## 16.0 LANDSCAPE DESIGN GUIDELINES ELEMENT

Landscape is an essential component of the educational experience at FIU. It provides opportunities for education, demonstration, inspiration and recreation. The purpose of the Landscape Design Guidelines is to provide the campuses of Florida International University with a framework for landscape and hardscape treatments in order to maintain a high level of quality to the design of new spaces and to the enhancement of existing landscaped areas. It is the intent of the Landscape Design Guideline Element to provide an overall landscape framework that unifies each campus with its built environment and its unique natural environment, and to reinforce sustainable design practices as outlined by both USGBC standards for LEED Silver certification and American Society of Landscape Architects Sustainable Sites Initiative (SSI).

Hierarchy of spaces have been identified and main circulation routes will be reinforced with identifiable landscape treatments. Significant pedestrian corridors will continue to be identified, linking unique academic cores within the campus. As the overall character of the FIU campus continues to mature, various spaces will be defined following these guiding principles:

- Integrate architectural and site design in conjunction with landscape architectural design in the planning process to ensure that attractive settings and ample open spaces are provided in conjunction with new facilities.
- Seek to develop new significant landscape features in association with campus growth, including campus spaces such as quads, plazas, campus streets and campus edges while enhancing the concept of the "Avenue of the Arts" and "Avenue of the Professions", "the Avenue of the Sciences", and the "Avenue of the Students".
- Blend new development sites with the character of the mature campus landscapes and other natural areas by retaining islands of natural vegetation in new development areas and creating new and similar vegetative areas that integrate the buildings and site facilities into the landscape.
- Continue the initial style and character of the original campus plantings with emphasis on transitioning and reflecting the natural formation of plantings.
- Maintain a selective palette of indigenous and site-adaptive plant species that express the subtropical environment, as well as those plants that promote Xeriscape principles.
- GOAL 1: Create high quality, environmentally sound campus landscape settings which afford outdoor comfort, security, and a rich visual quality, exemplifying the uniqueness and diversity of South Florida's subtropical environments while creating a unifying character that binds the campuses together.

- Objective 1.1 Landscape Framework: Implement the Landscape Framework for the Modesto A. Maidique Campus, Engineering Center and Biscayne Bay Campus (16.0 Data and Gathering, Figures 16.0 A, 16.0 B, 16.0 C). In the event that provisions contained in the Landscape Framework conflicts with provisions contained in the adopted Campus Master Plan then the Master Plan shall prevail and control.
- Policy 1.1.1 UNIVERSITY-WIDE: Reinforce the critical elements of the spatial organization defined in the Master Plan for a consistent landscape character as outlined in the Landscape Framework. The framework is developed as a guide to further define the character of spaces, streets, and edges within the campuses. The Landscape Framework is not intended to be a typical design solution for each area, but a set of standard principles of how a space shall be developed, enhanced and maintained so that it remains in context with the overall campus.
- Policy 1.1.2 Locate and orient all future buildings to define the open spaces depicted in the adopted Urban Design Plan.
- Policy 1.1.3 Continue to incorporate Art exhibits throughout the three campuses as an element unique to FIU. Create an inventory of all installations on-campus and define the parameters for future locations of new art projects on-campus.
- Policy 1.1.4 Provide a continuous tree canopy (as appropriate) in all remaining surface parking lots and sufficiently screen all surface parking areas without compromising security.
- Policy 1.1.5 Prior to construction, relocate and incorporate existing valuable plant material in the areas of future construction and development.
- Policy 1.1.6 Emergency access facilities shall be kept clear of any impeding landscape elements.
- Policy 1.1.7 Screen all trash collection facilities from pedestrian or vehicular traffic view with either a fence or wall consistent with architectural guidelines or evergreen plant material.
- Policy 1.1.8 Screen maintenance facilities from pedestrian and vehicular traffic with a fence, wall, or evergreen plant material.
- Policy 1.1.9 Incorporate within the general campus landscape area, gardens and natural habitats as an opportunity for botanical and environmental

education and as campus amenities.

Policy 1.1.10 Improve the integration of existing and new storm water retention areas as landscape enhancement elements.

Objective 1.2Enhance the existing and proposed <u>Campus Spaces</u> to better define the open spaces as a consistent unifying element throughout the three campusesAxes

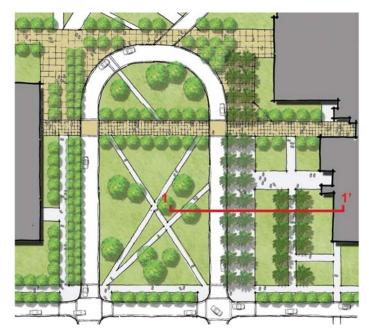
Policy 1.2.1 MODESTO A. MAIDIQUE CAMPUS (Fig 16.1): Avenue of the Sciences - Continue to develop and reinforce the diagonal axis from Panther Village to the intersection of SW 8<sup>th</sup> St and SW 107<sup>th</sup> Ave at the future Academic Health Sciences gateway.

- 1. Enhance the sidewalk path between Panther Village and the Graham Center/Library Plaza with additional canopy plantings for shade and a defined pedestrian crossing at the existing service street.
- 2. Redevelop the existing Graham Center Plaza/Library plaza to allow for a uninterrupted visual and functional pedestrian path through the space from the southwest corner to the northeast corner of the space. Provide canopy trees for shade.
- 3. Remove the existing curvilinear path from the northeast corner of the Graham Center and replace with a formal linear path that connects to the existing Health & Sciences Building 2 path.
- Policy 1.2.2 Avenue of Professions Enhance the pedestrian experience of the axis west of the library to the proposed loop road realignment. The space should demonstrate the significance of the axis through the use of canopy trees or palms evenly spaced to create a formal and linear connection. The pedestrian path should be wider than typical sidewalks on campus. Include benches and additional site furnishings to create a repeating pattern along the space.
- Policy 1.2.3 Ave of the Students Develop this axis to a level distinctive from typical pedestrian circulation while clearly defining the linearity of the space. Increase the existing sidewalk width and develop segments of formal plantings at building entrances. Canopy trees should be placed adjacent to the path between formal sections to provide shade.
- Policy 1.2.4 Ave of the Arts Maintain the already well developed and spatially defined axis.

### Quadrangles

- Policy 1.2.5 MODESTO A. MAIDIQUE CAMPUS: Particular attention should be paid to the scale of the quadrangles. Continue to develop the Graham Center, Green Library, Owa Ehan and Chemistry & Physics Buildings Quad with defined hardscape and landscape edges to clearly define the space. New sidewalks should delineate the edges of the eastern edge of the quad adjacent to the Health & Science buildings connecting north to south. Groupings of canopy trees should be placed within the quad and along existing pedestrian paths to provide shade with the ground plane predominantly lawn. Shade structure or small pavilions should be placed within the quad to increase habitation.
- Policy 1.2.6 With the incorporation of the traffic roundabout at the intersection of the loop road and 112 Ave entrance, develop the Ryder Business Building quad as a pedestrian focused space. Remove the existing drive and replace with sidewalk material so the drive is visually similar in type to a sidewalk but allows for service and ADA accessibility. Provide crossing pedestrian paths centered on the existing building entrances for Architecture, Education, and Business Complex. Maintain the current palm tree configuration to allow for the visual corridors into the space from the loop road to continue.
- Policy 1.2.7 ENGINEERING CENTER (Fig 16.2): Develop a quad east of the existing Engineering Center building with canopy trees and minimal hardscape. The ground plane should be predominately lawn to allow for informal gatherings and create a picturesque quality to the space similar to the proposed park edge along West Flagler Street.
- Policy 1.2.8 BISCAYNE BAY CAMPUS (Fig 16.3): Continue to develop the quad south of Academic One & Two (referred to as South Quad). Influenced by the shape of the existing lake, the quads, plantings, and pedestrian circulation should be informal in design, responding to the lake's configuration. Informal groupings of hardwood canopy trees should be placed within the quad to provide shade for gatherings and reflection.
- Policy 1.2.9 Expand the quad north of Academic One & Two (referred to as North Quad). Canopy trees should be placed in small gatherings within the expanded portion of the quad. Sidewalks should cross the space creating direct links between building entrances (See Figure 16.4A & 4B). The ground plane should be predominately lawn with some understory plantings at the building edges. The formal arrangement of the hardscape and palms that exists north of Academic One should be extended west to edge of the quad. Additional canopy planting

## should be used to provide shade.





Key Map



Figure 16.4B North Quad Section 1-1'

Policy 1.2.10

# Plazas

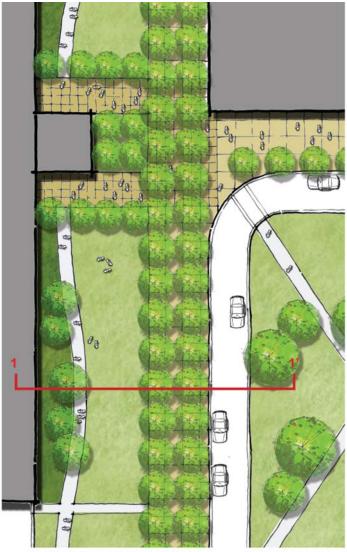
MODESTO A. MAIDIQUE CAMPUS: Redevelop the Graham Center/Green Library Plaza to allow for the Avenue of the Sciences to be developed as an aligned pedestrian spine. The space should be designed as a single space to insure continuity between buildings. Preserve of the existing canopy trees where possible to allow the space to be appear more mature upon completion.

### Promenades

- Policy 1.2.11 ENGINEERING CENTER: Develop a pedestrian promenade from the park edge and to the northern parking lot (See Fig 16.5 A & B). The promenade should be formal in character, primarily hardscape with canopy trees evenly spaced and minimal ground plane vegetation. Site furnishings should include a series of benches for congregation opportunities
- Policy 1.2.12 BISCAYNE BAY CAMPUS: Develop a pedestrian promenade from the northern edge of the campus core south to the Kovens Center. The promenade should be formal in character with an unique hardscape material. Provide canopy trees evenly spaced on both sides of the walk to provide shade. Lawn should be the predominate ground plane.

### Special Purpose Landscapes

- Policy 1.2.13 MODESTO A. MAIDIQUE CAMPUS: Maintain and protect from encroachment the teaching and research landscapes including Hennington Island adjacent to SW 8<sup>th</sup> Street.
- Policy 1.2.14 Maintain and protect from encroachment the teaching and research landscapes including the area south of the FIU Arena. The space is defined by three distinctly different plant communities that offer opportunities for teaching and research. Develop a series of interpretive signage to enhance the educational and passive activity elements within the landscape. Directly south of the arena, develop an outdoor space with opportunities for gathering as well as pedestrian circulation. Enhance the space with canopy trees for shading and picnic tables. Provide a defined pedestrian circulation path between the existing Recreation Center within the academic core to the existing soccer and baseball stadiums. The path should minimize the amount of disturbance on existing vegetation while providing adequate width for pedestrian movement and addressing safety issues with view corridors along the path. The establishment of view corridors, pedestrian scale lighting and interpretive signage is crucial in developing a safe and useable space.
- Policy 1.2.15 Develop the area around the President's house as a formal garden that will allow for outdoor gatherings as well as a reflective space that buffers the adjacent commercial street corridor.





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Figure 16.5A Promenade at Engineering Center



Figure 16.5B Promenade Section 1-1'

## **Objective 1.3Develop a hierarchy of landscape treatment for Campus Streets**

Policy 1.3.1 UNIVERSITY WIDE: Reinforce and improve circulation hierarchy by developing distinct, identifiable landscape treatments for each road type, campus entrances and pedestrian/vehicular intersections.

### Streets

### Policy 1.3.2 MODESTO A. MAIDIQUE CAMPUS:

Greenbelt (Primary loop road): Establish a 'boulevard' treatment with Live Oaks as the dominate canopy tree. Canopy trees should be located on both sides of the road within a planting strip with lawn as the ground plane. Other hardwoods and palms are permissible at significant pedestrian and/or vehicular intersections. Existing hardwoods deemed in good condition should not be replaced. There are various land use characteristics that will define the design of the loop road. More urban development shall have a different character than areas reserved for open space. There are four different types of character proposed for the loop road:

- 1. Typical Minimum 8 ft sidewalk to each side of the street, which is separated from the street with planting strip. Predominantly lawn as the ground plane with canopy trees (See Figure 16.6 A & B, 16.7 A & B).
- 2. Urban Located within the Academic Health Sciences District and similar to a city streetscape (See Figure16.8 A & B).
- 3. Main Street Located at the proposed mixed-use student housing south of Panther Village, similar in character to an urban street with canopy trees on regular spacing, with hardscape and limited groundcovers. A proposed widened northern sidewalk with decorative hardscape materials, benches, and lightning to create a gathering area for markets, tailgating opportunities and other outdoor activities (See Figure 16.9 A & B).
- 4. Major Intersections A consistent landscape treatment at all internal intersections will provide traffic calming, pedestrian crossings, and visual reference within the campus. The landscape material will be characterized with palms, limited understory planting and a ground plane, that incorporates lawn and ornamental groundcovers. Concrete pavers may be utilized to identify to pedestrian crossings. Pedestrian crosswalk markings will be in place to identify to vehicles that pedestrian crossing is primary.

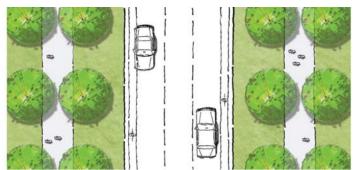


Figure 16.6A Plan of typical three-lane Campus Greenbelt



Figure 16.6B Section of typical three-lane Campus Greenbelt



Key Map

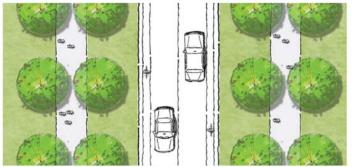


Figure 16.7A Plan of typical two-lane Campus Greenbelt at Northwest of FIU Arena



Figure 16.7B Section of typical two-lane Campus Greenbelt



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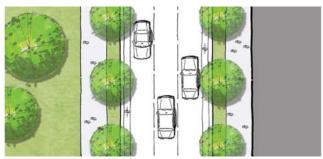


Figure 16.8A Plan of Campus Greenbelt at AHSC quad



Key Map



Figure 16.8B Section of Campus Greenbelt at AHSC quad





Key Map

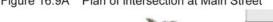




Figure 16.9B Section of Main Street

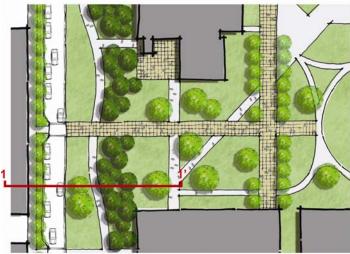
- 5. Secondary Located south of the recreation center and north of Panther Village and similar in structure to the Greenbelt. Canopy trees shall be spaced evenly with pedestrian walkways on both sides. It is anticipated this road will become a pedestrian oriented corridor between the existing parking garages and the residential district. It is vital that it remains operable for service vehicles.
- Policy 1.3.3 BISCAYNE BAY CAMPUS: As part of the Green Spine that creates a connection between the existing academic campus and the existing conference center, the development of the street element component of the space will have a large impact on the perception of the campus (see Fig 16.10 A&B). The character of the street is similar to that of a main street with formal planting arrangements, large canopy trees at regular spacing, wide sidewalks and limited ground plane plantings. Crosswalks should be articulated with concrete pavers at the sidewalk level and striping's across the vehicle lanes. The eastern edge of the street is similar to that of a park with informal tree groupings and open lawn areas.

### Entrances

Policy 1.3.4 MODESTO A. MAIDIQUE CAMPUS:

Primary Entrance: Similar to that of the SW 16<sup>th</sup> St at SW 107th Ave entrance and in a formal arrangement, the SW 17<sup>th</sup> St at SW 117th Ave shall be developed to the level of detail and plant palette (Fig 16.11 A&B). With the growth of the school, an increase in athletic activity associated with the expanded FIU stadium, and exiting access to the Florida Turnpike, this entrance will take on a more significant role as a functionally and visual representation for the school. The use of palms shall visually define the space while understory plantings will screen the existing uses. Sidewalks should be placed on both sides of the entry drive. This treatment will maintain the SW 112<sup>th</sup> Ave as the symbolic main entrance to the campus.

- Policy 1.3.5 Secondary Entrances: Develop the SW 13<sup>th</sup> St at SW 117th Ave Entrance with a similar plant palette to the SW 17<sup>th</sup> St entrance. The use of palms in a formal arrangement as the primary canopy tree. The need for significant monument signage is not necessary. Understory plantings should be used to screen the adjacent uses. Sidewalks should be provided on both sides of the entrance.
- Policy 1.3.6 Secondary Entrances: Develop SW 109th Ave at SW 8th St entrance as an urban street with evenly spaced canopy trees, wide sidewalks and minimal ground plane vegetation.



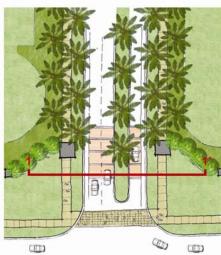


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Figure 16.10A Green Spine at Biscayne Bay Campus



Figure 16.10B Green Spine Section 1-1'





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Figure 16.11A Plan of Proposed Entry Drive at Modesto A. Maidique Campus



Figure 16.11B Entry Drive Section 1-1'

- Policy 1.3.7 ENGINEERING CENTER: Primary Entrance: Continue to develop an entry feature at West Flagler Street for vehicular and pedestrian access that is similar in plant palette, formal structure, with a similar visual hierarchy to that of Modesto A. Maidique Campus's SW 16<sup>th</sup> Street entry. The sidewalks should be relocated to allow for a planting strip between the existing drive lanes and sidewalks. The entrance should use palms within the median and on both sides of the entry drive. Understory plantings and ground plane vegetation shall be minimal to allow for sightlines to and from the park edge.
- Policy 1.3.8 Secondary Entrance: As the campus grows, the NW 107<sup>th</sup> Ave entrance will serve as the primary vehicular entrance to the campus. The existing fence line should be removed and placed closer to the exiting parking lot to allow for a more significant and inviting entrance to be developed. Sidewalks should be located on either side of the entrance but separated from the drive lanes by a planting strip. The use of palms, understory plantings and ground plane vegetation similar to Modesto A. Maidique Campus's SW 16<sup>th</sup> Street entry shall create consistency between the campuses.

### Objective 1.4Develop an enhanced and consistent quality for the Campus Edges.

### Policy 1.4.1 MODESTO A. MAIDIQUE CAMPUS:

Develop an urban edge to the campus along SW 107<sup>th</sup> Avenue. As identified in the Academic Health Sciences Master Plan, SW 107th Ave is an urbanizing commercial corridor. Future building placement will position buildings closer to the street creating an urban edge similar to downtown cityscapes. Provide hardwood canopy trees and limited/low growing ground plane vegetation located within a defined planting strip between the vehicular drive lanes and sidewalk. Canopy trees should be spaced to allow for a continuous shaded walk.

- Policy 1.4.2 Develop an urban edge along SW 8<sup>th</sup> street 600 ft west of the SW 107<sup>th</sup> St intersection. Future building placement will position buildings closer to the street creating an urban edge similar to downtown cityscapes. Provide hardwood canopy trees and limited/low growing ground plane vegetation located within defined a planting strip between the vehicular drive lanes and sidewalk. Canopy trees should be spaced to allow for a continuous shaded walk.
- Policy 1.4.3 Reinforce the existing park edge along SW 8<sup>th</sup> St to SW 117th Ave. A park edge is similar to that of a public park. While edges are often defined by street trees and sidewalks, the remaining space has groupings of canopy trees, minimal hardscape and predominately

lawn as the ground plane.

- Policy 1.4.4 Develop a landscape edge along SW 8<sup>th</sup> St west from the park edge. The planting should be informal in arrangement. Most consistently viewed from the community and along major traffic corridors, canopy trees along with palms and flowering trees will define the landscape edge. Understory plantings are encouraged to visually screen adjacent uses both into and from the campus. Groupings of palms and flowering trees are encouraged to break the pattern of canopy trees. A decorative perimeter fence integrated within the vegetation massing will further define the limits of the campus.
- Policy 1.4.5 ENGINEERING CENTER: Develop a park edge along West Flagler street. Plantings should be limited to random groupings of canopy trees and some flowering trees located near proposed walks in order to provide shade. Hardscape should be minimal with pedestrian walks creating connections between the campus and the external uses. The ground plane should be predominately lawn (Fig 16.12 A&B).
- Policy 1.4.6 Develop a landscape edge along NW 107th Ave that enhances the visual quality of the campus while screening the parking from view. The planting should be informal in arrangement. Canopy trees along with palms and flowering trees will define the landscape edge. Understory plantings are encouraged to visually screen adjacent uses both into and from the campus. Groupings of palms and flowering trees are encouraged to break the pattern of canopy trees. A decorative perimeter fence integrated within the vegetation massing will further define the limits of the campus. Use sidewalks to create pedestrian connections and further enhance the aesthetic quality of the campus.

### Policy 1.4.7 BISCAYNE BAY CAMPUS: Develop a landscape edge along Bay Vista Blvd that enhances the visual quality of the campus while screening the parking from view. The planting should be informal in arrangement. Understory plantings are encouraged to visually screen the adjacent existing surface parking. Groupings of palms and flowering trees are encouraged to break the pattern of canopy trees. A decorative perimeter fence integrated within the vegetation massing will further define the limits of the campus. A bike path should be incorporated to allow for both pedestrian and bicycle circulation.



Figure 16.12A Park Edge at Engineering Center Campus



Figure 16.12B Park Edge at Engineering Center Campus Section 1-1'



Key Map

Policy 1.4.8 Continue to develop, preserve, and enhance views to Biscayne Bay along the Baywalk. Additional groupings of appropriate coastal plants should be located to further define view corridors from the campus and conference center. Groupings located adjacent to the existing bike loop shall incorporate additional site furnishings of benches and picnic tables.

## **Objective 1.5Plant Materials:**

Modify and adopt a revised plant materials list upon Master Plan adoption, eliminating use of invasive exotic species and those which necessitate excessive maintenance; and adding species appropriate to traditional college campus settings.

Policy 1.5.1 UNIVERSITY-WIDE:

To the degree possible, landscape plans shall include the use of plant species that are indigenous to the native plant communities of the South Florida area. The appropriate selection of native plant species shall be based on their desired size, form, texture and color in the landscape and their positive response to localized environmental conditions including available light levels, soil type and plant community context. In addition, selection of native species should be based on tolerance of existing site conditions, compatibility with other indigenous species and sustainability of the landscape to promote water conservation, to reduce maintenance considerations and to ensure a sustainable landscape or for educational purposes. In cases where non-invasive exotic plants are to be used to enhance the landscape, plantings should be limited to those non-invasive species that are able to resist periods of drought and which require little fertilization and use of pesticides. Prohibited plants as identified by Miami-Dade as well as the Exotic Pest Plant Council's "Florida's Most Invasive Species List" shall not be permitted in any future plantings.

- Policy 1.5.2 As established in the Landscape Framework (16.0 Data and Gathering, Figures 16 A, B & C, Design Elements Matrix), the baseline plant list for FIU shall guide all future projects and renovations. Deviations from the approved plant list shall garner permission from FIU planning department prior to a release for construction approval. Prohibited plants as identified by Miami-Dade as well as the Exotic Pest Plant Council's "Florida's Most Invasive Species List" shall not be permitted in any future plantings
- Policy 1.5.3 Monitor conformance of future construction projects with revised plant lists through University design review procedures.
- Policy 1.5.4 It is the intent of FIU to remove all non-native plants (whether grasses, shrubs or trees) which are identified in the Exotic Pest Plant Council's

"Florida's Most Invasive Species List" from the campus grounds. FIU shall coordinate with the Florida Department of Environmental Protection (FDEP) and other appropriate governmental entities to ensure the proper removal and disposal of these exotic species on campus.

# Objective 1.6Furnishings, Lighting and Graphics: Adopt standards for furnishings, lighting fixtures and signage depicted (16.0 Fig 16.0 B)

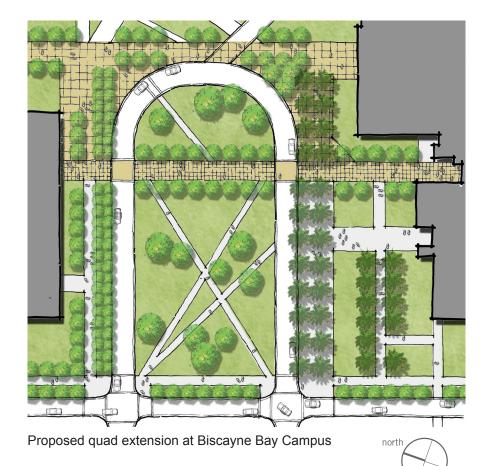
- Policy 1.6.1 UNIVERSITY-WIDE: FIU Facilities Management shall identify projects which may enhance campus safety and handicapped accessibility. Prioritize projects according to the following elements: 1) removal of barriers, 2) visibility, 3) enhanced lighting, 4) pedestrian/vehicular conflict.
- Policy 1.6.2 As identified in the Landscape Framework, coordinate site furnishings, lighting fixtures, campus signage and graphic system with the identified manufacture and model numbers from selected materials used on campus and other acceptable products. As existing furnishings and lighting becomes unusable or deteriorated implement replacement furnishings according to approved University standards.
- Policy 1.6.3 Follow the design review procedures established in 15.0 Architectural Design Guidelines Element to ensure that coordination of the landscape, furnishings and graphics on the campus are in accordance with the guidelines.
- Policy 1.6.4 Future bicycle facilities shall use one selected type of bicycle rack with adequate adjacent pavement to accommodate bicycle traffic and under cover if possible. Plantings shall be kept away from area a sufficient distance to allow for bicycle maneuverability.
- Policy 1.6.5 Public transportation facilities shall be consistent with Architectural Guidelines. They should be sited to allow visibility and ease of access for both vehicular and pedestrian traffic. Landscape treatment of facilities should provide shade if not provided by shelter.
- Objective 1.7 Retention/Storm water Elements: Adopt standards for landscape edge treatments surrounding ponds, lakes and storm water features.
- Policy 1.7.1 UNIVERSITY-WIDE: Consistent with regulatory requirements, plant native wetland littoral vegetation along gradually sloping banks of lakes and water features

located wherever appropriate.

- Policy 1.7.2 Consistent with regulatory requirements, provide where necessary "hard edge" pedestrian treatments of water bodies in intensely developed areas.
- Policy 1.7.3 FIU shall follow the design review procedures established in 15.0 Architectural Design Guidelines Element to ensure conformance of future construction projects with referenced standards.
- Objective 1.8 Phasing: Implement landscape improvements in three phases, consistent with the scheduling of new academic, <u>housing</u>, <u>recreation</u> and support buildings to which landscape improvement components will be allocated.
- Policy 1.8.1 UNIVERSITY-WIDE: FIU Facilities Management should establish administrative and budgeting procedures to insure the inclusion of landscape features identified in the objectives in the project budgets developed for future campus construction.
- Policy 1.8.2 Implement the landscape concept plan by allocating each future and existing building a proportional share of overall planned landscape improvement cost.
- Policy 1.8.3 Apply the following priorities for implementing components of the Landscape Concept Plan.



Quad framed by buildings on three sides





#### **Description:**

A quadrangle is a green space usually square or rectangular in plan, the sides of which are entirely or mainly defined by buildings and reinforced by the landscape design. The single most important aspect of a quadrangle is clear spatial definition. The specific qualities of each quad vary with size, purpose and context but all are primarily informal spaces, characterized by open usable green space with a combination of shade trees planted in asymmetrical groups and paths configured to provide direct pedestrian access to key buildings and spaces beyond. Quads should have significant areas shaded and protected from rain by structures. These should be used for individual and group interaction and study.

### Elements:

Hardscape: Sidewalks are generally limited to the edges of the quad, adjacent to the buildings for access as well to define the quad's edges. Additional hardscape is minimal beyond the edges of the quad. Sidewalks shall cross the quads to allow direct connections for pedestrians between building entrances as well as at significant quad entrances.

Plant Materials: Canopy, primarily hardwood trees should be planted to maximize shade within the quad. Trees including palms should line the edges to further define the space while allowing for open areas within the quads for passive recreation and gatherings. For some quads, canopy trees shall be grouped together to expand the tree canopy to provide shade. A clear understory should be maintained with the ground plane being predominately lawn.

Site Furnishings: Benches and trash receptacles shall be primarily located on the edges of the quad adjacent to the pedestrian walkways.

Lighting: Appropriate, free standing light standards further define the edges of the quad and enhances the picturesque character of the space. Lights shall be spaced to provide for a consistent and continuous coverage at a pedestrian scale while minimizing night sky pollution.

Special Features: Existing water bodies should remain and become integral parts of the visual character of the quad. Sidewalks should provide access to the water edge as well as a continuous path around the edge to further define the water as an amenity within the quad. The incorporation of future art installations should be strategically located to maximize views.





# **Campus Spaces**

### Quad

Promenade

Courtyard

Plaza

**Special Purpose Landscape** 

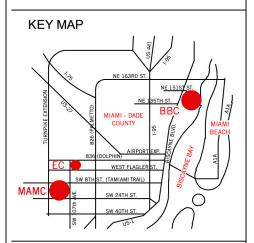
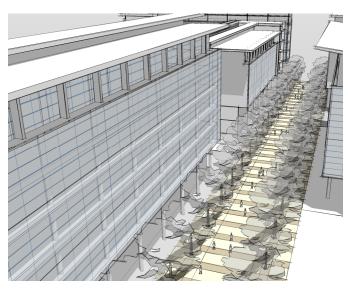


FIGURE: 16.0 A1 Landscape Framework Quad



Campus Master Plan - June 2010

# PERKINS +WILL



Promenade is a linear significant public space



<image>

#### **Description:**

A promenade is a pathway for learning. It is a public place for walking that directly connects one point to another. More than just a wide sidewalk or trail, a promenade is of significant importance with differing hardscape materials and more formal canopy plantings. Promenades may define one edge or bisect a larger space. The space is characterized by pedestrian-friendly features and a clearly defined architectural volume that can allow for congregation as well as settings for small group study areas. Promenades should have continuous areas shaded and protected from the rain by structures.

#### Elements:

Hardscape: Hardscape areas will incorporate modern urban furniture and lighting elements with clean lines and will be paved with unit pavers in dynamic patterns.

Plant Materials: Palm trees shall be the dominant canopy planting, used to reinforce the linearity of the space

Site Furnishings: Benches and trash receptacles shall be located along the edges of the promenade at regularly spaced intervals to provide a sense of repetition and various opportunities for resting and interaction.

Lighting: Appropriate, free standing light standards shall be located along the edges of the promenade at regularly spaced intervals to provide a sense of repetition that further the linearity of the space. Lights shall be spaced to provide for a consistent and continuous coverage at pedestrian scale while minimizing

Proposed Promenade at Engineering Center Campus





# **Campus Spaces**

Quad

Promenade

Courtyard

Plaza

**Special Purpose Landscape** 

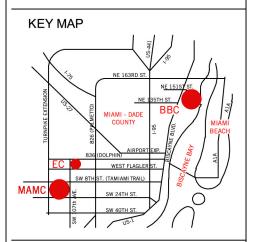


FIGURE: 16.0 A2 Landscape Framework Promenade



Campus Master Plan - June 2010



Courtyards can be secluded spaces for relaxation or opportunities for small gatherings



Proposed courtyard at Modesto A. Maidique Campus (Deuxieme Maison Building) north









#### **Description:**

Courtyards are spaces between buildings but are more compact than quads. They offer either private or semi-private spaces providing immediately accessible opportunities for informal outdoor gathering, studying and collaborating. Courtyards are predominately hardscape places with landscape material along its edges or as a central focal point.

### Elements:

Hardscape: Hardscape is the predominate element within a courtyard, providing space for intimate gatherings. Hardscape elements will incorporate University standards yet celebrate the unique qualities of the surrounding building uses.

Plant Materials: Trees and palms are to be planted in configurations that reinforce the spatial geometry of the courtyard and provide shade for the seating areas. The use of shrubs and groundcovers is encouraged to create a sense of seclusion from the surrounding campus.

Site Furnishings: The use of standard University furnishings is not required upon approval from Staff. Courtyards offer opportunities for unique spaces. Different site furnishings are appropriate to create a sense of cohesive design within the space.

Special Features: The use of art installations and/or water features can provides a focal point within the space. Outdoor seating areas and architectural canopies can further provide opportunities for outdoor gatherings and interaction



# **Campus Spaces**

Quad

Promenade

Courtyard

Plaza

Special Purpose Landscape

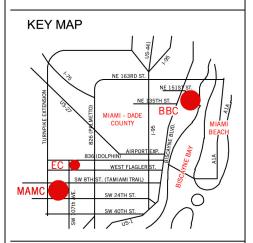


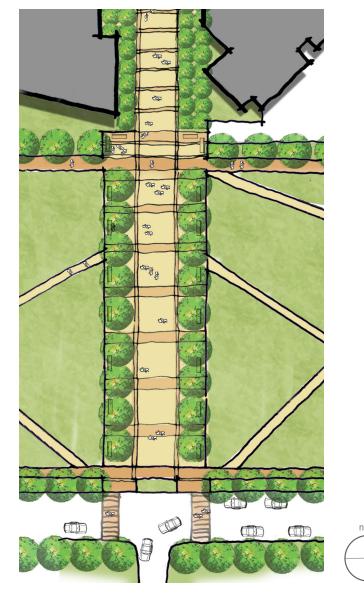
FIGURE: 16.0 A3 Landscape Framework Courtyard



Campus Master Plan - June 2010



Plazas are special gathering spaces often characterized with unique hardscape materials and focal points











#### **Description:**

Plazas occur at points of entry or gateways to the campus, various districts and key buildings throughout the Campus. The specific qualities of each may vary but all will be primarily characterized by hardscape elements and architectural character with canopy trees reinforcing the spatial geometry of the space. Plazas should incorporate significant spaces shaded by and protected from the rain by structures.

### Elements:

Hardscape: Hardscape elements will incorporate University standards yet celebrate the unique qualities of the surrounding uses. Expressing the academic mission, research agenda and sustainability through the landscape design by utilizing appropriate plantings and hardscape materials, interpretive signage, and interactive elements.

Plant Materials: Trees and palms are to be planted in configurations that reinforce the spatial geometry of the plaza and provide shade along seating and pedestrian movement areas. The use of shrubs is minimal or absent and ground covers, where present, are massed in groupings of single species to define circulation patterns.

Special Features: The use of art installations and or water features can provide a focal or gathering point within the space. Outdoor seating areas and architectural canopies can further provide opportunities for outdoor gatherings and interaction. Educational signage that addresses both man-made and natural systems as well as university history can become focal points within a plaza.

Proposed plaza at Modesto A. Maidique Campus (Health & Life Sciences)

# **Campus Spaces**

Quad

Promenade

Courtyard

Plaza

**Special Purpose Landscape** 

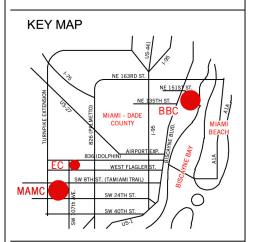


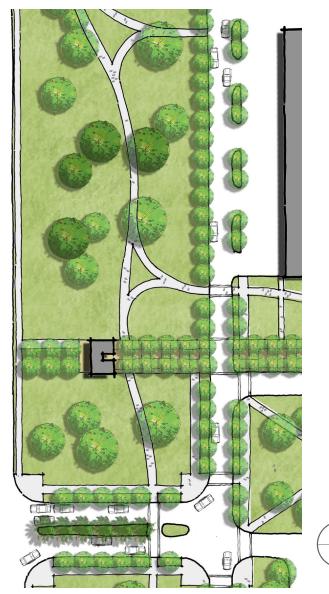
FIGURE: 16.0 A4 Landscape Framework Plaza



Campus Master Plan - June 2010



Special Purpose Landscapes offer opportunities for teaching and research as well as passive recreation



north

Proposed Special Purpose Landscape at Engineering Center Campus







#### **Description:**

Special Purpose Landscapes provide opportunities for teaching and research or passive and active recreation opportunities. The type of space is determined by the landscape materials, structure and use. Areas may include a vast ground plane of lawn that promote active and passive recreation. They might also include wetlands or woodlands that lend themselves to educational opportunities. A third type of landscape is a garden, characterized by clearly defined edges, variety in plant and hardscape material bound together to create a space with a common element or intent. and Special landscape areas are different than quads in that they are larger spaces and their edges are not necessarily defined by buildings. They also provide a picturesque, natural backdrop to the more urban texture of the campus

#### Elements:

Hardscape: Hardscape materials and location are determined based on the type of space. Existing wetlands and woodland should use pervious material or raised boardwalks to allow for pedestrian movement with the space. Sidewalks are generally limited to the edges of the of larger open spaces or to create direct connections between heavy pedestrian traffic routes. Gardens allow for a variety of pervious and impervious materials.

Plant Materials: Plant materials and location are determined based on the type of space.



# **Campus Spaces**

Quad

Promenade

**Courtyard + Square** 

Plaza

Special Purpose Landscape

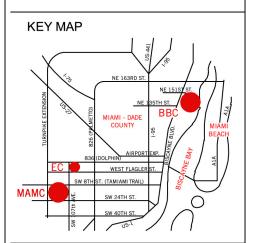
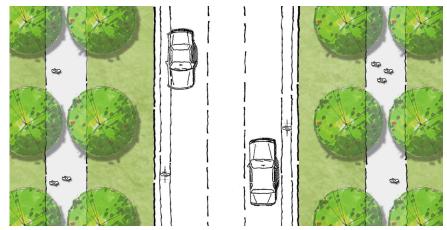


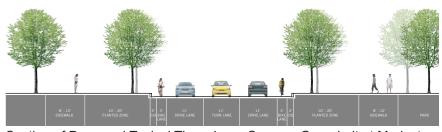
FIGURE: 16.0 A5 Landscape Framework Special Purpose Landscape



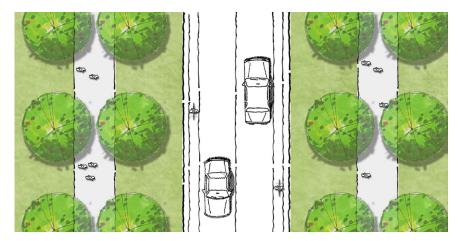
Campus Master Plan - June 2010



Plan of Proposed Typical Three-Lane Campus Greenbelt at Modesto A. Maidique Campus



Section of Proposed Typical Three-Lane Campus Greenbelt at Modesto A. Maidique Campus



Plan of Proposed Typical Two-Lane Campus Greenbelt at Modesto A. Maidique Campus



Section of Proposed Typical Two-Lane Campus Greenbelt at Modesto A. Maidique Campus









### **Descriptions:**

The Modesto A. Maidique Campus loop road provides an opportunity to create a continuous, "greenbelt" that incorporates both pedestrian and vehicular movement. This proposed Greenbelt defines the limits of inner campus core while binding important existing and proposed open spaces, that are adjacent to the loop, together.

The design leads to a separation of vehicle from pedestrian traffic by wide planting zone. The Greenbelt takes on the character of a parkway with wide sidewalks, bike lanes and canopy trees varying in areas from a more open and green identity to that of a specific urban form. Special Purpose Landscapes such as the teaching and research area east of the baseball stadium and the President's Garden north of 16th St entrance are key spaces that will be connected to the Greenbelt. Currently the loop is partially planted with Live Oaks creating some areas with pleasant zones that serve as a green relief from the existing surface parking lots, garages and university buildings.

### Elements:

Hardscape: Wide sidewalks on both sides of the street are necessary to bind the Greenbelt together as a circulation as well as recreation corridor within the campus. Materials to follow University standards

Plant Materials: Linear rows of canopy trees will continue to be planted parallel to the loop road to define the corridor and provided a 'safe zone' for pedestrians to access other parts of campus.

Bike Lanes: Bike lanes are recommended on both sides of the loop road. Bike racks should be installed close to building entrances along the bike path. Design and materials should follow University Standards.

# **Campus Streets**

### Campus Greenbelt (Modesto A. Maidique Campus)

Main Street (Modesto A. Maidique Campus)

**Green Spine** (Biscayne Bay Campus)

**Entry Drive** 

Service Street (Modesto A. Maidique Campus)

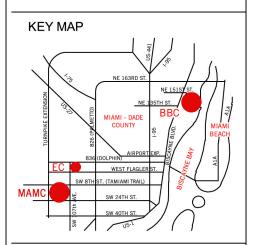
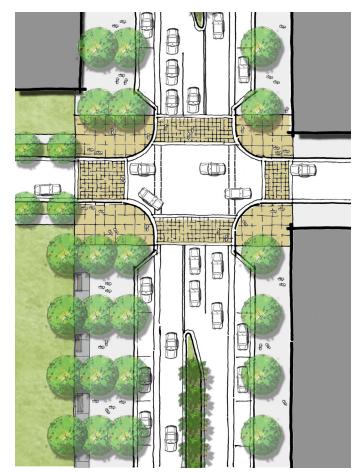


FIGURE: 16.0 B1 Landscape Framework Campus Greenbelt



Campus Master Plan - June 2010





Plan of Proposed Main Street at Modesto A. Maidique Campus



Section of Proposed Main Street at Modesto A. Maidique Campus









#### **Description:**

Main Street is historically a place for gatherings, interaction and commerce. The concept provides the University community with ground floor retail & student services with dense housing above to create a more viable urban environment. Main Streets generally provide easy parking for retailers with on-street parking, gracious sidewalks which allow for outdoor displays and dining opportunities as well as rich hard-scape and landscape materials. Arcades are provided to allow for covered circulation from store to store.

#### Elements:

Hardscape: Sidewalks are generally wide, a minimum of 12 ft in width. The use of specialty pavers may be used at intersections to delineate pedestrian crossings or for plazas that are separate from the sidewalk zone.

Plant Materials: Canopy trees are to be used to provide consistent shade for circulation and outdoor eating opportunities. Groundcovers are encouraged within the planting zone provided easy access to the on-street parking spaces can be maintained.

Special Features: The area has been identified to develop a Cuban Memorial plaza as well as a proposed Alumni Hall. Both could greatly increase the "draw" of the street creating a cultural node that will bring visitors to the campus to further enhance and support the retail component of the street.

# **Campus Streets**

Campus Greenbelt (Modesto A. Maidique Campus)

Main Street (Modesto A. Maidique Campus)

**Green Spine** (Biscayne Bay Campus)

**Entry Drive** 

Service Street (Modesto A. Maidique Campus)

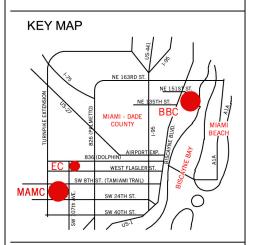
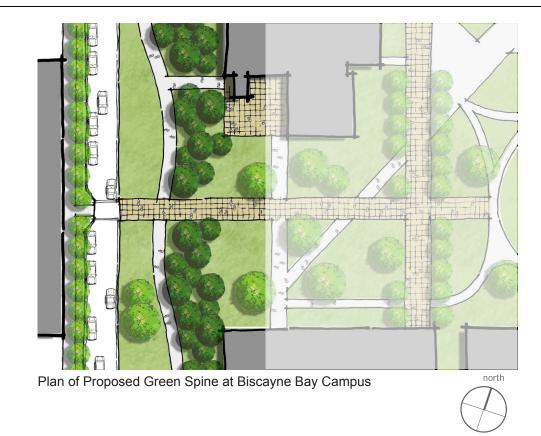


FIGURE: 16.0 B2 Landscape Framework Main Street



Campus Master Plan - June 2010





Section of Proposed Green Spine at Biscayne Bay Campus







### **Description:**

The Green Spine provides an opportunity to connect the academic campus to the conference center through the expansion and preservation of the existing mangrove stands. This connection will increase the connectivity on campus with proposed sidewalks and drive lanes. Pedestrian connections through the mangrove stands will allow for increased pedestrian connectivity within the campus while enhancing view corridors to the Bay. The mangrove stands provide a opportunity for teaching and research while reinforcing the sustainably imitative of the campus.

### Elements:

Hardscape: Sidewalks shall be placed on both sides of the mangrove stands. The eastern sidewalk will define the edge of the space. Materials should follow University standards.

Plant Materials: A linear row of canopy trees should be planted to define the eastern edge of the spine. Canopy trees should be placed randomly within the space to provide shade. Outside of the mangrove stands, lawn should be the predominate ground plane vegetation.

Lighting: Materials should follow University standards.

Special Features: "Pedestrian bridges" will create connectivity between the academic core and the proposed residential districts. The bridges will allow the mangrove stands to continue while permitting views corridors to be established. These bridges may also serve as observation platform for teaching purpose. Materials are subject to University Standards.



# **Campus Streets**

Campus Greenbelt (Modesto A. Maidique Campus)

Main Street (Modesto A. Maidique Campus)

**Green Spine** (Biscayne Bay Campus)

**Entry Drive** 

Service Street (Modesto A. Maidique Campus)

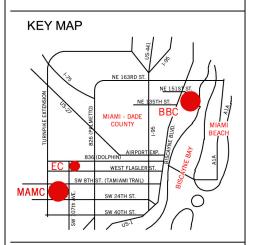


FIGURE: 16.0 B3 Landscape Framework Green Spine



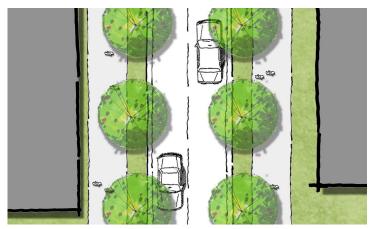
Campus Master Plan - June 2010



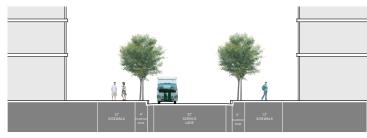
Plan of Proposed Entry Drive at Modesto A. Maidique Campus



Plan of Proposed Entry Drive at Modesto A. Maidique Campus



Plan of Proposed Service Street at Modesto A. Maidique Campus



Section of Proposed Service Street at Modesto A. Maidique Campus

### **Description:**

Entry Drives set the stage for the campus. They are used for traffic calming, sense of arrival and circulation. While some entry drives have been enhanced there is no consistency between them and some campuses have not been properly identified. Entry drives should convey a sense of arrival from the existing urban fabric to an institution higher learning a through a strong visual and functional connection.

### Elements:

Hardscape: Generally minimal, but it should provide a pedestrian connection to the community from the campus.

Plant Materials: Should be architectural in form. The consistant use of Royal Palms are recommended at primary entry drives with minimal understory plantings.

Special Features: Campus signage and wayfinding should be installed at all entries. Architectural features are consistent at existing primary entry drives at University Park campus but not required at Engineering Center or Biscayne Bay campus nor at secondary entries. The design should be consistent and follow the University Standards.

#### **Description:**

The existing service street located south of Charles Perry Hall and Recreation Center on the University Park campus is a three lane road that divides the main residential housing district from the academic core. As the campus grows it is likely that this street will become a secured drive with limited access for servicing buildings and Health Services. The drive should be reconfigured to minimize the drive lanes and enhance the pedestrian condition of the drive. This corridor would provide a much needed east-west pedestrian connection between the Blue & Gold parking decks and west campus.

### Elements:

Hardscape: Sidewalks on both sides of the street are necessary to redefine the street as a pedestrian friendly corridor. Sidewalk should be similar in width to the Greenbelt with the existing service lans reduced in width. Materials to follow University standards.

Plant Materials: Linear rows of canopy trees to be planted parallel to the street to define the corridor and provided a 'safe zone' for pedestrians. Lawn shall be the primary ground plane material but startegic locations of groundcovers is encouraged to further define the seperation between pedestrian and vehicular movements and enhance the space.

# **Campus Streets**

Campus Greenbelt (Modesto A. Maidique Campus)

Main Street (Modesto A. Maidique Campus)

**Green Spine** (Biscayne Bay Campus)

## **Entry Drive**

Service Street (Modesto A. Maidique Campus)

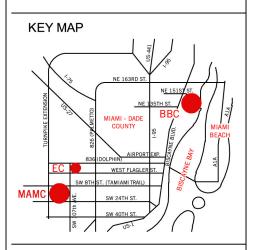


FIGURE: 16.0 B4 Landscape Framework Entry Drive Service Street

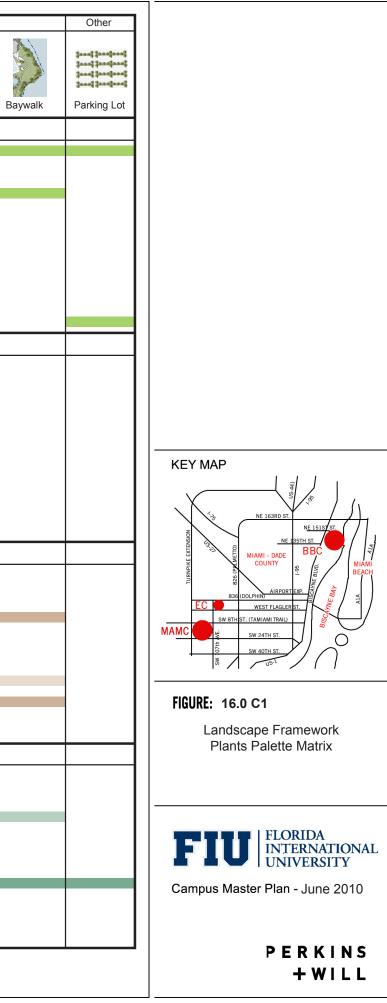


Campus Master Plan - June 2010

Landscape Type	Campus Space						Campus Street							Campus Edge		
		P						Cam					Gam			
Scientific Name					Special Purpose	Greenbelt	Mainstreet		Entry Drive	Entry Drive	Green Spine	Call State	<u>e-require</u>			
Common Name	Quad	Promenade	Plaza	Courtyard	Landscape	0.001.201	Manifolioot	Service Street	(Primary)	(Secondary)	(Biscayne Bay)	Park Edge	Urban Edge	Landscape Edge		
TREES																
Bursera simaruba* Gumbo Limbo Coccoloba diversifolia Pigeon Plum Coccoloba uvifera* Seagrape																
Conocarpus erectus* Buttonwood Lysiloma latisiliqua Wild Tamarind																
Pinus elliottii var. densa S. Florida Slash Pine Quercus virginiana* Live Oak																
Simarouba glauca Paradise Tree Swietenia mahogani* Mahogany																
FLOWERING TREES																
Bombax ceiba Red Silk-Cotton Bulnesia arborea Vera Wood Caesalpinia granadillo Bridalveil																
Jacaranda acutifolia Jacaranda				1												
<i>Tabebuia caraiba</i> Silver Trumpet																
Cordia boissieri White Geiger Cordia sebestena																
Orange Geiger <i>Peltophorum pterocarpum</i> Yellow Poinciana																
PALMS																
Acoelorrhaphe wrightii* Paurotis Palm Bismarckia nobilis* Bismarck Palm																
Cocos nucifera** Coconut Palm Ptychosperma elegans Alexander Palm																
<i>Roystonea elata</i> Royal Palm			_											I.		
Thrinax radiata* Thrinax Palm Thrinax morrisii*																
Key Thatch Palm Veitchia montgomeryana Montgomery Palm														_		
SHRUBS																
<i>Callicarpa americana</i> Beauty Bush																
Capparis cynophallophora Jamaica Caper									l							
Chrysobalanus icaco* Cocoplum Galphemia gracilis Thryallis				_	_											
<i>llex cassine</i> Dahoon Holly																
<i>llex vomitoria</i> Yaupon Holly <i>Myrcianthes fragrans var.simpsonii</i> Simpson Stopper																
<i>Myrsine guianensis</i> Myrsine				-					I							

\* (Plant Species is suitable for coastal environments - can be used at Biscayne Bay Campus)

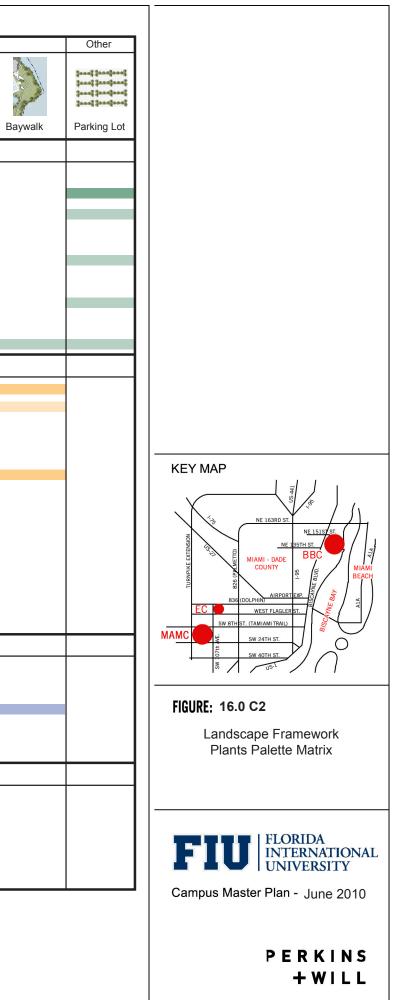
\*\* (Plant Species is specific to coastal environments - should only be used at Biscayne Bay Campus)



Landscape Type			npus Space					Cam	pus Street				Cam	pus Edge
Sample Plant Selection: Scientific Name					Special	Greenbelt	Mainstreet		Entry Drive	Entry Drive	Green Spine	1988 (M. 1988)		
Common Name	Quad	Promenade	Plaza	Courtyard	Purpose Landscape		Manoticet	Service Street			(Biscayne Bay)	Park Edge	Urban Edge	Landscape Edge
SHRUBS														
<i>Myrica cerifera</i> Wax Myrtle														
<i>Muhlenbergia capillaris</i> Pink Muhly Grass														
Pennisetum setaceum 'Rubrum' Purple Fountain Grass Psychotria undata Wild Coffee														
Raphiolepsis indica Indian Hawthorne			_											
<i>Rosemarinus offcinalis</i> Rosemary														
Scaevola pumieri* Inkberry														
Strelitzia reginae Bird of Paradise														
<i>Tripsacum dactyloides</i> Fakahatchee Grass														
GROUNDCOVERS														
<i>Borrichia frutescens**</i> Sea Oxeye Daisy														
<i>Ernodea littoralis var. littoralis**</i> Beach Golden Creeper														
Evolvulus glomerata Blue Daze														
Hemerocallis spp. Daylily														
Hymenocallis latifolia* Spider Lily														-
<i>Lantana depressa</i> Pineland Lantana														
<i>Lantana montevidensis</i> Weeping Lantana				1										
<i>Liriope spp.</i> Lily Turf														
<i>Stenotaphrum secundatum</i> St. Augustine Turf								I						
<i>Tulbaghia violacea</i> Society Garlic														
<i>Vinca minor</i> Periwinkle														
Za <i>mia pumila</i> Coontie														
VINES														
<i>Bougainvillea spp.*</i> Bougainvillea														
<i>Ficus pumila</i> Creeping Fig														
<i>lpomoea spp</i> .** Beach Morning Glory														
<i>Trachelospermum jasminoides</i> Confederate Jasmine														
LAKE EDGE LITTORAL PLANTS														
TO BE DEVELOPED														

\* (Plant Species is suitable for coastal environments - can be used at Biscayne Bay Campus)

\*\* (Plant Species is specific to coastal environments - should only be used at Biscayne Bay Campus)





Live Oak 2. Gumbo Limbo 3. Wild Tamarind 4. Swietenia mahogany
Royal Palm 10. Montgomery Palm 11. Thrinax Palm 12. Alexander Palm

5. Jacaranda 6. White Geiger 7. Vera Wood 8. Peltophorum

# Selected Plants Imagery

Canopy Tree

**Flowering Tree** 

Palms

Shrubs

Groundcovers

Vines

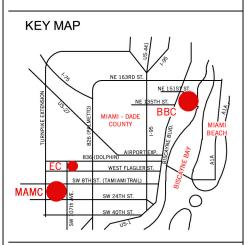


FIGURE: 16.0 C3 Landscape Framework Imagery Plants



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PERKINS +WILL



1. Fakahatchee Grass 2. Pink Muhly Grass 3. Indian Hawthorne 4. Bird of Paradise 5. Thryallis 6. Inkberry 7. Jamaica Caper 8. Wild Coffee 9. Society Garlic 10. Periwinkle 11. Confederate Jasmine 12. Bougainvillea

# Selected Plants Imagery

Canopy Tree

Flowering Tree

Palms

Shrubs

Groundcovers

Vines

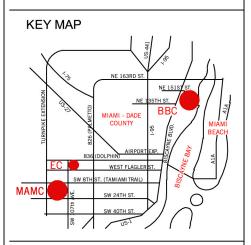
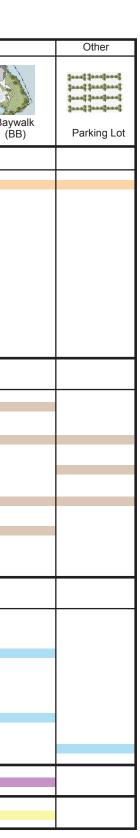


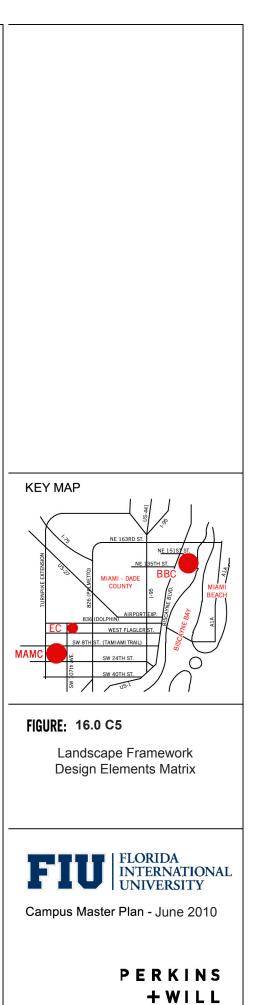
FIGURE: 16.0 C4 Landscape Framework Imagery Plants

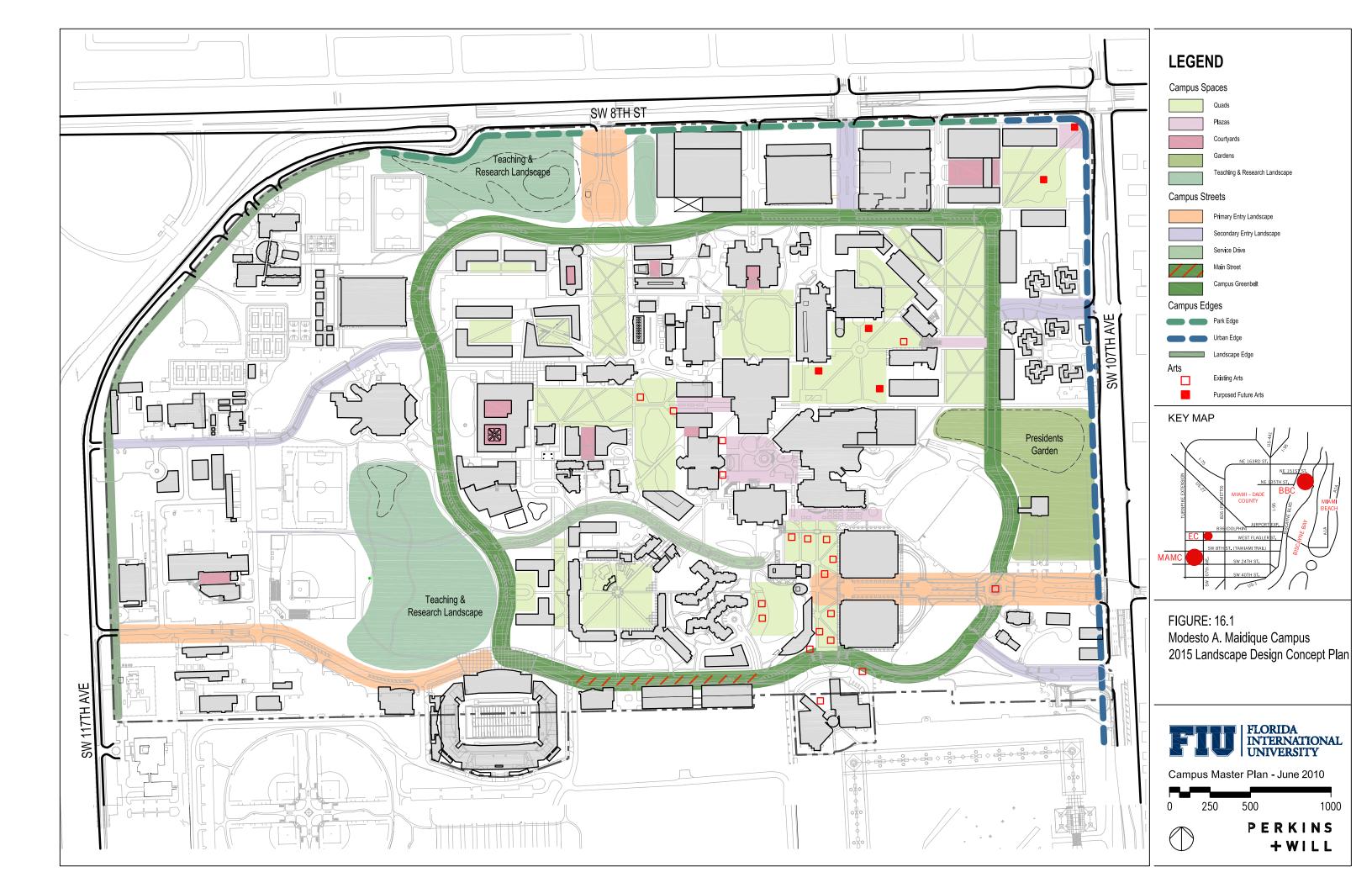


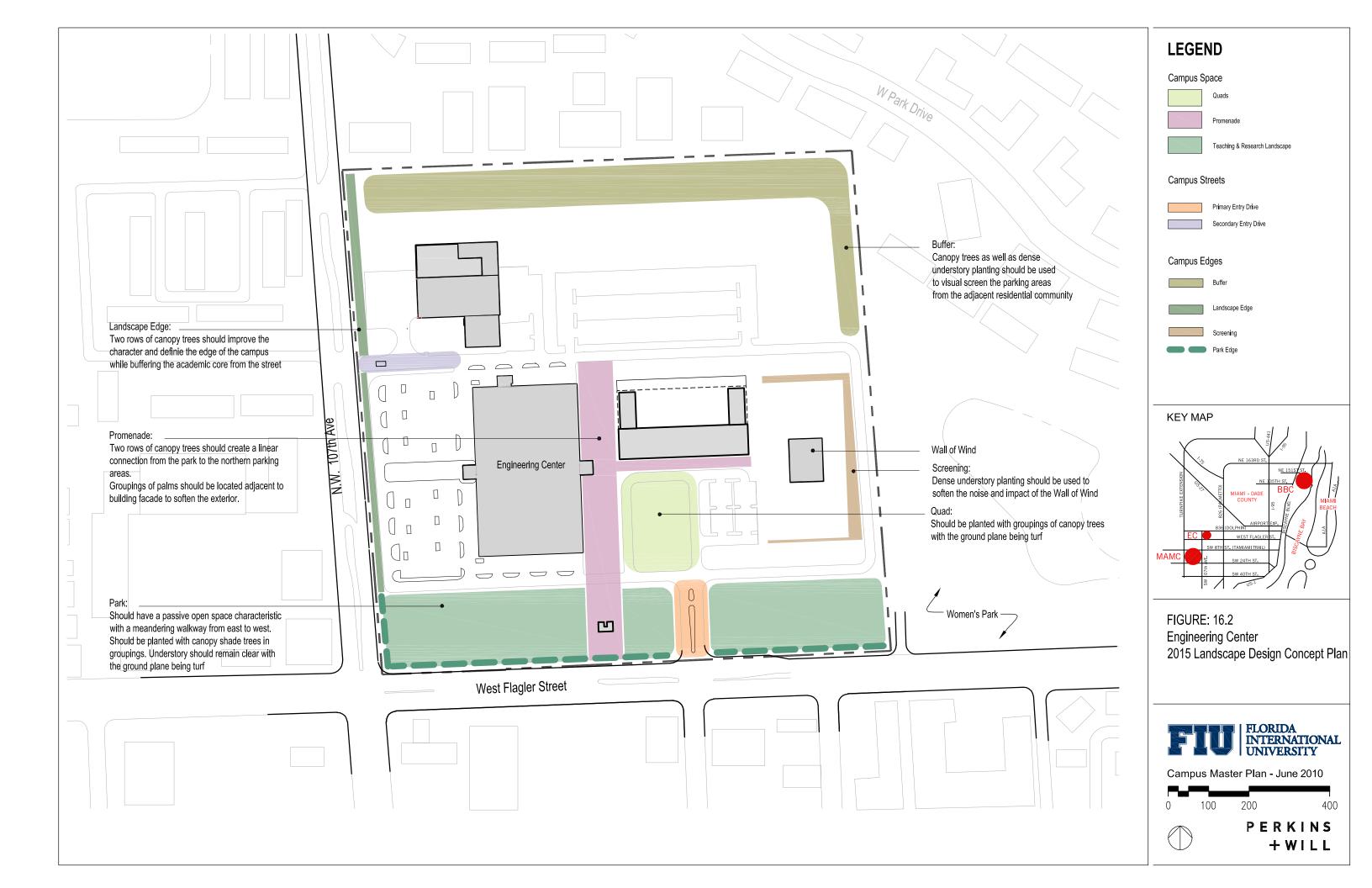
Campus Master Plan - June 2010

Landscape Type	Campus Space							Campus Street	Campus Edge					
		Promenade			Special Purpose	Greenbelt	Mainstreet		Entry Drive	Entry Drive	1999 1994 1994 1994 1994 1994 1994 1994			Baya
Elements	Quad	(EC)	Plaza	Courtyard	Landscape	(MAMC)	(MAMC)	Service Street	(Primary)	(Secondary)	Park Edge	Urban Edge	Landscape Edge	Bay e (B
Hardscape														
Concrete						Both Sides	Both Sides		Both Sides	Both Sides				
Colored Concrete														
Concrete Paver														
Stone					-									
ACTO Gravel														
Special Paver					-									
Site Furnishings														
Bench														
Trash Receptacle														
Wayfinding				I										
Bicycle Racks					On the Perimeter									
Railing														
Lighting														
Pedestrian														
ALL_Path Light					-									
Wall Light					_									
Vehicle														
Art SND					President's Garden Only									
Special Features														











LEGEND
Campus Space
Quads
Teaching & Research Landscape
Campus Streets
Primary Entry Drive
Secondary Entry Drive
Green Spine
Campus Edges
Bay Walk
Landscape Edge
KEY MAP
NE 163RD ST. NE 103RD ST. NE 105TH ST.
B3G (DOLPHIN) AIRPORTIEXP. 5 B 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
MAMC
SW 40TH ST.
FIGURE: 16.3
Biscayne Bay
2015 Landscape Design Concept Plan
FIU FLORIDA INTERNATIONAL UNIVERSITY
Campus Master Plan - June 2010
0 250 500 1000
+WILL