Management Plans for Tree Campus USA

Karina Leung - Center for Sustainability, Agnes Scott College
Chris Hughes - Brookwood Tree Consulting
Agnes Scott College

Overview

Problems to solve

Connect the Vision

Process
Overview

Trees have been a main feature of Agnes Scott’s campus from its initial founding over 125 years ago. Today’s campus is 100 acres and has a canopy of approximately 2000 trees.
54%

2018 Canopy Coverage
4% Increase from 2010
Internal college goal is 45%
Agnes Scott Arboretum

Formed in 2012 after a two year process started by a faculty member and student intern in what is now the Center for Sustainability

ArbNet Level II Accreditation in 2019

100+ unique species

Current goal of completing collection of Georgia native oaks will be completed in 2020

Initial construction of a Mulch Plan for the campus
“The spirit infusing the enterprise would not be the furnishing of answers, ‘This is a pecan tree,’ but the eliciting of meaningful questions, ‘What does a pecan tree have to do with me?’”

Jim Abbot - Former ASC Professor and Leader in creating the Arboretum
Agnes Scott Arboretum

The arboretum is an extension and reflection of the liberal arts curriculum.

Tree Walk includes 17 stops with QR prompts featuring a new way of interacting with organisms that play such an important role in our daily lives.
Honor Tree Plantings

Recognizes faculty and staff with more than 20 years of service by planting a tree in their name

Over 40 trees have been planted since 2008

Several honorees have multiple trees
Problems to solve - Connect the Vision

1. Why does Agnes Scott need a Management Plan?
2. How can we create a Management Plan that is innovative and helps us grow over the next five years?
3. How can our Management Plan actively engage campus community with our trees?
Connect the Vision
Why did Agnes Scott Need a Management Plan?

1

Connect with the College’s Mission Statement

“Live honorably and engaging in the social and intellectual challenges of our time”

Arboretum wasn’t created solely to identify species, but to situate trees in the broader context of liberal arts studies.
Why did Agnes Scott Need a Management Plan?

1

Sustainability at Agnes Scott - tackling the challenge of environmental stewardship, committing to education and leadership in sustainability, and seeking to balance what the college takes from and returns to the world’s natural resources.

Climate Action Plan - ASC Administration signed American College & University Presidents’ Climate Commitment in 2007.

Reduce carbon emissions 50% by 2022 and carbon neutral by 2037.
**Why did Agnes Scott Need a Management Plan?**

1. **Build on 2014 Urban Forestry Sustainability and Management Audit**

Model USFS program aimed to raise ASC level of professionalism in urban forest management, optimize this management for ecosystem services, and increase the health of the green assets managed by the program.

ASC original Management for Tree Campus USA
How can it be innovative?

2

Have a Purpose.

Understand why Agnes Scott wanted to manage the tree canopy and what is its significance.

Work with Arboretum Advisory Committee to set goals in from what to plant to how to incorporate tree canopy into curriculum.
How can it be innovative?

Connect with Agnes Scott’s goal of being climate neutral by 2037.

Maintaining a diverse tree canopy accomplishes the practical purpose of improving air quality and reducing energy costs.

By uptaking carbon from the atmosphere, the tree canopy helps increase offsets needed for climate neutrality.
How can it be innovative?

2

Act with intent.

Incorporate trees into construction plans and proactively manage trees to align with how spaces are used.

Establish rapport with Facilities to ensure these goals.
How can it actively engage campus?

Education Goals - Agnes Scott College strives to accomplish the following goals related to Arboretum education:

- Increase interdisciplinary thinking and connectivity between information gained in the classroom and experiential learning
- Increase student, staff, faculty, alumnae, and surrounding community awareness and utilization of the natural resources on campus and their benefits
- Continue education programs and appropriate documentation to maintain Tree Campus USA status and Morton Arboretum accreditation
- Annually plan educational programming within the Arboretum Advisory Committee and other related entities
How can it actively engage campus?

3

Service Goals - Agnes Scott College strives to accomplish the following goals related to Arboretum education:

- Increase student, staff, faculty, alumnae, and surrounding community participation regarding the care and maintenance of the Agnes Scott Arboretum and College landscape
- Support on and off campus efforts to increase environmental stewardship and awareness
- Continue service programs and appropriate documentation to maintain Tree Campus USA status and Morton Arboretum accreditation
- Maintain the college's landscape by removing invasive vegetation through an annual campus-wide event
Canopy Dynamics

[Bar chart showing the distribution of tree angles by category: <6°, 6-12°, 12-18°, 18-24°, 24-30°, >30°. The categories are represented by different colors: Total Trees (purple) and Exc/Good Trees (brown).]
Through analyzing Canopy Dynamics generated from updating our campus inventory, we identified key trends that would influence tree care programs in the near future.

Trend 01

Trees less than 12” diameter

50%

Trend 02

Trees larger than 30” diameter (approximately 15%) and 25% are in Fair or Poor condition

80
Our solution

TREET CARE PLAN
2020-2025

Agnes Scott College
Center for Sustainability
141 E. College Ave.
Decatur, GA 30030
404.471.2200
A Serendipitous Meeting

Susan Kidd, ED of the Center for Sustainability ran into Karina Leung ‘18 right after her graduation ceremony under the canopy of the magnolias.

After this meeting, Karina became the arboretum intern tasked with writing the college’s tree care plan from August 2018 to January 2019.
Process

1. Research
   Evaluated other Management Plans. Learned a lot about technical tree care, but noticed they lacked identity and connection.

2. Engage with campus
   Met with Facilities, Arboretum Advisory Committee, and students to identify needs, wants, and goals

3. Draft and Adopt
   Systematic process with reviews before being adopted campus wide
Picked a Starting Point

Tree-related programs in Atlanta/Georgia, then looked at other arboretum websites across the nation

- Trees Atlanta and the work on the Beltline; Atlanta Botanical Gardens

Visited different tree parks in Atlanta

- Woodlands Garden in Decatur; Deepdene section of Olmsted Linear Park in Atlanta

Researched common tree species in Georgia
Researched Policies From Other Schools

Tree Campus USA Tree Care Plan Outline from website

Read Management Plans from other Tree Campus USA schools

Contacted Landscape Architects at other Colleges and Universities to see how they managed trees on campus
A Holistic Approach to the Tree Care Plan

Met with an Environmental Sciences professor of Emory, talked about what I was trying to accomplish - he gave me insight into his research and what he knew in a broader context of trees; no real policy/management talk

A common theme throughout the plans we evaluated was a firm grasp on the technical aspects of tree care, but failed to connect with the broader, comprehensive vision for the school.
Reviewed Arboretum Archive

Agnes Scott Arboretum Archives- standards and practices, committee meetings, contracts, programs, data, etc.

Digital record of all things tree care related at Agnes Scott that grew out of 2014 USFS Audit.

Emails and documents related to tree care and associated activities on campus over the last five years

Information led to better understanding of what had been done and discussed in the past which facilitated where we would go in the future.
Weekly Q&As with Campus Consulting Arborist

Weekly updates of campus tree inventory

Tree risk assessments

Planting plans

Pruning projects

Insect and disease diagnosis

Questions!
Engage with Campus
Arboretum Advisory Committee

Committee is comprised of faculty, staff, students, and off-campus partners/community members to provide interdepartmental, interdisciplinary, and collaborative input and approaches to the protection and maintenance of the campus's Arboretum

A Tree Campus USA requirement

Committee acted as sounding board for development of the tree care plan - making sure we were going in the direction we wanted for the College

Learned that our ASC community is very supportive and thoughtful of the arboretum, but needed student involvement
Met with Students

Met with students to get feedback on education and service portion of tree care plan

How do students currently feel about trees? What do they think of the programs? Are they things students would like and be interested in participating? Any other ideas on programming?

Feedback - activities provided interest for a wide variety of students

Needed student involvement in the Arboretum Advisory Committee because missing our target audience for our committee
Met with Facilities

Director of Facilities is already involved in the Arboretum Advisory Committee

Conduit for our landscape management service on campus

Sat down with the Director of Facilities to compare notes on practices/standards that were researched and what we currently do on campus

Reviewed ideas for the tree care plan - determined feasibility for the College
Balanced Objectives

Meeting with a wide range of stakeholders on campus and listening to what was important helped resolve conflicting positions

Dark Sky vs. Safe lighting

Solar Arrays

Emergency Call Boxes
Balanced Objectives

Meeting with a wide range of stakeholders on campus and listening to what was important helped resolve conflicting positions:

- Dark Sky vs. Safe lighting
- Solar Arrays
- Emergency Call Boxes
Balanced Objectives

Meeting with a wide range of stakeholders on campus and listening to what was important helped resolve conflicting positions

Dark Sky vs. Safe lighting

Solar Arrays

Emergency Call Boxes
Draft and Adopt
Research and Engage phases guided an outline of important items to cover in the Management Plan in addition to Tree Campus USA requirements - included any ideas from other people/conferences.

Reviewed arboretum, education, and service goals, and responsibilities of the committee with Arboretum Advisory Committee once plan was in final draft phase.

A comprehensive plan shows what is being done well and where progress needs to be made.

Overlaps became apparent and it is easier to eliminate redundancy.

Also created as a guiding document to help other organizations or entities write their own tree care plan.
Agnes Scott College

Overview

Problems to solve

Connect the Vision

Process
Thank you.

Questions??