Outstanding Project

Brick City Adventure Park

City of Deerfield Beach – Arboretum (Rain Forest Expansion)

Greenscape of Jacksonville – Fresh Food Forest

The City of Winter Haven, Natural Resources Division

USF Tree Mapping Project

GUIDELINES

- Nominate your own work, the work of your organization or the work of another.
- Each application must be typed and presented in a standard three-ring binder (no larger than ½ inch capacity). The completed awards entry form must be the first page of the application. The second page of the application should be a 200-word overview of the nomination. (Note: *For winning nominations, the overview of the nomination will be used for presentation purposes and to highlight the individual, project or program in The Council Quarterly newsletter.*) Following the brief overview should be a summary of not more than three typewritten pages that describe the project's, program's or individual's contribution to urban and community forestry as outlined in the Award Categories.
- Support documentation such as photographs, press clippings, printed pieces, and letters of commendation are encouraged, but shall be limited to 12 additional pages. All supporting documents must be attached or secured inside the application. Please, no loose documentation such as videotapes. Each application must include at least three digital photos in order to be considered. Examples include photos of the individual recipient, project logo, etc.
- Deadline for entry is **October 28, 2016**. Submit the original, one full copy and the three digital photos to:

  Friends of Our Urban Forest Awards Program
  Florida Urban Forestry Council
  Post Office Box 547993
  Orlando, FL 32854-7993

All submitted materials become property of the Florida Urban Forestry Council. ***Please note:*** *The Awards Committee reserves the right to reassign the entry to another category if deemed appropriate. For questions or additional entry forms, please contact Sandy Temple, Florida Urban Forestry Council Executive Director at (407) 872-1738.*

FLORIDA URBAN FORESTRY COUNCIL

Brick City Adventure Park
NAME OF ENTRY, INDIVIDUAL OR PROJECT

Leah Hoffman
NAME OF CONTACT PERSON FOR THE ENTRY

Marion County Parks & Recreation
COMPANY/AGENCY

111 S.E. 25th Av
ADDRESS

Ocala | FL | 34471
CITY | STATE | ZIP

(352)671-8560 | (352) 671-8550 | Leah.Hoffman@marioncountyfl.org
PHONE | FAX | E-MAIL

NOMINATED BY (IF DIFFERENT)

ADDRESS

CITY | STATE | ZIP

PHONE | FAX | E-MAIL

AWARD CATEGORY (please check one):

- ☐ Outstanding Professional
- ☐ Outstanding Tree Advocate or Tree Advocacy Group
- ☒ Outstanding Project
- ☐ Outstanding Urban Forestry Program
- ☐ Lifetime Achievement Award

SEND ALL NOMINATIONS TO:

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FRIENDS OF OUR URBAN FOREST

ENTRY FORM

Deadline for Submission - October 28, 2016

1. **Describe initiative/purpose for facility construction**

The Brick City Adventure Park Road and Park improvements was a long time in the making. Due to poor economic conditions and the failure of certain parties to fulfill their obligation on the maintenance of the road way providing access to the park, an alternative solution was derived. For years the road continually deteriorated to the point that it was unsafe for vehicular traffic as well as pedestrian traffic. There were a barrage of potholes creating major liability issues for the County. Initially the County was going to close off the roadway and make a cul-de-sac at the eastern end allowing for more parking which was desperately needed as well as pedestrian friendly access.

Brick City Adventure Park is located within the City of Ocala and many people used the road as an egress and ingress. The City and County got together and entered into an Interlocal agreement in which the City would refurbish the road to today's standard and perform the maintenance in perpetuity while the county would pay half of the road upgrading costs and maintain the road shoulders. With the partnership of the government agencies the County was able to assist in getting the improvements made allowing for a safe access to the park. In addition to the road upgrade, improved drainage with a new stormwater treatment system, bike lanes, pedestrian crosswalks, additional parking, landscaping, stylish lighting and an enhanced entry area was added to improve the overall park experience. What was once a dilapidated crumbling road has now become a complete street, improving access to the park.

After the main construction was completed, the Marion County Parks and Recreation Department provided the finishing touches with new signage, trademark mortise fencing, and landscaping to enhance the main entry. Compliments have been rolling in to the Department including one from Diane Barrineau who stated: "Just had to take a minute to tell you how great the new entrance and roadway are to Brick City (Adventure) Park. It looks fantastic. What a great addition to our neighborhood."

This park has a full size football field and track, a large accessible playground, pavilions, an explorable cave, a ropes course, walking trails and an activity center. Adjacent schools use the facility for their athletic programs as well as community teams such as lacrosse, Special Olympics, soccer and football. In addition the County's recreation programs use this facility for nature based programming, a base for various hiking and eco-tram trips, and homeschool activities.

2. **Collaborative efforts/partnerships**

City of Ocala Public Works Division
1805 NE 30th Avenue
Building 300
Ocala, FL 34470
352-351-6733
Director/City Engineer: Sean Lanier, PE, CFM
Assistant Director of Operations: Darren Park

Marion County Parks and Recreation
111 SE 25th Avenue
Ocala, FL 34471
352-671-8560
Director/Landscape Architect: Jim Couillard, PLA, ASLA

3. **Partnership contribution**

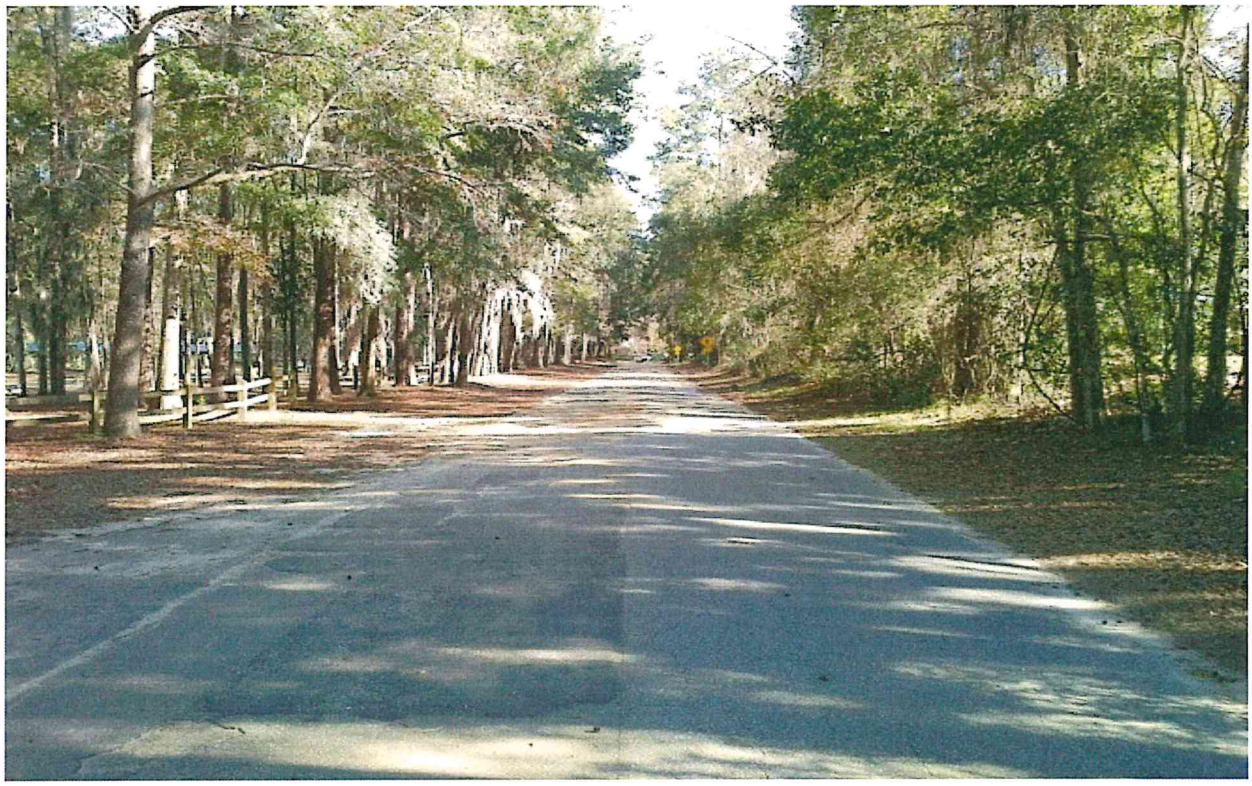
Total project cost		**$562,778.54**
County Cost		
Design Cost	$ 20,500.00	
School driveway	$ 997.50	
Construction cost	$259,891.77	
	$281,389.27	
City Cost	$281,389.27	

4. **Unique features or community benefits of the facility**

Brick City Adventure Park has many unique features and community benefits. The Cornerstone School uses the facility for their Physical Education Classes. St. John's Lutheran uses it as their athletic facility for football, soccer and track. Community groups have adopted the park in which they provide several hours of service at least six times per year. In addition to these athletic facility uses, the park affords an accessible playground, picnic pavilions, a quarry, ropes course and cave. The location of this County Park sits right in the middle of the Ocala urban area and affords access to over 101,237 vehicle counts per year equating to 232,845 people. Due to its size and substantial layers of existing vegetation, visitors often forget they are in the middle of town.

January 2015 – View NW from Park lot entrance (Sta 17+50)

September 2015



January 2015 – View SE from Park lot entrance (Sta 17+50)

September 2015

January 2015 – View W from crosswalk to Cornerstone School (Sta 14+25)

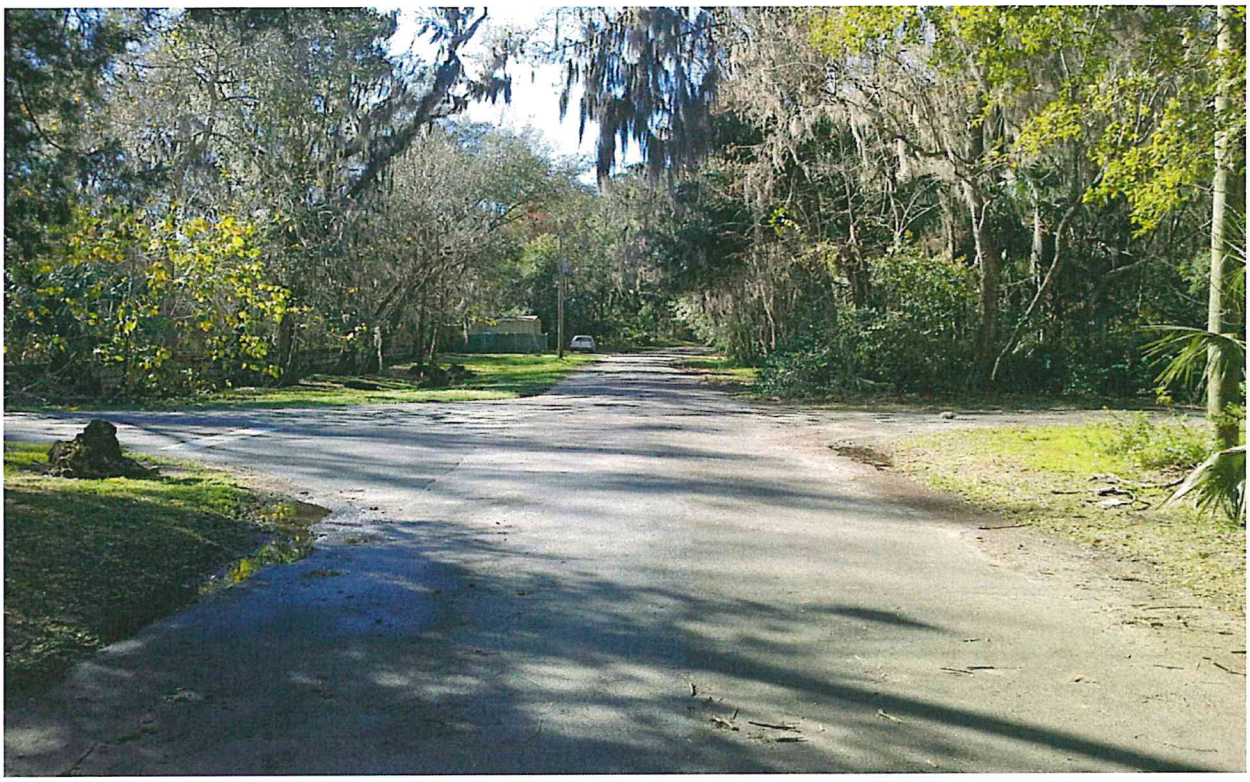
September 2015

January 2015 – View E from Lake Weir Avenue

September 2015

January 2015 – View E from Lift Station driveway (Sta 25+75)

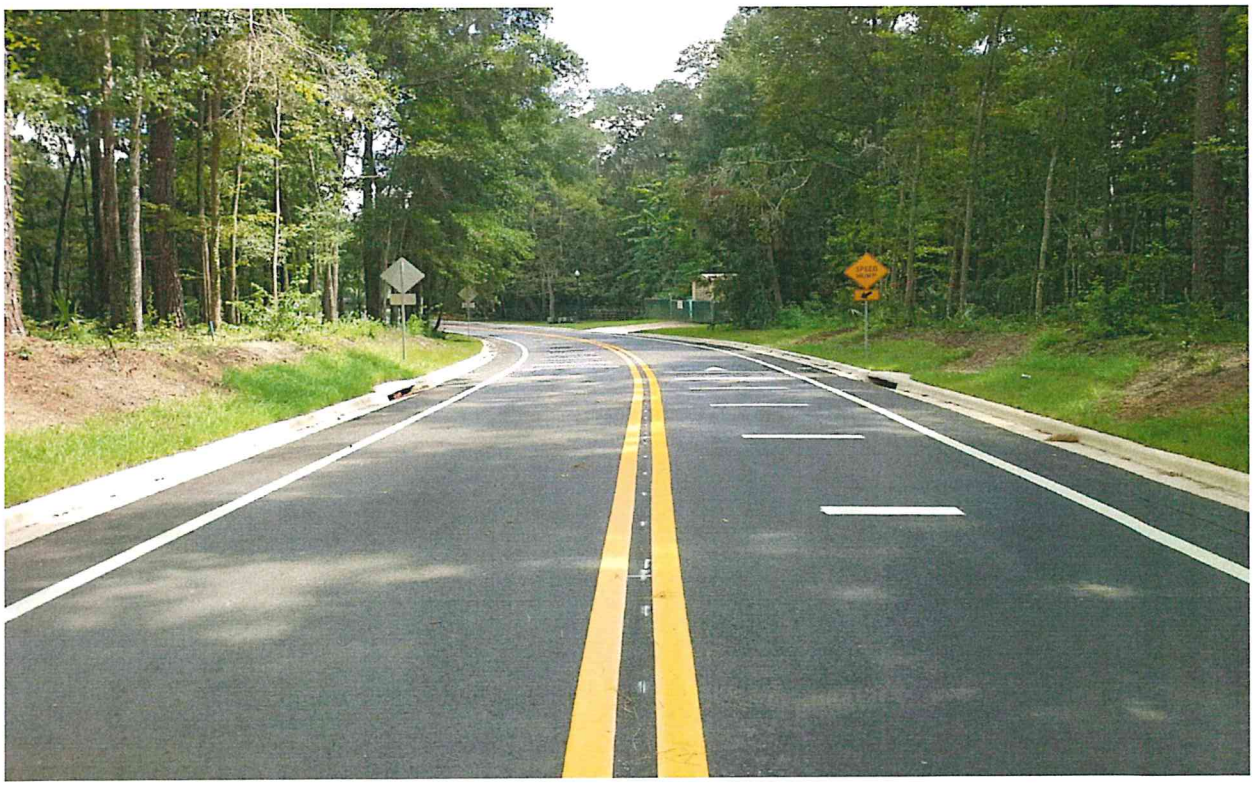
September 2015



January 2015 – View West from SE 14th Avenue (Sta 28+75)

September 2015

January 2015 – View SE from crosswalk, East end (Sta 23+25)



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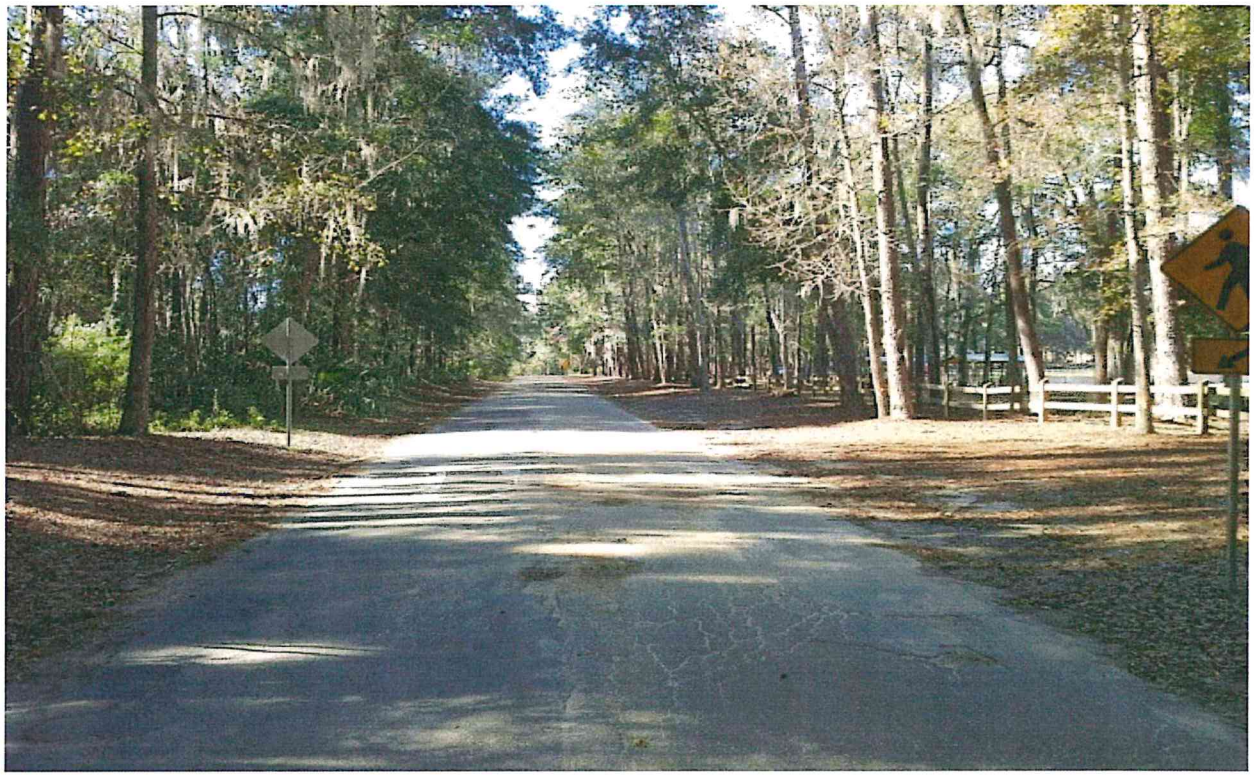
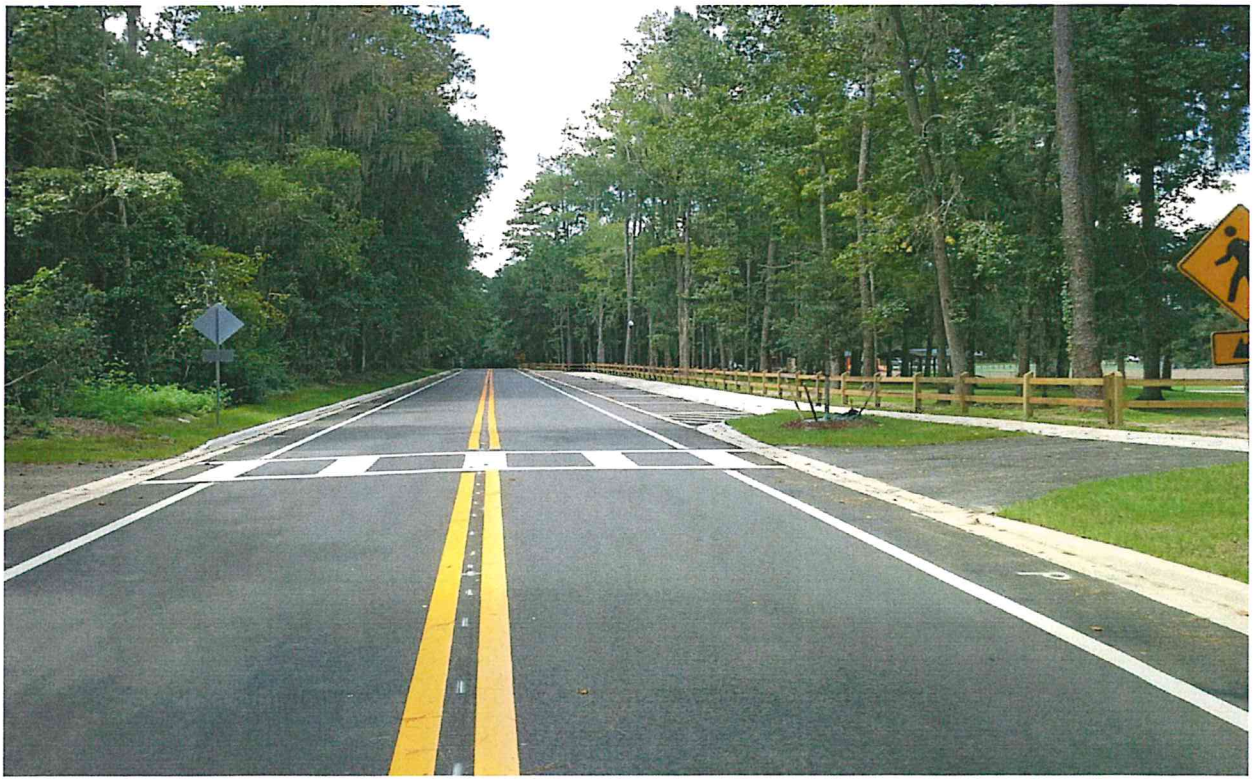


January 2015 – View NW from crosswalk, East end (Sta 23+25)



September 2015

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FLORIDA URBAN FORESTRY COUNCIL

Entry Form

Deadline for Submission - October 28, 2016

City of Deerfield Beach - Arboretum (Rain Forest Expansion)
NAME OF ENTRY, INDIVIDUAL OR PROJECT

Eric Power
NAME OF CONTACT PERSON FOR THE ENTRY

City of Deerfield Beach
COMPANY/AGENCY

150 NE 2nd Avenue
ADDRESS

Deerfield Beach | FL | 33441
CITY | STATE | ZIP

954-480-4211 | | epower@deerfield-beach.com
PHONE | FAX | E-MAIL

NOMINATED BY (IF DIFFERENT)

ADDRESS

CITY | STATE | ZIP

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Award Category (please check one):

- ☐ Outstanding Professional
- ☐ Outstanding Tree Advocate or Tree Advocacy Group
- ☒ Outstanding Project
- ☐ Outstanding Urban Forestry Program
- ☐ Lifetime Achievement Award

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FRIENDS OF OUR URBAN FOREST

The City of Deerfield Beach is pleased to submit the Deerfield Beach Arboretum for the category of Outstanding Project for 2016. The Deerfield Beach Arboretum, also known as the "Tree Zoo" is a 7.5 acre trail located within Constitution Park. The Arboretum has existed for 17 years, and is maintained in part by the City Parks and Recreation Department and the volunteer group, Friends of the Deerfield Beach Arboretum. The park is home to over 200 different species of trees and palms from five different continents. Over the past year, the City has worked to create a new exhibit to its diverse botanical garden which is a rain forest. To create the rain forest more than thirty new trees and 767 new shrubs were added as well as the construction of a multi-level waterfall and lagoon to provide a whole new experience to our ever growing exhibit of trees and palms from around the world.

The City of Deerfield Beach is pleased to submit the Deerfield Beach Arboretum for the category of Outstanding Project for 2016. The submitted project for your consideration is not just for the overall park itself, but its most recent addition, the rain forest. The arboretum, which is more affectionally known by City residents as the "Tree Zoo" is part of Constitution Park, a nine acre park in which about 7.5 acres are dedicated to the arboretum. Constitution Park is located in the northern portion of the City, accessible from Hillsboro Boulevard, a major roadway with direct access to I-95. The Arboretum has existed for 17 years, maintained in part by the City Parks and Recreation Department and the 501c3 volunteer group, Friends of the Deerfield Beach Arboretum. The park is home to over 200 different species of trees and palms from five different continents. Over the past year, the City has spent $9,475 dollars and installed over 30 trees and 767 shrubs to provide a whole new experience of the rain forest to our ever growing exhibit of trees and palms from around the world.

From the beginning, Constitution Park was developed as a typical park facility, with basketball and tennis courts, a children's play area and a community center building. However, what makes the park what it is today, began in 1994, when City Forester Zeke Landis petitioned the Deerfield Beach Beautification Authority and the City Commission to create the arboretum. This mix of active and passive park is what truly makes this project unique to South Florida. There are no admission fees, gates or boundaries to visitors. In fact, the entire park is ADA accessible along a paved walkway, which not only guides visitors through the many different trees and palms but provides informational signage identifying different species and also providing distance measurements for walkers and joggers looking to enjoy a visually appealing and shaded exercise experience. For those more interested in learning about the trees themselves, the park offers a brochure highlighting some of its more interesting members.

The park is broken up by nine sections, which are rare tropicals, flowering trees, palms, wetland area, tropical fruit trees, native and exotic canopy trees, bamboo forest, butterfly garden and its most recent addition, the rain forest. The rain forest concept, was part of the early plan, but the expense of trees found in the rain forest made it cost prohibitive at the time. The City and the caretakers of the arboretum instead decided to be creative, making purchases of smaller trees and raising them. One such example was the purchase of one lipstick palm (*Cyrtostachys)* for $100. In time, the plant was split into two and now several years later, the two are valued between $5,000 - $6,000 each. This of course would not be the only way to create the rain forest, as the City was

able to obtain grant dollars from Broward County which helped pay for the design and about $3,000 in tree and plant purchases. One of the nicest features of the new rain forest area, isn't even the trees, but the man-made water feature with a multi-level waterfall. The area was designed so that as you begin your approach to the rain forest area, you start at a small lagoon and cross a wooden bridge, as you complete the circuit, you stand directly in front of the waterfall feature which appears to be nestled within the trees and palms, as if you had just stumbled upon a natural oasis! As this feature is towards the back of the trail, several sitting areas have been created for people to stop and take a break before walking back, or to just sit and admire the sound, smells and of course the view of being in what feels like a secluded area.

The arboretum is active in attracting residents to use the park and spend time with the trees. As an accessible park with a paved trail, mothers with strollers, to seniors with limited mobility have the opportunity to experience our diverse ecosystem of trees and palms. The facility also offers pavilions that are surrounded by the trees giving an isolated and enveloped experience for large groups to spend time together amongst this tiny urban forest. The Friends of the Deerfield Beach Arboretum offer monthly tours on weekend mornings to those who are interested in learning a little more. In addition to this, the recent phenomenon of Pokémon Go, an interactive smart phone application has created a great opportunity to get a whole new generation of people involved in our park. The Parks and Recreation Department, offers structured tours to Pokémon Go fans to walk through the park together, having fun catching Pokémon all while being amongst the trees.

The maintenance of this amazing facility would not be possible without the Friends of the Deerfield Beach Arboretum. This dedicated group of master gardeners and garden enthusiasts provide direction and care its Tree Zoo. Continuing the work of the late Zeke Landis, the Friends are committed to maintaining the outstanding array of trees and palms living in the park as well as to future projects to enhance the park's enjoyability.

The City of Deerfield Beach is very proud of its "tree zoo" and its most recent addition of a real life rain forest. The Deerfield Beach Arboretum at Constitution Park is a wonderful example of tree preservation, the City's partnership with the Friends of the Deerfield Beach Arboretum ensure that proper tree maintenance is achievable and that the park is always looking its best for residents and tourists alike. We gladly await your review of our application and look forward to your response.

FRIENDS
OF THE
DEERFIELD BEACH
ARBORETUM

To: Eric Powers, Mike Pursell

From: Gerald Behan

Subject: Friends of Our Urban Forest Award

The Friends of the Deerfield Beach Arboretum fully support the efforts of the City of Deerfield Beach in their application for the Friends of the Urban Forest Award. The Rain Forest Garden in the Arboretum is an outstanding example of a tropical rain forest in our not so tropical climate. It is an excellent learning garden as well as a peaceful respite from the everyday stresses of our modern lives. I can personally attest to the fact that the daily visitation rate has more than doubled since the opening of the Rain Forest.

It was a pleasure working with the city in creating the Rain Forest. The effort put forth by the city, especially the Parks and Rec Department and the Engineering Department, were far and away greater than I could have hoped for.

Thanks again for the opportunity of participating in the creation of the Rain Forest Garden.

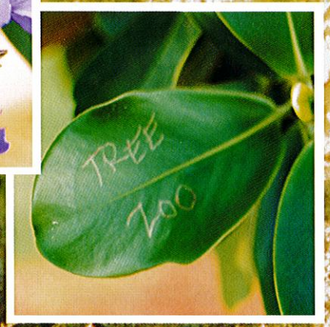
Gerald Behan
Friends of the Deerfield Beach Arboretum

FRIENDS OF THE DEERFIELD BEACH ARBORETUM
CONSTITUTION PARK
2841 WEST HILLSBORO BOULEVARD • DEERFIELD BEACH, FL 33442 • PHONE (954) 480-4494
a non-profit 501 (C) (3) corporation

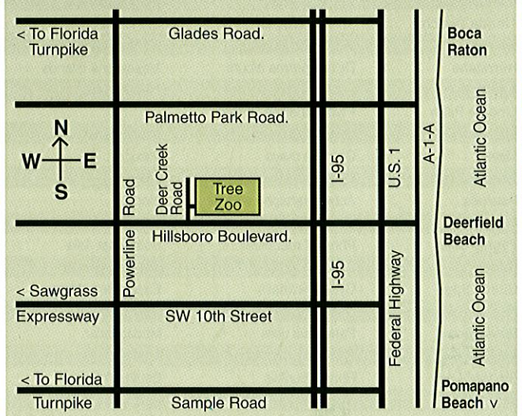
Native Trees

Native or indigenous trees can be found throughout the arboretum. 16 different species are listed here. They help bring beauty and shade to the Arboretum.

Common Name	Botanical Name	Native Origin
American Elm	Ulmus americana liberty	United States
Blolly	Guapira discolor	Caribbean area
Gumbo Limbo	Bursera simaruba	Caribbean area
Lance Wood	Nectandra coriacea	South Florida
Laurel Oak	Quercus laurifolia	S.E. United States
Live Oak	Quercus virginiana	S.E. United States
Mahogany	Sweitenia mahogani	Caribbean area
Mastic	Mastichodendron foetidissimum	Caribbean area
Paradise Tree	Simarouba glauca	South Florida
Pigeon Plum	Cocolobo diversifolia	Caribbean area
Satin Leaf	Chrysophyllum oliviforme	South Florida
Seagrape Tree	Cocoloba uvifera	Caribbean region
Silver Buttonwood	Conocarpus erectus var.	Florida
Slash Pine	Pinus elliottii	S.E. United States
Soap Berry	Sapindus saponaria	S.E. United States
Strangler Fig	Ficus aurea	South Florida



Located 1 1/2 Miles West of I-95 on Hillsboro Blvd. in Deerfield Beach



The Deerfield Beach Arboretum

AT CONSTITUTION PARK

2841 West Hillsboro Boulevard • Deerfield Beach, Florida 33442
Park Open Sunrise to Sunset 7 Days a Week • Free Admission
Guided Tours Available • Phone (954) 480-4494

Visit The Tree Zoo!

The Deerfield Beach Arboretum

AT CONSTITUTION PARK

Welcome

To the Deerfield Beach Arboretum

What is an Arboretum? *According to Webster's Dictionary an Arboretum is described as "a botanical garden for scientific, educational or decorative purposes," but as explained by Former City Forester Zeke Landis in 1995 to a group of children attending an Arbor Day Celebration it is a "Tree Zoo." The analogy is that if a group of animals on display were determined to be in a zoo, then this display of many strange and different types of trees and palms must be a zoo also, a "Tree Zoo."*

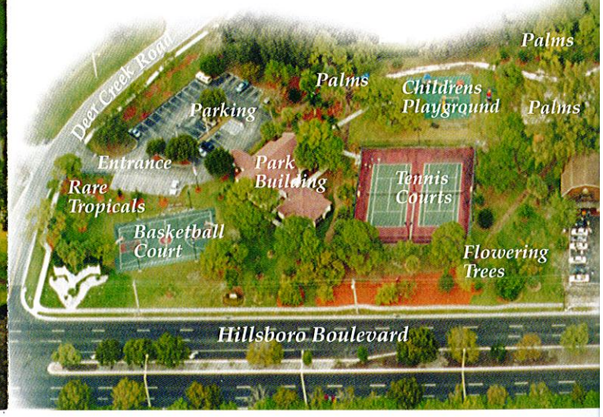
The Deerfield Beach Arboretum is home to more than 500 different species of trees and palms from five continents around the world. This booklet provides a list of these trees.

The Arboretum is supported by a partnership between The City of Deerfield Beach and The Friends of the Deerfield Beach Arboretum a 501(c)(3) Non-profit organization. Memberships available.

City of DEERFIELD BEACH

TreeZoo.com

The Arboretum Site Map



Frangipani

Purple Glory

Flowering Trees

Listed here are some of the different species of flowering trees that can be found in the Arboretum. Something is in bloom virtually any time of year, however, it is in the spring when the arboretum really comes to life with color.

Common Name	Botanical Name	Native Origin
African Tulip	Spathodea campulata	Tropical Africa
Baobob	Adansonia digitata	Africa
Bulnesia	Bulnesin arborea	Columbia / Venezuela
Calabash	Crescentia cujete	Tropical America
Cannonball	Couropita guianensis	Tropical America
Coral Tree	Erythrina variegata	India
Dwarf Poinciana	Caesalpinia pulcherrima	West Indies
Flame of the forest	Butia monosperma	India / Burma
Floss Silk Tree	Chorisa speciosa	Brazil / Argentina
Frangi Pani	Plumeria ssp.	W. Indies/Mexico/Hawaii
Golden Shower	Cassia fistula	India
Golden Tab	Tababuia chtysotricha	Tropical America
Guiana Chestnut	Pachira aquatica	Tropical America
Henna	Lawsonia inermis	N.Africa / Asia / Australia
Hong Kong Orchid	Bauhinia blakeana	S.E. Asia
Horseradish Tree	Moringa pterygosperma	India
Ice Cream Bean	Inga paterna	Costa Rica
Indian Crape Myrtle	Lagerstroema indica	So. Asia & Australia
Jacaranda	Jacaranda mimosifolia	Brazil & Argentina
Jamaican Caper	Cappartis cynophallophora	S. Florida & Caribbean
Kassod Tree	Cassia simea	Indonesia & Maylay
Lignum-Vitae	Guaiacum sanctum	Caribbean
Long John Palo Santo	Triplaris americana	South America
Orange Geiger	Cordia sebestena	So. Florida West Indies
Pink & White Shower	Cassss javanica	Indonesia
Pink Trumpet	Tabebuia heterophylla	West Indies
Pitch Apple	Clusia rosea	Caribbean area
Potato Tree	Solanum arboreum	Venezuela Egypt
Purple Glory	Tibochina granulosa	Brazil
Purple Tabebuia	Tababuia ipetignosa	Brazil
Queen Crape Myrtle	Lagerstroema speciosa	India East Indies
Rain Tree	Samanea saman	Tropical America
Royal Poinciana	Delonix regia	Madagascar
Scrub Bottle	Brachychiton discolor	Australia
Silver Trumpet	Tabebuia caraiba	Paraguay
Southern Magnolia	Magnolia grandiflora	S.E. U.S.A.
St. Thomas Yel. Bauhinia	Bauhinia tomentosa	Asia Africa
Tropical Snowball	Dombeya ssp.	Mascarene Is. Africa
White Geiger	Cordia boissieri	Texas Mexico
Yellow Elder	Tecoma stans	Caribbean Region
Yellow Poinciana	Peltophorum pterocardom	India Australia
Ylang Ylang	Canaga odorat	Malasia

Tropical Fruit Trees

Tropical Fruit Trees are plentiful in the Arboretum.

Common Name	Botanical Name	Native Origin
All Spice	Pimenta dioica	Caribbean region
Avocado	Persia americana	Tropical America
Banana	Musa ssp.	S.E. Asia S. Pacific
Barbados Cherry	Malpighia glabra	Tropical America
Black Sapote	Diospyros dignya	Mexico West Indies
Cattley Guava	Psidium littorale	Brazil
Custard Apple	Annona reticulata	Tropical America
Grumachama	Eugenia brasillensis	Southern Brazil
Guava	Psidium guajava L.	Mexico Central America
Imbe	Garcinia livingstone	Malay peninsula
Jackfruit	Artocarpus heterophyllus	India S.E. Asia
Loquat	Eriobotrya japonica	China Japan
Lychee	Litchi chinensis	S.E. Asia
Macadamia Nut	Macadamia integrifolia	Australia
Mango	Mangifera indica	Southern Asia
Papaya	Carica papaya	Tropical America
Red Mulberry	Morus rubra	Eastern N. America
Red Wax Jambo	Syzygium samarangense	Cuaracao S.E. Asia
Rheedia	Rheedia brasilensis	Brazil
Sapodilla	Manilkara zapota	Mexico Central America
Star Fruit	Averrhoa carambola	Malaysia
Strawberry Tree	Muntingia calaburo	Tropical America
Sugar Apple	Annona squasmosa	Tropical America
Surinam Cherry	Eugenia uniflora	Brazil
Tamarind	Tamarindus indica	East Indies
White Sapote	Casimiroa edulis	Tropical America

Exotic Trees

Leaf of Yew Podocarpus

Common Name	Botanical Name	Native Origin
African Mahogany	Khaya nyasica	Central Africa
Australian Pine	Casaurina equistefolia	Australia
Beauty Leaf	Calophyllum brasillense	West Indies Mexico
Cajeput	Melaleuca quinquenervia	Australia
Cuban Laurel	Ficas microcarpa	India
Norfolk Island Pine	Araucaria heterophylla	Norfolk Islands
Markhamia	Markhamia lutea	Upper Guiana Africa
Minature Black Olive	Bucida spinosa	Bahamas Cuba
Ponytail	Beaucarnea recurvata	Mexico
Sausage Tree	Kigelia pinnata	Tropical Africa
Sunshine Tree	Erythrina variegata var.orientalis	India/Indonesia Phillipines
Traveler's Tree	Ravenala madagascariensis	Madagascar
Weeping Podocarpus	Podocarpus gracilior	East Africa
Yew Podocarpus	Podocarpus macrophyllus	Japan

Cabbage Palm

Palms

Palms bring a tropical feel to the Arboretum. 46 different species are listed here out of approximately 2000 international species.

Common Name	Botanical Name	Native Origin
Adonidia	Veitchia merrillii	Phillipines
African Oil	Elaeis guineensis	Africa
Alexander	Ptychosperma elegan	Australia
Areca	Dypsis lutescens	Madagascar
Arecina	Veitchia arecina	New Hebrides
Betelnut Palm	Areca catechu	India, S.E. Asia, S. Pacific
Bismarck Palm	Bismarckia nobilis	Madagascar
Bottle	Hyophorbe lagenicaulis	Round Island
Cabbage	Sabal palmetto	Southeast U.S.A.
Canary Island Date	Phoenix canariensis	Canary Islands
Cardboard Palm	Zamia furfuracea	Mexico
Carpentaria	Carpentaria acuminata	Australia
Cat	Chamaedorea cataractarum	Southern Mexico
Chinese Fan	Livistonia chinensis	China
Coconut	Cocos nucifera ssp.	South Pacific
Coontie	Zamia pumila	Florida
Cuban Petticoat	Copernicia macroglossa	Cuba
Cuban Royal Palm	Roystonea regia	Cuba
Date Palm	Phoenix dactylifera	North Africa
Dwarf Palmetto	Sabal minor	Southeast U.S.A.
European Fan Palm	Chamaerops humilis	Mediterranean region
Fishtail Palm	Caryota mitis	Southeast Asia
Florida Thatch	Thrinax radiata	S. Florida
Foxtail	Wodeytia bifurcata	Northern Australia
Hurricane	Dictyosperma album	Mascarene Islands
Key Thatch	Leucothrinax morrisii	Florida Keys
Lineare Palm	Ptychosperma lineare	
Lucubensis	Dypsis lucubensis	Madagascar
Maya	Gaussia maya	Mexico
Palmyra Palm	Borassus flabellifer	India
Paurotis	Acoelorrahaphe wrightii	Florida
Peach	Bactris gasipaes	Central & South America
Pygmy Date	Phoenix roebelenii	Southeast Asia
Queen	Syagrus romanzoffiana	Brazil, Argentina
Queen Sago	Cycas circinalis	East Indies, Africa
Red Leaf Palm	Chambeyronia macrocarpa	New Caldonea
Screwpine	Pandanus utilis	Madagascar
Senegal Date	Phoenix reclinata	Africa
Slender Lady	Rhapis humilis	Southern China
Spindle	Hyophorbe verschaffeltii	Rodriques Island
Spiny Licuala	Licuala spinosa	Malaysia, Indonesia, Phili.
Talipot	Corypha umbraculifera	Ceylon
Teddy Bear	Dypsis lastelliana	Madagascar
Triangle	Dypsis decaryi	Madagascar
Washingtonia	Washingtonia robusta	Mexico
Winin	Veitchia winin	New Hebrides Islands

Wetland Area

The Deerfield Beach Arboretum features a "wetland learning area" with pond, swamp, understory plants, rapids, and observation platform.

Common Name	Botanical Name	Native Origin
Bald Cypress	Taxodium distichum	S.E. United States
Dahood Holly	Ilex cassine	S.E. United States
Fiddlewood	Citharexylum fruticosum	West Indies / S. Florida
Florida Privet	Forestiera segregata	S.E. United States
Florida Red Maple	Acer rubrum	Florida
Green Buttonwood	Conocarpus erectus	S. Florida / West Indies
Iron Wood	Eugenia confusa	Florida / West Indies
Pitch Apple	Clusia rosea	Caribean Region
Pond Apple	Annona glabra	Tropical America
Pond Cypress	Taxodium ascendens	S.E. United States
Rapanca	Myrsine guianensis	S.E. United States
Red Bay	Persea borbonia	S.E. United States
Simpson's Stopper	Myrcianthes fragrans	Florida
Spanish Stopper	Eugenia foetida	S.E. USA / West indies
Sweet Bay	Magnolia virginiana	S.E. United States
Wax Myrtle	Myrica cerifera	S.E. United States
West Indian Cherry	Prunus myrtifolia	S. Florida / West Indies
White Stopper	Eugenia axillaris	Caribbean region

Bamboos

Golden Hawaiian

Bamboos are members of the grass family. Used in construction and for making furniture. Here are some of the species of bamboo that can be found in the Arboretum.

Common Name	Botanical Name	Native Origin
Alphonso Karr	Bambusa multiplex	China
Asper	Dendrocalamus asper	S.E. Asia
Bambu tali	Gigantochloa Apus	Java
Beechy Bamboo	Bambusa beecheyana	Asia
Brandish	Dendrocalamus Brandisii	S.E. Asia
Giant Timber	Bambusa oldhamii	Southern China
Golden Hawaiian	Bambusa vulgaris "Vittata"	Asia
Green Onion Bamboo	Pseudosasa japonica "tsutsumiana"	Japan
Guadua Angustifolia	Guadua Angustifolia	South & Central America
Malingensis	Bambusa Malingensis	Asia
Malay variegated	None	Southeast Asia
Mexican Weeping	Otatea acuminata "aztecorum"	Mexico
Monastery bamboo	Thyrsostachys Siamensis	Burma
Narihira Bamboo	Semiarundinaria fastuosa	Japan
Tropical Black	Gigantochloa atroviolacea	Southeast Asia
Wamin	Bambusa Vulgaris "Wamin"	SouthChina
Weaver's Bamboo	Bambusa Textilis	China

Butterfly Garden

Brought here by the natural attraction of the garden plantings, butterflies of many varieties can be seen in the Arboretum.

Deerfield's 'tree zoo' home to hundreds of species

Diane C. Lade **Contact Reporter** Sun Sentinel

Did you know South Florida has a tree zoo?

The official name is The Deerfield Beach Arboretum, and it's made up of almost 10 acres surrounding the Constitution Park Recreation Center.

Instead of lions and tigers and bears, this zoo features eucalyptus and cycads and baobabs, oh my — among the more than 1,200 trees and palms lovingly collected and installed there by plant fans for the past 27 years.

"It's a labor of love," said Jerry Behan, a professional horticulturalist who serves as volunteer overseer. Like everyone else involved with this zoo, he is just crazy about trees.

The late Zeke Landis, who was Deerfield Beach's city forester, started what became the arboretum in 1987 by planting his favorite specimens in the then-new-but-bare Constitution Park.

The Friends of the Arboretum was founded by Behan in 1999, as he and other volunteers joined in the fun. Their goal: to maintain and support Landis' urban oasis so the public can see unique trees from around the world.

Today, there are more than 200 tree and palm species, ranging from the rare to the common, from five continents. The park is ungated and visitors can

Deerfield's 'tree zoo' home to hundreds of species

wander through any time. The trees have identifying markers, although some have faded with time.

The zoo doesn't have much of a budget, relying on private donations, government grants and city personnel to help volunteers with maintenance. Most of the trees were grown from seeds or bought as saplings to keep purchase prices low, Behan said.

The city owns the arboretum and provides some maintenance and supplies. The Friends purchase the plants and plan exhibit upgrades, as well as provide volunteer labor.

Homes, condos and busy Hillsboro Boulevard border the urban oasis, which is surprisingly quiet even midday. Behan, 56, walked down the paved path on a recent Tuesday morning, wandering past picnic pavilions, pagodas and a little waterfall as he pointed out the zoo's most distinctive plants.

Among them: a white stopper called the "skunk tree" for its potent smell; an African kigelia or "sausage tree" that bears pendulous fruit on long tendrils; and an umbrella-fronded talipot palm from India, which sends out a single bloom once in its lifetime.

Behan proudly claims the tree zoo is home to an unusual flowering tree, Amherstia nobilis, a Myanmar native with stunning orchid-like flowers. It's kept from harm in a small fenced and locked enclosure.

Deerfield's 'tree zoo' home to hundreds of species

While Behan said he needs to retire his volunteer post, he hasn't made any firm moves to leave. "I like to show it off to people, to show off the stuff we love," said Behan, of Coconut Creek.

And the arboretum's nickname? "We do a lot of tours with schoolchildren. Arboretum was too big of a word for them to manage. So we started telling them it was a tree zoo."

Free guided zoo tours are offered at 10 a.m. Fridays, and 10 a.m. on the first Saturday of each month. There also are free monthly nature-themed lectures in the park's recreation center, 2841 W. Hillsboro Blvd. Group tours can be arranged for a fee. Info: treezoo.com, 954-480-4494.

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http://www.sun-sentinel.com/features/fl-tree-zoo-garden-20141217-story.html

Pokemon GO

Deerfield Beach Tour

Join us for a Pokemon Go Meet-Up and explore the City of Deerfield Beach Parks!

*Must bring your own internet enabled device.

FREE ONE HOUR EVENT FOR ALL AGES

Oveta McKeithen Recreational Complex

445 SW 2nd St.

August 4th @ 6 pm
AND
August 6th @ 11 am

1 Gym & 3 PokeStops

Constitution Park

2841 W Hillsboro Blvd.

August 10th @ 6 pm
AND
August 13th @ 11 am

2 Gyms & 11 PokeStops

All children ages 10 and under must be accompanied by an adult.

For more information please call (954) 480- 4481

Please visit the Friends of the Deerfield Beach Arboretum for even more information on our park.

http://www.treezoo.com/home.html

CITY OF DEERFIELD BEACH – ARBORETUM (RAIN FOREST EXPANSION)

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  Friends of Our Urban Forest Awards Program
  Florida Urban Forestry Council
  Post Office Box 547993
  Orlando, FL 32854-7993

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FLORIDA URBAN FORESTRY COUNCIL

Entry Form

Deadline for Submission - October 28, 2016

Greenscape of Jacksonville - Fresh Food Forest
NAME OF ENTRY, INDIVIDUAL OR PROJECT

Anna Dooley
NAME OF CONTACT PERSON FOR THE ENTRY

Greenscape of Jacksonville, Inc.
COMPANY/AGENCY

1468 Hendricks Avenue
ADDRESS

Jacksonville | FL | 32207
CITY | STATE | ZIP

904-398-5757 | | amdooley@bellsouth.net
PHONE | FAX | E-MAIL

NOMINATED BY (IF DIFFERENT)

ADDRESS

CITY | STATE | ZIP

PHONE | FAX | E-MAIL

Award Category (please check one):

- ☐ Outstanding Professional
- ☐ Outstanding Tree Advocate or Tree Advocacy Group
- ☒ Outstanding Project
- ☐ Outstanding Urban Forestry Program
- ☐ Lifetime Achievement Award

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FRIENDS OF OUR URBAN FOREST

Greenscape of Jacksonville Partners with TD Bank to Plant Food Forest

In October of 2016 GREENSCAPE board, staff, and volunteers were joined by employees from TD Bank, at A. Phillip Randolph Heritage Park to participate in TD Tree Days, a cooperative effort to plant trees in local communities in need.

Greenscape of Jacksonville is a local not for profit organization fulfilling its mission to plant, protect and promote trees since 1975. The group focuses on volunteer events which enable citizens of all ages and background to participate in urban forestry. Mike Robinson, Greenscape Board President, said "Greenscape was grateful for another opportunity to partner with TD. The Jacksonville tree canopy as a whole benefits from this public/private partnership and we applaud the environmental stewardship shown by the annual TD Tree Days."

As a component of TD Forests, the bank's environmental initiative is to expand urban forestry throughout the bank's footprint and enhance community and economic development. TD Bank partners with various community organizations for TD Tree Days. The tree planting events took place throughout October in communities in need. The trees planted will provide health, environmental and recreational benefits, including improved air quality, shade for buildings and can help mitigate the effects of climate change.

Greenscape has been fortunate to receive TD Bank grants for plantings annually for several years, but this one was quite special. A. Phillip Randolph Heritage Park was selected for many reasons. The park was named after Jacksonville's Randolph who was one of the most important figures of the Civil Rights Movement during the 1950s and 1960s. Randolph's efforts eventually led to the 1963 March on Washington for Jobs and Freedom, which resulted in a meeting with President John F. Kennedy and the subsequent passage of the 1964 Civil Rights Act. Another Jacksonvilleian, Olympic Gold Medalist Bob Hayes, who was known as "the fastest man alive" is also honored in this park. Hayes went on to a successful career with the Dallas Cowboys. He is immortalized with a large bronze statue in the park that is less than a mile from where he grew up. Needless to say, this park is full of history and pride for the African American Community in Jacksonville.

However, the park is situated in an area of Jacksonville that struggles with socio-economic challenges. The area known as the Eastside Community needed additional trees to provide shade for its park visitors, but Greenscape saw an opportunity to provide even more to the area. The site is a prime example of a "food desert". The neighborhood consists of a large population that does not have access to fresh foods due to lack of transportation and grocery markets.

Greenscape formed an alliance with the Eastside Community Group, wrote a winning grant to subsidize the project and brought together the Jacksonville Parks Department, the UF Urban Forestry Extension Office, the City Landscape Architect, the JEA Forester and other arborists and volunteers to plan the extent of the improvements to be made. It was determined that in addition to nine oaks and elms needed for shade, the organization would install the first public Fresh Food Forest in Jacksonville. The majority of the plant material consisted of a variety of fruit and nut trees. Lemons, limes, oranges, satsumas, red and white grapefruit will provide the citrus and fig, pear, persimmon and pecans rounded out the trees planted.

Under the watchful eyes of a citrus nurseryman, arborists and foresters, forty volunteers from TD Bank experienced a great morning and left with a greater sense of accomplishment. A total of 74 trees were planted. Representatives of the neighborhood as well as the City Councilman were on hand and the local television news recorded the event.

The Parks Department installed irrigation and the planting is monitored by neighborhood volunteers, park maintenance and a six month commitment from the Citrus nurseryman.

Greenscape received the following impact letter from the Eastside Community Group: “Thank you so much for bringing resources (vision, people, time) to the Eastside! Pears, pecans and citrus can add value to all of our diets and have a significant impact to our community. I look forward to seeing you out and about in the park!” Tia Keitt, Eastside Resident

Even more moving was a letter from the TD Bank Site Leader who stated; “Today’s project was a great experience. All projects are rewarding, but this seems to have a little more added to it with adding an additional benefit by planting the trees that were selected (fig, persimmon, orange, pear, etc.). My involvement was to be the site leader for TD with this project with months of preparation leading up to the event. Being a resident on the Southside it may not commonly be known that there is an issue acquiring fresh produce living in a City the size of Jacksonville. Having been a Site Leader now 3 times I must say this was the most rewarding project we have taken on thus far. The key benefit is to provide food to a part of the city that has struggled with economic growth in the past and to make Eastside Jacksonville a better place to live. Dylan Snodgrass, TD Bank

“TD Bank is proud to partner with Greenscape to create greener spaces and provide a source of fresh fruit and nuts to this neighborhood” said Joe Doolan, U.S. Head of Environmental Affairs for TD Bank. “As an environmental leader, TD Bank focuses on areas where we can make the most impact and strengthen the physical and human fabric of our communities. We are thrilled that so many volunteers will be providing support for our local parks and open spaces where we live and work.”

About Greenscape of Jacksonville
An independent, local, not-for-profit tree group, Greenscape was founded over forty years ago by citizens who were concerned about the condition of the tree canopy. Recognizing that trees are essential to the health and well-being of a community, the organization is credited with planting in excess of 300,000 trees in Jacksonville. As a volunteer driven group, Greenscape leads massive plantings on major roadways as well as underserved neighborhoods. Trees are planted in parks, and sites that will benefit the community. Striving to instill environmental stewardship in future generations, Greenscape conducts numerous programs and campus plantings annually which engage students of all ages.

Greenscape is a 501 C3 and is funded through grants, memberships and donations.

..

Greenscape of Jacksonville
Fresh Food Forest
A. Phillip Randolph Heritage Park

- Before -

- After -

- At Work -

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FLORIDA URBAN FORESTRY COUNCIL

Entry Form

Deadline for Submission - October 28, 2016

The City of Winter Haven, Natural Resources Division
NAME OF ENTRY, INDIVIDUAL OR PROJECT

Mary Thornhill, Natural Resources Specialist
NAME OF CONTACT PERSON FOR THE ENTRY

City of Winter Haven
COMPANY/AGENCY

451 3rd Street NW
ADDRESS

Winter Haven | FL | 33881
CITY | STATE | ZIP

863-291-5881 | | mthornhill@mywinterhaven.com
PHONE | FAX | E-MAIL

NOMINATED BY (IF DIFFERENT)

ADDRESS

CITY | STATE | ZIP

PHONE | FAX | E-MAIL

Award Category (please check one):

- ☐ Outstanding Professional
- ☐ Outstanding Tree Advocate or Tree Advocacy Group
- ☒ Outstanding Project
- ☐ Outstanding Urban Forestry Program
- ☐ Lifetime Achievement Award

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Florida Urban Forestry Council
Post Office Box 547993
Orlando, FL 32854-7993

FRIENDS OF OUR URBAN FOREST

Nomination Overview

The City of Winter Haven Natural Resources Division partners with the UF/IFAS Extension Polk County, who provides the expertise for educational booths, and with the Florida Forest Service, who contributes financial support for the event, to coordinate the Winter Haven Arbor Day. This collaborative project is worthy of nomination for the Outstanding Project as a result of careful planning and dedication to improvement each year, it has planted a total of 400 trees, and an estimated 3% increase in diversity on top of providing substantial increases in property values and hydrology function. In addition, this project provides information on urban forestry practice and philosophy to the community via four educational booths which inform them on tree selection, maintenance, and the importance of urban forestry prior to receiving a tree. This helps improve survivorship by instilling a sense of true ownership of the tree. This project's dynamic and holistic approach helps to extend the influence of the Arbor Day event beyond just the day itself, to have a more meaningful and long-lasting impact in ways which benefit the community economically, socially, and environmentally.

Summary of the Project

The City of Winter Haven's annual January celebration of Arbor Day is an event which stands out in dedication to urban forestry as it is designed to increase the impact of tree planting by supplementing education and practical demonstration along with the giving away of trees to engage and educate the public in urban forestry. This event design was a response to the shortcomings of past events, where tree survivorship was low and participants lacked "true ownership" of the tree due to a lack of information, and personal investment. To combat this, The City worked in partnership with University of Florida IFAS Extension Polk County (UF/IFAS

Extension Polk County) and the City of Winter Haven Urban Forestry Advisory Board to coordinate an improved event, which would go beyond simply dispersing trees, but also require participants to "get their hands dirty" give them an informed choice of tree. The past two years' celebrations have been met with great success, with an estimated 500 participants in attendance, a total of 304 trees planted by residential participants, and the remaining 96 planted throughout the community. Three different native species were selected for the event; Winged Elm (*Ulmus alata*), Flatwoods Plum (*Prunus umbellata*), and Dahoon Holly (*Ilex cassine*).

The tree most chosen tree was the Flatwoods Plum. Most of the trees given away were planted in the Winter Haven area, but the event also resulted in plantings in nearby towns, including Lake Wales, Lakeland, and Auburndale, as well as a few plantings as far away as Palm City. The project partners take care in selection of trees species, to ensure the species are aligned with the ecology and hydrology of the region; trees chosen were Florida-Friendly mid-story and under-story trees which would diversify the structure of Winter Haven's upper-canopy dominated urban forest. As a result of this careful planning, the trees that were planted in these events provided copious benefits socially, economically, and environmentally.

The social benefits of the Arbor Day trees manifest in the aesthetic improvement of the City and by providing an estimated 80,000 square feet of additional canopy coverage benefiting residents and wildlife by providing wildlife habitat which in turn increases citizens' enjoyment of the City's green spaces. Economically, the trees planted by the Arbor Day events earn a 16 to 1 return on investment ratio on grant funds, as calculated using the "I-Tree" program. In 30 year projections, these trees are estimated to save just under $200,000 in summer energy

costs, over $40,000 in storm water costs, over $20,000 in carbon dioxide reduction, and just under $10,000 in air quality improvement (A mortality factor was included in developing these numbers). In addition, tree coverage keeps the City's real-estate market competitive via increases in commercial and residential property values. Environmental benefits come from the tree species' natural ability to improve hydrology of the area by reducing nutrient loading to the City's water bodies and preventing flooding. One Winged Elm tree can filter over 120,000 gallons of storm water run-off from rainfall events. The Elms planted over the past events, have the potential to divert over 600,000 gallons of rainfall run-off from lakes, rivers, and canals and redirect it to recharge the Floridian Aquifer.

The event itself consists of four demonstration stalls designed and informed by UF/IFAS Extension Polk County agents, with the Florida Forest Service's County Forester on hand to answer any additional questions. Demonstrations were led by City of Winter Haven employees, UF/IFAS Extension Polk County Extension Agent, or a Polk County Master Gardener. At each demonstration, participants received literature on their chosen tree species and UF/IFAS recommendations for proper maintenance. In order to "earn" a tree, participants were required to attend all four demonstrations, ensured by a stamp on a "passport" given to each household. This ensured that the event not only succeeded in providing trees, but also informed and engaged those planting the trees with the practicalities and philosophy of urban forestry. The Extension office agents helped track and promote long-term investment in trees' future by implementing a follow-up study on tree survival a year after the event.

The Ledger

Free trees will come with lessons on planting and care at Arbor Day celebration in Winter Haven

Thursday Posted Jan 14, 2016 at 3:07 PM

The city will give away 200 trees, but there's a catch - you'll have to learn about them first.

By Madison Fantozzi News Chief

WINTER HAVEN — The city will give away 200 trees, but there's a catch — you'll have to learn about them first.

In partnership with University of Florida's Institute of Food and Agricultural Sciences and Florida Forest Service, the city's Natural Resources Division will have its second Arbor Day Celebration at Central Park today to not only give away trees, but to also educate the residents who take them home.

"We want to make sure they know how to pick, plant and prune their trees to make for good survival," said Shannon Carnevale, natural resources and conservation agent with the Polk County extension of UF/IFAS. She's also chair of the city's Urban Forestry Advisory Board.

Residents will go through three educational stations before going home with their trees.

The first station will match residents with the right trees for their yards. There will be three species to choose from — flatwoods plum, winged elm and dahoon holly.

"They have different heights, shapes and benefits to different residential yards," Carnevale said. "Some are better suited for smaller yards, while others could grow to become shade trees that will need more space."

Once residents are matched with trees, they'll go through two more stations that will teach them how to properly plant and maintain them.

"Making sure it is planted at the proper depth is crucial because, if planted improperly, it can develop root problems as it grows, setting the tree up for failure," Carnevale said. "It's also important to prune the tree to not only benefit it aesthetically, but to also make sure it is healthy and a good shape to withstand wind."

M.J. Carnevale, the city's natural resources program manager and Shannon's husband, said the event is an effort to increase the urban tree population in Winter Haven not only by number, but also in diversity.

"We are oak dominated and if a disease or shift in weather came in and wiped them all out we would be in trouble," M.J. Carnevale said.

The species of trees that will be given away today were chosen because they will boost biodiversity, thus the urban forest's resiliency. They are also native to Florida.

The same species were given away last year — about 100 at the event, and the rest after the city advertised the extras.

UF/IFAS provides the trees using grant money from the Florida Forest Service.

National Arbor Day is in April, but Florida celebrates early because it's too hot in spring.

— Madison Fantozzi can be reached at ***madison.fantozzi****@newschief.com or 863-401-6971. Follow her on Twitter @madisonfantozzi.*

Florida Arbor Day 2015

WINTER HAVEN
The Chain of Lakes City

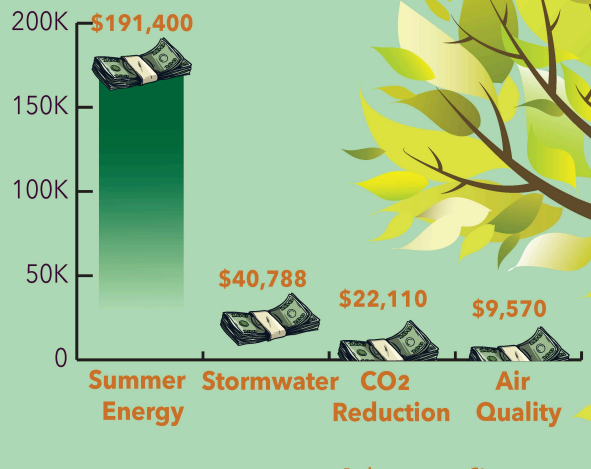
FLORIDA FOREST SERVICE

UF | IFAS Extension
UNIVERSITY of FLORIDA

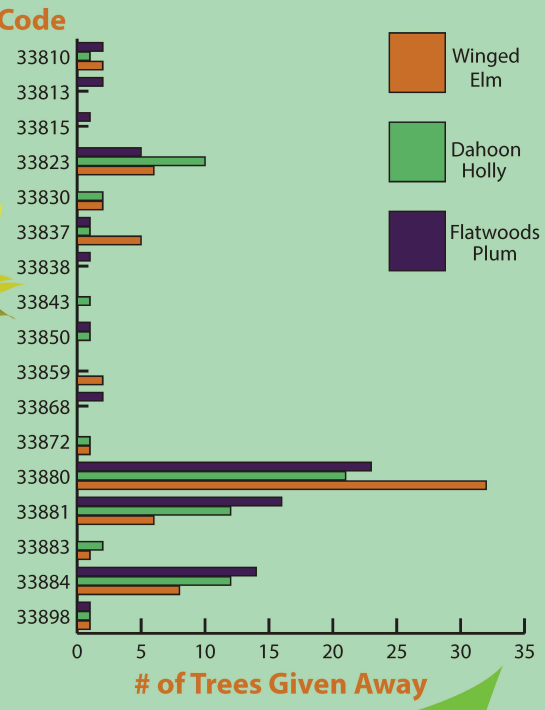
16:1

return on investment
from the Florida Forest Service's Arbor Day Grant

For every
$1
invested in
the Arbor Day Celebration,
$16
in economic, social and
environmental benefits is
produced.



Total $ Benefits (30 years)



# of Trees Given Away

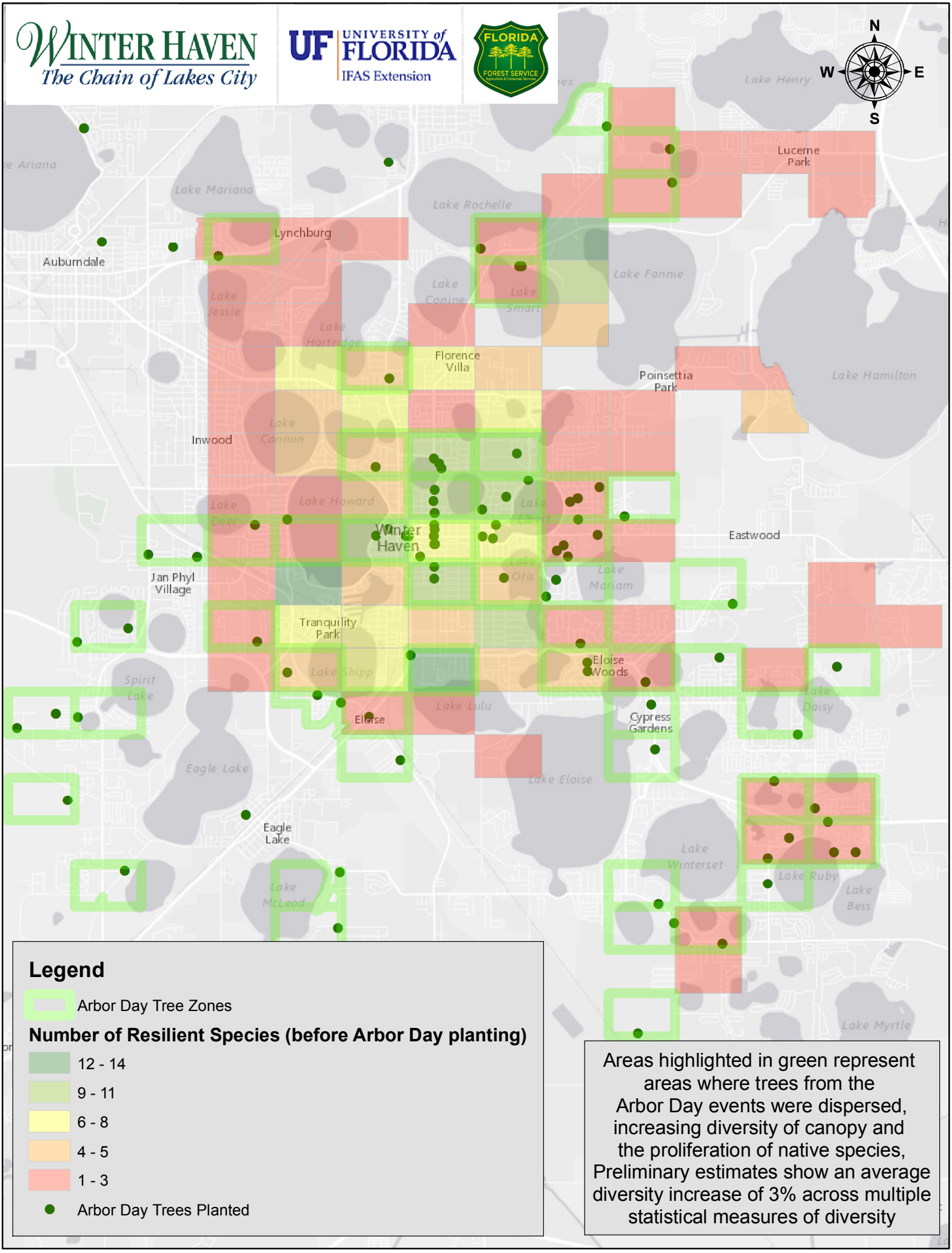
Each Elm tree
can filter
123,059 gallons
of
rainfall and runoff.

Give-away trees
may produce
an addtional
80,388 sq feet
of canopy cover.

Urban Forests
provide natural
wildlife habitat,
increasing
quality of life.

Urban Forests
increase
commercial & residential
property values.

Source: Infographic designed and created by Chrisi Hendricks, chrisihendricks.net. Event statistics produced by the City of Winter Haven Natural Resources Division. Tree values, benefits and cost-savings calculated using the "I-Tree" program.


WINTER HAVEN
The Chain of Lakes City
UF UNIVERSITY of FLORIDA
IFAS Extension
FLORIDA FOREST SERVICE
N
W
E
S
Lake Henry
Lucerne Park
Lake Mariana
Lake Rochelle
Lynchburg
Auburndale
Lake Fannie
Lake Jessie
Lake Hartridge
Florence Villa
Poinsettia Park
Lake Hamilton
Inwood
Lake Howard
Lake Deer
Winter Haven
Eastwood
Jan Phyl Village
Lake Otis
Lake Mariam
Tranquility Park
Eloise Woods
Spirit Lake
Lake Shipp
Lake Lulu
Eloise
Cypress Gardens
Lake Daisy
Eagle Lake
Lake Eloise
Eagle Lake
Lake Winterset
Lake Ruby
Lake Bess
Lake McLeod
Lake Myrtle
Legend
Arbor Day Tree Zones
Number of Resilient Species (before Arbor Day planting)
12 - 14
9 - 11
6 - 8
4 - 5
1 - 3
Arbor Day Trees Planted
Areas highlighted in green represent areas where trees from the Arbor Day events were dispersed, increasing diversity of canopy and the proliferation of native species, Preliminary estimates show an average diversity increase of 3% across multiple statistical measures of diversity

THE CITY OF WINTER HAVEN
NATURAL RESOURCES DIVISION

UF/IFAS Extension Polk County Agent Shannon Carnevale and Florida Forest Service Polk County Forester Corie Walk manning Education Stops at the 2015 Winter Haven Arbor Day

City of Winter Haven Natural Resources Director, Michael Carnevale gives a demonstration to participants

City of Winter Haven Natural Resources Specialist, Mary Thornhill instructing participants in tree selection

Tree species selected for Winter Haven Arbor Day; Dahoon Holly (top left), Winged Elm (top right), and Flatwoods Plum (bottom)

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- Deadline for entry is **October 28, 2016**. Submit the original, one full copy and the three digital photos to:

  Friends of Our Urban Forest Awards Program
  Florida Urban Forestry Council
  Post Office Box 547993
  Orlando, FL 32854-7993

All submitted materials become property of the Florida Urban Forestry Council. ***Please note:*** *The Awards Committee reserves the right to reassign the entry to another category if deemed appropriate. For questions or additional entry forms, please contact Sandy Temple, Florida Urban Forestry Council Executive Director at (407) 872-1738.*

FLORIDA URBAN FORESTRY COUNCIL

Entry Form

Deadline for Submission - October 28, 2016

USF Tree Mapping Project
NAME OF ENTRY, INDIVIDUAL OR PROJECT

Kebreab Ghebremichael
NAME OF CONTACT PERSON FOR THE ENTRY

University of South Florida
COMPANY/AGENCY

4202 East Fowler Avenue, CGS 101
ADDRESS

Tampa | FL | 33620
CITY | STATE | ZIP

813-974-9061 | | kebreab@usf.edu
PHONE | FAX | E-MAIL

NOMINATED BY (IF DIFFERENT)

ADDRESS

CITY | STATE | ZIP

PHONE | FAX | E-MAIL

Award Category (please check one):

- ☐ Outstanding Professional
- ☐ Outstanding Tree Advocate or Tree Advocacy Group
- ☒ Outstanding Project
- ☐ Outstanding Urban Forestry Program
- ☐ Lifetime Achievement Award

Send All Nominations To:

Friends of Our Urban Forest Awards Program
Florida Urban Forestry Council
Post Office Box 547993
Orlando, FL 32854-7993

FRIENDS OF OUR URBAN FOREST

USF Tree Mapping Project

Application for Outstanding Project

Project Overview

The tree-mapping project at the University of South Florida Tampa campus (USF) is a unique initiative that strives to establish a dynamic repository of trees on campus that contains detailed information of trees. This data will provide an important information for campus tree management, research, and education as well as for developing future campus sustainability reports. The project utilizes the TampaTreeMap software, a web-based mapping database, that can be accessed through a mobile phone application. It is unique in that it supports the interactive engagement with the public to enhance tree awareness and stewardship that will also be used by the Grounds Department for campus tree management. The tool has been used by student volunteers to inventory trees on campus and it has been demonstrated to Hillsborough County school students during Arbor Day events. The project involves experts from USF the City of Tampa and Hillsborough County. Funded by the Florida Forest Service and USF, this project strives to make USF one of the first institutions to have an inventory of its entire tree population in a dynamic web-based platform accessible to the public. Project implementation has been successful with over 8000 trees documented so far.

Project Description

USF is a recognized leader in sustainability in the nation. One of its core initiatives is to significantly increase the tree canopy of the campus and mobilize the university community in the greening effort. The Campus Tree Advisory Committee at USF has developed several initiatives and implemented many green projects. For example, it has created a green corridor including a dedicated Forest Preserve and Park. It is constantly increasing its tree population by planting trees from its own budget and supported with grants. This year, students and staff were able to get a Student Green Energy Funding for 74 new trees.

USF has been designated as a Tree Campus USA since 2011 and celebrates the Florida and National Arbor Days by organizing different activities related to tree planting, outreach, and educational activities to the local community and K-12 school children. Over the years USF has mobilized students to plant trees and for maintenance of the landscape and partnered with the City of Tampa to educate students from Hillsborough County Schools on the importance of trees and the benefits of urban forest.

USF takes the greening effort seriously and is attempting to develop a better management plan for more than 10,000 trees on its campus. For this, USF embarked on establishing a database of its trees using a tree-mapping tool. USF, in partnership with University of Florida and City of Tampa, developed the TampaTreeMap (a web based tool that is customized from the Open TreeMap software).

Recently, USF received a grant from Florida Forest Service to inventory all the campus trees using TampaTreeMap. The aim of the project was to build a complete picture of the urban forest on campus and to use the database for tree management. TampaTreeMap is a one-stop repository for tree data that contains information of trees including species, size, height, canopy cover and health conditions. The tool also estimates the capture of Green House Gases (GHG), ecological benefits, improvements in air quality and stormwater reduction of the trees. It is supported by the spatial information of each tree, referenced using its longitude and latitude coordinates based on readings from a GPS unit. The tree information is

also supported by a picture of the tree to help easily identify the specific tree. The tool uses the iTree species found in Florida.

The tree mapping is done using a mobile device such as iPhones or iPads where tree information can be entered using an aerial map of the site. Although TampaTreeMap provides an accurate geographic location of each tree, the resolution of the application in high-density areas is not very accurate to identify each individual tree. In order to increase accuracy, the project uses a separate GPS unit to enter the coordinates. Finally, tree heights are measured using a laser hypsometer.

The wealth of information from the database is used for research and education, as a source of data for GHG and STARS (Sustainability Tracking, Assessment and Rating System) reports and for educating students and members of the community about the values of trees and the benefits of urban forests. The database will be an important tool for the grounds department to better manage trees and plan future tree plantings or replacements. The spatial and visual features of the database allow grounds personnel to easily spot the trees for maintenance or other operational needs. It also provides full information of the number of trees, species, tree canopy, tree condition, and other important properties that will help them manage risk and diversify tree species to maximize ecological benefits.

The funding from Florida Forest Services has been used to hire students to carry out this inventory. The students have the educational background for plant species identification and have been properly trained to use the tools. The students are supported by staff and faculty at USF and by an advisory committee composed of experts in various fields relevant to urban forestry.

The advisory committee ensures quality of the work and provides guidance in the implementation of the project. The committee involves several faculty and staff from USF including the director and staff members of the Office of Sustainability, faculty from Geosciences who developed the tree mapping tool, Curator at USF Herbarium, staff members from USF Facilities Management, Arborists and Natural Resources Coordinators from the City of Tampa and Hillsborough County and an Extension Forester from University of Florida IFAS Extension. Engagement of such a diverse group of experts has enabled the project to proceed efficiently. In a short period of time close to 8000 trees have been inventoried. A snapshot of the tree map and tree information extracted from the database are shown in Figures 1 and 2, respectively.

In addition to the inventory of trees, this project is also serving as a means of increasing awareness among the university community and students in Hillsborough County. During Arbor Day events, the Office of Sustainability mobilized close to 100 student volunteers and staff to use TampaTreeMap to inventory trees around campus using their iPhones. This was a fun exercise for the students and an important occasion to increase awareness on the benefits of urban forestry. We also demonstrated the tool to several students from Hillsborough County schools on how to use the tool and why we need an inventory of trees.

The TampaTreeMap uses a dynamic and open sources software that is supported by a freely accessible mobile phone application. This allows community members to easily engage in the inventory process and help them learn about the role trees play in the urban ecosystem and the various benefits we get from the urban forest. The boundary of the map includes the City of Tampa and we believe that this project will be a great model to add momentum to the efforts of the city in accelerating the tree mapping initiative throughout the city.

In order to ensure that the database is updated when new trees are planted or removed, a staff member from the Grounds Department has already started the training in using the mapping tools. In addition to updating the tree inventory, the Grounds Department will also assess the health of trees to help identify risks and prepare plans for tree removal and replacement. The tree map will also be useful in maintaining diversity of the tree species and guide the greening efforts of the campus.

Once completed, we will inform all university community, especially students and faculty to use it for educational purposes or research activities. This can also be used for educational efforts in Hillsborough county schools.

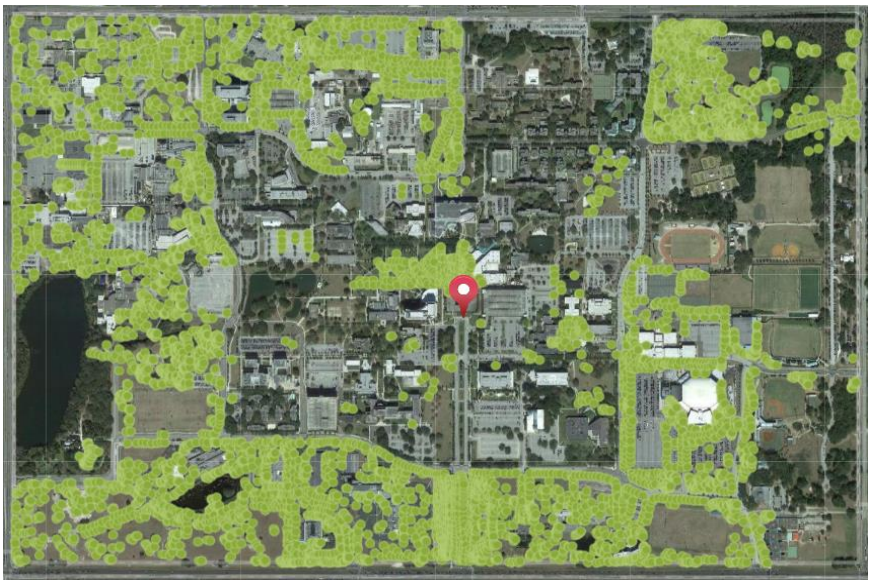

Figure 1: Snapshot of the trees mapped at USF campus as of 10/21/2016. An up to date map can be viewed from this link http://www.tampatreemap.usf.edu/ (search for USF, 4202 E Fowler Ave, Tampa FL, 33620).

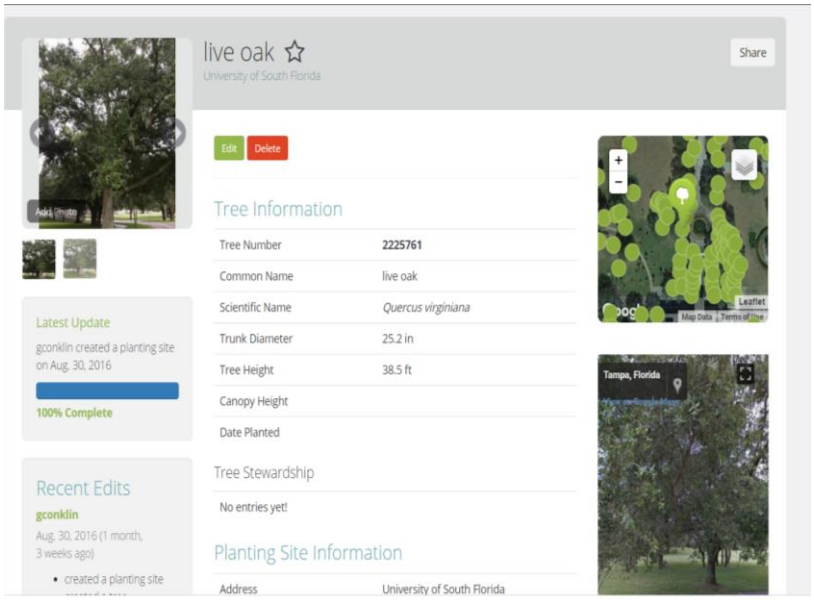

Figure 2: Tree information from the database including a picture

UF | IFAS Extension
UNIVERSITY of FLORIDA

Hillsborough County
5339 County Road 579
Seffner, Fl., 33584-3334
(813) 744-5519

Friends of Our Urban Forest Awards Program
Florida Urban Forestry Council
Post Office Box 547993 Orlando, FL 32854-7993

October 24, 2016

Dear Friends,

I wish to nominate the University of South Florida for the Friends of the Urban Forest - Outstanding Project Award.

The University of South Florida is recognized nationally and internationally as an innovative leader in urban forestry. The reforestation of their campus over the past several decades is just one significant illustration of their commitment to the practice of urban forestry on their campus. They have also developed and implemented an urban forest management plan that recognizes the critical importance of maintaining the health of the forest while minimizing risk to the many thousands of students and faculty on campus every day.

Most recently they initiated a full inventory of the trees on campus. Data collected on each tree follows the protocols set by iTree-Eco, allowing the university to identify important ecological goods and services provided by their forest. Using GPS and GIS they identify and map the precise location of each tree. The full range of the data collected is then stored within Tampa's Open Tree Map software, which was developed on campus. The data and location for each tree are then easily accessed and used as a practical management system by the campus landscape and maintenance department, leading to a more effective and efficient operation.

If this were not enough, the University is teaching their students how to collect, manage and analysis the data. To date the students have collected, stored and evaluated data on 7,350 trees. Anyone who has undertaken this type of project can attest to the level of commitment required, not only by the University but by the students and faculty.

The University of South Florida deserves to be recognized not only for their scientific and technological innovation in the field of urban forestry, but for their leadership in implementing the science and technology on campus. Training their students in the practice of urban forestry develops the leaders needed to address our expanding urban forests, and once again demonstrates the University of South Florida's leadership and excellence in urban forestry within the academic world.

For all of these reasons, and many more which I cannot list here, the University of South Florida deserves this award, and our collective thanks.

Sincerely,

Rob Northrop
Extension Forester

Hillsborough County Extension is a cooperative service of Hillsborough County Board of County Commissioners and the University of Florida.
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HillsboroughCounty GOVERNMENT Florida

Development Services

October 20, 2016

Dear Friends of Our Urban Forest:

Please accept this letter as a commendation for a major undertaking by the University of South Florida over the past year.

After months of planning, the Patel College of Global Sustainability hosted a kick off meeting in November of last year to outline an ambitious tree mapping project for the Tampa campus. Representatives from college departments, local governments, the University of Florida and the Cooperative Extension office gathered to review a proposal for a student-conducted inventory of thousands of trees on the 800+ acre campus. The meeting was productive as the organizers were very receptive to feedback on the survey's approach and timeline.

In March, the advisory committee reconvened to learn that the tree count was nearing 1,000 and insight as to the composition of the campus' urban forest was emerging. In a follow-up meeting earlier this month, committee members were astounded to learn that 7,350 trees had been mapped and GPS locating techniques had been refined.

The value in completing the herculean task of collecting precise data on leafy resources cannot be overstated. Establishing a baseline, tracking tree removals, coordinating and diversifying new plantings, and projecting long term maintenance needs are among the benefits. The work is also expected to complement the university's Plant Species Catalog.

USF deserves accolades for their progressive project. Their work not only will be invaluable for the future design and management of their grounds but serves as an impressive model for other entities to aspire.

Respectfully,

Joe Gross, Natural Resources Manager
Development Review Division
Development Services Department

ARBOR DAY
CELEBRATE TREES

ARBOR DAY

USF TREE MAPPING PROJECT