

## 11.0 TRANSPORTATION ELEMENT

### (1) REQUIREMENTS FOR TRANSIT, TRAFFIC CIRCULATION AND PARKING SUB-ELEMENT: GOALS, OBJECTIVES AND POLICIES

**Goal 1.1 Transit:** Florida International University shall continue to develop, operate, and maintain a safe and efficient multi-modal circulation system that provides ease of mobility; leading to decreases in number of single occupant vehicles (SOV); reduction in fuel consumption and dependence on foreign oil, reduction in greenhouse gas emissions, promoting energy conservation and protecting the natural environment.

**Objective 1.1.1 Transit:** The University shall allocate funds for capital expansion and improvements of multi-modal systems that relieve on-campus traffic congestion and reduce the demand for additional parking. Coordinate with Miami-Dade Transit (MDT) and local/host communities to determine the best and highest use for the transit proposed to serve the campus properties.

#### University-Wide:

Policy 1.1.1.1 Continue to improve quality and frequency of the inter-campus University transit services/routes.

#### Modesto A Maidique Campus (MMC):

Policy 1.1.1.2 Maintain existing transit hub at its current location at the southwest corner of SW 107<sup>th</sup> Avenue and SW 108<sup>th</sup> Avenue intersection. However, evaluate its relocation to Parking Garage 6 (PG6), pending support from MDT.

Policy 1.1.1.3 Enhance on-campus transit along loop road to improve connections between housing, parking garages and key education/support locations. Provide new transit stops along realigned loop road.

Policy 1.1.1.4 Encourage MDT to continue increased frequency of service (including Sweetwater Circulator), provide express bus service (confirmation from MDT pending), maintain clean and comfortable vehicles, and provide weather-proof shelters (the University shall provide weather-proof access to transit terminals).

#### Engineering Center Campus (ECC):

Policy 1.1.1.5 Provide transit hub at the entrance to ECC along NW 107<sup>th</sup> Avenue and adequate transit circulation routes within campus to support transit hub.

## Biscayne Bay Campus (BBC)

Policy 1.1.1.6 Continue to strengthen coordination efforts with the City of North Miami in order to promote the use of the City's Free Nomi Bus Shuttle service as an alternative transportation option available to both students and faculty of the University. As the traffic conditions on NE 151st Street at the intersection with Biscayne Blvd are expected to deteriorate, amenities should be considered near the intersection to facilitate bus transfers. Coordination with Miami Dade Transit should take place to ensure the new Enhanced Bus Service provides a stop near the failing intersection.

### **Goal 2.1 Traffic Circulation:**

**The University shall promote roadway designs to improve traffic circulation, ease congestion, promote safety, and provide sufficient capacity to serve on future campus roadways at the adopted level of service (LOS) standard. The University shall also coordinate with FDOT and Miami Dade County to improve capacity and level of service on deficient roadways adjacent to the campuses.**

**Objective 2.1.1 Traffic: On a case by case basis, the University may consider allocation of funds for roadway improvements to improve traffic circulation, relieve traffic congestion, decrease delay and fuel consumption.**

### University-Wide:

Policy 2.1.1.1 Enhance pedestrian and bicycle facilities that improve connectivity to host communities and local/regional transit facilities.

Policy 2.1.1.2 Future proposed campus roadways will use 11' wide travel lanes, 4' bike lane (except 5' wide for key holes), type "F" curb and gutter, 6' minimum sidewalk with 11' landscape buffer in between back of curb and front of sidewalk. FIU shall maintain a suitable roadway network in compliance with State, local and the National Fire Protection Association (NFPA) standards in order to provide emergency response vehicles with adequate and safe access to emergencies and fires within each campus.

### Modesto A Maidique Campus (MMC) (Figure 11.1a):

Policy 2.1.1.3 Provide two new campus entrances at the following locations:

- SW 117th Ave and SW 11th St (right in-right out initially)
- SW 107th Ave and SW 10 St (right in-right out)

These new access points will aid in reducing anticipated traffic demand on the internal campus loop road. The new entrances will ease congestion at existing campus entrances. All improvements and/or work in the right-of-way are subject to further traffic/design evaluation, review, approval, and permitting by the County (along SW 117<sup>th</sup> Ave) and FDOT (SW 107<sup>th</sup> Ave). This includes but is not limited, landscaping, signage, new or modified driveway connections, and roadway modifications. Please

note that driveway connections to FDOT maintained roadways are subject to FDOT review and approval as it relates to access conditions/improvements per Florida Rules 14-96 and 14-97. Also, FDOT currently has a widening project from four (4) to six (6) lanes, FM 412479-3, along SW 107 Avenue from the SW 1100 Block to SW 4 Street. This project proposes extending the existing right turn lane up to the SW 1100 block as requested by the University.

Policy 2.1.1.4 Re-align current campus loop road to traverse between Panther Garage and Carlos Finlay Elementary School and connect to the improved SW 115 Avenue. Re-route campus loop road to limit vehicular access to the campus core. Provide for pedestrian safety by constructing separate traffic and pedestrian facilities.

Policy 2.1.1.5 For campus loop roadway improvements, provide three lanes of roadway capacity, turn lanes, bike lanes, curb and gutter and sidewalks. The lane geometry shall include one through lane in each direction and a center left turn lane or two way left turn lane. Proposed roadway geometry design shall include provisions to accommodate an Intermediate Semitrailer (45.5' long). SW 8 Street/SW 112 Avenue and University Drive/SW 112 Avenue intersections' design revisions shall accommodate an Articulated Bus (60' long).

Policy 2.1.1.6 Maintain and improve the following existing entrances:

- SW 109th Ave and SW 8th St
- SW 112th Ave and SW 8th St
- SW 107th Ave and SW 16th St
- SW 107th Ave and SW 12th St (connect to University Dr.)

Policy 2.1.1.7 Provide roundabouts at the following locations to improve capacity, traffic flow and enhance safety:

- SW 112th Ave & University Dr.
- SW 17 St.& SW 115th Ave

Policy 2.1.1.8 Coordinate with Miami Dade County on the future widening of SW 24 Street (Coral Way) from four to six lanes, between SW 117 Avenue and SW 107 Avenue. All improvements and/or work in the right-of-way are subject to further traffic/design evaluation, review, approval, and permitting by the County. This includes but is not limited to, landscaping, signage, new or modified driveway connections, and roadway modifications.

Policy 2.1.1.9 Coordinate with Miami Dade County on the future widening of SW 117 Avenue from two to four lanes, between SW 8 Street and SW 24 Street (Coral Way). All improvements and/or work in the right-of-way are subject to further traffic/design evaluation, review, approval, and permitting by FDOT. This includes but is not limited to, landscaping, signage, new or modified driveway connections, and roadway modifications.

Biscayne Bay Campus (BBC) (see Figure 11.3a):

Policy 2.1.1.10 Coordinate with Miami Dade County on the future widening of NE 151 Street (Bay Vista Blvd) from four to six lanes, between Biscayne Boulevard to east of Biscayne Landing Entrance. All improvements and/or work in the right-of-way are subject to further traffic/design evaluation, review, approval, and permitting by the County and FDOT. This includes but is not limited to, landscaping, signage, new or modified driveway connections, and roadway modifications.

Policy 2.1.1.11 At the main access to the campus (US 1 (Biscayne Blvd)/NE 151 Street intersection), there is substantial delay to campus traffic and will likely worsen with the completion of Biscayne Landings development. Major capacity improvements are necessary to enhance safety and operation. In addition, along NE 151 Street near Biscayne Landing entrance, consider widening from 4 to 6 lanes to alleviate potential 2020 demand. Coordinate with Florida Department of Transportation and Miami Dade County Roadway Department on these intersection and roadway improvements. All improvements and/or work in the right-of-way are subject to further traffic/design evaluation, review, approval, and permitting by the County and FDOT. This includes but is not limited to, landscaping, signage, new or modified driveway connections, and roadway modifications.

Policy 2.1.1.12 Due to traffic congestion at the main access to the campus (US 1 (Biscayne Blvd.)/NE 151 Street intersection), a second vehicular access point is necessary to ease congestion and serve as an emergency evacuation route due to the nature of the developments (School, University, Housing, Health Center, etc.). Per Figure 11.3b, one of the two options shown should be considered for providing this critical vehicular access. FIU will coordinate with the State, Regional, Municipal and private partners to secure this additional access to the campus.

Policy 2.1.1.13 The Bay Vista Blvd. (NE 151 Street) and NE 145th Street (main campus entrance) intersection's level of service (LOS) will likely fail by 2020. To mitigate this potential issue, provide new signal at Bay Vista Blvd. and Golden Panther Drive, and convert it to the main campus entrance. Modify the current main entrance at NE 145th Street to a secondary entrance.

Policy 2.1.1.14 Provide two-lane roundabout along Bay Vista Blvd. approaching the proposed Academic Health Center (see Figure 11.3b). Access road to the health center shall be via a 3 lane roadway.

Policy 2.1.1.15 Coordinate with the City of North Miami, Miami Dade County on the widening of NE 151 Street from four to six lanes, between Biscayne Blvd to east of Biscayne Landing Entrance.

**Goal 3.1 Parking: The University will evaluate the future parking needs of the campuses and shall provide parking facilities as necessary. It will also encourage the implementation of transportation demand strategies to reduce parking demand.**

**Objective 3.1.1 Parking:**

**To accommodate future parking requirements on-campus, University shall evaluate and construct as necessary additional multi-purpose parking structures or surface parking lots, and establish programs or administrative procedures.**

University-Wide:

Policy 3.1.1.1 Adequate parking is available through year 2020 with existing lots and programmed parking structure improvements. Annually monitor that the parking supply is maintained to adequately serve the current and future parking demand.

Policy 3.1.1.2 Replace surface parking lots with multi-purpose parking garages adjacent to the facilities they serve.

Policy 3.1.1.3 Handicap accessible parking should be reserved in the vicinity of each academic, support and residential facility. Stall counts should range from 2 to 10 spaces depending on facility size occupancy and assigned use.

Policy 3.1.1.4 Parking structures and surface lots shall be designed with internal walkways to be fully integrated with the campus pedestrian and traffic circulation system.

Modesto A Maidique Campus (MMC):

Policy 3.1.1.5 Evaluate the accommodation, routing and design impacts of the potential express bus stop at PG6, pending support from MDT. Evaluate the potential parking impact due to riders using the express bus service at PG6.

Policy 3.1.1.6 Construct parking garage PG6 (2,000 spaces) by the FY 2015.

Modesto A Maidique (MMC) and Biscayne Bay Campus (BBC):

Policy 3.1.1.7 Multi-purpose parking structures shall be built concurrently with proposed private partnership projects to meet partnering needs.

**Objective 3.1.2 University-Wide Implementation of Transportation Demand Management (TDM) strategies:** The University shall implement Transportation Demand Management (TDM) techniques (e.g. increase the number of students living on campus, improved transit, modify academic scheduling, carpooling etc.) in order to reduce the parking demand by the end of the planning period. TDM strategies are

intended to reduce or shift the number of single occupant vehicle (SOV) trips to non-SOV modes or to nonpeak periods. These TDM strategies can be achieved at all FIU campuses by continuing to encourage and facilitate pedestrian and bicycle modes, transit use, ridesharing and other alternatives. TDM Strategies that are in place and/or could be improved at FIU's campuses include the following:

University-Wide:

Policy 3.1.2.1 Local Connectors – Continue to encourage the use of local connector public transportation. This can be achieved by continuing to improve the relationships with each campus host community and improving local commuter bus facilities within the FIU campuses. Partnering with the host communities to allow their residents to enjoy activities on campus at reduced rates may encourage these communities to further enhance the quality/ frequency of these connector routes.

Policy 3.1.2.2 Reduced Transit Rates – Continue to work with Miami Dade Transit (MDT) to provide reduced student transit rider rates. This could also be extended to FIU employees to encourage their use of this service. MDT offers discounts for college students and encourages Corporate Discount Program – FIU should coordinate with MDT to provide corporate discount transit passes to FIU faculty and staff.

Policy 3.1.2.3 Transit in Lieu of Parking – Provide an annual or semester passes for public transit to students rather than a parking pass would be another alternative strategy.

Policy 3.1.2.4 Improving Transit Facilities - Provide user-friendly transit stop locations on campus that are inclement weather protected and encourage usage.

Policy 3.1.2.5 Carpool and Ridesharing - Continue to promote the carpool program that is being coordinated with the Florida Department of Transportation's South Florida Commuter Services. This program encourages carpool usage by allowing users to search for other carpool members by selecting the location and schedules they need to meet. Continue to encourage ride sharing and carpooling by providing more easily accessible parking spaces for these types of vehicles.

Policy 3.1.2.6 Flexible Working Schedule – Provide flexible schedules for the FIU administration, staff and faculty. This would allow for telecommuting and benefit the volume of traffic generated by these personnel. This will also help reduce traffic flows at peak times.

Policy 3.1.2.7 On-Campus Housing - Increase the amount of on-campus housing to reduce the need for those residents to have a vehicle for regular educational accessibility. This would significantly reduce the number of SOV trips required by nonresident commuters.

Policy 3.1.2.8 Distance-Learning Programs – Increase distance learning programs offered by the University to enable students to take classes without traveling to the campuses. More courses and programs through distance learning reduce trips to the University Campuses significantly.

Policy 3.1.2.9 Transit Oriented Development (TOD) - Introduce transit oriented development in the planning study areas. Transit oriented development refers to residential and commercial centers designed to maximize access by transit and non-motorized transportation, with features to encourage transit ridership. Providing a transit station at Modesto A. Maidique Campus and/or the Engineering Center would provide transit access to the surrounding area.

Policy 3.1.2.10 Transit Information - Provide a system whereby commuters can access and monitor real-time public transportation route schedules and times on their wireless devices.

Policy 3.1.2.11 Parking Permit Buyback - Implement a buyback program for parking permit holders that would reimburse commuters who give back their parking permit and choose to use public transportation or ridesharing activities.

Policy 3.1.2.12 Parking Information – Introduce a real time parking area availability status via information boards at key transportation decision points on campus to allow for more efficient commuting from the point of campus entry to available campus parking facilities. This would help minimize traffic on the campuses by commuters driving through heavy pedestrian areas to find parking. This information could also be linked to a wireless network and made available to commuters’ wireless or smart phone devices.

**Objective 3.1.3 Signage: The University shall create a hierarchy of internal signage.**

University-Wide:

Policy 3.1.3.1 Assess current signage system and better way-finding through the establishment of a hierarchy of signage which includes varying sizes and designs for way-finding. Include signage for directing traffic to nearby parking.

Policy 3.1.3.2 Establish wayfinding signage system that clearly distinguishes size and spacing between vehicular and non-vehicular oriented information.

**Pedestrian and Non-Vehicular Circulation Sub-Element**

**Goal 4.1: Develop, operate and maintain a safe, efficient and economical pedestrian and non-vehicular circulation system on-campus that, in conjunction with systems to be developed off-campus by the host communities, will provide**

**ease of mobility for all people, is consistent with planned land use patterns, promotes energy conservation, and protects the natural environment.**

**Objective 4.1.1 Walkways: Create a campus wide system of interconnected walkways.**

University-Wide:

Policy 4.1.1.1 Provide a continuous system of covered walkways with appropriate width between existing and new academic and student service facilities.

Policy 4.1.1.2 Construct uncovered walkways of appropriate width alongside the roadways, between major buildings, from the parking facilities and within parking lots following "natural" walking routes, by the end of the 2020 planning period. Prioritize and coordinate improvements with; Figures 11.1b, 11.2b and 11.3b; Urban Design, Landscape Architectural and Architectural Elements.

Policy 4.1.1.3 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. Bike lanes shall be 4' wide, except at key holes (area between through and right turn lane) where it shall be 5' wide. Bicycle parking should be provided at all major buildings and recreational facilities on campus.

Modesto A Maidique Campus (MMC):

Policy 4.1.1.4 The 'Avenue of the Arts', extending from the Wertheim Performing Arts Center north through the Graham Center, and the 'Avenue of the Professions', running west from the Graham Center to the Graduate School of Business and School of Law will serve as primary pedestrian linkages through campus. See Element 3.0 Urban Design.

Policy 4.1.1.5 Provide pedestrian corridors throughout the campus, particularly those extending from parking structures at the campus perimeter. Improve pedestrian routes/safety from garages/parking to campus core.

Policy 4.1.1.6 Enhance pedestrian safety, keep pedestrian paths away from intersections. Separate pedestrian and vehicular flows to minimize conflict. Provide appropriate warning signs and striping at pedestrian crossing (mid-block) away from intersections.

Policy 4.1.1.7 Coordinate and construct pedestrian walkways with the new multi-purpose parking structures to provide a linkage to the existing campus and adjacent facilities.

Policy 4.1.1.8 Strengthen direct pedestrian route along "Avenue of the Professions". Route to be more axial than its existing circuitous condition to encourage efficient



pedestrian use.

Policy 4.1.1.9 Provide clear and direct pedestrian route from proposed Sweetwater transit stop south of PG4 to Green Library to encourage efficient pedestrian use.

Policy 4.1.1.10 Integrate the adjacent City of Sweetwater community with the FIU campus by providing a pedestrian bridge across SW 8<sup>th</sup> Street at SW 109<sup>th</sup> Avenue, as a part of the FIU UniversityCity Project, funded by the USDOT Tiger Grant.

#### Engineering Center :

Policy 4.1.1.11 Provide pedestrian walkways to safely link parking, academic, transit and recreation facilities.

#### Biscayne Bay Campus (BBC)

Policy 4.1.1.12 Provide pedestrian walkways to safely link parking, academic, transit and recreation facilities.

Policy 4.1.1.13 Bicycle lanes and sidewalks are not continuous along both sides of NE 151 Street and Bay Vista Blvd. to Biscayne Boulevard. Provide continuous bicycle lanes and sidewalks and extend these facilities to the campus per Figure 11.3b.

Policy 4.1.1.14 Provide adequate bicycle lane links within the Campus to the 135th Street / Arch Creek Preserve bicycle / pedestrian route. Coordinate with Miami Dade County to provide improved bicycle lanes and sidewalks on both sides of the street on Bay Vista Blvd and 151st Street. Ensure safe pedestrian and bicycle access from the local schools nearby.

Policy 4.1.1.15 FIU will coordinate with the City of North Miami to maintain connections to the existing Arch Creek bike path on the 135th Street constructed by FDOT.

**Objective 4.1.2 Campus Safety: The University shall modify vehicular circulation patterns and parking locations to create existing and future pedestrian/vehicular safety at crossings.**

#### University-Wide:

Policy 4.1.2.1 Provide safe crossings for pedestrians across all roadways. Crosswalks shall be of the high emphasis type with appropriate signage (including flashing beacons) and striping. Locations shall consider visibility of pedestrians, length of crosswalks, pedestrian crossing times, connectivity to adjacent sidewalks, pedestrian density, pedestrian signal control, crossing distance, ADA ramps, reduction of posted speed limits, speed bumps, etc.

Modesto A Maidique Campus (MMC):

Policy 4.1.2.2 University – Campus Loop Road

Provide crosswalks on the existing and re-aligned road to provide adequate warning and visibility.

Biscayne Bay Campus (BBC):

Policy 4.1.2.3 Provide crosswalks on the existing and re-aligned roads to provide adequate warning and visibility.

**Objective 4.1.3 Campus Safety Plan: Future pedestrian and non-vehicular facilities should be planned in accordance with the Campus Safety Plan and Crime Prevention through Environmental Design (CPTED) standards.**

University-Wide:

Policy 4.1.3.1 Continue to provide daily escort service after dusk for students between University buildings and parking lots.

**Objective 4.1.4 Context Areas:**

**The University shall create pedestrian and non-vehicular connections to the host communities in the immediate surrounding area.**

University-Wide:

Policy 4.1.4.1 Maintain a standing committee between University staff and host community representatives to provide coordination and resolve issues related to pedestrian and non-vehicular circulation.

Modesto A Maidique Campus (MMC):

Policy 4.1.4.2 Encourage Miami-Dade County to construct bike paths along SW 117 Avenue and Coral Way (SW 24 Street). Encourage FDOT to construct bike paths along SW 8<sup>th</sup> Street (SR 90) and SW 107<sup>th</sup> Avenue (SR 985). Provide bikeways on-campus for any new roadway construction and provide capital improvement budget for adding bikeways along existing roadways.

Engineering Center:

Policy 4.1.4.3 Coordinate with the City of Sweetwater to provide sidewalk enhancements including benches and signage to visually link the EC with MMC.

Policy 4.1.4.4 Coordinate with the City of Sweetwater to provide a pedestrian connection and bike path at the Women's Park and the Engineering Center recreation facilities.

**Objective 4.1.5: Lighting: The University shall provide appropriate lighting for new roadways, all major pedestrian and non-vehicular facilities on-campus (i.e. parking, public areas, and walkways) to enhance safety.**

University-Wide:

Policy 4.1.5.1 Provide new roadways and new pedestrian walkways, with lighting that meets lighting design standards for local roadways and public spaces respectively.

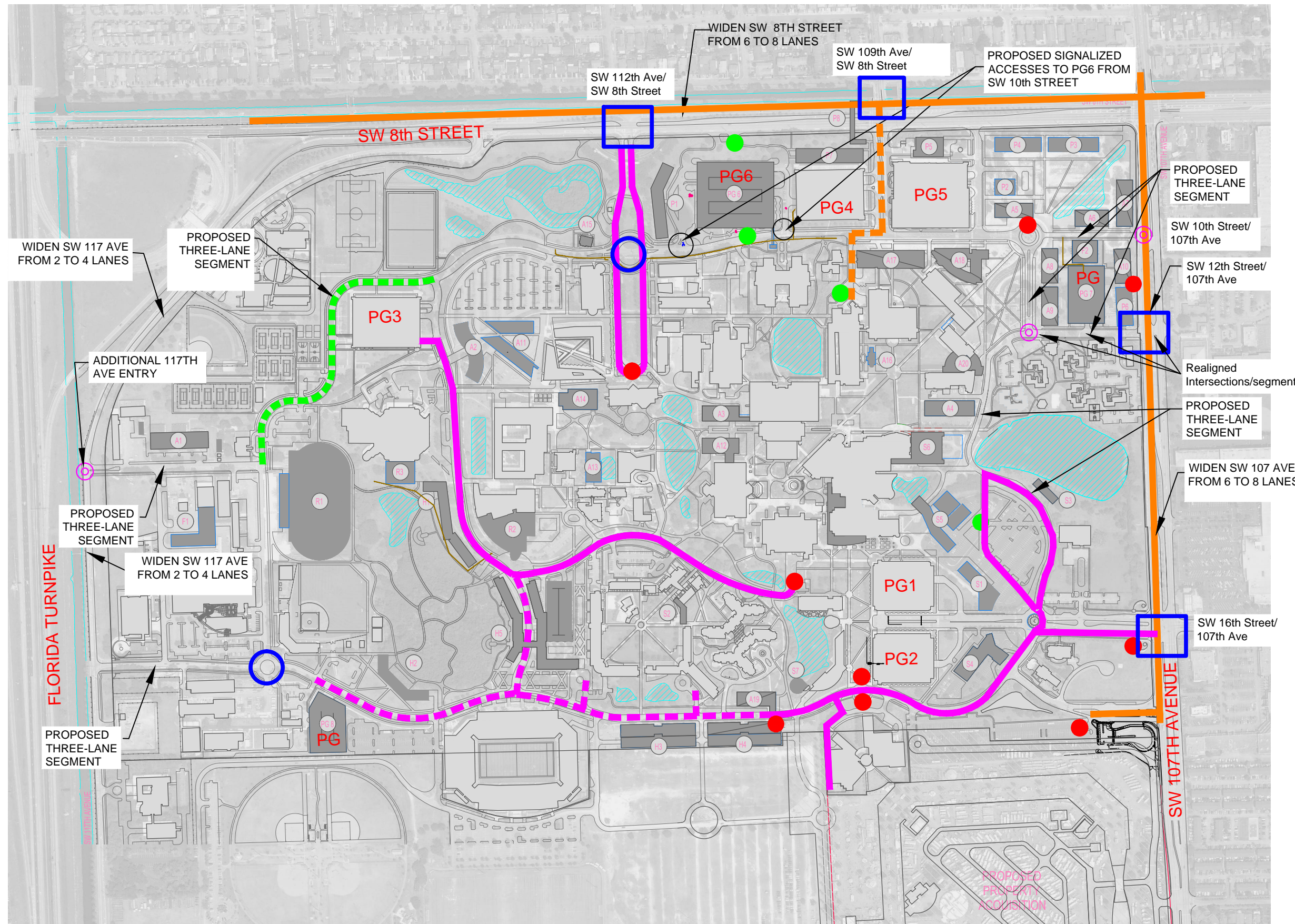
Policy 4.1.5.2 Provide appropriate lighting on the exterior of any new parking garages and new surface parking lots. Any lighting deficiencies on existing facilities shall be addressed to enhance safety.

**Objective 4.1.6 Future Land Use: The University shall provide right-of-way necessary for roadway/transit improvements.**

University-Wide:

Policy 4.1.6.1 Determine right-of-way necessary (including clear zone) necessary for all of the recommended roadway improvements in the 2010-2020 Master Plan. This will also include new entries at MMC and BBC.

Policy 4.1.6.2 Monitor the comprehensive plan of host communities to ensure that roadway/transit improvements in the FIU Master Plan do not conflict with future land uses in the context area.



### LEGEND

- Proposed Building
- Existing Building
- Existing Transit Stop
- Proposed Transit Stop
- Proposed Campus Loop Road Re-Alignment
- New Intersection
- Limited Access
- Surface Water
- Campus Transit:**
- Existing
- Proposed
- MDT/Regional Transit:**
- Existing
- Proposed

### KEY MAP

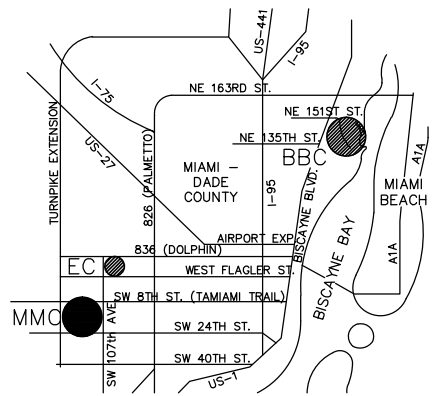


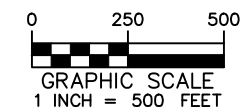
FIGURE 11.1a  
Transit, Circulation & Parking Map For Year 2020

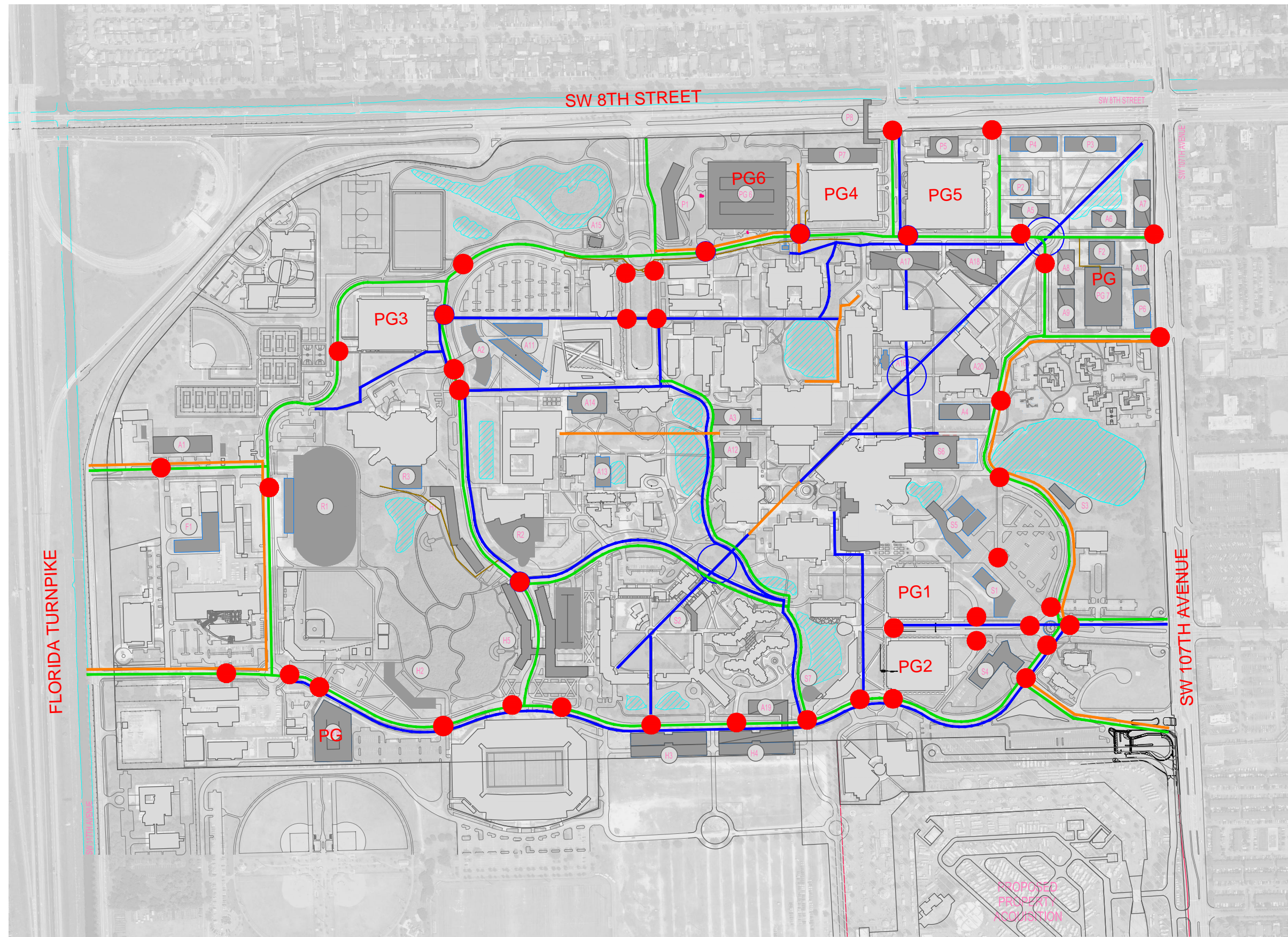
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MODESTO A. MAIDIQUE CAMPUS

- PG Parking Garage
- Improved Intersections
- Proposed Roundabouts





MODESTO A. MAIDIQUE CAMPUS

### LEGEND

- Proposed Building
- Existing Building
- Primary Pedestrian Walk
- Bicycle Path
- Crosswalks
- Campus Node
- Planned Pedestrian Walk
- Surface Water

### KEY MAP

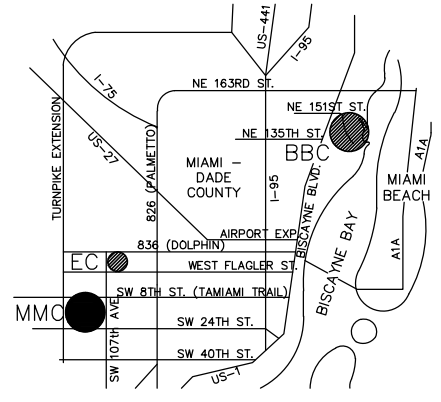
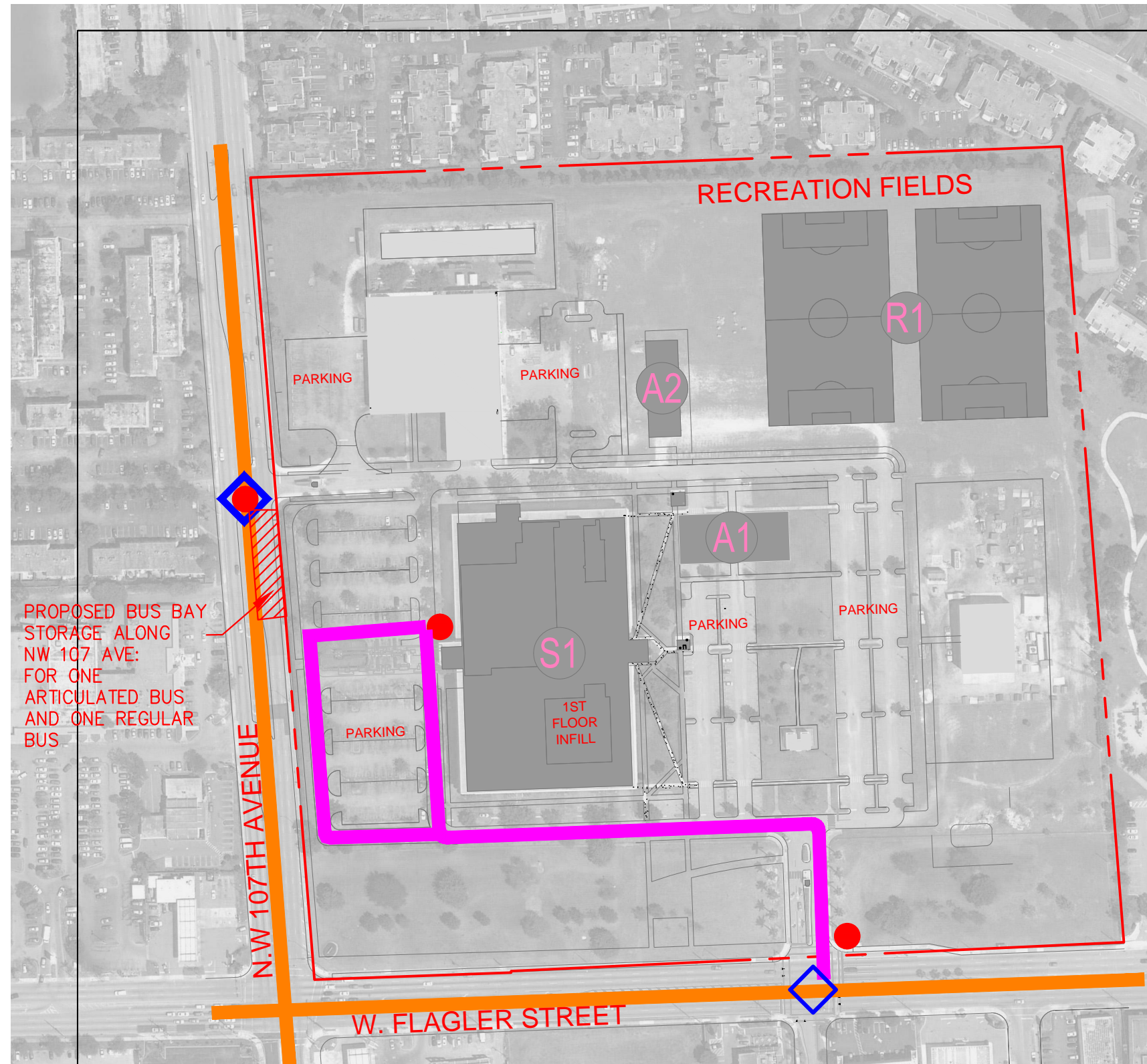
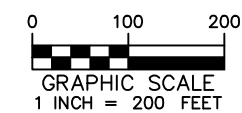


FIGURE 11.1b  
Pedestrian & Non-Vehicular  
Circulation For Year 2020











ENGINEERING CENTER CAMPUS



### LEGEND

-  Proposed Building
-  Existing Building
-  Transit Stop
-  Existing Transit Route
-  Public Access Points - No Improvements
-  Surface Water

Campus Transit:

-  Existing

MDT/Regional Transit:

-  Existing

### KEY MAP

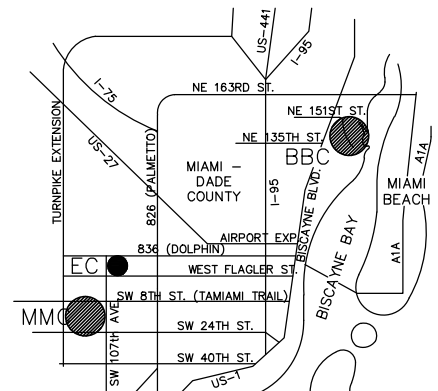
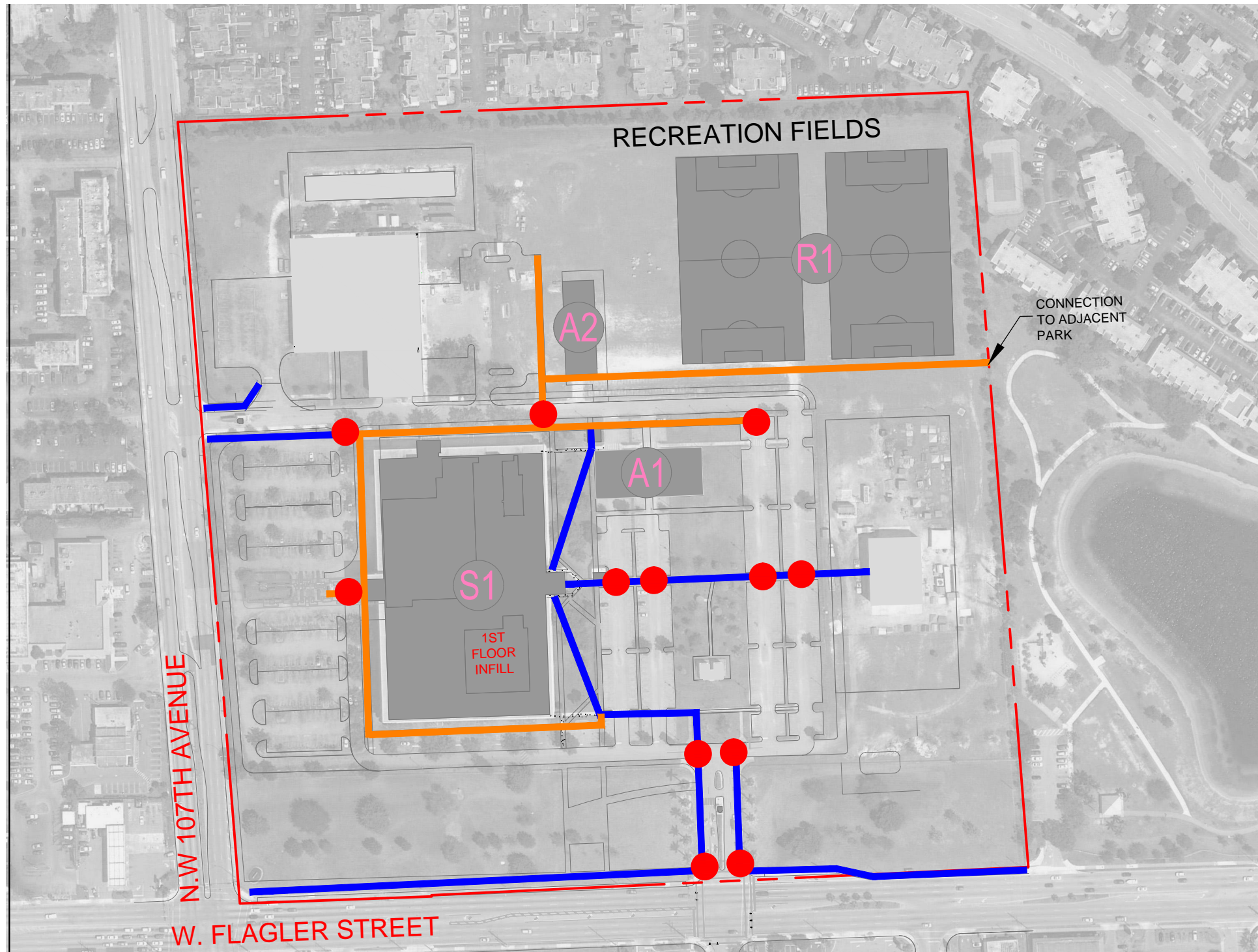
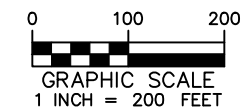


FIGURE 11.2a  
Transit, Circulation &  
Parking Map For Year  
2020










ENGINEERING CENTER



## LEGEND

-  Proposed Building
-  Existing Building
-  Exist Pedestrian Route
-  Crosswalks
-  Planned Pedestrian Route

## KEY MAP

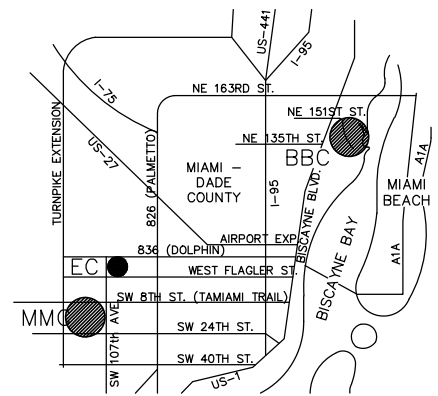
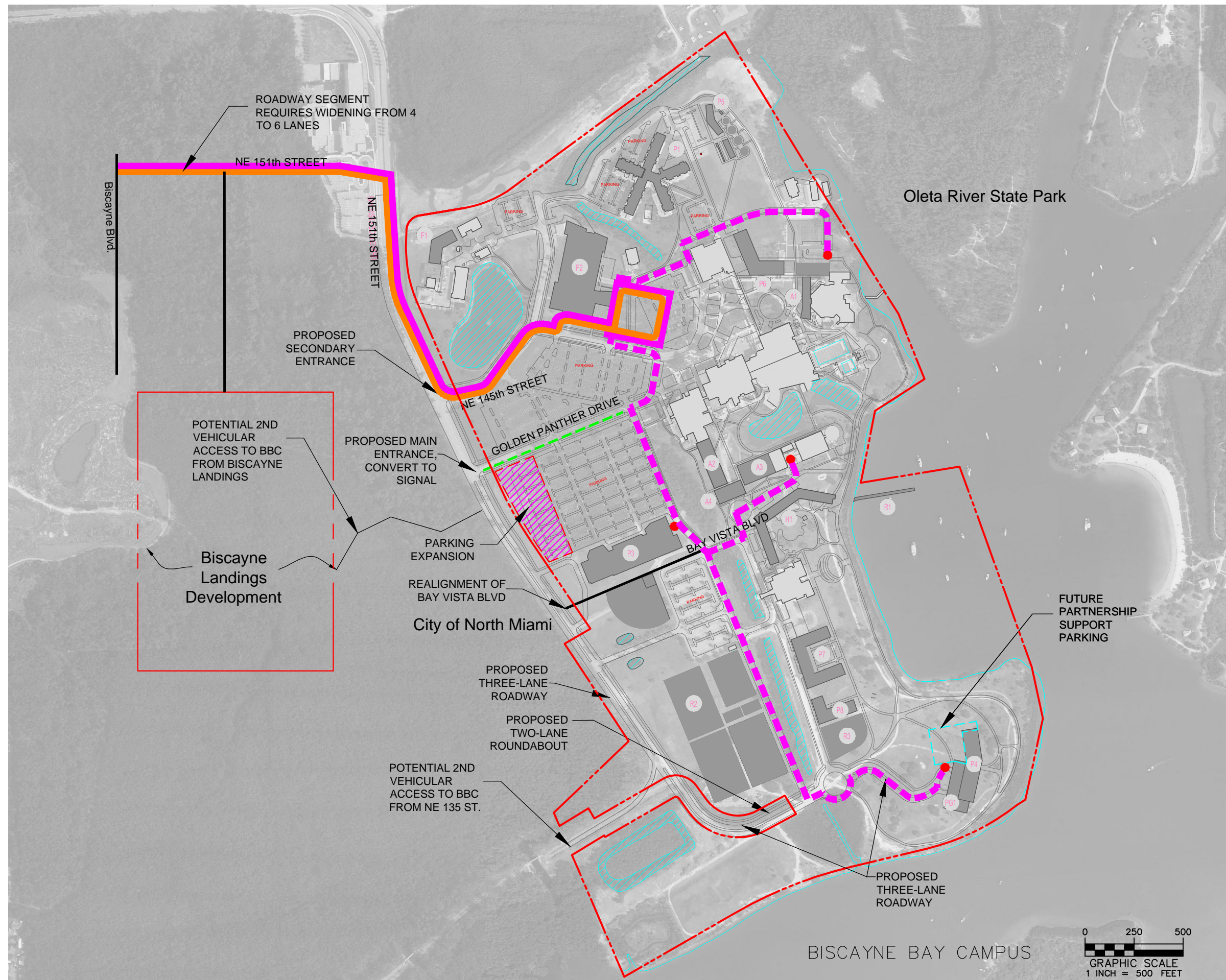


FIGURE 11.2b  
Pedestrian & Non-Vehicular  
Circulation For Year 2020

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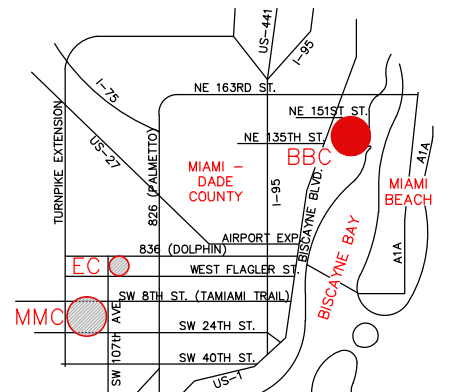
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### LEGEND

- Proposed Building
- Existing Building
- Transit Stop
- Proposed Re-aligned Panther Drive
- Surface Water
- Campus Transit:**
- Existing
- Proposed
- MDT/Regional Transit:**
- Existing

### KEY MAP



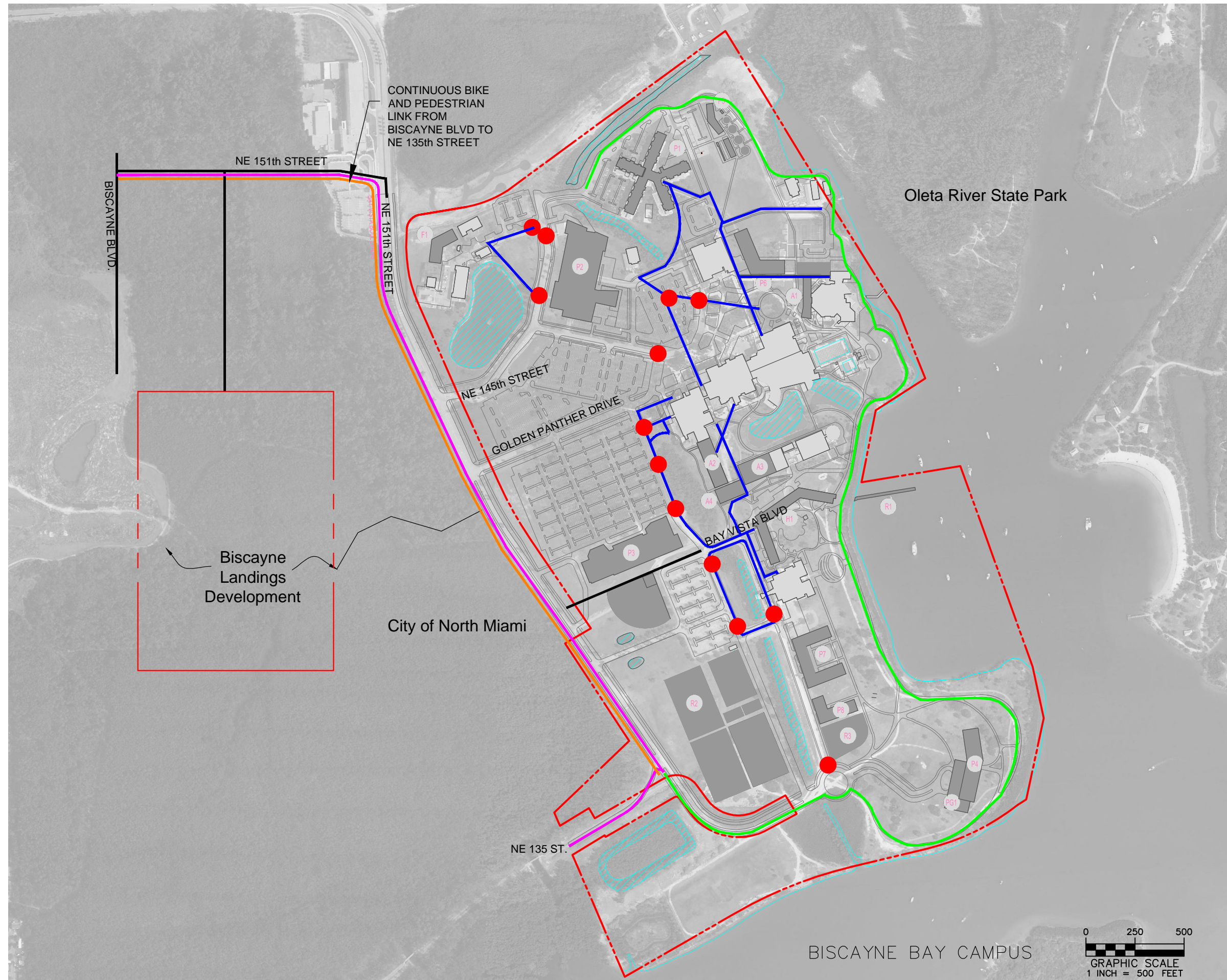
**FIGURE 11.3a**  
Transit, Circulation & Parking Map For Year 2020

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### LEGEND

- Proposed Building
- Existing Building
- Pedestrian Route
- Crosswalks
- Bike Route
- Planned Pedestrian Route
- Shared Pedestrian Route & Bike Route
- Surface Water

### KEY MAP

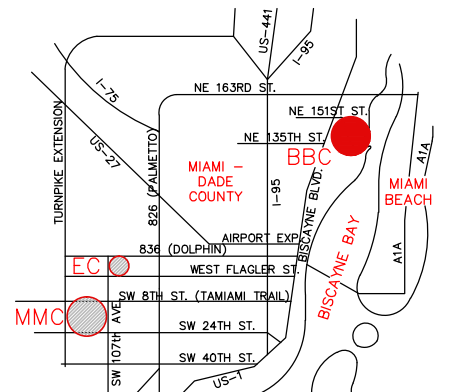


FIGURE 11.3b  
Pedestrian & Non-Vehicular  
Circulation For Year 2020

