INTRODUCTION
DESIGN APPROACH
DESIGN GUIDELINES
ADDITIONAL DESIGN CONSIDERATIONS
IMPLEMENTING THE DESIGN OPTIONS
PLANT MATERIAL SELECTION PALETTE
  MASTER PLANT PALETTE – NORTH REGION
  MASTER PLANT PALETTE – SOUTH REGION
INSTALLATION, ESTABLISHMENT AND MAINTENANCE
IMPLEMENTATION PROCESS
RIGHT PLANT / RIGHT PLACE AND HELPFUL HINTS
EXHIBITS

EXHIBIT 1-A:  TYPICAL INTERCHANGE – LEVEL 1 DESIGN OPTION
EXHIBIT 1-B:  TYPICAL INTERCHANGE – LEVEL 2 DESIGN OPTION
EXHIBIT 1-C:  TYPICAL INTERCHANGE – LEVEL 3 DESIGN OPTION
EXHIBIT 2-A:  TYPICAL TRUMPET INTERCHANGE – LEVEL 1 DESIGN OPTION
EXHIBIT 2-B:  TYPICAL TRUMPET INTERCHANGE – LEVEL 2 DESIGN OPTION
EXHIBIT 2-C:  TYPICAL TRUMPET INTERCHANGE – LEVEL 3 DESIGN OPTION
EXHIBIT 3-A:  TYPICAL OVERPASS DESIGN – LEVEL 1 & 2 DESIGN OPTIONS
EXHIBIT 3-B:  TYPICAL OVERPASS DESIGN – LEVEL 3 OPTION
EXHIBIT 4:    TYPICAL MAINLINE GANTRY – LEVEL 1 & 2 DESIGN OPTIONS
EXHIBIT 5:    TYPICAL RAMP GANTRY – LEVEL 1 & 2 DESIGN OPTIONS
EXHIBIT 6:    TYPICAL BUFFER DESIGN OPTIONS
EXHIBIT 7:    TYPICAL NOISE WALL DESIGN OPTIONS
EXHIBIT 8-A:  TYPICAL CROSS ROAD – LEVEL 1 DESIGN OPTION
EXHIBIT 8-B:  TYPICAL CROSS ROAD – LEVEL 2 DESIGN OPTION
EXHIBIT 8-C:  TYPICAL CROSS ROAD – LEVEL 3 DESIGN OPTION
EXHIBIT 9-A:  TYPICAL INTERCHANGE – LEVEL 2 DESIGN OPTION, PLAN RENDERING
EXHIBIT 9-B:  TYPICAL INTERCHANGE – LEVEL 2 DESIGN OPTION, ELEVATION RENDERING 39
EXHIBIT 10-A:  OKAHUMPKA WELCOME SIGN – LANDSCAPE PLAN 40
EXHIBIT 10-B:  OKAHUMPKA WELCOME SIGN – ELEVATION PLAN 41
EXHIBIT 11-A:  TYPICAL TRUMPET INTERCHANGE – LEVEL 3, PLAN RENDERING 42
EXHIBIT 11-B:  TYPICAL TRUMPET INTERCHANGE – LEVEL 3, ELEVATION RENDERING 43
EXHIBIT 12-A:  TYPICAL OVERPASS – LEVEL 1, PLAN & ELEVATION RENDERING 44
EXHIBIT 12-B:  TYPICAL OVERPASS – LEVEL 3, PLAN & ELEVATION RENDERING 45
EXHIBIT 13:  TYPICAL BUFFER – TREES, PALMS & UNDERSTORY, PLAN & ELEVATION RENDERING 46
EXHIBIT 14:  MASTER PLANT LIST AND SIZES – NORTH REGION 47
EXHIBIT 15:  MASTER PLANT LIST AND SIZES – SOUTH REGION 49
EXHIBIT 16:  MODIFIED SPECIAL PROVISIONS SECTION 580 52
FLORIDA TURNPIKE ENTERPRISE LANDSCAPE BRAND GUIDELINES

INTRODUCTION

Each FDOT District was tasked to develop a Landscape BRAND that would uniquely identify the visual character of their respective district. The Florida’s Turnpike Enterprise (FTE) goal was to develop an approach and guidelines to implement a Landscape BRAND that is CONSISTENT, PREDICTABLE AND REPEATABLE for their highway system.

To accomplish this task, FTE established a list of important criteria that serves as the foundation for creating a unique LANDSCAPE BRAND for all Florida’s Turnpike roadways. They are as follows:

- Create CONSISTENT landscape patterns that can help identify Florida’s Turnpike.
- Incorporating specific and limited plant species that become PREDICTABLE and recognizable.
- Develop typical planting themes, configurations and conditions for a REPEATABLE design.
- Recognize the unique conditions of different geographic and environmental locations.
- Consider landscaping hardiness zones for plant species selection.
- Preserve, utilize, and reinforce natural vegetation.
- Strive to blend with the existing (desirable) vegetation.
- Embrace the “BOLD VISION” approach for roadway beautification to create a more attractive place to do business and attract visitors.
- Use of flowering trees for seasonal color.
- Establish wildflower fields.

FTE is unique in that it maintains and operates 460 miles of limited access toll highways across the State of Florida. These include the following: Turnpike Mainline from Miami to North Central Florida (SR 91), as well as the Homestead Extension (HEFT-SR 821), Sawgrass Expressway (SR 869), Seminole Expressway (SR 417), Beachline Expressway (SR 528), Southern Connector Extension of the Central Florida GreeneWay (SR 417), Western Beltway (SR 429), the Veterans Expressway (SR 589), Suncoast Parkway (SR 589) and Polk Parkway (SR 570). (See Figure 1) The SR 91 Mainline alone consists of 312 miles extending through 11 counties. An average of 1.8 million motorists utilizes these highways daily.
FLORIDA’S TURNPIKE ENTERPRISE FACILITIES

Source: NAVTEQ © 2011, Florida Department of Transportation 2012

Figure 1
DESIGN APPROACH

FTE’s philosophy is to incorporate the intent of the FDOT “BOLD VISION” design approach which can generally be summarized as designing beautification projects using many large palms and trees and few, if any, shrubs. With thoughtful site specific design, this fundamental approach will produce the highest visual impact and distinctive sense of place at the lowest design, construction and maintenance cost, focus on providing a sense of continuity throughout the Turnpike system and creating a BOLD statement. With thoughtful site specific design, this approach will produce the highest visual impact and a distinctive “sense of place” throughout the system.

*FTE definition of BRAND is to create repeatable patterns of landscape materials and placements that are based on consistent and identifiable plant palettes within the proposed budget allocations. This provides a predictable and repeatable planting theme that enhances the roadway experience for motorist.*

The aesthetic hierarchy created as part of FTE’s approach places the highest priority and budgets on those areas with the greatest traffic volumes and maximum opportunities for attracting business and tourism. Concentrations of new landscaping at these locations will provide FTE with the highest impact and greatest value on our ‘Landscape Investment’.

The hierarchy of locations is broken down in order of priority into the following categories:

- Gateways
- Interchanges and Gantries
- Overpass/Underpass Crossings
- Landscape Buffers
- Noise Walls Buffers
- Cross Street (as applicable)

For the purpose of assisting the landscape design consultants in implementing the FTE BRAND, typical roadway configurations that occur within the Turnpike system were identified as templates. Each template was then refined recognizing levels of importance as Options where varying intensity can be implemented as needed through the project design. These Options are identified as LOW PROFILE (Level 1).
MODERATE PROFILE (Level 2) and, in the cases of Interchanges and Overpasses, HIGH PROFILE (Level 3). Although varying in design, all Options reinforce the consistent and repeatable landscape BRAND pattern.

Variations of the Option designs reflect degrees of planting intensity or quantities and selection of specific plant species. General cost for each Option was provide and to be used to assist the Landscape Architect of Record (LAOR) in project analysis as a guide. The LOW PROFILE is the least cost with the HIGH PROFILE being the larger cost.

Using these tools, the length of each Turnpike project can be broken down into individual parts that first determine the hierarchy of each identified location, and then establish an appropriate level of profile. Combining the hierarchy of location and the design approach it will be possible for the LAOR to balance design intensity with the FTE work program landscape budget.

For illustrative purposes the template Options provided within this document has used the SOUTH REGION plant palette.

While utilizing the plant lists provided, the LAOR will have the responsibility to determine the optimum plant species based on site conditions, environmental criteria and microclimates. Site visit(s) by the LAOR are critical to fully understand the varied conditions that existing prior to beginning design. The LAOR will be responsible for site adaption of the templates based on existing site conditions and conformity with all FDOT and jurisdictional codes, design standards and guidelines as a part of their design efforts.

This approach will provide the FTE roadway system with a CONSISTENT, PREDICTABLE and REPEATABLE landscape BRAND in addition to the highest visual impact and a distinctive sense of place. It will also provide early design direction for the LAOR and minimize the costs for construction and maintenance in the long term. The Turnpike Landscape Architect will review the conceptual and 90% landscape submittals (at a minimum) to verify the implementation of this approach and the compliance with the Landscape BRANDING initiatives provided herein. The Turnpike and Florida Department of Transportation Landscape Architects will review the Conceptual and 90% Landscape Plans submittals for compliance with the BOLD Landscape Vision for Highway Beautification.

CONSISTENT  PREDICTABLE  REPEATABLE  (CPR)
DESIGN GUIDELINES

The aesthetic hierarchy and consistent BRAND will be defined for each project and implemented with the landscape design. Plant palette and patterns are the most important elements that ultimately define the BRAND.

To ensure consistency in the design for typical roadway configurations, the design templates utilized the following guidelines:

- Strong accents at the most visible locations.
- Emphasis on large palm and tree materials and placement of large groupings to provide a BOLD and immediate visual impact.
- Minimize use of shrubs except in specific settings (see below).
- Indigenous and hardy non-native plant species that are appropriate for the environmental conditions at proposed locations.
- Reinforce native canopy where applicable with proposed plant species selections.
- Respect the neighboring urban and suburban characteristics where applicable.
- Utilize Xeriscape (Florida Friendly) planting principles.
- Use of low maintenance and sustainable plant materials.
- Provide a lasting and memorable visual statement with the use of seasonal flower or foliage color and unique and contrasting plant types that reflect the tropical Florida climate.
- Promote large displays of wildflowers including in large dry retention areas as alternative to sod.
- Removal of Category 1 Invasive exotic plant material that threaten the native plant communities. Refer to WWW.fleppc.org for current listings.
- No category I invasive exotic plants shall be proposed on a FTE system. Category II invasive exotics may be considered only on a case by case basis subject to FTE approval.

A strong element of implementing the BOLD VISION is the directive to design with few (if any) shrubs. There are some circumstances, however, that allow for shrub utilization only on a limited basis. Other exceptions may occur on a site but must be reviewed on a site by site basis.

- Placement on steep slope conditions to minimize mowing maintenance efforts (i.e. interchanges, overpasses or cross road embankments).
- Screen gantry equipment from travel ways.
- Soften or accent noise walls.
- Screening undesirable views from high intensity or other unsightly land uses, such as industrial areas, where no noise walls are present.
- Addressing Community commitments agreed to during the public involvement process or other jurisdictional requests.
ADDITIONAL DESIGN CONSIDERATIONS

There are several issues relating to aesthetics and standards that should be considered in all design. It is essential the LAOR coordinate with other design disciplines early and frequently in the design process to understand the existing and proposed site conditions that will affect locations of the new landscape. In this fashion, the LAOR will be able to maintain landscape opportunities to the greatest extent possible. These issues may include, but are not limited to:

- Research and document the intensity of development adjacent to the roadway, which may vary from urban to rural. Plant material selections must respond to the surrounding areas.
- Consideration of plant material placement to buffer or enhance view corridors as applicable.
- Compliance with all FDOT clear lines of sight for traffic movements and roadway offsets (FDOT Indexes 546 and 700) and maintenance operation requirements. Also FDOT landscape installation standards (Index 544).
- Identify all (above and below ground) utility locations and apply appropriate setbacks for the proposed landscape.
- Contour elevations and soil conditions that may restrict or promote specific planting species.
- Ensure no conflicts with storm water function and maintenance.
- Maintain clear viewing for ITS poles and roadway signage.
- No obligate or facultative wetland species shall be located within 25’ of seasonal high water elevation of any storm water management facility or wetlands.
- Research potential impacts related to future construction projects and constrained areas within the FTE right-of-way limits, etc.
- Identify and establish the vegetative view zones for all Outdoor Advertising Signs in accordance with the Florida Administrative Code (FAC) requirements.
- Provide appropriate setbacks to accommodate maintenance activities along noise walls, retaining walls, fences, guard rails and other roadway structures.

The LAOR must be aware of and understand the plan delivery method prior to start of design. Traditional methods include Design/Bid/Build, Design/Build and ‘Maintenance Let’, Stand Alone contracts. FTE is also looking at alternative delivery methods such as the “Push Button” landscape and Variable Scope Design Build.

Although each method requires a different approach to design, the implementation of the BRANDING philosophy and approach will continue to be consistent.

Landscape plans shall comply with all applicable FDOT and FTE specifications, standards, Indexes and other applicable requirements that address landscape and irrigation installation, establishment period and maintenance schedule.
IMPLEMENTING THE DESIGN OPTIONS

Design templates were prepared to illustrate typical landscape solutions for the various roadway configurations within the FTE system.

Although Gateways bear the highest importance in the hierarchy of locations, they are unique and require the greatest focus in terms of intensity and budget. They are typically entrances to a Turnpike roadway, welcome signage, an interchange with a major highway or an entrance to an important economic center. Gateway templates are not provided in this document but the planned FTE Okahumpka Welcome Sign project is provided instead for reference. See rendered plan and elevation views (Exhibits 10-A and 10-B).

The hierarchies of the roadway templates, (with the exception of Gateways), are ranked in terms of importance. The more complex the roadway configuration and importance, the higher the hierarchy and budget allocation will be. Templates in order of hierarchy are as follows:

Roadway Templates

1. Interchanges  
   a. Loop ramp /Diamond configuration.  
   b. Trumpet ramp configuration.
2. Roadway crossings – (roadway elevated over another road or canal.
3. Mainline Gantry
4. Ramp Gantry
5. Buffering  
   a. Adjacent land uses  
   b. Noise walls
6. Cross Street – streets that may be affected by FTE construction, but are not part of the Turnpike system. These may be locations where community involvement and input may require replacement or mitigation of lost vegetation resulting from roadway construction.

Each design option, LOW PROFILE (Level 1), MODERATE PROFILE (Level 2) and, in most cases, HIGH PROFILE (Level 3), has been assigned a budget range. Based on the importance of location, these cost range options serve as a basis in developing a design concept for each site that ultimately must be balanced to fit within the landscape budget and still create a consistent and unified look along the FTE system.
There are factors in which a location may affect the intensity of proposed landscape. Such examples are locations where the adjacent land use may dictate a higher hierarchy level, such as an intersection with a major highway, major tourist or commercial centers, hospitals, universities, etc. In these cases, a design consistent with the more intensive HIGH PROFILE Option may apply. Each option design includes a different mix of plant species and quantities which can then be quantified as a cost range. To reflect assigned budget to each site, this will help the LAOR in choosing which pattern to utilize in the ultimate design. It will be the responsibility of the LAOR to provide actual Cost Estimates with each Landscape Plan submittal.

It must also be recognized that some sites may be physically constrained that poses a challenge to find opportunities for landscape. Improvements for pavement, overhead or underground utilities, retention requirements, signage, ITS, etc. may leave little room for plantings. These areas will require the LAOR to be creative, particularly if they are considered important to the overall design.

Providing for a BRAND and BOLD landscape will require early and frequent discussions and coordination with the design team to help maximize landscape opportunities that are available. Required off-set, maintenance access will restrict planting placements. For example, occasional palms in key areas may be permitted in dry retention areas subject to concurrence with Drainage, Environmental Management and Maintenance divisions on a case by case basis.

Using all these tools, the LAOR can achieve the landscape BRAND, maximize the design and adhere to the budget.
PLANT MATERIAL SELECTION PALETTE

The core of Florida’s Turnpike BRANDING is the selection and consistency of plant materials that meet the BOLD landscape statement by promoting the use of large tree and palm materials. It is important to not only select materials that will acclimate into the harsh roadway environment and to thrive within the hardiness zones of that location with minimal maintenance, but to reinforce those desirable species already repeated throughout the highway system or identified in the Master Plant Palette. Understand the level of maintenance that each site will receive over its lifetime must be considered when selecting plant species and placement. All plants shall meet Florida No. 1 or better according to the most current Grades and Standards for Nursery Plans, Fla. Dept. of Agriculture and Consumer Services, Division of Plan Industry. Proposing plant material less than 7 gallon containers are discouraged.

The Turnpike system extends from Miami-Dade County to Wildwood in Sumter County and across the state from the Atlantic Ocean to the Gulf of Mexico. It crosses four plant hardiness zones as established by the US Department of Agriculture. Based on the variation of hardiness zones, the FTE system has been divided into two distinct plant palettes.

- NORTH REGION (zone 9A & 9B)
- SOUTH REGION (zones 10A & 10B).

There are isolated areas that have irrigation systems, but for the most part, there will be no irrigation proposed for the majority of new landscape plantings on FTE roadways.

North and South Region Master Plant Palettes shall be used as a guide for the LAOR in their designs. The Master Plan List and Sizes provide minimum plant sizes and on-center spacing to obtain the BOLD theme (See Exhibits). Some plant materials are included on both lists for statewide CONSISTENCY based on their ability to tolerate a wide range of climatic conditions. Final selection of plant species by the LAOR must be APPROPRIATE for location and surrounding environment and maintainable. Larger sizes than indicated may be used if appropriate for the site. Additional species may be suggested but shall be subject to approval by the Turnpike Landscape Architect and Maintenance Division.
Each Plant Palette has been broken down into plant categories with the following general description of their intent:

- **SHRUBS** – Used to stabilize steeply sloped areas to prevent erosion and reduce expensive slope mowing operations primarily associated with roadway overpasses and other embankments.
- **SCREENING PLANTS** – Screen unsightly views from the roadway to industrial/commercial areas, buffer or “soften” views of roadway structures such as noise walls, buildings, mechanical equipment, above ground equipment, etc. A combination of species may range from shrubs, understory trees to canopy trees depending on circumstances and available planting area.
- **FLOWERING/ACCENT TREES** – Provide visual interest and seasonal color. Also to break up large expansive areas, to create a massing effect and to provide an interplay of color variations.
- **CANOPY TREES** – Create shade along the roadway as a temperature reduction method, to break up large expansive areas, to screen adjacent areas or to blend with existing vegetation.
- **LARGE/MEDIUM PALMS** – Reinforce the tropical Florida climate and provide strong accents in critical locations. Combinations used as strong accents that are repeated along the roadway.
- **SMALL PALMS** – Placement in locations where the use of larger palms may be limited due to space constraints, or as understory to larger material.

Wildflowers along the FTE roadway are an important element that can be enjoyed by millions of residents and visitors every day. To comply with the State of Florida’s Wildflower Program, FTE has planted approximately 80 acres on the Turnpike system. Continuing to incorporate wildflowers into the design can benefit wildlife, reduce stress on natural resources and reduce maintenance costs.

Using the guiding principles of protection, establishment and management, FTE identified the following wildflower planting designations:

- **Natural stands** – extensions or remnants of neighboring areas that contain wildflowers.
- **Roadside meadows** – long blooming areas with a species mix that is best suited for a site.
- **High impact** – presenting a **BOLD** visual statement for high profile locations.

The LAOR shall consider potential and future wildflower sites within their projects. Contact the FTE Roadway Maintenance Department to coordinate appropriate wildflower seed species, locations and installation/establishment techniques.

**BOLD     CONSISTANT     APPROPRIATE**
FLORIDA’S TURNPIKE ENTERPRISE
MASTER PLANT PALETTE - NORTH REGION

SHRUBS

Serenoa repens - Saw Palmetto

SCREENING PLANTS

Forestiera segregata - Florida Privet
*Hamelia nodosa - Dwarf Firebush
Illicium floridanum - Florida Anise
Ilex opaca - American Holly
Ilex vomitoria - Yaupon Holly
Juniperus virginiana silicicola - Southern Red Cedar
Myrica cerifera - Wax Myrtle
Magnolia grandiflora - Southern Magnolia
Pinus elliottii - Slash Pine
Pinus palustris - Long Leaf Pine
Podocarpus macr. - Podocarpus
Sabal palmetto - Sabal Palmetto
*Spartina bakeri - Sand Cordgrass
Viburnum odoratissimum - Sweet Viburnum
Viburnum Obovatum - Black Haw
Podocarpus macr. ‘Maki’ - Podocarpus

*USE ONLY WITH FTE APPROVAL
FLORIDA'S TURNPIKE ENTERPRISE
MASTER PLANT PALETTE - NORTH REGION

CANOPY TREES

Acer rubrum - Red Maple
Liquidambar styraciflua - Sweetgum
Pinus elliottii - Florida Slash Pine
Platanus occidentalis - American Sycamore
Quercus virginiana - Live Oak
Taxodium Distichum - Bald Cypress
Ulmus alata - Winged Elm

FLOWERING/ACCENT TREES

Ilex vomitoria ‘pendula’ - Weeping Yaupon Holly
Juniperus virginiana silicicola - Southern Red Cedar
Lagerstroemia indica ‘spp’ - Crape Myrtle
Magnolia grandiflora - Southern Magnolia
Magnolia grandiflora 'Little Gem' - Little Gem Magnolia
Nerium oleander - Oleander
FLORIDA'S TURNPIKE ENTERPRISE
MASTER PLANT PALETTE - NORTH REGION

LARGE/ MEDIUM PALMS

Bismarckia nobilis 'silver select' - Silver Bismarck Palm
Livistonia decipiens - Ribbon Palm
Phoenix dactylifera 'Medjool' - Medjool Date Palm
Phoenix sylvestris - Wild Date Palm/Sylvestre
Phoenix 'HYBRIDS' - Hybrid Date Palm
Sabal causiarum - Puerto Rican Hat Palm
Sabal palmetto - Sabal Palmetto
Sabal palmetto - Sabal Palmetto - CURVED
Washingtonia filifera - Desert Fan Palm

SMALL PALMS

Acoelorrhaphe wrightii - Paurotis Palm
Butia capitata - Pindo Palm
Chamaerops humilis - European Fan Palm
SHRUBS

Serenoa repens ‘Cinerea’ - Silver Saw Palmetto

SCREENING PLANTS

Annona glabra - Pond Apple
Conocarpus erectus - Green Buttonwood
Conocarpus erectus var. sericeus - Silver Buttonwood
Chrysobalanus icaco ‘Red Tip’ - Red Tip Cocoplum
Clusia guttata - Small Leaf Clusia Shrub & Tree Form
Clusia guttata ‘Nana’ - Dwarf Clusia
Coccoloba uvifera - Sea Grape
Eugenia foetida - Spanish Stopper
*Ficus macrophylla ‘Green Island’ - Green Island Ficus
Juniperus virginiana silicicola - Southern Red Cedar
Myrcianthes fragrans - Simpson’s Stopper
Myrica cerifera - Wax Myrtle
Pinus elliottii densa - So. Florida Slash Pine
Sabal palmetto - Sabal Palmetto
*Spartina bakeri - Sand Cordgrass

*USE ONLY WITH FTE APPROVAL

RED TIP COCOPLUm
SAND CORDGRASS
WAX MYRTLE
FLORIDA'S TURNPIKE ENTERPRISE
MASTER PLANT PALETTE - SOUTH REGION

**CANOPY TREES**

- Acer rubrum - Red Maple
- Bursera simaruba - Gumbo Limbo
- Conocarpus erectus - Green Buttonwood
- Lysiloma latisiliqua - Wild Tamarind
- Quercus virginiana - Live Oak

**FLOWERING/ACCENT TREES**

- Bombax ceiba - Red Silk-cotton Tree
- Conocarpus erectus var. sericeus - Silver Buttonwood
- Cassia fistula - Golden Shower Tree
- Cassia javanica - Apple Blossom Shower Tree
- Delonix regia - Royal Poinciana
- Chorisia speciosa - Floss Silk Tree
- Jatropha - Jatropha Bush
- Juniperus virginiana silicicola - Southern Red Cedar
- Lagerstroemia speciosa - Queen's Crape Myrtle
- Lagerstroemia indica - Crape Myrtle
- Lysiloma sabicu - Sabicu
- Peltophorum dubium - Yellow Poinciana
- Simarouba glauca - Paradise Tree
- Tabebuia caraiba - Silver Trumpet Tree
- Swietenia mahogani - Mahogany
FLORIDA'S TURNPIKE ENTERPRISE
MASTER PLANT LIST - SOUTH REGION

**LARGE/ MEDIUM PALMS**

- Acoelorraphoea wrightii - Paurotis Palm
- Bismarckia nobilis 'Silver' - Silver Bismarck Palm
- Latania lontaroides - LatanPalm
- Livistonia decora - Ribbon Palm
- Phoenix dactylifera 'Medjool' - Medjool Date Palm
- Phoenix sylvestris - Wild Date Palm/Sylvester
- Roystonea regia - Florida Royal Palm
- Sabal palmetto - Sabal Palmetto
- Sabal palmetto - Sabal Palmetto - CURVED TRUNKS
- Veitchia montgomeryana - Montgomery Palm

**SMALL PALMS**

- Butia capitata - Pindo Palm
- Chamaerops humilis - European Fan Palm
- Coccothrinax argentata - Florida Silver Palm
- Dypsis lutescens - Areca Palm
- Hyophorbe lagenicaulis - Bottle Palm
- Hyophorbe verschaffeltii - Spindle Palm
- Phoenix roebelenii - Pygmy Date Palm
- Ptychosperma elegans - Solitaire Palm
- Thrinax radiata - Thatch Palm
INSTALLATION, ESTABLISHMENT AND MAINTENANCE

The primary purpose is to strategically use of Large Palms and Trees to create BOLD and dramatic landscape design and maintain healthy plants. It is the LAOR responsibility as Designer of Record to also meet these goals including quality control services during the entire Design, Installation and Maintenance process.

Landscape Installation and Establishment specifications shall be according to the attached Modified Special Provisions Section 580 (MSP 580), Landscape Installation and Establishment. (See attachment)

There are several design and construction methods that FTE may utilize for implementing a landscape project. They are:

- Design/Build/Build Contract;
- Design / Build Contract;
- Stand Along Maintenance Let Contract; and
- Push Button Contract.

Conceptual Landscape Plans used for all construction methods are prepared to define the landscape intent.

In a Design/Bid/Build method, The LAOR will provide construction documents with several reviews by FTE within an established budget. With the Design/Build scenario, FTE must provide detailed criteria relating to the design FTE requires to achieve with no budget provided.

In a Design/Build method, the Concept Plans will only be considered as a guide to be included in an RFP document and potentially listed as “Other Documents”. It will require the RFP text to include a Concept Plant Palette listing the following: plant species, minimum height and spread, container size, spacing as applicable and a Minimum Mandatory Quantity Requirement. The text must also define other essential planting criteria in sufficient detail to achieve the BOLD landscaping and consistence with FTE BRAND landscape directives.
In addition to CEI and Maintenance personal, common LAOR Post Design roles during installation typically include the following:

- Attendance of a Pre-construction Meeting;
- Approve the landscape materials (this may include looking at a photos or visiting nursery sites);
- Field review and approval of tree/palm locations and bed layouts;
- Review Shop Drawing;
- Respond to RFI(s) and RFC(s); and
- Conduct Pre-Final Inspection and prepare Punch List.

After a project’s final acceptance the LAOR will be responsible of various requirements during the Establishment Period, also referred to as the Warrantee Period. Depending on the construction method, The LAOR may be retained either by FTE or the Contractor. These requirements include:

- Act as the Responsible Party’s Landscape Quality Control representative.
- Inspect landscape monthly/quarterly and submit findings in report form of items listed in MSP 580, whichever is applicable.
- Submit report after performing inspections and make any corrections and resubmit.

Each project will have unique set of circumstances. Determination of process, information and level of detail required on the plans for RFP text shall be determined on a case by case basis.
IMPLEMENTATION PROCESS

Key elements to implement successful landscape plans are briefly outlined below.

• Clearly understand the BOLD Vision for landscape, FTE Landscape BRAND Guidelines and the scope of services or the RFP requirements of their respective project.

• Kick Off meeting attendance by the LAOR and the FTE Landscape Architect to ensure a mutual understanding of the landscape design objectives.

• Conduct site visit(s) to become familiar with the existing conditions of entire project limits.

• Participate in design progress meetings early in the design phase for coordination with other disciplines to fully understand impacts that affect potential landscape opportunities. These disciplines include: roadway, drainage, utilities, environmental, signing, ITS, lighting, structures, architecture, etc. It is through participation at the beginning of the project the designs may be able to identify and preserve landscape opportunities.

• Development of a Preliminary or Concept Landscape Plan based on site specific solutions in a roll plot format that incorporates existing and proposed conditions while maintaining landscape objectives.

• The Preliminary or Concept Plan must provide sufficient details to clearly define the design, plant quantity/species/sizes and establish a cost estimate.

• Approved Preliminary or Concept Landscape Plan will become basis of subsequent submittals.

• Incorporate comments provided at each phased submittal.
RIGHT PLANT / RIGHT PLACE AND HELPFUL HINTS

Although these BRAND Guidelines and FDOT standards and Indexes are the primary sources for developing a compliant landscape design, there are additional factors that may not be specifically covered. The list below describes typical conditions that may be encountered in plan design to ensure the Right Plants are used in the Right Place. It also provides some helpful hints based on past experiences. These factors should be considered when designing landscape plans for all FTE projects.

- The designing Landscape Architect is responsible for conducting a sufficient number of site visits to ensure they have a clear understanding of the existing site conditions including: existing vegetation, soil conditions, adjacent land uses, awareness of seasonal changes, roadway configurations, structures, drainage, utilities, ITS, view sheds, billboards, signage, etc. The Landscape Architect shall continue visual verification of these elements throughout the design process.

- Selection of proposed plants must consider size at maturity to ensure they will not block visibility to: signs, ITS cameras, sight lines, etc.

- Ensure that all plants are appropriate for their location regarding hardiness zones and micro-climatic conditions.

- Do not locate plants that require moist soils (such as Royal palms, Paurotis, Maple, Sycamore, etc.) on highway embankments, side slopes or dry areas.

- Do not locate plants that require dry soils (such as Date palms, Royal Poinciana, etc.) within wet or seasonally moist areas.

- Do not plant tree types that have excessively large rootballs on slopes that are 1 to 3 or steeper, such as multi-stemmed palms or very large trees or palms.

- Do not plant very tall palms (16’ clear trunk height or greater) within 15’ to the guardrail or within 20’ to a roadway in order to avoid the potential of them falling into the roadway prior to establishment.

- Avoid rows of trees at matched sizes and regular spacing. Utilize staggered plant sizes in informal, irregular spacing and irregular spaced clusters where possible.

- Provide grey wood (GW), clear trunk (CT) and overall heights (OA) dimensions on large specimen palms including, but not limited to: Bismarck, Date, Ribbon and Pindo palms to prevent the ‘over pruning’ of lower fronds.
- Consider designing with a variety of flowering tree species that provide year round seasonal color.

- Do not utilize trees with large or spiny fruits or with staining foliage such as Sweetgum, Mahogany, Black Olive, etc., near AET facilities, paved areas, parking lots, pedestrian areas, etc.

- Ensure shrubs are appropriately sized and spaced so they fill-in as soon as possible to minimize weeding operations. Do not space plants too closely together where air circulation and controlling pest infestations becomes problematic.

- Avoid plan notes that repeat or conflict with the FDOT Standards Specifications, Design Standards or Indexes.

- Where existing vegetation preservation is proposed and located within the construction and silt fence limits, provide a “Tree Protection Barricade”, per FDOT Index 544, on the plans around the vegetation to be preserved. Where vegetation preservation is outside the construction and silt fence limits, no tree protection barricades need to be shown on the plans. The Landscape Plan, however, shall indicate all areas of vegetation to be preserved in either case. The Landscape Plans shall make reference to the drawing sheets which show the construction and silt fence limits. The LAOR shall review these sheets to confirm accuracy and the plants to be preserved are protected.
EXHIBIT 1-A: TYPICAL INTERCHANGE – LEVEL 1 DESIGN OPTION
EXHIBIT 3-A: TYPICAL OVERPASS DESIGN – LEVEL 1 & 2 DESIGN OPTIONS

LEVEL 1 DESIGN OPTION

LEVEL 2 DESIGN OPTION

PLANT LIST

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>SIZE / REMARKS</th>
<th>ECONOMICAL QTY</th>
<th>MODERATE QTY</th>
<th>HIGH PROFILE QTY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bismarckia nobilis 'Silver' - Silver Bismarck Palm</td>
<td>14' OA</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bismarckia nobilis 'Silver' - Silver Bismarck Palm</td>
<td>10' OA</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phoenix sylvestris - Wild Date Palm/Sylvestre</td>
<td>8'-10' CT</td>
<td>12</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>Sabal palmetto - Sabal Palmetto</td>
<td>10', 14', 20' CT, STG, (1/3 EACH SIZE)</td>
<td>60</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

TOTAL COST $15,000.00 $20,000.00 $31,000.00

TYPICAL OVERPASS DESIGN OPTIONS EXHIBIT 3-A

Florida's Turnpike Enterprise Landscape Brand
PLANT LIST

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>SIZE / REMARKS</th>
<th>ECONOMICAL OPTION</th>
<th>MODERATE OPTION</th>
<th>HIGH PROFILE OPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bismarckia nobilis 'Silver' * Silver Bismarck Palm</td>
<td>14' OA</td>
<td>QTY</td>
<td>QTY</td>
<td>QTY</td>
</tr>
<tr>
<td>Bismarckia nobilis 'Silver' * Silver Bismarck Palm</td>
<td>10' OA</td>
<td>12</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>Phoenix sylvestris - Wild Date Palm/Sylvester</td>
<td>10' - 10' CT</td>
<td>12</td>
<td>12</td>
<td>20</td>
</tr>
<tr>
<td>Sabal palmetto - Sabal Palmetto</td>
<td>10', 14', 20' CT, 60G, (1/3 EACH SIZE)</td>
<td>50</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

TOTAL COST $15,000.00 $20,000.00 $31,000.00

TYPICAL OVERPASS DESIGN OPTIONS

EXHIBIT 3-B

Florida's Turnpike Enterprise Landscape Brand
EXHIBIT 4: TYPICAL MAINLINE GANTRY – LEVEL 1 & 2 DESIGN OPTIONS

LEVEL 1 DESIGN OPTION

LEVEL 2 DESIGN OPTION

PLANT LIST

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>SIZE / REMARKS</th>
<th>ECONOMICAL OPTION</th>
<th>MODERATE OPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Closia gattifera 'Kuma' - Dwarf Closia</td>
<td>2 x 2', 3' DC</td>
<td>325</td>
<td>125</td>
</tr>
<tr>
<td>Lagerstroemia speciosa - Queen's Crape Myrtle</td>
<td>2' x 3', 0' GHD, LUMB BP 5', 3' CAL</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>Bismarckia nobilis 'Silver' - Silver Bismarck Palm</td>
<td>6' OA</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Bismarckia nobilis 'Silver' - Silver Bismarck Palm</td>
<td>4' OA</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Roystonea regia - Florida Royal Palm</td>
<td>4' - 10' GHA, 5' LTH</td>
<td>24</td>
<td></td>
</tr>
<tr>
<td>Sabal palmetto - Sabal Palmetto</td>
<td>12', 14', 22' LTH, 5' LTH (1/3 EACH 3'2')</td>
<td>40</td>
<td></td>
</tr>
</tbody>
</table>

TOTAL COST $15,000.00 $20,000.00

Florida's Turnpike Enterprise Landscape Design Branding
EXHIBIT 5: TYPICAL RAMP GANTRY – LEVEL 1 & 2 DESIGN OPTIONS

LEVEL 1 DESIGN OPTION

LEVEL 2 DESIGN OPTION

<table>
<thead>
<tr>
<th>PLANT LIST</th>
<th>ECONOPTICAL</th>
<th>MODERATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>DESCRIPTION</td>
<td>QTY</td>
<td>QTY</td>
</tr>
<tr>
<td>Ficus macrophylla 'Green Island' – Green Island Ficus</td>
<td>2' x 2', 3' DC</td>
<td>125</td>
</tr>
<tr>
<td>Chamaerops humilis – European Fan Palm</td>
<td>5'6' OA, MULTI</td>
<td>14</td>
</tr>
<tr>
<td>Hyophorbe lissifolia – Spindle Palm</td>
<td>6'0' OA</td>
<td>8</td>
</tr>
</tbody>
</table>

TYPICAL RAMP GANTRY DESIGN OPTIONS EXHIBIT 5

Florida’s Turnpike Enterprise Landscape Design Branding
EXHIBIT 6: TYPICAL BUFFER DESIGN OPTIONS

### PLANT LIST

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>SIZE / REMARKS</th>
<th>TALL SHRUBS ONLY</th>
<th>TREES, PALMS &amp; UNDERSTORY</th>
<th>TREES ONLY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conocarpus erectus - Green Buttonwood</td>
<td>10' x 15 GA, 6&quot; x 5&quot;, 6' OC</td>
<td>33</td>
<td>QTY</td>
<td>QTY</td>
</tr>
<tr>
<td>Conocarpus erectus var. senectus - Silver Buttonwood</td>
<td>10' x 15 GA, 6&quot; x 5&quot;, 6' OC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dypsis lutescens - Areca Palm</td>
<td>10' x 15 GA, 6&quot; x 5&quot;, FILL, 6' OC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clusia quillifera - Small Leaf Clusia</td>
<td>10' x 15 GA, 5&quot; x 4&quot;, FILL, 6' OC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clusia quillifera - Small Leaf Clusia</td>
<td>12&quot; x 6&quot;, TREE FORM</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hamelia nobilis - Dwarf Firebush</td>
<td>2' x 2', 3' OC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chrysobalanus lucim - Red Tip - Red Tip Coco plum</td>
<td>7' GA, 2' x 2', 4' OC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clusia quillifera - Small Leaf Clusia</td>
<td>7' GA, 2' x 2', 4' OC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eugenia lerotta - Spanish Stopper</td>
<td>2.5' x 2', 3' OC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Serenoa repens 'Cineria' - Silver Saw Palmetto</td>
<td>7' GA, 2.5' x 2.5'</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pinus elliottii dom.-Slo. Florida Slash Pine</td>
<td>8&quot; DIA, 2&quot; DIA</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conocarpus erectus - Green Buttonwood</td>
<td>12&quot; x 5&quot;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sabal palmetto - Sabal Palmetto</td>
<td>10', 14', 16', 18', 20', 22', (1/3 EACH SIZE)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**TOTAL COST PER PLANTING (200' SECTION)**

- $2,000.00
- $5,500.00
- $7,000.00

**TOTAL COST PER 2,000' SECTION (CONTINUOUS X 10 PLANTINGS)**

- $20,000.00
- $55,000.00
- $70,000.00

**TOTAL COST PER 2,000' SECTION (@ 500' OC X 4 PLANTINGS WITH 300' GAP)**

- $8,000.00
- $22,000.00
- $26,000.00

**TOTAL COST PER 2,000' SECTION (@ 666' OC X 3 PLANTINGS WITH 466' GAP)**

- $6,000.00
- $16,500.00
- $21,000.00

**TOTAL COST PER 2,000' SECTION (@ 1000' OC X 2 PLANTINGS WITH 800' GAP)**

- $4,000.00
- $11,000.00
- $14,000.00

---

**BUFFER OPTIONS ARE SHOWN IN TYPICAL 200' SECTIONS. ACTUAL LENGTH AND NUMBER OF INTERVALS TO BE DETERMINED BASED ON SITE CONDITIONS AND AVAILABLE BUDGET.**

---

**TYPICAL BUFFER DESIGN OPTIONS**

Florida's Turnpike Enterprise Landscape Brand
**EXHIBIT 7: TYPICAL NOISE WALL DESIGN OPTIONS**

### WET CONDITION

- **ROYAL PALMS**
- **PAUROTIS PALMS**
- **NOISE WALL**

### DRY CONDITION

- **YELLOW TABEBUIA**
- **CURVED SABAL PALMS**
- **NOISE WALL**
- **JATROPHA**

---

### PLANT LIST

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>SIZE / REMARKS</th>
<th>QTY</th>
<th>NOISE WALL - WET CONDITION</th>
<th>NOISE WALL - DRY CONDITION</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Lantana - Lantana Bush</strong></td>
<td>5' x 3'5&quot;, BUSH FORM</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tabebuia caraba - Silver Trumpet Tree</td>
<td>12' x 6', 4&quot; CAL</td>
<td>38</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acacia indica var. elliptica - Palms</td>
<td>18'-6&quot;, 18 CAVES MIN, CLEAN BASE</td>
<td>18</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pisonia regia - Florida Royal Palm</td>
<td>14'-10&quot; LOW, 5 TOS</td>
<td>8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sabal palmetto - Sabal Palmetto</td>
<td>18', 14', 20' CT, 5 TOS, (1/3 EACH SIZE), SLOE, CURVED TRUNK</td>
<td>13</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**TOTAL COST PER PLANTING (200' SECTION)**

- **$7,000.00**
- **$6,700.00**

**TOTAL COST PER 2,000' SECTION (@ 500' OC - X 4 PLANTINGS WITH 100' GAP)**

- **$31,200.00**
- **$26,800.00**

**TOTAL COST PER 2,000' SECTION (@ 666' OC - X 5 PLANTINGS WITH 400' GAP)**

- **$25,400.00**
- **$20,100.00**

**TOTAL COST PER 2,000' SECTION (@ 1000' OC - X 2 PLANTINGS WITH 1000' GAP)**

- **$15,600.00**
- **$13,400.00**

---

**BUFFER OPTIONS ARE SHOWN IN TYPICAL 200' SECTIONS. ACTUAL LENGTH AND NUMBER OF INTERVALS TO BE DETERMINED BASED ON SITE CONDITIONS AND AVAILABLE BUDGET.**

**A 10' MAINTENANCE SETBACK MAY BE REQUIRED AS DETERMINED ON A PROJECT BY PROJECT BASIS.**

**TYPICAL NOISE WALL DESIGN OPTIONS**

**Florida's Turnpike Enterprise Landscape Brand**
### TREE SYMBOL LEGEND

- **O** MONTGOMERY PALM - SINGLE
- **O** MONTGOMERY PALM - DOUBLE
- **O** MONTGOMERY PALM - TRIPLE
- **O** THATCH PALM

### PLANT LIST

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>SIZE</th>
<th>REMARKS</th>
<th>ECONOMICAL CVRS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yawaha montgomeryana - Montgomery Palm</td>
<td>SINGLE STEM, 12 TO 18 FT</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Yawaha montgomeryana - Montgomery Palm</td>
<td>DOUBLE STEM, 12 TO 14 FT</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Yawaha montgomeryana - Montgomery Palm</td>
<td>TRIPLE STEM, 12 TO 14 FT</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Thatch radicans - Thatch Palm</td>
<td>6</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**TOTAL COST:** $20,000.00

---

**TYPICAL CROSS ROAD - LEVEL 1 DESIGN OPTION**

Florida's Turnpike Enterprise Landscape Brand
PLANT LIST

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>SIZE/REMARKS</th>
<th>QTV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roystonea regia - Florida Royal Palm</td>
<td>14&quot; - 18&quot; OW, STD</td>
<td>30</td>
</tr>
<tr>
<td>Butia capitata - Pindo Palm</td>
<td>6' CT, 14' OA</td>
<td>14</td>
</tr>
</tbody>
</table>

TOTAL COST $25,000.00

TYPICAL CROSS ROAD - LEVEL 2 DESIGN OPTION  EXHIBIT 8-B

Florida's Turnpike Enterprise Landscape Brand
EXHIBIT 9-A: TYPICAL INTERCHANGE – LEVEL 2 DESIGN OPTION, PLAN RENDERING

- Royal palms in a striking radial arrangement provide a focal landscape element that is repeated throughout the (southern) roadway systems.
- A mixture of mediodol and Sylvester date palms on the slope and silver bismarck palms in 2 sizes at the bottoms of the slope create the signature accent plantings that define the grade.
- Large groupings of informally arranged sabal palms located on the overspill sideslopes create a "spatial edge" to the roadway.
- Informal clusters of flowering royal poinciana and queen's crape myrtle located in the infills are to provide seasonal color.
- TYPICAL RAMP GANTER PLANTINGS WITH MONTGOMERY SPINICLE AND EUROPEAN FAN PALMS CREATE A UNIQUE AND INTERESTING LANDSCAPE STATEMENT.
- Green island fijus or dwarf clusia shrubs provide screening of the toll plaza equipment.
- In locations where infield areas are dry, wildflowers can be added. In locations where they are utilized for wet retention, no plants will be added.

Florida's Turnpike Enterprise Landscape Design Branding
EXHIBIT 10-A: OKAHUMPKA WELCOME SIGN – LANDSCAPE PLAN

A dramatic backdrop behind the turnpike welcome sign is created by majestic 30’ high medinilla date palms and massing of red crape myrtles. The dense canopy of 3’ high ligustrum trees provides a visual anchor at the base of the palms. Hollies, with their dark green foliage and red winter berries, provide a backdrop fitting into the existing tree canopy.

Landscaping plant palette:
- Chickasaw plum
- Eastern redbud
- East Palatka holly
- Japanese privet
- White crape myrtle
- Lavender crape myrtle
- Red crape myrtle
- Sabal palm
- Medinilla dark palm

Design intent:
Strategic placement of a welcome sign coupled with massing of accent plantings at the Okahumpka service plaza provides a dramatic visual statement for travelers entering the Florida’s Turnpike. The mixture of majestic palms, flowering and evergreen trees are intended to provide interest and year-round seasonal color.

Florida’s Turnpike Enterprise Landscape Design Branding
EXHIBIT 11-A: TYPICAL TRUMPET INTERCHANGE – LEVEL 3, PLAN RENDERING

TYPICAL RAMP GANTRY PLANTINGS WITH MONTGOMERY, SPINDLE AND EUROPEAN RAV PALMS CREATE A UNIQUE AND INTERESTING LANDSCAPE STATEMENT.

ROYAL PALMS IN A STRONG RADIAL ARRANGEMENT PROVIDE A BOLD LANDSCAPE ELEMENT THAT IS REPEATED THROUGHOUT THE (SOUTHERN) ROADWAY SYSTEM.

LARGE GROUPINGS OF INFORMALLY ARRANGED SABAL PALMS LOCATED ON THE OVERPASS SIDEWALKS CREATE A "SPATIAL EDGE" TO THE HIGHWAY.

A MIXTURE OF MEDJOOL AND SYLVESTER DATE PALMS ON THE SLOPE AND ELVIER BISMARCK PALMS (ON 2 SIDES) AT THE BOTTOMS OF THE SLOPE CREATE THE SIGNATURE ACCENT PLANTING THAT DEFINE THE "BRAND.

IN LOCATIONS WHERE INFILL AREA ARE DRY, WILDFLOWERS CAN BE ADDED IN LOCATIONS WHERE THEY ARE UTILIZED FOR WET RETENTION, NO PLANTS WILL BE ADDED.

INFORMAL CLUSTERS OF FLOWERING ROYAL, PONICANA AND QUEEN'S CRAPE MYRTLE LOCATED IN THE INFILL ARE TO PROVIDE SEASONAL COLOR.

GREEN ISLAND FOLIAGE, HIBISCUS, CLUSIA, SHRUBS PROVIDE SCREENING OF THE TOLL PLAZA EQUIPMENT.

Florida's Turnpike Enterprise Landscape Design Branding

SUGGESTED LANDSCAPE PLANT PALETTE
*HEIGHTS SHOWN ARE AS INSTALLATION

QUEEN'S CRAPE MYRTLE 14' HEIGHT

ROYAL PONICANA 14' HEIGHT

SABAL PALM 10'/14' CLEAR TRUNK

MEDJOOL DATE PALM 10'/12' CLEAR TRUNK

SYLVESTER DATE PALM 8'/10' CLEAR TRUNK

ELVIER BISMARCF PALM 10'/14' HEIGHT

ROYAL PALM 14'/18' GRAY WOOD
EXHIBIT 12-A: TYPICAL OVERPASS – LEVEL 1, PLAN & ELEVATION RENDERING

SABAL PALMS AND SILVER BISMARCK PALMS TO ACCENT THE BRIDGE AND REINFORCE THE 'BRAND'.

TYPICAL OVERPASS – LEVEL 1 DESIGN OPTION  EXHIBIT 12-A
PLAN & ELEVATION RENDERING

Florida's Turnpike Enterprise Landscape Brand
EXHIBIT 12-B: TYPICAL OVERPASS – LEVEL 3, PLAN & ELEVATION RENDERING

SYLVESTER DATE PALMS AND SILVER BISMARCK PALMS TO ACCENT THE BRIDGE AND REINFORCE THE "BRAND."

TYPICAL OVERPASS - LEVEL 3 DESIGN OPTION EXHIBIT 12-B PLAN & ELEVATION RENDERING

Florida's Turnpike Enterprise Landscape Brand
EXHIBIT 13: TYPICAL BUFFER – TREES, PALMS & UNDERSTORY, PLAN & ELEVATION RENDERING

GREEN BUTTONWOOD
SIZE: 6’X3’

SABAL PALM
10/14/20’ CLEAR TRUNK

DWARF FIREBUSH
SIZE: 2’X 2’

BEFORE | TYPICAL BUFFER

AFTER | TYPICAL BUFFER

TYPICAL BUFFER – TREES, PALMS & UNDERSTORY
EXHIBIT 13
DESIGN OPTION, PLAN & ELEVATION RENDERING

Florida’s Turnpike Enterprise Landscape Brand
### EXHIBIT 14: MASTER PLANT LIST AND SIZES – NORTH REGION

<table>
<thead>
<tr>
<th>DESCRIPTION (Botanical - Common Name)</th>
<th>MINIMUM SIZE and recommended SPACING (as applicable)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SLOPE STABILIZING SHRUBS</strong></td>
<td></td>
</tr>
<tr>
<td>Serenoa repens 'Cineria' - Silver Saw Palmetto</td>
<td>#7 GAL, 2.5' h x 2.5' s</td>
</tr>
<tr>
<td><strong>SCREENING PLANTS</strong></td>
<td></td>
</tr>
<tr>
<td>Forestiera segretata - Florida Privet</td>
<td>2' h x 2' s, 2.5' OC</td>
</tr>
<tr>
<td>Hamelia nodosa - Dwarf Firebush</td>
<td>2' h x 2' s, 3' OC</td>
</tr>
<tr>
<td>Illicium floridanum - Florida Anise</td>
<td>#7 GAL, 3' h x 3' s, full</td>
</tr>
<tr>
<td>Ilex opaca - American Holly</td>
<td>2' h x 2' s, 2.5' OC</td>
</tr>
<tr>
<td>Ilex vomitoria - Yaupon Holly</td>
<td>#7 GAL, 3' h x 3' s, full</td>
</tr>
<tr>
<td>Juniperus virginia silicicola - Southern Red Cedar</td>
<td>12' h x 6' s</td>
</tr>
<tr>
<td>Myrica caribaea - Wax Myrtle</td>
<td>#25/#30 GAL, 6-7' OA</td>
</tr>
<tr>
<td>Magnolia grandiflora - Southern Magnolia</td>
<td>12' h x 5' s, 2.5' CAL, full canopy</td>
</tr>
<tr>
<td>Pinus elliottii - Slash Pine</td>
<td>12'-14' h, 2.5' CAL</td>
</tr>
<tr>
<td>Pinus palustris - Longleaf Pine</td>
<td>12'-14' h, 2.5' CAL</td>
</tr>
<tr>
<td>Podocarpus macr. - Podocarpus</td>
<td>6-7' h, full</td>
</tr>
<tr>
<td>Sabal palmetto - Sabal Palmetto</td>
<td>10-28 CT, ST/SG, booted</td>
</tr>
<tr>
<td>Spartina patens - Sand Cord Grass</td>
<td>2' h x 1.5' s, 3' OC</td>
</tr>
<tr>
<td>Viburnum otoracissimum - Sweet Viburnum</td>
<td>2' h x 2' s, 2.5' OC</td>
</tr>
<tr>
<td>Viburnum obovatum - Black Haw</td>
<td>2' h x 2' s, 2.5' OC</td>
</tr>
<tr>
<td>Podocarpus macr. 'Makii' - Podocarpus</td>
<td>12' h x 5' s, 3' CAL</td>
</tr>
<tr>
<td><strong>CANOPY TREES</strong></td>
<td></td>
</tr>
<tr>
<td>Acer rubrum - Red Maple</td>
<td>12' h x 5' s, 2.5' CAL, full</td>
</tr>
<tr>
<td>Liquidambar styraciflua - Sweetgum</td>
<td>14' h x 5' s, 3' CAL, full, 3' CT</td>
</tr>
<tr>
<td>Pinus elliottii - Slash Pine</td>
<td>#7 GAL, 5-6' OA</td>
</tr>
<tr>
<td>Pinus elliottii - Slash Pine</td>
<td>12-14' OA, 2.5' CAL</td>
</tr>
<tr>
<td>Platanus occidentalis - American Sycamore</td>
<td>14' h x 6' s, 3' CAL, full, 5' CT</td>
</tr>
<tr>
<td>Quercus virginiana - Live Oak</td>
<td>14' h x 6' s, 3' CAL, full, 7' CT</td>
</tr>
<tr>
<td>Quercus virginiana - Live Oak</td>
<td>16' h x 8' s, 4' CAL, full, 8' CT</td>
</tr>
<tr>
<td>Taxodium distichum - Bald Cypress</td>
<td>#7 GAL, 5-6' OA</td>
</tr>
<tr>
<td>Taxodium distichum - Bald Cypress</td>
<td>12-14' h, 2.5' CAL</td>
</tr>
<tr>
<td>Ulmus alata - Winged Elm</td>
<td>14' h x 6' s, 3' CAL, full, 5' CT</td>
</tr>
</tbody>
</table>

**Legend:**
- h = height
- s = spread
- OC = on center spacing
- OA = overall height
- CAL = caliper
- CT = clear trunk height
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- GW = green wood height
- ST/SG = stagger heights

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*Florida's Turnpike Enterprise Landscape Brand*

Page 47 of 55
# MASTER PLANT LIST AND SIZES – NORTH REGION (continued)

<table>
<thead>
<tr>
<th>DESCRIPTION (Botanical – Common Name)</th>
<th>MINIMUM SIZE and recommended SPACING (as applicable)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLOWERING/ACCENT TREES</td>
<td></td>
</tr>
<tr>
<td>Ilex vomitoria ‘pendula’ - Weeping Yaupon Holly</td>
<td>10’ h x 4’ s, multi trunk</td>
</tr>
<tr>
<td>Juniperus virginiana silicicola - Southern Red Cedar</td>
<td>10’ h x 4’s</td>
</tr>
<tr>
<td>Lagerstroemia indica ‘ssp’ - Crape Myrtle</td>
<td>12’ h x 4’ s, multi trunk, limb up to 5’</td>
</tr>
<tr>
<td>Magnolia grandiflora - Southern Magnolia</td>
<td>12’ h x 5’ s, 2.5” CAL, full canopy</td>
</tr>
<tr>
<td>Magnolia grandiflora ‘Little Gem’ - Little Gem Magnolia</td>
<td>12’ h x 5’ s, 3” CAL</td>
</tr>
<tr>
<td>Nerium oleander - Oleander</td>
<td>6’ h x 4’ s</td>
</tr>
<tr>
<td>LARGE/MEDIUM PALMS</td>
<td></td>
</tr>
<tr>
<td>Bismarckia nobilis ‘silver select’ - Silver Bismarck Palm</td>
<td>10’-14’ OA</td>
</tr>
<tr>
<td>Livistona decipiens - Ribbon Palm</td>
<td>8”-10” CT</td>
</tr>
<tr>
<td>Phoenix dactylifera ‘Medjool’ - Medjool Date Palm</td>
<td>10’ GW x 13” CT</td>
</tr>
<tr>
<td>Phoenix sylvestris - Wild Date Palm/Sylvester</td>
<td>8”-10” CT</td>
</tr>
<tr>
<td>Phoenix ‘HYBRIDS’ - Hybrid Date Palm</td>
<td>multi-stem species</td>
</tr>
<tr>
<td>Sabal caesalum - Puerto Rican Hat Palm</td>
<td>5” - 8” CT</td>
</tr>
<tr>
<td>Sabal palmetto - Sabal Palmetto</td>
<td>10’-28” CT, 4’ STGG between adjacent palms min., booted/slick mix</td>
</tr>
<tr>
<td>Sabal palmetto - Sabal Palmetto - CURVED</td>
<td>10’-20” CT, 4’ STGG between adjacent palms min., slick, curved trunk</td>
</tr>
<tr>
<td>Washingtonia filifera - Desert Fan Palm</td>
<td>14’ - 24” CT, STGG</td>
</tr>
<tr>
<td>SMALL PALMS</td>
<td></td>
</tr>
<tr>
<td>Acceloraphace wrightii - Paurotis Palm</td>
<td>15’ h x 10’ s, 10 CANES MIN, CLEAN BASE</td>
</tr>
<tr>
<td>Butia capitata - Pindo Palm</td>
<td>6’ CT</td>
</tr>
<tr>
<td>Chamaerops humilis - European Fan Palm</td>
<td>5’-6’ OA, multi trunk</td>
</tr>
</tbody>
</table>

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*Florida's Turnpike Enterprise Landscape Brand*
EXHIBIT 15: MASTER PLANT LIST AND SIZES – SOUTH REGION

<table>
<thead>
<tr>
<th>DESCRIPTION (Botanical - Common Name)</th>
<th>MINIMUM SIZE and recommended SPACING (as applicable)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SLOPE STABILIZING SHRUBS</strong></td>
<td></td>
</tr>
<tr>
<td>Serenoa repens 'Cinerea' - Silver Saw Palmetto</td>
<td>#7 GAL, 2.5' h x 2.5' s</td>
</tr>
<tr>
<td><strong>SCREENING PLANTS</strong></td>
<td></td>
</tr>
<tr>
<td>Annona glabra - Pond Apple</td>
<td>#15/#25 GAL, 6' h x 5' s</td>
</tr>
<tr>
<td>Conocarpus erectus - Green Buttonwood</td>
<td>#10/#15 GAL, 6' h x 5' s, 6' OC</td>
</tr>
<tr>
<td>Conocarpus erectus var. sericeus - Silver Buttonwood</td>
<td>#10/#15 GAL, 6' h x 5' s, 6' OC</td>
</tr>
<tr>
<td>Chrysobalanus icaco 'Red Tip' - Red Tip Coco plum</td>
<td>2' h x 2' s, 4' OC</td>
</tr>
<tr>
<td>Clusia guttifera - Small Leaf Clusia Tree Form</td>
<td>8' h x 6' s, multi-trunk tree form</td>
</tr>
<tr>
<td>Clusia guttifera - Small Leaf Clusia</td>
<td></td>
</tr>
<tr>
<td>Clusia guttifera 'Nana' - Dwarf Clusia</td>
<td></td>
</tr>
<tr>
<td>Coccozbua uvifera - Sea Grape</td>
<td>#7 GAL, 3' h x 3' s, 4' OC</td>
</tr>
<tr>
<td>Eugenia foetida - Spanish Stopper</td>
<td></td>
</tr>
<tr>
<td>Eugenia foetida - Spanish Stopper</td>
<td>#7 GAL, 3' h x 2.5' s, 4' OC</td>
</tr>
<tr>
<td>Ficus macrophylla 'Green Island' - Green Island Ficus</td>
<td>2' h x 2' s, 3' OC</td>
</tr>
<tr>
<td>Ilex vomitoria 'Stokes Dwarf' - Dwarf Holly</td>
<td>2' h x 2' s, 3' OC</td>
</tr>
<tr>
<td>Juniperus virginiana silicaca - Southern Red Cedar</td>
<td>12' h x 6' s</td>
</tr>
<tr>
<td>Myrcianthes fragrans - Simpson's Stopper</td>
<td>10'-15' OA, 3' CT, multi-trunk tree form</td>
</tr>
<tr>
<td>Myrcianthes fragrans - Simpson's Stopper</td>
<td>#7 GAL, 3' h x 4' s, 4' OC, shrub form</td>
</tr>
<tr>
<td>Myrica cerifera - Wax Myrtle</td>
<td>#20/#30 GAL, 6'-7' OA</td>
</tr>
<tr>
<td>Pinus elliottii dense - So. Florida Slash Pine</td>
<td>8'-12' h, 3'-3.5' CAL</td>
</tr>
<tr>
<td>Pinus elliottii dense - So. Florida Slash Pine</td>
<td>12' h, 3' CAL</td>
</tr>
<tr>
<td>Sabal palmetto - Sabal Palmetto</td>
<td>10'-28' CT, STGG, booted</td>
</tr>
<tr>
<td>Spartina bakeri - Sand Cord Grass</td>
<td>2' h x 1.5' s, 3' OC</td>
</tr>
</tbody>
</table>

**Legend:**
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*Florida's Turnpike Enterprise Landscape Brand*
## MASTER PLANT LIST AND SIZES – SOUTH REGION (continued)

<table>
<thead>
<tr>
<th>DESCRIPTION (Botanical - Common Name)</th>
<th>MINIMUM SIZE and recommended SPACING (as applicable)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CANOPY TREES</strong></td>
<td></td>
</tr>
<tr>
<td>Acer rubrum - Red Maple</td>
<td>12' h x 5' s, 2.5' CAL, full</td>
</tr>
<tr>
<td>Bursera simaruba - Gumbo Limbo</td>
<td>14' h x 6' s, 4'' CAL, full</td>
</tr>
<tr>
<td>Conocarpus erectus - Green Buttonwood</td>
<td>12' h x 5' s</td>
</tr>
<tr>
<td>Lysiloma latifolia - Wild Tamarind</td>
<td>10'-12' OA, full canopy</td>
</tr>
<tr>
<td>Quercus virginiana - Live Oak</td>
<td>14' h x 6' s, 3'' CAL, full, 5' CT</td>
</tr>
<tr>
<td><strong>FLOWERING/ACCENT TREES</strong></td>
<td></td>
</tr>
<tr>
<td>Bombax ceiba - Red Silk-cotton Tree</td>
<td>12'-14' h x 5' s</td>
</tr>
<tr>
<td>Conocarpus erectus var. sericeus - Silver Buttonwood</td>
<td>10' h x 6' s, multi trunk</td>
</tr>
<tr>
<td>Cassia fistula - Golden Shower Tree</td>
<td>6'-10' OA</td>
</tr>
<tr>
<td>Cassia javanica - Apple Blossom Shower Tree</td>
<td>10'-12' OA</td>
</tr>
<tr>
<td>Delonix regia - Royal Poinciana</td>
<td>14' h x 7' s, 4.5' CAL</td>
</tr>
<tr>
<td>Chorisia speciosa - Floss Silk Tree</td>
<td>12' h x 5' s, 2.5' CAL, full</td>
</tr>
<tr>
<td>Jatropha - Jatropha Bush</td>
<td>5' h x 3.5' s, bush form</td>
</tr>
<tr>
<td>Juniperus virginiana silicola - Southern Red Cedar</td>
<td>12' h x 6' s</td>
</tr>
<tr>
<td>Lagerstroemia speciosa - Queen's Crape Myrtle</td>
<td>14' h x 6' s, limb up to 5', 3' CAL</td>
</tr>
<tr>
<td>Lagerstroemia indica - Crape Myrtle</td>
<td>12' h x 4' s, limb up to 5', multi trunk</td>
</tr>
<tr>
<td>Lysiloma sabicu - Sabicu</td>
<td>#25 GAL, 8'-10' OA, 2.5' CAL</td>
</tr>
<tr>
<td>Peltophorum dubium - Yellow Poinciana</td>
<td>12' h x 6' s, 2.5' CAL</td>
</tr>
<tr>
<td>Simarouba glauca - Paradise Tree</td>
<td>#25 GAL, 8'-10' OA</td>
</tr>
<tr>
<td>Tabebuia caraiba - Silver Trumpet Tree</td>
<td>12' h x 6' s, 4' CAL</td>
</tr>
<tr>
<td>Swietenia mahogani - Mahogany</td>
<td>14' h x 6' s, 3' CAL, full, 5' CT</td>
</tr>
</tbody>
</table>

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- CT = clear trunk height
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- MIN = minimum
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- STGH = stagger heights
## MASTER PLANT LIST AND SIZES – SOUTH REGION (continued)

<table>
<thead>
<tr>
<th>DESCRIPTION (Botanical - Common Name)</th>
<th>MINIMUM SIZE and recommended SPACING (as applicable)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>LARGE/MEDIUM PALMS</strong></td>
<td></td>
</tr>
<tr>
<td>Bismarckia nobilis 'Silver' - Silver Bismarck Palm</td>
<td>10' - 14' OA</td>
</tr>
<tr>
<td>Bismarckia nobilis 'Silver' - Silver Bismarck Palm</td>
<td>14' OA</td>
</tr>
<tr>
<td>Latania lontaroides - Latan Palm</td>
<td>10' OA</td>
</tr>
<tr>
<td>Livistonia decora - Ribbon Palm</td>
<td>8' - 10' CT</td>
</tr>
<tr>
<td>Phoenix dactylifera 'Medjool' - Medjool Date Palm</td>
<td>13' CT</td>
</tr>
<tr>
<td>Phoenix dactylifera 'Medjool' - Medjool Date Palm</td>
<td>10' CT - 14' CT, STGG</td>
</tr>
<tr>
<td>Phoenix sylvestris - Wild Date Palm/Sylvester</td>
<td>8' - 10' CT</td>
</tr>
<tr>
<td>Acoelorrhaphe wrightii - Paurotis Palm</td>
<td>10' x 6', 10 canes min., clean base</td>
</tr>
<tr>
<td>Roystonea regia - Florida Royal Palm</td>
<td>10' - 20' GW, STGG</td>
</tr>
<tr>
<td>Roystonea regia - Florida Royal Palm</td>
<td>20' GW, STGG</td>
</tr>
<tr>
<td>Sabal palmetto - Sabal Palmetto</td>
<td>10' - 28' CT, 4' STGG between adjacent palms min.,  booted/slick mix</td>
</tr>
<tr>
<td>Sabal palmetto - Sabal Palmetto - CURVED TRUNKS</td>
<td>10' - 20' CT, 4' STGG between adjacent palms min., slick, curved trunk</td>
</tr>
<tr>
<td>Veitchia montgomeryana - Montgomery Palm</td>
<td>12' - 14' CT, single stem</td>
</tr>
<tr>
<td>Veitchia montgomeryana - Montgomery Palm</td>
<td>12' - 14' CT, double stem</td>
</tr>
<tr>
<td>Veitchia montgomeryana - Montgomery Palm</td>
<td>12' - 14' CT, triple stem</td>
</tr>
<tr>
<td><strong>SMALL PALMS</strong></td>
<td></td>
</tr>
<tr>
<td>Butia capitata - Pindo Palm</td>
<td>6' CT, 14' OA</td>
</tr>
<tr>
<td>Chamaerops humilis - European Fan Palm</td>
<td>3' - 6' OA, multi trunk</td>
</tr>
<tr>
<td>Coccothrinax argentata - Florida Silver Palm</td>
<td>6' OA</td>
</tr>
<tr>
<td>Dypsis lutescens - Areca Palm</td>
<td>#10/#15 GAL, 7 h ' x 5' s, full, 6' OC</td>
</tr>
<tr>
<td>Hyphorbe lagenicaulis - Bottle Palm</td>
<td>6' - 8' OA</td>
</tr>
<tr>
<td>Hyphorbe verschaffeltii - Spindle Palm</td>
<td>6' - 8' OA</td>
</tr>
<tr>
<td>Phoenix roebelienii Pygmy Date Palm</td>
<td>6' OA, multi trunk</td>
</tr>
<tr>
<td>Phycoesperma elegans - Solitaire Palm</td>
<td>MIN 10' CT, MAX 4' CAL</td>
</tr>
<tr>
<td>Thrinax radiata - Thatch Palm</td>
<td>6' OA, multi trunk</td>
</tr>
</tbody>
</table>

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*Florida's Turnpike Enterprise Landscape Brand*
EXHIBIT 16: MODIFIED SPECIAL PROVISIONS SECTION 580

LANDSCAPE INSTALLATION.
(REV 10-2-12)

SECTION 580 (Pages 766 — 768) is deleted and the following substituted:

SECTION 580
LANDSCAPE INSTALLATION AND ESTABLISHMENT

580-1 Description.
Construct landscape consisting of installation, maintenance, and establishment of all landscape materials, including a minimum one year (365 days) establishment period after final acceptance of the Contract in accordance with 5-11.

580-2 Responsible Party.
Prior to any landscape material being delivered to or planted on the project, the Contractor shall designate in writing to the Engineer a Responsible Party to install and accept responsibility for maintaining the entire landscaped area within the project limits, throughout the life of the project and during the one year establishment period. Failure to timely designate the Responsible Party will result in the Contractor being the Responsible Party.

All personnel performing services are under the sole responsibility and supervision of the Responsible Party as defined in this Section.
When the Responsible Party is a subcontractor, the subcontractor must be pre-qualified with the Department in the work class of landscaping. The Contractor and proposed subcontractor must execute and deliver to the Engineer a form, provided by the Department, prior to or concurrent with the Contractor’s request to sublet any landscape work, stipulating that the subcontractor assumes all responsibility as the Responsible Party for the entire landscape area during the contract time and throughout the one year establishment period.

Upon final acceptance of the Contract in accordance with 5-11, the Responsible Party’s responsibility for maintenance of all the work or facilities within the landscape area limits of the Contract will terminate in accordance with 5-11; with the sole exception being the obligations set forth in this Section for landscape establishment.

580-3 Statewide Disputes Review Board.
A Statewide Disputes Review Board will be convened to resolve any and all disputes that may arise involving administration and enforcement of the establishment portion of the Specification. The Responsible Party and the Department acknowledge that use of the Statewide Disputes Review Board is required, and the determinations of the Statewide Disputes Review Board for disputes heard by this Board will be binding on both the Responsible Party and the Department, with no right of appeal by either party.

580-4 Materials.
580-4.1 Plants:
580-4.1.1 Grade Standards and Conformity with Type and Species: Only use nursery grown plant materials purchased from Florida based Nurseryman Stock that comply with all required inspection, grading standards, and plant regulations in accordance with the latest edition of the Florida Department of Agriculture’s “Grades and Standards for Nursery Plants.”
Unless otherwise specified, plants must be the specified size and Florida No. 1 grade at the time of delivery to the site and maintained at a minimum grade of Florida No. 1 throughout the project construction period and plant establishment period.

Use only plants that are true to type and species and ensure that the plants not specifically covered by Florida Department of Agriculture’s “Grades and Standards for Nursery Plants” conform in type and species with the standards and designations in general acceptance by Florida nurseries. Prior to planting, certify to the Engineer that all plant materials have been purchased from Florida commercial nursery stock.

A minimum of two plants of each species on each shipment must be shipped with tags stating the botanical nomenclature and common name of the plant. Should discrepancies between botanical nomenclature and common name arise, the botanical name will take precedence.

580-4.1.2 Inspection and Transporting: Move nursery stock in accordance with all federal and state regulations and accompany each shipment with the required inspection certificates for filing with the Engineer.

580-4.2 Water: Meet the requirements of Section 983.

580-4.3 Mulching: Use of Cypress Mulch is prohibited.

580-5 Installation Requirements.

580-5.1 Delivery: All materials must be available for inspection before installation and will be subject to approval or rejection.

580-5.2 Layout: Mark proposed mowing limits, plant beds, and individual locations of trees and palms as shown in the Contract Documents for Engineer’s review, prior to excavation or planting. Make no changes to the layout, materials or any variations of plant materials from the Contract Documents without the Engineer’s written approval.

580-5.3 Soil Drainage: All planting holes and beds must drain sufficiently prior to installing any plants. Immediately notify the Engineer of drainage or percolation problems before plant installation.

580-5.4 Responsibility for Condition of the Plants and Landscape Areas: Begin maintenance of all plants immediately after each planting.

At all times throughout the duration of the project construction period and establishment period:

- Keep all plants undamaged, watered, fertilized, mulched, pruned, and staked and guyed as necessary to assure specified minimum grade of Florida No. 1.
- Keep the individual plant locations and planting beds free of litter and undesirable vegetation.
- Keep landscape bed lines correctly located and edged, and mulch groomed and replenished.

580-6 Inspection and Reporting Requirements.

580-6.1 Construction Period: During the landscape installation and thereafter until final acceptance, the Responsible Party must certify monthly on a form provided by the Department that the landscape project is being installed and maintained per Contract Documents.

580-6.2 Establishment Period: After final acceptance, during the establishment period, a Registered Landscape Architect (RLA) acting as the Responsible Party’s Landscape Quality Control representative will inspect the landscape monthly and submit reports as described herein.
Inspect all plants and landscape areas and submit findings in report form to the Engineer. Information in the inspection report must include, as a minimum, the following:

- Date of inspection
- Description of project
- Location of inspection
- Weather conditions
- Condition of plants – identify by species, location, and number of plants
- Condition of plant beds and adjoining areas (including mulch, turf, edges, bedlines, weeds, and staking and guying), if applicable
- Condition and operation of the irrigation system, if applicable
- Responsible Party’s response and proposed action
- Other comments
- Signature and seal of Responsible Party’s Landscape Quality Control representative

Submit the completed inspection report to the Engineer within five calendar days after performing the inspection. Any corrections to the inspection report must be revised/corrected and resubmitted within three calendar days after notification by the Engineer. Any deficiencies noted on the inspection report must be corrected within ten calendar days of submission of the inspection report. Periodic, random inspections may be performed by the Engineer to ensure the quality of the plants and the entire landscape area, and correctness of the landscape inspection report. Any unresolved disputes related to the performance of the landscape will be referred to the Statewide Disputes Review Board.

580-7 Disposal of Surplus Materials and Debris.
Remove from the jobsite any surplus material unless otherwise directed by the Engineer. Surplus is defined as material not needed after installation per Contract Documents. Upon commencement of the installation, remove daily all landscape installation debris from the landscape locations described in the Contract Documents.

580-8 Plant Establishment Period and Remedial Work.
The establishment period is one year (365 days) after final acceptance in accordance with 5-11.

- For the duration of the entire establishment period:
  - Take responsibility for the proper maintenance and condition of all plants and other landscape materials and areas.
  - Provide water and, when included in the Contract Documents, operate and maintain all components of any irrigation system.
  - Notify the Engineer and replace, at no cost to the Department, any plants that fall below specified minimum grade and correct any other deficiencies within ten days of submission of the required monthly inspection report. Use replacement plants of the same species, and planting medium as the plant being replaced and as specified in the Contract Documents. Replacement plant size must match the size of the adjacent grown-in plants of the same species and variety which may be larger than the initially installed size.
  - Continue any mowing of the landscape areas specified in the Contract Documents throughout the establishment period.
  - Perform all necessary remedial work described in the monthly inspection report to the
satisfaction of the Engineer at no cost to the Department.

Any disputes regarding the adequacy of the remedial work will be resolved by the Statewide Disputes Review Board. Approval of remedial work does not relieve the Responsible Party from continuing responsibility under the provisions of this Specification.

Remove staking and guyng from all plants except for those that have not reached establishment.

At the end of the establishment period, the Engineer will release the Responsible Party from further remedial work and responsibility provided all plants meet the requirements of 580-5.4 and all previous remedial work, if any, has been completed to the satisfaction of the Engineer.

580-9 Responsible Party’s Failure to Perform.

Should the Responsible Party fail to timely and satisfactorily perform any remedial work associated with landscape establishment, the Department will suspend, revoke or deny the Responsible Party’s certificate of qualification under the terms of Section 337.16(d)(2), Florida Statutes, for a minimum of 6 months or until the remedial work has been satisfactorily performed whichever is longer. Should the Responsible Party choose to challenge the Department’s notification of intent for suspension, revocation or denial of qualification and the Department’s action is upheld, the Responsible Party will have its qualification suspended for an additional minimum of 6 months.

The remedial work is not an obligation of the Contractor’s bond required by Section 337.18, Florida Statutes.

580-10 Method of Measurement.

The quantities to be paid will be the items shown in the Contract Documents, completed and accepted.

580-11 Basis of Payment.

Prices and payments will be full compensation for all work and materials specified in this Section.