Section 6.2 Landscaping and Tree Preservation

**1.** *The suggested plant materials list includes common trees and shrubs suitable for use in the Forsyth County area.* 

**2.** Due to individual site soil, moisture, and microclimate conditions, professional expertise should be sought to determine the appropriate plant materials for any particular development project.

3. The use of native plants is recommended where possible.

**4.** Other appropriate plants not included in this list may also be used with the approval of the Director of Inspections or designee.

**5.** The following trees shall not be credited toward the requirements of **Section 6.2.1**, **Landscaping and Tree Preservation Standards – Winston-Salem**:

- a. Acer saccharinum Silver Maple;
- **b.** Ailanthus altissima Tree of Heaven;
- c. Albizia julibrissin Mimosa;
- d. Paulownia tomentosa Royal Paulownia;
- e. Pinus strobus White Pine;
- f. Pinus virginiana Virginia Pine;
- g. Populus spp. Hybrid Poplars; or

The developer's standard is a Maple Tree. A homeowner may request to opt out of the standard tree (subject to ARC approval) and plant a compliant tree at their own expense.

At time of planting, trees must be at least 2" diameter (caliper at 6" above ground) and 8' tall if deciduous or 6' tall if evergreen.

**h.** Pyrus calleryana cultivars Bradford and Chanticleer Pear and other Cultivars.

TABLE 6.2.1.J.1: SUGGESTED PLANT MATERIALS LIST								
PLANT NAME	HEIGHT	SPREAD	GROWTH RATE	LIGHT NEEDS	Сомментя			
S = SLOW; M = MODERA	S = SLOW; M = MODERATE; R = RAPID; S = SUN; SH = SHADE; PS = PARTIAL SUN; D = DECIDUOUS; E = EVERGREEN							
(A) LARGE VA	(A) LARGE VARIETY TREES (MATURE HEIGHT: THIRTY-FIVE (35) FEET OR GREATER)							
			(1) Native	Evergreen	,			
llex opaca American Holly	40—60'	20—30'	S	S-SH	Tolerates a variety of conditions, male and female plants needed for fruit, pyramidal form			
Juniperus virginiana Eastern Red Cedar	40—50'	15—25'	М	S-PS	Tolerates a variety of conditions, pyramida form, male and female plants needed for fruit			
Magnolia grandiflora Southern Magnolia	60—80'	30—40'	R	S-PS	Less shade tolerant with age, attracts wildlife, fragrant spring and summer flowers			
Pinus taeda Loblolly Pine	90— 120'	30—40'	R	S	Tolerates flooding and drought, critical to Brown-headed Nuthatch			
Quercus laurifolia or hemisphaerica Laurel Oak	60—80'	30—40'	R	S-SH	Shade tolerant, good for moist sites			
	(2) Native Deciduous							
Acer barbatum or floridanum Southern Sugar Maple	50—60'	20—35'	м	S-PS	Heat tolerant, dislikes dry, compact soil			
Acer rubrum Red Maple	60—90'	30—50'	R-M	S-SH	Tolerates a variety of conditions, including wet soil, fall color			
Acer saccharum Sugar Maple	90— 120'	40—60'	S	S-PS	Extensive root system, fall color, shade tolerant			



Section 6.2 Landscaping and Tree Preservation

TABLE 6.2.1.J.1: SUGGESTED PLANT MATERIALS LIST					
PLANT NAME	Неіднт	SPREAD	GROWTH RATE	LIGHT NEEDS	Сомментя
S = SLOW; M = MODERAT	те; <b>R</b> = <b>R</b> АРІ	D; S = SUN;	SH = SHADE;	; PS = PART	TIAL SUN; D = DECIDUOUS; E = EVERGREEN
Betula nigra River Birch	60—80'	30—50'	R	S-PS	Lacy texture, tolerates a variety of conditions, including wet soil, tends to drop small limbs, cultivars available
Celtis laevigata Southern Hackberry or Sugarberry	70—80'	30—50'	R	S-PS	Tolerates a variety of conditions
Cladrastis kentukea Yellow-wood	40—50'	40—45'	м	S	Tolerates a variety of conditions, fragrant white blooms in alternate years
Diospyros virginiana American Persimmon	30—60'	20—25'	S-M	S-PS	Tolerates dry soil, good fall color, fruit attracts wildlife. Separate male and female plants.
Fraxinus pennsylvanica Green Ash	50—120'	40—50'	R	S-PS	Tolerates a variety of conditions. Separate male and female plants. Many cultivars available.
Gymnocladus diocus Kentucky Coffee-tree	60—75'	40—50'		S	Tolerant of air pollution and drought, fall color
Liquidambar styraciflua Sweet Gum	80— 120'	40—60'	R	S	Fall color, best in natural areas due to fruit drop
Liquidambar styraciflua 'Rotundiloba' Fruitless Sweet Gum	60—70'	20—30'	R	S	Pyramidal in form, does not set much fruit, tolerates clay soil
Liriodendron tulipifera Tulip-Tree or Yellow Poplar	90— 120'	60—80'	R	S	Tolerates a variety of conditions, drops limbs, best in natural areas, host for N.C. State butterfly
Nyssa sylvatica Black Gum	50—80'	30—50'	м	S-PS	Fall color, pyramidal when young
Platanus occidentalis Sycamore	80— 120'	40—60'	R	S-PS	Showy bark, tolerates a variety of conditions but needs water, best in natural areas
Prunus serotina Wild Black Cherry	60—80'	30—50'	R	S-PS	Tolerates a variety of conditions, seeds heavily, best in natural areas
Quercus alba White Oak	80— 100'	40—60'	S-M	S-PS	Sensitive to construction damage, good fall color
Quercus bicolor Swamp White Oak	50—60'	50—60'	M-R	S	Needs acidic soil, drought resistant, intolerant of salt and air pollution
Quercus coccinea Scarlet Oak	50—80'	40—50'	R	S	Good fall color, tolerates dry, sandy soil
Quercus falcata Southern Red Oak	70—80'	30—40'	R	S-PS	Tolerates drought
Quercus imbricaria Shingle Oak	50—60'	50—60'	S-M	S	Tolerates a variety of conditions
Quercus lyrata Overcup Oak	35—45'	35—40'	м	S	Tolerates a variety of conditions
Quercus macrocarpa Bur Oak	60—80'	60—80'	S	S	Tolerant of city conditions
Quercus nigra Water Oak	70—90'	30—50'	R	S	May retain some leaves through the winter, tolerates a variety of conditions

Section 6.2 Landscaping and Tree Preservation

ТАВ	LE 6.2.1.	.J.1: SUG	GESTED P	PLANT M	IATERIALS LIST			
<b>P</b> LANT NAME	Неіднт	SPREAD	GROWTH RATE	LIGHT NEEDS	COMMENTS			
S = SLOW; M = MODERAT	т <b>е; R = R</b> АРІ	D; S = SUN;	SH = SHADE;	PS = PART	IAL SUN; D = DECIDUOUS; E = EVERGREEN			
Quercus palustris Pin Oak	60—80'	40—50'	R	S	Tolerates a variety of conditions, pyramidal form, good fall color			
Quercus phellos Willow Oak	80— 100'	40—50'	R	S-PS	Tolerates a variety of conditions, golden fall color			
Quercus rubra Red Oak	80—90'	30—50'	R-M	S-PS	Needs moist soils, good fall color			
Quercus shumardii Shumard Oak	90— 100'	40—50'	R-M	S	Tolerates a variety of conditions			
Quercus texana or nuttallii Nuttall Oak	60—80'	30—40'	R	S-PS	Tolerates poorly drained soils, drought tolerant			
Taxodium distichum Bald-cypress	100— 120'	30—40'	R	S	Pyramidal when young, tolerates wet and dry soils, fall color, attractive trunk			
Tilia americana Southern Basswood or American Linden	50—70'	30—45'	М	S-PS	Tolerates drought and clay soil, intolerant of air pollution, consider 'Redmond' cultivar			
(3) Non-Native Evergreen								
Cedrus deodara Deodar Cedar	40—70'	30—40'	М	S-PS	Tolerates drought and hot, dry summers, likes acidic soil			
Cryptomeria japonica Japanese Cryptomeria	50—60'	25—30'	М	S-PS	Tolerates a variety of conditions, pyramidal shape, many cultivars available			
Thuja 'Green Giant' Green Giant Arborvitae	40—50'	15—20'	R	S-PS	Tolerates a variety of conditions, may need some wind protection, bronzes in winter			
	(4) Non-Native Deciduous							
Acer × freemanii Freeman Maple	Gen. 40—70'	Gen. 15— 40'	М	S-PS	A hybrid of red maple and silver maple, cultivars vary in size and characteristics			
Cercidiphyllum japonicum Katsura Tree	40—60'	20—40'	M-R	S	Intolerant of hot, dry sites, fall color			
Ginkgo biloba Ginkgo	50—80'	30—40'	S	S	Plant male trees to avoid messy, smelly fruit, tolerates a variety of conditions, bright yellow fall color			
Metasequoia glyptostroboides Dawn Redwood	70— 100'	15—25'	R	S	Tolerates a variety of conditions, tolerates wet soils, attractive trunk			
Platanus × acerifolia London Planetree	65—80'	75—100'	М	S-PS	Good street tree, light brown exfoliating bark			
Quercus robur 'Fastigata' Upright English Oak	50—60'	10—20'	S	S	Tolerates drought and air pollution, narrow, upright form			
Sophora japonica or Styphnolobium japonicum Japanese Scholartree or Japanese Pagodatree	50—70'	50'	M-R	S-PS	Resistant to air pollution and drought, but marginally heat hardy in Piedmont N.C.			
Tilia cordata 'Greenspire' Greenspire Littleleaf Linden	30—40'	25—35'	S-M	S	Piedmont N.C. is at southern extreme of range, air pollution tolerant, cultivars available			
Tilia tomentosa Silver Linden	40—70'	25—45'	R	S-PS	Tolerates drought and air pollution and a variety of soil conditions			
Ulmus parvifolia Lacebark or Chinese Elm	40—50'	40—50'	M-R	S	Tolerates a variety of conditions, attractive bark, a tough and durable tree			



#### LAST UPDATED: 12.2.21

Section 6.2 Landscaping and Tree Preservation

ТАВ	LE 6.2.1.	J.1: SUG	GESTED P	PLANT N	IATERIALS LIST
PLANT NAME	Неіднт	SPREAD	GROWTH RATE	LIGHT NEEDS	Сомменть
S = SLOW; M = MODERAT	е; <b>R</b> = <b>R</b> АРІ	D; S = SUN;	SH = SHADE;	PS = PART	TIAL SUN; D = DECIDUOUS; E = EVERGREEN
Ulmus hybrida Hybrid Elm	75—125'	60—120'	M-R	S-PS	Tolerates a variety of conditions; Dutch Eln disease resistant varieties available
Zelkova serrata Japanese Zelkova	50—80'	40—50'	М	S-PS	Good street tree; tolerates urban condition well, cultivars available
(B) MEDIUM VARIETY	TREES (M	1ATURE H	IEIGHT: TN	ENTY-FI	VE (25) TO THIRTY-FIVE (35) FEET)
			(1) Native	Evergreen	1
llex × attenuata 'Fosteri' Foster's Holly	20—30'	10—20'	R	S-PS	Red fruits, male plants not needed for fruiting, best berry production in full sun
Magnolia virginiana Sweet Bay Magnolia	20—30'	10—15'	м	S-PS	Tolerates some shade, good for wet sites, cultivars provide evergreen and deciduous options
Pinus virginiana 'Wate's Golden' Wate's Golden Virginia Pine	15—30'	10—20'	S-M	S	Grows in poor soils, turns golden in winter seeds eaten by birds, especially Brown- headed Nuthatch
Prunus caroliniana Carolina Laurel Cherry	20—40'	15—20'	M-R	S-PS	Tolerates a variety of conditions, colonize
			(2) Native	Deciduou	S
Carpinus caroliniana American Hornbeam or Ironwood	20—30'	20—30'	S	S-PS	Does well in moist to wet soil, attractive trunk, interesting fruit
Cercis canadensis Eastern Redbud	20—30'	25—35'	М	S-PS	Tolerates a variety of conditions, many cultivars available, early spring purple/pin blooms
Cornus florida Flowering Dogwood	15—30'	15—20'	S-M	PS	Best in part shade, many cultivars available, flowers in spring, fall color and red fruit
Gleditsia triacanthos var. inermis Thornless Honeylocust	30—70'	30—40'	R	S	Range of soil types, drought tolerant;
Halesia tetraptera Common Silverbell	20—40'	20—35'	М	S-PS	Tolerates a variety of conditions, showy white blooms in spring, cultivars availabl
Ostrya virginiana Eastern Hop-hornbeam	20—30'	20—30'	S	S-PS	Tolerates a variety of conditions, interesting fruit
Oxydendrum arboreum Sourwood	20—30'	10—15'	S	S-PS	Tolerates a variety of conditions, white summer flowers, fall color, source of sourwood honey
		(-	<u>8) Non-Nati</u>	ve Evergr	
Ilex × 'Nellie R. Stevens' Nellie Stevens Holly	30—40'	10—15'	R	S-PS	Red fruit, drought and heat tolerant, male and female plants (I. cornuta) needed for best fruiting, also used as a large shrub
Pinus thunbergii Japanese Black Pine	20'	20'	S-M	S	Select small tree cultivar from among dwarf cultivars, heat and drought toleran
•		(4	) Non-Nati	ve Decidu	
Acer buergerianum Trident Maple	25—35'	20—30'	м	S-PS	Tolerates a variety of conditions; good fal color
Acer campestre Hedge Maple	25—35'	25—35'	S	S	Tolerates drought and air pollution; shallow root system

### WINSTON-SALEM/FORSYTH COUNTY UDO

Italics text: Applicable in Winston-Salem only



#### LAST UPDATED: 12.2.21

Section 6.2 Landscaping and Tree Preservation

ТАВ	LE 6.2.1.	J.1: SUG	GESTED P	PLANT N	IATERIALS LIST
PLANT NAME	Height	SPREAD	GROWTH RATE	LIGHT NEEDS	COMMENTS
S = SLOW; M = MODERAT	т <b>е; R = R</b> АРІ	D; S = SUN;	SH = SHADE;	PS = PART	TIAL SUN; D = DECIDUOUS; E = EVERGREEN
Carpinus betulus 'Fastigata' Pyramidal European Hornbeam	30—40'	20—30'	S-M	S-PS	Pyramidal when young, tolerates a range of conditions
Koelreuteria paniculata Goldenrain Tree	20—40'	15—35'	M-R	S-PS	Tolerates drought and air pollution, yellow flowers in June
Magnolia × soulangiana or soulangeana Saucer Magnolia	15—25'	15—25'	м	S-PS	Late flowering cultivars avoid frost damage to blooms
Pistacia chinensis Chinese Pistachio	25—35'	20—30'	M-R	S	Drought tolerant, male and female plants needed for fruit, fall color
Prunus 'Kwanzan' Kwanzan Cherry	20—30'	15—25'	м	S-PS	Pink blooms in April, may be short-lived, good fall color, no fruit
Prunus 'Okame' Okame Cherry	15—30'	20—30'	M-R	S	Tolerates a variety of conditions, pink blooms in late winter lasting longer than most cherries
Prunus subhirtella 'Autumnalis' Fall Blooming Cherry	20—30'	15—25'	R	S-PS	Flowers best in full sun, flowers both in fall and late winter, may be short lived
Prunus subhirtella 'Pendula' Weeping Cherry	20—40'	15—30'	м	S	Tolerant of heat and clay soil; white to pinkish flowers in early spring; relatively long lived
Prunus × yedoensis Yoshino Cherry	30—40'	30—50'	R	S	Tolerates a variety of conditions, pale pink to white flowers in early spring, many cultivars available
(C) SMALL VAI	RIETY TRE	ES (MATU	RE HEIGHT	LESS TH	AN TWENTY-FIVE (25) FEET)
			(1) Native	Evergreen	1
llex vomitoria Yaupon Holly	15—20'	10—20'	S-M	S-SH	Tolerates a variety of conditions, male and female plants needed for fruit, many cultivars available in many sizes
Magnolia grandiflora 'Little Gem' Little Gem Magnolia	15—20'	8—10'	R	S-PS	Dwarf cultivar of Magnolia grandiflora
Morella or Myrica cerifera Wax-myrtle	10—15'	8—10'	R	S-PS	Tolerates wet to dry soils, can colonize, many cultivars available, male and female plants needed for fruit, also can be used in shrub form
	T	r	(2) Native	Deciduou	
Aesculus pavia Red Buckeye	10—20'	10—20'	м	S-PS	Especially attracts hummingbirds and pollinators, red flowers in spring, leaf scorch may develop in dry soils
Amelanchier × 'Autumn Brilliance' Autumn Brilliance Serviceberry	25—40'	20—30'	S	S-PS	Tolerates a variety of conditions, rust fungus can attack fruit, early spring white blooms, fall color, other cultivars available
<i>Chionanthus virginicus Fringe-tree or Old Man's Beard</i>	12—20'	12—20'	S-M	S-PS	Tolerates a variety of conditions, male and female plants needed for fruit, fragrant white flowers in spring

### WINSTON-SALEM/FORSYTH COUNTY UDO

Italics text: Applicable in Winston-Salem only



#### LAST UPDATED: 12.2.21

Section 6.2 Landscaping and Tree Preservation

ТАВ	LE 6.2.1.	J.1: SUG	GESTED P	LANT N	IATERIALS LIST		
<b>P</b> LANT NAME	Неіднт	SPREAD	GROWTH RATE	LIGHT NEEDS	Сомментя		
S = SLOW; M = MODERAT	' <b>Е; R = R</b> АРІ	D; S = SUN;	SH = SHADE;	PS = PART	TIAL SUN; D = DECIDUOUS; E = EVERGREEN		
Crataegus viridis 'Winter King' Winter King Green Hawthorn	15—30'	10—20'	S	S-PS	Drought tolerant, has thorns, other native species available, white flowers in spring, fall color, interesting bark		
(3) Non-Native Evergreen							
Ilex cornuta 'Burfordii' Burford Holly	8—20'	5—10'	S-M	S-PS	Drought and heat tolerant, red fruit produced without pollinator, dwarf cultivar available		
	1	(4)	) Non-Nativ	/e Decidu			
Acer palmatum Japanese Maple	15—25'	10—25'	S-M	S-PS	Avoid hot, dry and windy sites; many cultivars available		
Chionanthus retusus Chinese Fringe-tree	15—25'	10—25'	М	S-PS	Tolerates a variety of conditions, showy white flowers in spring		
Cornus kousa Kousa Dogwood	15—30'	15—30'	S	S-PS	Resistant to anthracnose, white flowers in May, fall color		
Lagerstroemia indica cvs. Crapemyrtle	15—30'	6—15'	R	S	Summer blooms, attractive bark, overused, many cultivars (including dwarfs) available, do not top		
Magnolia stellata Star Magnolia	10—15'	6—10'	S-M	S-PS	Blooms best in full sun, late winter white flowers		
Malus hybrida Hybrid Crabapple	15—25'	10—20'	м	S	Plant only disease resistant cultivars, many cultivars available, showy spring flowers and fall fruit		
Prunus sargentii Sargent Cherry	20—40'	20—40'	R	S	One of the hardiest cherries; pink flowers; sensitive to air pollution; reddish bark		
Prunus serrulata 'Snowgoose' Snowgoose Japanese Cherry	15—25'	15—20'	М	S-PS	White sprung flowers; reddish bark; may be short-lived		
Syringa reticulata Japanese Tree Lilac	20—30'	15—20'	М	S	Tolerates a variety of conditions; creamy white flowers in mid-summer		
(D) STREETYARD ANI	D INTERIC	OR SHRUB	S (MATURE	HEIGHT 1	THIRTY-SIX (36) INCHES OR MORE)		
			(1) Native	Evergreen	1		
Agarista populifolia Florida Leucothoe or Agarista	8—12'	8—12'	R	PS	Tolerates a variety of conditions, but prefers moist soil		
llex glabra Inkberry Holly	5—9'	5—10'	S-M	S-PS	Drought tolerant but prefers moist soil, many cultivars available, male and female plants needed for fruit		
llex vomitoria Yaupon Holly	10—20'	8—12'	M-R	S-PS	Tolerates wet to dry soils, male and female plants needed for fruit, dwarf and other cultivars available		
Illicium floridanum Florida Star-anise	5—8'	6—8'	М	PS-SH	Prefers moist, well-drained soil high in organic matter, many cultivars available, showy spring flowers		
Illicium parviflorum Yellow Anise-tree	7—10'	8—10'	М	S-PS	Tolerates a variety of conditions, drought tolerant, can colonize, some cultivars available		



#### LAST UPDATED: 12.2.21