

- A - *Ilex opaca* (American Holly), 8' o.c.
- B - *Sambucus canadensis* (Elderberry) or *Viburnum acerifolium* (Mapleleaf viburnum), 3' o.c.
- C - *Amelanchier canadensis* (Serviceberry)
- D - *Cimicifuga racemosa* (Black Snakeroot), 12" o.c.
- E - Wildflower Mix, 85 SF; sample mix:

- 50% *Lobelia siphilitica* (Great Blue Lobelia)  
or *Tradescantia virginiana* (Spiderwort)
- 20% *Aquilegia canadensis* (Columbine)
- 20% *Scenecio aureus* (Sneezeweed),
- 10% *Lilium superbum* (Turk's Cap Lily)

If using plants (vs. seed) for wildflowers, space 18" o.c. ( 19-Lobelia, 8-*Aquilegia*, 8-*Scenecia*, 4-*Lilium*) <seeding is lower cost but higher maintenance due to the need to nurture seedlings.

note: o.c.=on center



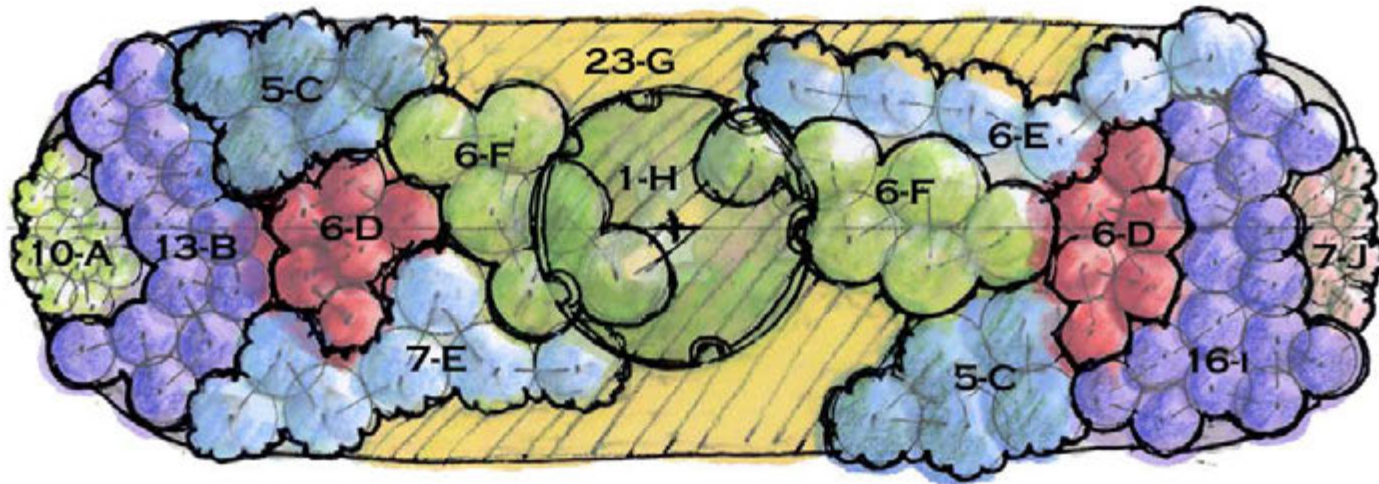
**FOR THE BIRDS RAINGARDEN**

**450 SF**  
Piedmont  
Pt. Shade-Shade  
All zones

Scale: 1/4"=1'



N



- A - *Eupatorium perfoliatum* (Common Boneset), 12" o.c.
- B - *Pennstemon laevigatus* (Eastern Smooth Beardstongue)\*, 18" o.c.
- C - *Lobelia siphilitica* (Great Blue Lobelia), 2' o.c.
- D - *Lobelia cardinalis* (Cardinal Flower), 18" o.c.
- E - *Tradescantia virginiana* (Spiderwort), 2' o.c.
- F - *Veronicastrum virginicum* (Culver's Root), 2' o.c.
- G - *Osmunda cinnamomea* (Cinnamon Fern), 18" o.c.
- H - *Amelanchier arborea* (Downy Serviceberry) or *Hamamelis virginiana* (Witchhazel) (partial sun)
- I - *Astilbe 'Rheinland'* (Perennial Spirea, Pink Astilbe), 18" o.c.
- J - *Aquilegia canadensis* (Columbine), 12" o.c.

note: o.c. = on center

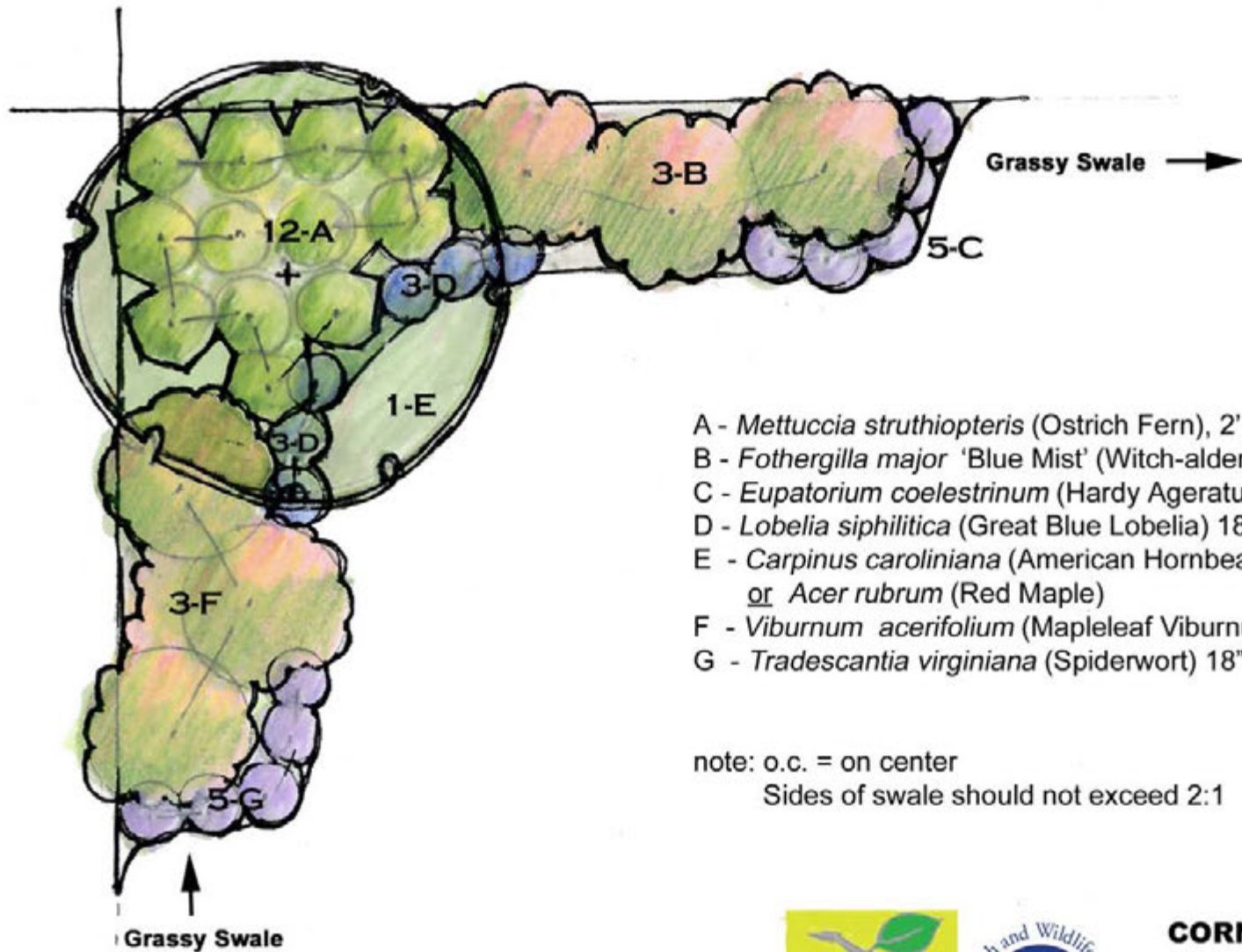
\* Hardy up through Pennsylvania; if colder than 5b, then substitute *Heuchera americana* (Alumroot)



**BUTTERFLIES SWALE RAINGARDEN**  
 250 SF  
 Pt Shade/Shade  
 Piedmont

Scale: 1/4" = 1'





- A - *Mettuccia struthiopteris* (Ostrich Fern), 2' o.c.
- B - *Fothergilla major* 'Blue Mist' (Witch-alder), 4' o.c.
- C - *Eupatorium coelestrinum* (Hardy Ageratum), 18" o.c.
- D - *Lobelia siphilitica* (Great Blue Lobelia) 18" o.c.
- E - *Carpinus caroliniana* (American Hornbeam)  
or *Acer rubrum* (Red Maple)
- F - *Viburnum acerifolium* (Mapleleaf Viburnum), 4' o.c.
- G - *Tradescantia virginiana* (Spiderwort) 18" o.c.

note: o.c. = on center  
Sides of swale should not exceed 2:1



### CORNER RAINGARDEN

150 SF

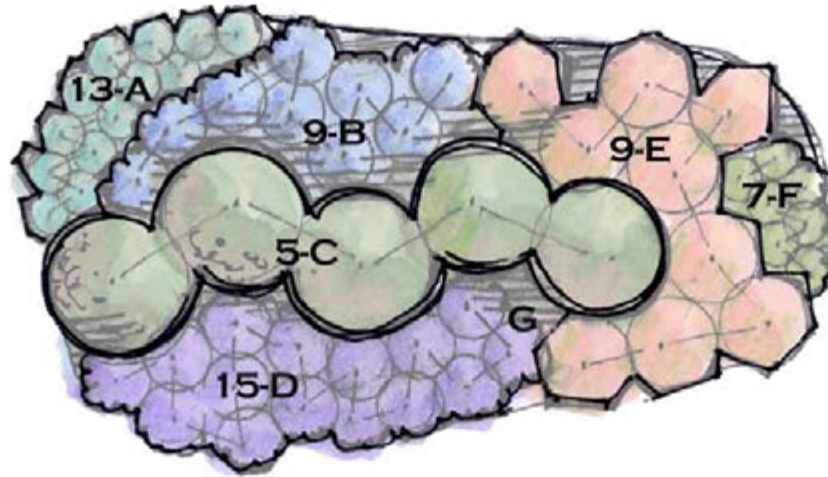
Pt Shade-Shade

All zones,

Piedmont

Scale: 1/4"=1'





- A - *Tiarella cordifolia* (Foamflower), 12" o.c
- B - *Cimicifuga racemosa* (Black Cohosh), 18" o.c.
- C - *Clethra alnifolia* 'Ruby Spice' (Pink dwarf Sweet Pepperbush), 3' o.c.
- D - *Tradescantia virginiana* (Spiderwort), 18" o.c.
- E - *Polystichum acrostichoides* (Christmas Fern), 2' o.c.
- F - *Viola labradorica* (Labrador violet), 12" o.c.
- G - *Narcissus* naturalizing type (Daffodils), 4" o.c.

note: o.c. = on center

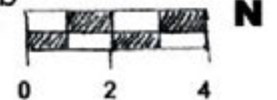
**note: G indicates daffodils  
4" o.c., total 200 bulbs**

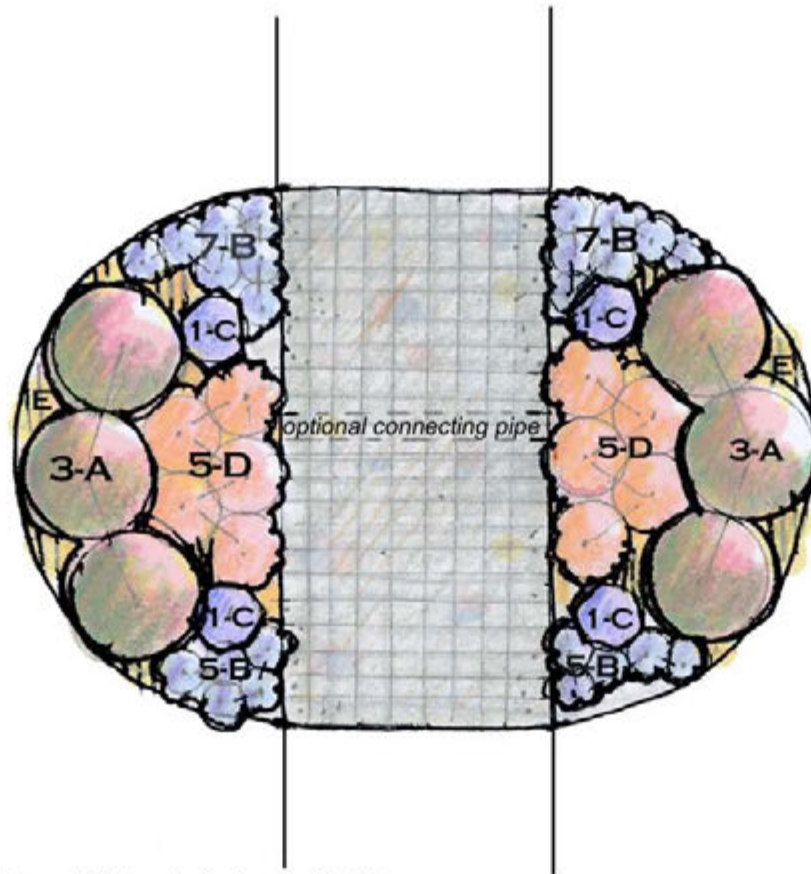


**DIVIDER RAINGARDEN**

**130 SF**  
Piedmont  
Pt Shade - Shade  
Zone 5a-7b

Scale: 1/4" = 1'





- A - *Kalmia latifolia* 'Elf' or 'Tiddlywinks' (Dwarf Mountain Laurel), 3' o.c.
- B - *Asarum canadense* (Wild Ginger) or *Tiarella cordifolia* (Foamflower), 12" o.c.
- C - *Osmunda regalis* (Royal Fern)
- D - *Hosta sieboldiana* 'Elegans' (Elegans Hosta), 2' o.c. or *Heuchera americana* (Alumroot; many cultivars)
- E - *Narcissus* 'Thalia' or 'Ice Follies', 4" o.c., total 30 bulbs (White Daffodils)

Note: o.c. = on center

Direct water into the garden from adjacent turf and downspouts  
 Excavate the walk and garden areas at the same time and install all soil improvements for treating the runoff in both the pavement and planting areas at the same time.

The paver area will be underlain with open graded stone and should be vertically separated from the rain gardens with a curb.



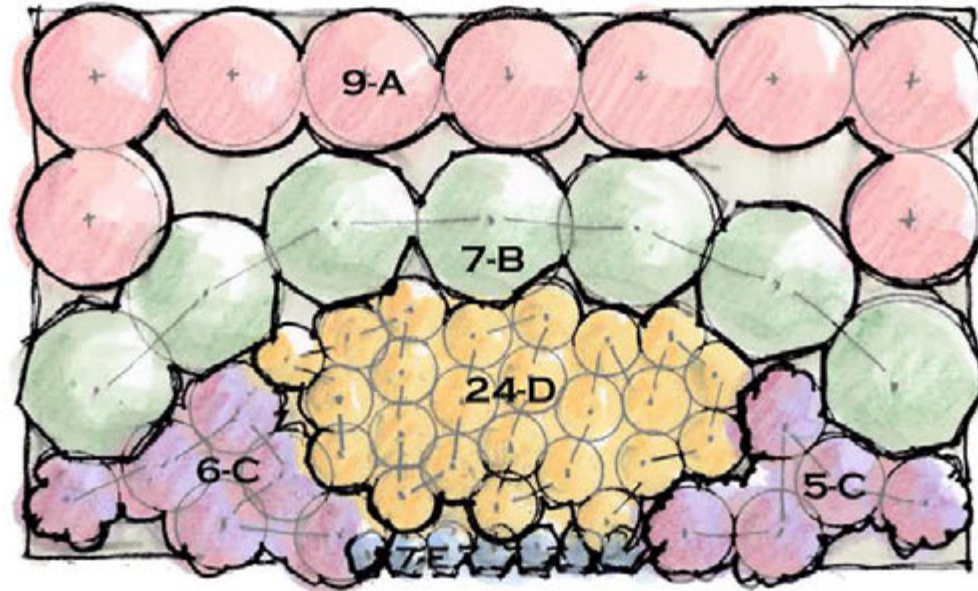
**ENTRY RAINGARDEN  
 FLANKING WALK WITH  
 PERMEABLE PAVERS  
 113 SF GARDEN, 72 SF PAVERS**

Piedmont  
 Pt Shade-Shade

Zones: All

Scale: 1/4" = 1'





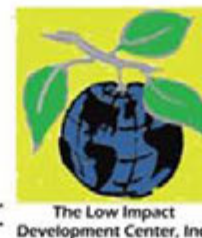
- A - *Rhododendron* 'Herbert', 3' o.c. or *Calycanthus floridus* (Sweetshrub)
- B - *Clethra alnifolia* 'Sixteen Candles', 3 1/2' o.c.
- C - *Aster divaricatus* (White Wood Aster)\*\*\*, 2' o.c.
- D - *Spiranthes cernua* var. *odorata* (Fragrant Lady's Tresses)\*\*, 15' o.c.
- E - *Phlox stolonifera* (Creeping Phlox) or *Phlox divaricata* (Woodland Phlox)\*, 12" o.c.

note: o.c.= on center

\* *Viola odorata* (Sweet Violet) may be used but they do spread rapidly

\*\* *Hosta* 'Fragrant Blue' may be subst. (space 12" o.c. and use 36 plants) or if there is a half day of sun, *Monarda* X 'Marshall's Delight', 15" o.c.

\*\*\*Underplant with *Convallaria majalis* for spring fragrance (use about 120 pips)

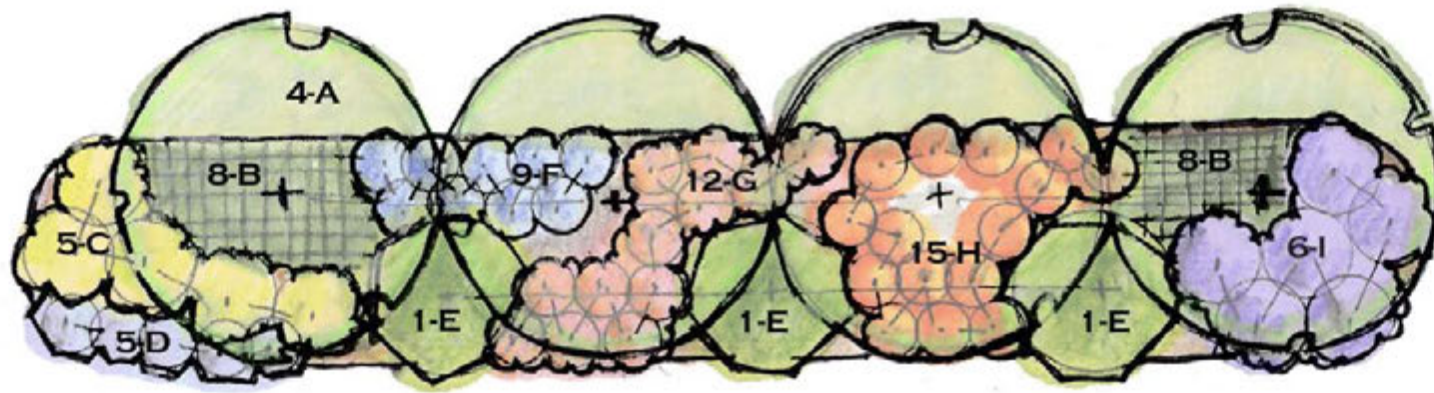


**FRAGRANT RAINGARDEN  
FORMAL 21'x12' = 252 SF**

Piedmont  
Pt Shade-Shade

Zones 5b-7b  
Scale: 1/4"=1'





- A - *Sassafras albidum* (Sassafras) or *Acer rubrum* (Red Maple), 18' o.c.
- B - *Osmunda cinnamomea* (Cinnamon Fern), 2' o.c.
- C - *Viburnum acerfolium* (Mapleleaf viburnum), 3' o.c.\*, 5' o.c.
- D - *Itea virginiana* 'Henry's Garnet', 3' o.c.
- E - *Amelanchier canadensis* (Shadblow) or *Cornus alternifolia* (Alternate-leaf dogwood), 18' o.c.
- F - *Pieris floribunda* (Mountain Pieris), 5' o.c.
- G - *Clethra alnifolia* 'Ruby Spice', 3' o.c.
- H - *Calycanthus floridus* (Sweetshrub), 4' o.c.
- I - *Rhododendron canescens* (Piedmont Azalea) or *Rhododendron vaseyi* (Pinkshell azalea), 5' o.c.

note: o.c. = on center

\* *Viburnum trilobum* (American Cranberrybush) OK if half day of sun

\*\* *Ilex glabra nana* (Dwarf Inkberry) OK if half day of sun

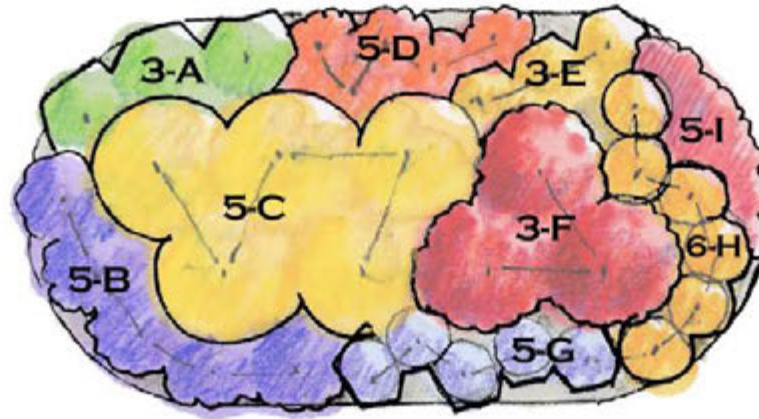


## HEDGEROW RAINGARDEN 903 SF

Scale: 1"=10'

Piedmont  
Pt Shade-Shade  
All zones





- A - *Lobelia siphilitica* (Great Blue Lobelia), 2' o.c.
- B - *Penstemon laevigatus* (Eastern Smooth Beardtongue), 2' o.c.
- C - *Aruncus dioicus* (Goatsbeard - female) or *Aralia racemosa* (Spikenard), 3' o.c.
- D - *Scenecio aureus* (Golden ragwort)\*, 18" o.c.
- E - *Tradescantia virginiana* (Spiderwort), 18" o.c.
- F - *Helenium autumnale* (Yellow Sneezeweed)\* or *Hosta* 'Sum and Substance', 3' o.c.
- G - *Arisaema triphyllum* (Jack-in-the-Pulpit), 18" o.c.
- H - *Lilium superbum*, (Turk's Cap Lily), 18" o.c.
- I - *Aquilegia canadensis* (Wild columbine), 18" o.c.

note: o.c. = on center

\* *Asclepias tuberosa* (Butterfly weed) OK if half day of sun

\*\*Needs Pt. sun



#### HERBACEOUS PERENNIALS RAINGARDEN

130 SF

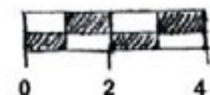
Tall and Bold Summer-Fall Rainbow

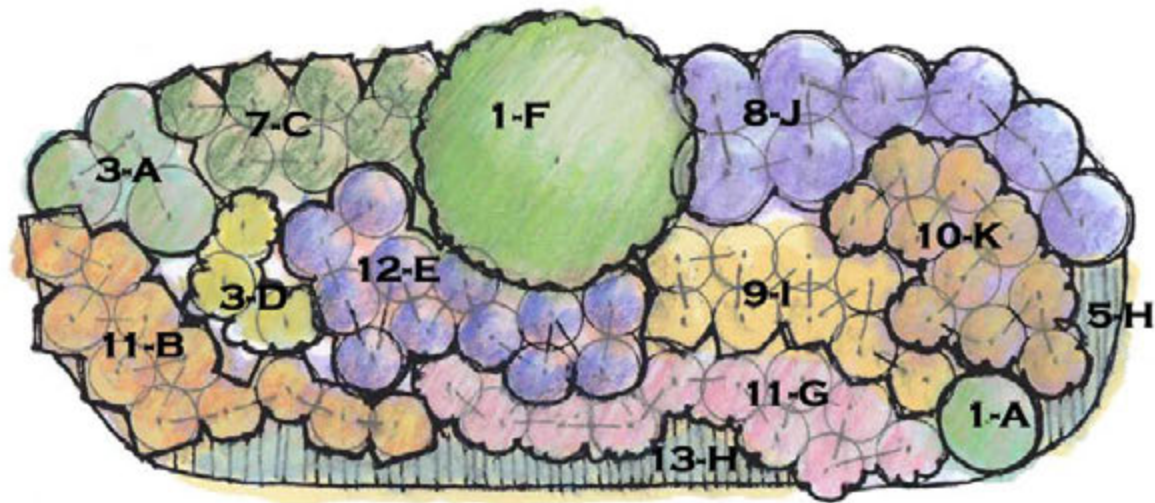
Piedmont

Pt Shade-Shade

All zones

Scale: 1/4"=1'





- A - *Elymus hystrix* (Bottlebrush grass), 2' o.c
- B - *Tradescantia virginiana* (Spiderwort), 18" o.c.
- C - *Juncus effusus* (Soft Rush), 18" o.c.\*
- D - *Lobelia siphilitica* (Great Blue Lobelia), 2' o.c.
- E - *Eupatorium rugosum* (White Snakeroot) , 18" o.c.\*\*
- F - *Aruncus dioicus* (Goat's Beard)
- G - *Aquilegia canadensis* (Columbine), 18" o.c.
- H - *Phlox divaricata* (Woodland Phlox), 12" o.c.
- I - *Rudbeckia hirta* (Black-eyed Susan), 18" o.c.\*\*\*
- J - *Dryopteris fragrans* (Fragrant Woodfern) or  
*Dryopteris erythrosora* (Autumn Fern), 2' o.c.
- K - *Polystichum acrostichoides* (Christmas Fern), 18" o.c.

note: o.c.= on center

\* if more than half day shade, substitute

*Thelypteris noveboracensis* (New York Fern)

\*\* in deeper shade substitute *Astilbe* 'Deutschland'

\*\*\* in deeper shade substitute *Solidago ulmifolia* (up to 70% shade)

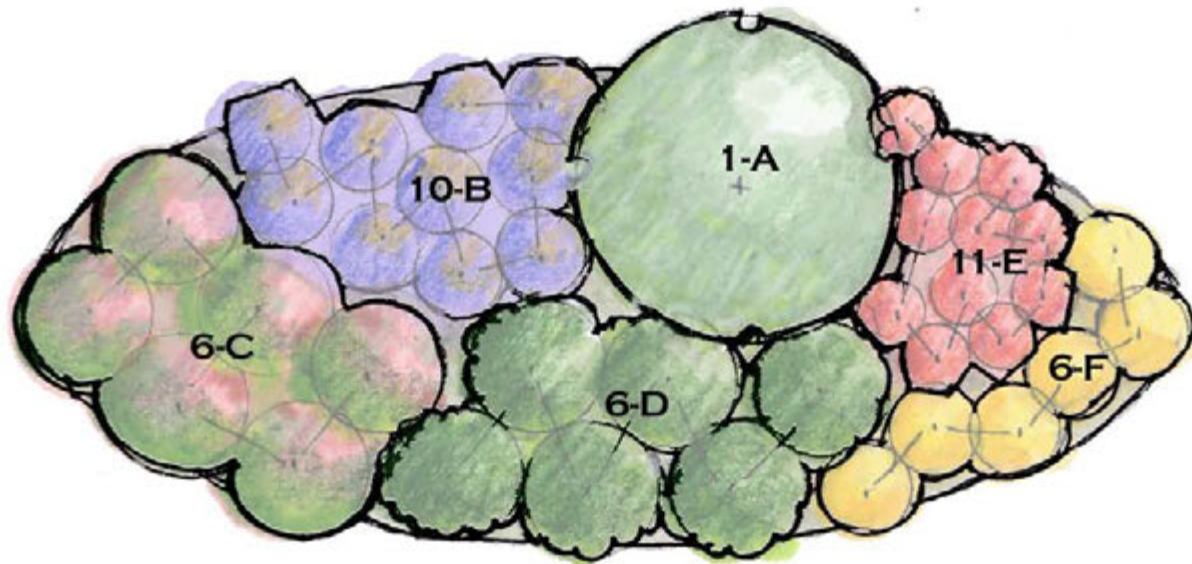


### HERBACEOUS PERENNIALS BORDER RAINGARDEN 200 SF

Pt. Shade-Shade  
Zones 5a-7a  
Piedmont

Scale: 1/4"=1'





### PLANT CHOICE

- A - *Lindera benzoin* (Spicebush)
- B - *Aruncus dioicus* (Goat's Beard) 2' o.c.\*
- C - *Hydrangea arborescens* 'Annabelle', 3' o.c.
- D - *Kalmia latifolia* (Mountain Laurel), 3' o.c.
- E - *Arisaema triphyllum* (Jack-in-the-Pulpit), 12" o.c.\*\*
- F - *Aster divaricatus* (Wood's Aster), 2' o.c.\*\*\*

### DESIGN VALUE

- Tallest/Structural element in garden (8-12')
- Medium Tall perennial, fine texture, white cloud of flowers
- Medium height (3-5'), white cloud of flowers
- Year round interest, color mass in spring (white)
- Spring color mass, interesting texture, red fall fruit
- Fall white mass of color, butterflies

note: o.c. = on center

\* if half day of sun, then *Baptisia alba* (Rattlebox) is OK

\*\* or *Polystichum acrostichoides* (Christmas Fern)

\*\*\* or, if half day of sun, *Aster novae-angliae* 'Purple Dome' if OK



The Low Impact  
Development Center, Inc.



### LOW MAINTENANCE RAINGARDEN DEER RESISTANT

**200 SF**

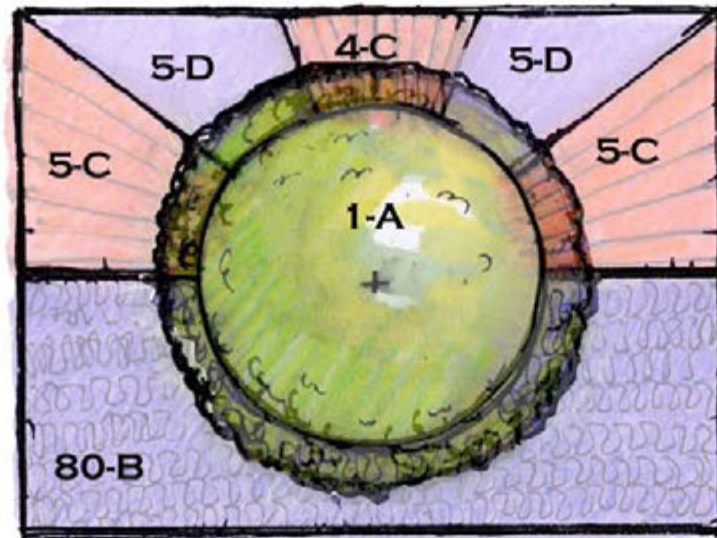
Pt Shade-Shade

Piedmont

Zones 5b-7b

Scale: 1/4" = 1'





### POSSIBLE PLANTS

- A - *Chionanthus virginicus* (Fringetree)  
*Amelanchier canadensis* (Serviceberry)
- B - *Ajuga reptans* (Carpetbugle), 12" o.c.  
*Oenothera fruticosa* (Primrose), 12" o.c.\*  
*Liriope spicata* (Liriope), 12" o.c.  
*Asarum canadense* (Wild Ginger), 12" o.c.  
*Geranium maculatum* (Spotted Geranium), 12" o.c.  
*Phlox divaricata* (Woodland Phlox), 12" o.c.
- C - *Osmunda cinnamomea* (Cinnamon Fern)  
*Athyrium felix-femina ssp. asplenoides* (Lady Fern)
- D - *Woodwardia virginica* (Virginia chain Fern)  
*Smilacina racemosa* (Solomon's Plume)

### DESIGN VALUE

- Spring accents, Interesting winter bark, fruit (female)
- Attractive white spring flowers, fruit, wildlife value
- Groundcover, evergreen, purple flowers
- Native Groundcover (Deciduous), yellow flowers
- Summer color accent - semi-evergreen -Purple spike flowers
- Summer foliage, heart shaped foliage
- Pink spring flowers
- Blue spring flowers, semi-evergreen groundcover
- Dramatic vertical texture plant
- Fine texture vertical texture plant, smaller scale than Ostrich
- Linear medium textural interest
- Vertical interest, White spring flowers, red fruit

note: o.c. = on center

\*Not suitable for full shade



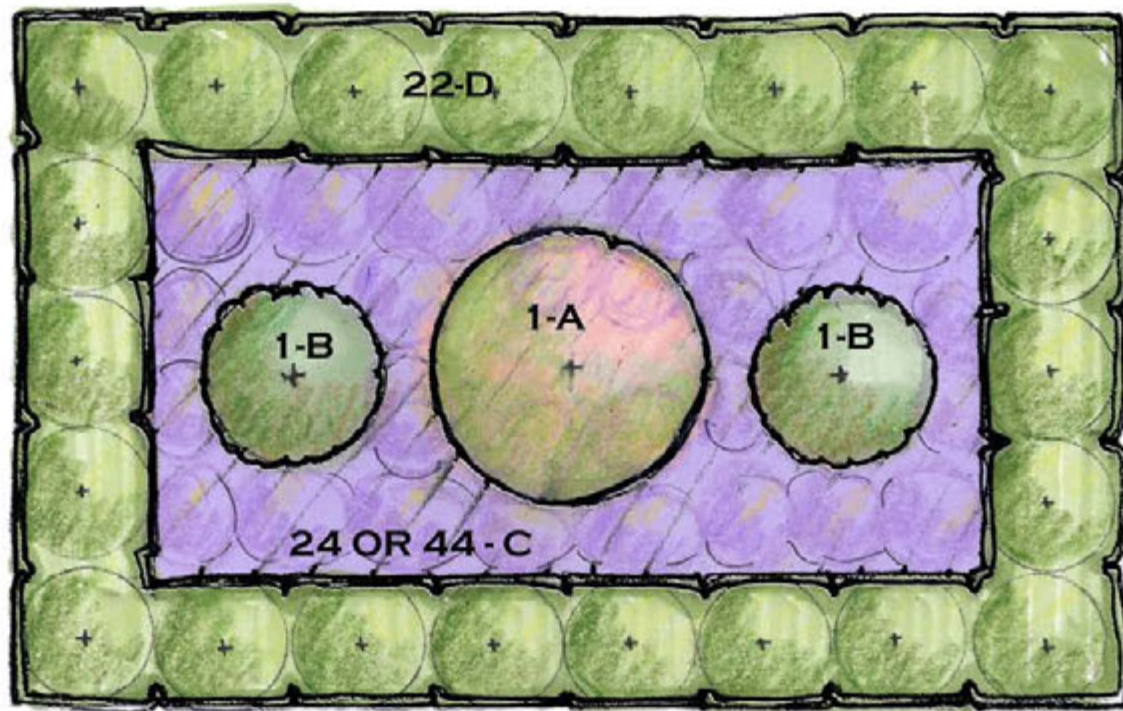
### ONE NICE TREE

**192 SF 16' X 12'**

Pt Shade-Shade,  
Piedmont, zones 5a-7a

Scale: 1/4"=1'





**PLANT CHOICES (choose 1 of each type)**

- A - *Alnus serrulata* (Common Alder)  
*Amelanchier canadensis* (Serviceberry)
- B - *Aronia melanocarpa* (Black Chokeberry)  
*Gaylussacia baccata* (Black Huckleberry)  
*Chaemacyparis obtusa* 'Nana Gracilis' (Dwarf Hinoki False Cypress)
- C - *Thelypteris noveboracensis* (New York Fern), 2' o.c. (24)  
*Polystichum acrostichoides* (Christmas Fern), 18" o.c. (44) (evergreen)  
*Scenecio aureus* (Golden Ragwort), 18" o.c. (44)
- D - *Tsuga canadensis* (Eastern Hemlock) , 3' o.c. (Shear)  
*Ilex glabra* 'Densa' (Dwarf Inkberry), 3' o.c.

**DESIGN FUNCTION**

Center accent

- Rounded, Fall orange/burgandy/purple color
- Native low shrub, white flowers
- Evergreen, fine texture rounded
- Tall Groundcover, feathery texture
- Med Tall Groundcover, evergreen
- Low Groundcover, yellow spring flower, evergreen
- Fine texture, Hedge

note: o.c.= on center

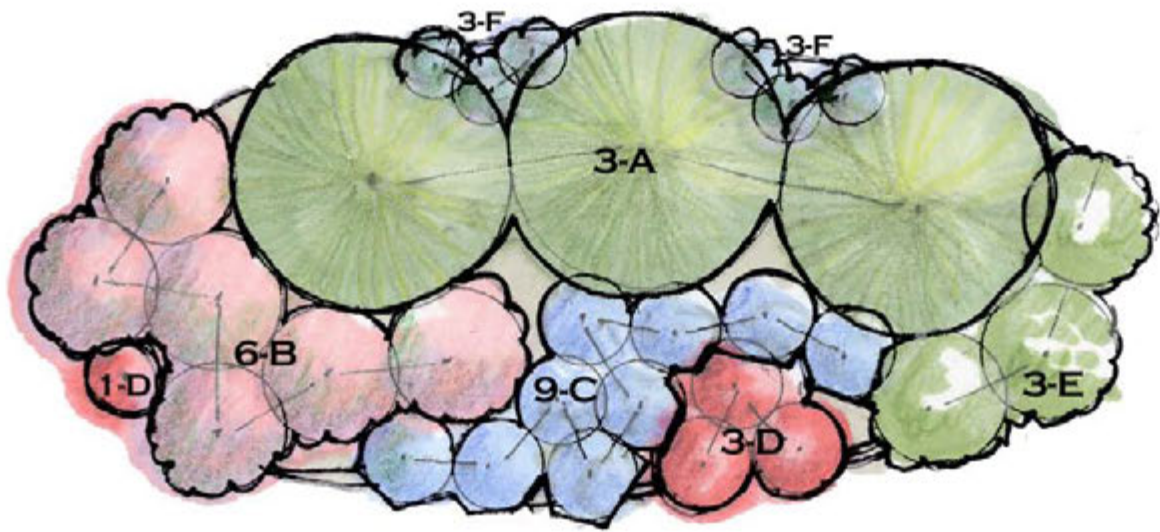
\*Needs sun-partial shade exposure



**PARTERRE RAINGARDEN**

**384 SF**  
Pt Shade-Shade  
Zones 5b-7  
Piedmont  
Scale: 1/4"=1'





- A - *Leucothoe racemosa* (Fetterbush), 6' o.c. or *Cornus sericea* (Redosier dogwood)\*
- B - *Clethra alnifolia* 'Sixteen Candles' (Summersweet), 3' o.c.
- C - *Arisaema triphyllum* (Jack-in-the-pulpit), 2' o.c. or *Amsonia hubrechtii* (Blue-Star Flower)\*, 2' o.c.
- D - *Lobelia siphiliticus* (Great Blue Lobelia), 2' o.c.
- E - *Hydrangea quercifolia* 'Pee Wee' (Dwarf Oakleaf Hydrangea), 3' o.c.\*, *Hydrangea arborescens* (Smooth Hydrangea), 3' o.c., or *Kalmia latifolia* 'Tiddlywink' (Dwarf Mountain Laurel), 3' o.c. \*
- F - *Phlox divaricata* (Woodland Phlox) , 18" o.c. *Iris cristata* (Dwarf Crested Iris), 8" o.c. \*(12 plants)

- Red/White
- White/Blue
- White/Purple/Red fruit
- Blue
- Blue
- White/Red

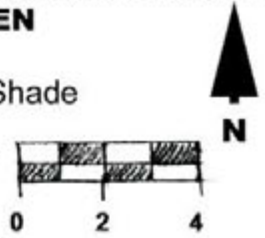
Blue

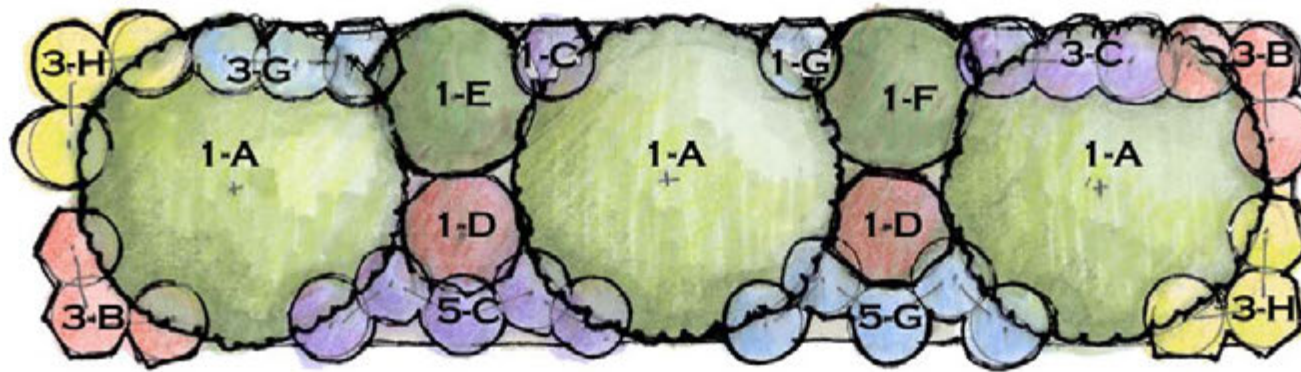
note: o.c. = on center  
 \*prefers partial shade or deciduous shade



**RED, WHITE AND BLUE  
 LOW MAINTENANCE BORDER  
 RAINGARDEN  
 200 SF**

Part Shade-Shade  
 Piedmont  
 Scale: 1/4"=1'





- A - *Ilex opaca* (American Holly, various cultivars), 10' o.c.
- B - *Aquilegia canadensis* (Columbine), 2' o.c.
- C - *Tradescantia virginiana* (Spiderwort), 2' o.c. or  
*Polemonium reptans* (Jacob's ladder), 2' o.c.
- D - *Kalmia angustifolia* (Sheep Laurel) or *Leucothoe fontanesia* 'Compacta' (Compact Drooping Leucothoe)
- E - *Rhododendron maximum* (Rosebay Rhododendron)
- F - *Hydrangea quercifolia* (Oakleaf Hydrangea)
- G - *Mertensia virginica* (Virginia Bluebells), 2' o.c. or *Astilbe* 'Deutschland' 2' o.c.'
- H - *Penstemon laevigatus* (Eastern Smooth beardtongue), 2' o.c. or  
*Dryopteris marginalis* (Evergreen woodfern)  
*Aster ericoides* (Heath Aster)\*, 2' o.c.

note: o.c. = on center

\*needs partial sun/shade not full shade (*Penstemon digitalis* (Foxglove Beardtongue) is OK if part shade

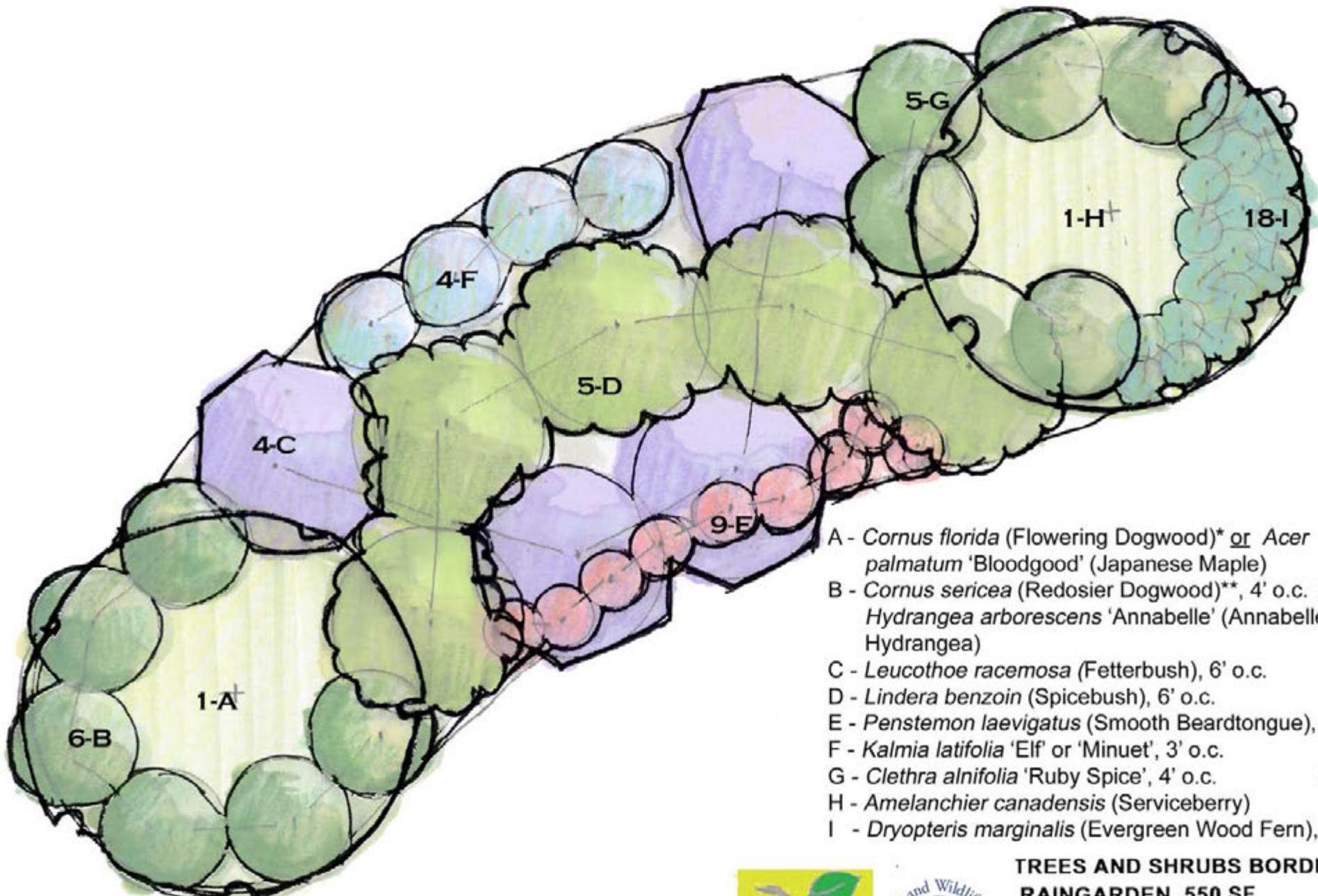


**SCREENING RAINGARDEN  
256 SF**

Partial Shade-Shade  
Zone 5b-8a

Piedmont  
Scale: 1/4"=1'





- A - *Cornus florida* (Flowering Dogwood)\* or *Acer palmatum* 'Bloodgood' (Japanese Maple)
- B - *Cornus sericea* (Redosier Dogwood)\*\*, 4' o.c. or *Hydrangea arborescens* 'Annabelle' (Annabelle Hydrangea)
- C - *Leucothoe racemosa* (Fetterbush), 6' o.c.
- D - *Lindera benzoin* (Spicebush), 6' o.c.
- E - *Penstemon laevigatus* (Smooth Beardtongue), 2' o.c.
- F - *Kalmia latifolia* 'Elf' or 'Minuet', 3' o.c.
- G - *Clethra alnifolia* 'Ruby Spice', 4' o.c.
- H - *Amelanchier canadensis* (Serviceberry)
- I - *Dryopteris marginalis* (Evergreen Wood Fern), 18" o.c.

note: o.c. = on center

\*This end of the garden should be slightly higher than the 'H' end so that the dogwood/maple are not sitting in water after a rain event

\*\*partial shade or deciduous shade OK



**TREES AND SHRUBS BORDER  
RAINGARDEN 550 SF**

Pt Shade-Shade  
Zones 5b-7b  
Piedmont

Scale: 1/4"=1'

