3.0 URBAN DESIGN ELEMENT

This Comprehensive Master Plan Update reflects the University's commitment to the refinement and extension of the base concepts earlier master planning efforts have created. FIU proposes enhancements to its urban design character by: creating a sequence of memorable Campus Spaces; creating identifiable Campus Streets and entrances; developing Campus Edges; increasing density that enhances the connection and aesthetic appeal of the University to the community; and establishing focal elements within the internal campus along significant axes.

There are <u>five comprehensive goals</u> that inform the Urban Design element at FIU. They are:

- Incorporate research and teaching opportunities into the campus environment.
 The incorporation of research areas, the inclusion of outdoor teaching rooms and
 the integration of visible and innovative stormwater management within the
 campus landscape reinforce the academic mission of the University.
- Focus on improving walkability by providing comfortable, shaded and direct circulation opportunities that act as a framework for a comprehensive wayfinding strategy. As FIU continues to grow, and parking is concentrated at the periphery of each campus, improving walkability will be a critical component.
- Maximize the positive impact that public art has on the campus environment.
 Many installations are the focal point within several significant campus spaces and gateways, often providing the first impression of the campus to visitors. This impact is a reminder that FIU is a world class international research university.
- Incorporate sustainable strategies with measurable performance-based results. Sustainable site strategies should include increasing the campus density through the use of a more compact urban pattern to maximize the efficiency of developed land, the use of integrated stormwater approach that utilizes natural systems to reduce infrastructure costs, reducing impervious surfaces and increasing the tree canopy to reduce the heat island effect generated by the campus.
- Increase the amount and quality of outdoor student spaces as a fundamental component of the physical environment. For many students, learning happens outside the classroom, engaging with fellow students, staff and the surrounding community in active dialogue. These exterior spaces can take the form of courtyards within or between buildings, terraces, plazas, gardens or lawn areas accommodating both large gatherings and small intimate study spaces.

FIU's campuses have historically been insulated from off-campus land use influences. Modesto A. Maidique Campus and Engineering Center are surrounded by major road corridors along with large vacant areas of lawn and surface parking lots. These have acted as barriers, disconnecting FIU from the surrounding neighborhoods. Biscayne Bay Campus is also isolated from its surrounding community by Oleta State Park and

surrounding waterfront. With FIU's expected increase in enrollment and continual challenge of attracting and retaining the best students and faculty, this physical separation from the surrounding neighborhoods must change. This shift has already begun with the Academic Health Center, Tiger Grant pedestrian bridge and the new ACC building that will define the edges of Modesto A. Maidique Campus in a more urban way, engaging the surrounding community along the northeast edge of the campus.

New development at Modesto A. Maidique Campus should continue to encourage a more compact, urban pattern within the academic core and along its eastern edge. Building upon the existing campus geometry, FIU should continue its emphasis on axial patterns as an organizing element for the spatial sequences of campus open spaces such as quads, parks and courtyards to define the future development framework. In addition, the campus loop road should continue as a complete street. It should define the limits of the traditional academic campus core while providing access throughout the growing campus. Surface parking lots should be strategically replaced with parking structures placed along the edges of the campus. This will allow the expansion of academic buildings within the academic core that define the a clear and compelling sequence of open spaces and pedestrian corridors.

The Engineering Center, although visually separated from Modesto A. Maidique Campus, should maintain its connectivity to the main campus through design consistency in the form of enhanced pedestrian corridors, edge conditions and gateway treatments. Improved building to open space relationships, pedestrian movement, activity nodes, parking and landscaping are crucial to strengthening its character and appeal of this campus.

At Biscayne Bay Campus the key challenges are to preserve the existing open space and views that support the campus sustainability goals and rising sea level ramifications while consolidating a compact academic core, increasing student services and improving oncampus housing options. This campus is unique. While Modesto A. Maidique Campus and Engineering Center are located within an existing urban fabric, Biscayne Bay Campus is surrounded by a state park. If the campus is to be truly sustainable while still being attractive to potential students, the campus must function more as a small town than an isolated campus. Creating pedestrian and bicycle connections to the adjacent Miami Dade County Public Schools and the developing Biscayne Landing development are crucial. Increasing services, providing quality housing, establishing a sense of place and enhancing connections to the Biscayne Bay waterfront, will all highlight the distinct features of this campus.

3.0 URBAN DESIGN ELEMENT

GOAL:

Florida International University shall create high quality, memorable campus environments suited to education and a sense of collegiality, comprising a dense, compact development pattern within a rich outdoor tropical environment (Figure 3.1).

Objective 1.1

Develop, enhance and preserve existing and proposed Regulating Axes (visual corridors) on campus. All future development shall place buildings and landscape features so as to preserve and reinforce the significance of each visual corridor's significance.

MODESTO A. MAIDIQUE CAMPUS

Policy 1.1.1 **Primary Axes**

East-West Axis 1 (Avenue of the Professions): The "Avenue of the Professions" connects the Rafael Diaz-Balart Hall, through the Green Library to the Earnest R. Graham Center and onto SW 107th Avenue. Future buildings along this avenue shall be oriented and configured in a manner to reinforce the axis.

East-West Axis 2 (Avenue of the Students): The "Avenue of the Students" extends from the west facade of Owa Ehan at the northern end of the building west to the Panther Parking Deck. This axis bisects several significant spaces including the Ryder Quad, College of Education and the developing Business School district.

North-South Axis 1 (Avenue of the Arts): The "Avenue of the Arts" pedestrian corridor connects the Graham Center to the Wertheim Performing Arts Center. This axis is well defined with Parking Garage Gold & Blue to the east and the Art Museum and the Advanced Research Building to the west.

Diagonal Axis 1 (Avenue of the Sciences): The "Avenue of the Sciences" links a sequence of spaces extending from the Panther Village quadrangle through the Foundation Court northeast to the emerging Academic Health Center, terminating at the intersection of SW 8th Street and SW 107th Avenue.

East-West Axis 3 (107th **Avenue Main Vehicular Entrance)**: One of two established signature campus gateways to FIU, this visual corridor connects the SW 107th Avenue entrance to the Management and Advanced Research Center along the Avenue of the Arts.

North-South Axis 2 (8th Street Main Entrance): The second established signature campus gateway provides a visual corridor from SW 8th Street to the Ryder Business Administration.

Policy 1.1.2 **Secondary Axes**

North-South Axis 3 (Connecting the Stadium to the Avenue of the Professions: Develop a pedestrian circulation corridor from the eastern side of FIU Community Stadium north to the Avenue of Professions.

North-South Axis 4 (8th Street Secondary Entrance): Continue to develop the visual and pedestrian corridor from SW 8th St. through the Science Building to the Graham Center.

East-West Axis 4 (117th Main Vehicular Entrance: Develop an enhanced visual and vehicular corridor from SW 117th Avenue through the campus support area that connects to the Campus GreenBelt.

ENGINEERING CENTER

Policy 1.1.3 **East-West Axis (107**th to **Wall of Wind):** Develop a pedestrian focused corridor from SW 107th Avenue east through the existing Engineering Center connecting to the Wall of Wind.

BISCAYNE BAY CAMPUS

- Policy 1.1.4 **East-West Axis 1**: Remove portions of the existing surface parking lots and develop an east-west axis north of Academic One and Two. As the academic core of the campus expands and defines the limits of the northern quad, the axis will become the framework for the future development of the quad.
- Policy 1.1.5 **East-West Axis 2:** Develop an east-west axis that defines the visual corridor of the southern quad. Centered on the academic buildings to the west, the axis shall preserve the view to Biscayne Bay.
- Policy 1.1.6 **North-South Axis 1:** Develop an enhanced visual and pedestrian connection extending from the North Quad south to the Koven's Conference Center, along the existing mangrove stand.

Objective 1.2

Develop, protect and enhance <u>Campus Spaces</u> as a sequence of distinct interconnected open spaces. Place future buildings and landscape features to preserve and reinforce the open space network of quadrangles, plazas, promenades, courtyards and special purpose landscape areas.

UNIVERSITY-WIDE

Policy 1.2.1

Establish a Design Review Process that ensures all future buildings are sited to avoid encroachments upon designated open spaces, axes, pedestrian corridors and view corridors.

Policy 1.2.2

Secure funding for new and enhanced open spaces by:

- 1. Allocating proportional costs to future building programs and budgets.
- 2. Establishing funding line items for open space enhancements.

Policy 1.2.3

Identify and name Campus Spaces as a way to identify and relate each space to its location and proximity to uses or buildings. The naming of spaces, such as the Foundation Court, will strengthen the brand of the University and its broader wayfinding strategy.

Four types of Campus Spaces have been identified throughout the three campuses. Variations of each are dependent on the connection to the surrounding context, building engagement and the use of the spaces within the campus:

Quad: A quadrangle is a green space that is usually square or rectangular in plan. The sides are entirely or mainly defined by buildings and reinforced by the landscape design. The single most important aspect of a quadrangle is clear spatial definition. The specific qualities of each quad vary with size, purpose and context but all are primarily informal articulated spaces, characterized by open usable green space with a combination of shade trees planted in asymmetrical groups and paths configured to provide direct pedestrian access to key buildings and spaces beyond. Quads should have significant areas shaded and protected from rain by structures. These should be used for individual and group interaction and study.

<u>Courtyard:</u> Courtyards are spaces between or within buildings but are more compact than quads. They offer either private or semi-private spaces providing immediately accessible opportunities for informal outdoor gathering, studying and collaborating. Courtyards are predominately hardscape spaces with landscape material along its edges or as a central focal point.

<u>Promenade:</u> Promenades are public places for walking that directly connect one point to another. More than just a wide sidewalk or trail, a promenade is of significant importance with distinct hardscape materials, lighting, pedestrian seating and formal canopy plantings. Promenades may define one edge or bisect a larger space. The space is characterized by pedestrian-friendly features and a clearly defined architectural volume that can allow for congregation as well as settings for small group study areas. Promenades should have continuous areas shaded and/or protected from the rain by structures.

<u>Plaza:</u> Plazas occur at points of entry or gateways to the campus, various districts and key buildings throughout the Campus. The specific qualities of each may vary but all will be primarily characterized by hardscape elements and architectural character with canopy trees reinforcing the spatial geometry of the space. Plazas should incorporate significant spaces shaded by and protected from the rain by structures, ample pedestrian seating and aesthetic features such as art.

Objective 1.3

Preserve and enhance <u>Special Purpose Landscapes</u> within the Florida International University campuses to serve as areas for teaching, research, recreation, social gatherings and community engagement. Each has a unique and focused purpose that enhances the pedagogical environment of the campuses.

MODESTO. A MAIDIQUE CAMPUS

Policy 1.3.0

Hennington Island

Preserve the teaching and research environment of Hennington Island. Establish a no-build zone.

Policy 1.3.1

The Preserve

Preserve the teaching and research environment of the Preserve. Establish a no-build zone to ensure the space will remain open for passive recreational use.

Policy 1.3.2

President's Garden

Preserve and expand the President's Garden to preserve the valuable inspirational, ceremonial and celebratory open space for the University and surrounding community.

Policy 1.3.3

Palm Collection

Preserve and enhance the existing palm tree collection in the Green Library Quad to ensure continued teaching and research opportunities.

Policy 1.3.4 The GreenWay

Create a signature pedestrian corridor and informal landscape that provides a critical stormwater infrastructure function, opportunities for research and teach and connectivity from the Wertheim Performing Arts Center north to Hennington Island and west along the existing service road to the Preserve. Position the GreenWay to be expanded south into the Miami Dade Youth Fair.

BISCAYNE BAY CAMPUS

Policy 1.3.5 The GreenSpine

Continue the restoration and preservation of the existing mangroves from the southern portion of the campus north to the North Quad.

Policy 1.3.6 The BayWalk

Continue to develop the coastline as a BayWalk. With over a mile of undeveloped bay-front exposure, providing unequalled connectivity to water and research and teaching opportunities, the BayWalk provides an amenity that is unequalled by most university campuses.

Objective 1.4

Enhance the internal vehicular circulation of <u>Campus Streets</u> within the FIU campuses to become a binding element within the Campus as well as a means of circulation for visitors, service and emergency access.

MODESTO A. MAIDIQUE CAMPUS

Policy 1.4.1 **Campus GreenBelt – Parkway**

Continue to develop the existing ring road into a complete street multi-purpose circulation corridor that defines the limits of the central academic core. This Parkway should be distinguishable from other internal vehicular streets by enhancing its aesthetic character through a well-defined landscape and hardscape palate. A minimum of 80 ft. from building face to building face should be reserved for the Parkway.

Policy 1.4.2 **Campus GreenBelt - Main Street**

Develop a more urban condition along the Campus GreenBelt in key student areas and within the Academic Health Center. This "main street" will be similar in character to that of other commercial streets adjacent to traditional universities set in an urban environment, such Georgia Tech's Technology Square or MIT's University Park. A minimum of 80 ft. from building face to building face should be reserved for the Main Street.

Policy 1.4.3 **Secondary Streets**

There are several variations of secondary streets within the Modesto A. Maidique Campus. The type is determined by the adjacent building orientation, concentration of activity and adjacent community context.

- Typical Varies in number of vehicular travel lanes but is primarily utilized as building service or parking access corridors. Sidewalks are separated from the travel lanes and enhanced with shade trees.
- Urban Located within the Academic Health Center and similar to a city streetscape, these streets vary in width but are pedestrian friendly with wide sidewalks, active ground floor building uses, shade trees and street furniture evenly spaced and buildings engaging the streets. Urban streets are often the first impression of the campus for students, staff and visitors.

Policy 1.4.4 Gateways

There are three primary gateways to the Modesto A. Maidique campus with each intersecting the Campus GreenBelt. The 107th Avenue and 8th Street main entrances are key ceremonial spaces defined by towers and arched walls on each side and formal landscape treatments. The western entrance from SW 117th Avenue should be enhanced to the level of the other two ceremonial entrances. This includes widening the existing drive to allow for a landscaped median with a landscape zone and sidewalks to each side.

The remaining entrances to the campus are secondary gateways. While primarily associated with service access streets to parking structures, these gateways are often the first impression of the campus to many visitors, students, faculty and staff. These streets should be enhanced to include pedestrian friendly elements such as wide sidewalks, canopy trees and campus wayfinding elements.

Policy 1.4.5 Traffic Circle

Traffic Circles allow for a sense of arrival to various districts within the campus as well as traffic-calming device. Too often, traffic circles are difficult for pedestrian crossings at high volume vehicular and/or pedestrian locations. Future traffic circles should be limited to significant vehicular intersections along the Campus GreenBelt.

ENGINEERING CENTER

Policy 1.4.6 Enhance the entrance from West Flagler Street with materials similar to Modesto A. Maidique Campus. Visually link the two campuses.

Policy 1.4.7 Provide better internal circulation. Develop an internal vehicular street that extends main entrance from Flagler Street to the entry drive from SW 107th Avenue.

BISCAYNE BAY CAMPUS

Policy 1.4.8 Develop a secondary internal vehicular street connection between the academic campus to the north and the conference center to the south west of the existing mangroves to increase campus connectivity.

Objective 1.5

Define and enhance <u>Campus Edges</u> to create a welcome and aesthetically pleasing interaction with the surrounding community through the appropriate placement of buildings, massing, and scale based on the existing or proposed character of the surrounding community. Provide an enhanced ground level character and access to existing or proposed transit while still clearly delineating the boundaries of the campus.

UNIVERSITY-WIDE

Policy 1.5.1 Continue active dialogue with the planning staff of Miami-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.

Policy 1.5.2 Four types of Campus Edges have been identified throughout the three campuses. Variations of each are dependent on the connection to the surrounding context and the use of the spaces within the campus:

Active Major: An active major edge is similar to that of a downtown city streetscape with wide sidewalks, large canopy street trees and building placement that engages the street with appropriate active ground floor façade articulation. While final building placement shall be specific to place, a comfortable distance between building and the curb is between 20 ft. to 30 ft. The distance should remain relatively consistent in order to create a pedestrian friendly condition.

Active Minor: An active minor edge has few if any buildings adjacent to the boundary. The edge is delineated by open landscape that

separates but maintains visibility and permeability with buildings generally placed between 40 ft. to 60 ft. from the curb.

Passive Major: A passive major edge is similar to a traditional public park, generally a large open space with canopy trees, minimal hardscape and a clear understory of lawn or meadow. It has limited permeability, generally screening views into the campus.

Passive Minor: A passive minor edge clearly delineates the boundary between the public realm and the campus through the use of dense vegetation and site elements such as decorative walls and fencing. It enhances the visual perception of the University as well as providing buffer element that screens maintenance yards or service areas from the adjacent properties.

MODESTO A. MAIDIQUE CAMPUS

Policy 1.5.2	SW 107 th Avenue – North: Develop the edge along SW 107th Avenue from the 8 th Street intersection to the north edge of the lake as an active major edge.
Policy 1.5.3	SW 107th Avenue – South: Develop the edge along SW 107th Avenue at the President's Garden from the north edge of the lake to the SW 17 th Street entry as an active minor edge.
Policy 1.5.4	SW 8 th Street – East: Develop the edge along SW 8th Street from the intersection of SW 107th Avenue west to the SW 112th Avenue main entrance as an active minor edge.
Policy 1.5.5	SW 8 th Street – West: Develop the edge along SW 8th Street from the eastern limits of the Carlos J. Finlay Elementary School east to the existing SW 112 th Avenue main entrance incorporating the Hennington Island special purpose landscape as a passive major edge.
Policy 1.5.6	SW 117 th Ave: Continue to develop the edge along SW 117th Avenue as a minor passive edge.
	ENGINEERING CENTER
Policy 1.5.7	NW 107 th Avenue: Develop the edge along NW 107th Avenue as an active major edge.
Policy 1.5.8	West Flagler Street: Develop the edge along West Flagler Street as an active major edge.

Policy 1.5.9

Women's Park: Continue to develop the edge along Women's Park

as a passive major edge.

Policy 1.5.10 Continue to develop the north edge of the Engineering Center along the residential neighborhood as a minor passive edge.

BISCAYNE BAY CAMPUS

Policy 1.5.11 Develop an edge along Bay Vista Boulevard as a passive major edge.

Objective 1.6 Preserve and enhance <u>Campus Landmarks</u> throughout the university as branded, wayfinding and ceremonial elements on campus.

UNIVERSITY-WIDE

Policy 1.6.1 Locate public and environmental art throughout the campus as landmarks within campus spaces. Site art installations focal points within a Campus Spaces.

MODESTO A. MAIDIQUE CAMPUS

Policy 1.6.2 Redevelop the Bridge at the Central Quad as a significant landmark element that represents the University. The Bridge has special symbolic meaning to the students, faculty, staff and alumni of the campus. The stature of the Bridge should reflect that significance.

Objective 1.7 Maintain and enhance functional <u>Campus Linkages</u> between major campus activity centers.

UNIVERSITY-WIDE

Policy 1.7.1 Create effective and continuous pedestrian and visual linkages with strong axial orientations. Enhance these linkages with canopy trees, building placement and articulation, varying landscape features and strategically located art pieces.

Policy 1.7.2 Create a system of interconnected covered walkways, both architectural and landscape, where appropriate to link facilities. There are four types of covered walkways (Figure 3.2- 3.5):

- Type A Arcade: The covered walkway is integrated into the massing of the building.
- Type B Attached Architectural Walkway: The Covered walkway is attached to the building.
- Type C Detached Architectural Walkway: The covered

walkway is a free standing architectural structure.

 Type D – Landscape: Shade trees and/or palms provide concentrated shade.

Funding will be allocated from building construction budget for the creation of covered walkways.

- Policy 1.7.3 Continue to invest in the internal campus transit system.
- Policy 1.7.4 Cluster academic and support functions with buildings and academic neighborhoods that are characterized by compactness, compatibility of use, continuous pedestrian corridors and covered walkways.

MODESTO A. MAIDIQUE CAMPUS

- Policy 1.7.5 Distribute campus parking outside the academic core to minimize pedestrian-vehicular conflicts, walking distances, and promote a pedestrian-oriented campus.
- Policy 1.7.6 Prioritize the improvement of the pedestrian elements of Regulating Axes to establish a hierarchy of pedestrian movement, wayfinding, and institutional significance on campus.
- Policy 1.7.7 Prioritize the improvements of the pedestrian elements of the Campus GreenWay and GreenBelt to provide a consistency in function and appearance.
- Policy 1.7.8 Develop a pedestrian connection in the form of a boardwalk or promenade through the Preserve from the Recreation Center to the baseball and track stadiums to safely connect the central campus to the athletic areas of campus.

ENGINEERING CENTER

Policy 1.7.9 Complete a pedestrian connection from the western building entrance of Engineering Center to NW 107th Avenue. This connection will allow a shorter route for students to the adjacent commercial corridor as well as placing a pedestrian connection in proximity to the proposed transit station plaza.

BISCAYNE BAY CAMPUS

- Policy 1.7.10 Develop a new primary campus entry drive with enhanced landscape materials, bike lanes and minimal parking lot access points to create a heightened campus entry experience.
- Policy 1.7.11 Construct an enhanced drop-off adjacent to the Academic Two building with the proposed quad expansion to enhance the sense of

arrival. Improve with additional landscape, signage, furnishings and lighting to provide a quality formalized urban space.

- Policy 1.7.12 Reconfigure parking lots as needed for greater ease of travel while developing covered pedestrian corridors to the academic core of the campus.
- Policy 1.7.13 Reconfigure the existing entry drive as a secondary access to the campus with enhanced landscaping, signage and lighting to promote better wayfinding and a sense of arrival to the campus.
- Policy 1.7.14 Improve the entry drive at the Kovens Conference Center with additional planting, lighting and sidewalks.

Objective 1.8 Organize and place service and loading functions to avoid pedestrian conflicts and minimize visibility from the campus open space system.

UNIVERSITY-WIDE

- Policy 1.8.1 Cluster service and loading areas to minimize service drives and geographic dispersion of service functions.
- Policy 1.8.2 Place service functions in areas screened from major open spaces, with minimum crossing of open spaces by service drives.
- Policy 1.8.3 Screen Service and loading areas with visual and acoustical structures or landscape enclosures that incorporate critical elements for crime prevention based on Environmental Design Principles.

Objective 1.9 Provide campus buildings and facilities which are energy efficient.

UNIVERSITY-WIDE

Policy 1.9.1 Establish the following design criteria as part of the architectural design and siting criteria for all future buildings:

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

UNIVERSITY-WIDE

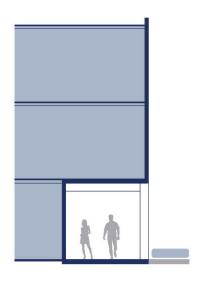
- Policy 1.10.1 Establish a Design Review Board to review and provide written recommendations for all new and exterior renovation architectural projects and all new landscape projects.
- Policy 1.10.2 Review future development compliance with urban design criteria, integrated with the review of architectural and landscape design characteristics.

Objective 1.11 Develop of the campus spatial environment in coordination with the development and phasing of future buildings and landscape improvements.

UNIVERSITY-WIDE

- Policy 1.11.1 Timing and priorities for development of the spatial environment of the University shall reflect the timing and priorities for future buildings landscape and open space development.
- Policy 1.11.2 "Landscaping improvements" as described in Section 16.1 shall create secure, environmentally sound campus settings of rich visual quality that seamlessly integrates new development sites with mature campus landscapes, enhance and define open spaces, reinforce primary campus axes and entryways, and establish a sense of campus character.







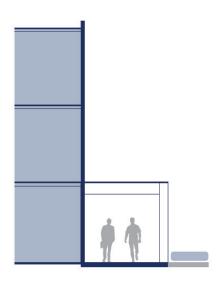


Figure 3.3. Walkability - Type B

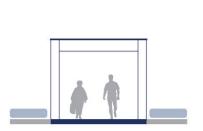


Figure 3.4. Walkability - Type C

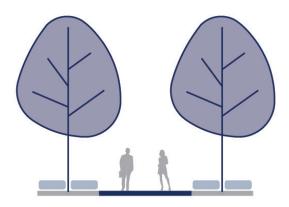
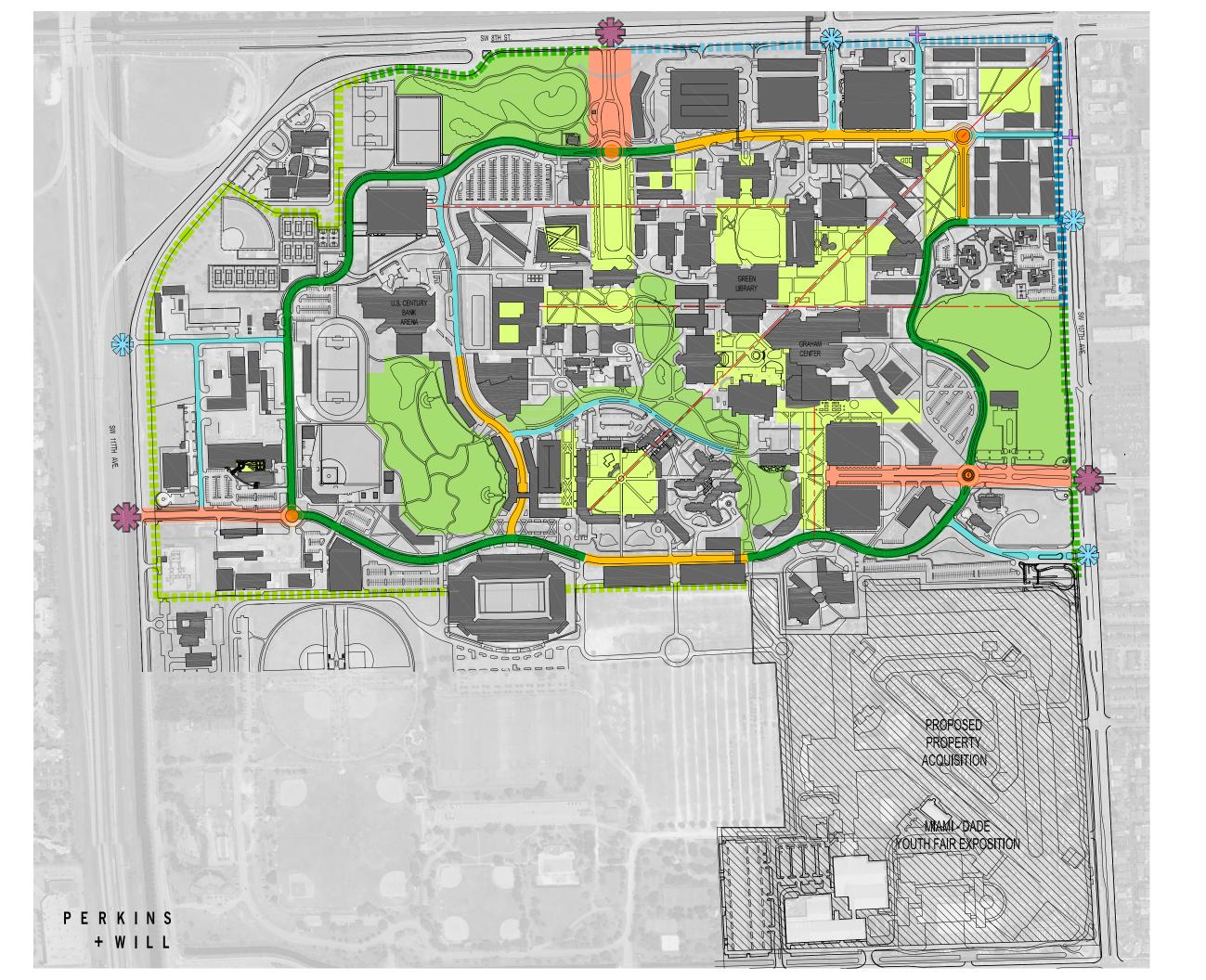
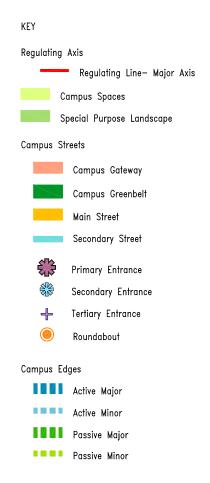


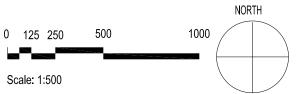
Figure 3.5. Walkability - Type D







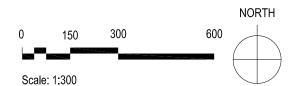
ELEMENT 3.1:URBAN DESIGN MODESTO A. MAIDIQUE CAMPUS







ELEMENT 3.2: URBAN DESIGN ENGINEERING CENTER





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