

15.0 ARCHITECTURAL DESIGN GUIDELINES ELEMENT

To achieve excellence in design, the criteria of programmatic needs, budget, sustainable site conditions, campus context, and academic mission of the university must be understood and properly aligned. This will ensure an early understanding of the specifics that will govern the design process. It is at the initial stage of this process that FIU assures success by aligning academic need with future facility requirements. The University assesses future facility requirements to the best of its ability, then applies a statistical matrix of budget and square footage factors to quantify those needs.

The university conducts a process of design professional selections focused on the ability of the professionals to deliver the criteria set by FIU on each given project. This process seeks to select firms employing individuals possessing expertise, directly related design talent, and capabilities to deliver the project. This selection process is the second critical step necessary to achieve design excellence for a particular project.

Once selected, the design professional's challenge is to deliver a facility within the budget and quality parameters identified during the needs assessment, with the hope that construction cost inflation will not be significant and that project requirements will not change. Therefore, the creation of an up-front, comprehensive project-specific program document is a critical step in preparing a project to become an "excellent design."

Once selected, the design professional must satisfy the program requirements as well as give consideration beyond the exterior walls of the project he/she has been commissioned to design. To assist the design process, FIU has established a set of Architectural Design Guidelines, which include a number of checkpoints. Each of these checkpoints preserves and enhances the image of higher education that has been the base concept for past design and has served as the foundation for development of FIU and this Comprehensive Master Plan.

It is in the integration of the urban design guidelines and the architectural design guidelines that a successful building design will emerge. Both must work in conjunction to assure the following:

- Site placement in response to adjacent structures and open campus green areas, as well as passive sustainable criteria.
- Maintenance of desirable sight lines to and from the facility.
- Locations of exterior service docks and refuse pick-up points out of view, screened and located, where practical, away from pedestrian areas.
- Adoption of sustainable design strategies for the site planning and exterior envelope to enhance the energy efficiency characteristics of the building's overall performance.
- Adherence to design requirements stipulated by the Americans with Disabilities Act (ADA) as amended by the State of Florida.

- Design to deliver low maintenance/vandal-resistant interior finishes and building systems that are commonly available for necessary replacement.
- Base the design of mechanical, electrical and plumbing systems on simple, reliable energy efficient components.
- Incorporation of cost containment guidelines and university building standards.

Highlights of Architectural Design Guidelines are discussed below.

QUALITY OF MATERIALS

The American Society for Testing and Materials (ASTM) is recognized as the industry standard for establishing the performance requirements for various building materials. The Architectural Design Guidelines recognize that adherence to the performance levels set forth in the nationally recognized standards of ASTM and the industry standards for design criteria, material performance and construction available through the various building trades, will do much to control quality levels while eliminating untested/unproven materials, products and systems from consideration on future FIU projects. Design Professionals should also apply sustainable design criteria, set by the USGBC, when selecting materials ensuring site objectives of regional or properly harvested materials.

ENERGY EFFICIENCY

The focus on energy-efficient design will continue to influence the delivery of new and renovated buildings well into the next century. New technologies involving identification of alternative energy sources lag behind the ever-increasing consumption of fossil fuels and other natural energy sources. New and renovated buildings are major consumers of energy; therefore, implementation of strategic design approaches targeting energy conservation/energy efficiency is mandatory. The USGBC standard of LEED Silver or above must be applied as a minimum level of performance.

LIFE CYCLE COST

The University provides a wide range of minimum requirements to be used in addressing design and quality levels to establish a level of building quality which is consistent with the State University System's interest in long term (40-year life) ownership. This document has been supplemented by FIU and adherence to these guidelines is required, by contract, of all firms providing design and/or construction services.

The evaluation of life cycle costs for building materials, systems and equipment, will continue to be an issue in preparing construction drawings and specifications for the foreseeable future. Life Cycle Costing (LCC) is simply selecting the most appropriate/durable material based upon the owner's ability to initially purchase it, evaluated against the materials' longevity and expected maintenance costs. Most LCC systems address mechanical, electrical and plumbing equipment/systems. Analysis of architectural, civil and structural materials are more a "judgment" call based upon past performance (life) history and/or environmental factors that change from location to location.

COLOR AND TEXTURE

The guidelines for the color and texture of new and renovated or expanded facilities have been established to provide continuity between the new and existing facilities. In addition to providing aesthetic harmony in the campus appearance, this approach allows more cost-efficient maintenance of all University facilities.

SCALE/PROPORTION

Guidelines for the scale and proportion of buildings and adjacent facilities will continue to support development to be compatible with a pedestrian campus environment. Guidelines are established to prevent a massing of multi-story buildings, which would create an enclosed environment. The creation of gathering spaces adjacent to building and the use of landscaping, landscape and light, would allow for a more pedestrian-friendly scale and proportion.

GRAPHICS AND SIGNAGE

The Architectural Design Guidelines recognize that FIU will continue to evaluate and revise a comprehensive and consistent interior/exterior signage system. It calls for revisions to this system as required to respond to the Florida Accessibility Code and Americans with Disabilities Act Accessibility Guidelines.

SAFETY STATEMENTS

The safety standards identified in the guidelines reflect the most recent safety guidelines established for materials and building systems.

BUILDING SITING AND LINKAGES

The basis of design objectives are to create courtyards, connect buildings with colonnades, pedestrian covered walkways or breezeways, and establish unifying architectural edges. The guiding principles identified for building siting and linkage provide for open areas, access for emergency and maintenance vehicles as well as disabled/handicapped persons and the relationship of new facilities to adjacent facilities and the surrounding natural environment.

GOAL 1: Florida International University shall ensure that future buildings adhere to the highest standard of architectural design with emphasis on meeting USGBC standards and the establishment of character-defining architectural principles at each campus

Objective 1.1 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 manmade setting.

Policy 1.1.1

UNIVERSITY-WIDE:

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

Policy 1.1.2

UNIVERSITY-WIDE:

Scale Proportion and Massing: 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. 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.

Other buildings will by definition 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 axes, or other prominent locations. 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. Building heights shall to the extent feasible by area and program be the same for all "fabric" buildings.

Policy 1.1.3

MODESTO A. MAIDIQUE CAMPUS:

Character definition at this campus shall be provided by the creation of space-defining buildings that reinforce the open network of malls, quadrangles and courtyards. New construction shall reinforce principles that support development and strengthening of campus image, identity and community, including the university-wide goal of enhancing campus buildings to serve as models of healthy and sustainable practices for our students and community neighbors.

Policy 1.1.4

ENGINEERING CENTER:

All new or improved architecture will be consistent with Modesto A.

Maidique Campus through the use of similar textures and colors for buildings, archways where applicable, and overall architectural character including signage, light fixtures and landscape features.

Policy 1.1.5

BISCAYNE BAY CAMPUS:

The adjacency of Biscayne Bay and Oleta River State Recreation Area establishes a strong sense of natural setting to this campus. 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. Modern proportions and fenestration should characterize the design of the new buildings.

Objective 2.1

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 2.1.1

Quality:

New construction shall reinforce principles that support development and strengthening of campus image, identity and community, including the university-wide goal of enhancing campus buildings to serve as models of healthy and sustainable practices for our students and community neighbors.

MODESTO A. MAIDIQUE CAMPUS/ENGINEERING CENTER:

Materials shall convey a sense of permanence on the campus. Florida key stone 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 of consisting of uninterrupted bays are generally discouraged except where uninterrupted transparency is justified by the building program. Building elements such as window frames, door openings, arches etc. shall be maintained in stone or concrete so as to discourage uninterrupted use of stucco.

BISCAYNE BAY CAMPUS: Materials selected shall be natural in appearance and shall be compatible with the existing campus materials. Buildings shall utilize either precast concrete panels or

poured in place concrete for their structural skin. Glass and aluminum systems shall be utilized for admitting natural light into the buildings.

Policy 2.1.2

UNIVERSITY-WIDE:

Energy efficiency: 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 2.1.3

UNIVERSITY-WIDE:

Life Cycle Costs: 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 2.1.4

Color and Texture:

UNIVERSITYPARK/ENGINEERINGCENTER:

New buildings shall be in natural keystone and/or natural gray poured in place concrete or precast. Color shall be consistent with the building standards. 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.

BISCAYNE BAY CAMPUS:

Color schemes shall be provided by each Architect indicating all visible building elements and details proposed to the University for review and compliance.

Policy 2.1.5

UNIVERSITY-WIDE:

Graphics and Signage: 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 2.1.6

UNIVERSITY-WIDE:

Safety: 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. Crime Prevention Through Environmental Design (CPTED) policies will be adhered to as a guide for design. 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.

Policy 2.1.7

UNIVERSITY-WIDE

Lighting: Florida International University shall provide appropriate lighting for all pedestrian and non-vehicular facilities on-campus (i.e. parking, public areas and walkways) for the safety of all students, faculty and staff as well as visitors to each campus.

Objective 3.1

Districts:

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

Policy 3.1.1

MODESTO A. MAIDIQUE CAMPUS:

Central Core District (1): 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:

- Charles E Perry Primera Casa (administration building)
- Deuxieme Maison
- Green Library
- Ernest R. Graham University Center
- Ernest R. Graham University Center Addition

Policy 3.1.2

MODESTO A. MAIDIQUE CAMPUS:

Lake District (2): 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:

- Green Library
- Viertes Haus
- Engineering & Computer Science
- Owa Ehan

Policy 3.1.3

MODESTO A. MAIDIQUE CAMPUS:

Tamiami Mall (3): This district is located at the 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. Buildings in this area will include the following:

- Education Building
- Ryder Business Administration
- School of Architecture
- Satellite chiller plant
- Graduate School of Business

Policy 3.1.4

MODESTO A. MAIDIQUE CAMPUS:

Avenue of the Arts (4): Buildings in this mall are located immediately south of the Charles E Perry Primera Casa.

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 chart appended and shall contain only one color throughout the mall.

- Charles E Perry Primera Casa (administration building)
- Management and Advanced Research Center (MARC)
- Frost Art Museum

Policy 3.1.5

MODESTO A. MAIDIQUE CAMPUS:

Avenue of the Professions (5): Buildings in this mall include:

- Law School
- Labor Center
- Ryder Business Building
- Social Science Complex
- Green Library
- North Graham Center

Policy 3.1.6

UNIVERSITY-WIDE:

Housing Quads (6): New construction of student’s housing shall be composed of multi story apartments creating in the case of

Modesto A. Maidique Campus, a dedicated quadrangle space for residents. Buildings at Biscayne Bay 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 with balconies and more informal arrangement of building volumes.

Policy 3.1.7

MODESTO A. MAIDIQUE CAMPUS:

Greek Housing (7): Housing for fraternities and sororities "Greek" shall be provided on campus in the southeast corner of the campus. New construction or 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. The structures shall be designed so that they are residential in appearance and not more than two stories in height. The selection of materials shall convey a residential quality. The building's exterior shall consist of keystone and/or painted stucco. 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.

Policy 3.1.8

MODESTO A. MAIDIQUE CAMPUS:

Within the next planning period, the University will add or eliminate districts, including but not limited to:

- Science Quad District
- Medical School District
- Stadium District
- Campus Support District
- University House District

Objective 4.1

Guidelines for Architectural Building Types

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

Policy 4.1.1

UNIVERSITY-WIDE:

Pedestrian covered walkways: New construction shall incorporate arcades wherever possible within the exterior face of the building volume so as to provide protection from the elements. Arcades may be designed with pedestrian covered walkways. Arcades may be used in conjunction with connecting walkways for weather protection.

Policy 4.1.2

Fenestration:

MODESTO A. MAIDIQUE CAMPUS:

Building fenestration should be designed in a manner that is consistent with the surrounding context and meets USGBC standards for LEED Silver certification.

ENGINEERING CENTER:

Existing facility renovations and new construction will incorporate those elements approved for the Modesto A. Maidique Campus facilities to maintain design consistency.

BISCAYNE BAY CAMPUS:

Building fenestration should be designed in a manner that is consistent with the surrounding context and meets USGBC standards for LEED Silver certification.

Policy 4.1.3

UNIVERSITY-WIDE:

Building Forms: Florida International University should strive to create buildings that are simple and direct and may use building forms that are compatible with classical principles. Buildings should 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 should be planned and coordinated so that their sitting 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 should 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.

Policy 4.1.4

UNIVERSITY-WIDE:

Service Yards: 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.

Objective 5.1 Weather Protection (UNIVERSITY-WIDE)
Florida International University should create circulation elements that provide for weather protection and reinforce the linkages between quads, courtyards and buildings.

Policy 5.1.1 Covered Connections
Florida International University should provide adequate parking to support the needs of students, faculty and visitors

Policy 5.1.2 Parking Structures:
Required for parking shall be located so as to minimize the impact of building bulk wherever possible. The structures should 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. An incorporating first level campus support facility such as convenience stores or bookstores as buffers to create pedestrian character is strongly encouraged. Parking shall be screened by the design of the structure's skin and landscaping.

Policy 5.1.3 UNIVERSITY-WIDE:
Surface Parking: 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.

Objective 6.1 Design Review (UNIVERSITY-WIDE)
Create and monitor conformance of future design projects with referenced standards through University design review procedures.

Policy 6.1.1 Design Review Procedures:
Design of future projects shall be receive a formal review for compliance with standards for new construction. 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. The formal review should consider the sitting, landscape improvements and signage as well as the architecture and interior improvements proposed. The University facilities staff should have the ability to overrule certain guidelines if the proposed change in the guidelines creates a better result or in case that the review is a special or monumental project.