

## 16.0 LANDSCAPE DESIGN GUIDELINES ELEMENT

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 design quality to 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, which unifies each campus with its distinct built and natural environment.

A defined hierarchy of spaces has been identified and main circulation routes should be reinforced with identifiable landscape treatments. Significant pedestrian corridors should continue link the 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, site design and infrastructure improvements 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 buildings and infrastructure improvements.
- 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 primary axes and regulating lines.
- Blend new development sites with the character of the mature campus landscape and natural areas. Retain islands of vegetation in new development areas and/or creating new and similar vegetative that seamlessly integrates buildings and site facilities into the surrounding context.
- Maintain a selective palette of indigenous and site-adaptive plant species that express the subtropical environment configured to promote Xeriscape and principles and Florida appropriate design.

## 16.0 LANDSCAPE DESIGN GUIDELINES ELEMENT

**GOAL:** Create high quality, environmentally sound campus landscape settings which afford outdoor comfort, security, and a rich visual quality. Express the uniqueness and diversity of South Florida's subtropical environments while creating a unifying character that binds the campuses together (Figure 16.1).

**Objective 1.1** Implement the Landscape Framework for the Modesto A. Maidique Campus, Engineering Center and Biscayne Bay Campus.

In the event that provisions contained in the Landscape Framework conflict with provisions contained in the adopted Campus Master Plan then the Master Plan shall prevail and control.

### UNIVERSITY-WIDE

**Policy 1.1.1** 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** Incorporate Art exhibits as an element unique to FIU. Create an inventory of all University 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 and/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 1.2** **Develop, enhance and preserve existing and proposed Regulating Axes on campus. Place future buildings and landscape features to preserve and reinforce the significance of each visual and pedestrian corridor's significance.**

#### UNIVERSITY WIDE

- Policy 1.2.1 Avenues provide circulation, wayfinding and branding opportunities. For many pedestrians, these paths provide the image of the campus. The main path should generally be uninterrupted by buildings or landscape materials. The path should be a minimum for 15 ft. in width. Hardscape materials should vary from the Campus Standards elevating the specialty of the path. Canopy trees and / or palms should be used in a consistent pattern to provide shade to pedestrians and further define the avenue. Understory materials should be intentionally low to define the limits of the avenue and preserve visibility. Avenues may incorporate people spaces, areas for small gatherings along the edges of the path (Figure 16.2-16.7).

#### MODESTO A. MAIDIQUE CAMPUS

- Policy 1.2.2 Avenue of the Sciences:  
Implement a minimum 15 ft. wide sidewalk with enhanced hardscape material beyond the limits of the Foundation Court. Use canopy trees on both sides of the walk to provide shade. The use of low understory plantings should reinforce the limits of the axis while maintaining clear sightlines. Include opportunities for seating along the edges of the path. Utilize the Campus Standards for lighting, site furniture and materials.

### Policy 1.2.3

#### Avenue of Professions:

The Avenue of the Professions has two distinct characters.

- West of Green Library: Implement a minimum 15 ft. wide sidewalk with enhanced hardscape material. The sidewalk alignment should meander to mimic the informal nature of the Central Quad as well as provide direct routes to primary building entrances and pedestrian access points to allow efficient pedestrian circulation between distant points.
- The use of canopy trees to shade the sidewalk should blend within the composition of the quad. As an element within the central quad, utilize the Campus Standard for lighting, site furniture and materials.
- East of Green Library: Implement a minimum 15 ft. wide sidewalk with enhanced hardscape material. The sidewalk alignment should be direct, connecting the Library to SW 107th Avenue. Use palm trees on both sides of the walk to provide shade and emphasize the ceremonial and wayfinding nature of the axis. The use of low understory plantings should reinforce the limits of the axis while maintaining clear sightlines. Include opportunities for seating along the edge of the path. Utilize the Campus Standards for lighting, site furniture and materials.

### Policy 1.2.4

#### Avenue of the Students:

Implement a minimum 15 ft. wide sidewalk with enhanced hardscape material. Use canopy trees on both sides of the walk to provide shade. Utilize the Campus Standards for lighting, site furniture and materials.

### Policy 1.2.5

#### Avenue of the Arts:

Sculptures are the emphasis of the axis. Recent canopy tree plantings will provide shade for the sidewalk. Maintain existing minimal landscape character.

### Objective 1.3

**Enhance the existing and proposed Campus Spaces to better define a consistent character across the three campuses.**

Campus spaces are the binding element of the campus, defining where future buildings should be located, how those buildings should engage the campus, how pedestrians move through the campus and preserving valuable open space. There are four types of Campus Spaces: Quads, Courtyards, Promenades, and Plazas.

## **Quadrangles**

A quadrangle is an open space usually square or rectangular in plan, the sides of which are entirely or mainly defined by buildings and reinforced by the landscape design (Figure 16.8). 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 for social gatherings, art placement, and opportunities for teaching with a combination of shade trees planted in asymmetrical groups balanced with large areas of lawn and paths configured to provide direct pedestrian access to key buildings and spaces beyond.

### **MODESTO A. MAIDIQUE CAMPUS**

#### **Quad M1\_Foundation Court**

The historic center of the campus, Foundation Court is the central outdoor gathering space for the campus. As part of the Avenue of the Sciences, providing a clear, legible directional connection from the southwest corner to the northeast corner of the space is critical. While providing shade through the majority of the space helps to energize the space, significant areas provide little tree cover. This leads to areas that are void of activity. Recent renovations have utilized materials that are inconsistent with that of the campus. A comprehensive renovation of the space should look at the entire quad as a singular space rather than several elements divorced from one another. Educational signage should be incorporated to provide a history of the space and its significance to FIU. Utilize the Campus Standards for lighting, site furniture and materials.

#### **Quad M2\_Green Library Quad**

It is critical to improve the Avenue of the Students along the northern edge of the space as well as creating a continuous pedestrian linkage along the eastern edge of the quad (Figure 16.9). The quad has an existing palm collection used for teaching and research. Educational signage should be incorporated. Utilize the Campus Standards for lighting, site furniture and materials.

### **Quad M3\_Ryder Lawn**

The open field character of the lawn with the formal plantings of palm trees creates a unique, ceremonial space on campus. The enhancement of the Avenue of the Students at the center of the quad should be enhanced to establish a defined pedestrian experience within the space. Utilize the Campus Standards for lighting, site furniture and materials.

### **Quad M4\_Science Quad**

A hierarchy of walkways should be established to emphasize the Avenue of the Sciences and Avenue of the Professions. The intersection of the Avenue of the Sciences and the north-south walkway between CP and the Graham Center provides a central gathering node within the quad. The node should incorporate architectural or landscape shading material. Utilize the Campus Standards for lighting, site furniture and materials.

### **Quad M5\_Panther Village**

The space has a symmetric character reinforced and well defined by the building facades and square shape of the quad (Figure 16.10). The diagonal walkway along the Avenue of the Sciences should be enhanced to with formal landscape treatment create a hierarchy within the space as well as a connection to the academic core of the campus. Given the surrounding building use, minimal plantings is encouraged to maintain flexibility for resident activities. Utilize the Campus Standards for lighting, site furniture and materials.

### **Quad M6\_Arts Quad**

The visual connections from the SW 107th Avenue entrance and the Performing Arts Center should be maintained. Minimal planting is encouraged to preserve the north-south circulation movement as well as the visibility of the sculptures. The existing tree canopy needs to time establish (Figure 16.11).

### **Quad M7\_Central Quad**

Despite the pressure to infill the edges with new buildings, the existing character and plant materials of the quad should be preserved. The natural state of the space compliments the emerging architectural styles and is a truly unique space on campus. Thru the development of meandering walkways and informal plantings, the flowing character of the circulation and landscape shall be showcased and allow for flexibility of use, circulation and gatherings.

A key goal should be preserving the visual connection between the Rafael Diaz Ballart Hall and the Green Library as part of the Avenue of the Professions through the use of canopy trees and lawn.

#### **Quad M8\_Academic Health Sciences Quad**

This space should be the most prominent on campus and have multifunctional characteristics. Future walkways on the eastern and western edges shall be wide to frame multidirectional paths that encourage a dynamic space. The west walkway should engage existing and proposed buildings with minimal landscape materials. Canopy trees should be strategically placed to both sides of the walkways to provide shade while maintaining flexibility within the lawn areas for gatherings and recreational needs.

#### **Quad M9\_FIU Quad**

This space by virtue of its location should become the most iconic space on the campus when viewed from the surrounding communities. A diagonal walkway should be developed from the intersection to the core of the campus. The space shall balance between rigid and informal. Palm trees identify the Avenue of the Sciences and connects it with a large water body that provides needed stormwater infrastructure. The remaining portion of the quad should incorporate canopy trees with secondary circulation paths and lawn. Utilize the Campus Standards for lighting, site furniture and materials.

#### **Quad M10\_Parkview Quad (No comments)**

### **BISCAYNE BAY CAMPUS**

#### **Quad B1\_North Quad**

Expanding the North Quad through the removal of surface parking will strengthen the importance of open space at BBC. The expanded portion of the quad should incorporate canopy trees with secondary circulation paths and lawn. Utilize the Campus Standards for lighting, site furniture and materials.

#### **Quad B2\_Academic Quad**

With future buildings defining the western and southern edges of the space, landscape material should be used to provide comfortable areas for outdoor gatherings. The current plaza adjacent to Academic One and Two is not well configured for interaction. Additional shade structures should be incorporated into the space. The western edge of the quad shall incorporate canopy trees with

secondary circulation paths and lawn. Utilize the Campus Standards for lighting, site furniture and materials.

### **Courtyards**

Courtyards are spaces between buildings but are more compact than quads (Figure 16.12). They offer either private or semi-private spaces providing immediately accessible opportunities for informal outdoor gathering, studying, teaching and collaborating. Courtyards are often tied to the program of the building. Courtyards are predominately hardscape places with landscape material along their edges or as a central focal point. The use of palms or flowering trees is encouraged to provide shade. The use of foundation plantings is encouraged to further define the limits of the space. Clear visibility from the surrounding buildings is critical. Hardscape materials and site furnishings should vary from the University Standards to compliment to the adjacent buildings materials. Moveable seating should be encouraged to allow flexibility in use.

**Courtyard M11\_Engineering & Computer Science – North (No comments)**

**Courtyard M12\_Engineering & Computer Science – South (No comments)**

**Courtyard M13\_Architecture (No Comments)**

**Courtyard M14\_Education (No Comments)**

The existing space is austere and uncomfortable (Figure 16.13). The incorporation of minimal landscape materials, including palm trees, would soften the space while providing some amount of shade.

**Courtyard M15\_Ballart Hall – North (No comments)**

**Courtyard M16\_Ballart Hall – South (No comments, Figure 16.14)**

**Courtyard M17\_CSC (No comments, Figure 16.15)**

**Courtyard M18\_Business Complex (No comments)**

**Courtyard M19\_Stempel (No comments)**

## **Promenade**

A promenade is a pathway for learning. It is a public place for walking that directly connects one point to another (Figure 16.16). More than just a wide sidewalk or trail, a promenade is of significant importance with differing hardscape materials and more formal canopy tree plantings. Promenades may define one edge or bisect a larger space. Promenades should have continuous areas shaded and protected from the rain by structures. Hardscape materials and site furnishings should vary from the University standards.

### **Promenade M20\_Alumni Walk**

The continuation of palms along the north facade of the Gold Parking Garage east will provide cohesiveness within the space (Figure 16.17). Preserving the existing canopy trees are critical to providing immediate shade. Additional canopy trees will provide shade within the space. While the space is predominately hardscape, large planting masses should be incorporated along the parking garage facades. Unique seating furniture should be incorporated for large gatherings and distinguish the space from the campus. Hardscape materials and site furnishings should vary from the University Standards.

## **Plaza**

Plazas occur at points of entry or gateways to the campus, various districts and key buildings throughout the campus (Figure 16.18). The specific landscape qualities of each may vary but all will be primarily characterized by hardscape elements with canopy trees reinforcing the spatial geometry of the space. Plazas should incorporate significant spaces shaded by and protected from the rain by structures. Hardscape materials and site furnishings should vary from the University Standards. Moveable seating should be encouraged to allow flexibility in use.

## **ENGINEERING CENTER**

### **Plaza E1\_Engineering Plaza**

A future plaza located at the vehicular entry from SW 107th Avenue entrance will provide a signature gateway to the campus. Walkways should define a strong pedestrian connection from the street to the existing academic building entry. Formal plantings of palm trees shall distinguish the space from its surrounding context. Comfortable pedestrian seating should be grouped together and under appropriate shelter. Utilize the Campus Standards for lighting, site furniture and materials.

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### **Plaza B3\_ Academic Plaza**

Continue to enhance the existing plaza with improved pavement materials, various shade structures and additional landscaping (Figure 16.19-16.20). The use of palms should be supplemented with canopy trees to provide additional shade. Comfortable pedestrian seating should be incorporated as part of the design strategy. Utilize the Campus Standards for lighting, site furniture and materials.

### **Policy 1.4**

**Enhance the existing and proposed Special Purpose Landscapes to provide for pedestrian connectivity, open space preservation and outdoor teaching and research environments.**

Special Purpose Landscapes provide opportunities for teaching and research, passive and active recreation opportunities, gatherings or community engagement (Figure 16.21). The type of space is often determined by the landscape materials, structure and use. Areas may include a vast ground plane of lawn that promotes active and passive recreation. They might also include wetlands or woodlands that provide educational opportunities and stormwater infrastructure. Special landscape areas are generally larger spaces and their edges are not necessarily defined by buildings. Often they provide a picturesque, natural backdrop to the more urban texture of the campus

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### **Policy 1.4.1**

#### **Hennington Island**

Incorporate a walking trail around the periphery of the area as part of a larger pedestrian circulation network that promotes health and wellness while increasing accessibility to and visibility of the space.

### **Policy 1.4.2**

#### **The Preserve**

Incorporate a walking trail around the periphery of the area and a boardwalk within the Preserve as part of a larger pedestrian circulation network that promotes health and wellness while increasing accessibility to and visibility of the space (Figure 16.22). Utilize the Campus Standards lighting and site furniture materials

### **Policy 1.4.3**

#### **President's Garden**

Create a direct connection across the existing lake to the emerging Academic Health Science District as a focal point within the campus.

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. Landscape material should balance a need for visibility to the campus and privacy for the residency through the use of canopy trees, large plant massings and lawn. Utilize the Campus Standards lighting and site furniture materials

Policy 1.4.4

Palm Collection

As identified as in the improvements for the Green Library Quad, complete a sidewalk and/or boardwalk path connection between the Green Library and the Owa Ehan along the east side of the space (Figure 16.23). Incorporate educational signage along the Avenue of the Students detailing the research study to date. Identify each palm species with tree identification tags.

Policy 1.4.5

The GreenWay

Create a pedestrian connection linking the Wertheim Performing Arts Center north to Hennington Island and west to the Preserve (Figure 16.24). The landscape should remain informal as the path weaves through various spaces within the campus. A wide sidewalk should reinforce the informal nature of the GreenWay (Figure 16.26). The incorporation of stormwater infrastructure and associated informal plantings should strengthen the limits of the space. Incorporate educational signage within the GreenWay documenting the various infrastructure approaches to stormwater.

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Policy 1.4.6

The GreenSpine

The mangrove stands provide an opportunity for teaching and research while reinforcing the sustainably imitative of the campus. Sidewalks shall be placed on both sides of the mangrove stands running north to south (Figure 16.27). The eastern sidewalk will define the edge of the space. A linear row of canopy trees should be planted to define the eastern edge of the spine. Outside of the mangrove stands, canopy trees should be placed randomly within the space to provide shade. Lawn should be the primary ground plane vegetation. Utilize the Campus Standards lighting and site furniture materials.

Policy 1.4.7

The BayWalk

The existing bike path should be the only pedestrian and vehicular hardscape along the water's edge (Figure 16.25). The understory should remain clear with the existing service trail remediated to match the surrounding ground plane. Canopy trees should be

located in groupings and sited to maximize views of the Bay while still providing shading opportunities for pedestrians. The ground plane should be predominately lawn with natural coastal plantings along the edges. Utilize the Campus Standards lighting and site furniture materials.

**Objective 1.5      Develop a hierarchy of landscape treatment for Campus Streets**

UNIVERSITY WIDE

Policy 1.5.1      Reinforce and improve the campus circulation hierarchy by developing distinct, identifiable landscape treatments for each road type, campus entrances and pedestrian/vehicular intersections (Figure 16.28).

MODESTO A. MAIDIQUE CAMPUS

Policy 1.5.2      The GreenBelt (Primary loop road)  
Establish a 'boulevard' treatment with Live Oaks as the dominate canopy tree (Figure 16.29 & 16.30). Canopy trees should be located on both sides of the road within an 11 ft. 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.      Parkway / Typical – Minimum 6 ft. sidewalk to each side of the street, which is separated from the street with an 11 ft. planting strip. Predominantly lawn as the ground plane with canopy trees (Figure 16.31).
2.      Urban – Located within the Academic Health Center and similar to a city streetscape.
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 (Figure 16.32).

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.
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 and emergency vehicles.

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##### Policy 1.5.3

As part of the GreenSpine 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.

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**

#### MODESTO A. MAIDIQUE CAMPUS

##### Policy 1.5.4

Primary Entrance: Develop the SW 17<sup>th</sup> Street at SW 117th Avenue similar to the level of detail and plant palette of the SW 16th St. at SW 107th Avenue entrance. 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. The use of palms should visually define the space while understory plantings should 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> Avenue as the

symbolic main entrance to the campus.

Policy 1.5.5 Secondary Entrances: Develop the SW 13<sup>th</sup> Street at SW 117<sup>th</sup> Avenue entrance with a similar plant palette to the SW 17<sup>th</sup> Street entrance. Utilize 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 1.5.6 Secondary Entrances: Develop SW 109<sup>th</sup> Avenue at SW 8<sup>th</sup> Street entrance as an urban street with evenly spaced canopy trees, wide sidewalks and minimal ground plane vegetation. This intersection is a critical connection to the Sweetwater community. In conjunction with the proposed pedestrian bridge, appropriate landscape material should be utilized to express the importance of this connection, providing shading and opportunities for small gatherings.

#### ENGINEERING CENTER

Policy 1.5.7 Primary Entrance: Develop an entry feature at West Flagler Street for vehicular and pedestrian access that is similar in plant palette, formal structure and 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 1.5.8 Secondary Entrance: As the campus grows, the NW 107<sup>th</sup> Avenue entrance will become a more prominent vehicular entrance to the campus. The existing fence line should be removed and placed closer to the existing 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 1.6      Develop an enhanced and consistent quality for the Campus Edges (Figure 16.35 – 16.38).**

**MODESTO A. MAIDIQUE CAMPUS**

Policy 1.6.1      Develop an urban edge to the campus along SW 107<sup>th</sup> Avenue. As identified in the Academic Health Center Master Plan, SW 107<sup>th</sup> Avenue is an urbanizing commercial corridor (Figure 16.33). Future building placement should 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 1.6.2      Develop an urban edge along SW 8<sup>th</sup> Street 600 ft. west of the SW 107<sup>th</sup> Street intersection. Future building placement should 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 1.6.3      Reinforce the existing park edge along SW 8<sup>th</sup> Street to SW 117<sup>th</sup> Avenue (Figure 16.34). 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 1.6.4      Develop a landscape edge along SW 8<sup>th</sup> Street west from the park edge. The planting should be informal in arrangement. Canopy trees, along with palms and flowering trees, should define the landscape edge. Understory plantings should be 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.

**ENGINEERING CENTER**

Policy 1.6.5      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.

- Policy 1.6.6 Develop a landscape edge along NW 107th Avenue 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 should 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.

#### BISCAYNE BAY CAMPUS

- Policy 1.6.7 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.

- Policy 1.6.8 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 1.7** **Plant materials shall further inform the five underlying goals of incorporating research and teaching opportunities, improving walkability, enhancing Art, incorporate sustainable strategies and increase the amount and quality of student spaces while eliminating use of invasive exotic species and those which necessitate excessive maintenance.**

#### UNIVERSITY-WIDE:

- Policy 1.7.1 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 (Figure 16.45-16.48). 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 1.7.2 Each project should look to the immediate context of the site for guidance in plant material choices. It is the intent of the landscape to bind the individual buildings into a cohesive landscape.

Policy 1.7.3 Monitor conformance of future construction projects with revised plant lists through University design review procedures.

Policy 1.7.4 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 1.8 Modify and adopt a hardscape materials list. Identify the standard hardscape material for various conditions and allow for variations given certain conditions that are appropriate to traditional University campus settings.**

UNIVERSITY-WIDE

Policy 1.8.1 Hardscape materials serve as a primary unifying element within the campus landscape (Figure 16.39 – 16.42, 16.49 - 16.50). The use of consistent materials, patterns and design establishes a distinct campus identity, provides a visual hierarchy of circulation, differentiates vehicular traffic from pedestrian circulation, and creates social gathering spaces. All new paving shall comply with the University Standards.

To the degree possible, hardscape treatments shall utilize the University Standard materials in order to create a consistency to the campus. Overtime this consistency will further strengthen the open space environment, assure a level of quality at installation, and reduces the level of maintenance required over the life of the material.

Policy 1.8.2 As identified in the Landscape Guidelines, variation from the University standard materials shall be permitted based on the review and approval during the design review process. Variations shall be appropriate to the type space and the surrounding context.

Policy 1.8.3 Size requirements for pavement widths will vary and shall be determined on a case-by-case basis. Regulating Axes shall utilize specialty paving materials. Primary pedestrian pathways shall be constructed of scored concrete. Secondary paths may utilize pervious material such as crushed stone or other permeable paving.

Policy 1.8.4 New projects and major renovations should be seen as opportunities to utilize new pervious paving. The use of pervious pavers in appropriate locations, such as courtyards, plazas and service drives to reduce stormwater runoff and improve water quality is encouraged. All materials shall comply with universal accessibility requirements.

**Objective 1.9 Furnishings, Lighting and Graphics: Follow the University standards for furnishings, lighting fixtures and signage depicted.**

UNIVERSITY-WIDE

Policy 1.9.1 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 1.9.2 As identified in the Landscape Guidelines, 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 (Figure 16.43-16.44). As existing furnishings and lighting become unusable or deteriorated implement replacement furnishings according to approved University standards.

- Policy 1.9.3 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 1.9.4 Bicycle facilities should use one selected type of bicycle rack with adequate adjacent pavement that is easily accessible. Bike racks should be under cover when feasible. Plantings should be kept away from area a sufficient distance to allow for bicycle maneuverability.
- Policy 1.9.5 Public transportation facilities should 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.
- Policy 1.9.6 Interpretative signage that meets the campus signage and wayfinding standard should be incorporated within all Special Purpose Landscape to identify the intent of the space and/or collection.
- Objective 1.10 Retention/Stormwater Elements: Adopt standards for landscape edge treatments surrounding ponds, lakes and storm water features.**
- UNIVERSITY-WIDE
- Policy 1.10.1 Consistent with regulatory requirements, plant native wetland littoral vegetation along gradually sloping banks of lakes and water features located wherever appropriate.
- Policy 1.10.2 Consistent with regulatory requirements, provide where necessary "hard edge" pedestrian treatments of water bodies in intensely developed areas.
- Policy 1.10.3 Follow the design review procedures established in 15.0 Architectural Design Guidelines Element to ensure conformance of future construction projects with referenced standards.
- Objective 1.11 Implement landscape improvements in three phases, consistent with the scheduling of new academic, housing, recreation, and support buildings to which landscape improvement components will be allocated.**

## UNIVERSITY-WIDE

- Policy 1.11.1 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 1.11.2 Implement the Landscape Guidelines by allocating each future and existing building a proportional share of overall planned landscape improvement cost.



Figure 16.1. Campus Spaces

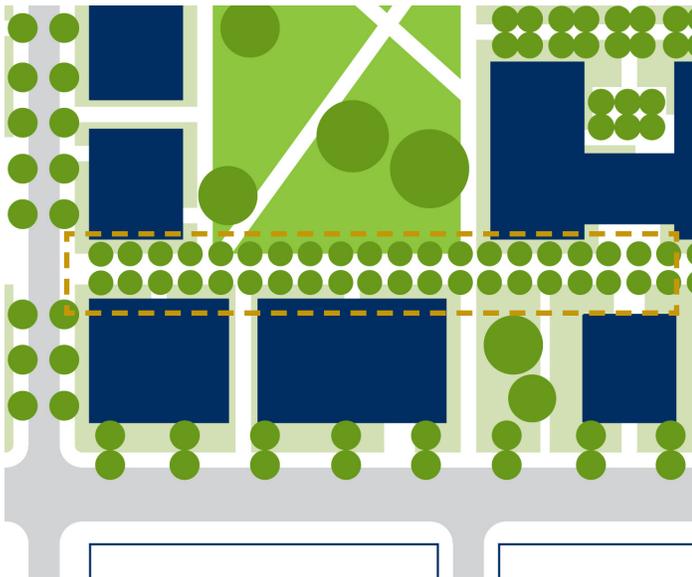


Figure 16.2. Campus Spaces - Avenues

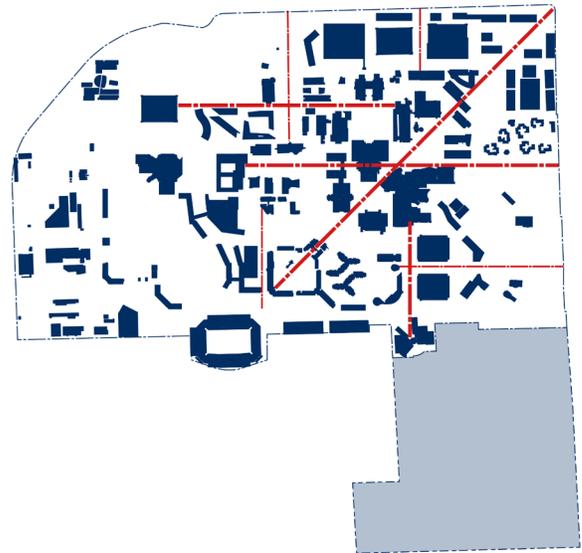


Figure 16.5. Avenues - Modesto A. Maidique Campus

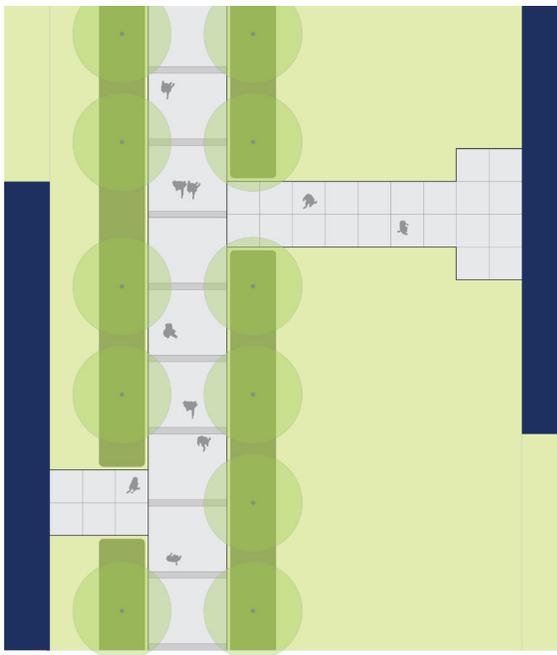


Figure 16.3. Avenue - Plan

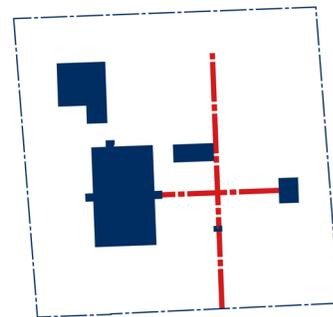


Figure 16.6. Avenues - Engineering Center

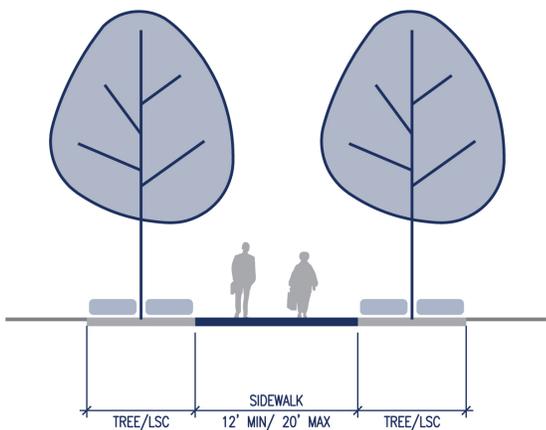


Figure 16.4. Avenue - Section

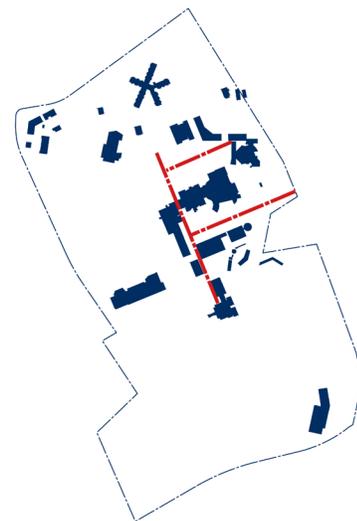


Figure 16.7. Avenues - Biscayne Bay Campus



Figure 16.8. Campus Spaces - Quads



Figure 16.9. Green Library Quad



Figure 16.10. Panther Village Quad



Figure 16.11. Art Quad

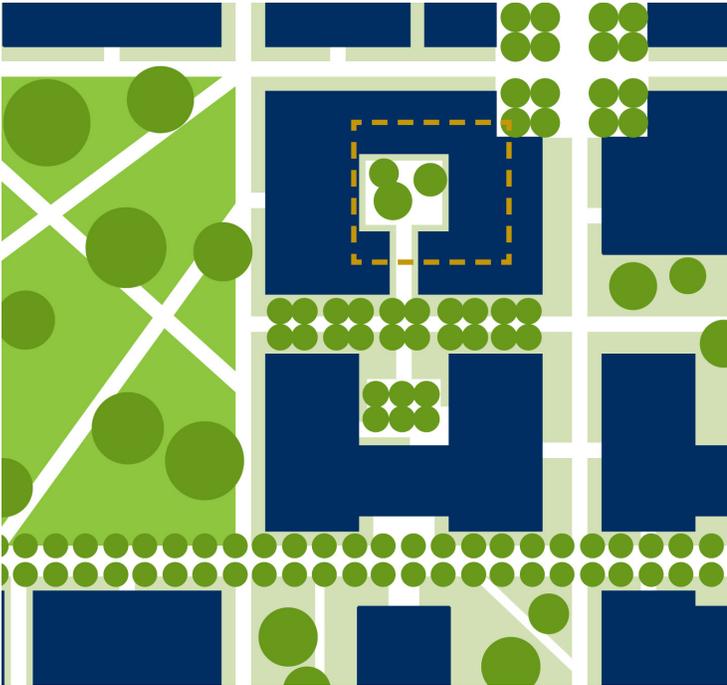


Figure 16.12. Campus Spaces - Courtyard



Figure 16.13. Education Courtyard



Figure 16.14. Ballart Hall Courtyard



Figure 16.15. CSC Courtyard

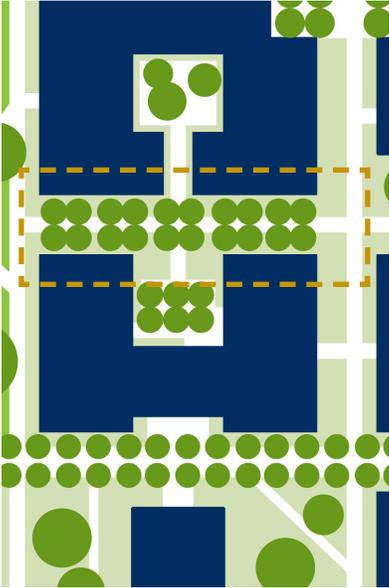


Figure 16.16. Campus Spaces - Promenade



Figure 16.17. Alumni Walk

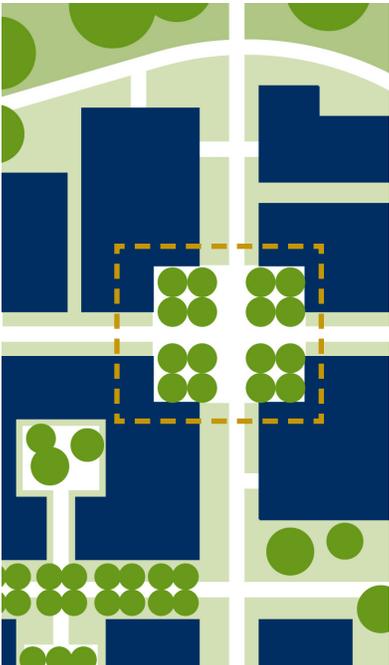


Figure 16.18. Campus Spaces - Plaza



Figure 16.19. Academic Plaza at Biscayne Bay Campus



Figure 16.20. Academic Plaza at Biscayne Bay Campus

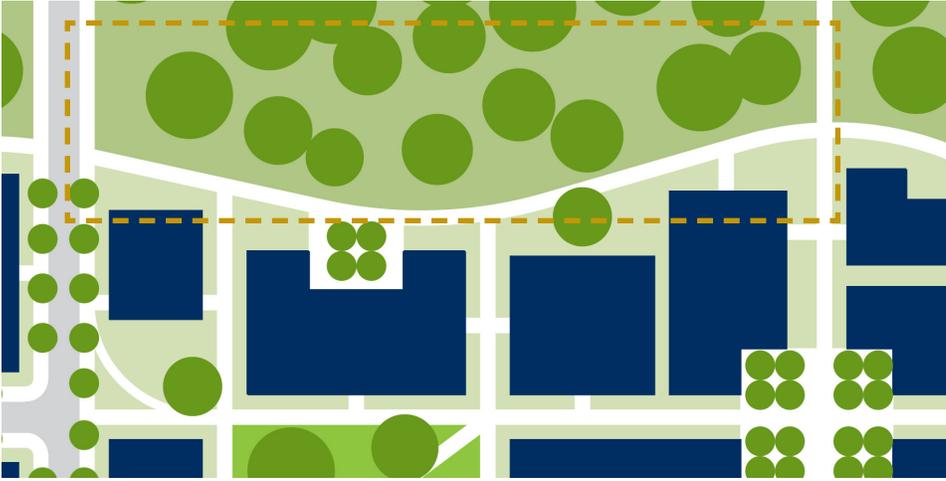


Figure 16.21. Special Purpose Landscape



Figure 16.22. The GreenWay



Figure 16.23. Palm Collection at the Green Library Quad



Figure 16.24. The Preserve



Figure 16.25. The BayWalk at Biscayne Bay Campus

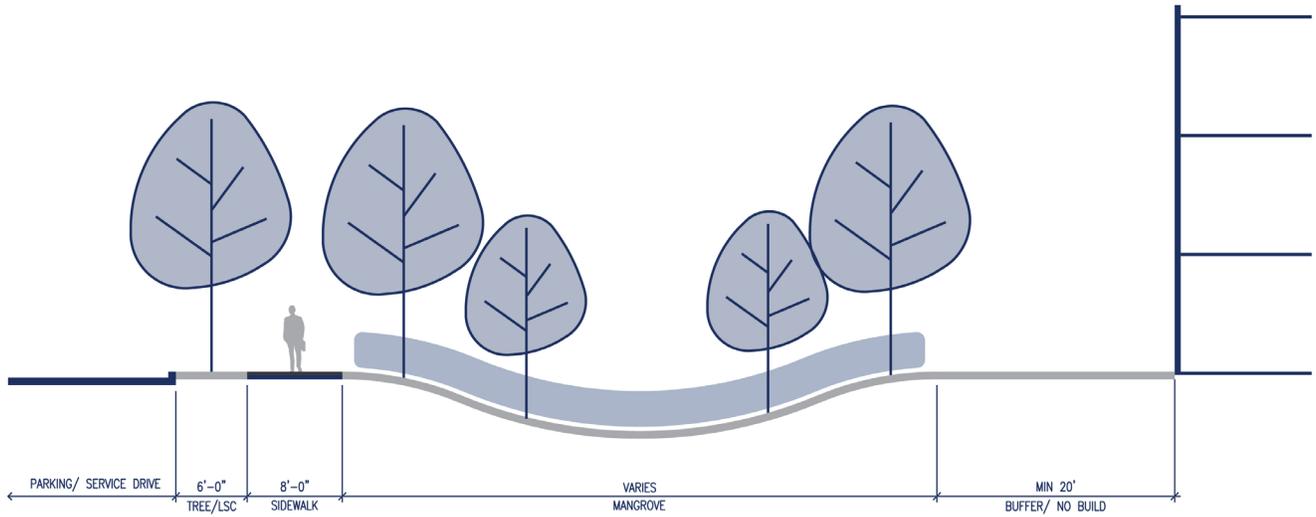


Figure 16.26. The GreenWay

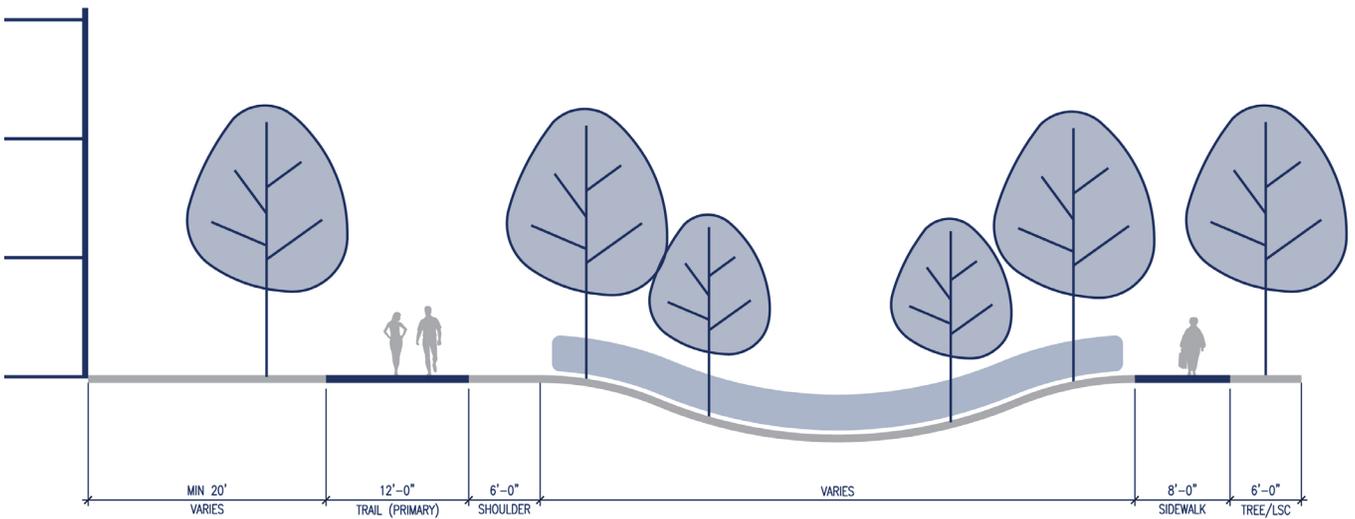


Figure 16.27. The GreenSpine

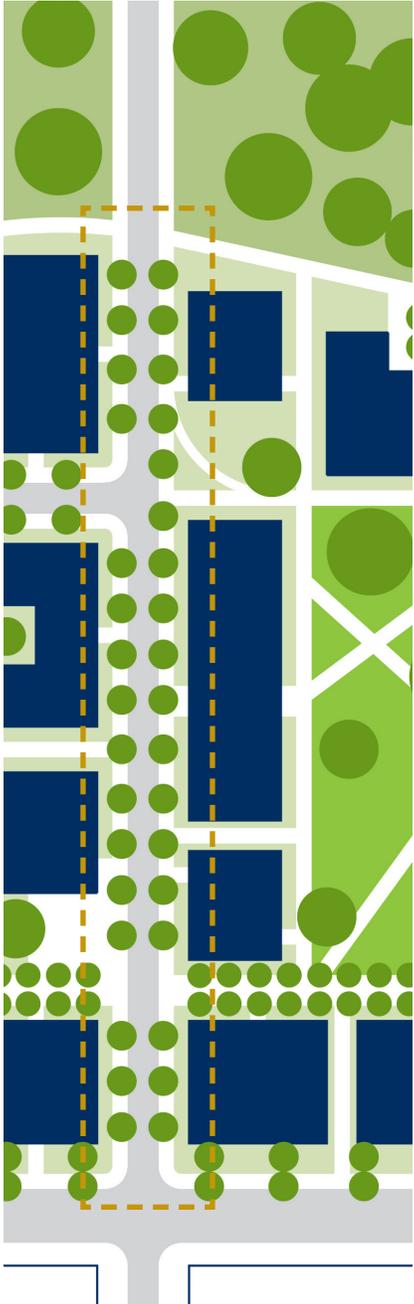


Figure 16.28. Campus Streets



Figure 16.29. Shaded Pedestrian Walkway



Figure 16.30. Shade Trees along the Campus GreenBelt

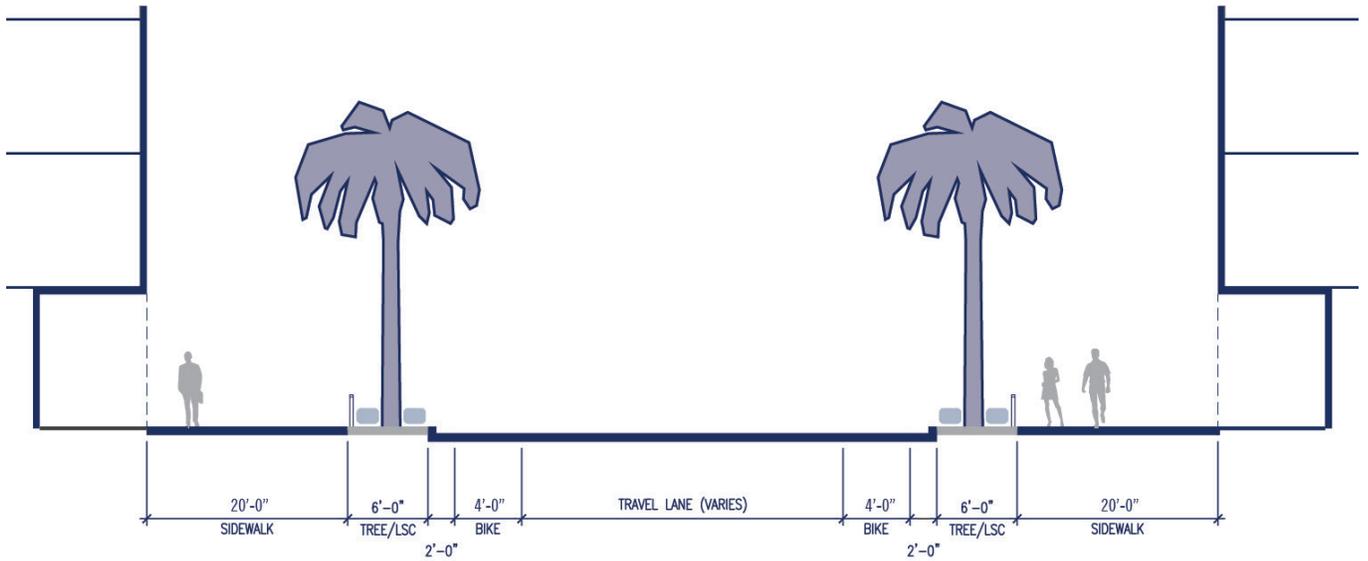


Figure 16.31. Campus GreenBelt - Main Street

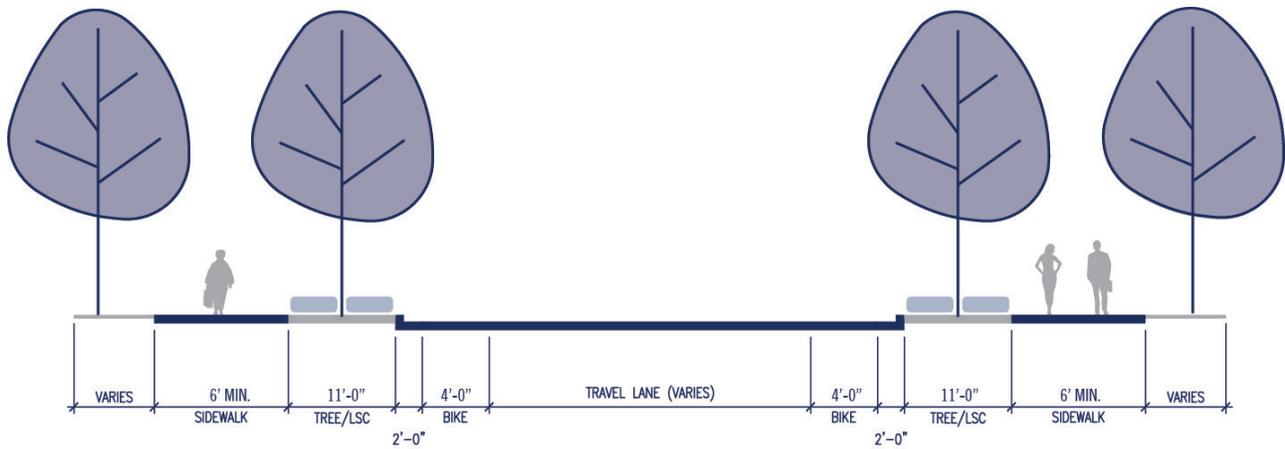


Figure 16.32. Campus GreenBelt - Parkway

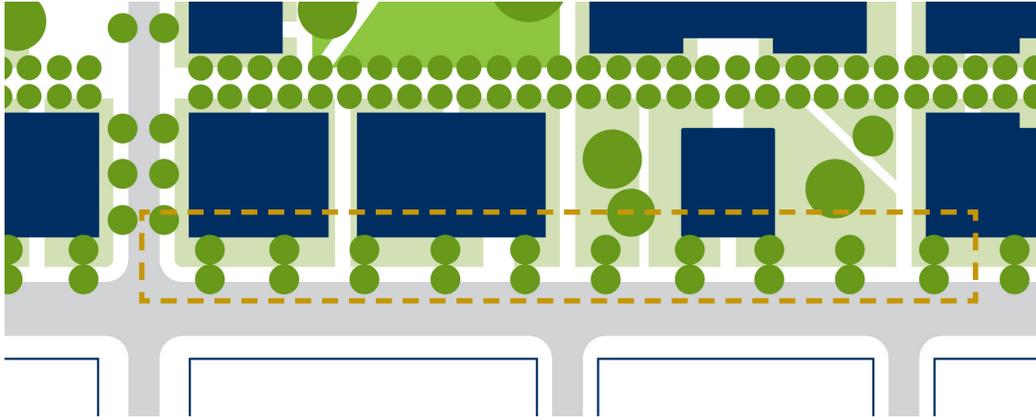


Figure 16.33. Campus Edges



Figure 16.34. Passive Major Edge along SW 8th Street

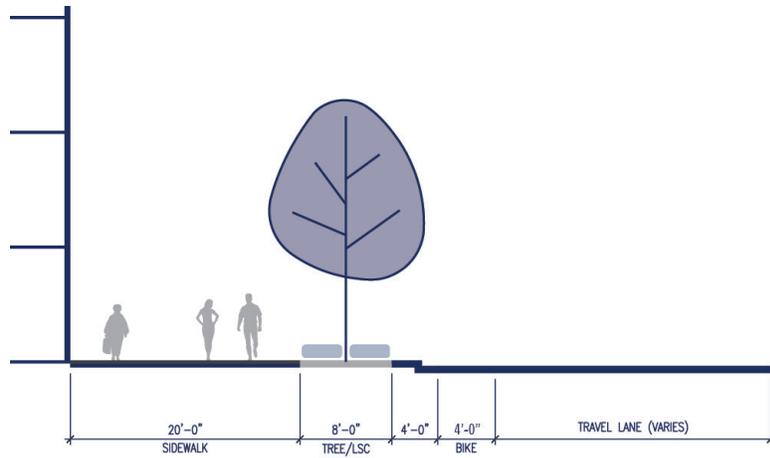


Figure 16.35. Campus Edge - Active Major

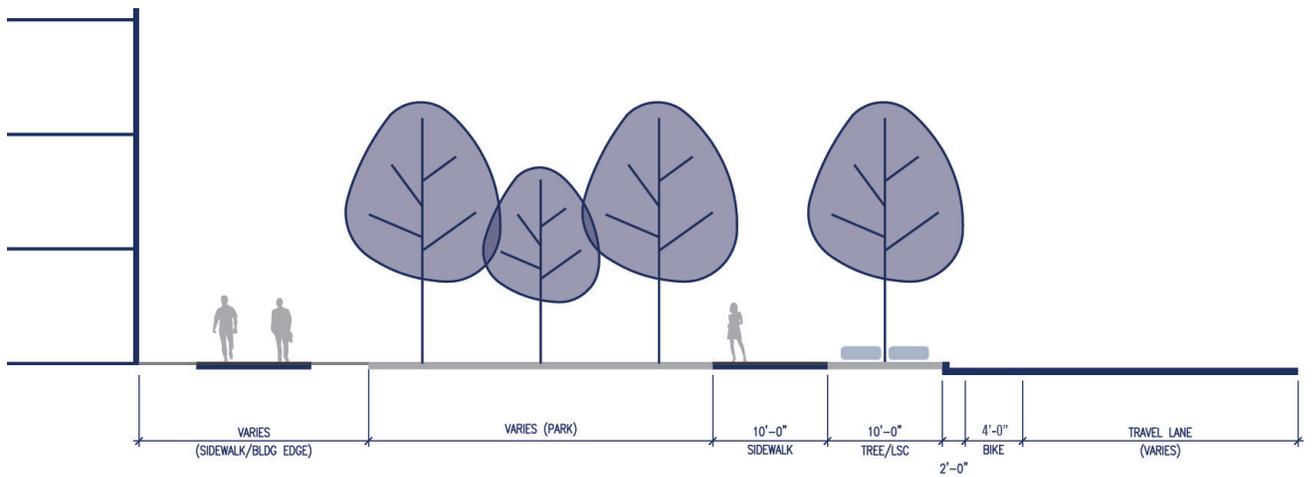


Figure 16.36. Campus Edge - Active Minor

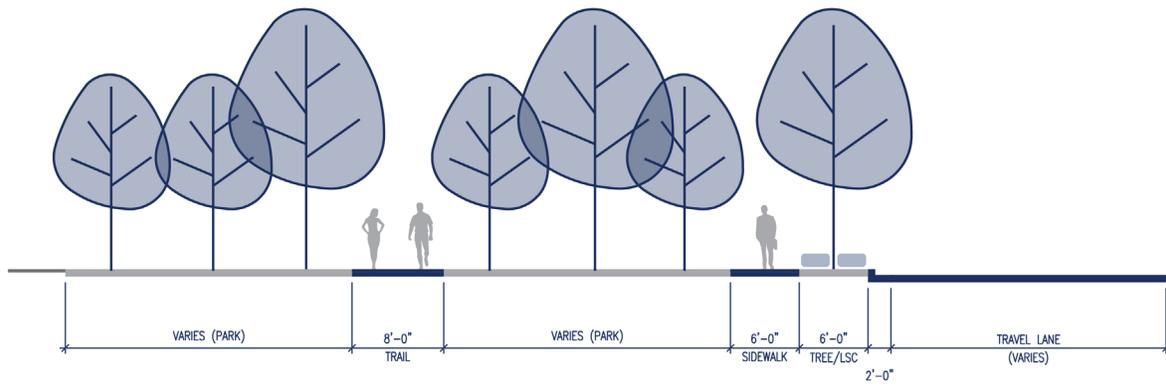


Figure 16.37. Campus Edge - Passive Major

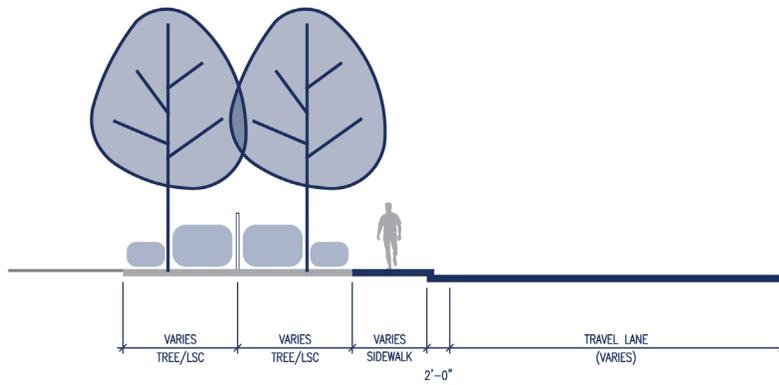


Figure 16.38. Campus Edge - Passive Minor

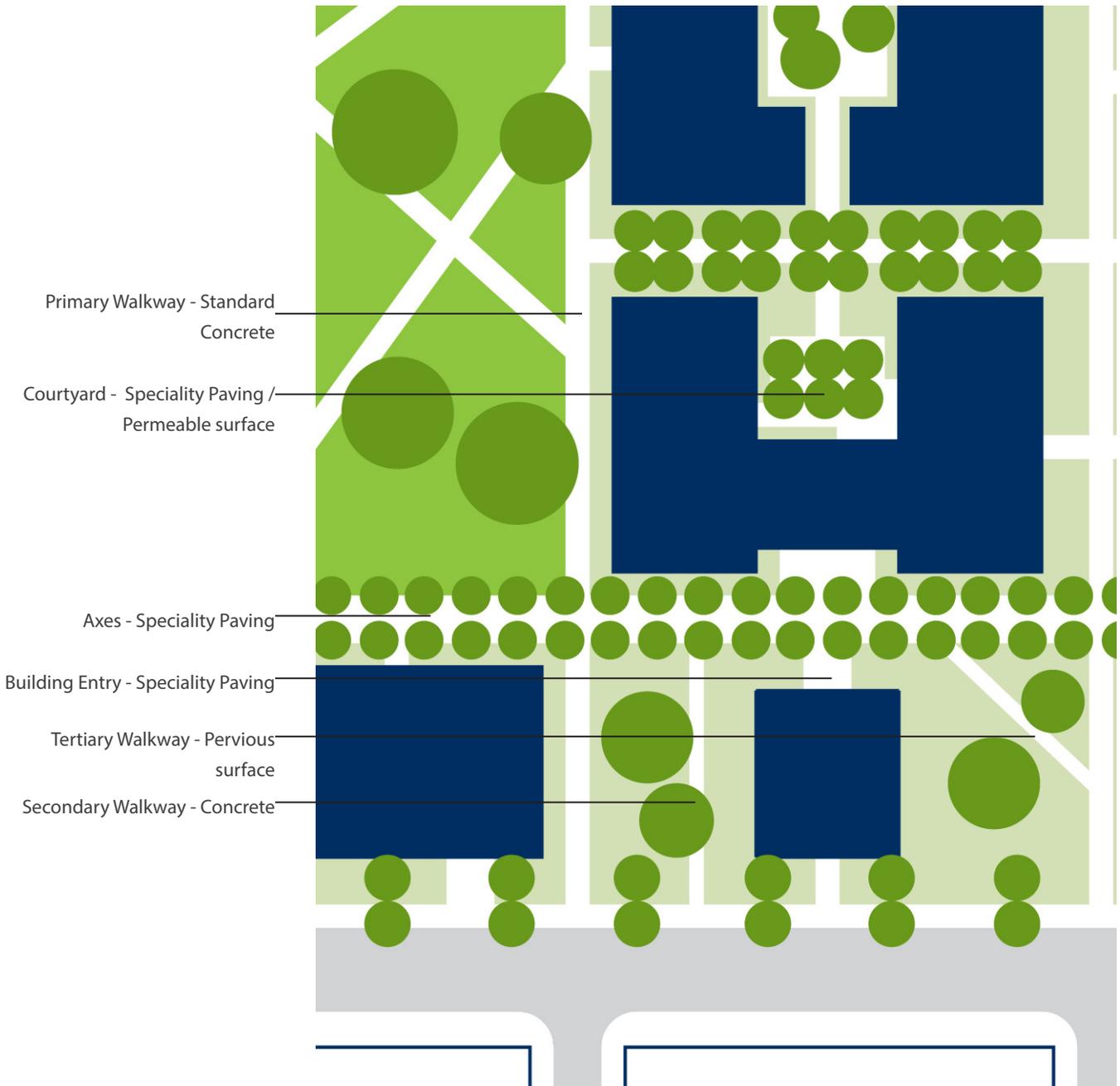


Figure 16.39. Walkway Types

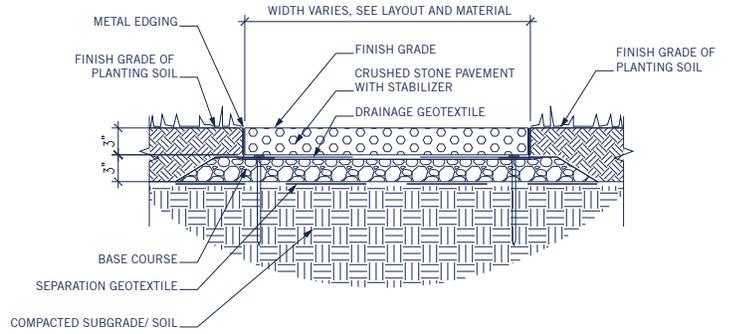
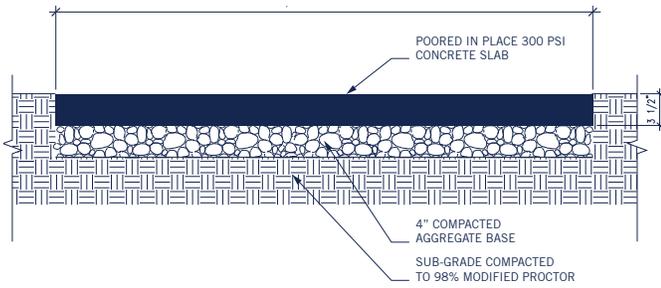


Figure 16.40. Type -Primary & Secondary Walkway



Figure 16.41. Type - Tertiary Walkway

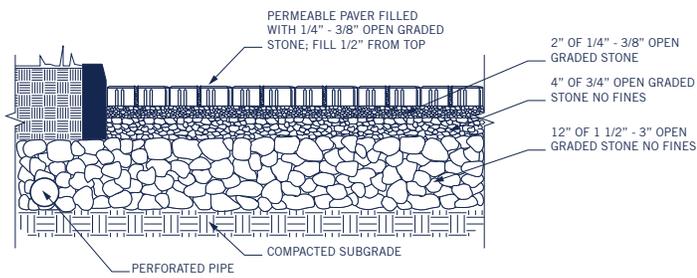


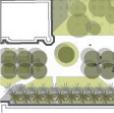
Figure 16.42. Type - Pervious Paving



Figure 16.43. Standard Pedestrian Light



Figure 16.44. Standard Wayfinding Signage

Landscape Type	Campus Space					Campus Street		
Sample Plant Selection:								
Scientific Name	Quad	Promenade	Plaza	Courtyard	Special Purpose Landscape	Parkway	Mainstreet	Secondary Street
Common Name								
<b>TREES</b>								
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 mahogany* Mahogany								
<b>FLOWERING TREES</b>								
Bombax ceiba Red Silk-Cotton								
Bulnesia arborea Vera Wood								
Caesalpinia granadillo Bridalveil								
Jacaranda acutifolia Jacaranda								
Tabebuia caraiba Silver Trumpet								
Cordia boissieri White Geiger								
Cordia sebestena Orange Geiger								
Peltophorum pterocarpum Yellow Poinciana								
<b>PALMS</b>								
Acoelorrhaphes wrightii* Paurotis Palm								
Bismarckia nobilis* Bismarck Palm								
Cocos nucifera** Coconut Palm								
Ptychosperma elegans Alexander Palm								
Roystonea elata Royal Palm								
Thrinax radiata* Thrinax Palm								
Thrinax morrisii* Key Thatch Palm								
Veitchia montgomeryana Montgomery Palm								
<b>SHRUBS</b>								
Callicarpa americana Beauty Bush								
Capparis cynophallophora Jamaica Caper								
Chrysobalanus icaco* Cocoplum								
Galphimia gracilis Thryallis								
Ilex cassine Dahoon Holly								
Ilex vomitoria Yaupon Holly								
Myrcianthes fragrans var. simpsonii Simpson Stopper								
Myrsine guianensis Myrsine								

\* (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)

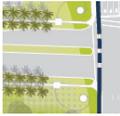
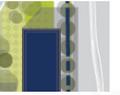
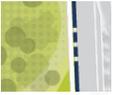
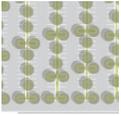
Figure 16.45. Materials Matrix

Landscape Type Sample Plant Selection:  Scientific Name Common Name	Campus Space				Special Purpose Landscape	Campus Street		
	Quad	Promenade	Plaza	Courtyard		Parkway	Mainstreet	Secondary Street
<b>SHRUBS CON'T</b>								
Myrica cerifera Wax Myrtle								
Muhlenbergia capillaris Pink Muhly Grass								
Pennisetum setaceum 'Rubrum' Purple Fountain Grass								
Psychotria undata Wild Coffee								
Raphiolepis indica Indian Hawthorne								
Rosemarinus officinalis Rosemary								
Scaevola pumieri* Inkberry								
Strelitzia reginae Bird of Paradise								
Tripsacum dactyloides Fakahatchee Grass								
<b>GROUNDCOVERS</b>								
Borrchia frutescens** Sea Oxeye Daisy								
Ernodea littoralis var. littoralis** Beach Golden Creeper								
Evolvulus glomerata Blue Daze								
Hemerocallis spp. Daylily								
Hymenocallis latifolia* Spider Lily								
Lantana depressa Pineland Lantana								
Lantana montevidensis Weeping Lantana								
Liriope spp. Lily Turf								
Stenotaphrum secundatum St. Augustine Turf								
Tulbaghia violacea Society Garlic								
Vinca minor Periwinkle								
Zamia pumila Coontie								
<b>VINES</b>								
Bougainvillea spp.* Bougainvillea								
Ficus pumila Creeping Fig								
Ipomoea spp.** Beach Morning Glory								
Trachelospermum jasminoides Confederate Jasmine								

\* (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)

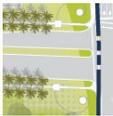
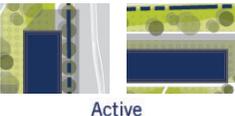
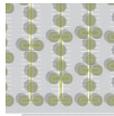
Figure 16.46. Materials Matrix

Landscape Type	Campus Street (Con't.)		Campus Edge				Other
Sample Plant Selection:							
Scientific Name	Gateway	Traffic Circle	Active		Passive		Parking Lot
Common Name			Major	Minor	Major	Minor	
<b>TREES</b>							
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							
<b>FLOWERING TREES</b>							
Bombax ceiba Red Silk-Cotton							
Bulnesia arborea Vera Wood							
Caesalpinia granadillo Bridalveil							
Jacaranda acutifolia Jacaranda							
Tabebuia caraiba Silver Trumpet							
Cordia boissieri White Geiger							
Cordia sebestena Orange Geiger							
Peltophorum pterocarpum Yellow Poinciana							
<b>PALMS</b>							
Acoelorrhaphe wrightii* Paurotis Palm							
Bismarckia nobilis* Bismarck Palm							
Cocos nucifera** Coconut Palm							
Ptychosperma elegans Alexander Palm							
Roystonea elata Royal Palm							
Thrinax radiata* Thrinax Palm							
Thrinax morrisii* Key Thatch Palm							
Veitchia montgomeryana Montgomery Palm							
<b>SHRUBS</b>							
Callicarpa americana Beauty Bush							
Capparis cynophallophora Jamaica Caper							
Chrysobalanus icaco* Cocoplum							
Galphemia gracilis Thryallis							
Ilex cassine Dahoon Holly							
Ilex vomitoria Yaupon Holly							
Myrcianthes fragrans var. simpsonii Simpson Stopper							
Myrsine guianensis Myrsine							

\* (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)

Figure 16.47. Materials Matrix

Landscape Type	Campus Street Cont'd		Campus Edge				Other
Sample Plant Selection:							
Scientific Name			Active		Passive		
Common Name	Gateway	Traffic Circle	Major	Minor	Major	Minor	Parking Lot
<b>SHRUBS CON'T</b>							
Myrica cerifera Wax Myrtle							
Muhlenbergia capillaris Pink Muhly Grass							
Pennisetum setaceum 'Rubrum' Purple Fountain Grass							
Psychotria undata Wild Coffee							
Raphiolepis indica Indian Hawthorne							
Rosemarinus officinalis Rosemary							
Scaevola pumieri* Inkberry							
Strelitzia reginae Bird of Paradise							
Tripsacum dactyloides Fakahatchee Grass							
<b>GROUNDCOVERS</b>							
Borrichia frutescens** Sea Oxeye Daisy							
Ernodea littoralis var. littoralis** Beach Golden Creeper							
Evolvulus glomerata Blue Daze							
Hemerocallis spp. Daylily							
Hymenocallis latifolia* Spider Lily							
Lantana depressa Pineland Lantana							
Lantana montevidensis Weeping Lantana							
Liriope spp. Lily Turf							
Stenotaphrum secundatum St. Augustine Turf							
Tulbaghia violacea Society Garlic							
Vinca minor Periwinkle							
Zamia pumila Coontie							
<b>VINES</b>							
Bougainvillea spp.* Bougainvillea							
Ficus pumila Creeping Fig							
Ipomoea spp.** Beach Morning Glory							
Trachelospermum jasminoides Confederate Jasmine							

\* (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)

Figure 16.48. Materials Matrix

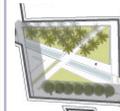
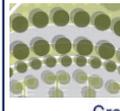
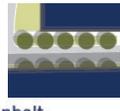
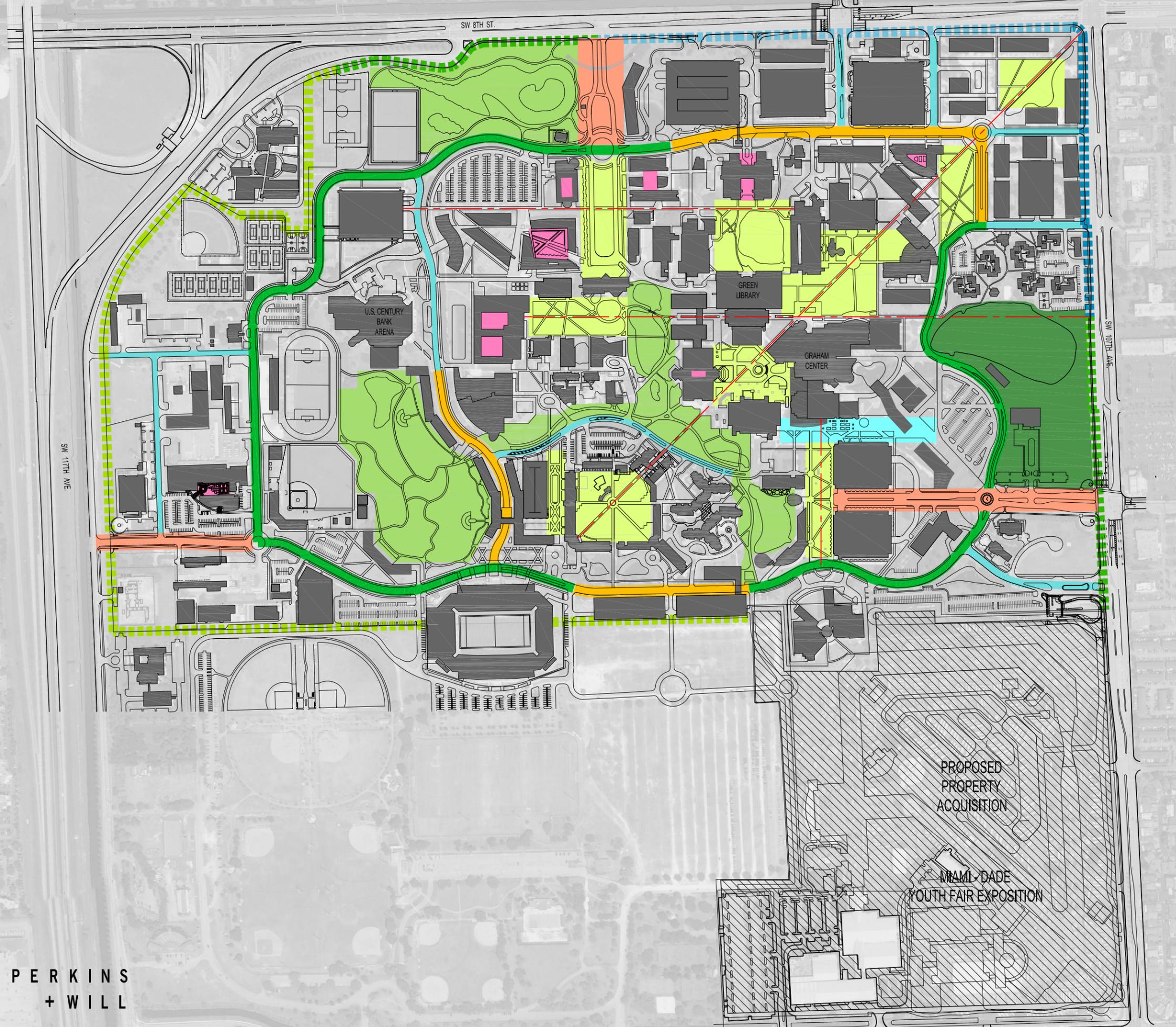
Landscape Type	Campus Space					Campus Street		
Elements	 Quad	 Promenade	 Plaza	 Courtyard	 Special Purpose Landscape	 Parkway	 Mainstreet	 Secondary Street
<b>HARDSCAPE</b>								
 Concrete						Both Sides	Both Sides	
 Colored Concrete								
 Concrete Paver								
 Stone								
 Stone Mulch								
 Special Paver								
<b>SITE FURNISHINGS</b>								
 Bench								
 Trash Receptacle								
 Wayfinding								
 Bicycle Racks								
<b>LIGHTING</b>								
<b>Pedestrian</b>								
 Path Light								
 Wall Light								
 Globe Light								
<b>Vehicular</b>								
<b>ART</b>								
Special Features					President's Garden			

Figure 16.49. Materials Matrix

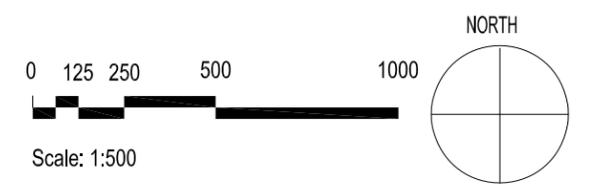
Landscape Type	Campus Street Con't		Campus Edge				Other
Elements	Gateway	Traffic Circle	Active		Passive		Parking Lot
	Major	Minor	Major	Minor	Major	Minor	
<b>HARDSCAPE</b>							
Concrete	Both Sides	Both Sides					
Colored Concrete							
Concrete Paver							
Stone							
Stone Mulch							
Special Paver							
<b>SITE FURNISHINGS</b>							
Bench							
Trash Receptacle							
Wayfinding							
Bicycle Racks							
<b>LIGHTING</b>							
Pedestrian							
Path Light							
Wall Light							
Globe Light							
Vehicular							
<b>ART</b>							
Special Features							

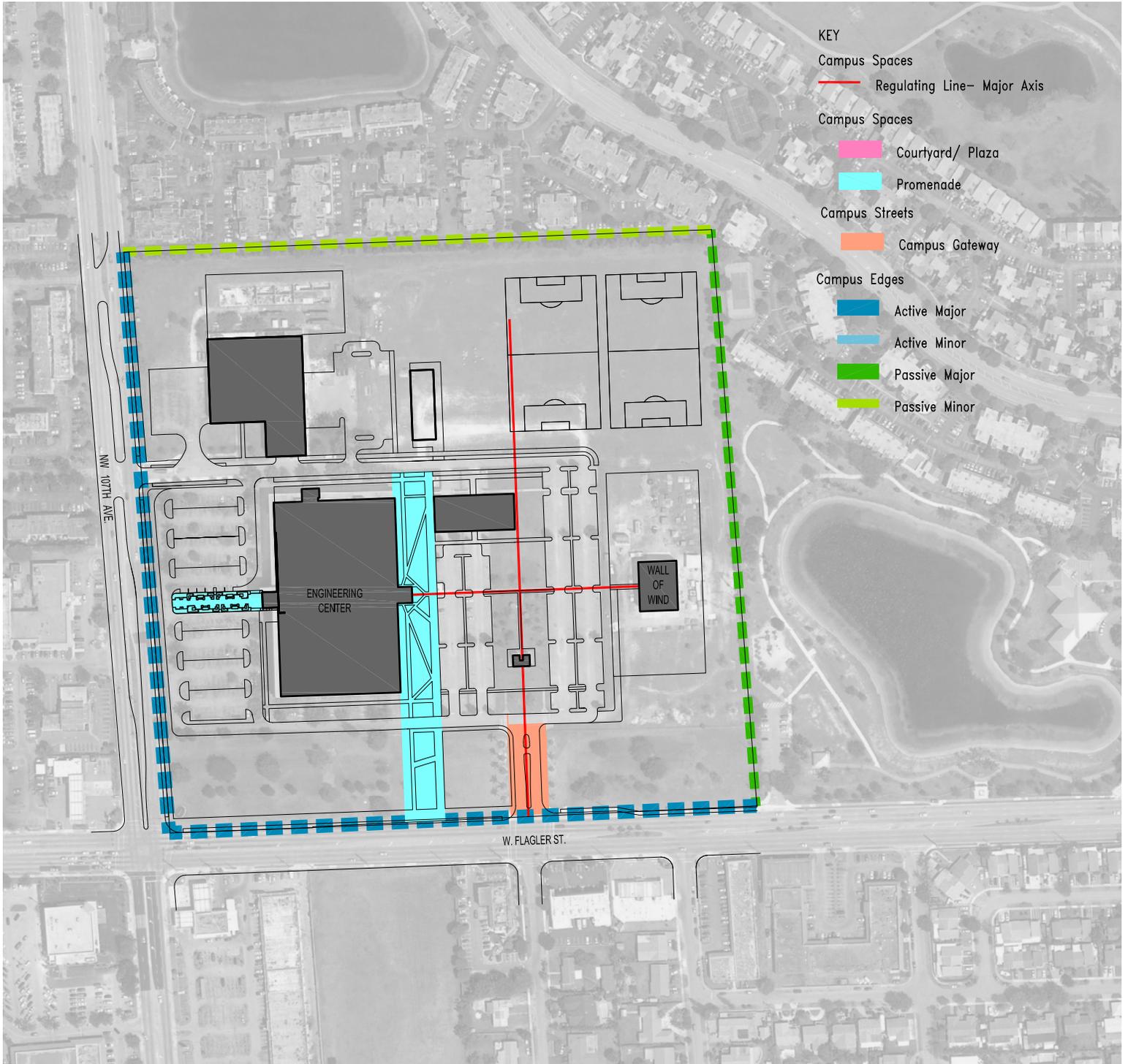
Figure 16.50. Materials Matrix

- KEY**
- Campus Spaces
- Regulating Line— Major Axis
- Campus Spaces
- Quads
  - Courtyard/ Plaza
  - Promenade
- Special Purpose Landscape
- Teaching and Research
  - Garden
- Campus Streets
- Campus Gateway
  - Campus Greenbelt – Parkway
  - Campus Greenbelt – Main Street
  - Secondary Street
- Campus Edges
- Active Major
  - Active Minor
  - Passive Major
  - Passive Minor

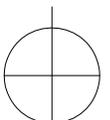


ELEMENT 16.1: LANDSCAPE DESIGN  
MODESTO A. MAIDIQUE CAMPUS





ELEMENT 16.2: LANDSCAPE DESIGN  
ENGINEERING CENTER





- KEY**
- Regulating Line- Major Axis
  - Campus Spaces**
    - Quads
    - Courtyard/ Plaza
    - Promenade
  - Special Purpose Landscape**
    - BayWalk
    - GreenSpine
    - Preserve
  - Campus Streets**
    - Campus Gateway
  - Campus Edges**
    - Active Major
    - Active Minor
    - Passive Major
    - Passive Minor

**ELEMENT 16.3: LANDSCAPE DESIGN  
BISCAYNE BAY CAMPUS**