UNIVERSITY OF LOUISIANA AT LAFAYETTE

Campus Forestry Policy

I. Introduction

The University of Louisiana Lafayette finds it necessary to establish a Campus Forest Management Policy in order to honor the heritage of this University and to protect the legacy established by Dr. Stephens. Dr. Edwin Lewis Stephens was 27 years old when he was named the first president of Southwestern Louisiana Industrial Institute (now the University of Louisiana at Lafayette) on Jan. 23, 1900. SLI, which was created by the Louisiana Legislature in 1898, had no campus, no faculty, and no students.

Dr. Stephens began to build it from the ground up. In January 1901, Stephens planted oak seedlings on campus. Many flourished, a few remain —at the intersection of University Avenue and Johnston Street —and are known as the Century Oaks. The University of Louisiana Lafayette's Campus Forest Management Policy identifies practices and procedures for the proper care and management of the urban forest on the University campus.

This Campus Forest Management Policy establishes long-term vision and direction for this resource by creating clear policies for tree planting, protection, preservation, maintenance, and removals. The overarching goal of this Campus Forest Management Policy is to ensure a vibrant, attractive, safe, and sustainable campus forest that provides benefits to students, faculty, staff, and the community it serves.

II. Purpose

The purpose of this Management Policy is to establish a protocol to guide tree planting, protection, preservation, maintenance, and removals, that allows for sustainable campus forestry management. The University of Louisiana Lafayette campus forest is a vital asset to the community. It is only through sound practices, policies, and responsible stewardship that it will be conserved and managed to provide environmental, social, and economic benefits today and into the future.

Specific Policy objectives include:

- Maintain and protect existing campus trees and woodlots by developing specific protocols for preserving campus trees. Protocols will delineate allowable procedures and requirements prior to and during all phases of construction and development.
- Continue to promote biodiversity on campus through the wide use of appropriate trees as drawn from the relevant required tree lists.
- Ensure that all trees requiring removal due to mortality, injury , or construction impacts are replaced in a timely and consistent manner.

- Encourage and promote campus tree health by utilizing International Society of Arboriculture (ISA) best management practices and adhere to following Plant Health Care (PHC) principles.
- Periodic updating of the Campus Tree Inventory to include refreshed data, new property acquisitions and upgrading tree locations with geographic information system (GIS) coordinates.
- Maintain a no net loss of campus canopy coverage.
- Reduce the urban heat island effect through strategic planting of shade trees.
- Beautify campus with our natural assets and provide seasonal interest to campus with a variety of tree species.
- Promote the health and wellness benefits of preserving green urban spaces and urban forests.
- Encourage campus community members to respect the campus urban forest and take pride in its placemaking value.
- Measure and report the environmental benefits of our campus forest, such as reducing heating and cooling costs, carbon sequestration, water retention, wildlife support, air purification, noise buffering, and reducing temperatures around high traffic pedestrian paths.

III. Responsible Department

The Campus Forestry Plan will be led by the Director of Sustainability and Office of Sustainability in collaboration with the Facilities Management Department, Campus Planning Committee, Campus Tree Advisory Committee, and the President of the University.

IV. **Campus Tree Advisory Committee**, terms of the representatives, and role committee plays.

The Campus Tree Advisory Committee will monitor the progress and adherence to the Campus Forestry Plan. The Committee will develop annual goals, guide priority areas for tree planting, and seek funding for tree planting and maintenance. The Committee will annually review the campus tree inventory and make recommendations for updates to the tree species selection list, accordingly.

The Campus Tree Advisory Committee will meet at least once in the early spring and once in the early fall semesters.

The Campus Tree Advisory Committee Shall consist of:

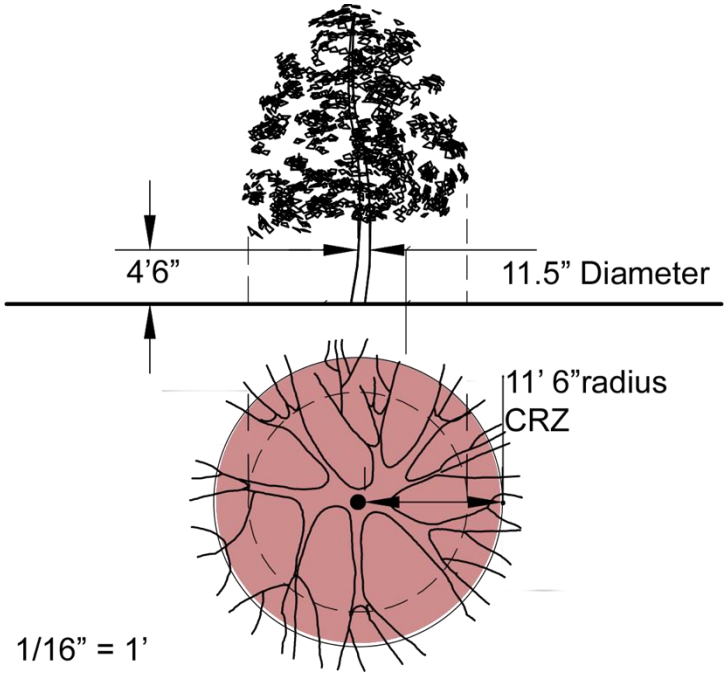
i) Director of Sustainability
ii) Campus Arborist
iii) Director of Facility Planning
iv) University Architect
v) Landscape Architect

vi) 1-2 School of Architecture Staff
vii) 1-2 School of Geosciences Staff
viii) 1-2 Facility Management Staff
i) 1-2 Sustainability Staff
ii) 1-2 Student Body Representatives – upon recommendation by Faculty
iii) Current Contractors
iv) Other Appropriate Staff Representatives

V. Definitions

1) *Campus Arborist (CA) :* An arborist is a specialist in the cultivation and care of trees and shrubs, including tree surgery, the diagnosis, treatment, and prevention of tree diseases, and the control of pests. The Campus Arborist is the person whose job is to take care of trees and make sure that they are healthy and safe on a University Campus.
2) *Critical Root Zone (CRZ):* The *critical root zone*, or CRZ is defined as the portion of the root system that is the minimum necessary to maintain vitality or stability of the tree. Encroachment or damage to the critical root zone will put the tree at risk of failure.
    a. The CRZ is determined by measuring a radius at a height of 4.5' on the tree's trunk that is equal to one foot for each inch of tree diameter. CRZ = 12" x Diameter"
    b. (*Example: a tree with an 18" trunk diameter would have a CRZ of 18' from the trunk of the tree.)*

CRZ Diagram:



Note: "Drip line" and CRZ are not always synonymous.

3) *Drip Line:* The drip line is the area defined by the outermost circumference of a tree canopy where water drips from and onto the ground.

4) *Grade Changes:* Grade changes are any changes in the level of the ground, which is if soil is added or removed.
5) *Trenching:* Trenching is the act of digging a trench or trenches in the ground.
6) *Tunneling:* Tunneling is the act of digging or forming a horizontal tunnel, in this case in regard to utilities or structural work.
7) *Pruning:* Pruning means to cut off or cut back parts of for better shape or more fruitful growth

8) *Boring*: Boring refers to the creation of a horizontal hole underground without disturbing the surface using directional drills and horizontal augers.

VI. General Maintenance

a) Refer to the University's Landscape Standards for Landscaping standards and maintenance requirements.
b) Inspect and assess trees annually and submit an annual report in January to the Campus Tree committee. Document tree data with the location, canopy size, trunk diameter, tree health, estimated planting date, species, special maintenance factors, tree risk factors, and the next scheduled maintenance.
c) The Office of Facilities Management and Office of Sustainability is responsible for all tree care, maintenance, and ongoing strategic planning.
d) Follow ANSI A300 standards.
e) Apply Integrated Pest Management and nontoxic pest control.
f) Install cables and braces when necessary. Cables and braces help straighten trees, support weak branches, and minimize canopy movement to reduce wind damage. Follow ANSI cabling and bracing standards. Consult with the Campus Arborist.
g) The area within the drip line of the tree shall be protected and preserved.
h) Do not use a weed whacker within 3 feet of the trunk of a tree. Hitting a tree with a weed whacker can lead to disease and eventual death of the tree. The tree's circulatory system is just under the bark; injuries to the area interfere with water, nutrient and starch transport between the roots and leaves.
i) Thinning/ structurally pruning may be done to increase the resistance of the stand to environmental stress such as drought, insect infestation, extreme temperature, and to prepare for storm damage.
j) Contact and consult with the City of Lafayette if street trees need to be pruned to allow for proper vehicle clearances.
k) Pruning at the time of planting should also include removing damaged or diseased branches.
l) Remove fallen, damaged, diseased, broken(widowmaker) branches in timely fashion.
m) Maintenance during establishment includes watering, fertilizing, and mulching when needed.
n) Use mulch and fertilizer created from the cade farm composting effort.
o) Maintenance to ensure the integrity and health of the campus forest shall be regular, ongoing, and responsive to climate conditions.
p) In the event of a natural disaster / severe weather event, fallen trees and branches shall be removed by Facilities Services staff or an outside tree removal company in a timely manner. Clearing trees off streets is the number one priority

followed by entrances and exits to buildings, pathways, and any other areas with debris.

q) After a natural disaster / severe weather event inspect the integrity of all trees/branches that pose a potential threat to nearby buildings.

VII. Prohibited Practices:

a) Planting a tree without authorization from the proper channels.
b) Removing a tree without authorization from the proper channels.
    i) Authorization from the proper channel's include contacting the Campus Arborist, the Tree Campus USA committee, and conduct a Louisiana one call (According to the Louisiana Underground Utilities and Facilities Damage Prevention Law 811 must be called before digging).
    ii) The only time removal is allowed without proper approval is in an emergency to protect public safety.
c) Attaching signs or objects to trees is not allowed.
d) Line trimming and mowing around the trunk and base of trees is prohibited to prevent tree injury.
e) Locking bikes or objects to a tree is not allowed.
f) No tree should be topped unless an emergency warrants top removal.

VIII. Removal

a) Tree removal is a last resort. If a tree is removed the tree must be replaced with a tree that is equal to or greater than the value of the original tree at an approved location.
b) Any damage to trees shall be assessed by facility management and the campus Arborist. If the damage warrants removal, then the tree must be replaced with a tree that is equal to or greater than the value of the original tree.
c) Trees are allowed to be removed with authorization from the proper channels to protect public safety, with development of the master plan, or if they detract from the quality of the landscape.
d) If a tree needs to be relocated and funding is available to move it should be relocated with the guidance of the Tree Campus Committee.
e) If a single tree or a group of trees need to be removed, please consider that in most cases, groups of trees are stronger and thus more desirable than single specimens.

IX. Plant Selection

a) When possible plant native, non-invasive species with approval from the campus arborist.
b) Avoid planting species that have special conditions or need special care for the local enviroment.
c) Select diverse trees from the approved species list when applicable.
d) Approved species list developed by the University's Landscape Architects: refer to the University's Landscape Standards for list of approved species

X. Tree Inventory

a) A digital tree inventory in Tree Plotter covering the research park and main campus is being developed by the Office of Sustainability and Facilites Managements with assistance with AmeriCorps. The inventory may be used for campus planning purposes, tree management, public knowledge, academic exercises, and preserving a historical record of our campus forestry.
b) A digital record of the tree inventory will be updated and amended to the Tree Care Plan each year.

XI. Protect Roots

a) Do not trench around roots. Trenching through the soil at any depth can cut and kill roots.
b) Ensure drainage is clear. Blocked drainage will result in wet soggy soil. Wet soil kills roots with too much water and not enough air.
c) Maintain any irrigation systems. Irrigation systems should be frequently inspected to ensure ther are no leaks in systems which may damage trees.
d) Do not use chemical fertilizers, herbicides, because anything chemical based can damage the soil ecosystem supporting tree (plant) growth, directly or indirectly damaging/killing roots. The University expends resources (composted mulch, microbe culture and organics injected into root zone) to reinforce these supportive microbes and it is senseless to damage that with chemicals. Refer to the Intergrated Pest Management Plan for more details.
e) Contractors must protect trees during work and are not allowed to park, drive on, store materials, and/or build on tree roots. Soil compaction reduces the amount of air and water that can penetrate the soil into the root zone and harm the tree. Trees need to stay hydrated and oxygenated. Roots often extend past the drip line so the entire area around trees should be observed and steps should be taken to protect the tree's and their roots.
f) Landscape plans for the introduction of new plants under trees should consider irrigation needs of the tree first and follow the University's Landscape Standards.
g) Do not add soil over tree roots. Tree roots need oxygen and dumping a thick and compacted layer of dirt on the roots can suffocate them.

h) Exposed tree roots do not need to be covered with mulch unless they are threatened by mechanical damage from lawn mowers or weed eaters.
i) Leaves that drop from oak trees on campus should be left within the drip line of the tree to act as natural mulch for the oak trees.

XII. Protection Procedures During Construction

The construction protection timeline guide is as follows:

Refer to the University's Landscape Standards in addition to this Tree Care Plan.

a) **Planning Phase-** Meet with Campus Arborist to discuss construction/development plans. Boots on ground are always better than google earth or line drawings, this is critical preplanning.
    i) Perform site survey with appropriate parties. The Director of Sustainability must be present for site surveys.
    ii) Submit a Tree Protection Plan to Tree Campus Committee. The Tree Protection Plan must detail strategies and plans to protect trees during construction. The Tree Protection Plan can be emailed to the Director of Sustainability / Head of Tree Campus Committee.
b) **Design Phase**- Meet with Campus Arborist early, mid, and late design to look over progress towards the goal.
c) **Pre-bid phase**- This is where contractors are introduced to the concept of building around important historic trees and given the opportunity to embrace the concept, rules and methods are explored, punishment for violations explained. Campus Arborist is present and is an active participant. Contractors generally may not embrace the reasons for saving trees but usually understand fences and delays if violations occur because of impacts on their bottom line.
d) **Preconstruction Phase**- Where contractor who won the bid meets with owner, with Campus Arborist present for final Q and A clarifications.
e) **Construction Phase**- There should be an inspection cycle where Campus Arborist is included as a part of the team walking through the project inspecting work to date and trees.
f) **Post Construction Phase**- Depending on how many "hits" the tree takes a schedule of remediation maintenance is designed for each tree. Maintenance should generally be ramped up for trees involved in construction projects anyway since they are often compromised by visible and invisible damage and are often less able to excel after. It is unwise to wait and see if they decline, you should assume some hidden damage and be proactive.

XIII. Preservation Procedures Durning Construction

The construction protection guide is as follows:

a) Campus Arborist, (CA) and the Tree Campus Committee decides which trees are historic or essential to the university's mission. The priority/protected trees on the site must be protected before work begins until work is over. Priority/ protected trees shall be inspected throughout the construction phase of the project.
b) Build a substantial and semi-permanent fence that protects the Critical Root Zone and the drip line of the tree that is to be preserved. Fence must be built before site preparations begin and must be left in place until after all contractors are off-site, contracts are completed. Apply 3-4" of composted wood chip mulch inside the newly constructed fence. This work per CA.
c) This fence is to remain in place unless the campus CA gives permission to open or remove it. Nothing heavier than a man and a wheelbarrow will be allowed within CRZ. In the event equipment must traffic over CRZ, a 18" layer of wood chip mulch, minimum, must be applied to the travel lane with a hand-built board road designed to support said equipment applied over that. Per CA.
d) Any root removal cuts due to interfering roots must be made with a chainsaw by a licensed arborist. Backhoes are not the right tool. Any needed pruning of the canopy must be done by a licensed arborist.
e) Boring under roots zone is always preferred over trenching.
f) In addition to mulching CRZ, prepare trees to be preserved by reinforcing supportive microbes and feeding beneficial, supportive microbes with organic materials before, during and post work. Per CA.
g) Any tree questions or concerns should be addressed with CA present as they arise.
h) The addition of irrigation is not an option for the CRZ because of the damage the excess water causes. Irrigation systems always leak and always eventually cause damage.

XIV. Per UL Landscape Standards Contractors must:

a) Root prune existing tree(s) to the depth of one foot a minimum of two months before the onset of construction, taking care not to cut the deep buttressing roots.
b) This protection zone must be flagged and staked, with no heavy access permitted.
c) Branches interfering with construction must be base pruned by a licensed certified isa arborist according to accepted standards.
d) The setting of piles or point foundations should proceed from within the future building area, and be approached from within the future driveway or accessed from the side opposite from the existing woodland.