# Florida International University MASTER PLAN

1994 · 2004

Goals, Objectives and Policies



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August 1994

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   Campus

#### **INTRODUCTION**

#### Introduction

The two principal campuses of Florida International University lie within Metro-Dade County. The largest campus, University Park, occupies approximately 340 acres at the southeast quadrant of the intersection of the Homestead Extension of the Florida Turnpike (SR 821) and Tamiami Trail (US 41) in west central Dade County. The North Campus occupies approximately 200 acres on Biscayne Bay within the City of North Miami in northeast Dade County.

The Campus Master Plan for Florida International University is contained in two documents: a Policy Document and a Technical Document. The Technical document contains background information including data and analysis establishing the basis for the goals, objectives and policies contained in the Policy Document. Provisions for the two campuses of FIU, University Park and the North Campus, are integrated within the applicable elements in both documents. All other properties owned or maintained by the University are excluded from this master plan. The Technical Document contains maps related to the analysis of existing conditions, while the Policy Document contains maps required to depict planned future conditions.

The Goals, Objectives and Policies which follow are the primary mechanism for the implementation of the Campus Master Plan through the ten year (2003-04) planning horizon. Requirements for Capital Improvements Implementation are contained in the Capital Improvements Element. Procedures for monitoring, evaluation and amendment of the campus master plan are contained in the various plan elements.

Goals, Objectives and Policies are presented for the following plan elements:

- 1.0 Academic Mission of the University
- 2.0 Academic Program Element
- 3.0 Urban Design Element
- 4.0 Future Land Use Element
- 5.0 Academic Facilities Element
- 6.0 Support Facilities Element
- 7.0 Housing Element
- 8.0 Recreation and Open Space Element
- 9.0 General Infrastructure Element
- 10.0 Utilities Element
- 11.0 Transportation Element
- 12.0 Intergovernmental Coordination Element
- 13.0 Conservation Element
- 14.0 Capital Improvements Elements

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- 15.0 Architectural Design Guidelines Element
- 16.0 Landscape Design Guidelines Element
- 17.0 Facilities Maintenance Element
- 18.0 Coastal Management Element

The process of preparing the campus master plan consisted of the following four steps.

- 1. An *Inventory and Analysis of Existing Conditions and Trends* which evaluated present and likely future deficiencies and development constraints and opportunities.
- 2. *Alternative Concepts* which posed fundamental choices concerning the 10 year "futures" of both campuses.
- 3. A *Concept Plan*, including numerous refinements, representing a consensus for the pattern, quality and logistics for development of the campuses as they should exist in 2003-04.
- 4. A *Draft Campus Master Plan* describing in detail various elements of the plan including Goals, Objectives and Policies and the technical analyses on which they are based.

The process of preparing the campus master plan reflected and responded to an unprecedented level of input and interaction from various segments of the University Community. Multiple meetings and workshops were held at each stage of the planning process, culminating in the plans presentation to, and endorsement by, the University Council on June 29, 1994 for University Park and on June 30, 1994 for the North Campus.

In September 1994, the draft master plan began a lengthy process of external review. The draft plan was reviewed by Metro-Dade County, the City of North Miami, the Town of Sweetwater, the regional planning council and water management district, the State Land Management Advisory Council and a number of state agencies prior to adoption. The plan was subjected to review by the general public and two duly noticed public hearings were conducted to solicit public input on the draft plan. This plan reflects those comments and is the result of this internal and external review process.

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#### Introduction

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Florida International University (FIU) is an urban, multi-campus, doctoral-granting institution located in Miami, Florida's largest population center, with campuses at University Park and North Miami, selected programs offered in Davie and Fort Lauderdale, and off-campus continuing education programs. Chartered by Florida Legislature in 1965, the University opened its doors in 1972 to the largest entering class in United States collegiate history. With strong undergraduate programs centered around a rigorous liberal arts core curriculum, FIU now offers more than 200 baccalaureate, master's and doctoral degree programs through its many Colleges and Schools: Arts and Sciences, Business Administration, Education, Engineering and Design, Health, Hospitality Management, Journalism and Mass Communication, Nursing, and Public Affairs and Services. The University's increasingly prominent art museum, its libraries, and specialized centers and institutes enhance these programs. The University continues to balance its programs for full- and part-time degree-seeking students and to address the special needs of lifelong learners, traditionally and through distance learning.

Southeast Florida and FIU are alike in their explosive growth, rich ethnic and cultural diversity, and quest for excellence. FIU is a leading institution in one of the most dynamic, artistically expressive, and cosmopolitan cities in the United States, the gateway for Latin America and the Caribbean. The continued globalization of the world's economic, social and political systems adds to the importance of FIU's mission, and combines with our subtropical environment, and our strategic location to strengthen Southeast Florida's role as an information and transportation center.

The Mission Statement established for Florida International University acts as the mandate for University growth and development, establishing key areas of emphasis in academics and in the role of the institution in the State University System and in the host community. In establishing a vision for the future of Florida International University several key themes have emerged.

International Strategic Theme to promote international understanding through excellence in teaching, research and service.

Urban Strategic Theme to address the problems of the immediate community.

*Environmental Strategic Theme* to better understand the interrelationship and interactions of our natural and man-made environments.

Information and Transportation Strategic Theme to develop information and transportation systems to meet the challenges of our developing urban environment.

#### ACADEMIC MISSION OF THE UNIVERSITY ELEMENT

We focus on these themes with a commitment to quality management and cultural diversity. To summarize the University priorities: first, to graduate a well educated, ethnically diverse student body by continuing to enhance our teaching and by broadening our graduate and professional programs; second, to promote research and creative activities by nurturing strategically selected disciplines which contribute to the social, artistic, cultural, economic, environmental and technological foundations for the 21st century; third, to solve critical health, social, educational, and environmental problems through applied research and service. These strategic themes and priorities guide our pursuit of recognition as one of America's top 25 urban public research universities by the end of this century.

#### <u>GOAL 101</u>

The Academic Mission of Florida International University is as follows:

The mission of this state University is to serve the people of Southeast Florida, the state, the nation and the international community by imparting knowledge though excellent teaching, creating new knowledge through research, and fostering creativity and its expression. In addition to academic growth, the University has a commitment to campus life which fosters a sense of community which provides for the intellectual, aesthetic, social, emotional, physical and moral development of students while providing opportunities for leadership training, awareness of cultural diversity, and a sensitivity to social issues and concerns.

#### **Objective 101.1** Modifications of College/School Missions

The missions of individual colleges and schools shall be reviewed annually and modified in accordance with the Division of Academic Affairs planning, implementation and evaluation annual cycle.

#### Policy 101.1.1

Apply the mission review and modification process as depicted in Figure 1.1.

#### Policy 101.1.2

FIU shall review and prioritize proposals for new academic programs in accordance with Comprehensive University Presence (CUP) procedures and subsequent modifications of its mission statement.

#### Policy 101.1.3

**Priorities shall** be established among prospective new programs based on the following criteria:

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- Local, regional, national and international need
- Potential enrollment
- Maturity of the program being modified

#### **Policy 101.1.4**

Future revisions to the Academic Mission of FIU shall reflect substantial growth in research activity.

#### Policy 101.1.5

Priorities for new Academic programs as documented in the Board of Regents "Master Plan 1993-1998 New Programs Which May Be Considered" include the following:

#### Doctoral Degrees

Chemistry, Dietetics and Nutrition, Geology, History, Mechanical Engineering, Political Science, Spanish

#### Masters Degrees

English, Engineering Management, Environmental Studies, Latin American and Caribbean Studies, Political Science, Religious Studies, Statistics, Urban Studies

#### **Bachelors** Degrees

Art History, Chemical Engineering, Geography, Urban Studies, Women's Studies

#### Policy 101.1.6

The campus master plan shall be amended, as needed, to reflect any revisions or modifications to the missions of individual colleges and schools.

#### Objective 101.2 Modification to University Mission

The University Mission shall be modified every five (5) years and reviewed and approved as part of the Board of Regents Five Year Master Plan process.

#### Policy 101.2.1

The Office of the President shall develop mission statement revisions in accordance with the internal review structure depicted in Figures 1.2 and 1.3 in coordination with the Executive Committee, the Strategic Planning Advisory Committee, Administrative Council, and the University Council.

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#### Policy 101.2.2

The campus master plan shall be amended, as needed to reflect any revisions or modifications to the University's mission statement.

#### **Objective 101.3** Master Plan Updates

The University shall participate in the periodic updating of the adopted campus master plan in accordance with Board of Regents/State University System requirements.

#### Policy 101.3.1

FIU shall submit to the Board of Regents, within 4 years from the date of plan adoption and every 5 years thereafter, an evaluation and appraisal report which:

- 1. Lists accomplishments during the implementation of the campus master plan, describing major problems associated with development and land uses, and the degree to which the goals, objectives and policies have been successfully reached;
- 2. Identifies obstacles or problems which resulted in under achievement of goals, objectives and policies;
- 3. Identifies the need for new or modified goals, objectives or policies needed to correct unanticipated and unforseen problems and opportunities that have occurred since adoption of the campus master plan;
- 4. Addresses local government and public participation in the process;
- 5. Addresses the effects of changes to the State Comprehensive Plan and to the comprehensive plans of the host local government and any affected local governments;
- 6. Identifies proposed and anticipated amendments necessary to address identified problems and opportunities; and
- 7. Identifies a means of ensuring continuous monitoring and evaluation of the plan during the remainder of the overall planning period.

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#### Policy 101.3.2

FIU shall submit to the Board of Regents, within 5 years from the date of plan adoption and every 5 years thereafter, a proposed plan amendment which incorporates the findings and recommendations contained in the evaluation and appraisal report, and which contains updated baseline data (as appropriate) and goals, objectives and policies to be accomplished during the remainder of the planning period.

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#### FIGURE 1.1 INTERNAL POLICY REVIEW AND APPROVAL ACADEMIC AFFAIRS FLORIDA INTERNATIONAL UNIVERSITY



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### Division of Academic Affairs Planning, Implementation & Evaluation Annual Cycle

STEP I. Assessment And Review Of Mission, Goals And Objectives. Set New Goals And Objectives, Determine Resource Need And Develop Action Plan For Following Year.



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# Florida International University Internal Planning Process



#### 2.0 ACADEMIC PROGRAM ELEMENT

#### Introduction

Florida International University provides a vast and rapidly expanding array of academic programs to its burgeoning student population. This educational offering includes over 200 academic programs at the bachelor's, masters and doctorate degree levels with a number of new programs planned at each level. A continuing challenge will be to properly coordinate the academic offerings at each campus. While University Park will continue to offer the widest array of academic programs, the North Campus will continue to provide general programs in Arts and Sciences, Business Administration, Health and Education with a focal emphasis on Hospitality Management, Journalism and Mass Communication, Nursing, Public Affairs, the proposed Residential Honors Complex and outreach activities related to the Conference Center.

#### GOAL 201 ACADEMIC PROGRAM

FIU shall develop and maintain academic programs reflecting and implementing the Missions of the University and individual schools and colleges.

#### **Objective 201.1 Enrollment and Program Growth and Distributions**

FIU shall plan for and support student enrollments of 25,703 FTE and 40,761 headcount by the end of the 2003-4

#### Policy 201.1.1

Incremental enrollment projections shall be as follows:

	FTE	Headcount(*)
1994	15,785	27,708
1995	16,750	29,127
1996	17,748	30,560
1997	18,782	32,010
1998	19,829	33,432
1999	20,915	34,869
2000	22,044	36,323
2001	23,216	37,789
2002	24,435	39,269
2003-4	25,703	40,761

Source: FIU Office of Institutional Research 8/12/93

(\*) Student headcount may be exaggerated due to the duplication of programs on each campus

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#### Policy 201.1.2

Planned student populations shall be distributed among the two main campuses as follows:

University Park

	FTE	Headcount
1994	12,240	20,441
1995	12,861	21,349
1996	13,494	22,265
1997	14,139	23,188
1998	14,778	24,088
1999	15,432	25,000
2000	16,100	25,921
2001	16,782	26,851
2002	17,479	27,792
2003	18,193	28,745
North Campus		
-	FTE	<u>Headcount</u>
1994	3,545	7,267
1995	3,889	7,778
1996	4,254	8,295
1997	4,643	8,822
1998	5,051	9,344
1999	5,483	9,869
2000	5,944	10,402
2001	6,434	10,938
2002	6 056	11 477
	0,900	1 X 3 T I I
2003	7,510	12,016

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#### **Objective 201.2** Planned and Proposed Academic Programs

FIU shall establish, locate and support academic programs necessary to support the academic mission at projected levels of enrollment at the University Park and the North Campus through 2003-04.

#### Policy 201.2.1

FIU shall provide and locate academic programs of the following colleges at the University Park through 2003-0-4.

- Arts and Sciences
- Business Administration
- Education
- Engineering and Design
- Health

#### Policy 201.2.2

FIU shall provide and locate academic programs of the following colleges at the North Campus through 2003-04.

- Arts and Sciences
- Business Administration
- Education
- Health
- Hospitality Management
- Nursing
- Urban and Public Affairs
- Journalism and Mass Communication

#### Policy 201.2.3

FIU shall provide the specific academic programs within each college as contained in Table 2.1 Current and Planned Academic Programs.

#### Policy 201.2.4

**Priorities** for new academic programs as documented in the Board of Regents "Master Plan 1993-1998, New Programs Which May Be Considered" include the following:

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Doctoral Degree Programs	Location
Chemistry	UP
Dietetics and Nutrition	UP
Geology	UP
History	UP/NMC
Mechanical Engineering	UP
Political Science	UP/NMC
Spanish	UP/NMC
Masters Degree Programs	Location
English	UP/NMC
Engineering Management	UP
Environmental Studies	UP
Latin American & Caribbean Studies	UP
Political Science	UP/NMC
Religious Studies	UP
Statistics	UP
Urban Studies	UP/NMC
<b>Bachelors Degree Programs</b>	Location
Art History	UP
Chemical Engineering	UP
Geography	UP
Urban Studies	UP/NMC
Women's Studies	UP/NMC
Degrees under consideration after 1998 include:	
<b>Professional Programs</b>	Location
Law	unknown
Doctorate Programs	Location
Civil Engineering	UP
English	UP/NMC
Industrial Engineering	UP
Physics	UP
Public Health	NMC
Statistics	UP
Public Administration DPA	NMC

Masters Programs	Location
French	UP/NMC
Music	UP
Philosophy	UP/NMC
Public Policy	NMC
Visual Arts	UP

#### Policy 201.2.5

Funding shall be distributed based on a pro rata basis to existing academic programs based on existing and projected enrollments

#### Policy 201.2.6

**Priorities** for new academic programs shall be based on the following criteria (Policy 101.1.3)

- Local, regional, national and international need
- Potential enrollment
- Maturity of program being modified

#### Policy 201.2.7

Unforeseen potential academic program elements and grant opportunities shall be reviewed and acted upon through the Division of Sponsored Research and Training Procedures applying such criteria as:

- Compliance with State and Federal regulations
- Appropriateness to Academic Program and Mission
- Capacity of physical and administrative infrastructure

#### Policy 201.2.8

The campus master plan shall be amended as needed to include any unforseen program elements.

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2.0

#### ACADEMIC PROGRAM ELEMENT

## Table 2.1 FIU Current and Planned Academic Programs

Key: E-Existing U-Under BOR consideration for 1993-98

L-Long Range

	Baccalaureate	Masters	Doctorate
Art	Е		
Art History	U		
Biology	Е	Е	Е
Chemistry	Е	Е	U
Computer Science	E	Е	Е
Creative Writing		E	
Dance	E	and part and stands and an an and a standard	
Economics	Е	В	E
English	E	U	L
Environmental Studies	E	U	
French	E	L	
Geography	U		
Geology	Е	В	U ·
German	E		
History	Е	E	U
Humanities	E		
International Relations	Е		Е
International Studies		E	
Italian	Е		
Lat. Am. / Caribbean Studies		U	
Liberal Studies	E		
Linguistics		Е	N

College of Arts and Sciences

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· · · ·	Baccalaureate	Masters	Doctorate
Mathematics	Е		
Mathematical Sciences	Е	Е	
Music	Е	L	
Philosophy	E	L	· · · · · · · · · · · · · · · · · · ·
Physics	E	Е	L
Political Science	Е	U	U
Portuguese	Е		
Psychology	Е	Е	Е
Religious Studies	Е	U	
Sociology		E	Е
Sociology / Anthropology	Е		
Spanish	Е	Е	U
Statistics	Е	U	L
Theatre	Е		
Urban Studies	U	U	
Visual Arts		L	
Woman's Studies	U		

#### 2.0 ACADEMIC PROGRAM ELEMENT

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#### ACADEMIC PROGRAM ELEMENT 2.0

## **College of Business Administration**

	Baccalaureate	Master	Doctorate
Accounting	. E	E	
Business Administration	E	Е	E
Finance	Е	Е	
Insurance & Risk Management	Е		
Management Info. Systems	Е	-	
Marketing	E		
Personnel Management	E		
Real Estate	Е		
International Business	Е	Е	
Taxation		E	
Transportation Management	E		

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#### 2.0 ACADEMIC PROGRAM ELEMENT

	Baccalaureate	Master	Doctorate
Adult Ed./Human Resource Dev.		E	E
Art Education	Е	E	
Community College Teaching			E
Counselor Education		Е	
Curriculum and Instruction			E
Curriculum Specialist		E	
Early Childhood Education		Е	
Educational Leadership		E.	E
Educational Leadership Spec.		E	
Elementary Education	Е	E	,
Emotional Disturbance	E	Е	
English Education	E	E	
<b>Exceptional Student Education</b>			E
Foreign Language Teacher Ed.	E	E	
Health Education	E	E	
Home Economics Education	E	Е	
Industrial & Vocational Ed.	Е	E	
International Development		E	
Mathematics Education	E	Е	
Mental Retardation	E	E	
Music Education	E	Е	
Parks and Recreation Mgmt.	В	E	
Physical Education	E	E	1977
Reading		E	

**College of Education** 

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#### 2.0 ACADEMIC PROGRAM ELEMENT

	Baccalaureate	Master	Doctorate
School Psychology Specialist		E	
Science Education	<u>.</u> E	E	
Social Studies Education	Е	E	
Special Learning Disabilities	Е	E	
Urban Education		Е	

#### College of Engineering and Design

	Baccalaureate	Master	Doctorate
Architectural Technology	E		
Chemical Engineering	U		
Civil Engineering	Е	E	L
Computer Engineering	E	Е	
Construction Management	E	E	
Electrical Engineering	Е	Е	Е
Engineering Management	· · · · · · · · · · · ·	U	
Environmental Engineering		Е	
Environmental & Urban Systems	Е	Ĕ	
Industrial Engineering		E	L
Industrial & Systems Engineering	Е		
Interior Design	E		
Landscape Architecture		Е	
Mechanical Engineering	Е	E	U

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	Baccalaureate	Master	Doctorate
Dietetics & Nutrition	E	E	U
Health Information Mgmt.	Е		•
Medical Laboratory Sciences	E	E	
Occupational Therapy	Е	E	
Physical Therapy	Е	Е	
Prosthetics & Orthotics		• E	
Public Health		E	L

#### **College** of Health

#### School of Hospitality Management

	Baccalaureate	Master	Doctorate
Hotel & Food Service Mgmt.	E	Е	

#### School of Journalism and Mass Communication

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	Baccalaureate	Master	Doctorate
Mass Communication		Е	

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#### 2.0ACADEMIC PROGRAM ELEMENT

#### School of Nursing

	Baccalaureate	Master	Doctorate
Nursing	Е	E	

#### School of Public Affairs and Services

	Baccalaureate	Master	Doctorate
Criminal Justice	E	Е	
Health Services Administration	E	Е	
Public Administration	Е	E	E
Public Policy		L	
Social Welfare			Е
Social Work	E	E	E

#### **Professional**

	I		
Law School		L	

Source: (1) Office of Planning and Institutional Research 11/5/93 (2) FIU Office of Facilities Management

Other Programs under Consideration

- Professional Certificate in Industrial Relations and Labor Studies •
- Human Service Magnet School with Dade County Public Schools
- ø Peace Corps School / Community Development Corps with Dade County Public Schools
- 8 Certificate Program in Actuarial Studies
- Certificate Program in Public Policy and Citizenship e
- Certificate in Jewish Education
- Certificate in Labor Studies
- Minor in Women's Studies ø
- Consider the consolidation of existing Education doctoral programs into a unified doctoral program by . 1995.
- Broaden Ph.D in Psychology 8

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#### 3.0 URBAN DESIGN ELEMENT

#### Introduction

Historically both campuses of Florida International University have developed in a sprawling "suburban" fashion, with loose aggregations of monolithic "modern" concrete structures. With growing awareness of declining land resources, potential environmental degradation and inefficient circulation patterns, there is a need for a new paradigm to guide campus development. The response at University Park is to encourage a more compact, "urban" pattern within the academic core. A new sense of geometric order is introduced with renewed emphasis on axial patterns and spatial sequences of malls and quadrangles. In addition, the campus loop road will be expanded to envelope the bulk of existing and planned parking, thus eliminating most pedestrian-vehicular conflicts. At the North Campus the challenge is to preserve Bayfront open space and views while consolidating a compact academic core, linked effectively to residential enclaves, the new conference center and the proposed Residential Honors Complex at the southern peninsula.

Both campuses are well insulated from off-campus land use influences. University Park is surrounded by the "barrier" edge conditions of major highways and "buffer" edge conditions of open spaces, while Munisport (landfill) and Biscayne Bay isolate the North Campus from context area land uses.

#### <u>GOAL 301</u>

Florida International University shall create high quality, memorable campus environments suited to education and a sense of collegiality, comprising a compact formal development pattern within a rich outdoor tropical environment.

#### **Objective 301.1 Symbolic Campus Open Spaces**

Develop, protect and enhance the campuses of Florida International University as a sequence of symbolic campus open spaces.

#### **Policy 301.1.1** University Park

All future development within the loop road shall place buildings and landscape features so as to reinforce the open space network of malls, quadrangles, courtyards and visual corridors including:

- Primary East-West Axis: Mall connecting the Golden Panther Arena, Athenaeum and Graham Center.
- Secondary East West Axis: Extending from the south facade of the Education Building west to the President's House, and east to the south facade of the Engineering and Computer Science

Building and beyond.

- Secondary East West Axis: Corridor connecting the southwest housing quadrangle across the extended mall south of Primera Casa.
- Primary North-South Axis: Sequence of malls and quadrangles extending from the entrance on S.W. 8th Street through the Business Administration Building to the southwest housing quadrangle.
- Primary North-South Axis: Sequence of malls and quadrangles connecting the Engineering and Computer Science Building, Athenaeum and Primera Casa to the mall extending south of Primera Casa.
- Diagonal Axis: Corridor and sequence of spaces extending from the southwest housing quadrangle to the central campus quadrangle to the northeast campus signature corner.

#### Policy 301.1.2 North Campus

Future academic and support facilities shall be clustered to preserve and "frame" major open spaces to the north and south of Academic I and II and the University Center and to the east of the Conference Center.

#### **Policy 301.1.3** North Campus

**Preserve Biscayne Bay views and open spaces by locating buildings no closer than** 100 Feet to Bay shorelines and clustering buildings to maintain Bay view corridors from formal quadrangles.

#### Policy 301.1.4

Define open spaces by formal building arrangements characterized by compatible scale and connected architectural features including arcades and cornice lines.

#### Policy 301.1.5

Conserve campus open spaces by replacing at grade parking lots and constructing additional parking in parking structures.

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#### Policy 301.1.6

Maintain a continuous sequence of movement and linkages among open spaces.

#### Policy 301.1.7

Design review procedures shall ensure that all future buildings are sited to avoid encroachments upon designated open spaces, axes and view corridors.

#### **Objective 301.2 Future Open Spaces**

Develop and enhance future open spaces to coincide with the development of future academic and support facilities.

#### **Policy 301.2.1** University Park

**Develop a symbolic campus "gateway" at S.W. 8th Street and S.W. 107th Avenue to include "signature" signage, landscaping and visual landmarks.** 

#### **Policy 301.2.2** University Park

Develop a new entrance and open space corridor at S.W. 107th Avenue and S.W. 16th Street.

#### **Policy 301.2.3** University Park

Create new formal open spaces and quadrangles at the southwest housing complex and south of Primera Casa.

#### **Policy 301.2.4** North Campus

Create defined formal open space quadrangles to the north and to the south of Academic I and II and the University Center.

#### **Policy 301.2.5** North Campus

Create an informal open space facing Biscayne Bay east of the Conference Center.

#### **Policy 301.2.6** North Campus

Create suitable open spaces within the planned residential honors complex.

#### Policy 301.2.7

Funding for new and enhanced open spaces shall be secured by:

• Allocating proportional costs to future building programs and budgets.

Florida International University Comprehensive Campus Master Plan BOR - 803

• Establishing funding line items for open space enhancements.

#### **Objective 301.3** Service and Loading

Organize and place service and loading functions to avoid pedestrian conflicts and minimize visibility from the campus open space system.

#### Policy 301.3.1

To the extent feasible service and loading areas shall be clustered to minimize service drives and geographic dispersion of service functions.

#### Policy 301.3.2

Service functions shall be placed in areas screened from major open spaces, with minimum crossing of open spaces by service drives.

#### Policy 301.3.3

Service and loading areas shall be provided with visual and acoustical screening including structural or landscape enclosures.

#### **Objective 301.4** Host Community Interface

Ensure University edge conditions which are compatible or screened from host community boundaries with respect to building placement, orientation, mass and scale and ground level character.

#### **Policy 301.4.1** University Park

On the north and east campus edges which directly abut the community, locate future buildings no closer than 100 feet from the campus edge and provide a continuous landscape buffer.

#### **Policy 301.4.2** University Park

Remove the present vehicular entrance to campus housing on S.W. 107th Avenue.

#### Policy 301.4.3 University Park

Develop the southern campus edge with joint use facilities, open space and other uses compatible with the Dade County Youth Fair and Tamiami Park.

#### **Policy 301.4.4** North Campus

Develop future buildings and services as depicted in the Future Land Use Plan to be visually isolated from the surrounding community by Oleta River State

Florida International University Comprehensive Campus Master Plan BOR - 803

Recreation Area and similar buffering uses.

#### Policy 301.4.5

By 1995 FIU shall establish an urban design liaison with planning staff of Metro-Dade County, City of Sweetwater and City of North Miami and other entities within the context area to provide the mutual review of urban design implications of future developments near the campus/community interface.

#### Objective 301.5 Functional Linkages

Maintain and enhance functional linkages between major campus activity centers.

#### Policy 301.5.1

Create effective continuous pedestrian and visual linkages with strong axial orientations.

#### Policy 301.5.2

Create clusters of academic and support functions with building clusters characterized by compactness, compatibility of use and linkage features including continuous pedestrian corridors and covered arcades.

#### Policy 301.5.3

Distribute on-campus housing and related student services to "activate" all campus quadrants.

#### Policy 301.5.4

Distribute campus parking outside the academic core but inside access roads, to eliminate pedestrian-vehicular conflicts and minimize walking distances.

#### Policy 301.5.5

Encourage the development of a Metrorail station on-campus and provide an internal "Tram" system.

#### Objective 301.6 Energy Efficiency

Provide campus buildings and facilities which are energy efficient.

#### Policy 301.6.1

Establish the following design criteria as part of the architectural design and siting criteria for all future buildings.

Florida International University Comprehensive Campus Master Plan BOR - 803

#### 3.0 URBAN DESIGN ELEMENT

- High efficiency lighting fixtures and control systems.
- Minimum use of glass on west exposures and use of shading devices particularly on east and south facing windows.
- Placement of landscaping to provide maximum solar protection and direct optimum cooling breezes.
- Apply upgraded standards for building thermal insulation and high efficiency air conditioning systems.

#### Objective 301.7 Compliance

Monitor conformance of future developments with the urban design guidelines referenced herein.

#### Policy 301.7.1

A President-appointed design review committee shall review future development compliance with urban design criteria, integrated with the review of architectural and landscape design characteristics (See Policies 1510.1.1, 1601.2.2, 1601.3.3, 1601.5.3)

#### Objective 301.8 Implementation

**Development of the campus spatial environment shall be consistent with the development of future buildings and landscape improvements.** 

#### **Policy 301.8.1** University Park

Timing and priorities for development of the spatial environment of University Park shall reflect the timing and priorities for future buildings as described in Table 14.2 and the timing and priorities for future landscape and open space development as described in Policy 1601.6.3 and Table 14.4

#### Policy 301.8.2 North Campus

Timing and priorities for development of the spatial environment of the North Campus shall reflect the timing and priorities for future buildings as described in Table 14.3 and the timing and priorities for future landscape and open space development as described in Policy 1601.6.3 and Table 14.5.

Florida International University Comprehensive Campus Master Plan BOR - 803



FIGURE 3.3 SERVICE & LOADING

FIGURE 3.4 FUNCTIONAL LINKAGES

# URBAN DESIGN FRAMEWORK

#### LEGEND



WALLACE ROBERTS & TODD DAVID PLUIGGER & ASSOCIATES, INC GABY & GABY, INC KETTH & SCHEWARS SDM ENGINEERS ZYSCOVICH, INC.

CORAL GABLES, FL CORAL GABLES, FL HANG PL FT. LAUDERDALE, FL. CORAL GABLES, FL. MANG, FL











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# URBAN DESIGN FRAMEWORK

#### LEGEND



- MAJOR AXIS
- VIEW CORRIDORS TO BISCAYNE BAY

OPEN SPACE

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FORMAL OPEN SPACE



ENTRY PLAZAS 7////





PEDESTRIAN LINKAGES

BUILDING CLUSTERS ΠΠΠ

WALLACE ROBERTS & TODD DAVED PLUMBER & ASSOCIATES, BYC GARY & GARY, INC KETTH & SCHWARS SOM ENGINEERS ZYSCOWICH, INC

CORAL GABLES, FL coral guilles, FL LEANI, FL. FT. LAUDERDALE, FL. CORAL GABLES, FL MAMI, FL

FLORIDA INTERNATIONAL UNIVERSITY NORTH MIAMI CAMPUS MIAMI, FLORIDA

Date: May 16, 1995





## Florida International University

Office of the President

June 20, 1996

Mr. Robert M. Friedman, AIA Associate Vice Chancellor Office of Capital Programs Florida Board of Regents 325 W. Gaines Street Tallahassee, FL 32399-1950

#### RE: MASTER PLAN AMENDMENT NO. 1

Dear Mr. Friedman:

FIU is proceeding with the acquisition of the center for Engineering and Applied Sciences, formerly known as the Cordis Facility. The site is a developed 36-acre parcel of land within the University Park context area. This land acquisition will affect the Future Land Use Element of the 1994-2004 Comprehensive Master Plan, which was adopted by the Board of Regents on May 16, 1995. In compliance with the requirements of Chapter 6C-21, Part II, F.A.C., which establishes general requirements for plan amendments, the university is hereby submitting Amendment No. 1 to the adopted plan.

The proposed Future Land Use amendment will initially classify the proposed land acquisition site as a "land bank." The land bank category was established in the original plan to reserve valuable development sites for future (as yet undetermined) uses. Pursuant to future land use element policy 401.5.4, development of new permanent structures may not occur within the land bank without a subsequent amendment to the adopted master plan.

This plan amendment alone does not exceed thresholds established in section 240.155(9), F.S., i.e., the acquired land area does not exceed 10% of the total acreage held by the university.

The site is developed and has been occupied over the past 15 years by a private medical research and development Corporation (Cordis) or its tenants. Zoned within an office park district, the site has an approved development plan within the Metro Dade Comprehensive Plan for an additional 531,000 square feet. As a result of the previous planning efforts, general infrastructure considerations have already been addressed. The university intends to continue the use of the facility for research and office functions with similar impacts to the host community as the previous land manager.

University Park Campus, Miami, Florida 33199 • (305) 348-2111 • FAX (305) 348-3660 • TDD via FRS 1-800-955-8771
Mr. Robert M. Friedman, AIA June 20, 1996 Page 2

Storm water runoff is contained entirely within the site and does not impact public storm water management. Potable water and sanitary sewage disposal services are purchased through Miami-Dade Water & Sewer Authority. Solid waste disposal is being contracted commercially as they are on other university sites. Use of the site will have no impact on the availability of parks and recreation within the community. Current use of the facility is consistent with the Metro-Dade Comprehensive Plan in terms of impacts on traffic and parking.

Since the site has no undisturbed natural areas, I understand through initial staff contacts with the Bureau of Land Management, that it is possible to obtain approval on behalf of the Board of Trustees of the Internal Improvement Trust Fund through the Bureau, without a complete Land Management Advisory Committee review. Your assistance in processing this request for the next Board of Regents meeting agenda would be appreciated.

The required three copies of the plan amendment are attached for your review. The attachments include:

• Revised Future Land Use Element (Element 4) with maps designating the proposed land acquisition site.

In support of the proposed plan amendment, also find the following support documentation which is not to be part of the adopted plan amendment:

- Professional Land Survey (Exhibit "A") containing acreage (35.995) flood elevation and datum, all physical development on and adjacent to the site, legal description, plot plan.
- General Description (Exhibit "B") containing a brief history and description of the existing facilities on the site.

In addition, a copy of the proposed plan amendment with attachments is being sent to the Metro Dade Development Impact Committee and the City of Sweetwater for a courtesy review.

The contact person familiar with the proposed plan amendment is Victor J. Citarella, P.E., Director of Facilities Management. He can be reached at suncom 441-4000 or (305) 348-4000. Should you have any questions or need further information, please contact Mr. Citarella.

Very truly yours,

Modesto A. Maidique



			LETTER OF TRANSMITTAL
		BUSINESS AND FINANCE	Date: Job No.
		University Park	Sept. 9, 1996
	NTERNATIONAL	Miami, FL 33199	Att: Distribution
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		Facilities Management	Master Plan Amendment No. 1
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	Copy of Letter	Change order	· ·····
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	FOR YOUR USE	APPROVED AS NOTED	SUBMIT FOR DISTRIBUTION
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# eMaps Online Miami-Dade County, Florida







# CORDIS FACILITY

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# **General Description**

EXHIBIT "B"

January, 1996

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# **Cordis Facility**

# I. Facility Features

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<u>Construction</u> Completed July, 1981 by Austin. Structural steel frame and concrete block frame. Reinforced concrete slab floor system. Office building roof replaced in 1993.

<u>Type of Space</u> Office, classrooms, laboratories, conference rooms, full cafeteria

Main Building 220,500 sq.ft. on two floors

<u>Parking</u> Covered for 290 cars, additional paved for 310 cars and open space for more

Maintenance Building Separate 23,000 sq.ft. for air conditioning, heating and telephone systems. Full machine shop and storage area.

<u>Elevators</u> Two hydraulic elevators. Five interior stairwells.

<u>Restrooms</u> Three men's restrooms on each floor with 9 toilets, 6 urinals and 13 lavatories. Three women's restrooms on each floor with 9 toilets and 9 lavatories. Each restroom contains one handicapped toilet stall.

<u>Kitchen/Dining</u> Existing kitchen is fully equipped for warming and cooking meals. Seating capacity is approximately 150-175.

Solar Heating Panels Existing panels located on building roof provide hot water for all restrooms and kitchen areas.

Cordis Facility Page 2

1 - 5

Utilities Electric; UPS System with batteries.

<u>Air Conditioning</u> Three 650 ton chillers, Two 260 kw diesel generators, Multi-zone AC

<u>Site</u> 38 acres. Zoned office park district. Has an approved development plan for an additional 531,500 square feet. Entire property is secured by fence and guard gate.

# II. Location Features

- \* About .5 miles (10 minute walk) from University Park Campus
- \* Less than 1 mile from State Road 836
- \* 10 minutes to Miami International Airport

# III. <u>Potential Uses</u>

- 1. <u>Classrooms</u> There are a number of large areas that could be used as classrooms by simply moving furniture in and adding black boards.
- 2. <u>Office</u> There are 8-10 large office complex areas which could immediately house administrative functions.
- 3. <u>Laboratories</u> Currently, there are approximately 10 areas which could serve as laboratories or classrooms. These areas have existing utilities.

# IV. Availability

Immediate

Cordis Facility Page 3

V. <u>Cost</u>

\$16,000,000

# VI. <u>Analysis</u>

The 38 acres of land could be valued at approximately \$10 million. At a price tag of \$16 million the complete building would cost approximately \$60 a square foot against our current construction costs of \$125 to \$150 a square foot.

In addition to cost, there are two other major advantages of this property. The first is that it is available immediately. Our classroom, research lab and office space crunch is a crisis that calls for an immediate solution. The Cordis Building could accomplish this and more. Second, the 38 acres of land would allow for expansion. The physical plant was designed and laid out to support two additional building the size of the main structure (220,000 sq.ft.)



# Introduction

Florida International University faces no greater challenge than the mandate to accommodate its future expansion needs while facing dwindling land resources, preserving important environmental resources and managing complex development influences exerted by Florida's largest urban metropolitan area. At University Park the challenge is to move toward a more compact, efficient urban scale of development, respecting environmental constraints while anticipating the eventual "build-out" of the campus beyond 2003-04. In contrast, the development of the North Campus must place renewed emphasis on embracing the unique value of the bayfront while consolidating a highly fragmented development pattern; linking a new compact academic core with peripheral support, conference center and honors complex facilities.

# GOAL 401

Manage land use on the campuses of Florida International University in a manner which facilitates the academic mission, conserves land for future needs, protects valuable natural resources, and coordinates with land use policies of the host communities.

# Objective 401.1 Protection of Natural Resources

Ensure that future campus development conserves valuable marine, wetlands, surface waters and upland natural resources consistent with Federal, State and Metro-Dade County regulations.

# Policy 401.1.1

By 1996 prepare and, thereafter, maintain a computerized information file documenting key development limitations including but not limited to jurisdictional wetlands, and habitats of threatened or endangered species.

# Policy 401.1.2

Establish an internal "land management review process" to ensure compliance of future campus development activities with environmental and regulatory constraints. Prior to development commitments, building siting or deviations from the land use plan, the following procedures shall be followed:

• Development shall not be located to directly impact any identified natural or historic resource.

Florida International University Comprehensive Campus Master Plan BOR - 803

# 4.0 FUTURE LAND USE

- Where potential impacts on wetlands are anticipated, prepare a jurisdictional wetlands analysis and identify mitigation measures, as appropriate.
- Where potential impacts on historical or archaeological resources are anticipated consult with the State Historic Preservation Officer and appropriate local resources to identify mitigation measures, as appropriate.
- Prior to siting unanticipated new academic and support uses on campus, calculate land requirements for buildings and parking and document that sufficient land resources remain to accommodate academic facility and support requirements through 2003-04.
- Discourage development of any additional facility not directly related to the academic mission of the University, except for planned joint use facilities with the Dade County Youth Fair and Tamiami Park.

# Policy 401.1.3

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Include in Capital Improvements Projects (CIP) submissions a statement documenting the internal review for each development project and compliance with applicable regulatory requirements.

# Objective 401.2 Protection of Historic and Archaeological Resources

Ensure that future campus development projects identified within historic and archeological resources are consistent with federal, state and local requirements.

# Policy 401.2.1

Provide for the protection of the sole documented historic resource, the Tamiami Airport Control Tower (building C01), by prohibiting its demolition through a development restriction and by enhancing, rehabilitating or restoring the structure in accordance with Florida's Historic Preservation Policy.

### Policy 401.2.2

In coordination with State and local historic preservation officials, maintain an information file which identifies and evaluates portions of the University Park and North Campus which may contain historic or archaeological resources which appear to qualify for the <u>National Register of Historic Places</u>. Include documentation of State regulations governing development in areas where such resources may be present.

### Policy 401.2.3

FIU shall consult and coordinate with the Department of State's Division of Historical Resources prior to any land clearing, ground disturbing, or rehabilitation activities which may disturb or otherwise affect any property which is included, or eligible for inclusion, in the <u>National Register of Historic Places</u>.

### Policy 401.2.4

The University shall consider the effect of any undertaking on any historic property that is included, or eligible for inclusion, on the <u>National Register of Historic</u> <u>Places</u>. The University shall afford the State Division of Historical Resources a reasonable opportunity to comment on such an undertaking.

### Policy 401.2.5

Prior to a historic property being demolished or substantially altered in a way that adversely affects its character, form integrity or archaeological or historical value, the University shall consult with the Department of State's Division of Historical Resources to avoid or mitigate any adverse impacts, or to undertake any appropriate archaeological salvage excavation or recovery action.

### Objective 401.3 Expansion of University Park

Provide for the long term growth of University Park enrollment by anticipating and planning for the expansion of the campus after 2004.

### Policy 401.3.1

By 1996 enter into an agreement with Metro Dade County for the following:

- Joint use and development of student recreational and sports activities during the period 1996-2003/04.
- Preparation of feasibility and phasing studies of relocating Tamiami Park.
- Preparation of a Master Plan for Tamiami Park relocation/University Park expansion to be included in the 1998-99 campus plan update.

# Objective 401.4 Land Use Compatibility with the Host Communities

Provide development coordination with Metro-Dade County, the City of Sweetwater, the City of North Miami and other entities within the context area to eliminate or minimize

### 4.0 FUTURE LAND USE

present land use conflicts and avoid future land use compatibility problems.

# Policy 401.4.1

Monitor land use planning activity, development regulations, and proposed developments for the University context areas by Metro-Dade County, Sweetwater, the City of North Miami and other entities within the context area for the University Park and North Campus, respectively.

# Policy 401.4.2

Evaluate off-campus land use impacts of all University development activity and document findings as part of the land management review process.

# Objective 401.5 Land Use Compatibilities On Campus

Develop University Park and North Campus to ensure compatibility of academic, support and service functions.

# Policy 401.5.1 Land Use Patterns - University Park

As depicted in future land use map, Figure 4.1, implement the following land use patterns:

- Concentrate future academic and directly related support functions inside the loop road to reinforce the planned sequence of major and minor axes, quadrangles and malls.
- Distribute on-campus housing outside the loop road along the east campus edge, the southwest campus edge and within the loop road at the southwest corner.
- Distribute future parking inside the loop road to minimize pedestrian-vehicular conflicts.
- Replace existing surface parking with structured parking in order to make more land available for development.
- Provide major support, service and recreational activities outside and to the west of the loop road.
- Retain and conserve for future use three "land bank" parcels at the northeast campus corner, the southeast campus corner and the northwest portion of the campus inside the loop road.

### 4.0 FUTURE LAND USE

Develop the southern campus edge with "joint use" activities with the Dade County Youth Fair and Metro-Dade County Parks and Recreation Department (Tamjami Park)

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# Policy 401.5.2 Land Use Patterns - North Campus

Part & Expo

As depicted on the Future Land Use Map, Figure 4.2, implement the following land use patterns.

- Place future academic and support buildings in a "loop" pattern to create an enlarged academic core centered on the existing Academic I and II and University Center buildings.
- Provide student housing to the north of the academic core and in an Honors Complex to the extreme southern portion of the campus.
- Maintain and protect three key open space quadrangles; to the north of Academic I/University Center, to the south of Academic I/University Center and to the east of the Conference Center.
- Land south of the Conference Center designated for potential development as Conference Center housing may be developed for recreational activities until feasibility for housing is determined, (refer to Policy 701.1.11).
- Provide all parking to the west of the academic core to eliminate pedestrian vehicular conflicts.
- Locate all "stand-alone" support and services uses to the northwest corner of campus.

### Policy 401.5.3

As part of the "land management review process" address unanticipated development requirements with the following siting criteria.

• Confirm that all proposed developments within the academic core are directly related to the academic programs of the University and/or otherwise necessitate a central location. Seek alternative sites outside the academic core for facilities that do not meet this criteria.

Florida International University Comprehensive Campus Master Plan BOR - 803

- Confirm that all proposed developments outside the academic core meet land use plan guidelines and are directly supportive of the mission of the University. Seek alternative off-campus sites for facilities that do not meet this criteria.
- Review and assess all proposed developments to confirm that they are consistent with stormwater management, resource conservation, and traffic level of service criteria.

# Policy 401.5.4

Develop campus land uses to the following maximum densities and intensities applying building height limits and gross Floor Area Ratio (total building area divided by total (gross) land area) standards, as follows.

	Max. F.A.R.*/	Max. Bldg. Height
	(Impervious Surface Ratio)	
Academic Core	1.5	8 stories **
Support	1.0	3 stories
Residential	1.0	5 stories
Residential Honors Comple	x	
Residential (60%)	1.0	5 Stories
Academic (40%)	1.5	8 Stories
Recreation		
Active	(0.75)	2 stories
Passive	(0.20)	2 stories
Utilities	(0.2)	1 story
Parking*	(0.95)	5 stories
Land Bank***	(1.5)	(1.5)
Research	1.0	5 stories
Conservation	0.0/(0.20)****	1 story
Ancillary	1.0	3 stories

\* Floor Area Ratios apply only to habitable academic, support, residential and research uses. Parking structures are excluded from F.A.R. calculations. Floor area ratios are applicable to total development within a particular land use category and not to individual building sites.

\*\* Academic facilities will maintain a maximum building height of 8 floors with the exception of the library which is planned for 15 floor tower.

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- \*\*\* The Land bank category is established to reserve valuable development sites for future (as yet undetermined) uses, which may include academic, research, recreation and open space, parking, and special joint use activities. With the exception of recreation and open space improvements and surface parking, the development of permanent structures may not occur within lands designated as Land Bank areas without an amendment to the adopted master plan. Such amendment shall identify the specific land use and establish specific densities or intensities of use.
- \*\*\*\* No construction is anticipated in these areas except for minimal structures and improvements needed to ensure safe access and essential support functions.

### Policy 401.5.5

As part of the "land management review process" ensure adequate provision of stormwater management, open space, safe and convenient on-campus traffic flow and needed vehicle parking by adherence to the following referenced objectives and related policies.

Stormwater Management	Objective 902.1
Open Space	Objective 801.2
Traffic Flow	Objective 1101.1
Parking	Objective 1101.4

# Policy 401.5.6

As part of the "land management review process" ensure that the coordination of land use and development decisions with the schedule of capital improvements (Table 14.1 and 14.2) established in the campus plan is maintained by requiring that revisions to land use and development policies and decisions be accompanied by a review and analysis of required capital improvements, along with a revision to the schedule of capital improvements (Tables 14.1 and 14.2 and related subelement schedules), as necessary, prior to administrative approval and submission of Board of Regents facility funding requests.

### **Objective 401.6** Coordination with Topographical and Soil Conditions

Ensure that future development on University Park and North Campus is consistent with the limitations imposed by topographic and soil conditions.

### Policy 401.6.1

Maintain a data base of existing topographic and soil conditions, updated with asbuilt and survey data developed for future construction projects.

Florida International University Comprehensive Campus Master Plan BOR - 803

### 4.0 FUTURE LAND USE

### Objective 401.8 Coordination of On-Campus Utility Requirements

Ensure the adequate provision of long range infrastructure improvements consistent with planned campus development.

# Policy 401.8.1

As part of the "land management review process" review and evaluate all construction projects to ensure adequate provisions for long range infrastructure needs by documenting:

- Maintenance and protection of planned utility corridors, easements and points of connection, and
- Provision of adequate utility capacities to accommodate future development and facility expansion.

### Policy 401.8.2

Maintain an up-to-date file of campus utility systems, updated with as-built survey data from future construction projects.

### Policy 401.8.3

Specify in future Five Year Capital Improvement Plans infrastructure improvements and associated costs necessary to support long-range facility needs, with special note of "critical path" projects.

# Policy 401.8.4

Encourage and assist the Office of Capital Programs in modifying applicable Board of Regents and State Legislative funding procedures to ensure efficient and timely construction and expansion of utility improvements.

### Policy 401.8.5

Install instrumentation to record actual utility levels of service to permit optimum utilization of available resources.

# Objective 401.9 Off Campus Constraints/Context Area Conflicts

Ensure that off-campus constraints on campus development and off-campus impacts of campus development are anticipated and minimized.

### Policy 401.9.1

FIU shall, in coordination with Metro-Dade County, City of Sweetwater, City of

### 4.0 FUTURE LAND USE

North Miami, Florida Department of Transportation, other entities within the context area and applicable utility providers, annually monitor traffic and utility volumes and levels of service. By interlocal agreement with each entity, established by 1995, FIU shall request to be notified of any planned or proposed improvement which may materially affect traffic or utility level of service in the context area. FIU shall request to review and comment upon any off-campus development which may create conflicts with campus development, prior to the issuance of development approvals or permits.

# Objective 401.10 Administrative Procedures to Amend Master Plan

Ensure that future master plan amendments undergo appropriate intergovernmental and public review appropriate to the degree of proposed plan modification.

# Policy 401.10.1

All proposed "major" plan modifications which meet the criteria contained in subsections (a), (b) or (c) of s.240.155 (9), Florida Statues must be reviewed and approved in accordance with subsection (6)-(8) of 240.155 Florida Statutes.

# Policy 401.10.2

Pursuant to Administrative Rule 6C-21.103(3), F.A.C., plan amendments which alone, or in conjunction with other plan amendments, do not exceed the thresholds established in s.240.155(9), F.S., shall be consolidated into a single annual submission and submitted to the Board of Regents Office of Capital Programs for review and approval. Prior to and as a part of minor plan modification requests the following review procedures shall be followed.

- Florida International University shall apply criteria for site location suitability contained in Policy 401.5.3.
- Florida International University shall assess the impact of proposed plan modifications on surface waters, wetlands, upland natural resources and historic resources.
- Florida International University shall determine impacts upon utilities, campus pedestrian and vehicular circulation patterns and confirm the ability to meet land needs for planned academic and support structures.
- Florida International University shall prepare a "Minor Plan Modification Report" as part of the "Land Management Review Process" for internal

administrative review and for review and approval by the Board of Regents, Office of Capital Programs.

# Policy 401.10.3

Proposed amendments to the adopted campus master plan which do not exceed the thresholds established in s.240.155(9), F.S., and which have the effect of changing land use designations or classifications, or impacting off-campus facilities, services, or natural resources, shall be submitted to the host and affected local governments for a courtesy review.

Florida International University Comprehensive Campus Master Plan BOR - 803 ISSUE DATE: May 16, 1995 ADOPTED DATE: 5/16/95 AMENDMENT NO. 1 - REVISION DATE: 7/12/96 Page: 4-11





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Section 2.





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FIGURE 4.1a

FUTURE LAND USE

LEGEND

LAND BANK 36.0 ACRES



CORAL GABLES, FL MIAMI, PL FT. LAUDERDALE, PL CORAL GABLES. FL MIAMI, FL





# FIGURE 4.2

# FUTURE LAND USE

# LEGEND



ACADEMIC 14.26 ACRES



SUPPORT 9.94 ACRES

RESIDENTIAL 17.43 ACRES

RECREATION/OPEN SPACE 52.92 ACRES

UTILITIES

PARKING 24.91 ACRES

RESIDENTIAL HONORS COMPLEX 15.43 ACRES

ANCILLARY 2.67 ACRES

WALLACE ROBERTS & TODD DAVD PLIAMER & ASSOCIATER, NC GABY & GABY, NC KETH & SCHURS SCH ENGNEERS ZYSCOVICH, NC

CORAL GABLES, FL CORAL GABLES, FL MAM, FL FT. LAUDERDALE, FL CORAL GABLES, FL MAM, FL

# FLORIDA INTERNATIONAL UNIVERSITY NORTH CAMPUS MIAMI, FLORIDA

DATE: MAY 16, 1995 AMENOMENT NO. 1 - REVISED 8/12/28 200 0 200 800 F7 







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### ACADEMIC FACILITIES ELEMENT 5.0

### Introduction

Due to severe current academic deficiencies plus projected enrollment growth, the 1994-2004 period will experience unprecedented growth in academic facilities if projected needs are to be met. At both University Park and the North Campus the total footprint of academic facilities must triple from the present facility inventory, based on the application of mandated space standards. Because of the tendency for "lag time" in the building planning, funding and design cycles, this process must be tightened and accelerated in order to "catch up" to present needs while also preparing to meet the needs which will exist in ten years. To ensure optimum academic and spatial efficiency and to conserve precious and declining reserves of buildable land, guidelines call for the creation of more compact "academic cores" at both campuses, as well as the designation of "land bank" areas for future, unanticipated academic facilities.

# **GOAL 501**

Provide academic facilities adequate to support the academic mission, meet needs of projected student enrollment and eliminate facility deficits by the end of the planning period.

Objective 501.1	Timing a	nd Phasing	
Phase future acad	emic facility develop	ment in the following	increments by location:
	University Park	North Campus	Total University
1993 / 1994	492,951 sf.	174,627 sf	667,578 sf.
1998 / 1999	1,248,778 sf.	283,670 sf	1,532,448 sf.
2003 / 2004	1,500,728 sf.	570,570 sf	2,071,298 sf.

### Policy 501.1.1

Apply space use standards in chapter 6A-2 in determining future academic building programs and in planning the adaptive reuse of existing facilities to ensure optimum utilization of academic facilities.

### Policy 501.1.2

Define building and facility use priorities strictly on the basis of academic need. Specific priorities for development of future facilities, including academic facilities, are as follows, as per Table 14.2 and 14.3.

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### 5.0 ACADEMIC FACILITIES ELEMENT

### UNIVERSITY PARK

THREE YEAR

**FIVE YEAR** 

TEN YEAR

Labor Center (a) Education (a) Engineering II (a) Arts Complex I (a) OE Renovation (a) Elementary School (a) Art Museum (a) Library Addition (a) Health and Life Sciences (a) Social Sciences (a)

Arts Complex II (a) Office/Classroom (a)

Business/Finance (a) Business/Tech. (a) Molecular\_Biology (a) Classroom (a) NORTH CAMPUS

Hospitality Management (a) Conference Center (a)

Classroom/Office (a) Honors Complex (a)

Public Affairs (a) Classroom (a) Nursing (a) Library/Classroom (a)

Key: (a) academic facilities

Additional academic facility priorities shall be established strictly on the basis of academic need.

### Policy 501.1.3

Eliminate facility deficits by 2003-04 by modifying facility programming and funding request procedures as follows:

- Submit facility requests 3-4 years prior to <u>projected</u> need, rather than <u>current</u> need, to accommodate lag time in facility planning, funding, design and construction.
- Prepare detailed facility and use programs to coincide with facility requests, rather than receipt of funding.

### Policy 501.1.4

Unanticipated academic facility development opportunities which are determined to be consistent with the academic mission and current/planned programs shall be accommodated in:

• Planned but unassigned future academic buildings,

### 5.0 ACADEMIC FACILITIES ELEMENT

- Academic facilities in unassigned "land bank" areas, as depicted in the . Future Land Use Plan, or
- Off-Campus.

The Campus Master Plan will be amended as necessary to incorporate any new and unforeseen academic facilities.

# Policy 501.1.5

Apply building design and construction criteria to encourage energy efficiency including cost containment guidelines, active and passive solar design features and life cycle (capital and operating) cost analysis.

### **Objective 501.2** Locations\_

Locate future academic facilities to cluster related programs within a compact "academic core".

### Policy 501.2.1

Implement the pattern of academic facility clusters, quadrangles and malls as depicted in the Future Land Use Map.

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### 7.0 HOUSING ELEMENT

# Introduction

Historically functioning primarily as a commuter institution, Florida International University is, at present, providing on-campus housing for no more than 4 percent of its student population. As FIU matures in its stature as a leading educational institution, attracting higher proportions of non-local and international students, the need for appropriate affordable on-campus student housing will grow. Even though metropolitan Miami has an enormous supply of off-campus rental housing, the burden will increasingly shift to FIU to supply suitable housing on campus. Consequently, the plan aims to provide on-campus housing for 10 percent of its students by the end of the 2003-04 planning period. In addition to the need to increase the quantity of on-campus housing FIU will strive to provide alternatives to traditional dormitories to reflect the housing preferences of undergraduate students, graduate students, as well as married students and members of fraternities and sororities.

### <u>GOAL 701</u>

Florida International University shall assist all students in securing adequate, affordable on- and off-campus housing through the planning period

### Objective 701.1 On-Campus Housing

Provide housing on-campus to meet the needs of not less than ten percent of the student population by the end of the planning period

### Policy 701.1.1

Provide a variety of dormitory and apartment types to reflect user preferences and particular student classifications (undergraduate, graduate, married, honors, etc.)

### Policy 701.1.2

At the University Park campus provide a total of 2902 on-campus housing beds by the end of the planning period distributed generally as follows:

	Existing	Planned (by 2003-4)
• Undergraduate	606 beds	2,223
• Graduate	60 beds	232
• Married	14 beds	55
• Greek	0 beds	160
• Housing Staff (*)	23 beds	87
• Handicap Accessible (*)	29 beds	145
TOTAL	732 beds	2,902

(\*) Beds are distributed throughout the overall planned bed count.

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### Policy 701.1.3

At the North Campus provide a total of 1200 on-campus housing beds by the end of the planning period distributed generally as follows.

	Existing	Planned (by 2003-4)
Undergraduate	471 beds	708
• Graduate	0 beds	69
• Married	8 beds	20
Honors Complex	23 beds	320
• Special (*)	73 beds	83
TOTAL	552 beds	1,200

(\*) Special Housing may include Greek Housing

### Policy 701.1.4

Locate housing on the University Park Campus as follows:

- Undergraduate student housing in the southwest housing quadrangle and east lake housing cluster in dormitory suites
- Graduate student housing in the southwest housing quadrangle and in the east lake housing cluster.
- Married student housing in a retrofit of the existing northeast housing complex.
- Greek housing in a retrofit of the existing northeast housing complex.
- Special use (Greek, honors or other) on the western campus adjacent to the planned football stadium.

### Policy 701.1.5

Locate housing on the North Campus as follows

- Undergraduate and graduate student housing (330 additional beds) at the northeast corner of the campus
- Honors student housing (320 additional beds) at the residential honors complex at the southeast corner by the campus

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# 7.0 HOUSING ELEMENT

### Policy 701.1.6

Prioritize funding and phase housing development at the University Park campus as follows.

Housing Project	No. Beds	Year
Phase I S.W. Quadrangle	410 beds	9 1995
Phase II S.W. Quadrangle	640 beds 5200	1998 200
Retrofit Existing Housing*	Variable	1995-2003-04*
East Lake Housing Cluster	800 beds	2000
Special Use Housing/South Stadium	320 beds 7,80 - 60	2003-4

To respond to demand for married and Greek housing

# Policy 701.1.7

Prioritize funding and phase housing development at the North Campus as follows.

Housing Project	No. Beds	Year
Residential Honors Complex	320	1999
Northeast Corner	\$30	2004
Retrofit Existing Housing	No Change	1995-2003-04

# Policy 701.1.8

Within each housing cluster provide support services and facilities to include.

Parking totaling not less than 75 percent of the number of beds

• Dining facilities

Recreation/open space commons

# Policy 701.1.9

At the University Park campus retrofit up to 325 existing beds at the northeast corner housing complex for use by fraternities and/or sororities.

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### Policy 701.1.10

At both campuses provide handicapped accessible units, in compliance with Americans with Disabilities Act for no less than five percent of on-campus housing.

# Policy 701.1.11

By 1996 the University shall evaluate the demand and financial feasibility of privately financed housing to serve the North Campus Conference Center. Until such time as such feasibility is determined, the land designated south of the Conference Center may be developed for outdoor recreational activities.

# Policy 701.1.12

FIU shall be supportive of the intent of preserving and protecting historically significant housing. Due to the recent construction of all on-campus housing there exists no historically significant housing. Consequently no specific implementing actions are appropriate.

### Objective 701.2

Monitor and evaluate housing deficiencies and ensure the timely elimination of substandard student housing and the infrastructure (electrical, mechanical, plumbing, etc.) and aesthetic improvement of existing student housing.

### Policy 701.2.1

At the University Park campus complete the renovation and retrofit of up to 325 existing housing beds (northeast housing complex) to accommodate new user groups, including fraternities and sororities, by 2003-04.

### Policy 701.2.2

At the North Campus, prepare a detailed inventory of suspected structural and aesthetic deficiencies by 1995 and implement corrective measures, as necessary, by 1998.

### Policy 701.2.3

Annually monitor the condition, deficiencies and repair needs of existing housing at both campuses consistent with the policies and procedures established by the Facilities Maintenance Element.

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# **Objective 701.3 Off-campus Housing**

Assist off-campus students in locating suitable, affordable housing.

### Policy 701.2.1

Monitor the anticipated adequacy and affordability of off-campus housing to serve the needs of students residing off-campus through a bi-annual survey of offcampus students

### Policy 701.2.2

Establish by 1995 with the Metro-Dade Planning Department and the City of North Miami, an FIU Housing Coordinating Committee for the purpose of:

- Monitoring the supply, cost and suitability of off-campus housing
- Establishing a registry of off-campus housing providers
- Monitoring factors pertaining to safety, transit utilization, pedestrian access, traffic pattern, rent levels, etc.
- Consider development of a "roommate finder" service.

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<image/> <image/> <form><text><text><text><text><text><text></text></text></text></text></text></text></form>	(19) EXISTING HOUSING FACILITIES 732 BEDS		
<text><text><text><text><text><text><text><text></text></text></text></text></text></text></text></text>	(19A) PLANNED HOUSING FACILITIES 410 BEDS		
NOTE: *NO DESIGNATED STUDENT HOUSING HAS BEEN DENTIFIED IN THE CONTEXT AREA. MALLACE ROBERTS & TODD DAVD FULMMER & ASSOCIATES, NO GABY & GABY, NO MAM, FL OFAL GABLES, FL MAM,	FUTURE HOUSING FACILITIES (19B) 640 BEDS W/DINING FACILITIES (19C) 800 BEDS W/DINING FACILITIES (19D) 320 BEDS 2,902 TOTAL BEDS (33) PRESIDENT'S HOUSE		
FLORIDA INTERNATIONAL UNIVERSITY UNIVERSITY PARK MIAMI, FLORIDA Date: May 16, 1995	NOTE: - NO DESIGNATED STUDENT HOUSING HAS BEEN IDENTIFIED IN THE CONTEXT AREA. WALLACE ROBERTS & TODD DAVID FLUMMER & ABSOCIATES, NO GABY & GABY, NO MAM, FL MAM, FL MAMBER, FL MAM, F		



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# 8.0 RECREATION AND OPEN SPACE ELEMENT

# Introduction

The Ten Year Master Plan identifies the need for additional on-campus recreation facilities and the development and preservation of open space to support the projected growth in student enrollment. Due to the declining land availability at University Park, recreation is limited to the western edge of campus which has in recent years been forfeited for the construction of various ancillary functions. This has forced the University to limit its long range growth in oncampus recreation and look for off-campus joint uses facilities. North Campus, unlike University Park, has an abundance of land availability and very few athletic programs to support the existing facilities.

Open spaces on each campus have been developed so that they become an integral part of the overall concept plan. Development that would encroach on these open spaces is discouraged in order that the natural resources of each campus are protected.

#### **GOAL 801**

Protect, enhance and develop adequate recreation facilities and open space amenities necessary to serve projected student enrollments.

# **Objective 801.1** Recreation Facilities

Coordinate public and private resources as necessary to ensure the timely and efficient provision of recreation facilities to meet projected needs.

#### **Policy 801.1.1 University Park**

Phase and time development of open space improvements consistent with Capital Improvement Element Figures 14.1 through 14.3. Phase and time development of future athletic and recreation facilities (as identified in Figure 8.1) as follows:

Facility	Timing
Replacement of basketball, softball, and multi-purpose fields and other existing facilities displaced by campus development	To occur upon displacement
Enhancement of condition of existing tennis, softball and basketball facilities	1997
Recreation Pool	1996
Joint Use Football/Track Stadium	1995 (by Metro-Dade)

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# 8.0 RECREATION AND OPEN SPACE ELEMENT

Joint use recreation facilities at Tamiami Park

1996-2003/04 (see Policy 401.3.1)

Joint use amphitheater/convocation center

2003/04 (see Policy 601.1.5)

# Policy 801.1.2 North Campus

Phase and time development of open space improvements consistent with Capital Improvement Element Figures 14.4 through 14.6. Phase and time development of future athletic and recreation facilities (as identified in Figure 8.2) as follows:

Facility Fitness Center (gymnasium)	<u>Timing</u> 1996-97	
Relocation of displaced basketball courts (2)	To occur upon displacement by library addition	
Addition of tennis courts (3)	1996	

# Objective 801.2 Open Space

Protect and enhance present open space resources.

# Policy 801.2.1 University Park

Protect from encroachment the existing natural preserve and maximize retention of campus open space by strictly enforcing future placement of buildings, parking, infrastructure and other man-made improvements consistent with the sites selected and adapted in the future land use plan. The pattern of open spaces depicted in Figures 8.1 and 8.2 shall not be subject to encroachment except for an amendment to this master plan. (See Policies 401.1.2, 1301.1.1 and 1301.1.2).

# Policy 801.2.2 University Park

Protect landscape amenities consistent with and described in Policy 801.2.1. Develop landscape amenities within the sequence of malls and quadrangles as per the provisions of Policies 1601.1.11, and Capital Improvement Element Figures 14.1 through 14.3.

Florida International University Comprehensive Campus Master Plan BOR - 803

# Policy 801.2.3 University Park

Coordinate with Metro-Dade Parks Department for the utilization of open space to meet short range recreation and open space needs and long range academic expansion needs as described in Policy 401.3.1.

# Policy 801.2.4 North Campus

Protect environmentally sensitive and Bayfront open spaces from development encroachment by strictly enforcing future placement of buildings, parking, infrastructure and other man-made improvements consistent with the land use plan which depicts and protects the environmentally sensitive and Bayfront open spaces from development encroachment (See Policies 401.1.2, 1801.10.2 and 1301.1.1)

# Policy 801.2.5 North Campus

Enhance key symbolic campus open spaces to the north and south of Academic I and II/University Center and to the east of the Conference Center (see Landscape Element).

# Policy 801.2.6 North Campus

Florida International University does not plan or anticipate designation or acquisition of additional on-campus open spaces or natural reservations beyond those identified and designated in the Land Use Element (Figures 8.1, 8.2) and Landscape Element (Figures 16.1, 16.2). Use of additional off-campus open space may be secured at Tamiami Park as per Policy 401.3.1.

# Policy 801.2.7 Both Campuses

FIU shall select sites for infrastructure and academic and support facilities which are designed to maximize the retention of campus open space.

# Policy 801.2.10 Both Campuses

FIU shall maintain densities and intensities for the development of the campus which maximize the retention of open space. These densities and intensities are established in Future Land Use Element Policy 401.5.4.

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MIAMI, FLORIDA

Date: May 16, 1995







# <u>GOAL 901</u>

Florida International University shall ensure that adequate solid waste disposal services are available and that these services are provided in an environmentally sound and economically efficient manner.

#### **Objective 901.1** Solid Waste Collection and Disposal

Florida International University shall ensure that adequate solid waste collection and disposal capacity is available in order to meet the demands generated by the University. At present, there are no solid waste collection and/or disposal facility improvements required to meet these demands.

#### Policy 901.1.1

Florida International University shall adopt the following levels of service standards to achieve Objective 901.1:

Level of Service Standard:

**1.85** pounds per full time equivalent student per day. Solid Waste Collection and Disposal Requirements:

University Park		rk North Campus		
Year	Tons/Year	Tons/Day	Tons/Year	Tons/Day
1994	3364.5	9.3	955.5	2.6
1998	4773.6	13.1	1567.6	4.3
2003	5901.3	16.2	2348.5	6.4

# Policy 901.1.2

Florida International University Purchasing Services Department shall ensure that, prior to June 30, 1995, the bid solicitation and contractor selection process for campus wide solid waste collection services shall be completed.

#### Policy 901.1.3

Florida International University Purchasing Services Department shall ensure that, prior to June 30, 1995, the bid solicitation and contractor selection process for campus wide compacting and recycling services shall be completed.

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# Policy 901.1.4

Florida International University Environmental Health and Safety Department shall ensure that any hazardous, biohazardous and radioactive waste, generated by the University shall be collected and disposed of by firms licensed and regulated in accordance with Chapter 17-730 Florida Administrative Code.

#### Policy 901.1.5

By January 1, 1995, the Florida International University Environmental Health and Safety Department will determine whether the present policy of soliciting bids for the disposal of hazardous wastes on an as-needed basis should be replaced by utilizing a single licensed contractor on an annual or multi year basis.

#### Policy 901.1.6

On-campus waste disposal systems shall be located and constructed to avoid impairment to them or contamination from them during flooding.

#### **Objective 901.2** Solid Waste Recycling

Florida International University shall increase the amount of solid waste recycled above the estimated 5% of total material generated (see also Conservation Element policies 1302.2.1, 1302.2.1a, 1302.2.1b, and 1302.1c).

#### **Policy 901.2.1**

By January 1, 1995, Florida International University will determine the University's eligibility for participation in the State of Florida Department of Environmental Protection, Solid Waste Management Trust Fund Program.

#### Policy 901.2.2

Recycling containers shall be located at numerous convenient locations across the University Park and North Campus.

#### Policy 901.2.3

FIU shall promote recycling through periodic educational emphases for the student body, faculty, and staff.

#### **GOAL 902**

Florida International University shall provide a stormwater management system which protects real property and ensures maintenance of ground water quality.

Florida International University Comprehensive Campus Master Plan BOR - 803

# 9.0 GENERAL INFRASTRUCTURE ELEMENT

# **Objective 902.1** Adequacy of Campus Drainage

Florida International University shall coordinate future development in accordance with a master campus drainage plan in order to meet drainage systems requirements in an efficient manner and protect University property.

# Policy 902.1.1

By January 1, 1996, Florida International University shall develop a master drainage study for each campus.

# Policy 902.1.2

The campus master drainage study shall address the data and analysis requirements contained in Rules 6C-21.207(1) and (2), F.A.C., and shall also:

Establish priorities for replacement, correcting existing stormwater management facility deficiencies, and providing for future facility needs; and

Establish the timing and phasing requirements and identify the projected funding sources for stormwater management facility improvements to meet future FIU needs.

# Policy 902.1.3

The priorities for drainage improvements shall be based on 1) quality and protection of life issues, 2) protection of property, and 3) expansion.

# Policy 902.1.4

The campus master drainage study shall ensure the functions of the natural drainage and hydrologic areas are protected.

# Policy 902.1.5

The adopted Campus Master Plan will be amended as necessary to incorporate the results of the campus master drainage study.

# Policy 902.1.6

FIU shall design and construct or improve stormwater management facilities as identified in Figures 9.2 and 9.6 The timing and phasing requirements for these improvements are established in the Capital Improvements Element (Tables 14.1 and 14.9).

# 9.0 GENERAL INFRASTRUCTURE ELEMENT

# **Objective 902.2 Flood Protection**

Florida International University shall ensure that all existing and proposed development have drainage systems that provide flood protection.

# Policy 902.2.1

The following design criteria shall be used in the design and construction of facilities at Florida International University:

	University Park	<u>North Campus</u>
Minimum Building Finished	9.0 feet NGVD	8.0 feet NGVD
Floor Elevation		
Minimum Sidewalk Elevation	8.0 feet NGVD	6.0 feet NGVD
Minimum Crown of Roadways	7.0 feet NGVD	5.5 feet NGVD
Elevation		
Minimum Parking Lot Elevation	7.0 feet NGVD	5.0 feet NGVD

# Policy 902.2.2

New construction and substantial improvements in areas subject to special flood hazards shall be constructed by methods and practices that minimize flood damage.

#### **Residential construction**

Residential buildings shall have the lowest floor elevated no lower than 1 foot above the base flood elevation. Should solid foundation perimeter walls be used to elevate a structure, openings sufficient to facilitate the unimpeded movement of flood waters shall be provided. Structures will be anchored to prevent flotation, collapse, or lateral movement of the structure.

# Non-residential construction

Non-residential buildings shall have the lowest floor elevated no lower than 1 foot above the base flood elevation. Buildings located in A-zones may be flood-proofed in lieu of being elevated provided that all areas of the building below the required elevation are watertight with walls substantially impermeable to the passage of water, and use structural components having the capability of withstanding hydrostatic and hydrodynamic loads and the effect of buoyancy. Structures will be anchored to prevent flotation, collapse, or lateral movement of the structure.

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# **Elevated buildings**

Elevated buildings that include fully enclosed areas formed by foundation and other exterior walls below the base flood elevation shall be designed to preclude finished living space and designed to allow for the entry and exit of flood waters to automatically equalize hydrostatic flood forces on exterior walls. Structures will be anchored to prevent flotation, collapse, or lateral movement of the structure.

# Policy 902.2.3

All paved surfaces and landscaped islands shall utilize curbing or curb and gutter when necessary for stormwater runoff control.

# Policy 902.2.4

Drainage systems for all new development shall be designed in accordance with the campus master development plan, the Metro-Dade County Public Works Department Public Works Manual Section D4 Water Control, and the South Florida Water Management District Permit Information Manual Volume IV and shall be constructed concurrent with the new development.

# Policy 902.2.5

Florida International University shall adopt the following water quantity level of service standards for the University Park Campus and shall use these standards as the basis for drainage system design.

# **Road Crown/Ground Surface LOS**

The minimum acceptable flood protection/drainage level of service (LOS) standards for FIU University Park Campus roadways, parking areas, and ground surfaces shall be protection from the degree of flooding that would result from a storm duration of one day that statistically occurs once in Current elevations required per the Dade County Flood five years. Criteria Map, as amended is 7.0 ft. NGVD.

#### Minimum Floor Elevations LOS

The minimum acceptable flood protection/drainage level of service (LOS) standards for FIU University Park minimum floor elevation shall be the elevations as specified in the Federal Flood Insurance Rate Maps for Dade County or the protection from the degree of flooding that would result from a storm duration of three days that statistically occurs once in one hundred years or elevation 9.0 ft NGVD, whichever is greater.

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# Policy 902.2.6

Florida International University shall adopt the following water quantity level of service standards for the and shall use these standards as the basis for drainage system design:

# **Road Crown/Ground Surface LOS**

The minimum acceptable flood protection/drainage level of service (LOS) standards for FIU roadways, parking areas, and ground surfaces shall be protection from the degree of flooding that would result from a storm duration of one day that statistically occurs once in five years. Current elevations required per the Dade County Flood Criteria Map, as amended, is 5.0 ft. NGVD.

# **Minimum Floor Elevation LOS**

The minimum acceptable flood protection/drainage level of service (LOS) standards for FIU North Miami minimum floor elevation shall be the elevations as specified in the Federal Insurance Rate Maps for Dade County or the protection from the degree of flooding that would result from a storm duration of three days that statistically occurs once in one hundred years or elevation 8.0 ft. NGVD, whichever is greater.

# **Objective 902.3** Water Quality

Florida International University shall ensure that all existing and proposed developments have drainage systems that provide water quality enhancement to stormwater runoff.

# Policy 902.3.1

Best Management Practices shall be incorporated into the drainage system design to minimize the impacts from development to the ground and surface water quality. These practices shall include, but not be limited to:

- 1. Incorporating stormwater management retention and detention features into the design of parks, trails, commons and open spaces, where such features do not detract from the recreational or aesthetic value of a site.
- 2. Use of slow release fertilizers and/or carefully managed fertilizer applications timed to ensure maximum root uptake and minimal surface water runoff or leaching to groundwater.

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#### **GENERAL INFRASTRUCTURE ELEMENT** 9.0

- 3. Educating maintenance personnel about the need to maintain motor vehicles to prevent the accumulation of oil, grease and other fluids on impervious surfaces, where they might be conveyed to surface and ground waters by runoff, and the need to regularly collect and properly dispose of yard debris.
- Avoid the widespread application of broad spectrum pesticides by 4. involving only purposeful and minimal application of pesticides, aimed at identified targeted species.
- 5. Coordinating pesticide application with irrigation practices to reduce runoff and leaching to groundwater.
- 6. Use of turf blocks to minimize impervious surface area.
- 7. Incorporating features into the design of fertilizer and pesticide storage, mixing and loading areas that are designed to prevent/minimize spillage.
- 8. Use of downturned elbows in catch basins.

# **Policy 902.3.2**

Florida International University shall adopt the following water quality level of service standard and shall use these standards as the basis for drainage system design:

The minimum acceptable water quality/drainage level of service (LOS) standards for FIU shall be the treatment of the first inch of stormwater runoff in accordance with Metro-Dade County Department of Environmental Resources Management and South Florida Water Management District criteria.

#### Policy 902.3.3

All stormwater runoff shall be contained within the project site utilizing exfiltration trench, with overflow to an on-site water body when available and shall not adversely affect adjacent property.

#### Policy 902.3.4

Exfiltration trench systems with overflow into a water body shall be designed to retain on site all the volume of runoff generated by the contributing drainage area.

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# Policy 902.3.5

Design of new facilities as well as retrofitting of existing drainage systems and areas having drainage deficiencies identified in the Master Drainage Study shall be undertaken in accordance with the Capital Improvements Element and Master Drainage Study.

# Policy 902.3.6.

It shall be the policy of FIU that no stormwater discharges shall cause or contribute to a violation of water quality standards in waters of the State. All discharge of stormwater shall be conducted in accordance with the water quality requirements of South Florida Water Management District (SFWMD) and Metro-Dade Department of Environmental Resources Management (DERM).

### Policy 902.3.7

All drainage inlets receiving runoff directly from paved surfaces shall have oil pollution baffles installed.

#### **Policy 902.3.8**

All drainage system plans shall be reviewed and approved by SFWMD or its designee prior to the initiation of any drainage system construction activity.

# <u>GOAL 903</u>

Florida International University shall ensure that potable water is available for existing and future campus development.

#### **Objective 903.1** Adequacy of Potable Water Supply and Distribution

Florida International University shall ensure that prior to development activities adequate potable water supply, treatment and distribution facilities are available at the adopted level of service standards in accordance with the capital improvements element.

#### Policy 903.1.1

Florida International University shall adopt the following potable water level of service standards:

10 gallons per capita per day\*

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\* Level of service standard is consistent with local government comprehensive plan for schools. Present consumption records indicate the water usage at 50% of this level of service.

Projected Total Potable Water Requirements:

	Avg. Gal./Day	<u>Avg. Gal./Day</u>
Year	University Park	North Campus
1994	204,410	72,670
1998	240,880	93,440
2003	287,450	120,160

# Policy 903.1.2

The level of service water pressure standard shall be a minimum of 20 p.s.i. and no greater than 100 p.s.i.

# Policy 903.1.3.

The minimum level of service water main size for primary and secondary distribution systems shall be 12 inches in diameter.

# Policy 903.1.4

All potable water plans for the University Park Campus shall be reviewed and approved by the State of Florida Health and Rehabilitative Services (HRS), Metro-Dade County Department of Environmental Resources Management, Metro-Dade County Water and Sewer Authority Department and the state fire marshall.

# Policy 903.1.5

# North Campus

All potable water plans for the shall be reviewed and approved by the State of Florida Health and Rehabilitative Services (HRS), Metro-Dade County Department of Environmental Resources Management, Metro-Dade County Water and Sewer Authority Department, the state fire marshall, and the City of North Miami.

# Policy 903.1.6

All potable water mains in primary distribution and secondary distribution systems shall be looped.

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#### **Policy 903.1.7**

All existing dead-end potable water primary and secondary distribution systems shall be eliminated by constructing links to complete a loop.

# Policy 903.1.8

All primary and secondary potable water distribution systems shall incorporate fire system demands.

# Policy 903.1.9

All fire protection services to new developments shall be in accordance with the National Fire Protection Association (NFPA 24 Private Water Distribution System).

# Policy 903.1.10

The priorities for potable water improvements shall be 1) the elimination of deadend water distribution systems, and 2) the expansion of potable water infrastructure.

# Policy 903.1.11

New and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system.

# Policy 903.1.12

FIU shall design and construct or improve potable water facilities as identified in Figures 9.3 and 9.7. The timing and phasing requirements for these improvements are established in the Capital Improvements Element (Tables 14.1 and 14.9).

# 

# **Objective 903.2** Water Conservation Program

Florida International University shall develop and implement a comprehensive water conservation program that is consistent with Florida's Water Conservation Act.

#### Policy 903.2.1

Promote an educational program which will discourage waste and conserve water.

# Policy 903.2.2

Enforce requirements, and establish new requirements and procedures as needed, to assure that low water usage plumbing fixtures are used in all new facilities and in conjunction with renovations to existing facilities.

Florida International University Comprehensive Campus Master Plan BOR - 803

# <u>GOAL 904</u>

capacity

Florida International University shall ensure that sanitary sewer is available for existing and future campus development.  $\wedge$ 

#### Objective 904.1

Florida International University shall ensure prior to development activities adequate sanitary sewer collection, transmission, and treatment facilities are available at adopted levels of service standards in accordance with the capital improvements element.

#### Policy 904.1.1

Florida International University shall adopt the following sanitary sewer level of service standards:

10 gallons per capita per day

Projected Total Sanitary Sewer Requirements

	<u>Avg. Gal./Day</u>	<u>Avg. Gal./Day</u>
Year	University Park	North Campus
1994	204,410	72,670
1998	240,880	93,440
2003	287,450	120,160

# **Policy 904.1.2**

The minimum level of service gravity sewer pipe size for sewer collection mains shall be eight inches in diameter.

#### Policy 904.1.3

All sanitary sewer plans at the shall be reviewed and approved by the Metro-Dade County Department of Environmental Resources Management and the City of North Miami.

#### Policy 904.1.4

All sanitary sewer plans at the University Park Campus shall be reviewed by the Metro-Dade County Department of Environmental Resources Management.

#### Policy 904.1.5

The priorities for gravity sewer improvement shall be 1) the maintenance of existing sewer system, and 2) the expansion of sanitary sewer infrastructure.

Florida International University Comprehensive Campus Master Plan BOR - 803

# Policy 904.1.6

FIU shall design and construct or improve sanitary sewer facilities as identified in Figures 9.1. 9.4, 9.5 and 9.8. The timing and phasing requirements for these improvements are established in the Capital Improvements Element (Tables 14.1 and 14.9).

# Objective 904.2

Florida International University shall develop and implement an infiltration and inflow study for the gravity sewer system for each campus.

# Policy 904.2.1

All gravity sewer lines below the ground water table shall be inspected by video for infiltration and inflow conditions.

# **Policy 904.2.2**

Pipes with excessive ground water infiltration shall be repaired or replaced.

# Policy 904.2.3

Monitoring at regular intervals shall be used to identify and schedule maintenance programs.

# Policy 904.2.4

New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the system and discharges from the systems into flood waters.

Florida International University **Comprehensive** Campus Master Plan BOR - 803

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FIGURE 9.1 GENERAL INFRASTRUCTURE SANITARY SEWER LAYOUT		
EXISTING		
PROPOSED		
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FLORIDA INTERNATIONAL UNIVERSIT UNIVERSITTY PARK MIAMI, FLORIDA Date: May 16, 1995	ſY	
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FIGURE 9.2 GENERAL INFRASTRUCTURE STORMWATER MANAGEMENT EXISTING PROPOSED 

WALLACE ROBERTS & TODD DAVID PURAMER & ASSOCIATES, INC GABY & GABY, INC RETH & SCHWAS SOM ENGINEERS ZYSCOVICH, INC

CORAL GABLES, FL CORAL GABLES, FL. FT. LAUDERDALE, PL. CORAL GABLES, FL. MEANL, FL.

FLORIDA INTERNATIONAL UNIVERSITY UNIVERSITY PARK MIAMI, FLORIDA Date: May 16, 1995





FIGURE 9.6

# GENERAL INFRASTRUCTURE

STORMWATER MANAGEMENT

EXISTING



PROPOSED

WALLACE ROBERTS & TODD DAVID MUDIQUER & ASSOCIATES, INC GABY & GABY, INC KETTH & SCHWARS SDM ENGINEERS ZYSCOWICH, INC

CORAL GABLES, FL CORAL GABLES, FL MUMA, FL FT: LAUDERDALE, FL CORAL GRALES, FL MUMA, FL

FLORIDA INTERNATIONAL UNIVERSITY NORTH MILAMI CAMPUS MIAMI, FLORIDA

Date: May 16, 1995





FIGURE 9.7

# GENERAL INFRASTRUCTURE

POTABLE WATER LAYOUT

\_\_\_\_\_



PROPOSED

EXISTING

WALLACE ROBERTS & TODD DAVD FLUGARER & ASSOCIATES, INC GANY & GARY, INC KETTH & SCHWARS SDM ENGPLEERS ZYSCOVICH, INC

CORAL GABLES, FL CORAL GABLES, FL MANG, FL FT. LAUDERDALE, FL CORAL GABLES, FL MANG, FL

FLORIDA INTERNATIONAL UNIVERSITY NORTH MILAMI CAMPUS MIAMI, FLORIDA

Date: May 16, 1995







# CHILLED WATER

# Introduction

The requirements imposed by Florida International University Expansion of Facilities on the chilled water generation and distribution are three-fold. First is the upgrade of the Plant's ability to pump the chilled water to all the growth areas, coupled with the energy efficiency optimization of the generating and pumping equipment. Third is the increment in capacity of the plant to satisfy the higher chilled water demands imposed by new buildings.

# University Park

# <u>GOAL 1001</u>

Upgrade the chilled water generation and distribution system to serve efficiently the Campus present and future needs.

# **Objective 1001.1 - Piping Loop Expansion**

Extend the existing chilled water piping loop to maintain the current level of service standard (\_\_\_\_\_\_\_\_ degree maximum chilled water supply temperature) for existing facilities and to serve the new areas of projected growth in the south/southeast and at the S.W. 8th Street entrance. The timing and phasing requirements and priorities for the improvements identified in the following policies are established in the Capital Improvements Element (Tables 14.1 and 14.6a).

# Policy 1001.1.1

Continue the south/southeast piping loop expansion initiated with the Fine Arts Building. Segments of the loop must be coordinated with upcoming buildings so service is available coinciding with building completions. See Figure 10.1.

# Policy 1001.1.2

Extend the chilled water piping westward from the S.W. 8th Street entrance to create a new loop to serve the west core of buildings. See Figure 10.1.

# Policy 1001.1.3

Establish chilled water flow required at each expansion segment so piping sizes may be established. Cumulative flow requirements will be instrumental in determining the parameters for the Chiller Plant capacity upgrade and pumping ability. These issues are discussed under a separate objective.

# Policy 1001.1.4

Update the University Engineering Design Guidelines to establish clearly piping loop materials and methods of installation. Similarly establish parameters for the piping, controls, and pumping arrangements for the connection of new buildings to the piping loop.

# **Objective 1001.2 - Chiller Plant Upgrade**

Increase chiller capacity of existing plant to serve new building demands. Upgrade and modify pumping system to operate with the existing and expanded piping loop. The timing and phasing requirements and priorities for the improvements identified in the following policies are established in the Capital Improvements Element (Tables 14.1 and 14.6a).

# Policy 1001.2.1

The five year capital improvement program will require that additional chiller capacity be added to the system by the addition of a fifth unit with the consequent expansion of the Chiller Plant building and upgrade of chiller no. 3. These steps will require an upgrade of the condenser water (cooling towers and pumps) system. See Figure 10.1.

# Policy 1001.2.2

Modify entire primary/secondary chilled water pumping system as recommended in the engineering study produced under Project BR #898 dated October, 1993.

# **GOAL 1002**

In the process of upgrading the chilled water generation and distribution system, optimize the entire operation to reduce energy costs by increasing operational efficiency.

# **Objective 1002.1 - Reduce Energy Costs**

Produce a feasibility study to verify attractiveness of ice storage system and to engage into an arrangement with the local utility (FPL) to receive preferential consumption and demand rates as well as their programmed rebate.

#### **Policy 1002.1.1**

Install an ice storage system to operate with the existing plant including an ice making chiller as well as tanks, piping, and control if the feasibility study proves that the system has an attractive payback on the investment.

Florida International University Comprehensive Campus Master Plan BOR - 803

## **10.0 UTILITIES ELEMENT**

#### **Objective 1002.2 - Chiller Efficiency and Refrigerant Compliance**

**Replace** existing chillers with more efficient equipment. The timing and phasing requirements and priorities for the improvements identified in the following policies are established in the Capital Improvements Element (Tables 14.1 and 14.6a).

# Policy 1002.2.1

Replace old chiller no. 3 with a more efficient machine taking advantage of local utility (FPL) rebate for chiller exchange.

# Policy 1002.2.2

Establish a scheduled program to convert existing chillers nos. 1, 2, 4 to an environmentally friendly refrigerant.

# **Objective 1002.3 - Convert Direct Expansion Systems to Chilled Water**

Convert existing direct expansion systems to chilled water operation. The timing and phasing requirements and priorities for the improvements identified in the following policies are established in the Capital Improvements Element (Tables 14.1 and 14.6a).

# Policy 1002.3.1

Creating a satellite chiller plant and chilled water distribution loop to serve the West Campus support buildings if the planned growth in this sector of the Campus warrants it. The plant will be an expansion of the Chiller Plant serving the Golden Panther Arena.

#### Policy 1002.3.2

Extend the existing main chilled water loop to serve the existing housing units, Greek Housing, and new resident halls at the northeast corner of the Campus. See Figure 10.2.

# North Campus

#### **GOAL 1003**

Upgrade the chilled water generation and distribution system to serve efficiently the Campus present and future needs.

# **Objective 1003.1 - Piping Loop Expansion**

Extend the existing chilled water piping loop to maintain the current level of service to existing facilities and to serve the new areas of projected growth at the south/southeast and at the north/northeast of the Campus core. The timing and phasing requirements and

Florida International University Comprehensive Campus Master Plan BOR - 803

#### **10.0 UTILITIES ELEMENT**

priorities for the improvements identified in the following policies are established in the Capital Improvements Element (Tables 14.1 and 14.7a).

#### Policy 1003.1.1

Continue the south/southeast piping loop expansion initiated with the Conference Center Building. Segments of the loop must be coordinated with upcoming buildings so service is available coinciding with building completions. Extend existing loop to the north/northeast to serve expansion planned for ten (10) year capital improvements. See Figure 10.4.

# Policy 1003.1.2

Establish chilled water flow required at each expansion segment so piping sizes may be established. Cumulative flow requirements will be instrumental in determining the parameters for the Chiller Plant capacity upgrade and pumping ability. These issues are discussed under a separate objective. See Figures 10.4.

#### **Policy 1003.1.3**

Update the University Engineering Design Guidelines to establish clearly piping loop materials and methods of installation. Similarly establish parameters for the piping, controls, and pumping arrangements for the connection of new buildings to the piping loop. Specific recommendations for underground piping apply to this Campus due to the aggressive nature of the subsoil materials.

#### Policy 1003.1.4

Commission an engineering study of the existing piping and pumping capabilities similar to the one produced for University Park Campus.

# **Objective 1003.2 - Chiller Plant Upgrade**

Increase chiller capacity of existing plant to serve new building requirements. Upgrade and modify pumping system to operate with the existing and expanded piping loop. The timing and phasing requirements and priorities for the improvements identified in the following policies are established in the Capital Improvements Element (Tables 14.1 and 14.7a).

#### Policy 1003.2.1

Additional chiller capacity must be added to the system for any expansion beyond the three year capital improvement plan. This may be accomplished either by the substitution of the oldest existing unit, by addition of additional units, or by addition of an ice storage system. All alternatives require an upgrade of the condenser water (cooling towers and pumps) system.

Florida International University Comprehensive Campus Master Plan BOR - 803

# Policy 1003.2.2

Modify entire primary/secondary chilled water pumping system as recommended in the engineering study described under Policy 1003.1.4.

# **GOAL 1004**

In the process of upgrading the chilled water generation and distribution system, optimize the entire operation to reduce energy costs by increasing operational efficiency.

# **Objective 1004.1 - Thermal Storage System**

Produce a feasibility study to verify attractiveness of ice storage system and to engage into an arrangement with the local utility (FPL) to receive preferential consumption and demand rates as well as their programmed rebate.

# Policy 1004.1.1

Install an ice storage system to operate with the existing plant including an ice making chiller as well as tanks, piping, and controls if the feasibility study proves that the system has an attractive payback on the investment.

# **Objective 1004.2 - Optimize Chiller Efficiency**

Replace existing chillers with more efficient equipment. The timing and phasing requirements and priorities for the improvements identified in the following policies are established in the Capital Improvements Element (Tables 14.1 and 14.7a).

# Policy 1004.2.1

Establish a scheduled program to convert existing chillers to an environmentally friendly refrigerant or to replace them with more efficient machines taking advantage of local utility (FPL) rebate for chiller exchange.

# **ELECTRICAL POWER**

# Introduction

Electrical energy is furnished to Florida International University by Florida Power and Light (FP&L). They Master Plan their Facilities to satisfy the Campus expansion. Close coordination must be maintained with them so the needs of new buildings are provided for. Additionally, FP&L offers various incentive programs that may be used by the University to improve the energy consumption of their lighting and chiller systems.

Florida International University Comprehensive Campus Master Plan BOR - 803

#### **10.0 UTILITIES ELEMENT**

#### **University Park Campus**

# <u>GOAL 1005</u>

Extend the utility power primary voltage network to efficiently serve the campus in its present and future configurations.

#### **Objective 1005.1 - Grid Expansion**

Extend the existing electrical power grid from the updated dual feed source recently installed by the Utility to maintain the current level of service standard (????????????) to the existing as well as the new buildings. The timing and phasing requirements and priorities for the improvements identified in the following policies are established in the Capital Improvements Element (Tables 14.1 and 14.6b).

# Policy 1005.1.1

Provide new power ductbank to serve southeast expansion. See Figure 10.3.

#### Policy 1005.1.2

Extend electrical feeders to planned building expansion on the West Campus to form a loop. See Figure 10.3

# Policy 1005.1.3

Extend electrical feeders to serve new buildings in the north/south and east/west alignment of the main entrance at S.W. 8th Street. See Figure 10.3.

#### Policy 1005.1.4

Maintain close coordination with the local utility, Florida Power & Light (FP&L), so they may tailor their facilities to the projected campus growth. Bear in mind that FP&L is responsible for extending their facilities on Campus to serve all new buildings. Therefore, Master Plan information must be accessible to FP&L and the University must act as coordinator to guarantee that FP&L planning is in step with Master Plan requirements.

#### Policy 1005.1.5

Establish design guidelines to match FP&L requirements to F.I.U. Building Standards so there is a coordinated design for service entrance to the electrical vaults or pad mounted transformers of new buildings.

Florida International University Comprehensive Campus Master Plan BOR - 803

# **10.0 UTILITIES ELEMENT**

# **GOAL 1006**

Improve the efficiency of electrically powered equipment aimed at reducing operating costs.

# **Objective 1006.1 - Efficiency Optimization**

Install energy efficient equipment in planned buildings and retrofit existing facilities with energy efficient components. The timing and phasing requirements and priorities for the improvements identified in the following policies are established in the Capital Improvements Element (Tables 14.1 and 14.6b).

# **Policy 1006.1.1**

Utilize electronic ballasts for fluorescent lighting fixtures and octron T-8 lamps for maximum efficiency in all new or refurbished buildings.

# Policy 1006.1.2

Progressively retrofit all existing buildings with equipment described in 1006.1.1 above. Coordinate these steps with FP&L to make maximum use of their available rebate programs.

# Policy 1006.1.3

Cooperate closely with the chilled water element efficiency optimization measures such as chiller exchange and ice storage system.

# **North Campus**

#### **GOAL 1007**

Extend the utility power primary voltage network to efficiently serve the campus in its present and future configurations.

# **Objective 1007.1 - Grid Expansion**

Extend the existing electrical power grid from the service at Bay Vista Boulevard, to maintain the current level of service to the existing as well as the new buildings. The timing and phasing requirements and priorities for the improvements identified in the following policies are established in the Capital Improvements Element (Tables 14.1 and 14.7b).

# Policy 1007.1.1

Provide a new power ductbank to serve southeast expansion.

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# Policy 1007.1.2

Extend electrical feeders to planned building expansion on the northeast corner of the Campus. See Figure 10.6.

#### Policy 1007.1.3

Maintain a close coordination with the local utility, Florida Power & Light, so they may tailor their facilities to the projected Campus growth.

# Policy 1007.1.4

Establish design guidelines to match FP&L requirements to F.I.U. Building Standards so there is a coordinated design for service entrance to the electrical vaults of new buildings. Provide specific instructions to address underground ductbanks and appurtenances in light of unique subsoil conditions and constraints.

# **GOAL 1008**

Improve the efficiency of electrically powered equipment aimed at reducing operating costs.

# **Objective 1008.1 - Efficiency Optimization**

Install energy efficient equipment in planned buildings and retrofit existing facilities with energy efficient components.

# Policy 1008.1.1

Utilize electronic ballasts for fluorescent lighting fixtures and octron T-8 lamps for maximum efficiency in new and refurbished buildings.

#### **Policy 1008.1.2**

**Retrofit** progressively all existing buildings with equipment described in 1008.1.1 above. Coordinate these steps with FP&L to make maximum use of their available rebates for lighting efficiency optimization.

#### Policy 1008.1.3

Cooperate closely with the chilled water element efficiency optimization measures such as chiller exchange and ice storage system.

Florida International University Comprehensive Campus Master Plan BOR - 803

# **10.0 UTILITIES ELEMENT**

# **TELECOMMUNICATIONS**

# Introduction

The existing telecommunications grid has been heavily used in some areas of the Campus. The planning priorities are to expand the grid to serve new buildings and to reinforce the existing grid by adding new ductbanks. Another area of development is the creation of a second feed on West Campus so the grid has the reliability of two sources of off-Campus communication.

# **University Park Campus**

# **GOAL 1009**

Maintain the level of service for telecommunications and upgrade it to include multiple communication modes for new and existing buildings.

# **Objective 1009.1 - Network Expansion**

Extend the new fiber optic cable network to all new and existing buildings so current level of telecommunications service is upgraded to voice, data, video, etc. The timing and phasing requirements and priorities for the improvements identified in the following policies are established in the Capital Improvements Element (Tables 14.1 and 14.6c).

# Policy 1009.1.1

**Provide** a feed to extend from Primera Casa to a designated remote site to serve the new building core at the south/southeast portion of the Campus. See Figure 10.2.

# Policy 1009.1.2

Extend fiber optic service to West Campus from a new LAN at the Arena fed from local utility services at S.W. 117th Avenue.

#### **Policy 1009.1.3**

Provide service to new buildings along the north/south, east/west alignment at the S.W. 8th Street main entrance, fed from existing facilities east of sponsored research building.

# Policy 1009.1.4

Complete a loop to guarantee Campus service from two sources by extending system beyond (manhole\*) located at the southeast corner of the NOAA Building under construction. See Figure 10.2.

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#### **10.0 UTILITIES ELEMENT**

\*Exchange NOAA handhole for a manhole to continue loop.

# Policy 1009.1.5

Establish design guidelines for ductbank construction, telephone room conditions, sizes and locations, etc. Consider specifying level 5 cable which will set the network for voice, data, video, and security up to six choices of transmission modes.

#### Policy 1009.1.6

Coordinate with Southern Bell the requirements and projections of the Master Plan so they may tailor their equipment to serve the Campus needs.

# North Campus

# <u>GOAL 1010</u>

Maintain the level of service for telecommunications and upgrade it to include multiple communication modes for new and existing buildings.

#### **Objective 1010.1 - Network Expansion**

Extend the service network to all new and existing buildings so current level of telecommunications service are upgraded to voice, data, video, etc. This includes progressive replacement of the existing F.I.U. owned copper cabled administrative network. The timing and phasing requirements and priorities for the improvements identified in the following policies are established in the Capital Improvements Element (Tables 14.1 and 14.7c).

# Policy 1010.1.1

Grid to extend to new building cores at the south/ southeast portions of the Campus. See Figure 10.5.

#### Policy 1010.1.2

Coordinate with utility for a second feed from their facilities behind existing treatment plant. See Figure 10.5.

Florida International University Comprehensive Campus Master Plan BOR - 803

# Policy 1010.1.3

Establish design guidelines for ductbank construction, telephone room conditions, sizes and locations, etc. Consider specifying level 5 cable which will set the network for voice, data, video, and security up to six choices of transmission modes. When specifying guidelines for underground ductbanks or facilities, consider the unique subsoil conditions and constraints.

# Policy 1010.1.4

Coordinate with Southern Bell the requirements and projections of the Master Plan so they may tailor their equipment to serve the Campus needs.

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FIGURE 9.2

# GENERAL INFRASTRUCTURE

# STORMWATER MANAGEMENT

EXISTING



PROPOSED

WALLACE ROBERTS & TODD DAVID FURMER & ASSOCIATES, INC GAFY & GASY, INC RETH & SCHWAS SOM ENCREPERS 273COVICH, INC

CORAL GABLES, FL CORAL GABLES, FL MIAML FL FT, LAUDERDALE, FL CORAL GABLES, FL MIAML, FL





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FIGURE	9.3
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# GENERAL INFRASTRUCTURE

# POTABLE WATER LAYOUT

EXISTING



PROPOSED

WALLACE ROBERTS & TODD DAVID MUDAGER & ASSOCIATES, INC GABY & GABY, INC INTH & SCHWAS SIM ENCIPERS ZYSOVICH, INC CORAL GABLES, FL CORAL GABLES, FL MAND, FL FT. LAUDERDALE, FL CORAL GABLES, FL MAND, FL

FLORIDA INTERNATIONAL UNIVERSITY UNIVERSITY PARK MIAMI, FLORIDA

Date: May 16, 1995




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FIGURE 9.4

# GENERAL INFRASTRUCTURE

### FORCEMAIN LAYOUT

EXISTING



PROPOSED

WALLACE ROBERTS & TODD DAVID PLUMMER & ASSOCIATES, INC GABY & GABY, INC KETTH & SCHWARS SOM ENGINEERS ZYSCOVICH, INC

CORAL GABLES, FL CORAL GABLES, FL MEANL, FL FT, LAUDERDALE, FL CORAL GABLES, FL MIANL, FL





### FIGURE 9.5

# GENERAL INFRASTRUCTURE

SANITARY SEWER LAYOUT





PROPOSED

WALLACE ROBERTS & TODD DAVID FLINDMER & ASSOCIATES, INC GABY & GABY, INC KETTH & SCHWARS SOM ENGINEERS ZYSCOVICH, INC

CORAL GABLES, FL CORAL GABLES, FL MANI, FL FT, LAUDERDALE, FL CORAL GABLE FL MANEL FL





FIGURE 9.6

## GENERAL INFRASTRUCTURE

STORMWATER MANAGEMENT

EXISTING



PROPOSED

WALLACE ROBERTS & TODD DAVID PLUHAMER & ASSOCIATES, INC GARY & GARY, INC KETTH & SCHPARS SIDM ENGINEERS ZYSCOVICH, INC CORAL GABLES, FL ORAL GABLES, FL MAM, FL FT: LAUDERDALE, FL OORAL GABLES, FL MAMA, FL





FIG	URE	9.7

# GENERAL INFRASTRUCTURE

POTABLE WATER LAYOUT

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EXISTING



PROPOSED

WALLACE ROBERTS & TODD DAVID FUJAMER & ASSOCIATES, INC GARY & GARY, INC KETH & SCHWAS SIM ENGREERS ZYSCOVICH, INC

CORAL GABLES, FL CORAL GABLES, FL MIANG, FL FT, LAUDEROALE, FL CORAL GABLES, FL MIAMI, FL

FLORIDA INTERNATIONAL UNIVERSITY NORTH MILAMI CAMPUS MIAMI, FLORIDA

Date: May 16, 1995









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FIGUR	E 10.3	
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LEGE	ND	
	EXESTING BUILDING	B
	BUILDINGS RELATE	D TO 3 YR. CLP.
	BUILDENCS RELATE	D TO 5 YR. CLP.
	BUILDINGS RELATE	d to 19 yr. Clp.
<u> </u>	EXERNO DUCTBANK	:
1	NETWORK EXPANSE	on in 3 yr. Clp.
2	NETWORK EXPANSE	on in 5 yr. Clp.
3	NETWORE EXPANSE	on in 10 yr. Clp.
NOTE: ALL ENC INST	CONDUITS ARE 5 IN, DA. PAC 1 ASED IN CONCRETE, FPGL PROV ALLATION BY OWNER'S CONTRACT	Buried and Ides the conduits for Tor.
N.M	ber shown indicates total m	umber of computs.
01 CHARLES E 02 DELADOBLE 03 ENVEST R 03 ENVEST R 04 VERTES H 04 VERTES H 04 CENTR 05 ATHENA 06 ATHEN 06 ORIA EHAN 06 ORIA EHAN	: PERRY PRIMERA CASA MASON GANAM UNVERSITY CENTER STORE W CENTER ADOITION US US US US US US US US US US US US US	19C STUDENT HOUSERG 190 STUDENT HOUSERG 20 EXCREMENDER B 21 HEALTH & LFE SCIENCES 22 ART HUSELAN 23 OFTICZ /CLASSROOM 24 ARTS COMPLEX H 25 CLASSROOMS 26 SOCIAL SOCIENCES 27 CLASSROOMS 28 SOCIAL SOCIENCES 27 CLASSROOMS 28 SOCIAL SOCIENCES 27 CLASSROOMS
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00 CHEMISIRT 09A MOLEI 10 URIVERSITY 11 BUSINESS 12 STUDINT M	e philses Juar Biology Computer Services Administration Faith & Wellness Center	34 CERANICS 35 PUBLIC SWEET 36 DUPLICATING CENTER 37 INFORMATION CENTER
13 LABOR CEN 14 EDUCATION 15 BASEBALL 16 ARTS COM	nter Buldang Staduah Alex 1	38 TAMAM STADUM 39 LAND BANK 40 JONT USE LAND BANK P1 PARKING GARAGE
17 CHED CAR 18 CAMPUS SI 19 DOSTING R 19A STUDE 198 STUDE	e Center Upport Complex Sidence Facilites NT Housing NT Housing	P2 PARCHI GARACE P3 PARCHI GARACE P4 PARCHI GARACE P5 PARCHI GARACE P5 PARCHI GARACE
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FIGURE 11.3 TRANSPORTATION ELEMENT		
PEDESTRIAN AND NO CIRCULATION SU	ON-VEHICULAR B-ELEMENT	
LEGEND		
PLANNED WALKWAY	S	
CROSSWALKS	•	
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WALLACE ROBERTS & TODD DAVID PLUDGER & ASSOCIATES, DAC GABY & GABY, DAC KETTH & SCHWARS SOM ENGINEERS	CORAL GABLES, FL CORAL GABLES, FL MARE, FL FT. LAIDERDALE, FL CORAL GABLES, FL	
FLORIDA INTERNATIONAL UNIVERSITY UNIVERSITY PARK MIAMI, FLORIDA Date: May 16, 1995		
	250 500 750	



FIGURE 11.4 TRANSPORTATION ELEMENT		
PEDESTRIAN AND M CIRCULATION S	NON-VEHICULAR UB-ELEMENT	
LEGEND		
- BICYCLE F	PATH	
- PLANNED	WALKWAY	
- CROSSWAL	ĸ	
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FLORIDA INTERNATIONAL UNIVERSITY NORTH MIAMI CAMPUS MIAMI, FLORIDA Date: May 16, 1995		
	300 600 500 	



FIGURE 11.5

### TYPICAL PEDESTRIAN CROSSING LAYOUT

### LEGEND



CLEAR SIGHT TRIANGLE (NO VISUAL OBSTRUCTIONS HIGHER THAN 24')

WALLACE ROBERTS & TODD DAVED FLUMMER & ASSOCIATES, INC GARY & GARY, INC LETIN & SCENARS SOM ENGINEERS ZYRCOVICH, INC CORAL GABLES, FL CORAL GABLES, FL MAML FL FT. LAUDERDALR FL CORAL GABLES, FL MAML FL

FLORIDA INTERNATIONAL UNIVERSITY UNIVERSITY PARK MIAMI, FLORIDA

Date: May 16, 1995



#### Introduction

The University Master Plan identifies issues which, because of their unique circumstances, require intergovernmental coordination above and beyond that which routinely occur in the dayto-day university operations. Resolution of these issues require mechanisms and procedures which facilitate coordination and communication between the University, local government and service providers. In addition, this element establishes procedures for the review of this master plan by local, county and state government and the service providers.

The goal of intergovernmental coordination is the joint process for collaborative planning, decision making, and development review by governmental agencies. The purpose of the intergovernmental coordination element is to establish mechanisms, processes and procedures to achieve the goals, objectives and policies of the campus master plan. When the provisions in the campus master plan conflicts with the provisions in the comprehensive plan of the local government, these intergovernmental coordination mechanisms will be used to resolve the conflicts while working toward achievement of the goals, objectives and policies.

The issues identified in this element requiring intergovernmental coordination attention are: land use compatibility; availability of land resources for future campus development; on campus wetland delineation; siting of mass transit facilities; availability of sanitary sewage treatment capacity; development review; coordination of the establishment of reciprocal review and coordination of the establishment of campus level of service standards.

#### Goal 1200

To implement and achieve the goals, objectives and policies established in this master plan that require the interaction of the University, the host communities and other governmental entities.

#### Objective 1200.1

Establish a process which maintains the land use compatibility between the University and the host community through the reciprocal review of local government comprehensive plans and campus master plans.

#### Policy 1200.1.1

Establish an internal "Land Management Review Process" consistent with the criteria contained in Policy 401.1.2.

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#### Policy 1200.1.2

The FIU Director of Facilities Planning shall meet with officials from the Metro-Dade County, the City of North Miami and the City of Sweetwater to determine an appropriate process for reciprocal review and comment of appropriate elements of the FIU campus master plan by local government officials, and of appropriate elements of local government comprehensive plans by the University. FIU master plan elements to be reviewed by local governments shall be limited to the Future Land Use Element, Housing Element, Recreation and Open Space Element, General Infrastructure Element, Capital Improvements Element, Transportation Element, Intergovernmental Coordination Element, and the Conservation Element.

#### Policy 1200.1.3

Proposed amendments to the adopted campus master plan which exceed the thresholds established in Chapter 240.155(9), F.S., shall be transmitted to the Metro-Dade County, City of North Miami, City of Sweetwater, South Florida Regional Planning Council, South Florida Water Management District, Florida Game and Fresh Water Fish Commission, Florida Department of Transportation, Florida Department of State, Florida Department of Environmental Protection, Florida Land Management Advisory Council, and the State of Florida Department of Community Affairs for review in accordance with the procedures established in Chapter 6C-21, Part 1, Florida Administration Code.

#### Policy 1200.1.4

Proposed amendments to the campus master plan which do not exceed the thresholds established in Chapter 240.155 (9), F.S., and which have the effect of changing the manner in which development on campus may occur or impacting off-campus facilities, services or natural resources, shall be transmitted to the Metro-Dade County, City of North Miami, and City of Sweetwater for a courtesy review.

#### Policy 1200.1.5

It shall be the policy of FIU that proposed amendments to the comprehensive plans of the Metro-Dade County, City of North Miami, and the City of Sweetwater which have the effect(s) of changing land uses or policies that guide the development of land within the context area, affect the provision of local services, or which otherwise impact university facilities or resources shall be submitted to the University Director of Facilities Planning for review and comment.

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#### Policy 1200.1.6

FIU shall make every effort to formalize this reciprocal review process through the execution of an interlocal agreement or memorandum of understanding.

#### Policy 1200.1.7

Until the campus master plan has been adopted and the campus development agreement has been executed disputes between the Florida International University shall be resolved by the process established in Chapter 240.155 (8), F.S.

#### Objective 1200.2

In order to allow for orderly expansion of the University Park Campus, through and beyond the projected buildout date of 2003-04, Florida International University will assess the feasibility of utilization of properties, adjacent and to the south on the present campus, for academic purposes.

#### **Policy 1200.2.1**

In order to conserve the limited land resources at University Park, Florida International University shall discourage development of use not in conformance with the policies of the University's Master Plan with the exception of planned joint use facilities with the Dade County Fair and Tamiami Park.

#### Policy 1200.2.2

By 1996, Florida International University shall enter into agreements with Metro-Dade County for joint use and development of recreational and sport activities for the period 1996-2003-04.

#### **Policy 1200.2.3**

By 1997 and in conjunction with Metro-Dade Parks Department, Florida International University shall complete an assessment of the feasibility of relocating Tamiami Park for the purpose of campus expansion.

#### Policy 1200.2.4

Florida International University will include, as an element of the 1998-99 campus plan update, master plans for the Tamiami Park relocation which shall include capital cost and financing mechanisms.

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#### Policy 1200.2.5

Florida International University shall incorporate the campus expansion master plan as a component of the 1998-99 campus master plan update.

#### Policy 1200.2.6

In the event additional lands are conveyed to Florida International University and any of the thresholds established in Chapter 240.155 (9) are reached, the campus master plan shall be amended and reviewed in accordance with the criteria established under Chapter 240.155 (6), (7) and (8), and policies 1200.1.3 and 1200.1.4.

#### **Objective 1200.3**

Obtain a wetland jurisdictional determination for both campus in order to allow wetland mitigation or enhancement activities to take place in a comprehensive and efficient manner.

#### Policy 1200.3.1

By 1996, Florida International University shall undertake the studies necessary to document wetland resources for the purposes of requesting a formal jurisdiction wetland boundary determination.

#### **Policy 1200.3.2**

Upon completion of the University's wetland delineation activities a formal jurisdiction wetland boundary determination from the United States Army Corps of Engineers, the Dade County Department of Environmental Management, the South Florida Water Management District and the State of Florida Department of Environmental Protection.

#### Policy 1200.3.3

The Department of Facilities Planning and Natural Resource Protection and Management Committee shall determine whether a campus wide or phased dredge and fill permit process will most effective means of achieving wetland mitigation.

#### Policy 1200.3.4

Florida International University shall undertake wetland mitigation in a manner that maximize the efficiency of the mitigation activities in terms of dredge and fill permit credit received, affordability and maintenance.

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#### Objective 1200.4

Florida International University shall actively participate in the siting on the Metrorail facility in order to minimize impacts on University Facilities and maximize the effective of mass transit services to the University Park campus.

#### Policy 1200.4.1

The University shall request that formal notification be given to the Department of Facilities Planning by the Metropolitan Planning Organization and the Metro-Dade Transit Authority of any internal public meetings or advertised public hearing concerning the East-West Metrorail Extension.

#### **Policy 1200.4.2**

The University shall designate a staff liaison whose responsibilities will include monitoring and participation in the East-West Metrorail Extension project implementation process.

#### **Policy 1200.4.3**

**Concurrent** with implementation of the East-West Metrorail Extension to the University, the University will implement the recommendations established in the shuttle loop (tram) study undertaken in accordance with Policy 1101.2.1.

#### Policy 1200.4.4

In order to minimize traffic impacts to University Park, FIU shall advocate that the Metro-Dade Transit Authority replace the proposed "origin/terminal" Metro station with a destination station to be located on property south of the campus.

#### Objective 1200.5

To obtain an allocation of sanitary sewer treatment capacity from the Water and Sewer Authority Department sufficient to handle the sanitary sewer generated by the University.

#### **Policy 1200.5.1**

In order to expedite University development activities and in particular the installation of potable water and sanitary sewer infrastructure, FIU shall formally request that DERM assign a single contact person to review the University's activities for the University Park campus, and that the City of North Miami assign a single contact person to review the University's activities for the North Campus.

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#### Policy 1200.5.2

FIU shall forward any modifications or amendments to the campus master plan for review and comment prior to execution or adoption, consistent with policies 1200.1.3 and 1200.1.4.

#### **Policy 1200.5.3**

FIU shall request DERM and the City of North Miami to indicate what the specific sanitary sewer treatment allocation is assigned to government and what proportion of that allocation is presently utilized for the University Park and North Campuses, respectively.

#### Policy 1200.5.4

FIU shall request a letter of sanitary sewer allocation from DERM and from the City of North Miami, this allocation coming from that capacity reserved for governmental activities and in a quantity sufficient to handle the sanitary sewer projected in the campus master plan to be generated at campus buildout.

#### Policy 1200.5.5

The provisions of the sanitary sewer treatment allocation shall be incorporated into the FIU development agreement and adopted pursuant to Chapter 240.55 F.S.

#### Objective 1200.6

To assess the impacts generated by the University on the host government and the service providers and provide mitigation measures for the University's impacts for those services found to be deficient.

#### Policy 1200.6.1

Within 270 days after the adoption of the campus master plan by the Board of Regents, a draft development agreement shall be forwarded to the local and county government for review and comment. This agreement shall contain the following components:

Identify the geographic area covered by the agreement;

Establish the duration of the agreement;

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Identify the level of service standards for public services and facilities, the entity to provide these services, and any financial arrangements between the Board of Regents and the service provider;

Determine the impact of the proposed campus development on public service providers and facilities, and any deficiencies projected to occur as a result of this development;

Identify what facility improvements are necessary to correct deficiencies caused by the University's development activities;

Identify the Board of Regents "fair share" of the cost associated with the required improvements; and

Be consistent with adopted campus master plan and host local government adopted comprehensive plan.

#### Policy 1200.6.2

The Board of Regents and the host governments shall execute the campus development agreement within 180 days after receipt of the draft agreement.

#### **Policy 1200.6.3**

Upon execution of the campus development agreement, all development may proceed without further review by the host government if it is consistent with the campus development agreement and the adopted campus master plan.

#### Policy 1200.6.4

Upon payment of the "fair share" by the Board of Regents for the capital improvements established in the campus development agreement, all concurrency management requirements of the University and the Board of Regents shall be fulfilled.

#### Policy 1200.6.5

Any disputes between the University and the host local government which arise concerning the provisions of the campus development agreement and result in the failure to execute the agreement within 180 days after receipt of the draft agreement shall be resolved in accordance with Chapter 240.155 (16), F.S.

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#### Policy 1200.6.6

Any disputes between the University and the host local government which arise from the implementation of the campus development agreement shall be resolved in accordance with the provisions established in Chapter 240.155 (17), F.S.

#### Objective 1200.7

University and local officials shall establish a development review process to assess the impacts of proposed development on significant local, regional and state resources and facilities. This shall be a reciprocal process whereby local officials are given an opportunity to review proposed campus development in order to assess its potential impacts on local, regional and state resources and facilities, and whereby university officials are given an opportunity to review proposed development within the context area in which to assess its potential impacts on university resources and facilities.

#### **Policy 1200.7.1**

Except when otherwise stated in Section 240.155, F.S., the provisions of the campus master plan and associated campus development agreement superseded the requirements of Part II of Chapter 163, F.S.

#### **Policy 1200.7.2**

It shall be the policy of FIU that proposed development within the context area which has the potential to impact or affect University facilities or resources shall be submitted to the University's Director of Facilities Planning for review.

#### **Policy 1200.7.3**

The FIU Director of Facilities Planning shall meet with local officials to establish the criteria and thresholds for development proposals which would be subject to review by the University. The construction or renovation of single-family homes, and other small scale developments are to be excluded from review by the University.

#### Policy 1200.7.4

University officials shall participate and cooperate with local officials in the review of proposed campus development to assess potential impacts on local, regional and state resources and facilities until execution of the campus development agreement.

#### Policy 1200.7.5

Once the campus development agreement is executed, all campus development may proceed without further review by the host local government if it is consistent with the adopted campus master plan and associated campus development agreement.

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#### **Policy 1200.7.6**

University officials shall participate and cooperate with local officials in the review of proposed development within the context area to assess potential impacts on university resources and facilities.

#### Policy 1200.7.7

University officials shall participate and cooperate with local officials in the identification of appropriate strategies to mitigate the impacts of campus development on local, regional and state resources and facilities, and to mitigate the impacts of proposed development within the context area on university resources and facilities.

#### Policy 1200.7.8

Any dispute between the university and a host or affected local government regarding the assessment or mitigation of impacts shall be resolved in accordance with the process established in Subsection 240.155(8), F.S.

#### **Objective 1200.8**

The level of service standards established in this campus master plan shall be reviewed by the entity having operational and maintenance responsibility for said facility.

#### **Policy 1200.8.1**

In addition to the entities, set forth in Subsection 240.155(6), receiving the campus master plan for review and comment, the plan shall also be transmitted to the following service providers; Metro-Dade Water and Sewer Authority Department; Metro-Dade Metropolitan Planning Organization; Metro-Dade Public Works Department; and the Metro-Dade Mass Transit Authority.

#### **Policy 1200.8.2**

FIU shall request that the service providers referenced in Policy 1200.8.2 provide comments to the Board of Regents, in particular with reference to the levels of service established in the plan, within 90 days to coincide with the timeframes established in Subsection 240.155(6) for plan review and adoption.

#### Policy 1200.8.3

Any disputes concerning levels of service established in the Campus Master Plan arising between the Board of Regents and the service providers referenced in Policy 1200.8.1 shall be resolved in accordance with Subsection 240.155(8).

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### Table 12.1 Intergovernmental Coordination Element

Governmental Entity	Nature of Relationship	Coordinating Entity	Coordinating Mechanism
City of North Miami	Non-regulatory	FIU Department of Facilities Planning	Coordination in accordance with the provisions of the campus development agreement and adopted goals, objectives and policies.
City of Sweetwater	Non-regulatory	FIU Department of Facilities Planning	Coordination in accordance with the provisions of the campus development agreement and adopted goals, objectives and policies.
Metro-Dade County	Non-regulatory	FIU Department of Facilities Planning	Coordination in accordance with the provisions of the campus development agreement and adopted goals, objectives and policies.
Metro-Dade Mass Transit Authority	Agency responsible for Dade County mass transit	FIU Department of Facilities Planning FIU Liaison (proposed)	No coordination mechanism FIU staff will be assigned to monitor EWMMCS
Metro-Dade County Park and Recreation Department	Non-regulatory	FIU Department of Facilities Planning	Campus master plan Policy 401.3.1 mandates that a joint use agreement be in place by 1996 for Tamiami Park.
Metro-Dade County Planning Department	Regulatory	FIU Department of Facilities Planning FIU Urban Design Liaison	Regulates land development activities in accordance with the Chapter 163 Comprehensive Plan and Land Development Regulations
South Florida Regional Planning Council	Reviewing agency	FIU Department of Facilities Planning	Reviews and comments on campus master plan in accordance with S.40.155(6)

Governmental Entity	Nature of Relationship	Coordinating Entity	Coordinating Mechanism
South Florida Water Management District	Regulatory	FIU Department of Facilities Planning	Reviews dredge and fill permits
		FIU Natural Resource Protection Management Committee	
U.S. Army Corps of Engineers	Regulatory	FIU Department of Facilities Management Committee	Regulates dredge and fill permits in accordance with S.404 of the Clean Water Act.
		FIU Natural Resource Protection Management Committee	
Monroe County Office of Emergency Management	Non-regulatory	Board of Regents	Agreement with MCOEM to provide emergency shelter for 5,000 Monroe County residents.
Metropolitan Planning Organization	Agency oversees and plans for country roads	FIU Department of Facilities , Planning	No coordinating mechanism.
		MPO Liaison (proposed)	FIU staff will be assigned to monitor EWMMCS
Water and Sewer Authority Department	Utility Provider	FIU Department of Facilities Planning	Responsible for water distribution and sewer collection and treatment.
Department of Environmental Resource Management	Regulatory	FIU Department of Facilities Planning	Monitors and regulates operation of water facilities under Chapter 24 of Country Code.
Florida Department of Community Affairs	Reviewing Agency	FIU Department of Facilities Planning	Reviews and comments on campus master plans in accordance with the provisions of
		Board of Regents	s.240.155(6), F.S.

#### Table 12.1 Intergovernmental Coordination Element (Continued)

Governmental Entity	Nature of Relationship	Coordinating Entity	Coordinating Mechanism
Florida Department of Environmental Protection	Environmental protection, jurisdictional wetlands, dredge and fill permitting regulatory	FIU Department of Facilities Planning FIU Natural Resources Protection Management Committee	Meetings as necessary
Florida Department of State	Reviewing agency	FIU Department of Facilities Planning	Reviews and comments on campus master plan in accordance with S.240.155(6).
Florida Department of Transportation	Reviewing Agency Regulatory authority over construction and maintenance of state roads	FIU Department of Facilities Planning Board of Regents	Reviews and comments on campus master plan in accordance with S.240.155(6). Campus master plan Policy 401.9.1 requires that FIU enters into an interlocal agreement requiring notification of FDOT improvements.
Florida Game and Fresh Water Fish Commission	Reviewing agency	FIU Department of Facilities Planning	Review and comments on campus master plan in accordance with S.240.155(6)

### Table 12.1 Intergovernmental Coordination Element (Continued)

#### **13.0 CONSERVATION ELEMENT**

#### Introduction

Both the University Park and the North Campus of Florida International University, located within extensive urban areas, contain sites where there are natural resources. Therefore, a principal challenge of the master planning process is to allow development of these campuses while protecting and enhancing natural resources.

Except where otherwise noted, policies contained in the Coastal Element shall be implemented upon adoption of this Master Plan. Some of the policies require the Natural Resources Protection and Management Committee (the "Committee"; see Objective 1301.1) to formulate management plans, guidelines, procedures and schedules. The Committee shall review all policies contained in the Conservation and Coastal Management Elements of this Master Plan for consistency with these plans, guidelines, procedures and schedules.

#### **GOAL 1301**

Conserve and enhance existing natural resources and natural ecosystems on the University Park and North Campus.

**Objective 1301.1** Implementation and Management of Natural Resource Policies Implement and manage natural resource policies through the formation and support of a Natural Resources Protection and Management Committee.

#### Policy 1301.1.1

Within six months of the adoption of the Master Plan, the University shall form a Natural Resources Protection and Management Committee (The "Committee"). It shall be the task of the Committee to oversee the implementation of the coastal resource management policies defined in the Conservation Elements of this Master Plan. It shall also be the task of the Committee to review these policies and, if necessary, prepare any necessary additional policies, guidelines, procedures and implementation schedules within one year of the adoption of the Master Plan. The adopted Master Plan shall be amended as necessary to incorporate those guidelines, procedures and implementation schedules.

The University shall provide a staff person to serve as Environmental Coordinator to manage the activities of the Natural Resources Protection and Management Committee. The Environmental Coordinator shall periodically review proposed University improvements and activities to ensure University compliance with the policies defined in the Conservation and Coastal Management Elements of this Master Plan. The Environmental Coordinator shall also periodically review host

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community, state and federal conservation and coastal management policies to ensure University compliance with these policies.

#### **Objective 1301.2** Maintain, Protect and Enhance Natural Resources

Maintain and enhance existing values for natural resources on University Park and North Campus.

#### **Policy 1301.2.1** University Park and North Campus

The University shall review, on an annual basis, the state, regional and local regulations and guidelines governing the designation and delineation of environmentally sensitive lands. These regulations and guidelines include, but are not limited to, the Florida Natural Areas Inventory, the Dade County Natural Forest Inventory (Resolution R-1764-84), and other elements of the Dade County Comprehensive Development Master Plan. Should changes in regulations or guidelines result in the designation of portions of the University Park and/or North Campus as environmentally sensitive lands, the University shall modify existing policies or develop new policies to protect these sensitive lands and incorporate those policies into the Master Plan within three months of the identification of the environmentally sensitive land.

#### Policy 1301.2.2a University Park and North Campus

The University shall survey the precise locations of native vegetative associations prior to the construction of any buildings, roadways, pathways or other developments that may impact these vegetative associations. Prior to final site planning, the University shall identify those areas to be impacted and determine if minor changes in the proposed locations of roads or buildings can minimize impacts on these areas.

#### **Policy 1301.2.2b** University Park and North Campus

In order to protect native vegetative communities, the University shall provide for a development buffer of at least 25 feet between native vegetative communities (Figure 13.1 and 13.2) and construction projects, including but not limited, to buildings, roadways, pathways and recreation facilities.

#### **Policy 1301.2.3**a University Park and North Campus

The University shall remove invasive exotic plant species from natural vegetation associations and from landscaped areas. Priority shall be given to removing exotic species from those native vegetation associations indicated in Figures 13.1 and 13.2. Initially, efforts shall be focussed on the removal of Brazilian pepper

#### **13.0** CONSERVATION ELEMENT

(Schinus terebinthifolius), melaleuca (Melaleuca quinquenervia) and Australian pine (Casuarina equisetifolia). Removal of exotic species shall be carried out in a manner that minimizes impacts to native vegetation associations. Where necessary, areas from which exotic plants have been removed shall be replanted with appropriate native plant species (see Policy 1301.2.3d). Removal of exotic species from natural vegetation associations and from landscaped areas shall be carried out quarterly during the first year and yearly thereafter, unless monitoring activities indicate that more frequent removal is warranted (see Policy 1301.2.3c).

#### Policy 1301.2.3b North Campus

To help curtail their further spread into mangrove areas and other natural vegetation associations on campus, the University shall remove large stands of Australian pines (see Figure 13.2). Removal of Australian pines shall be carried out in a manner that minimizes impacts to native vegetation associations. Areas from which Australian pines have been removed shall be revegetated in a manner consistent with the Landscape Design Element of this Master Plan. The use of native plant species in the landscaping of these areas shall be encouraged. The choice of native plant species shall be consistent with those recommended by the University's Environmental Studies staff, Fairchild Tropical Gardens staff, or other individuals or agencies competent in the selection, use and maintenance of vegetation native to south Florida. In no case shall those plant species identified in Section 6.8 of the Dade County Comprehensive Development Master Plan as potentially invasive be in any University landscaping or enhancement planting.

Because the removal of Australian pines may result in soil disturbance and provide colonization opportunities for other invasive exotic plants, replanting of landscape vegetation shall immediately follow the removal of Australian pines. A timetable for removal of Australian pines shall be determined by the Natural Resources Protection and Management Committee within one year of the adoption of the Master Plan.

#### **Policy 1301.2.3c** University Park and North Campus

Within one year of the adoption of the Master Plan, the Natural Resources Protection and Management Committee shall establish a protocol for monitoring the establishment and spread of invasive exotic plant species. Monitoring activities shall be carried out quarterly. If monitoring activities indicate that invasive exotic species are becoming re-established, exotic plants shall be removed using the methods outlined in Policy 1301.2.3a and Landscape Design Guidelines Element Policy 1601.2.3.

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#### **Policy 1301.2.3.d** University Park and North Campus

The University shall use native plant species in restoration/enhancement planting of native vegetative communities. The use of native plant species in general campus landscaping shall be encouraged. The choice of native plant species shall be consistent with those recommended by the University's Environmental Studies staff, Fairchild Tropical Gardens staff, or other individuals or agencies competent in the selection, use and maintenance of vegetation native to south Florida. Where restoration or enhancement planting is instituted, the species chosen shall be those that are naturally found in the particular vegetative community being restored or enhanced.

#### **Policy 1301.2.3**e University Park and North Campus

The University shall use native plant species in the 25-foot wide landscape buffer areas that border native vegetative communities. The choice of native plant species shall be consistent with those recommended by the University's Environmental Studies staff, Fairchild Tropical Gardens staff, or other individuals or agencies competent in the selection, use and maintenance of vegetation native to south Florida. In no case shall those plant species identified in Section 6.8 of the Dade County Comprehensive Development Master Plan as potentially invasive be in any University landscaping or enhancement planting.

# **Objective 1301.3** Maintain and Enhance Existing Wetland and Aquatic Natural Resource Values

Maintain and enhance existing values for current wetland, littoral zone and aquatic natural resources. For the North Campus, also see Goals, Objectives and Policies in the Coastal Management Element.

#### **Policy 1301.3.1** University Park and North Campus

The University shall prepare and implement within one year of adoption of the Master Plan a plan to enhance the ecological and aesthetic values of lakes on campus by grading lake shores to provide littoral zones, by enhancement planting of native littoral vegetation, and by minimizing or eliminating the use of fertilizers on campus to reduce eutrophication.

#### **Policy 1301.3.2** University Park and North Campus

Within one year after plan adoption, the University shall undertake a binding jurisdictional determination of those areas identified as potentially jurisdictional wetlands in the Technical Document. Determination of jurisdictional wetlands

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#### **13.0 CONSERVATION ELEMENT**

status should be done prior to the commencement of any clearing or building activities in these areas.

#### Policy 1301.3.3 North Campus

Maintain at least a 25-foot buffer zone between future planned buildings, ancillary structures, and access roads and mangrove areas and other natural areas slated for preservation (see Figure 13.2).

#### Policy 1301.3.4 North Campus

Protect and enhance existing shallow-water communities and seagrass beds in the waters of Biscayne Bay fronting the North Campus by reducing the impacts of stormwater runoff to these areas.

#### Policy 1301.3.5 North Campus

Protect the shoreline stabilization project carried out by Dade County Department of Environmental Resources Management (DERM) in 1989-1991.

#### Policy 1301.3.6 North Campus

Encourage DERM to complete the mangrove mitigation project on the south edge of the campus that involves scraping 1.65 acres to an elevation of +1 foot above mean sea level, excavation of drainage channels to a height of 0 feet above mean sea level, and planting of red and black mangroves on 3-foot centers in the areas between the drainage channels (Figure 13.2). See Section 18 (Coastal Management Element) of this Master Plan for additional policies related to mangrove areas.

#### Policy 1301.3.7 North Campus

Complete ongoing mitigation programs and protect new and ongoing mitigation programs.

#### **Objective 1301.4** Campus Setting and the Natural Environment

Create an aesthetically pleasing, tropical educational setting through planting of xerophytic vegetation, using native species where possible, which will link natural areas on campus and provide for a harmonious transition from developed to natural areas.

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#### Policy 1301.4.1 University Park Campus

Use native vegetation to link natural areas on campus. Particular attention should be given to the possibility of linking the preserve to other vegetated portions of the campus by means of roadside and building landscaping. This should be made consistent with objectives of the Urban Design Element.

#### **Policy 1301.4.2** University Park and North Campus

Strongly encourage the use of native xerophytic plant species for use in general landscaping and in the creation and enhancement of wildlife habitat. Limit the use of exotic species in general campus landscaping. Use of native species will reduce landscape water demands, will reduce seed sources of potentially invasive exotic species, and will provide a natural setting that is consistent with the campus' status as a Tropical Audubon Society Wildlife Refuge. Work toward implementing this policy on the University Park campus has been initiated by the Environmental Studies Program, and further efforts in this regard should be coordinated with them.

#### **Policy 1301.4.3** University Park

Ensure the integrity of the hardwood hammock "preserve" by enhancing the littoral zone of the associated lake and identifying a low-impact buffer zone of no less than 50 feet around the preserve to minimize adverse impacts of traffic, lighting, construction and sports activities on the preserve. Work toward implementing this policy has been initiated by the Environmental Studies Program, and further efforts in this regard should be coordinated with them.

#### Policy 1301.4.4 North Campus

The Environmental Coordinator shall, in cooperation with Oleta River State Recreation Area personnel, develop a plan to link mangrove areas in the northeast portion of campus with the Oleta River State Recreation Area by means of littoral zone vegetation (along the shoreline) or by plantings of strand vegetation immediately behind shoreline stabilization structures (see Figure 13.2). The Environmental Coordinator shall also encourage Oleta River State Recreation Area personnel to develop a plan for removal of Australian pines from the portion of the Oleta River State Recreation Area adjacent to the North Campus.

#### Objective 1301.5 Protection of Listed Species

Protect federally, state, and locally listed species and their habitat from negative impacts of University activities.

Florida International University Comprehensive Campus Master Plan BOR - 803

#### Policy 1301.5.1 **University Park and North Campus**

During the initial planning phase of any physical changes to either campus, the University shall perform a census of wildlife and plants in the area to be affected. Plants or animals identified in the "Official Lists of Endangered & Potentially Endangered Fauna and Flora in Florida", which is updated annually by the Florida Game and Fresh Water Fish Commission, or otherwise afforded protection by the host communities and local, state and federal agencies, shall be noted. Protection plans for listed species shall be formulated consistent with those of the host communities and appropriate local, state and federal agencies.

#### Policy 1301.5.2 University Park and North Campus

University personnel shall, when encountering listed species, follow procedures and seek consultation with the appropriate agencies as identified in the Florida Game and Fresh Water Fish Commission's Wildlife Methodology Guidelines (January 15, 1988).

#### Policy 1301.5.3 **University Park**

The University shall maintain vegetation in the two burrowing owl "enclosures" on the southern edge of the campus in a condition that is conducive to the long-term survival of resident burrowing owls.

#### Policy 1301.5.3a **University Park**

The University shall limit construction activities to no closer than 10 feet from the burrowing owl nest burrows found on the University Campus. The active nest burrows should be protected from construction activities by a barrier forming a 10-foot radius circle around the burrow entrance, as per Florida Game and Fresh Water Fish Commission guidelines. If, using Florida Game and Fresh Water Fish Commission approved procedures, it is determined that the nest burrows have been abandoned, these enclosures may be removed.

#### **Objective 1301.6** Minimize Impacts of Campus Operational and Maintenance Activities

Establish campus-wide policies to minimize the impacts of campus operational and maintenance activities on the water quality, and to identify hazardous material sources and reduce their negative impacts.

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#### Policy 1301.6.1 University Park and North Campus

To limit negative impacts of campus activities on soils, wetlands, hydrology and hydroperiod, the Committee shall, on an annual basis, review existing and proposed University activities for compliance with the surface water policies of the South Florida Water Management District.

#### **Policy 1301.6.2** University Park and North Campus

The University shall test stormwater runoff and groundwater <u>quarterly</u> for the first year and yearly thereafter for compliance with standards set by the State of Florida Department of Environmental Protection, the Dade County Department of Environmental Resources Management, the South Florida Water Management District, and the U.S. Environmental Protection Agency. Failure to meet relevant standards for stormwater runoff shall result in an assessment of probable causes and the production and implementation of a plan to improve the quality of runoff or groundwater.

#### **Policy 1301.6.2**a North Campus

The University shall continue the daily monitoring and logging of results of sampling and analysis of the three gasoline and one diesel fuel tanks and their associated wells that are housed in the Central Utilities compound.

#### **Policy 1301.6.3** University Park and North Campus

The University shall monitor water quality in the lakes, canals and mangrove areas on each campus on a quarterly basis. Should the water quality fall below the standards set by the State of Florida Department of Environmental Protection, the Dade County Department of Environmental Resources Management, the South Florida Water Management District, and the U.S. Environmental Protection Agency, an assessment of probable causes of pollution shall be performed and a plan developed and implemented to limit the point and non-point sources of pollution.

#### **Policy 1301.6.4a** University Park and North Campus

The University shall maintain a record of types and amounts of hazardous, toxic and medical wastes that are generated within the University and a record of hazardous, toxic and medical waste that are collected by the Environmental Health and Safety Staff. The University shall also maintain a record of the types and amounts of hazardous, toxic and medical waste that waste disposal companies collect. Records shall be kept of the name of the waste disposal companies and the name of the driver for each pick-up.

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## **13.0 CONSERVATION ELEMENT**

# Policy 1301.6.4b University Park and North Campus

Handling, data records, storage and disposal requirements for radioactive waste generated at University Park and North Campus shall be in compliance with local, regional, state and federal regulations.

## **Policy 1301.6.5** University Park and North Campus

At present, all hazardous materials for both Campus are handled under a single EPA-Hazardous Waste Generator number. The University should investigate the possibility of operating under more than one number to ensure compliance with requirements associated with satellite collection areas.

## **Policy 1301.6.6** University Park and North Miami Park Campus

The University shall inventory herbicide, pesticide and fertilizer use and evaluate their impacts on water quality. Modify or reduce herbicide, pesticide and fertilizer usage to minimize or eliminate negative impacts on water quality.

## **Objective 1301.7** Maintain and Enhance Campus Air Quality

Establish a program to maintain high air quality standards on campus, both within and outside of buildings and parking structures.

## **Policy 1301.7.1** University Park and North Campus

Within two years of the adoption of the Master Plan, the University shall institute a program for the monitoring of both indoor and outdoor air quality. Monitoring and analysis is to be performed quarterly for the first year and yearly thereafter. In addition to sampling general indoor sites, chemistry laboratories, kitchens, and other sites of fume production should be sampled. Outdoor sites to be sampled should include parking lots and congested intersections. Failure to meet air quality standards accepted by the State of Florida shall result in an assessment of probable causes and the production and implementation of a plan to improve and maintain air quality.

# **Policy 1301.7.2** University Park and North Campus

Minimize emissions of air pollutants from and within buildings on campus through the installation of appropriate filtering devices on fume hoods and by minimizing the storage and use of volatile and hazardous materials in campus buildings.

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# **Policy 1301.7.3** University Park and North Campus

Determine potential impacts on air quality before construction of parking structures. Design parking structures to facilitate rapid ingress and egress of vehicles to minimize idling time, and design such structures to maximize air flow through them and eliminate pockets of stagnation where levels of pollutants can build up.

# **Policy 1301.7.4** University Park and North Campus

Encourage and facilitate non-polluting transportation alternatives on campus including pedestrian and bicycle access. Sidewalks and pedestrian malls should be designed to facilitate and encourage foot traffic between buildings, and to maximize handicap accessibility. Roadways on campus and entrances to the campus should be designed with clearly designated bicycle lanes to encourage and promote safe bicycle access to the campus. Bicycle parking should be provided at all major buildings and recreational facilities on campus.

### **Policy 1301.7.5** University Park Campus and North Campus

Reduce air pollution associated with commuter traffic on campus by developing public transportation alternatives. Such alternatives should include incentives to commuters to use public transportation facilities (e.g., bus, Metro Rail), and the Golden Panther Express (the intercampus shuttle system) servicing the various parts of the campus. A multiple level fee schedule could be used to encourage commuters to minimize vehicle use on campus.

# **GOAL 1302**

Minimize resource utilization on the University Park and North Campus.

## **Objective 1302.1** Water Conservation

Establish measures that reduce water utilization.

#### **Policy 1302.1.1** University Park and North Campus

FIU shall conserve water and reduce chemical use through the use of xeriscape design principles, which include but are not limited to:

- Use of drought tolerant and native plant materials;
- Use of low volume delivery fixtures;
- Zoned irrigation systems;

Florida International University Comprehensive Campus Master Plan BOR - 803

# **13.0 CONSERVATION ELEMENT**

- Moisture sensors and rain switches;
- Use of drought tolerant ground cover;
- Use of canopy trees; and
- Use of soil amendments and mulch to enable soils to retain moisture.

# **Policy 1302.1.2** University Park and North Campus

Retrofit existing campus buildings with water-saving devices. Require that water-efficient (ultra-low volume) fixtures and other water-saving devices be installed in all future buildings.

## **Policy 1302.1.3** University Park and North Campus

If feasible, expand the use of filtered wastewater ("reclaimed water") for landscape irrigation. This program has already been initiated and reclaimed water will likely be in use for irrigation on the North Campus by 1 January 1995.

# **Objective 1302.2** Solid Waste Recycling and Resource Conservation

Establish measures that encourage solid waste recycling.

# Policy 1302.2.1 University Park and North Campus

A general recycling program for paper, aluminum, glass, etc. shall be instituted and recycling goals for proportions of materials recycled established. All entities on campus (including food vendors/cafeterias, etc.) should be required to subscribe to this program and compliance with the program should be monitored on a regular basis. Work toward establishing this policy on the University Park Campus has been initiated by the Environmental Studies Program, and further efforts in this regard should be coordinated with it.

# **Policy 1302.2.1a** University Park and North Campus

State, regional and local standards for waste management shall be reviewed at least annually. Solid waste management on both campuses shall be in compliance with state, regional and local standards.

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## **Policy 1302.2.1b** University Park and North Campus

The University shall contract with a licensed recycling contractor to provide for the collection for recycling of, at minimum, paper, aluminum, plastic, glass and newspapers. Separate refuse containers, as called for by the recycling contractor, shall be made available in all buildings, courtyards, in open space areas, etc. on both campuses. This program should be made compulsory on a campus-wide basis.

# **Policy 1302.2.1c** University Park and North Campus

Where feasible, recycled paper products shall be purchased for University use, including those used in food service.

## **Objective 1302.3** Energy Conservation and Efficiency

Develop a program to conserve and appropriately use energy.

# **Policy 1302.3.1** University Park and North Campus

Retrofit existing buildings with energy-conserving lighting fixtures. Require all new buildings to be equipped with energy efficient lighting devices. Design new buildings to take maximum advantage of available natural lighting.

## **Policy 1302.3.2** University Park and North Campus

Where feasible, buildings on the Campus shall be fitted with devices to automatically reduce energy use in rooms and buildings not in use, including programmable thermostats for air conditioners and sensors that automatically turn off lights.

# **Policy 1302.3.3** University Park and North Campus

Investigate the possibility of using "non-traditional" energy sources on campus. Such alternatives could include the use of solar power for lighting parking lots, etc.

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# FIGURE 13.2 CONSERVATION/ NATURAL RESOURCES

# LEGEND

- LAKES & CANALS
- MANGROVE AREAS
- BEACH STRAND VEGETATION
- TREE ISLANDS
- EXOTIC VEGETATION ASSOCIATION (TO BE CLEARED AND REPLANTED)

MANGROVE PLANTER

- BEACH/RIP-RAP SHORELINE

NOTE: SEE FIGURE 16.1 LANDSCAPE DESIGN CONCEPT FOR ADDITIONAL ENHANCEMENT PLANTING AREAS

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## Introduction

Florida International University faces a need for enormous expansion and development activity over the next decade, if facilities are to be made available to correct deficits and meet the needs of a rapidly expanding enrollment. The costs associated with this projected growth are staggering, totaling some \$362 million for future buildings plus another \$67+ million for site improvements, infrastructure, parking roads and landscaping (infrastructure is not yet included in total cost). Recent levels of funding from all sources are only marginally adequate to correct past and present deficits, but will be totally inadequate to support the level of investment necessary to accommodate projected growth. Consequently, a large proportion of these projected costs have not been matched with revenue sources which are likely to be sufficient. Where appropriate, creative funding mechanisms such as user fees and joint development agreements are identified.

If Florida International University is to realize the vision for its campuses over the next ten years, it and the Board of Regents must candidly acknowledge the inadequacy of anticipated funding levels and commit to a proactive partnership to identify and secure the massive amounts of additional funding required.

## **GOAL 1401**

Florida International University shall plan, program and develop capital facilities necessary to accomplish the academic mission at projected enrollment levels, applying sound fiscal policies.

## Objective 1401.1 Schedule of Capital Improvements

Plan and implement a schedule of capital improvements coordinating land use and development decisions with fiscal resources to meet projected facility needs while maintaining level of service standards herein identified.

#### Policy 1401.1.1

FIU shall coordinate with Metro-Dade County, the City of Sweetwater, the City of North Miami and utility providers to monitor and project the availability of off-campus services and facilities at adopted levels of service concurrent with the impacts of campus development prior to the programming of each development project. The Master Plan is acknowledged to have documented the ability to accommodate campus development indicated, herein through the plan period, consistent with the maintenance of host community levels of service.

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# Policy 1401.1.2

FIU shall, prior to programming each development project, verify that development impacts can be accommodated while maintaining on-campus level of service standards herein established.

## Policy 1401.1.3

FIU shall ensure that the Capital Improvement Program 5-year project priority list remains consistent with the Master Plan, subsequent plan revisions and with applicable campus development and joint use agreements.

### Policy 1401.1.4

Capital Improvement Program modifications shall be pursued to improve the efficiency, timeliness and cost effectiveness of improvements to infrastructure, parking, site development and landscaping. The adopted campus master plan will be amended as needed to incorporate any revisions to the Capital Improvement Program.

#### Policy 1401.1.5

Capital Improvement Program procedures shall be applied to make full use of "infill" areas where utility, parking and related infrastructure services are in place.

## Policy 1401.1.6

The annual budgeting process shall include provisions for the adoption of a capital budget and shall be reviewed to ensure consistency with campus development agreements.

#### **Objective 1401.2** Adequate Resources

Florida International University shall seek resources sufficient to meet projected facility needs and seek to secure funding in advance of projected need to avoid additional deficits.

## Policy 1401.2.1

Prepare CIP-3 Forms and CIP line item funding requests targeted to improvements to infrastructure, parking and site (landscape) development necessary to support existing expanded and new facilities, separate and discrete from budgets for individual buildings.

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#### Policy 1401.2.2

Seek local ancillary funding sources to supplement PECO appropriations including the following:

- Revenues from joint use facilities (arts center, football stadium, etc.)
- User fees for upgraded parking and student/faculty services.

## Policy 1401.2.3

Accelerate facility development programming and feasibility studies to occur 3-4 years prior to the expected availability of PECO funds and auxiliary revenues such as student capital improvement fees for academic support and necessary infrastructure and service facilities.

#### **Objective 1401.3** Deficiencies, Deficits and Future Growth

The Capital Improvement Element shall seek to correct existing facility deficiencies and deficits and provide additional facilities necessitated by future growth by the end of the planning period.

# Policy 1401.3.1

Apply the following criteria for evaluating and prioritizing capital improvements:

- Relative program performance and value to achievement of the Academic Mission.
- Degree of impact on the elimination of facility or service deficits.
- Cost effectiveness and development efficiency.
- Availability of supplementary matching funds or operating revenue opportunities.

#### Policy 1401.3.2

Apply the following criteria for prioritizing facility renewal and upgrading projects.

• Projects necessary to maintain level of service standards, achieve code compliance and provide handicapped access.

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# 14.0 CAPITAL IMPROVEMENT ELEMENT

- Projects which reduce operating costs and improve energy efficiency.
- Projects which expand facility capacities and utilization, reducing demand for new facilities.

#### Policy 1401.3.3

By the end of the planning period replace all inadequate obsolete and potentially unsafe structures including:

- Trailers and portable classrooms.
- Pre-university airport support structures (except the control tower).
- Key bank building.

## Policy 1401.3.4

To ensure that future capital budgeting accurately reflects anticipated total development costs, future facility cost estimates shall include estimates of proportional costs for all related ancillary site improvements which will be necessitated by specific buildings or aggregations of facilities, including:

- utility extensions
- site modifications (including mitigation costs)
- parking
- pedestrian and vehicular circulation
- landscaping

Facilities shall be sized sufficiently to support anticipated future capacity requirements.

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TABLE 14	.1	
CAPITAL	<b>IMPROVEMENTS</b>	SUMMARY

YEAR 1 - 3 1994-1994	UNIVERSITY PARK	NORTH MIAMI CAMPUS
Building Construction	\$ 136,006,349	\$ 17.991,930
· Landscape	\$ 3,956,000	\$ 1.048,000
· Utilities		
Chilled Water Distribution	\$ 744,000	N/A
Electrical Distribution	\$ 24,000	N/A
Telecommunications Network	\$ 100,000	N/A
· General Infrastructure		
· Sewer	\$ 960,375	\$ 17,875
• Water	\$ 357,500	\$ 0
· Drainage	\$ 1,653,600	\$ 352,300
Traffic/Circulation	\$ 4,000,000	N/A
· · · · · · · · · · · · · · · · · · ·		
TOTAI	\$ 147,801,824	\$ 19,410,105
YEAR 4 - 5 1998-1999		
Building Construction	\$ 42,814,970	\$ 30,559,360
· Landscape	\$ 2,376,600	\$ 3.732,200
· Utilities		· · · · · · · · ·
Chilled Water Distribution	\$ 963,000	\$ 420,000
Electrical Distribution	\$ 126,000	\$ 35,000
Telecommunications Network	\$ 130,000	\$ 75.000
General Infrastructure		*
• Sewer	\$ 28,600	\$ 10.725
• Water	\$ 45,500	\$ 0
· Drainage	\$ 109.200	\$ 627,900
· Traffic/Circulation	\$ 5,730,000	\$ 430,000
тотаі	\$ 52,323,870	\$ 35,890,185
VFAR 6 . 10 2000.2004	1	
Ruilding Construction	\$ 72,576,048	\$ 74 081 835
· Landscape	\$ 8 595,440	\$ 2,780,320
- Utilities	ψ 0,020,10	ψ ως τους τους
Chilled Water Distribution	\$ 430,000	\$ 404,000
Electrical Distribution	\$ 133,000	\$ 28,000
Telecommunications Network	\$ 20,000	\$ 15,000
· General Infrastructure	4	ψ 10,000
Sewer	\$ 25.025	\$ 164,450
· Water	\$ 101.157	\$ 87,750
· Drainage	\$ 490,000	\$ 156,000
Traffic/Circulation	\$ 13,800,000	\$ 17,880,000
		ψ x1,000,000
TOTAL	\$ 96,170,670	\$ 95,597,355
MASTER PLAN TOTAL	\$296,296,364	\$ 150,897,645

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# FLORIDA INTERNATIONAL UNIVERSITY

# MIAMI, FLORIDA

DATE:

	NASF	GSF	Prime Space Type	Const.Cost Per GSF	Project Cost per GSF	Const.Cost	Project Cost	Funding Source
YEAR 1 - 3 (1994-1997) (13) Labor Center-1994 (15) Baseball Stadium-1994 (07A) Fitness Center-1995 (14) Education-1995 (19A) Resi. Hall(400 beds)-1995 (17) Child Care Center-1995 (18) Campus Suppt. Comp1995 (16) Arts Complex I-1996 (06) OE Renovations-1996 (03A) Gra. Ctr. Addit'n-1996 (32) Elementary School-1996 (32) Elementary School-1996 (32) Elementary School-1996 (32) Art Museum-1996 (05A) AT Libr. Addit'n-1997 (21) Health & Life Sci1997 (26) Social Science-1997 (20) Engineering II-1998	12,750 4,704 9,240 33,619 80,125 3,450 58,454 38,388 N/A 22,348 N/A 24,575 121,936 43,945 32,142 119,590	25,000 12,478 12,936 57,456 167,426 4,830 104,163 74,052 N/A 45,305 N/A 34,405 170,710 61,523 44,999 167,426	Academic Gymnasium Gymnasium Office Housing Childcare Support Serv. Labs Labs Student Serv. Labs Exhibition Library Labs Classroom Labs	75.21 137.91 90.73 88.13 20,325/bed 128.45 138.70 128.03 N/A 101.15 N/A 147.38 134.02 172.86 116.85 138.70	86.29 161.92 121.36 131.12 20,248/bed 156.03 163.06 174.28 N/A 121.17 N/A 121.17 N/A 174.38 166.31 208.21 140.57 163.06	1,880,373 1,720,879 1,173,700 5,064,100 8,333,434 620,443 7,782,092 9,481,553 1,680,000 4,582,777 N/A 5,070,789 22,879,944 10,634,806 5,258,133 23,222,020	2,157,400 2,010,450 1,570,000 7,533,934 9,942,034 753,333 10,895,500 12,906,000 1,920,000 5,489,891 N/A 6,000,000 28,393,000 12,810,000 6,325,509 <u>27,300,000</u> <b>\$136,006,349</b>	PECO/AUX CITF CITF PECO REV. BONDS CITF/AUX PECO/AUX PECO/FECGP C&G/PECO CITF/AUX DCPS FECGP PECO PECO PECO PECO PECO
YEAR 4 - 5 (1998-1999) (19B) Housing (640 Beds)-1998 (33) President House-1999 (24) Arts Complex II-1999 (23) Office/Classroom -1999 TOTAL 5 YEAR COST	195.25/bd 6,395 44,560 54,863	408.35/bd 9,975 64,414 66,840	Housing Housing Labs Classroom	20,325/bd 159.08 143.50	24,248/bd 150.00 192.50 174.46	13,008,000 N/A 10,246,711 11,021,950	15,518,720 1,496,250 12,400,000 <u>13,400,000</u> <b>\$ 42,814,970</b>	REV. BOND PRIV. PECO PECO
YEAR 6 - 10 (2000-04) (30) Business/Finance-2000 (31) Business/Tech-2000 (19C) Housing(800 Beds)-2001 (10) Univ. Computer Srv-2001 (28) Support-2001 (09A) Molecular Biology-2002 (27) Classroom-2002 (03B) Graham Ctr. Expan2003 (19D) Housing (320 Beds)-2003 (29) Support-2004 (7B) Fitness Expansion-2004 TOTAL 10 YEAR COST	27,321 13,659 195.25/bd 42,857 35,714 79,071 25,828 92,655 195.25/bd 35,714 14,285	38,250 19,123 408.35/bd 60,000 50,000 110,700 36,160 129,717 408.35/bd 50,000 20,000	Classroom Support Housing Office Support Labs Classroom Student Serv. Housing Support Gymnasium	127.69 119.45 20,325/bd 123.03 123.03 183.32 135.46 148.99 20,325/bd 134.44 131.94	153.61 143.70 24,248/bd 148.00 220.54 162.96 179.23 24,248/bd 161.73 158.73	4,884,142 2,284,242 16,260,000 7,381,800 6,151,500 20,293,524 4,898,233 19,326,535 6,504,000 6,722,000 2,638,800	5,875,582 2,747,975 19,398,400 8,880,000 7,400,000 24,413,778 5,892,633 23,249,177 7,759,360 8,086,500 <u>3,174,600</u> <b>\$ 72,579,048</b>	PECO AUX/PECO REV. BONDS AUX/PECO PECO C&G/PECO PECO CITF REV. BONDS PECO AUX/CITF

# TABLE 14.2 UNIVERSITY PARK -- FACILITY CAPITAL IMPROVEMENTS

Source: SUS Construction Cost by zone for New Facilities (Rev. 3-22-94)

Note: 1. Construction base cost and Project base cost have been increased by 3% per year.

- 2. Project cost includes a factor of 20.3% above construction cost for DOE allowable add-ons such as resident supervision, artwork, furnishing and equipment, contingency and professional fees.
- 3. Building efficiency ratio assumed to be 1.4.
- 4. Project cost assumes the inclusion of building utilities.
- 5. Square footage of some projects my differ from the Technical Document due to updated square footage information provided by the University.



		NASF	GSF	Primary Space Type	Const. Cost per GSF	Proj. Cost per GSF	Const. Cost	Project Cost	Funding Source
	YEAR 1 - 3 (1994-1997) (N06) Stdnt Hlth Clinic-1994 (N01) HM Completion-1994 (N07) Conference Ctr1995 (N03A) Stdnt Ctr. Addtn-1997 FItness Center/Gym1997 TOTAL 3 YEAR COST	1,045 420 28,275 19,790 10,714	1,567 630 57,604 32,800 15,000	Student Hlth. Classroom Student Ser. Student Ser. Gymnasium	325.03 1,068.92 105.18 126.01 98.18	386.72 1,712.89 130.71 164.65 118.11	509,334 1,675,000 6,058,965 4,133,133 1,472,700	606,000 2,684,107 7,529,560 5,400,613 <u>1,771,650</u> <b>\$ 17,991,930</b>	AUX/CITF PECO PECO CITF CITF
	YEAR 4 - 5 (1998-1999) (N09) Classroom/Office-1998 (N10) Honors Complex-1999 (NH2) Stdt Hsg(320 bds)-1999 TOTAL 5 YEAR COST	48,563 40,425 62,536	67,988 56,595 130,673	Classroom Classroom Housing	137.06 165.03 20,325/bd	167.68 203.20 20,248/bd 724,74 %	9,318,336 9,339,941 6,504,000	11,400,000 11,400,000 <u>7,759,360</u> <b>\$ 30,559,360</b>	PECO PECO REV. BONDS
)	YEAR 6 - 10 (2000-2004) (N11) Public Affairs-2000 (N12) Support-2001 (N13) Classroom-2002 (N14) Nursing-2003 (N05A) Libr./Classrm2004 (N15) Support (NH3) Student Hsg. (330 bds) TOTAL 10 YEAR COST	31,142 23,928 	43,600 33,500,73,2 100,000 67,000 76,300 47,000 134,757	Classroom Office Classroom Labs Library Office Housing	127.69 123.03 135.46 139.52 125.54 134.43 20,325/bd	153.61 148.00 162.96 167.84 151.03 161.71 20,248/bd 24,74-8	5,567,284 4,121,505 13,546,000 9,347,840 9,578,702 6,318,210 6,707,250	6,697,396 4,958,000 16,296,000 11,245,280 11,523,589 7,600,370 <u>8,001,840</u> <b>\$ 66,322,475</b>	PECO PECO PECO PECO PECO PECO REV. BONDS
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 TABLE 14.3
 NORTH MIAMI CAMPUS -- FACILITY CAPITAL IMPROVEMENTS

Source: SUS Construction Cost by zone for New Facilities (Rev. 3-22-94)

Note: 1. Construction base cost and Project base cost have been increased by 3% per year.

- 2. Project cost includes a factor of 20.3% above construction cost for DOE allowable add-ons such as resident supervision, artwork, furnishing and equipment, contingency and professional fees.
- 3. Building efficiency ratio assumed to be 1.4.
- 4. Project cost assumes the inclusion of building utilities.
- 5. Square footage of some projects my differ from the Technical Document due to updated square footage information provided by the University.

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	QUANTITY	COST	PROJECT COST	FUNDING SOURCE
YEAR 1-3 (1994-1997) Secondary Road Planting Courtyard Palmetum Life Science Courtyard Central Courtyard TOTAL	2,400 LF 108,000 SF 35,000 LF 89,000 LF	\$30 \$8 \$10 \$30	\$ 72,000 \$ 864,000 \$ 350,000 \$2,670,000 \$3,956,000	PECO/AUX PECO/PRIV. PECO/PRIV. PECO/PRIV.
YEAR 4-5 (1998-1999) Complete Loop Road/117th Entrance Housing Courtyard Edge Buffer - 8th Street Major Pedestrian Spine	7,700 LF 125,860 SF 630,000 SF 2,000 LF	\$40 \$10 \$1 \$90	\$ 308,000 \$1,258,600 \$ 630,000 \$ 180,000	PECO/AUX REV. BONDS/AUX PECO/PRIV PECO/AUX/PRIV
TOTAL			\$2,376,600	
YEAR 6-10 (2000-2004) Main East-West Informal Mall Informal Metro Rail Mall Arts Complex Courtyard 107th Ave Entrance Significant Landscape Corner Feature Edge Buffer-107th Ave Circulation-107th Ave to SW Housing Quad Circulation-8th St Entry to SW Hous. Quad Circulation-Metro Rail Mall East Campus Housing Area	378,640 SF 163,060 SF 142,280 SF 229,000 SF 900 LF 2,600 LF 4,400 LF 60,000 SF	\$8 \$8 \$10 \$40 \$20 \$20 \$3	\$3,029,120 \$1,304,480 \$1,138,240 \$2,290,000 \$ 350,000 \$ 160,000 \$ 3,600 \$ 52,000 \$ 88,000 \$ 180,000	PECO/AUX/PRIV. DADE CO. TRANS. PECO/PRIV PECO/AUX PECO/PRIV/AUX REV. BONDS/AUX REV. BONDS/AUX REV. BONDS/AUX DADE CO. TRANS. REV. BONDS
TOTAL			\$8,595,440	
TOTAL LANDSCAPE IMPROVEMENTS			\$14,928,040	

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## TABLE 14.4 UNIVERSITY PARK LANDSCAPE CAPITAL IMPROVEMENTS

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# CAPITAL IMPROVEMENTS

# LANDSCAPE

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WALLACE ROBERTS & TODD DNID RUDAER & ASIOCHTEL INC CHIT & GURT, INC ENTR & KURVAS SOM ENCREERS ZISCOVICH, INC

CORAL GABLES, FL CORAL GABLES, FL MANE H FT. LAUDERDALE H CORAL GABLES, FL MANE H.

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# FLORIDA INTERNATIONAL UNIVERSITY UNIVERSITY PAIRK MIAMI, FLORIDA

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	QUANTITY	COST	PROJECT COST	FUNDING SOURCE
YEAR 1 - 3 (1994-1997) Biscayne Blvd. Entry Feature Conference Center Entry Road Landscape Conference Center Entry Feature Conference Entry Plaza	700 LF 20,000 SF 36,000 SF	\$40 \$ 5 \$20	\$ 200,000 \$ 28,000 \$ 100,000 \$ 720,000	PECO/AUX/CITY OF N MIAMI PECO/AUX PECO PECO
TOTAL THREE YEAR			\$1,048,000	
YEAR 4 - 5 (1998-1999) North Entry Road Landscape North Entry Feature Edge Buffer - NE 151st. North Plaza North Quadrangle Honors Complex Plaza w/ Housing	1,200 LF 20,000 SF 290,000 SF 42,000 SF 161,820 SF 4,000 SF 900 LF	\$40 \$ 5 \$ 1 \$20 \$10 \$20 \$40	\$ 48,000 \$ 100,000 \$ 290,000 \$ 840,000 \$1,618,200 \$ 800,000 \$ 36,000	PECO/AUX PECO/AUX PECO/AUX/PRIVATE PECO/AUX/PRIVATE PECO/AUX/CITF PECO/REV. BONDS/AUX PECO/REV. BONDS/AUX
TOTAL FIVE YEAR			\$3,732,200	
YEAR 6 - 10 (2000-2004) Main Entry Road landscape Main Entry Feature Waterfront Promenade w/Focal Features Major Pedestrian Spine Main Plaza Main Quadrangle NE Housing	900 LF 20,000 SF 1,450 LF 2 2,000 LF 25,000 SF 92,540 SF 220,000 SF	\$ 40 \$ 5 \$120 \$20,000 \$120 \$ 30 \$ 8 \$ 3	\$ 36,000 \$ 100,000 \$ 214,000 \$ 40,000 \$ 240,000 \$ 750,000 \$ 740,320 \$ 660,000	PECO/AUX PECO/AUX PECO/AUX/CITF PECO/AUX/CITF PECO/AUX PECO/AUX/PRIVATE PECO/AUX/CITF/PRIVATE REV. BONDS/AUX
TOTAL TEN YEAR			\$2,780,320	
TOTAL LANDSCAPE IMPROVEMENTS	•		\$7,560,520	

## TABLE 14.5 NORTH MIAMI CAMPUS LANDSCAPE CAPITAL IMPROVEMENTS

# CAPITAL IMPROVEMENTS

# LANDSCAPE

WALLACE ROBERTS & TODD DAVD RUMMER & ASSOCIATES INC OMIT & GAIT, INC EXTER & SCHWAS SIM INCREENS ZINGUNGE, INC CORAL GABLES, FL CORAL GABLES, FL MANA, FL FL LADOBOALE FL CORAL GABLES, FL MANA, FL

FLORIDA INTERNATIONAL UNIVERSITY NORTH MIAMI CAMPUS MIAMI, FLORIDA

# TABLE 14.6a

UNIVERSITY PARK - UTILITIES CAPITAL IMPROVEMENTS - CHILLED WATER DISTRIBUTION/GENERATION

PROJECT DESCRIPTION	COMPONENTS	PROJECT COST	COMPLETION MILESTONE	FUNDING SOURCE					
	YEAR 1-3 (1994 - 1997)								
• Piping Loop	1000 ft - 8 in - CHWS&R	\$130,000.00	1996	PECO					
(Objective 1001.1)	2200 ft - 10 in - CHWS&R	\$374,000.00							
	800 ft - 12 in - CHWS&R *For 2 pipes - Schedule 40 steel	\$240,000.00							
	including excavation & backfill, valves, MH & insulation	\$744,000.00							
YEAR 4-5 (1994-1997)									
<ul> <li>Chiller Plant Upgrade (Objective 1001.2)</li> </ul>	New Chiller 2000 tons piping, new cooling, tower, pumps, building, bay.	\$625,000.00	1997-1998	PECO					
• Piping Loop	2600 ft - 8 in - CHWS&R	\$338,000.00	1998	PECO					
Expansion (Objective 1001.1)	*See note in 3 year C.I.P.	\$963,000.00							
	YEAR 6-10 (2000-2004)								
<ul> <li>Chiller Efficiency/ Refrigerant Compliance (Objective 1001.1)</li> </ul>	Replace chiller no. 3 with new 2000 ton machine	\$350,000.00	1999-2000	PECO					
Piping Loop	800 ft - 6 in - CHWS&R	\$80,000.00	1999	PECO					
Expansion (Objective 1001.1)	*See note in 3 year C.I.P.	\$430,000.00							

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# CAPITAL IMPROVEMENTS

# UTILITIES-CHILLED WATER

WALLACE ROBERTS & TODD DAVD FLORMER & ASSOCATES, INC GAT & GAT, INC ENTH & RORMS END FLORMERS ZISCOVICE, INC

CORAL GABLES, FL CORAL GABLES, FL MANG, FL FT, LAUDERDALE, FL CORAL GABLES, FL MANA, FL

FLORIDA INTERNATIONAL UNIVERSITY UNIVERSITY PARK MIAMI, FLORIDA

# TABLE 14.6b

UNIVERSITY PARK • UTILITIES CAPITAL IMPROVEMENTS • EXPANSION TO ELECTRICAL DISTRIBUTION

PROJECT DESCRIPTION	COMPONENTS	PROJECT COST	COMPLETION MILESTONE	FUNDING SOURCE				
	YEAR 1-3 (1994 - 1997)							
<ul> <li>Extensions to Education Building, Dormitories, Campus Support Building (Objective 1005.1)</li> </ul>	Ductbanks	Funded under individual projects.	1995	PECO/REV. BOND/AUX				
<ul> <li>Extension to Health/Life Building</li> </ul>	800 ft - 4 (5"c) buried and concrete encased.*	\$24,000.00	1996	PECO				
	YEA	R 4-5 (1998-1999)						
<ul> <li>Extension to continue forming loop at West Campus</li> </ul>	3600 ft - 8 (5"c) buried and concrete encased.*	\$126,000.00	1999	PECO				
YEAR 6-10 (2000-2004)								
<ul> <li>Extension to continue forming loop at West Campus</li> </ul>	3800 ft - 8 (5"c) buried and concrete encased.*	\$133,000	2000	PECO/CITF				

\*Cost includes manholes and handles

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# CAPITAL IMPROVEMENTS

# UTILITIES -ELECTRICAL

WALLACE ROBERTS & TODD DAVED FURSHER & ASSOCIATES, INC GART & GAIN, INC INTHE & SCHWAS SIME RAGREERS ZYSOCHOL, INC

CORAL GABLES, FL CORAL GABLES, FL MARE, FL PT. LAUDERDAILE, FL CORAL GABLES, FL MARE, FL

FLORIDA INTERNATIONAL UNIVERSITY UNIVERSITY PARK MIAMI, FLORIDA

# TABLE 14.6c

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UNIVERSITY PARK - UTILITIES CAPITAL IMPROVEMENTS - EXPANSION TO TELECOMMUNICATIONS NETWORK

PROJECT DESCRIPTION	COMPONENTS	PROJECT COST	COMPLETION MILESTONE	FUNDING SOURCE		
YEAR 1-3 (1994 - 1997)						
• Expansion to designated remote site at Fine Arts Core, Dormitories & Education Building (Objective 1009.1)	Ductbank	Funded with individual projects	1995	PECO/REV. BONDS		
• Expansion to Health/Life	800 ft of 4 (4"c)	\$20,000.00	1996	PECO		
Bldg completion of Loop at West Campus	3200 ft of 4 (4"c)	\$80,000.00	1996	PECO		
(Objective 1009.1)		\$100,000.00	<u> </u>			
	YEA	R 4-5 (1998-1999)		· · · · · · · · · · · · · · · · · · ·		
<ul> <li>Extension to serve buildings west of 8th St. entrance (Objective 1009.1)</li> </ul>	1200 ft of 4 (4"c)	\$30,000.00	1998-1999	PECO		
<ul> <li>Reinforcement of existing ductbank between Academic Core and West Campus</li> </ul>	4000 ft of 4 (4"c)	\$100,000.00	1998	PECO		
(Objective 1009.1)						
·	УЕА	R 6-10 (2000-2004)				
Extension to designated remote site west of Buildings 25/26 (Objective 1009.1)	800 ft of 4 (4"c)	\$20,000.00	1999	CITF/PECO/AUX		

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# CAPITAL IMPROVEMENTS

# UTILITIES -TELECOMMUNICATIONS

WAILACE ROBERTS & TODD DWD HUMMER & ASSOCIATES, INC GARY & GARY, INC EXITY & GARY, INC EXITY & SCHWAS SIM ENCREMIS ZYNOWICH, INC

CORAL GABLES, FL CORAL GABLES, FL MARGE R. FT LATERDALE R. CORAL GALES, R. MARG, R.

FLORIDA INTERNATIONAL UNIVERSITY UNIVERSITY PARK MIAMI, FLORIDA

# TABLE 14-7a

NORTH MIAMI CAMPUS - UTILITIES CAPITAL IMPROVEMENTS - CHILLED WATER DISTRIBUTION/GENERATION

PROJECT DESCRIPTION	COMPONENTS	PROJECT COST	COMPLETION MILESTONE	FUNDING SOURCE				
	YEAR 1-3 (1994 - 1997)							
<ul> <li>Piping Loop Expansion (Objective 1003.1)</li> </ul>	Extension to Conference Center Building funded with building	N/A	1995	PECO				
	YEA	R 4-5 (1998-1999)						
<ul> <li>Piping Loop</li> <li>Expansion</li> <li>(Objective 1003.1)</li> </ul>	1400 ft - 6 in - CHWS&R *For 2 pipes, Schedule 40 steel, including excav., backfill, valves, MH & insulation	\$140,000.00	1997-1998	PECO				
• Chiller Plant Upgrade	New Chiller 1500 tons piping, new	\$280,000.00	1997	PECO				
(Objective 1003.2)	cooling tower pumps, demolition	\$420,000.00						
	YEA	R 6-10 (2000-2004)						
<ul> <li>Piping Loop Expansion (Objective 1003.1)</li> </ul>	800 ft - 8 in - CHWS&R *See note for 5 year C.I.P	\$104,000.00	1999-2000	PECO				
Optimize Chiller Efficiency/Refrigerant	Replace remaining chiller with new more efficient machine - 1500 tons	\$300,000.00	After 2000	PECO				
Compliance (Objective 1004.2)		\$404,000.00						

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# CAPITAL IMPROVEMENTS

# UTILITIES -CHILLED WATER

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WALLACE ROBERTS & TODO DAVID NUMBER & ASSOCIATES, INC GAST & GART, INC INTHE & REPRAS BIG INGREEPES EXEMPLE: INC CORAL GABLES, FL CORAL GABLES, FL MAMA R. FT. LAUDSHDALS R. OTRAL GABLES R. MAMA R.

FLORIDA INTERNATIONAL UNIVERSITY NORTH MIAMI CAMPUS MIAMI, FLORIDA

# TABLE 14-7b

NORTH MIAMI CAMPUS - UTILITIES CAPITAL IMPROVEMENTS - EXPANSION TO ELECTRICAL DISTRIBUTION

PROJECT DESCRIPTION	COMPONENTS	PROJECT COST	COMPLETION MILESTONE	FUNDING SOURCE			
	YEAR 1-3 (1994 - 1997)						
<ul> <li>Extension to Conference Building (Objective 1007.1)</li> </ul>	Ductbank	Funded with Building	1995 ·	PECO			
	YEAR 4-5 (1998-1999)						
<ul> <li>Extension to Honors Complex Building (Objective 1007.1)</li> </ul>	1000 ft of 2 (5"c) buried and encased in concrete.	\$35,000.00	1998	PECO			
YEAR 6-10 (2000-2004)							
<ul> <li>Extension to serve Buildings 13, 14, 15 (Objective 1007.1)</li> </ul>	<ul> <li>800 ft of 4 (5"c) buried and encased in concrete</li> </ul>	\$28,000.00	1999	PECO			

## TABLE 14-7c

NORTH MIAMI CAMPUS - UTILITIES CAPITAL IMPROVEMENTS - EXPANSION TO TELECOMMUNICATIONS NETWORK

PROJECT DESCRIPTION	COMPONENTS	PROJECT COST	COMPLETION MILESTONE	FUNDING SOURCE		
	YEAR 1-3 (1994 - 1997)					
Extension to Conference Center (Objective 1010.1)	Ductbank	Funded with Conference Center Project.	1995	PECO		
YEAR 4-5 (1994-1997)						
<ul> <li>Extension to Honors Complex, Office/Classroom (Objective 1010.1)</li> </ul>	1200 ft of 4 (4"c)	\$30,000.00	1997-1998	PECO		
Second Feed to	1000 ft of 8 (4"c)	\$45,000.00	1998	PECO		
Campus (Objective 1010.1)		\$75,000.00				
YEAR 6-10 (2000-2004)						
• Extension to serve Buildings 13, 14, 15 (Objective 1010.1)	600 ft of 4 (4"c)	\$15,000.00	1999	PECO		

# CAPITAL IMPROVEMENTS

# UTILITIES -ELECTRICAL & TELECOMMUNICATIONS

WALLACE ROBERTS & TOOD DAVID FLOWAGE & ASSOCIATES, INC GAST & GART, INC EXITE & ROBARS EXAMPLE & ROBARS EXECUTED INC CORAL GABLES, FL CORAL GABLES, FL MANAE R. FT. LAUDORDALE R. CORAL GABLES, R. MANAE R.

FLORIDA INTERNATIONAL UNIVERSITY NORTH MIAMI CAMPUS MIAMI, FLORIDA

# TABLE 14.8UNIVERSITY PARKTRANSPORTATION CAPITAL IMPROVEMENTS

.

YEAR 1 - 3		FUNDING
Construct Parking Structure No. 1	\$ 4,000,000	SOURCE
YEAR 4 - 5		
Widen SW 117 Ave. entrance to 4 lanes between SW 117 and 115 Ave.	\$ 75,000	PECO
Realign road adjacent to nature preserve to connect existing loop road with SW 17th Street.	\$ 60,000	REV. BONDS
Construct Roundabout at SW 112th Avenue and Loop Road	\$ 60,000	PECO
Construct Parking Structure No. 2	\$ 4,000,000	REV. BONDS
Reconstruct surface parking (Lot 3,4, and 5)	\$ 1,200,000	AUX
Relocate existing bus stop shelters	\$ 20,000	PECO
Reconstruct existing crosswalks	\$ 50,000	AUX
Construct planned crosswalks	\$ 35,000	AUX/PECO
Construct new entrance on SW 17th Street, East of new stadium TOTAL 5 YEAR COST	<u>\$ 230,000</u> \$ 5,730,000	PECO
YEAR 6 - 10		
Reconstruct single 4 lane entrance on NW 107 Avenue at SW 16th Street	\$ 160,000	PECO
Realign loop road through parking lots 3 and 4	\$ 70,000	PECO/REV. BONDS
Reconstruct all campus roads with three lanes and curb and gutter	\$ 370,000	PECO/AUX
Construct parking structures 3, 4 and 5	\$12,000,000	REV. BONDS
Construct new surface lot for 107th Avenue Student Housing	\$ 1,100,000	AUX
Construct planned walkways TOTAL 10 YEAR COST	<u>\$ 100,000</u> \$13,800,000	PECO/AUX

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# CAPITAL IMPROVEMENTS

# TRANSPORTATION

WALLACE ROBERTS & TODD DAVID FLDBARER & ASSOCIATES, INC OURY & GUIT, INC KETTE & ROBERTS SOM ENGINEERIS ZYSCOVICH, INC CORAL GABLES, FL CORL GALES, FL MULE, R. FT LUDSFOUR, R. CORL GALES, R. MULE, R.

FLORIDA INTERNATIONAL UNIVERSITY

# TABLE 14.9 GENERAL INFRASTRUCTURE CAPITAL IMPROVEMENTS

	UNIVERSITY PAR	K		
	SEWER	WATER	DRAINAGE	TOTAL
Year 1-3 (1994-1997)	\$960,375	\$357,500	\$1,653,600	\$2,971,475
Year 4-5 (1998-1999)	\$28,600	\$45,500	\$109,200	\$183,300
Year 6-10 (2000-2004)	\$25,025	\$101,157	\$490,000	\$616,282
TOTAL				\$3,771,057
	NORTH MIAMI CAM	IPUS		
	SEWER	WATER	DRAINAGE	TOTAL
Year 1-3 (1994-1997)	\$17,875	0	\$352,300	\$370,175
Vear 4-5 (1998-1999)	\$10,725	0	\$627,900	\$638,625
Ver 6-10 (2000-2004)	\$164,450	\$87,750	\$156,000	\$408,200
	<u> </u>		TOTAL	\$1,417,000

Note: 1.

Water constructions costs changed by 25% due to FIU cost estimate standards All construction cost increased to project costs at a 1.3 factor.

2.

# TABLE 14.10 NORTH MIAMI CAMPUS TRANSPORTATION CAPITAL IMPROVEMENTS

	FUNDING SOURCE
\$ 420,000	AUX
<u>\$ 10,000</u> <b>\$ 430,000</b>	PECO
\$ 580,000	N/A (CITY/COUNTY)
\$12,000,000	REV. BONDS
\$ 5,200,000	AUX
s 90,000	PECO/AUX
<u>\$ 10,000</u> \$17,880,000	PECO/AUX
	\$ 420,000 <u>\$ 10,000</u> <b>\$ 430,000</b> \$ 580,000 \$12,000,000 \$ 5,200,000 \$ 90,000 <u>\$ 10,000</u> <u>\$ 10,000</u> \$17,880,000

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# CAPITAL IMPROVEMENTS

# TRANSPORTATION

WALLACE ROBERTS & TOOD DAVID KURANER & ANDCHIER INC GART & GURT, INC ERTER & KURAUS SCH BNDADERS

CORAL GABLES, FL CORAL GARES R. Mana R. FT LAUDSKOALS, K. CORAL GAALES, R. MUG PL

FLORIDA INTERNATIONAL UNIVERSITY



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FIGURE 14.3

# 3 YEAR CAPITAL IMPROVEMENT PLAN

# FACILITIES AND LANDSCAPE

# LEGEND

EXISTING FACILITIES

V//// NEW FACILITIES

OPEN SPACE DEVELOPMENT PROJECTS

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LANDSCAPE PROJECTS

WALLACE ROBERTS & TODD DAVED PLUMMER & ASSOCIATES, INC. GABY & GABY, INC KETH & SCHNARS SOM ENGREERS ZYSCOVICH, INC

CORAL GABLES, FL CORAL GABLES, FL MAAA, FL. FT. LAUDERDALE, FL CORAL GABLES, FL MAMI, FL

FLORIDA INTERNATIONAL UNIVERSITY UNIVERSITY PARK MIAMI, FLORIDA Date: May 16, 1995 900 F

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# FIGURE 14.5

# 10 YEAR CAPITAL IMPROVEMENT PLAN

# FACILITIES AND LANDSCAPE

OPEN SPACE DEVELOPMENT PROJECTS

# LEGEND

EXISTING FACILITIES

NEW FACILITIES

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0 . LANDSCAPE PROJECTS

EXISTING LANDSCAPE

WALLACE ROBERTS & TODD DAVID PLUMMER & ASSOCIATES, INC GABY & GABY, INC KETTH & SCHWARS SOM ENGINEERS ZYSCOVICH, INC

CORAL GABLES, FL CORAL GABLES, FL MEMAL FL FT. LAUDERDALE, FL CORAL GABLES, FL MEMAL, FL

FLORIDA INTERNATIONAL UNIVERSITY UNIVERSITY PARK MIAMI, FLORIDA Date: May 16, 1995





# FIGURE 14.6 3 YEAR CAPITAL IMPROVEMENTS PLAN

# FACILITIES AND LANDSCAPE

# LEGEND



EXISTING FACILITIES

NEW FACILITIES

OPEN SPACE DEVELOPMENT PROJECTS

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LANDSCAPE PROJECTS

WALLACE ROBERTS & TODD DAVID PULMARE & ASSOCIATES, INC GABY & GABY, INC KETTH & SCIPAUS SOM EXCIPEERS STOCOVICH, INC

CORAL GABLES, FL CORAL GABLES, FL MANI, FL FT. LAUDEROMLE, FL CORAL GABLES, FL MANIL FL

FLORIDA INTERNATIONAL UNIVERSITY NORTH MILAMI CAMPUS MIAMI, FLORIDA





FIGURE 14.7

# 5 YEAR CAPITAL IMPROVEMENTS PLAN

# FACILITIES AND LANDSCAPE

# LEGEND

EXISTING FACILITIES

NEW FACILITIES

○ ⊕ LANDSCAPE PROJECTS

EXISTING LANDSCAPE

WALLACE ROBERTS & TODD DVD PUIDGER & ASSOCIATES, DC GASY & GABY, DC RETH & SCRWIS SON ENGINEERS ZISCONG, DC

CORAL GABLES, FL CORAL GABLES, FL MAMA FL FT. LAUDERDALE, FL CORAL GABLES, FL MAMA, FL

FLORIDA INTERNATIONAL UNIVERSITY NORTHI MILAMII CAMIPUS MIAMI, FLORIDA





FIGURE 14.8

# 10 YEAR CAPITAL IMPROVEMENTS PLAN

# FACILITIES AND LANDSCAPE

# LEGEND



NEW FACILITIES

EXISTING FACILITIES

- ⊕ LANDSCAPE PROJECTS
- EXISTING LANDSCAPE

WALLACE ROBERTS & TODD DAVID FULGER & ASSOCIATES, INC GABY & GABY, INC KETTH & SCHWASS SOM ENGINEERS ZTXCOVICE, INC

CORAL GABLES, FL CORAL GABLES, FL MEARD, FL FT, LAUDERDALE, FL CORAL GABLES, FL MEARD, FL

FLORIDA INTERNATIONAL UNIVERSITY NORTHI MILAMII CAMIPUS MIAMI, FLORIDA



# <u>AL 1501</u>

Florida International University should ensure that future buildings adhere to the highest standard of architectural design with emphasis on environmental sensitivity and the establishment of character defining architectural principles at each campus.

# **Objective 1501.1** Defining Characteristics for Each Campus

Respond to the similarities and differences in the two campuses of Florida International University in order to establish a defining overall character for each. Each location shall develop an architectural language and vocabulary that takes advantage of its natural and man-made setting.

# Policy 1501.1.1 Climatic Response - Both Campuses

Respond to the hot and humid climate of South Florida with an architecture that addresses the need for weather protection and shade. Architectural elements such as arcades, shaded courtyards, covered connections between buildings, protection at building entrances etc. shall be encouraged. Placement of vegetation shall also be encouraged to provide outdoor shade and to screen solar gain at buildings.

# Policy 1501.1.2 Site Response University Park

The character of this site is primarily man made. The original buildings are large masses with little fenestration designed as objects in space. This was the predominant architectural expression on campus. Newer buildings on campus tend to be smaller in scale and adhere to classical principles of architecture.

Throughout the growth of the University it has remained a commuter oriented environment with a network of pedestrian circulation. Character definition at this campus shall be provided by the creation of space defining



University Park Campus

buildings that reinforce the open network of malls, quadrangles and courtyards. New construction shall reinforce the classical organization of planning with buildings that are fenestrated and proportioned according to classical principles.

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## North Miami Campus

The adjacency of Biscayne Bay and State Park establishes a strong sense of natural setting to this campus. The original buildings on this campus are three story architectural precast concrete structures with generous overhangs. This campus is relatively small with a few number of buildings which provides for a cohesive architectural character. Character definition at this site should be created by maintaining open view corridors toward the bay and circulation elements that encourage pedestrian appreciation of the site's features. New construction should create space defining buildings that emphasize the natural setting and reinforce the native ecology. Buildings sensitive to modern proportions and existing architectural character should characterize the design of the new buildings.



North Miami Campus

### **Objective 1502.1** Building Site, Forms and Proportions

Florida International University should locate future buildings to preserve the series of open malls, quadrangles, and courtyard throughout both campuses. North Miami Campus shall maintain view corridors to Biscayne Bay and Oleta State Park. The siting and design of new building should frame views, never obstruct them.

### **Policy 1502.1.1 Building Siting**

New buildings and additions shall be sited to maintain the spatial definition of the open malls, quadrangles and courtyard defined in the Urban Design Guideline. Building facade lines are a

means of establishing the locations of building facades, and therefore defining public space, without being specific about the nature of the rest of the building. These uniform setbacks are intended to provide maximum definition of pubic space while allowing flexibility in the building programs.





North Miami Campus

Florida International University Comprehensive Campus Master Plan BOR - 803 ISSUE DATE: 05/16/95 ADOPTED DATE: REVISION DATE: Page 15-2

## Policy 1502.1.2 Building Forms

Florida International University should strive to create buildings that are simple and direct and shall use building forms that are compatible with classical principles. Buildings shall be thought of as either contributing to the form of the open space they create "fabric" space defining buildings, or they shall be considered as special buildings that are "monumental" or objects in space. Monumental buildings shall be planned and coordinated so that their siting and building design are appropriate to the distinguished purpose they are to provide. Fabric buildings should be sited and designed to be harmonious and contributing to a greater whole. Fabric buildings shall be considered as deriving from classical types. Fabric buildings can be "bar" buildings, courtyard buildings, "L" shaped or "H" shaped but shall have forms that are easily discernible and contribute a space defining character.



**Typical Building Form** 

# Policy 1502.1.3 Scale Proportion and Massing Both Campuses

New Construction shall encourage the use of space defining buildings to reinforce the open space networks of malls, quads and courtyards. Buildings that define spaces shall be of similar scale and massing to the extent feasible by program. Space defining buildings should be low in height (3-4 floors) oriented to the pedestrian. Ground floors should be open to the adjacent open spaces, walkways and courtyards. Upper floors may have classrooms, offices and administrative spaces. In general, buildings with flat roofs are encouraged although rooftop features designating important architectural building features are encouraged at axial locations or important buildings. Buildings that together compose an open space shall consistently utilize the same architectural elements and shall be described herein as "fabric" buildings whereby each contributes to the whole. Fabric Buildings are generally academic, administrative, parking or housing buildings. Other buildings will by definition need to be more notable or monumental and shall be carefully planned and sparingly built. Monumental buildings shall be justified by program as those that are utilized campus wide and contribute to the importance or prestige of the University, such as the library or administration building. Monumental buildings shall be located at the end of axis, or other prominent location.







ISSUE DATE: 05/16/95 ADOPTED DATE: REVISION DATE: Page 15-3

Florida International University Comprehensive Campus Master Plan BOR - 803 Monumental buildings may have a larger scale and mass than "fabric" buildings but they shall be attentive to the issues of human scale and proportion.

New construction shall produce human scale buildings by providing articulation of the different floor levels and adequate window and door openings. Architectural elements such as arcades and connectors should be utilized to encourage comfortable pedestrian movement within and between buildings.

# Policy 1502.1.4 Accessibility

New buildings shall provide accessibility to the physically disabled. Accessibility shall be incorporated into the architecture such that ramps are an integral component of the building.

# **Objective 1503.1 Districts**

Florida International University should organize and develop contextual North Campus Monument Placement standards where applicable for the design of buildings specific to certain areas of Campus or Districts.

# Policy 1503.1.1 Central Core District - University Park

The buildings and spaces within this district are the original campus structures built in the 1970's. New buildings, additions and alterations shall be consistent with the existing building patterns, materials and colors of the district. The buildings include the following:

- Primera Casa
- Deuxieme Maison 8
- Athenaum (library) 6
- Ernest R. Graham Center a

# Policy 1503.1.2 Lake District - University Park

The buildings in the Lake District are also original campus building built in the 1970's except for the recently completed Engineering and Computer Science Building. The buildings in this district are organized around the picturesque lake setting. New buildings, additions and alterations shall be consistent with the existing building patterns, materials and colors of the district. The buildings in this area include the following:

- Athenaum (library)
- Viertes Haus
- Engineering & Computer Science Building
  - **Owa Ehan Building**



Central Core

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# Policy 1503.1.3 Tamiami Mall - University Park

This district is located at the newly developed entry off of SW 8th St. The buildings are organized around a symmetrical vehicular mall. All future buildings in this area shall be "fabric" buildings and share a common fenestration design, building base, building height and arcade treatment. Building materials at the base shall be keystone and the fields for all future buildings shall be integral color stucco to match the Education Building. Buildings in this area at this time are:

- **Education Building**
- **Business Building** •
- Engineering II Building •
- **Business II Building**
- University Computer Services

## Policy 1503.1.4 South Mall - University Park

Buildings in this District are not yet identified. The mall is located immediately South of the Primera Casa (administration building). Buildings in this area shall be arcaded at the base level and shall be 3 stories in height. All of the buildings shall be space defining buildings and shall look out over the pedestrian mall. Entries shall be off the mall. Materials shall be keystone at the base and color integral stucco for the fields. The color shall be selected from the University approved color chart and shall contain only one color South Mall throughout the mall.

Primers Casa Social Classroom Sciences Art Complex I



- Art Complex I
- Social Sciences
- Art Complex II
- Art Museum

## Policy 1503.1.5 Housing Quads - Both Campuses

New construction of student's housing shall be composed of multistory apartments creating in the case of the University Park Campus a dedicated quadrangle space for residents. Buildings at the North Miami Campus shall be oriented toward the bay view. The buildings shall utilize to the extent possible an arcaded base which will give access to the resident's common areas such as lounges, laundries etc. Apartment levels shall be integral stucco exterior surfaces and shall have the appearance of housing and not academic buildings. A residential appearance shall be achieved by creating buildings of small massing and footprints, fenestration and more informal arrangement of building volumes.



Typical Housing Quad

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# Policy 1503.1.6 Greek and Walk-ups - University Park

Housing for fraternities and sororities "Greek" shall be provided on campus in the current dormitory area at the NE corner of the campus. Existing buildings may be adapted and reused for this purpose, or the independent users may remove the existing buildings and create new facilities. Renovation shall be performed so that each fraternity or sorority is in a stand alone structure that provides lodging and ancillary activities to its members. Signage shall consist of only the Greek letters indicating the affiliation and may be placed over the front portal or in a low site sign. New walk-ups apartments shall be designed so that they are residential in appearance and not more than three stories in height. The selection of materials shall convey a residential quality. The building's exterior shall consist of keystone and/or painted stucco.



# Policy 1503.1.7 Academic Core District - North Miami Campus

The buildings and spaces within this district are the original campus structures built in the 1970's. The buildings in this district are arrange around a large landscape plaza which opens to Biscayne Bay and Oleta State Park. New buildings, additions and alterations shall be consistent with the existing building patterns, materials and colors of the district. The buildings include the following:

- Academic I
- Academic II
- Student Center
- The Library

#### Policy 1503.1.8 The Lake District - North Miami Campus

The lake district overlaps many of the original campus buildings and includes several new future buildings. Similar to the University Park Lake District, the buildings in this district are arranged around a picturesque lake setting which opens to Biscayne Bay and Oleta State Park beyond. Building additions and new buildings shall maintain view corridor to Biscayne Bay and Oleta State Park. New buildings, additions and alterations shall be consistent with the existing building patterns, materials and colors of the district. The buildings include the following:

- Academic 1
- Academic 2
- Student Center
- The Aquatic Center



**Core District** 



Lake District

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# **Objective 1504.1** Significant Historic Structures

Florida International University should preserve architectural significant structures on campus. All future renovations and/or addition should exercise sensitivity to the architectural character of significant structures.

# **Policy 1504.1.1 Significant Historic Buildings**

The University Park Campus was built on the old Tamami Airport site. The old airport control tower is the last remnant of the old airport. The old tower currently houses the campus security. The old control tower is to be preserved in any future development of the campus.

The original University buildings were constructed in the 1970's. The buildings are primarily large mass architectural concrete structures typical of the late modernism. These structure are the founding university buildings and create a cohesive architectural expression on both campuses. The original campus buildings are not historically significant in an architectural sense since they are not representative of late modernist architecture yet are significant to each campus because they are the original campus architecture. These building are located in the Central Core district and Lake District at University Park and The Academic Core District at North Miami Campus. The buildings include:

- Old Airport Control Tower
- Primera Casa (University Park)
- Deuxieme Maison (University Park)
- Athenaum (library) (University Park)
- Viertes Haus (University Park)
- Owa Ehan Building (University Park)
- Academic I (North Miami Campus)
- Academic II (North Miami Campus)
- Student Center (North Miami Campus)

# **Objective 1505.1** Campus Boundaries

Florida International University should develop contextual standards for designs of buildings along the campus edges which are sensitive the surrounding community and environmental concerns while delineating the edge of the campuses.

# Policy 1505.1.1 The Campus Edge - University Park

University Park Campus is located in a unbanized area of western Dade County Florida. The Campus is surrounded by high density housing and large commercial development areas to the north and east respectively. Dade County Youth Fair Grounds and Tamiami Parks share the southern edge with University. The western edge is defined by the Florida Turnpike. New





# Table 1506.1.8 UNIVERSITY PARK AND NORTH MIAMI CAMPUS - COLOR CHART

	AREA	MATERIAL	COLOR
UNIVERSITY PARK AND NORTH MIAMI CAMPUS	Articulated base and building trims	Keystone and/or poured in place concrete or precast	Natural Keystone Gray concrete
	Above ground floor facades	Color integral stucco	Ocre, clay and golden tones Earth tones
	Interior courtyards and corridors	C'olor integral stucco	Accent colors like Carmine Red, terracottas, rich oranges and reds
	Windows and/or storefronts	Aluminum frame Glass	Frame: medium/dark bronze Glass: bronze tinted
# Policy 1506.1.6 Graphics and Signage - Both Campuses

Florida International University shall create site maps that break down each campus into a series of districts or zones. These zones shall be identified with unique names and colors on the site maps. Site signage shall be located at each entry point to the campus, whether vehicular or transit, with color identified directional signage designed to guide pedestrians to their destination. The design and usage of all graphics and signage shall be consistent throughout the campus. All signs shall be illuminated to promote easy orientation during evening hours of operation.

# Policy 1506.1.7 Safety - Both Campuses

Florida International University shall provide for the health, welfare and safety of all students, faculty and staff as well as visitors. The design of buildings shall take into account the visibility to passersby of interior and exterior spaces, so as to minimize the potential for harm that arises when spaces are hidden from view. All applicable State and Federal Codes regarding accessibility and safety during construction shall be strictly adhered to. All parking areas and walkways shall be well lit and secure. Residential dormitories shall have security systems and be closely monitored by University Police.

# **Objective 1507.1** Guidelines for Speciality Building Elements

Establish a vocabulary and set the parameters for building types and elements that will reinforce the visual unity within the campus and districts.

# Policy 1507.1.1 Arches - Both Campuses

A signature element for both campuses is the segmented arch. The arch shall be utilized in all new construction projects where buildings are either administrative or academic. The arch shall be utilized in a manner that appears functional whenever possible and should not be considered as a decorative device only.

# Policy 1507.1.2 Arcades or Loggias - Both Campuses

New construction shall incorporate arcades wherever possible within the exterior face of the building volume so as to provide protection from the elements. At the both campuses arcades shall be designed with segmented arches as described above. Arcades shall be used in conjunction with connecting walkways for weather protection.

# Policy 1507.1.3 Fenestration

At both the campuses building fenestration shall be designed in a manner that is consistent with classical principles. Windows are to be placed as "punctures" in the surface of the wall as opposed to curtain walls or ribbon windows. Windows shall align and have vertical orientations.



1/4 Arch Loggia



Loggia @ Bases



#### Fenestration



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# **Objective 1510.1** Design Review - Both Campuses

Create and monitor conformance of future design projects with referenced standards through University design review procedures.

# Policy 1510.1.1 Design Review Procedures - Both Campuses

Design of future projects shall receive a formal review for compliance with standards for new construction. The University President should appoint a design review committee for the purpose of formalizing acceptance of each new project. Review shall occur after University facilities staff has assessed the project for programmatic and design compliance. The architect for each project shall present the design including all proposed finishes so that comments and approvals can be obtained from the committee. The committee shall review the siting, landscape improvements and signage as well as the architecture and interior improvements proposed. The committee should have the ability to recommend to the president that certain guidelines be amended if the proposed change in the guidelines creates a better result, or in the case that the committee is reviewing a special or monumental project.

# Policy 1510.1.2 Guideline Adjustment

The University will implement a two year guideline evaluation to access the impact of policies contained herein on newly constructed buildings, renovation and remodelling. In the event these guidelines require amendment or modifications; the University will call for an independent consultant to study the implications of the changes to all aspects of the master plan, the preparation of recommended alternatives and analysis of impact. If the amendment is deemed appropriate, the University should draft language and graphics for review and approval.

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# Policy 1507.1.4 Service Yards - Both Campuses

New Construction at Florida International University shall include screening from view of all service yards. Screening shall be achieved with walls and landscaping. Combining service yards to minimize their spread is desirable providing the yard does not get so large as to become obtrusive. Service drives are to be located to minimize interference with pedestrian circulation paths.

# **Objective 1508.1** Weather Protection - Both Campuses

Florida International University should create circulation elements that provide for weather protection and reinforce the linkages between quads, courtyards and buildings.

# **Policy 1508.1.1 Covered Connections**

Major walk ways between buildings will be provided with covered weather protection. The covered connections are encouraged to receive the same finishes as building loggias and arcades.

# **Objective 1509.1 Parking**

Florida International University should provide adequate parking to support the needs of students, faculty and visitors.

# Policy 1509.1.1 Parking Structures - Both Campuses

The structures required for parking shall be located to minimize the impact of building bulk wherever possible. The structures shall be articulated into smaller volumes so that long uninterrupted faces are avoided. Structures shall be designed so that only level slabs occur at the exterior, sloping ramps may only occur at interior bays of the buildings. Incorporating first level campus support facilities such as convenience stores or book stores as buffers to create pedestrian character is strongly encouraged. Parking shall be screened by the design of the structure's skin and landscaping.

# Policy 1509.1.2 Surface Parking - Both Campuses

Florida International University shall screen all surface parking areas by means of adequate landscaping. Signage and graphics shall be provided to orient people to their relative location on campus.

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**Parking Structure** 





ISSUE DATE: 05/16/95 ADOPTED DATE. REVISION DATE: Page 15-11 building along these edges shall be contextually responsive to the neighboring adjacencies and receive landscape buffer areas to mitigate the edge to the community.

# Policy 1505.1.2 The Campus Edge - North Miami campus

The North Miami Campus is located in a natural setting in an undeveloped area of northeastern Dade County Florida. The Campus is located on the shore of Biscayne Bay and adjacent to Oleta State Park. The natural features and spectacular views of the Bay and State Park are this campus's major amenities. New buildings on this site must be carefully sited to maintain the natural features, open space and views. The edge along Biscayne Bay shall be developed as a major pedestrian circulation route along the water edge.

# Policy 1505.1.3 Off-Campus Buildings

The University commitment quality architectural design and environmental sensitivity shall extend to new building located in off-campus locations. New building located on satellite university campuses or off-campus location will adhere to the same development guidelines and architectural principals as set forth in these guidelines. Signage and University logo shall be prominently located on the building to identify it as part of the State University system. Signage shall be consistent with text and graphic of an on-campus structure, so as to establish a visual connection to the campuses.

# **Objective 1506.1** Standards for Materials and Systems

Design buildings that promote quality standards of durability and reliability in the selection of materials. Materials shall be consistent with the architectural character defined for each campus, be consistent with the regional context, be energy efficient and require no more than minimal maintenance.

# Policy 1506.1.1 Quality

# **University Park**

Materials shall convey the permanence expressed in the classical principles of design desired for the campus. Florida Keystone shall be utilized whenever stone is desired as a cladding. Poured in place concrete or precast concrete may also be used provided the scale and fenestration are compatible with the scale and proportions required. Aluminum and glass window openings are encouraged to allow natural light into the building. Storefront assemblies consisting of uninterrupted bays are generally discouraged except where uninterrupted transparency is justified by the building program. Color integral stucco can be utilized at new buildings as a field of color for building mass. Building elements such as window frames, door openings, arches etc. shall be maintained in stone or concrete to discourage uninterrupted use of stucco.

# North Miami Campus

Materials selected shall be natural in appearance and shall be compatible with the existing campus materials. Buildings shall utilize, where possible, either precast concrete panels or poured in place concrete. Color integral stucco can be utilized at new buildings as a field of color for building mass. Glass and aluminum systems shall be utilized for admitting natural light into the buildings.

# Policy 1506.1.2 Energy Efficiency - Both Campuses

All materials shall efficiently utilize natural resources in their production. New buildings shall utilize energy efficient materials and systems. Building locations shall take advantage of the cooling and shading effects of natural elements such as lakes or naturally vegetated areas. Buildings shall be designed to provide shade to mitigate solar gain and to generate passive cooling wherever possible. Insulating materials shall be generously used to reduce energy consumption.

#### Policy 1506.1.3 Life Cycle Costs - Both Campuses

Architects shall take into consideration the life expectancy of materials and systems proposed for use. The life expectancy shall be compared with the replacement and operating costs of each building component alternative under consideration. The Architect shall provide to Florida International University the results of the life cycle cost investigations for review.

# Policy 1506.1.4 Color and Texture University Park Campus

New buildings shall be in natural keystone and/or natural gray poured in place concrete or precast. Color integral stucco is encouraged above the ground floors facade. Interior courtyards, corridors and other minor spaces are encouraged to receive integral color stucco. Color integral stucco shall be in one of the colors selected from the chart of colors identified herein. Aluminum shall be in a medium bronze color and glass shall be bronze tinted. Color schemes shall be provided by each Architect indicating all visible building elements and details proposed to the University for review and compliance.

#### North Miami Campus

New buildings shall continue with the natural palette of colors already in existence. Concrete and precast panels shall be gray in color and shall be in textures that are a result of the forming or casting process. Storefront sections shall either be red or bronze, with glass provided in a bronze tinted color. Color schemes shall be provided by each Architect indicating all visible building elements and details proposed to the University for review and compliance.



# INTRODUCTION

Traditionally, campus landscape has been given a low priority in the development of the FIU campuses. It is however the intent of the Landscape Design Guideline Element to provide an overall landscape concept which begins to unify each campus with its built environment and its unique natural environment. Hierarchy of spaces are identified and main circulation routes are reinforced with identifiable landscape treatments. The overall character of the FIU campus is transformed from piecemeal plantings to an institutional landscape by defining various spaces with a developed plant palette.

# <u>GOAL 1601</u>

Create high quality, environmentally sound campus landscape settings which afford outdoor comfort, security, and a rich visual quality, exemplifying the uniqueness and diversity of South Florida's subtropical environments.

# **Objective 1601.1** Landscape Concept Plans

Implement Landscape Concept Plans for the University Park and North Miami Campus, depicted in Figure 16.1 and 16.2. In the event that provisions contained in the Concept Plans conflicts with provisions contained in the adopted Campus Master Plan then the Master Plan shall prevail and control.

Both Campuses

# Policy 1601.1.1

Reinforce the critical elements of the spatial organization defined in the Master Plan by developing an institutional landscape character for the areas outlined on the Landscape Concept Plans. This distinctive landscape can be characterized by:

- Limited plant palette contrasting with native materials.
- Use of trees of like species in large groups and masses.
- Selective removal or relocation of existing trees to allow spatial definition.
- Limited use of shrubs, hedges and ground covers.

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#### Policy 1601.1.2

Develop the campus landscape outside of the institutional zone with the following criteria:

- Plant palette of indigenous plant material selected for availability and maintenance requirements.
- Plant selection within a designed context, should recognize importance of 'diversity' as the campus is a living laboratory of many university departments.
- Use of trees in both masses and small groupings of 3-5 trees.
- Use of plants in informal groupings
- Limited use of shrub masses.

#### Policy 1601.1.3

Locate all future buildings to define the open spaces depicted in the Landscape Concept Plans.

#### Policy 1601.1.4

Provide a continuous tree canopy at a ratio of one tree per ten spaces in all surface parking lots and sufficiently screen all surface parking areas.

#### Policy 1601.1.5

Enhance landscape in existing housing areas, provide foundation plantings to incorporate a full range of the general campus plant palette; i.e., ground cover, shrubs, flowering trees, palms and shade trees.

#### Policy 1601.1.6

**Prior to construction, relocate and incorporate existing valuable plant material in the areas of future construction and development.** 

#### Policy 1601.1.7

Emergency access facilities shall be kept clear of any impeding landscape.

#### Policy 1601.1.8

Screen all trash collection facilities from pedestrian or vehicular traffic with either a fence or wall consistent with architectural guidelines or evergreen plant material.

# Policy 1601.1.9

Screen maintenance facilities from pedestrian and vehicular traffic with a fence, wall or evergreen plant material.

University Park

#### Policy 1601.1.10

Reinforce and improve circulation hierarchy by developing distinct, identifiable landscape treatments for each road type, intersections and pedestrian circulation hierarchy.

1. Entrances:

<u>8th Street</u> - Expand use of oaks along street front to increase this primary entrance's impact.

<u>107th Street</u> - Continue formal treatment using oaks and palms established for the 8th St. entrance.

<u>SW 117th Street</u> - Use same plant palette, formal arrangement scaled down for this secondary entrance.

- 2. Primary Loop Road: Continue established 'boulevard' treatment with oaks.
- 3. Secondary Roads: Use of alternative street trees with an irregular spacing will contrast with Loop Road.
- 4. Major Intersections: Entrances/Loop Road A consistent landscape treatment, highlighted with palms, will provide a visual clue to help orientate drivers and reinforce roadway hierarchy.
- 5. Pedestrian Hierarchy:

Major spine -- Border both sides with a double row of shade trees Secondary -- Border both sides with a single row of shade trees Tertiary -- Paths to be integrated with general campus landscape

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#### Policy 1601.1.11

Reinforce, integrate and improve existing and proposed landscape malls and courtyards as a defined sequence of unique landscapes.

- 1. Informal Malls -- Define the edges of these spaces with a selected 'institutional' tree single row at buildings, double row at openings. Develop interior as a gardenesque landscape, minimize exaggerated earth mounding.
- 2. Informal Courtyards -- Courtyards with existing water bodies. The spaces will be clearly defined by the surrounding buildings. Enhance the existing palmetum at the Engineering/Computer Science Area and develop a similar strong theme for the other courtyard and develop in an institutional manner.
- 3. Formal Courtyards -- located along major pedestrian spine. Create memorable, institutional spaces, using a formal landscape character.

# Policy 1601.1.12

Incorporate within the general campus landscape area, appropriate theme gardens and natural habitats as an opportunity for botanical and environmental education and as campus amenities.

# Policy 1601.1.13

Create a new "signature campus gateway" at the corner of 107th Avenue and SW 8th Street.

#### Policy 1601.1.14

Improve the integration of existing, enlarged and new stormwater retention areas as landscape enhancement elements.

#### Policy 1601.1.15

Maintain and protect from encroachment the existing natural preserve and island. Enhance perimeter natural landscape buffer along 8th Street.

# Policy 1601.1.16

Develop SW 107th Ave. edge with a wall/hard edge to buffer developed areas adjacent to road.

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North Miami Campus

#### Policy 1601.1.17

Create a University entry feature at the intersection of US1 and NE 151st St. with an 'institutional' landscape treatment which can be incorporated in some form for all significant campus entrances.

## Policy 1601.1.18

Reinforce and improve circulation hierarchy by developing distinct identifiable landscape treatment for each road type and pedestrian circulation

- 1. Entrance Roads: border both sides of roads with oaks at a regular interval
- 2. Secondary Roads: contrast with entrance roads, establish natural plantings of indigenous plant material.
- 3. Major Pedestrian Spine: connects campus core, conference center and proposed Honors Complex. Develop as pedestrian street with special pavement, site furnishing, pedestrian lighting and a double row of shade trees.

# Policy 1601.1.19

Maintain a continuous open space "green zone" along the Bayfront and create a pedestrian promenade at its edge.

# Policy 1601.1.20

Reinforce, integrate and improve existing and proposed landscape quadrangles as defined sequence of unique landscapes.

- 1. Central Quadrangle -- Create memorable space, orchard of flowering trees with stabilized ground plane to accommodate heavy pedestrian traffic.
- 2. Informal Quadrangle -- define edge with 'institutional' tree, develop informal interior space. Maintain views to bay.

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# **Objective 1601.2** Plant Materials

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

#### Policy 1601.2.1

To the degree possible, landscape plans shall include the use of plant species that are indigenous to the natural plant communities of the South Florida area. In cases where non-invasive exotic plants are to be used to enhance the landscape, plantings should be limited to those non-invasive species that are able to resist periods of drought and which require little fertilization and use of pesticides.

#### Policy 1601.2.2

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

#### Policy 1601.2.3

It is the intent of FIU to remove all non-native plants (whether grasses, shrubs or trees) which are identified in the Exotic Pest Plant Council's "Florida's Most Invasive Species List" from the campus grounds. As these species are located on campus, FIU shall coordinate with the Florida Department of Environmental Protection (FDEP) and other appropriate governmental entities to ensure the proper removal and disposal of these exotic species.

#### Policy 1601.2.4

Fire dependent plant communities in campus natural areas shall be prescribed burned at appropriate intervals.

# **Objective 1601.3** Furnishings, Lighting and Graphics

By FY 1995-96, adopt standards for furnishings, lighting fixtures and graphics depicted.

#### Policy 1601.3.1

FIU Facilities Management shall identify projects which may enhance campus safety and handicapped accessibility. Prioritize projects according to the following elements: 1) removal of barriers, 2) visibility, 3) enhanced lighting, 4) pedestrian/vehicular conflict.

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#### Policy 1601.3.2

By FY 1995-96 design a coordinated site furnishings, lighting fixtures, campus signage and graphic system.

# Policy 1601.3.3

FIU follow the design review procedures established in Architectural Design Guidelines Element Policy 1507, 1.1 to ensure the coordination of the landscape, furnishings and graphics on the campus in accordance with the guidelines.

#### Policy 1601.3.4

FIU Facilities Management shall conduct a study to establish areas of deficiency. Future bicycle facilities shall use one selected type of bicycle rack consistently with adequate adjacent pavement to accommodate bicycle traffic and under cover if possible. Plantings shall be kept away from area a sufficient distance to allow for bicycle maneuverability.

#### Policy 1601.3.5

Public transportation facilities shall be consistent with Architectural Guidelines. They should be sited to allow visibility and ease of access for both vehicular and pedestrian traffic. Landscape treatment of facilities should provide shade if not provided by shelter.

#### **Objective 1601.4** Campus Edges

Adopt standards for campus edge treatments as depicted in Figure 16.4.

#### **Policy 1601.4.1**

Modify and enhance University Park edges along S.W. 8th Street, S.W. 107th avenue, S.W. 117th Street and the Youth Fair and create a "gateway" landscape feature at 107th Avenue and S.W. 8th Street.

#### Policy 1061.4.2

Modify and enhance the North Campus"entrance" on Biscayne Boulevard, create a tropical landscape pedestrian promenade along the Biscayne Bay waterfront, and develop a natural buffer between parking lots and NE 151st St.

#### **Objective 1601.5** Retention/Stormwater Elements

Adopt standards for landscape edge treatments surrounding ponds, lakes and stormwater features as depicted in Figure 16.5.

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# Policy 1601.5.1

Consistent with regulatory requirements, plant native wetland littoral vegetation along gradually sloping banks of lakes and water features located wherever appropriate.

#### Policy 1601.5.2

Consistent with regulatory requirements, provide where necessary "hard edge" pedestrian treatments of water bodies in intensely developed areas.

# Policy 1601.5.3

FIU shall follow the design review procedures established in Architectural Design Guidelines Element Policy 1507.1.1 to ensure conformance of future construction projects with referenced standards.

# **Objective 1601.6** Phasing

Implement landscape improvements in three phases, consistent with the scheduling of new academic and support buildings to which landscape improvement components will be allocated.

#### Policy 1601.6.1

FIU Facilities Management should establish administrative and budgeting procedures to insure the inclusion of landscape features identified in the objectives in the project budgets developed for future campus construction.

#### Policy 1601.6.2

Implement the landscape concept plan by allocating each future and existing building a proportional share of overall planned landscape improvement cost.

#### Policy 1601.6.3

Apply the following descending priorities for implementing components of the Landscape Concept Plan.

University Park

Priority 1 Contin	ue Loop Road Landscape
-------------------	------------------------

Priority 2 Develop Pedestrian Hierarchy Landscape

- Priority 3 Significant Corner Landscape Feature
- Priority 4 Improve Parking Lot Tree Canopy
- Priority 5 Improve Edge Landscape

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# North Campus

Priority 1 Biscayne Blvd. Entrance Priority 2 Waterfront Promenade Priority 3 Parking Lots

#### Policy 1601.6.4

By 1995-96 establish policies and procedures to retain landscape architects independently of architects for campus buildings, for the design and implementation of components of the Landscape Concept Plan.

# Policy 1601.6.5

By 1995-96 establish policies and procedures to seek separate funding mechanisms and revenue sources specifically targeted for landscape improvements.

# Policy 1601.6.6

By 1995-96 complete a campus wide analysis to document handicapped conflicts and constraints imposed by landscape features.

# Policy 1601.6.7

By 1996-97 revise landscape implementation priorities to ensure elimination of documented handicapped conflicts and constraints imposed by landscape features.

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# **INTRODUCTION**

Traditionally, campus landscape has been given a low priority in the development of the FIU campuses. It is however the intent of the Landscape Design Guideline Element to provide an overall landscape concept which begins to unify each campus with its built environment and its unique natural environment. Hierarchy of spaces are identified and main circulation routes are reinforced with identifiable landscape treatments. The overall character of the FIU campus is transformed from piecemeal plantings to an institutional landscape by defining various spaces with a developed plant palette.

# <u>GOAL 1601</u>

Create high quality, environmentally sound campus landscape settings which afford outdoor comfort, security, and a rich visual quality, exemplifying the uniqueness and diversity of South Florida's subtropical environments.

# **Objective 1601.1** Landscape Concept Plans

Implement Landscape Concept Plans for the University Park and North Miami Campus, depicted in Figure 16.1 and 16.2. In the event that provisions contained in the Concept Plans conflicts with provisions contained in the adopted Campus Master Plan then the Master Plan shall prevail and control.

Both Campuses

# Policy 1601.1.1

Reinforce the critical elements of the spatial organization defined in the Master Plan by developing an institutional landscape character for the areas outlined on the Landscape Concept Plans. This distinctive landscape can be characterized by:

- Limited plant palette contrasting with native materials.
- Use of trees of like species in large groups and masses.
- Selective removal or relocation of existing trees to allow spatial definition.
- Limited use of shrubs, hedges and ground covers.

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# Policy 1601.1.2

Develop the campus landscape outside of the institutional zone with the following criteria:

- Plant palette of indigenous plant material selected for availability and maintenance requirements.
- Plant selection within a designed context, should recognize importance of 'diversity' as the campus is a living laboratory of many university departments.
- Use of trees in both masses and small groupings of 3-5 trees.
- Use of plants in informal groupings
- Limited use of shrub masses.

#### Policy 1601.1.3

Locate all future buildings to define the open spaces depicted in the Landscape Concept Plans.

#### Policy 1601.1.4

Provide a continuous tree canopy at a ratio of one tree per ten spaces in all surface parking lots and sufficiently screen all surface parking areas.

# Policy 1601.1.5

Enhance landscape in existing housing areas, provide foundation plantings to incorporate a full range of the general campus plant palette; i.e., ground cover, shrubs, flowering trees, palms and shade trees.

#### Policy 1601.1.6

Prior to construction, relocate and incorporate existing valuable plant material in the areas of future construction and development.

#### Policy 1601.1.7

Emergency access facilities shall be kept clear of any impeding landscape.

#### Policy 1601.1.8

Screen all trash collection facilities from pedestrian or vehicular traffic with either a fence or wall consistent with architectural guidelines or evergreen plant material.

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# Policy 1601.1.11

Reinforce, integrate and improve existing and proposed landscape malls and courtyards as a defined sequence of unique landscapes.

- 1. Informal Malls -- Define the edges of these spaces with a selected 'institutional' tree single row at buildings, double row at openings. Develop interior as a gardenesque landscape, minimize exaggerated earth mounding.
- 2. Informal Courtyards -- Courtyards with existing water bodies. The spaces will be clearly defined by the surrounding buildings. Enhance the existing palmetum at the Engineering/Computer Science Area and develop a similar strong theme for the other courtyard and develop in an institutional manner.
- 3. Formal Courtyards -- located along major pedestrian spine. Create memorable, institutional spaces, using a formal landscape character.

# Policy 1601.1.12

Incorporate within the general campus landscape area, appropriate theme gardens and natural habitats as an opportunity for botanical and environmental education and as campus amenities.

# Policy 1601.1.13

Create a new "signature campus gateway" at the corner of 107th Avenue and SW 8th Street.

#### Policy 1601.1.14

Improve the integration of existing, enlarged and new stormwater retention areas as landscape enhancement elements.

# Policy 1601.1.15

Maintain and protect from encroachment the existing natural preserve and island. Enhance perimeter natural landscape buffer along 8th Street.

#### Policy 1601.1.16

Develop SW 107th Ave. edge with a wall/hard edge to buffer developed areas adjacent to road.

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#### **Objective 1601.2** Plant Materials

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

# Policy 1601.2.1

To the degree possible, landscape plans shall include the use of plant species that are indigenous to the natural plant communities of the South Florida area. In cases where non-invasive exotic plants are to be used to enhance the landscape, plantings should be limited to those non-invasive species that are able to resist periods of drought and which require little fertilization and use of pesticides.

# Policy 1601.2.2

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

# Policy 1601.2.3

It is the intent of FIU to remove all non-native plants (whether grasses, shrubs or trees) which are identified in the Exotic Pest Plant Council's "Florida's Most Invasive Species List" from the campus grounds. As these species are located on campus, FIU shall coordinate with the Florida Department of Environmental Protection (FDEP) and other appropriate governmental entities to ensure the proper removal and disposal of these exotic species.

#### Policy 1601.2.4

Fire dependent plant communities in campus natural areas shall be prescribed burned at appropriate intervals.

# **Objective 1601.3** Furnishings, Lighting and Graphics

By FY 1995-96, adopt standards for furnishings, lighting fixtures and graphics depicted.

# Policy 1601.3.1

FIU Facilities Management shall identify projects which may enhance campus safety and handicapped accessibility. Prioritize projects according to the following elements: 1) removal of barriers, 2) visibility, 3) enhanced lighting, 4) pedestrian/vehicular conflict.

# Policy 1601.5.1

Consistent with regulatory requirements, plant native wetland littoral vegetation along gradually sloping banks of lakes and water features located wherever appropriate.

#### Policy 1601.5.2

Consistent with regulatory requirements, provide where necessary "hard edge" pedestrian treatments of water bodies in intensely developed areas.

#### Policy 1601.5.3

FIU shall follow the design review procedures established in Architectural Design Guidelines Element Policy 1507.1.1 to ensure conformance of future construction projects with referenced standards.

#### **Objective 1601.6** Phasing

Implement landscape improvements in three phases, consistent with the scheduling of new academic and support buildings to which landscape improvement components will be allocated.

#### Policy 1601.6.1

FIU Facilities Management should establish administrative and budgeting procedures to insure the inclusion of landscape features identified in the objectives in the project budgets developed for future campus construction.

#### Policy 1601.6.2

Implement the landscape concept plan by allocating each future and existing building a proportional share of overall planned landscape improvement cost.

#### Policy 1601.6.3

Apply the following descending priorities for implementing components of the Landscape Concept Plan.

University Park

Priority I Continue Loop Road Landscape	riority 1	Continue	Loop	Road	Landscap
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- Priority 2 Develop Pedestrian Hierarchy Landscape
- Priority 3 Significant Corner Landscape Feature
- Priority 4 Improve Parking Lot Tree Canopy

Priority 5 Improve Edge Landscape

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# Introduction

Florida International University presently lacks the integrated Facility Maintenance Program as described in the Campus Master Plan Guideline. At present priorities are assigned to address facility deficiencies based on explicit criteria and standards, with implementation limited by funding availability. Due largely to the lack of sufficient funding to correct even all high priority deficiencies, the University lacks a deferred or preventative maintenance system with appropriate schedules and budgets for routine maintenance. The Goals, Objectives and Policies below are aimed at documenting present procedures, while mandating an expansion of the facility maintenance program by 1996 with an emphasis on long term scheduling of routine, preventive and deferred maintenance.

# GOAL 1701

Provide for the timely and cost effective maintenance of campus facilities and plan future facilities having high levels of efficiency and limited maintenance requirements.

# Objective 1701.1 Building Element Performance

Utilize building materials, finishes and systems which are durable, reliable and which require limited maintenance in accordance with Association of Physical Plant Administrators Guidelines.

# Policy 1701.1.1

On future facilities apply the following guidelines for exterior building elements.

<u>Ground Level</u> - Utilize durable, weather-resistant, climate-appropriate materials including unpainted concrete masonry, natural stone (keystone) and like materials which require only periodic pressure cleaning. Use of stucco, wood and other materials in active pedestrian areas which require high levels of maintenance, frequent painting or which are subject to deterioration is discouraged.

<u>Upper Levels</u> - Exposed concrete masonry, masonry panels are preferred. smooth finish stucco requiring painting no more often than every five years is acceptable.

# Policy 1701.1.2

Provide interior building materials which have a level of durability, security and sound attenuation appropriate to projected levels of use and wear, using commonly accepted maintenance practices as follows:

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#### High Use Areas

Utilize hard surface, impervious surfaces such as ceramic tile and pavers on floors and base walls.

#### Low-Moderate Use Areas

Utilize vinyl tile coupled with appropriate acoustical ceiling treatments in moderate use areas such as classrooms, labs and hallways. Limit use of durable commercial grade carpet to low use areas such as offices, faculty lounges and conference rooms.

Walls should be high grade durable semi-gloss paint on drywall or plaster partitions. All trim should be color-integrated materials.

# Policy 1701.1.3

Provide durable, easily accessible, low maintenance and high energy efficiency mechanical and electrical systems, appropriate to local climatic (high humidity) conditions. Special standards shall apply to the control of moisture related facility deterioration problems. Provide high output, low energy lighting systems with appropriate color renditions. Maximize system and component standardization to facilitate ease of operations, maintenance and replacement.

#### Policy 1701.1.4

Revise the preceding building element standards as part of the 1996 Facility Maintenance Program. (see Policy 1701.1.3)

#### **Objective 1701.2** Facility Use and Capacity

Manage facility utilization efficiency so as to minimize use conflicts, overcrowding and retrofit costs.

#### Policy 1701.2.1

Apply DOE Guideline 6A-2 to all proposed facility use modifications to ensure optimum facility utilization.

# Policy 1701.2.2

Limit facility use changes which involve uses with significantly different operational, spatial or mechanical requirements (e.g. conversion of classrooms to laboratories, etc.)

#### **17.0 FACILITIES MAINTENANCE ELEMENT**

#### Objective 1701.3 Facility Maintenance Program

By 1996 establish a Comprehensive Facility Maintenance Program, building on the current Facility Deficiency Report and related surveys of facility conditions, capacities and code compliance.

# Policy 1701.3.1

Until the development of a complete Facility Maintenance Program in 1996 continue present facility maintenance procedures consisting of annual application of criteria for prioritization contained in Policy 1701.3.3 to the deficiencies identified in the data sources identified below for annual inclusion in the 5 year CIP based on available resources.

- Building Deficiency Survey
- Housing Deficiency Survey
- Life Safety (Fire Marshall) Reports
- Handicapped Accessibility (ADA) Reports
- Hazardous Materials Reports (Law Engineering)
- Roof Management Reports (Garland)

#### Policy 1701.3.2

Expand and annually update the facility deficiency reporting system, including the data sources listed in Policy 1701.3.1, to include:

- ADA Compliance
- Conformance with Guideline 6A-2
- Potential for adaptive re-use
- Hazardous materials inventory
- Auxiliary and student services buildings
- Grounds maintenance needs (based on xeriscape principles)
- Short and long range cost projections.

# Policy 1701.3.3

Priorities for the remediation of facility deficiencies shall be assigned based on the following criteria in descending order of importance.

- <u>Emergency</u> life-safety or plant-safety items
- Previously initiated uncompleted projects
- <u>Threatening life-safety items.</u>
- Handicapped access corrections required by state law or ADA
- <u>Threatening</u> plant-safety items

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# **17.0 FACILITIES MAINTENANCE ELEMENT**

- <u>Critical</u> needs for maintaining operations
- Expansion needs <u>critical</u> to University objectives
- <u>New program or operations improvements</u>

#### Policy 1701.3.4

Utilize and expand upon the facility deficiency reporting system data base to develop a Facility Maintenance Program by 1996, composed of the following elements:

- Standards for the assessment of facility utilization and conditions.
- Priorities for maintenance and improvement projects which emphasize factors of safety, handicapped accessibility, operational efficiency and long term cost effectiveness.
- Process for the periodic review of facility utilization capacity and the identification of re-use potentials.
- Schedule and budget for routine and deferred maintenance and elimination of deficiencies among all facilities with annual maintenance cost projections.

# Policy 1701.3.5

By 1996 establish a deferred preventative and maintenance schedule, consistent with projected funding, incorporated in the Facility Maintenance Program.

#### Policy 1701.1.6

The review process for the use and capacity of buildings shall consist of the following elements:

- (a) Classroom-Laboratory utilization reports shall be prepared by BOR annually in June for use by Institutional Research and Space and Scheduling units of Academic Affairs in preparing class assignments.
- (b) The FIU Space Committee shall meet, at minimum, monthly to review and act upon space and change in use requests submitted by department heads.

#### **Objective 1701.4** Maintenance Funding

Ensure the availability of sufficient funding and other resources to support projected facility maintenance requirements.

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# Policy 1701.4.1

Incorporate within building construction programs and funding requests projected life cycle maintenance expenses to be held in a maintenance endowment account.

#### Policy 1701.4.2

Establish a maintenance endowment account for existing buildings through a FY 1997-98 BOR legislative grant in an amount to be determined as part of the Facilities Maintenance Program.

#### Policy 1701.4.3

Based on the Facilities Maintenance Program analysis and application of the Texas Higher Education Coordinating Board Model, re-evaluate and revise maintenance cost formulas to reflect actual resources necessary to prevent building condition deterioration.

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# Introduction

Few university campuses nationwide are located in the type of sub-tropical, coastal setting in which the North Campus of Florida International University is found. The coastal environment, however, offers many challenges to the Master Planning process. The challenges include determining how one may take advantage of the amenities offered by the coastal setting, while limiting the vulnerability of the campus to hurricanes, tropical storms and flooding, and at the same time protecting and enhancing important natural resources.

Except where otherwise noted, policies contained in the Coastal Management Element shall be implemented upon adoption of this Master Plan. Some of the policies require the Natural Resources Protection and Management Committee (the "Committee"; see Objective 1801.1) to formulate management plans, guidelines, procedures and schedules. The Committee shall review all policies contained in the Conservation and Coastal Management Elements of this Master Plan for consistency with these plans, guidelines, procedures and schedules.

Goal 1801 of this element deals solely with the North Campus. Goal 1802 deals with both University Park and North Campus.

# <u>GOAL 1801</u>

The University shall manage University development activities so as to protect, conserve and maintain coastal and estuarine resources on the University property at the North Campus.

# Objective 1801.1 Implementation and Management of Coastal and Estuarine Resource Policies

Implement and manage coastal and estuarine resource policies through the formation and support of a Natural Resources Protection and Management Committee.

# Policy 1801.1.1

Within six months of the adoption of the Master Plan, the University shall form a Natural Resources Protection and Management Committee (The "Committee"). It shall be the task of the Committee oversee the implementation of the coastal resource management policies defined in the Conservation and Coastal Management Elements of this Master Plan. It shall also be the task of the Committee to review these policies and, if necessary, prepare any necessary additional policies, guidelines, procedures and implementation schedules within one year of the adoption of the Master Plan. The adopted Master Plan shall be amended as necessary to incorporate those guidelines, procedures and implementation schedules. The University shall

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provide a staff person to serve as Environmental Coordinator to manage the activities of the Natural Resources Protection and Management Committee. The Environmental Coordinator shall periodically review proposed University improvements and activities to ensure University compliance with the policies defined in the Conservation and Coastal Management Elements of this Master Plan. The Environmental Coordinator shall also periodically review host community, state and federal conservation and coastal management policies to ensure University compliance with these policies.

# Objective 1801.2 Protection and Maintenance of Coastal and Estuarine Resources

Maintain and protect coastal and estuarine resources on the University property.

# Policy 1801.2.1a

The University shall undertake a binding jurisdictional determination of those areas identified as potentially jurisdictional wetlands in the Technical Document. Determination of jurisdictional wetlands status should be done prior to the commencement of any clearing or building activities in these areas.

#### Policy 1801.2.1b

Protect and enhance shallow-water communities and seagrass beds in the waters of Biscayne Bay fronting the North Campus by reducing the impacts of stormwater runoff to these areas.

#### Policy 1801.2.1c

The Committee shall evaluate any proposed changes to the siting of buildings or other University improvements to determine whether such changes are in compliance with regulations governing jurisdictional wetlands. The adopted Master Plan shall be amended as necessary to incorporate the findings and recommendations of the Committee.

#### Policy 1801.2.1d

The University shall monitor the water quality of the lakes, canals and mangrove areas on each campus on a quarterly basis. Should the water quality of the water in the water bodies fall below the standards set by the State of Florida Department of Environmental Protection, the Dade County Department of Environmental Resources Management, the South Florida Water Management District, and the U.S. Environmental Protection Agency,

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an assessment of probable causes of pollution shall be performed and a plan developed and implemented to eliminate the point and non-point sources of pollution.

#### **Policy 1801.2.1**e

To reduce possible negative impacts on manatees and to limit the effects of wave action on the physical properties of the estuary, designate and post the estuary located at the north end of the campus a no-wake zone, and post additional signs advising that manatees may be present in the area.

#### Policy 1801.2.1f

**Prior to construction of facilities that border the coastal and estuarine habitats, engineering and design analyses shall be performed to ensure that facilities will not contribute polluted run-off into those habitats.** 

#### Policy 1801.2.2

To protect the mangroves, designate and post the mangrove-lined canals in the northern and southern portions of campus as restricted-access or no-access areas.

#### Policy 1801.2.3

Future development activity, except for pathways and landscape improvements, shall occur no closer than 100 feet from any Biscayne Bay shoreline.

#### Policy 1801.2.3a

The University shall not engage in water management practices that result in significant or permanent draw-down of the water table.

#### Policy 1801.2.3b

Structures, roadways and paths shall be designed so as not to interfere with the proper drainage of water to estuarine and coastal habitats. Where necessary, structures shall be used to maintain drainage into estuarine and coastal habitats.

**Objective 1801.3** Protection and Restoration of Beach, Beach Strand and Dune Systems

**Restore** beaches, beach strand and dune systems and protect them from the impacts of development.

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# Policy 1801.3.1a

To ensure that the placement of buildings and infrastructure does not encroach on shoreline areas such as the beach strand, no future buildings or infrastructure shall be built within 100 feet of shoreline areas or beach strand vegetation.

# Policy 1801.3.1b

Post signs instructing beach visitors not to remove or destroy the beach strand or other native vegetation.

#### Policy 1801.3.1c

The University shall only allow the use of designated areas for boat docking, and shall prohibit such use from the areas with beach strand vegetation.

# Policy 1801.3.1d

As necessary, limit public access to beach or shoreline areas to protect coastal resources such as beaches and dunes.

# Policy 1801.3.1e

Ensure that new construction and operation of campus facilities does not alter the hydrologic regime needed to maintain beaches, beach strand or dunes.

# Policy 1801.3.2

As an element of landscape and pedestrian access improvements to open spaces along the Biscayne Bay shoreline, existing native beach strand vegetation shall be protected and enhanced. Native beach strand vegetation shall be used in enhancement plantings in these areas.

#### Policy 1801.3.3a

Monitor existing shoreline stability. As necessary, take the appropriate steps to accomplish the needed stabilization. Native vegetation shall be used to stabilize beaches and dunes.

### Policy 1801.3.3b

Protect the shoreline stabilization project carried out by Dade County Department of Environmental Resources Management (DERM) in 1989-1991.

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# **Objective 1801.4** Limiting Specific and Cumulative Impacts on Natural **Resources**

**Restrict** University activities so as to limit specific and cumulative impacts of development on natural resources.

#### Policy 1801.4.1a

In order to protect native vegetative communities, the University shall provide for a development buffer of at least 25 feet between native vegetative communities (see the Conservation Element section of the Inventory and Analysis document prepared for this Master Plan) and any future construction projects, including but not limited to the siting of buildings, roadways, pathways and recreation facilities.

#### Policy 1801.4.1b

The University shall maintain a 25-foot minimum buffer zone between future buildings, ancillary facilities and infrastructure and those areas determined to be jurisdictional wetlands (including, but not limited to, mangrove areas).

# Policy 1801.4.1c

The surface water hydrology of on-campus areas determined to be jurisdictional wetlands shall be monitored on a seasonal basis. Resultant hydrologic data will be used to produce a plan to maintain or improve surface water flow into and out of jurisdictional wetlands. Structures, including roadways and walkways, shall be designed so as not to change the surface water flow to wetland areas.

**Objective 1801.5** Restoration and Enhancement of Coastal Natural Resources Restore and enhance the coastal natural resources on the North Campus property.

#### Policy 1801.5.1a

The University shall remove invasive exotic plant species from natural vegetation associations and from landscaped areas. Priority shall be given to removing exotic species from those native vegetation associations indicated in Figure 13.2. Initially, efforts shall be focussed on the removal of Brazilian pepper (Schinus terebinthifolius), melaleuca (Melaleuca quinquenervia) and Australian pine (Casuarina equisetifolia). Removal of exotic species shall be carried out in a manner that minimizes impacts to native vegetation associations. Where necessary, areas from which exotic plants have been removed shall be replanted with appropriate native plant species (see Policy

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1301.1.5d). Removal of exotic species from natural vegetation associations and from landscaped areas shall be carried out quarterly during the first year and yearly thereafter, unless monitoring activities indicate that more frequent removal is warranted (see Policy 1301.1.5c).

# Policy 1801.5.1b

To help curtail their further spread into mangrove areas and other natural vegetation associations on campus, the University shall remove large stands of Australian pines (see Figure 13.2 Exotic Vegetation to be cleared and replanted). Removal of Australian pines shall be carried out in a manner that minimizes impacts to native vegetation associations. Areas from which Australian pines have been removed shall be revegetated in a manner consistent with the Landscape Design Element of this Master Plan. The use of native plant species in the landscaping of these areas shall be encouraged. The choice of native plant species shall be consistent with those recommended by the Environmental Studies staff at the University Park, Fairchild Tropical Gardens staff, or other individuals or agencies competent in the selection, use and maintenance of vegetation native to south Florida. Because the removal of Australian pines may result in soil disturbance and provide colonization opportunities for other invasive exotic plants, replanting of landscape vegetation shall immediately follow the removal of Australian pines. A timetable for removal of Australian pines shall be determined by the Natural Resources Protection and Management Committee within one year of the adoption of the Master Plan.

#### Policy 1801.5.1c

Within one year of the adoption of the Master Plan, the Natural Resources Protection and Management Committee shall establish a protocol for monitoring the establishment and spread of invasive exotic plant species. Monitoring activities shall be carried out quarterly. If monitoring activities indicate that invasive exotic species are becoming re-established, exotic plants shall be removed using the methods outlined in Policy 1301.1.5a.

# Policy 1801.5.1d

The University shall use native plant species in restoration and enhancement planting of native vegetative communities. The use of native plant species in general campus landscaping shall be encouraged. The choice of native plant species shall be consistent with those recommended by the Environmental Studies staff at the University Park, Fairchild Tropical Gardens staff, or other individuals or agencies competent in the selection, use and maintenance of

vegetation native to south Florida. Where restoration or enhancement planting is instituted, the species chosen shall be those that are naturally found in the particular vegetative community being restored or enhanced.

#### Policy 1801.5.1e

The University shall use native plant species in the landscape buffer areas that occur within 25 feet of native vegetative communities. The choice of native plant species shall be consistent with those recommended by the Environmental Studies staff at the University Park, Fairchild Tropical Gardens staff, or other individuals or agencies competent in the selection, use and maintenance of vegetation native to south Florida.

#### Policy 1801.5.2

Encourage DERM to complete the mangrove mitigation project that involves scraping 1.65 acres to an elevation of +1 foot above mean sea level, excavation of drainage channels to a height of 0 feet above mean sea level, and planting of red and black mangroves on 3-foot centers in the areas between the drainage channels (see Figure 18.1).

# **Objective 1801.6** Maintain and Enhance Water Quality in Estuarine and Aquatic Areas

Maintain and enhance water quality in estuarine and aquatic areas on the North Campus. Also see Conservation Element policies limiting the impacts of campus operational and maintenance activities on the natural environment.

#### **Policy 1801.6.1**a

To limit negative impacts of campus activities on soils, wetlands, hydrology and hydroperiod, the Committee shall, on an annual basis, review existing and proposed University activities for compliance with the surface water policies of the South Florida Water Management District.

#### **Policy 1801.6.1**b

The University shall test stormwater runoff quarterly for the first year and yearly thereafter for compliance with standards set by the State of Florida Department of Environmental Protection, the Dade County Department of Environmental Resources Management, the South Florida Water Management District, and the U.S. Environmental Protection Agency. Failure to meet relevant standards for stormwater runoff shall result in an assessment of probable causes and the production and implementation of a plan to improve

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the quality of runoff.

#### Policy 1801.6.2

The University shall inventory herbicide, pesticide and fertilizer use and evaluate their impacts on-campus water quality. Modify or reduce herbicide, pesticide and fertilizer usage to minimize or eliminate negative impacts on water quality.

# **Objective 1801.7** Consistency with Host Communities' Coastal Policies

The University's development activities and environmental protection and enhancement policies shall be consistent with the policies of the City of North Miami and Dade County (the "host communities"), and with all applicable regional, state and federal policies regarding development in the coastal zone.

#### Policy 1801.7.1a

The University's Environmental Coordinator shall, on an annual basis, perform a review of the host communities' natural resources management plans. If necessary, the University shall amend its plans such that they are consistent with the host communities' natural resources management plans.

# Policy 1801.7.1b

The University's Environmental Coordinator shall, on an annual basis, perform a review of all applicable rules, regulations and policies governing coastal zone development in the host communities during the planning and development of protection, conservation, restoration, enhancement and management activities so as to be in compliance with the host communities rules, regulations and policies governing coastal zone development.

#### Policy 1801.7.1c

All applicable rules, regulations and policies governing coastal zone development in the host communities shall be adhered to in University development activities.

#### Policy 1801.7.2

Plant and animal species and habitats protected by the host communities or regional, state or federal agencies shall be protected on the North Campus (see policies in the Conservation Element of this Master Plan).

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# Policy 1801.7.3

Enhancement and restoration activities of coastal resources shall, at a minimum, be consistent with those activities found in the host communities.

#### **Objective 1801.8** Pedestrian and Visual Access to Beach/Shoreline

Provide enhanced pedestrian and visual access to beach and shoreline areas for members of the University community.

#### **Policy 1801.8.1**

Due to the availability of nearby beach areas at Oleta River State Recreation Area and oceanfront parks, discourage beach and shoreline water contact recreation on campus.

#### Policy 1801.8.2

Improve public access to the Biscayne Bay shoreline by constructing a continuous waterfront pedestrian promenade, preserving and enhancing the bayfront edge as open space.

# GOAL 1802:

Provide adequate hurricane evacuation procedures and facilities for both University Park and North Campus.

# Objective 1802.1 Coastal High Hazard Areas

The North Campus contains no Coastal high Hazard areas as defined by FEMA Area "V" zones. Consequently, no expenditures for development will be made in Coastal High Hazard Areas.

# **Objective 1802.2** Hurricane Evacuation

The University shall coordinate with Metro-Dade County, the National Hurricane Center and regional emergency management authorities to ensure that adequate hurricane evacuation times for residents of the North Campus are maintained or reduced.

#### Policy 1802.2.1

The University shall order the evacuation of students and other residents of the North Campus upon issuance of a Category 1 or greater hurricane warning, or 24 hours prior to potential landfall whichever is greater. The University shall provide transit vehicles as necessary to ensure that all residents are safely evacuated to University Park no less than 12 hours prior to expected landfall.

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# Policy 1802.2.2

The University shall order the relocation of all residents of University Park to on-campus shelters upon issuance of a Category 2 or greater hurricane warning. The University shall provide transit vehicles as necessary to ensure that all residents are safely relocated to on-campus shelters no less than 12-18 hours prior to projected landfall.

#### Policy 1802.2.3

By 1995, in coordination with Metro-Dade Emergency Management, Florida International University shall survey all students, faculty and staff residing off-campus in coastal or other areas susceptible to storm surge inundation, those residing in structures incapable of withstanding hurricane force winds and others needing to be evacuated. Based on survey results, modify the FIU "Procedures and Control Operations for Hurricanes" to provide evacuation assistance and on-campus shelter space, if necessary, and coordinate with the Metro-Dade Emergency Operations Plan.

# **Objective 1802.3** Hurricane Shelter Space

Expand public shelter space at University Park as necessary to accommodate all students, facility and staff needing evacuation and double the capacity for evacuating Monroe County residents.

#### Policy 1802.3.1

Upon adoption by BOR, Office of Capital Programs, adopt new construction standards for the construction of University facilities to serve as hurricane shelters.

#### Policy 1802.3.2

By 1995 coordinate with Metro-Dade and Monroe County Emergency Operations to refine measures of demand for shelter space on-campus and to determine total additional square footage required, applying a standard of 40 square feet per person, or other acceptable standard, to include the following:

Student residents of North Campus and University Park.

Students, faculty and staff requiring evacuation from off-campus areas, in areas appropriate for evacuation to the University Park campus.

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• Monroe County evacuees (expected to triple from 5,000 to 15,000 spaces).

# Policy 1802.3.3

FIU acknowledges the need to strive to provide additional on-campus public hurricane shelter space estimated in the following minimum amounts:

Additional Users	Est. Persons	Space Std.	<u>Total S.F.</u>
Students	1,610	40 s.f.	64,400 s.f.
Evacuees Ext. Tatal Additional road at present	10,000	40 s.f	<u>400,000 s.f</u>
est. Total Additional need at present			404,400 S.I.

\* In addition to 5,000 Monroe evacuees for which space is reserved.

#### Policy 1802.3.4

By 1995 evaluate and measure the ability to expand shelter space within Primera Casa and the expanded Graham Center. Evaluate the ability to convert additional existing buildings for use as hurricane shelters. Evaluate the ability of projected and planned structures to be utilized as hurricane shelters, applying new construction standards, per Policy 1802.3.1.

# Policy 1802.3.5

By 1996, in coordination with Metro-Dade County and Monroe County Emergency Management, develop a phased action plan to establish timing for the retrofitting of designated University facilities for use as public shelters during hurricanes. Preliminary priorities for gaining additional shelter space through retrofitting existing buildings are as follows:

**Priority 1:** Expansion of designated shelter areas within Primera Casa.

- Priority 2: Expansion of designated shelter areas with Graham Center with necessary retrofit to protect or replace glass exterior walls.
- Priority 3: Utilization and, if necessary, retrofit of hallway areas in Golden Panther Arena.
- **Priority 4:** Other existing or planned structures.

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# Policy 1802.3.6

By 1995 coordinate with American Red Cross for the designation of specific portions of existing parking lots adjacent to the Graham Center and Primera Casa for use in staging emergency management personnel, equipment and resources. Establish by 1995 a designated emergency helicopter landing pad in coordination with American Red Cross, Federal Aviation Administration and Metro-Dade Emergency Management.

# Policy 1802.3.7

Should emergency helicopter landing be needed at the North Campus, existing surface parking lots shall be utilized.

#### Policy 1802.3.8

Calculate costs to provide expanded shelter space and, through the BOR Office of Capital Programs, negotiate a cost sharing formula with Metro-Dade County and Monroe County. Request a special legislative appropriation to provide funding.

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FIGURE 18.1 COASTAL MANAGEMENT LEGEND LAKES & CANALS \_\_\_\_\_ MANGROVE AREAS 111111 BEACH STRAND VEGETATION ....... TREE ISLANDS EXOTIC VEGETATION ASSOCIATION (TO BE CLEARED AND REPLANTED) BEACH/RIP-RAP SHORELINE  $\infty$ MANGROVE PLANTER CORAL GABLES, FL CORAL GABLES, FL MANG, FL WALLACE ROBERTS & TODD DAVID FUNDER & ASSOCIATES, INC GABY & GABY, INC FT. LAUDERDALE, FL. RETTH & SCHWARS CORAL GABLES, PL

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