

**TOWN OF DAVIE
TOWN COUNCIL AGENDA REPORT**

TO: Mayor and Councilmembers

FROM/PHONE: Mark A. Kutney, Development Services Director 954-797-1101
Prepared by: Marcie Oppenheimer Nolan, Planning Supervisor

SUBJECT: Resolution – Developers Agreement
DA 1-1-04, Nova Southeastern University, 3301 College Avenue

AFFECTED DISTRICT: Mayor and District 2

TITLE OF AGENDA ITEM: A RESOLUTION OF THE TOWN OF DAVIE, FLORIDA AUTHORIZING THE MAYOR AND THE TOWN ADMINISTRATOR TO ENTER INTO AN AGREEMENT BETWEEN THE TOWN OF DAVIE, UNIVERSITY ASSOCIATES, LTD., AND NOVA SOUTHEASTERN UNIVERSITY TO RECOGNIZE THE NSU DESIGN GUIDELINES AS THE GUIDING DOCUMENT FOR THE DEVELOPMENT OF THE NSU CAMPUS CONSISTENT WITH THE RAC-AV ZONING DISTRICT; AND TO ACKNOWLEDGE SUCH APPROVAL BY AFFIXING THEIR SIGNATURES TO SAID AGREEMENT; AND PROVIDING FOR AN EFFECTIVE DATE. (DA 1-1-04, Nova Southeastern University, 3301 College Avenue)

REPORT IN BRIEF: This request is for approval of a developer’s agreement between Nova Southeastern University, University Associates and the Town of Davie to approve the design guidelines as required by the Regional Activity Center – Academical Village (RAC-AV) zoning district.

The agreement will bind NSU and University Associates to develop the 285 acre portion of the campus consistent with the master plan and design guidelines. In addition, the design guidelines will guide the overall aesthetic look and feel of the campus. The design guidelines provide for aesthetic and design review in the following area; permitted uses, setbacks and height, circulation and parking, grading, drainage, and retention, building design and character, site element design, such as, paving materials, landscape design, site amenities and furnishings, special features, signage and graphics, and lights.

The design guidelines are quite comprehensive and ensure that future development and redevelopment will create a consistent campus like environment. The level of detail includes road-way cross sections consistent with a high level of pedestrian and bicycle activity. Typical designs are also provided for landscape buffers and open spaces areas. These designs require the use of native plant material and also provides for landscape themes along major NSU roadways. Graphic examples are used

throughout the document to add ease in understanding how the written regulations will look upon the landscape.

Any proposed changes to the design guidelines will require the approval of Town Council, through a revised resolution.

PREVIOUS ACTIONS: N/A

CONCURRENCES: N/A

FISCAL IMPACT: N/A

RECOMMENDATION(S): Staff recommends that this item be pulled from the consent agenda and discussed concurrently with the second reading of the NSU rezoning application. In addition, staff finds the subject application complete and suitable for transmittal to Town Council for further consideration.

Attachment(s): Resolution and Developers Agreement

RESOLUTION NO. _____

A RESOLUTION OF THE TOWN OF DAVIE, FLORIDA AUTHORIZING THE MAYOR AND THE TOWN ADMINISTRATOR TO ENTER INTO AN AGREEMENT BETWEEN THE TOWN OF DAVIE, UNIVERSITY ASSOCIATES, LTD., AND NOVA SOUTHEASTERN UNIVERSITY TO RECOGNIZE THE NSU DESIGN GUIDELINES AS THE GUIDING DOCUMENT FOR THE DEVELOPMENT OF THE NSU CAMPUS CONSISTENT WITH THE RAC-AV ZONING DISTRICT; AND TO ACKNOWLEDGE SUCH APPROVAL BY AFFIXING THEIR SIGNATURES TO SAID AGREEMENT; AND PROVIDING FOR AN EFFECTIVE DATE. (DA 1-1-04, Nova Southeastern University, 3301 College Avenue)

WHEREAS, Nova Southeastern University and University Associates LTD, proposes to rezone approximately 285 acres of the property owned by NSU to Regional Activity Center - Academical Village (RAC-AV); and

WHEREAS, The approval of such rezoning request requires a conceptual master plan and design guidelines to ensure that the future development of the campus is consistent with the conceptual plan as presented to Town Council; and

WHEREAS, The design guidelines shall guide Nova Southeastern University and University Associates LTD to develop the NSU campus as depicted in said documents; and

WHEREAS, The design guidelines are consistent with the zoning designation of RAC-AV.

NOW, THEREFORE, BE IT RESOLVED BY THE TOWN COUNCIL OF THE TOWN OF DAVIE, FLORIDA:

SECTION 1. The Town Council of the Town of Davie does hereby authorize the Mayor and Town Administrator to enter into an Agreement, attached hereto as Exhibit "A", between University Associates and Nova Southeastern University and the Town of Davie to acknowledge the design

guidelines as the official documents guiding the development of the NSU campus.

SECTION 2. The Town Administrator and Town Attorney are authorized to make and accept non-substantive revisions to the agreement in order for the agreement to be in final, recordable form.

SECTION 3. This Resolution shall take effect immediately upon its passage and adoption.

PASSED AND ADOPTED THIS ____ DAY OF _____, 2004.

MAYOR/COUNCILMEMBER

Attest:

TOWN CLERK

APPROVED THIS _____ DAY OF _____, 2004.

**DEVELOPMENT AGREEMENT
BY AND BETWEEN
THE TOWN OF DAVIE**

AND

NOVA SOUTHEASTERN UNIVERSITY

AND

UNIVERSITY ASSOCIATES, LTD.

THIS DEVELOPMENT AGREEMENT ("Agreement") is made and entered into this ___ day of _____, 2004 by and between THE TOWN OF DAVIE, a municipal corporation of the State of Florida ("TOWN"), UNIVERSITY ASSOCIATES, LTD, a Florida Limited Liability Partnership, and NOVA SOUTHEASTERN UNIVERSITY, collectively know as ("NSU").

RECITALS:

- A. NSU is legal and equitable owner of certain real property which is located within the TOWN more fully described in Exhibit "A" attached hereto and deemed a part hereof ("Property").
- B. NSU and TOWN believe it is in their mutual best interest to initiate the process required by law to enable the Property to be developed in accordance with the development regulations described herein. The parties also believe that this Agreement will result in the best use of economic and land resources, encourage sound capital improvement and planning, assure that there are adequate capital facilities for development of the Property, and bring certainty to the development process for the Property.
- C. NSU and TOWN desire to enter into this Agreement to memorialize their understanding and agreement with respect to development of the Property.
- D. NSU desires to develop the Property in accordance with the design guidelines attached hereto and incorporated herein by reference as Exhibit "B" ("Guidelines").

- E. In order to develop the Property in accordance with the Guidelines, NSU is willing to rezone the Property from Planned Business (B-3), and Community Facility (CF), Residential Low-Medium Dwelling (R-5), zoning designations to the Town's Regional Activity Center Academical (RAC-AV) zoning designation.
- F. Except as otherwise expressly set forth herein, it is the intent of the parties hereto to make this Agreement binding upon themselves, and their successors and assigns of any of the foregoing, including, but not limited to, any and all subsequent owners of any and all portion of the above-referenced Property.
- G. NSU intends, through the rezoning of the Property to encourage and promote large-scale development and redevelopment as well as small parcel infill and redevelopment that will facilitate a coordinated and balanced mix of land uses. The mix of land uses associated with the Guidelines will provide recreation/entertainment, and various employment opportunities within the Town of Davie, and will encourage pedestrian mobility as well as the use of intermodal transit terminals throughout the Property that will connect to local and regional transit routes.
- H. NSU and TOWN agree that the use of the Property as proposed in the Guidelines will create a master planned community which will encourage a high standard of education, business, cultural, residential, and supportive services which will create a distinctive cultural environment for the residents of Davie.

Now, therefore, in consideration of the mutual promises, undertakings, terms and conditions set forth, TOWN and NSU mutually agree as follows:

1. Recitals. The above Recitals are true and correct and are hereby incorporated herein by reference and are valid and binding on the parties hereto. All Exhibits to this Agreement are hereby incorporated by reference and deemed a part hereof.
2. Public Hearing. TOWN acknowledges that pursuant to Resolution No. _____, at its meeting of January 21, 2004, the TOWN approved the execution of this Agreement.
3. Recording. Within fourteen (14) days from the execution of this Agreement by TOWN and NSU, NSU shall record this Agreement in the Public Records of Broward County.
4. Welfare of Citizens. TOWN acknowledges and agrees that all conditions, terms, restrictions or other requirements necessary for the public health, safety or welfare of its citizens have been addressed or are contained in this Agreement.

5. Permitted Uses Under the Agreement. The uses within the Property shall be developed in accordance with the standards set forth in the attached Master Plan and Design Guidelines, attached hereto and made a part hereof as Exhibit "B"
6. Design Guidelines. The Guidelines may divide a parcel of land within the Property into subareas. These subareas shall include a location map, a proposed RAC-AV master plan use map, and applicable development guidelines.
7. Master Plan. As indicated in attached Exhibit "B", the Property will contain a variety of uses, those uses include, but are not limited to; a cultural arts center, a major research center, athletic facilities, classroom facilities, retail uses, and a variety of residential options.
8. Height. NSU recognizes the TOWN's general concern regarding the height of buildings within the TOWN. NSU, therefore, has agreed that buildings within the Mixed Use area shall not exceed 150 feet, and buildings within the University area shall not exceed 125 feet. Should the Town not amend its comprehensive plan regarding the height of buildings, NSU understands that the maximum height of any building on the Property shall not exceed 75 feet.
9. Density. NSU agrees that the maximum overall residential density for the Property shall be 22 dwelling units per gross acre. In no event shall the Property contain more than 500 total dwelling units. Five (5%) percent of the total dwelling units on the Property shall consist of affordable housing units.
10. Permit Procedures. TOWN agrees to timely process all permits and approvals necessary for the development of the Property, and to consolidate the necessary permit approvals to the extent that it is possible to do so.
11. Agreement to Run With the Land. All provisions of this Agreement and exhibits attached hereto shall be constructed as covenants running with the Property. NSU and TOWN, including any successors and assigns, shall be bound by all the provisions of this Agreement and exhibits attached hereto and any amendment thereof.
12. Failure to Address a Particular Matter. TOWN and NSU agree that the failure of this Agreement to address a particular permit, condition, term or restriction shall not relieve NSU of the necessity of complying with the applicable law governing such permitting requirements, conditions, terms or restrictions.

13. Amendment. This Agreement may be amended or canceled only by mutual consent of TOWN and NSU.
14. Modification. If State or Federal laws are enacted after the execution of this Agreement which are applicable to and preclude the parties' compliance with the terms of this Agreement, the Agreement shall be modified as is necessary to comply with the relevant State or Federal laws.
15. Enforcement. This Agreement shall be enforceable, unless lawfully terminated or canceled, by any party to this Agreement or their successors or assigns in interest, notwithstanding any subsequent changes in any applicable law adopted by TOWN which alters or amends the laws, ordinances, resolutions, rules or policies applicable to this Agreement.
16. Notices and Demands. All formal notices, demand, correspondence and communications between TOWN and NSU must be in writing and shall be deemed to have been delivered on the date post-marked by mailing the same by certified mail or on the date sent by overnight or the express courier addressed to the respective parties at the following addresses:

To Town: Mr. Tom Willi, Town Administrator
6591 Orange Drive
Davie, FL 33314

With copies to: Monroe Kiar, P.A., Town Attorney
6591 Orange Drive
Davie, FL 33314

To NSU Southeastern University:

3301 College Avenue
Fort Lauderdale, FL 33314
Attn: George Hanbury

With copies to: Ruden, McClosky, Smith,
Schuster, and Russell.
200 East Broward Boulevard
Fort Lauderdale, FL 33301
Attn: Dennis D. Mele, Esq.

17. Miscellaneous.

- (a) Entire Agreement. This Agreement sets forth all of the promises, covenants, agreements, conditions and understandings between the parties hereto, and supersedes all prior and contemporaneous agreements, understandings, inducements or conditions, express or implied, oral or written.
- (b) Pronouns. All pronouns and any variations thereof shall be deemed to refer to the masculine and neuter, singular or plural, as the identity of the party or parties, personal representatives, successors or assigns may require.
- (c) Severability. The invalidity of the provisions hereof shall in no way affect or invalidate the remainder of this Agreement.
- (d) Counterpart. This Agreement may be executed in one or more counterparts, each of which shall be deemed an original, but all of which shall together constitute one in the same instrument.
- (e) Headings. The headings contained in this Agreement are inserted for convenience only and shall not effect, in any way, the meaning or interpretation of the Agreement.
- (f) Governing Law. This Agreement shall be construed in accordance with the laws of the State of Florida, and any proceeding arising between the parties in any manner pertaining to this Agreement shall, to the extent permitted by law, be held in Broward County, Florida.
- (g) Binding Effect. The obligations imposed pursuant to this Agreement upon the NSU and/or upon the Property shall run with and bind the Property as covenants running with the Property, and this Agreement shall be binding upon and enforceable by and against the parties hereto, their personal representatives, heirs, successors, grantees and assigns.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the day and year first above written.

TOWN

ATTEST:

TOWN OF DAVIE

Print Name: _____
Name: _____

By: _____
Print

APPROVED AS TO FORM:

Print Name: _____

WITNESSES:

UNIVERSITY ASSOCIATES, LTD

Print Name:_____

Print Name:_____

By:_____

Print Name:_____

Title:_____

Address:_____

STATE OF FLORIDA)
) SS.
COUNTY OF)

The foregoing instrument was acknowledged before me this ____ day of _____, 200__, by _____, as _____ of UNIVERSITY ASSOCIATES, LTD. a Florida Limited Liability Partnership, on behalf of the corporation. He or she is:

- personally known to me, or
- produced identification. Type of identification produced _____.

Notary Public

Typed, printed or stamped name of Notary Public

My Commission Expires:

WITNESSES:

NOVA SOUTHEASTERN UNIVERSITY

Print Name: _____

Print Name: _____

By: _____
Print Name: _____
Title: _____
Address: _____

STATE OF FLORIDA)
) SS.
COUNTY OF)

The foregoing instrument was acknowledged before me this ____ day of _____, 200__, by _____, as _____ of NOVA SOUTHEASTERN UNIVERSITY, a _____ corporation, on behalf of the corporation. He or she is:
[] personally known to me, or
[] produced identification. Type of identification produced _____.

Notary Public

Typed, printed or stamped name of Notary Public

My Commission Expires:

Exhibit "A"
Legal Description

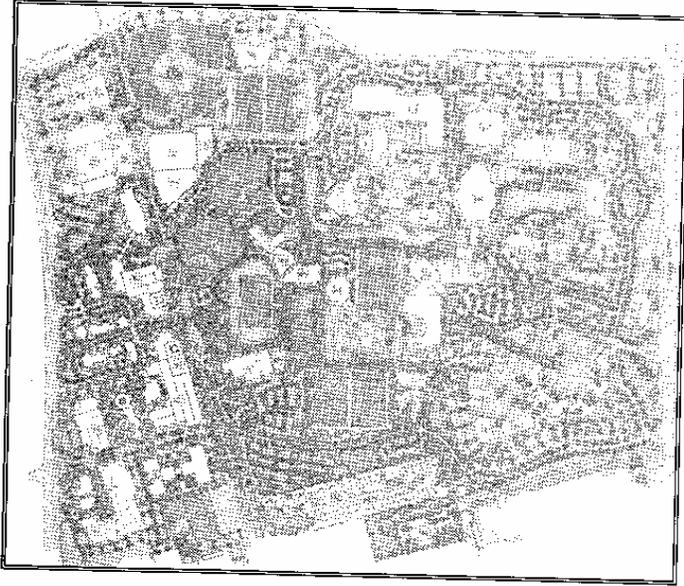
NSU-ReZONING-LEGALS

1. Parcels A & B, NOVA UNIVERSITY No. 1, as recorded in Plat Book 146, Page 49 of the public records of Broward County, Florida
2. Parcel A, YOUNG WORLD PLAT, as recorded in Plat Book 124, Page 43 of the public records of Broward County, Florida, Less and Excepting a portion of Parcel A, as conveyed in Warranty Deed recorded in Official Record Book 28907, Page 846 of the public records of Broward County, Florida
3. Parcels B, C & D, YOUNG WORLD PLAT, as recorded in Plat Book 124, Page 43 of the public records of Broward County, Florida.
4. Parcel A, NEW WORLD PLAT, as recorded in Plat Book 166, Page 37 of the public records of Broward County, Florida



EXHIBIT "B"

DESIGN GUIDELINES



RAC academical village district

design guidelines prepared by E D S A

draft January 12, 2004

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I. Introduction

A. Definitions:

Terms used throughout the design guidelines shall take their commonly accepted meaning. Terms requiring interpretation specific to this document are as follows:

- (1) **Academical Village:** Thomas Jefferson first coined the term *Academical Village* in the early 1800's. Mr. Jefferson conceived of the University of Virginia as an "academical village" in which students and faculty would live and work together, fostering a sense of community among scholars. (See www.virginia.edu for more information.)
- (2) **Block:** A combination of building lots, the perimeter of which abuts streets.
- (3) **Block Face:** the right-of-way line or easement line which delineates a block edge.
- (4) **Build - To Line:** A line parallel to the block face, along which a building shall be built.
- (5) **Building Height:** See Height and Grade.
- (6) **Colonnade:** A roofed structure, extending over the sidewalk, which is open to the street except for supporting columns or piers. (Can also be referred to as Arcade/Porticos.)
- (7) **Expression Line:** A horizontal line, the full width of a façade, expressed by a material change or by a continuous projection not less than three (3) inches nor more than one (1) foot.
- (8) **Floorplate:** The total indoor and outdoor area of any given story of a building, measured to the exterior of the wall.
- (9) **Frontage:** The property line or lines of a lot which coincide with a right-of-way other public open space.
- (10) **Grade:** The greater of:
 1. The natural elevation of the ground when compared to the abutting properties
 2. The base flood elevation requirement for the lowest floor as shown on the flood insurance rate map published by the Federal Emergency Management Agency (FEMA)
 3. Eighteen (18) inches above the FEMA base floor elevation requirement for the bottom of the lowest horizontal structural member (LHSM) of the lowest floor
 4. Eighteen (18) inches above the State of Florida, Department of Environmental Protection or its successor agency, minimum requirement for the bottom of the (LHSM) of the lowest floor.

The purpose of the definition of grade, the term floor shall be defined as the top of lowest inside surface of an enclosed area in a building, including the basement. For example, the top of the slab in a concrete slab construction or the top of wood flooring in wood frame construction. The term does not include an unfurnished or flood resistant enclosure, usable solely for parking of vehicles, building access or storage in an area other than a basement area.

Grade established herein as the basis of measuring height, shall not apply to non-habitable structures such as a fence, wall, hedge or swimming pool.

- (11) **Habitable Space:** Building space whose use involves human presence with direct view of the enfronting streets or open space excluding parking garages, self-service storage facilities, ware houses, and display windows separated form retail activity.
- (12) **Healthcare:** Any facility treating, teaching or administering practices which pertain to promoting the physical well being of its user. Hospital, Clinics, Ambulatory Care, Diagnostics, Medical Offices are all facilities, which fall under this category.
- (13) **Height:** The height of buildings and structures shall be measured from the grade to the uppermost part of the roof or structure. Spires and steeples, chimneys, parapet walls, machine rooms, elevator towers and the like necessary to the design and function of a building but not designed for human occupancy, shall not be included in the measurement of overall height of a building. The height shall be the roof peak for structures with pitched roofs and the roof slab for structures with flat roofs.
- (14) **Impervious Surface:** Surfaces that do not absorb water. They consist of all buildings, parking areas driveways, roads, sidewalks, and any areas of concrete or asphalt.
- (15) **Open Space:** An outdoor, at grade space, which is accessible to the public all or most of the time, including parks, plazas, squares, canal-walks, colonnades, courtyard gardens, and pedestrian paths and/or associated ornamental or shading landscaped areas.
- (16) **Penthouse:** Topmost built area of a building with a floorplate area less that that of the tower below.
- (17) **Pedestal:** the bottom portion of a building that creates street frontage.
- (18) **Pedestrian Ways:** Any paths which are strictly reserved for people to move through out the site by foot.
- (19) **People Streets:** Pedestrian dominated streets where vehicular movement is low-volume and secondary to the people.
- (20) **Pervious Surface:** An area maintained in its natural condition or covered by a material that permits infiltration or percolation of water into the ground including pavers on a sand setting bed.
- (21) **Plaza:** An open space with a majority of paved surface. Plazas are fronted with buildings that continue the adjacent street frontage requirements and uses.
- (22) **Retail Use:** Premises used for the exchange of services or goods.
- (23) **Square:** An open space surrounded by streets or other vehicular passages.
- (24) **Shared Parking:** Parking used by more than one use or building.
- (25) **Storefront:** The portion of a building at the first story of a retail frontage that is made available for retail use.
- (26) **Story:** A floor level within a building.
- (27) **Street:** A thoroughfare for the movement of pedestrians and/or vehicles.
- (28) **Tower:** The middle portion of a building above the pedestal and below the penthouse.

B. RAC Academical Village District

The Regional Activity Center (RAC) Academical Village District is a master-planned development designed to encourage a high standard of education, business, cultural residential and supportive service uses in close proximity that will provide a unique cultural environment for the Town of Davie.

The term *Academical Village* was first coined by Thomas Jefferson in the early 1800's. Mr. Jefferson conceived of the University of Virginia as an "academical village" in which students and faculty would live and work together, fostering a sense of community among scholars. Plans were developed for ten Pavilions—stately faculty homes with living quarters upstairs and classrooms downstairs—attached to two rows of student rooms and connected by an inward-facing colonnade. Each Pavilion was identified with a subject to be studied and inhabited by the professor who taught that subject. At the head of the shared lawn would stand the library (not, as in most other colleges and universities of the time, a chapel), its dome shape inspired by Rome's Pantheon and symbolic of the enlightened human mind. The plans grew to include two more colonnades of student rooms facing outwards and attached to a set of "hotels" where private businessmen served food for the students. With Jefferson's term as precedence this Academical Village District seeks to fulfill his objectives. Within the RAC Academical Village District three areas will exist.

Mixed Use Area: This area will provide a mix of educational research, healthcare, retail, office, hotel/conference, residential, and governmental uses that will be a unique, alternative town center for the University and the Town of Davie. The Healthcare and educational research component will provide state of the art facilities for expansive centers of excellence in diverse disciplines. It will provide a quality atmosphere for research, workforce development, and patient/client relationships. It will also allow for physicians offices, medical research, outpatient care, clinics, and other research offices. The area will take advantage of internal transit and the mix of uses to minimize external trips on local roadways.

University Area: This area will provide facilities for higher education and uses to support the educational environment. This area will also provide sports and recreation facilities for the entire campus. The University area will provide living facilities to students and faculty of the university and the necessary conveniences for living. It will also provide cultural facilities, which will serve both educational and entertainment needs, within the District.

School Area: This area will provide facilities for Pre-K through 12th grade education and uses to support the educational environment as well as offer facilities for special education development.

Ultimately, the RAC Academical Village District will bring together the best minds from academia, government and industry to promote an *academical village* with a 21st century twist. The Academical Village will provide research education facilities, quality retail venues, exceptional residential options, vibrant office space, state of the art educational and medical outlets, quality hotel and conference center facilities and unique open spaces for the Town of Davie to enjoy.

C. Purpose and Organization of Design Guidelines

The purpose of these Guidelines is to assure the highest level of design, as well as to protect the long-term value of facilities built within the RAC Academical Village District. The material in this section is presented as "Guidelines", not as controls. They are intended to allow the architects for each project component wide design latitude in expressing the qualities of their respective projects. If followed in a creative manner, they will allow a great deal of variety and visual richness throughout RAC Academical Village District, while at the same time, giving design unity and continuity to the area as a whole. The Site Planning Design, Building Design, and Landscape Design Guidelines have primarily, although not solely, been conceived with considerations which have the utmost impact in the public realm, such as planting, paving, grading, water features, signs and graphics, street furniture, lighting, arcades and energy conservation.

Each section is preceded by a brief introduction and outline of objectives. Functional and aesthetic concerns are then articulated by using illustrations that indicate a considerable range and variation in design. This is to encourage creative design and to encourage a diversity of design solutions throughout the project as long as the principles suggested in the Guidelines are incorporated. For example, the concept of providing a shaded and protected walkway along pedestrian and public space at the edge of buildings is a principle that should be encouraged in the research, medical and academic area specifically. Both the method of achieving the shading and the design of the shading device should be left open to the creative opportunities of each individual project. The Guidelines will establish an underlying theme throughout the project, but the varying methods of achieving the objectives will give diversity, richness, and cohesiveness throughout the RAC Academical Village District.

All sections discussed within the guidelines shall be noted as suggestions, not controls. For all requirements regulated by the Town of Davie please see Section 12-32.400-411 of the land development code.

II. Site Planning and Design

A. Permitted and Conditional Uses

Mixed use developments must be carefully addressed when it comes to what uses can best co-exist with one another. (See Sec.12-32-404 for permitted uses chart.)

B. Setbacks and Height Limitations

Setback standards ensure open space environments for the development parcels. In the setback areas, landscape buffers are required. **Set backs are to be from the perimeter property lines only.**

To avoid monotony of line and regularity of structure, buildings over two stories should have variety in height and it is strongly recommended that building height be varied from one bay or building to another. (See Sec. 12-32-407 for setbacks and height limitations.)

C. Circulation and Parking

Circulation and parking are essential ingredients to a successful master plan. From the highest traveled road to a bike lane, all elements of circulation and parking should be addressed with due diligence. Both systems should be designed not only to facilitate the movement and staging of people and automobiles but must also be designed to exist harmoniously with the surrounding landscape.

To provide drivers with safe visibility at intersections, no obstructions exceeding two feet in height may be placed in a triangular area measuring 50' from the intersection of curb lines on the primary road and 25' from the curb lines on the secondary roads.

All entries shall be identified by a special landscape feature that establishes a clear sense of entry, and signage that provides clear orientation for visitors. (See graphics and signage p.31)

Ingress and egress points shall be designed to minimize hazards, inconvenience, and congestion by providing simple circulation patterns, ample stacking room and ease of orientation for visitors. All access roads shall intersect any frontage road at a 90 degree angle or as close to 90 degrees as possible. Direct vehicular access from University Drive and College Avenue should be limited to minimize traffic impacts on these main thoroughfares. Direct vehicular access from side streets should be encouraged. Smaller parcels should be encouraged to share common access with adjacent parcels keeping curb cuts to a minimum.

Major arrival/drop-off areas should only be encouraged along side streets, especially those designated as People Streets. Arrival/drop-off areas should be encouraged to provide sufficient room for vehicle stacking, loading, unloading, and other main entrance functions. Pedestrian entries for all mixed use structures should be located the maximum possible distance from loading and service areas.

Typical Street Section Illustrations shall only apply to future roads. All existing street designs shall remain intact. The locations of all street types are subject to change in accordance with the Amendment 12-24 Sec. 12.32-418 and shall be presented in the annual report as defined in Sec. 12.32-419. (See Exhibit D for Street Type Location Plan.)

1. Primary Streets

Primary streets should be developed to facilitate traffic movement between major arterials and local streets, with direct access to abutting properties. These systems should contain a minimum of 4 lanes, 2 in each direction, and each lane a minimum of 11'. (See Sec.12-32-410 (1))

2. Secondary Streets

Secondary streets should be developed to facilitate local traffic movement and direct access to abutting properties. Street width should contain a minimum of 2 lanes, 1 in each direction, and each lane a minimum of 11'. (See Sec.12-32-410 (2))

3. People Streets

People Streets should be developed to facilitate a healthy pedestrian presence along streets with habitable space frontage. People Streets can be a mix of uncovered (as well as) covered walkways. A diversity of walking environments will keep the pedestrian interested while moving through a space. People Streets that front restaurants and/or retail shall have a 15' minimum sidewalk width and provide a safe buffer next to the street. (See Sec.12-32-410 (3))

4. Pedestrian Ways

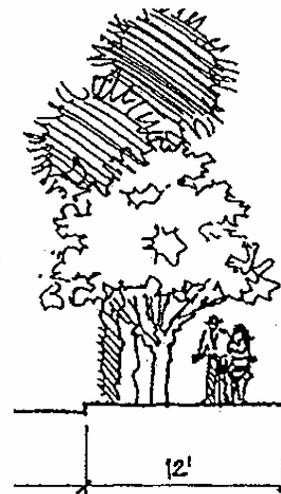
Pedestrian Ways should be developed as an integral part of the RAC Academical Village District's circulation systems. These circulation systems allow pedestrians to enhance the district with their presence. From invigorating a plaza atmosphere to stimulating retail growth, the pedestrian is the key element to a vibrant and successful urban space. Pedestrian ways are important connections that must exist through the District and should have comfortable walking widths ranging from 6'-15'.

5. Bikeways

A bicycle system should be developed to facilitate recreational bicyclist in a continually interesting, exciting and diverse circulation system. Seeing that the student population will be one of the beneficiaries of this area, a successful bicycle system is essential.

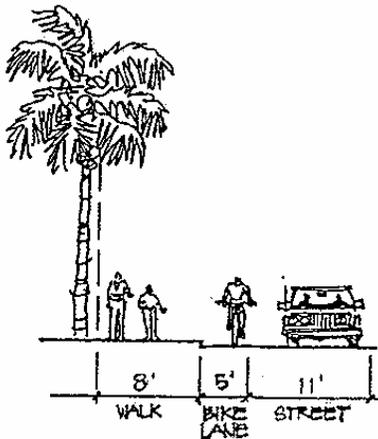
Accommodations for cyclist should range from appropriate circulation systems to adequate bike staging areas with in developments. Convenient bicycle circulation will not only encourage bike riding throughout the mixed use area but will also persuade auto mobiles to drive at more friendly speeds throughout the area. 5' striped and signed bicycle lane is suggested if space is not available, a minimum shoulder of 3' in addition to the traffic lane should be utilized to allow for cyclists.

A passive recreational bikeway system could overlap the road side lane, but where opportunity permits, should be a separate lane designed for more leisure purposes.



Pedestrian ways should allow for adequate shade

There should be a change of paving materials to define the two modes. Where space permits the introduction of a planted separator will greatly enhance the attractiveness of both pathways. Where opportunity exists, the implementation of vertical elements (bollard, columns, etc.) and horizontal separation could safely isolate the cyclist from vehicular circulation.



Bike lanes should be 5' wide, if space is not available 3' min width is acceptable.

6. Transit Stops

The Transit Plan for RAC Academical Village District considers one vehicular mode of transportation, which will require development of "stops" where people will have access to and from the conveyance vehicle; the existing Nova Southeastern University Shuttle system. The future tram system to run along the I-595 corridor presents opportunities and potential needs for transit stops at a smaller scale.

Transits Stop location within the District should use parking structures as landmarks. Placing a stop adjacent to parking structure encourages visitors to park once and then easily maneuver through the District by transit.

7. Bus Stops

The Town of Davie, NSU, SFEC, BCT shuttle/bus systems can utilize the same intermodal "stop" facilities. Transit stops should be provided along the major roadway at each designated intersection, arrival courtyard, and adjacent plaza or

special location. Such stops along the outside of the loop should contain a small additional lane segment, separate and distinct from normal traffic lanes, to facilitate thru traffic flow while transit vehicles are stopped. The transit stops should be designed as integral elements, to the boulevard streetscape environment, providing such basic amenities as seating, identification, and shade.

In areas of the RAC Academical Village District where the transit stop is clearly within the public sector, an independent facility will be designed and constructed.

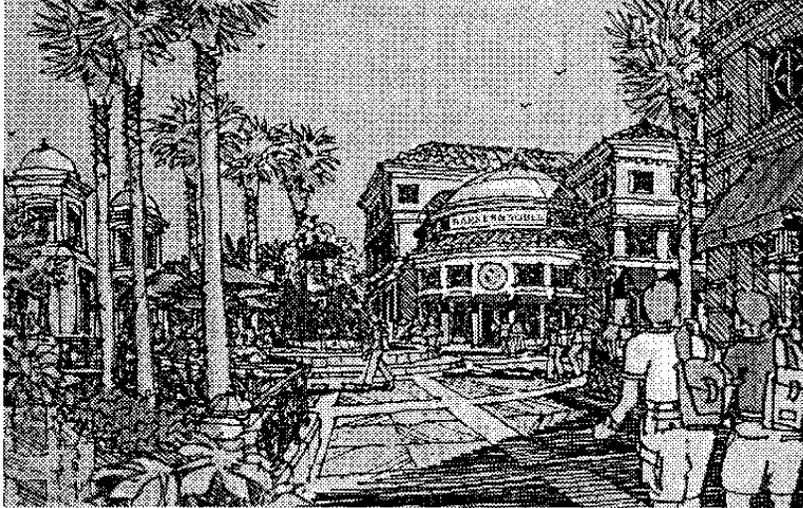
8. Park and Recreation Systems

The park and recreation system within the RAC Academical Village District has been conceptualized in the Master Plan to provide a wide spectrum of recreational opportunities and environment ranging from passive reading to active athletics. It is intended that the diversity of activities available extend to serve a complete spectrum of ages and interests. In addition, the park and recreation ways systems will provide a continuous pedestrian linkage throughout the District as well as provide a connection to downtown Davie via the Town of Davie Trail System.

The following guidelines address elements within the RAC Academical Village District park and recreation system, and identify the more important aspects of their development.

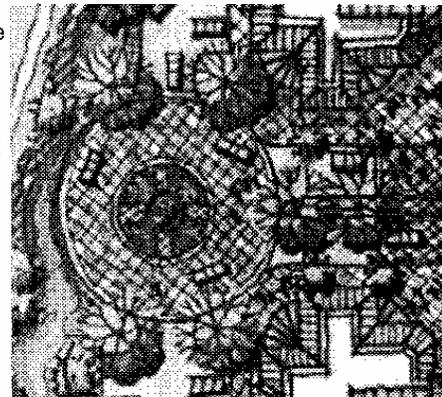
9. Plazas

Plazas are encouraged only within the Mixed Use Area and are most important to the success of this area due to their ability to provide an opportunity to incorporate places for public congregation and recreation. They also provide the introduction of architectural elements into the landscape. They should be encouraged along the streetscape edge at the building line. These plazas provide a connection between adjacent uses and along with the parks and greenway, provide an overall continuity throughout the RAC Academical Village District. The edge should be maintained by architectural features (arcades), site furnishings (benches, flagpoles, bollards) or landscaping elements that provide continuity between the building line of adjacent structures.



Typical plaza space within the Research Village with unique paving patterns and special water features. (Sketch)

The plazas will provide an opportunity to announce the arrival to different areas within the District, as well as provide opportunities for reflection and interaction. Each plaza should be designed with similar materials to promote continuity throughout the District. Paving material should reflect the scale of the plaza, as well as help to provide visual keys to changes in use, elevation, and circulation change. Shaded area should be provided for people to sit and gather. The plaza should be driven from the architectural forms that surround them. By using the forms and angles created from the surrounding architecture, the plazas will provide the balance necessary in the open spaces. All plazas must remain handicap accessible.



Typical plaza space within the Research Village. (Plan)

It is vital that the plazas provide adequate amenities including seating, shade and focal features. Shade structures and tree canopies should be implemented near sitting areas to create a comfortable social space between the architectural features. Shade can be provided from use of surrounding architecture or with additional elements such as trellis or over story vegetation. Seating does not have to take on traditional forms of benches, though they are acceptable forms. It can be created using walls, steps, or even grassed berms. Where scale permits the introduction of water elements can be implemented to add to the plazas theme or character. Water features provide aesthetic beauty and can serve as an auditory buffer from surrounding noises, thus creating a more satisfying environment to experience.

10. Surface Parking

Within the Mixed Use Area surface parking facilities should be arranged in small areas to avoid large asphalt parking lots that could be aesthetically unpleasant and environmentally unfriendly. Where large surface parking facilities are located, landscaped islands should be created whenever possible to soften the appearance of the existing facility and clear demarcations of transit stops should be implemented in order for transit systems to be utilized. Whenever possible, access drives should align with access points on the opposite side of the road. Direct back out parking into public streets should be discouraged.

Vehicular circulation within public parking areas should remain internal to the parking facility and public roads should not be utilized as part of a parking lot circulation system. Continuous circulation should be provided within parking lots to avoid dead end bays and avoid numerous access points into roadways. Planting islands shall be provided at the end of parking bays to safely separate parking from circulation. A landscape island, the size of a parking stall, should be utilized to break up rows of parking on the interval of every ten spaces.

Pedestrian crosswalks within parking areas should be highlighted by using stripping or paving patterns to highlight pedestrian activity.

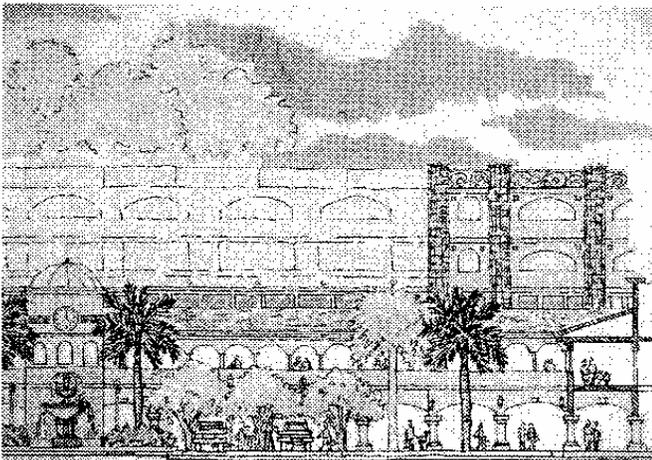
Surface parking facilities should be properly screened with vegetation and grade change from pedestrian zones and heavily utilized plazas and public spaces.

Where opportunity exists, on street parking could be introduced in heavily used areas to accommodate for parking ratios and limit asphalt lot and structured parking facilities. On street parking can also calm traffic for pedestrians and create a safe and inviting environment for street vending, outdoor dining, and pedestrian movement.

11. Structured Parking

Structured parking facilities are permissible within the District and should be designed with street level frontages consisting of habitable space on busy streets and treated with an architecturally articulated façade that screens the parking area of the structure on minor streets. Street level openings to parking structures should occur only on side streets and be minimized to accommodate necessary vehicle entrances and pedestrian access only.

Public parking structures should be limited to areas of high public parking demand and should be located in close proximity to the public and private uses they serve. Where possible, public parking structures should be introduced to provide direct off-street pedestrian access to major public uses.



Structured parking facilities should be properly screened with vegetation and grade change from pedestrian zones and heavily visited plazas and public spaces.

12. Parking Requirements

A parking report must be presented to the Town of Davie as part of the site plan submittal and will be approved on a project-by-project basis. Parking requirements may vary from building to building due to their specific uses. Concurrent or shared parking calculations will be valid throughout the RAC Academical

Parking garages fronted with habitable space is a successful way of screening parking stalls.

Village District due to the campus atmosphere this District will promote. Parking requirements created in this manner will encourage the users within the District to park once and walk or utilize the shuttle/transit service to move from one use to another.

For the purpose of calculating parking spaces, gross floor area shall not include: covered or enclosed parking areas; exterior unenclosed private balconies; floor space used for mechanical equipment for the building; and elevator shafts and stairwells at each floor. Campus and Town transit shall account for 10% of the overall means of transportation to the District and shall be subtracted from the overall # of spaces required throughout the District. The off-street parking required by this section shall be provided and maintained on the basis of the minimum requirements in the *Table of Off-Street Parking Requirements* see **Sec.12-32-409 (B) (1)**.

Parking spaces serving uses possessing unique and widely divergent operating hours, such that one use would not, in its day-to-day, operation have need of the parking spaces during the operating hours of the other use, may share those parking spaces with another use providing the area where the sharing occurs is not heavily impacted by a parking shortage and provided that (1) a shared parking agreement is developed between property owners and the agreement is submitted to the planning department for review prior to recording the agreement with the county recorder and (2) a copy of the recorded shared parking agreement is transmitted to the planning director prior to issuance of a certificate of occupancy.

The intent of the shared parking goals is to permit a reduction in the total number of required parking spaces when a parcel is occupied by two or more uses which typically do not experience peak parking demands at the same time.

When any land or building is used for two or more uses, as listed below, the minimum total number of required parking spaces shall be determined by the following procedures:

Multiply the minimum required parking for each individual use, excluding spaces reserved for use by specified individuals or classes of individuals, by the appropriate percentage listed in the Table below for each of the designated time periods. Add the resulting sum for each of the five vertical columns of the table. The minimum parking requirement is the highest sum resulting from the foregoing addition.

The maximum reduction under this provision shall be 25%, unless a greater reduction is approved as a technical deviation. **(See Sec. 12-32-409 (E) (2) for shared parking percentage chart.)**

Unless designated for compact cars, each required parking space shall have a minimum width of nine (9) feet and a minimum length of eighteen (18) feet with a twenty-four (24) foot aisle for 90 degree parking with appropriate adjustments to the aisle width for angle parking. Compact car spaces shall have a minimum width of eight (8) feet and a minimum length of sixteen (16) feet. No more than 25% of all required parking spaces in parking structures and in surface or open air lots of more than 50 spaces can be designed and designated for compact cars. **(See Sec.12-32-409 (E) (3))**

The number of spaces required under the provisions of the above paragraph shall include the following requirements for parking spaces for handicapped person:

All spaces for the handicapped shall have access to a curb-ramp or curb-cut when necessary to allow access to the building served, shall be located so that users will not be compelled to wheel behind parked vehicles, and shall be located the shortest possible distance between the parking area and the entrance to the principal building it serves. Each parking space for the handicapped shall be paved and installed in accordance with State guidelines and the Manual on Uniform Traffic Control Devices and the Federal Department of Transportation, as amended from time to time. 10

D. Grading, Drainage, and Retention

Landforms in nature may be varied and diverse even within a relatively small area, but where such diversity does exist, it exists because of geologic, climatologic, or other natural forces.

The introduction of grading variety in the RAC Academical Village District will occur in both "natural" and architectural context. Great care must be exercised in "natural" situations to provide forms, which although not generated by nature, do not appear to violate those which nature might create. Mounding which is introduced for visual and/or functional purposes should occur with smooth transition from the underlying ground plane. In all cases the scale and intricacy of earth forms should relate to the size of area within which they occur.

Two of the most significant effects of grading occur in the creation of visual interest and the definition of spaces. A sculptured ground plane adds visual interest to areas where grade change is minimal. Gently sloping ground forms can greatly enhance and reinforce lines of pedestrian movement.

1. Use Separation

One major opportunity presented by creative considerations of grading lies in the ability of grade changes to separate differing uses. Where uses are somewhat compatible, a minor change in grade can serve to define subtle differences in activities. Where adjacent uses are dramatically different, separation by grade and/or planting can be highly effective.

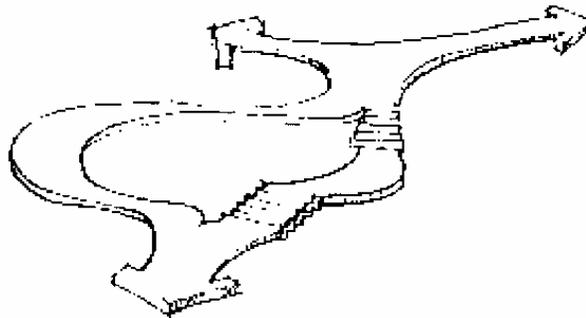
While grading should respond to the functional goals of paving and planting, its immediate apparent impact is on the visual effect created within the environment. This is of particular significance in South Florida, where the natural ground plane is flat and monotonous.

Within this regional context of flatness, grade changes and earth form variety, which when built into a project can have tremendous effect. Even slight rises, drops, or steps, become an interesting change, and the creation of major landforms results in a visual impact of major proportion when contrasted with the norm in surrounding areas.

The overall Master Plan has provided a framework within which grading opportunities in the RAC Academical Village District can be maximized. The following guidelines address principles that should serve as stimuli for the development of creative and imaginative grading solutions.

2. Barrier Free Access

The development of a ground plane fabric, which is complex and multilevel, raises the need to provide access for the handicapped and emergency vehicles. All pedestrian environments must be barrier-free throughout the provisions of ramps, sloped curbs, etc. These accommodations should not dominate the development of the environment, but accommodations must be made. Ramps should be level at top and bottom, with slopes not to exceed 1 in 12, or lengths no longer than 30 feet.



All paths must be ADA accessible

3. Drainage Areas

The handling of surface water may be considered both a functional and aesthetic characteristic of paving. The manner in which water-handling structures are treated and used becomes largely an aesthetic concern. Where inlets need to occur in open, paved areas, care should be exercised in the selection of visible elements in order to fit appropriately with the pattern and materials of the paving surface.

4. Water Movement

The catchments of water are partially discussed under the paving section. Sensitive grading to insure proper water movement is necessary. In some cases, water may simply be directed to the roadway where it will be carried and directed in the street curb. However, there will be more complex drainage situations.



Roadway curb and gutter systems can be utilized to drain site runoff.

Harsh ground forms, clearly for moving water, are not to be employed. Instead, gentle, graceful swales and landforms should be developed which accommodate water movement yet appear to be integral to the ground form.

The treatment of surface water should occur in an unobtrusive manner wherever possible. Creative solutions that capitalize on situation area are encouraged. On a larger scale, consideration should be given to the handling of storm water.

In public plazas, where grading might ordinarily direct water away from a central feature, consideration might be given to incorporate the catchments of the water instead.



Soft, gentle landforms are encouraged for site grading.

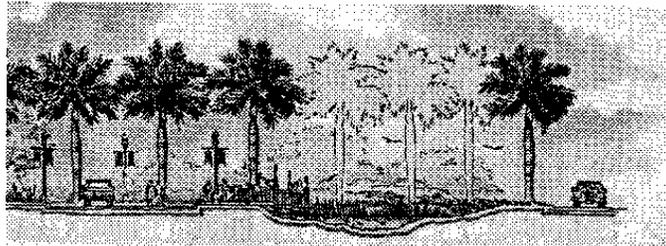
5. Detention or Retention Basins

Detention and retention basins can play important roles functionally as well as aesthetically. Detention basins may be a part of a permanent water feature by raising the outflow pipe to the desired water elevation. In this case, holding capacities shall not include the volume under proposed water elevation.

Basins should be designed to work with the existing contour. Straight lines should be avoided. They should have plantings along the rim and, where possible, flood resistant vegetation within detention basins to diminish visual impact and stabilize soils.

Retention basins should have a safety ledge extending six feet from the edge of the water and at a depth of 2 ½ feet. Maximum slopes to the water line of retention basins should be 30% or 3:1.

Shapes and layout of basins may vary as long as all existing retention and detention basins capacities are maintained.



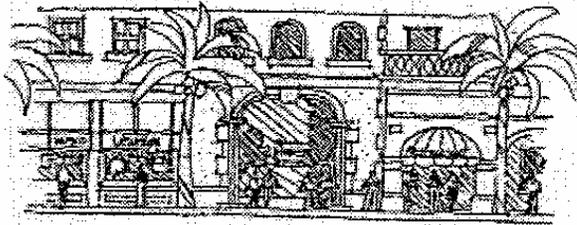
Retention and detention basins should be functional as well as attractive water features for the site.

III. Building Design

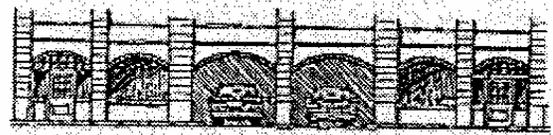
A. Design Character

Buildings for all new construction should be designed in accordance with a concept and theme throughout the RAC Academical Village District. However, the building character in the University and School areas will differ from the Mixed Use Area due to campus context. The harmonious relationship between outdoor spaces and indoor spaces should be encouraged and remain an integral element throughout the entire District.

For example, in the University and School areas the buildings will juxtapose to campus greens, lush landscapes and courtyards spaces and in the Mixed Use Area, the first floors of all buildings, including structured parking, should be designed to encourage pedestrian scale activity. To stimulate pedestrian activity, buildings which front plazas, people streets and University Drive should devote a majority of their net first

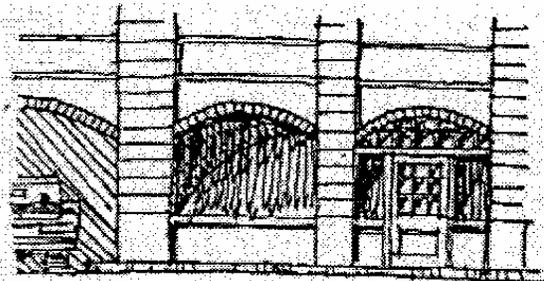


First floors of all buildings should encourage pedestrian scale activity



Retail space or articulated facade pedestrianizes the streetscape.

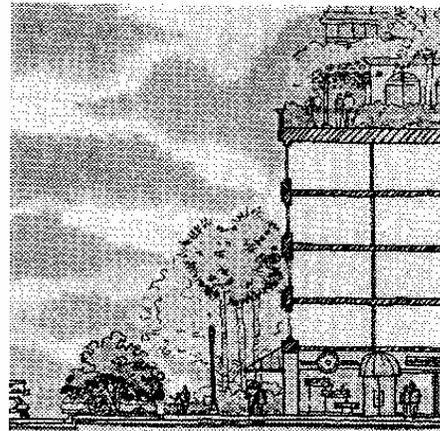
floor-third floor area to habitable space such as restaurants, shops, galleries, offices, similar active uses. Street level habitable space should have direct access to the adjoining public sector sidewalk in addition to any other access, which may be provided. To complement pedestrian scale activity throughout the mixed



Windows, doors, and other transparent architectural features should make up the ground floor facade.

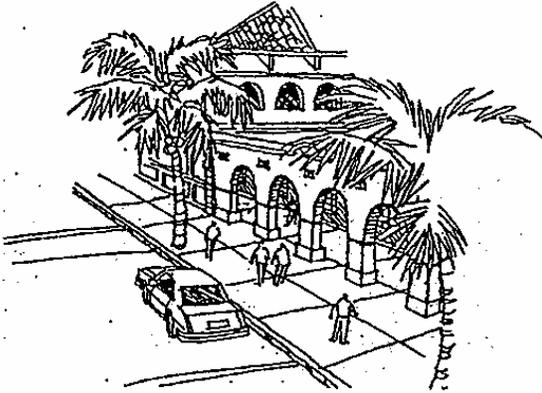
use area and all people streets, a majority of the first floor façade on these frontages should be windows, doors or other transparent architectural features. Expanses of solid wall should be minimized. Reflective surfaces on windows or doors should be discouraged. Street level windows and doors should be recessed or receive special design detailing which distinguish them from the building shaft and add variety to the streetscape.

Buildings, which border directly on high volume vehicular streets within the Mixed Use Area, such as University Drive, should allow highly visible window facades to encourage stopping and shopping. Non-continuous canopies, awnings, and marquees should also be encouraged over street level window treatments and building entrances. Such features may be constructed of either rigid or flexible material but should complement the visual and functional quality of the streetscape and be compatible with other site elements. No canopy, awning or marquee should extend into the future public right-of-way nor

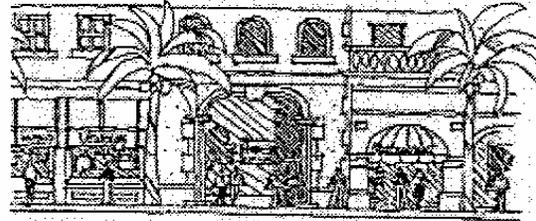


Highly visible retail through window facades will stimulate activity at ground level.

interfere with street light fixtures or the growth and maintenance of street trees. Arcades and porticos are not suggested for the use of building frontage along these types of streets.



Colonades (arcades or porticos) create inviting pedestrian spaces and allow for all weather pedestrian activity.



Window shopping will be a common activity within the Mixed Use Area.

Buildings, which border directly on low volume traffic streets with high pedestrian traffic, such as the Main Drive through the Mixed Use Area, should also allow highly visible window facades, canopy treatments, and marquees. Porticos and Arcades shall be accepted in these areas as long as there is an additional sidewalk of a minimum of 10' unobstructed by the arcade. Buildings in other areas should be encouraged to incorporate an arcade or continuous canopy along their appropriate frontages as long as it is consistent with the proposed use, adjacent development, and meets all applicable codes. Arcades or continuous canopies should be a minimum of ten feet wide and maintain acceptable mini-

imum clear height. Arcades and canopies should be designed as a fixed non-retractable element integral to the buildings architectural mass and compatible with site elements.

B. Building Site Location

When siting buildings, the following issues should be considered, Energy, Privacy, and View Protection.

1. Energy

Buildings should be oriented to take advantage of southeasterly breezes for summer cooling and withstand occasionally strong northeasterly winds. Exterior glass surfaces should be shaded to improve energy efficiency. Roof and exterior wall finishes should be light in color to encourage maximum reflection/minimum transmission of heat loadings. Buildings should allow adequate space between structural masses for the passage of natural breezes. The use of vestibules and or revolving doors to reduce infiltration at the entrances should be encouraged.

2. Privacy

Building location should avoid impinging on private areas or neighboring developments.

3. View Protection

Buildings should be sited so as to strengthen view corridors to all significant natural and man-made features and to provide a strong sense of place.

C. Building Materials

In keeping with the upscale image the RAC Academical Village District wishes to display, certain building materials are more appropriate than others. Materials not listed below or new building materials, as they are developed or become available, will be given special consideration.

1. Roofing Materials (Surfaces visible from the ground)

a. Permitted: Standing Seam Metal, Clay Tile, Concrete Tile

b. Not permitted: Asphalt Shingles, Slate

2. Siding Materials

a. Permitted: Precast Concrete, Stucco, Metal, EIFS

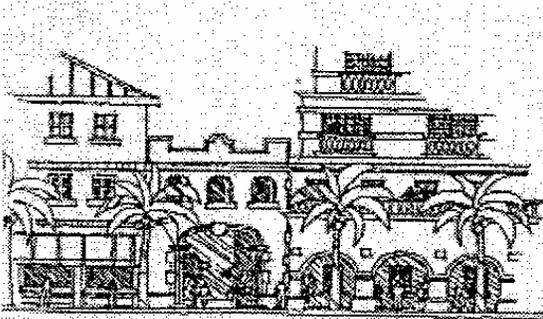
b. Not Permitted: Wood Siding

3. Colors

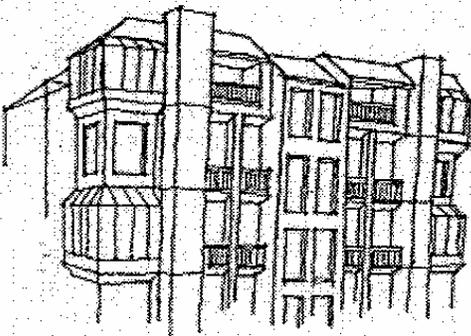
Colors should reflect existing palette of adjacent buildings. Color schemes should be approved per development.

Developers, planners and architects are encouraged to apply Green Building materials and practices to their design. Developers will receive credits and certification by the U.S. Green Building Council (USGBC) for the application of Green Building methods.

Leadership in Energy and Environmental Design (LEED), under the direction of the USGBC, has developed the LEED Green Building Rating System and the LEED Reference Guide to assist developers and designers in their quest for certification and credits as a "Green Building." These documents shall be the guiding tools for the design process and are available to the public at www.usgbc.org.



A uniform cornice height of 35' is encouraged throughout the Mixed Use Area.



A building's vertical surface plane can be modified with balconies, arbors, etc.

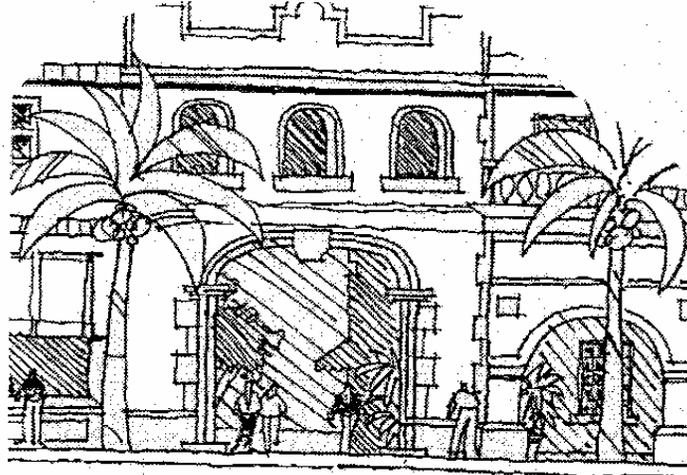
D. Massing

Buildings should be encouraged to vary in overall height and not be contained in a single volume of continuous height. Buildings should step back in height when adjacent to pedestrian spaces.

All buildings, which front University Drive, people streets, or other significant corridors within the District, should be encouraged to display a uniform cornice height between twenty-five (25) and thirty-five (35) feet in height. This cornice height should consist of a uniform alteration to the building massing for a minimum of four (4) feet perpendicular to the vertical surface. Buildings exceeding thirty-five (35) feet in height should be encouraged to maintain no more than three stories without horizontal moderation in vertical surface plane. This moderation should consist of a minimum four (4) foot horizontal variation in surface plane such as brise soleil, balconies, building projections, etc. Repetitive moderations should be discouraged.

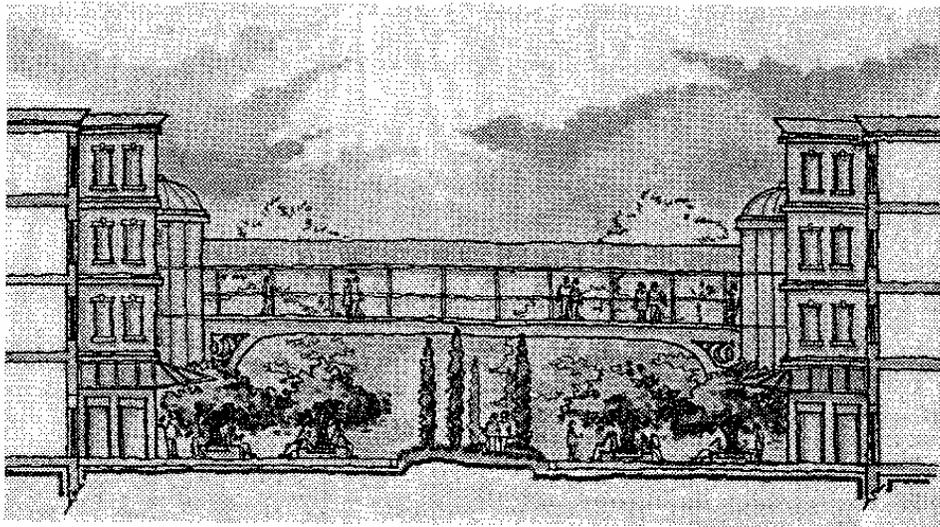
All buildings shall have a minimum of three (3) planes of vertical separation.

The first thirty-five (35) feet of the exterior façade vertical plane should be encouraged to enhance the pedestrian environment by incorporating appropriate architectural features. Such features include cornice, molding stringcourses, ornamentations, changes in material or color, and other sculpting of the architectural surface, which add special interest and are compatible with public sector site elements.



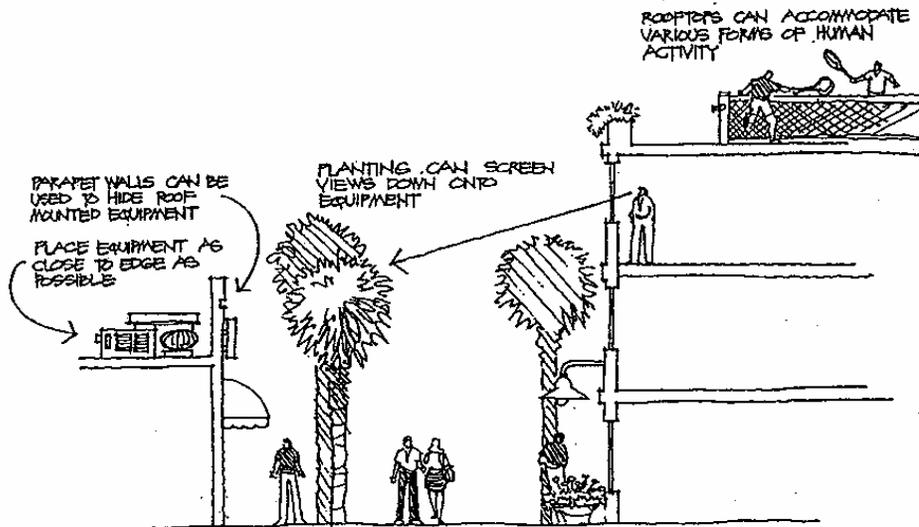
Architectural detail is encouraged on the first 35 feet of exterior facade.

Connections between structures which pass over public right-of-way may be permitted providing those connections have secured legitimate air rights over the public corridor and meet all applicable codes. Connections over primary roads should be limited to select locations where significant amount of above grade pedestrian traffic will be generated. Where possible, overstreet connections should access the mixed-use area at or near major site features. Overstreet connections are highly suggested between buildings that share common needs/uses or when the interaction between users of the buildings is important for the success of the use. All overstreet connections should be of exceptional design, which enhance the visual and functional quality of the streetscape and should be compatible with site elements.



Overhead connections should be utilized between building that share common needs/uses or when the interaction between users of the buildings is important for the succes of the use.

Where possible, rooftops should be designed to accommodate various forms of human activity such as sun decks, tennis courts, outdoor cafes, etc. Roof surfaces not allocated to human activity should be finished with a surface material that does not affect the quality of views from surrounding buildings or site lines from taller buildings should be directed away from unsightly rooftops. All rooftop mechanical equipment, stair and elevator towers should be designed as an integral part of the building volume and/or adequately screened.



Screening of mechanical equipment and use for human activity should be considered in roof top design

IV. Site Element Design

This section is devoted to guidelines that deal with smaller design components such as paving, planting, site furnishings, etc. The purpose of these guidelines is to communicate site design and environmental standards essential to aesthetic and economic success of the RAC Academical Village District. As presented, the guidelines encourage and allow the creative design expression within a framework that gives design unity and continuity to the entire District.

A. Paving Materials

Public pavement becomes the floor of any urban area. It can be inspiring or commonplace. At its best, paving contributes to the total environment without dominating the visual experience. The following design guidelines encourage the creation of a paving fabric in the RAC Academical Village District that is as exciting and rich as possible.

Generally, paving surfaces can be classified into three major categories based on their composition or method of installation.

1. Loose Surfaces

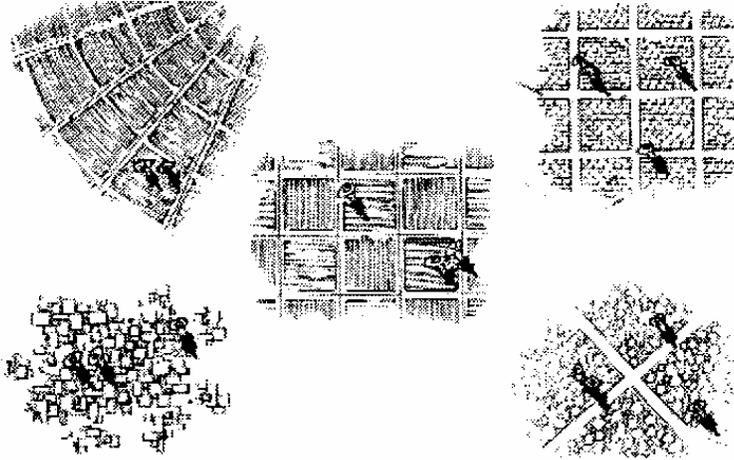
The simplest paving surface is loose, granular material placed in path or a drive to provide definition from planting areas. Such paving is most appropriate to low traffic situations and has little application throughout main streets.

2. Monolithic Surfaces

Monolithic surfaces are those, which are installed in a continuous pour, usually either asphalt or concrete. Their applications are primarily for vehicular traffic where strength and durability are of prime concern, but many applications to pedestrian situations can be found.

3. Modular Surfaces

Modular surfaces are those, which are composed, or appear to be composed, of individual pieces placed one at a time (bricks, granite, blocks, tiles, etc.) Since modular paving surfaces are usually richer in texture, color and appearance, and tend to be more expensive due to material and installation costs, their application is typically associated with a pedestrian context, but many applications in vehicular situations can be found.



Paving patterns create interesting surfaces and can delineate circulation or act as a marker for feature elements

4. Richness and Unity

While every encouragement is offered to develop a paving fabric composed of the best available materials, situations may occur where something less than a luxurious surface is appropriate. In such cases, every effort should be made to produce a surface, which is as interesting as possible. The unity and richness of the paving material should reflect the cultural and artistic feel of the District.

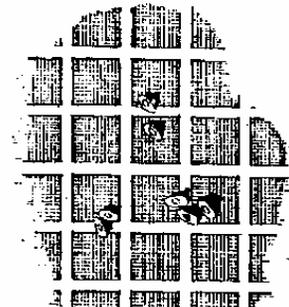
Paving surfaces need not be complex to be interesting. Simple variations in color, texture, or size (in cases where a modular material is used) can be employed to achieve a variety of results. The variations should incorporate the cultural and artistic feel of the District.

There should be a predominance of material, color, or texture in paving to give needed unity. A complicated paving scheme, except in unique situations, is seldom as successful as simple patterns, with accent through material, color, or texture change.

Where monolithic materials such as concrete are used, a dominance of broom finish texture can be accented by a smooth, troweled edge and scoring. Where modular materials are used, a change in module size or direction can effectively provide the accent interest. Highly effective is the combination of monolithic and modular materials together.

Unity of paving material within the public sector offers an opportunity for project cohesion. This guideline does not mean to imply that all paved surfaces must be identical materials. Rather, all surfaces, which can be grouped, i.e. interior pedestrian or bicycle pathways should be a continuous material.

One exception may be special pedestrian areas, such as park walkways. A slightly different, more natural material should be used.



Paving materials are an important element when creating a richly cohesive design.

Pavement width will undoubtedly vary to some extent. Whenever possible, it should reflect the peak load use of an area. For example, the pavement width adjacent to the amphitheater will need to be substantially wider than a typical internal walkway. The sheer volume of pedestrians using the area will require a broader pavement.

Likewise, different uses may require different pavement widths. Bicycle pathway widths will vary from pedestrian pathway widths. Special areas such as those around special features such as kiosks or tot lots should respond whenever possible to the particular situation. Areas for sitting, congregating, or moving should be articulated where appropriate. Even minor areas for sitting can be defined as distinct from those of circulating. Changes between materials or textures should be well considered, and provide a clear transition from one material to the other.

The development of any public sector paving must include concerns for maintenance tasks, such as sweeping, hosing down, periodic repairs, etc.

B. Landscape Planting

The landscape treatment of the public sector must be consistent to provide a visual connection throughout the RAC Academical Village District. Plantings along public roadways, canals and other public corridors should provide a common framework. Public planting must be of the highest caliber, setting an example for private development.

Planting areas should be layered and dense to therefore create a continuous "sense of green." These planting areas will contribute immeasurably to the project's visual pleasure, especially in the enjoyment of natural outdoor amenities. In addition to these, a consideration to preserve the natural materials should be given, as well as attempt to utilize indigenous materials when adding to the planting. (See Sec. 12.32-413 and 12-102 for all landscape requirements.)

The following guidelines offer both functional as well as aesthetic information.

1. Ground Plane Materials

Shrub materials, in their wide variety of forms, colors and textures, provide the basis for visual interest and spatial definition below eye level. When properly used, masses of shrub material can become the unifying element in the landscape, bringing diverse landscape elements into overall harmony. Through contrasting variations in form and texture, seasonal color displays, ground plane materials also contribute much to the variety and interest of the landscape.

2. Upper Story Materials

Upper Story Materials will provide aesthetic and functional value to the District. These plant materials will provide canopies, soften or enhance architectural elements.

LARGE PALMS

| | |
|----------------------|-----------------------|
| Cocus nucifera | Coconut Palm 'Maypan' |
| Livistona chinensis | Chinese Fan Palm |
| Paurotis wrightii | Paurotis Palm |
| Roystonea elata | Royal Palm |
| Sabal palmetto | Sabal Palm |
| Washingtonia robusta | Washingtonia Palm |
| Phoenix canariensis | Canary Date Palm |
| Phoenix dactylifera | Date Palm |

SMALL PALMS

| | |
|----------------------------|-------------------|
| Archontophoenix alexandrea | Alexander Palm |
| Chamaerops humilis | European Fan Palm |
| Livistona chinensis | Chinese Fan Palm |
| Paurotis wrightii | Paurotis Palm |
| Phoenix roebelenii | Pigmy Date Palm |

TREES

| | |
|-------------------------|-------------------|
| Callistemon rigidus | Stiff Bottlebrush |
| Caesalpinia pulcherrima | Dwarf Poinciana |
| Citrus spp. | Citrus |
| Conocarpus erectus | Silver Buttonwood |
| Hibiscus rosa-sinensis | Hibiscus Standard |
| Ligustrum lucidum | Tree Ligustrum |
| Tecoma stans | Yellow Elder |
| Tabebuia pallida | Pink Tabebuia |
| Taxodium distichum | Bald Cypress |

3. Vines and Groundcovers

Vining plants are often used to climb walls, providing both textural relief and shade for the surface. Trained on trellises, they give supplemental shade and color interest.

Groundcover plants form low, spreading mats, which require little maintenance and effectively stabilize banks and slopes from wind or water erosion.

VINES

| | |
|----------------------|--------------------|
| Allamanda cathartica | Golden Trumpet |
| Bougainvillea sp. | Bougainvillea |
| Ipomoea acuminata | Morning Glory |
| Passiflora edulis | Passion Flower |
| Petrea volubilis | Queens Wreath |
| Senecio confusus | Mexican Flame Vine |
| Ficus repens | Creeping Fig |
| Pandorea ricasoliana | Pandora Vine |

GROUNDCOVER

| | |
|-----------------------|-----------------|
| Asparagus sprengeri | Asparagus Fern |
| Cuphea hyssopifolia | Mexican Heather |
| Evolvulus glomeratus | Blue Daze |
| Juniperus conferta | Shore Juniper |
| Liriope muscari | Liriope |
| Nephrolepis exaltata | Boston Fern |
| Nephrolepis biserrata | Fishtail Fern |
| Setcreasea pallida | Purple Heart |
| Wedelia tribolata | Wedelia |

4. Accent Materials

Plants, which singly or in small groups provide a distinctive display because of their outstanding flowering, seasonal color, interesting form, or habit of branching, should be used as specimens or accents in the landscape. Careful placement of accent plants will provide strong points of focal interest within the overall planting scheme.

ACCENT MATERIAL

| | |
|------------------------|-------------------------|
| Carissa grandiflora | Natal Plum |
| Chrysobalanus icaco | Cocoplum |
| Crinum americana | Crinum Lily |
| Ficua benamina | Weeping Fig |
| Gardenia jasminoides | Gardenia |
| Hibiscus rosa-sinensis | Hibiscus |
| Ilex vomitoria | Dwarf Ilex |
| Jasmine spp. | Jasmine |
| Ligustrum japonicum | Ligustrum |
| Murraya paniculata | Orange Jasmine |
| Nerium oleander | Oleander |
| Pittosporum tobira | Pittosporum |
| Philodendron selloum | Split Leaf Philodendron |
| Plumbago auriculata | Plumbago |
| Strelitzia reginae | Bird of Paradise |
| Viburnum odoratissimum | Sweet Viburnum |
| Viburnum suspensum | Sandankwa Viburnum |

5. Shading and Cooling

A critical need of all public sites will be the provision of shade and relief from the summer heat especially in open areas of high pedestrian usage. Maximum impact of the sun will usually occur to the West and Southwest of tall structures. Tree materials are excellent shade producing elements, but different tree types are useful in different circumstances.



Large trees or smaller trees planted in a group creates an important shade refuge from the Florida sun.

SHADE TREES

| | |
|-------------------------|------------------------|
| Bauhinia spp. | Orchid Tree |
| Bursera simaruba | Gumbo Limbo |
| Calophyllum antillarum | Small Leaf Calophyllum |
| Calophyllum inophyllum | Large Leaf Calophyllum |
| Coccoloba uvifera | Sea Grape |
| Delonix regia | Royal Poinciana |
| Ficus rubiginosa | Rusty Fig |
| Ficus nitida | Red Jacaranda |
| Lagerstroemia speciosa | Queen's Crepe Myrtle |
| Noronhia emarginata | Noronhia |
| Peltophorum pterocarpum | Yellow Poinciana |
| Pongamia pinnata | Pongam |
| Tamarindus indica | Tamarind |
| Quercus laurifolia | Laurel Oak |
| Quercus virginiana | Live Oak |

as tot lots, may require only intermediate sized trees due to the reduced scale of the space. Small, intimate spaces such as unit terraces may be successfully shaded with a single small tree.

6. Screening

A second consideration in the use of plant materials relates to their adaptability in the screening of use areas and to protect and enhance project elements.

Dense planting along streets and drives can soften vehicle noise as well as aid in the filtration of dust from the air. All levels of planting contribute to the screening of streets and parking areas. Proper placement of understory plant materials can eliminate headlight glare from approaching vehicles.

Planting can be introduced to take advantage of cooling breezes as well as to mitigate the effects.

Trees with large leaves and a dense canopy produce heavy shade under their crown. Single trees will provide 'islands' of shade, while groups of trees, spaced either formally or informally at intervals, can form a "bosque" effect which can make large areas useful for daytime activities.

Since consistent shade may hinder growth of other plants beneath such trees, it is recommended that bosques only occur in predominately paved areas, or else care is taken to under plant with shade tolerant species.

While shrubs and ground cover do not produce shade directly useful to humans, they are highly beneficial in reducing ground temperatures and evaporation from the soil, and in moderating reflection and glare.

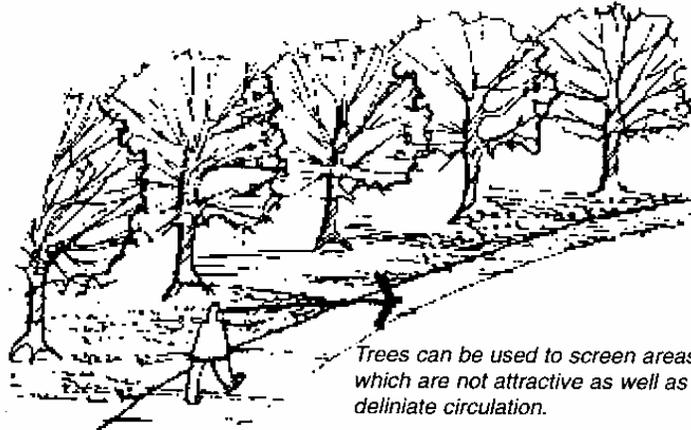
In the design of areas for maximum daily use, the dynamics of solar movement must be understood so that trees may be located for maximum shade advantage. Sun angles and altitudes determine the best location for trees in relation to use areas.

Whenever public spaces adjoin private development, the shade provided by buildings should be utilized. Beyond the building shadow, however, canopy trees can effectively extend the total amount of comfortable surface area available. Smaller, less formal areas, such

of major winds considered undesirable project elements. Proper species selection and plant placement can funnel breezes to desired areas.

Plant materials are highly useful in the visual screening of unsightly views such as exposed utilities, storage areas, loading areas, or parking lots. Efforts should be made to identify areas, which are potentially distracting to the visual environment, and employ screening with plant materials.

Through deliberate placement, plant materials (especially trees) can direct a person's view to an important area. In the same way, planting can enclose a view.



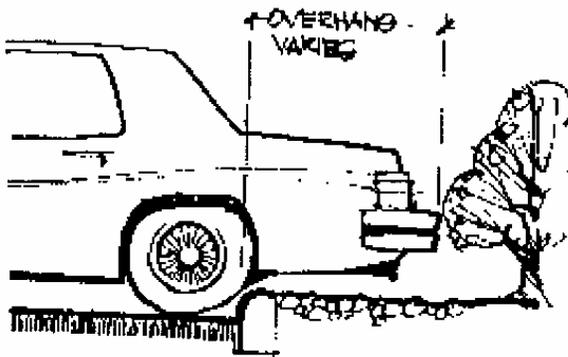
When planting along public streets, consider the door swing of vehicle, stopped at the curb. Avoid situations where plant materials will interfere with easy door opening or ingress/egress of the driver. If there is a conflict, the plant materials will eventually become damaged.

SCREENING

- | | |
|-------------------|-----------|
| Coccoloba uvifera | Sea Grape |
| Ficus rubiginosa | Rusty Fig |
| Nirium oleander | Oleander |

Treatment of the area below a tree should consider the variety and the amount of area surrounding the tree. Heavily used areas should use a tree grate. Softer materials can be used in less intense situations.

Nearly every vehicle has an overhang. It is necessary to remember this when landscaping around streets, parking lots, etc. The overhang can occur at either end of the vehicle. Often, oil can drip from the vehicles. This can damage plant materials placed too close to the vehicles.



Shrubs should be planted to avoid conflicts with car bumpers.

7. Design Simplicity

A natural plant association may contain thousands of plants, and these may have many diverse forms and space relations. Nevertheless, there exists even in nature the strict unity of one governing element that links the parts.

In any plant composition there should be a predominance of material, color, or texture to give needed unity. Accent material should then be introduced to play against the dominant material creating the needed contrast.

A complicated planting scheme, except in unique situations, is seldom as successful as simple masses, with a predominant species to provide unity and a few individual accent plants.

These principles apply to all scales of development, with masses and accents occurring in greater size and number, but retaining the same proportional philosophical approach.

Simplicity and strength should describe the RAC Academical Village District planting. Plant material should be clustered to create a feeling of mass. At the same time, there needs to be enough variety of plant material to suggest richness.

Equal attention needs to be paid to the ground plane. Ground cover plants need to be selected with as much care as trees and shrubs. Careful selection of groundcovers can add exciting colors and textures to the groundplane. Whenever possible, use ground covers in lieu of grass. Once established, ground covers will require less constant maintenance.

8. Color

The use of blooming plants will be a major objective of all areas of the RAC Academical Village District. It should be an aesthetic goal of all public sector development to utilize flowering material throughout RAC Academical Village District. The use of perennial plants to anchor planting massing and annual blooming plants to provide a rotation of seasonal color.

Permanently planted materials should occur in large bold masses of unified color, with consideration given to their textural scale and compatibility with adjacent materials during periods when they are not in bloom. The use of temporary, blooming plants can be accomplished through both in-ground and container grown plant material.

9. Irrigation

All plantings will require irrigation systems providing 100% coverage throughout the District. Irrigation systems should be capable of distributing 1 1/2" of water per week during a maximum 8 hour watering cycle. All irrigation systems should be completely automatic, and should be equipped with rain gauges for water conservation.

Due to the intense pedestrian activity anticipated for the area, irrigation should be designed to avoid over spraying pedestrian areas. To this end, bubbler and mist heads are preferred over larger rotary spray heads to offer more control efficiency of water use. For confined planting area, emitter systems or underground drip systems are even more effective.

Irrigation systems should be designed to accommodate the specific water requirements of the various areas of the planting design. Areas with different water requirements should be zoned separately to enhance fine-tuning of the system. For example, depressed retention areas should be zoned separately from the surrounding higher ground to allow for reduction of water to the basin during wet seasons.

Distribution should be designed to minimize overspray onto buildings and site structures as well. Discoloration of facilities due to irrigation overspray should not be acceptable in the District.

Annual flowerbeds have special irrigation needs, and should at a minimum be run on separate zones from surrounding plantings. Where use of annuals is extensive, the irrigation should be on a separate timer capable of cycling twice a day if necessary.

C. Site Furnishings

Site furnishings play an important role in the overall visual quality and identity throughout the RAC Academical Village District. Careful consideration must be given to the selection of the site furnishings such as benches, trash receptacles, drinking fountains, bicycle racks, etc. Site furnishings should be accessible and usable by the handicap whenever possible. Furnishing should be compatible with their surroundings, and should maintain unity throughout the District.

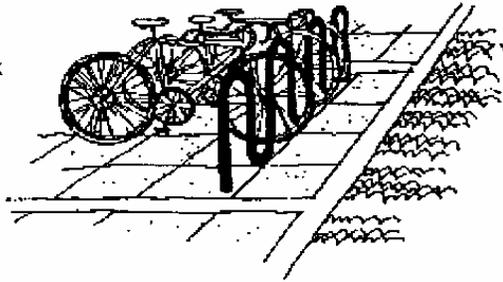
Materials for site furnishings should be chosen for maximum strength and durability, and should require as little maintenance as possible. Surface finishes should weather and age gracefully. Accents in the form of hardware, etc. may require additional maintenance beyond the recommended minimum.

Recommended materials include:

- Cultural and/or artistic metals
- Aluminum/Cast Aluminum
- Stainless Steel
- Concrete
- Granite
- Keystone
- Specialty hardwoods
- Cast iron, finished with an epoxy based paint capable of resisting the elements of South Florida

1. Bike Racks

Bike racks will provide a safe and secure place for residents and visitors to lock bicycles and participate in civic activities. The placement of bicycle racks will also invite residents and visitors to interact with in the District recreationally. A variety of bicycle rack designs is encouraged. Such racks may be architecturally treated as significant items or minimized relative to their visual impact. Bike racks may be integrated with light standards or with other site elements to reduce their visual impact.

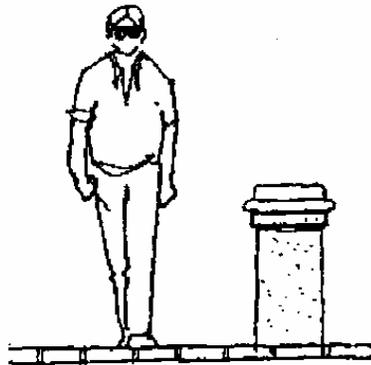


Adequate bicycle racks promote the use of bicycles rather than cars, as well as providing a safe place for people to store their bicycles

2. Bollards

Bollards should be designed and implemented to be both functional and aesthetically pleasing. They should be used to discourage vehicular intrusion into a pedestrian area.

Bollard design should relate to adjacent architectural or streetscape elements. The design of the bollards should reflect or enhance the theming of the District. All bollards should be harmonious with the other site furnishings. The incorporation of lighting into the bollard design is encouraged in special applications for emphasis and where vandalism is not considered a problem.



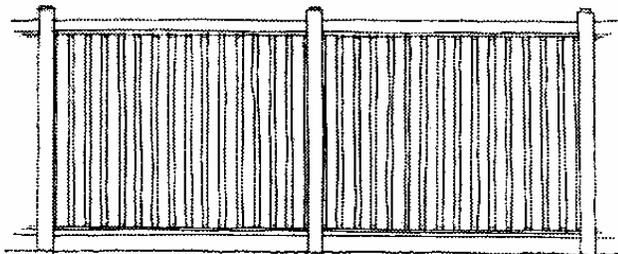
Bollard design should relate to adjacent architectural and streetscape elements.

3. Fences

Fences within the District area will be most useful to separate uses, define entrances and screen unsightly views. It should be mandatory that fences be used as a screening material around service areas. Whenever possible, fences should be combined with other elements such as plant material. They should be considered an extension of the adjacent structure or architectural elements and the materials should be compatible.

Construction of fences should be for the long term. Materials and detailing should provide maximum durability. Wood members should be constructed of a heavy timber. Light weight wood will rapidly create a run-down appearance unless it is protected by being under cover.

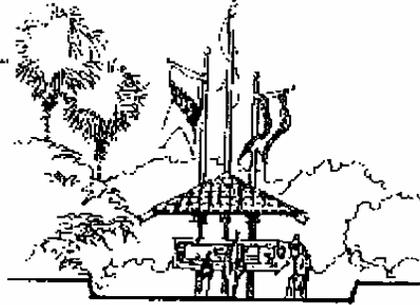
Recommended wood types for exposed areas include Cedar and Cypress among others. Caps should be part of the fence design to protect the end grain of the slats. Decorative metal fencing is preferred over chain link fence in areas where transparency is desired and security necessity. Steel and aluminum are both acceptable materials.



Solid fences are a good way to screen unsightly views.

4. Flagpoles/Banners

Flagpoles and banners present opportunities for the inclusion of color, pattern and movement in the District. They can be used both as temporary signage and as a seasonal display. Banners may include many items of various shapes such as windsocks and flags. They can be hung from walls, light fixtures, or any other structural element of sufficient strength.



Flagpoles, banners, and kiosks add excitement to the landscape and can create focal elements.

5. Seating

Seating is used for social interaction, people watching, waiting and resting. Seating should occur in heavily used public areas and along main pedestrian corridors. Benches should be located in shaded areas as well as in open areas where a high volume of people could congregate. In locations where longer stays are anticipated, benches with backs should be used. Backless benches should be provided for shorter stays. Special care should be taken to locate and select benches that discourage overnight sleeping by vagrants.



Bench design may or may not have backs depending on the average length of stay.

Special measures should be taken to ensure that the selection of benches will be ones that are comfortable year round and are not effected by the exposure to intense sun.

It should be noted, that seat walls provide other opportunities for seating. Seat walls could be implemented at grade changes, separate spaces and be decorative in nature.



Landscape accessories must be compatible with other streetscape elements.

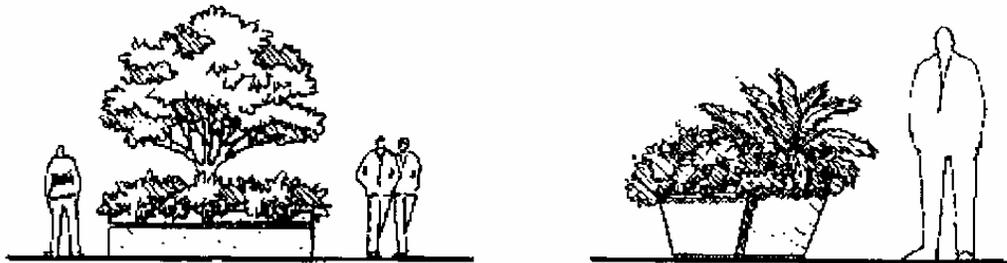
6. Tree Grates

Tree grates are used to expand the walkable surface of the pedestrian corridor, while adding canopy tree shade to the pedestrian environment. The tree grates need to have barrier free access for wheelchairs and carriages to carefully travel over them. Tree grates should be compatible with the character of the surrounding area.

7. Planters

As special site elements, planters and flowerpots can visually enhance a space and provide areas for landscape relief, as well as reduce or accent an architectural mass.

Planters should be designed very carefully in consideration of the plants to be used. Pots can be used singly or in a mass to accentuate a space with color and visual interest.

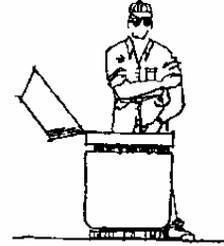


Planters can vary in size and scale according to their placement within the site.

8. Trash Receptacles

Trash receptacles shall be incorporated within a consistent system of color, materials and style. They shall compliment other furnishings and help unify the image of The RAC University Mixed Use District. The major consideration when providing trash receptacles is their location. Receptacles are to be sited only where they will be both accessible and used. They should be placed along major pedestrian corridors, but shall not impede on pedestrian traffic. They should also be located at portals, pedestrian nodes, intersections, and seating areas.

Trash receptacles shall be sited carefully to not obstruct views and to not transmit unpleasant odors. Trash receptacles must be waterproof and should contain a lid. Each receptacle shall have a sturdy removable liner for easy maintenance and be sized to accept standard trash bags. Maintenance vehicles shall have reasonable access on the promenade to the trash receptacles.

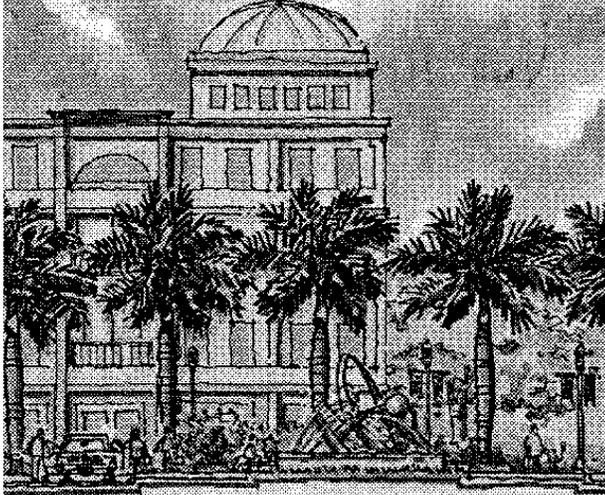


Trash receptacles should be sized to accept standard sized trash bags.

E. Special Features

1. Fountains

Fountains can be utilized as major elements in enhancing the image of the RAC Academical Village District. Water in the fountains may be used in a variety of ways. The movement of water can create excitement and life in the environment. It's sound can be used to drown out undesirable noises.



Public art and water features are important site elements that will make the RAC University Mixed Use District unique.

The design of fountains should take in to consideration the safety of plaza participants, especially if the fountain is interactive. The type of fountain spray should respond to the amount of wind action through the plaza area. Wind regulators should be used to minimize water spray on users and adjacent paving. Fountains should be designed using state of the art, cost efficient equipment and finishes, which will require minimal maintenance. The color and materials used in and around fountains should be compatible with other streetscape and plaza elements.

Fountains in the District can be used as focal points in major plazas or as entry features.

2. Public Art

Art in the urban landscape is perhaps the most intense form of design. Beyond visual and hopefully, spiritual inspiration, it reflects the attitude and character of the community towards culture. There are several notable programs to bring art into the city beyond individual homes or businesses. They include Chicago Public Art Program, Kansas City, and Broward County "Art in Public Places".

A public Fine Arts collection is encouraged throughout the newly developed areas within the RAC Academical Village District. The idea of creating a space and featuring areas for public art differ-

entiate this District as a community dedicated to the enjoyment of fine art. As mentioned before these types of programs have been established across the country in more that 200 states, counties, and municipalities. The object of these programs is to present fine art, as opposed to contextual art, for public places. It may include sculpture, mosaics, frescoes, etc. Its location may be permanent or temporary/mobile.

In the display of fine art in public spaces, the District exhibits its ability to appreciate new ways of seeing life, its cultural pride and its unique image.

G. Signage and Graphics

Signage and graphics will affect the overall character of the RAC Academical Village District. In addition to serving the functional purpose of informing and directing pedestrian/vehicular traffic, well-designed signs establish a visual identity for an area. To be truly effective, all signs must contribute to the cohesiveness of the project. (See Sec. 12.32-414 and 12.32-317 for all signage requirements.)

With this in mind, it is imperative that the design quality of public sector signs be in the highest of quality. The visual appearance of public signs will set the standard for private developers to follow.

Before considering the design of public sector signs, it is necessary to fully understand who will be needing signs and why. The RAC Academical Village District will be serving a broad spectrum of people ranging



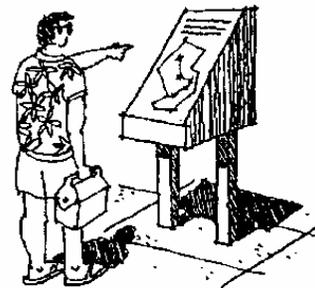
Signage along with landscape and pavement create strong visual entry points.

from tourists, visitors and shoppers, to residents. Some will be walking or riding a bicycle, while others driving vehicles. Public and Private sign design must relate to all of these various users.

In light of the broad range of public users, the design of signs and graphics needs to be flexible. It is essential that the sign design have the ability to expand and serve new areas within the public sector. The development of the RAC Academical Village District will undoubtedly require several years. The graphic design of the signs must be a high quality, must be timeless and must tie into the theme of the RAC Academical Village District.

Design and selection of materials for the sign idea and sign standard must be readily available over a period of several years. Requests for additional public signs will be made even after the completion of the final project phase. Signs must be reproducible without undue costs. The ease of replacing damaged signs must also be considered.

The size of signs should vary depending on how they are viewed i.e., their size should be considerably larger if they are seen from a moving auto as opposed to a pedestrian on foot. The introduction of a larger than necessary sign within the context of a pedestrian area can, negate its original purpose. Within pedestrian areas, signs, which are located at an excessive height, will be relatively ineffective.



Supplementary signage can provide pedestrians with useful information.

Many styles of standards can be selected for freestanding public signs. Each standard has a slightly different visual appearance. Standards can be complicated or simple. The final selection of a standard design should in part be determined by its adaptability to the various types of signs needed in the project.

1. Directional

To emphasize the character of The RAC Academical Village District and the cohesiveness of its various components, a series of signs directing vehicles and pedestrians throughout the area is recommended. Since a directional sign usually includes a list of nearby functions and businesses it serves as a directory of what can be found.

The hierarchy of information on directional signs should be as follows:

- Major public action nodes
- Major public attractions
- Major commercial attractions
- Individual businesses

There are two types of directional signs; motor vehicles and pedestrians/cyclists. In many cases, messages for both groups will be combined. Only in areas where the pedestrians are far removed from vehicular traffic are separate signs necessary.

2. Informational

This type of signage will provide important information, within the RAC Academical Village District, to identify focal areas including; but are not limited to; transit stops, public plaza entrances, and other focal areas.

Informational kiosks should be located near busy site elements and may display a variety of temporary civic local information for the resident or visitor.

Informational signage could also include street identification signs, therefore having a consistent street identification standard.

3. Regulatory

Regulatory signage within the District will be used to define emergency access, service vehicle areas, bicycle only paths, handicapped areas, etc. It is meant to define specific points that are limited to overall use.

4. Entry/Gateway

Entry/Gateway statement pertains to vehicular traffic and involves large-scale elements. Their purpose is to designate the point of transition from one area to another which, in this case, is to designate The RAC Academical Village District from the outside and to announce major destinations within the District.

Elements that should be incorporated into the entry statement include:

- Special paving
- Masses of plant material
- Focal elements
- Special lighting
- Banners
- Signage
- Water Features

F. Lighting

A well-coordinated lighting system is a very effective mean of establishing a sense of security and unity throughout the RAC Academical Village District. Although the primary function of site lighting is to provide nighttime orientation and security, light fixtures become a very visible site element and are essential

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elements in creating the image of the RAC Academical Village District. Therefore, careful consideration should be taken not only to technically efficient systems but also to visually acceptable fixtures and standards. Lighting should only be directed at the selected element, over flow of light must not exist.

1. Scale, Proportion, and Hierarchy

Consideration should be taken to the proper relation between the scale of a fixture and the scale of the area in which it will be implemented. In general, the larger the scale of the use, the higher the mounting light. The size of the fixture should also be in proportion to the height of its pole to avoid awkward proportions. Different uses require varying types of lighting. This section deals with the different types and scale of fixtures as well as light levels (footcandles) and light sources acceptable for each anticipated use. (See Sec. 12.32-415 for all lighting requirements.)

2. Light Levels

The following minimum average maintained footcandle levels shall be provided for the RAC Academical Village District:

- 1. Approach roadways 1.0 FC
- 2. Side streets 0.8 FC
- 3. Parking Lots 1.0 FC
- 4. Promenades 1.0 FC
- 5. Sidewalks 0.6 FC
- 6. Landscape lighting (varies)

3. Light Source

Several different light sources are available for site lighting, with characteristic advantages and disadvantages to each. The following general guidelines are included for selection of an appropriate light source.

High Pressure Sodium

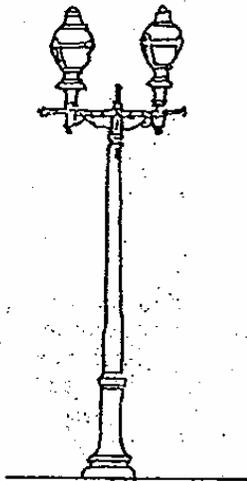
Because of high efficiency and long lamp life, high-pressure sodium should be the predominant light source throughout the District. It should be used on all streets and parking lots. Because of its somewhat poor color rendition qualities, however, it should be avoided or supplemented in areas of high pedestrian use. (Such as the Research Village Area)

Metal Halide

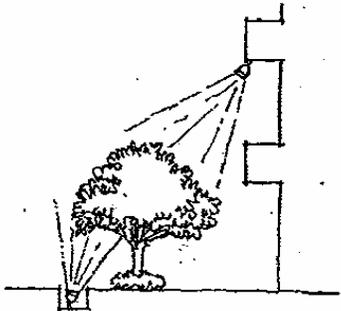
Although not as efficient as high-pressure sodium, metal halide is much more pleasant in high pedestrian areas because it illuminates with very true colors. It should be considered for larger scale "people gathering spaces" such as plazas and along people streets.

Color Corrected Mercury Vapor

Mercury Vapor is also a pleasant light source for pedestrian areas but it is less efficient than metal halide. It should be used only in low voltage situations where efficiency is not critical, or to accent landscape material because of its ability to emphasize green foliage.



A custom lighting standard should be established.



Color corrected Mercury Vapor can be used to highlight landscape material.



Incandescent lighting is best used in pedestrian environments.

Incandescent

Incandescent light, while pleasant for people environments, is very inefficient and has a short lamp life. It should only be used in low-level pedestrian scale fixtures where special effects are necessary and where regular maintenance is possible such as building entries, small courtyards, etc.

4. Light Location

*Streetscape Lighting
(Primary and Secondary Streets)*

Wherever possible, existing fixtures and poles illuminating the District should be retained, repaired and or replaced to maintain the consistency and efficiency of the current street light system. As necessary, individual poles should be relocated to resolve conflicts with proposed streetscape elements and pedestrian flow. Where supplemental or future street lights are proposed they shall match the existing fixtures/poles.

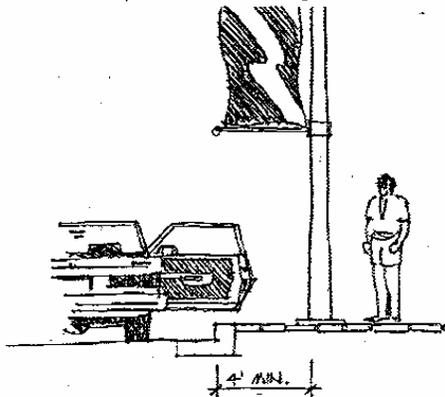
All poles shall be located a minimum of 4'-0" from the curb face and maintained plumb and secure. The placement of poles should not create undesirable obstructions in pedestrian ways. Light poles in high pedestrian traffic areas can be outfitted for specialty banners.

Side street Lighting

Wherever possible, existing fixtures and concrete poles illuminating side streets should be



Existing lighting along University Drive should be retained to maintain consistency in the current lighting system.



All newly installed poles shall be located a minimum of 4'-0" from the curb face.

retained, repaired and replaced to maintain consistency with the current street lighting system. As necessary, individual concrete poles should be relocated to resolve conflicts with proposed streetscape elements and pedestrian flow.

Fixtures along side streets shall be located approximately 100ft on centers. All poles shall be located a minimum of 4'-0" from the curb face and maintained plumb and secure. The placement of poles should not create undesirable obstructions in pedestrian ways. Light poles on designated "people streets" shall be out fitted for specialty banners.

Parking Lot Lighting

Lighting in off-street parking lots should be designed to allow safe and secure night use of these facilities and discourage vagrants.

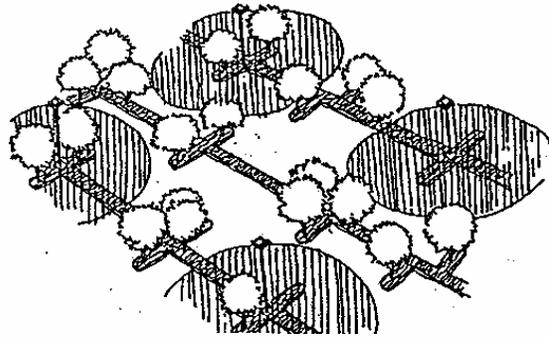
Wherever possible, existing poles illuminating parking lots should be retained and repaired with new fixtures added to provide a more efficient and consistent lighting system. These new fixtures and may supplemental/fixture parking lot lights proposed shall be (to follow).

Parking lot lights located interior to larger parking lots shall have a Type V (square) distribution to ensure maximum coverage and to be spaced approximately +120 feet on centers. Parking lot lights located along the perimeter of parking lots shall have a Type III distribution to throw light towards the lot interior and minimize glare on adjacent facilities. These fixture/poles shall be spaced +100 feet on centers.

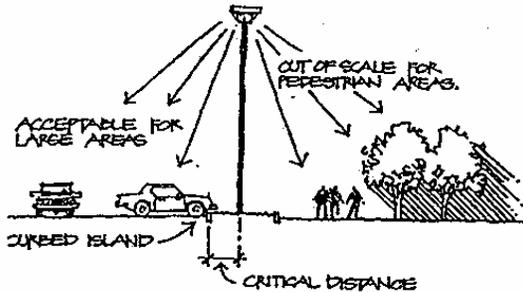
Lighting within parking areas must be closely coordinated with parking lot design. Poles should be located out of the way of vehicular and pedestrian circulation aisles and parking stalls. They should be located at regular spacing within the landscaped area of center or side islands and protected by curbs or wheel stops.

Pedestrian Lighting

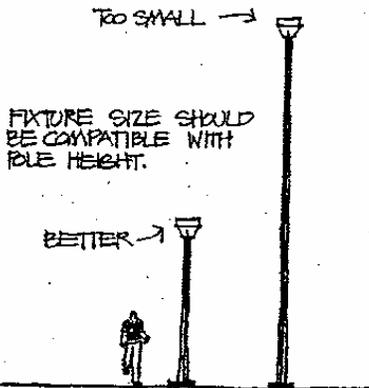
Pedestrian lighting of the RAC Academical Village District must serve a variety of functions. This lighting must establish a safe and secure atmosphere for nighttime use and provide a distinct ambiance, which differentiates pedestrian facilities from adjacent vehicular zones.



Adequate parking lot lighting discourages vagrants and allows safe use at night.



Lighting within parking areas should be located out of the way of vehicular circulation and should not spill over into adjacent buildings.



Visually, fixtures and poles should be in scale with their use.

The fixtures, poles and bollards must have a human scale and offer a visual appearance, which complements the other streetscape elements in creating a unique image for the beach area.

Landscape Lighting

In many instances, appropriate light levels and pleasant accent effects may be achieved through the use of landscape lighting. Accent spotlight fixtures, directed upwards into tree or palm foliage, provide low intensity but often-dramatic illumination of nearby pedestrian areas.

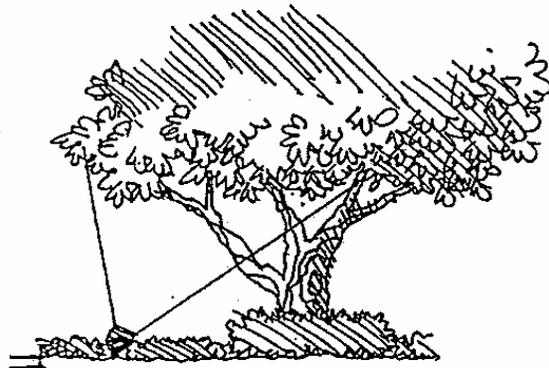
Whereas up lighting provides a more selective result, down lighting (with fixtures attached to free standing poles or neighboring buildings) is advan-

tageous when more than one tree is to be lit or when a less concentrated effect is desired. Lighting trees is as much art as it is science. For this reason, it is impossible to give definitive guidelines regarding the quantity of illumination or exact placement of fixtures. However, desired effects usually require between 0.5 and 1.0 ambient footcandles, depending on design objectives, color of foliage, surrounding light levels, etc.

When used, landscape accent lights should be unobtrusive in appearance and/or hidden from view. All landscape lighting should be placed where beams are directed away from pedestrians' viewpoint. Lights mounted directly in trees should be discouraged unless means of attaching the fixture and conduit are sensitively handled to protect the plant's health and assure a pleasing appearance.

5. Materials

Light fixtures are available in many materials. Of these materials, cast aluminum or cast bronze provides maintenance, long life, and pleasing aesthetics. Fixture fittings of cast aluminum fixtures should be stainless steel.



Landscape lighting can provide dramatic illumination of tree foliage.

Poles and bollards for lighting should be aluminum, fiberglass, decorative concrete or cast iron. These poles provide a thin profile and require little maintenance. Depending on location and thematic considerations, decorative poles may be chosen. Light poles in main public areas should aim to enhance the overall theme of The RAC Academical Village District as unique cultural hub.

6. Color and Finish

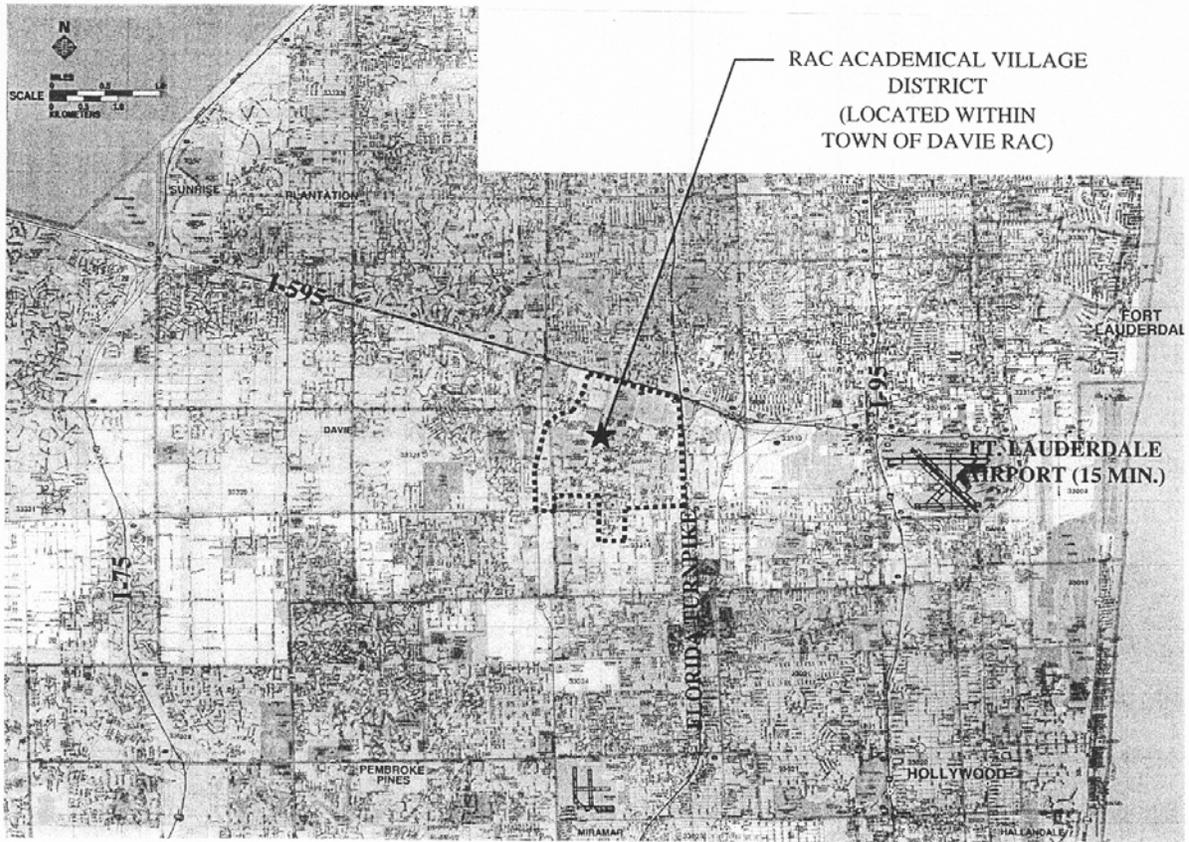
During daylight hours, lighting fixtures should blend into the landscape and coordinate with other site furnishings. The right color and finish of the lighting material will enhance the theme during daylight hours, therefore making it a 24 hour site detail. Finish should be baked-on powdered coatings that minimize maintenance.

VI. Bibliography

1. Riviera Beach CRA Design Guidelines, January 2003
2. City of Boca Raton Parking Requirements, 2003
3. San Fernando Code of Ordinance - Section 106-824, 2003
4. Coconut Creek PUD/CUD Ordinance, 2003
5. University of Virginia website - www.virginia.edu
6. Fort Lauderdale Urban Design Initiative - Report on Pilot Projects, October 2002
7. Fort Lauderdale Urban Design Initiative Preliminary Report on Urban Design, April 2001
8. Downtown Kendall Urban Design Center District Ordinance
9. Fort Lauderdale Beach Revitalization Design Guidelines
10. Crowfield Corporate Center Design Guidelines, February 1993
11. Fort Lauderdale Riverwalk Design Guidelines, 1986

EXHIBIT A

REGIONAL MAP



RAC ACADEMICAL VILLAGE
DISTRICT
(LOCATED WITHIN
TOWN OF DAVIE RAC)



VICINITY MAP



LEGEND

RAC ACADEMICAL VILLAGE DISTRICT



REGIONAL ACTIVITY CENTER

COMMUNITY REDEVELOPMENT AREA

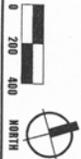
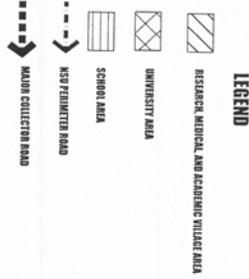
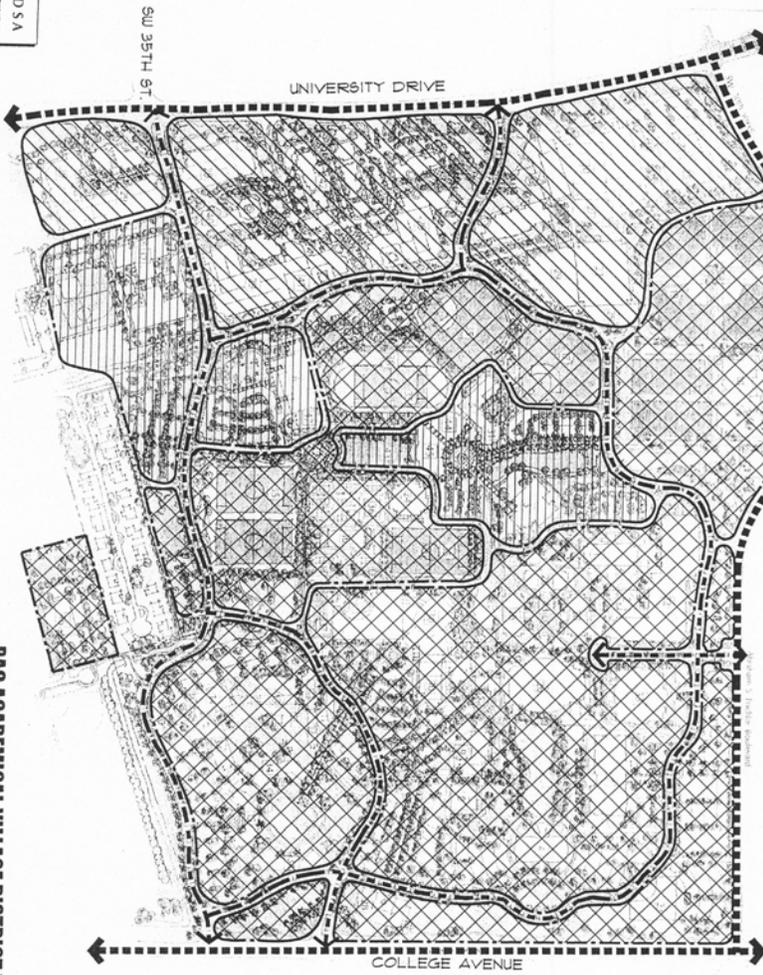




NOVA SOUTHEASTERN UNIVERSITY

DAVIE, FLORIDA

EXHIBIT C



RAC ACADEMICAL VILLAGE DISTRICT LAND USE PLAN / APRIL 8, 2003
 ALL DRAWINGS SUBJECT TO CHANGE AS PER SECTION 12.32-410



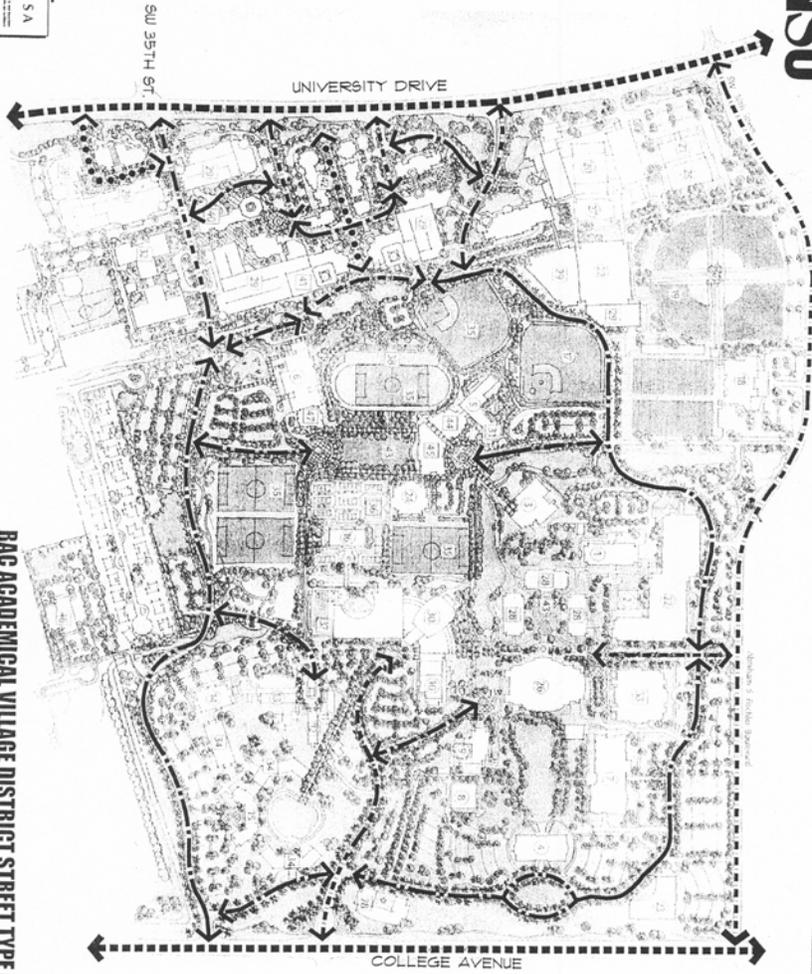
EDSA
 Environmental Design
 Solutions Architects



NOVA SOUTHEASTERN UNIVERSITY

DAVIE, FLORIDA

EXHIBIT D



- LEGEND**
- TYPE 'A' PRIMARY STREETS
 - - - - - TYPE 'B' PRIMARY STREETS
 - - - - - SECONDARY STREETS
 - PEDESTAL STREETS



RAC ACADEMICAL VILLAGE DISTRICT STREET TYPE LOCATION PLAN / APRIL 8, 2003

ALL DRAWINGS SUBJECT TO CHANGE AS PER SECTION 12.32-410



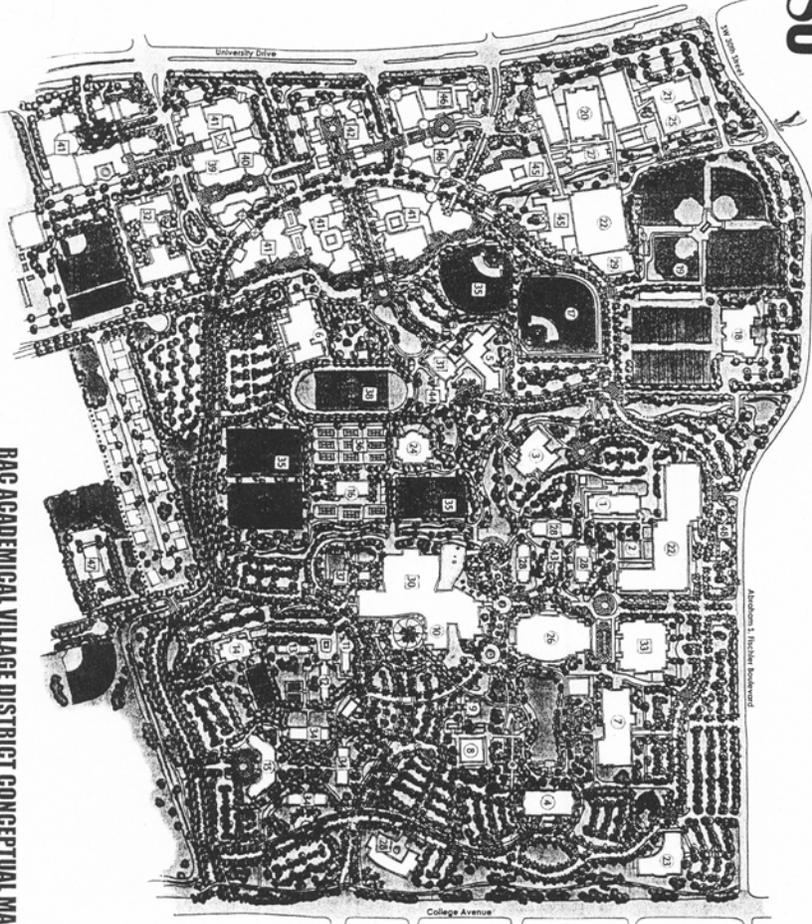
EDSA
Engineering Design Services, Inc.
10000 University Blvd., Suite 100
Davie, FL 33317
954-944-1100



NOVA SOUTHEASTERN UNIVERSITY

DAVIE, FLORIDA

EXHIBIT E



LEGEND

EXISTING

- 1. PARKER BUILDING
- 2. PARKER SCIENCE LABORATORY WING
- 3. ADMINISTRATION BUILDING
- 4. ADMINISTRATION BUILDING
- 5. UNIVERSITY SCHOOL MIDDLE DIVISION
- 6. UNIVERSITY SCHOOL LOWER DIVISION
- 7. UNIVERSITY SCHOOL UPPER DIVISION
- 8. UNIVERSITY SCHOOL UPPER DIVISION
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- 48. UNIVERSITY SCHOOL UPPER DIVISION

PROPOSED

- 26. CLASSROOM BUILDING
- 29. PARKING STRUCTURE
- 31. UNIVERSITY SCHOOL PERFORMANCE AUDITORIUM
- 32. UNIVERSITY SCHOOL UPPER DIVISION
- 33. UNIVERSITY SCHOOL UPPER DIVISION
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- 47. UNIVERSITY SCHOOL UPPER DIVISION
- 48. UNIVERSITY SCHOOL UPPER DIVISION



RAC ACADEMICAL VILLAGE DISTRICT CONCEPTUAL MASTER SITE PLAN / OCTOBER 8, 2003
ALL DRAWINGS SUBJECT TO CHANGE AS PER SECTION 12.32-410