UNIVERSITY OF NORTH FLORIDA

Campus Master Plan

2020-2030

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Paul Stewart: p.stewart@unf.edu | 904-620-2016

Angela Johnson: angela.johnson@unf.edu | 904-620-2024

Element 1: Introduction

Master Planning at UNF

The University of North Florida 2020 Campus Master Plan is a physical vision for development that both responds to today's challenges and advances the University's academic and strategic initiatives. The Master Plan embraces UNF's beautiful campus setting unique to North Florida and seeks to preserve it for future generations. A flexible roadmap, the plan contains a series of guidelines and policies for the development of the campus in alignment with capital planning. The plan also guides a high-quality built environment by unifying the campus grounds and architecture, connecting the campus core and edges with a high-quality pedestrian experience and aligns proposed development with transportation and utility infrastructure.

Master Plan Process and Outreach

Beginning in September of 2019, the Master Plan is a 7-month master planning process composed of six workshops over four phases. At the conclusion of each workshop, the planning team met with a steering committee representing diverse academic, administrative, athletic and student voices. The team also coordinated periodically with executive leadership.

Throughout the process, the team conducted multiple open forums for both the campus community and the general public. Meetings included presentations and posters with opportunities to provide written feedback through question and answer sessions. The planning team also participated in Market Days at the student union to directly reach students who identified high-quality areas of campus, opportunities for improvements, and their vision for the campus.

Listen and Assess

September 2019 – Kick-off & Workshop 1

During the first phase, the planning team reviewed previous master plans, studies, and relevant ongoing planning efforts. The team conducted multiple listening sessions organized around topic areas with students, faculty and staff to understand key issues at the master planning level and held an open forum for the campus community.

Envision

October 2019 : Workshop 2

The planning team developed planning principles and a concept plan that identified the key physical planning issues on the campus and held an additional campus community open forum.

Test

November 2019 – February 2020: Workshop 3 & 4

During the test phase, the planning team tested and refined multiple design scenarios over the course of two workshops and held the first open public forum on December 4th, 2019.

Synthesize

March– June 2020: Workshop 5 & 6

The synthesize phase refined and documented the preferred design scenario. A second open public forum was held on March 12th, 2020

State of Florida Requirements and Planning Horizon

Campus master planning is required by the State University System Board of Governors Regulations and governed by Florida Statute Chapter 1013.30 for the purposes of coordination between universities and local governments and ensuring consistency with planning initiatives. The planning horizon of the 2020 Campus Master Plan is 10 years. The plan also reserves future building site opportunities identified as "long term" that extend beyond the planning timeframe.

The Campus Today

Campus size and regional context

The University of North Florida, established in 1972, is one of twelve public colleges and universities within the State University System in Florida. UNF's 1,381-acre campus is located within Duval County, in the First Coast region of northeast Florida, centered on the banks of the St. Johns River approximately 10 miles from the Atlantic coast beaches and 14 miles from Jacksonville's urban core. Both destinations are approximately 20 minutes away by car. UNF is bordered by Central Parkway to the north, Kernan Boulevard to the east, Florida Interstate 295 to the west and J Turner Butler Boulevard to the south. The recently developed St. John's Town Center is across I-295 to the west.

Satellite Facilities

The Museum of Contemporary Art (MOCA) is in the urban core of downtown Jacksonville. Located in the historic Western union Telegraph Building on Hemming Park since 1999 and founded in 1924, the museum serves the community and visitors with educational programs, exhibitions, collections and publications with a focus on contemporary art created from 1960 to the present.

Located two blocks to the south of MOCA in The Barnett Building, the newly established Entrepreneurship and Innovation Center is part of the Coggin College of Business and supports the growing entrepreneurship

ecosystem in Jacksonville. The center has living-learning labs and resources for both UNF students and the broader community.

1,050 acres of wetlands on the intracoastal waterway, donated to the University in 2016, is the location of the William C. Webb Coastal Research Station where the Coastal and Marine Biology Flagship Program conducts research.

Campus History

UNF was chartered in 1965 and opened its doors in 1972 to about 2,000 students and 150,000 gross square feet of building. UNF was initially established to meet the needs of northeast Florida by offering an upper division college for junior, senior and graduate-level programs. UNF began admitting freshmen in 1984. The 1980s saw the construction of the library, the student life center, and the introduction of on-campus housing.

In the early 1990s, the introduction of professional schools began with the Coggin College of Business and the Brooks College of Public Health. The University purchased 150 acres to the north to extend their landholdings up to Central Parkway which has been utilized for athletics and recreation. In the 2000's and 2010's, the University has developed beyond its core. The north-south road was constructed to complete the outer loop road network. UNF and Alumni Hall were acquired to shift administrative and development functions out of the campus core and construction on the east ridge commenced with the completion of the Osprey Fountains residence hall in 2009. Within the campus core, the University has constructed a new College of Education, the biological Sciences Building, Student Union, and the adjacent Recreation Center.

Existing Campus Setting

Nestled within a dynamic natural setting, UNF's compact campus core is walkable with multiple plazas bounded by uniform building heights of generally 3 stories and connected by a series of covered walkways. Pathways and boardwalks cross UNF Drive encompassing the campus core to surrounding uplands engage with the campus's natural borders. UNF is a significant contributor to the region with an annual economic impact of more than 1 billion.

Current Enrollment and Schools

Enrollment for the fall 2019 semester is 17,308 students, an increase of about 6% from enrollment in Fall of 2010. 86% of students enrolled are undergraduates and 69% are enrolled full time. About 38% of students are from Duval County and in total about 93% of students are from Florida. The University of North Florida has six colleges: Brooks College of Health, Coggin College of Business, College of Arts & Sciences, College of Computing, Engineering and Human Services, and Hicks Honors College.

A member institution of the State University System of Florida, UNF is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award baccalaureate, masters and doctorate degrees. Each year, nearly 4,000 students graduate from UNF and the university offers 57 bachelor's degrees 35 masters degrees and 5 doctoral degrees. UNF employs nearly 600 full-time faculty and over 1,200 staff members, and offers 60 undergraduate degree programs, 36 graduate-degree programs and five doctoral programs.

Building Uses and Academic Zones

The campus has distinct use zones with athletics and recreation uses to the north, primarily academic uses in the core, housing to the south and east and administrative services to the southeast. In the compact campus core, academic, administrative and student-centered space uses provide a mix of use types, however the student union to the north is removed from student housing to the south and east. Residential communities are scattered on the southern end of campus and have differing qualities and connectivity to the campus core.

The 2020 Strategic Plan

Academic and Administrative Excellence and Organizational Effectiveness

The 2020 Strategic Plan emphasizes the University's commitment to student success and excellence in seeking national prominence grounded in the North Florida region. The student-centered approach to create the next generation of thinkers and leaders envisions UNF as an institution where diverse students and faculty advance society through innovation and collaboration. The master plan will support the strategic plan by establishing a physical vision for the campus in two areas of focus: academic and administrative excellence and organizational effectiveness. To promote academic and administrative excellence the plan will reinforce research, teaching, service and athletic excellence by providing long-term growth capacity and focusing on near-term opportunities to improve campus.

To promote organizational effectiveness the plan will:

- Enhance the student experience by accommodating future housing on campus and providing an active student hub.
- Promote research, scholarship, and creative activity by identifying locations to accommodate the growth of interdisciplinary research.
- Enhance the professional environment by identifying opportunities to foster new administrative synergies.

- Support community business and engagement by providing amenities in a new college town center.

Mission Statement

The University of North Florida's academically talented students receive individualized attention and opportunities to engage in transformational learning: e.g., community engagement, internships, international study, and research. Dedicated faculty and staff create a rich learning environment on a beautiful campus that provides an inspiring setting for our diverse community. Together, we enhance the economic and cultural development of our growing metropolitan region.

Vision Statement

The University of North Florida will be an institution of choice, nationally recognized for high-caliber students, faculty, and staff. We will be known for engaging students with experiential learning grounded in critical thinking, effective communication, and analytical skills. We will expand our reach and relevance through innovative programs and research that drive the economy, build upon our extensive partnerships, and position our students for lifelong success. Students will develop the global perspectives and cultural understanding needed to address future challenges.

Space Needs

State Campus Space Allotment and Current Inventory

UNF currently has 866,800 net assignable square feet (NASF) of building inventory. The Educational Plant Survey conducted in 2019 identified 433,700 NASF of current adjusted need with needs expressed in all space categories besides teaching lab space, where a 50,500 NASF space overage is recorded. 216,700 NASF of research lab need represents nearly 45% of total need campus-wide. Including existing space and needs identified in the Educational Plant Survey, the state campus space allotment is 1,300,500 NASF.

Student Enrollment Projections

Enrollment has historically steadily increased, exceeding 17,300 in Fall 2019. The Master Plan projects that enrollments will continue to rise with a 2025 target of 20,000 students. The projected growth will require additional investment in academic, student life, housing and service.

A chart below the bar breaks down the current inventory and current adjusted need into 9 major space types.

Space Type	Classroom	Teaching Lab	Study	Research Lab	Office	Auditorium	Instructional Media	Gymnasium	Support	Total
Current Inventory	100,500	186,500	134,900	76,200	283,500	15,400	7,900	6,800	55,100	866,800
Current Need Total	8,300	-50,500	77,400	216,700	70,400	11,800	39,300	47,600	11,500	433,700

Element 2: Proposed Master Plan

Master Plan Goals

The 2020 Master Plan envisions three interrelated goals that drive transformative physical planning campuswide. These goals, aligned with the University's strategic framework, are the conceptual foundation for implementing individual projects.

-Celebrate our natural setting
-Strengthen and renew our core
-Envision our future

CELEBRATE OUR NATURAL SETTING

Preserve our natural assets.
Encompassed by a rich biodiversity from oak ridges to cypress groves and swamplands, UNF has been inextricably linked to its natural setting from its founding in 1972. Protecting and celebrating UNF's natural setting has been an enduring planning principle that continues to sustain a strong relationship to nature and engagement through a range of programming and conservation. The master plan continues a tradition of stewardship to engage campus buildings and open spaces with the natural landscape and encourages its incorporation into the academic curriculum.

Reinforce our campus gateways.
Increase UNF's outward facing presence at key entry points to campus with iconic features that promote a strong sense of arrival, the unique identity of UNF, and connection to the broader Jacksonville community. Completion of the Osprey Ridge Road extension and Eco Road to Central Parkway allows for an outer loop road on campus with pedestrian and bike amenities which, combined with enhanced iconic primary gateways at Kernan and I-295 to campus and enhanced secondary vehicular thresholds, clarify the entry into campus and enhance engagement with UNF's natural edges.

Below is an aerial illustrative of the proposed master plan depicting proposed locations for monumental signs and vehicular thresholds. The outer loop road is depicted with a green line. The campus gateways 3D aerial illustrative highlights UNF Dr, the outer loop road of campus, with main vehicular gateways connecting to UNF Dr. at the north-east quadrant of campus depicted as dashed lines. At the intersection of Interstate 295, a monumental gateway sign is proposed. Smaller vehicular threshold signage is proposed at the other two northern entrances at central parkway. To the south, a monumental sign is proposed at the intersection of Alumni Dr. and Kernan Blvd. with three other wayfinding opportunities at vehicular thresholds along

Kernan Blvd. Proposed buildings are shown in orange and wetland boundaries are shown in yellow-green with a green dashed outline.

Monumental sign
Vehicular Threshold
Outer Loop Road
Wetland boundary
Proposed Building
Gateway Road

Leverage our campus lakes.

UNF is a campus of lakes that serve as gathering areas, stormwater management, learning environments, and recreational opportunities. Enhance lakes by engaging with their edges and providing connectivity between the campus core to conservation areas. Each campus lake is an opportunity for a unique identity and campus neighborhood with continuous pedestrian links and activating features.

STRENGTHEN AND RENEW OUR CAMPUS CORE

Improve the pedestrian experience.

UNF's compact campus core defines a rich network of walkable courtyards, corridors and plazas bordered by a campus loop road. Continue to improve pedestrian connectivity by improving the covered walkaway experience and clearly defining secondary pedestrian gateway thresholds. Improve safety at vehicle pedestrian conflict zones and facilitate the effective flow of pedestrians, bicycles and skateboards.

Below is an aerial illustrative showing the inner loop road and enhanced pedestrian connections.

A thin red dashed line indicates refinement of UNF Dr. to include enhanced pedestrian and vehicular facilities and consistent street trees. Green arrow lines show four existing pedestrian connections from the outer parts of campus to UNF Dr., such as the walkway from UNF Dr. to Osprey Fountains, and thicker dashed red arrow lines show improvements to existing pedestrian connections. Improved pedestrian walkways are proposed from lot 14 to Building 57 and from Osprey Crossings to Osprey Cove. A new connection is proposed between the Social Sciences Building to the proposed Honors Housing north of Osprey Fountains. An orange circle is shown at the pedestrian connections where they cross UNF Dr. Proposed buildings and building remodels are colored and shown by phase.

- Inner loop road enhancements
- Enhanced pedestrian connections to the campus core
- Existing connection to the campus core
- Pedestrian crossing enhancements
- Proposed building – CIP project
- Proposed building – near-term growth
- Proposed building – future capacity
- Existing building – remodel

Refine UNF Drive.

Refine UNF Drive establishing consistent street tree plantings and enhanced multi-modal pedestrian and bike facilities. Improve engagement between open spaces and building frontages with the loop road and to natural spaces beyond. Study opportunities to restrict private vehicle access to the portion of UNF Drive between the student and wellness centers. Improve connectivity across UNF drive by enhancing existing pedestrian crossings and establishing new connections at key locations.

Renew aging facilities and allow for future growth.

Continue to renew aging facilities in the campus core and address deferred maintenance. Current CIP projects include:

-Laster Hall (#8) second floor remodel
-College Business (#42 and #10) expansion, atrium and remodel
-Brooks College of Health (#39) remodel select spaces
-Matthews building (#15) Enclose exterior corridors, infrastructure upgrades and refresh

There are few remaining available development sites within the campus core. The Master Plan identifies opportunities for a student union expansion, future student housing, research and academic building sites. Proposed buildings should contribute to existing pedestrian networks, interface with UNF Drive where appropriate, and account for any changes to parking and vehicular circulation.

Proposed Campus Core Diagram

The proposed master plan 3D illustrative is focused on the center of campus showing key proposed projects in the plan. From north to south: Long term student housing and a near-term proposed expansion of the student union at the current J.B. Coxwell Ampitheater, remodel of building 39, remodel of buildings 42 and 10 with a proposed addition as a CIP project, proposed long-term and near-term research/academic building footprints on parking lot 3 and 2, proposed academic/collaborative space connected to the south face of Carpenter Library, remodel of buildings 8,9 and 15, and a proposed student housing/parking building in parking lot 10. Primary pedestrian connections are shown in yellow connecting the proposed buildings with opportunities for active student-facing functions at the Student Union Expansion, the Arena Garage, The Academic/Collaborative building south of the Carpenter Library, and at Building Z.

- Proposed building – CIP project
- Proposed building – near-term growth
- Proposed building – future capacity
- Existing building – remodel
- Primary pedestrian connection
- Pedestrian spine with active ground floor uses
- Opportunity for active student-facing functions within buildings

Improve Administrative Synergies.

Position administrative units to meet the goals for student success outlined in the Strategic Plan. Identify opportunities to move non-student facing administrative functions to locations outside the campus core and to consolidate student-facing functions campus-wide to a proximate central location in the campus core. Evaluate existing student-facing administrative space in the campus core for suitability.

Implement campus activators.

Activate existing plazas and courtyards with flexible seating options and lighting that promotes the UNF collegiate spirit, fosters a sense of ownership by students, and invites evening uses for a growing on-campus student population. Utilize ground floor spaces for active ground floor uses and increase transparency on existing building facades along primary pedestrian routes.

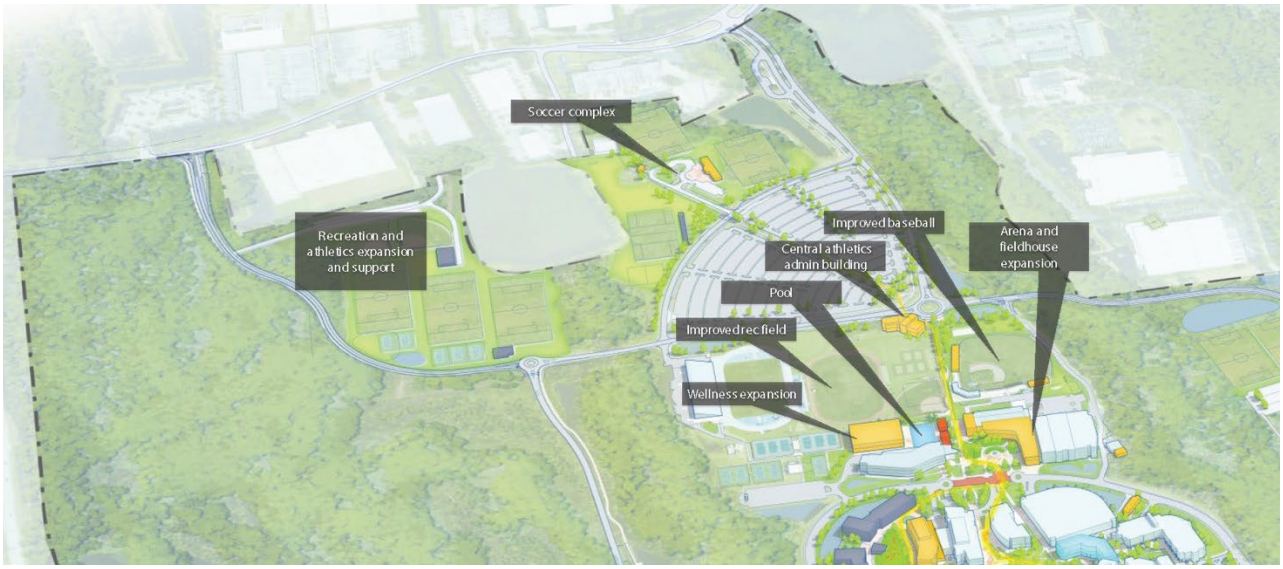
ENVISION OUR FUTURE

A vibrant athletics district.

The Master Plan builds on the success of the wellness complex with a proposed pool facility and long-term wellness expansion. The Master Plan proposes limiting vehicle access at UNF Drive between the student union and wellness center to enhance pedestrian access to athletics and recreation facilities and Lot 18. A proposed arena and fieldhouse expansion provide a new entrance facing the arena plaza and walkway. Moving north, the Master Plan follows the vision of the Athletics Master Plan with multiple improvements to existing facilities and proposes a new central athletics administration building facing the round-about at Lot 18 to address office space need. Beyond Lot 18, a new soccer complex is proposed and to the west new recreation and athletics fields to the northwest adjacent to the recently completed Eco Road extension.

Proposed Athletics District Diagram

The proposed master plan 3D illustrative is focused on the north portion of campus showing key proposed projects in the plan. From north to south: recreation and athletics expansion in the north-western most area of campus including 3 soccer fields, 5 tennis courts and 2 baseball fields, a proposed soccer complex to the east, central athletics administration building at the intersection of North Entrance Road and UNF Drive, improvements to the baseball and recreation field, pool and wellness expansion adjacent to the Student Wellness Complex, and expansion to the arena and fieldhouse.



- Proposed building – CIP project
- Proposed building – near-term growth
- Proposed building – future capacity
- Existing building – remodel

East ridge residential neighborhood.

East ridge is envisioned as a housing neighborhood with a diversity of housing options from the proposed Honors College housing to the north and affinity housing to the south of the 1,000 beds at the Fountains. The neighborhood will feature a new pedestrian walkway to the campus core terminating at the proposed Honors College housing. Structured parking is envisioned in the long-term in addition to surface parking lots to continue utilizing the neighborhood as a parking resource along the outer loop road. A continuous pathway begins at proposed recreation fields to the north and continues to the south connecting to Kernan Boulevard.

Proposed East Ridge

The proposed master plan 3D illustrative is focused on the eastern portion of campus showing key proposed projects in the plan. From north to south: two multi-purpose recreation fields, Honors College housing CIP project phase and an adjacent future phase, structured parking, central plant expansion across Osprey Ridge Rd, and affinity housing between Osprey Fountains and Kernan Blvd.

- Proposed building – CIP project
- Proposed building – near-term growth
- Proposed building – future capacity
- Existing building – remodel

Partnerships and new endeavors.

West of Kernan Boulevard, the Master Plan envisions future development focusing on opportunities for research and partnerships. The plan allows for future flexibility in areas around Hicks Hall and 1st Coast Tech Parkway and enhanced pedestrian connectivity to the lake front mixed-use center and the east ridge residential neighborhood.

West of Kernan Boulevard

The proposed master plan 3D illustrative is focused on campus south of Kernan Boulevard and adjacent to the University Center showing key proposed projects in the plan. From north to south: future housing in parking lot 16, kitchen addition to the University Center, a housing and retail village center south of the University Center framed around a lake with parking to the east, innovation and partnership buildings around and including 4926 Kernan Blvd, future development footprints south of Kernan Blvd. between the proposed village center and Hicks Hall, and research/partnership buildings on both sides of 1st Coast Tech Parkway adjacent to Hicks Hall.

- Proposed building – CIP project
- Proposed building – near-term growth
- Proposed building – future capacity
- Existing building – remodel

Lakefront mixed use center.

Kernan Boulevard is a key opportunity for partnerships and outward presence for UNF. The Master Plan proposes a mixed-use housing and retail center south of the University Center engaging the existing lake with views from Kernan. The center will provide the on-campus student population with more walkable dining and shopping options and reduce the need for private vehicle trips. In the long-term, 4926 Kernan Boulevard is envisioned to be an innovation and partnership hub with adjacent future mixed-use development and parking. The proposed Lakefront mixed—use center will leverage and engage with the existing University Center for a combination of housing, conference, retail and innovation uses. The Master Plan envisions a high-quality urban environment with active streetscapes and engaging architecture leveraging views from the adjacent lake with strengthened connectivity to the campus core.

Below is an Aerial view looking northwest of the proposed lakefront mixed use center

Element 3: Capital Improvements

The funding and implementation of capital improvements identified in the Master Plan are integral to advancing UNF's mission and strategic vision, and a critical component of the planning process. The implementation of capital improvements is contingent upon the identification, application and efficient use of Florida Board of Governors State University System (SUS) monies and those made available to or by UNF. Capital improvements are supported primarily by funding mechanisms such as Public Educational Capital Outlay (PECO) and Capital Improvement Trust Fund (CITF) program monies that are administratively allocated and funded by the SUS.

Priorities and the ability to implement capital improvements often change over the time horizon of the master plan, and procedural updates to this element may be necessary and are subject to annual review. The Master Plan outlines the goal, objectives and policies to implement projects in the most efficient and fiscally sound manner that support long-term stewardship of UNF's resources.

Table 3.1, Schedule of Capital Projects, outlines all SUS-eligible capital improvements for the first five (5) years of this Master Plan (2020-2025) and other projected capital improvements in years 2026-2030.

Goal 1 – Capital Improvements

Provide facilities that address space needs, leverage existing facilities, and advance the University's mission through a coordinated approach to campus development and continued stewardship of resources.

3.1	**Provide capital improvements that adequately address current space needs, anticipated campus growth, deferred maintenance and obsolete facilities.**
3.1.1	Evaluate and prioritize, in coordination with the University of North Florida Board of Trustees and the Florida Board of Governors, the scheduling funding of capital improvements listed in table 3.1 with the following criteria: 1. Elimination of existing space deficits. 2. Consistency with the 2020 UNF Strategic Plan 3. Consistency with the planned improvements indicated in the Campus Master Plan including but not limited to priorities for housing, transportation, utilities, open space, recreation and conservation and placement consistent with figure 4.1, Future Land Use. 4. Consistency with the development agreement with the City of Jacksonville. 5. Ability to identify and secure adequate funding for implementation. 6. Impacts to campus utility infrastructure and available capacity. 7. Consistency with findings and recommendations regarding the replacement and renewal of capital facilities included in the Educational Plan Survey and Needs Assessment. 8. Replacement or renovation of obsolete facilities and facilities with significant deferred maintenance.
3.1.2	Reassess project priority, funding, timing and phasing of capital improvements annually in coordination with the University of North Florida Board of Trustees and Florida Board of Governors.
3.1.3	Amend the Campus Master Plan as necessary to reflect annual updates to the Five-year Capital Improvement Plan.
3.1.4	The University shall establish the prioritization criteria for capital improvements with approval by the President and the Board of Trustees.

3.2	**Adhere to sound fiscal policies in providing the capital improvements and proceed with new capital improvements, expansions or replacements only when adequate funding sources have been identified and committed.**
3.2.1	Continue to adopt a five Year Capital Improvement Program and annual capital budget as part of the annual budgeting process.
3.2.2	Ensure that future facility costs and programming efforts include consideration and adequate funding where applicable of the following: 1. Site improvements. 2. Utility/infrastructure extensions. 3. Parking needs and traffic circulation improvements. 4. Environmental mitigation. 5. Enabling projects and swing-space. 6. Long-term operation and maintenance. 7. Sustainable design.

Figure 3.1 Proposed Projects Illustrative Master Plan

The proposed illustrative master plan shows proposed project footprints and building remodels in four categories: CIP projects, near-term growth, future capacity, and remodel CIP project. Starting north and moving south, recreation and athletics expansion is proposed in the north-western most area of campus including 3 soccer fields, 5 tennis courts and 2 baseball fields, a proposed soccer complex to the east, central athletics administration building at the intersection of North Entrance Road and UNF Drive, Improvements to the baseball and recreation field, pool and wellness expansion adjacent to the Student Wellness Complex, and expansion to the arena and fieldhouse. Within the inner loop of UNF Drive is the central part of campus: starting from the north, long term student housing and a near-term proposed expansion of the student union at the current J.B. Coxwell Ampitheater, remodel of building 39, remodel of buildings 42 and 10 with a proposed addition as a CIP project, proposed long-term and near-term research/academic building footprints on parking lot 3 and 2, proposed academic/collaborative space connected to the south face of Carpenter Library, remodel of buildings 8,9 and 15, and a proposed student housing/parking building in parking lot 10. To the east of central campus, and from north to south: two multi-purpose recreation fields, Honors College housing CIP project phase and an adjacent future phase, structured parking, central plant expansion across Osprey Ridge Rd, and affinity housing between Osprey Fountains and Kernan Blvd. In the area adjacent to the University Center and south of Kernan Boulevard and from north to south: Future housing in parking lot 16, Kitchen addition to the University Center, a housing and retail village center south of the University Center framed around a lake with parking to the east, innovation and partnership buildings around and including 4926 Kernan Blvd, future development footprints south of Kernan Blvd. between the proposed village center and Hicks Hall, and research/partnership buildings on both sides of 1st Coast Tech Parkway adjacent to Hicks Hall. Wetland boundaries are depicted in a darker green, and areas of dark green with a brown dash areas are potential wetlands.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A. Recreation and Athletics Expansion and Support
B. Soccer Complex
C. Central Athletics Administration Facility
D. Improved Recreation Field
E. Improved Baseball Stadium
F. Wellness Expansion
G. Arena Remodel and Expansion
H. Recreation Fields and Parking
I. Central Plant Expansion
J. Housing
K. Student Union Expansion
L. CCEC High Bay and Chemical Storage Building
M. Brooks College of Health
N. Research/ Academic Facility
O. College of Business Remodeling
P. Research/ Academic Facility
Q. Mathews Computer Science Building
R. Housing
S. Student space / Research Facility
T. Structured Parking
U. Central Plant Expansion
V. Housing and Parking
W. Housing
X. Affinity Housing
Y. University Center Kitchen Addition
Z. Housing / Retail / Innovation / Partnerships
AA. Research / Partnerships
BB. Outdoor Research

Map Legend

- Proposed building – CIP project
- Proposed building – near-term growth
- Proposed building – future capacity
- Proposed Remodel – CIP Project
- Existing Building
- Existing Parking Garage
- Wetland Boundary
- Potential Wetland Boundary*

**Data not shown on existing UNF resources. Official delineation should be completed in this area or updated survey wetland boundaries provided.*

Table 3.1 Schedule of Capital Projects 2020-2030

5 Year Capital Improvement Projects

Map Key	Project Title	Building Number	Academic or Program Beneficiary	Net Assignable Square Feet (NASF)	Gross Square Feet (GSF)	Description	2020 CIP Fund	Priority	Start Year	Completion Year
Q	Remodel of Roy Lassiter Hall	8	Academic	8,644	14,952	Provides the second floor of Roy Lassiter Hall, Building # 8, with a more efficient use of the space and all new finishes for the building users.	PECO	1	2021	2023
O	Coggin College of Business Phase II	9, 10, 45	Academic	47,500	68,350	Connects CCB with Honors Hall to provide additional classroom, research lab, instructional media and study space. Project requires the remodeling of space in Shultz Hall, Building # 9, to accommodate the departments moving out of Honors Hall thereby freeing up space for the Coggin College of Business.	PECO	2	2021	2024
M	Remodel of Brooks College of Health	39	Academic	8,000	13,600	Remodel space in the Brooks College of health, building # 39, including classrooms, teaching labs, and research labs.	PECO	3	2021	2023

Map Key	Project Title	Building Number	Academic or Program Beneficiary	Net Assignable Square Feet (NASF)	Gross Square Feet (GSF)	Description	2020 CIP Fund	Priority	Start Year	Completion Year
	Land Acquisition		Campus Wide			A limited amount of undeveloped adjacent land is available for purchase for future campus growth and the University has identified this property as essential to meeting the strategic and regional goals for the campus.	PECO	4	2022	2023
Q	Remodel of Mathews Computer Science Building	15	Academic	35,754	53,631	Remodel for the College of Computer, Engineering, and Construction. Improvements include modernized learning environments, enhanced student collaboration and academic support space, enhanced presence and safety of the building from the exterior. Provide additional study areas, larger classrooms, and research spaces.	PECO	5	2022	2024

Map Key	Project Title	Building Number	Academic or Program Beneficiary	Net Assignable Square Feet (NASF)	Gross Square Feet (GSF)	Description	2020 CIP Fund	Priority	Start Year	Completion Year
R	Hicks Honors College (Part of 500 Bed Honors Student Housing)		Housing, Academic	11,025	18,743	The Honors Living-Learning Community (LLC), a collaboration between Housing and Residence Life and the Hicks Honors College, assists Honors students with a smooth transition into college. The Honors Student Housing project will include programming and office space for the Hicks Honors College.	PECO	6	2023	2025
F	Student Recreation Venues Previously Student Wellness & Sports Education Center Phase II		Recreation			Additional venues complementing the facilities in the Student Wellness and Sports Education Center including a gymnasium, running track extension, and physical education spaces.	CITF	1	2020	2021

Map Key	Project Title	Building Number	Academic or Program Beneficiary	Net Assignable Square Feet (NASF)	Gross Square Feet (GSF)	Description	2020 CIP Fund	Priority	Start Year	Completion Year
R	500 Bed Honors Student Housing		Housing, Academic		192,437	The Proposed 500 bed Honors Residence Hall will expand UNF's East Ridge Residential corridor to provide additional housing capacity to accommodate a growing Honors Program and student body. The program distributes public spaces such as classrooms, meeting rooms and office suites on the first floor with four stories of student housing above.	Revenue Bonds	1	2023	2025
G	Arena Remodel		Academic, Athletics		106,390	Remodel to replace retractable bleachers, flooring and address other deferred maintenance.	Private Funding	2	2021	2023

Other Projected Projects

Map Key	Project Title	Building Number	Academic or Program Beneficiary	Net Assignable Square Feet (NASF)	Gross Square Feet (GSF)	Description	2020 CIP Fund	Priority	Start Year	Completion Year
B	Soccer Complex		Athletics		7,300	Construct a new soccer complex to include a practice field, game field and fieldhouse.			TBD	2030
C	Central Athletics Administration Facility		Athletics		32,000	Consolidate administrative facilities including coach offices and training rooms, weight rooms, locker and equipment rooms in a new facility to address space needs and improve operational efficiency.			TBD	2030
E	Improved Baseball Stadium		Athletics		8,300	Expand the baseball facility to include a new seating bowl, concourse, premium seats/boxes, a press box and baseball support facilities.			TBD	2030
I	Central Plant Expansion		Campus Wide		1,600	Expand utility infrastructure to service anticipated future development.			TBD	2030
U	Central Plant Expansion		Campus Wide		2,400	Expand utility infrastructure to service anticipated future development.			TBD	2030
P	Research / Academic Facility		Academic		78,500	The proposed research and academic building will address deficits in research space and support the 2020 Strategic Plan goal to grow research activity.			TBD	2030

Map Key	Project Title	Building Number	Academic or Program Beneficiary	Net Assignable Square Feet (NASF)	Gross Square Feet (GSF)	Description	2020 CIP Fund	Priority	Start Year	Completion Year
S	Student Space / Research Facility		Academic, Student Space		73,000	The proposed research building will have active student space and amenities on the ground floor complementing existing student space at Carpenter Library and address deficits in research space on upper floors.			TBD	2030
Y	University Center Kitchen Addition				5,600	The proposed project will provide a new full production kitchen in place of the existing kitchen that was designed as a warming kitchen.			TBD	2030
K	Student Union Expansion		Student Space		93,000	Address student study space deficits with an addition to the Student Union. The building will include student-focused lounge, study and meeting space.			TBD	2030
L	CCEC High Bay and Chemical Storage Building		Academic		3,300	The proposed project will provide new specialized lab space for CCEC in addition to adding new chemical storage space.			TBD	2030
Z	Housing, Retail, Innovation and Partnerships		Housing, Campus Wide		420,000	A mixed-use housing and retail center fronting Kernan Boulevard will engage with partners and enhance outward presence for the University. Explore public private partnerships for implementation.			TBD	2030

Map Key	Project Title	Building Number	Academic or Program Beneficiary	Net Assignable Square Feet (NASF)	Gross Square Feet (GSF)	Description	2020 CIP Fund	Priority	Start Year	Completion Year
	Campus Bike and Pedestrian Infrastructure		Campus Wide			Improve the pedestrian connection between Lot 14 and the campus core by improving sightlines, elevating the walkway and improving the crossing at UNF Drive. Enhance bicycle facilities on UNF Drive, Alumni Drive and Osprey Ridge Road.		1	2021	2023
	UNF Drive pedestrian drive conversion in the vicinity of the Arena/Garage 38		Campus Wide			Improve hardscape materials and landscape amenities to enhance pedestrian connectivity from the campus core to amenities to the north including the Student Wellness Complex, Arena and Lot 18. The project will close UNF drive to private vehicle through-traffic in the vicinity of the Arena/Garage 38.		1	2021	2023

Element 4: Land Use and Urban Design

The Master Plan is a framework to guide land use, building and open space development. Overarching future land uses are applied to broadly define the organization and function of all campus land holdings for the 10-year planning horizon. As the University implements the Master Plan, the physical campus will complement and advance the goals of the 2020 Strategic Plan with both near-term, low-cost activators and long-term investments. Design guidelines, informed by successful elements of the campus core, ensure that future investments in buildings and campus landscapes are compatible with and enhance the existing campus.

The original UNF Development Plan was developed with a set of pedestrian-oriented design principles where buildings connected by two-story covered walkways define intimate courtyards such as Alumni Plaza and larger open spaces such as the Green. The scale of these landscaped open spaces both minimizes travel distance and provides shade and protection from the elements.

Goal 1 – Land Use and Urban Design

Orient future land uses to meet long-term strategic goals and leverage land holdings.

4.1	**Propose campus land uses that support the mission of the University and strategic goals.**
4.1.1	Build on past land use planning outlined in the 2015 Campus Master Plan including the preservation of environmentally sensitive areas first introduced in the 1972 Master Site Development Plan.
4.1.2	Prioritize land use strategies that advance student success goals in the 2020 Strategic Plan.
4.1.3	Make the campus more outwardly focused by utilizing buildable land adjacent to Kernan Boulevard and by enhancing gateway elements at key vehicular thresholds and entry points to campus.

4.2	**Further study lakefront mixed-use development fronting Kernan Boulevard.**
4.2.1	Integrate existing University buildings including the University Center and 4926 Kernan Boulevard in the long-term development vision.
4.2.2	Implement multimodal connections to the academic core and to long-term development south of Kernan Boulevard.
4.2.3	Utilize a high-quality active ground floors with unique retail offerings.
4.2.4	Leverage the existing lake at the corner of Alumni Drive and Kernan Boulevard as an amenity.

4.3	**Promote satellite facilities as opportunities for outreach with the public and experiential learning.**
4.3.1	Continue support for the Museum of Contemporary Art in the urban core of Jacksonville as a key cultural institution.
4.3.2	Build connections with the Jacksonville entrepreneurial ecosystem with the Center for Entrepreneurship and Innovation.
4.3.3	Leverage the recent acquisition of 1,050 acres on the Intercoastal Waterway for experiential learning and research.

Goal 2 – Land Use and Urban Design

Refine and enhance the campus core and extend a high quality physical environment to development outside the core.

4.4	Focus growth around a compact and easily navigated central campus core.
4.4.1	Accommodate growth on infill sites while respecting the responsible capacity of the core and retaining the quality of the campus.
4.4.2	Utilize buildings to define a variety of open spaces.
4.4.3	Design building frontages that addresses streets, particularly UNF Drive.

4.5	Strengthen pedestrian and bicycle connections between areas of development.
4.5.1	Improve the existing pathway from parking lot 14 to the Student Union by enhancing sight-lines and utilizing a boardwalk similar to the existing pathway from the Fountains.
4.5.2	Construct a new walkway from the proposed Honors Housing, crossing UNF Drive and continuing between the Biological Sciences and Social Sciences buildings.
4.5.3	Construct a new multi-use path between housing in the core to Osprey Crossings and to the University Center and proposed mixed-use Village Center.
4.5.4	Improve connectivity across Kernan Boulevard and multimodal connections to Hicks Halls and adjacent future long-term development south of Kernan Boulevard.

4.6	Embrace streets as key component of campus experience.
4.6.1	Assess existing street right of ways for opportunities to add pedestrian and bike facilities where they currently don't exist or to widen existing pathways.
4.6.2	Invest in street trees as a unifying element and to provide shade.
4.6.3	Collaborate with the city and regional planning entities for opportunities to connect to regional pedestrian and bike networks.

4.7	Invest in pedestrian infrastructure.
4.7.1	Continue to enhance pedestrian safety with improved lighting, sight-lines and safety call boxes.
4.7.2	Enhance the existing covered walkway experience with improvements such as lighting, art installations, and introducing new materials.
4.7.3	Where appropriate, incorporate shading strategies for pedestrian pathways adjacent to proposed buildings.
4.7.4	Improve pedestrian crossings and reduce pedestrian vehicular conflicts at key crossings at UNF Drive.

4.8	Site and implement high-quality, energy efficient facilities.
4.8.1	Refer to the UNF Design Guidelines and Standards for all new building, renovation and remodeling projects.
4.8.2	Utilize passive solar design strategies for the exterior building envelope to enhance the energy efficiency characteristics of the building's overall performance.
4.8.3	Design new buildings and building remodels for Leadership on Energy Efficient Design (LEED) accreditation and strive for Gold rating where feasible.
4.8.4	Adhere to the design requirements stipulated by the Americans with Disabilities Act (ADA) for new construction, and major remodeling.
4.8.5	Where possible, buildings should share screened service points.
4.8.6	Buildings should be sited to form outdoor spaces and/or define a street edge where applicable.
4.8.7	Ground floors should reflect the human scale of pedestrians with clearly defined building entrances.
4.8.8	Prioritize transparency of ground floor with active uses; minimize solid non-detailed walls, particularly along primary pedestrian pathways.

4.9	Utilize a palette of materials and colors that complement and respond to the character of existing buildings present on campus.
4.9.1	Brick with limestone or precast trim compatible with the existing campus materials palette is encouraged; variation in brick colors and patterns should be subtle; stacked bond is discouraged.
4.9.2	Utilize limestone, Architectural Precast, and non-synthetic stucco.
4.9.3	Curtain walls may be used at special areas
4.9.4	For trim elements prioritize the use of granite, slate, limestone, precast, and metal.
4.9.5	Utilize white or reflective material on flat roofs and consider opportunities for energy generation, daylight capture, or vegetated roofs to improve stormwater capture, particularly where roofs are visible.
4.9.6	Implement details such as chimneys, light fixtures, downspouts, signage, etc. that are consistent with other elements present on the campus.
4.9.7	Utilize Insulated clear glass in clear aluminum or painted frames to be compatible with surrounding buildings.
4.9.8	Utilize Zinc or painted metal for mechanical equipment screens, louvers, or other minor applications.

Goal 3 – Land Use and Urban Design

Make it unique and reinforce the UNF collegiate spirit.

4.10	Reinforce campus gateways and visibility to the greater Jacksonville community.
4.10.1	Study the implementation an iconic campus gateway at Alumni Drive and Kernan Boulevard and secondary vehicular threshold signage on Kernan Drive and at entrances on Central parkway.

4.11	Add vibrancy to campus through discrete campus activators.
4.11.1	Incorporate a variety of moveable seating including café seating, lounge, and high-top in highly trafficked locations on campus such as Alumni Square
4.11.2	Continue to utilize art throughout campus.
4.11.3	Study the use of lighting at night to activate campus open spaces after dark.

4.12	Celebrate the unique Northern Florida campus experience.
4.12.1	Highlight the proximity of UNF to the Atlantic coast in campus activator elements.
4.12.2	Enhance water features at existing lakes, in plazas and courtyards, and connectivity to UNF's unique natural setting.
4.12.3	Utilize UNF blue and branding in campus buildings and landscape elements.

Figure 4.1 Future Land Use

The future land use map shows overall planned land use areas representing the proposals outlined in the Illustrative Master Plan. Athletics and recreation uses are located directly north of the central core with parking use at lot 18. In the central core, uses are predominately Academic with mixed-use at the existing J.B. Coxwell Amphitheater. To the south, of the central core, uses are predominately residential with some parking and utility uses. To the east, uses are primarily residential and parking. To the south, uses are primarily mixed-use and parking with some support and housing uses. Remaining land uses are primarily wetlands, uplands, and lakes.

Map Legend

- Academic
- Residential
- Mixed-Use
- Support
- Parking
- Utility
- Surveyed Wetland
- Upland
- Athletics and Recreation
- Primary Open Space
- Lake
- Campus Boundary

Element 5: Academic, Administrative, and Support

Since its founding, UNF has experienced continual growth of academic and administrative space need as enrollment increases and the University pursues national prominence. Campus space needs can be addressed through a combination of policies that improve utilization, more efficient use of existing space through remodeling, or the construction of new facilities. Solutions for both academic and administrative space are an opportunity to increase collaboration between faculty, staff and students, engagement with UNF's unique outward-facing and engaging programs for students and the broader community, a more collegiate atmosphere, and sense of ownership.

Academic Space

Nearly all existing academic space is in the campus core. At the current enrollments, the State Campus Space Allotment for academic space categories indicates a significant need for additional research lab, study, and instructional media space. The quantity of classroom space is currently adequate to support current enrollment as reflected in a modest 8,300 NASF of need; however, opportunities continue to be pursued to address the quality and management of classrooms and long-term planning to support the enrollment projection of the Master Plan. The State Campus Allotment indicates an overage in teaching lab space, defined as scheduled rooms with special purpose equipment or specific configurations for student participation.

Administrative Space

Some administrative and student services located to the southeast, primarily in Hicks Hall, lack key adjacencies and are disconnected from the campus core. Some administrative uses currently in the campus core are not student facing and suggest opportunities to assess the current location of administrative space campus-wide. The suitability of existing administrative space should also be evaluated further.

Building Condition

Most campus buildings are in good to excellent condition. Some of the original campus buildings date from the 1970s and 1980s and need renovation or remodeling. Most of the older buildings are structurally sound and viable for renovation, however they are low density and do not take advantage of the potential capacity of land in the campus core. Some of the older buildings are designed to accommodate a third-floor vertical expansion. If possible, the addition of a third floor to core campus buildings is highly recommended to support the densification of the campus and preservation of open space.

Capital Improvements

The CIP addresses building condition with several projects:

-Brooks College of Health Remodel

Constructed in 1994, a proposed remodel and renovation will result in more efficient use of space, remodeling for classrooms and labs, and updates to finishes and signage.

-College of Business and Building 10

Connects the College of Business with Building 10 to provide additional classroom, research labs, instructional media and study space.

-Schultz

Renovation of the second floor to enable Building 10 (Honors Hall) and College of Business remodel project.

-Lassiter

2nd floor remodel for the English Department and updates to classrooms, offices and infrastructure to improve the learning environment, enhance collaboration and include modern classroom technology.

-Computer Science

Remodel to create study areas, larger classrooms, and research spaces.

Goal 1 – Academic, Administrative, and Support

Continue UNF's enduring commitment to a high-quality undergraduate education and expand research.

5.1	Renew aging academic facilities and grow academics.
5.1.1	Increase classroom inventory to meet enrollment.
5.1.2	Identify future building sites to accommodate long-term growth.
5.1.3	Seek opportunities to optimize classroom space in all renovation and remodeling projects involving academic facilities.
5.1.4	Prioritize opportunities to construct new facilities within the campus core where possible.
5.1.5	Explore opportunities to address classroom supply deficiencies in the future through policy changes such as expanding the normal class hours.
5.1.6	Improve office space efficiency by right-sizing offices and encouraging open office environments where appropriate.

5.2	Provide active learning classrooms and teaching environments.
5.2.1	Explore opportunities to expand outdoor teaching and research activities.
5.2.2	Study opportunities to address underutilized tiered classrooms on campus and opportunities to support the flexible classrooms that today's pedagogy demands.
5.2.3	Continue to implement transformational learning opportunities that include activities like study abroad, service learning, collaborative research projects with faculty, and leadership experiences.

5.3	Improve academic departmental adjacencies
5.3.1	Decrease fragmentation of units, particularly for programs in the first 2-year experience.
5.3.2	Create transdisciplinary as well as other relevant discipline-specific master's and doctoral programs in alignment with the Board of Governors' defined areas of strategic emphasis and UNF's research strengths.
5.3.3	Consider co-mingling resources with the development of centers, etc. The idea of collaboration is key to this approach.
5.3.4	Improve walk distances between academic units where possible.

5.4	Grow interdisciplinary research.
5.4.1	Reserve future building sites south of the campus core for potential industry partners.
5.4.2	Increase research space inventory.
5.4.3	Grow innovation and entrepreneurship programs and relationships with the greater Jacksonville business community.
5.4.4	Significantly expand research expenditures, elevating UNF's ranking among universities for expenditures on research and development as measured, for example, in the annual NSF HERD Report.

Goal 2– Academic, Administrative, and Support

Enhance administrative functions.

5.5	Improve administrative adjacencies.
5.5.1	Seek opportunities to consolidate functions.
5.5.2	Study moving functions at the one-stop at Hicks Hall to the core of campus to improve access and convenience for students.
5.5.3	Prioritize the location of non-student facing administrative functions to locations outside the campus core.
5.5.4	Study opportunities to provide “touchdown” office space for staff that do not work in the core of campus to provide temporary on-demand workspace proximate to campus-core administrative and academic functions.

5.6	Improve the admissions experience for prospective students.
5.6.1	Study opportunities to move the Welcome Center to the campus core to eliminate the need to shuttle visitors from Hicks Hall to the beginning of the tour, which adds time to the tour and a perception that the campus is large.
5.6.2	Ensure the UNF continues to be welcoming to visitors.

Goal 3– Academic, Administrative, and Support

Improve campus support and collaboration spaces.

5.7	**Integrate breakout and study space throughout the campus.**
5.7.1	Continue to invest in campus-wide study space in Carpenter Library and other shared collaboration spaces within the campus core.
5.7.2	Study opportunities to retrofit informal study space within academic buildings.
5.7.3	Design for interdisciplinary collaboration areas suited for both students and faculty.
5.7.4	Provide outdoor spaces suitable for study and collaboration.

5.8	**Activate the ground floor of academic buildings with student and academic services, amenities, and high traffic destinations.**
5.8.1	Incorporate student services and functions supporting transformational learning within the ground floor of existing buildings.
5.8.2	Enhance communication between interior and exterior space by increasing the transparency of glass on existing frontages and through clear signage and wayfinding.
5.8.3	Consider including additional amenities such as food and study space with entrances and visibility to campus open spaces.
5.8.4	Prioritize active uses on the ground floor when planning and implementing new buildings.

Element 6: Housing

The University currently maintains an inventory of about 3,540 beds in 7 housing communities. The largest community is the recently completed Osprey Fountains on the easts ridge at 1,000 beds, followed by Osprey Crossing and the Flats at UNF to the south with 500 and 473 beds, respectively, and the remainder distributed in four communities in the south of the campus core. The majority of first year housing are suite style doubles and triples. Currently, housing equates to approximately 20 percent of the University's student enrollment of 17,308. About 1,900 beds or about 54% of the total are designated as upper-class housing communities at Osprey Village, Osprey Fountains and The Flats at UNF.

The percentage of students housed on campus is targeted to increase over the course of the Master Plan horizon of ten years from 20 to 25 percent. With current enrollment, the 25 percent target results in a need of 786 beds. With the master plan enrollment target of 20,000 students at the 25 percent target, the number of beds needed is 1,459. Proposed housing should be within walking distance to student activities, recreational areas and academic buildings.

In order to meet the need for additional on-campus housing, the Master Plan identifies opportunities in upland areas that are suitable for future housing expansions along the East Ridge and to the south at Kernan Boulevard and Alumni Drive.

The first phase housing addresses current identified need with 500 beds and 200-280 beds in a follow-on phase located north of the Fountains on the East Ridge with a pedestrian connection to the campus core adjacent to the new Biological Sciences Building. The East Ridge has capacity to accommodate further housing expansions with similar expansions of recreation/open space, parking and support facilities beyond the ten year Master Plan horizon.

Phase 2 allows for growth to the Master Plan enrollment target of 20,000 at the target 25 percent of students living on campus. Located at Kernan Boulevard and Alumni Drive adjacent to the University Center, the master plan envisions approximately 700 beds as part of a mixed-use community that includes about 18,000 GSF of retail on the ground floor providing walkable dining and shopping within about a 10-minute walk to all existing residential communities on campus. The project is envisioned as a potential public private partnership opportunity for execution.

Goal 1 – Housing

Support the educational mission of the University through the creation of a positive living and learning community with the best facilities, services, programs and customer service for our students.

6.1	Alleviate current over capacity of beds.
6.1.1	Evaluate and verify the demand and financial feasibility of providing 786 beds to meet current demand for beds
6.1.2	Continue studying the feasibility of constructing a 500 bed Honors residence hall north of the Fountains on the East Ridge.

6.2	Grow the on-campus resident population to meet the goal of 25 percent of students living on campus and accommodate a target enrollment of 20,000.
6.2.1	Achieve a bed capacity of about 1,459 to house 25 percent of students with an enrollment of 20,000.
6.2.2	Pursue partnerships with developers to build a mixed-use residential village at Kernan Boulevard and Alumni Drive.
6.2.3	Study sites identified for long-term housing use.
6.2.4	Provide future opportunities for the integration of living/learning communities with the Honors College.
6.2.5	Aim to achieve residential community clusters of about 1,000 residents.
6.2.6	Continue to explore interest housing on campus, which could include Greek housing.

6.3	Improve the quality of existing facilities.
6.3.1	Evaluate and verify the demand and financial feasibility of providing 786 beds to meet current demand for beds
6.3.2	Continue studying the feasibility of constructing a 500 bed Honors residence hall north of the Fountains on the East Ridge.
6.3.3	Study the long-term opportunity to better utilize Osprey Hall through remodeling or demolition.
6.3.4	Provide common areas in Osprey Cove and Osprey Landing.
6.3.5	Improve housing support facilities such as parking, recreation and open spaces.

Element 7: Athletics and Recreation

Recreation and Wellness

Recreation and Wellness manages facilities such as the student wellness complex and the fieldhouse in addition to supporting a variety of intermural sports and health education programs to promote healthy behavior. The recently completed student wellness complex is a premier facility with indoor facilities such as the Dottie Dorion Fitness Center with more than 260 exercise stations and a group fitness space. UNF has more than 20 intramural sports programs. The Field House renovated in 2015 is home to the intermural sports program for indoor sports including basketball and volleyball courts.

Eco Adventure offers experiences that engages with UNF's natural setting with experiential education programs for students, youth, and the broader community. UNF also offers extensive nature trails and the Frederick and Ophelia Tate Ogier Gardens, offering community gardens and a host of environmental and public health programming.

Athletics

Home to 19 NCAA Division I teams competing at a national level, the athletics program at UNF began in 1983 and has seen progressive successes since its founding. Existing athletics facilities are clustered to the north of campus, except for the golf facility located to the south. Facilities include Hodges Stadium hosting track and field and soccer to the west, the softball complex and practice field and Harmon Baseball Stadium lining the pedestrian pathway north to Lot 18, and the UNF Arena to the east which hosts a variety of other events including graduation in addition to sporting events. Administrative functions are currently decentralized across the campus and constrained. The Master plan follows the intent of the 2013 Athletics Master Plan.

Goal 1 – Athletics and Recreation

Create an environment for the UNF community that inspires healthy lifestyle choices through valuable programs and services while supporting academic success.

7.1	**Continue a commitment to Partnership for Healthier America (PHA).**
7.1.1	Seek opportunities to consolidate functions.
7.1.2	Provide a variety of heathy food options at campus-operated dining venues and source local food items where feasible.
7.1.3	Create a built environment that encourages healthy choices on campus by offering a diversity of physical activity opportunities, access to facilities throughout the day, and promoting pedestrian safety on campus.
7.1.4	Implement an integrated, comprehensive wellness program and policies to support food insecurity.

7.2	**Support recreation programs that engage with UNF's unique natural setting.**
7.2.1	Preserve the Robert W. Loftin nature trail network.
7.2.2	Continue to provide youth summer camps and community outreach through environmental education school programs and Eco Adventure.

7.3	**Provide indoor and outdoor facilities that meet the recreational needs of the UNF community.**
7.3.1	Maintain existing facilities and minimize deferred maintenance.
7.3.2	Seek partnerships with Athletics to maximize efficiency and utilization of existing facilities where appropriate and coordinate investment in new facilities such as multiuse fields that could serve both athletics and intramural and recreational programs.
7.3.3	Continue to assess and meet demand for recreational facilities and long-term enrollment projections and reserve a future site for expansion of the Student Wellness Complex.

Goal 2– Athletics and Recreation

Provide a high level, broad-based program of intercollegiate athletics for student-athletes who demonstrate academic and athletic excellence.

7.4	**Reinvest in existing athletic facilities to address immediate needs and strive for high-quality D-1 standard facilities.**
7.4.1	Co-locate ancillary athletics facilities such as weight rooms.
7.4.2	Maintain existing facilities and minimize deferred maintenance.
7.4.3	Renovate the Harmon Baseball field to add a concourse, seating bowl, press box, premium seats and support facilities.
7.4.4	Where feasible, consider conversion of existing fields to artificial turf multi-use fields for both athletics and recreational use.
7.4.5	Consolidate administrative offices in a central athletics administration building located south of Lot 18.
7.4.6	Expand and improve the practice facilities for the UNF Golf Complex at the Hayt Learning Center.

7.5	**Engage with the campus community and the broader Jacksonville region.**
7.5.1	Increase school spirit among current students and alumni through athletics events.
7.5.2	Improve the accessibility of facilities by both students and the broader community and coordinate with the shuttle transportation system.
7.5.3	Coordinate parking for facilities and events.
7.5.4	Improve the appearance of facilities facing prominent spaces such as the pedestrian pathway to Lot 18, the fieldhouse and the arena.

7.6	**Maintain the long-term aspirations of the 2013-2025 Athletic Facility Master Plan.**
7.6.1	Implement improvements in a phased approach that centralizes and co-locates athletics facilities and accommodates future growth.
7.6.2	Implement a soccer complex north of Lot 18 to include a practice field, game field and fieldhouse.
7.6.3	Construct three multi-purpose recreation fields, two multi-purpose ball fields, five recreational tennis courts, and support space in the north-west quadrant of campus east of the connector road to Central Parkway.
7.6.4	Maintain Independence from the main campus but retain key campus shared resources such as parking and integration into the fabric of campus and recreation facilities.

Element 8: General Infrastructure and Utilities

The provision of general infrastructure and utilities allow the University to adequately meet current and future needs and is critical to UNF's mission and vision.
The systems covered in element 7 include:

-Stormwater Management
-Potable Water
-Sanitary Sewer
-Solid Waste
-Electrical and Mechanical Systems

The effective provision of each system presents opportunities for increased efficiency and environmental stewardship in addition to complying with all local, state and federal requirements to protect the welfare of both the University's and host community's residents.

Stormwater Management

Introduction

The University property covers approximately 1,100 acres of Atlantic coastal flatwoods in the southeast section of Duval County. The topography of the site consists of a series of low ridges extending along the north-south axis of the property. The campus core is centered on a ridge with a north-south drainage divide located roughly through the center. Stormwater runoff is routed to existing ponds located throughout campus. A number of distinct ridges traverse the campus property in a northwest to southeast direction and the stormwater ponds outfall to the low wetland sloughs between these ridges. The ponds on campus overflow through outlet control structures to sloughs that eventually drain into San Pablo Creek, which in turn flows into the Intracoastal Waterway south of Butler Boulevard, making the University part of the drainage area associated with State Waterbody ID 2283B. Currently, no stormwater management facilities are shared with the surrounding community or adjacent developments. Stormwater treatment and attenuation are accommodated by onsite facilities; however, the University is responsible for maintaining and operating two offsite stormwater ponds that are owned by Florida DOT and are located near the UNF Drive Entrance from I-295.

Regulations

Federal

The Clean Water Act (33 U.S.C. 1251 et seq.) (CWA) is a Federal law that was originally passed by Congress in 1972. The CWA establishes the structure for regulating pollutant discharges into the waters of the United States and for regulation standards for water quality of surface waters. Under subsection 303(d), the CWA requires that states develop lists of impaired waterbodies, which are described as waterbodies that do not meet the water quality standards set for them. States must submit lists of impaired waters every two years and are required to develop Total Maximum Daily Loads (TMDLs) of pollutants for all water bodies that are listed under subsection 3030(d) as impaired. A portion of the University campus is located within the Ryals Swamp watershed, which is listed as impaired by the Florida Department of Environmental Protection (DEP) for fecal coliform.

The National Pollution Discharge Elimination System (NPDES) rule is another federal program, which allows US EPA to regulate the discharge of pollutants into rivers, streams, and lakes through the issuance of permits. Phase I of the NPDES program required municipalities of 100,000 or more, construction activities totally 5.0 acres or more, and select industrial activities to obtain a NPDES permit for their stormwater discharges. Phase II of the program, which was implemented in 2003, requires smaller operators of municipal separate storm sewer systems (MS4s) to obtain a permit for their stormwater discharges. Under this rule, the University was required to obtain an MS4 General Permit, which was issued in 2017 by the Florida DEP. Phase II of the NPDES program also places more stringent requirements on construction activity, as all construction activities one acre or more must obtain a permit, a requirement also administered by Florida DEP.

State and Regional

At the state level, stormwater and water quality is regulated by Florida DEP and through the regional water management districts. As noted earlier, Florida DEP administers the regulations and programs associated with the CWA. Surface Water Quality Standards and associated classifications are set forth in Chapter 62-302 of the Florida Administrative Code (F.A.C.). Additionally, Florida DEP administers the University's MS4 Permit and associated requirements. The University is in the third year of its MS4 permit and is coordinating with Florida DEP to implement the six minimum control measures listed in the permit:

1. Public Education and Outreach
2. Public Involvement/Public Participation
3. Illicit Discharge Detection and Elimination
4. Construction Site Stormwater Runoff Control
5. Post-construction Stormwater Management for New Development and Redevelopment

6. Pollution Prevention/Good Housekeeping for Municipal Operations

The University is located within the St. Johns River Water Management District (SJRWMD) and is subject to the regulations associated with its Environmental Resource Permitting (ERP) Program and Management and Storage of Surface Water (MSSW) permits. The University continues to coordinate with SJRWMD to meet the requirements of its ERP and MSSW permits and modify them as required.
Recently, the State considered a new statewide stormwater rule (62-347.010) that emphasized green infrastructure requirements for new development and redevelopment projects. While the rule was not adopted, it would be diligent for the University to adopt measures proposed in this Rule should a similar version be adopted within the planning period of this Master Plan.

Existing Conditions

Currently, stormwater runoff is routed to existing ponds within the central campus surrounded by UNF Drive. Runoff from buildings and parking lots in outlying areas is managed by additional ponds located outside of the UNF Drive loop, and two additional ponds within the central campus surrounded by UNF Drive. Additional ponds are located outside of the UNF Drive loop and receive runoff from the outlying buildings and parking lots. The stormwater ponds on the University site provide treatment and attenuation for a combination of parking lots and buildings. Open grassed and lightly wooded land cover is typical in the areas between the buildings and parking lots. Currently, no stormwater management facilities are shared with the surrounding community or adjacent developments. All stormwater treatment and attenuation is accommodated by onsite facilities.

Nine ponds are located within the interior of the UNF Drive loop roadway. The parking lots served by these ponds are Lots numbered 2, 3, 7, 8, 9, 10, 11 and 12. Parking Lot 5 is served by a pond just outside of the UNF Drive loop road while Lot 34 and the Arena building area drain to dry ponds along the northern end of the loop roadway. Parking Lot 18 is served by two ponds to the north and the North Entrance Road drains to a pond at the southeast end of the road. Parking Lot 14 is served by ponds on the east side of Eco Road. Parking Lot 55 is served by a pond at the north end of Osprey Ridge Road, which is connected to another pond in the wooded area north of the parking lot.

Two detention ponds provide treatment and attenuation for the University Center building and associated parking lots near the intersection of Alumni Drive and Kernan Boulevard. The drainage area for the University Center ponds is restricted to the limits of the parking lots and piped roof drainage from the building. The large existing lake at the Kernan/Alumni Drive intersection existed prior to the University Center facility and runoff from the Center is not directed into this lake. Alumni Hall and Hicks Hall each have detention ponds

that provide treatment and attenuation for the buildings and parking lots. Three detention ponds exist adjacent to Osprey Fountains and treat the building, parking lot, and access road.

There are 25 distinct outlet control structure outfalls throughout campus with two additional outfall structures associated with ongoing construction. These outlet control structures represent any point where the stormwater overflows from ponds and enters adjacent sloughs and wetlands. On campus there are three receiving waterbodies: Ryals Swamp, Boggy Branch, and Sawmill Slough, all of which ultimately discharge to Pablo Creek, which enters the Intercoastal Waterway.

The University currently has little green infrastructure installed. There are small applications of permeable pavement in one of the gardens in the core of campus and some vegetated areas are serving as detention systems due to unintentional grading. Students, faculty, and grounds crew staff have expressed interest in seeing an increased application of green infrastructure due to the important co-benefits such practices provide such as improved aesthetics, habitat, water quality and reduced maintenance requirements.

Based on reports by University personnel, the existing stormwater management facilities perform adequately for the current conditions. Adjacent natural resources include the sloughs between the ridged terrains as described above. The stormwater management ponds discharge into these low sloughs, which drain to Pablo Creek.

Future Conditions

The Master Plan depicts several distinct areas of continued development, which in the near term is focused almost entirely in the core of campus, which results in little increase in impervious area, given that this area is already widely developed and has well established stormwater management systems in place. Since a majority of new construction in the core of campus will be completed on land that is presently impervious, there will likely be little or no increase in impervious area and it is anticipated that the use of existing stormwater ponds will be sufficient to manage the runoff. Specific improvement projects will be evaluated in detail during design to ensure compliance with permitted requirements. In areas where runoff may increase, the University should implement decentralized detention and retention strategies with a focus on green infrastructure.

One outlying near-term location of development is in the southern part of campus and includes an addition to the University Center kitchen. This development does not result in a significant increase in impervious area given its small size (0.17 acres) and it already drains to existing stormwater ponds. An additional outlying area of near-term development is on the Eastern Ridge, where Honors College Housing is proposed. This development will increase impervious area by approximately 1.46 acres and requires additional

stormwater management in the Fountains Area. As with the core of campus, it is recommended that additional runoff be managed through the use of green infrastructure.

Long-term development includes more significant increases in impervious area in areas including the southern portion of the Eastern Ridge, west of Kernan Boulevard South near Betty Holzendorf Drive, and south of Kernan Boulevard west of 1st Coast Tech Parkway. While this development is occurring in the uplands, it is replacing currently vegetated land and will require the creation of additional stormwater ponds in these areas. To reduce the size and cost of pond construction, it is recommended that the University utilize decentralized green infrastructure strategies such as bioretention, permeable pavement, rainwater harvesting, and vegetated swales, which will improve water quality in the proposed ponds.

Goal 1 – General Infrastructure and Utilities

Plan, design, and implement a sustainable and environmentally friendly stormwater management system that protects the University's natural assets, enhances the campus environment, and protects water quality on campus.

8.1	**Minimize stormwater borne pollutants through the Environmental Resource Permit (ERP) process, Municipal Separate Storm Sewer System (MS4) Permit, and Best Management Practices.**
8.1.1	Incorporate 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. Where possible, retrofit existing stormwater features such as lawn drains, gardens, and drainage ditches to retain and detain water and serve as green infrastructure practices.
8.1.2	At a minimum, the University shall follow the stormwater management guidelines provided in the St. Johns River Water Management District Environmental Resource Permit Manual Volumes 1 and 2 (June 2018) and as applicable Section 01 89 16.2 of the University of North Florida Design Guidelines and Standards.
8.1.3	Where feasible, implement upland stormwater best management practices to capture and treat stormwater runoff close to where it falls and improve water quality of the stormwater ponds. Where feasible, implement upland green infrastructure practices to filter sediment and uptake nutrients before runoff enters the stormwater ponds.
8.1.4	Promote campus community engagement with stormwater ponds and stormwater management on campus through cleanup events, academic research, volunteer plantings, student projects/competitions, and installation of art pieces, which will raise awareness of water quality issues on campus and help the University meet the requirements of the MS4 Permit minimum control measures.
8.1.5	Increase community engagement with stormwater issues through the continued issuing of brochures, posting of signage, exhibits, University website section on stormwater, and public service announcements per the MS4 Permit minimum control measures.
8.1.6	Where feasible, prioritize focusing development in existing impervious areas (e.g. parking lots and parking garages).
8.1.7	The University shall develop a Campus Stormwater Master Plan. The Stormwater Master Plan should complete the mapping of stormwater facilities on campus, quantify the capacity of the existing facilities, identify portions of the system that are under capacity, monitor the water quality of the stormwater ponds and Pablo Creek, monitor discharge rates to Pablo Creek, and identify measures and opportunities to address any deficiencies in the stormwater system.
8.1.8	Analyze and quantify the capacity of existing stormwater management systems and develop plans to account for future development.
8.1.9	Use slow release fertilizers and/or carefully managed fertilizer applications timed to ensure maximum root uptake and minimal surface water runoff or leaching to groundwater.
8.1.10	Educate 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.
8.1.11	Avoid the widespread application of broad-spectrum pesticides by involving only purposeful and minimal application of pesticides, aimed at identified targeted species.
8.1.12	Coordinate pesticide application with irrigation practices to reduce runoff and leaching to groundwater.

8.1	**Minimize stormwater borne pollutants through the Environmental Resource Permit (ERP) process, Municipal Separate Storm Sewer System (MS4) Permit, and Best Management Practices.**
8.1.13	Use of pervious surfaces, where feasible.
8.1.14	Incorporate features into the design of fertilizer and pesticide storage, mixing and loading areas that are designed to prevent/minimize spillage and contact with stormwater runoff/runon.
8.1.15	In order to track potential pollutant loading of the surface waters of the campus and in the context area, the University shall establish water quality monitoring stations at all the ponds on the campus and at least one station each at each of the waterbodies on campus.

Potable Water

Introduction

JEA, a community-owned utility, serves and delivers potable water to the University. The University has been a customer of JEA since its founding in 1997 and there have only been minor changes in the original agreement between the two entities such as modifications to price structure, and additions, deletions, and modification to the level and type of service delivery. Water is treated at one of JEA's local water treatment plants and is distributed to the University via two water mains. There are 16-inch water mains through the campus along UNF Drive, Alumni Drive, St. John's Bluff Road, and Kernan Boulevard. A 12-inch water main also serves part of the northern campus via a connection on Central Parkway. Both water mains connect to water lines adjacent to campus also owned and operated by JEA. Students and staff rely on potable water for all in-building water use. Irrigation water is provided by various on-site water wells, though there is some available infrastructure in place to provide and utilize reclaimed water, also provided by JEA. Reclaimed water is provided by a 16-inch main running through the Campus Core.

Regulations

Federal – The Safe Drinking Water Act (SWDA) (Public Law 93-53) is a Federal law that was originally passed by Congress in 1974. The purpose of the SDWA is to protect public health by regulating public drinking water supplies. The Environmental Protection Agency (US EPA) is authorized by the SDWA to set standards for legal limits of contaminants found in drinking water. The standards that drinking water supplies must adhere to are classified under the primary and secondary drinking water regulations.

State

The Florida Safe Drinking Water Act (Sections 403.850-403.864, F.S.) is a State law is in accordance with the federal guidelines. The Florida Department of Environmental Protection (DEP) is the state agency responsible for regulating safe drinking water. Florida's drinking water standards follow the federal primary and secondary drinking water standards and are outlined in the Florida Administrative Code Chapters 62-550, 62-555 and 62-560.

Local

The University is exempt from local regulations because it is a Public Education facility and therefore, it must follow the State Uniform Building Code for Public Education Facilities. Section 6A-2.102. FA.C. states: "All educational facilities constructed by a board are hereby exempt from all other state, county, district, municipal, or local building codes, interpretations, building permits and assessments of fees for building permits, ordinances and impact fees or service availability fees." Rule 6A-2.001(48), F.A.C, however, states that education facilities are not exempt from assessments "…for that length and size of line actually needed to service the educational or ancillary plant on that site."

To protect water supplies in Florida, prevent aquifers from drying up, and limit saltwater intrusion, consumptive use permits are used to place limits on water withdrawals within five water management districts. In 2011 the St. Johns River Water Management District issued a consumptive use permit to JEA. This single permit consolidated 27 individual permits and allows for withdrawals of up to 142 million gallons per day beginning in 2012 and up to 155 million gallons per day in 2031 if permit conditions are met.

Existing Conditions

The water usage in 2019 was approximately 119.5 million gallons. The 2019 enrollment was 17,308 students. By comparing the total water usage to the student population, the average water used per student was 18.9 gallons per day. The total water usage in 2009 was approximately 88 million gallons, or 15 gallons per day per student. This is a 26% increase over 10 years. The rate of potable water is $0.0029 per gallon, therefore the University spent approximately $346,550 on potable water.

There are meters behind all potable water connections. JEA is responsible for providing water to these locations. The total system availability for potable water is 2,400 gallons per minute (gpm) at 50 PSI and 4,900 gpm at 20 PSI.

The University lies within the surficial aquifer system, which supplies water for domestic, commercial, and small municipality uses. There are two small surface wells at the University Police Department, used as a source for irrigation. The Athletics, the University Center and Golf Learning Center are irrigated from the surface water ponds. Engineering was completed for a reclaimed water irrigation pond behind Hicks Hall but it has not been constructed.

There are two reclaimed water connections by JEA, the first is at the UNF Golf Complex and the second is at the Inner Campus. At the Inner Campus connection, reclaimed water is delivered from the 16-inch trans-campus main to a cistern. The University converted an old sanitary sewer lift station to a large cistern for storing reclaimed water. The cistern is located at the campus core and feeds an irrigation system throughout the campus. Because the reclaimed water lines are not always pressurized, JEA requires the University to install ponds or tanks. The reclaimed water usage in 2018 was 39.7 million gallons.

The rate of reclaimed water in 2019 was $0.0003 per gallon, therefore the University spent approximately $11,910 on reclaimed water. The current rate of reclaimed water is less than potable water. In 2019 the price per gallon of reclaimed water is $0.0003 whereas potable water was $0.0029.

Future Conditions

The University anticipates that student enrollment will continue to increase over the next five years, with the 2025 enrollment target at 20,000 students. If water consumption is assumed to be linear, water use in 2025 will be approximately 138 million gallons.

University expansion will occur by constructing new buildings as infill throughout the campus core and greenfield development to the south and east of the campus core. Existing water lines will likely provide sufficient flow throughout the campus core, but the existing 12-inch water main may need to be upsized. An additional potential need includes installation of additional service lines to the greenfield development areas south and east of the campus core. In order to provide potable water service to these new buildings, the following will need to be evaluated:

-Anticipated building programming and population numbers
-Water demand patterns and usage types

There is a proposed reclaimed water connection at Osprey Village and the Police Station. Multiple areas around campus are irrigating with potable water. The potable water connections that could be replaced with a reclaimed water connection include:

-Student Union
-Parking Services
-Information Booth
-UNF Hall
-Alumni Hall
-Greenhouse
-Golf Complex
-Biology
-Osprey Garden
-Parking Lot 34

Goal 2 – General Infrastructure and Utilities

Accommodate future University potable water requirements.

8.2	Evaluate potential existing potable water deficiencies.
8.2.1	Evaluate system deficiencies and develop a plan to address the problems.
8.2.2	Employ smart metering to detect leaks in the distribution system.

8.3	Coordinate the provision of increased facility capacity to meet future needs of the University.
8.3.1	Evaluate system deficiencies and develop a plan to address the problems.
8.3.2	Employ smart metering to detect leaks in the distribution system.

8.4	Protect and conserve potable water sources.
8.4.1	Develop strategies that help create a more consistently available reclaimed water supply such as implementing irrigation ponds that can store reclaimed water.
8.4.2	Use drought tolerant planting palettes.
8.4.3	Employ smart irrigation controllers that rely on moisture sensors or rain switches.
8.4.4	Utilize mulch, shading, or other strategies that help retain soil moisture.
8.4.5	Utilize irrigation components suited for reclaimed water delivery.
8.4.6	Install smart meters to detect leaks and analyze consumption patterns.

Sanitary Sewer

Introduction

JEA, operates the sewer collection system at the University. Wastewater is collected from buildings via gravity to a lift station on campus. From the lift station located behind the UNF Preschool, the wastewater is pumped to a sanitary sewer main which conveys it to a regional wastewater treatment plant operated by JEA.

Regulations

Federal

The Clean Water Act (33 U.S.C. 1251 et seq.) (CWA) is a Federal law that was originally passed by Congress in 1972.The purpose of the CWA is to protect the nations waters by maintaining the chemical, physical and biological integrity of the nation's waters from pollutants such as untreated sewage. The Environmental Protection Agency (EPA) is authorized by the CWA to set wastewater treatment standards.

State

The Florida Department of Environmental Protection (DEP) regulates wastewater management by permitting industrial and wastewater facilities throughout the state. Florida Safe Drinking Water Act is administered under Chapter 62-550 in the Florida Administrative Code (F.A.C). The Florida DEP administers federal programs including the National Pollutant Discharge Elimination System (NPDES) requirements.

Local

The University is exempt from local regulations because it is a Public Education facility. Therefore, it must follow the State Uniform Building Code for Public Education Facilities. Section 6A-2.012, F.A.C states:

"All educational facilities constructed by a board are hereby exempt from all other state, county, district, municipal, or local building codes, interpretations, building permits and assessments of fees for building permits, ordinances and impact fees or service availability fees."

Rule 6A-2.001(48), F.A.C, however, states that education facilities are not exempt from assessments "…for that length and size of line actually needed to service the educational or ancillary plant on that site."

Existing Conditions

The wastewater discharge in 2019 was approximately 42.9 million gallons. The 2019 enrollment was 17,308 students. By comparing the total wastewater discharge to the student population, the average wastewater flow per student was 6.8 gallons per day. In 2009, the wastewater discharge was approximately 81.3 million

gallons, or approximately 13.3 gallons per day per student. From 2009 to 2019, the sewer discharge decreased while potable demand increased.

The sanitary sewer rate in 2019 was $0.0083 per gallon, therefore the University spent approximately $356,070 on sanitary sewer fees. Although the sanitary discharge was less than potable water usage, the University spent more on sanitary sewer fees due to the higher rate.

The University lift station is located west of the UNF Preschool located off UNF Drive. An 18-inch sanitary sewer gravity line collects the wastewater from the campus core and conveys it to the lift station. The wastewater is pumped to an 18-inch sanitary sewer main along UNF Drive that connects to Alumni Drive and then to Kernan Blvd South. There are some clay pipes throughout UNF campus that appear to be in good condition with no abnormal degradation. Wastewater flows to an offsite to a regional wastewater treatment plant operated by JEA.

Future Conditions

The University anticipates that student enrollment will continue to increase over the next five years, with the 2025 enrollment target at 20,000 students. Using 2019 per capita wastewater generation values, 49,640,000 gallons of wastewater would be generated in 2025.

University expansion will occur by constructing new buildings as infill throughout the campus core and greenfield development to the south and east of the campus core. Existing sewer collection lines may provide sufficient flow throughout the campus core but may need to be upsized. Additionally, future needs may include installing additional service lines to the greenfield development areas south and east of the campus core. In order to provide sanitary sewer service to these new buildings, the following shall be thoroughly evaluated:

- -Ensure future development of campus core and greenfield development will have appropriate infrastructure available by analyzing downstream capacity impacts.
- -Sanitary connections for long-range campus development are likely best served by remote sewer lift stations or gravity collection lines. The forced mains or gravity lines would connect to the sanitary sewer infrastructure at the campus core or lines located elsewhere but owned and operated by JEA. Line sizes and collection strategies will be dependent upon future development information such as building size, programming, and usage.

Goal 3– General Infrastructure and Utilities

Accommodate future University sanitary sewer requirements.

8.5	Identify potential existing sanitary sewer facility deficiencies.
8.5.1	Install additional metering to analyze wastewater flows to determine irregularities that may be caused by infrastructure deficiencies.
8.5.2	Provide proactive maintenance to existing pumping facilities to lengthen the infrastructure life cycle.

8.6	Coordinate the provision of increased facility capacity to meet future needs of the University.
8.6.1	Provide planning information to JEA so that the utility provider may model future infrastructure needs and highlight areas in need of improvement.
8.6.2	Develop a phasing strategy the ensures future sanitary sewer capacity is available and the collection system is installed at appropriate intervals to limit disruption and minimize costs.
8.6.3	Limit environmental impacts when designing infrastructure improvements.

Solid Waste

Introduction

Solid waste collection and disposal is accomplished through a combination of University staff, private contractors, and public entities. Solid waste is currently collected and disposed of through contract services. The solid waste material is either recycled or sent to the landfill for disposal. The University has five central refuse collection stations on campus. These are located adjacent to the Thomas G. Carpenter Library, Parking Lot 14, behind the Arena, adjacent to the Student Union, and in the Fountains area near Building 55 housing.

The City of Jacksonville operates and maintains a landfill for the disposal of solid waste materials. Therefore, the University's solid waste responsibilities primarily include the collection and hauling of solid waste materials from the refuse collection stations. The University utilizes a private hauler to transport the solid waste from the refuse collection stations to the landfill. There are no solid waste facilities shared between the university and the host and/or shared affected local governments.

The solid waste volume at the University is dependent upon the number of University staff and support personnel, student enrollment classification mix, student on-campus housing/ boarding, operating methods, materials purchased, and other related factors. Based on reports from the campus facility director, the capacity of the University's waste management is sufficient to meet current and future needs.

Through the Environmental Center's Garbage on the Green, the University promotes sustainable solid waste practices and recycling by encouraging community members to recycle and reporting on the amount recycled.

Based on the most recent report from the Environmental Center, approximately 25% of the total waste on campus is recycled, however the same report shows that over 61% of the materials being disposed of on campus can be recycled. If the University diverted all of this material it would be a significant contribution towards its goal of achieving 75% recycling rate, which aligns with the state's Solid Waste Management Act. Additionally, it is noted that up to 7% of waste material going to landfills could be composted. Currently, the University does not have large scale composting facilities available. In the dining halls, there is signage that aims to reduce the amount of food waste contributing to the University's wastestream; however, environmental groups on campus have advocated for additional capacity to compost on campus.

Regulations

Chapter 62-701 of the Florida Administrative Cod (F.A.C.) sets for the requirements for Solid Waste Management Facilities. The State of Florida emphasized the necessity to reduce the amount of landfilled solid waste through passage of the 1988 Solid Waste Management Act, Chapter 403 (Part II), FS. This act requires all counties in Florida to reduce the amount of solid waste disposal by recycling at least thirty (30) percent of the municipal solid waste stream by 1994. Additionally, 403.706, FS states that "Each county shall implement a recycling program that shall have a goal of recycling recyclable solid waste by 40 percent by December 31, 2012; 50 percent by December 31, 2014; 60 percent by December 31, 2016; 70 percent by December 31, 2018; and 75 percent by December 31, 2020. Counties and municipalities are encouraged to form cooperative arrangements for implementing recycling programs."

Goal 4 – General Infrastructure and Utilities

To ensure safe, sanitary, efficient, and sustainable solid waste management throughout campus.

8.7	Promote existing recycling programs and sustainable initiatives.
8.7.1	The University shall increase the number of recycling containers throughout campus and improve signage to ease recycling efforts for community members.
8.7.2	The University shall continue to target the state mandated goal of achieving a 75% recycling rate beyond 2020.
8.7.3	The University shall reimplement the Garbage on the Green program to promote reporting, awareness, and education of recycling on campus.
8.7.4	The University shall implement a pilot composting program, which designates an area on campus for compost production, which can be then used by the Ogier Gardens on campus.
8.7.5	The University shall provide recycling receptacles at all special events such as sporting events, performances, and student gatherings.
8.7.6	When feasible, the University shall use biodegradable food service utensils, plates, cups, napkins, and containers for takeout dining options and at special events.
8.7.7	The University shall review purchasing practices to reduce solid waste and encourage the use of recycled materials such as green packaging and paper office supplies with a minimum 30% post-consumer waste recycled content.
8.7.8	The University shall provide guidance to faculty, staff, and students on proper household hazardous waste disposal for items such as batteries, light bulbs, and electronic equipment.
8.7.9	The University shall hold household hazardous waste disposal events to collect and properly dispose of these materials.

8.8	Maintain solid waste level of service.
8.8.1	The University shall ensure the necessary solid waste facilities and services are in place and operational at the adopted level of service at the time of building occupancy.
8.8.2	As necessary, the University shall continue to comply with all regulations set forth in F.A.C., Chapter 62-701.
8.8.3	The University shall continue to coordinate with the City of Jacksonville and its private haulers to ensure that proper service and capacity is available to meet future demands.

Electrical

JEA (Jacksonville Electric Authority) owns and maintains the primary electric distribution on the campus, including the utility transformers supplying each building. UNF maintains electric systems from the secondary side of the transformers. The JEA system is considered to have ample capacity to meet the future growth needs of the campus

Long term design basis / energy conservation measures for new facilities:

-Building data analytics program by KGS for a one-year period on new projects to aid in calibrating building operations for peak efficiency. This has provided better results than standard building commissioning.

-The campus has not implemented solar power projects because the payback period has not been attractive.

-Waterless urinals have been problematic and the facilities group wants to move away from them in future buildings

Mechanical

UNF utilities department mechanical systems are broken up into two user groups, central campus, and housing district facility operations.

Central Campus

The Central campus systems are centralized at the physical facilities building 5, and has the following capacities / arrangement:

Chilled Water Loop

-6300-ton chiller plant

-1600-ton of available space for future load

-2019 peak capacity of 4200 tons

-Stadium district has a stand alone 150-ton air cooled chiller at Hodges

-A 20" main distributes chilled water around the interior perimeter of UNF drive from the origin at building 5 over to a termination point at building 15

Heating Hot Water Loop

-24MMBTU gas fired boilers

-8MMBTU available space for future load

-Current peak load unknown

-A 10” main distributes hot water around the interior perimeter of UNF drive in the same general area as chilled water, from the origin at building 5 over to a termination point at building 15

Housing

The housing buildings have stand-alone energy plants at each facility of various types and conditions. The following list is a summary of the primary heating / cooling technologies implemented at each of the respective facilities:

-Central campus housing: Combination of DX and chilled water, central heating hot water or heat pumps

-Osprey fountains: Central water-cooled chiller plant and heating hot water boilers

-Osprey Commons: Dedicated air-cooled chiller plant and heating hot water boilers.

-University Center:Dedicated air-cooled chiller plant and heating hot water boilers.

-Hicks Hall:Dedicated air-cooled chiller plant and heating hot water boilers.

-Flats:DX heat pumps

Goal 5– General Infrastructure and Utilities

Provide Resilient Chilled and Heating Hot Water Capacity to Existing and Future Facilities.

8.9	Provide adequate capacity at peak efficiency.
8.9.1	The Utilities Division shall continuously monitor the performance and available capacity of central chilled water and heating hot water production with key operational parameters to ensure functionality of systems. A baseline efficiency shall be established for each system as a means for evaluating overall performance as defined in policies 8.9.2. and 8.9.3.
8.9.2	Chiller plant efficiency shall be defined in terms of kilowatt's per ton (kW/ton) and shall be monitored on a month and annual timeline basis. The central chiller plant efficiency shall include the following parameters, at a minimum: **Current and Voltage:** -Chillers -Pumps (condenser and primary) -Cooling towers **Capacity Calculation** -Primary distribution chilled water flow (GPM) -Primary distribution supply temperature (degrees F) -Primary distribution return temperature (degrees F)
8.9.3	Boiler plant efficiency shall be defined in terms of thermal efficiency and shall be monitored on a month and annual timeline basis. The central boiler plant parameters for efficiency calculation shall include the following, at a minimum: **Fuel source:** -Input MBH from gas service provider. **Capacity calculation (output MBH):** -Primary distribution heating hot water flow (GPM) -Primary distribution supply temperature (degrees F) -Primary distribution return temperature (degrees F)
8.9.4	The University Design and Construction Standards shall continue to include campus specific set of heating and cooling criteria for system maintenance and new installations based on the standards set forth by the American Society of Heating, Refrigerating and Air-Conditioning Engineers which identify: -Indoor summer and winter design temperatures; -Indoor humidity conditions; -Preferred HVAC systems; -Redundancy requirements; -Testing procedures.
8.9.5	The University shall require new construction to provide an evaluation of all project types impact to the plant diversity factor and available redundancy for both cooling and heating systems.

8.10	To provide future capacity of the heating and chilled water systems to meet the University's needs at the end of the planning time frame.
8.10.1	The University shall maintain continuous accurate records of chilled water temperatures and flows and heating hot water flows.
8.10.2	The University shall maintain updated documents that clearly illustrate the current status of the chilled water system including: -Existing chilled water generating capacity; -Location of chilled water distribution piping; -Capacity of existing distribution system, considering pumps and piping; and Existing building loads. These documents shall be updated periodically or as major revisions to the chilled water system are implemented. New construction projects shall be reviewed for potential effects on the chilled water system.
8.10.3	The University shall develop documents that clearly illustrate the current status of the heating hot water production system including: -Existing heating hot water generating capacity; -Location of heating hot water distribution piping; -Capacity of existing distribution system, considering piping; and Existing building loads. These documents shall be updated periodically or as major revisions to the system are implemented. New construction projects shall be reviewed for potential effects on the system.
8.10.4	The University shall require all new buildings to evaluate methods to utilize energy recovery to reduce consumption of chilled water and heating hot water.
8.10.5	The University has established a level of service standard for heating hot water which provides and maintains a 180 degree chilled water supply temperature to meet building heating demands.
8.10.6	The University has established a level of service standard for chilled water which provides and maintains a 45 degree chilled water supply temperature to meet building cooling demands.
8.10.7	The Physical Plant Division shall appropriately size new chillers to meet anticipated future demand (based on the 10-year capital improvement list) when doing routine upgrades, replacements or new installations.

8.11	To provide sustainable heating hot water and chilled water systems in new and existing facilities.
8.11.1	The University shall continue its policy for replacing ozone-depleting refrigerants with environmentally safe refrigerants as approved by the Environmental Protection Agency and the USGBC (United States Green Building Council) during all production equipment replacements.

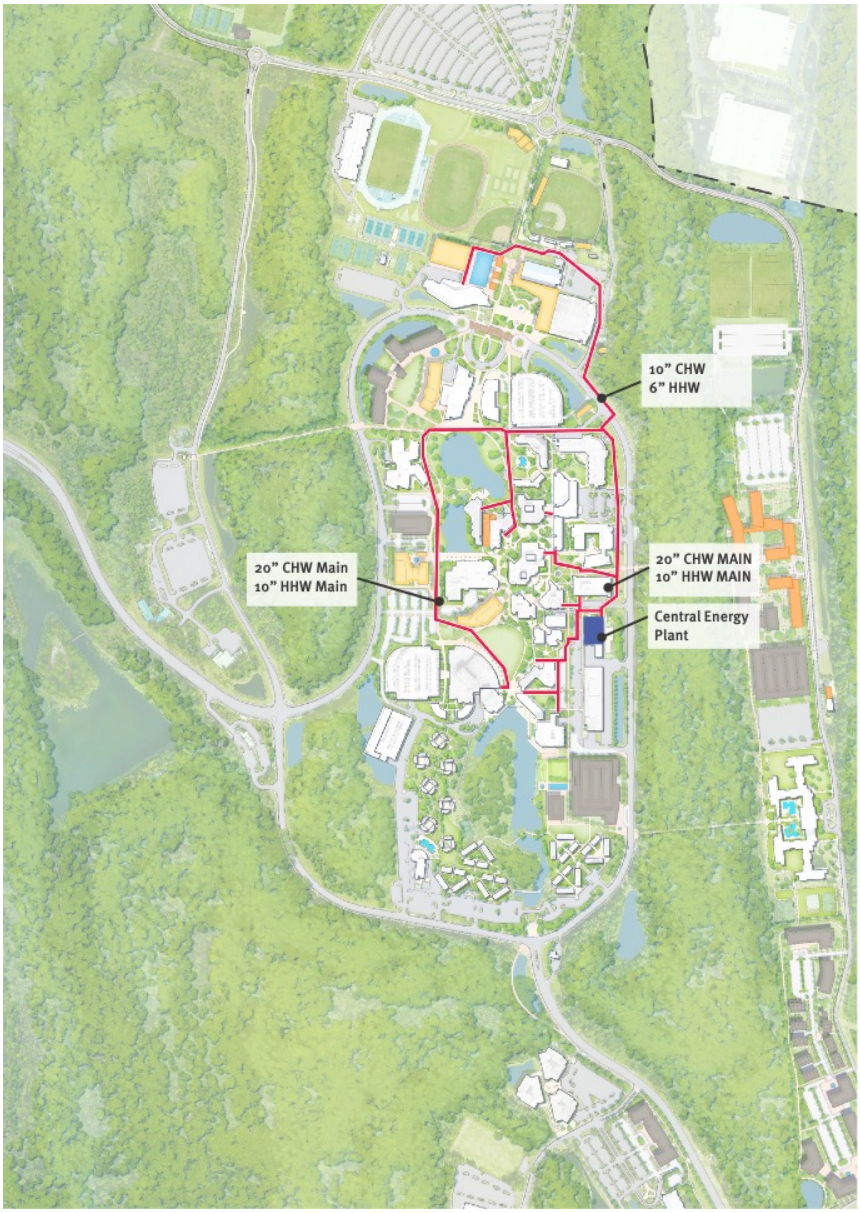
Goal 6 – General Infrastructure and Utilities

Provide Adequate Facility Capacity to Meet Present and Future Needs of the University, While Identifying Opportunities to Reduce University Energy consumption in New and Existing Facilities.

8.12	To quantify provider resiliency and ability to provide continued service to new construction and renovation projects.
8.12.1	JEA (Jacksonville Electric Authority) owns and maintains the primary electric distribution on the campus, including the utility transformers supplying each building. UNF maintains electric systems from the secondary side of the transformers.
8.12.2	The JEA system is considered to have ample capacity to meet the future growth needs of the campus.
8.12.3	The University Design and Construction Standards shall continue to include campus specific criteria for providing electric power, including: distribution voltages, building secondary distribution voltages, master control criteria and lighting levels.
8.12.4	Underground utilities and support structures are the preferred installation unless otherwise approved by the University.

Figure 8.1 Main Campus CHW/HHW Distribution

The chilled water and heating hot water distribution map shows the central energy plant (building 5) in blue with utility lines extending to the north, south and west. Lines run north along UNF Dr, crossing UNF Dr, continuing to the north side of the arena and fieldhouse and terminating at the Student Wellness Complex. A line breaks off at the Science and Engineering Building and runs west and down both sides of Union Lake, with one portion terminating at the College of Business and Honors Hall and another continuing south to the Fine Arts Center.



Map Legend

- CHW/HHW Distribution Infrastructure
- Central Energy Plant

Element 9: Transportation

As UNF and the surrounding communities have grown, the roadway system connecting to the Campus has largely been expanded to accommodate growth in private vehicle travel; this Master Plan identifies opportunities to improve the bicycle, pedestrian and transit networks to and around Campus to provide enhanced mobility options that also help UNF balance the cost of providing additional transportation infrastructure.

Goal 1 – Transportation

Enhance the On-Campus Transportation System to meet the needs of Students, Faculty, Staff, and Visitors that provides enhances travel choices in a cost-effective manner.

9.1	Reduce vehicular conflicts with pedestrians and bicyclists campus-wide.
9.1.1	Conduct a detailed evaluation of limiting vehicle access to UNF Drive at northern most pedestrian crossing point to enhance non-motorized safety, including the potential for temporary closures during large events.
9.1.2	Conduct a detailed transportation safety analysis to identify additional enhancements to the transportation network to reduce conflicts for all modes of travel.
9.1.3	As new existing non-motorized facilities are modified and new facilities are planned, evaluate opportunities to improve sight-lines and enhance pedestrian scale lighting.
9.1.4	New pedestrian connections to or within the Campus shall be a minimum of six-feet wide, with 10-feet preferred.
9.1.5	Evaluate the need to provide enhanced pedestrian crossing treatments, including installation of pedestrian signals, raised crosswalks, and high visibility crosswalks on UNF Drive at locations with high existing or projected volumes of pedestrians.
9.1.6	Enhance Campus wayfinding to prioritize pedestrian and bicyclist circulation particularly where access is limited to direct users to appropriate facilities within and around campus.
9.1.7	Establish a design speed of 20 miles per hour for all improvements to the UNF roadway system, and evaluate Campus-wide speed limits.
9.1.8	Reallocate the right-of-way on the northern loop portion of University of North Florida (UNF) Drive between Eco Road and Alumni Drive to provide enhanced bicycle facilities.
9.1.9	No net-new driveways shall be provided on the UNF Drive Loop that bounds the Campus Core; as areas a redeveloped, opportunities to consolidate driveways shall be explored.

9.2	**Invest in Transportation and Parking Demand Management strategies to better manage overall campus parking demand, and decrease single-occupant vehicle trips to the campus.**
9.2.1	No net-new parking shall be provided within the Central Core of Campus.
9.2.2	New parking supplies provided on the campus periphery shall be planned to incorporate clear and easy access to central campus via the shuttle system, and active transportation modes.
9.2.3	Conduct a campus-wide travel study that documents the existing mode share of travel to campus to document barriers to non-auto travel to the campus. Based on goals of the overall TDM program, refine strategies as needed to achieve overall goals.
9.2.4	Parking needs shall be carefully evaluated as new building projects are undertaken that consider both the overall campus- wide parking needs and the specific building program parking needs.
9.2.5	Parking surveys shall continue to be periodically conducted to document parking demand by user group to ensure the right-sizing of future parking supplies, and to provide feedback for adjustments to parking management strategies such that desired parking occupancy levels can be achieved and the investment in large new structured parking resources can be moderated.

9.3	**Invest in Transportation and Parking Demand Management strategies to better manage overall campus parking demand, and decrease single-occupant vehicle trips to the campus.**
9.3.1	As new facilities are developed and existing facilities modified, evaluate potential changes to shuttle stop locations.
9.3.2	Continue to evaluate shuttle routing, headways, and stop locations, and make adjustments as needed to improve ridership.

Goal 2 – Transportation

Collaborate with regional partners, including the City of Jacksonville, Duval County, Jacksonville Transit Authority (JTA), Florida Department of Transportation (FDOT) and the North Florida Transportation Planning Organization (NFTPO) to implement regional transportation improvements that improve multi-modal access to the Campus.

9.4	**Collaborate with regional partners to ensure that regional transportation improvements are coordinated with Campus improvements to maximize their overall benefit.**
9.4.1	Continue to support FDOT, NFTPO, and the City of Jacksonville in the identification, funding, and construction of regional transportation improvements for all modes that improve regional access to UNF.
9.4.2	Continue to work with the City of Jacksonville to implement bicycle and pedestrian improvements on UNF Drive between I-295 and Alumni Drive, and on Alumni Drive between UNF Drive and Kernan Boulevard.
9.4.3	Collaborate with regional partners to identify multi-modal improvements that will connect the on-campus multi-modal pathway network to local and regional network improvements.

9.5	**Reduce the dependence on single-occupant vehicle modes as the primary mode of travel to the campus.**
9.5.1	Evaluate shuttle and JTA route changes with the potential closure of UNF Drive at the Arena to through traffic.
9.5.2	Conduct a joint UNF and JTA transit market assessment to determine if expanding the coverage of the Osprey Shuttle, or providing additional JTA transit connections to site could yield additional transit use as the primary means of travel to the campus.

Existing and Proposed Transportation Conditions

The University of North Florida Campus is located in the Jacksonville Metropolitan Area, southeast of the Jacksonville Central Business District in the Southeast Planning District. Since the preparation of the last Master Plan, numerous transportation improvements have been completed in the Campus vicinity, with additional improvements, such as widening Kernan Boulevard in the Campus vicinity, nearing completion. Regional connections are provided from Interstate 295 (formerly designated as SR 9A) , which provides a beltway around the Downtown Core, and State Route 202 (J Turner Butler Boulevard). Local connections are provided from Town Center Parkway and Kernan Boulevard, with secondary connections provided from Central Parkway, connecting to Beach Boulevard.

While access to the Campus has been designed for the ease of auto-mobility, transit, bicycle and pedestrian connections are also provided. The following sections describe the roadway network, transit services, bicycle facilities, pedestrian facilities, and parking conditions connecting to and within the Campus. Background information supporting the goals, objectives and policies noted above are provided in each section.

Roadway Network

Primary access to the Campus is provided from three entry roads that lead to a loop road; the Campus Loop, also known as UNF Drive, surrounds the Campus core. UNF Drive west is a four- lane roadway that extends between I-295 and the Campus Loop, Alumni Drive is a four-lane roadway that extends between Kernan Boulevard and the Campus Loop, and the North Entrance Road is a two-lane roadway that provides access between Central Parkway and the North Parking Lot. An extension of the North Entrance Road from Eco Road to Central Parkway was completed in early 2020. Secondary access to the Campus is provided from Osprey Ridge Road, which connects to Kernan Boulevard and provides access to The Fountains; an extension of Osprey Ridge Road from Osprey Fountains to Varsity Lane and North Entrance Road was completed in early 2020. With the completion of additional roadway connections around the Campus, there are opportunities for some vehicle travel to shift from the Campus Loop, providing opportunities for multi-modal enhancements on the Campus Loop Roadway.

Existing Traffic Volumes

Traffic counts were collected at key intersections that provide access to the campus, and well as on roadways segments within the campus vicinity. In addition to on-campus data, published data for key roadway segments that provide access to the area was obtained from the City of Jacksonville and the Florida Department of Transportation based on 2018 conditions. The recent data was compared to data collected in 2009 for the prior Master Plan effort, as summarized below, based on the PM peak hour of travel. Traffic volumes on regional roadways in the Campus vicinity have increased significantly over the past 10-years,

especially on State Route 202, and I-295 where capacity improvements have been completed in the past 10-years to support planned growth in the area. Peak hour traffic volumes on some Campus roadways have declined, indicating that with the completion of regional roadway projects in the area, travel patterns have changed since 2009, potentially shifting cut-through traffic to the regional roadway system as additional capacity was provided. Additionally, with the transition of the Campus to provide additional housing resources, and the growth of the campus shuttle system, the Campus has been able to continue expanding while not increasing peak period traffic on the primary Campus roadways.

Existing PM Peak Period Traffic Volume Comparison (2009 vs 2018/2019)

LINK ID	ROAD NAME	SEGMENT LIMITS	APPROVED ROAD TYPE	2009 PEAK HOUR VOLUME	2018/ 2019 PEAK HOUR VOLUME	PERCENT CHANGE
UNF	Alumni Dr	UNF Dr Loop to Kernan Blvd	4 – Collector	1,635	1,220	-25%
93	Beach Blvd (SR 212)	Southside Blvd to I-275	6 – PA	5,344	5,230	-2%
94	Beach Blvd (SR 212)	I-275 to Kernan Blvd	6 – PA	5,242	5,650	8%
89	Butler Blvd (SR 202)	I-275 to Kernan Blvd	8 – Freeway	9,900	14,150	43%
660	Butler Blvd (SR 202)	Gate Pkwy to I-275	6 – Freeway	6,526	12,000	84%
661	Butler Blvd (SR 202)	Kernan Blvd to Hodges Blvd	6 – Freeway	8,250	11,850	44%
N/A	Central Pkwy	N. Entrance to Beach Blvd	4 – Collector	786	450	-43%
N/A	Central Pkwy	N. Entrance to St. Johns Bluff Rd	2 – Collector	687	450	-34%
593	Gate Pkwy	J. Turner Butler Blvd to I-275	4 – Collector	1,743	2,074	19%
652	Gate Pkwy	Town Center Pkwy to J. Turner Butler Blvd	6 – Collector	2,477	3,343	35%
405	Kernan Blvd	Atlantic Blvd to Beach Blvd	6 – Minor Arterial	1,634	3,102	90%
406	Kernan Blvd	Beach Blvd to Glen Kernan Blvd	6 – Minor Arterial	1,394	2,881	107%
585	Kernan Blvd	Glen Kernan Blvd to Butler Blvd	4 – Minor Arterial	1,544	2,690	74%
UNF	North-South Rd	UNF Drive West to Roundabout	2 – Collector	506	389	-23%
UNF	North Entrance Rd	Roundabout to Central Pkwy	2 – Collector	272	381	40%
544	I-275	Butler Blvd to Gate Pkwy	6 – Freeway SIS	7,371	11,100	51%
560	I-275	St. Johns Bluff Rd to Beach Blvd	4 – Freeway SIS	6,479	10,700	65%
580	I-275	Beach Blvd to Town Center Pkwy	6 – Freeway SIS	5,681	9,150	61%
643	I-275	Gate Pkwy to Baymeadows Rd	6 – Freeway SIS	7,371	10,700	45%
645	I-275	Town Center Pkwy to Butler Blvd	6 – Freeway SIS	5,681	11,150	96%

LINK ID	ROAD NAME	SEGMENT LIMITS	APPROVED ROAD TYPE	2009 PEAK HOUR VOLUME	2018/ 2019 PEAK HOUR VOLUME	PERCENT CHANGE
225	St. Johns Bluff Rd	Atlantic Blvd to Beach Blvd	4 – Minor Arterial	1,937	1,983	2%
226	St. Johns Bluff Rd	Beach Blvd to Town Center Pkwy	4 – Minor Arterial	1,273	1,961	54%
594	Town Center Pkwy	Gate Pkwy to I-275	6 – Collector	2,952	3,454	17%
UNF	UNF Dr West	I-275 to UNF Drive Loop	4 – Collector	2,874	1,887	-34%
UNF	UNF Drive N Loop	UNF Drive West to Alumni Dr	2 – Collector	957	1,164	22%
UNF	UNF Drive S Loop	UNF Drive West to Alumni Dr	2 – Collector	1,390	980	-29%

Source: 2009 Master Plan, FDOT, City of Jacksonville, and Fehr & Peers, 2019.

Recurring peak period congestion does occur on several of the regional roadways surrounding the Campus, specifically I-295, SR 202 and Kernan Boulevard, resulting in operations that exceed the desired level of service (LOS)[1] standard for vehicle operations, which is LOS D for I-295, and LOS E for all other roadways. Additional roadway improvements are currently under construction in the Campus area, as shown below.

Roadway Improvement Projects in the Vicinity of UNF

FACILITY	LOCATION	DESCRIPTION	RESPONSIBLE AGENCY	ESTIMATED COST	PLANNED COMPLETION
Beach Blvd	Parental Home Rd to Cortez Rd	Traffic Signal Update	FDOT	$45,917	2020
Kernan Blvd	SR 202 to Glen Kernan Pkwy	Widen to 6 lanes	FDOT	$5,450,000	2020
I-275	SR 202 to SR9B	Add 2 Express lanes	FDOT	$176,003,553	2020

While periodic congested conditions may still remain even after the completion of the above improvements, there will be a greater ability for travel to be managed through the area, and for additional mobility options to be provided.

UNF owns, operates and maintains only those transportation facilities and services that are part of the Campus. All other transportation facilities are owned, operated and maintained by City of Jacksonville and related public agencies such as the Jacksonville Transportation Authority, or state agencies such as the Florida Department of Transportation. All Jacksonville and Florida transportation agencies participate in the North Florida Transportation Planning Organization (NFTPO), a metropolitan planning agency that prepares and maintains multi-modal region- wide long-range transportation plans and short-range transportation improvement programs. Individual agencies also prepare plans that are specific to the facilities and services they provide.

Transportation planning for major facilities for all travel modes in the Jacksonville Metropolitan Area is coordinated through the North Florida Transportation Planning Organization (NFTPO). The City of Jacksonville and various independent transportation agencies that operate within the City also prepare short-range and long-range transportation plans as part of the Comprehensive Plan process. Appropriate documents have been reviewed; based on this review there are no additional funded long range roadway capacity improvements planned within the vicinity of the Campus beyond those already underway. There are bicycle and pedestrian focused projects, which are discuss in a subsequent section.

Trip Generation

Trip generation refers to the process of estimating the level of traffic that could be generated by a specific land use. Given the number of entry locations to the Campus, as well as the potential for cut-through traffic, traffic that neither has an origin or destination within the campus. Measuring actual Campus vehicle trip generation can be challenging without a detailed trip generation study.

Future UNF trip generation estimates were prepared based on three different methodologies – ITE Trip Generation, Florida Board of Regents Trip Generation Study, and Northeast Regional Planning Model (NERPM) volume estimates. The ITE Trip Generation equations are based on empirical data collected at universities throughout the United States. The Florida Board of Regents Trip Generation equations are based on data collected in 1993 at universities within the Florida system. The NERPM trip generation estimates were derived from using the existing and projected enrollment for UNF at the time the travel model was developed, with trip generation factors adjusted during the model validation/ calibration process such that the base year forecasts approximate actual counts on the roadway system.

The total entering and exiting daily vehicle volume estimates resulting from each of these methodologies for the 2020 base year are presented in the Vehicle Trip Generation Estimates table. The Board of Regents Study equations estimate a 2019 volume of 41,250 entering/exiting vehicles Campus wide, and the ITE equation yields a lower value – 27,000 vehicle trips. The NERPM volumes for the Campus core are significantly lower with 18,820 entering/exiting vehicles.

Existing traffic counts at the three main entry locations to the Campus core are approximately 38,820 daily vehicle trips. The prior Master Plan had estimated that approximately 10,300 daily vehicle trips on the roadways connecting to the core of the Campus were cut-through trips. If the same level of cut-through traffic is occurring in the Campus vicinity, the trip generation estimates based on the ITE rates closely approximate the level of activity generated by the Campus core. However, there are campus uses that are not reflected in the core Campus cordon Counts, such as Hicks Hall, The Fountains and The Flats. Therefore, the actual trip generation of the Campus is likely between the ITE trip generation rates and the Board of Regents equation estimates.

Future daily vehicle volume estimates resulting from each of these methodologies for 2025 and 2030 horizon year are presented in the table below. As the Campus continues to grow, it is likely that the vehicle trips generated per student will decrease over time as additional on-campus housing supplies are added, transit service is enhanced in the area, and the community around the Campus continues to grow, providing additional housing, employment and recreational opportunities with a close walk or bike ride of the Campus.

Using the Regents Study rates as a maximum envelope of potential new trip generation, the Campus could generate approximately 5,710 additional daily vehicle trips as the Campus Enrollment approaches 20,000 students, and an additional 11,740 daily trips (17,450 trips as compared to current conditions) as enrollment approaches 25,000.

A review of available capacity on the UNF entry roads indicates that the existing roadway network is expected to be able to accommodate the potential increase in vehicle traffic that could be generated by the Campus, especially given the new roadway connections that were recently constructed.

Vehicle Trip Generation Estimates

Year	Trip Generation Method	Variable	Number	Equation	Daily Vehicle Trips	Total Daily Trips
Baseline	ITE Trip Generation	Students	17,308			27,000
Baseline	Board of Regents 1993 Study	Residential Students	3,541	TR = 1.03(X)	3,650	41,250
Baseline	Board of Regents 1993 Study	Commuter Students	13,767	TC = 2.06(X)	28,360	41,250
Baseline	Board of Regents 1993 Study	Faculty/Staff	2,267	TF = 3.21(X)	7,280	41,250
Baseline	Board of Regents 1993 Study	Visitors	N/A	TV=0.05*(TR+TC+TF)	1,960	41,250
Baseline	NERPM Model - 2010	-	-	-		18,820
2025	ITE Trip Generation	Students	20,000			31,200
2025	Board of Regents 1993 Study	Residential Students	4,750	TR = 1.03(X)	4,490	46,960
2025	Board of Regents 1993 Study	Commuter Students	15,250	TC = 2.06(X)	31,420	46,960
2025	Board of Regents 1993 Study	Faculty/Staff	2,620	TF = 3.21(X)	8,410	46,960
2025	Board of Regents 1993 Study	Visitors	N/A	TV=0.05*(TR+TC+TF)	2,240	46,960
2025	NERPM Model - 2030	-				22,920
2030	ITE Trip Generation	Students	25,000		39,000	34,200
2030	Board of Regents 1993 Study	Residential Students	5,938	TR = 1.03(X)	6,120	58,700
2030	Board of Regents 1993 Study	Commuter Students	19,063	TC = 2.06(X)	39,270	

Year	Trip Generation Method	Variable	Number	Equation	Daily Vehicle Trips	Total Daily Trips
2030	Board of Regents 1993 Study	Faculty/Staff	3,275	TF = 3.21(X)	10,510	
2030	Board of Regents 1993 Study	Visitors	N/A	TV=0.05*(TR+TC+TF)	2,800	
2030	NERPM Model - 2030	-				22,920

Collision Assessment

A summary of vehicle crash statistics from the FDOT State Safety Office at important Campus-related intersections between 2015-2017 is displayed in the accompanying table. The summary includes all three traffic-signal controlled intersections on Campus, plus all the Campus entrance intersections. In total, there were 53 reported collisions at the intersections noted below, which resulted in 19 injuries and 1 fatality in the period between 2015 and 2017. In comparison, the 3-year time period evaluated in the prior Master Plan (2007-2009) experienced 155 reported collisions, resulting in 19 injuries and no fatalities. While the total number of collisions is decreasing, the number of collisions resulting in an injury or fatality has stayed about the same. As roadway improvements are constructed around campus, more detailed safety assessment should be conducted to determine appropriate counter measures that could be implemented to decrease the number of injury and fatal collisions.

Vehicle Crash Summary

Intersection	2015 Number of Crashes (Total – Injury – Fatal)	2016 Number of Crashes (Total – Injury – Fatal)	2017 Number of Crashes (Total – Injury – Fatal)	3-Yr Total Number of Crashes (Total – Injury – Fatal)	Alcohol Related Number of Crashes
Kernan Blvd at First Coast Tech Pkwy	2-0-0	0-0-0	3-0-0	5-0-0	1
Kernan Blvd at Beach Blvd	4-2-0	6-2-1	0-0-0	10-4-1	1
Kernan Blvd at Alumni Dr	4-0-0	5-4-0	2-1-0	11-5-0	0
Beach Blvd at Central Pkwy	1-0-0	0-0-0	1-0-0	2-0-0	0
St. Johns Bluff Rd at Beach Blvd	3-0-0	15-5-0	3-2-0	21-7-0	1
Kernan Blvd at J. Turner Butler Blvd	1-0-0	0-0-0	0-0-0	1-0-0	0
I-295 at Beach Blvd	1-1-0	2-2-0	0-0-0	3-3-0	0
	16-3-0	28-13-1	9-3-0	53-19-1	3

Transit Services

Transit Services are provided on Campus by two service providers, the Jacksonville Transportation Authority (JTA) and the Osprey Shuttle, which is operated by UNF. The District on Kernan (an Apartment Community) operates a shuttle that connects the Apartment Complex on Kernan Boulevard to the Campus. The following describes the services provided by JTA and Osprey Shuttle.

JTA

Jacksonville Transportation Authority (JTA) operates one route that directly serves the campus, Route 8, with several other routes that operate within a mile of the campus. Transfers to other routes can be made to access other parts of the Jacksonville Metropolitan Area.

JTA Route 8 serves the campus directly, and provides a connection to the St. Johns Town Center, as well as the Downtown Transit Station. Routes 23 and the First Coast Flyer Red travel on Beach Blvd, north of the campus. Routes 23 and 28 have stops within the St. Johns Town Center. Route 8 circulates on UNF Drive and has a stop within the Campus core at the Library. Stops for other routes are at least one mile from the campus, depending on where in the campus the trip starts/ends. JTA provides bike racks on all buses serving these routes. Regular fare is $4.75, but multi-day, weekly, and monthly passes are available at lower cost.

JTA Bus Routes

Route	Description	Service	Headways	Closest Stop Location
8	Beach Town Center, services Rosa Parks Transit Station, St. Johns Town Center, UNF, Tinseltown	7 days/week 5:00 AM -12:00 AM	10-30 minutes	UNF Drive at Library
23	Townsend/Southside, serves Jacksonville University, Regency Square Mall, St. Johns Town Center, The Avenues Retail Hub	7 days/week 5:00 AM -11:00 PM	60 minutes	Town Center Parkway and Town Crossing Drive at Tropea Way And Beach Boulevard at Central Parkway
28	St. Johns Town Center, Southeast Regional Library, FSCJ Deerwood Campus, Everest University, Winn-Dixie	Monday through Saturday 6:30 AM to 8:30 PM	60 minutes	Town Center Parkway and Town Crossing Drive at Tropea Way
First Coast Flyer Red	Rosa Parks Transit Station, Kernan Station, Jacksonville Beach Station	7 days/week 5:00 AM – 12:00 AM	15 minutes	Beach Boulevard at Kernan Boulevard

Osprey Shuttle

UNF has operated the Osprey Shuttle since Fall 2007; this system connects the core Campus with housing and parking facilities throughout the Campus, as well as the St. Johns Town Center. Shuttle service is funded through parking fees, other student fees, and advertising; no fares are required. The system operates on weekdays between the hours of 7:00 AM and 3:00 AM, and on Saturday and Sunday from 7:00 AM to Midnight. Service to St. Johns Town Center is provided Monday through Sunday from 10: 00 AM to 2:00 PM. During core school hours, service is provided on about 10 minute headways, and real time arrival information is available through a live feed that can be access through a smart phone or computer.

Two routes are currently in service. Thirteen stops are provided on the UNF Shuttle Route, connecting remote parking areas, Hicks Hall and The Flats at UNF to the core of campus via Kernan Boulevard, Alumni Drive, UNF Drive, Varsity Lane, North Entrance Road, and SUNF Drive. Two stops are provided on the UNF Town Center Route – one at the Library, and one at the Town Center.

Osprey Shuttle Existing Daily Ridership

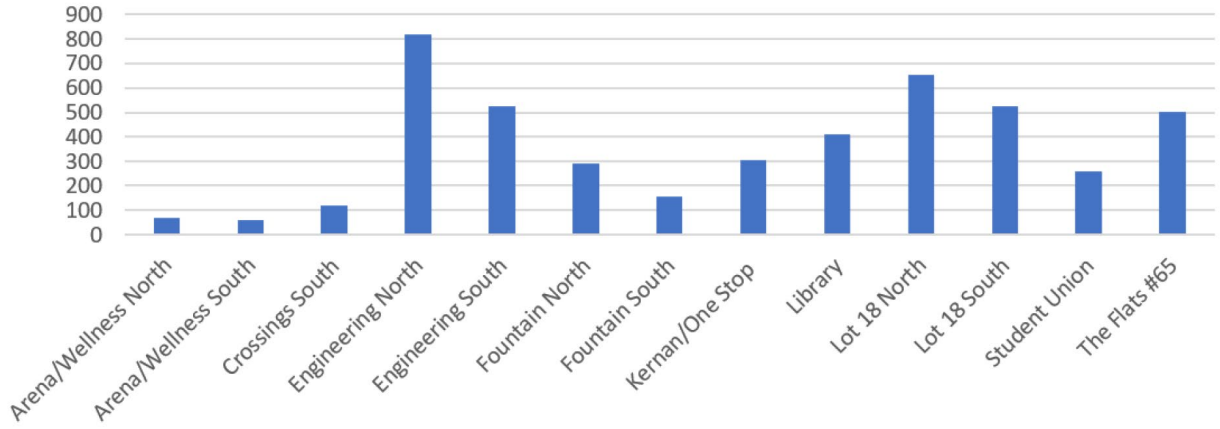
Route	Daily Ridership
UNF Shuttles	4,740
UNF Town Center Mon-Thurs	89
Total	4,829

Notes: data represents ridership for September 17th, 2019 (typical weekday)

Daily ridership data from a typical weekday in September 2019 is presented below, with approximately 4,800 rides provided per day. Ridership on UNF Town Center shuttle is low, which could be due to its limited service hours and frequency.

Daily ridership by stop data indicates the top five stops are Engineering (north and south), Lot 18 (north and south), and the Flats, which connect remote parking and student parking with the core of campus.
To enhance the transit user experience and increase transit ridership to the Campus, the University should continue to collaborate with JTA to enhance transit service to the Campus.

Daily Shuttle Ridership by Stop (UNF Shuttles)



Possible actions could include:

-Evaluate shuttle and JTA route changes with the potential closure of UNF Drive at the Arena to through traffic.

-Conduct a joint UNF and JTA transit market assessment to determine if expanding the coverage of the Osprey Shuttle, or providing additional JTA transit connections to site could yield additional transit use as the primary means of travel to the campus.

Bicycle Network

Bicycle facilities around the campus include multi-use trails separated from vehicle traffic by a curb and in some instances a landscaping strip, as well as on-street bicycle lanes. A multi-use trail was recently constructed on the extension of N Entrance Road, connecting Eco Road to Central Parkway. This new multi-use trail connects to an existing multi-use trail on Eco Road, that extends from N Entrance Road to the pedestrian path at Lot 14. On-Street bicycle lanes are also provided on Kernan Boulevard and 1st Coast Tech Parkway. An off-street multi-use path is also provided on the eastside of Kernan Boulevard, starting about 300 feet north of 1st Coast Tech Parkway. There are also marked bicycle lanes on Town Center Parkway that terminate when Town Center Parkway transitions to UNF Drive. Some of the existing on-street bicycle facilities do not meet the minimum bicycle lane width, and coupled with high volume, high speed vehicle travel, create challenging conditions for bicyclist in the area. Bicycle facilities within the core of Campus are limited to bicycle racks distributed throughout campus. Bicycles must be walked within the core of campus.

Peak period bicycle counts were collected at key intersections within the campus core. These counts indicate that bicycle travel is low throughout the campus (less than 20 bicyclists observed in any peak hour).

To improve bicycle connectivity within and to the campus, several projects have been identified, including a joint project between UNF and the City of Jacksonville, as well as UNF projects.

The joint City of Jacksonville/UNF project would provide a shared use path on UNF Drive connecting from I-295, UNF Drive South Loop from Eco Drive to Alumni Drive, and Alumni Drive from UNF Drive to Kernan Boulevard. The project details are being refined, but the intent is to better connect the Campus to the Town Center. UNF will continue to coordinate with the City of Jackson to facilitate the development of this and other bicycle infrastructure connecting to the campus to improve overall regional bicycle connectivity.

UNF is considering improvements to the remaining section of UNF Drive. On the northern portion of the UNF Drive loop from east of Eco Road to Alumni Drive, the potential to eliminate the center left-turn median was evaluated such that the roadway right-of-way could be repurposed to provide a protected bicycle facility. This review indicates that there is sufficient roadway capacity to eliminate the center left-turn lane; however, removing travel lanes at the signalized intersections on UNF Drive could result in poor levels of service for vehicles, including transit vehicles. Within signalized intersection influence areas, the cycle track would need to be transitioned to new facility.

The preferred alignment will feature periodic driveway crossings for bicyclists which will require additional design treatments, as well as potential conflicts with transit stops. Driveways and minor street crossings are a unique challenge to cycle track design and should be explored further in subsequent efforts. The National

Association of City Transportation Officials (NACTO) provides the following guidance that may improve safety at crossings of driveways and minor intersections:

-For vehicles attempting to cross the cycle track from the side street or driveway, street and sidewalk furnishings and/or other features should accommodate a sight triangle of 20 feet to the cycle track from minor street crossings, and 10 feet from driveway crossings.
- Color, yield lines, and "Yield to Bikes" signage should be used to identify the conflict area and make it clear that the cycle track has priority over entering and exiting traffic.
- Motor vehicle traffic crossing the cycle track should be constrained or channelized to make turns at sharp angles to reduce travel speed prior to crossing.
- If configured as a raised cycle track, the crossing should be raised, in which the sidewalk and cycle track maintain their elevation through the crossing. Sharp inclines on either side from road to sidewalk level serve as a speed hump for motor vehicles.

As part of the cycle track project, wayfinding should be developed to guide bicyclists to various destinations around campus, a designated area where the bicycle facility connects to the campus should be provided and designed to minimize conflicts between bicyclist, pedestrians and other roadway users, including skateboarders.

Pedestrian Network

Pedestrian networks around the Campus consist of multi-use trails and sidewalks connecting to the Campus, and a pedestrian oriented Campus core without vehicle conflicts. As peripheral facilities have been constructed, connecting pedestrian infrastructure has been provided, although in some instances only on one side of the roadway, with sidewalks adjacent to vehicle travel lanes. Provision of a landscape buffer can enhance the walking experience by further separating vehicles and pedestrians, as well as potentially providing shade if trees are planted.

Signalized pedestrian crossings are provided at the intersections of Eco Road at UNF Drive, UNF Drive at Alumni Drive, Alumni Drive at Betty Holzendorf Drive, Alumni Drive at Kernan Boulevard, and at Kernan Boulevard at 1st Coast Tech Parkway. High visibility pedestrian crossings are also provided on Eco Road at Lot 14, UNF Drive at the Lot 14 Connector Path, UNF Drive at the Arena, UNF Drive at Biological Sciences, and UNF Drive at The Fountains pedestrian pathway. Peak period pedestrian counts at these locations indicate a high level of pedestrian activity – in some locations more than 100 pedestrian crossings per hour. Pedestrian connections through the wooded areas, such as connecting Lot 14 with UNF Drive, are meandering and narrow, providing limited sight lines. This can discourage use of some remote parking

facilities for students who may be returning to their vehicle in the dark. Improving sightlines along pedestrian paths can facilitate additional use.

In many instances, pedestrians are sharing facilities with skateboarders, which is a prominent mode of travel around the campus. While there is signage prohibiting the use of skateboards within the Campus core, this prohibition is often ignored, especially during non-peak hours of activity when pedestrian activity is lower. Providing wider sidewalks connecting to Campus could also provide opportunities for skateboarding to Campus.

The closure of UNF Drive in the vicinity of the Arena/Garage 38 has been proposed to reduce vehicle/pedestrian conflicts. Based on the level of vehicle traffic on this portion of the UNF Drive, the level of traffic on other segments of UNF Drive, and the recent completion of two roadway extensions that form an outer loop road, the temporary or permanent closure of this roadway to through traffic should be further considered as there is sufficient capacity on other roadways to accommodate the expected shifts in vehicle travel. The successful implementation of this measure would need a significant way-finding and educational component to direct vehicles to available routes of travel and minimize excess circulation/driver frustration. Shuttle and Transit routes would also need to be rerouted, and emergency vehicle access accommodated.

Parking

UNF manages approximately 10,000 parking spaces spread throughout the Campus. Both surface and structured parking are provided, generally categorized into four primary groups – Premium Parking, Housing Parking, Discount Parking, and Other Venue Parking. These groups are generally associated with a Parking Permit System used to manage parking use on Campus. Existing parking facilities are illustrated on the accompanying map and described below.

Premium Parking (Blue Lots) – These parking spaces are primarily located in or adjacent to the Campus core, and are available to faculty, staff, students and visitors. The majority of these spaces are provided in two parking structures – the Arena Parking Garage located in the north of the core and the Arts Center parking Garage located in the south of the core. Prior Master Plan policy decisions limit the use of land area within the Campus core devoted to parking. The remaining premium spaces are in surface lots that are intermingled with Campus core buildings. Within the premium group there are some specific sub-categories that warrant mention. Designated/Reserved spaces are available for specific officials, faculty/staff, and venders and can only be used by that individual. Handicap designated spaces are provided in most of the premium parking areas.

Housing Parking – These spaces are located adjacent to the residence facilities and are available to resident students only.

Discount Parking (Gray Lots)– These spaces are in large surface lots located at the fringe of the Campus, and are available to faculty/staff, commuting students, resident students, and visitors. The Discount Permits are a specific outgrowth of policies to limit the amount of core Campus area devoted to parking coupled with a need for more affordable permit options for students. These lots are served by the Osprey Shuttle, which was described in the Transit section.

Other Venue Parking – There are three lots south of the core area that are associated with specific buildings. The largest of these lots is adjacent to the University Center, and the other two are located at the Golf Learning Center and Alumni Hall.

A parking use survey is completed routinely by the University to assess use and availability of various parking facilities. The survey is a detailed count of occupied and vacant spaces by specific lot and type of space. The survey is conducted over the course of five consecutive weekdays and the use count is repeated for six time periods each day. For this study, data was collected in September and November of 2019 on typical weekdays at the following times: 9:00 AM, 10:30 AM, 12:30 PM,

2:30 PM, 4:30 PM, and 6 PM. UNF has a total parking inventory of approximately 10,280 spaces. While some campus locations were omitted from the data collection, 98 percent of campus parking spaces were inventoried during this process. An analysis of the data showed 12:30 PM to be the peak period for parking occupancy on campus.

Peak Parking Occupancy by Parking Type

Parking Type	Supply	Available	Demand	% Occupancy
Faculty/Staff	679	54	625	92%
Blue Lots	2,211	140	2,071	94%
Housing	2,351	606	1,745	74%
Gray Lots	4,073	1,326	2,747	67%
Restricted/Vendor	40	19	21	53%
HUC Lot 16	665	250	415	62%
Lot 48	33	18	15	45%
Sub-Total	10,052	2,413	7,639	76%
Uncounted	228	-	-	-
Total Campus Supply	10,280	-	-	-

Generally, overall peak parking utilization is 76 percent, which indicates that sufficient spaces are available to meet overall existing demand. The parking survey results were independently verified on a typical school day in December 2019, which confirmed that parking spaces in the campus core operate a functional capacity for much of the day, while supplies are available in remote parking areas.

Based on the peak observed parking demand, a parking demand rate per full time equivalent was calculated for use in projecting future parking demand based on increased enrollment levels. Based on the data collected in 2019, UNF's existing parking demand rate is 0.45 spaces per FTE student – this rate is within the range of other College Campuses, based on ITE Parking Demand rates, but higher than average. This rate was applied to projected enrollment levels in the near-term and longer-term condition, which shows that in the near-term, additional student enrollment and the associated increases in facility, staff and visitors could be accommodated within the planned supply, but under longer term conditions, over 2,300 additional parking spaces would need to be constructed on-campus, or parking demand management strategies would need to be employed to reduce overall parking demand, or a combination of both.

UNF currently uses several parking demand management strategies; expansion and refinement of strategies will assist the UNF in managing overall parking demands. Parking management strategies are described below:

Regular data collection – UNF regularly monitor parking demand around campus. This data can be used to inform new or enhanced strategies.

New parking technology – Parking permits are enforced using license plate readers technology; permit holders are required to provide their license plate information, as are daily pass holders.

UNF could further use this and other technology to provide real-time parking information, allow space reservation, and/or allow UNF to communicate changes in transportation and parking availability as a result of special events.

Permit Sales – UNF currently sells permits by lot type – blue (premium) and gray (discount). Approximately 2 blue parking passes are sold for every blue parking spaces available. This leads blue lot permit holders unable to find parking within blue lots for large portions of the day (typically 10 AM to 2 PM), while excess parking is available in other lots.

Reduce the number of blue lot permits that are sold (or increase the price to reduce demand) to redistribute parking demand evenly across campus. Continue to evaluate parking demand within the various parking areas until desired occupancy targets are met.

Parking Location Assignments – All students are currently able to obtain parking permits.

Evaluate parking areas across campus for assigned parking locations, such as off-campus first-year students assigned to remote parking locations. Also, consider re-purposing some areas designated for housing permits, where there is a parking supply surplus, to either blue or gray permits.

Overnight Parking Policies – UNF recently implemented a policy such that anyone with a Housing permit can park in a Blue Lot between 7 PM and 10 AM. Parking restrictions are not enforced between 6:00 PM and 7:00 AM, which resulted in resident's guests and other parking in the housing lot, reducing the available parking for residents that may return later in the evening. Prior to this new policy, residents were then forced to park in remote gray lots if housing parking was unavailable. This new policy allows housing permit holders to park in closer proximity to their dorm

and not have to circulate when returning to campus late at night. So far this policy has been well received.

Adjusting class schedules – Peak parking demand occurs when the highest density of student activity occurs on campus. Adjusting class schedules and offerings could better spread parking demand across the day.

Parking During Construction

As new facilities within the Campus core are likely to be constructed on existing parking facilities, a construction parking management plan should be developed prior to the start of construction activities. This plan should identify the expected peak parking demands that would need to be accommodated over the construction period. Based on the existing demand, the plan should identify where displaced parking would occur, and if sufficient overall parking capacity is not available, determine if new permanent or temporary parking supplies should be provided for the construction period, or if additional transportation demand management strategies should be employed during the construction period, including the provision of additional transit, valet parking, or changes to the overall class schedule.

Summary of Future Parking Demand

Timeframe	Enrollment	Demand	Supply Needed to Meet Demand	Supply	Surplus/Deficit
Existing	17,308	7,812	8,680	10,280	1,600
Near Term	20,000	9,027	10,030	10,310	280
Long Term	25,000	11,284	12,538	10,228	(2,310)

Transportation Demand Management

In addition to parking specific policies to better manage overall parking supplies, implementation of transportation demand management strategies to reduce overall parking demand has the potential to reduce the number of new parking spaces that need to be constructed. With development in the Campus core proposed in the long-term to provide additional classroom space and other campus amenities to better serve increased enrollment, some existing surface parking lot facilities may be used to support new buildings. As development plans are further refined, no net-new parking supplies will be provided in the campus core. Should existing parking supplies be reconfigured within the core, structured parking is preferred to minimize the land devoted to parking.

UNF currently provides a several programs to manage travel to the campus, and reduce single occupant trips, including the Campus shuttle service, and charging for parking. Implementation of additional strategies, or expanding the extent of existing strategies would be necessary to achieve higher levels of trip reduction and parking demand reduction. These additional or expanded measures are described below.

> *Campus shuttle service* – Expand the extent of the Campus shuttle service hours to serve additional off-site destinations, including off-Campus housing to decrease dependency on vehicles for off-campus needs.

Mode share study – Periodically conduct a mode share study for the Campus to document total trip generation by all modes of travel, including vehicles, transit, walking and bicycling. Establishing a modal baseline will assist UNF in identifying barriers to non-auto travel to the Campus, and establish programs that manage the increase in vehicle trips, and support the growth in transit, bicycling and walking to and around Campus. The mode share study should include a survey component as well as physical counts. Cut-through traffic a can be identified through the use of Big Data to separate vehicle trips that do not have an origin or destination with the Campus.

Multi-modal infrastructure – roadway designs that provide dedicated space for bicyclists separated from vehicle traffic within the campus and connecting to key destinations has the potential to shift vehicle trips to bicycling/walking/skateboarding trips.

Transit subsidies – Provide discounted or free transit on JTA to incentivize increased use of transit.

Carshare partnership –Partner with a third party to provide vehicles on campus for short term (i.e. – hourly, daily, etc.) rentals, providing users with access to vehicles for infrequent trips. This could be paired with a UNF subsidy for Faculty and/or students signing up for the service. This would allow some to leave their vehicle at home, while being assured a vehicle could be available for use if needed. Many carshare companies offer special programs for Universities.

Restricting parking – Restrict a subset of students (i.e. – first year students, on-campus residents, etc.) from having a vehicle on campus. As these students build their campus lives around travel models other than a private vehicle, the number of students that drive to campus could decline over time.

Parking pricing – Increase the cost of parking to decrease overall parking demand.

On-site TDM coordinator – Designate a staff person responsible for implementing TDM strategies on campus and disseminating information to the campus community about transportation options and programs available to them. This person is responsible for educating the campus community and often leads marketing campaigns designed to shift travel behavior in small increments.

Carpool matching – Develop a carpool matching program that matches those in the Campus community. There are a number of services that restrict participation to Campus community

members and provide ride-matching services. Through these programs, incentives can be provided to encourage sustained carpooling.

In addition to the transportation demand management concepts that are embraced by Master Plan recommendations, some specific policy and operation actions have been defined for short-term and long-term implementation. These recommendations either build on existing operations and/or make use of existing facilities. These recommendations are described briefly below and itemized in the table that follows with specific estimates of possible travel demand savings for the strategy if implemented on its own. While each strategy has its individual estimate in travel demand savings, this is greatly dependent on the level to which they are implemented, and what other measures they are combined with.

For example, increasing parking pricing, and limiting where students are allowed to park would have limited overall benefit unless combined with an increase in transit service and provision of additional multimodal transportation infrastructure. Also, some strategies may need new student cohorts to maximize effectiveness. An existing student that drives to campus and has made housing and employment decisions contingent on vehicle travel is unlikely to significant change travel behavior in their last year or two of school. New students that become accustomed to using transit and other active modes early in their University career, may be more likely to make housing and employment choices not dependent own vehicle ownership, thereby increasing the potential trip and parking reductions. The combination of all strategies does experience diminishing returns which is why the total estimated savings is not equivalent to the aggregate of individual strategy savings.

Recommended Transportation Demand Management Strategies

Strategy	Short Term	Long Term	Saving
Multimodal Infrastructure	Reallocate right-of-way along UNF Drive to provide comfortable bicycle and pedestrian facilities, and construct new bicycle facilities connecting to campus	Work with the City of Jacksonville to expand the off-street/off-campus bicycle network	1%-2%
Transit Subsidy		Subsidize monthly transit pass for Faculty, staff, and students	2%-4%
Campus Shuttle Service	Conduct Transit Market Assessment to optimize shuttle routes, hours and frequency	Expand off-campus routes to nearby apartments and retail centers	2%-4%
Carshare Partnership	Identify third party vendor for carshare program Implement program with 2-3 vehicles available around campus Implement discounted registration fees and other incentives for students		1%-2%
Restricting Parking	Improve other mobility options by addressing transit and carshare partnerships Provide better information about mobility options	Restrict parking from first year residents	5%-7%
Total Reduction			**8% to 10%**

Key Implementation Strategies

Establish an on-campus multi-modal pathway network that provides connections to local and regional network improvements in combination with reallocating right-of-way on University of North Florida (UNF) Drive.

To improve bicycle connectivity within and to the campus, several projects have been identified, including a joint project between UNF and the City of Jacksonville to construct a shared-use path on the southern portion of UNF Drive, and Alumni Drive, and a UNF project to add a multi-use trail along the remaining portion of UNF Drive.

UNF should continue to work with the City of Jacksonville to implement additional off-site multi-modal improvements that would better connect the Campus to the surrounding areas, and provide increase non-auto travel options to the Campus.

Reduce pedestrian and vehicular conflicts campus-wide.

As modifications to the transportation network are made, opportunities to reduce pedestrian/vehicle conflicts should be evaluated. In the Campus core, there are opportunities to consolidate driveways along UNF Drive to reduce the number of conflict locations. As new pedestrian paths are added to connect new uses on the periphery of Campus, new high visibility crosswalks shall be provided, and opportunities to further enhance existing crossings in combination with the UNF Drive cycle-track should be explored. Strategies shall also include enhanced lighting along key pedestrian routes.

Invest in Transportation and Parking Demand Management strategies to better manage overall campus parking demand, and decrease single-occupant vehicle trips to the campus.

Managing overall parking and transportation demand can help to reduce the overall level of new transportation infrastructure needed to support campus growth, including expanded roadways and parking supplies. Periodic monitoring of travel patterns to the Campus to establish a baseline mode share and set-modal targets that help UNF achieve overall parking goals would allow for the development of a TDM plan that is targeted to address the specific travel characteristics of the campus community.

Accommodate large resources of parking on campus periphery with clear and easy access to central campus.

Future parking demand estimates, even taking into consideration full benefit of the TDM measures, ultimately show the need for additional parking spaces in the long-term. Additional parking supplies should be directed to the outer ring of campus, where they can be connected to the regional transportation system for vehicles, and the local transportation system for pedestrians. Parking needs should be carefully evaluated as new building projects are undertaken that consider both the overall campus- wide parking needs and the specific building program parking needs. Parking surveys should be periodically conducted to document parking demand by user group to ensure the right-sizing of future parking supplies.

No net new parking in the central core of campus.

Future parking demand estimates, even taking into consideration full benefit of the TDM measures, ultimately show the need for additional parking spaces in the long-term. To minimize vehicle traffic increases within the core of Campus, and specially on UNF Drive, no net new parking should be provided in the core, and additional parking supplies should be directed to the outer ring of campus, where they can be connected to the regional transportation system for vehicles, and the local transportation system for pedestrians. Parking needs should be carefully evaluated as new building projects are undertaken that consider both the overall campus- wide parking needs and the specific building program parking needs.

Invest in improvements to the campus shuttle system and route to maximize ridership and the user experience.

Conduct a joint UNF and JTA transit market assessment to determine if expanding the coverage of the Osprey Shuttle, or providing additional JTA transit connections to site could yield additional transit use as the primary means of travel to the campus.

Limit vehicle access to UNF Drive at northern most pedestrian crossing point to enhance non-motorized safety.

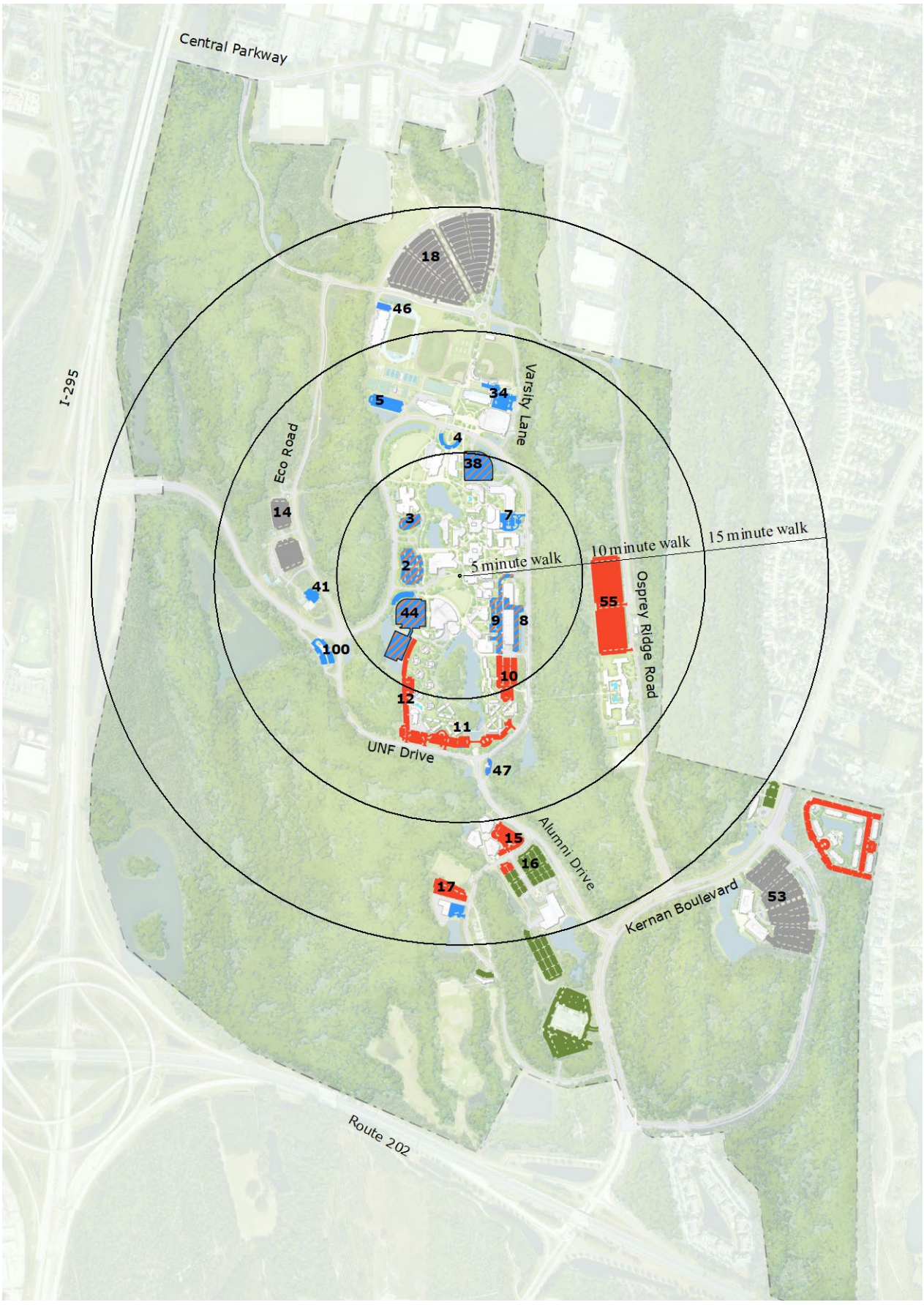
Limiting vehicle traffic on UNF Drive in the vicinity of the Arena/Garage 38 would reduce vehicle/ pedestrian conflicts in this area. Based on the level of vehicle traffic on this portion of the UNF Drive, the level of traffic on other segments of UNF Drive, and the recent completion of two roadway extensions that form an outer loop road, the temporary or permanent closure of this roadway to through traffic should be further considered as there is sufficient capacity on other roadways to accommodate the expected shifts in vehicle travel. The successful implementation of this measure would need a significant way-finding and educational component to direct vehicles to available routes of travel and minimize excess circulation/driver frustration. Shuttle and Transit routes would also need to be rerouted, and emergency vehicle access accommodated.

Enhance campus wayfinding to prioritize pedestrian and bicyclist circulation particularly where access is limited to direct users to appropriate facilities within and around campus.

A consistent wayfinding program for all modes of travel shall be implemented in combination with various site access and circulation changes, and with the construction of new facilities.

Figure 9.1 Parking Facilities

The parking facilities map depicts all the surface and structured parking lots on campus by lot type: blue, housing, gray, university center, faculty/staff and structured parking. Overlaid on the map are walking distance radii in five-minute walk increments from the center of campus. Most lots are walkable within 15 minutes from the center of campus. Larger surface lots on the perimeter of campus such as 18, 14, and 53 are designated gray lots. Lots in the central core of campus are primarily blue and faculty/staff designated lots. Moving south, lots near residential communities are generally designated as housing lots. Lots near the University Center are designated as University Center parking.

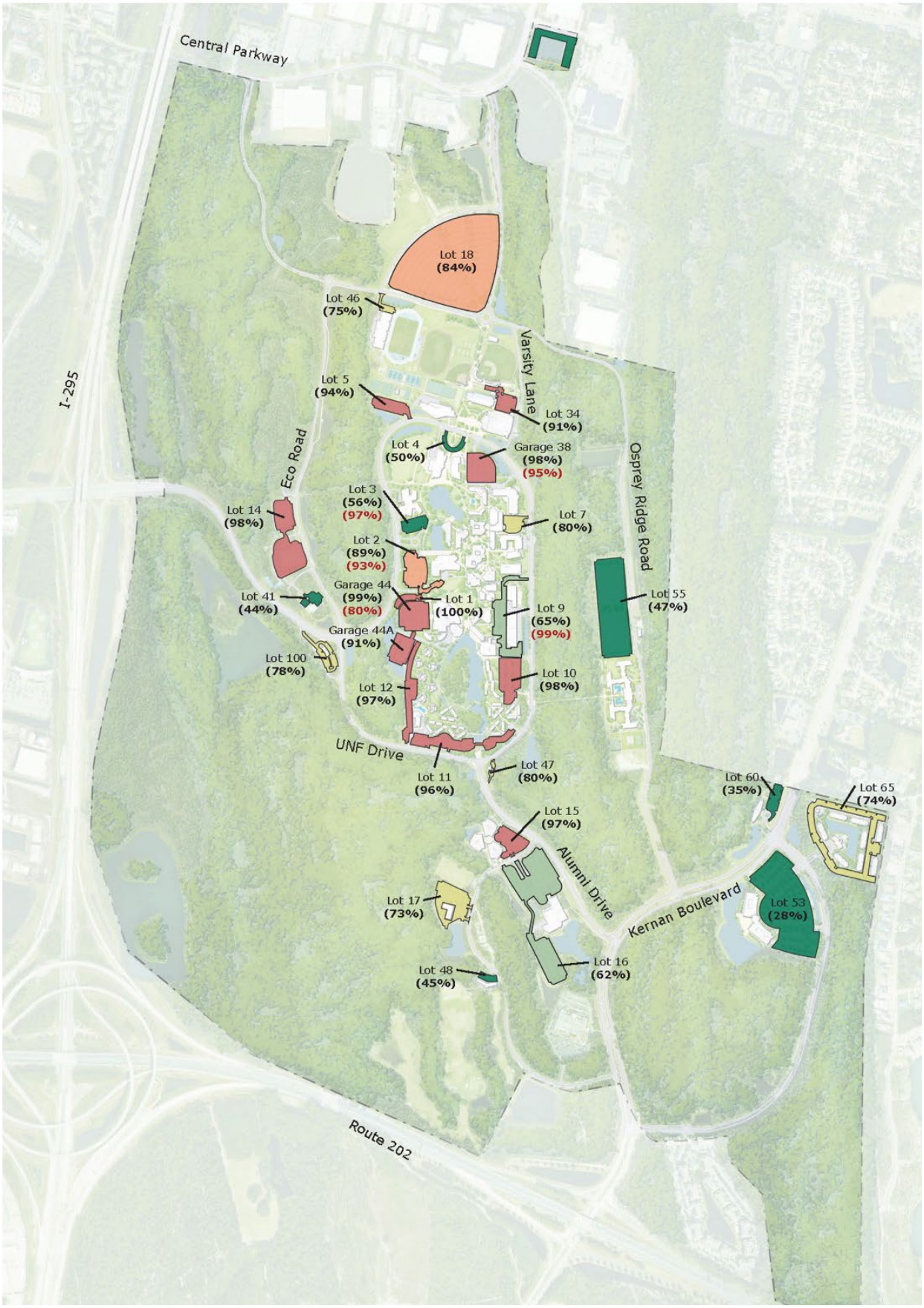

Central Parkway
I-295
Eco Road
Varsity Lane
Osprey Ridge Road
UNF Drive
Alumni Drive
Kernan Boulevard
Route 202
5 minute walk
10 minute walk
15 minute walk
18
46
5
34
4
38
14
3
7
2
41
44
9
8
100
55
10
12
11
47
15
16
17
53

Map Legend

- Blue Lots
- Housing Lots
- Gray Lots
- University Center Parking
- Faculty Staff Lot
- Structured Parking

Figure 9.2 Parking Capacity Map

The parking capacity map depicts the occupancy of surface and structured parking lots on campus by occupancy. Occupancy levels are indicated by color with green hues representing less than 60% occupancy to 80% occupancy, orange and red hues represent 81 to 100% occupancy. In lots designated for faculty/staff, occupancy is shown in red text. Lots with the highest occupancy are generally in the campus core such as garage 38 at 98% occupancy, and lots further from the core generally have the least occupancy such as lot 55 and 53 with 47 and 28 percent occupancy, respectfully.


Central Parkway
I-295
Eco Road
Varsity Lane
Osprey Ridge Road
UNF Drive
Alumni Drive
Kernan Boulevard
Route 202
Lot 18 (84%)
Lot 46 (75%)
Lot 5 (94%)
Lot 34 (91%)
Lot 4 (50%)
Garage 38 (98%) (95%)
Lot 3 (56%) (97%)
Lot 14 (98%)
Lot 7 (80%)
Lot 2 (89%) (93%)
Garage 44 (99%) (80%)
Lot 41 (44%)
Lot 1 (100%)
Lot 9 (65%) (99%)
Lot 55 (47%)
Garage 44A (91%)
Lot 100 (78%)
Lot 10 (98%)
Lot 12 (97%)
Lot 11 (96%)
Lot 47 (80%)
Lot 60 (35%)
Lot 65 (74%)
Lot 15 (97%)
Lot 17 (73%)
Lot 53 (28%)
Lot 48 (45%)
Lot 16 (62%)

Map Legend

- ‹ 60% Occupancy
- 60% - 70% Occupancy
- 71% - 80% Occupancy
- 81% - 90% Occupancy
- 91% - 100% Occupancy

(62%) Student/Reserved Percent Occupancy

(62%) Faculty/Staff Occupancy

Figure 9.3 Road Network and Available Capacity Map

The road network and available capacity map depicts roads by type including freeway, principal and minor arterial, and university road and traffic counts for key road segments. The campus is bounded by freeways I-295 and Route 202 both with daily traffic counts over 100,000. To the west, minor arterial Town Center Parkway has a traffic count of about 25,000 at the point where it transitions to UNF Drive, a university road. Eco road to the west has a vehicle count of about 6,600 and the UNF drive loop sees about 10,000 vehicles a day. To the south, Kernan Boulevard is a minor arterial with a vehicle count of about 30,200 and transitions to a university road. Alumni Drive has a vehicle count of approximately 13,500.


Central Parkway
5,128[2]
I-295
4,713[3]
6,618[3]
Eco Road
Varsity Lane
20,574[3]
Osprey Ridge Road
104,500[1]
9,928[3]
UNF Drive
30,237[2]
13,518[3]
Alumni Drive
Kernan Boulevard
128,000[1]
Route 202

Map Legend

- Freeway
- Principal Arterial
- Minor Arterial
- University Road
- 6,618[3] Traffic Count

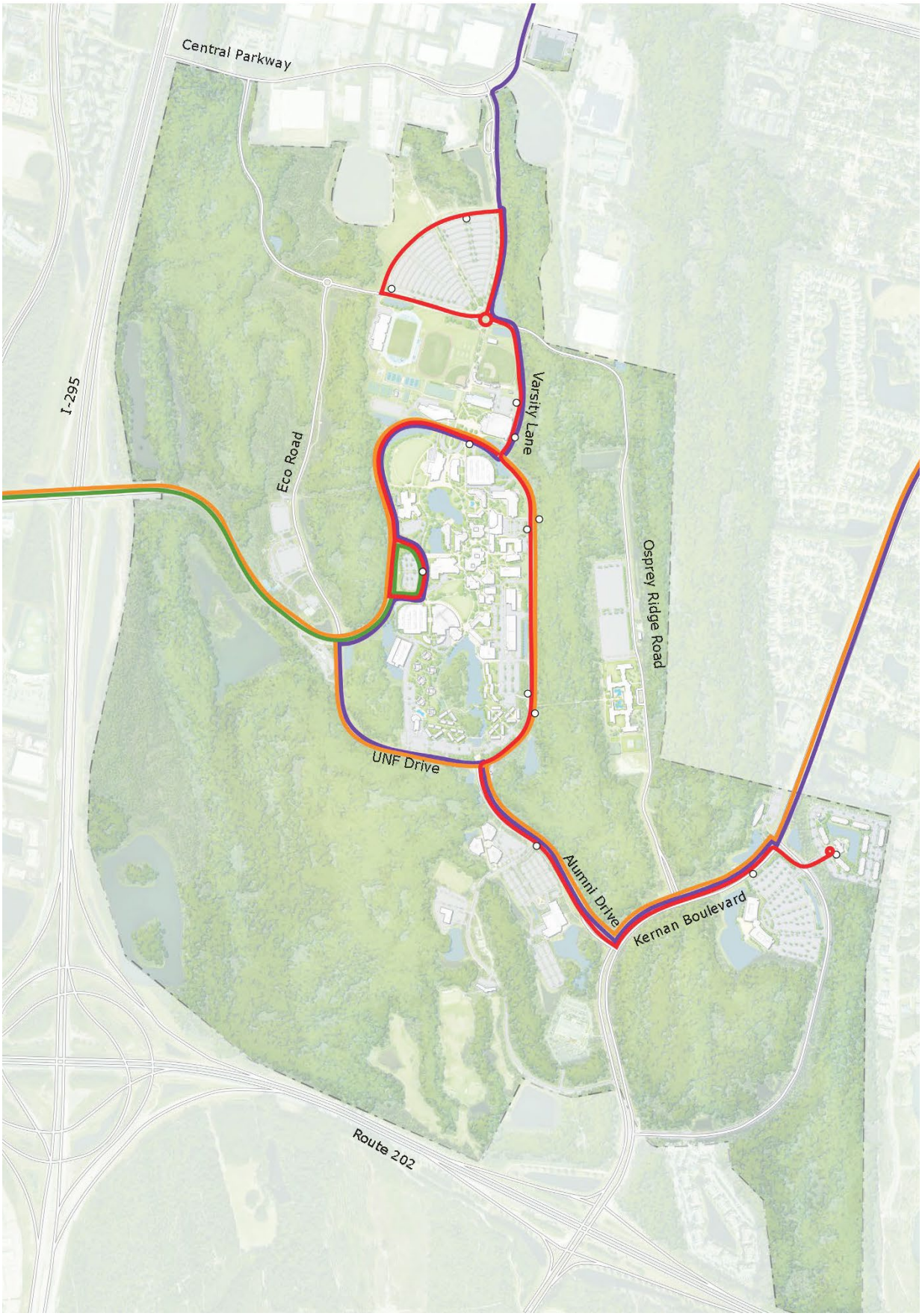
[1] 2017 AADT (Computed by the Florida Department of Transportation)

[2] 2018 Traffic Counts (Collected by the City of Jacksonville)

[3] 2019 Hose Counts (3-day average –collected October 15, 2019 through October 17, 2019)

Figure 9.4 Transit Network

The transit network map shows Osprey Shuttle, JTA and District shuttle routes and stops on campus. The Osprey Shuttle Town Center route enters campus from Town Center Parkway and stops at the Carpenter Library. The JTA route travels from Town Center Parkway, around the UNF Drive loop, to the south on Alumni Dr. and then to the north on Kernan Blvd. The Osprey Shuttle campus route Travels From Lot 18 to the north, to Carpenter Library, and along the east side of the UNF Dr. loop to the south along Alumni Dr. and to Hicks Hall and the Flats at UNF. The District Shuttle Travels from the north entrance of campus at Central Parkway to the west side of the UNF Dr. loop to Carpenter Library and south to Kernan Blvd. continuing north.

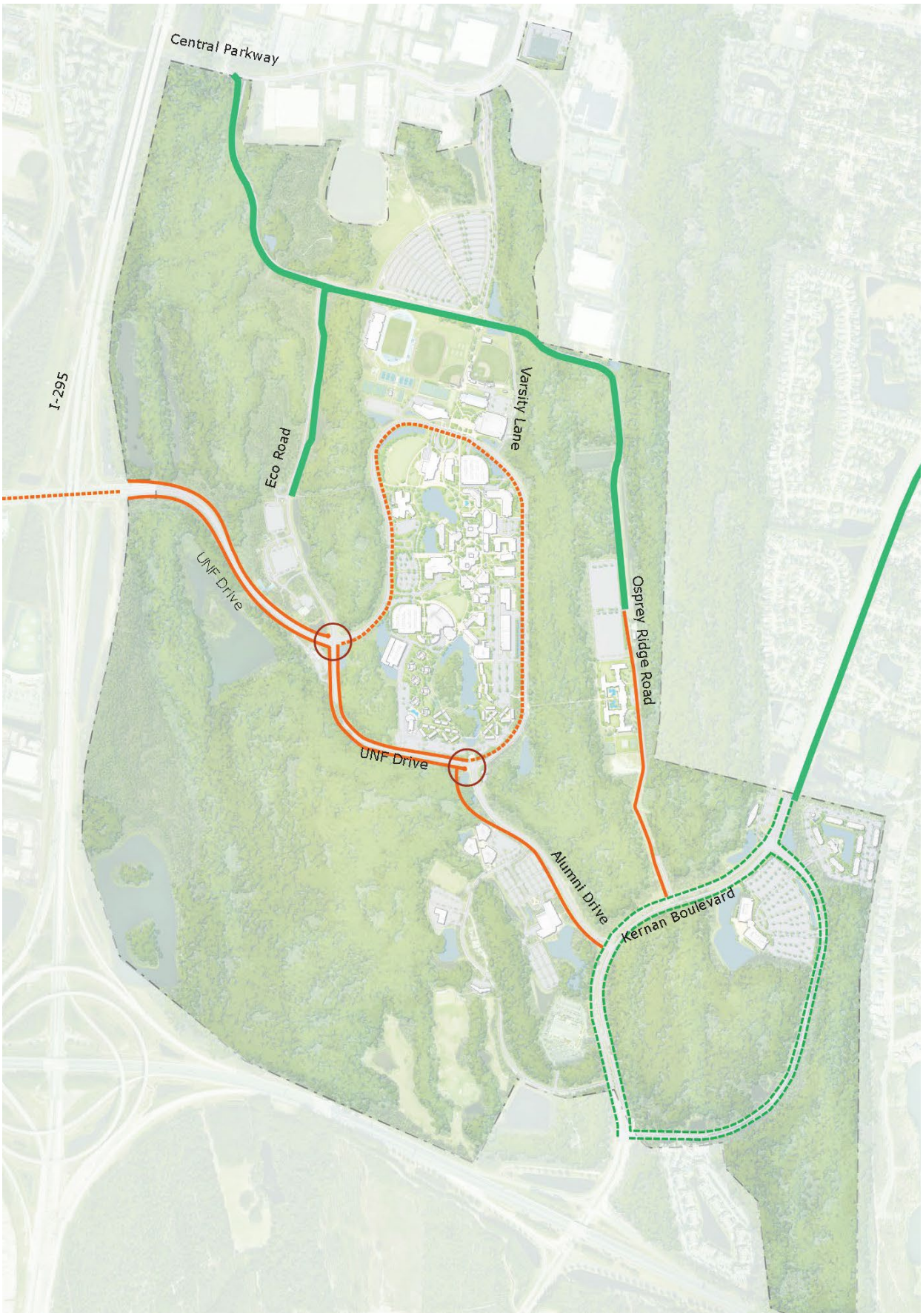

Central Parkway
I-295
Eco Road
Varsity Lane
Osprey Ridge Road
UNF Drive
Alumni Drive
Kernan Boulevard
Route 202

Map Legend

- Osprey Shuttle Town Center Route
- Osprey Shuttle Campus Route
- JTA Route
- District Shuttle
- Osprey Shuttle Stop

Figure 9.5 Bicycle Network and Planned Enhancements

The bicycle network and planned enhancements map shows existing and planned bicycle infrastructure. Existing multi-use paths are present along portions of Eco Rd. and Osprey Ridge Rd, and along Kernan Boulevard north of campus. Existing bike lanes are present along the segment of Kernan Boulevard within the campus boundary and 1st Coast Tech Parkway. Planned multi-use paths are proposed for UNF Dr. to the west beginning at Town Center Parkway connecting to Alumni Dr. via a portion of UNF Dr. and terminating at Kernan Blvd. A multi-use path is also proposed for Osprey Ridge road from lot 55 to Kernan Blvd. Planned bike facilities such as bike lanes are proposed for the remainder of UNF Dr. and Town Center parkway. High visibility crosswalks are proposed for the intersection of UNF Dr. and Eco Rd. and UNF Dr. and Alumni Dr.

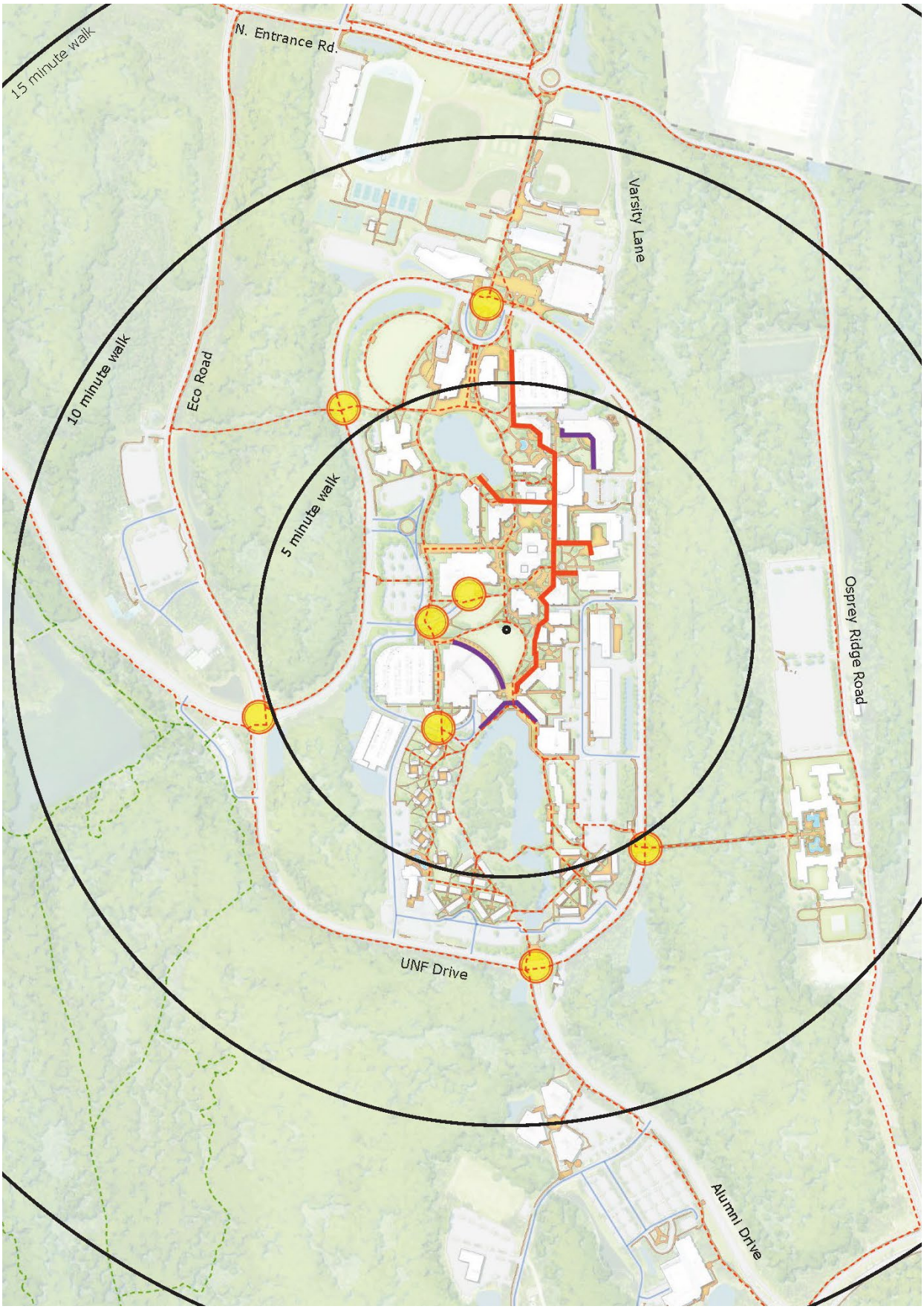

Central Parkway
I-295
Eco Road
Varsity Lane
UNF Drive
Osprey Ridge Road
UNF Drive
Alumni Drive
Kernan Boulevard

Map Legend

- Existing Multi-use Path
- Existing Bike Lane
- Planned Multi-use Path
- Planned Bike Facility
- Planned High Visibility Crosswalk

Figure 9.6 Pedestrian Network Map

The pedestrian network map shows pedestrian pathways on campus and trail networks in natural areas. Primary pedestrian routes and both one and two story covered walkways are highlighted. The central core of campus has a complex network of pathways overall with continuous north-south primary pathways, the eastern-most also coinciding with a network of covered walkways. East-west primary pathways connect along the two major spines in key locations on campus. Pedestrian/vehicular conflicts are shown as yellow dots and are located primarily at key intersections at UNF Dr, and in service and drop-off locations within the campus core such as between Carpenter Library and the Fine Arts parking garage.


15 minute walk
N. Entrance Rd.
Varsity Lane
10 minute walk
Eco Road
5 minute walk
Osprey Ridge Road
UNF Drive
Alumni Drive

Map Legend

- Primary Pedestrian Route
- Pedestrian Pathway
- Trail
- University Road
- Covered Walkway – 2 Story
- Covered Walkway – 1 Story
- Pedestrian Vehicular Conflict Area

Element 10: Intergovernmental Coordination

The Intergovernmental Coordination Element includes Goals, Objectives and Policies that apply to the main campus and Satellite Properties within the City of Jacksonville (Duval County). The Intergovernmental Coordination Element establishes a development review process to be implemented in conjunction with host and affected local governments. This process assesses the impacts of proposed development on significant local, regional, and state resources and facilities. For this process to be effective, it is to be a reciprocal process whereby state and local officials are given an opportunity to review proposed campus development in order to analyze potential impacts on local, regional, and state resources and facilities. At the same time, University officials are given an opportunity to review proposed development within the context area in order to analyze potential impacts on University resources and facilities.

The Intergovernmental Coordination Element also establishes a process for mitigating impacts, if any, identified during the development review process. This mitigation process includes provisions for University officials to 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.

The University has entered into a campus development agreement with the City of Jacksonville through December 31, 2025 that addresses the impacts of University development on the City of Jacksonville support infrastructure. Negotiation of the development agreement included the identification of a process whereby the impacts of development could be assessed. Criteria and strategies for mitigating University development impacts are presented in this development agreement. The mitigation strategies and development agreement were developed consistent with the state and local comprehensive plans. Additionally, the Intergovernmental Coordination Element addresses procedures to ensure the adequate coordination and cooperation for planning activities with the host government and other units of government providing services to the University. The procedures currently in place, as identified in the current Campus Development Agreement include outreach to the City of Jacksonville on the University's Land Use and Facilities, communication with the North Florida Transportation Planning Organization and its various committees and the exchange of development and plan amendment information as described in the Campus Development Agreement.

The University may participate in meetings with various community associations and committees within the University Context Area in order to address issues of mutual concern.

Goal 1 – Intergovernmental Coordination

Effectively coordinate University planning and procedures with affected local governments, organizations and agencies.

10.1	**Continue to coordinate campus development with state and local government agencies, applicable regulators, and infrastructure support services.**
10.1.1	The University shall review proposed amendments to local government comprehensive plans that have the effect of changing land uses or policies, which guide the development of land within the designated context area surrounding the University, and which affect the provision of local services, or otherwise impact University facilities and resources.
10.1.2	Proposed amendments to the Campus Master Plan shall be processed in accordance with Chapter 1013.30, F.S, Florida Board of Governors regulations.
10.1.3	The University shall stay informed of land use and development activity in the City of Jacksonville by continuing to review the city committee and commission agendas of each entity along with notices of local government comprehensive plan amendments and changes to local development codes and zoning. Exchange of information related to local development activity will also be facilitated by the University's outreach to the North Florida Transportation Planning Organization.
10.1.4	The University shall meet with officials from the City of Jacksonville and other local, regional, state and federal agencies as needed for the purpose of coordinating development and Campus Master Plan implementation.
10.1.5	UNF will conduct internal evaluations of campus buildings as they turn 50 years of age for historical significance and consult the Division of Historical Resources (DHR) as required.

10.2	**Implement procedures for community coordination on issues concerning economic development, emergency services, transportation, and other community goals that are consistent with the University of North Florida's Mission and community development goals of the City of Jacksonville, Florida.**
10.2.1	The University shall meet with state, regional and local entities as needed to determine level of service standards, or to review potential or proposed changes to such standards that may have an impact on the University, its operation and/or growth potential. Level of service standards for roads, sanitary sewer, storm water management (quantity and quality), potable water, solid waste, parks and recreational areas and public transportation shall not be in conflict with those established by the City.
10.2.2	Recognizing that the 10-year Capital Projects list in the Capital Improvements Element must include all projects for which the University may seek construction funding and that this list may exceed the amount of development for which mitigation has previously been provided, the University will cooperate with City officials to review the impacts of any additional gross square foot of development included in the campus master plan Capital Improvements Element beyond those for which mitigation has been provided through the Campus Development Agreement to determine strategies to mitigate impacts through amendment of the Campus Development Agreement when those projects are funded.
10.2.3	The University shall assess the impacts of proposed campus development on significant local, regional and state resources, facilities and services. When it has been determined that proposed development on campus would have an adverse impact on local services, facilities or natural resources, the University will participate and cooperate with City officials in the identification of appropriate strategies to mitigate the impacts consistent with the terms and conditions of the campus development agreement.
10.2.4	The University shall monitor off-campus development and assess impacts on University resources, facilities and services. When it has been determined that proposed development within the designated context area would have an adverse impact on University facilities and resources, the University will cooperate with City of Jacksonville officials in the identification of appropriate strategies to mitigate the impacts on University facilities and resources.
10.2.5	Any dispute between the University and the City of Jacksonville regarding the assessment or mitigation of impacts within the University Context Area, as defined by the existing Campus Development Agreement (Section 6.0) shall be resolved in accordance with the process established in Chapter 1013.30, F.S.
10.2.6	The University Context Area identified on the Context Area map shall serve as the target planning area for the campus development agreement required pursuant to Chapter 1013.30, F.S. The University, in conjunction with the City of Jacksonville shall review Context Area boundaries prior to future updates of the Campus Master Plan.

10.2	**Implement procedures for community coordination on issues concerning economic development, emergency services, transportation, and other community goals that are consistent with the University of North Florida's Mission and community development goals of the City of Jacksonville, Florida.**
10.2.7	Pursuant to the requirements set forth in Chapter 1013.30, F.S. Within 270 days after the University Of North Florida Board Of Trustees adopts the new Campus Master Plan for 2020-2030, the existing Campus Development Agreement which is valid through December 2025 must be amended to address the following: -Clearly identify the geographic area of the campus and local government covered under the agreement; -Increases in density or intensity of use of land on the campus by more than 10 percent. -Decreases in the amount of natural areas, open spaces, or buffers on the campus by more than 10 percent. -Rearrangement of land uses in a manner that will increase the impact of any proposed campus development by any percent on a road or on another public facility or service provided or maintained by the state, City, or any affected local government. -Modifications to the Level-Of-Service (LOS) standard established by the City of Jacksonville. Identify the entity that will provide the service to the campus, and describe any financial arrangements between the Board of Trustees and other entities relating to the provision of the facility or service.
10.2.8	The University of North Florida Board Of Trustees and its host local government shall execute the campus development agreement within 180 days after receipt of the draft agreement per Chapter 1013.30, F.S.
10.2.9	The University of North Florida shall follow the existing Campus Development Agreement or amended Campus Development Agreement for issues relating to financial responsibilities for concurrency management. The University Of North Florida Board Of Trustees pays its 'fair share' for capital improvements, as identified in the campus development agreement, or as identified in an amended campus development agreement, all concurrency management responsibilities of the University and its Board of Trustees are deemed to be fulfilled.
10.2.10	Any dispute between the University and the City of Jacksonville which arises from the implementation of the campus development agreement shall be resolved in accordance with the process established in Chapter 1013.30, F.S.

10.3	**To support the University of North Florida Mission and community development goals of the City of Jacksonville (Duval County) develop procedures for effective intergovernmental coordination. Ensure proper support of infrastructure, utilities and necessary services.**
10.3.1	The University may consider the potential for locating non-academic services and other programs within appropriate areas of the community that could enhance on-going and/or proposed economic development activities.
10.3.2	The University shall participate in and support technology transfer, encourage entrepreneurship and participate in economic development related to University teaching, extension and research within the community.
10.3.3	The University shall maintain communication with the City of Jacksonville Department of Public Works, Jacksonville Electric Authority (JEA) and the North Florida Transportation Planning Organization (TPO).
10.3.4	The University shall continue to seek the cooperation of the Jacksonville Transit Authority (JTA) in promoting the use of public transit by students, faculty and staff; enhancing the on-campus and Context Area transit system as a means of increasing ridership; and shall confer with JTA on University/public transit issues.
10.3.5	Intergovernmental coordination, with regard to the provision of adequate law enforcement, fire protection and emergency medical service to the campus, shall be improved through existing service agreements with the providers of these services.
10.3.6	The University shall implement other programs, policies and procedures as specified in the Campus Master Plan to address interfaces between the University and the community in regard to urban design, future land use, housing, recreation, conservation, transportation, infrastructure, utilities and capital improvements.
10.3.7	The University shall maintain communication with community groups and neighborhood associations.
10.3.8	The University shall coordinate with local school districts when implementing policies and procedures specified in the Campus Master Plan which affect local school districts.

10.4	Include University affiliated sites and properties within Duval County into the adopted Master Plan.
10.4.1	The University shall update the adopted Campus Master Plan as necessary to reflect the expansion of campus boundaries and the inclusion of University and certain affiliated sites and properties within the City of Jacksonville that are used for support/clinical/cultural, recreation/athletics, student housing, teaching/research, or the administration of the University or for the administration of University Direct Support Organizations (as defined in Chapter 1004.28, F.S.) in the Campus Master Plan. This shall be accomplished through one or more amendments to the adopted Campus Master Plan. Properties and land holdings of the University or Direct Support Organizations that fail to meet the criteria established in this policy, shall not be included in the adopted Campus Master Plan.
10.4.2	In the event the use of any property changes so that it no longer meets the criteria established in Policy 10.4.1 above, the property shall be removed from the adopted Campus Master Plan and added to the corresponding local government comprehensive plan upon notification from the University to the local government.
10.4.3	The following properties meet the criteria of Policy 10.4.1 above and shall be included in the Campus Master Plan. These properties are considered part of the University Of North Florida. -Museum of Contemporary Art MOCA: 333 N. Laurel Street; Jacksonville, FL 32202 -Center for Entrepreneurship and Innovation in the Urban Core: 112 W. Adams Street; Jacksonville, FL 32202.
10.4.4	The University shall coordinate with the City of Jacksonville as appropriate on any required amendment to the City's adopted comprehensive plans to: (1) reflect the inclusion of University-affiliated properties (such as those identified in Policy 10.3.3 above) into the adopted Campus Master Plan; and (2) to reflect a change in land use in the appropriate local government comprehensive plan from the current use to "Education (schools and colleges)" use. Efforts shall be made to process these plan amendments concurrently.
10.4.5	The University shall provide to the appropriate local government reasonable advance notice of any plans to include or exclude additional University or University-affiliated sites or properties in the adopted Campus Master Plan.
10.4.6	Proposed amendments which have the effect of including additional properties as part of the Campus Master Plan shall be transmitted to the appropriate local government for review and comment and shall be accompanied by the following information: - A proposed Future Land Use Map which clearly shows the proposed land use designation and density/intensity of use for the subject property, the boundary of the subject property, and the relationship of the subject property to public facilities and services within the context area; -The size of the subject property in acres or fractions thereof; -A legal description of the subject property; -An assessment of the impact of proposed University development on level of service conditions for identified public services and facilities, including public storm-water management, potable water, sanitary sewer, solid waste, parks and recreation and traffic circulation (as applicable); -Information regarding the compatibility of the proposed land use amendments with adjacent land uses (both on campus and within the context area); and Information regarding the consistency of the proposed land use amendments with the goals, objectives and policies contained in the Future Land Use Element and in other elements of the adopted Campus Master Plan.

10.4	**Include University affiliated sites and properties within Duval County into the adopted Master Plan.**
10.4.7	If the information required in policy 10.4.6 above indicates that the proposed amendment will cause or contribute to a degradation of the level of service for public storm-water management, potable water, sanitary sewer, solid waste, parks and recreation, or traffic circulation below adopted standards, the University shall work in cooperation with local governments responsible for the maintenance of adopted level of service standards and shall amend the Campus Development Agreement as needed to maintain the adopted level of service standards.

Element 11: Conservation

The UNF campus is a significant part of the regional ecosystem and supports a large amount of natural ecological communities that provide habitat for a number of plant and wildlife species. The flora and fauna of the University is unique to the North Florida region and integral to the identity of the campus as the University's natural assets are a point of pride for all community members. The entire campus is over 1,350 acres with a large portion of that acreage set aside as a natural preserve enhanced with miles of the Robert W. Loftin nature trail system. The natural vegetative communities include both uplands and wetlands ranging from mature longleaf pine sandhill to pitcher plant bog and riparian wetland forest. These natural communities cover nearly 600 acres and occur mainly as wetlands in the Sawmill Slough Preserve area, Conservation Easement areas, and Drainage Easement areas. The natural areas on campus are habitat for two threatened species, the gopher tortoise and pitcher plant, and other important species such as the University's mascot, the osprey.

In addition to the natural areas on campus, the University provides numerous landscaped garden areas, which provide community members with unique outdoor spaces. The campus also supports another approximately 550 acres that are currently developed with educational and recreational facilities and undeveloped uplands that could be developed with future facilities.

Conservation Zones

From the University's inception, the idea of protecting the natural environment has been a core planning principle. The University and the State have set aside specific conservation zones to preserve, enhance and link sensitive habitats in the area. Conservation areas are important to maintain the unique natural habitats of North Florida to protect resources such as the gopher tortoise, osprey, and pitcher plant.

The planning team recommends the expansion of the existing Sawmill Slough Preserve to better meet the needs of the students, faculty, and local community while also preserving the campus' unique biodiversity and provide continued opportunities for academic research. The proposed expansion of Sawmill Slough includes 1) Gopher Ridge, which includes 40 acres of gopher tortoise habitat; 2) the area of Loftin Trails, which is an integral piece of campus for student recreation; and 3) a wildlife corridor in the southwest corner of campus, which provides a key point of connectivity for wildlife to areas outside of campus. Generally, portions of these areas are already protected through wetland protection, conservation and drainage easements, or due to inaccessibility. As such, the current plan does not propose any development in these areas and it is recommended that they are included as part of the preserve to ensure that they are maintained in their natural state.

Vegetation and Open Spaces

The University is characterized by 5 distinct ecological plant zones: Oak Ridge, Pine/Palmetto, Cypress Pond, Transitional Swamp and Swamp. Ground elevation and soil type determine the differentiation of these zones; therefore the vegetation patterns visually reinforce changes in topography and drainage characteristics. Pine forests are managed with prescribed fire to maintain their ecological biodiversity, including protected species such as the gopher tortoise, Florida pine snake, Florida mouse, as well as deer, turkey, and other native species. Properly managed forests reduce the risk of damaging wildfires. The campus' natural waterways provide important habitat for reptiles, birds, and unique flora; however, University grounds crews must battle invasive species such as Salvinia molesta to maintain the ecological functionality of these areas. Maintenance and management of invasive species should continue, where feasible and care should be taken to avoid the introduction of additional aggressive non-native species.

In addition to the natural preserve areas on campus, the University offers designed garden spaces that provide students with unique settings for leisure, recreation, education, and contemplation. Areas such as the Bamboo Garden provide students with a unique setting consisting of multiple species of bamboo. As noted above, it is advised the University ensure that these non-native species do not spread to other areas of campus. Additionally, there is the Beach Ecosystem exhibit, which provides students with a full scale model of a coastal sand dune vegetative community and Peace Plaza, which aims to match the presence of Martin Luther King Jr. and Mahatma Gandhi statues with plants that represent peace in cultures throughout the world.

Perhaps overlooked by the community as a piece of infrastructure, the stormwater ponds (described in the General Infrastructure section of this Plan) also provide valuable environmental, aesthetic, and academic resources. While they currently offer habitat to turtles, fish, and birds, there is great potential to enhance the ecological functioning of the stormwater ponds. The ponds are currently impacted by high sediment loads and nutrient levels, which limit their water quality and reduce their habitat and aesthetic value. Implementing upland stormwater management and treatment strategies, would serve to improve water quality in the stormwater ponds. Additionally, by strategically planting vegetation in appropriate locations around the ponds (where it does not pose a safety risk to pedestrians or community members), the University could enhance the ecological value of the stormwater ponds. Within the ponds themselves, ecological functionality and productivity can be improved through the installation of floating wetlands. These artificial wetlands would provide habitat for wildlife away from the pond's edge while also improving water quality through nutrient uptake in plants.

Goal 1 – Conservation

Preserve, enhance and manage wetlands, forests, waterbodies and other natural resources on campus.

11.1	Prioritize wetland conservation and preservation over mitigation.
11.1.1	Where feasible, when considering new development, the University shall prioritize infill in the core of campus to avoid the need for disturbing wetland areas outside of the core.
11.1.2	Where feasible, the University shall develop in upland areas that have been determined to be of relatively little resource value.
11.1.3	Conduct an updated wetland delineation of all wetlands on campus and update all mapping, buffer areas, and designated preserve areas accordingly.
11.1.4	The University shall comply with all applicable federal, state, and local regulations impacting the development of floodplain areas and/or jurisdictional wetlands and shall comply with mitigation procedures as required.
11.1.5	The University shall maintain a minimum buffer of 25 feet for those upland areas adjacent to existing known on campus wetlands.

11.2	Preserve and protect habitat, wildlife and vegetation on campus.
11.2.1	Where feasible, when considering new development, the University shall prioritize infill in the core of campus to avoid the need for disturbing wetland areas outside of the core.
11.2.2	The University shall minimize destruction of vegetative communities and undeveloped upland parcels and known wetlands by complying with state, local, and federal regulations concerning development of wetlands and by adhering to the City of Jacksonville Tree Ordinance and the UNF Landscape Design Guidelines.
11.2.3	Before any encroachment into the buffer area is authorized and a plan of development approved, UNF shall review all available environmental and economic options (including the costs of mitigation). If this review indicates that encroachment into the buffer area is the only viable option, then The University will pursue all reasonable efforts to minimize and mitigate any unavoidable impacts.
11.2.4	The University shall continue to protect and conserve endangered and threatened species of plants and wildlife, and species of special concern, as required by the Endangered Species Act of 1973, amended by Public Law 97-304 in February 1983, Chapter 372, Florida Statutes, Chapter 39, Florida Administrative Code, and federal and state management policies. Regulatory agency-approved, species specific Best Management Practices will be utilized during any construction at the campus.
11.2.5	The University shall continue to utilize the Florida Committee on Rare and Endangered Plants and Animals (FCREPA) list and the Convention of International Trade in Endangered Species of Wild Fauna and Flora (CITES) list as a consensus planning mechanism for the development of the UNF campus over the ensuing ten (10)-year planning period.
11.2.6	The University shall coordinate with the Florida Fish and Wildlife Conservation Commission and other appropriate governmental entities in the preparation of an appropriate strategy for the management of gopher tortoises and commensal organisms.
11.2.7	The University shall avoid, to the maximum extent possible, development of existing scientific research sites and areas with documented populations of rare or listed species.
11.2.8	The University shall protect the existing natural communities present within the conservation areas designated throughout campus.
11.2.9	The University shall develop a land management plan for all conservation areas on campus with the goal of maintaining the integrity of the natural communities that are present.
11.2.10	The University shall restrict vehicular access to all conservation areas and wetland areas on the campus with the exception of authorized university staff and contract employees for maintenance or scientific research purposes.
11.2.11	The University shall, if feasible, relocate all rare or listed species from proposed development zones to the conservation areas of the campus.

11.3	Protect and Expand the Sawmill Slough Preserve.
11.3.1	The University shall designate the "Sawmill Slough Preserve" in perpetuity as a deterrent to any development occurring in this area. "Development" in this area is defined as any buildings, structures or roads, other than the proposed western ridge road, that would impact or be a detriment to the vegetation and habitat with this preserve.
11.3.2	The University shall designate the areas identified in the UNF Environmental Center and UNF Sustainability Committee's 2015 proposal to expand the Sawmill Slough Preserve as preserved areas that shall not be developed.

11.4	Improve the ecological function of the stormwater ponds and promote them as a natural resource.
11.4.1	Implement upland stormwater management and treatment systems that will filter sediment and nutrients from stormwater prior to entering the ponds with an emphasis on green infrastructure techniques.
11.4.2	In areas where it is appropriate, avoid mowing and plant buffer vegetation around stormwater ponds to intercept runoff, sediment and nutrients as per the recommendations from the St. Johns River Water Management District. This practice should only be implemented in areas that do not pose a a safety risk to pedestrians and community members.
11.4.3	Install pilot floating wetland projects to determine feasibility for larger scale implementation.

Goal 2– Conservation

Preserve, enhance, and grow the University's stewardship, engagement, and use of its natural resources.

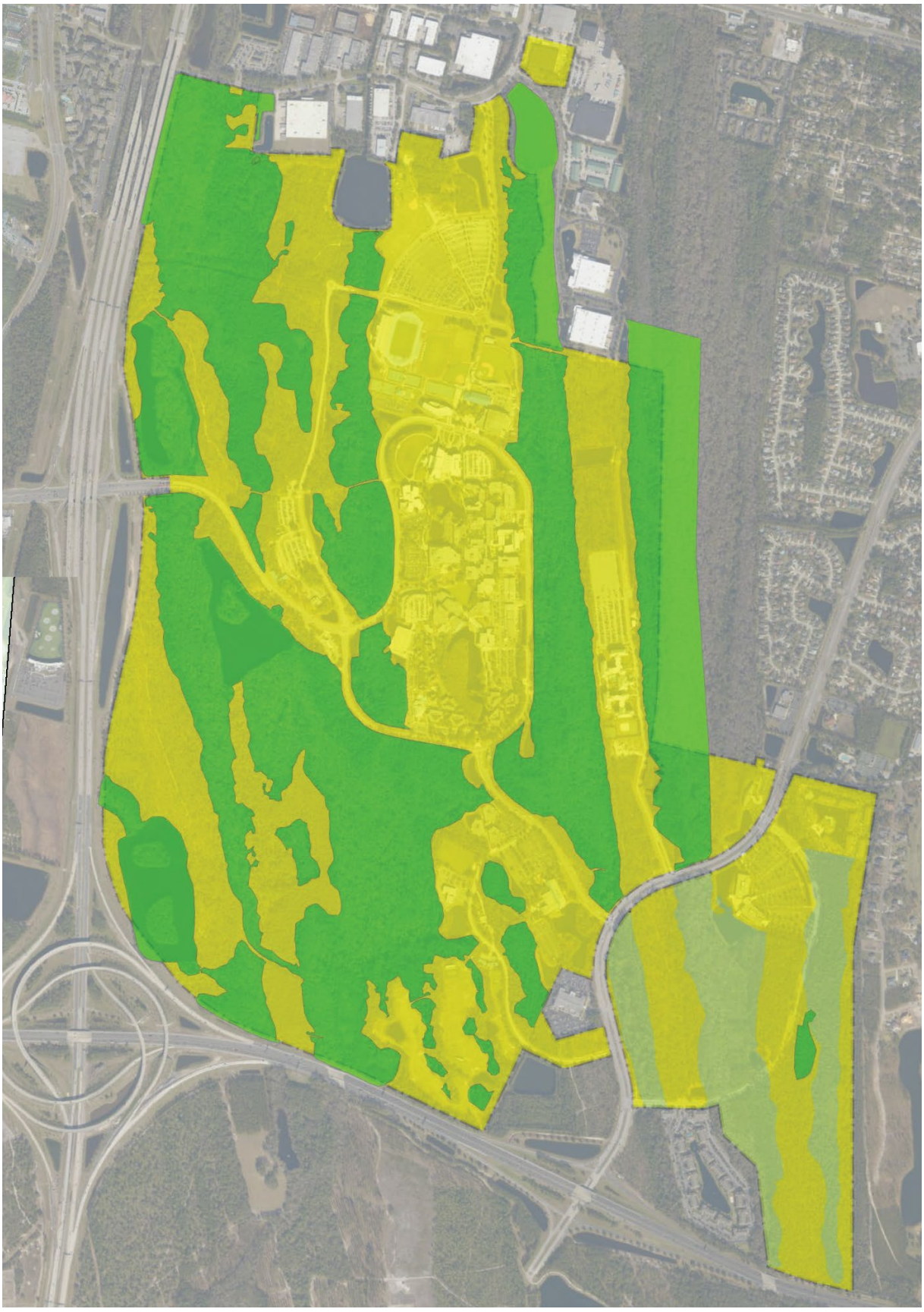
11.5	Promote the community's engagement with natural resources.
11.5.1	Update public facing campus maps to show trail system, preserve area, and other natural features.
11.5.2	Increase signage within the trail system and around campus to direct community members to the trail system and encourage its use.
11.5.3	Encourage faculty to utilize natural areas for classes, student projects, academic research, and team building exercises.
11.5.4	Develop a formalized outdoor classroom on the island in Lake Oneida.
11.5.5	Install art exhibits in areas such as the stormwater ponds or along trails to promote community engagement with features.
11.5.6	Expand the function and operation of the Eco Adventure Center as a means of promoting outdoor awareness and activities on campus.

11.6	Pursue status as a certified Botanical Garden.
11.6.1	To the maximum extent possible, follow the guidance provided by the American Public Gardens Association regarding the generally accepted criteria for defining botanical gardens.
11.6.2	Increase signage and mapping for the University's public gardens such that visitors can identify plants through labels, guide maps, and other interpretative materials.

11.7	Join Tree Campus USA.
11.7.1	Fill out and submit application to become a member of Tree Campus USA.

Figure 11.1 Natural Areas Map

The natural areas map shows the surveyed wetlands and uplands on campus. Much of the undeveloped areas of campus are classified as wetlands except for a portion land near the intersection of I-295 and Route 202 and portions of the land south of Kernan Blvd. Uplands are generally located in the campus core area, extending south to the golf-course and along a linear north/south swath east of campus where Osprey Fountains is located. Areas south of Kernan Blvd. are mapped but not surveyed.



Map Legend

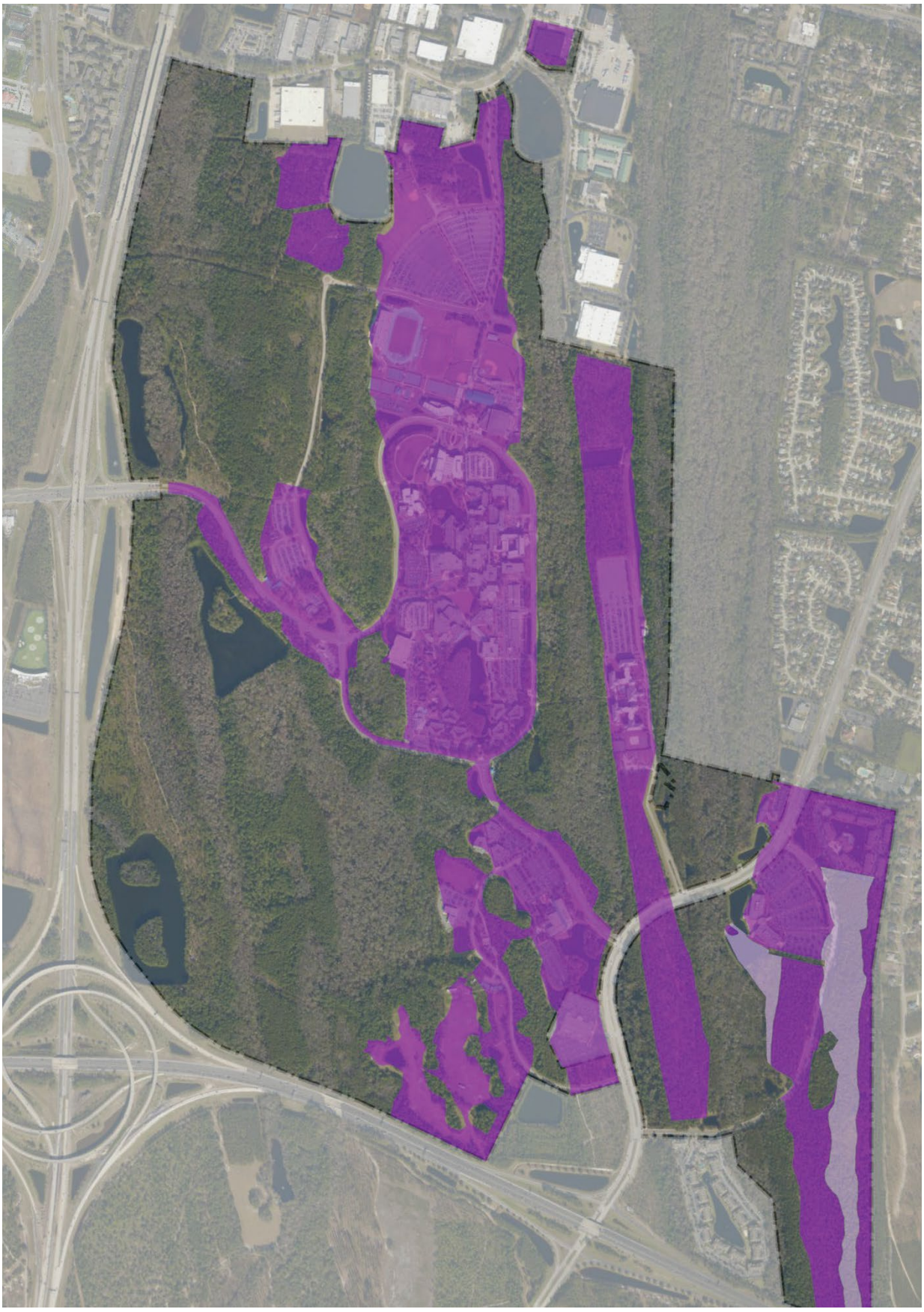
- Surveyed Wetlands
- SJRWMD Mapped Wetlands*
- Uplands

**Mapped wetland data from SJRWMD Wetlands Vegetation 24K (SJRWMD) Shapefile. Wetlands in this area for reference only.*

Note: All data is approximate and should be used for planning purposes only

Figure 11.2 Buildable Sites Map

The buildable sites map shows potential areas of development and generally correspond to areas classified uplands on campus. Refer to the description of the "Natural Areas" map for more information.



Map Legend

- Potential Areas of Development
- Potential Areas of Development – Pending Wetlands Survey*

**Updated surveyed wetland data not available for this area. Current delineation based on 2011 wetland mitigation map. Official determination should be made after formal wetland delineation has occurred or updated survey data provided for this area.*

Note: All data is approximate and should be used for planning purposes only

Figure 11.3 Sawmill Slough Proposed Expansion

The Sawmill Slough proposed expansion map indicates the extents of the existing conservation area and the proposed area for expansion. The existing conservation area is located on the western portion of campus on undeveloped lands. The eastern-most boundary is defined by the Hodges Stadium and UNF Dr. running south, and the golf course at the southern-most portion. The proposed expansion area is located generally in upland areas adjacent to I-295 and a north-south ridge centrally located within the existing conservation area.

Map Legend

Existing

Proposed

Data provided by University of North Florida.

Note: All data is approximate and should be used for planning purposes only