

Chapter Three: Right Tree, Right Place, Right Reason



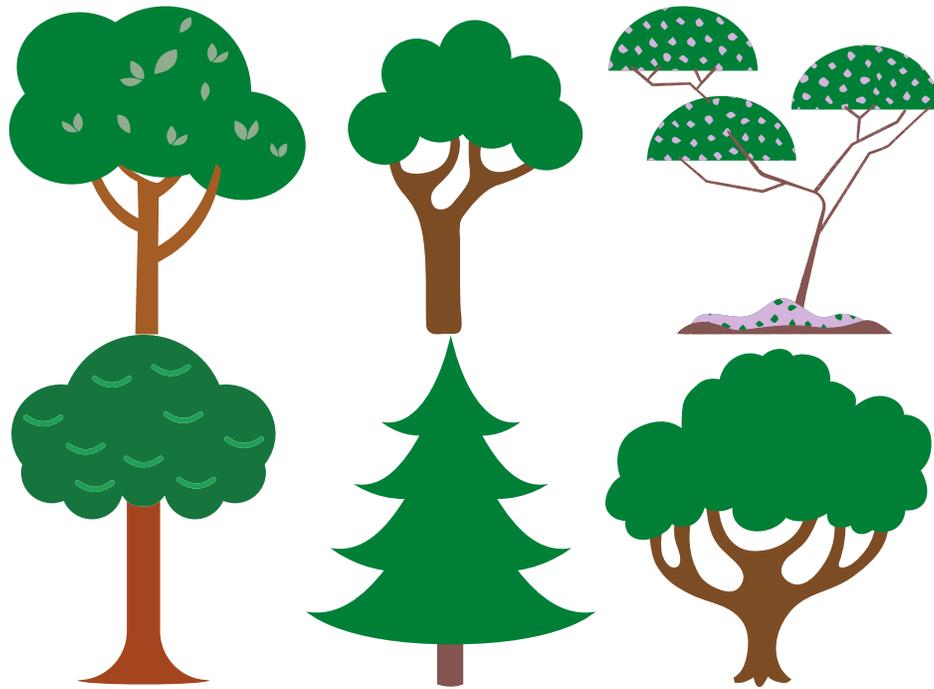
Right Tree, Right Place, Right Reason.

The first challenge of selecting the right species is matching the tree to the space. Different tree species have different conditions in which they will be able to thrive. For example, some species grow well in the understory of a forest but will not do well with too much heat or direct sunlight. Other species need a lot of space to spread out their branches. It is important to match species needs with the available planting space.

There are a myriad of different tree benefits that can be identified during the planting process and each tree species can complement an area differently. For example, if you want to plant a tree to provide dense shade, it is important to pick a tree species that has a wide canopy. Trees can also form natural barriers to light and noise pollution and can provide privacy from the street. Matching the right tree to the right place has many benefits, including higher survival rates.

There's a lot that goes into deciding on the right tree for the right place, and sometimes it can feel overwhelming at the beginning. That is okay! Many of the most important factors can be easily identified once you know what you're looking for. It can be difficult to balance the competing needs of the surrounding infrastructure with the needs of the tree and the needs of the resident you're talking to, especially when space is limited.

Understory: The layer of plant life underneath the tree canopy



Tree Selection

Part of your job as a Tree Ambassador will be finding "viable" or available planting locations within your community. Planting trees in urban settings can be more complicated than you might think. There are many types of infrastructure that can come into conflict with a tree. Unfortunately, because we are most often planting trees after all other infrastructure has been installed, we are often limited in where we can plant trees and what species we can plant.

You've probably seen trees that were planted in the wrong place that are growing into buildings, lifting sidewalks, or covering a stop sign. Planting the wrong tree in the wrong place is bad for the tree's health and can cause problems for surrounding communities and infrastructure.



To start, focus on...

Soil type and Compaction.

The categorization of soil based on texture and infiltration. Soil texture tells us how much sand, silt, and clay we have in our soil. Soil infiltration shows how fast your soil drains water. Compact soils have reduced infiltration.

Sunset Climate Zone.

A measurement of length of growing season, timing and amount of rainfall, winter lows, summer highs, wind, and humidity. This data is taken and categorized into zones.

Soil Moisture.

the amount of water contained in the soil just below the surface

Available Light.

The amount of direct sunlight that the area receives in a day

Biodiversity.

An Urban Forest should be no more than 10% of the same species, 20% of the same genus and 30% of the same family

Space Above Ground.

The available space for tree canopy to grow. This can be limited by power lines and other trees.

Space Below Ground.

The available space for root growth underneath the surface. Utility lines and sidewalks can limit the space availability.

It's possible that multiple tree species will do well in the planting location that you're considering. When you have options, take a look at surrounding trees and see what species are nearby and seem to be thriving. But be careful not to plant only one species; tree diversity within an urban forest is important to protect against the spread of diseases or pests.

Selecting the Right Tree

Urban trees can live anywhere from 40 - 100+ years if cared for properly, so it's important to be thoughtful when planting a new tree. Take into consideration the benefits the tree will provide, but also think about what the community may want or need from the tree.

1 What is the tree's purpose?

Trees provide many different benefits. What does the specific location you're looking at need, or which benefit matters most to the resident you're talking to? Trees make natural shade and are very effective at lowering energy use and cooling down the air. Trees can also dampen loud noises and are perfect for sheltering homes from busy streets or freeways. Trees encourage outdoor activities, boost neighborhood walkability, and provide mental health benefits. Find out what matters most.

2 Which tree characteristics does the resident like?

Trees are living infrastructure that community members will care for, see, and interact with for years. For example, deciduous trees or trees with large flowers will shed their leaves, fruit, and flowers. Some residents may want a flowering tree because they like the way it looks, while others may not want to deal with cleaning up the flowers and leaves that fall. In contrast, evergreen trees will retain their leaves throughout the year. Evergreen trees will have less maintenance attached but will not have the seasonal changes that some homeowners enjoy. It is important to talk to the resident to find out which characteristics they like in a tree to narrow down the search for the right species.

Deciduous vs. Evergreen

Deciduous Trees shed their leaves in autumn and regrow them when temperatures and day length increase, usually in spring.

Deciduous Tree's leaves dramatically change color, usually from green to red, during the fall.

Because Deciduous Trees have no leaves in the winter, they allow more sunlight to shine on houses, keeping them warm.

Deciduous trees have many types of leaf shape including: star, heart and oval!

Also known as Coniferous Trees, Evergreen trees keep their leaves all year round.

Evergreen trees remain green throughout the year and will regrow any leaves that fall off!

Evergreen trees are the best trees for privacy and security because they will shelter your house all year round.

Evergreen trees usually have needle shaped leaves!



Spacing Guidelines



Trees need space to fully thrive so that they don't cause problems in the future. Trees can create physical conflicts when they are too close to existing infrastructure, or they can create sight conflicts when they grow in a way that might obstruct the vision of a driver at a stop sign, for example.

3 Is there available space?

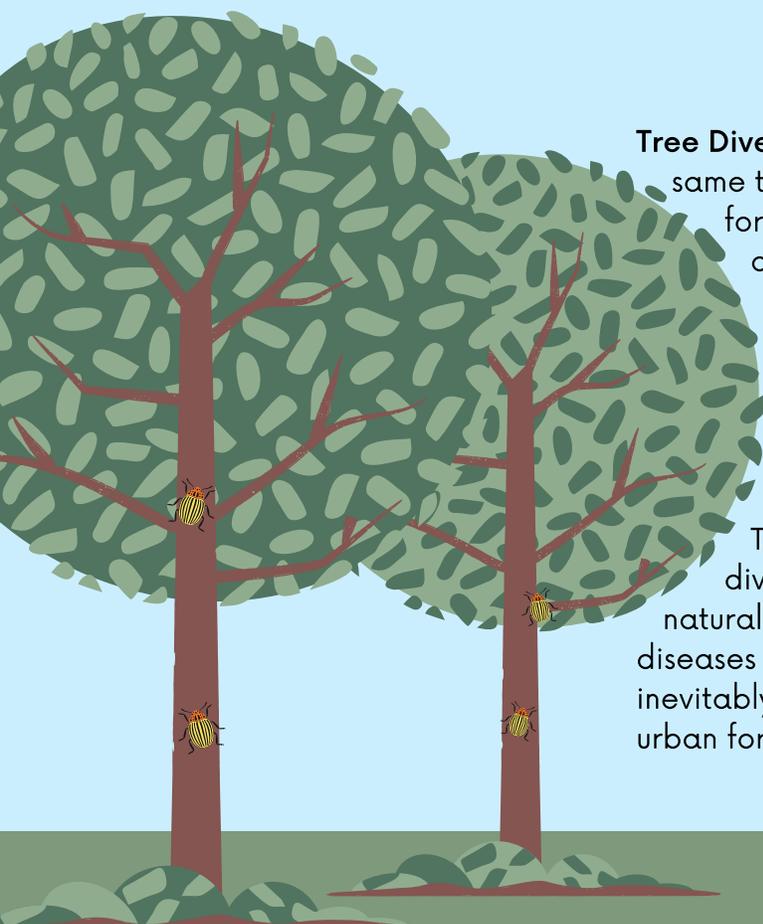
In order to have the healthiest tree possible, it's important that the tree has enough space to fully grow. Proper spacing includes consideration to the area above ground — existing trees, electrical power lines and wires, etc. — and the area below ground — pipes, sidewalks, etc.

4 Would this cause a sight conflict?

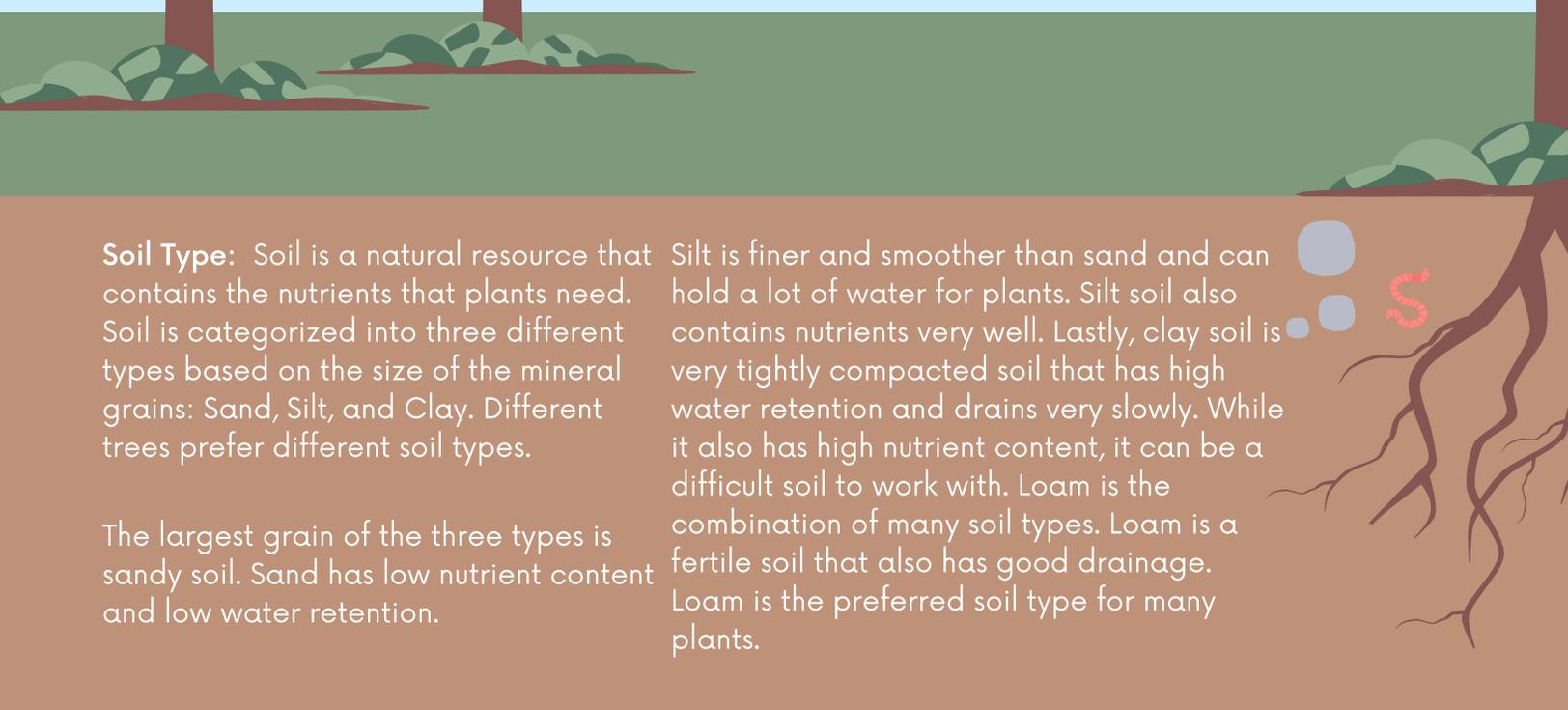
It is important that people are able to drive, bike, walk, and travel around the city safely. To ensure everyone's safety, the City requires that trees are not planted where they would obstruct views. This includes covering up traffic signs or blocking sightlines at intersections.

ENVIRONMENT

The urban forest refers to any and all trees within a city and includes many naturally forested areas, most of our urban trees have expanded. This means that we have to continue to plant, care for, and sustain our share of the urban forest.



Tree Diversity: Planting too many of the same tree species can make the urban forest vulnerable to pests or disease. For example, the Goldspotted Oak Borer is devastating oak trees in many areas of California, especially San Diego. If we only planted oaks in Los Angeles, the beetle could destroy the urban forest. To avoid this situation, we plant a diversity of trees. Some trees will naturally be resistant to certain pests and diseases and so when a pest or disease inevitably arrives only a portion of our urban forest will be affected.



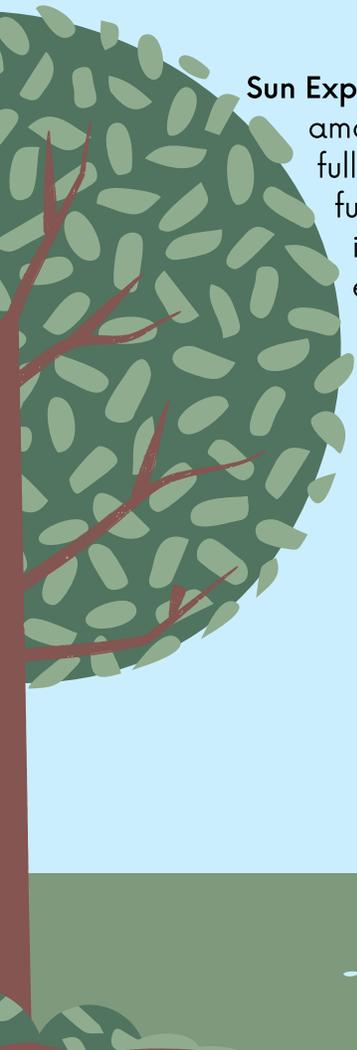
Soil Type: Soil is a natural resource that contains the nutrients that plants need. Soil is categorized into three different types based on the size of the mineral grains: Sand, Silt, and Clay. Different trees prefer different soil types.

The largest grain of the three types is sandy soil. Sand has low nutrient content and low water retention.

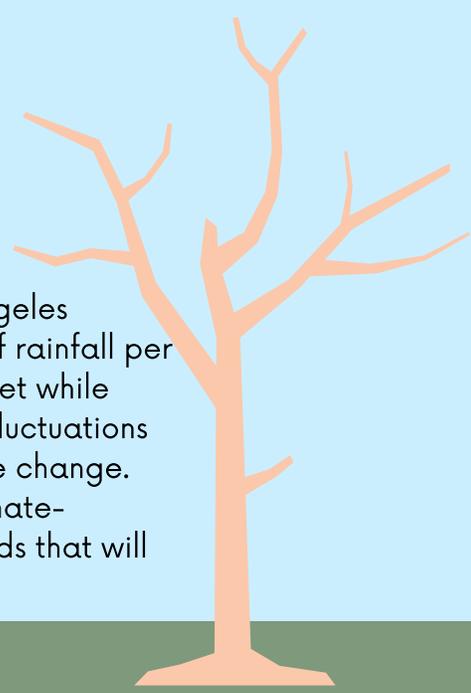
Silt is finer and smoother than sand and can hold a lot of water for plants. Silt soil also contains nutrients very well. Lastly, clay soil is very tightly compacted soil that has high water retention and drains very slowly. While it also has high nutrient content, it can be a difficult soil to work with. Loam is the combination of many soil types. Loam is a fertile soil that also has good drainage. Loam is the preferred soil type for many plants.

NTAL FACTORS

and the canopy they create. While Los Angeles' urban forest trees were planted by people as the City developed and are for, and manage the trees in our communities in order to ed urban forest.



Sun Exposure: Tree species require different amounts of sunlight in order to grow to their full potential. Some trees prefer to grow with full sun exposure, while others prefer to grow in the shade. Trees that need full sun exposure may not thrive if they are planted in the shade and vice versa.



Climate-Appropriate Species: Los Angeles receives an average of 14.73 inches of rainfall per year. However, some years are very wet while others are very dry, and those yearly fluctuations are expected to increase with climate change. This means it is important to plant climate-appropriate trees with low water needs that will be able to survive drought conditions.



Stormwater Capture: If you see an area in your neighborhood that is consistently flooding, planting a tree might help. Climate change is expected to increase the seasonal variation of rainstorms. This means that the intensity of heavy rainstorms will also increase. When these storms happen, trees help capture stormwater runoff by absorbing it in their canopies and into the soil. Trees also assist in recharging groundwater. Tree roots can penetrate highly compacted soil that would normally have difficulty absorbing water.

Soil pH: Soil pH is a way of measuring whether your soil is basic, acidic, or alkaline. If your soil is too acidic or basic, you may be limited in what you can plant.



FREE TREE PROGRAMS IN LOS ANGELES

The City Plants Collaborative offers free shade trees to plant in your yard, on private property, and in your street in the parkway — that strip between the sidewalk and the street. If you live in the City of Los Angeles, you are eligible to receive free trees from City Plants.



Yard Tree Delivery Program

We'll deliver up to seven free, water-efficient shade trees straight to your door, along with stakes, ties, and fertilizer pellets to get your trees started off right.



Yard Tree Adoption Program

Don't want to wait for a yard tree delivery? Find us at a community event near you and take home your very own yard tree that same day or host an adoption of your own.



Street Tree Program

Are you lacking street trees in front of your home, apartment, school, or business? Sign a Commitment to Water form today and we'll take care of the whole City process of permitting and planting your street trees for you. All you have to do is water them!



Sign Up Your Whole Block for Street Trees

Go door to door and sign up your neighbors for new street trees by collecting their signatures as a "Commitment to Water" the new street tree.



Community Tree Planting Event

Roll up your sleeves, grab a shovel, and join us for a fun-filled, family-friendly tree planting! You can also work with nonprofits in L.A. to host a tree planting event on your block.



Private Property Trees

Private property trees make up 90% of L.A.'s urban forest! Planting trees in front, back, or side yards is one of the best ways to increase canopy, protect our neighborhoods from climate change, and save energy.

Did you know a single mature tree can provide the cooling equivalent of up to 10 air conditioners operating 20 hours a day? The right tree in the right place can reduce cooling costs by up to 30%.

It's best to plant trees a minimum of 15 – 20 feet away from a foundation, to the west or east side of a building. "West is best" for reducing energy costs, as the trees will shade your home in the hot afternoon sun. Planting trees on the east side of your home helps shade it from the morning sun.

How to Get Free Private Property Trees

1 Sign Up Online or via Mail by Pledging to Plant & Care for Your Tree

Apply on the City Plants website for free shade tree delivery program or via snail mail by pledging to plant and water your tree. We collect data to determine energy benefits. If you prefer not to wait for delivery, attend or host an adoption event. Fruit trees are available exclusively at adoption events.

2 Sit Back and Relax

If you qualify for delivery, the LA Conservation Corps will deliver trees straight to your door. This process can take anywhere between 2 - 6 weeks, based on the volume of requests.

3 Plant Your New Tree

Once the trees are dropped off, it's time to plant! Grab a shovel and get digging — Remember, "West is best!"

4 Care for Your New Tree

Once your tree is planted, you will need to water it with 10 - 15 gallons once a week for the first three - five years while its roots get established.

We ran the math: That's only \$10/year to water your tree!



Street Trees

Public property trees make up an estimated 10% of L.A.'s urban forest — This includes both park trees and street trees.

Street trees, also called "parkway trees," provide critical shade in Los Angeles for pedestrians, bikers, shoppers, street vendors, houseless folks, and public transit-dependent Angelenos. As summers get longer and days get hotter with climate change, trees planted along streets become more and more critical to climate resilience on the local level. Like private property trees, street trees can shade buildings and cool neighborhoods, providing critical relief for Angelenos.

What is a "parkway?"

In Los Angeles, we refer to that space in between the sidewalk and the street as a "parkway." In the City of Los Angeles, sidewalks are supposed to be at least 4 feet wide. Parkway are prime real estate for urban foresters and city planners, and planting trees in parkways can pose many challenges.

As a Tree Ambassador, you'll want to target residents who have an **open parkway** — a dirt or grassy patch or an empty tree well in between the sidewalk and the street.

How to Get Free Street Trees

1 Sign Up Online or Mail With a "Commitment to Water" Form

Do you have an open parkway in front of your property? Apply on the City Plants website or via snail mail by pledging and committing to water your new street tree! You can also sign up a whole city block by going door to door.

2 Sit Back and Relax

If you qualify, and if there is space for a tree, we send an inspector and certified arborist to select the best location and tree species to plant in your parkway. We follow the City of Los Angeles' Street Tree Planting guidelines. Look for two white dots on your curb to see where the tree will be planted.

3 Street Tree Permitting With the City of Los Angeles

Once you submit your request, our teams will work with StreetsLA's Urban Forestry Division to secure a tree planting permit for street trees.

4 Street Tree Planting

One of our non-profit tree planting partners will schedule a crew to come plant your tree.

5 Care for Your New Tree

Once your tree is planted, you will need to water it with 10-15 gallons once a week for the first three-five years while its roots get established.

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City of Los Angeles Street Tree Spacing Guidelines

From the City of Los Angeles Urban Forestry Division and StreetsLA

Tree locations exist among other right-of-way infrastructure. The placement of street trees in relationship to each other and other infrastructure is important for the health and vitality of the tree as well as the additional infrastructure.

The recommended desirable distances between street trees are species specific and range from twenty-five to forty feet. Please refer to the Street Tree Selection Guide. The recommended desirable distance between street trees for subdivision projects (for estimating purposes) is thirty feet.

Street tree distances from other infrastructure are as follows:	Feet:
Water Meter/Vaults	6
Catch Basins	6
Gas Meters	8
Driveway Aprons and Crosswalks	8
Transit Shelters	10
Fire Hydrants	10
Street Lights	20
Electrical Power Poles	20
Alley Entrances	20
Intersections (45 feet from point of curb line intersect)	45
Railroad Tracks	100

What if There isn't Available Space to Plant Trees?

What if there are no open (grass or dirt) parkways in your neighborhood? What if your sidewalks are too narrow for new street trees, or even NEW tree wells? What if the block is mostly apartment units and very densely packed, with very little space for private property trees?

As we've explored, oftentimes there simply isn't space for more trees on certain city blocks due to redlining, historical dis-investment in particular neighborhoods, and city design and planning. We also know that an estimated 64% of Angelenos are renters. This makes it especially hard to find residents who can commit to a minimum of three years of watering a tree.

With these challenges in mind, how can we foster a connection between people and the planet in this complex urban ecosystem? How can we create community and protect our neighbors during this unprecedented climate catastrophe?

There are many active city and non-profit urban forestry organizations in Los Angeles that secure state and federal grants to create new tree wells, or "concrete cuts," where they don't already exist. We're also in the midst of a "tree-volution," and we're exploring — as a city — how to create space for trees where there isn't currently space. Let us know if you're interested in planting trees where there isn't already space — we may be able to help you or point you in the direction of our private property tree program!



Photo Credit: TreePeople



Hitting The Streets

As a Tree Ambassador, we invite you to speak to your neighbors about the urban forestry needs of your community. We're hoping you can serve as a resource to your community in spreading this message of right tree, right place, right reason, on both public and private property. While our training sessions hold an abundance of information, the local knowledge of friends and families living in your community hold an intimate, more holistic knowledge of the conditions of their neighborhood.

Our hope is that you will be able to respectfully engage this local knowledge to help determine where and why to plant which tree species. Remember conversations are the drivers of change.

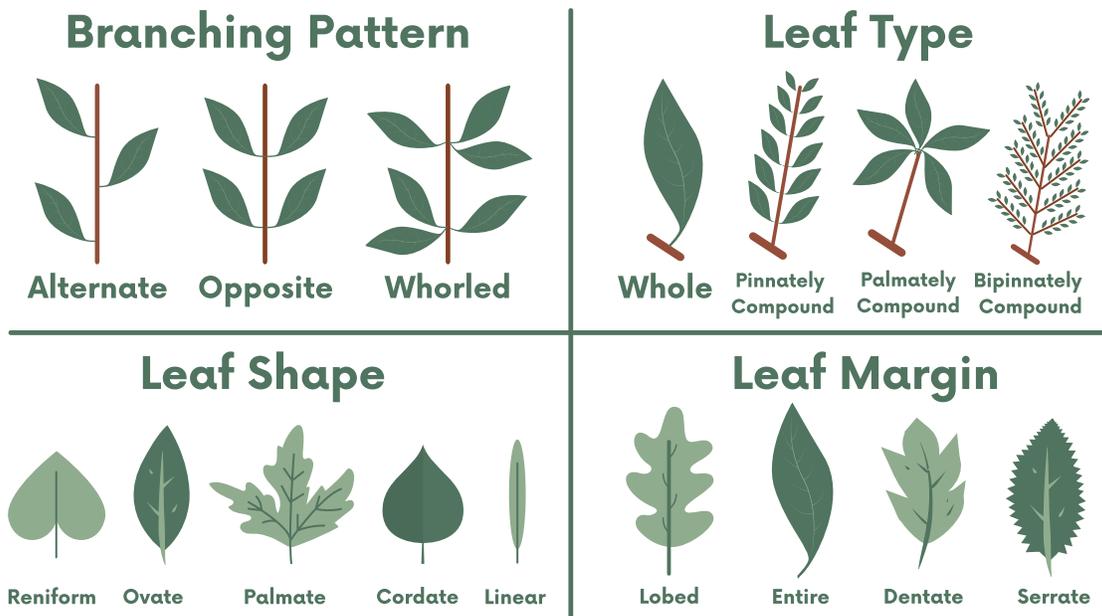
INTRODUCTION TO TREE IDENTIFICATION

Los Angeles is home to over 900 species of trees from all over the world (Sauceda 2015). We have our native Coast Live Oak, Western Sycamore and Black Walnut, ornamentals such as the Chinese Elm and Jacaranda as well as invasive species such as Eucalyptus. With so many species it is hard to keep them all straight!

With some practice and learning how to use keys, we hope to introduce you to a handful of the wonderful species of our urban forest.

Knowing a tree's name is the first step towards understanding its needs, individuality, and ecosystem services it provides to your community.

Leaf Traits



Leaves are one of the most obvious traits of a tree and are often the easiest way to identify most species - though growth patterns, bark formations, and flowers can be a shortcut to making a positive identification.

Sometimes, leaves can be very difficult to discern or may be absent depending upon the season. Try keeping an eye out for flowers, fruit, bark texture, size, and overall growth pattern as you become familiar with the trees around you. There are many great supplemental keys, applications, and field guides available to help. Try downloading iNaturalist or Seek on your phone to use AI to help in your identifications. Practice is key! To help, we have provided a simple key to some of the most common species found throughout our urban forest.



Bronze Loquat

(Eriobotrya deflexa)

Height: 15-25ft

Defining Characteristics: Yellow fruit and white flowers. Green oblong evergreen leaves. Rounded, spreading or vase growth pattern. Non-edible fruit.

Native To: Taiwan and Southern Vietnam



Crape Myrtle

(Lagerstromia indica)

Height: 15-20ft

Defining Characteristics: Lavender, pink, red, rose or white flowers in summer. Simple, oval leaves in an alternate growth pattern.

Native To: China



Western Redbud

(Cercis occidentalis)

Height: 15-20 ft

Defining Characteristics: Reniform leaves, bean pod, and pink flowers. Erect or spreading low, deciduous canopy.

California Native



Jacaranda

(*Jacaranda mimosifolia*)

Height: 25-50ft

Defining Characteristics: Blue or lavender flowers in Spring, Summer or Fall and bipinnately compound leaves

Native To: Northwestern Argentina and Bolivia



Holly Oak

(*Quercus ilex*)

Height: 50ft

Defining Characteristics: Acorns
Dark green, elongated, evergreen leaves. More erect than Coast Live Oak.

California Native



Weeping Bottle Brush

(*Callistemon viminalis*)

Height: 15-20ft

Defining Characteristics: Red showy flowers in Spring or Summer with brown fruiting capsules in the Fall. Linear leaves with weeping branches.

Native To: Australia



Drake Chinese Elm

(*Ulmus parvifolia* 'Drake')

Height: 45ft

Defining Characteristics: Light colored peeling puzzle piece bark with draping alternate leaves.

Cultivar Species

Cultivar: a plant variety produced by selective breeding



Coast Live Oak

(*Quercus agrifolia*)

Height: 20-70ft

Defining Characteristics: Acorns. Dark cupped, and serrated evergreen leaves growing in rounded or spreading shape.

California Native



Canary Island Pine

(*Pinus canariensis*)

Height: 50-80ft

Defining Characteristics: Pinecones. Bluish green to silver evergreen needles.

Columnar growth pattern.

Native To: Canary Islands of Spain

Columnar: Resembling an upright pillar or column.



Mexican Sycamore

(Platanus mexicana)

Height: 50ft

Defining Characteristics: Light colored bark with simple palmately lobed alternate leaves.

California Native



Olive Tree

(Olea europa)

Height: 35ft

Defining Characteristics: Inconspicuous, fragrant flowers in spring. Opposite linear leaves and small dark fruit.

Native To: The Mediterranean Region



Golden Medallion Tree

(Cassia leptophylla)

Height: 20-25ft

Defining Characteristics: Yellow showy flowers in the Summer.

Native To: Brazil



Mesquite

(Prosopis glandulosa var: torreyana)

Height: 25-35ft

Defining Characteristics: Alternate, bipinnately compound leaves. Dry fruit and legumes.

Native To: Southwestern United States



Peppermint Tree

(Agonis flexuosa)

Height: 25-35ft

Defining Characteristics: Showy, white flowers in Spring or Summer. Fragrant leaves. Alternate linear leaves.

Native To: Western Australia



Pink Trumpet

(Handroanthus heptaphyllus syn. Tabebuia impetiginosa)

Height: 25ft

Defining Characteristics: Pink flowers in Spring or Summer

For a comprehensive list of available street and yard tree species visit www.cityplants.com





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TU CIUDAD. TU VOZ. TU BOSQUE URBANO.**