ELEMENT 16 **LANDSCAPE DESIGN**

Goal 1

To establish an overall landscape character and structure that provides:

- Significant shade through extensive tree canopy and micro-climates;
- A sense of place and identity through the creation of significant open spaces and quadrangles;
- A showcase for native, indigenous, and drought tolerant plant material;
- A landscape that is low in maintenance and enduring over time;
- An environment that is coherent, comfortable, and human scaled; and
- An overall conceptual framework for development of landscape elements on the campus (a landscape concept plan).

Objective 1A

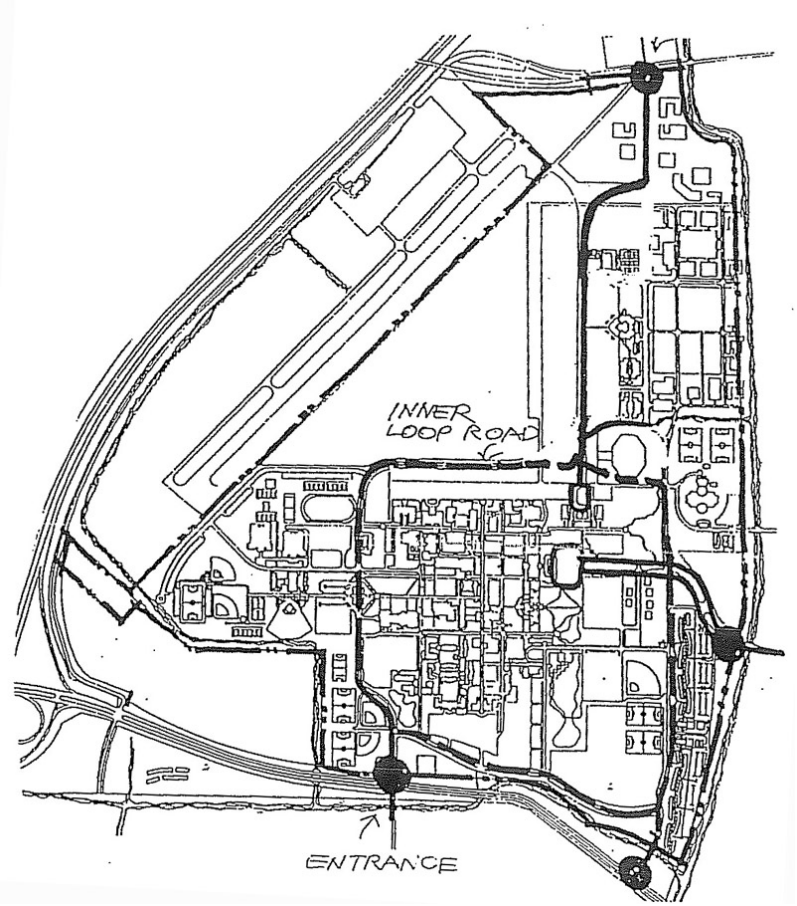
To establish structure and clarity to vehicular circulation routes by utilizing landscape treatment, on the internal circulation routes, and on the approaches to the University, existing and proposed. The landscape treatment shall consider reinforcement of vehicular corridors, image, views, and landmarks.

Policy 1A-1

Vehicular circulation routes shall be categorized into four distinct areas (See **Figure 16.1**):

1. Main campus entrances at Glades Road and Broward Avenue, Glades Road and NW 13th Street, the NW 20th Street entrance from NW 4th Avenue, and the Florida Atlantic Boulevard entrance at Spanish River Road.
2. The interior loop road, consisting of Florida Atlantic Boulevard to the east, Indian River Street to the south, Broward Avenue to the west, and Lee Street to the north of the campus core.
3. The Florida Atlantic Boulevard connection from Spanish River Road southward to the loop road.
4. Interior streets, minor roads, and special access lanes.

Figure 16.1 Circulation Diagram



<u>Objective 1B</u> - Main Entrances to the Campus
To substantially enhance and beautify the landscape treatment of the entrances to create significant entrances commensurate with a University, and to create a memorable front door image.

Policy 1B-1

The main vehicular entrances: Broward Avenue and NW 13th Street from Glades Road, NW 20th Street from NW 4th Avenue, and Florida Atlantic Boulevard from Spanish River Road shall be appropriately reinforced with landscape and architectural features to signify entrance and arrival. Landscape treatment for these entrances shall be significant and imposing. Entrance walls, monumentation, graphics, and colors shall be in scale with a major institution. The landscape elements shall be bold and simple in arrangement, massing, and alignment.

Policy 1B-2
For the Glades Road entrances, Royal Palms or Medjool Palms shall formally line a portion of the arterial frontage and continue into the campus up to the rotaries.

Policy 1B-3
The Florida Atlantic Boulevard entrance from Spanish River Road shall have Royal or Medjool Palms continue into the campus for approximately two hundred feet. The landscape treatment at this entry shall have to be coordinated with the development of the F.A.U. Research and Development Park.

Policy 1B-4
The formal, regular spacing of the Palm trees at the entries shall be reinforced with canopy trees, and have a backdrop of indigenous vegetation massing. Consideration shall be given to view corridors, alignment, points of reference, and screening where appropriate. Consideration shall also be given to the creation of water or lake features to create identity and significance at the main entrances.

Policy 1B-5
At the Glades Entrance at Broward Avenue, consideration shall be given for an architectural entry element in association with a water feature.

Policy 1B-6
The landscape treatment for the NW 20th Street entrance shall be redesigned with the realignment of the bridge connection to Palm Beach Plaza. The forecourt in front of the Administration Building, with the eight (8) large existing Ficus trees, shall remain as landmark specimens. Consideration shall be given for removing the two (2) Rusty Fig trees directly in front of the main entrance of the Administration Building. Although they are mature, specimen quality material, they are visually obstructive for views of and from the focal Administration Building.

Policy 1B-7
The redesign of NW 20th Street shall consist of a formal, regular spacing of Live Oak trees lining both sides of the approach boulevard. The spacing of the Live Oak trees shall be 40’ on center. The central median of the boulevard shall be simply treated as a lawn area with a slight, consistent linear berm to suggest some topographic relief and fullness to the median. The existing Ficus trees, Coconut Palms and Canary Island Palms shall be relocated to other campus areas as feasible. The ground plane treatment of grass in the median and parkway verges shall be St. Augustine sod throughout the length of the boulevard for consistency and image.

Policy 1B-8

There shall be coordination efforts with the City of Boca Raton to extend this streetscape treatment to U.S. #1 so that there is a strong landscape connection to the city. Emphasis shall also be placed on the extension of sidewalks, bicycle ways, signage and lighting.

Objective 1C - Inner Traffic Loop

To develop an Inner Traffic Loop that serves as a significant point of reference, as a primary collector and organizer of circulation, and as a visual landmark reference.

Policy 1C-1

The Inner Traffic Loop, consisting of Florida Atlantic Boulevard to east, Indian River Street to the south, Broward Avenue to the west, and Lee Street to the north of the campus core, shall be developed (where needed) as a four lane divided boulevard that serves as the main circulation corridor for the campus and which defines the "Campus Core."

Policy 1C-2

To the inside of the Inner Traffic Loop, consistent with the three zone landscape concept (later described in Section G, Planting), the tree planting treatment will have an open character inward toward the campus core for visibility and reference. Placement of trees shall be informal and shall vignette into adjacent landscape areas. The dominant canopy tree for this inward side of the loop road shall be Live Oak Trees (75%). The balance shall consist of other native and/or indigenous trees and palms, e.g. Sabal Palms.

Policy 1C-3

A bikeway/pedestrian walkway shall be provided parallel to the Inner Traffic Loop, but may, on occasion, diverge to amenity areas such as lakes or open space areas of interest.

Policy 1C-4

The ground plane treatment along the Inner Traffic Loop shall consist of either Bahia or St. Augustine grass depending upon adjacent use.

Policy 1C-5

To the outward side of the Inner Loop Road, the landscape treatment shall consist of replicating a Pines Flatwood and Oak Hammock plant community. The intensity of landscape in this area is greater and serves to create a perimeter landscape enframement. This pattern of informal groupings of canopy trees and/or palms shall remain consistent, except at entrances, intersections and significant view corridors. There shall be a dominance of Live Oak trees in a zone of about 100' paralleling the pavement edge. The spacing of Oak trees shall range from 30 to 50' with an average informal spacing of 40' on center. The intent is to suggest a Live Oak boulevard that works together with the informal, but random cluster of Live Oak trees on the campus core area. Live Oak trees shall constitute 75% of the total number of trees; the balance being a mix of other relative trees and palms.

Policy 1C-6

In areas where land area is limited between the Loop Road and Campus boundaries, the landscape treatment of these land use areas shall be more intensively landscaped with indigenous material to create a dense buffer.

Figure 16.2 Conceptual Entrance Sketch

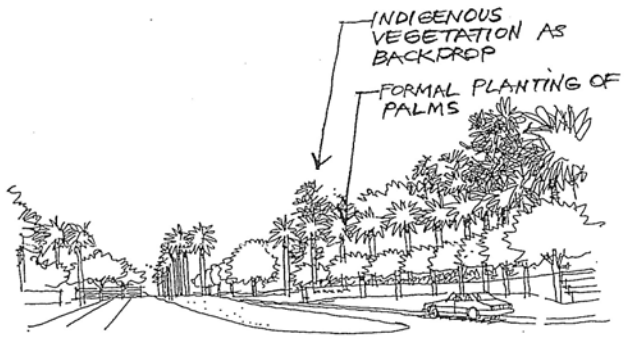
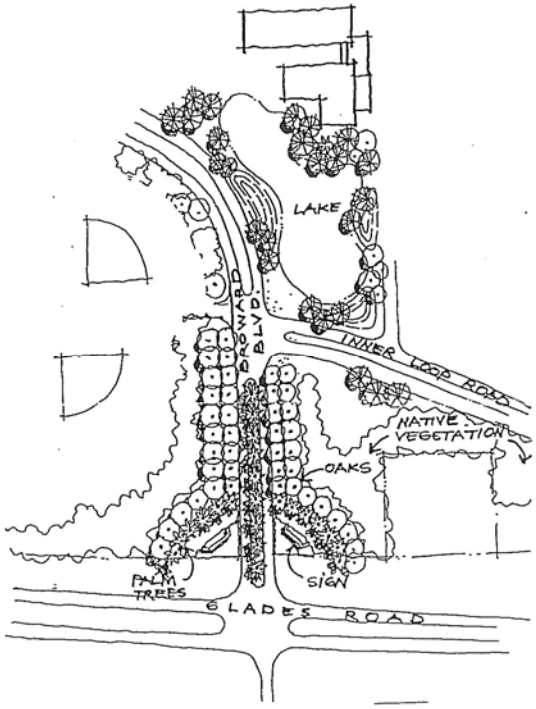


Figure 16.3 Conceptual Entrance Plan, Glades Road at Broward Avenue



<u>Objective 1D</u> - Florida Atlantic Boulevard and St. Lucie Avenue to create strong vehicular connections for the north campus through the use of geometric spacing of trees within a limited right-of-way.

Policy 1D-1

Florida Atlantic Boulevard and St. Lucie Avenue shall be four lane divided boulevards that are formally lined with equally spaced Live Oak trees, forty (40') feet on center, planted on either side within the green verge areas. The boulevard medians shall be slightly mounded and planted with St. Augustine sod or indigenous dwarf grass (e.g. Dwarf Fakahatchee Grass).

Policy 1D-2

Consideration shall be given for an appropriate landscape treatment to terminate the view axis of St. Lucie Avenue at the southern "T" intersection of Lee Street. The landscape treatment shall reinforce the architectural space envisioned with the new buildings proposed for this strategic location.

<u>Objective 1E</u> - Interior and Secondary Streets
To enhance interior and secondary streets on campus.

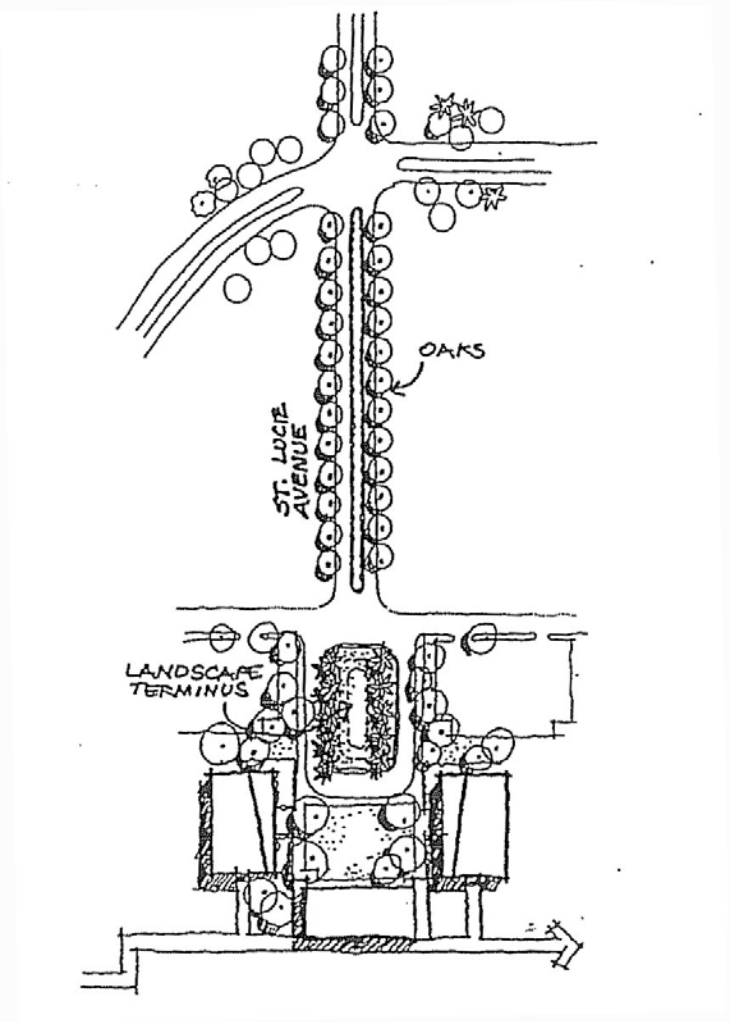
Policy 1E-1

Streets within the Loop Road and serving the Campus Core (i.e. Dade Avenue) shall have a single row of regularly spaced canopy trees (such as Live Oak or Gumbo Limbo, etc.) along both sides of the street and continuing for the entire length of the street. Recommended is the use of a singular species for each street with a spacing of 30'-40' on center. There may be different species for different streets, but mixing species within any particular street is discouraged. The trees shall be regularly spaced in a consistent alignment to distinguish them from adjacent landscape treatment and to reinforce the vehicular corridors. The ground plane shall be predominantly sod, with low maintenance groundcovers or native shrub areas at special points or entrances, if appropriate.

Policy 1E-2

Palm Beach Avenue, leading to the Dorothy F. Schmidt Center for Arts and Letters, and the proposed street eastward from the Center, shall be lined with formally spaced rows of Washingtonia Robusta palm trees consistent with the existing planting.

Figure 16.4 Conceptual Landscape Plan for St. Lucie Avenue



<u>Objective 1F</u> - Minor and Service Roads
To enhance minor roads and service roads on campus.

Policy 1F-1

Streets that serve secondary support services such as those serving the Maintenance facilities and the "T" Buildings, and that are not directly connected to educational facilities, shall be landscaped in an informal manner. The primary intent shall be to locate a variety of canopy trees adjacent to the street to provide adequate shade and to suggest a landscaped vehicular corridor. This informal arrangement shall differ from the formal and regular spacing of other streets serving the campus.

Policy 1F-2

Service bays and loading dock areas shall be adequately screened with walls and/or landscape treatment to minimize the visual impact on public areas.

Objective 1G

To enhance and qualify Internal Emergency Access Lanes, Access to Special Parking Areas and Service Access Areas.

Policy 1G-1

The landscape treatment of these access areas within campus shall be understated and subservient to the adjacent landscape context. Considerations shall be given to screening and buffering where appropriate. Service drives that are essentially wide sidewalks and intended only for maintenance or emergency vehicles and pedestrian traffic, are considered walkways and will be dealt with under that category.

Objective 1H - Parking Lots

To enhance, beautify, and shade parking facilities on campus and to minimize the barren, airstrip character of existing parking areas.

Policy 1H-1

Minimally, the large existing parking area shall be softened by the introduction of some pockets of landscape which shall serve to break up the expansive pavement areas, create visual relief, and provide shade. Landscape additions shall be through:

a. Cutting large pockets in the central field of the parking area to create islands of landscape.
b. Creating a separation between the existing circulation routes where they abut parking area pavement for a green verge.

Policy 1H-2

At the termination of the Covered Pedestrian System and through the existing parking areas, the linear alignment of the pedestrian system shall be extended into the parking areas by creating a landscape corridor. This corridor shall consist of a pedestrian walkway that follows the linear alignment of the Breezeway. On either side of this walkway there shall be cut out of the existing pavement a landscape area of twenty (20') feet in width. The total landscape corridor shall be fifty (50') feet (20' landscape area, 10' pavement, 20' landscape). A formal colonnade of Live Oak trees, equally spaced, thirty (30') feet on center, shall be planted within both of the landscape strips to provide an extension of the covered walkway system through the use of landscape and to provide comfortable shade cover.

Policy 1H-3

In areas where the parking lots are contiguous and undifferentiated with roadways, there shall be a minimum twenty (20') feet wide landscape zone that separates the roadway from the parking lot. Informally spaced canopy trees shall be planted in this zone, with an average spacing of thirty (30') feet. Live Oak trees shall represent seventy-five (75%) percent of the total number of trees in this zone.

Policy 1H-4

Within these landscape zones, there shall be linear berms, sod and hedges, or low native shrub material to off-set the barren airstrip quality of the parking lot and perimeter zone of the University in general.

Policy 1H-5

In the landscaped areas within existing runway areas, the compacted base shall be removed and replaced with topsoil to allow sufficient drainage for healthy plant growth.

Policy 1H-6

New parking lots shall have adequate tree canopy to provide shade and soften the expansive parking areas.

Policy 1H-7

Landscape requirements for new parking lots shall have a mandatory terminal island at each row of parking spaces which measures not less than ten (10') feet in width and not less than eighteen (18') feet in length. At least one (1) tree shall be planted in each terminal island. The maximum number of parking spaces between terminal or interim islands shall be no more than 20 (twenty).

Policy 1H-8

Optional divider medians may be provided to form a continuous landscaped strip between abutting rows of parking spaces. The minimum width of a divider median shall be five feet. One (1) tree shall be planted for each forty (40) linear feet of divider median, or fraction thereof.

Policy 1H-9

All interior landscaped areas not dedicated to trees or to preservation of existing vegetation shall be landscaped with pervious pavers consistent with FAU approved standards.

Policy 1H-10

As an alternative to the optional divider median, there shall be landscaped islands that are a minimum dimension of thirty (30') feet x forty (40') feet, equivalent to the area of six parking spaces, that are equally distributed over the parking area at a ratio of one landscaped island for every sixty parking spaces. A minimum of two (2) to three (3) trees shall be planted in each island surrounded by pervious pavers. The design intent of the landscaped islands is to create shade canopy and visually soften the parking areas, but minimize maintenance problems associated with divider medians, overhanging car bumpers, accessibility, etc. In all cases,

terminal islands shall be required, and internal plantings shall either be with internal medians and divider medians, or with landscaped islands.

Policy 1H-11

The alignment of parking bays shall consider pedestrian desire lines wherever feasible, so that the direction of pedestrian traffic is through travel lanes and not through parking bays.

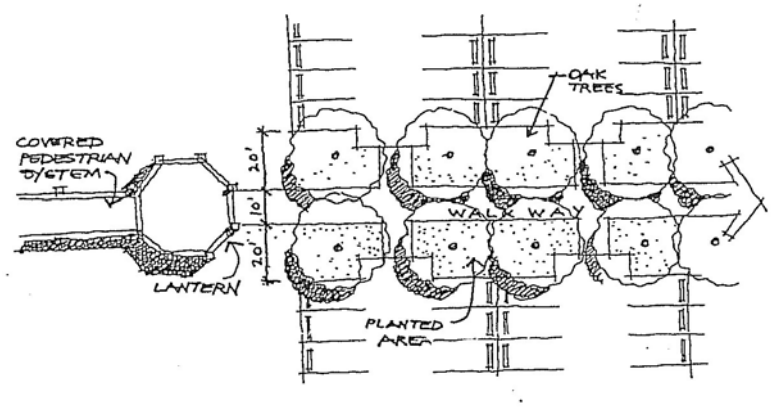
Policy 1H-12

There shall be a perimeter landscape zone around all parking lots with a minimum width of fifteen (15') feet. This perimeter landscape strip shall be continuous except where it is interrupted by driveways.

Policy 1H-13

Parking areas shall be designed to allow the channelization of pedestrian traffic to covered pedestrian connections and main desire lines.

Figure 16.5 Pedestrian Corridor Through Existing Parking Area



<u>Objective 1I</u>

The objective for the treatment of Pedestrian Circulation Routes is to reinforce and extend the existing covered Breezeway system which is the main sheltered pedestrian circulation system. The Breezeway is the armature which give the urban design structure to the campus. The buildings connect and relate to the Breezeway system and the two in turn serve to articulate quadrangles and spaces. The Breezeway system represents the main circulation corridors within the campus. All other circulation systems are subservient to this main structure and shall be complementary. The existing Breezeway system is also intersected with wide walkways which are the layout for the underground utility tunnel system. These extend to most of the Academic Core buildings that are not directly connected to the Breezeway.

Policy 1I-1

The wide walkways shall augment the expanded Breezeway system and link smaller walkways leading between buildings and newer infill buildings, service drives, service areas, and plazas. New development and connections shall continue this network and grid walkway system.

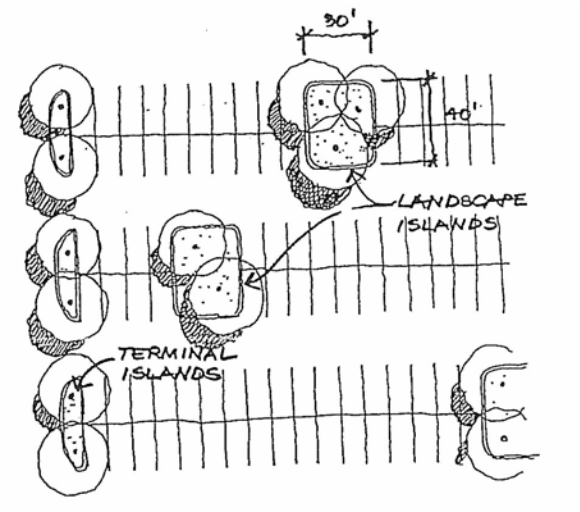
Policy 1I-2

Diagonal walkway connections across Quadrangles and large green areas shall be constructed to connect “desire line” traffic to improve efficiency of pedestrian flow and decrease wear paths across lawn and planting areas. The Breezeway and perpendicular walkway system also serves to establish a quadrangle or courtyard system. The location of new walkway systems shall not only respond to desire lines but serve to articulate quadrangles and differentiate between shrub and lawn areas.

Policy 1I-3

The main framework for pedestrian circulation is the Breezeway and it shall be expanded in several ways. The first includes an expansion of the structure itself out to new buildings and future expansion corridors.

Figure 16.6 Landscape "Island" Concept for New Parking Areas



Policy 1I-4

At the end of the Breezeway extensions, architectural pavilions (Lanterns) shall terminate the covered walkway system. The Lanterns shall serve as beacons and pedestrian gateways from parking and perimeter areas to the central campus core. Landscape treatment shall reinforce and respect visual site lines to the Lanterns.

Policy 1I-5

Uncovered walkways that extend beyond the Lanterns shall be planted with canopy trees on both sides to create shade and to extend the Breezeway concept.

Policy 1I-6

For all pedestrian circulation areas, there shall be established a consistency of materials and dimensions. The entire campus shall be unified by a common palette of materials. Concrete shall be the dominant base walkway material. Details in terms of scoring, expansion joints, tooling, and finish shall be consistent and uniform. Special materials, patterns, banding, etc. may be used to articulate major pedestrian activity nodes, gathering spaces, squares and plazas. Entrances to each building shall be understated and expressed in concrete. A multiplicity of paving materials, patterns, colors, and modules is discouraged. Coherence shall be established with a uniform vocabulary and consideration shall be given to the overall campus as a whole rather than individual building expression. The materials and palette shall be established by specific guidelines. The width of the pedestrian circulation routes shall vary and be established by hierarchy, usage and urban design considerations.

Objective 1J - Bicycle Storage Areas
To standardize bicycle facility style and placement on campus for aesthetic enhancement and ease of use.

Policy 1J-1

Additional bicycle usage shall be encouraged by conveniently locating bicycle parking facilities (bike racks) in sufficient numbers. Bicycle racks shall be standardized in order to achieve overall simplicity and uniformity. Selection of the standardized bicycle rack shall be based on efficiency, durability, ease of use, security to bicycles, low maintenance, and accessibility. The location of bicycle facilities shall be convenient to academic and housing facilities, but not immediately in front of building and main entrances. Bicycle facilities shall not intrude upon quadrangle and other open spaces in a visually negative manner. Bicycle facilities shall be conveniently, but unobtrusively located to main entrances in a safe and protected area.

Policy 1J-2

Landscape treatment of bicycle parking areas shall consist of canopy trees and low hedges for shade and screening as needed. Adequate visual penetration shall be required for security reasons; visual screening of bike rack areas shall be minimal, and canopy trees for shade shall be the priority.

Objective 1K - Bus Shelters
To improve the function and aesthetics of public transportation shelters.

Policy 1K-1

Shelters shall be large enough to accommodate a sufficient number of people, and shall be open sided to allow air circulation and flow of prevailing breezes. The bus shelters shall be safe, utilitarian, and understated, and shall be of sufficient canopy size to afford adequate protection from inclement weather and sun exposure. They shall not be, nor intend to be, major architectural statements. The shelters, regardless of area of canopy or capacity, shall be of the same architectural design. Landscape treatment around the bus shelters shall provide for adequate shade canopy and shall consider issues of safety and clear visibility, not only to see approaching buses but into and around the shelter.

Objective 1L - Emergency Access Areas
To improve and standardize Emergency Access Areas.

Policy 1L-1

Emergency and service generally share the same access areas. Emergency access is through internal service and parking lot areas and widened walkways that also function as service and maintenance access. Pedestrian corridors that also function as emergency corridors shall be cordoned with removable bollards or signs to discourage other mobile auto and service traffic, and to avoid conflict between pedestrians and unnecessary traffic. The design of emergency corridors shall consider required clearance (tree canopy and overhang), stabilized pavement/base, and turning radii of equipment.

Objective 1M - Planted Areas
A sense of place, a comfortable environment and a coherent landscape shall be established through planting and a landscape approach. The provision of additional landscape shall provide substantial tree canopy and shade.

Policy 1M-1

As a landscape and environmental statement, the campus shall be categorized into three distinct zones: the Perimeter Landscape Zone, the Transition Zone, and the Academic Core. All three zones shall have landscape that showcases indigenous and drought tolerant material that is indicative of the region and local plant communities. The three zones shall also emphasize the creation of a comfortable environment through significant tree canopy and shade. Collectively, the development of the three zone concept shall ensure a cohesive landscape aesthetic and expression that serves to create a unified and distinctive, as well as comfortable, environment.

Policy 1M-2 - The Perimeter Landscape Zone
The landscape of the perimeter of campus shall emphasize native and drought tolerant plant material and be indicative of an Oak Hammock plant community characterized by a dominance of Live Oak trees. The perimeter landscape shall also include plants that are associated with the Scrub Forest. The treatment of the Perimeter Landscape Zone:

- Shall be preserved in natural vegetation, exotics removed and the natural wildlife retained as a site for teaching and research.
- Shall replicate as much as possible a "natural" landscape that has a rich variety of canopy, mid-story, and undercover plant material.
- Shall encompass much of the undeveloped perimeter areas from the campus boundary to the Loop Road. This landscape zone shall include the southern areas along Glades Road, the triangle study zone north of Lee Street, and the boundary areas along the El Rio Canal, Spanish River Road, and the City of Boca Raton Water Treatment Plant.
- Shall create an overall landscape enframement, edge, and backdrop for the campus. at major campus entrances and at view corridors into the campus, the Perimeter Landscape expression shall be interrupted or expressed differently.
- Shall appear naturalized and be the least manicured of the three zones. Little or no irrigation shall be required due to the emphasis on native and drought tolerant plant material.
- Bahia grass, naturally occurring leaf mulch and/or undergrowth shall comprise the ground plane.

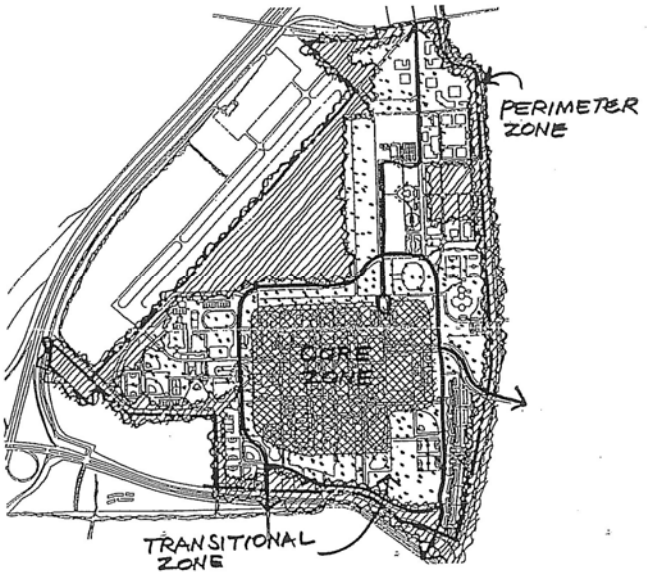
Policy 1M-3 - The Transitional Zone
The Transitional Zone shall be the area between the Loop Road and the concentrated development of the Core Area. This area accommodates large open green spaces, athletic facilities, parking areas and habitat zones for Burrowing Owls. The Transitional Zone shall be more open in character to allow views towards the campus core from the Loop Road. The landscape treatment of the Transitional Zone:

- Shall be dominated by Oak trees to reinforce the concept of shade and canopy.
- Shall have a scattering of informal groupings and placement of canopy trees that serve to transition the open areas and view corridors with the more densely vegetated Perimeter Landscape, and the more intensively developed Academic Core.

Policy 1M-4 - The Academic Core
The Academic Core is a high traffic, highly visible area. Much of the landscape approach shall be to showcase and highlight indigenous and drought tolerant plant material, although all plantings need not necessarily be indigenous or native. Ornamentals may be introduced to add variety and interest or to create special emphasis. Regardless, the planting concepts and the selection of plant material shall consider materials that are low maintenance and enduring over time. The landscape treatment in the Academic Core shall be:

- More manicured, articulated, and structured to respond to the higher pedestrian traffic and the need for closely viewed aesthetic plantings.
- The basic plant palette for the Academic Core shall be indigenous and drought tolerant plant material. However, the landscape design of the Academic Core shall have a variety of expression and not be limited to random or "naturalized/informal" plantings.

Figure 16.7 Conceptual Landscape Zones



Policy 1M-5

Within the Transitional Zone and Academic Core Zone areas, the following sub-categories shall have specific landscape/planting treatment:

ACADEMIC CORE SYSTEM

- Covered Pedestrian System
- Courtyards
- Quadrangles
- The Central Plaza
- Building Zone Planting

TRANSITIONAL ZONE

- Athletic Field Areas

Policy 1M-6 - The Covered Pedestrian System

Landscape treatment of the Covered Pedestrian System shall serve to reinforce and emphasize their location as an urban design element and major pedestrian corridor. The landscape shall also serve to soften the edges of the structure and mitigate their hard structural appearance. Consideration shall be given for a master plan study for the entire Covered Pedestrian System and its future additions. Elements worthy of analysis and recommendation are color of structure, lighting, graphics, materials, design, connections, gathering spaces, site furniture, kiosks, communication/information dissemination, sky lights, etc.

Landscape elements shall visually overlap into the pedestrian corridor under the Covered Pedestrian System. Currently, the aesthetic appearance under the Covered Pedestrian System is very hard; not unlike a freeway underpass. The introduction of landscape elements shall serve to greatly humanize and soften the structure. The landscape treatment adjacent to the Covered Pedestrian System shall follow the general character of the landscaped areas through which the Covered Pedestrian System connects. Therefore, different plants shall reinforce the Covered Pedestrian System based on landscape and open space context. However, in the Academic Core area, there shall be the following consistent landscape concepts for the Covered Pedestrian System:

a. There shall be a greater concentration of landscape immediately adjacent to the Covered Pedestrian System structure.

b. Landscape elements shall be any combination of large canopy trees; palms, small trees, shrubs, vines, groundcover and sod.

c. The intent is to introduce a variety of landscape elements that interface with the breezeway structure. As one walks through the Covered Pedestrian System, there shall be a variety of plant material and foliage that intrudes on the visual space.

Beyond the core area, where the Covered Pedestrian System reaches out to perimeter areas, palm trees as sentinels and visual landmarks (much like a hedgerow), shall be planted at equal intervals and coincident with the support column structure of Covered Pedestrian System structure for its entire length up to the Lantern. This treatment serves the macro-scale by signifying and highlighting the Covered Pedestrian System connection from a more distant view, i.e., from parking lots. The palms shall be a singular species such as Washingtonia or Sabal palms.

The termini of the Covered Pedestrian System, as expressed with the architectural Lanterns, shall be kept visually open and unobstructed by landscape to serve as portals and beacons.

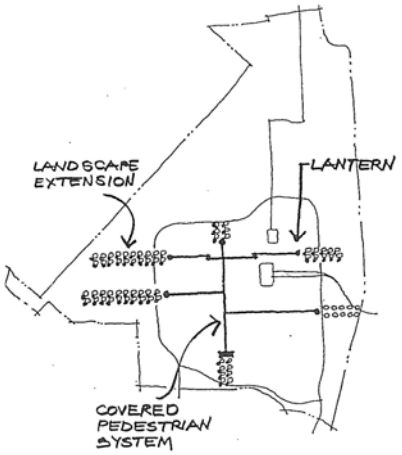
Beyond the Lanterns, the Covered Pedestrian System shall be further extended in concept with a colonnade of equally spaced Oak trees on either side of the walkway that extends the alignment of the Covered Pedestrian System to the perimeter of the campus core. The intent is to duplicate the Covered Pedestrian System effect and to provide a comfortable, shaded passageway from outer campus areas or from the parking lots.

Policy 1M-7 - Courtyards
Courtyards are secondary spaces as adjuncts to a building, clusters of buildings, or break- away spaces off the Covered Pedestrian System. Their relationship and use are for small informal gathering, meeting, and study spaces. The courtyards are also areas suitable for placement of the

vending machine kiosks, espresso and ice cream vendors, etc. Courtyard area landscape treatment:

- Shall provide a sense of enclose, enframement and refuge.
- Shall provide tree canopy and shade.
- Shall provide a sense of separation from the main circulation corridor of the Breezeway through differences in grade elevation and landscape zones.
- Shall offer a greater diversity and treatment of landscape expression that responds to the scale and use of the space.
- Shall be of an enriched material and separate from the uniform concrete surfaces of the major pedestrian circulation corridors. Whenever possible, seating areas shall be an integral part of the courtyards and built-in as part of the design, e.g. seat walls.
- Consideration shall also be given for study tables, lighting, and trash receptacles.

Figure 16.9 Covered Pedestrian System Landscape Extension



Shall be individually "themed" to showcase a single native plant and use that plant as its major design base (e.g. one courtyard will use Sabal Palm, another will use Gumbo Limbo, etc.). Courtyards shall be consistent in design for the entire campus. The primary purpose of the courtyards is to provide an oasis for gathering, studying and social interaction. They shall not be an exercise in design dexterity with each courtyard being of different design, configuration, materials and street furniture. Variations are possible, but should respond to site specific conditions.

The planting in the Courtyards shall serve to extend the plant palette associated with the Botany Department's Botanical Tree Farm.

Policy 1M-8 - Quadrangles
Quadrangles shall form the predominant organizational open space structure for existing and future development on Campus. The Quadrangles shall be defined by buildings and by Breezeway/Pedestrian corridors. Common landscape and urban design considerations for all quadrangle spaces shall include the following:

a. Quadrangles shall be simple in treatment, typically defined by walkways that parallel and define the perimeter boundaries of the space, reinforced by simple, open grass areas and tree massings that reinforce the open space and provide shade.
b. Plant groupings shall be formally or informally spaced, but the overall treatment shall be to reinforce and impart qualities of space and place within the Quadrangle.
c. Individual treatment of landscape of buildings abutting the Quadrangle shall be contextual and relate to adjacent landscape and the landscape of the Quadrangle as a whole. The individual treatment of building landscape shall be considered as an extension of the total landscape expression of the Quadrangle and of the University as a whole.
d. Walkways within Quadrangles shall be designed to be in scale with the Quadrangles and surrounding buildings. Walkways shall also be designed to consider hierarchy and volume of traffic, and shall include diagonal walkways respecting desire lines as necessary.
e. In addition to spatial reinforcement, the placement of landscape elements shall consider and respect significant view corridors, axial relationships between significant buildings or entrances, and points of reference (landmarks) and connections (major intersections).
f. Landscape treatment shall include a variety of plants for interest and contrast. Each Quadrangle shall be thematically represented so that a particular plant species (1 or 2 at the most) is showcased. For example, one Quadrangle may have a predominant planting of Gumbo Limbo trees.
g. Consideration shall be given to the selection and placement of street furniture so that they reinforce urban design and landscape approach. Study benches shall be grouped in clusters and located under shade trees. Pedestrian light standards shall be located to provide proper illumination and security and shall also be utilized as design elements to reinforce notions of linear alignment and circulation corridors.
h. Consideration shall be given for anticipated use of the Quadrangle space, depending on context. For example, the Quadrangle adjacent to the library shall be more serene in character and more passive. By contrast, the Quadrangle adjacent to the new Student Union and Bookstore shall be more active and allow for “noisy” events.
i. Signs and wayfaring information shall be consistent and complementary to the sense of a unified open Quadrangle space.
j. Landscape priority shall be to provide significant shade cover through the use of canopy trees.

Policy 1M-9 - The Campus Green
The Campus Green shall be the image and place-making landscape icon for the Campus. The Campus Green shall be the formal and ceremonial open space which is sacrosanct and inviolate.

The landscape treatment shall be simple and dignified. Buildings and perimeter walkways shall define the space. Formal planting of trees and a planar lawn treatment shall constitute the simplicity and strength of this space.

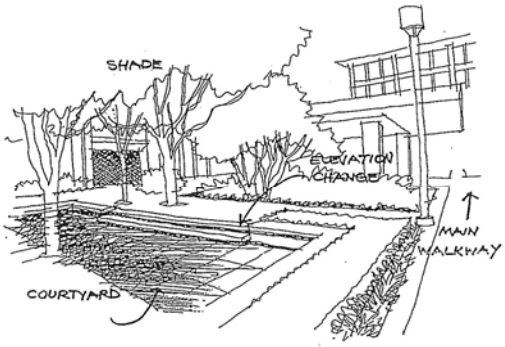
a. Consideration shall be given for the elimination of the concentric ring sidewalks, wedge-shaped plaza and semi-circular planting of trees in front of the main entrance of the Social Science Building. The Campus Green is for the entire University and no singular building should be accorded such special emphasis and dominance of the space.

b. The existing Acacia trees between the Administration Building and the Library shall be removed. The existing Ficus trees west of the Social Science Building shall remain with future consideration for their selective removal once the proposed colonnade planting of Live Oak trees have matured to a significant size. The majestic presence of the Ficus trees are essential to the current success of the Campus Green. They are in scale with the vast, linear space and their immediate removal will be a great loss.

c. The north-south walkways on either side of the Campus Green shall be expanded in width and realigned to form a straight line connection.

d. The "T" space adjunct to the Campus Green and west of the Library shall form part of the Campus Green, but be considered as a secondary space. This area shall be filled with a bosque (orchard) planting of Live Oak trees with a 30' grid pattern.

Figure 16.10 Campus Green



e. Within the Campus Green area and, between the Administration Building and the Library, there shall be a University landmark and place-maker. A mini plaza at its base shall connect to desire lines. Consideration shall be given to illuminate this structure as a beacon and point of reference.

f. Live Oak trees shall be placed on the Campus Green. Formal and symmetrical placement of light standards, a walkway, and benches shall reinforce the ceremonial character of this space.

Policy 1M-10 - The Central Plaza
The Central Plaza shall be the heart of the Campus for outdoor student activities and a major outdoor gathering and social event space for FAU. As an integral part of the planned Student Union, the Central Plaza shall be an active, flexible space that can accommodate a wide variety of functions including pep rallies, barbecues, student elections, social events, concerts, etc.

a. The Plaza shall function in a variety of ways and will:
- be visually coherent and attractive when not in use
- allow for large gatherings
- allow for smaller, intimate gatherings
- be animated, enclosed with buildings and functions that reinforce and add to the activity of the space
- allow for outdoor dining and food concessions
- provide great diversity in seating and for informal gatherings
- provide a comfortable environment through extensive shade canopy (existing oak trees and new tree plantings, including palms)

b. The Central Plaza shall be predominantly paved with special materials of distinctive color(s). Consideration shall be given for the addition of a special feature, such as a sculpture or fountain, that will add distinction and focus to the Central Plaza and that anchors the space. Much like the Carillon, this feature shall be a Campus icon which is accorded landmark status.

Policy 1M-11 - The Student Services Plaza
This new plaza shall be a significant outdoor gathering and social event space and shall form, with the Central Plaza and the existing covered walkway, the major spine of outdoor student activities on campus. Located adjacent to the Student Support Services Building, the Student Services Plaza shall be an active space which can accommodate a wide variety of functions including events for prospective students, freshman orientation, barbecues, social events, concerts, etc.

a. The Student Services Plaza shall be predominantly paved with special materials of a distinctive color, shall provide great diversity in seating for informal gatherings, and shall provide a comfortable environment through the liberal use of shade canopy (oak trees and palms).

b. Consideration shall be given to adding a special feature which will give distinction and focus to the Student Services Plaza. This feature shall be a Campus symbol which is accorded landmark status.

Policy 1M-12 - Building Landscape Zone
The most significant criteria for Building Landscape Zone (see **Figure 16.15**) is to be contextual and coherent. Each building that is added to the campus is part of a total environment. It does not stand alone as an architectural and landscape monument unto itself. It is part of a greater whole. The landscape treatment shall consider this essential concept. In terms of material, plant selection, massing, street furniture and design, the landscape design around the building shall serve to continue and reinforce the landscape vernacular of the University. Any new or renovation landscapes shall harmoniously blend with and extend the landscape palette of the campus. Consistency shall dominate over variety. In many ways, each additive landscape shall be subservient to its contextual landscape and its place within a quadrangle or open space.

The landscape of the individual building areas shall consider articulation and reinforcement of main entrances and relevant visual or axial relationships. Perimeter walkways and breezeways shall serve as indicators for demarkation of shrub zone areas and common open space areas. The landscape treatment adjacent to buildings shall be simple with a limited plant palette consisting of indigenous and native drought tolerant plant material. Planting beds and foundation planting shall be in large, geometric areas that serve to transition from individual buildings to common open space areas. Massing and size of planted areas shall be in scale with the building and complement or reinforce the overall landscape of the common, open space areas and general campus landscape character. Special consideration shall be given for adjacent landscapes, and any new or proposed landscapes shall harmoniously blend with and extend the landscape palette of the campus. Placement of trees and landscape shall complement the architectural elevation. Service areas and trash dumpster areas shall be adequately screened from general view with the use of hedges, buffer planting and/or architectural walls. Trash dumpsters shall be placed within permanent enclosures that include a gated access enclosure to attain four-sided enclosure.

Policy 1M-13
Seating and break-out areas in all areas of campus shall be landscaped with canopy trees for adequate shade cover. Consideration shall be given to issues of safety and, therefore, heights of shrubs and small trees shall be limited to ensure adequate sight visibility. Where there are grade or elevation differences, the transition shall be smooth and graceful with architectural elements (such as retaining walls) or gentle slope treatment. Consideration shall also be given for seasonal display and flowering trees and shrubs.

Policy 1M-14
Paved pedestrian entrance areas shall be simple and relate to overall pavement of open space circulation. Heavily articulated and patterned pavement is discouraged.

Policy 1M-15 - Athletic Fields Areas
Sports fields shall be located on areas of the campus with large open zones. New playing fields are intended to be placed within the loop road system in the Transition Zone. The planting concept for this area shall consist of large drifts and massing of native canopy and palm trees

separating major play fields where practical. The planting of trees between areas shall create large, outdoor rooms that serve to break up the large expanse of open space, but still allow views through from the loop road to the Academic Core perimeter. Landscape shall also serve to buffer and transition the play fields from parking lots and building zones. Tree placement shall be designed to prevent maintenance and visual conflict areas for the sports facilities. The main pedestrian/bikeway connections into and through these areas shall be informally lined with canopy trees for shade, comfort and stronger definition of alignment.

Objective 1N

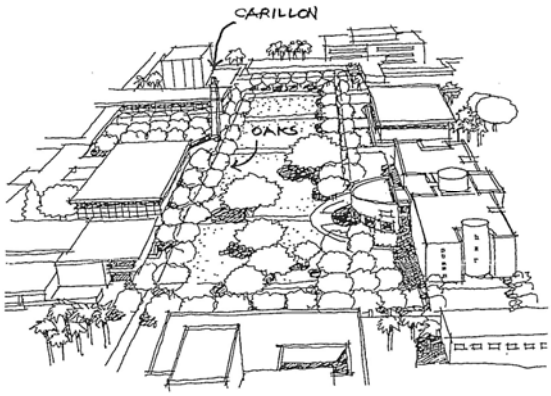
To create standards for the selection of plant material for use on campus.

Policy 1N-1

The selection for plant material for use on campus shall be based on the following considerations:

- Plants that are native, indigenous and drought tolerant
- Provision for substantial tree canopy and shade
- Functional and aesthetic requirements
- Maintenance considerations/requirements
- Security and safety of campus users
- Wildlife habitat and corridors
- Irrigation requirements
- Non-residential scaled materials

Figure 16.11 Building Landscape Zone



Policy 1N-2

To the degree possible, landscape plans should include the use of plant species that are indigenous to the natural plant communities of the region and which promote the use of

xeriscape principles. In cases where non-invasive exotic plants are 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 chemicals.

Policy 1N-3

For tree canopy and shade, there shall be a dominant planting of Live Oak trees throughout the campus. The Live Oak trees shall serve to provide overall structure, unity and coherence to the campus. Live Oak trees shall account for 60-75% of all canopy trees planted on Campus.

Policy 1N-4

Accent and supplementary plantings shall consider ultimate growth, ease of maintenance, and plants that do not require excessive pruning and shearing to maintain their desired size. Plants that maintain an integrity of form are recommended (e.g. Liriope). The dominant use of indigenous and drought tolerant plant material shall result in a unified landscape that represents exemplary use of native material.

Policy 1N-5

Functional and aesthetic requirements shall consider scale, hierarchy, context, adjacency, spatial definition, screening, buffering, shade, view corridors, and seasonal color. Landscape and plant material shall serve to complement the building and articulate main entry areas and provide transitional zones between building area and larger, common open spaces and circulation areas.

Policy 1N-6

Plantings shall also serve to buffer or screen areas such as service areas, trash dumpsters, bicycle racks and parking areas. The placement of plants shall also consider shade and thermal heating of buildings. In the larger context, plants shall serve to reinforce larger landscape systems such as campus quadrangles, pedestrian plazas and streetscapes and breezeways. Larger canopy shade trees shall be used as major spatial definers.

Policy 1N-7

Long term maintenance requirements shall be a major consideration for plant selection. Plants that require constant pruning, fertilizing, insecticides and pesticides, and soil amendments shall be discouraged. Plants shall have a long “shelf-life.” Fast growing and therefore typically brittle and fast-dying plants are also discouraged. Longevity and permanence are essential not only in terms of maintenance, but in terms of long term campus images and a sense of stability, history, continuity and permanence (e.g. Live Oak trees). Additionally, plants shall be planted in large groups (particularly shrubs and groundcover) to facilitate easier maintenance. Plantings that have a wide variety of species have a wide variety of maintenance requirements.

Policy 1N-8

Personal security and safety is a significant factor in selecting plant material and specifying their location. Generally, there should be a clear zone (visual access zone) between knee height and eye level for all plantings to permit unobstructed views.

Policy 1N-9

Consideration shall be given to indigenous wildlife on campus and their habitat requirements. The selection of plants, particularly in the Perimeter Zone referenced earlier, shall include or attempt to accommodate plants that are conducive for cover and habitat or for foraging.

Policy 1N-10

Residential-scaled material shall be heavily discouraged for use on the campus. These include the use of decorative gravel, stone and boulder groupings, railroad ties, brick pavers set diagonally into the ground as an edge, and similar "gardenesque" details.

Policy 1N-11

Not Used

Policy 1N-12

For ease of maintenance, the following criteria shall be considered in the design of landscape and tree placement, particularly within large open areas of lawn that can be maintained and mowed with gang mowers. The typical width of a gang mower is 6' and 14' in width. Consideration shall be given to the placement of landscape elements so that a gang mower can effectively negotiate between a 6' or 14' corridor. Otherwise, it will be necessary to maintain constricted areas with a hand operated (push) mower, requiring greater time and personnel.

Policy 1N-13

Consideration shall be given for providing ramps or drop curbs to allow access for maintenance equipment, such as gang mowers. It should not be necessary for maintenance equipment to constantly mount curbs or have other barriers imposed, on daily operations.

Policy 1N-14

It is the intent of the University to remove all non-native invasive plants (whether trees, grasses, or shrubs) which are identified on the Exotic Pest Plant Council's "Florida's Most Invasive Species List" from the campus grounds.

Policy 1N-15

Because of proximity to the airport and I-95, fire dependent plant communities shall not be prescribed burned at appropriate intervals.

Objective 1O

Xeriscape systems shall promote water conservation through:

a. Utilization of drought tolerant plant material.
b. Proper ecological placement of landscape material.
c. Utilization of water conserving irrigation practices.

d. Encouragement of standards for landscape, installation and maintenance that promotes water conservation.
e. Utilization of natural areas and vegetation.
f. Institution of a monitoring program.

Policy 1O-1

Plant material selection shall emphasize drought tolerant, indigenous and native plant material.

Policy 1O-2

Plant material shall be selected appropriate to soil type, elevation, drainage considerations and aspect (e.g., north, south, west, east exposure).

Policy 1O-3

Water conservation of potable and non-potable water shall consist of reviewing the entire master irrigation system of the University and to continue to implement water conservation policies in landscape and irrigation design through the use of grey water and through management and design policies.

Policy 1O-4

Develop a plan to zone the entire campus into three zones which has been earlier referenced as Core, Transitional and Perimeter Zones. This categorization also co-relates to high, medium and low profile areas with respective maintenance and irrigation considerations.

Policy 1O-5

With the availability of re-use water (grey water), the University has converted its irrigation system entirely to the Grey Water System. All future projects will also be connected to the Grey Water System.

Policy 1O-6

An irrigation master plan study shall be implemented immediately to review and analyze the existing system and allow for future growth. Specifically, a Master Loop system shall be upgraded or replaced to anticipate future growth, to update inadequacies in the existing system, and to allow for the connection/conversion to the Grey Water System.

Policy 1O-7

The irrigation system for the entire university shall be centrally operated and controlled with a master computer system.

Policy 1O-8

Existing plant communities and ecosystems, maintained in a natural state, shall not have any additional irrigation water added in any form.

Policy 1O-9

For re-established native areas, a temporary irrigation system such as hand watering or a watering truck shall be required. After establishment, no further irrigation shall be required.

Policy 1O-10

With the use of master computer controller system, high, medium and low irrigation requirements shall be programmed accordingly to conserve water. For example, water demands of lawn areas is significantly greater than the water demand of most shrubbery or ground cover areas. Therefore, sprinkler heads irrigating lawns or other high water demand landscape areas shall be circuited so that they are on separate zones from those irrigating trees, shrubbery or other reduced water requirement areas. The Master Computer Controller Systems shall program and separate high water requirement areas on a different schedule from low water requirement areas.

Policy 1O-11

Landscape irrigation systems shall be designed so that, to the greatest extent practical, water being applied to non-pervious areas is eliminated through the following procedures:

- Sprinkler heads shall be placed as required to reduce direct overthrow onto non-pervious areas.
- The use of low trajectory spray nozzles is encouraged in order to reduce the effect of wind velocity on the spray system.
- As technology for underground and low volume applicators of water is improved, their use is encouraged.

Policy 1O-12

Moisture sensing devices shall be implemented to reduce irrigation demands during the rainy season or when there has been adequate rainfall.

Policy 1O-13

There shall be standards established for landscape installation and maintenance that help conserve water including:

- Minimum grades and standards and container/rootball size to ensure survival and quality.
- The use of anti-transpirants during the installation process, particularly when planting is conducted during the summer. Anti-transpirants reduce the amount of water loss through the leaves of plant materials during installation, thereby reducing the amount of water required for the survival of the plants.

Policy 1O-14

Organic mulches shall be used to reduce the growth of weeds and add nutrients to the soil as well as retain moisture over the root zones of plant materials.

Policy 1O-15

Soils for the rootball area of trees and shrubs shall be amended to incorporate organic content for moisture retention and nutrition.

Policy 1O-16

Utilization of Natural Areas and Vegetation
Existing environmentally suitable native vegetation and plant communities shall be protected and incorporated into the site plan whenever feasible. Certain natural plant communities shall be given special protection appropriate to the geographic areas as determined by the University in consultation with the appropriate academic departments, or in consultation with the University Conservation Committee and shall be protected and preserved as total entities, including understories. In most cases, preservation of existing and plant communities will decrease the initial costs of site development, decrease future water and maintenance requirements.

Policy 1O-17

A major portion of water demand used for landscape purposes is required for the irrigation of lawn areas. Where feasible and practical, portions of landscaped areas that have been customarily designed as lawns, particularly in the Transitional and Perimeter Zones, shall be:

- preserved as natural plant communities
- planted as redeveloped natural areas
- planted in traditional mixes of trees, shrubs and groundcovers. Properly managednon-grass landscape developments of site specific plantings will typically be able to survive on a reduced water requirement and survive drought conditions better than lawn area.

Policy 1O-18

The following procedures shall guide the use of irrigation systems on campus:

- In order to preserve moisture, at least two inches of weed free mulch shall be maintained over all appropriate planting areas at all times.
- All trees shall be pruned as necessary to promote healthy growth. Trees shall be periodically pruned or thinned in order to reduce leaf mass in preparation for tropical storms. All pruning shall be accomplished in accordance with the National Arborist's Standards.
- Watering of plants and trees shall be in sufficient amounts to thoroughly soak the rootball of the plant and the surrounding area, thereby promoting deep root growth and drought tolerances.
- Whenever possible, automatic irrigation systems shall be operated between the hours of midnight and 6 A.M. Irrigation during these hours reduces fungus growth and loss of water due to evaporation.

Irrigation systems shall be constantly maintained to eliminate waste of water due to loss of heads, broken pipes or misadjusted nozzles.

Objective 1P

To establish standards for the selection of furnishings, lighting, and graphics for use on campus. The intent of this objective is to standardize site furnishings for the campus and to ensure that all items are of the same family with regards to style, color, and material, to create a uniformity of expression for exterior use areas of the campus. It is also intended to ensure that all items placed on the grounds and in public areas of the campus have a purpose for their placement, and shall serve in a convenient but unobtrusive manner; they shall be at hand when needed but not visually or physically obtrusive or non-functional and unused.

Policy 1P-1

Selection of site furnishings shall consider durability, ease of maintenance, and uniformity with existing materials, styles, and colors in use throughout the campus. An appropriate type of bench, trash receptacle, light fixture, etc., shall be chosen, and existing outdated furnishings shall be replaced as needed with the new style due to deterioration or vandalism, until all site furnishings conform to the required standard. The intent shall be to have a consistency of site furnishings with uniform styles.

Policy 1P-2

All new construction projects on campus shall use the style, color, and model of site furnishings specified in this document. Substitutions as to style, materials, colors, etc. shall not be allowed, in order to maintain a cohesive campus look as it pertains to exterior furnishings.

Policy 1P-3

Benches shall be chosen that are of proper scale, size, and durable material to withstand the heavy use on campus. Older and less durable or deteriorated benches shall be removed and replaced with the selected style as necessary.

Policy 1P-4

Benches without backs that are specified for new or replacement installations shall be of the type now used on campus, the “FAU” bench, with solid concrete base and seat. Benches shall not be painted, but remain a natural color. The bench shall be placed on a concrete slab, and placement shall be in groups of 3 benches minimum, in a landscaped alcove or courtyard-type area adjacent to but off main walkway areas. Benches shall not be placed directly on high-traffic walkways and corridors.

Policy 1P-5

Benches with backs shall be of the style presently in use on campus, with ribbons of solid steel firming the back and seat. The steel shall be black or bronze in color, with FAU blue colors used in athletics zones. Locations of benches shall consider quiet study areas, landscaped alcoves, and courtyards for gathering and study. Benches shall not be placed directly onto high-traffic walkways.

Policy 1P-6

Consideration shall be given for deviations from the norm for benches that are dedicated as memorials or given as gifts to the University. Design, color, inscription, and placement shall be approved through standard campus design review council.

Policy 1P-7

Trash receptacles shall be of sufficient size and type to adequately serve the campus, and shall accommodate present and future recycling programs. Aesthetic considerations shall be addressed when specifying the numbers of trash and recycling bins to be placed on the campus in any one area.

Policy 1P-8

Trash receptacle specifications shall be coordinated with the style of benches within certain areas. Receptacles located in parking lots shall be ribbed solid steel, round containers, with a single top opening for consistency. Adoption of a similar trash receptacle in a different material, e.g. concrete, shall retain the attributes of the style specified: square with rounded corners, upright in shape, covered top, four openings for trash placement, and light neutral color. Selection of concrete trash receptacles shall specify a light sandblast finish. Heavily textured exposed aggregate finishes shall not be used. Specifications of the current University standards are included with this document.

Policy 1P-9

Newspaper vending boxes shall be placed off of the paved walkways and within screened areas to help reduce campus visual clutter. Screening shall be accomplished with shrub plantings, walls, and/or fencing. Consideration shall be given to having all news boxes painted white or a light neutral color for uniformity and less visual clutter.

Policy 1P-10

Bike Racks shall be selected for durability, ease of use, security, and aesthetic design. Material and style shall be consistent, either galvanized steel or stainless steel for long life. The “Ribbon Rack” brand style, or similar quality equivalent, is the preferred choice for the campus. Racks shall be made of galvanized steel, unpainted, and permanently installed on a concrete surface for durability. Bike racks shall be placed in a location convenient to building entries but are to remain as visually unobtrusive as possible. Bike rack parking areas shall be screened with landscape treatments such as low hedges or earth berming and groundcover, and be shaded by canopy trees. Size of each unit shall be determined by usage requirements for each particular area. Old styles of bike racks, especially unused, small, or non-permanent racks shall be removed and replaced, or phased out and replaced with the “Ribbon Rack” style for uniformity.

Policy 1P-11

Light fixtures shall be of adequate size, durability, and illumination to sufficiently service the campus. Lighting elements shall be exclusively High Pressure Sodium for consistent light color and non-glare properties. Walkway, Parking lot, and roadway lighting shall be from overhead,

pole-mounted sources. High wattage, low or wall-mounted spotlights that produce glare and create dark shadows shall not be used. Light fixtures shall be a single head canister style cylinder with a High Pressure Sodium lighting element, and color on the pole, pedestal base, and top shall be a dark bronze anodized finish. Multiple head fixtures of the same family shall not be used. Base mounting detail for installation within lawn areas or planting areas shall be consistent throughout campus and shall be Sono-tube formed concrete foundation exposed 6 inches above the finish grade, with the pedestal cap on top, concealing the pole mounting bolts. Installation on paved surfaces shall be nearly identical, with the pedestal cap resting flush with the pavement and no foundation exposed.

Policy 1P-12

Lighting location shall consider safety, adequate illumination of the surrounding area, but also the design consideration as the fixtures become part of the landscape: linear alignment, progression, etc. Double rows of fixtures shall be used in certain situations to articulate pedestrian corridors.

Policy 1P-13

Light fixtures for vehicular areas, parking, streets, etc. shall maintain the use of the Cobra-head type of light fixtures. Original “Saturn” or “satellite” style of fixtures found in certain areas of campus shall be replaced as necessary because of deterioration, and the Cobrahead style shall be used. Large floodlights on high poles used in some parking lots, e.g. Parking Lot 5, shall be maintained.

Policy 1P-14

Bollard lighting shall be discouraged for use as area lighting. Lighting source shall be from pole-mounted, overhead fixtures only, for better coverage and reduction of eye-level glare and deep shadows created by low level lighting. Bollard lights shall be used only as accent lighting. Approved style shall be the 6-inch diameter cylinder style with rounded top and louver-shaded lens for indirect ground-level lighting. Finish shall be a light, neutral color paint or powder coat in white, tan, or light gray, and shall be consistent with all other campus site furniture paint color. Ineffective or high-glare producing bollard lighting shall be removed.

Policy 1P-15

Non-lighted bollards shall be used for traffic separation and restricting vehicles from walkways and pedestrian-only corridors. They shall be constructed of galvanized pipe, 4 inches in diameter, with a rounded top. Bollards shall be a painted or powder coated finish in a light neutral color, such as white, tan, or light gray, and color specified shall be consistent with all other campus site furniture painted finishes. Bollards shall be of a type that may be removed for emergency vehicle access as necessary.

Policy 1P-16

Graphics and signage on campus shall be standardized and be so designed as to impart a sense of identity for the campus, while maintaining legibility and easy wayfinding. Entry monuments

shall be similar in design and color, and logotypes shall be constant throughout the campus, from entry signs to building signs, parking, and shall be consistent with University letterhead, as feasible.

Policy 1P-17

Vehicular directory signs along roadways shall be redesigned to impart a hierarchy of information, not include too much information per sign, and provide directional clarity.

Policy 1P-18

Building identification signs shall be painted in the same color scheme as all other campus directional signs to update and revitalize the campus.

Policy 1P-19

The "Blue Light" Emergency Phone System shall be installed and expanded in a comprehensive manner throughout the campus as needed. The standard fixture being installed on campus presently shall be specified for all future installations.

Policy 1P-20

Refuse recycling receptacles shall be consistent in style, color, and materials with standard trash receptacles on campus. Bright colors shall be discouraged. Lettering to signify recycle materials separation shall be clear and concise, but not overpowering or overly distracting.

Policy 1P-21

Vending machines shall be placed within walled surrounds or within concrete kiosk areas to allow screening of vending areas and to concentrate vending machines, trash receptacles, bulletin boards, etc. into high density use areas. Placement within kiosks shall also consider adequate roof structure for shade and weather protection. Vending machine placement in full view of, and within, high traffic areas, shall be discouraged, as they are a visual detraction and create bottlenecks in pedestrian corridors

Policy 1P-22

Outdoor study tables placed in lawn areas shall be of the present square wood pedestal type, with the single metal pedestal, and four attached wood slat seats. Tables placed in lawn areas shall be in groups of not less than three tables, and shall be placed in a tree-canopy-shaded area. Finish of the wood shall be a clear weather proof seal, and the wood shall remain a natural finish.

Policy 1P-23

Lunch/study tables shall be of the pedestal type, with separate pedestal seats, and shall be either unfinished smooth concrete, or solid ribbed steel. Tables shall be standardized as to style, and only one style shall be used. Tables shall be in groups of not less than three tables, and shall be placed in a landscape setting with tree canopy, hedges, shrubs, and shade. These tables shall be permanently mounted, and shall be located in high activity areas, adjacent to vendor kiosks and in sunken courts and plazas, such as along the Breezeway.

Policy 1P-24

Vending and information kiosks shall be coordinated so that vending machines, bulletin boards, and trash receptacles shall be congregated into concentrated areas on campus to eliminate visual discord and "sprawl" of vending machines, posters and bulletin boards, and trash receptacles across campus. Kiosks shall be constructed of concrete, with a cantilever or similar roof. Kiosks shall not be constructed of wood or other non-durable material.

Policy 1P-25

Exterior railings for stairways or other safety uses shall be constructed of tubular steel with rounded corners and pole supports, and shall be painted with the color to be consistent throughout the campus.

Policy 1P-26

Public transportation shelters shall be open sided for adequate ventilation, placed in a tree canopy-shaded area, and shall have an adequate roof canopy for proper sunshade and weather protection for several people. Size of canopy and number of shelters at each bus stop shall be determined by the average amount of persons using public or intra-campus transportation services at peak times. Shelters shall be constructed of a metal frame with durable panel infill material. Shelters shall not be made of wood.

Policy 1P-27

Sculpture and Memorials placement and choice shall consider the type, size, quality, and color of the piece for proper integration with the overall campus environment, and so as not to appear as a random placement. Consideration shall be given for groupings of sculptural elements, to suggest a sculpture garden that is set within a well-landscaped context. Consideration shall also be given to sculpture placement and choice within the groupings so as not to conflict with each other and create a non-cohesive grouping. Placement of sculpture on campus shall be coordinated with the sculptor, if possible, and faculty of the Art Department, for consideration as to proper placement, foundation, view, and orientation.

Objective 1Q

To develop standards for the landscape treatment of the campus edge for the creation of a positive image that establishes the University within a landscape context that is imageable, that represents the environment of the region and University, and which considers urban design elements such as sense of place, sense of entry, view corridors, visual buffering, adjacent land uses, natural features, and connection to the host community.

Policy 1Q-1

The perimeter areas of the campus shall be predominantly landscaped as the Perimeter Landscape Zone referenced earlier. The plant material in this zone shall be characterized by a

dominance of Live Oak trees, and with plants associated with the Scrub Forest. This "natural" landscape shall be the interface between the campus and the edge boundaries.

Policy 1Q-2

There shall be a minimum fifty foot (50') wide landscape zone along the entire perimeter of the campus to buffer and separate the University and its facilities from adjacent land uses.

Policy 1Q-3

Landscape treatment in the Perimeter Buffer Zones shall be densely planted to form a screen consisting of varied canopy, mid-story, and understory plant material.

Policy 1Q-4

The Glades Road frontage shall be highlighted by two major entrances: the Broward Avenue entrance at the southwest corner, and the NW 13th Street entrance at the southeast corner of campus. As previously stated, these entrances shall be articulated with plantings of Royal or Medjool Palms to add significance to the entrances. Architectural monument walls shall further reinforce the visual significance of the formal entries.

Policy 1Q-5

The boundary area fronting Glades Road that lies between these two entrances shall be planted with flowering canopy trees to accent the highly visible edge, with the native vegetation of the Perimeter Landscape forming a backdrop as viewed from Glades Road. For maximum visual impact and seasonal display, 75% of the total number of flowering trees shall be of a single species (e.g. Royal Poinciana or Yellow Tabebuia); the balance of 25% shall consist of a variety of other flowering trees.

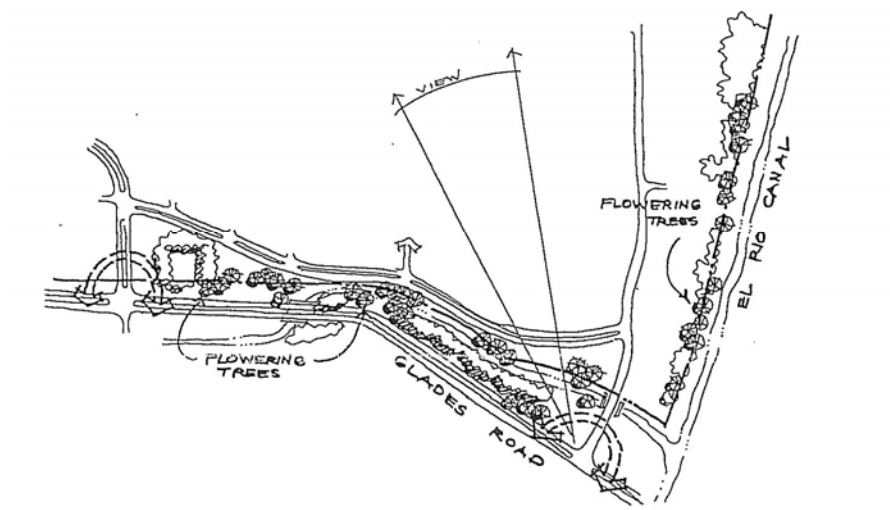
Policy 1Q-6

The Glades Road frontage plantings shall include preservation of a visual corridor towards the Dorothy Schmidt Performing Arts Center Tower.

Policy 1Q-7

Situated in the Perimeter zone along the Glades Road frontage is a Florida Power and Light Transformer Station and is directly visible from the Broward Avenue entrance. Large shrubs and trees shall be planted to substantially screen views of the installation, with landscape treatment on all sides except at access areas. Landscaping and view buffering of the Substation shall be coordinated with the University and Florida Power and Light Co., to ensure proper planting distance from the fence, location of underground conduit, etc.

Figure 16.12 Flowering Trees at Glades Road and El Rio Canal



Policy 1Q-8

The Spanish River Road entrance shall also have palm trees for the entry feature. Further development of this frontage shall have to be coordinated with the proposed Florida Atlantic University Research Park.

Policy 1Q-9

At the 20th Street entrance, the landscape treatment shall maintain the existing character of palm trees and manicured lawn in the divider median. However, the entrance monumentation sign shall be replaced with an architectural wall design to be consistent with the Glades Road and Spanish River entrances. Improvements to the bikeways and walkway system parallelling the roadway shall also occur, and shall include additional native plantings and berming and mounding treatments to enhance the entry drive.

Policy 1Q-10

The El Rio canal frontage on the eastern boundary of the campus shall be landscaped with indigenous and drought tolerant plant material consistent with the Perimeter Landscape zone. Where possible, the plantings shall be particularly dense to function as a perimeter buffer, but also to create a shaded corridor for a potential pedestrian jogging trail that is linked to other parts of the campus.

Policy 1Q-11

The western boundary of the campus as it abuts the Boca Raton Airport shall be adequately landscaped to mitigate the view of the exposed chain link fence and open runways, and to create a landscape edge. The existing triangle-shaped vegetation study area is an excellent buffer system and should be maintained or improved in some way for nature trails, study, and habitat area. Consideration shall be given to height restrictions imposed by airport regulations within the designated flight cone of the airport.

Policy 1Q-12

Landscape planting shall consider the provision for strategic view corridors from Interstate 95 into the campus.

Policy 1Q-13

Streetscape improvements shall be coordinated with the respective jurisdictions to improve off-site conditions. The extension of a coordinated street tree program emanating to or from the University along the main approach corridors, and augmented with a pedestrian/bikeway system shall be a high priority.

Objective 1R

To ensure that landscape treatment of required retention and other drainage elements adhere to standards established by the South Florida Water Management District (SFWMD), and that the design and location of retention facilities are accommodated in a naturalistic and non-obtrusive manner.

Policy 1R-1

All wet and dry retention and detention treatments shall be coordinated and designed according to the requirements of the SFWMD and any and all other jurisdictional agencies.

Policy 1R-2

For wet retention, SFWMD requirements include a twenty foot wide maintenance access easement, a 4:1 side slope requirement from one foot above and two feet below control elevation. The University shall coordinate with the SFWMD.

Policy 1R-3

For dry detention, the invert elevation (bottom of detention area) shall be one foot above control elevation or wet season elevation.

Policy 1R-4

The configuration of retention lakes shall be natural in appearance, and grade transitions and side slopes shall vary and be smooth and continuous. Angular or geometric lake configurations are discouraged unless they serve to emphasize a design intent, e.g. a linear canal.

Policy 1R-5

Gentle landforms, mounding and berms are encouraged and shall be used in campus design to create a more naturalistic, contextual setting.

Policy 1R-6

Outfall control elevation structures, weirs, etc., shall be designed as unobtrusive as possible and screened with landscape treatment where feasible.

Policy 1R-7

Retention areas shall be concentrated in larger areas for volumetric efficiency and aesthetic considerations. Large retention basins are more efficient, relative to space and volumetrics. To be avoided are a series of retention areas that are small depressions within the landscape. The intent shall be to have naturalistic landforms of sufficient size and with graceful transitional grades to appear as natural as possible.

Policy 1R-8

Consideration shall be given for providing littoral shelves and wetland plantings in specific areas for habitat and environmental considerations.

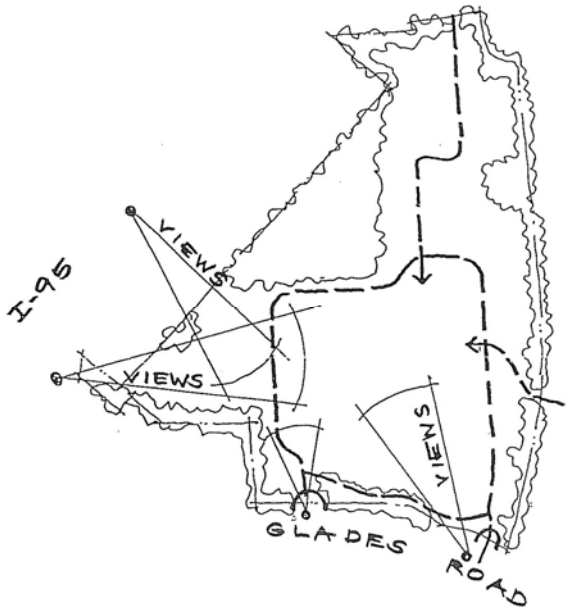
Policy 1R-9

Landscape treatment for retention areas shall appear contextual and be set within an overall landscape environment. Planting and grading shall have a natural appearance.

Policy 1R-10

The existing drainage canals may be utilized as open space amenities and features along campus eastern and southern edges and may include a jogging trail and bike trail that will be connected to a campus perimeter jogging trail, and possible city canal-edge bike corridor. Planting shall coincide with the naturalized and native plant communities intended for the Perimeter Landscape Zone concept.

Figure 16.13 Entrances and View Corridors



<u>Objective 1S</u>

To relate the timing or phasing of landscape improvements based upon the nature of improvements. Categorically, the following types of improvements are anticipated:

a. new landscape installations associated with new facilities (building zone landscape)
b. remedial landscape installations associated with additions, renovations, or retrofitting of existing facilities
c. new landscape installations associated with stand-alone open space improvements. For example, the Breezeway extensions and implementation of the Lanterns, the Glades Road boundary planting, etc.
d. additive landscape improvements in the common open space areas to incrementally improve the quality of the exterior environment. For example, the additional planting of Oak and other trees for shade and canopy in open space and parking areas, planting of Washingtonia palms along the Breezeway, or the installation of foundation planting at existing buildings. Incremental hardscape improvements include walkway/bikeway additions and improvements, replacement benches, trash receptacles, light standards, etc.
e. special development projects such as a Botanic/Sculpture Garden, environmental trail through the Preserve, etc.

Policy 1S-1

For new projects (buildings), the timing or phasing of landscape improvements shall coincide with standard phasing of landscape installation within the construction timeframe.

Policy 1S-2

For renovation projects, the timing or phasing of landscape improvements shall coincide with standard phasing of construction schedules.

Policy 1S-3

Stand-alone landscape and open space improvements not directly connected with the construction of an educational or housing facility (e.g. the Carillon), there shall be consideration given by the BOT to fund these elements as a viable entity. Ultimately, open space and landscape improvements contribute to the quality of campus life and the attraction of students and support of Alumni. As such, these projects shall be scheduled as part of the overall capital expenditure program and schedule.

Policy 1S-4

Minor landscape improvements such as walkways, additional trees, benches, etc., shall be accommodated as an on-going process within the overall maintenance procedures.

Policy 1S-5

Special development projects such as the enhancement and expansion of the Sculpture Garden shall rely on special fund raising efforts. The timing shall be contingent upon available funds and is therefore variable.

Policy 1S-6

During the planning horizon the number of existing trees on campus shall be doubled.

Policy 1S-7

The University shall adopt a plan to remove invasive and nuisance plant species from the campus. Such plan shall call for the complete removal of all plants so identified, with the exception of the Australian Pines along Glades Road.

Policy 1S-8

During the planning horizon the irrigation system shall be converted entirely to a grey water system.

Objective 1T

To establish priorities for funding landscape improvements.

Policy 1T-1

Improvements that relate to the health and safety (security) of the campus population (e.g. lighting improvements, provision of handicap access facilities, etc.) shall be the first priority.

Policy 1T-2

High priority shall be given to the funding of landscape improvements associated with the doubling of the number of trees on the campus, to be accomplished during the planning horizon. The addition of trees will greatly improve the quality of the physical environment and it is critical that large and small trees be installed immediately to initiate this program.

Policy 1T-3

As stated earlier, landscape improvements shall be considered as a viable element in funding considerations by the Board of Trustees. Many landscape improvements cannot be directly associated or funded as part of new building construction. The implementation of a Carillon, a major plaza, a ceremonial quadrangle, an amphitheater, etc., cannot always be funded as part of a new building budget. Yet, elements such as these are integral parts of the physical make-up of a University and contribute immeasurably to the quality of the facility, and its long-term viability.

Policy 1T-4

New facility construction shall designate 3% (three percent) of total construction funds to develop and install adjacent landscaping. This budget shall be inviolate, and apportioned funds cannot be re-allocated to any use, other than landscape.

Objective 1U

To establish a Landscape Design Review Process to ensure adherence to Master Landscape Concepts.

Policy 1U-1

All landscape development on campus, including property leased to others, shall be reviewed and authorized by the Facilities Planning Function. The Facilities Planning Function shall consider, but not be limited to the following items:

1. Overall Master Landscape Concept
2. Native, indigenous plants
3. Drought tolerant plants
4. Elimination of nuisance plants
5. Street furniture
6. Visual sight lines
7. Adherence to open space concepts
8. Habitats
9. Tree program (double number of trees in 10 years)
10. Entrances

11. Signs and Graphics
12. Flowering Trees
13. New Building landscape treatment
14. Buffers
15. Special landscape programs
16. Contextual relationships, lighting, etc.

Policy 1U-2

For new projects, the Facilities Planning Function shall review schematic, 50%, and 100% drawings to ensure adherence to overall landscape concepts.

Objective 1V

To establish administrative and budgeting procedures to ensure landscape budgeting provisions in future campus construction.

Policy 1V-1

For new projects, there shall be mandated a 3% of total construction cost landscape budget allowance, that is allocated for landscape system development. This budget shall not be transferable to any other use. A distinction shall be made for landscape (softscape) versus hardscape (plazas, fountains) budgets. The 3% budget shall be allocated towards the development of landscape enhancement (plants and sod) and minimum walkway connections. Major plazas, courtyards, street furniture, kiosks, etc., shall typically be exclusionary to the 3% budget.

Objective 1W

To establish priorities for funding accessibility improvements for disabled persons.

Policy 1W-1

By the end of the planning horizon, the University shall formalize a method to prioritize and seek funding for the mitigation of accessibility issues in University facilities. Priorities for mitigation shall be based upon directives issued by the Board of Trustees and shall consider the following items (in priority order):

- building access from exterior
- exterior signage
- accessible toilet facilities
- accessibility of all public spaces, including auditoriums
- interior signage