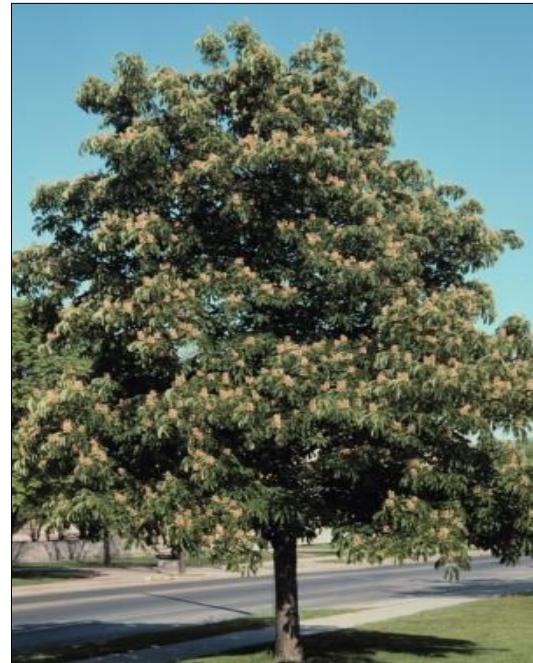


Aesculus flava - yellow buckeye

Evergreen/ Deciduous	Deciduous
Typical height	60-80
Typical width	30-50
Native to region?	Yes
USDA Hardiness Zone	4-7
Description	Upright, oval to slightly spreading crown, yellow-green flowers with a yellow-orange fall color.



Tree Site Conditions and Constraints

Water use	Moderate
Soil pH	Alkaline
Litter issues	Leaves, Fruit
Sidewalk damage potential	Low
Pest vulnerability	Relatively pest-free, minor leaf blotch.
Climate change resilience	High



Above:
Growth habit in
flower

Left: Flower

Below:
Immature fruit



Street Tree Uses

Minimum tree planting width needed	7'
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Other Species &/or Cultivars - *A. x hybrida* DC,
A. x arnoldiana 'Autumn Splendor'

Photo source: <https://landscapeontario.com/aesculus-flava-yellow-buckeye>

***Carpinus caroliniana* - American hornbeam**

Evergreen/ Deciduous	Deciduous
Typical height	20-30'
Typical width	20-30'
Native to region?	Yes
USDA Hardiness Zone	3b-9
Description	Medium round crown with variable growth habit. Smooth bark with a tendency to have "muscle-like" ribs along the trunk and branches.



Above:
Growth habit

Left: Bark

Below:
Seeds

Tree Site Conditions and Constraints

Water use	Medium
Soil pH	Slightly Alkaline to Very Acidic
Litter issues	Leaves, Fruit
Sidewalk damage potential	Low
Pest vulnerability	Relatively pest-free, susceptible to verticillium and root rot
Climate change resilience	Moderate



Street Tree Uses

Minimum tree planting width needed	4-7'
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Other Species &/or Cultivars - 'Firespire', 'Fire King', 'Native Flame', 'Palisade', 'Wisconsin Red', 'Rising Fire'.

Photo source: SelecTree. UFEI. "Carpinus caroliniana Tree Record." 1995-2023. Cal Poly State University, San Luis Obispo. Accessed on Nov 30, 2023.

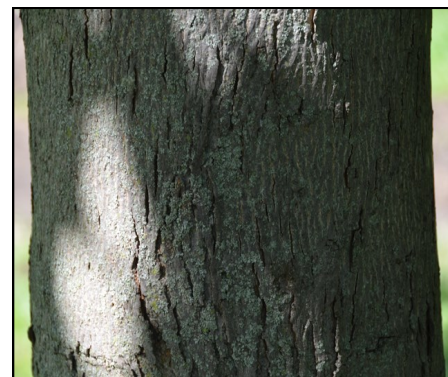
Carya ovata - shagbark hickory

Evergreen/ Deciduous	Deciduous
Typical height	80'
Typical width	50'
Native to region?	Yes
USDA Hardiness Zone	5-8
Description	Large shade tree with an oblong or rounded crown. Produces juglone to a less degree of black walnut. Edible fruit is a 1-1.5" diameter hickory nut.



Tree Site Conditions and Constraints

Water use	Medium
Soil pH	Very Alkaline to Slightly Acidic
Litter issues	Wet Fruit, Leaves
Sidewalk damage potential	Moderate
Pest vulnerability	Aphids and Sooty Mold
Climate change resilience	High



Above: Growth habit
Left: Bark
Below: Leaves



Street Tree Uses

Minimum tree planting width needed	7'
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Other Species &/or Cultivars - *C. cordiformis*, *C. glabra*, *C. laciniosa*, *C. ovata* (N), *C. tomentosa* (N)

N = Native to VA

Photo source: "SelectTree. UFEI. "Carya ovata Tree Record." 1995-2023. Cal Poly State University, San Luis Obispo. Accessed on Dec 20, 2023."

Cedrus atlantica - atlas cedar

Evergreen/ Deciduous	Evergreen
Typical height	50-70'
Typical width	30-50'
Native to region?	No
USDA Hardiness Zone	6-9
Description	Pyramidal shape with horizontally spreading branches. Blue to silver colored leaves and 2-4" cones mature over two years.



Above: Growth habit

Left: Bark

Below: Needles and immature cones



Tree Site Conditions and Constraints

Water use	Medium
Soil pH	Very Alkaline to Slightly Acidic
Litter issues	Dry Cones
Sidewalk damage potential	Moderate
Pest vulnerability	Root rot, black scale, sooty mold
Climate change resilience	High

Street Tree Uses

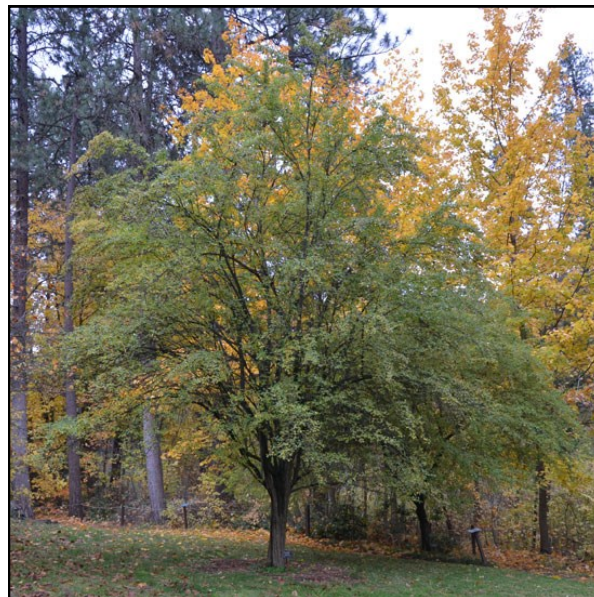
Minimum tree planting width needed	7'
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Other Species &/or Cultivars - C. deodara, C. libani; 'Argenta', 'Fastagata', 'Glauca'

Photo source: SelecTree. UFEI. "Cedrus atlantica Tree Record." 1995-2023. Cal Poly State University, San Luis Obispo. Accessed on Dec 20, 2023.

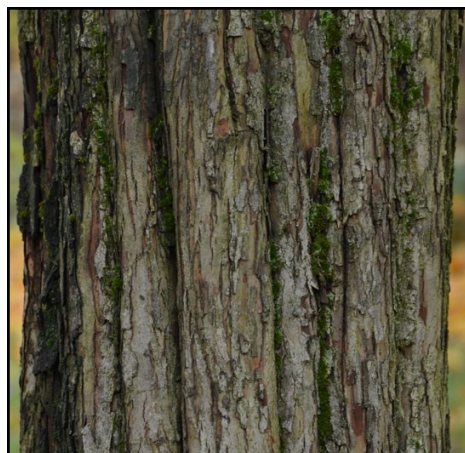
Crataegus laevigata - English hawthorn

Evergreen/ Deciduous	Deciduous
Typical height	20-25'
Typical width	15-20
Native to region?	No
USDA Hardiness Zone	5-8
Description	Shrubby low-branching growth habit with thorns up to 1" in length. Red fruit attracts birds and flowers attract bees. 'Paul's Scarlet' has double rose flowers.



Tree Site Conditions and Constraints

Water use	Medium
Soil pH	Very Alkaline to Very Acidic
Litter issues	Wet Fruit and Leaves
Sidewalk damage potential	Low
Pest vulnerability	Fire blight, root rot, scale, spider mites
Climate change resilience	High



Above: Growth habit

Left: Bark

Below: Leaves and fruit



Street Tree Uses

Minimum tree planting width needed	4-7'
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Other Species &/or Cultivars - var. *aurea*, 'Autumn Glory', 'Crimson Cloud', 'Pauls Scarlet' - var. *plena*, var. *rosea*, var. *rubra*

Photo source: SelecTree. UFEI. "Crataegus laevigata 'Pauls Scarlet' Tree Record." 1995-2023. Cal Poly State University, San Luis Obispo. Accessed on Dec 20, 2023.

Ginkgo biloba - maidenhair tree

Evergreen/ Deciduous	Deciduous
Typical height	50-80'
Typical width	30-40'
Native to region?	No
USDA Hardiness Zone	5-9
Description	Pyramidal to wide spreading crowns with fan shape leaves in clusters of 3-5. Bright yellow fall color, avoid females due to putrid fruit smell.



Tree Site Conditions and Constraints

Water use	Medium
Soil pH	Very Alkaline to Slightly Acidic
Litter issues	Leaves, Fruit if female
Sidewalk damage potential	Moderate
Pest vulnerability	Anthrachnose
Climate change resilience	Moderate



Above:
Growth habit

Left: Leaves

Below:
Fall color



Street Tree Uses

Minimum tree planting width needed	7'
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Other Species &/or Cultivars - 'Autumn Gold', 'Fairmont', 'Goldspire', 'Halka', 'Presidential Gold', 'Princeton Sentry', and many others.

Photo source: SelecTree. UFEI. "Ginkgo biloba Tree Record." 1995-2023. Cal Poly State University, San Luis Obispo. Accessed on Dec 20, 2023.

***Gymnocladus dioicus* - Kentucky coffee tree**

Evergreen/ Deciduous	Deciduous
Typical height	60-70'
Typical width	40-50'
Native to region?	Yes
USDA Hardiness Zone	5-9
Description	Medium crown with irregular branching. Attractive bark and sweet smelling flowers in spring. Persistent 5-10" long seed pods make for winter interest.



Tree Site Conditions and Constraints

Water use	Medium
Soil pH	Very Alkaline to Very Acidic
Litter issues	Dry Fruit
Sidewalk damage potential	Moderate
Pest vulnerability	Armillaria
Climate change resilience	High



Above:
Growth habit

Left: Leaves

Below:
Fruit



Street Tree Uses

Minimum tree planting width needed	7'
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Other Species &/or Cultivars - 'Espresso', 'Prairie Titan', 'J.C. McDaniel', 'Stately Manor', 'Variegata'

Photo source: SelecTree. UFEI. "Gymnocladus dioicus Tree Record." 1995-2023. Cal Poly State University, San Luis Obispo. Accessed on Dec 20, 2023

***Koelreuteria bipinnata* - Chinese flame tree**

Evergreen/ Deciduous	Deciduous
Typical height	40'
Typical width	15-30'
Native to region?	No
USDA Hardiness Zone	6-8
Description	Medium size tree with a round crown and bipinnately compound leaves. Bright yellow flowers in summer or fall and persistent large orange or red capsules.



Tree Site Conditions and Constraints

Water use	Medium
Soil pH	Very Alkaline to Very Acidic
Litter issues	Dried Fruit, Leaflets
Sidewalk damage potential	Low
Pest vulnerability	None
Climate change resilience	Moderate



Above:
Growth habit

Left: Leaflets

Below:
Flowers and seeds



Street Tree Uses

Minimum tree planting width needed	4-7'
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Other Species &/or Cultivars - *K. paniculate*, 'September'

Photo source: SelecTree. UFEI. "Koelreuteria bipinnata Tree Record." 1995-2023. Cal Poly State University, San Luis Obispo. Accessed on Dec 20, 2023.

Maackia amurensis - amur maackia

Evergreen/ Deciduous	Deciduous
Typical height	30-40'
Typical width	15-25
Native to region?	No
USDA Hardiness Zone	3-7b
Description	Round crown with pinnately compound leaves. Flowers are white and showy in the summer. Legume fruits can be 2-3" long. Nitrogen fixing.



Tree Site Conditions and Constraints

Water use	Medium
Soil pH	Very Alkaline to Very Acidic
Litter issues	Dry fruit and leaves
Sidewalk damage potential	Moderate
Pest vulnerability	None
Climate change resilience	Moderate



Above:
Growth habit

Left: Bark

Below:
Compound
leaves

Street Tree Uses

Minimum tree planting width needed	4-7'
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**Other Species &/or Cultivars - *M. Chinensis*,
*M. fauriei***

Photo source: SelecTree. UFEI. "Maackia amurensis Tree Record." 1995-2023. Cal Poly State University, San Luis Obispo. Accessed on Dec 20, 2023

Magnolia acuminata - cucumber tree

Evergreen/ Deciduous	Deciduous
Typical height	50-80'
Typical width	30
Native to region?	Yes
USDA Hardiness Zone	4-9
Description	Large, stately tree with a spreading branches at maturity. Large ovate leaves and fragrant yellow or green flowers in late spring. Fruit is cucumber like in appearance.



Tree Site Conditions and Constraints

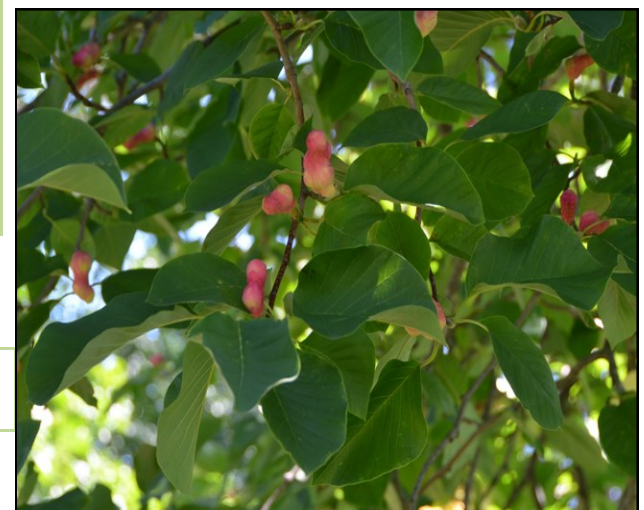
Water use	Medium
Soil pH	Very Alkaline to Slightly Acidic
Litter issues	Dry Fruit and Leaves
Sidewalk damage potential	Moderate
Pest vulnerability	Root rot, Aphids, Scales and Spider Mites
Climate change resilience	High



Above:
Growth habit

Left: Bark

Below:
Leaves and fruit



Street Tree Uses

Minimum tree planting width needed	7'
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Other Species &/or Cultivars - 'Elizabeth', 'Ellen', 'Evamaria', 'Golden Glow', 'Ivory Chalice', 'Klassen', 'Sundance'. *M. macrophylla*, *M. denudata*, *M. grandiflora* has many cultivars as does *M. liliflora*

Photo source: SelecTree. UFEI. "Magnolia acuminata Tree Record." 1995-2023. Cal Poly State University, San Luis Obispo. Accessed on Dec 20, 2023.

Nyssa sylvatica - sour gum or black gum

Evergreen/ Deciduous	Deciduous
Typical height	30-50'
Typical width	20-30'
Native to region?	Yes
USDA Hardiness Zone	4-9
Description	Pyramidal shape leading to a dense branching, rounded crown. Good variation in fall color. Fruit is a dark colored drupe valued by wildlife.



Tree Site Conditions and Constraints

Water use	Moderate-High
Soil pH	Alkaline to Very Acidic
Litter issues	Dry Fruit and Leaves
Sidewalk damage potential	Low
Pest vulnerability	Root Rot, Rust, Leaf Spot
Climate change resilience	Moderate



Above:
Growth habit

Left: Bark

Below:
Leaves and
fruit



Street Tree Uses

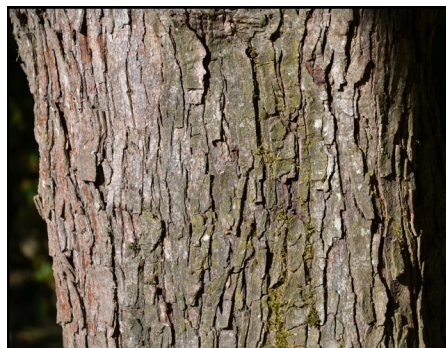
Minimum tree planting width needed	7'
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Other Species &/or Cultivars - 'Afterburner', 'Autumn Cascades' var. *biflora*, 'Forum', 'Jermyns Flame', 'Miss Scarlet', 'Pendula'; *N. aquatica*, *N. ogeche*, *N. sinensis*.

Photo source: SelecTree. UFEI. "Nyssa sylvatica Tree Record." 1995-2023. Cal Poly State University, San Luis Obispo. Accessed on Dec 20, 2023.

Ostrya carpinifolia - European hornbeam

Evergreen/ Deciduous	Deciduous
Typical height	40-60'
Typical width	30-50'
Native to region?	No
USDA Hardiness Zone	5-9
Description	Native to Europe and Asia, a medium crown with large showy seeds resembling hops. Grows wild in the understory.



Above:
Growth habit

Left: Bark

Below:
Leaves and
seeds



Tree Site Conditions and Constraints

Water use	High
Soil pH	Very Alkaline to Slightly Acidic
Litter issues	Dry Fruit
Sidewalk damage potential	Medium
Pest vulnerability	None
Climate change resilience	High

Street Tree Uses

Minimum tree planting width needed	7'
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Other Species &/or Cultivars - *O. virginiana* (Native), *O. japonica*

Photo source: SelecTree. UFEI. "Ostrya carpinifolia Tree Record." 1995-2023. Cal Poly State University, San Luis Obispo. Accessed on Dec 20, 2023

***Parrotia persica* - Persian ironwood**

Evergreen/Deciduous	Deciduous
Typical height	15-35'
Typical width	15-35'
Native to region?	No
USDA Hardiness Zone	4-7
Description	Erect or spreading form with a low canopy, showy red flowers in spring, attractive fall color, mature bark exfoliates to patches of green, tan, and white.



Tree Site Conditions and Constraints

Water use	Moderate, low when established
Soil pH	Alkaline to Neutral
Litter issues	Leaves, Dry Fruit
Sidewalk damage potential	Low
Pest vulnerability	Relatively pest-free, susceptible to Japanese beetles
Climate change resilience	Moderate



Above: Mature growth habit

Left: Leaves

Below: Immature street tree

Street Tree Uses

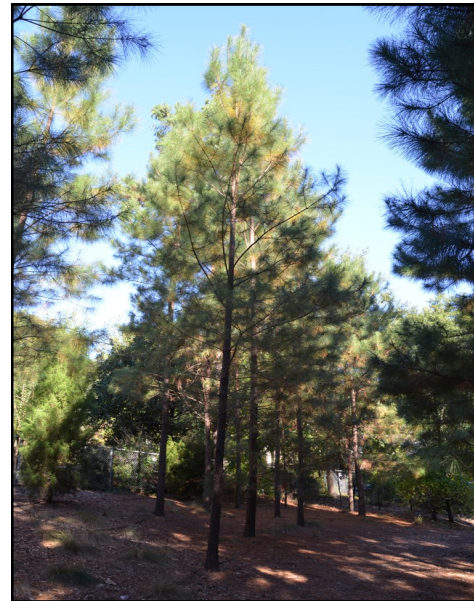
Minimum tree planting width needed	5'
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Other Species &/or Cultivars - 'Biltmore', 'Select', 'Vanessa'

***Pinus taeda* - loblolly pine**

Evergreen/Deciduous	Evergreen
Typical height	60-80'
Typical width	25-40'
Native to region?	No (Southeast US)
USDA Hardiness Zone	6-9
Description	Long needle pine that has scaly bark with deep furrows. Needles are 6– 10" long in fascicles of 3, occasionally 2. Very adaptable to different soil types. Large cones.



Above: Growth habit
Left: Bark
Below: Needles



Tree Site Conditions and Constraints

Water use	Medium
Soil pH	Alkaline
Litter issues	Cones and Leaves
Sidewalk damage potential	High
Pest vulnerability	Armillaria, Rust, Pine Beetle
Climate change resilience	High

Street Tree Uses

Minimum tree planting width needed	
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Other Species &/or Cultivars - *P. flexilis*, *P. koraiensis*, *P. parvifolia*, *P. peuce*, *P. resinosa*, *P. rigida* (N), *P. strobus*, *P. virginiana*.

Photo source: SelecTree. UFEI. "Pinus taeda Tree Record." 1995-2023. Cal Poly State University, San Luis Obispo. Accessed on Dec 20, 2023.

***Pistacia chinensis* - Chinese pistache**

Evergreen/ Deciduous	Deciduous
Typical height	30-35'
Typical width	25-35'
Native to region?	No
USDA Hardiness Zone	6-9
Description	Oval to round crown with pinnately compound leaves, red or blue drupes fruit and bright red fall color.



Tree Site Conditions and Constraints

Water use	Low
Soil pH	Slightly Alkaline to Very Acidic
Litter issues	Leaves, Fruit
Sidewalk damage potential	Low
Pest vulnerability	Relatively pest-free, susceptible to verticillium and root rot.
Climate change resilience	Moderate



Above: Fall color
Left: Flower
Below: Fruit



Street Tree Uses

Minimum tree planting width needed	4-7'
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Photo Source - "SelecTree. UFEI. "Pistacia chinensis Tree Record." 1995-2023. Cal Poly State University, San Luis Obispo. Accessed on Nov 30, 2023.

***Platanus x acerifolia* ‘Morton Circle’ - London plane**

Evergreen/ Deciduous	Deciduous
Typical height	70-100’
Typical width	65-80’
Native to region?	No
USDA Hardiness Zone	4-9
Description	Hybrid cross between <i>P. orientalis</i> and <i>P. occidentalis</i> . Large shade tree with leathery leaves and persistent fruit. Exfoliating bark can shed in high heat and humidity.



Tree Site Conditions and Constraints

Water use	Medium
Soil pH	Vary Alkaline to Very Acidic
Litter issues	Dry Fruit, Bark, Leaves
Sidewalk damage potential	Moderate
Pest vulnerability	Resistant to Anthracnose, Powdery Mildew
Climate change resilience	High



Above:
Growth habit

Left: Bark

Below:
Leaves and fruit



Street Tree Uses

Minimum tree planting width needed	7’
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Other Species &/or Cultivars - *P. occidentalis*, ‘Bloodgood’, ‘Columbia’, ‘Liberty’, ‘Yarwood’

Photo source: <https://plants.ces.ncsu.edu/plants/platanus-x-acerifolia/>

***Quercus muehlenbergii*—Chinkapin oak**

Evergreen/ Deciduous	Deciduous
Typical height	40-50'
Typical width	50-60'
Native to region?	Yes
USDA Hardiness Zone	4-8
Description	Medium size round crown with ovate, toothed leaves.



Above:
Growth habit

Left: Bark

Below:
Leaves and
acorn



Tree Site Conditions and Constraints

Water use	Medium
Soil pH	Alkaline to Acidic
Litter issues	Leaves and Acorns
Sidewalk damage potential	Low
Pest vulnerability	Armillaria
Climate change resilience	Yes

Street Tree Uses

Minimum tree planting width needed	7'
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Other Species &/or Cultivars - *Q. acutissima*, *Q. alba*, *Q. aliena*, *Q. bicolor*, *Q. coccinea*, *Q. frainetto* 'Schmidt', *Q. imbricaria*, *Q. lyrata*, *Q. macrocarpa*, *Q. michauxii*, *Q. montana*, *Q. texana*, *Q. velutina*

Photo source: SelecTree. UFEI. "Quercus muehlenbergii Tree Record." 1995-2023. Cal Poly State University, San Luis Obispo. Accessed on Dec 20, 2023

Styphnolobium japonicum - Japanese pagoda tree

Evergreen/ Deciduous	Deciduous
Typical height	50-70'
Typical width	40-70'
Native to region?	No
USDA Hardiness Zone	4-8
Description	Large crown with pinnately compound leaves and legume fruits. Showy and fragrant white flowers can reach 12" in length in the summer.



Tree Site Conditions and Constraints

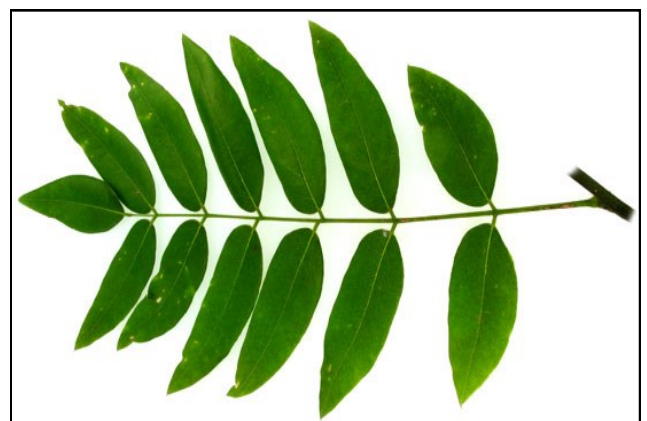
Water use	Medium
Soil pH	Very Alkaline to Very Acidic
Litter issues	Dry Fruit, Twigs
Sidewalk damage potential	Low
Pest vulnerability	Canker and Spider Mites
Climate change resilience	Moderate



Above:
Growth habit

Left: Fruit

Below:
Leaflet



Street Tree Uses

Minimum tree planting width needed	7'
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Other Species &/or Cultivars - 'Pendula', 'Princeton Upright', 'Regent', 'Varigeta'

Photo source: SelecTree. UFEI. "Styphnolobium japonicum Tree Record." 1995-2023. Cal Poly State University, San Luis Obispo. Accessed on Dec 20, 2023.

Taxodium distichum - bald cypress

Evergreen/ Deciduous	Deciduous Evergreen
Typical height	50-70'
Typical width	25-35'
Native to region?	No
USDA Hardiness Zone	4-10
Description	Attractive, stately deciduous evergreen tree that can grow in wet or dryer environments. Knees can be a problem in turf grass.



Above:
Growth habit

Left: Bark

Below:
Leaves and fruit



Tree Site Conditions and Constraints

Water use	Medium
Soil pH	Very Alkaline to Slightly Acidic
Litter issues	Dry Fruit
Sidewalk damage potential	Moderate
Pest vulnerability	Root Rot, Beetles, Spider Mites
Climate change resilience	High

Street Tree Uses

Minimum tree planting width needed	7'
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Other Species &/or Cultivars - 'Apache Chief', 'Fastagata', 'Lindsey's Skyward', 'Monarch of Illinois', 'Pendens'

Photo source: SelecTree. UFEI. "Taxodium distichum Tree Record." 1995-2023. Cal Poly State University, San Luis Obispo. Accessed on Dec 20, 2023

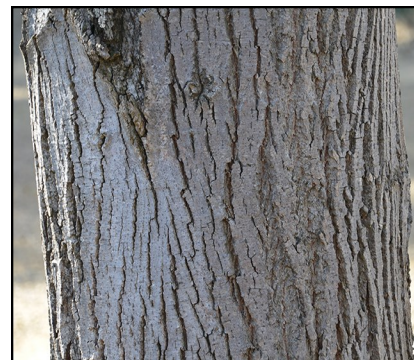
Tilia tomentosa - silver linden

Evergreen/ Deciduous	Deciduous
Typical height	50-60'
Typical width	25-35'
Native to region?	No
USDA Hardiness Zone	4-8
Description	Beautiful shade tree with silvery tomentose on the underside of leaves. Dense crowns with a pyramid-oval shape. Fragrant flowers attract bees in summer.



Tree Site Conditions and Constraints

Water use	Low
Soil pH	Very Alkaline to Slightly Acidic
Litter issues	Dry seeds and leaves
Sidewalk damage potential	Moderate
Pest vulnerability	Root Rot, Aphids, Japanese beetle
Climate change resilience	High



Above:
Growth habit

Left: Bark

Below:
Leaves and
flowers



Street Tree Uses

Minimum tree planting width needed	7'
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Other Species &/or Cultivars - 'Brabant', Green Mountain', 'Satin Shadow', 'Sterling'

Photo source: SelecTree. UFEI. "Tilia tomentosa Tree Record." 1995-2023. Cal Poly State University, San Luis Obispo. Accessed on Dec 20, 2023