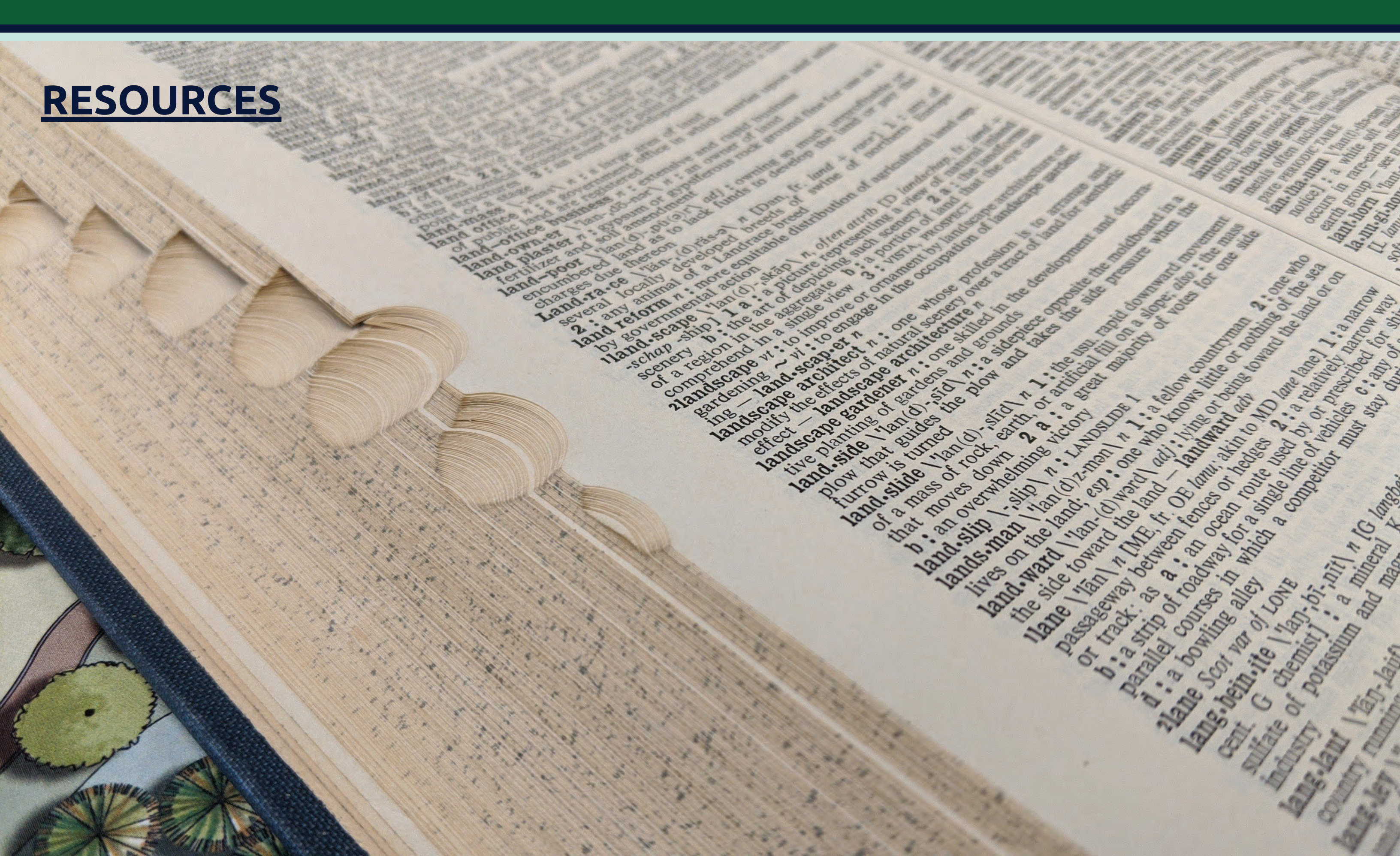


# RESOURCES



# GLOSSARY DEFINITIONS

**Analysis Plan** – Plan which denotes existing site conditions including steep slopes, areas susceptible to erosion, existing vegetation, existing views to screen or enhance, utility clearances, roadway clearances or setback distances, etc.

**Clear Sight** – See “Sight Distance”

**Bubble Diagram** – Conceptual plan showing site context, landscape opportunity areas, and areas for proposed planting.

**Clear Zone** – Designated area offset from edge of pavement that should remain clear and free from plantings or other objects; should be plotted or noted on each plan set.

**Clearance Pruning** – Selective pruning performed by systematically cutting and reducing branches (by performing reduction cuts) on the sides of a tree to provide clearance from buildings, lighting, signage and more.

**District Landscape Architect** – Florida’s Turnpike or other district of FDOT who manages the landscape program and consultant contracts and is responsible for the overall quality of designs. A list of District Landscape Architects and contact information can be found here: <https://www.fdot.gov/designsupport/highwaybeautification/contacts.shtm>

**Drainage Systems/Structures** – Any underground or at grade structures, piping, sleeving, or other equipment for controlling and managing storm water.

**Ecosystem Services** – The many and varied benefits to humans gifted by the natural environment and from healthy ecosystems. Ecosystems functioning in healthy relationship, offer such things like natural pollination of crops, clean air, clean water, resilience and productivity of food crops, extreme weather mitigation, human mental and physical well-being.

**Elevation Clearance** – Raising or lifting the canopy done by selectively removing branches to provide vertical clearance underneath the canopy. Removal of the lower branches can provide clearance for buildings, signs, vehicle circulation, pedestrian circulation or visual clearance beneath a tree’s canopy.

**ERCAR** – Existing Roadway Condition Assessment Report; evaluation of all elements against new construction criteria. <http://www.floridasturnpike.com/design/Documents/Docs-Publications/ERCAR%20Sample%20Outline%2020180418.pdf>

**FDOT** – Florida Department of Transportation; a decentralized agency charged with the establishment, maintenance, and regulation of public transportation in the state of Florida.

**Florida Grade #1** – Standard of tree aesthetics required for most landscape projects. Refer to current version of Florida Grades and Standards available from Florida Department of Agriculture and Consumer Services for further detail. <https://www.fdacs.gov/ezs3download/download/60817/1267268/Media/Files/Plant-Industry-Files/Grades-and-Standards/Grades%20and%20Standards%20FEB17%202017.1.pdf>

**FTE** – Florida’s Turnpike Enterprise; a unit of the Florida Department of Transportation employing private sector business practices to operate its 461-mile system of limited-access toll highways for the benefit of Florida’s traveling public.

**FTE Project Manager** – The design consultant must report to the Turnpike’s Project Manager throughout the design process and perform and deliver plan sets as directed by the Project Manager. <https://www.fdot.gov/designsupport/pm/default.shtm>

**Gantry** – An overhead structure, bridging over an area or roadway, with a platform supporting equipment such as signage, signals, lights or cameras.

**Guardrail** – protective guarding structures along roadway.

**Guardrail Setback Line** – distance from which objects can be placed behind (non-roadway side) of guardrail.

**Horizontal Clearance** – lateral offset distance from the edge of pavement or travel lane to a vertical roadside element or object.

**High Intensity Maintenance Zone** – The highest level of expected quality and utilization with a high degree of stress on plant material and wear and tear on pavements and site furnishings.

**IFAS** – University of Florida, Institute of Food and Agricultural Sciences

**Intelligent Transportation Systems (ITS)** – technology that advances transportation safety and mobility by integrating advance communications technologies into transportation infrastructure and into vehicles. This technology includes electronic toll collection, meters, radar and cameras. [https://www.its.dot.gov/factsheets/benefits\\_factsheet.htm](https://www.its.dot.gov/factsheets/benefits_factsheet.htm)

**Intensity (Low)** – areas designated for low landscape maintenance such as meadow conditions, transitional native plantings, reforestation, and native plantings that are easily established.

**Intensity (Moderate)** – areas designated for moderate landscape maintenance such as secondary focal points and gateways combining native plantings and non-native Florida Friendly plantings.

**Intensity (High)** – areas designated for high intensity landscaping requiring a higher level of landscape maintenance

such as major focal points, gateways and high visibility areas suitable for high impact landscaping typically along the mainline in very visible areas.

**Landscape Architect** – licensed professional in environmental design; the discipline includes the analysis, planning, design, management and stewardship of the natural and built environments and the application of ecological design in development and restoration projects.

**Landscape Intensity Zone** – varying levels of landscape intensity or density identified per opportunities along a roadway. Levels include Low Intensity, Moderate Intensity, and High Intensity.

**Landscape Opportunity Plan (LOP)** – a plan typically prepared after the site analysis phase and during the roadway concept plan development. A LOP identifies areas that can be planted and planted at which Level. The components of a LOP can be found in Section 301.3.2 of the Turnpike Design Handbook (TDH). <http://www.floridasturnpike.com/design/Documents/DocsPublications/TDH/Final%20TDH/2019%20TDH%20Part%203%20Addendum%201.pdf>

**Lateral Offset** – setback distance from the edge of the pavement or travel lane to a vertical roadside element or object.

**Open Landscape** – limited to turf only, constrained by lateral offsets, sign view zones, ITS equipment, utilities, maintenance berms and utility offsets. Turf species vary depending on condition.

**Outdoor Advertising (ODA)** – a regulatory program based on federal law and regulations as well as state statute and rules. Federal law is set forth in the Highway Beautification Act. Local governments often have their own ordinances which regulate outdoor advertising in their community. The Department (FDOT) cannot issue a permit for an outdoor advertising sign which is not allowed by local ordinances. For ODA, such as billboards, ODA owners have view zone rights.

**Pollinator Habitat Plan** – plan that includes habitats and planting selections that attract and support natural pollinators such as bees, hummingbirds and butterflies.

**Pruning** – A method of cutting and removing parts of a tree or plant to control size, health and appearance.

**Radar** – Radar detection associated with ITS facilities to track speed of vehicles.

**Reduction Pruning** – Reduction is the selective removal of branches and stems to decrease the height and/or spread of a tree. This type of pruning is used to make the entire tree or portions of the tree smaller and should be accomplished with reduction cuts, not heading cuts. (A heading cut is a type of cut that prunes a shoot no more than 2 years old back to a bud.) No more than 20%-25% percent of live foliage should be removed from a mature tree in a single pruning.

**Reforestation** – Low maintenance landscape areas which are planted with indigenous trees in order to reestablish the native tree canopy.

**Sight Distance/Clear Sight Distance** – length of roadway visible to a driver; distances in which unobstructed views shall be maintained to allow for safe flow of travel.

**Slope Stabilization** – measures taken to reduce or eliminate erosion for embankments and slopes with 3:1 slope ratio or greater; can include physical structures such as retaining walls to assist in creating plantable areas or plantings to slow and reduce storm water runoff.

**Stormwater Management Areas** – Wet or dry storm water management areas that treat and attenuate storm water runoff.

**Structural Pruning** – The removal of live branches and stems to influence the orientation, spacing, growth rate, strength of attachment, and ultimate size of branches and stems. Structural pruning is used on young and medium-aged trees to help engineer a sustainable trunk and branch arrangement. If young trees are trained early, they will be more likely to remain healthy in the landscape longer than trees left unpruned prior to maturity. Canopy growth can be cleaned, thinned, reduced, raised, or restored to manage risk.

**Sustainable Landscape Management Areas** – Low maintenance landscape areas which are maintained to support healthy herbaceous plant materials other than turfgrass.

**Transitional Native Plantings** – Plantings that occur in areas that are neither aquatic nor upland plantings; these species are native to Florida and can be planted in low areas as they

can tolerate the fluctuation between periods of extreme moisture or dry conditions. These native plantings typically require little to no maintenance.

**Turnpike Design Handbook (TDH)** – Handbook/guide developed to provide consultants, reviewers and management with a single source of additional Turnpike-specific requirements that modify or add to the requirements included in the [Florida Department of Transportation \(FDOT\) Design Manual \(FDM\)](#) as part of the Turnpike’s continuing quality enhancement effort. (See those documents [here](#).) The FDM and the TDH are both 3-part documents: [Part 1 – Development and Processes](#); [Part 2 – Design Criteria](#); [Part 3 – Plans Production](#)

**UF/IFAS** - University of Florida, Institute of Food and Agricultural Sciences

**Utilities Offset** – landscape setbacks for trees, palms and narrow trees, shrubs and grasses from various utilities including various underground utilities, overhead wire, gas lines, light poles, and ITS utilities.

# FTE SETBACKS

FLORIDA'S TURNPIKE ENTERPRISE (FTE) LANDSCAPE SETBACK CHART																																		
GENERAL NOTES:																																		
A. DIMENSIONS NOTED THAT ARE NOT INCLUDED IN THE FDOT DESIGN STANDARD INDEXES ARE THOSE ASSIGNED BY FTE. THESE DIMENSIONS MAY BE REDUCED IN SPECIAL CONDITIONS THAN NOTED BELOW SUBJECT TO FTE REVIEW AND APPROVAL ONLY.																																		
B. ROADWAY RELATED SETBACKS ARE MEASURED FROM THE EDGE OF TRAVEL LANE.																																		
MINIMUM & PREFERRED LANDSCAPE SETBACKS FOR INSTALLATION AND MAINTENANCE OPERATIONS																																		
Plant Type	Turnpike Mainline Travel Lane		Multi Lane Ramp		Auxiliary Lanes & Single Lane Ramp		Side Road Travel Lane		Back of Guardrail		M.S.E. Wall		R/W Fence		Drainage Structures		Storm Sewer Pipes		Stormwater Facilities		Wetlands, Open Water Bodies and Wet Stormwater Facilities		Miscellaneous Underground Utilities		Overhead Wires		Gas		Light Poles and Signage		ITS Poles		ITS Duct and Conduct Bank	
	(No Guardrail)		(No Curb and No Guardrail)		(No Curb and No Guardrail)		(With "F" Curb)														(from seasonal high water line)				(6)				(7)		(7)			
	P	M	P	M	P	M	P	M	P	M	P	M	P	M	P	M	P	M	P	M	P	M	P	M	P	M	P	M	P	M	P	M		
CANOPY TREES	40'	36'	24'	18' (1a)	15'	10' (1a)	10'	6'	15'	10' (2)	15'	10'	15'	10'	20'	15'	10' (8)	0' (3)	20'	15' (4)	15'	10'	30'	20'	25'	20'	30'	20'	30'	25'	10'	10'		
			30'	24' (1b)	20'	14' (1b)																												
			36'	30' (1c)	24'	18' (1c)																												
			40'	36' (1d)	30'	24' (1d)																												
PALMS & NARROW TREES	40'	36'	24'	18' (1a)	15'	10' (1a)	10'	6'	10'	6'	10'	6' (5)	10'	6' (5)	15'	10'	10' (8)	0' (3)	20'	15' (4)	10'	5'	20'	10'	20'	15'	20'	10'	10'	30'	20'	10'	6'	
			30'	24' (1b)	20'	14' (1b)																												
			36'	30' (1c)	24'	18' (1c)																												
			40'	36' (1d)	30'	24' (1d)																												
SHRUBS & GRASSES	36'	20'	10'	4'	10'	4'	10'	4'	6'	6'	10'	4' (5)	10'	4' (5)	10'	5'	10' (8)	0' (3)	20'	15'	N/A	N/A	N/A	N/A	N/A	N/A	N/A	10'	4'	10'	6'	6'	4'	

LEGEND: P=PREFERRED, M=MINIMUM

- NOTES:
- (1a) LESS THAN 45 MPH SPEED LIMIT
  - (1b) 45-50 MPH SPEED LIMIT
  - (1c) 55 MPH SPEED LIMIT
  - (1d) GREATER THAN 55 MPH SPEED LIMIT
  - (2) DISTANCE MAY BE GREATER DEPENDING ON MAINTAINED TREE SPECIES CANOPY. LAOR SHALL VERIFY WITH FTE FOR CONFIRMATION OF DIMENSION AS APPLICABLE.
  - (3) PLANTING ON SLOPES OF DRY STORM WATER FACILITIES AND SWALES IS PERMITTED. NO OBLIGATE AND FACULTATIVE WETLAND SPECIES ARE PERMITTED WITHIN 25' FROM SEASONAL HIGH WATER LINE OF THE STORM WATER FACILITY. ONLY PINE STRAW MAY BE USED AT PROPOSED PLANTING LOCATIONS. PLANTING IN BOTTOM OF DRY PONDS SHALL NOT BE PERMITTED. EXCEPTIONS, HOWEVER, MAY BE PERMITTED BY FTE ON A CASE BY CASE BASIS AND ONLY IF ALL OBLIGATE AND FACULTATIVE WETLAND SPECIES ARE AVOIDED. WILDFLOWERS MAY ALSO BE CONSIDERED ON SITE BY SITE BASIS BUT SHALL BE SUBJECT TO FTE APPROVAL.
  - (4) NO OBLIGATE AND FACULTATIVE WETLAND SPECIES ARE PERMITTED WITHIN 25' FROM SEASONAL HIGH WATER LINE OF THE STORM WATER FACILITY. ONLY PINE STRAW MAY BE USED AT PROPOSED PLANTING LOCATIONS.
  - (5) DEPENDENT ON AVAILABLE LANDSCAPE AREA.
  - (6) COMPLY WITH UTILITY COMPANY GUIDELINES AS APPLICABLE.
  - (7) DIMENSIONS SHOWN ARE FROM LIGHT AND SIGN STRUCTURES. NO TREES OR PALMS SHALL BLOCK LINES OF SIGHT.
  - (8) TREES MAY NOT BE PLANTED WITHIN 10 FEET OF THE OUTSIDE EDGE OF STORM SEWER PIPES.

# PREFERRED PLANT LIST - CENTRAL FLORIDA

## TREES - LARGE

- » American Elm, *Ulmus Americana*
- » American Sycamore, *Platanus occidentalis*
- » Live Oak, *Quercus virginiana*
- » Loblolly Pine, *Pinus taeda*
- » Longleaf Pine, *Pinus palustris*
- » Northern Slash Pine, *Pinus elliottii*
- » Pond Cypress, *Taxodium spp.*
- » Red Maple, *Acer rubrum*
- » River Birch, *Betula nigra*
- » Shumard Oak, *Quercus shumardii*
- » Southern Magnolia, *Magnolia grandiflora*
- » Southern Red Oak, *Quercus falcata*
- » Southern Slash Pine, *Pinus elliottii var. densa*
- » Sweet Bay Magnolia, *Magnolia virginiana*
- » Winged Elm, *Ulmus alata*

## TREES - MEDIUM

- » American Holly, *Ilex opaca*
- » Crape Myrtle, *Lagerstroemia indica*
- » Dahoon Holly, *Ilex cassine*
- » East Palatka Holly, *Ilex x attenuate*
- » Japanese Blueberry, *Elaeocarpus decipens*
- » Southern Red Cedar, *Juniperus silicola*

## TREES - SMALL

- » Buttonbush, *Cephalanthus occidentalis*
- » Florida Privet, *Forestiera segregate*
- » Ligustrum, *Ligustrum japonicum*
- » Nellie R. Stevens Holly, *Ilex x 'Nellie R. Stevens'*
- » Wax Myrtle, *Myrica cerifera*
- » Yaupon Holly, *Ilex vomitoria*

## PALMS

- » Bismarck Palm, *Bismarckia nobilis*
- » Cabbage Palm, *Sabal Palmetto*
- » Chinese Fan Palm, *Livistonia spp.*
- » Date Palms, *Phoenix spp.*
- » European Fan Palm, *Chamaerops humilis*
- » Pindo Palm, *Butia capitata*
- » Washingtonia Palm, *Washingtonia robusta*

## SHRUBS - LARGE

- » Buttonbush, *Cephalanthus occidentalis*
- » Bottlebrush, *Callistemon spp.*
- » Florida Privet, *Forestiera segregate*
- » Glossy Abelia, *Abelia x grandiflora*
- » Golden Dewdrop, *Duranta erecta*
- » Lady Palm, *Rhapis excelsa*
- » Loropetalum, *Loropetalum chinense*
- » Needle Palm, *Rhapidophyllum hystrix*
- » Podocarpus, *Podocarpus macrophyllus*
- » Saw Palmetto, *Serenoa repens*
- » Stoppers, *Eugenia spp.*
- » Thryallis, *Galphimia glauca*
- » Wax Myrtle, *Myrica cerifera*
- » Wild Coffee, *Psychotria nervosa*
- » Wild Olive, *Osmanthus americanus*
- » Yaupon Holly, *Ilex vomitoria*

## SHRUBS - SMALL

- » Coontie, *Zamia pumila*
- » Fetterbush, *Lyonia lucida*
- » Rosemary, *Rosmarinus spp.*
- » Scrub Palmetto, *Sabal etonia*
- » Texas Sage, *Leucophyllum frutescens*
- » Weeping Lantana, *Lantana depressa*

## GRASSES

- » Cordgrass, *Spartina spp.*
- » Fakahatchee Grass, *Tripsacum dactyloides*
- » Florida Gama Grass, *Tripsacum floridana*
- » Muhly Grass, *Muhlenbergia capillaris*

# PREFERRED PLANT LIST - SOUTH FLORIDA

## TREES - LARGE

- » Buttonwood, *Conocarpus erectus*
- » Live Oak, *Quercus virginiana*
- » Pond Cypress, *Taxodium* spp.
- » Southern Slash Pine, *Pinus elliottii* var. *densa*
- » West Indian Mahogany, *Swietenia mahagoni*
- » Wild Tamarind, *Lysiloma latisiliquum*

## TREES - MEDIUM

- » American Holly, *Ilex opaca*
- » Crape Myrtle, *Lagerstroemia indica*
- » Dahoon Holly, *Ilex cassine*
- » East Palatka Holly, *Ilex x attenuate*
- » Geiger Tree, *Cordia sebestena*
- » Japanese Blueberry, *Elaeocarpus decipens*
- » Pigeonplum, *Coccoloba diversifolia*
- » Purple Trumpet Tree, *Tabebuia impetiginosa*
- » Royal poinciana, *Delonix regia*

## TREES - SMALL

- » Bottlebrush, *Callistemon* spp.
- » Buttonbush, *Cephalanthus occidentalis*
- » Florida Privet, *Forestiera segregata*
- » Ligustrum, *Ligustrum japonicum*
- » Seagrape, *Coccoloba uvifera*
- » Simpson's Stopper, *Myrcianthes fragrans*
- » Stoppers, *Eugenia* spp.
- » Wax Myrtle, *Myrica cerifera*
- » White Geiger, *Cordia boissieri*
- » Yaupon Holly, *Ilex vomitoria*

## PALMS

- » Alexander Palm, *Ptychosperma elegans*
- » Bismarck Palm, *Bismarckia nobilis*
- » Brittle Thatch Palm/Key Thatch Palm, *Thrinax morrisii*
- » Buccaneer Palm, *Pseudophoenix sargentii*
- » Cabbage Palm, *Sabal Palmetto*
- » Carpentaria Palm, *Carpentaria acuminata*
- » Chinese Fan Palm, *Livistonia* spp.
- » Date Palms, *Phoenix* spp.
- » European Fan Palm, *Chamaerops humilis*
- » Florida Thatch Palm, *Thrinax radiata*
- » Foxtail Palm, *Wodyetia bifurcate*
- » Macarthur Palm, *Ptychosperma macarthurii*
- » Paurotis Palm, *Acolorrhaphe wrightii*
- » Pindo Palm, *Butia capitata*
- » Royal Palm, *Roystonea regia*
- » Washington Palm, *Washingtonia robusta*

## SHRUBS - LARGE

- » Beautyberry, *Callicarpa Americana*
- » Buttonbush, *Cephalanthus occidentalis*
- » Cardboard Plant, *Zamia fufuracea*
- » Cocoplum, *Chrysobalanus icaco*
- » Firebush, *Hamelia patens*
- » Florida Privet, *Forestiera segregata*
- » Golden Dewdrop, *Duranta erecta*
- » Lady Palm, *Rhapis excelsa*
- » Loropetalum, *Loropetalum chinense*
- » Needle Palm, *Rhapidophyllum hystrix*
- » Pittosporum, *Pittosporum tobira*
- » Podocarpus, *Podocarpus macrophyllus*
- » Rusty Lyonia, *Lyonia ferruginea*
- » Saw Palmetto, *Serenoa repens*

- » Seagrape, *Coccoloba uvifera*
- » Simpson's Stopper, *Myrcianthes fragrans*
- » Sparkleberry, *Vaccinium arboretum*
- » Stoppers, *Eugenia* spp.
- » Thryallis, *Galphimia glauca*
- » Wax Myrtle, *Myrica cerifera*
- » Wild Coffee, *Psychotria nervosa*
- » Yaupon Holly, *Ilex vomitoria*

## SHRUBS - SMALL

- » Coontie, *Zamia pumila*
- » Fetterbush, *Lyonia lucida*
- » Firecracker Plant, *Russelia sarmentosa*
- » Natal Plum, *Carissa macrocarpa*
- » Scrub Palmetto, *Sabal etonia*
- » Texas Sage, *Leucophyllum frutescens*
- » Weeping Lantana, *Lantana depressa*

## GRASSES

- » Cordgrass, *Spartina* spp.
- » Fakahatchee Grass, *Tripsacum dactyloides*
- » Florida Gama Grass, *Tripsacum floridana*
- » Muhly Grass, *Muhlenbergia capillaris*