



# GREEN MACOMB URBAN FOREST PARTNERSHIP: RESIDENTIAL PLANTING GUIDANCE







# I. INTRODUCTION

## IMPLEMENTING MACOMB COUNTY'S URBAN FOREST VISION

---



To create a coordinated green infrastructure strategy to systematically implement and leverage environmental best practices in Macomb County, strengthening the economic vitality, quality of life, and environmental well-being of the region.

### GERRY SANTORO AICP

Land and Water Resources Program Manager  
gerard.santoro@macombgov.org | 586-469-5285

### BRENT GEURINK

Associate Planner Land and Water Resources Program  
brent.geurink@macombgov.org | 586-469-5285

## GREEN MACOMB PARTNERSHIP PURPOSE

---

The Green Macomb Urban Forest Partnership, funded by an urban forestry grant issued by the U.S. Department of Agriculture - Forest Service and distributed through the Michigan Department of Natural Resources' Urban & Community Forestry Program, is implementing regional policy to target tree canopy increases in urban areas in Macomb County with less than 20% coverage, with the aim of achieving 40% tree canopy for Southeast Michigan. As a Core Partner, ITC Holdings Corp. (ITC) has provided significant financial support and the consulting services support of Environmental Consulting & Technology, Inc. (ECT) as grant match for the Partnership. The following guidance was developed by ITC and ECT with the Core Partners to encourage appropriate tree canopy and green infrastructure expansion in the communities of Macomb County.

The Partnership promotes planting the **Right Tree in the Right Place for the Right Purpose!** Not all tree species are tolerant of urban settings and may not be appropriate in scale for tight (less than four feet wide) planting beds, under electrical lines, or over underground utilities. Some species are better than others for mitigating stormwater runoff or providing fall color, shade, or wildlife habitat. This Residential Planting Guidance is intended to provide best planting practices and recommended species for various planting scenarios and site conditions to encourage sustainable tree and other plant establishment in urban settings. This guidance includes important factors to consider when designing an urban planting, a table of recommended plant species and their key characteristics critical to selecting appropriate material, and an example plan and section illustrating best planting practices. Also included is a list of invasive ornamental species not recommended for use given their tendency to spread from urban plantings into natural areas. When feasible and appropriate, diverse plantings with canopy and understory trees, shrubs, and/or groundcover vegetation provide myriad ecological, aesthetic, health, and socioeconomic benefits to urban communities. Please refer to [green.macombgov.org](https://green.macombgov.org) to find additional guidance, access to mapping, and reference materials that support the Green Macomb Urban Forest Partnership.



# H. ENVIRONMENTAL CONDITIONS

## MICROCLIMATE & SOILS:



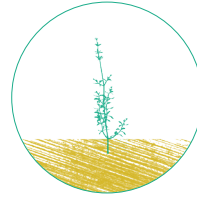
### SUN / SHADE

The amount of sunlight or shade needed for a plant or tree to grow to maturity.



### SOIL

The amount of moisture and nutrients needed for a plant or tree to grow to maturity.



### SALT

Some plants can tolerate salt and others will not survive or are highly sensitive to the presence of salt.

## LAND USE & VEGETATION: RESIDENTIAL, COMMERCIAL, & EASEMENT LANDSCAPES



### RESIDENTIAL

Vegetation best suited for residential landscapes.



### COMMERCIAL

Vegetation best suited for areas with vehicular and/or pedestrian traffic.



### EASEMENTS

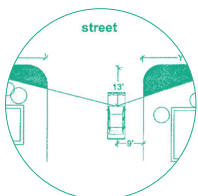
Vegetation best suited for utility rights-of-way.



### EXISTING VEGETATION

Onsite plants that will remain.

## HUMAN NEEDS: SAFETY & AESTHETICS



### SAFETY

Plantings that provide residents, businesses, and utility companies with clear visual and physical access.



### CLEARANCE

Appropriate distances between vegetation and utility lines.



### AESTHETICS

Beautiful plant combinations that bring additional value to the site throughout the year.



## III. TYPES OF PLANTINGS

### Canopy Tree

### Understory Tree

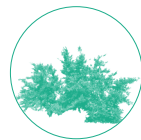
### Shrub

### Perennial Groundcover



#### CANOPY

The upper layer formed by mature tree crowns. It provides protection from strong winds and storms, while also intercepting sunlight and precipitation.



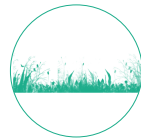
#### SHRUB

A woody plant that is smaller than a tree and has several main stems arising at or near the ground. Typically part of the understory and groundcover.



#### UNDERSTORY

The underlying layer of vegetation; specifically the vegetative layer of trees and shrubs between the forest canopy and the groundcover.



#### PERENNIAL GROUNDCOVER

A low-growing dense growth of woody or herbaceous plants under 2 - 5ft. tall. They prevent soil erosion and are found beneath the understory and shrub layer.



# IV. DESIGN CONSIDERATIONS | BEST PLANTING PRACTICES

## RIGHT TREE, RIGHT PLACE, RIGHT PURPOSE

Trees provide many benefits to our communities throughout the year. Their many roles and functions contribute to the health and beauty of our surrounding environment. They have the ability to cool your home or office in the summer and buffer cold winds. When planting a tree, it's important to consider these questions:

1. **HEIGHT, CANOPY SPREAD, AND DISTANCE TO STRUCTURES:** How tall will the tree grow and will it interfere with utility lines, walls, or roofs when it's fully grown? How wide will the tree grow? Will it hang over a street, sidewalk, or bike lane? If it's low growing, can I easily see around the tree or are there issues of visibility and safety?
2. **SUN, SOIL, AND MOISTURE REQUIREMENTS:** How much sun does the tree need? What type of soil does it need? How much water does it need? Is there a lot of concrete surrounding the tree which could increase ambient temperatures or pH around the tree?
3. **IS IT DECIDUOUS?** Will it lose its leaves in the winter? Is it evergreen? (Will it provide winter visual screening and wind attenuation?)
4. **FORM:** What will the shape of the tree be as it matures? Will it interfere with nearby structures? Will it complement structures and existing vegetation in the landscape?
5. **GROWTH RATE:** How long will it take for your tree to reach its full height?
6. **FRUIT:** Does it drop any fruit or seeds? Most plants do! What will the fruit or seeds fall on?
7. **PLANTING SPACE:** How much space is available for tree roots? Minimums of 4ft width and 1,000 cubic ft volume of soil are recommended per tree.
8. **SALT AND POLLUTION:** Will the area be salted frequently during colder months? Will pollutants from roads or herbicides from lawns run into the planting bed?
9. **STORMWATER:** Are you managing stormwater runoff from streets and sidewalks? What tree would work best to accommodate stormwater fluxes or wet soil conditions?
10. **HABITAT:** Do you to provide wildlife habitat? Plant tree, shrub, and groundcover species to create diverse vegetation layers and broad range of bloom types and times. Provide multiple individuals of a given species.

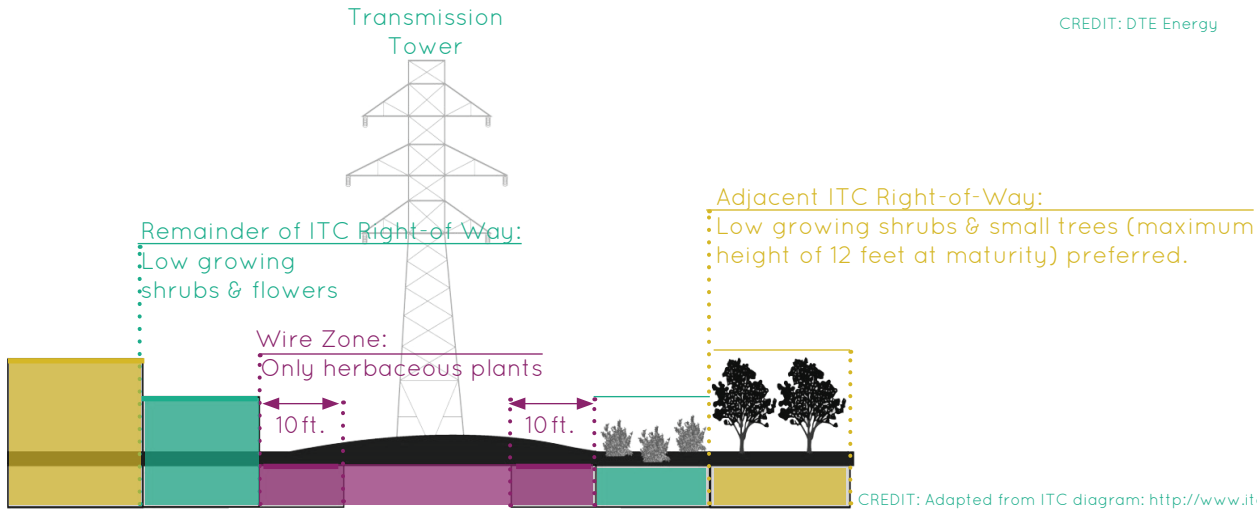
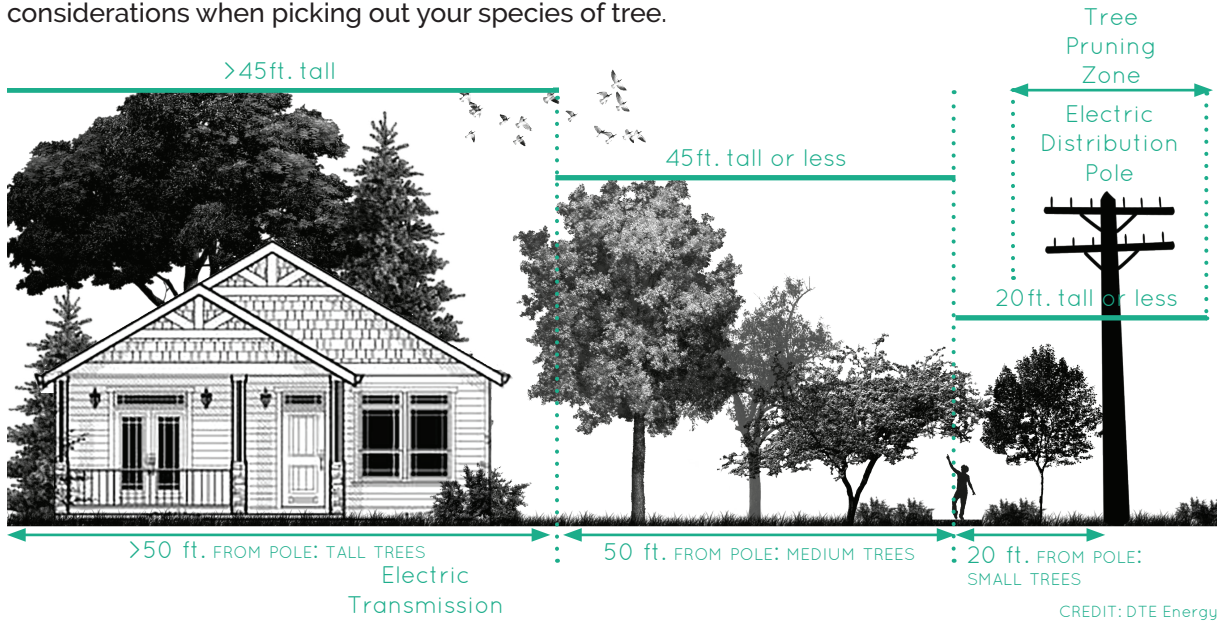
## BASIC SPACING GUIDE

TREE SIZE	SPACING PLANT MASSINGS	MIN. SPACE FROM WALL OF 1-STORY BUILDING	MIN. SPACING FROM CORNER OF 1-STORY BUILDING
Small trees (30' or less)	6 - 15'	8 - 10'	6 - 8'
Medium trees (30' - 70')	30 - 40'	15'	12'
Large trees (70' - or more)	40 - 50'	20'	15'

SOURCE: <https://www.arborday.org/trees/righttreeandplace/size.cfm>

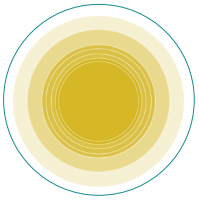
## HEIGHT & DISTANCE TO STRUCTURES

Proximity to utility is an important factor when considering tree species. Here are some height and distance considerations when picking out your species of tree.





## SUN REQUIREMENTS



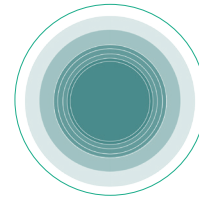
### FULL SUN | 6 - 8 HOURS

At least 6 hours of direct sunlight ranging up to 8 - 12 hours



### PARTIAL SUN | 3 - 6 HOURS

At least 3 hours of direct sunlight, and up to 4 - 8 hours, depending on exposure. Receives dappled light when not in direct sunlight.

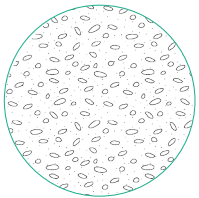


### FULL SHADE | <3 HOURS

Filtered sunlight, plants should receive less than 3 hours of direct sun each day. Full shade plants prefer low intensity light.

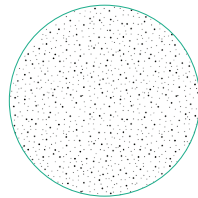
## SOIL REQUIREMENTS

Thoroughly wet a patch of soil then let it dry for a day. Pick up a handful of soil and squeeze it firmly. If the soil remains in a tight ball and is a bit slippery, you have a clay soil. If the soil is gritty and doesn't hold its shape or simply crumbles, you have sandy soil. If the soil is slightly crumbly, but stays in a loose ball, you have ideal loam.



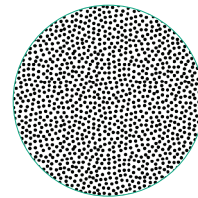
### SANDY

Dry and gritty to the touch because the particles have huge spaces between them. Drains rapidly, warms quickly in spring, and organic matter amendments may be needed to improve nutrient availability.



### LOAM

Dark in color, soft, dry and crumbly in your hands. Holds water and nutrients but drains well. The feel test for loam yields a smooth, partly gritty, partly sticky ball that crumbles easily.

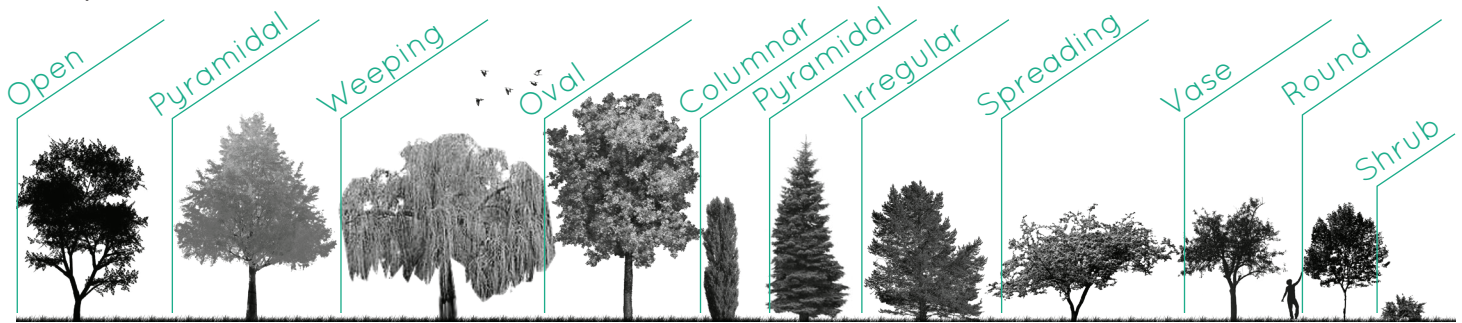


### CLAY

Drains slowly. Can turn compact during summer months. Moistened soil rolls up easily and forms ball shape. Organic matter amendments may be needed to improve nutrient availability and soil structure.

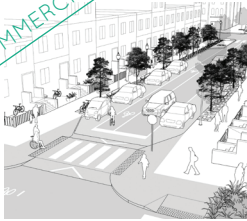
## FORM

What tree form or shape will work best for your residential property? Will it create shade, absorb stormwater, or add to the diversity of your residential property? Consider what you'd like the purpose of your tree to be as you think about tree species and their different forms.



WHAT'S THE CONTEXT?

COMMERCIAL



RESIDENTIAL



PARKING LOT



WHAT'S THE

PURPOSE?

CHECK ALL PLANTING GUIDELINES

WHAT TREE IS APPROPRIATE?

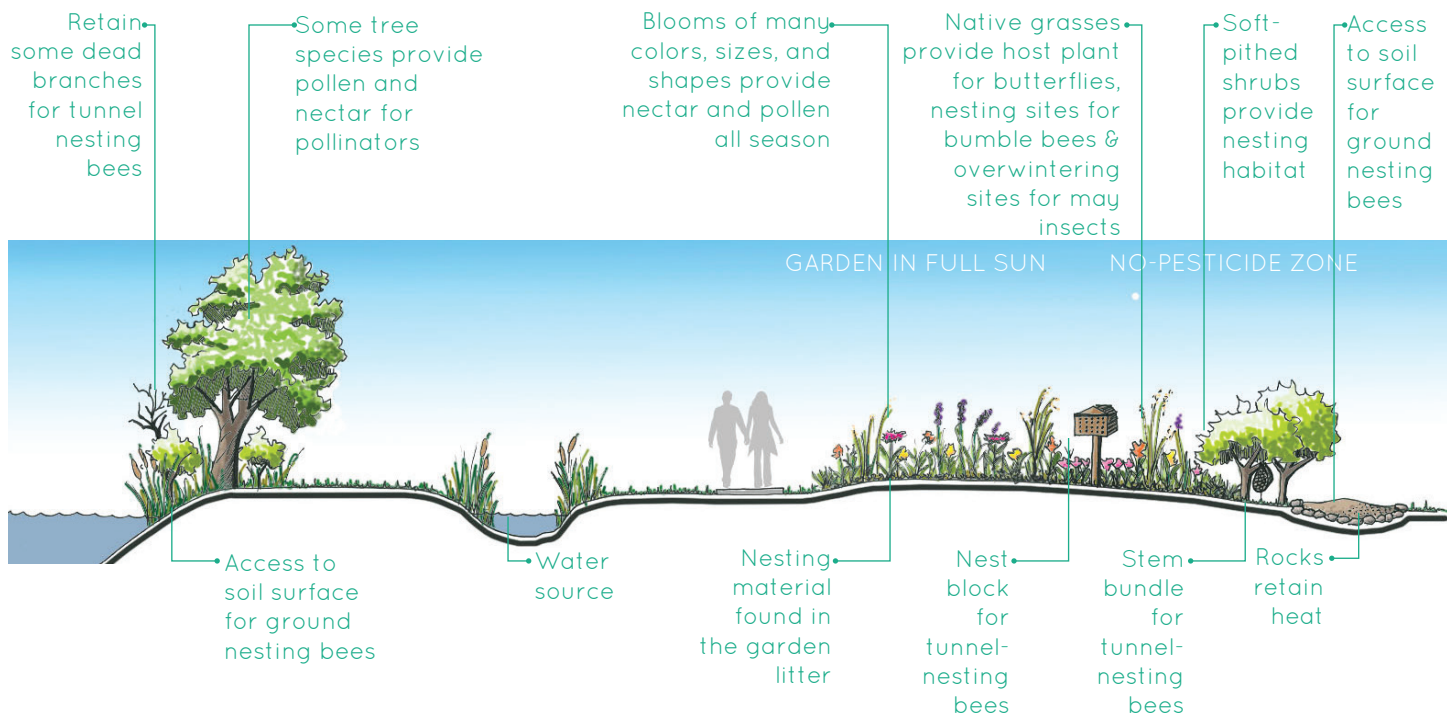




# DESIGN CONSIDERATIONS FOR POLLINATORS

## PLANTING FOR POLLINATOR HABITAT

Native plants should vary in bloom time, size, color, shape, and habitat. Flowers should be present throughout the growing season including early spring and late fall. Different colors of flowers attract different types of pollinators and different flowers shapes make nectar available to short - and long-tongue species. Including both tall and short plants in the garden provides three-dimensional shelter habitat. At least 10 native plant species and 1 species of warm-season grass should be included to attract a diversity of pollinators, host plants for butterflies, nesting sites for bumble bees, and overwhelming sites for many insects. Pollinators require secure places during their dormant or hibernating months. These could be leaf litter, logs, or rocks protected from prevailing winds and rain. The use of pesticides in gardens and managed landscapes is a major threat to pollinators. Pesticides should be avoided in pollinator habitat.



SOURCE: The Xerces Society Guide, Attracting Native Pollinators, Protecting North America's Bees and Butterflies. Storey Publishing, North Adams, MA. 2011.

## SIZE & STRUCTURE

Trees, flowers and native grasses provide nectar and pollen, host pollinator larvae, and offer protection from bad weather and predators. Plant size is a factor when selecting plants and designing gardens. Size is more than just height, it relates to how the plant spreads out, the density of a plant, and the plant footprint. Its spread is measured at its widest part from leaf tip to leaf tip at maturity. Consider these variables when planting as they create microclimates that pollinators need.

*Andropogon gerardii*  
Big Bluestem



Provides nesting materials / structure for native bees, attracts butterflies  
Host plant: Delaware skipper, Dusted skipper, Common wood-nymph

*Schizachyrium scoparium*  
Little Bluestem



Provides nesting materials / structure for native bees, attracts butterflies  
Host plant: Ottoe skipper, Indian skipper, Dusted skipper, Crossline skipper, Cobweb butterfly, Dixie skipper

*Sorghastrum nutans*  
Indian Grass



Provides nesting materials / structure for native bees, attracts butterflies  
Host plant: Pepper and Salt skipper

*Panicum virgatum*  
Switchgrass



Provides nesting materials / structure for native bees, attracts butterflies  
Host plant: Tawny-edged skipper, Delaware skipper

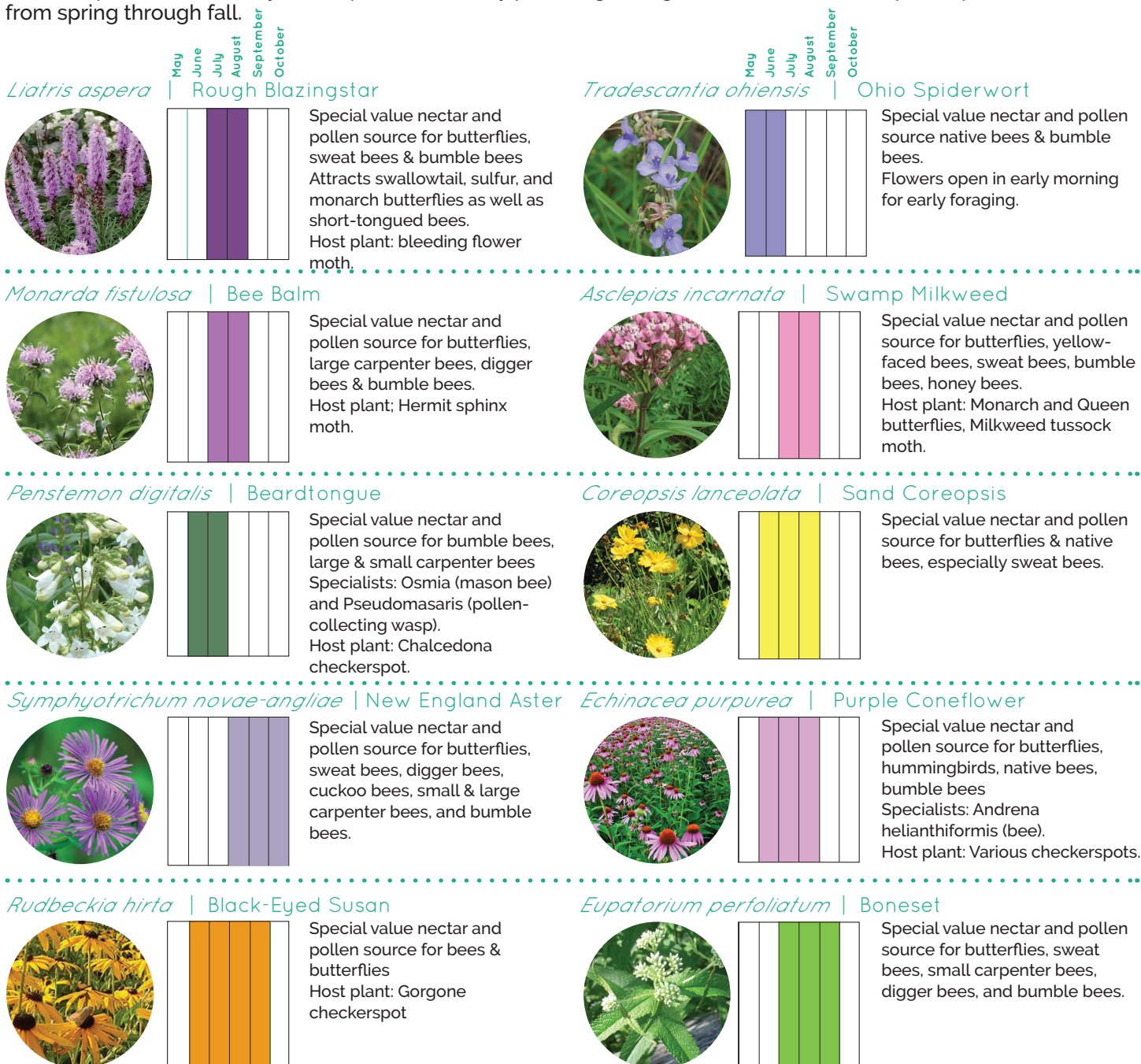
## FLOWER SHAPE

Plants and pollinators have co-evolved physical characteristics that make them more likely to interact successfully. The plants benefit from attracting a particular type of pollinator to its flower, ensuring that its pollen will be carried to another flower of the same species and hopefully resulting in successful reproduction. The flower shape correlates to what type of pollinator visits it.



## BLOOM COLOR & PERIOD

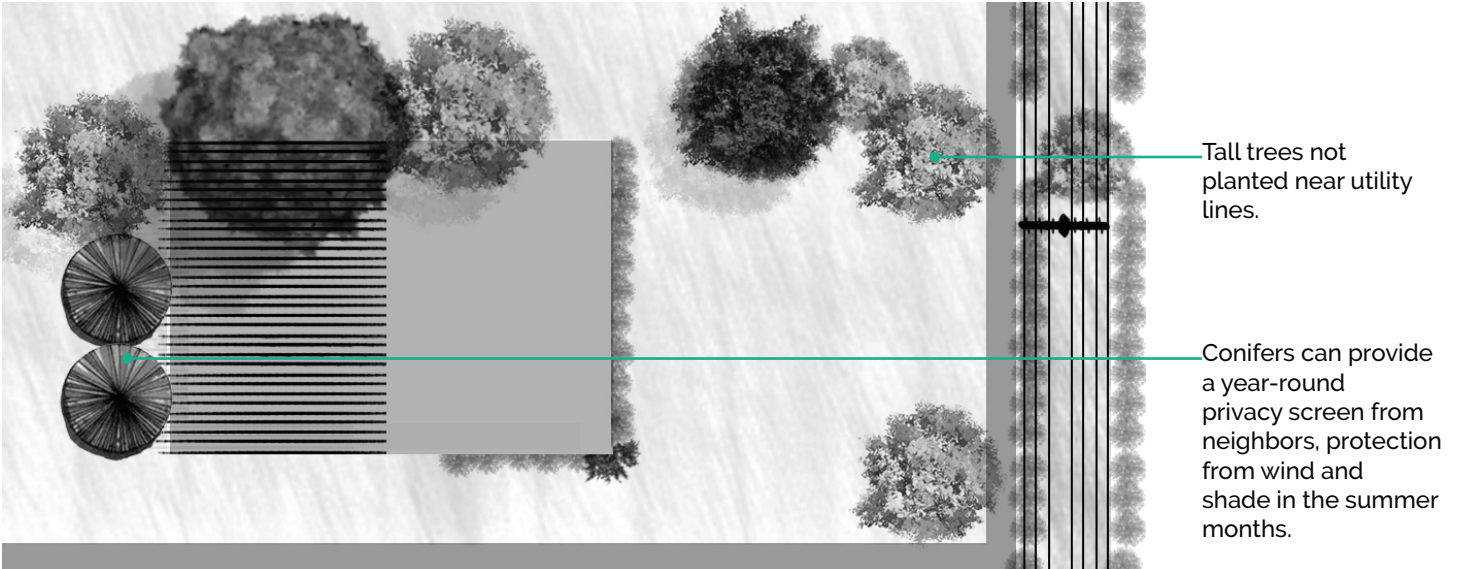
Enhance pollinator diversity and improve habitat by providing a range of bloom colors and plant species that bloom from spring through fall.





# VI. RESIDENTIAL

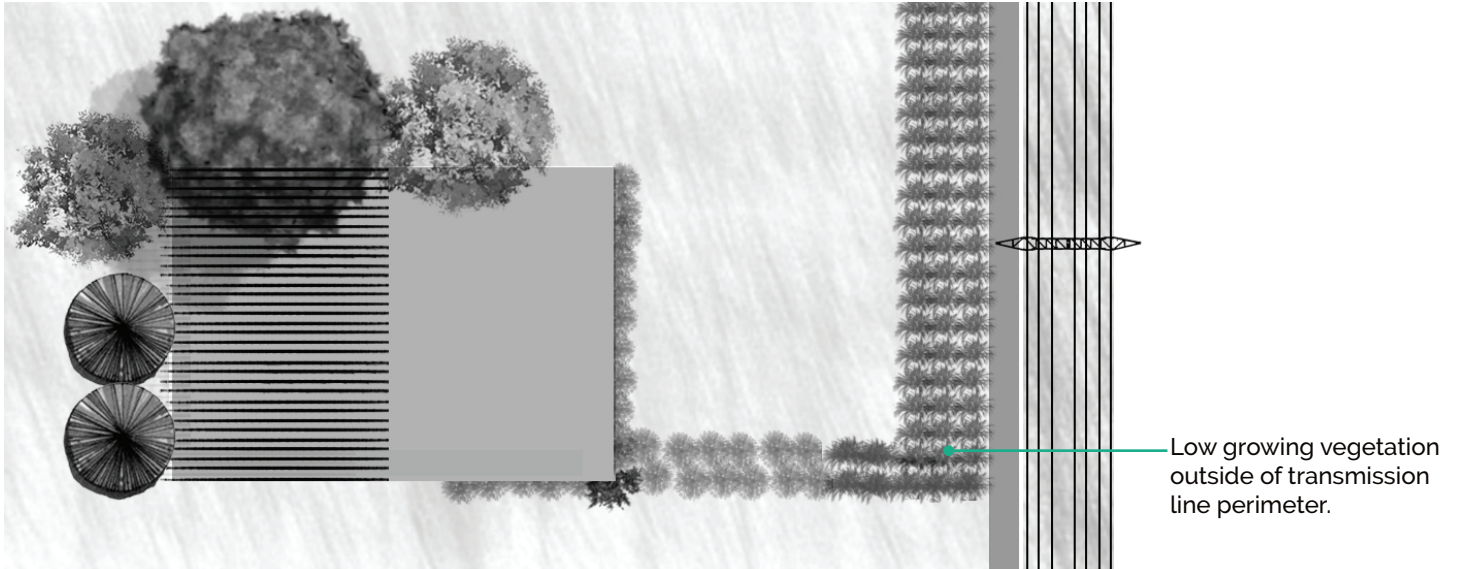
## EXAMPLE ELECTRICAL DISTRIBUTION LINE SCENARIO PLAN



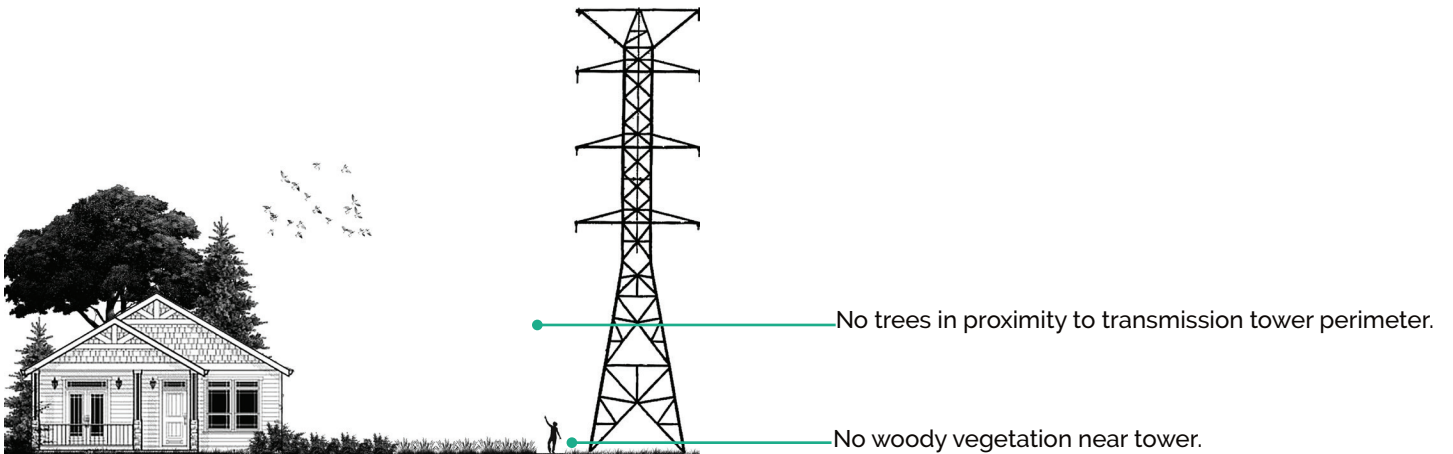
## EXAMPLE ELECTRICAL DISTRIBUTION LINE SCENARIO CROSS-SECTION



## EXAMPLE ELECTRICAL TRANSMISSION TOWER SCENARIO PLAN



## EXAMPLE ELECTRICAL TRANSMISSION TOWER SCENARIO CROSS-SECTION





## VII. RECOMMENDED SPECIES

### RESIDENTIAL PLANTING SPECIES CHARACTERISTICS MATRIX

COMMON NAME	SCIENTIFIC NAME	DECIDUOUS (D)/ EVERGREEN (E)	HEIGHT & SPREAD	SUN (S)/ PARTIAL SHADE (PS)/ SHADE (SH)	SOIL MOISTURE: DRY (D), AVG. (A), WET (W)
<b>CANOPY TREE</b>					
Red maple	<i>Acer rubrum</i>	D	H: 50' - 100' S: 25' - 35'	S, PS	D, A, W
River birch	<i>Betula nigra</i>	D	H: 40' - 70' S: 30' - 40'	S, PS	A, W
Northern hackberry	<i>Celtis occidentalis</i>	D	H: 40' - 60' S: 40' - 50'	S, PS	A
Sweetgum	<i>Liquidambar styraciflua</i>	D	H: 40' - 70' S: 35' - 50'	S, PS	A, W
Tuliptree, Yellow-poplar	<i>Liriodendron tulipifera</i>	D	H: 60' - 110' S: 35' - 50'	S, PS	A, W

The tree species and cultivars on this list should not be used exclusively for replacement planting or reforestation of large areas. The diversity of all tree species on individual streets, in neighborhoods, and in the entire community should be taken into consideration. Monocultures should be avoided. The tree species and cultivars on this list are not the only suitable trees for planting in Macomb County, but are intended to be used as a starting point. There are many more excellent native and non-native shade and ornamental trees that can be planted. Please contact your local Michigan State University Extension office or Natural Resource Conservation Service for additional recommendations. The Green Macomb Urban Forest Partnership maintains additional guidance and updated recommended species available at <http://green.Macombgov.org/>.



	GROWTH RATE	BLOOM TIME	BLOOM COLOR	NOTES
	Moderate	March-May	Red/orange	Native; adaptable to a wide range of site conditions except high pH; low pollution tolerance; pyramidal to oval/rounded form with numerous size/form cultivars with brilliant red/orange fall color; excellent specimen tree; bird & small mammal habitat
	Fast	April	Brown/green	Native to south; tolerates moderate flooding & acid soils; pyramidal/oval form with multi-stemmed cultivars; salmon exfoliating bark provides winter interest; excellent specimen tree
	Fast	May	Green	Native; tolerates sandy to clay & acid to basic compacted soils, air pollution, & occasional flooding; salt tolerant & heat/drought resistant; oval/rounded form; light yellow fall color; edible, persistent fruit; bird habitat, butterfly larval host; bark provides winter interest
	Fast	April-May	Green/red	Native; very adaptable; tolerates flooding & clay soils; does not tolerate high air pollution; oval form; outstanding fall red, orange, yellow, purple color; persistent fruit provides winter interest; bird & small mammal habitat
	Fast	May-June	Yellow/orange	Native; pyramidal/oval form; excellent specimen tree with large showy flowers; yellow fall color; bird habitat, butterfly larval host

COMMON NAME	SCIENTIFIC NAME	DECIDUOUS (D)/ EVERGREEN (E)	HEIGHT & SPREAD	SUN (S)/ PARTIAL SHADE (PS)/ SHADE (SH)	SOIL MOISTURE: DRY (D), AVG. (A), WET (W)
<b>CANOPY TREE</b>					
Eastern white pine	<i>Pinus strobus</i>	E	H: 70' - 100' S: 20' - 40'	S, PS	D, A, W
American sycamore	<i>Platanus occidentalis</i>	D	H: 75' - 100' S: 50' 70'	S, PS	A, W
Bur oak	<i>Quercus macrocarpa</i>	D	H: 60' - 85' S: 40' - 60'	S, PS	D, A, W
Northern white-cedar, Eastern arborvitae	<i>Thuja occidentalis</i>	E	H: 30' - 50' S: 10' - 15'	S, PS, SH	D, A, W
American basswood, American linden	<i>Tilia americana</i>	D	H: 60' - 100' S: 30' - 50'	S, PS, SH	A, W
Eastern hemlock	<i>Tsuga canadensis</i>	E	H: 70' - 100' S: 25' - 35'	PS, SH	A, W
<b>UNDERSTORY TREE</b>					
Apollo sugar maple	<i>Acer saccharum</i> <i>Appollo</i>	D	H: 25' S: 10' - 15'	S, PS, SH	A
Serviceberry	<i>Amelanchier spp.</i>	D	H: 12' - 25' S: 4' - 15'	S, PS	D, A

The tree species and cultivars on this list should not be used exclusively for replacement planting or reforestation of large areas. The diversity of all tree species on individual streets, in neighborhoods, and in the entire community should be taken into consideration. Monocultures should be avoided. The tree species and cultivars on this list are not the only suitable trees for planting in Macomb County, but are intended to be used as a starting point. There are many more excellent native and non-native shade and ornamental trees that can be planted. Please contact your local Michigan State University Extension office or Natural Resource Conservation Service for additional recommendations. The Green Macomb Urban Forest Partnership maintains additional guidance and updated recommended species available at <http://green.Macombgov.org/>.

GROWTH RATE	BLOOM TIME	BLOOM COLOR	NOTES
Fast	June	Yellow/ purple/ brown cones	Native; tolerates a wide range of situations including some poor drainage & acidic to basic soils; pyramidal to irregular form with columnar, weeping, and dwarf cultivars available; excellent specimen plant; good for screening; bird and small mammal habitat, browse for deer
Fast	April-May	Red/green	Native; tolerates poor drainage/compacted soils, moderate salt, & flooding but less tolerant to pollutants; oval/rounded form; bird habitat; persistent fruit & bark provides winter interest
Slow	May-June	Yellow/green	Native; very tough and adaptable species; tolerates heavy clay soils, range in pH, flooding, poor drainage, & city pollutants; pyramidal to broad-rounded form; yellow/brown fall color; magnificent specimen tree for large home landscapes; bird & mammal habitat, butterfly larval host
Slow	April-May	Red/brown cones	Native; tolerates poor drainage, flooding, & acidic to basic soils; conical form with columnar and short cultivars available; good for screening; bird habitat, browse for deer
Moderate	June-July	Yellow/white	Native; very adaptable; oval/informal form; yellow/green fall color; important nectar source for pollinators
Slow	April-May	Yellow/ green/brown cones	Native; tolerant of shade & poorly drained & acidic soils; does not tolerate wind, drought, or pollution; narrow pyramidal form; many dwarf cultivars available; bird habitat, browse for deer
Moderate	April	Greenish yellow	Native; tolerates range of pH but not compacted soils or high salt; narrow, tight-columnar form; orange/red fall color; bird & small mammal habitat
Slow	April-May	White	Many species are native; adaptable to most soil types except compacted sites; rounded/multi-stemmed form; early spring flowers; edible fruit; excellent red/orange/yellow fall color; bark provides winter interest; early season pollinator & bird habitat, butterfly larval host

COMMON NAME	SCIENTIFIC NAME	DECIDUOUS (D)/ EVERGREEN (E)	HEIGHT & SPREAD	SUN (S)/ PARTIAL SHADE (PS)/ SHADE (SH)	SOIL MOISTURE: DRY (D), AVG. (A), WET (W)
<b>UNDERSTORY TREE</b>					
Paw paw	<i>Asimina triloba</i>	D	H: 15' - 30' S: 15' - 30'	S, PS, SH	A, W
Musclewood	<i>Carpinus caroliniana</i>	D	H: 15' - 30' S: 20' - 35'	S, PS, SH	A, W
Eastern redbud	<i>Cercis canadensis</i>	D	H: 12' - 25' S: 15' - 25'	S, PS	A
Sweet bay magnolia	<i>Magnolia virginiana</i>	D/E	H: 12' - 20' S: 10' - 35'	S, PS	A, W
Sargent crabapple	<i>Malus sargentii</i>	D	H: 6' - 12' S: 9' - 15'	S	A, W
American bladdernut	<i>Staphylea trifoliata</i>	D	H: 8' - 18' S: 10' - 20'	PS, SH	A
<b>SHRUB</b>					
New Jersey tea	<i>Ceanothus americanus</i>	D	1' - 3'	S, PS	D, A
Shrubby cinquefoil	<i>Dasiphora fruticosa</i>	D	2' - 3'	S, PS	D, A, W
Creeping juniper	<i>Juniperus horizontalis</i>	E	1' - 2'	S, PS	D, A

The tree species and cultivars on this list should not be used exclusively for replacement planting or reforestation of large areas. The diversity of all tree species on individual streets, in neighborhoods, and in the entire community should be taken into consideration. Monocultures should be avoided. The tree species and cultivars on this list are not the only suitable trees for planting in Macomb County, but are intended to be used as a starting point. There are many more excellent native and non-native shade and ornamental trees that can be planted. Please contact your local Michigan State University Extension office or Natural Resource Conservation Service for additional recommendations. The Green Macomb Urban Forest Partnership maintains additional guidance and updated recommended species available at <http://green.Macombgov.org/>.

	GROWTH RATE	BLOOM TIME	BLOOM COLOR	NOTES
	Moderate	April-May	Purple	Native; pyramidal/rounded/multi-stemmed form & semi-tropical appearance with large leaves; edible fruit; early season pollinator & bird habitat, butterfly larval host
	Slow	April-May	Green	Native; adaptable to most soils; yellow fall color; persistent fruit & smooth gray bark provide winter interest; bird & small mammal habitat
	Slow	April-May	Pink	Native; salt, shade & high pH tolerant; early spring flowers; rounded form; persistent fruit provides winter interest; early season pollinator & bird habitat, butterfly larval host
	Moderate	May-June	White	Native to the south; tolerates wet & acidic soils; rounded/multi-stemmed form; showy, fragrant flowers; pollinator habitat
	Slow	May	White	Non-native; tolerates range of soil texture & pH; round/spreading form; showy, fragrant flowers; yellow/orange fall color; beautiful specimen either alone or in multiples; bird & pollinator habitat
	Fast	April-May	White	Native; shade tolerant; rounded/multi-stemmed form; striped bark & persistent fruit provide winter interest; bird & pollinator habitat
	Slow	May-June	White	Native; adaptable to variety of soils & tolerant of hot, dry sites & salt; good for massing & slope planting; pollinator habitat, butterfly larval host
	Slow	June-Sept	Yellow	Native; tolerates a wide range in site conditions including high pH & is very durable; makes a good hedge/border; grey/green foliage & extended flowering provide broad seasonal interest; pollinator habitat
	Slow	May-June	Green/blue cones	Native; adaptable to variety of soils including high pH & tolerant of hot, dry sites; plume-like form; good for massing & slope planting; bird & small mammal habitat

COMMON NAME	SCIENTIFIC NAME	DECIDUOUS (D)/ EVERGREEN (E)	HEIGHT & SPREAD	SUN (S)/ PARTIAL SHADE (PS)/ SHADE (SH)	SOIL MOISTURE: DRY (D), AVG. (A), WET (W)
<b>SHRUB</b>					
Common elderberry	<i>Sambucus canadensis</i>	D	5' - 12'	S, PS	A, W
Low sweet blueberry	<i>Vaccinium angustifolium</i>	D	1' - 2'	S, PS, SH	D, A, W
Arrowwood viburnum	<i>Viburnum dentatum</i>	D	5' - 12'	S, PS	A, W
<b>PERENNIAL GROUNDCOVER</b>					
Canada anemone	<i>Anemone canadensis</i>	D	1' - 2'	S, PS	A
Wild ginger	<i>Asarum canadense</i>	D	0.5' - 1'	PS, SH	A
Swamp milkweed	<i>Asclepias incarnata</i>	D	3' - 4'	S, PS	A, W
Brown fox sedge	<i>Carex vulpinoidea</i>	D	2' - 3'	S, PS	A, W
Purple love grass	<i>Eragrostis spectabilis</i>	D	1' - 2'	S	D
Wild strawberry	<i>Fragaria virginiana</i>	D	0.5' - 1'	S, PS, SH	A
Wild geranium	<i>Geranium maculatum</i>	D	1' - 2'	S, PS, SH	A
Virginia creeper	<i>Parthenocissus quinquefolia</i>	D	< 1'	S, PS, SH	D, A, W
Common cinquefoil	<i>Potentilla simplex</i>	D	0.5' - 1'	S, PS, SH	D, A

The tree species and cultivars on this list should not be used exclusively for replacement planting or reforestation of large areas. The diversity of all tree species on individual streets, in neighborhoods, and in the entire community should be taken into consideration. Monocultures should be avoided. The tree species and cultivars on this list are not the only suitable trees for planting in Macomb County, but are intended to be used as a starting point. There are many more excellent native and non-native shade and ornamental trees that can be planted. Please contact your local Michigan State University Extension office or Natural Resource Conservation Service for additional recommendations. The Green Macomb Urban Forest Partnership maintains additional guidance and updated recommended species available at <http://green.Macombgov.org/>.

	GROWTH RATE	BLOOM TIME	BLOOM COLOR	NOTES
	Fast	June-July	White	Native; sprawling form best planted in clumps; edible fruit; bird & pollinator habitat, deer browse
	Slow	May-June	White	Native; requires acidic soils; edible fruit; red fall color; bird & pollinator habitat, butterfly larval host
	Moderate	May-June	White	Native; durable and adapted to varied soils; good edge or screen; bird & pollinator habitat, butterfly larval host
		May-July	White	Native; very adaptable to various site conditions; small mammal & pollinator habitat; readily colonizes areas without competing vegetation to form solid groundcover
		May	Brown	Native; forms uniform groundcover when planted densely; pollinator & small mammal habitat
		July-Aug	Pink	Native; tolerates wet soils; pollinator & small mammal habitat, larval host plant
		May-June	Green	Native; clumped form; seed heads provide late spring interest; pollinator & small mammal habitat
		June-July	Green	Native; clumped form; salt tolerant; seed heads have rich purple fall color; pollinator & small mammal habitat
		April-May	White	Native; intermingles well with other plants & spreads readily into new areas; edible fruit; early-season pollinator support & small mammal habitat
		May-June	Pink	Native; very adaptable to various site conditions; early-season pollinator support
		July-Aug	Green	Native; salt tolerant; groundcover as well as climbing vine; pretty red fall color; bird & small mammal habitat
		May-June	Yellow	Native; intermingles well with other plants & spreads readily into new areas; pollinator & small mammal habitat

COMMON NAME	SCIENTIFIC NAME	DECIDUOUS (D)/ EVERGREEN (E)	HEIGHT & SPREAD	SUN (S)/ PARTIAL SHADE (PS)/ SHADE (SH)	SOIL MOISTURE: DRY (D), AVG. (A), WET (W)
PERENNIAL GROUNDCOVER					
Bluestem goldenrod	<i>Solidago caesia</i>	D	2' - 3'	S, PS, SH	D, A
New England aster	<i>Symphyotrichum novae-angliae</i>	D	3' - 6'	S	A, W

The tree species and cultivars on this list should not be used exclusively for replacement planting or reforestation of large areas. The diversity of all tree species on individual streets, in neighborhoods, and in the entire community should be taken into consideration. Monocultures should be avoided. The tree species and cultivars on this list are not the only suitable trees for planting in Macomb County, but are intended to be used as a starting point. There are many more excellent native and non-native shade and ornamental trees that can be planted. Please contact your local Michigan State University Extension office or Natural Resource Conservation Service for additional recommendations. The Green Macomb Urban Forest Partnership maintains additional guidance and updated recommended species available at <http://green.Macombgov.org/>.



GROWTH RATE	BLOOM TIME	BLOOM COLOR	NOTES
	Aug-Oct	Yellow	Native; very adaptable to various site conditions; late-season pollinator support; readily reseeds itself
	Sept-Oct	Purple	Native; very adaptable to various site conditions; late-season pollinator support; readily reseeds itself



## VIII. DO NOT PLANT LIST

### INVASIVE SPECIES COMMONLY USED & DISTRIBUTED AS ORNAMENTALS

Some of these plants may occur on suggested plant lists for individual communities, but it is recommended that they are not planted in any community in Macomb County.

COMMON NAME	SCIENTIFIC NAME
Amur maple	<i>Acer ginnala</i>
Norway maple	<i>Acer platanoides</i>
Tree of Heaven	<i>Ailanthus altissima</i>
Black alder	<i>Alnus glutinosa</i>
Porcelain-berry	<i>Ampelopsis brevipedunculata</i>
Japanese angelica tree	<i>Aralia elata</i>
Japanese barberry	<i>Berberis thunbergii</i>
Oriental bittersweet	<i>Celastrus orbiculatus</i>
Sweetautumn clematis	<i>Clematis terniflora</i>
Russian-olive	<i>Elaeagnus angustifolia</i>
Autumn-olive	<i>Elaeagnus umbellata</i>
Winged wahoo, Burning bush	<i>Euonymus alatus</i>
Wintercreeper euonymus	<i>Euonymus fortunei</i>
Glossy buckthorn	<i>Frangula alnus</i>
Baby's breath	<i>Gypsophila paniculata</i>
English ivy	<i>Hedera helix</i>
Dame's rocket	<i>Hesperis matronalis</i>
Yellow flag	<i>Iris pseudacorus</i>
Common privet	<i>Ligustrum vulgare</i>
Eurasian honeysuckles	<i>Lonicera spp. (e.g. L. japonica; L. x bella; L. maackii; L. morrowii; L. tatarica)</i>
Birdfoot trefoil	<i>Lotus corniculatus</i>

COMMON NAME	SCIENTIFIC NAME
Moneywort, Creeping Jenny	<i>Lysimachia nummularia</i>
Purple loosestrife	<i>Lythrum salicaria</i>
Japanese silver, Maiden grass	<i>Miscanthus sinensis</i>
White mulberry	<i>Morus alba</i>
Reed canary grass, Ribbon grass	<i>Phalaris arundinacea</i>
Amur corktree	<i>Phellodendron amurense</i>
Yellow-groove ("Running") Bamboo	<i>Phyllostachys aureosulcata</i>
Black pine	<i>Pinus nigra</i>
Japanese & Giant knotweed	<i>Polygonum cuspidatum</i> & <i>P. sachalinense</i>
Kudzu	<i>Pueraria lobata</i>
Callery pear	<i>Pyrus calleryana</i>
Common buckthorn	<i>Rhamnus cathartica</i>
Black jetbead	<i>Rhodotypos scandens</i>
Black locust	<i>Robinia pseudoacacia</i>
Multiflora rose	<i>Rosa multiflora</i>
Crown-vetch	<i>Securigera varia</i>
Chinese elm	<i>Ulmus parvifolia</i>
Siberian elm	<i>Ulmus pumila</i>