Master Plan

Landscaping

12/15/2020

This Master Plan outlines community landscape enhancements over a ten-year cycle. The Landscape Chair will work with a contractor to develop work orders with detailed drawings and plant lists as needed for specific projects. The scope covers all planting on common property, including beds and individual trees and tall shrubs. The intent is to replace trees and tall shrubs as needed with the same or similar native species that are suited to the site and growing conditions. Tree replacement and erosion control projects are budgeted and scheduled separately, based on conditions. This spreads investment across the neighborhood.

Contact: landscapechair@stonehursthoa.com

In 2019, SHA celebrated its 50th anniversary. The SHA President tasked the SHA Landscape Chair to develop a master plan and budget to update the landscaping on common property. The plan is based on authoritative sources and feedback from local experts, the SHA Landscape Committee, and the SHA Board of Directors. Progress is updated annually, and substantive changes are noted in grey font.

Approval

Laura Fall, 2020 SHA President

On behalf of the 2020 SHA Board Members present (unanimous): Jack Buckley, Julia Jennings, Tanja Kuhlmeier, Lisa Lofton, Ric Roca, Carrie Shannon, and Matthew Sunkin

Attest: Joseva Eanes, SHA Secretary

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Contact: landscapechair@stonehursthoa.com



Stonehurst Homeowners Association (SHA) is a community of 242 townhomes on ~28 acres, with ~17 acres of common area including 7.8 acres of lawn.

It borders Stonehurst IV (SHIV), with 66 townhomes on ~6 acres.

The entrance is at Stonehurst Drive and Arlington Boulevard (Route 50) in Fairfax, VA.

SHA maintains another ~2 acres of lawn and wood chips for the playground on land behind Barnard Court that is owned by Fairfax County Public Schools (FCPS); residents have right of use.

Vision

Landscaping complements the Colonial Williamsburg architecture, using a mixture of native and non-native plant material to add visual interest and support healthy habitat.

Goals

- Create an updated colonial style with a mix of natives and old-fashioned favorites
- Define common areas reduce planting inside common walks close to



Playground area on FCPS land includes four raised beds with two sets of swings, horses, and a jungle gym

- houses to avoid confusion over ownership and maintenance
- Create four season interest and add more evergreens for screening and habitat

Contact: landscapechair@stonehursthoa.com

Approach

SHA supports <u>Plant NOVA Natives</u>, a campaign by a coalition of non-profit, governmental, and private groups working to reverse the decline of native plants and wildlife in Northern Virginia. Homeowners' associations have the opportunity to create spaces where people thrive side-by-side with the environment, given the common land they manage and the influence they have over landscaping practices by residents.

- Create landscaping objectives:
 - o Set goal that at least 70% of plant biomass on common land will be native
 - o <u>No invasive plants</u> installed on common land, no broadcasting insecticides on common land (unless specific hazard), and minimize use of other chemicals
 - o Create a <u>suggested plant list</u>
- Establish multi-year plan for planting, tree replacement and invasive control:
 - o Improve storm water capture:
 - Improve the stream buffer in the Resource Protection Area (RPA) for Hunters Branch
 - Retrofit storm drain areas with native plants (talk to Northern Virginia Soil and Water Conservation District - NVSWCD)
 - Use fences/edging to prevent accidental mowing of naturalized areas
 - O Add more plant layers to common area beds, such as:
 - Understory flowering trees as accents along the perimeter
 - Shrub groupings (such as native azalea and blueberry) and
 - Groundcover borders (sedges and ferns) to capture leaves and hide them in place reducing need for removal and supplemental mulching
- Establish grounds maintenance contract with instructions to leave fallen leaves in place where possible and use mulching lawn mowers to reduce need for fertilizer.
- Achieve buy-in from homeowners and residents through community relations:
 - o Demonstration garden in the Recreation Site, a certified Wildlife Sanctuary as of 2017
 - o Talks and walks with NVSWCD, Audubon at Home (A@H), others
 - o Articles in newsletter to encourage residents to keep cats indoors and guard against other unintended wildlife hazards like window collision, light and noise pollution, and pest bait

Ten Year Cycle

In 2020, the Board approved a plan and budget of \$10,000 per year for common area landscape enhancement over ten years. The Landscape Chair may adjust the schedule, provided that all common areas are reviewed within 10 years. The schedule is as follows:

- 2020: Entrance (shared cost 78.6% SHA: 21.4% SHIV)
- 2021: Arlington and Stonehurst
- 2022: Graceland and Lindenwood
- 2023: Annhurst, Fairbury, Marycrest, Cantrell, and Hartwick
- 2024: Bailey
- 2025: Barnard and Clanbrook
- 2026-29: Recreation Site and RPA

SHA Master Plan: Landscaping Contact: landscapechair@stonehursthoa.com



Credit: c1972 photos shared by former resident



Credit: 2020 photos by Matthew Sunkin

Contact: landscapechair@stonehursthoa.com

Entrance

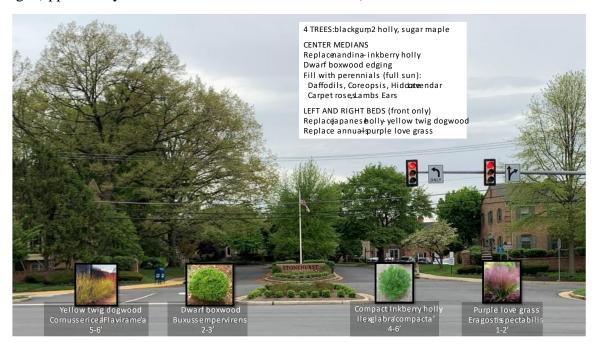


Site Survey (approved by both SHA and SHIV Boards in 2019)

- Shared cost 78.6% SHA: 21.4% SHIV
- 4 trees in the center median behind the flagpole: 1 blackgum; 2 holly, 1 sugar maple
- Water source: SHA-funded spigot located behind center median brick wall
- Two center median beds and two side beds in front of brick walls facing Route 50
- Full sun, drought-tolerant conditions
- Overgrown Japanese holly in center median next to Route 50 block sight lines for traffic
- Japanese nandina flanking center median with flagpole are invasive/fast growing
- Knockout roses and Japanese barberry in center median with flagpole are dead
- Annuals are high maintenance and predictable—don't set Stonehurst apart
- Shrubs behind yews in the side beds (holly and barberry) are overgrown and dying
- Groundcovers (liriope, ivy, vinca) and large shrubs (viburnum) are acceptable for now

Contact: landscapechair@stonehursthoa.com

Design (approved by both SHA and SHIV Boards in 2019)



Installation (2019-2020)



Contact: landscapechair@stonehursthoa.com

Arlington Boulevard (9 homes)

Site Survey (2020)

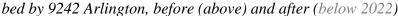
- Bed by 9242: full sun to part shade and protected behind wall with overgrown viburnum and ivy, two trees by guy wires; overgrown holly by parking, erosion
- Trees (12): 5 Bla = blackgum; 5 Dog = dogwood; 2 Wo = willow oak; 1 blackgum and 1 invasive pear by guy wires
- Route 50 median trees (16): VDOT owns land, SHA planted and maintains in perpetuity in accordance with <u>state law</u>; 2 dogwood, 14 invasive pear; little screening; does not mirror SHIV side

Design

- Bed by 9242: replace holly by parking with dogwood, reseed, remove overgrown viburnum
 and invasive ivy; repeat <u>inkberry holly</u> and <u>yellow twig dogwood</u> from entrance; add <u>smooth</u>
 hydrangea and Appalachian sedge
- Address erosion along sidewalk by service road grass/groundcover for full sun
- Route 50 median: replace invasive pear trees with holly, pine, or <u>serviceberry</u> (<u>VDOT</u> approved), and underplant with shrubs for screening (e.g., <u>winterberry</u>, <u>holly</u>, and <u>sweetspire</u>)

Installation (2020)







Contact: landscapechair@stonehursthoa.com

Stonehurst Drive (13 homes)

Site Survey (2020)

- Bed by 3195: runoff, part sun, steep slope, invasives
- Boxes behind 3193/95 (and entire alley): runoff, full sun, invasives
- Trees (16): 1 ced = eastern redcedar; 2 Che = cherry; 3 Dog = dogwood; 2 Hol = holly; 2 Jm = Japanese maple; 1 non-native Purple Leaf Plum; 1 Rm = red maple; 2 Smag = saucer magnolia; 2 Wo = willow oak

Design

- Bed by 3195: azalea, forsythia, hosta, and invasive bush honeysuckle, spirea, liriope, ivy, vinca; added <u>spicebush</u> and <u>mapleleaf viburnum</u> in 2017 (removed some invasives in 2020)
- Erosion control: added rock by sidewalk and slope and removed dying dogwood in 2018
- Boxes behind 3193/95 (azalea, holly, ferns, hosta; removed invasive porcelain-berry vine and added <u>blue rug juniper</u> in 2020)

Installation (2020)





Contact: landscapechair@stonehursthoa.com

Graceland Place (20 homes)

Site Survey (2020)

- Bed by 9201: full sun, steep slope, no separation between common area and private property (often skipped by maintenance crew). In 2008, SHA allowed a previous owner to replace 4 pine trees and ivy with smaller trees (Japanese maple and crape myrtle), sod, and ground cover. Owners maintained until the Landscape Chair investigated in 2020.
- Trees (27): 2 Che = cherry; 7 cm = crape myrtle; 4 Dog = dogwood; 1 ds = downy serviceberry; 1 Hem = hemlock; 3 Hol = holly; 1 jm = Japanese maple; 2 Mag = southern magnolia; 3 Rm = red maple; 3 Wo = willow oak

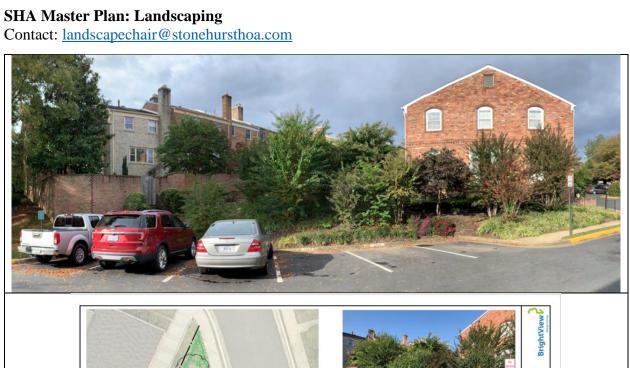


Graceland parking island with small "T" shaped ends

Design

- Bed by 9201: talked to owner 5/24/20; edged property line and removed some crape myrtle in 2020; add blue rug juniper within 8' of curb (leave liriope on corner); add <u>serviceberry</u> and <u>summersweet</u>; reduce daylilies <u>with yellow indigo and little blue stem</u> (cost)
- Remove forsythia in parking island by 9207 (not invasive). Plant shrubs not trees in smaller "T" ends of parking island, due to cramped conditions.
- Add groundcover to slope under magnolia and oak trees.
- Gradually replace dogwood and Japanese cherry in full sun with serviceberry or redbud

Installation (2021 - 2022)







bed by 9201 Graceland, before (top), design (middle), and after (bottom)

Contact: landscapechair@stonehursthoa.com

Lindenwood Lane (26 homes)

Site Survey (2020)

- Dense shade in areas along street makes it difficult to grow grass
- Bed by 3191: erosion, part sun, needs more screening from Route 50
- Bed by 3141: storm drain, slope, full sun, needs updating
- Beds behind 3159-3177 and 3179-3191: Japanese cherry trees, invasive day lilies, liriope, and vinca; daffodils, and mock orange shrub behind electrical box.
- Bed behind 3151: Japanese cherry, forsythia, overgrown boxwood, crape myrtle; invasive vinca and ivy
- Drainage culvert behind 3177: no erosion issues
- Drainage culvert by 3141: hidden by invasives
- Trees (30, 21 behind houses in RPA): 1 be = Boxelder, 4 ced = Atlantic white cedar, 13 Che = cherry, 1 dog = dogwood, 1 ds = downy serviceberry, 1 fr = fringe tree, 1 Hol = holly, 3 wm = White Mulberry, 1 ns = Norway Spruce, 2 Po = pin oak, 1 Rib = river birch, 1 tp = Tulip poplar

behind 3177 Lindenwood



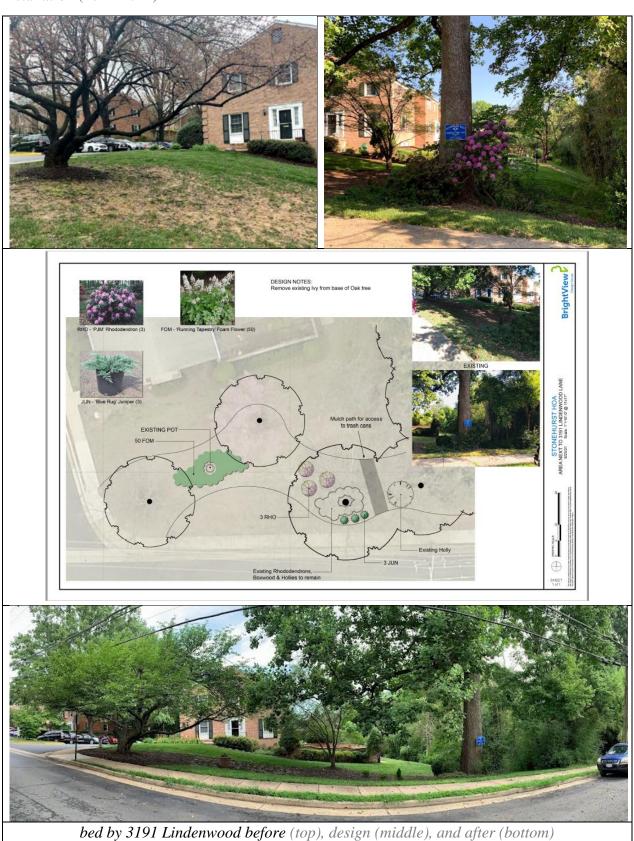
by 3141 Lindenwood

Design

- Bed by 3191: azalea, boxwood, dogwood, rhododendron; added holly and expanded mulch bed to control erosion in 2020; removed ivy; add rhododendron for screening, replace invasive ajuga with foamflower or golden ragwort
- Bed by 3141: remove overgrown Japanese holly and dead roses; add <u>buttonbush</u>, <u>little bluestem</u> and <u>creeping phlox</u> by storm drain
- Beds behind 3151, 3159-3177 and 3179-3191: gradually replace Japanese cherries and invasives with native <u>hornbeam</u>, <u>fringe trees</u> and perennials (with rain barrel) for a <u>butterfly</u> way station
- When dead, replace pin oak by 3155 with dogwood (more light) and pin oak by 3151 with <u>river birch</u> (more diversity)
- Drainage culverts: remove invasives, add rock as needed and native grasses

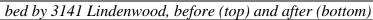
SHA Master Plan: Landscaping
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Installation (2021-2022)



SHA Master Plan: Landscaping
Contact: landscapechair@stonehursthoa.com







Contact: landscapechair@stonehursthoa.com

Annhurst Street (19 homes)

Site Survey (2020)

- Plantings on slope opposite 9206-9220 Annhurst: erosion, full to part sun
- Trees (16): 1 Dog=dogwood; 1 er = Eastern Redbud, 5 Nellie Stevens holly; 1 Po = pin oak; 5 Rm = red maple; 3 Wo = willow oak

Design

- Plantings on slope: row of holly flanked by red maple; remove invasive multiflora rose, ivy, and euonymous opposite 9208; replace common lilac (needs more sun to bloom) with sweet shrub, added grow-low sumac under dogwood opposite 9206 in 2017 and add more under red maple opposite 9220)
- Erosion control: added river rock next to steps behind 9222 Graceland in 2017



plantings on slope before (above) and after (below) close-up opposite 9208 and 9220, and erosion control opposite 9220







Installation (2023)

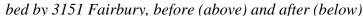
Contact: landscapechair@stonehursthoa.com

Fairbury Lane (10 homes)

Site Survey (2020)

- Bed on corner by 3151: part shade, needs updating
- Island beds of forsythia and invasive spirea and privet (some on SHIV property)
- Trees (14): 1 Bas = basswood; 1 bla = blackgum; 1 Bs = blue spruce; 1 ced=Blue Atlas Cedar, 1 Che = cherry; 1 hol = holly; 5 Ro = red oak; 1 So = scarlet oak; 2 Tp = tulip poplar







Design

- Planting bed by 3151: (Japanese holly, add <u>smooth hydrangea</u>); add trees to open space near bus stop and mulch/groundcover to control erosion in places
- Replace invasive spirea by 3169 with native beautyberry

Installation (2023)

Contact: landscapechair@stonehursthoa.com

Marycrest Street (14 homes)

Site Survey (2020)

- Bed by 9303: full sun; overgrown, needs updating
- Row of trees behind 9314-9222: lilacs are overgrown and mulberry is messy/invasive
- Trees (18): 1 bla = blackgum; 1 Ced = cedar; 4 Dog = dogwood; 2 hol=holly, 1 Mag = Southern Magnolia; 1 wmul=white mulberry; 3 Po = pin oak; 2 Rm = red Maple; 1 Ro = red oak; 2 wo=willow oak

Design

- Bed by 9303: knockout roses; removed invasive daylilies (2020), add oakleaf hydrangea in center and edge with native carex or sedge (competes with roses)
- Add a tree near property corner with SHIV along Stonehurst Drive to mirror the Fairbury side and in the easement behind 9314 for symmetry. Prune overgrown lilacs.
- Add golden ragwort groundcover under lilac by 9314

Installation (2021-2023)



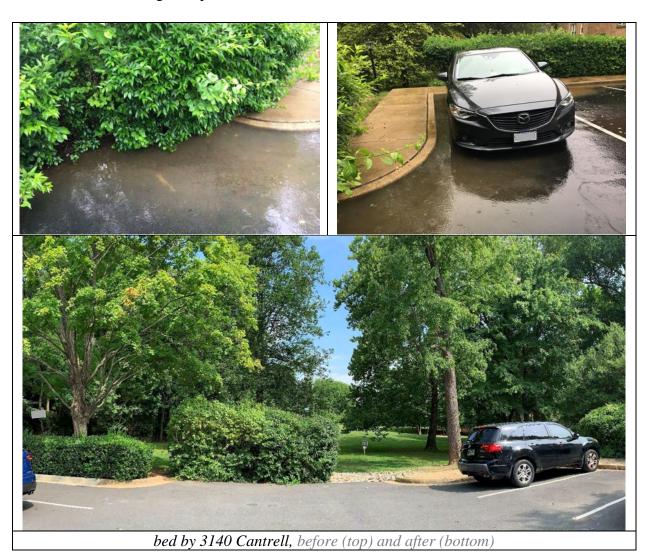


Contact: landscapechair@stonehursthoa.com

Cantrell Lane (10 homes)

Site Survey (2020)

- SHA does not own the land behind Cantrell (property line at rear sidewalk)
- Bed by 3140: drainage; removed some forsythia and added river rock in 2018
- Trees (5): 1 bche = black cherry; 1 Mag = southern magnolia; 1 po = pin oak; 1 Er = Eastern Redbud; 1 sm = sugar maple



Design

• Bed by 3140: non-native forsythia

Installation – Maintenance

Contact: landscapechair@stonehursthoa.com

Hartwick Lane (9 homes)

Site Survey (2020)

- No bed
- Trees (19): 5 non-native Crape Myrtle; 12 Nellie Stevens holly; 2 Po = pin oak



Design

Trees: consider replacing when dead the crape myrtle with $\underline{\text{American smoketree}}$ or $\underline{\text{staghorn}}$ and the pin oak with $\underline{\text{scarlet oak}}$

Installation – Maintenance (2022)



Contact: landscapechair@stonehursthoa.com

Bailey Lane (70 homes)

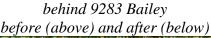
Site Survey (2020)

- More than **2.5 times the number of homes** as the next longest street (Lindenwood at 26)
- 9201-9211 and 9280-9299: property line set back from common walk; check plats
- Bed by 9201: island bed of holly and liriope surround electrical box on common property
- Beds by 9241 and 9283: full sun, runoff; invasives, need updating
- 9230, 9280: shady slope has erosion issues
- Drainage culvert behind 9283: some erosion
- Beds by 9298: no separation between common area and private property (often skipped by maintenance crew); dense shade makes it difficult to grow grass; erosion by alley steps
- Bed by 9299: island bed of invasive nandina surrounds electrical box on common property
- Trees (45): 2 Cm = Crape Myrtle; 1 Cry = Japanese cryptomeria; 6 Dog = dogwood; 1 Eh = Eastern Hemlock; 1 er = eastern redbud; 2 Hol = Holly; 1 Jm = Japanese maple; 2 Mag = southern magnolia; 7 Po = pin oak; 2 Rm = red maple; 1 sj = Japanese snowbell; 5 Smag = 2 star, 1 saucer, 2 sweetbay magnolia; 1 Sm = sugar maple; 1 swo = swamp white oak; 14 Wo = willow oak

Design

- Bed by 9241: existing Japanese holly and liriope; add sweetbay magnolia; replace liriope with carex, add smoke tree, <u>false indigo</u>
- Bed by 9283: saucer magnolia, roses; remove invasive pyracantha and barberry, leave pachysandra under magnolia; add crape myrtle (donation), grey owl juniper, <u>dwarf ninebark</u>, and pink muhly grass
- Drainage culvert behind 9283: add rock as needed and native grasses
- Add native groundcover (e.g., wood aster and ferns) to medians by 9288 and 9289







Contact: landscapechair@stonehursthoa.com

 Beds by 9298: reduce shade to support grass; make common area design more similar to 9201 (both are end units with two front walks to Bailey and Stonehurst); erosion control project in 2020 (improve granite terraces) and add native perennials by alley steps

Installation (2021 - 2022, In Progress)

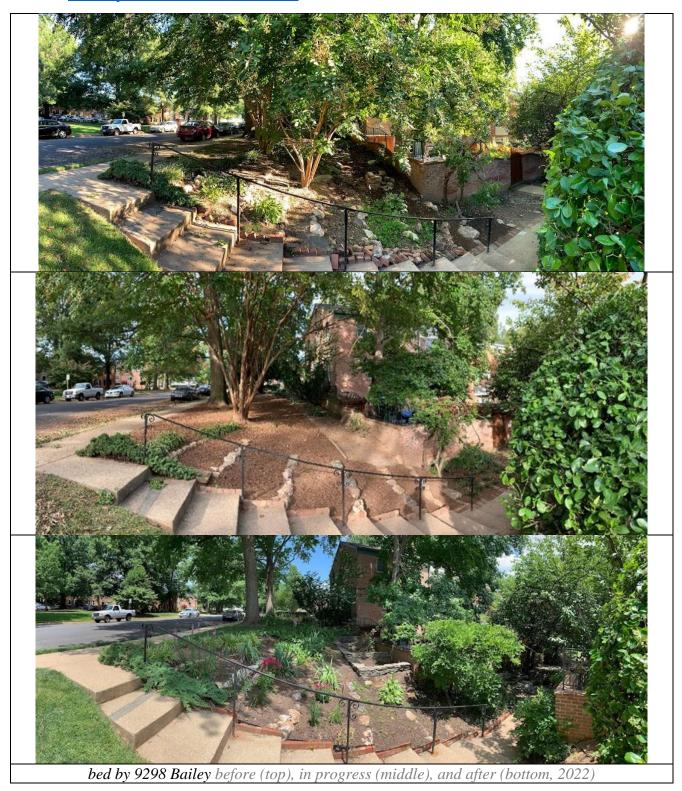


bed by 9241 Bailey, before (above)

SHA Master Plan: Landscaping
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Contact: landscapechair@stonehursthoa.com

Barnard Court (21 homes)

Site Survey (2020)

- Bed by 3120: dense shade and runoff
- Bed by 3100: full sun to part shade
- Drainage culvert behind 3130 Barnard: some erosion issues
- Trees (20): 1 Che = cherry; 2 Dog = dogwood; 1 hol = holly; 1 Mag = southern magnolia; 7 Po = pin oak; who = 2 white oak; 4 Wo = willow oak; 2 Wp = white pine



bed by 3100 Barnard



behind 3130 Barnard

Design

- Planting bed by 3120 (hosta, liriope) (oldest oak in SHA; arborist recommends we do not disturb roots)
- Bed by 3100 (pines, underplant with witch hazel and groundcover)
- Drainage culvert behind 3130: add rock as needed and native grasses

Contact: landscapechair@stonehursthoa.com

Clanbrook Court (21 homes)

Site Survey (2020)

- Bed by 9300: part shade (added bed and sign in 2019 for 50th anniversary)
- Trees (16): 4 Dog=dogwood; 1 sj = Japanese Snowbell; 5 Po=pin oak; 4 Sm = sugar maple; 1 vp = Virginia pine; 2 Wp = white pine



Design

- Bed by 9300: rhododendron, roses (2022), remove invasive daylilies; add native perennials
- Add witch hazel and groundcover under pines by 9301

Installation – Pending

Contact: landscapechair@stonehursthoa.com

Recreation Site

Site Survey (2020)

- Site is naturalized reflecting work since development of adjacent property in 2016
- A@H Certified Wildlife Sanctuary in 2017 based on volunteer efforts
- Deer browse is a challenge
- Property Line (part shade to full sun) includes woodland edge plantings and pollinator garden
- Grove is essentially island bed with mix of native and non-native plants
- Swale requires attention every 3-4 years to replace rock; Gully is receding and may require major erosion control project in consultation with NVSWCD and civil engineers
- 13 trees: 1 asp = aspen; 1 bche = black cherry; 7 bl=black locust; 1 che=cherry; 2 Japanese maple; 1 tp = tulip poplar



The Grove

Contact: landscapechair@stonehursthoa.com



Design

- Woodlands and wood edges | Plant NOVA Natives | Northern Virginia
- Create a mini-forest | Plant NOVA Trees | Virginia
- Property Line/Curb-Cut: Part shade. Natural regeneration is in progress. Consider adding evergreens for screening and wildlife. Remove the worst invasives every few years.
- Path (right of curb-cut down hill to point opposite bottom of Grove): Part shade. line with pairs of native fruit or berry producing trees and large shrubs for screening and wildlife (i.e., blackhaw viburnum, redbud, serviceberry, pawpaw, sassafras)
- Grove: edge and mulch annually 2' wide border around perimeter; add interpretive signs for demonstration garden (cost):
 - o Shrub Ring. Part Shade. Blackhaw viburnum and witch hazel
 - Corner with Bird Bath. Part sun to full shade. Daffodils, Yellow Flag Iris (invasive),
 Lamb's Ears, Hosta, Oakleaf Hydrangea, Catawba Rhododendron, European
 Smokebush; Mugwort (invasive); add golden ragwort
 - o Border facing 9299 Bailey. Full sun. Juniper 'grey owl' on slope, Peonies, Pink Thickleaf Phlox, Chinese Silvergrass 'Cosmopolitan' (invasive)
 - o Border facing Stonehurst Drive: Part to full shade. Weeping Japanese Maple, Bishop's weed (invasive). Bleeding Hearts, Ferns, Hyacinths, Allium, Geraniums, Lobelia.
 - o Interior Bowl: Part shade to full sun. Indigo bush, golden ragwort.
- Swale and Gully, create berm and rain garden around gully (as funds permit)

Installation – Pending

Contact: landscapechair@stonehursthoa.com

References

 $Native\ Plants\ for\ Northern\ Virginia-best\ single\ reference \\ \underline{https://www.novaregion.org/DocumentCenter/View/10615/Northern-Virginia-Native-Plant-Guide---FINAL}$

Native Plants for Erosion Control

https://www.fairfaxcounty.gov/soil-water-conservation/drainage-problem-plant-list/

Deer Resistant Native Plants List

https://extension.umd.edu/resource/deer-resistant-native-plants

Tried and True Plant Selections for the Mid-Atlantic

https://mgnv.org/plants/perennials/

The Green Book for the Buffer (includes detailed garden plans)

https://dnr.maryland.gov/criticalarea/Documents/GreenBook_Buffer.pdf

Public Facilities Manual Chapter 12 – Tree Conservation

https://online.encodeplus.com/regs/fairfaxcounty-va-pfm/doc-viewer.aspx?secid=564#secid-564

Casey Trees Urban Tree Selection Guide

https://caseytrees.org/trees-list/

Contact: landscapechair@stonehursthoa.com

Benches



Contact: landscapechair@stonehursthoa.com

Suggested Plant List

The goal is to increase native plants and support wildlife on SHA property.

"In 84 percent of the counties in the U.S. (including Northern Virginia), native oaks are the most important tree followed by native cherries, birches, and willows," researcher David Tallamy said. "When you chop these down, you change the area's ecosystem." Native oaks support 513 species of caterpillars— important bird food—cherries support 390 species, birches support 321 species, and willows support 316 species.

Instead of this	Plant this	Notes
Pin Oak	Scarlet Oak, River Birch	Try Swamp White Oak or
		Chinkapin Oak
Sugar Maple	Red Maple, Black Gum, Sassafras	
Pear	Serviceberry	
	Carolina Silverbell	
Southern Magnolia	Sweetbay Magnolia	
	Southern Wax Myrtle	
English Ivy, Pachysandra	Virginia Creeper, Blue Rug Juniper	
Vinca (Periwinkle)	Creeping Phlox, Golden Ragwort	
Running Bamboo	Eastern Redcedar, pines	Try hemlock (hybrid)
Japanese Cherry Tree	Eastern Redbud	Plant Japanese cherries in
(Yoshino or Kwanzan)	Chokecherry, American crabapple	visible areas (not by RPA)
Forsythia	Witch Hazel	
	Shrubby St John's Wort	
	Spicebush, Senna	
Privet	Hedges and screens Virginia, USA	
	Plant NOVA Natives	
Japanese Honeysuckle,	Fragrant Native Plants Virginia,	Try Perkins Pink
Snowbell (fragrant)	USA Plant NOVA Natives	Yellowwood (fragrant)
Liriope	Native Carex and Sedges	
Heavenly Bamboo	Inkberry holly (Ilex glabra)	Try High Bush Blueberry
(Nandina)	Winterberry (Ilex verticillata)	and Yaupon Holly
Butterfly Bush	Summersweet	
Crape Myrtle	Smoke tree, staghorn sumac	
Barberry	Ninebark	
Day lilies	False Indigo, Lobelia	

SHA Master Plan: Landscaping Contact: landscapechair@stonehursthoa.com

Invasive Control Plan for the Resource Protection Area (RPA)

09/20/2023



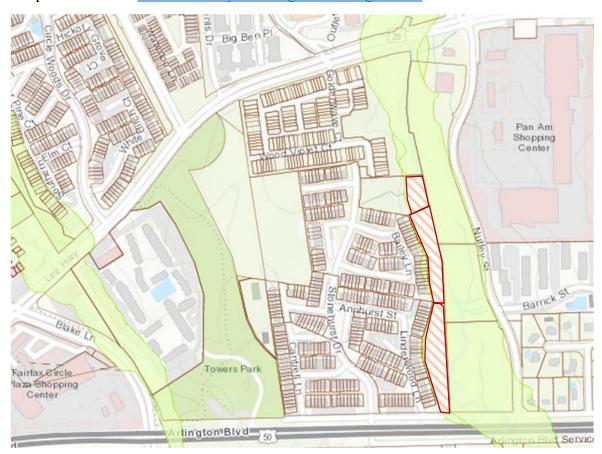
Aerial View, May 2021

This Invasive Control Plan focuses on SHA common area behind Lindenwood Lane and Bailey Lane that is in the Chesapeake Bay RPA for Hunters Branch. The RPA includes regulated corridors of environmentally sensitive land within 100 feet of waterways that drain into the Potomac River and Chesapeake Bay. The plan supplements the SHA Reserve Study and the Master Plan as a tool to project long-term landscaping requirements. An approved Invasive Control Plan is required in order to qualify for many community grants.

In their natural condition, RPAs protect water quality, filter pollutants, prevent erosion, and provide habitat. Invasive plant infestations threaten the ability of the RPA to provide these critical ecosystem services. Invasive plant species are non-native to the local ecosystem and cause or are likely to cause economic or environmental harm or harm to human health. Invasive plants reproduce prolifically and outcompete native plants. Invasive control enables native species to regenerate and improves the health of the local ecosystem over time.

Phases and Cost Estimates

Of the ~4.2 acres of common area in the RPA (highlighted on the map below), ~2.1 acres are in the vegetated buffer on the near side of the stream bank. The far side of the stream bank would be difficult to reach and maintain and is excluded from the scope. Measurements are based on site inspection and the Fairfax County Planning and Zoning Viewer.



This area will be addressed in phases based on scope and cost. Through 2025, while Landscape Enhancement work is ongoing for streets in the community, any unspent landscape funds in the Fall quarter can be directed to invasive control. In 2026-2029, the Landscape Enhancement budget and any unspent landscape funds in the Fall quarter can be directed to invasive control.

A <u>Fairfax County Waiver</u> is required for Vegetation Removal in the RPA. The permit application fee is free and the permit is valid for two years from the date of issuance.

In September 2023, SHA was one of 22 communities to apply for 10 tree planting and preservation fund mini-grants of \$3,000, to be matched by \$1,500 from the community, which could include volunteer labor at \$29.95/person/hour. Although not selected, SHA was encouraged to add more detail and reapply in the future, https://www.audubonva.org/tppf-grant.

- An important part of this work is to educate communities about the problems caused by invasive plants. Under the terms of the grant, communities will be required to display a sign: "Invasive plant control area. Please don't plant the non-native species that damage our ecosystem." with a QR code linking to an information page on invasive plant control.
- Communities will also be required to train workers, whether paid or volunteer, in control techniques as well as in identification of the plants and how to distinguish them from native look-alikes. Plant NOVA Trees has developed training materials, available at https://www.plantnovanatives.org/invasive-plant-management.
- In addition to training, volunteers must be provided with appropriate tools for mechanical removal and report their hours on the project. They must not handle herbicides.

1. RPA behind 3143-3177 Lindenwood Lane

Site Survey (2023)

There is a wide strip of planting beds and lawn running behind the houses, about 50'deep on average and tapering at the end by 3143. The property line is roughly 130' behind the houses, so the target area is roughly 62% of the total area or 1 acre.

This section has the greatest potential for rescue of large canopy trees. It is full of porcelain berry vine, which is climbing on Japanese bush honeysuckle into the trees. In addition, there are areas infested with multiflora rose, English ivy, and vinca. The worst invasives are concentrated in a 30' deep strip along the edge of the woods (\sim 40% of the target area or **0.4 acres**).

Research (2023)

- Contacted <u>JL Tree Service</u>. They have done similar work for <u>George Mason University</u>. Recommend 2-3 days at \$2,000/day for 4 men with bobcat and chipper onsite. Remove vines/shrubs 3" caliper or less in 10' strip behind 3155-3171. Cut vines in a ring around ~8 larger canopy trees at risk further back. Chip and spread debris.
- Contacted <u>Browsing Green Goats</u>. They have done similar work for the Town of Leesburg. Goats graze vegetation up to 6' above ground. Half acre minimum. Rough estimate \$6,000 for half to full acre, based on photo.

- Contacted <u>Blade Runners</u>. They have done similar work for the City of Fairfax. Recommend woodland clearing 2" caliper or less at \$1,500/day for 3 men plus materials, followed by herbicide and mulch (as budget allows) to discourage regrowth.
- Contacted <u>Sustainable Solutions</u>. Listed on Plant NOVA Natives website. \$500 for site evaluation and multiyear plan, \$1,500-\$3,000/day for labor, materials not included.

Year 1:

Apply for Fairfax County waiver for vegetation removal.

Hire tree service in fall/winter to cut access paths to the large canopy trees behind 3155-3171 Lindenwood and clear and mulch 10' rings around them.

- Cut the bush honeysuckle to the ground.
- Cut the vines at the base and eye level and leave the hanging vines in the trees to die in place. Cutting vines eliminates the aerial growth and forces the roots to resprout.
- Skip herbicides and schedule a goat service. We cannot use goats once chemicals have been applied.
- Chip and spread woody debris and add arborist mulch to a depth of 2-3" in the tree rings. Do not grind stumps, which could stimulate the roots of the woody vines.

Year 2 (repeat as needed in outyears):

Hire goat service in spring/summer to fence and browse the full area (1 acre).

- More cost effective for larger areas (>0.5 acres) than tree and landscape services.
- Reduces need for chemicals near the stream.
- Goats will eat most green vegetation, not woody stems, up to 6'above the ground.
- Volunteers can protect any large natives we want to keep with fencing.

Hire certified professional in summer/fall (temperature 65-85F) to use foliar spray herbicides on invasive regrowth in areas that have been cleared – see <u>References</u>.

Hire tree service in fall/winter to cut/dig the woody debris, chip and spread, and grind stumps.

Year 3:

Plant native trees, shrubs, and groundcovers to restore the buffer: <u>RECOMMENDED TREE AND SHRUB SPECIES FOR REFORESTATION OF RESOURCE PROTECTION AREAS (fairfaxcounty.gov)</u>



before (above 2023) and after (below)

2. RPA behind 9243 – 9281 Bailey Lane

Site Survey (2023)

This section has **no rear sidewalk**. There is a narrow strip of lawn running behind the houses to the edge of the drop-off, about 15'deep on average. The near stream bank is roughly 80' behind the houses. The target area between the lawn and the stream bank is roughly 80% or **0.8 acres**.

There is a dense stand of running bamboo behind 9251-9263, as well as porcelain berry vine and Japanese bush honeysuckle behind 9243-9249 and 9265-9281. There is also an open area measuring roughly **0.5 acres** behind 9281 (below the Recreation Site) that is blanketed in invasive vines. Bamboo is the priority, as it spreads roughly 10-15' every year.

Year 1:

Apply for Fairfax County waiver for vegetation removal.

Hire contractor in spring to remove as much bamboo as possible (canes and roots) in long strips at the ends of the stand where it is less dense. Dig trenches and install vertical root barrier to contain further spread. See <u>References</u>.

Year 2 (repeat as needed in outyears):

Hire goat service in spring/summer to fence and browse the full area (0.8 acres).

- More cost effective for larger areas (>0.5 acres) than tree and landscape services.
- Reduces need for chemicals near the stream.
- Goats will eat most green vegetation, not woody stems, up to 6'above the ground.
- Volunteers can protect any large natives we want to keep with fencing.

Hire certified professional in summer/fall (temperature 65-85F) to use foliar spray herbicides on invasive regrowth in areas that have been cleared – see <u>References</u>.

Hire tree service in fall/winter to cut/dig the woody debris, chip and spread, and grind stumps.

Year 3:

Plant native trees, shrubs, and groundcovers along the edge of the drop-off for erosion control and screening: <u>RECOMMENDED TREE AND SHRUB SPECIES FOR REFORESTATION OF RESOURCE PROTECTION AREAS (fairfaxcounty.gov)</u>



3. RPA behind 3179-3191 Lindenwood Lane

Site Survey (2023)

This section is closest to Route 50, where <u>Fairfax County is working</u> beginning in 2022 to create a 10' wide shared use path from Lindenwood Lane to Nutley Street. Once that project is complete, SHA can refine plans for this section. Screening is critical.

This section has the greatest density of running bamboo. There is a wide strip of planting beds and lawn running behind the houses, about 40'deep on average and tapering at the end by 3191. The property line is roughly 110' behind the houses, so the target area is roughly 64% of the total area or **0.3 acres**.

Year 1:

Apply for Fairfax County waiver for vegetation removal.

Hire contractor in spring to remove as much bamboo as possible (canes and roots). Begin with removal of a strip of bamboo 20-30' deep running parallel to the houses starting at the 3191 end of the stand for ease of access from the service road. Grind stumps in the cleared strip. Dig trenches and install vertical root barrier all the way around the bamboo stand to contain further spread.

Hire certified professional in spring/summer (temperature 65-85F) to use foliar spray herbicides on invasive regrowth in areas that have been cleared – see References.

Plant a staggered row of evergreens as soon as practical (likely the fall) in the 20-30' deep cleared strip, for screening to maintain support from affected residents.

Year 2 (repeat as needed in outyears):

Hire contractor in spring to resume work to remove bamboo behind the newly planted staggered row of evergreens. Remove strips of bamboo running perpendicular to the houses starting at the 3191 end of the stand for ease of access from the service road. Dig trenches and install additional vertical root barrier as needed to contain further spread.

Hire certified professional in spring/summer (temperature 65-85F) to use foliar spray herbicides on invasive regrowth in areas that have been cleared—see <u>References</u>.

Year 3:

Plant additional native trees, shrubs, and groundcovers to restore buffer: <u>RECOMMENDED TREE</u> <u>AND SHRUB SPECIES FOR REFORESTATION OF RESOURCE PROTECTION AREAS (fairfaxcounty.gov)</u>



References

Riparian Buffers - Riparian Buffers | Watch the Green Grow (fairfaxcounty.gov)

A Management Guide for Invasive Plants in Southern Forests - gtr srs131.pdf (usda.gov)

Priorities

- Invasive vines threatening trees
- Quality protect high-quality habitat and work outward from there.
- Impact invasives causing the most damage where removal can make a lasting difference
- Other factors like aesthetics and proximity to spreading vectors like public trails, streams that flood, etc.

Timing

- In almost all cases, controlling invasives will be a multi-year process.
- Invasive Plant Control Calendar by Piedmont Master Gardeners.
- Timing and methods recommended by <u>Blue Ridge PRISM</u>
- Winter Invasive Plant Control (psu.edu).

Facts for Specific Plants

Porcelain Berry Vine - Porcelain-berry-Fact-Sheet-Blue-Ridge-PRISM.pdf

- Cut and paint stumps of vines with herbicide for several years as needed.
- June to October, late summer early fall ideal. Foliar spray Triclopyr 2%-3%

Japanese Bush Honeysuckle

• Remove smaller bushes including root ball, cut and paint stumps of larger bushes with herbicide. Treat leaves on warm days (above 40 F) in winter. Foliar spray Glyphosate 2%-3% or Triclopyr 2%-5%

Multiflora Rose - Multiflora-Rose-Fact-Sheet-Blue-Ridge-PRISM.pdf

- Cut stems near ground and paint or spray concentrated herbicide on stump. June October
- Foliar spray Glyphosate 2%-4% or Triclopyr 1%; do not pull severed, vining multiflora roses from trees, which could break tree branches and be dangerous. Leave them to die in place.

Running Bamboo - https://hgic.clemson.edu/factsheet/bamboo-control/

- Barrier made of high-density polyethylene (HDPE) installed about 18" deep proven effective. Areas surrounding barriers should be monitored regularly for escaped rhizomes to cut back.
- For glyphosate to be effective, the bamboo must be mowed or chopped and allowed to regrow until the new leaves expand. A 5% solution should be applied to the newly expanded leaves. Buy a 41% glyphosate product and follow label directions for mixing.
- Containing and Removing Bamboo | University of Maryland Extension (umd.edu)