

- A - *Ilex opaca* (American Holly), 8' o.c.
- B - *Vaccinium corymbosum* (Highbush Blueberry), 3' o.c.
- C - *Rhododendron viscosum* (Swamp Azalea), or *Cornus sericea* (Redosier Dogwood),
or *Ilex glabra nana* (Dwarf Inkberry)
- D - *Hemerocallis hybrids* (Hybrid daylilies e.g. 'Happy Returns'), 12" o.c. or *Phlox subulata* (Thrift), 12" o.c.
- E - Wildflower Mix, 85 SF; sample mix:
 - 50% *Rudbeckia hirta* (Black-Eyed Susan)
 - 20% *Echinacea purpurea* (Purple Coneflower),
 - 20% *Liatrus spicata* (Blazing-Star),
 - 10% *Asclepias tuberosa* (Butterfly Weed)

If using plants (vs. seed) for wildflowers, space 18" o.c. (19 -*Rudbeckia*, 8 - *Echinacea*, 8- *Liatrus*, 4 - *Asclepias*) <seeding is lower cost but higher maintenance option due to need for nurturing seedlings>
note: o.c. = on center

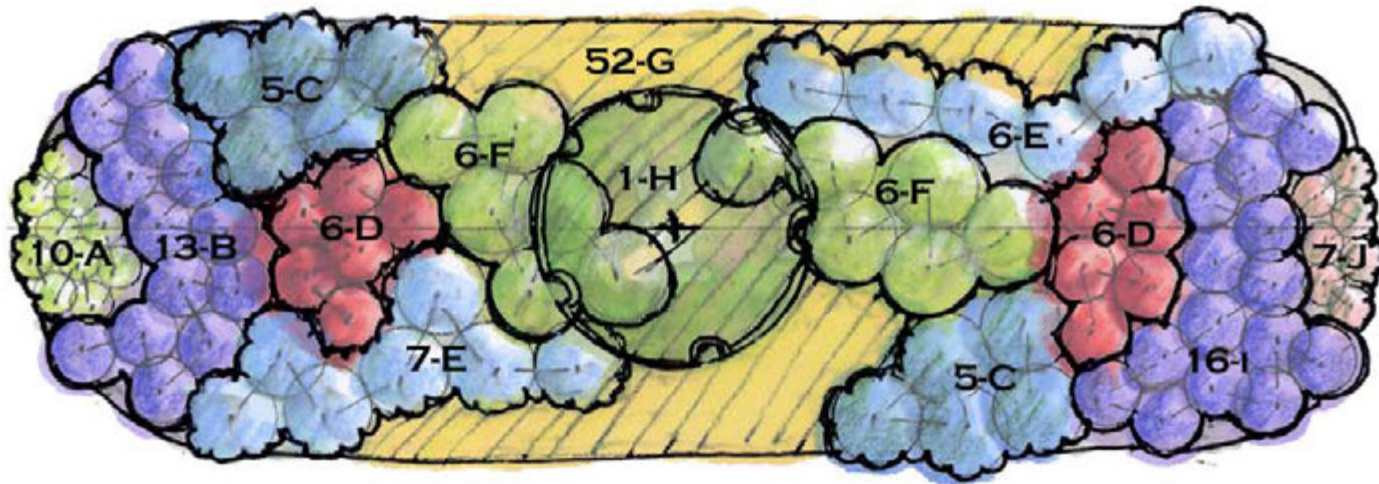


FOR THE BIRDS RAINGARDEN
450 SF

Full Sun-Pt. Shade
All zones

Scale: 1/4" = 1'





- A - *Chelone glabra* (White Turtlehead), 12" o.c.
- B - *Iris versicolor* (Blue Flag), 18" o.c.
- C - *Amsonia tabernaemontana* (Blue-Star Flower), 2' o.c.
- D - *Lobelia cardinalis* (Cardinal Flower), 18" o.c.
- E - *Amsonia hubrechtii* (Narrow-leaf Blue Star Flower), 2' o.c.
- F - *Thelypteris palustris* (Marsh Fern), 2' o.c.
- G - *Oenothera fruticosa* (Narrow-leaved Sundrops), 12" o.c.
- H - *Ilex decidua* (Possumhaw)*
- I - *Aster novae-angliae* 'Purple Dome' (New England Aster), 18" o.c.
- J - *Chelone lyonii* (Pink Turtlehead), 12" o.c.

note: o.c. = on center

* Get a male-female pair of Possumhaw and plant together in same hole



The Low Impact
Development Center, Inc.



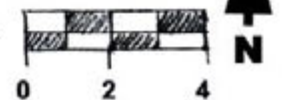
BUTTERFLIES SWALE RAINGARDEN

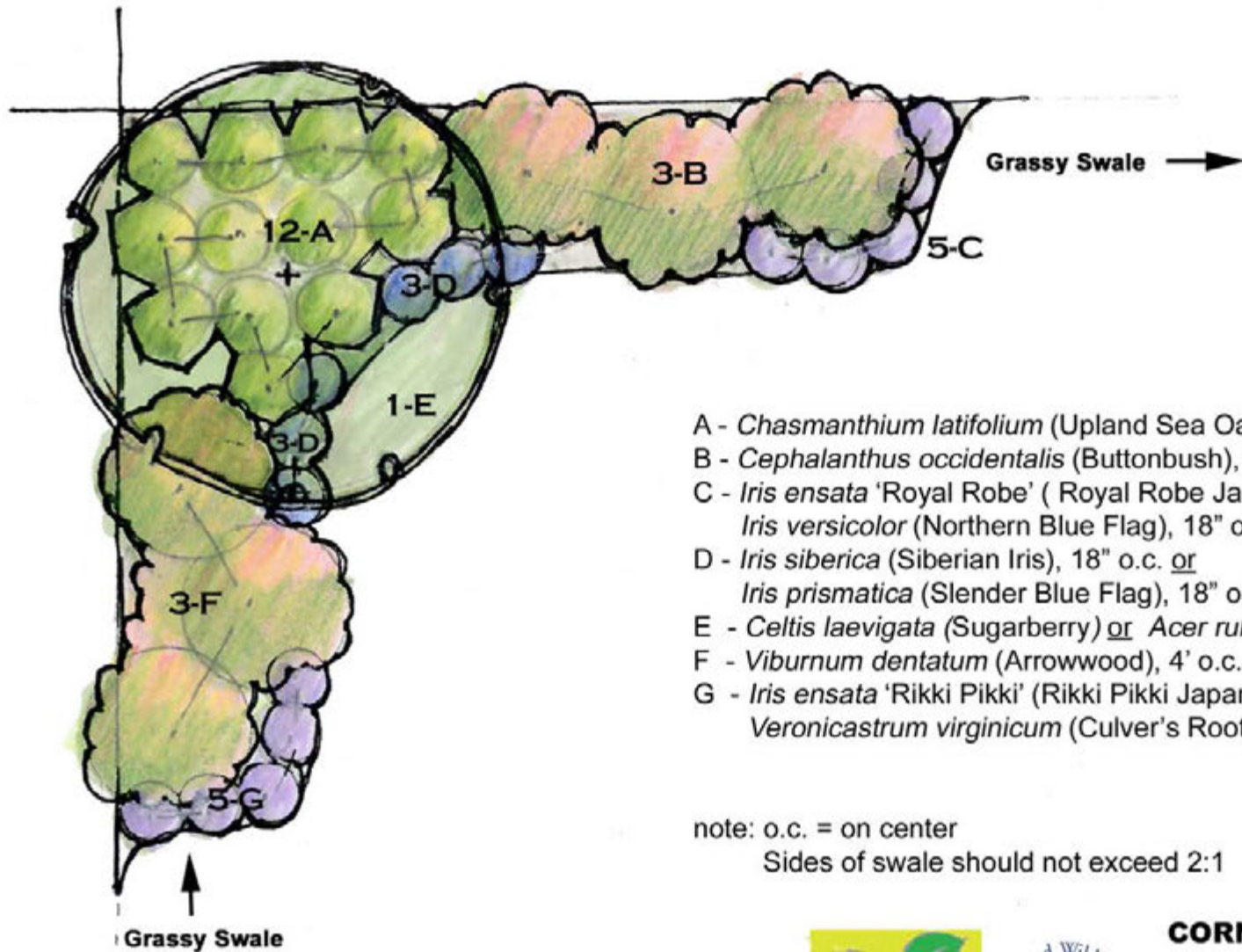
250 SF

Full Sun

Piedmont

Scale: 1/4" = 1'





- A - *Chasmanthium latifolium* (Upland Sea Oats), 2' o.c.
- B - *Cephalanthus occidentalis* (Buttonbush), 4' o.c.
- C - *Iris ensata* 'Royal Robe' (Royal Robe Japanese Iris), 18" o.c. or
Iris versicolor (Northern Blue Flag), 18" o.c. (native)
- D - *Iris siberica* (Siberian Iris), 18" o.c. or
Iris prismatica (Slender Blue Flag), 18" o.c. (native)
- E - *Celtis laevigata* (Sugarberry) or *Acer rubrum* (Red Maple)
- F - *Viburnum dentatum* (Arrowwood), 4' o.c.
- G - *Iris ensata* 'Rikki Pikki' (Rikki Pikki Japanese Iris), 18" o.c. or
Veronicastrum virginicum (Culver's Root), 18" o.c.

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



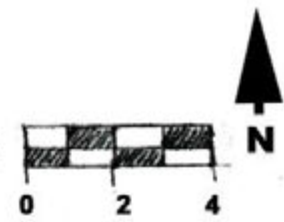
The Low Impact
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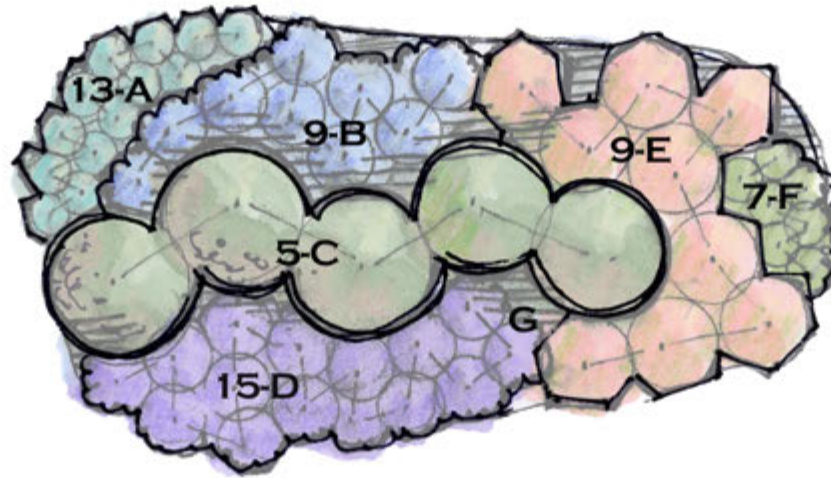


CORNER RAINGARDEN

150 SF
Full Sun
All zones,
Piedmont

Scale: 1/4"=1'





- A - *Hemerocallis* 'Happy Returns' (Dwarf hybrid daylily),* 12" o.c
- B - *Rudbeckia fulgida* (Black Eyed Susan), 18" o.c.
- C - *Itea virginiana* 'Little Henry' (Dwarf Virginia Sweetspire), 3' o.c.
- D - *Tradescantia virginiana* (Spiderwort), 18" o.c.
- E - *Echinacea purpurea* 'Magnus' (Magnus Purple Coneflower), 2' o.c.
- F - *Phlox subulata* 'Emerald Cushion Blue' or 'Emerald Cushion Pink'
(Creeping Phlox, aka Thrift), 12" o.c.
- G - *Narcissus* naturalizing type (Daffodils), 4" o.c.

note: o.c. = on center

*substitute *Iris fulva* for *Hemerocallis* if native is desired

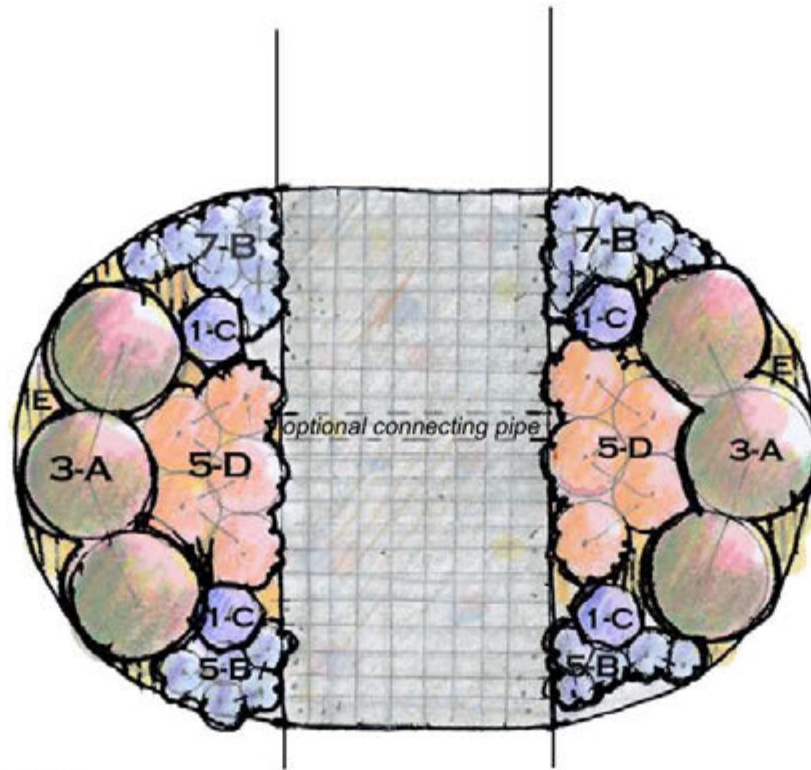
**note: G indicates daffodils
4" o.c., total 200 bulbs**

**DIVIDER RAINGARDEN
130 SF**

Full Sun, Piedmont
Zone 5a-8a

Scale: 1/4" = 1'





Choose one kind of plant for each letter

- A - *Itea virginiana* 'Little Henry', 3' o.c. (Dwarf Virginia sweetspire) or *Ilex glabra nana* (dwarf inkberry, keep clipped) or *Tripsacum dactyloides* (Gamma Grass)
 - B - *Phlox subulata* 'Emerald Cushion Blue', 12" o.c. (Creeping phlox) or *Iris cristata* (dwarf crested iris)
 - C - *Liatrus spicata* 'Kobold' (Gayfeather) or *Echinacea purpurea* 'Razzmatazz' (Purple coneflower)
 - D - *Aster novae-angliae* 'Purple Dome', 2' o.c. (Purple Dome New England Aster) or *Asclepias tuberosa* (Butterfly Weed) or *Hemerocallis* 'Happy Returns' (Dwarf Hybrid Daylily, yellow, reblooming)
 - 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.

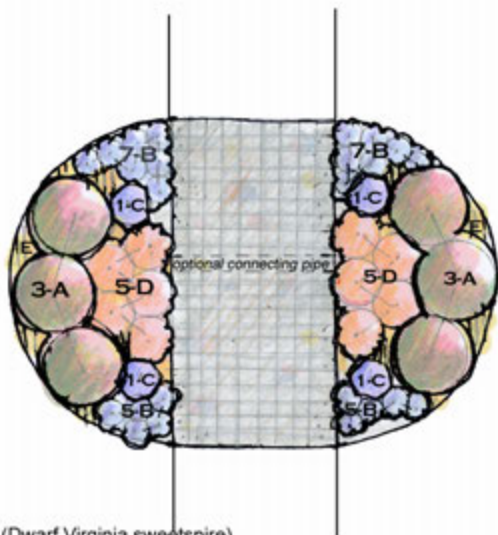


**ENTRY RAINGARDEN
FLANKING WALK WITH
PERMEABLE PAVERS
113 SF GARDEN, 72 SF PAVERS**

Piedmont
Full Sun
Zones: All

Scale: 1/4" = 1'





- A - *Itea virginiana* 'Little Henry', 3' o.c. (Dwarf Virginia sweetspire)
 B - *Phlox subulata* 'Emerald Cushion Blue', 12" o.c. (Creeping phlox aka thrift)
 C - *Liatrus spicata* 'Kobold' (Gayfeather)
 D - *Aster novae-angliae* 'Purple Dome', 2' o.c. (Purple Dome New England Aster)
 E - *Narcissus* 'Thalia' or 'Ice Follies', 4" o.c, total 30 bulbs (White Daffodils)

Note: o.c. = on center

Substitutions may be made depending on availability:

- A: *Ilex glabra nana* (dwarf inkberry, keep clipped) or
Tripsacum dactyloides (Gamma grass)
 B: *Iris cristata* (dwarf crested iris)
 C: *Echinacea purpurea* 'Razzmatazz' (Purple coneflower)
 D: *Asclepias tuberosa* (butterfly weed) or *Hemerocallis* 'Happy Returns'
 (Dwarf Hybrid daylily, reblooming)

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 at the same time

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

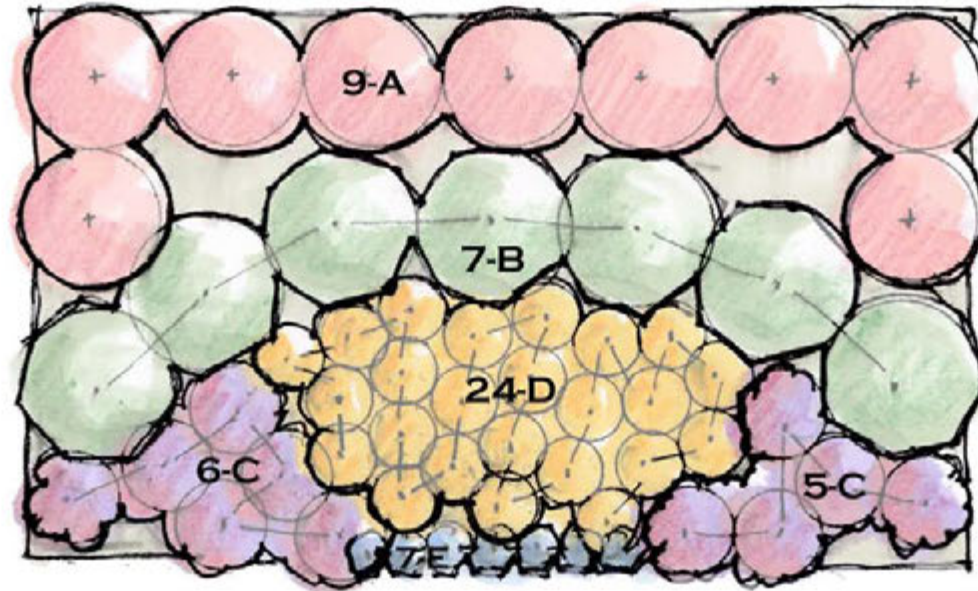
Piedmont

Full Sun

Zones: All

Scale: 1/4" = 1'





- A - *Rosa Knock-Out*, 'Radrazz' (Knock-Out Rose)*, 3' o.c.
- B - *Clethra alnifolia* 'Sixteen Candles', 3 1/2' o.c.
- C - *Echinacea purpurea* 'Kim's Knee-Hi' (Purple Coneflower), 2' o.c.
- D - *Iris virginica* (Southern Blue Flag)** or *Phlox paniculata* 'David' (White Garden Phlox), 15" o.c.
- E - *Phlox subulata* 'Emerald Cushion Blue' or 'Candy Stripe'**, 12" o.c.

note: o.c.= on center

Could substitute *Liatrus spicata* or *Cheleone glabra* for *Echinacea* (or peonies)

* Knock-out Roses and Peonies in raingardens are not suited to the lowest areas but are very successful on the very well drained but frequently wet edges and upper slope sections

**Southern Blue Flag is hardy in zones 5-9 but is better in the Piedmont and Coastal Plain provinces

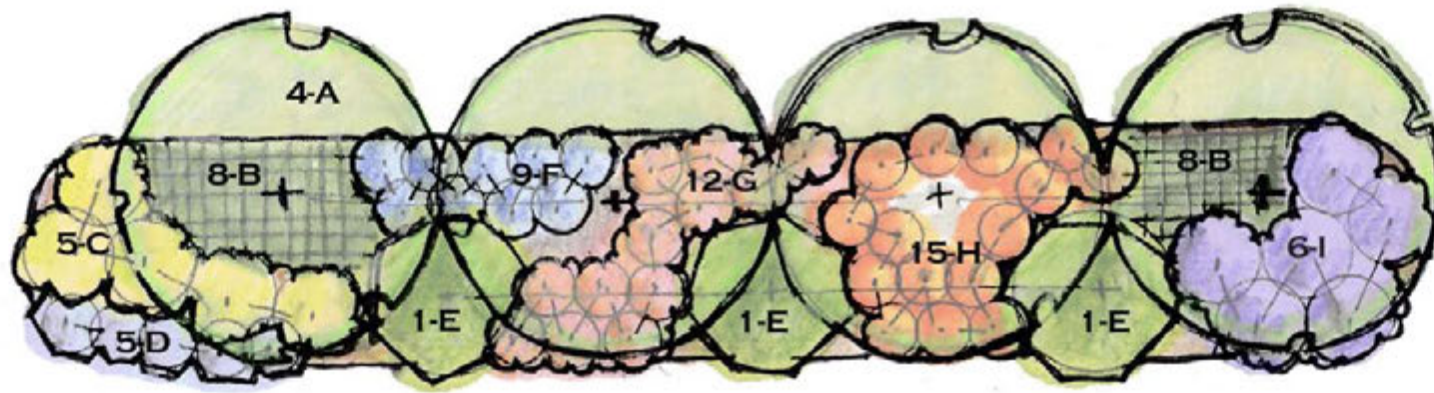


**FRAGRANT RAINGARDEN
FORMAL 21'x12' = 252 SF**

Full Sun
Zones 5b-7b

Scale: 1/4"=1'





- A - *Acer rubrum* (Red Maple), 18' o.c.
- B - *Chasmanthium latifolium* (Upland Sea Oats), 2' o.c.
- C - *Viburnum trilobum* (American Cranberrybush), 5' o.c.
- D - *Itea virginiana* 'Henry's Garnet', 3' o.c.
- E - *Chionanthus virginicus* (Fringetree), 18' o.c.
- F - *Zenobia pulverulenta* (Dusty Zenobia), 3' o.c. or
Viburnum acerfolium (Mapleleaf viburnum), 3' o.c.
- G - *Ilex glabra nana* (Dwarf Inkberry), 3' o.c.
- H - *Calycanthus floridus* (Sweetshrub), 4' o.c.
- I - *Vaccinium corymbosum* (Highbush blueberry), 5' o.c.

note: o.c. = on center

in zone 5, *Alnus incana* (Specked Alder) may be substituted for *Acer rubrum* and *Pieris floribunda* (Mountain Pieris) may be substituted for *Viburnum acerfolium* / *Zenobia pulverulenta*



HEDGEROW RAINGARDEN

903 SF

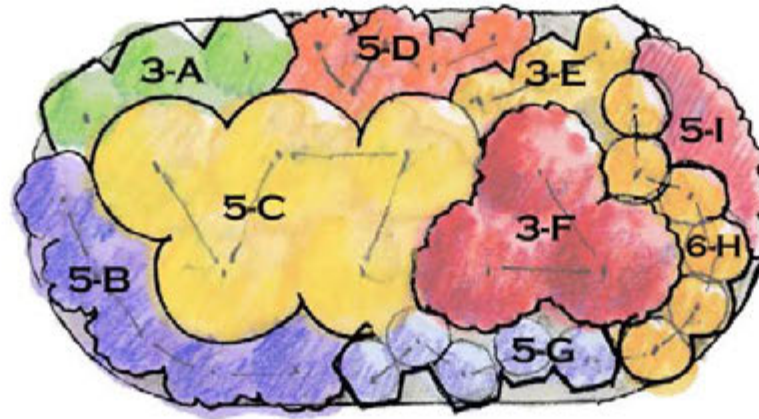
Full Sun

All zones

Piedmont

Scale: 1"=10'





- A - *Eupatorium rugosum* 'Chocolate' (White Snakeroot), 2' o.c.
- B - *Eupatorium coelestinum* (Hardy Ageratum), 2' o.c.
- C - *Helianthus angustifolius* (Narrow-leaved Sunflower), 3' o.c.
- D - *Asclepias tuberosa* (Butterflyweed), 18" o.c.
- E - *Rudbeckia fulgida* (Black-eyed Susan), 18" o.c. or *Solidago* 'Golden Fleece', 18" o.c.
- F - *Hibiscus moscheutos* (Marsh Mallow), 3' o.c.
- G - *Liatrus spicata* (Blazing-Star), 18" o.c.
- H - *Lilium superbum*, (Turk's Cap Lily), 18" o.c.
- I - *Echinacea purpurea* (Purple Coneflower), 18" o.c.

note: o.c. = on center



HERBACEOUS PERENNIALS RAINGARDEN

130 SF

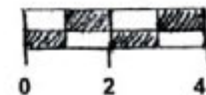
Tall and Bold Summer-Fall Rainbow

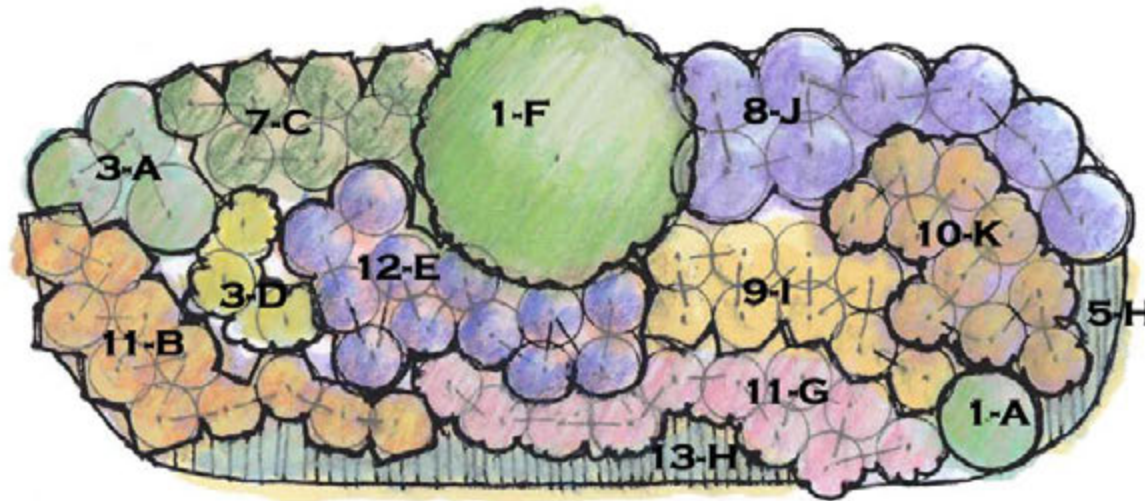
Full Sun

All zones

Piedmont

Scale: 1/4"=1'





- A - *Muhlenbergia capillaris* (Pink Muhly Grass), 2' o.c.*
- B - *Hemerocallis* 'Happy Returns' (Happy Returns Daylily), 18" o.c.
- C - *Juncus effusus* (Soft Rush), 18" o.c.
- D - *Solidago* 'Firecracker' (Firecracker Goldenrod), 2' o.c.
- E - *Iris Louisiana Hybrid* (Louisiana Iris), 18" o.c.
- F - *Panicum virgatum* 'Prairie Skies' (Switch Grass)
- G - *Echinacea purpurea* 'Kim's Knee-Hi' (Dwarf Purple Coneflower), 18" o.c.
- H - *Phlox subulata* 'Emerald Cushion Blue' (Thrift), 12" o.c.
- I - *Iris siberica* 'Caesar's Brother' or *Iris versicolor* (native), 18" o.c.
- J - *Aster novae-angliae* 'Purple Dome' (Dwarf New England Aster), 2' o.c.
- K - *Rudbeckia fulgida* 'Goldsturm' (Black-eyed Susan), 18" o.c.

note: o.c.= on center

* zone 6b and warmer only; if zone 6a or colder, then use
Pennisetum alopecuroides (Dwarf Fountain Grass), 2' o.c.

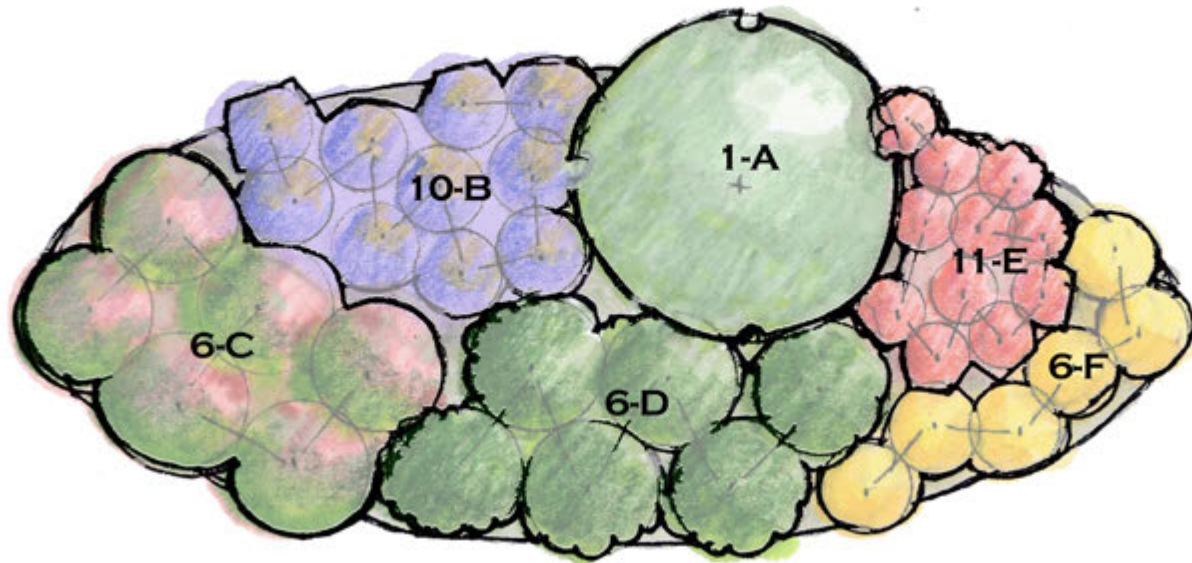


**HERBACEOUS PERENNIALS BORDER
 RAINGARDEN 200 SF**

Full Sun, Zones 5b-7b
 Piedmont

Scale: 1/4" = 1'





PLANT CHOICE

- A - *Chionanthus virginicus* (Fringe Tree) or
Viburnum nudum (Wild Raisin)
- B - *Aster novae-angliae* (New England Aster) 2' o.c. *
- C - *Vaccinium angustifolium* (Blueberry), 3' o.c.
- D - *Kalmia latifolia* (Mountain Laurel), 3' o.c.
- E - *Iris versicolor* (Blueflag Iris), 12" o.c.
- F - *Solidago* 'Golden Fleece', 2' o.c. or
Rudbeckia fulgida 'Goldsturm' (Black Eyed Susan)

note: o.c. = on center

* also listed as *Symphotrichum novae-angliae*

DESIGN VALUE

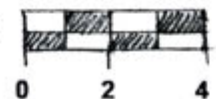
- Tallest/Structural element in garden (8-12')
- Medium coarse texture, white spring flowers, yellow fall color
- Medium Tall perennial, billowing fall color (lavendar), butterflies
- Medium height (3-5'), year round color interest, fruit
- Year round interest, color mass in spring (white)
- Spring color mass, interesting texture
- Fall yellow mass of color, compliments Fringe Tree and Aster, butterflies
- Summer and early fall flowers if the summer flowers are cut

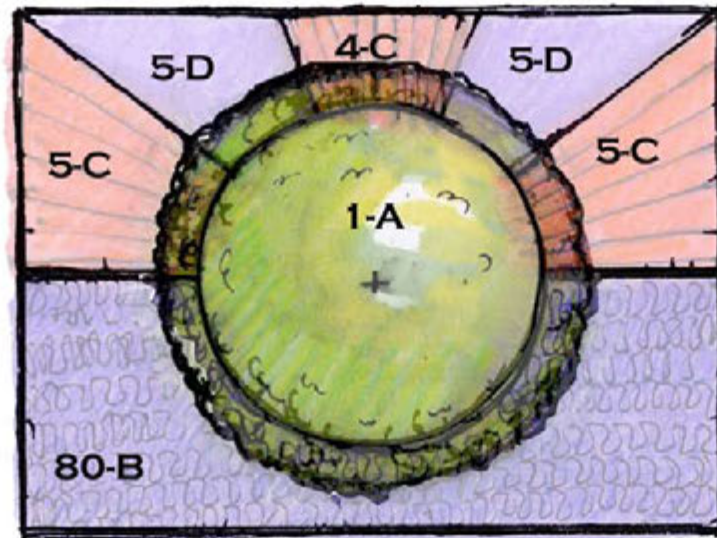
**LOW MAINTENANCE RAINGARDEN
DEER RESISTANT**

200 SF

Full Sun
Piedmont
Zones 5a-7b

Scale: 1/4" = 1'





POSSIBLE PLANTS

- A - *Betula nigra* 'Little King' (Dwarf River Birch)
Ilex verticillata (Winterberry) (plant 1 male and 1 female in the same hole) (or *Ilex decidua*, (possumhaw) male and female)
- B - *Ajuga reptans*, 12" o.c. (Carpetbugle)
Ceratostigma plumbaginoides, 12" o.c. (Leadwort)
Oenothera fruticosa, 12" o.c. (Primrose)
Liriope spicata, 12" o.c. (Liriope)
- C - *Iris fulva*, 18" o.c. (Copper Iris)
Iris versicolor, 18" o.c. (Blue Flag Iris)
Iris siberica, 18" o.c. (Siberian Iris)
- D - *Iris* La. Hybrid, 2' o.c. (Louisiana Hybrid Iris, many colors)
Amsonia hubrechtii, 2' o.c. (Bluestar)

DESIGN VALUE

- Interesting winter bark (zone 5b-8)
- Attractive fruit, wildlife value (zone 5a-7b; *Ilex decidua* OK zone 6 and warmer)
- Groundcover, evergreen, purple flowers (all zones)
- Groundcover, semi-evergreen, blue flowers (all zones)
- Native Groundcover, yellow flowers (all zones)
- Evergreen, blue flowers (all zones)
- Native wetland iris, orange flowers (all zones)
- Native wetland iris, blue flowers (all zones)
- Iris which spreads, white or purple flowers (all zones)
- Wetland iris, purple, mauve, yellow or blue flowers (all zones)
- Fine texture, blue flowers, yellow fall color (all zones)

note: o.c. = on center



ONE NICE TREE

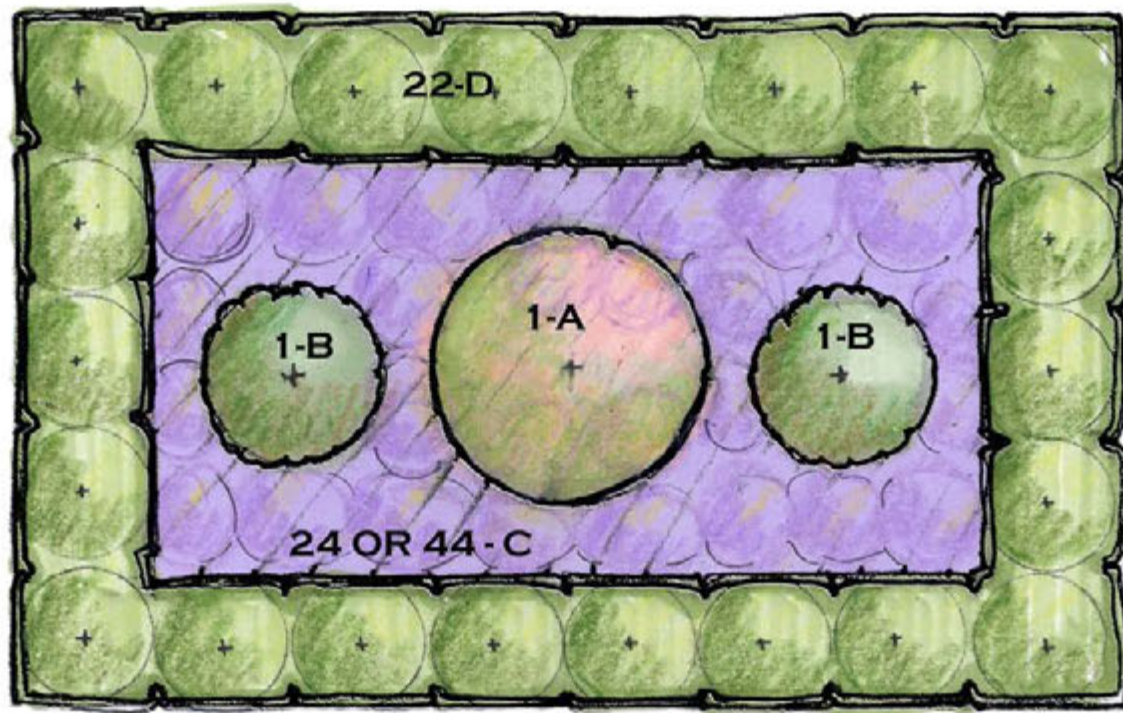
192 SF 16' X 12'

Full Sun, Zone varies

Piedmont

Scale: 1/4"=1'





PLANT CHOICES (choose 1 of each type)

- A - *Betula nigra* 'Fox Valley' (Dwarf River Birch) or *Magnolia virginiana* (Sweetbay Magnolia)
- B - *Chaemacyparis thyoides* 'Heatherbun' (Dwarf White Cedar)
Chaemacyparis pisifera 'Filafera aurea' (Dwarf Sawara False Cypress)
- C - *Aster novae-angliae* 'Purple Dome' (Purple Dome New England Aster), 2' o.c. (24)
Oenothera fruticosa (Primrose, Sundrops), 18" o.c. (44)
Amsonia X 'Blue Ice' (Bluestar), 18" o.c. (44)
- D - *Ilex glabra* 'Densa' or 'Shamrock' (Inkberry), 3' o.c.
Myrica pensylvanica, (Bayberry), 3' o.c.*
Myrica cerifera 'Nana' (Dwarf Wax Myrtle), 3' o.c.*

note: o.c.= on center

* Wax myrtle is better in southern Piedmont and Bayberry is better in the northern Piedmont

DESIGN FUNCTION

- Center accent
- Year Round Color shrub, fine texture
- Groundcover
- Hedge

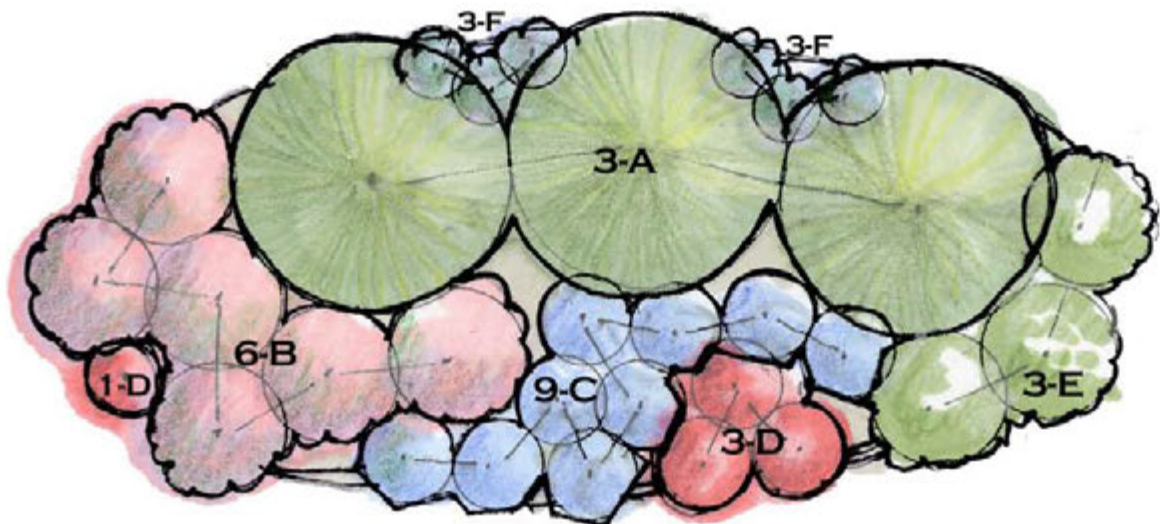


**PARTERRE RAINGARDEN
384 SF**

Full Sun,
Zones 5b-7b
Piedmont

Scale: 1/4"=1'





- A - *Vaccinium corymbosum* (Highbush blueberry), 6' o.c. or *Cornus sericea* (Redosier dogwood)
- B - *Zenobia pulverulenta* (Dusty Zenobia), 3' o.c.
- C - *Amsonia hubrechtii* (Blue-Star Flower), 2' o.c.
- D - *Lobelia cardinalis* (Cardinal Flower), 2' o.c. or *Asclepias tuberosa* (Butterflyweed), 2' o.c.
- E - *Hydrangea quercifolia* 'Pee Wee' (Oakleaf Hydranges), 3' o.c., or *Hydrangea arborescens* (Smooth Hydrangea), 3' o.c.
Kalmia latifolia 'Tiddlywink' (Dwarf Mountain Laurel), 3' o.c.
- F - *Iris versicolor* (Northern Blue Flag), 18" o.c.

- Red/White/Blue
- White/Blue
- Blue
- Red
- White/Red
- Blue

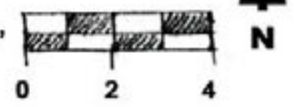
note: o.c. = on center

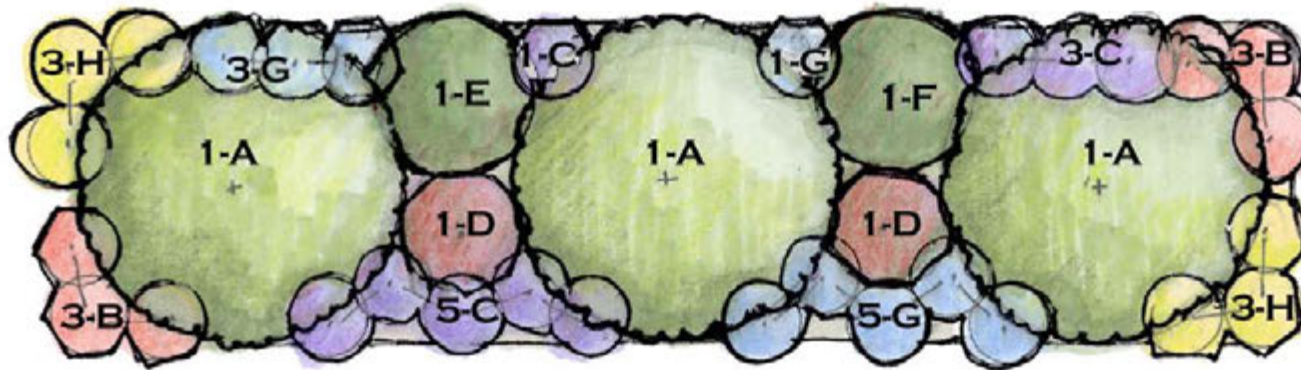


**RED, WHITE AND BLUE
LOW MAINTENANCE BORDER
RAINGARDEN**

200 SF
Full Sun-Part Shade
Piedmont

Scale: 1/4" = 1'





- A - *Ilex opaca* (American Holly, various cultivars), 10' o.c.*
- B - *Iris fulva* (Copper Iris), 2' o.c.
- C - *Iris Louisiana Hybrid* (Louisiana Iris, many colors), 2' o.c.
- D - *Ilex verticillata* 'Maryland Beauty' or 'Red Sprite' (Female Winterberry), 3' o.c.*
- E - *Ilex verticillata* 'Jim Dandy' (male pollinator) (Male Winterberry)
- F - *Fothergilla gardenii* 'Mt. Airy' (Fothergilla)
- G - *Iris versicolor* (Blue Flag), 2' o.c.
- H - *Iris ensata* (Japanese Iris, many colors), 2' o.c.

note: o.c. = on center

If quicker screening is desired, subst. 5 - *Kalmia angustifolia* (Sheep Laurel)
 or *Ilex glabra* 'Shamrock', 6' o.c. and add one more
Ilex verticillata 'Maryland Beauty' or 'Red Sprite'
 and group them in the center front of the bed

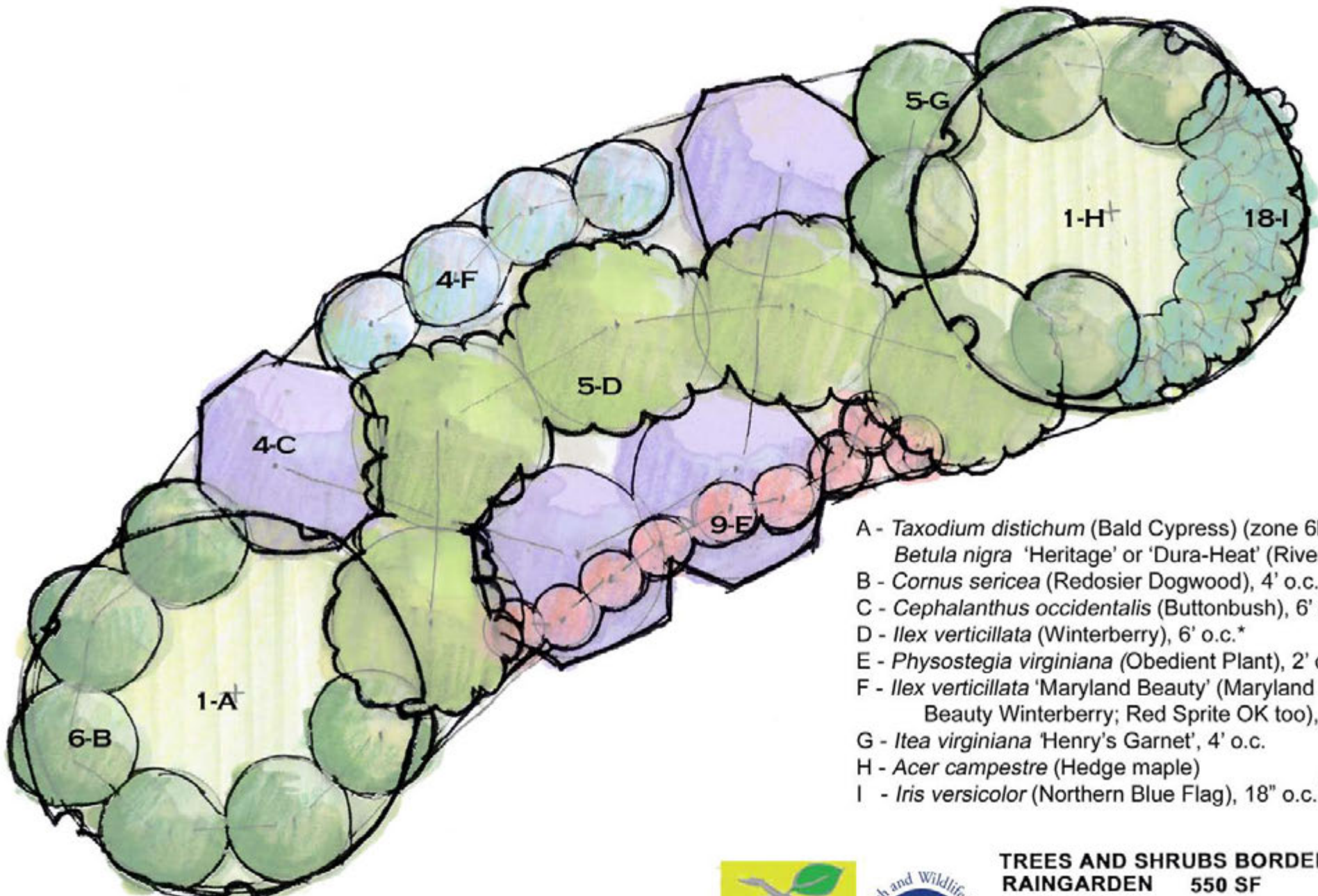


**SCREENING RAINGARDEN
256 SF**

Full Sun /Partial Sun
Zone 5b-8a

Piedmont
Scale: 1/4"=1'





- A - *Taxodium distichum* (Bald Cypress) (zone 6b-7b)
Betula nigra 'Heritage' or 'Dura-Heat' (River Birch)
- B - *Cornus sericea* (Redosier Dogwood), 4' o.c.
- C - *Cephalanthus occidentalis* (Buttonbush), 6' o.c.
- D - *Ilex verticillata* (Winterberry), 6' o.c.*
- E - *Physostegia virginiana* (Obedient Plant), 2' o.c.
- F - *Ilex verticillata* 'Maryland Beauty' (Maryland Beauty Winterberry; Red Sprite OK too), 3' o.c.
- G - *Itea virginiana* 'Henry's Garnet', 4' o.c.
- H - *Acer campestre* (Hedge maple)
- I - *Iris versicolor* (Northern Blue Flag), 18" o.c.

note: o.c = on center
 * requires 1 male ('Jim Dandy') and 4 females ('Afterglow')



**TREES AND SHRUBS BORDER
 RAINGARDEN 550 SF**

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

