 5-8'x 5-8')
84. **Hydrangea, Oakleaf** - *Hydrangea quercifolia* (E; ♠; sub-shrub; coarse leaves; great flowers; exfoliating bark; 3-5' x 3-5')
85. **Hydrangea, Smooth** - *Hydrangea arborescens* (big snowball flowers on long stems; 'Annabelle' is a common type; 2-3' x 2-3')
86. **Leadplant** - *Amorpha canescens* (native prairie plant; very tough; silver leaves; blue-purple flowers; 3-4'x 3-4')
87. **Lilac, Dwarf Korean** - *Syringa meyeri* (☼; dwarf lilac; round uniform habit; small leaves; later bloom; 4-5'x 6-7')
88. **Potentilla** - *Potentilla fruticosa* (W; ☼; very tough, small shrub; wide color range; 2-4'x 2-4')
89. **Quince, Flowering** - *Chaenomeles speciosa* (showy orange red flowers in May; somewhat thorny; 3-5'x 3-5')
90. **Rabbitbrush** - *Chrysothamnus nauseosus* (W; ☼; tough western native with great late summer yellow flowers; 3-5' x 3-5')



91. **Rhododendron** - *Rhododendron* spp. (E; 🌿; broadleaf evergreens for shade and part shade; prefer acid soils & protected sites; very attractive in flower; ‘P.J.M.’ is one of the hardiest (4-5’x 4-5’); other cultivars available including ‘Northern Starburst’)
92. **Rose** - *Rosa* spp. (☼; many species, types and cultivars with various colors and size ranges to choose from; consult with nursery)
- Rugosa Rose (*Rosa rugosa*) - hardy shrub roses; many disease resistant cultivars; attractive fruits in fall; 3-8’x 3-8’.
- White Rugosa Rose (*Rosa rugosa alba*) - white flowered shrub rose with showy fruit; 4-5’x 4-5’.
- Redleaf Rose (*Rosa rubrifolia*) – very attractive plum colored foliage all summer; bright purple hips in fall; 4-5’x 3-4’.
- ‘Knock Out’ - a very popular shrub rose with great disease resistance; everblooming, cherry red blossoms; 2-3’x 2-3’.
- ‘Nearly Wild’ - popular shrub rose; pink blooms all summer; disease-free plant; 3-4’x 3-4’.
- ‘Theresa Bugnet’ - pink flowers and spicy aroma; 5-6’x 5-6’.
- ‘Sea Foam’ - distinctive large clusters of fragrant white flowers; 3-4’x 3-4’.
93. **Serviceberry, Saskatoon** - *Amelanchier alnifolia* (☼; ‘Regent’ and ‘Smokey’ have abundant fruit & spreading habit; 4 -5’x 4-5’)
94. **Snowberry** - *Symphoricarpos occidentalis* (☼; native relative of coralberry but with white fruit; often leggy; 3-4’x 3-4’)
95. **Spirea, Bumald** - *Spiraea* × *bumalda* (a very popular shrub – often over planted; ‘Froebel’ has pink flowers and bright green leaves; ‘Anthony Waterer’ had pink-red mottled flowers; ‘Goldflame’ & ‘Goldmound’ are chlorotic looking with yellow foliage; 3’x 3’)
96. **Spirea, Fritschiana** - *Spiraea fritschiana* (large, attractive, flat-topped white flowers; clean, large leaves; 3’x 3’)
97. **Spirea, Grefsheim** - *Spiraea* × *cinerea* (lovely compact, white flowers cover the plant in April; dense, arching habit; 4’x 4’)
98. **Spirea, Japanese** - *Spiraea japonica* (compact form; pink flowers emerge late spring through summer; cultivars vary greatly in size including several dwarf forms less than 1’ tall; ‘Daphne’, ‘Little Princess’, ‘Magic Carpet’, ‘Neon Flash’, ‘Shibori’; 2-3’x 2-3’)
99. **Spirea, Japanese White** - *Spiraea albiflora* (compact, graceful habit; white flowers bloom late (July and August); 2’x 2’)
100. **Spirea, Snowmound** - *Spiraea nipponica* ‘Snowmound’ (pure white flowers cover the shrub in May; compact habit; 3’x 3’)
101. **St. Johnswort, Kalm** - *Hypericum kalmianum* (E; bright yellow flowers in summer; compact, rounded; 3’x 4’)
102. **St. Johnswort, Shrubby** - *Hypericum prolificum* (E; 🌿; bright yellow flowers in June & July; finicky; blue green foliage; 3’x 4’)
103. **St. Johnswort, Sunburst** - *Hypericum frondosum* ‘Sunburst’ (E; 🌿; bright yellow flowers June-August; herbaceous habit; 2’x 3’)
104. **Sumac, Gro-Low** - *Rhus aromatica* ‘Gro-Low’ (☼; a low growing form of a tough native; nice fall color; 2-3’x 3-5’)
105. **Sumac, Skunkbush** - *Rhus aromatica* (W; ☼; native to western Nebraska; tough as nails; good fall color; 4-6’x 5-7’; ‘Autumn Amber’ is a low, spreading form growing to 2’x 8’)
106. **Sweetshrub (Carolina Allspice)** - *Calycanthus floridus* (E; 🌿; interesting red flowers; spicy sweet fragrance; 4’x 5’)
107. **Viburnum, Emerald Triumph** - *Viburnum* x ‘Emerald Triumph’ (a more compact form of Lantanaphyllum Viburnum; 4-6’x 4-6’)
108. **Viburnum, Judd** - *Viburnum* × *juddii* (wonderfully spicy fragrant snowball-like flowers in late April; slower grower; 5-8’x 4-6’)
109. **Viburnum, Koreanspice** - *Viburnum carlesii* (very similar to Judd viburnum; fragrant flowers; slightly more compact; 4-6’x 4-6’)
110. **Viburnum, Smooth Witherod** - *Viburnum nudum* (creamy white flowers in June; attractive fruit that changes from white to pink to dark blue; lustrous green leaves; ‘Winterthur’ is a common cultivar; 5-6’x 4-6’)
111. **Viburnum, Witherod** - *Viburnum cassinoides* (very similar to Smooth Witherod but leaves not as glossy; 5-6’x 4-6’)
112. **Weigela** - *Weigela florida* (🌿; common foundation plant with showy lavender flowers; 3-5’ x 3-5’)

Evergreen Shrubs

113. **Arborvitae, Russian** - *Microbiota decussata* (☼; uncommon, low-growing spreader; graceful, feathery foliage; 12”x 3-5’)
114. **Boxwood, Common** - *Buxus sempervirens* (E; marginally hardy broadleaf evergreen; requires protected site; can grow 5-6’x 3-5’)
115. **Boxwood, Littleleaf (Korean)** - *Buxus microphylla* (E; hardiest of the boxwoods; upright; prefers part shade; 2-4’x 2-3’)
116. **Firethorn** - *Pyracantha coccinea* (E; thorny; bright orange-red fruit in fall; 6-10’x 8-12’)
117. **Grapeholly** - *Mahonia aquifolium* (holly-like leaves; yellow flowers; attractive fruit; prefers part shade and acid soil; 2-3”x 3-4’; *Mahonia repens* (Creeping Mahonia) is a shorter native form that grows under pine trees in the Panhandle; 12-15”x 2-4’)
118. **Holly, Meserve Hybrids** - *Ilex* × *meserveae* (E; 🌿; hybrid hollies proven to grow in Nebraska with protection; attractive red fruit in fall and winter; Blue Boy/Blue Girl, China Boy/China Girl are common types; need male and female for fruit)
119. **Juniper, Common** - *Juniperus communis* (☼; underused native with soft, layered foliage; can tolerate some shade; 2-3’x 3-5’; ‘Blueberry Delight’ is a North Dakota selection with silvery blue foliage on a 1’-2’x 4-8’ plant)
120. **Juniper, Chinese** - *Juniperus chinensis* (☼; common landscape shrub; dozens of selections available including:
- ‘Armstrong’ - a common form with gray-green foliage; layered habit; lacy texture; 4-5’x 8-12’)
- ‘Holbert’ - a lower growing form with silvery blue foliage that is retained through winter; 2-4’x 6-12’)
- ‘Old Gold’ - new growth golden, similar bit to ‘Armstrong’, 4-5’x 8-12’)
- ‘Pfitzeriana’ - the old Pfitzer juniper that can grow quite large, 6-12’x 10-20’)
- ‘Pfitzeriana Compacta’ - a slower growing, more compact form of Pfitzer; 3-5’x 6-12’)
- Sargent (J. chinensis var. sargentii) - gray-green, feathered foliage; attractive plant; 1-2’x 5-8’)
- ‘Sea Green’ - lush, dark green foliage; fountain-like arching habit; 5-8’x 8-10’)
121. **Juniper, Creeping** - *Juniperus horizontalis* (☼; native, ground-hugging evergreen; typically grows 6”-12” x 5’-10’ wide; common cultivars include ‘Bar Harbor’, ‘Blue Chip’, Wilton Carpet’, ‘Andorra’ and ‘Prince of Wales’)
122. **Juniper, Savin** – *Juniperus sabina* (☼; bright green foliage; mounding habit; typically 18-24”x 6-10’; common cultivars include ‘Arcadia’, ‘Broadmoor’, ‘Buffalo’ and variety *tamariscifolia* (Tams Juniper))
123. **Yew** - *Taxus* × *media* (E; short needled evergreen shrubs; many forms and size ranges available including ‘Densiformis’ (3’x5’), ‘Everlow’ (2’x4’),