ENVIRONMENTALLY FRIENDLY LANDSCAPES FOR FLORIDA YARDS

A Guide to Environmentally Friendly Landscaping for the Floridian and Their Yard

Sustainable Design
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Landscape Architecture
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ENVIRONMENTALLY FRIENDLY LANDSCAPING

A Guide to Environmentally Friendly Landscaping for the Floridan and Their Yard

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INTRODUCTION

Grass and plants in the Florida yard takes alot of resources to grow beautifully. Battling against the sun, dry periods and pest, plants oftentimes struggle. The cost for replacement for the average homeowner could be in the thousands of dollars. Then, after installation, there is the continued need to water the grass. And water more even after it is established. And then the continued use of chemicals.

Luckily, there are alternatives to the irrigation requiring, water loving sod. Those solutions can be found in this booklet which is meant as a guide for alternative landscapes, directing homeowners to reduce their lawn an choose plants that will thrive in their Central Florida yard, with little maintenance and water and will be a better choice than the water hungry ornamentals and sod.

For millennia, man has planted plants to benefit humankind's needs, including everything from creating crop fields to sodding with beautiful green grass. The Egyptian queen

Hatshepsut created irrigation canals to water her grooves of trees, not indigenous to that part of Egypt fifteen hundred years before the birth of Christ. More recently, parts of the Everglades State and National Treasure, were planted with the invasive Melalucchai tree in an attempt to dry up those parts. Human needs and desires were accelerated with the continued rise of civilization. These needs and desires ranged from survivability with the need to harvest food for consumption to the simplistic aesthetic need of providing beauty with ornamental plants. These needs and desires gave rise to the development of advanced technology and having been left unabated, the environment has suffered.

Luckily for our planet and our selves, through the conservation minded efforts of people like Teddy Roosevelt and Rachel Carson, people became educated in our limited resources and what an impact mankind has on the planet. We, as a people, became a bit more conscious of the "footprint" we were leaving for future generations and our choices in life changed. Some choices were changed by overbearing government regulation, but other changes came from ourselves. And like a grass roots effort, every little contribution to the cause helps. One of the biggest contributions is awareness and the willingness to share and

pass that information on to others. Another contribution is the action an individual takes; and that action can come in many forms.

One such actions that homeowners can take is the choice of plant material they place in their yards, which would require less water and less chemicals, like native or adapted plants. One of the main attractions to using native and adapted plants is passed directly to the owner of the property. To put it bluntly, there is little to do . It is not necessary to get in the car to go to the gas station for more gas for the mower, nor to go by the hardware store to acquire the special fertilizer that is required of the special ornamental in the front yard. And less time is spent in the yard maintaining, for the correct plant has been placed in an environment that is conducive to the plants growth and proliferation thus requiring less attention.

This guide will also help owners with better environmentally conscious decision making in the landscape as they will be better informed. Once the suggestions in this guide, are implemented, property values will increase, maintenance will lessen, there will be reduced turf cost, wildlife interaction will increase, the impact to the environment will be lessened. These benefits are achieved through small changes and by incorporating environmentally friendly planting practices.

There is great importance of using environmentally friendly planting practices in a landscape that goes just beyond the owner conscious, their wants and needs. Using the right plant in the right place, or the use of native or adapted pants, greatly affects beyond the boundaries of one's yard. This decision affects also the larger picture and is beneficial to the greater environment in which the yard sits. A reduction in the use of water for irrigation draws less water from the Florida Aquifer. If no pesticides are used on inappropriate imported ornamentals, wildlife, such as birds and butterflies will proliferate. The less the grass is mowed, the less trips to the gas station for gas for the mower, the less pollution ....the environmental benefits are countless.

XERISCAPING

A popular name for environmentally friendly landscaping is know as Xeriscaping. Xeriscaping was the first resolute effort to reduce water usage in the landscape. Taking the word landscape and the Greek term “Xeros”, which means dry, the term xeriscape was created by the Denver Water Department in 1981 to conserve water in the dry Denver area. Xeriscaping advises using seven principles for best practice.

7 Principles of Xeriscaping

1. Proper planning and designing
2. Limiting turf areas
3. Selecting and zoning plants appropriately
4. Improving the soil
5. Using mulch
6. Irrigating efficiently
7. Maintaining the landscape

After nearly thirty years the term **Xeriscape** is commonly used, making the practice of a low-water-use landscaping an easily recognized concept. Unfortunately, the term has conjured images of swaths of gravel mulch, barrel cactus and succulents with no grass, as one might find in the deserts of Arizona. That is appropriate for Arizona or Colorado, but not places like Florida. And the imagery of a cactus garden is ill perceived. Xeriscaping can be a lush green vibrant landscape that one would not expect to see in a traditionally water hungry landscape, Xeriscaping can create a beautiful botanical garden. Through the use of environmentally friendly landscaping, one can create a beautiful botanical garden.

Florida-Friendly Landscaping™

The State of Florida developed it's own program from the concept of xeriscaping. This program focuses on plants and a range of environmentally friendly, sustainable practices. Titled appropriately "**Florida Friendly Landscaping**"™ (FFL), Florida's Program takes into consideration storm water run off, appropriate and correct use of pesticides and fertilizer, and protection of the waterfront among other sustainable issues. There is a total of nine Florida Friendly Landscape Principles and all easily implemented. These principles will be examined in detail a bit later in the document.

A new Florida law, effective July 1, 2009, gives homeowners greater rights concerning their yards and installing -friendly landscaping.
Section 373.185 Florida Statutes, "Florida-friendly landscaping ordinances", defines Florida-friendly landscaping as "quality landscapes that conserve water, protect the environment, are adaptable to local conditions, and are drought tolerant."
Paragraph (3) (b) states: "A deed or covenant may not prohibit or be enforced so as to prohibit any property owner from implementing Florida-friendly landscaping on his or her land...." This means that you can landscape your lawn by replacing swaths of grass with Florida Friendly landscaping , even if you live in a homeowners association. Nothing requires that you have maintain a front lawn of only green grass. Homeowners still have to maintain an aesthetic standard found with in the neighborhood. Also, Homeowners associations may require you submit a landscaping plan as some homeowners covenants and restrictions require a landscape proposal for any changes one does to a lawn.

Florida Statutes > Title XXVIII > Chapter 373 > Part I > § 373.185. Local Florida-friendly landscaping ordinances

(1) As used in this section, the term:

(a) "Local government" means any county or municipality of the state.

(b) "Xeriscape" or "Florida-friendly landscape" means quality landscapes that conserve water and protect the environment and are adaptable to local conditions and which are drought tolerant. The principles of Xeriscape include planning and design, appropriate choice of plants, soil analysis which may include the use of solid waste compost, efficient irrigation, practical use of turf, appropriate use of mulches, and proper maintenance.

(2) Each water management district shall design and implement an incentive program to encourage all local governments within its district to adopt new ordinances or amend existing ordinances to require Xeriscape landscaping for development permitted after the effective date of the new ordinance or amendment. Each district shall adopt rules governing the implementation of its incentive program and governing the review and approval of local government Xeriscape ordinances or amendments which are intended to qualify a local government for the incentive program. Each district shall assist the local governments within its jurisdiction by providing a model Xeriscape code and other technical assistance. A local government Xeriscape ordinance or amendment, in order to qualify the local government for a district's incentive program, must include, at a minimum:

(a) Landscape design, installation, and maintenance standards that result in water conservation. Such standards shall address the use of plant groupings, soil analysis including the promotion of the use of solid waste compost, efficient irrigation systems, and other water-conserving practices.

(b) Identification of prohibited invasive exotic plant species.

(c) Identification of controlled plant species, accompanied by the conditions under which such plants may be used.

(d) A provision specifying the maximum percentage of turf and the maximum percentage of impervious surfaces allowed in a xeriscaped area and addressing the practical selection and installation of turf.

(e) Specific standards for land clearing and requirements for the preservation of existing native vegetation.

(f) A monitoring program for ordinance implementation and compliance.

The districts also shall work with local governments to promote, through educational programs and publications, the use of Xeriscape practices, including the use of solid waste compost, in existing residential and commercial development. This section may not be construed to limit the authority of the districts to require Xeriscape ordinances or practices as a condition of any consumptive use permit.

(3) A deed restriction or covenant entered after October 1, 2001, or local government ordinance may not prohibit any property owner from implementing Xeriscape or Florida-friendly landscape on his or her land.

A Word or Two on Natives/Adapted Plants

There is a continuing discussion about whether the use of natives is better than the use of non natives/adapted plants that are acclimated to the Florida environment. There exist a coalition of native purist that insist that everything hence forth should be planted in native plants. And then there are those that argue that the use of only natives is very limiting and not always the best choice for aesthetic pleasure. Natives do offer beauty, and you absolutely can have a beautiful yard with only natives. But there is no reason to limit one's paint palette to 8 different crayons when you can have 24.

There exist a misconception that abounds that once natives are planted, they need no maintenance. In order to attain and maintain any command of appearance, shrubs need to be pruned, shaped on a regular basis. A homeowner simply cannot plant the right plant for the right place and turn their backs on the yard, unless they are attempting the natural look, but the neighbors might not appreciate that, nor the Homeowners Association. Just because we are allowed by law to plant natives, it does not mean we can forgo any maintenance. Most natives, like all plants will need maintaining, but will not be as labor intensive and as other plants often are.

Because you simply choose a plant native to the State of Florida, doesn't mean it is particularly suited to the conditions it is placed in. Florida has an abundance ecosystems differ greatly from one another. Particular plants are often conducive to one ecosystem. Plants require certain conditions to love in. Conditions have to be right and they include proper sunlight/shade requirements, the correct soil type, weather it prefers moist or dry soil, etc. A purple blooming pickerelweed would not last a day in suburban front yard , as it is only suited to wetland edges and water bodies. So choosing the right plant for the right place is imperative.

Florida Friendly Landscaping

The Florida Friendly Landscaping is a guide to creating and having a low impact landscape in the great state of Florida, but the principles are universal and can be applied elsewhere in the nation or the world. The intention of the principles of the Florida Friendly landscape is to simply implement environmentally sound landscape design as well as environmentally friendly maintenance techniques.

9 Principles of the Florida Friendly Landscape

1. Right Plant, Right Place
2. Water Efficiently
3. Fertilize Appropriately
4. Mulch
5. Attract Wildlife
6. Manage Yard Pest Responsibly
7. Recycle
8. Reduce Storm Water Runoff
9. Protect the Waterfront

Right Plant, Right Place

The key for having a newly installed plant thrive and survive in a particular location is that the site and plant must be compatible. Just like two people in a relationship. If a couple don't agree with on another and are annoyed with the other, they will not be attracted to each other. The same is true with plants and the environment in which it is placed. There exist a number of factors that determine whether a plant will do well were it is placed.

Wet or Dry

Florida has an abundance of many different flora for it's many different ecosystems. A wetland loving plant will only survive in areas in which the root zone is saturated and a plant that prefers it's roots to stay dry would rather reside on a high berm or dry spot. If a dry loving plant were placed in too wet of an environment its roots may root, may get a disease and would be more prone to pest, as the plant is in a weakened state.

Dry loving plants would do well in a dry environment. Wet loving plants should be planted along the lake edge and with areas of poor drainage.

Shade

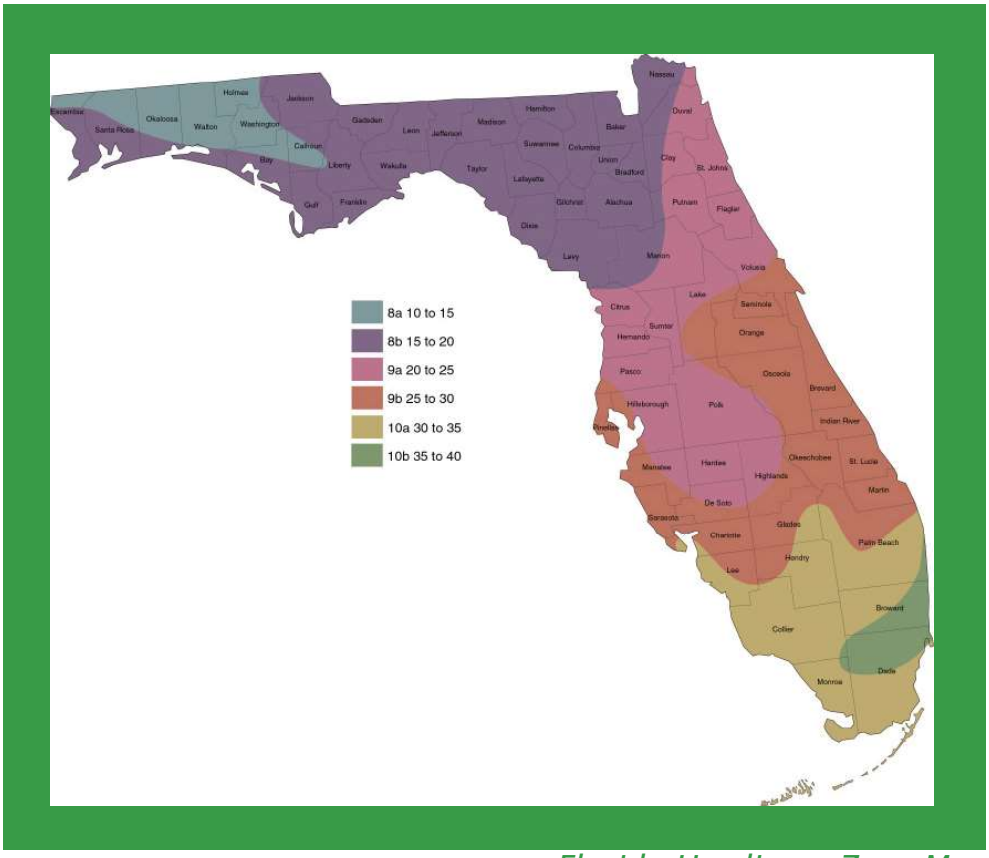
If you have areas of shade that you keep trying to get the grass to grow, then stop it. Grass normally doesn't grow well in real shady areas. New grasses are being developed for the shade, but until we get there, it's best not to waste money by continuing to plant shade intolerant grasses. Instead, plant the area with shade tolerant shrubs or ground covers, making a planting bed of the area.
Shade loving plants often get sunburn and are more susceptible to pet and disease in their weakened state.

Shade Your House

You can use shade to cool your house. The sun is most extreme on the southern and western facades of our houses. Though many of the houses may have adequate insulation, it doesn't hurt to provide any additional shade for the house on those sides. Plant deciduous trees (trees that loose their leaves in fall and winter) along those walls. In the summer, when the trees are full of leaves, the will shade the house. During our tolerable winter, the sun will pass through the leafless branches and warm the house. This situation allows for savings in cooling cost during the summer and heating cost during the winter.

Zones

The United States Department of Agriculture complied a map that differentiate the various plant hardiness zones of the United States. Hardiness Zones refer to the growing and climate conditions a plant can tolerate specifically as it relates to heat and cold. Plants do best with in there specific handiness zone. Plants that are planted outside of their hardiness zone would struggle and die, therefore it is important to place the a plant in it's perspective zone.
Recently the American Horticulture Society refined the USDA's Hardiness Zone which gives greater specificity to the zones and plants.
Florida falls under zones 8-10.



Florida Hardiness Zone Map
http://www.hort.purdue.edu/newcrop/cropmap/florida/default.html

Soil pH

Soil pH is a measure of the acidity or basicity in soils. The pH scale ranges from 0 and 14. A pH of 7 is neutral. A pH below 7 is acidic and above 7 is basic.

pH is important in soil definition as it determines the availability of nutrients that the plant receives.

Soil pH can be changed by adding lime to increase soil pH or aluminum sulfate to decrease the pH. Eventually the added material will leach out of the native existing soil and the material will need to be added again. Therefore, it is advisable not to continually add material to the soil to keep it a certain level.

For ease of maintenance , it's simply better to place the right plant in the right place.

Most plants are in the range between 6 and 8.

pH Scale

Instant Gratification Just Means More Work

In our society and culture, we crave and expect instant gratification, which is saying we want what we want and we want it now. When we determine what we want in a landscape, we want it to be full and lush and immediately. Plants that grow quickly need more maintenance, as they are having to be clipped and pruned to keep any sort of form and beauty. This can lead to perpetual and exhaustive maintenance issues. Slow growing plants might not give you the instant results, but they will last longer and take less work. Always plan for growth.

Plants and Plant Coding

The following pages contain suggestions for your lawn. Categorized into Eco-Systems that simulate different Florida environments, an array of plants are provided that make up these eco-system for a Florida Friendly Yard.

In no way are these suggestions the full palate of plant material to choose from. There are numerous other plants available.

For ideas for additional Florida Friendly plants download a copy of Environmentally Friendly Landscaping for Florida Yards at https://sustainabledesignandconsulting.com/
Sustainable Design and Consulting llc can be contacted for a greater plant palette and consultation.

The common plant name is listed followed by the scientific name. If the plant is native to Florida, the scientific name will be followed by the letter “N”.

Next, it is listed where the plant can live with the indication of the Zone indicative of the USDA Agriculture growing map and further specified by indicating what part of Florida (North, Central or South) it will grow in.

The plants maximum possible growth size is listed as the Height x the Width 50x60 indicates that the plant might grow 50 feet tall, 60 feet wide), This is the expected size the plant can get at the peak of it’s life.

It is then listed what conditions the plant does best including soil, moisture and lighting conditions.

Common Name *(Scientific Name)* N=Native
USDA Hardiness Zone
Location it grows in Florida
Height X Width of Plant
Soil Type,
Wet/Dry Conditions
Sun/Shade Conditions
Additional Information

Trees

http://imgsrv.gardening.ktsa.com/image/ktsag/UserFiles/Image/E_Images/American_elms_1024.jpg

American Elm *(Ulmus americana)* N

North Central Florida , Zone 8-9,
50x60, any soil type, well drained to wet soil
sun to partial shade
attracts butterflies, long lived, vulnerable to wind damage

http://www.cf.edu

Live Oak *(Quercus virginiana)* N

North Central South Florida , Zone 8-9,
60x120, any soil type, well drained to wet soil
sun to partial shade
attracts butterflies and birds, long lived, not for small lots

http://www.duncannurseries.com/images/TREES/Magnolia.jpg

Southern Magnolia *(Magnolia grandiflora)* N

North Central South Florida , Zone 8-9,
40x50, any soil type, well drained to medium drained
sun to partial shade
attracts birds, long lived, beautiful white fragrant flowers

http://www.cirrusimage.com/Trees/red_maple_1.jpg\

Red Maple *(Acer rubrum)* N

North Central South Florida , Zone 8-9,
80x35 , any soil type, well drained to wet soil
sun to partial shade
attracts birds, beautiful red fall foliage, good for wet areas, not to be placed near septic systems

Trees

Sweet Gum (*Liquidambar styraciflua*) N

North Central Florida , Zone 8-9,
100x60, any soil type, medium to wet soil
sun to partial shade
attracts birds

http://www.meridian.k12.il.us/Middle%20School/student_work/Clint_native_trees/sweet-gum.jpg

Sycamore (*Platanus occidentialis*) N

North Central Florida , Zone 8-9,
90x70 any soil type, medium to wet soil
sun to partial shade
good for southern and western facades, sheds, low wind resistance

http://www.meridian.k12.il.us/middle%20school/student_work/JordanStogner

Yaupoon Holly (*Ilex vomitiria*) N

North Central Florida , Zone 8-9,
30x40 any soil type, medium to wet soil
sun to partial shade
attracts birds

http://choateirrigationusa.com/Trees/HollyYaupon.jpg

Wild Olive (*Osmanthus americanus*) N

North Central Florida , Zone 8-9,
30x40 any soil type, medium to wet soil
sun to partial shade
white flowers, fruit attracts birds

http://hort.ifas.ufl.edu/treesand-powerlines/images/osmanthus_americanus_winter.jpg

Shrubs

http://www.tytyga.com/product/image6/986/2.jpg?1249506078Plants/callicarpadichotoma_mb_1_lg.jpg

Anise *(Illicium floridanum)* N

North Central South Florida , Zone 8-9
10x10 , any soil type, well drained to medium
sun to partial shade
flowers

http://www.hmegardening.com/CMS/uploadedImages/Images/Gardening/Plants/callicarpadichotoma_mb_1_lg.jpg

Beautyberry *(Callicarpa americna)* N

North Central South Florida , Zone 8-9
7x7, any soil type, well drained to medium
partial shade to shade
beautiful purple fruits, attract birds

http://theflowerstation.com/wp-content/uploads/2009/03/butterfly20bush.jpgPlants/callicarpadichotoma_mb_1_lg.jpg

Butterfly Bush (*Buddleia lindeyanna*)

North Central South Florida , Zone 8-9
6x4, any soil type, well drained to medium
sun
purple spire blooms attracts butterflies

http://theflowerstation.com/wp-content/uploads/2009/03/butterfly20bush.jpgPlants/callicarpadichotoma_mb_1_lg.jpg

Confederate Rose (*Hibiscus mutabilis*)

North Central South Florida , Zone 8-9
12x12, any soil type, well drained to medium
sun to partial shade
attractive blooms

Shrubs

Coral Bean (*Erythrina herbacea*) N

North Central South Florida , Zone 8-10,
15x10 , any soil type, well drained to medium
partial shade to shade
flowers attract butterflies and hummingbirds
toxic seeds

http://www.kevinwoodlandscapes.com/images/fullsize/PlantPalette/CoralBean.png

Duranta (*Durnata erecta*)

Central South Florida , ***Zone*** 9-10,
15x15 , any soil type, well drained
sun to partial shade
flowers attracts birds, butterflies and hummingbirds

http://www.oramsnurseries.com.au/duranta_GoldForm.jpg

Firbush (*Hamelia patens*)

Central South Florida , Zone 9-10,
20x8 , any soil type, well drained to medium
sun to shade
red flowers attracts, birds butterflies and hummingbirds

http://www.betterlawns.com/images/firebush0209_lg.jpg

Gallberry (*Ilex glabra*) N

North Central South Florida , Zone 5-10,
15x10 , any soil type, prefers low pH well drained to medium
sun to partial shade
fruit attract birds

http://farm1.static.flickr.com/190/457745149_f3a776311b_z.jpg?zz=1

Shrubs

http://farm3.static.flickr.com/2803/4464184575_a2ef9d1cbc_z.jpg

Dwarf Yaupoon Holly (*Ilex vomitioria*) N

North Central South Florida , Zone 8-9
3x3, any soil type, well drained
sun to partial shade
compact shrub

http://farm5.static.flickr.com/4003/4464187139_e600e9487d_z.jpg

Simpson Stopper ((*Myrcianthes fragrans*) N

Central South Florida , Zone 9-10
12x12, any soil type, well drained to medium
sun to partial shade
attractive white blooms that attracts birds and butterflies

http://theflowerstation.com/wp-content/uploads/2009/03/butterfly20bush.jpgPlants/callicarpadichotoma_mb_1_

Walter viburnum (*Viburnum obovatum*) N

Central South Florida , Zone 9-10
15x15, any soil type, well drained
sun to shade
attractive flowers, birds attracted to fruit

http://theflowerstation.com/wp-content/uploads/2009/03/butterfly20bush.jpgPlants/callicarpadichotoma_mb_1_lg.jpg

Wax Myrtle (*Myrica* cerifera) N

North Central South Florida , Zone 8-10
25x25, any soil type, well drained to medium
sun to partial shade
attracts birds and butterflies

Groundcovers

Perennial Peanut (*Arachis glabra*)

North Central South Florida , Zone 8-11,
6 inches high, sandy soil,
well drained to medium
sun
yellow orange flowers, damaged by frost, substitute for grass

http://3.bp.blogspot.com/_KYbtNqEEgXc/TB-7lwxuPqI/AAAAAAAAAnk/Y4eYWfZPE14/s1600/Perenniall+pnut+lawn.JPG

Periwinkle (*Catharanthus roseus*)

Central South Florida , Zone 9-11
1foot high , any soil type, well drained to medium
sun to partial shade
flowers

http://www.kevinwoodlandscapes.com/images/fullsize/PlantPalette/CoralBean.png

Lantana (*Lantana montevidensis*)

Central South Florida , Zone 9-10,
1-3 high , any soil type, well drained
sun to shade
flowers of different colors if different species, attracts, butterflies

http://www.oramsnurseries.com.au/duranta_GoldForm.jpg

Sensitive Mimosa (Mimosa pudica) N

Central South Florida , Zone 9-10,
6 inches, any soil type, well drained to medium
sun to shade
pink flowers that attract butterflies

http://www.betterlawns.com/images/firebush0209_lg.jpg

Vines

http://www.wildflower.org/image_archive/640x480/JAM6151/6151_IMG03255.JPG

Trumphet Vine (*Campsis radicans*) N

North Central South Florida , Zone 8-10
varies, any soil type, well drained
sun to shade
orange red flowers that attract butterflies and hummingbirds

http://thenaturejunkie.com/wp-content/uploads/2010/06/CoralHoneysuckle-Cropped.jpge600e9487d_z.jpg
jpgPlants/callicarpadichotoma_mb_1_

Coral Honeysuckle (*Lonicera sempervirens*) N

Central South Florida , Zone 9-10
varies, any soil type, well drained to medium
sun to partial shade
attractive white blooms that attracts birds and butterflies

http://www.phillipoliver.net/sgcarolinajessamine.jpgjpgPlants/callicarpadichotoma_mb_1_lg.jpg

Carolina Jessamine (*Gelsemium sempervirens*) N

Central South Florida , Zone 9-10
varies, any soil type, well drained
sun to partial shade
attractive yellow flowers attract hummingbirds

http://2.bp.blogspot.com/_L4JA5IeFoMo/SeVM-_b33JI/AAAAAAAAEE4/Q8ANcFa3Dbs/s400/4,15,+Confederate+jasmine.jpg.

Confederate Jasmine (*Trachelospermum jasminoides*) N

North Central South Florida , Zone 8-10
varies, any soil type, well drained to medium
sun to partial shade
attractive white fragrant flowers attract hummingbirds

Grasses

Fakahatchee Grass (*Tripsacm dactyloides*) N

North Central South Florida , Zone 8-11,
4 x4, any soil, well drained to medium
sun to partial shade
yellow orange flowers, damaged by frost, substitute for grass

http://farm3.static.flickr.com/2588/3784892175_74a59688a7_z.jpg

Purple Love Grass (*Eragrostis* spectabilis) N

North Central South Florida , Zone 8-10
3x3 high, any soil type, well drained to medium
sun
red purple flowers

http://www.oaklandwildflowerfarm.com/thumbs/Purple%20Love%20Grass%20Thumb.jpg

Muhly Grass (*Muhlenbergia capillaris*) N

North Central South Florida , Zone 8-11,
3x3 high , any soil type, well drained to medium
sun
Pink flowers

http://pazgrowers.com/images/Muhl_Muhly__Pink_Muhly_Grass.jpg

Sand Cord Grass (*Spartinia bakerii*) N

North Central Florida , Zone 8-9,
3x3 sandy soil, well drained to wet
sun

http://farm3.static.flickr.com/2461/3784927633_8013e201cc_z.jpg

Aquatic Plants

http://www.lakewacowetlands.com/images/plants/Duck_Potato-L.jpg

Duck Potatoe (*Sagittaria latifolia*) N

North Central South Florida , Zone 8-10
3, any soil type, wet
sun
white flowers, grows in mass

http://www.bing.com/images/search?q=Bulrush%2c&view=detail&id=368BB9C774E84646E3769B9F9F0F45E34826

Bullrush (*Scirpus spp*) N

North Central South Florida , Zone 8-10
4, any soil type, wet
sun
Grows in mass

http://www.plantplaces.com/photos/Cephalanthus.occidentalis.Moonlight.Fantasy(Small).JPGchotoma_mb_1_lg.jpg

Buttonbush (*Cephalanthus occidentalis*) N

Central South Florida , Zone 9-10
6, any soil type, wet
sun to partial shade
white flowers

http://www.joesnowaquaticplants.com/pickerel.jpgAAAAAAAAEE4/Q8ANcFa3D-bs/s400/4,15,+Confederate+jasmine.jpg.jpgPlants/callicarpadichotoma_

Pickerlweed (*Pontederia cordata*) N

North Central South Florida , Zone 8-10
3, any soil type, wet
sun
purple spire flower

Butterfly Plants

Candy Corn Cuphea (*Cuphea micropetala*) N

North Central South Florida , Zone 8-11,
4 x4, any soil, well drained to medium
sun
Yellow orange flowers

http://toptropicals.com/pics/garden/c20/1127.jpg

Milkweed (Asclepias *curassavica*)

North Central South Florida , Zone 8-10
3x3 high, any soil type, well drained to medium
sun
red and orange flowers

http://reddirtramblings.com/wp-content/uploads/2009/01/tropical-milkweed.jpg

Porterweed (*Stachytarpheta jamaicensis*) N

North Central South Florida , Zone 8-11,
3x3 high , any soil type, well drained to medium
sun
Blue flowers

http://www.almostedenplants.com/shopping/images/full/Stachytarpheta%20jamaicensis.jpg

Salvia (*Salvia coccinea*) N

North Central Florida , Zone 8-9,
3 sandy soil, well drained to wet
sun
Red flowers

http://www.curtismartingroup.com/SalviaRed.jpg

Water Efficiently

It is estimated that households spend over 50% of their water usage on the lawn needs. If the landscape is designed and planted properly with native and adapted plants, the water requirements will be gravely reduced. The less water used, the better for the environment and the Florida Aquifer.

Irrigation Tips

Establish appropriate irrigation zones, separating turf zones from shrub bed and tree zones. Turf requires more water than shrubs and trees.

Be aware of your specified watering days established in your municipality and always mind the restrictions imposed.

A state mandatory rain sensor should be installed on your irrigation system. This allows it to shut off when rain has fallen, usually set to half an inch of rain.

Only water when grass shows signs of distress. Signs of distress include: bluish gray color, folded leaf blades, wilted appearance.

Don't water at the hottest times of the day, which are 10 am- 4 PM. The heat of the day and any wind increases evaporation. Optimum water times are between 4 AM and 7 AM.

Turf, plants and trees require less water, because of less evaporation, during the cooler months of the year from November to March.

Irrigation systems, like plants, require maintenance. Regularly check for leaks and broken heads. And check that the system is uniformly covering the areas intended.

Consider using or converting to a micro irrigation system. This is a type of irrigation system that uses considerably less water and the water is directly applied to the plant with less over spray. A micro irrigation system delivers small volumes of water directly to the root zone through low-flow emitters, like micro-spray jets, bubblers, or drip tubes.

Fertilize Appropriately

The different areas of your yard require different fertilizer types. Some fertilizer is specific for you're grass. Other fertilizer is specific for palms, while others are specific for woody plants and shrubs.

Proper fertilization is essential. If one over fertilizes, not only will you pollute the environment unnecessarily, the plants or grass can become damaged, susceptible to pest and disease and even die. Too little fertilization means your just wasting your money and teasing your plants.

When natives are used, little if no fertilizer is typically needed, as nature provides the plants with what it needs.

Fertilizers Primer

Fertilizer bags are easily recognized by the three numbers on the front of the package, that usually read something like 10-10-10 or 16-2-8 and its easily recognizable and distinctive sulfuric odor. These three numbers indicate the percentage amount of chemical nutrients of the contents.

The first number indicates nitrogen. Nitrogen benefits the plant or turf by "greening" it up.

The second number represents phosphorus. Phosphorous helps with root growth and is beneficial to the blooming of the flowers of a plant.

The third number represents potassium. Potassium is important in the manufacture of sugar, starches and proteins, which directly contribute to photosynthesis, fruit quality and plant health, and specifically, maintenance of defense systems to ward off diseases and pest.

Each chemical contributes beneficially to the plants robustness and strength in it different ways. It is the nitrogen and phosphorous that are most detrimental to the Florida Aquifer and contribute to it's pollution.

Nitrogen, Phosphorus and Potassium are also referred to as N-P-K. A 50 pound bag of 16-2-8 fertilizer means that 16% is nitrogen (8 lbs in a 50 lb page) , 2% is phopshrous (1 lb phosphorous) and 8 % is potassium, (4 pounds is potassium) . The other weight is made of inert chemicals.

Preventing Pollution from Fertilizers

Use slow release fertilizer

When selecting fertilizer, the most important point is that a slow release fertilizer which is best for your plants and the environment. With slow release, chemicals are not leached in mass into the soil and are not lost. A slow release formula, over time, benefits the plants it is applied to. This is particularly important to a lawn, as a quick release fertilizer can cause quick growth and ultimately lead to more thatch in grass and long gangly shoots in plants.

Don't Spill Fertilizer

Don't spill fertilizer on drive or walk ways. Otherwise it will more easily wash into storm drains and thus into water bodies of the florida aquifer. If you do get the fertilizer on the hard surfaces, sweep it up and use it on the intended plant or plants.

Be Mindful of Waterways

Do not fertilize within ten feet of any waterway, as this will further prevent fertilizer from contaminating the water systems.

Manage Yard Pest Responsibly

Because of the dangers of pesticides to humans and our environment, the pest management industry is changing. With the mass disappearance of pollinating insects and the concern for pollution, practices have shifted for the better.
The best approach to managing pest is Integrated Pest Management or IPM. This practice centers on a combination of environmentally friendly pest management practices that focus on pest prevention.

Ways to Prevent Pest

Plant the right plant in the right place. Plants that are in the right location will be healthier and less stressed than those not.
Keep plants healthy by properly watering and fertilizing. By keeping plants healthy, insects will stay away and gravitate to the weaker plants that are more susceptible.
Not too much water or fertilizer. Both water and fertilizer in amounts that exceed the recommended usage will cause excessive growth or weaken the plants which open them up for attack from insects or diseases.
Inspection. As part of maintenance, and personal enjoyment, take a walk through the yard and visually inspect the plants for signs of disease and pest.
Mow grass at the proper height. If your mower settings are too low, it may scalp the grass and will weaken it.

Treating Pest Problems

Pick off the Pests
Remove the pest by hand as well as the affected leave or plant part.

Be aware of beneficial bugs, the good guys.
They prey on the bad guys and help eliminate them. The include lady bugs, predaceous thrips and mites. Therefore do not use a broad spectrum pesticide that is a kill all, in that it kills all bugs that it is used on. Always treat for the specific pest.

Read all product labels carefully and abide by them.
Abiding by the proper direction is important, improperly mixed, chemicals can be detrimental to the plant.

Use Dish soap
Alot of pest can be taken care of with a mix of 2 Tablespoons of Dawn Dish soap and a gallon of water. Spray this mix on the offending pests and plant. It is believed the soapy water disrupts and breakdowns the outer skin of soft bodied pests.

Mulch

Mulch serves many purposes in the landscape. It is used to hold moisture in the soil to benefit the plants that are mulched. It is also used for weed control, preventing weed seeds form germinating and growing. Mulch provides aesthetics with it's uniformity and texture. Mulch also provides space definition by defining beds with it's contrasting color and texture of the grass areas. Also, it provides safety for the plants by creating a buffer area from the grass areas that are mowed, mulch prevents damage from weed trimmers and mowers to the plants. Natural mulch also helps with the plant nutrients as it decompresses by adding nutrients and organic matter. Most mulches are the by product or cast off products of another industry. Because of this, mulching is a form of recycling what would normally be a waste product.

Types of Mulch

Pine bark
A by product of the forestry industry.

Pine needles
A by product of the forest industry.

Melaleuca mulch
Made from the invasive exotic trees. Because this is coming from an invasive species, it is helping eradicate the invasive species. Make sure this mulch is heat treated to exterminate any melaleuca seeds.

Mixed hardwood mulch-
A by product of the lumber industry , made from scrap lumber.

Eucalyptus mulch
Derived from fast growing trees specifically grown for the purpose of mulch.

Utility mulch
By product of the tree trimming services and utility line companies trimming trees away from utility lines, this mulch, often free, contains a mixture of trees. Because it is not treated, it may have seeds.

Organic Mulch vrs Inorganic Mulch

It is best to use organic mulches in the landscape There are alternatives for mulch that are inorganic which include recycled rubber, rock, pebbles, sea shell and gravel. None of these offer the organic or nutrient value of the organic mulch. Mulches like stone or gravel do nothing to retain soil moisture and during the summer retain heat which is detrimental to the plants. Rubber mulches may leach chemicals into the lawn and planting beds which are harmful to the plants and natural ecosystem. Limestone and shell will raise the soil pH.

There are a number of organic mulches on the market that can be purchased in bags or by the bulk yard. Among the available mulches is cypress mulch. It is recommended that this type of mulch not be used. Though some of this mulch is simply the by product waste from items used for to build with cypress wood, it all comes from the ecologically sensitive wet lands that should not be disturbed by the harvesting of the trees.

It is best to use pine bark mulch or pine needles.

Mulching Tips

-Mulch should be spread 3”-4” deep for proper moisture retention and weed prevention,

-Mulch should not be placed against the trunk of trees and shrubs, but rather 6” away from the base of the plant. Mulch placed against the base may cause excessive moisture and rot.

-Mulch to a tree/shrub drip line (width of the branches on new plants)

How Much Mulch

Mulch can be bought and installed easily in bags. Otherwise, you can purchase it in bulk quantities. To determine the appropriate amount of mulch you will need, measure the area in square feet. For our example we will say the bed is 100 square feet. Now determine the depth of mulch you are wanting and convert that into a decimal. If you want 3” of mulch, that would be divided by 12” which equals to 4”. Convert this to .25’ decimal point. Now multiply this by the square foot measurement (100x.25=25 cubic feet) Now to determine the cubic yards you must convert cubic feet to cubic yards. To do this, divide by 27 (25/27= .926) Therefore you will need .926 cubic yard of mulch. When ordering, you would specify 1 cubic yard of mulch, rounding up.

Attract Wildlife

As Florida becomes ever more developed and the natural areas are reduced, so is the wildlife that was once so prolific. Our continued reliance and use of pesticides that we spray to keep the bad bugs off, also keeps the good bugs away.

By including a few Florida Friendly, wildlife attracting plants and features, one's yard can be an oasis of not only flora, but of fauna. Incredibly a yard planted in Florida Friendly can be a safe haven for wildlife that includes rabbits, turtles, birds, bees, butterflies and caterpillars. The more diverse the landscape, the greater the variety of wildlife that will appear, utilize and habitat in ones yard.

Features that Attract Wildlife

Food

Food can come in the form of seed you put out for birds. Food may also come in the form of plants that will feed animals that bear seeds and berry's for birds, nectar for butterflies or foliage for caterpillars. Some animals such as squirrels eat acorns, other animals eats fruits.

Water

Another essential for survival is water which can attract a number of wildlife forms. A simple birdbath can attract birds for a mid afternoon bath or drink of water. It will also attract other wildlife including butterflies, squirrels and bees.

Plants that Attract Animals

Shrubs that Attract Birds

Beautyberry, Blueberry, Elderberry, Florida Privet, Holly's, Serviceberry and Wax Myrtle.

Trees that Attract Birds

Sweet gums, Tulip's, Oaks, Hackberry, Magnolia, Hickory, persimmon, Mulberry and pine.

Trees that Attract Butterflies

Tulip Popular, Golden Shower, Fringe Tree and Bottlebrush

Shrubs That Attract Butterflies

Paw paw, Buddleia, Fiddlewood, Glossy Abelia, Buttonbush, Firebush and

Perennials That Attract Butterflies

Milkweed, Tickseed, Firecracker Plant and Mexican Sage

Recycle

Regular maintenance of the lawn and yard produces waste on a consistent basis that can be used in a recycling capacity which yields valuable nutrients and gives soil structure back to the lawn.

There is really no need for you to place your yard waste by the curb for it to be hauled away, unless your removing large amounts of limbs, shrubs or a tree. Yard waste should be processed on property in the form of compost. There is no need to fill a landfill up with what can in turn be used to benefit in your yard.

Benefits of Composting

Reduces landfill need
Improves soil structure
Improves soil texture
Improves soil aeration
Improves soil nutrients and fertility
Loosens compact soils

Tips on Composting

Do not bag your grass clippings, leave them where they lie when you cut your lawn and let them decomposes, returning nutrients back to the soil. This practice can lead to 50% reduction of the use of nitrogen fertilizer.

Lawn mower blades that mulch the grass reduce the size of the grass clipping's expediting the decomposition process.

Let leaves and pine straws that fall in beds stay there. It is simply natures way of mulching itself.

A composting system doesn't need to be an elaborate bin or series of bins. A compost area can simply be a plant pot, a pile or a small hole dug in the yard.

Kitchen waste that can be composted include discarded fruit peelings, vegetable waste, paper towels, egg shells and coffee grounds. No meat or bones.

Household waste that can be composted include vacuum cleaner waste, newspaper (crumpled up and or shredded), discarded paper, (crumpled up and or shredded), old mail (crumpled up and or shredded, no glossy mail pieces or translucent windows).

When you prune shrubs and trees, toss the cuttings into a compost area. For larger pieces, that may take longer to decompose, place them in their own pile, out of sight.

Factors of Successful Composting

Moisture

Some moisture is required to for the decomposition process to take place, but not too much moisture.

Oxygen

Composting can take as long as two years or as short as four weeks, depending on the conditions. To facilitate the decomposition of the material, turn the pile with a pitchfork to mix and aerate the material.

Nitrogen and Carbon

Combine a mixture of Nitrogen and Carbon (green and brown material, such as green clippings and dried leaves).

Reduce Storm Water Runoff

Storm water is a cause of alarm for pollution for our water system. Pollution from storm water is referred to as a non point source pollutant (NPS). NPS cannot be attributed to one particular source. Over time, the pollutants such as gasoline, fertilizer, pesticides build up. This water runoff from impervious surface, such as drives, walks and roads, and excess water from saturated soil, transports sediments and pollutants to nearby waters.

The ideal solution would be to capture all the rain that fell on your property and have it properly soak into the soil on site. This is sometimes not possible as the roof diverts mass amounts of water to several particular areas of the yard and that drain to the street. Also alot of soils in subdivisions are simply compacted due to the building process and cannot properly soak in the soil and thus runs off the property.

Ways to Reduce Storm Water Runoff

Landforms

You can create land forms that direct water runoff that would otherwise wash from your yard. By constructing swales and berms, you can create natural looking attractive landscape features.

Rain Collector

An old technology, the use of rainwater collectors in the landscape goes back far.

Rain barrels are typically made from 55 gallon drum barrels with a hole at the top to receive the gutter downspout and a spigot at the bottom to control the outflow of water.

Cisterns are larger in size and hold much more water. This usually requires a bit more thought in planning and logistics as it takes up much more space.

Porous Surface

Porous surfaces allows water to seep through to the ground and not collect on the surface. They include the use of bricks, pavers, gravel, mulch.

Protect the Waterfront

Florida Waters play an important role in the state of Florida and the states many ecosystems. It is imperative that we protect them as they are an important factor in the balance of the natural cycle of the environment.

The main consideration for lakes, ponds and streams is to protect at least 10' between the shoreline's water body and the lawn. In this 10' space it is recommended that you plant in a natural planting with no mowing, fertilizing or using pesticides. With the natural planting, it will be easy to maintain. This natural zone needs to be able to slow the velocity of storm water runoff, filter nutrients and sediments from runoff and hold the soil in place with no erosion. If you do not live on a lake or pond, there is of course no need to adhere to this Florida Friendly landscaping principle.

Suggested plants for the Waterfront

Arrowhead,
Pickerelweed,
Crinum Lily,
Duck Potato
Bulrush
Sand Cord Grass
Bullrush
Buttonbush
Thalia

Creating a Florida Friendly Yard

The Design Process

A Florida Friendly Landscape should be the determining factors that lead you in your design. By following these principles, you can create a beautiful environmentally friendly landscape that will be easy to maintain and a pleasure to experience. The principles will dictate and lay out a proper plan of action that one can take and adhere in the installation, life and management of the landscape.

The following design process gives a structured logical organized manner to the solution of a landscape design by determining the appropriate needs in a prioritized order.

1. Determination of Needs

What are you goals for the yard? Do you plan on having a recreational area for the children? What of a relaxing/meditation area with a hammock or seating area under shade? What about an entertaining area to host friends and have barbecue and drinks? What about a garden for vegetables and herbs?

Make a list of the goals of your yards in order of priority. One of the most important factors to consider is of course the budget. A budget needs to be determined in order to know the availability of funds for the items wanted. If you can't afford to do it all at once, you can later phase in the other elements or areas of your yard.

As a designer, I would hope that everyone's desire is too have a beautiful yards. It would also be hoped that everyone would use their yards in recreation and activity, but we live in a culture where television dominates and outside time is dwindling. Some folks simply want to have a carefree lawn, where they do not have to spend time outside or if they must, minimal time. A properly designed space would afford and allow homeowners an opportunity to want to spend time in the designed exterior environment.

2. Become Educated

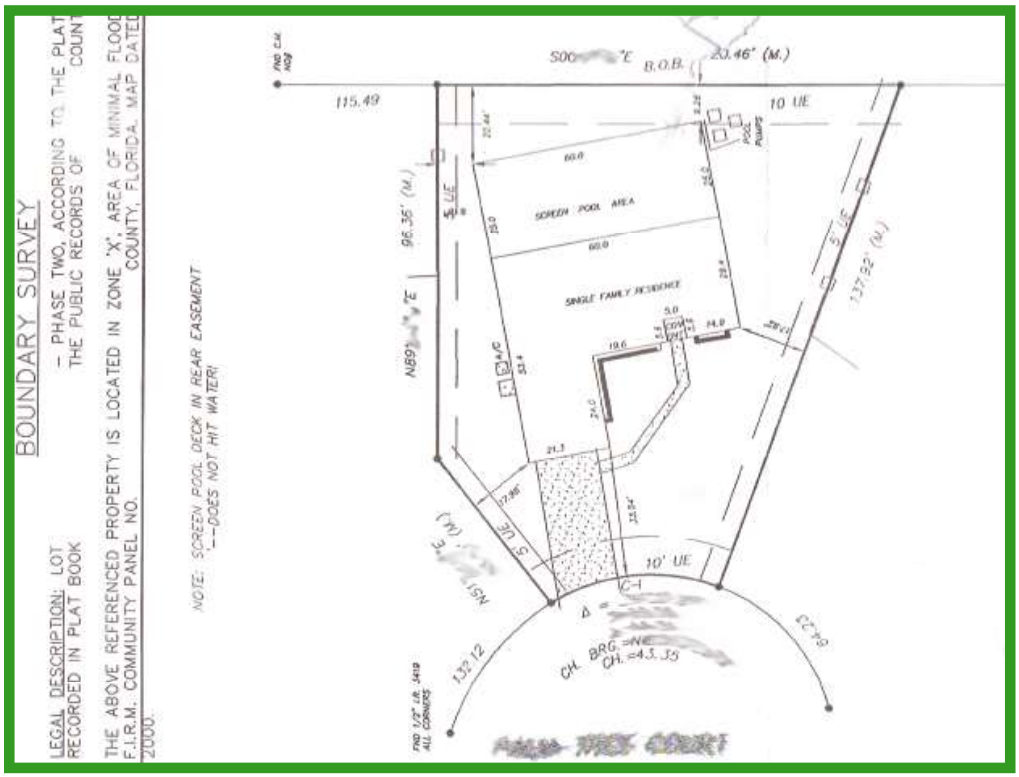
In order to have a successful sustainable landscape that will last and flourish for years to come, it is best to become educated in matters concerning Florida Friendly yard and to also become familiar with plants. Use this guide as a starter and research.

3. Site Analysis

Site analysis is the initial step of the process in which the site is examined. All the existing information is observed and gathered. In order to perform a proper site analysis, one should have a base plan as well as have performed a site inventory.

a. Base plan preparation

i. A base plan is used in locating the existing elements of the site. A base plan is simply an overhead view of the yard with house and drive located on it. It is much like a bird's view of the site would be if it were flying over. The base plan can be a survey of the plot or one can sometimes obtain the survey by accessing the County Property Appraiser's website. An overhead view shot can also be accessed through map websites such as yahoo maps or google earth. Or one can simply measure and sketch the plan one's self.



Base Plan-Survey of a typical lot

b. Site Inventory

i. Site inventory is a list of existing elements on the site. These include such obvious things as property lines , large shrubs and existing trees. Others items to consider are topography, all vegetation, poor drainage areas, over-head power lines, telephone poles, street lights, sewer lines, septic tanks, the views from the windows of the house,the curb appeal, outside water spigots, air conditioning units, walks, dry spots.

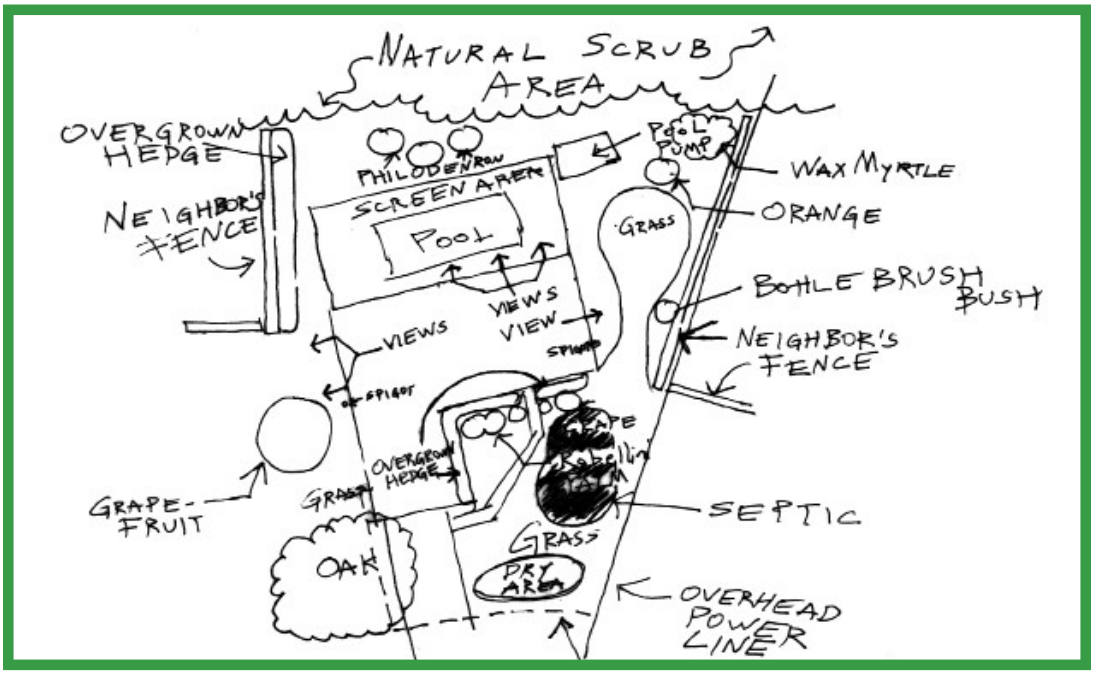
ii. Some important factors need to be determined such as soil type. One is the soil sandy as it is in most of Florida? Or is there large amounts of clay in it? And what of the pH of the soil? Is it acidic or alkaline? The determination of soil is important when picking plants, as certain soil types are a necessity in some plant choices. Soil test kits can be obtained from local hard ware store and be purchased for about ten dollars.

iii. Also of great importance is to identify environmental factors such as wind direction, sun direction and sun path.

iv. Site Inventory also takes into accounts the adjacent off site conditions, such as roads, other properties, and what conditions exist like overflow drainage.

vi. Locate underground utility lines by calling the national “Sunshine” 811. This is important so you do not cut utility lines, loose service or get injured.

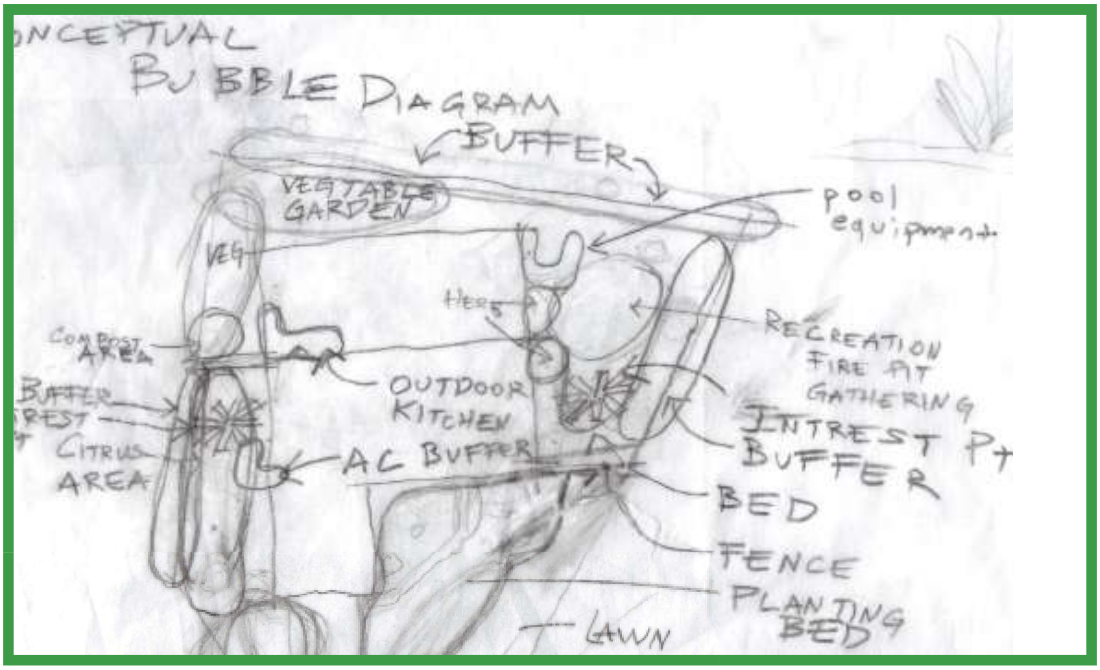
For a clear inventory that will make up the analysis, it’s a good idea to make a copy of the base plan and take the inventory notes on it.



Site Analysis of lot

5. Bubble Diagram

Once a Site Analysis is completed, a homeowner can take the base map and create a bubble diagram indicating areas of the yard where they want the specific desires. You will decide if your meditation garden will go next to the fence or not, where to place the entertaining area, the vegetable garden. These decisions will be based on the site analysis.



Bubble Diagram Derived from Site Analysis

6. Create a landscape plan

Put to paper, overlain over the survey or a copy of the survey, your landscape plan, taking into account the information you discovered from the site analysis and your desires you sketched on your bubble diagram. Draw where you want plants.

Tips on Designing

Plants should be placed in odd numbers when grouping them.

Repeat plants species and color throughout the yard for continuity.
Don't plant plants too close to the house, allow proper circulation .
Place larger plants to the back and or center of beds to lead the eye.
Remember to keep in mind that the at the time of planting, the plants will grow and will need the room to do so. So don't plant too close together.
Incorporate the elements of design: line, rhythm, shape, texture, color, from, mass, color.
Use the Principles of Design: Unity, Focal points, emphasis, balance, scale, contrast movement, rhythm, pattern, variety.
Use different textures in beds to create interest and diversity.
Use different colors to create interest.

SUSTAINABLE STRATEGIES IN DESIGNING

- Rain collection elements such as cistern and rain barrels
- Protect and preserve existing trees
- Recycle plants that are existing
- Integrate visually and physically accessible rainwater/stormwater features to the site in an aesthetically pleasing way.
- Eliminates any and all invasive species. Invasive species are a bully plant, crowding out other productive plants. They inhibit the plants that are beneficial to wildlife and the functions of the ecosystem and compete for the available moisture and nutrients.
- Plant deciduous shade trees on the south, east and west sides of your house to cast shade in summer which can reduce cooling cost by 50% . This strategy lets warming light enter windows in winter, reducing heating cost.
- To further lower air conditioning costs, shade the outside AC unit. Be mindful not to allow sufficient room for air circulation.
- Shade in the yard also reduces plants' water needs by reducing evaporation
- Use porous pavement or other hardscape material that allows water to drain efficiently
- Use hardscape material that is recycled, reclaimed or reprocessed.

The landscape plan can be rough drawn in pencil or articulated finer with color and an artful hand.

Landscape Plan

This landscape plan incorporates the principle of a Florida Friendly landscape for a sustainable and ecologically sound lawn. Minimizing grass areas, the lawn is planted with natives and adapted plants that attract wildlife. This avenue requires little pesticides and maintenance. Roof and stormwater is diverted to plants which are properly mulched.

With proper planning, a little knowledge and the application of some environmentally friendly practices, you can have a beautiful easy to maintain yard.

Resources

Below are links to helpful and useful resources.

Nurseries Specializing in Native and Adapted Plants

Biosphere Nursery http://biospherenursery.com/
14908 Tilden Road
Winter Garden, FL 34787
TEL: 407-656-8277

Green Images
1333 Taylor Creek Rd
Christmas, Florida
TEL: 407-568-1333

Websites Specializing in the Florida Yard

Florida Association of Native Nurseries
http://www.afnn.org/

florida friendly landscape
http://fyn.ifas.ufl.edu/

The Florida Yard
http://www.floridayards.org/

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