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UNIVERSITY OF CENTRAL FLORIDA

# **2.0 TRANSPORTATION**

2025-35 CAMPUS MASTER PLAN UPDATE

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### **2.1 INTRODUCTION**

### STATUTE & REGULATION



NARRATIVE

#### TRANSPORTATION GROWTH STRATEGY



The TRANSPORTATION element is required by Florida Statue 1013.30(3). The element must follow the guidelines stated in Florida Board of Governors (BOG) Regulations, Chapter 21.

BOG 21.205 states the purpose of the element as follows:

"This element assesses and makes transportation recommendations for integrating all modes of travel (bicycle, pedestrian, bus/transit, and motor vehicle) both on campus and in the off-campus planning study area. These recommendations shall coordinate policies, programs, and projects with the host and/or affected local governments, as well as with other state and regional agencies."

The Parking and Transportation Services Department supports the vital movement of people and services by managing and improving:

- Parking Systems and Facilities
- Transit Network (Shuttles)

Facilities and Business Operations and the UCF Police Department support the operations by managing and improving:

- Traffic Circulation (roadways)
- Pedestrian and Non-Motorized Circulation
- Sustainable Transportation

The Transportation element relies on enrollment growth projections to meet the Data & Analysis requirements of Board of Governors Chapter 21.

In previous years, UCF's consulting transportation engineers have used projected enrollment to determine future traffic volumes. UCF has not yet developed its projected enrollment vision for the 10-year planning interval, 2025 to 2035

To determine the background traffic growth through the Horizon Year 2035, the following resources were examined:

- Based on the latest BEBR<sup>1</sup> projections, the projected population growth rate for Orange County will be 1.5% per year from 2020 to 2035 (2020 population 1.404 million & 2035 population 1.755 million)
- A comparison of historical traffic counts obtained from the Orange County and Seminole County Annual Count Programs over the previous planning period resulted in negative annual growth rates or growth rates of less than 1% per year within the Context Area.

<sup>&</sup>lt;sup>1</sup> University of Florida, Bureau of Economic and Business Research (BEBR)

	Based on this assessment, and to provide a conservative analysis, a minimum 1% background growth rate was assumed for all roadways within the Context Area, as required by Orange County on similar traffic studies.
STRATEGIC PLAN ALIGNMENT	Each CMP element aligns with one or more of the four priorities stated in the UCF strategic plan "UNLEASHING POTENTIAL – Becoming the University for the Future." The Transportation element aligns with:
	<u>Community and Culture</u> UCF's existing partnership with Lynx provides students, staff and faculty access to free public transportation throughout the greater Orlando metropolitan area.
	UCF's involvement in MetroPlan Orlando has established relations with local governments to coordinate future transportation planning and infrastructure improvements.
	<u>Innovation and Sustainability</u> UCF's transportation initiatives, such as propane-powered shuttles and electric fleet cars earn UCF credit toward STARS Gold.
	UCF transit and parking initiatives have reduced trips on campus. During the planning interval 2014 to 2019, the University generated -1.30 trips (negative) per additional student.
SUSTAINABILITY	Sustainability initiatives have been prioritized and integrated throughout the Transportation element. It encompasses items such as alternate transportation means, enhanced bicycle lanes, electrical vehicle expansion, and integration of renewable energy solutions. See also:
	<ul> <li>Goals, Objectives, and Policies – "Sustainable Transportation GOP"</li> <li>Data and Analysis – "g. Sustainable Transportation Approaches"</li> </ul>
	Goals, Objectives and Policies that align with the Sustainability Tracking, Assessment & Rating System <sup>TM</sup> (STARS) Version $3.0^2$ are shown in <b>green</b> text, with the specific <i>Category and Impact Area</i> and <i>Credit</i> # indicated in parentheses after the Goal, Objective, or Policy.
	Specific STARS sections in this element are aligned with the Categories and Impact Areas, <b>Engagement (EN)</b> , <b>Operations (OP)</b> , and <b>Innovation &amp; Leadership (IL)</b> , and with these Stars 3.0 Credits:
	<ul> <li>EN-6: Community Partnerships</li> <li>OP-5: Energy Use</li> </ul>

<sup>&</sup>lt;sup>2</sup> STARS (Sustainability Tracking, Assessment, and Rating System) is "a transparent, self-reporting framework for colleges and universities to measure their sustainability performance."

RELATED ELEMENTS	<ul> <li>OP-6: Greenhouse Gas Emissions</li> <li>OP-14: Commute Modal Split</li> <li>IL-45: Bicycle Friendly Recognition</li> <li>IL-46: Electric Vehicle Infrastructure</li> <li>IL-48: Shared Mobility Program</li> <li>See 7.0 INTERGOVERNMENTAL COORDINATION for collaboration with the host and affected local governments concerning campus traffic and infrastructure development.</li> <li>See 8.0 CAPITAL IMPROVEMENTS for future transportation projects</li> </ul>
GLOSSARY	Terms used in this element may include:
Commuter Rail Line	Central Florida's commuter rail line is SunRail, with 16 Stops from DeBary, FL to Poinciana, FL.
Headway	Headway is a measurement of the distance or time between vehicles in a transit system. It can be expressed as the distance between vehicles or as the time it will take for the trailing vehicle to cover that distance.
Horizon Year	The last year in the planning interval for the 2025-35 Campus Master Plan Update, i.e., 2035.
MetroPlan Orlando	MetroPlan Orlando is the metropolitan transportation planning organization for Orange, Osceola, and Seminole Counties.
Micromobility	A category of personal transport vehicles such as electric scooters, electric skateboards, shared bicycles, and electric pedal assisted bicycles.
Multimodal Transportation Center	Multimodal Transportation Centers are hubs that integrate various modes of transportation and provides multiple options for commuters to travel. These hubs bring together automobiles, public transit, bicycles and pedestrians into a single location, such as the UCF/LYNX Transit Center, <sup>3</sup> the Research I Bus Terminal, and the Lynx Central Station in downtown Orlando.
Multimodal Path	A sidewalk or trail intended for use by pedestrians and micromobility vehicles. See also Non-vehicular.
Public Transit System	Central Florida Regional Transit Authority (LYNX) is the public bus service in Orange, Seminole, and Osceola Counties.
Private Transit System	UCF on-campus and off-campus shuttles to area apartment complexes and the Central Florida Research Park.
Non-vehicular Circulation	Non-Vehicular includes bicycles, skateboards, skates (in-line or roller), scooters (manual and motorized), or similar devices, and the paths or systems that serve them.
Sharrow	A shared lane marking or "sharrow" is a street marking placed in the travel lane to indicate locations where vehicles and bicycles must share the traffic lane.

<sup>&</sup>lt;sup>3</sup> The UCF/LYNX Transit Center is noted as the "UCF SuperStop" on the LYNX website, Google Maps and other internet sites such as TransitFeeds.com and OpenMobilityData.com.

Traffic Circulation System	All roadway facilities within the University Main Campus boundaries, as well as the external roadway facilities located within the Context Area.
Trip Generator	The goal of trip generation is to predict the number of trips, by purpose, which are generated by and attracted to each zone in a study area.
Vehicular	Vehicles include automobiles, trucks, motorized shuttles, autonomous shuttles, and motorized carts.

### 2.2 GOALS, OBJECTIVES, & POLICIES (GOP)

### Traffic Circulation Systems GOP

GOAL 1: Provide adequate vehicular access to the campus, while continuing to coordinate with local communities and planning agencies regarding essential transportation improvements.

OBJECTIVE 1.1: Ensure safe, effective vehicular access to, from, and within campus.	POLICY 1.1.1: Every five years, the University shall review all campus development plans for compliance with the Campus Master Plan criteria for traffic circulation.
	POLICY 1.1.2: The University shall continue to limit vehicular access to the Academic Core, within Aquarius Circle (1,200-foot radius sidewalk), by means that may include, but are not limited to, restrictive signage and barrier gates.
	POLICY 1.1.3: The University shall reduce direct vehicular access onto major roads, such as Gemini Blvd. and Ken Dixon Way (formerly N. Orion Blvd.) <sup>4</sup> , by regulating the number of new driveways, consolidating access points, and creating cross- access and shared-access between adjacent driveways.
	POLICY 1.1.4: The University shall strive to maintain a minimum level of service (LOS) of E for all campus roadways, as defined in the 2023 FDOT Multimodal Quality/Level of Service Handbook (Q/LOS) <sup>5</sup> , except when that LOS could only be accomplished by widening campus roadways beyond four lanes.
	POLICY 1.1.5: The University shall improve its traffic circulation without detrimental impact to environmentally sensitive areas, in compliance with 5.0 CONSERVATION and state and local environmental regulatory agencies.
	POLICY 1.1.6: The University shall identify proposed on-campus traffic circulation improvements in the 10-Year Schedule of Capital Projects (SCP) found in element 8.0 CAPITAL IMPROVEMENTS.
	POLICY 1.1.7: The University shall continue to identify and address deficiencies with existing campus roadways by installing signage to improve traffic circulation, implementing sharrows <sup>6</sup> to improve infrastructure for bicycles, and implementing traffic calming methods to mitigate vehicular accidents.
OBJECTIVE 1.2: Ensure continued coordination of UCF's transportation	POLICY 1.2.1: The University shall ensure concurrency for campus development; i.e., adequate roadways and parking facilities are in place and operating concurrently with proposed

<sup>&</sup>lt;sup>4</sup> North Orion Boulevard was renamed Ken Dixon Way on June 25, 2024 by the UCF Board of Trustees in honor of Kenneth G Dixon, '75.

<sup>&</sup>lt;sup>5</sup> <u>2023 FDOT Multimodal Quality/Level of Service Handbook</u> defines LOS on a scale of A-F.

<sup>&</sup>lt;sup>6</sup> See Glossary in 2.1 Introduction for a definition of "Sharrow."

system with that of the host and affected local governments.	development, with available capacity and without degradation to the LOS defined by the University.
governments.	<ul> <li>POLICY 1.2.2: The University shall coordinate transportation with the host and affected local governments, MetroPlan Orlando, and the Florida Department of Transportation (FDOT) by:</li> <li>collecting and reporting traffic data for on-campus roadways concurrent to every 5-year Campus Master Plan Update, or as necessary, to determine impact on the local host and affected governments;</li> <li>evaluating strategies and improvements to meet the projected need for additional access to the UCF campus;</li> <li>ensuring interconnection and synchronization of existing and new traffic signals;</li> <li>continuing to participate on the MetroPlan Orlando Transportation Systems Management &amp; Operations Advisory Committee (TSMO) in a non-voting capacity; and</li> <li>working together regarding their proposed transportation improvement projects.</li> <li>(EN-6: Community Partnerships)</li> </ul>
	years regarding transit, bicycle, and pedestrian services to ensure quality and quantity of transportation modes.

### Parking Services and Facilities GOP

### GOAL 2: Strive to consistently manage parking demand on campus.

OBJECTIVE 2.1: Ensure the provision of adequate safe, accessible, and effective parking facilities to meet future needs.	POLICY 2.1.1: The University shall reduce campus parking and traffic congestion by building "intercept garages" at the outer perimeter of campus. Such garages are intended to stop vehicular traffic from entering campus and transport drivers from the garages to the campus core by other means such as shuttles, autonomous vehicles, and bike sharing.
	POLICY 2.1.2: The University shall continue to issue residential parking permits that restrict student residents from parking outside of residential parking areas; and prevent commuter students from parking within residential areas.
	POLICY 2.1.3: The University shall monitor campus parking annually, to maintain the student-to-parking space ratio range that UCF designates as adequate (3:1 to 4:1).
	POLICY 2.1.4: The University shall provide adequate lighting at parking garages and lots, in keeping with to IES standards; and ensure the safety of students, faculty, and staff through the application of the <i>Crime Prevention Through Environmental Design</i> (CPTED) methodology.



**OBJECTIVE 2.2: Provide** 

campus parking facilities

that are safe, accessible,

and effective.

POLICY 2.1.5: The University shall monitor visitor parking annually to establish and maintain appropriate visitor parking spaces.

POLICY 2.1.6: The University shall not build any future parking garages within the Campus Core, inside of Gemini Boulevard. All remaining buildable sites within the campus core must be reserved for future Academic Buildings. Future garages will be at the campus periphery to intercept vehicular traffic and reduce congestion within the campus core.

POLICY 2.1.7: The University shall continue to evaluate and implement parking industry technologies to ensure efficient and adequate access of the parking facilities, such as virtual parking permits, digital wayfinding, and parking space availability.

POLICY 2.1.8: The University shall investigate a variable pricing model for student parking designations. These methods could include locations-based pricing demand or student academic level rating.

POLICY 2.1.9: If new construction displaces an existing parking lot, replacement parking shall be considered as part of the new construction planning and budget. A parking study shall be conducted before removing existing parking to allow new construction. Need, funding, and type of replacement parking – paved or pervious (gravel, grass) – shall be considered on a caseby-case basis.

POLICY 2.1.10: The University shall continuously evaluate current resources to identify under-utilized parking locations and develop strategies to maximize usage.

POLICY 2.1.11: The University shall support and provide safe drop-off areas for ridesharing programs for UCF students, faculty, and staff.

(IL-48: Shared Mobility Program)<sup>7</sup>

POLICY 2.1.12: The University shall evaluate the need to provide additional garage(s) during the 10-year Planning Interval, as indicated in Future Conditions in the Data & Analysis section of this element.

POLICY 2.2.1: The University shall ensure the safety of students, faculty, and staff through the application of the *Crime Prevention Through Environmental Design* (CPTED) methodologies. based on five principles: natural access control, natural surveillance, territoriality, activity support, and maintenance.

POLICY 2.2.2: The University shall provide lighting at parking garages and lots in keeping with IES standards.

POLICY 2.2.3: The University shall continue to evaluate and implement parking industry technologies to ensure efficient and

 <sup>&</sup>lt;sup>7</sup> Policy 2.1.11 could relate to STARS <u>IL 48: Shared Mobility Program</u>, if the University has or can develop a program to incentivize the use of car sharing or carpooling.
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adequate access of the parking facilities, such as virtual parking permits, digital wayfinding, and parking space availability.

### **Transit Systems and Facilities GOP**

GOAL 3: Develop a financially feasible multimodal transportation system that integrates services provided by UCF's private transit system, Central Florida's public transit system and commuter rail lines.

OBJECTIVE 3.1: Employ forward-thinking methods to reduce traffic congestion within the campus core.



POLICY 3.1.1: The University shall continue to explore opportunities with other transportation management associations to promote Transportation Demand Management (TDM) strategies both on-campus and within the Context Area.

POLICY 3.1.2: The University shall continue to optimize its existing shuttle services, with routes accommodating many students within the Context Area, as well as shuttle services to the Satellite Campuses.

#### (OP-14: Commute Modal Split)

POLICY 3.1.3: The University shall implement TDM strategies, as appropriate and fiscally feasible, including but not limited to:

- Improved utilization of public or private transit services
- Improved pedestrian and non-vehicular facilities
- Increased number of students living on campus
- Modifications to class scheduling times

#### (OP-14: Commute Modal Split)

POLICY 3.1.4: The University shall continue to coordinate with the host and affected local governments, LYNX, Brightline, and SunRail to promote alternative modes of transportation to campus from other locations.

(EN-6: Community Partnerships) (OP-14: Commute Modal Split) (IL-48: Shared Mobility Program)

POLICY 3.1.5: The University shall continue to coordinate with the Central Florida Expressway Authority (CFX), the Florida Department of Transportation (FDOT), and Orange County Transportation regarding future transportation improvements within the Context Area.

#### (EN-6: Community Partnerships)

POLICY 3.1.6: The University shall continue to investigate forward-thinking means of transportation, including, but not limited to autonomous vehicles.

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**OBJECTIVE 3.2: Increase**<br/>transit ridership.POLICY 3.2.1: The University shall continue to encourage shuttle<br/>transit as a means of travel from residential areas and parking lots

	to campus destinations.
	(OP-14: Commute Modal Split)
	POLICY 3.2.2: The University shall continue to monitor, promote, and increase ridership on its private shuttle service.
	(OP-14: Commute Modal Split)
	<ul> <li>POLICY 3.2.3: The University shall develop initiatives to</li> <li>market student transit services;</li> <li>increase shuttle ridership;</li> <li>decrease parking demand;</li> <li>decrease the use of single-occupant vehicles</li> <li>(OP-14: Commute Modal Split)</li> </ul>
OBJECTIVE 3.3: Implement measures to improve transit service	POLICY 3.3.1: The University shall continue to explore adding new multimodal transportation centers, to minimize single-user vehicles on campus.
to, from, and within the	(OP-14: Commute Modal Split)
campus.	POLICY 3.3.2: The University shall measure the quality of its current services using performance-based assessments, using feedback collected through online <sup>8</sup> surveys, student orientation, and other inquiries.
	<ul> <li>POLICY 3.3.3: The University shall continue to identify residential concentrations of students and to provide convenient transit routes by: <ul> <li>increasing transit service on these routes</li> <li>decreasing transit headway times</li> <li>developing additional new routes</li> <li>modifying existing routes</li> </ul> </li> </ul>
	(OP-14: Commute Modal Split)
	POLICY 3.3.4: The University will review the potential impact on local communities for any proposed shuttle depot locations. Considerations will include traffic increases, noise levels, turn radii, and the overall suitability of the depot for the area.
	POLICY 3.3.5: The University will support and implement transit route expansion in situations where there is evidence of student population growth in a particular location, or where the current transit system is deemed inefficient, limiting access to the university.

### Pedestrian and Non-Vehicular Systems and Facilities GOP

<sup>&</sup>lt;sup>8</sup> Online assessment addresses: Shuttles@ucf.edu, Decals@ucf.edu and Parkingevents@ucf.edu. 11 | 2.2 TRANSPORTATION - GOP

# GOAL 4: Create logical patterns of pedestrian and non-vehicular circulation systems which enhance the overall urban and social-academic quality of the campus.

OBJECTIVE 4.1: Encourage the use of pedestrian and nonvehicular circulation systems.



OBJECTIVE 4.2: Coordinate pedestrian and non-vehicular circulation systems with those developed by the host and affected local governments. POLICY 4.1.1: The University shall continue to encourage pedestrian and micromobility methods of travel from residential areas and parking lots to the Campus Core.

POLICY 4.1.2: The University shall continue to encourage and promote pedestrian and non-vehicular transportation by providing (when funding is available):

- Well-maintained and lighted sidewalks / bike path
- Bicycle racks near buildings
- Bike lockers
- Bicycle racks on UCF shuttles
- Bicycle-sharing and/or Scooter-sharing
- Skateboard lockers
- Showers/dressing rooms in new UCF buildings<sup>9</sup>

#### (OP-14: Commute Modal Split)

POLICY 4.1.3: The University shall continue to provide bicycle lanes on newly constructed or improved on-campus roadways, where feasible.

#### (IL-45: Bicycle Friendly Recognition)

POLICY 4.1.4: UCF will investigate locations where protected lanes are needed to improve safety, such as higher-speed campus roads.

POLICY 4.1.5: The University shall continue to provide crosswalks at all points where pedestrian and non-vehicular circulation cross Gemini Boulevard, at all campus entrances, and where required for safety. The University shall continue to evaluate crossings to ensure pedestrian safety.

- Traffic calming measures and pedestrian signalization may be used to make crossings safer.
- Installing raised crosswalks in areas with significant numbers of pedestrians crossing.
- Pedestrian crossing shall be subject to enforcement by the UCF Police department.

POLICY 4.2.1: The University shall continue to coordinate with the host and affected local governments regarding the implementation of sidewalks, bicycle paths and lanes, and safetyenhanced pedestrian crosswalks along all vehicular corridors adjacent to or leading in and out of campus.

POLICY 4.2.2: The University shall continue to coordinate with the host and affected local governments by reviewing their local comprehensive plans, bicycle plans, or pedestrian circulation

<sup>&</sup>lt;sup>9</sup> LEED Bicycle Facilities (possible 2 points) requires "at least one on-site shower with changing facility for the first 100 regular building occupants and one additional shower for every 150 regular building occupants thereafter."

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	plans, and meeting with local governments and agencies, as necessary.
	<ul> <li>POLICY 4.2.3: The University shall support the concept of signalized, mid-block pedestrian crosswalks on roads near campus to improve pedestrian safety by reducing jaywalking.</li> <li>A 2023 Pedestrian Safety Project, in which UCF partnered with Orange County and FDOT, will provide two mid-block pedestrian crosswalks at Alafaya Trail near Solon Drive and on University Boulevard at Turbine Drive.</li> </ul>
	• UCFs 2020 Campus Development Agreement (CDA) with Orange County discusses a future mid-block pedestrian crosswalk on McCulloch Road <sup>10</sup> near Northgate Apartments, between Alafaya Trail and Lockwood Blvd. <sup>11</sup>
	POLICY 4.2.4: In partnership with Orange County, the University shall "develop an on-campus bicycle pathway through the UCF campus, linking the existing trail systems of Orange and Seminole Counties, as required by a Campus Development Agreement executed in December 2020 between UCF and Orange County" <sup>12</sup>
	(IL-45: Bicycle Friendly Recognition) (EN-6: Community Partnerships)
OBJECTIVE 4.3: Continue to promote pedestrian safety.	<ul><li>POLICY 4.3.1: The University shall continue to educate the campus community with Pedestrian Safety Tips.</li><li>POLICY 4.3.2: The University shall adjust traffic speed limits on campus roadways to increase driver and pedestrian safety, as advised by UCF Police Department.</li></ul>
OBJECTIVE 4.4: Continue to grow the cycling culture at UCF, prioritizing ridership and safety.	<ul> <li>POLICY 4.4.1: The University will strive to improve its bicycle facilities in order to maintain its status and improve its ranking as a "Bicycle Friendly University."<sup>13</sup></li> <li>(IL-45: Bicycle Friendly Recognition)</li> <li>POLICY 4.4.2: The University will continue to provide information and education on bicycle safety and cycling amenities.</li> <li>The UCF Student Government Association website explains the SGA Bike Share (bike rental) and bike repair facilities.</li> <li>The UCF Police Department website details Bicycle Safety Tips and other information.</li> <li>The Parking and Transportation Department website identifies bike rack locations.</li> <li>(IL-45: Bicycle Friendly Recognition)</li> </ul>
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<sup>&</sup>lt;sup>10</sup> McCulloch Road crossings would require a partnership between UCF, Orange County, and Seminole County.

<sup>&</sup>lt;sup>11</sup> McCulloch Road crossings would require coordination with the improvement of trails through the conservation area at the north edge of the UCF campus.

<sup>&</sup>lt;sup>12</sup> This is included in CDAs executed in 2016 and 2020 between UCF and Orange County.

<sup>&</sup>lt;sup>13</sup> The League of American Bicyclists designated UCF as "bicycle friendly" at the Bronze Level in 2017 and again in 2022.

OBJECTIVE 4.5: Continue to support the use of micromobility devices on campus.	POLICY 4.5.1: The University limits the use of skateboards, roller blades, etc. to sidewalks and crosswalks. The use of such devices is prohibited by UCF Policy in all other areas, including roadways, bike lanes, parking lots, or inside any building or garage; or on-site improvements such as walls, steps, ramps, site furniture, or architectural elements. Riders must also yield the right-of-way to pedestrians, bicyclists, and motorists.
	POLICY 4.5.2 With the increased use of eBikes and eScooters on campus, UCF must adopt policies to address their use; and investigate pedestrian safety precautions.
OBJECTIVE 4.6: Review the need for additional lighting along pedestrian	POLICY 4.6.1: The University shall follow the lighting guidelines described in the UCF Design, Construction, and Renovation Standards.
and non-vehicular circulation routes.	POLICY 4.6.2: Concurrency requires that appropriate lighting systems be constructed concurrent with pedestrian and non-vehicular circulation systems.
	POLICY 4.6.3: The University will continue to monitor lighting levels throughout the campus, as needed to ensure safety.

### **Sustainable Transportation GOP**

GOAL 5: Develop sustainable transportation options, while balancing the economic and social benefits of transportation with the need to protect the environment.

OBJECTIVE 5.1: Integrate transportation and land use planning.	POLICY 5.1.1: Ensure planning for land use and transportation are conducted concurrently to mitigate negative impacts stemming from the expansion of one area on the infrastructure of the other.
	POLICY 5.1.2: Encourage supportive land use development, including compact and mixed-use developments that reduce trip length and are pedestrian friendly.
OBJECTIVE 5.2: Protect the environmental health of the campus.	POLICY 5.2.1: The University shall continue to implement distance learning, and coordination with satellite campuses, as techniques to reduce the quantity of students travelling to the Main Campus.
	(OP-14: Commute Modal Split)
	POLICY 5.2.2: The University shall continue to refine class scheduling as a method of mitigating peak-hour traffic conditions and maximizing utilization of existing transportation infrastructure investment.
	POLICY 5.2.3: The University shall evaluate the feasibility to install renewable solar photovoltaic panels on select parking garages and surface parking lots.
	(OP-5: Energy Use) (OP-6: Greenhouse Gas Emissions)

#### OBJECTIVE 5.3: Reduce dependence on the personal automobile by encouraging the use of alternative modes of transportation.

### OBJECTIVE 5.4:

<u>Create a living</u> <u>transportation plan with</u> <u>public involvement.</u> POLICY 5.3.1: The University shall work with the host and affected local governments and public transit providers to evaluate all options for reducing the dependence on single occupancy automobiles.

#### (EN-6: Community Partnerships)

POLICY 5.3.2: The University shall continue to evaluate the usage of existing Electric Vehicle (EV) charging stations and increase the number of stations, where feasible.

#### (IL-46: Electric Vehicle Infrastructure)

POLICY 5.3.3: The University evaluate the feasibility of developing a car-sharing program with incentives for use.

#### (IL 48: Shared Mobility Program)

POLICY 5.3.4: The University shall evaluate the feasibility of developing a system for preferential parking for fuel efficient vehicles and provide incentives for use.

#### (IL-46: Electric Vehicle Infrastructure)

POLICY 5.3.5: The University shall identify strategies to increase walking, cycling, micromobility, transit, rideshare, and telecommuting.

#### (OP-14: Commute Modal Split)

POLICY 5.3.6: The University shall identify strategies to make transit operation more sustainable, including increased ridership, route optimization, and alternative energy sources.

POLICY 5.3.7: The University shall identify strategies to make motor vehicle use more sustainable, including incident management, signal optimization, rideshare, and carpooling.

Policy 5.4.1: UCF has plans to develop a Transportation Master Plan within the planning timeframe.

 Meanwhile, UCF formed a campus-wide committee called MOBILITY 2030 - a Transportation Advisory Board to engage all of UCF's existing transportation-related departments, committees, and advocates and assure that transportation planning at UCF meets the needs of the entire campus community. Its quarterly virtual meeting are open to the public.

### 2.3 DATA AND ANALYSIS

NARRATIVE	Since its inception in 1963 as the Florida Technical University, the University has experienced tremendous growth and is now the largest state university by student population in Florida with over 69,000 students - nearly 52,000 on the Main Campus alone. Enrollment projections for the Main Campus during the 10-year planning timeframe can be found in the CMP 1.0 INTRODUCTION.
	An increasing student population results in increased demands on infrastructure, such as new and improved roads, pedestrian walkways, bicycle facilities, transit improvements, and parking. The University has added significant transportation infrastructure to accommodate this growth, including Transportation Demand Management (TDM) strategies to decrease the use of single- occupant vehicles and encourage multimodal travel.
	The University of Central Florida maintains a network of internal roadways, as well as a fleet of over 49 shuttle buses that provide a critical transit mode to and from the campus. In addition, the University also maintains an extensive network of pedestrian and bicycle facilities on campus.
	With a growing student population, the University strives to integrate and coordinate all available modes of transportation within and surrounding the campus. The area examined by this transportation element is shown in Exhibit 2.0-12 Context Area Map.
	Data & Analysis includes Existing conditions, Planned improvements, Sustainable transportation approaches and Future conditions
Existing Conditions	
INVENTORY	This element requires an analysis of existing transportation facilities within and surrounding the University. In order to evaluate the existing conditions of the transportation facilities on campus, as well as those external facilities and systems located within the Context Area, an inventory of the existing transportation systems and campus demographic data was performed.
Campus Population – Enrollment and	The total number of students enrolled on the Main Campus in Fall 2023 was 51,761.
Employment	Additionally, there are about 13,000 permanent and temporary employees on the Main Campus.

# a. Traffic Circulation Systems

	For the purposes of this Transportation Element, traffic circulation system will be defined as all roadway facilities within the University Campus boundaries, as well as within the Context Area.
	An inventory of existing roadway facilities in the Context Area is shown in Exhibit 2.0-1 Roadway Facility Inventory Table. This inventory includes the following roadway characteristics: roadway name, segment limits, number of lanes, jurisdiction, adopted level of service (LOS), and functional classification.
Functional Classification System	The Florida Department of Transportation (FDOT) defines functional classification as "the process by which streets and highways are grouped into classes or systems, according to the character of service they are intended to provide."
	There are six (6) major classifications of roads: Expressway Freeway, Principal Arterial, Minor Arterial, Collector (Major and Minor), and Local Road.
	Roadways provide two functions within the functional classification by providing varying levels of access and mobility. The functional classification of a roadway is used to set level of service standards and to evaluate operational characteristics.
Roadways	See 2.4 EXHIBITS for Existing Roadway Characteristics Table that details the functional classification of all study roadways within the Context Area. Roadways within the Context Area include the following classifications:
	<ul> <li><u>Principal Arterial</u> – This is the highest level of arterial and generally has restricted access and serves longer distance through trips servicing larger metropolitan areas. This facility connects minor arterials, freeways, and other principal arterials.</li> <li><u>Minor Arterial</u> – This type of roadway provides connections between principal arterials and collectors. It typically serves moderate distances with less emphasis on mobility than a principal arterial and with a greater level of access to adjacent land parcels.</li> </ul>
	<ul> <li><u>Collector (Major and Minor)</u> – The collector street system provides a combination of land access and mobility, generally within residential neighborhoods, or larger industrial or commercial developments, and joins with other collector systems. Collectors distribute traffic from arterials to the local street system and their final destinations.</li> <li><u>Local</u> – According to the AASHTO "Greenbook," the local street system comprises all facilities that do not fall into one of the higher roadway classifications. The primary function of a local street is to provide direct access to adjacent land uses</li> </ul>
Level of Service (LOS) Standards	Level of service (LOS) describes a qualitative measure of a roadway's operational performance under existing or projected traffic conditions.

	There are six alphabetical L a roadway's operating cond the best, LOS "A," which is worst, LOS "F," which re significant delays.	ditions. These designation represents free-flow con-	ns range from ditions, to the
	For the purpose of this up standards developed in the Handbook (Q/LOS). The F Table 4 Generalized Peak Urbanized Areas. It shows geometry and LOS for road	e 2020 FDOT Quality/Le DOT 2020 Q/LOS Hand Hour Directional Volume the existing traffic volu	vel of Service book includes s for Florida's mes, roadway
See Exhibits	Oversized roadway tables a EXHIBITS, at the end of thi		2.4
b. Parking Systems			
	The need for large-capacity, well-distributed parking is paramount to support the needs of UCF's students, faculty, staff, and visitors. To accommodate parking demands, both permanent and temporary parking facilities are provided on campus. Parking for nearly 17,500 vehicles is provided on campus in ten (10) garages and more than 33 parking lots.		
Campus Parking	Garage	Year Built / Enlarged	# of Spaces
Structures (Garages)	Garage A	2007	1,647
	Garage B	2000	1,289
	Garage C	1998 / 2016	1,852
	Garage D	2002	1,279
	Garage E	2007	696
	Garage F	2008	678
	Garage G	2000	696
	Garage H	2011	1,340
	Garage I	1997	1,270
	Libra Garage (J)	2014	1,039
	TOTAL PARKING IN GARAGES		11,786

Parking by User Type

User Type	# of Spaces	% of Total
Student	10,044	57.42%
Housing (Student Residents)	3,646	20.84%
Employee	2,020	11.55%
Reserved	164	0.94%
Disabled	401	2.34%
Meters	184	1.05%
Service	163	0.93%
Motorcycle	153	0.87%
Event Parking	604	3.45%

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	Other	106	0.61%	
	TOTAL PARKING	17,493	-	
PARKING ANALYSIS				
Student Commuter Parking	The majority of UCF parking is allocated for student commuters, with nearly 58% of the total spaces on campus.			
	UCF had nearly 40,000 stud Permits). Parking industricommuter parking turns over turnover, UCF can accommo population with fewer than parking spaces.	ry standards indicate er two to four times a da nodate parking demand fo	that student y. Due to this or the student	
Student Residential Parking	Residential parking is availa campus. Residential parki restricted to their individual Friday between the hours of on weekends, residents ma lots except 24 hours reserve	ng permits "R", "RL" a housing communities Mc 7:00am and 5:30pm. Afte y park in red, blue or gre	and "KP" are onday through er 5:30pm and een spaces or	
R Permits	Students who live in Acader Communities, must purchas only in parking lots B-7 (as Garage.	se R permits. R permits a	llow parking	
RL Permits	RL parking is for Lake Clair in the designated Lake Clair	•	llows parking	
KP Permits	KP permits allow Knights Pl Garage E or G.	aza residents convenient	parking in	
Faculty and Staff Parking	Faculty and staff parking available parking.	spaces total nearly 12	2% of UCF's	
All-user parking	Some parking spaces, inclu and motorcycle parking, r students, faculty, and staff.			
Parking Utilization Study	In March 2024, UCF underto Study for all major lot types vehicles parked in each lot, counts by location and time	s on campus, including t utilization by location and	he quantity of time, average	
	In summary, the study indic more than 60% occupied several being close to full weekday parking was betw availability during the non-p	during most periods of capacity. The peak usag een 12:00 PM and 2:00	the day with ge for student PM. Parking	
	For employee parking, the s student parking occupancy. employee parking was betw occupancy being around 73	However, the peak perio veen 10:00AM and 2:00 F	d for	

PARKING	
TECHNOLOGIES	

TECHNOLOGIES	
License Plate     Recognition	In 2018, UCF began implementing License Plate Recognition (LPR) cameras, starting with camera installations at the main entrances of the campus. This was to increase security of the campus, as the technology can alert law enforcement of any vehicles that are stolen or have outstanding warrants.
	LPR static cameras were also installed at the entrances and exits of Garages A, B, C, D, H, and I (as well as the Parramore and Amelia garages at the downtown campus).
<ul> <li>Virtual Parking Permits</li> </ul>	Because of the LPR technology, UCF was able to transition to using virtual parking permits over issuing physical decals. The created numerous benefits for the campus community, such as eliminating concerns over lost or stolen physical permits, added security for identifying unregistered vehicles, and the convenience of registering for parking online before arriving to campus.
<ul> <li>Tracking Garage Parking Capacity</li> </ul>	Use of LPR expanded to mobile camera units installed on parking enforcement vehicles.
	The versatility of LPR software allows UCF to use the technology for other purposes such as tracking garage parking capacities with the static cameras that were installed in 2023.
	Installation of the static cameras at the garage entrances and exits created the framework in utilizing license plate data to capture parking capacities. The garage parking capacity counter was launched in January 2024 and can be found on parking.ucf.edu.
<ul> <li>Parking Enforcement</li> </ul>	In addition to cameras installed at the entrances of the campus, UCF has expanded its parking enforcement fleet from two to six parking enforcement vehicles with mobile LPR units.
c. Transit Circulation	
NARRATIVE	UCF offers various transit options for students, faculty, and staff to travel on- and off-campus. The University is served by both public and private transit systems.
	The LYNX system provides regional, public transportation throughout the metropolitan Orlando area.
	The University provides transportation for students residing in nearby apartment complexes, through the Campus Transit Shuttle system, which includes 15 regular, fixed shuttle routes serving over 20 off-campus apartment communities. Currently, shuttles run to communities within one mile of campus; but that radius is under reconsideration.
	The University also runs four Pegasus Express shuttles throughout campus for 12 hours per day (7:00 AM to 7:00 PM) to alleviate internal roadway congestion.

### TRANSIT SERVICES

Multimodal Transportation Centers	<ul> <li>Multimodal Transportation Centers accommodate transit arrivals and transfers from one means of transit to another. Examples on the UCF Main Campus include:</li> <li>UCF/LYNX Transit Center (UCF Superstop) on Leo Lane</li> <li>Research 1 Bus Terminal on Scorpius Drive</li> </ul>
LYNX	LYNX is greater Orlando's regional, public transit service that connects the University to Orange, Seminole, and Osceola Counties, as well as the City of Orlando.
UCF/LYNX Transit Center	The UCF/LYNX Transit Center (aka UCF Superstop) is a Main Campus Multimodal Transportation Center located on Leo Lane between Garages A and I. LYNX buses enter and exit the UCF campus via University Boulevard.
	LYNX bus routes have stops near several off-campus residential communities where they may serve UCF students.
<ul> <li>Link #13</li> </ul>	UNIVERSITY BOULEVARD/WINTER PARK Round Trip UCF Superstop to LYNX Central Station/SunRail
<ul> <li>Link #104</li> </ul>	EAST COLONIAL DRIVE Round Trip UCF Superstop to LYNX Central Station/SunRail
<ul> <li>Link #434</li> </ul>	S.R. 434 Round Trip UCF Superstop to Seminole State College Altamonte Campus
UCF Shuttle System	<ul> <li>The University maintains a fleet of approximately sixty-two (62), 28-36-passenger shuttle buses. The UCF shuttle system is an important transportation alternative to the single-passenger automobile. Ridership data is for FY 2022, FY 2023, and FY 2024.</li> <li>5,919 boardings per day. (1.24 million over 210 class days)</li> <li>1.24 million boardings annually (average the past 3 years)</li> </ul>
	See also Ridership by Route, later in this chapter.
Pegasus Express	The Pegasus Express is UCF's intra-campus shuttle route.
Stops	One (1) route, with 11 strategic bus stops, operates on class days from 7:00 AM to 7:00 PM; and Summer semesters from 7:00 AM to 4:00 PM, excluding Saturdays.
<ul> <li>1</li> <li>2</li> <li>3</li> <li>4</li> <li>5</li> <li>6</li> <li>7</li> <li>8</li> <li>9</li> <li>10</li> <li>11</li> </ul>	UCF Student Union Lake Claire Community Additions Financial Arena / Knights Plaza / Towers Engineering / Business Administration / CREOL / Research I Physical Sciences / Student Health Center Nike / Hercules / Neptune Communities / Red Coach Connect Ferrell Commons / Recreation and Wellness Center Nike / Hercules / Neptune Communities / Visitor & Parking Information Center Library / Millican Hall / Apollo Community Teaching Academy / Howard Phillips Hall UCF / LYNX Transit Center

• Off-Campus Transit

Off-Campus Shuttle Routes Fifteen (15) off-campus routes serve twenty-two (22) housing complexes within a mile of UCF as well as the Central Florida Research Park.

Routes	Apartment Communities	UCF Stop	
<ul> <li>Route 1</li> </ul>	Knights Circle	Student Union	
<ul> <li>Route 2</li> </ul>	College Station / Boardwalk	Millican Hall <sup>14</sup>	
<ul> <li>Route 3</li> </ul>	The Verge / The Place at Alafaya	UCF/LYNX Transit Center	
<ul> <li>Route 4</li> </ul>	Mercury 3100 / Campus Crossings	Millican Hall <sup>14</sup>	
<ul> <li>Route 5</li> </ul>	Nine at Central /Village at Science Dr./ Research Pavilion	Physical Sci./UCF Health Cntr	
<ul> <li>Route 6</li> </ul>	Northgate Lakes / Tivoli Apartments	Research 1 Bus Terminal	
<ul> <li>Route 7</li> </ul>	The Pointe at Central	Millican Hall <sup>14</sup>	
<ul> <li>Route 8</li> </ul>	The Station / Riverwind at Alafaya	Research 1 Bus Terminal	
<ul> <li>Route 9</li> </ul>	Knights Landing / Research Park	Physical Sci./UCF Health Cntr	
<ul> <li>Route 10</li> </ul>	Orion on Orpington / The Lofts	UCF/LYNX Transit Center	
<ul> <li>Route 11</li> </ul>	The Aves at Twelve100	UCF/LYNX Transit Center	
<ul> <li>Route 12</li> </ul>	Lark Central Florida	Millican Hall <sup>14</sup>	
<ul> <li>Route 13</li> </ul>	NorthView	Research 1 Bus Terminal	
<ul> <li>Route 14</li> </ul>	Plaza on University	UCF/LYNX Transit Center	
<ul> <li>Route 15</li> </ul>	Arden Villas / Collegiate Village West	UCF/LYNX Transit Center	
Satellite Campus     Transit	Students, faculty and staff with a valid UCF ID can travel via shuttle between UCF's Main Campus and UCF's three satellite campuses in Orlando. Except on weekends, shuttles run on scheduled class days. Shuttle		
	services change depending on set schedules, and special events		
<ul> <li>Rosen College of Hospitality Management (RCHM)</li> </ul>	<ul> <li>RCHM shuttle route stations/stops</li> <li>Main Campus - Intersection o Agora Drive, near Classroom</li> <li>Rosen Campus - the main pa</li> <li>No intermediate stops.</li> <li>Two (2) shuttles operate on one (1) to</li> </ul>	1 and the Student Union rking lot	
<ul> <li>Academic Health Sciences Campus at Lake Nona (AHSC)</li> </ul>	<ul> <li>AHSC Shuttle stations/stops:</li> <li>Main Campus - the Physical S</li> <li>AHSC Shuttle Stop - South en Medicine on Laureate Bv.</li> <li>Intermediate stop - Biomolecu Central Florida Research Part</li> <li>Three (3) shuttles operate on one (1)</li> </ul>	ntrance of the College of Ilar Research Annex in k.	
<ul> <li>UCF Downtown Campus (UCFDT)</li> </ul>	<ul> <li>UCFDT Shuttle stations/stops:</li> <li>Main Campus - UCF/LYNX To</li> <li>UCFDT - Dr. Phillips Academ</li> <li>No intermediate stops.</li> </ul>		

<sup>&</sup>lt;sup>14</sup> During the CMP planning interval, planned improvements to the area around Millican Hall will require the Millican Hall bus stop to be decommissioned. Parking & Transportation Services is working on solutions for its replacement.

### **UCF Shuttle** Ridership

#### Shuttle Ridership by Route – Fall 2023

#### Route -

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te	Community	Total
Route 1	Knights Circle	147,373
Route 2	College Station / Boardwalk	29,824
Route 3	The Verge / The Place at Alafaya	43,837
Route 4	Mercury 3100 / Campus Crossings	47,708
Route 5	Nine at Central / Village of Science Drive/ Research Pavilion	40,393
Route 6	Northgate Lakes / Tivoli Apartments	44,552
Route 7	The Pointe at Central	44,673
Route 8	The Station / Riverwind	35,301
Route 9	Knights Landing / Research Parkway	15,308
Route 10	Orion on Orpington / The Lofts	36,776
Route 11	The Aves at Twelve100	61,701
Route 12	Lark Central Florida	40,042
Route 13	NorthView	41,763
Route 14	Plaza on University	36,351
Route 15	Arden Villas / Collegiate Village West	52,837
PegExp	Pegasus Express	11,369
PNR	Park and Ride	923
UCFDT	UCF Downtown <sup>[2]</sup>	34,682
GS	Tuesday Grocery Shuttle	6,427
DT GS	Downtown Grocery Shutte	471
HSC	Academic Health Sciences Campus	7,727
RC	Rosen College of Hospitality Management	44,320
	Total Ridership	824,358
	Average Daily Ridership	

# 2.0 TRANSPORTATION

Two (2) shuttles operate on one (1) transit route.

Many of the University's students, faculty, and staff commute via the UCF Shuttles; significantly reducing the overall impact of the University on the surrounding roadway network.

Total ridership was tallied by month; with the highest ridership in September and October respectively. Since the 2020-30 Campus Master Plan update, overall ridership has decreased 15.1% from 970,913 trips to 824,358 trips (5,090 fewer daily trips being completed).

Avg Daily

**Ridership / Route** 

1,889

382

562

612

518

571

573

453

196

471

791

513

535

466

677

146

12

445

82

6

99

568

10,569

### d. Bicycle and Pedestrian Circulation

a. Dicycle and i caesa	
NARRATIVE	Pedestrian and multimodal pathways are key components of the University's transportation system. Since most students, faculty, and staff walk between their destinations, once on campus, it is important that a highly-developed network of pathways exist to facilitate efficient circulation.
	The University has developed an intricate system of pedestrian and multimodal paths throughout the campus. The Campus Core, inside of Gemini Boulevard, is defined by three concentric walkways:
	<ul> <li>Aquarius Circle (1,200-foot radius), encircles the Academic Core</li> <li>Mercury Circle (800-foot radius)</li> <li>Pegasus Circle (400-foot radius), encircles the Student Union</li> </ul>
	Connecting paths crisscross the campus and terminate at significant pedestrian generators such as academic buildings, parking facilities, multimodal centers, and on-campus residential communities. A map of UCFs sidewalk network can be found at: <u>https://map.ucf.edu/sidewalks/</u> .
	UCF's multimodal pedestrian network is a natural extension between motorized modes of transportation (personal vehicles and transit) and destinations within the Academic Core.
	The University has made a significant investment in facilities necessary to encourage pedestrian and bicycle activity. These safe, aesthetically pleasing facilities are well used by the student population, as well as by an active cycling community.
	Many University buildings have one or more bicycle racks located at their entrances. As of Spring 2024, the University provides bicycle racks for approximately 6,500 bicycles. An interactive map for their locations is found at: <u>http://map.ucf.edu/bikeracks/</u> .
e. Crash Analysis 2018	3 - 2023
NARRATIVE	Crash data for UCF was evaluated using the Campus Boundary and stratified by vehicle crashes and bicycle/pedestrian crashes. It is important to focus on the crashes that result in fatalities and develop strategies that can be implemented to reduce injury and fatal crashes.
Vehicle Crashes	Signal Four Analytics was used to document crash data for motorist and non-motorist users throughout the Study area. Crash data was collected from January 1, 2018, to December 31, 2023. During the six-year study interval, there were 1,842 vehicular crashes on campus, with two (0.11%) resulting in a fatality. The table below shows the vehicular crashes within the campus by year and severity.

Vehicular Crashes Within the UCF Campus Boundary	Year	Total Crashes	Fatal	Serious Injury	Injury	No Injury
	2018	426	0	3	59	364
	2019	450	0	4	51	395
	2020	151	0	3	24	124
	2021	226	0	4	33	189
	2022	256	0	0	39	217
	2023	333	2	0	41	290
	crashes of crash ass and select	on the camp sists in the ic ction of strate	nt to focus on us, identifying lentification a egies within th	the locat nd prioritiz ne campus	ion and cau ation of sa	uses of the fety issues
	other cra of the cra	shes typicall ashes had a	e the most co y occurred in sub-category ategorized as	a parking of "parke	lot. As 470 d vehicle",	6 (67.23%)
Bicycle and Pedestrian Crashes	<b>n</b> Within the UCF Campus there were a total of 57 crashes related bicyclists and pedestrians, of those, 33 (57.8%) involved pedestrian and 24 (42.2%) involved a cyclist. Of addition importance is that of the 2 fatalities noted during the crash analysis period, both involved a pedestrian and none involved a cyclist.			nvolved a additional sh analysis		
	occur at	For pedestrian-related crashes, most crashes (60.61%) did not occur at an intersection; however, 24.24% of pedestrian crashes occurred at a four-way intersection.				
	Intersecti		crashes, the , whereas 33 ection.			
Bicycle and Pedestrian Crashes within the UCF	Year	Total Crashes	Fatal	Serious Injury	Injury	No Injury
Campus Boundary	2018	16	0	1	13	2
	2019	11	0	1	8	2
	2020	6	0	0	6	0
	2021 2022	6 11	<u>1</u> 1	1	4 9	0
	2022	7	0	1	6	0
UCF Main Campus Crashes by Crash Type	JCF Main Campus					
	<ul><li>Angle</li><li>Right</li></ul>	e Rear End Turn = Bicycle	<ul><li>Sideswipe Other</li><li>Head On Anim</li></ul>		vn = Left Turn ian = Rollover	<ul> <li>Off Road</li> </ul>

RECOMMENDATION	It would be prudent for UCF to evaluate <i>high crash areas</i> , as indicated in EXHIBITS, for the purpose of improving the safety of both motorists and non-motorists, in keeping with UCF's commitment to creating a safer campus environment.
	Such an analysis could involve identifying trends, determining causes, and developing strategies to reduce the frequency and severity of crashes.
	The ultimate goal is to identify and implement corrective measure that would contribute to a safer commuting experience for everyone on and around the university campus.

# f. Campus Lighting Assessment

ANALYSIS	In 2022, UCF conducted a comprehensive photometry assessment of the Main Campus, to ascertain if any walkways, parking lots, or roadways recorded lower illumination levels than recommended by the Illuminating Engineering Society (IES).					
	The assessment was performed by consultant, Salas Obrien, Inc. Measurements were taken on February 1 and March 2; beginning past twilight, when the sky was completely dark, and concluding between 1:00AM and 3:00AM. Both nights were characterized by clear skies and a new moon.					
	The minimum IES lighting standard for the evaluation was 0.2 foot- candles for walkways and parking areas, and 1.0 foot-candles for roads.					
	Roughly 350 areas of the UCF Main Campus did not meet the established illumination levels. Areas with lighting deficiencies were broken down to three main categories that include pedestrian pathways (198), parking lots (51), and roadways (103).					
	Areas that did not meet the IES standard have been undergoing improvements.					
	<ul> <li>A "Campus-wide Pedestrian Lighting LED Upgrade" replaced existing pedestrian light fixtures with LED within the Academic Core, bounded by Apollo Circle (1,200-foot radius sidewalk), including BA2 Courtyard, Education Courtyard, BA1 Bollards, lights near Biology and CREOL, and within Housing complexes</li> </ul>					
	• A "Street Light LED Upgrades" project replaced old single- head street lamps and poles with new dual-arm LED light fixtures and poles at University, Centaurus, and Central Florida Boulevards between Alafaya Trail and Gemini Blvd; on Gemini Blvd N. from Alafaya Trail to Greek Park Drive; and along Ken Dixon Way (formerly N. Orion Blvd). Dual- arm fixtures are less likely to be obscured by mature foliage.					
UCF Pedestrian Pathways	General issues noted for the pedestrian pathways and sidewalks include under-illumination, malfunctioning fixtures, or obstructed lighting. In some locations, although proper lighting was installed initially, tree growth over the years had obscured the fixtures, reducing illumination levels. There were also several instances of					
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sidewalks being installed or replaced without attention to lighting in the area.

- **UCF Parking Lots** Several parking lots across the campus have light fixtures that have malfunctioned or require lamp replacement. Many lots suffer from under-illumination due to either poor positioning of poles or missing poles, where damaged poles were removed but not replaced. Several smaller parking lots lack illumination.
- **UCF Roadway Lighting** Some roadways are equipped with single-head, high-pressure sodium or metal halide lamps, that are decades old. These fixtures fall short of delivering adequate lighting levels.
- Ken Dixon Way (formerly N. Orion Blvd.)
   On Ken Dixon Way, UCF has replaced all outdated single-head street lamps and poles with new dual-arm LED light fixtures and poles.
- Gemini Boulevard
   Except for the recently updated Gemini Boulevard North campus
   entroped all of Comini Boulevard is lit with median mounted pales

entrance, all of Gemini Boulevard is lit with median-mounted poles and single-head high-pressure sodium or metal halide lamps, that generate minimal illumination at the road surface. Many lights are obscured by mature and maturing foliage (palms, crepe myrtles and oaks).

- Compared to the IES standard of 1.0 foot-candles for roads, few areas along this roadway exceeded 0.5 foot-candles, with most areas registering between 0.1 and 0.2 foot-candles.
- RECOMMENDATION UCF should continue to replace outdated single-head street lamps and poles with new dual-arm LED light fixtures and poles, particularly along Gemini Boulevard North, East, South and West. Dual-arm fixtures may be less likely to be obscured by mature foliage.

g. Sustainable Transportation Approaches

NARRATIVE	To reduce reliance on single-occupant vehicles, The University has been developing various mobility options, as well as working to increase the ratio of student housing-to-enrollment within the Context Area. Primary mobility options and strategies offered by the University include:
Shuttle Service	Reliable shuttle service with on-campus headways of 10 minutes or less during peak periods and special events, and off-campus headways of 15 minutes to housing and businesses in the Context Area.
Micromobility solutions	Micromobility refers to lightweight, low-speed, wheeled vehicles operated by a single person and generally meant for travel over a short distance; including shared bike and scooter fleets; bicycles; pedal-assisted electric bikes; electric scooters, self-balancing and uni-wheel scooters, skateboards, and similar vehicles.
Bicycles	Bike N' Gold, UCF's bike share program hosted by the Student Government, offers free long-term bike rentals for periods up to one semester.'

	UCF tested a Bike Share program at one time, but does not have a commercial bike program at this time.
Scooters	Student Government and Parking & Transportation Services partnered to bring electric scooters to campus.
<b>GREEN INITIATIVES</b>	Additional sustainable transportation approaches are outlined below.
Electric Vehicle Charging Stations	Electric Vehicle (EV) charging stations support UCF's commitment to sustainability and clean transportation initiatives.
	<ul> <li>UCF has multiple Level-2 EV charging stations in high-demand parking areas on the Main Campus:</li> <li>6 chargers in parking lot D1 (near Memory Mall)</li> <li>2 chargers in parking lot B1 (near Teaching Academy)</li> <li>2 chargers in parking lot B6 (near Visitor &amp; Parking Information Center)</li> </ul>
	There is an hourly service fee to use the EV charging stations. To utilize these charging stations, users register for an account on a mobile app.
	There are also charging stations planned or already operating on UCF's Satellite Campuses.
UCF Fleet Vehicle Program	<ul> <li>The UCF Fleet Vehicle Program is the university-wide initiative responsible for the management and maintenance of all university vehicles. The key responsibilities of the program include: <ul> <li>Ensuring the safe and efficient use of state-owned vehicles by university staff, faculty, students, or volunteers</li> <li>Compliance with local, state, and federal regulations</li> <li>Handling risk management and training</li> <li>Overseeing the acquisition and disposal of state-owned vehicles</li> </ul> </li> <li>The Fleet Vehicle Program plays a significant role in the university's sustainability efforts and helps reduce operational costs by maintaining efficient use and longevity of the fleet.</li> </ul>
<ul><li>Parking Solutions</li><li>Park &amp; Ride</li></ul>	In support of the University's mission to reduce vehicular traffic in the Campus Core, UCF has a <i>Park &amp; Ride</i> at Lot E-4 on Homerun Court. Frequent UCF shuttles transport students to the nearest Multimodal Transportation Center.
Transit Solutions	The University provides high-quality transit between residential areas and parking lots and other on-campus destinations. In conjunction with LYNX, the University continues to improve regional and campus transit service to, from, and within the campus.
Shuttle Tracking	To enhance UCF Shuttle ridership, buses can be tracked via the UCF Mobile smartphone app or <u>https://ucf.doublemap.com/map/</u> . Riders can view GPS locations for each shuttle, with estimated arrival and departure times, bus stops, vehicle numbers, and routes.

Pedestrian Walkways and Bicycle Paths	Residence halls, visitor parking areas, and campus parking lots are connected to other campus destinations via a network of pedestrian walkways and bicycle paths.
<ul> <li>Micromobility Parking</li> </ul>	UCF provides scooter staging areas, bike racks and skateboard lockers near academic and student service buildings to encourage the use of micromobility devices.
	Scooter providers should encourage the return of scooters to charging stations by means of financial incentives.
Proposed East Orange Trail Spur	Orange County Parks and Recreation Division, and 5 <sup>th</sup> District Commissioner, Emily Bonilla, have collaborated to propose the East Orange Trail Spur, a multimodal pathway (pedestrian and micromobility) across the UCF campus from Central Florida Boulevard to Percival Road, and beyond to North Tanner Road.
Limited-access Service Roads	UCF restricts non-service vehicular traffic on roads within the Academic Core <sup>15</sup> to promote pedestrian and bicycle safety. Vehicles with "disabled person parking permits" may park in designated spaces within the Core.
	UCF's wide concentric sidewalks and radials may be used as limited-access service roads by Emergency and Service vehicles, when unavoidable.
Transportation Demand Management (TDM)	<ul> <li>The University actively promotes TDM strategies both on-campus and in the Context Area. The University has TDM strategies, including, but not limited to: <ul> <li>Comprehensive transit and shuttle services</li> <li>Improved pedestrian and non-vehicular facilities</li> <li>Increasing the quantity of students living on campus</li> <li>Modifications to class scheduling times</li> <li>A well-implemented Remote Work policy<sup>16</sup></li> </ul> </li> </ul>
Academic Solutions	The University has implemented academic solutions to reduce congestion and dependence on personal vehicles.
Class Scheduling	The University has adjusted class scheduling to mitigate peak-hour traffic conditions and maximize utilization of existing transportation infrastructure.
Online Degree     Program	UCF has robust online degree programs that reduce the need for students to travel to campus.
h. Event Traffic and Pa	arking
Kenneth G. Dixon Athletics Village	The Kenneth G. Dixon Athletics Village is a mixed-use intercollegiate athletics complex located on the north end of

Village Village Is a mixed-use intercollegiate athletics complex located on the north end of campus. Dixon Village includes the FBC Mortgage Stadium which hosts UCF home football games. Although the football stadium is a special trip generator, trips occur during non-peak hours. The

<sup>&</sup>lt;sup>15</sup> The Academic Core is within the 1,200-foot radius sidewalk, Apollo Circle.

<sup>&</sup>lt;sup>16</sup>Office of the President "Remote Work Arrangements"; Policy Number EP-20-6.1 3-012; Effective 5/25/2021

impacts of the Dixon Village have been incorporated in previous sections of this element.

For the purposes of accommodating traffic generated by the stadium, the University has taken several measures to improve the flow of traffic entering and exiting the campus on game days. These strategies include signage, post-game activities that keep fans on campus and decrease traffic peaks, and the reversal of traffic lanes to double the capacity of roadways.

Knight's Plaza North of Memory Mall, across Gemini Boulevard, is Knight's Plaza, a lively urban environment that hosts more than 200 events per year and includes the following facilities:

- Addition Financial Arena
- The Venue
- Retail and commercial spaces
- The Towers (4 mid-rise student residence halls)
- Three (3) parking garages

Event Traffic and Parking Major events that occur on-campus and require coordination of

guest parking include high school, state college, and University commencements, sporting events, and concerts. UCF garages and parking lots accommodate guests at these events.

**Future Conditions** 

Upon adoption of a Campus Master Plan, the UCF Board of Committed Trustees enters into a Campus Development Agreement (CDA) Transportation with the Host Local Government – Orange County, per Chapter Improvements 1013.30 Florida Statutes. Among other things, the CDA must: Identify the geographic area of the campus and local government, Address public facilities and services including roads. • sanitary sewers, solid waste, drainage, potable water, parks and recreation, and public transportation. For each of the facilities and services, identify • requirements for level-of-service, the entity that will provide the service, and any financial arrangements relating to that provision. The CDA is intended to ensure consistency between the Campus Master Plan and the local government's Comprehensive Plan. In 2020, UCF and Orange County agreed on the following Partnership Projects to improve the transportation deficiencies outlined in the Campus Master Plan.<sup>17</sup> 1. Working in Partnership to facilitate pedestrian safety improvements to the McCulloch Road corridor. a. The County has initiated a Roadway Conceptual Analysis to evaluate the potential widening of McCulloch Road (two lanes to four lanes) from

Road.

Dixon Way/Lockwood Boulevard to North Tanner

<sup>&</sup>lt;sup>17</sup> Campus Development Agreement Between UCF Board of Trustees and Orange County

	<ul> <li>b. The County will work with Seminole County regarding the addition of roadway lighting along the north (westbound) lane from McCulloch Road in Seminole County.</li> <li>c. The County will collaborate with UCF and Seminole County in investigating the planning and funding of mid-block crossing at Northgate Circle.</li> <li>d. UCF will work with the County as needed to provide any temporary construction easements required to support these improvements.</li> <li>e. The County will initiate the Northeast Orange County Area Study (NEACATS) to evaluate and identify increasing mobility need in east Orange County and to identify projects that will improve network connectivity and provide relief to constrained corridors.</li> <li>2. UCF will investigate the planning and funding of an oncampus walkway leading from West Plaza Drive to the midblock crossing at McCulloch and Northgate Circle.</li> <li>3. UCF will develop an on-campus bicycle pathway through the UCF Campus, linking the existing trail system of Orange County and Seminole County.</li> <li>4. UCF will provide ~2.87 acres to amend two existing FDOT easements along Alafaya Trail in support of pedestrian safety projects.</li> <li>5. The County will design, construct, and fund the installation of two recommended mid-block crossings, each controlled by a traffic sign, Pedestrian Hybrid Beacon (PHB) or Rectangular Rapid Flashing Beacon (RRFB).</li> <li>6. The County will design, construct and fund signalization changes at University Boulevard and Alafaya Trail.</li> <li>7. UCF will work with Duke Energy and FDOT to install pedestrian-scale lighting within the right-of-way on UCF property along the UCF side of Alafaya Trail.</li> <li>8. UCF will perform traffic counts within the context area concurrently with UCF Campus Master Plan Updates.</li> </ul>
	<ul> <li>(2024–2028) has the following projects within the UCF Context Area.</li> <li>Resurfacing Project - SR 434 from Centaurus Drive to the Seminole County Line.</li> </ul>
	<ul> <li>Safety Project – SR 434 (Alafaya Trail) at Lokanotosa Trail/ Science Drive</li> <li>The Seminole County Public Works Department report no other programmed improvements for the external facilities in the Context Area.</li> </ul>
Future Parking Structures	The University will strive to provide additional garage(s) during the 10-year Planning Timeframe, to add 2,000 or more parking

spaces as needed per demand studies and as funding is available.

The University will not build future parking garages within the Campus Core (inside of Gemini Boulevard). Future garages will be located near the campus entrances. See also, 8.0 CAPITAL IMPROVEMENTS, Schedule of Capital Projects for garages proposed within the planning interval.

Intercept Garages UCF has supported the concept of Intercept Garages since the 1995-2005 CMP, although none been constructed. Situated at the perimeter of campus, Intercept Garages will decrease traffic congestion by reducing the number of vehicles travelling on Gemini Boulevard and other campus roads. Transportation from the garages to the Campus Core could include short-headway shuttles, shared scooters and bicycles, autonomous shuttles, etc.

UCF will study locations for Intercept Garages near the campus entrances (not in priority order):

- Ken Dixon Way (formerly N. Orion Blvd.) a garage in this location could also serve UCFAA events
- Central Florida Boulevard a garage in this location could serve RWC Sports Complex
- Centaurus Boulevard a garage in this location could serve events at the future Performing Arts Complex Phase II
- North Gemini Boulevard a garage in this location could serve Greek Park
- Libra Drive after construction of a proposed residential garage on the South Campus, Libra Garage could be repurposed as an Intercept Garage.
- University Boulevard UCF's primary campus entrance is an improbable location for another garage; as it already dead-ends into Garage A.

Garages proposed during the planning interval will be listed on the 10-Year Schedule of Capital Projects (SCP) in 8.0 CAPITAL IMPROVEMENTS.

An analysis of the projected impacts of development on offsite infrastructure was conducted for Horizon Year 2035, pursuant to Florida Statute 1013.30(3). The analysis was conducted to project the growth identified in the year 2035 horizon.

See 2.1 introduction in this Transportation element, for an explanation of the minimum 1% background growth rate assumed for all roadways within the Context Area.

Although enrollment has increased since the 2020-30 Campus Master Plan Update was adopted, the University has continued to reduce the use of single-occupant vehicles, resulting in fewer trips into and out of campus.

See Sustainable Transportation Approach, for the strategies that the University has implemented to achieve this reduction. Since the 2020-30 Campus Master Plan Update, overall ridership has decreased 15.1% from 970,913 trips to 824,358 trips (5,090 fewer daily trips).

Horizon YR 2035 Roadway Conditions

Background Growth Assessment

Multimodal Mobility Plan Assessment

Trip Rate per Student CMP 2015-25 During the 2015-25 CMP planning interval, the University generated -1.73 additional trips per student.

	YR 2014	YR 2019	Net Increase	Net Difference
Enrollment	49,000	53,017	4,017	4 70
Vehicle Trips	83,551	76,620	-6,931	-1.73
Trips per Student	1.71	1.45		

#### Trip Rate per Student CMP 2020-30

During the 2020-30 CMP planning interval, the University experienced an increase in traffic volumes on campus, while a decrease in student enrollment.

	YR 2019	YR 2024 (Anticipat ed)	Net Increase	Net Difference
Enrollment	53,017	51,761	-1,256	2.21
Vehicle Trips	76,620	79,392	2,772	2.21
Trips per Student	1.45	1.53		

For the purpose of providing a conservative analysis, the future traffic growth due to anticipated enrollment for the CMP 2025-35 will be based on the YR 2024 planning period rate of 1.53 trips per student, with an estimated 1% enrollment growth per year. Using this methodology, the resulting growth based on anticipated enrollment is summarized in the following table:

	2024	2034	Net Increase			
Enrollment	51,761	57,176	5,415			
Anticipated Trips per Student	1.53					
Vehicle Trips	79,392	87,698	8,306			

The 2035 Horizon Year Traffic Assessment is provided in Exhibit 2.4-2 Future Roadway Conditions Table, in subsection 2.4. Four (4) roadways are projected to operate under adverse conditions, based on the maximum service volumes provided in the 2023 FDOT Quality/Level of Service Handbook. These roadways will operate adversely with or without the anticipated trips generated by the projected student population growth; thus, these roadways should be identified as *pre-existing* deficiencies.

As the University and the surrounding area continue to grow, the University will continue to implement strategies identified in the Sustainable Transportation Approach section of this element; and to promote strategies that reduce the use of the single-occupant vehicle and encourage multimodal travel, to continue the trend to reduce traffic volumes within the Context Area.

#### UCF Trips based on Projected Student Enrollment

#### YEAR 2035

HORIZON YEAR ANALYSIS

### 2.4 EXHIBITS

- Exhibit 2.4-1 Existing Roadway Inventory & Conditions Table (Revised Nov 2024)
- Exhibit 2.4-2 Future Roadway Conditions Table (Revised Nov 2024)
- Exhibit 2.4-3 UCF On-Campus Parking Facilities
- Exhibit 2.4-4 UCF Transit Services
- Exhibit 2.4-5 UCF Bike and Pedestrian Facilities (Revised Nov 2024)
- Exhibit 2.4-6 Walking Distances from the Student Union
- Exhibit 2.4-7 Proposed Transportation Roadway Projects (Revised Nov 2024)
- Exhibit 2.4-8 Existing Roadway Characteristics and Traffic Counts
- Exhibit 2.4-9 UCF Crash Analysis Jan 2018 through Dec 2023

#### Exhibit 2.4-1 revised Nov 2024

#### Exhibit 2.4-1

Existing Roadway Inventory & Exhibit is an Inventory and detailed analysis of existing conditions of the roadways within the Context Area. Conditions Table

Road Name	From	То	# Lanes	Jurisdiction	Functional Classification	Adopted	AADT[1]	к	D	Adopted Pk. Hr. /Dir. LOS	PM Pk. Hr. Dir	Source	Current LOS	
					Classification	LOS		Factor[2]	Factor [3]	Capacity	Volume	]		
	Colonial Drive (SR 50)	Science Drive	6LD	State	Principal Arterial	D	59,187	0.09	0.56	2,680	2,983	FDOT	F	
Alafaya Trail (SR 434) [4]	Science Drive	University Blvd.	6LD	State	Principal Arterial	D	60,228	0.09	0.55	2,680	2,981	FDOT	F	
Alalaya Trali (SR 434) [4]	University Blvd.	McCulloch Road	6LD	State	Principal Arterial	D	45,478	0.09	0.56	2,680	2,292	FDOT	С	
	McCulloch Road	Chapman Road	6LD	State	Principal Arterial	D	45,478	0.09	0.56	2,680	2,292	FDOT	С	
Central Florida Blvd.	Alafaya Trail (SR 434)	Gemini Blvd. S	4LD	UCF	Minor Collector	E	9,026	0.077	0.59	1,530	409	VHB Study	С	
Centaurus Drive	Alafaya Trail (SR 434)	Gemini Blvd. W	4LD	UCF	Minor Collector	E	6,194	0.097	0.61	1,530	368	VHB Study	С	
Chapman Road	SR 426 (Aloma Avenue)	Alafaya Trail (434)	4LD	Seminole Co.	Major Collector	E	22,507	0.091	0.51	2,000	1,051	Seminole County	С	
Colonial Drive (SR 50) [5]	Rouse Road	Alafaya Trail (434)	6LD	State	Principal Arterial	D	54,194	0.09	0.51	2,680	2,488	FDOT	D	
Discovery Drive / Libra Drive	Research Parkway	Gemini Blvd. S/E	4LD	UCF	Minor Collector	E	14,040	0.085	0.56	1,530	666	VHB Study	С	
Comini Dhud, North	Alafaya Trail (SR 434)	Greek Park Drive	4LD	UCF	Minor Collector	E	18,355	0.081	0.64	1,530	957	VHB Study	С	
Gemini Blvd. North	Greek Park Drive	Dixon Way (N. Orion Blvd.) [6]	4LD	UCF	Minor Collector	E	12,476	0.079	0.53	1,530	528	VHB Study	С	
Comini Blud. Foot	Dixon Way (N. Orion Blvd.) [6]	Scorpius St	4LD	UCF	Minor Collector	E	13,589	0.084	0.51	1,530	586	VHB Study	С	
Gemini Blvd. East	Scorpius St.	Libra Drive	4LD	UCF	Minor Collector	E	19,306	0.086	0.56	1,530	929	VHB Study	С	
	Libra Drive	Ursa Minor St	4LD	UCF	Minor Collector	E	16,329	0.079	0.56	1,530	728	VHB Study	С	
Gemini Blvd. South	Ursa Minor St	Central Florida Blvd.	4LD	UCF	Minor Collector	E	14,989	0.079	0.5	1,530	598	VHB Study	С	
	Central Florida Blvd.	University Blvd.	4LD	UCF	Minor Collector	E	10,447	0.087	0.62	1,530	559	VHB Study	С	
Gemini Blvd. West	University Blvd.	Centaurus Drive	4LD	UCF	Minor Collector	E	10,447	0.087	0.62	1,530	559	VHB Study	С	
Gemini Bivd. west	Centaurus Drive	Aquarius Agora Dr	4LD	UCF	Minor Collector	E	5,648	0.092	0.73	1,530	379	VHB Study	С	
Greek Park Drive	Aquarius Agora Dr	Gemini Blvd. N	4LD	UCF	Minor Collector	E	5,648	0.092	0.73	1,530	379	VHB Study	С	
Lake Pickett Road	Colonial Drive (SR 50)	Percival Road	2L	Orange Co.	Major Collector	E	15,831	0.09	0.55	880	784	Orange County	С	
Lake Pickell Road	Percival Road	S. Tanner Road	2L	Orange Co.	Major Collector	E	11,505	0.09	0.58	740	601	Orange County	С	
Lokanotosa Trail	Rouse Road	Alafaya Trail (434)	2L	Orange Co.	Major Collector	E	10,117	0.095	0.54	800	514	Orange County	С	
Lockwood Blvd.	McCulloch Road	Oviedo City Limits	4LD	Seminole Co.	Minor Arterial	E	13,309	0.091	0.51	1,700	621	Seminole County	С	
McCullack Dood	Alafaya Trail (SR 434)	Lockwood Blvd.	4LD	Seminole Co.	Minor Collector	E	27,159	0.091	0.52	2,000	1,293	Seminole County	С	
McCulloch Road	Lockwood Blvd.	Old Lockwood/Tanner Rd	2L	Seminole Co.	Minor Collector	E	18,180	0.091	0.56	880	933	Seminole County	С	
Dixon Way (N. Orion Blvd.) [6]	McCulloch Road	Gemini Blvd. N/E	4LD	UCF	Minor Collector	E	14,056	0.107	0.73	1,530	1,099	VHB Study	С	
Percival Road	Tanner Road	Lake Pickett Road	2L	Orange Co.	Minor Collector	E	6,647	0.095	0.52	800	329	Orange County	С	
	Colonial Drive (SR 50)	Lokanotosa Trail	4LD	Orange Co.	Major Collector	E	28,617	0.09	0.56	2,000	1,442	Orange County	С	
Rouse Road	Lokanotosa Trail	University Blvd.	4LD	Orange Co.	Major Collector	E	25,754	0.09	0.52	2,000	1,205	Orange County	С	
	University Blvd.	Seminole County Line	4LD	Orange Co.	Major Collector	E	12,645	0.09	0.52	2,000	592	Orange County	С	
Liniumaniha Dhud	Rouse Road	Alafaya Trail (434)	6LD	Orange Co.	Minor Arterial	E	55,640	0.09	0.55	3,020	2,754	Orange County	D	
University Blvd.	Alafaya Trail (SR 434)	Gemini Blvd. S/W	6LD	UCF	Minor Collector	E	15,693	0.082	0.53	2,304	685	VHB Study	С	
W. Plaza Dr.	Knights Victory Way	Dixon Way (N. Orion Blvd.) [6]	2L	UCF	Minor Collector	E	2,031	0.096	0.58	720	113	VHB Study	D	

[1] Annual average daily traffic (AADT) is the total volume of vehicle traffic on a highway or road for a year divided by 365 days.

[2] K Factor is the 30th highest hourly volume of the year (out of 8,760 possible hours in a calendar year) expressed as a percentage of the AADT volume.

[3] D Factor is the percentage of traffic moving in the peak travel direction during the 30th highest hourly volume of the year.

[4] Alafaya Trail is under FDOT Jurisdiction from Colonial to McCulloch, LOS standard for all urbanized state facilities is LOS D according to FDOT Procedures

[5] Colonial Drive is under FDOT Jurisdiction from Rouse Road to Alafaya Trail, LOS standard for all urbanized state facilities is LOS D according to FDOT Procedures

[6] On June 25, 2024, N. Orion Blvd was renamed "Ken Dixon Way" by UCF Board of Trustees

### 2.4 TRANSPORTATION Exhibits

#### Exhibit 2.4-2 revised November 2024

### Exhibit 2.4-2

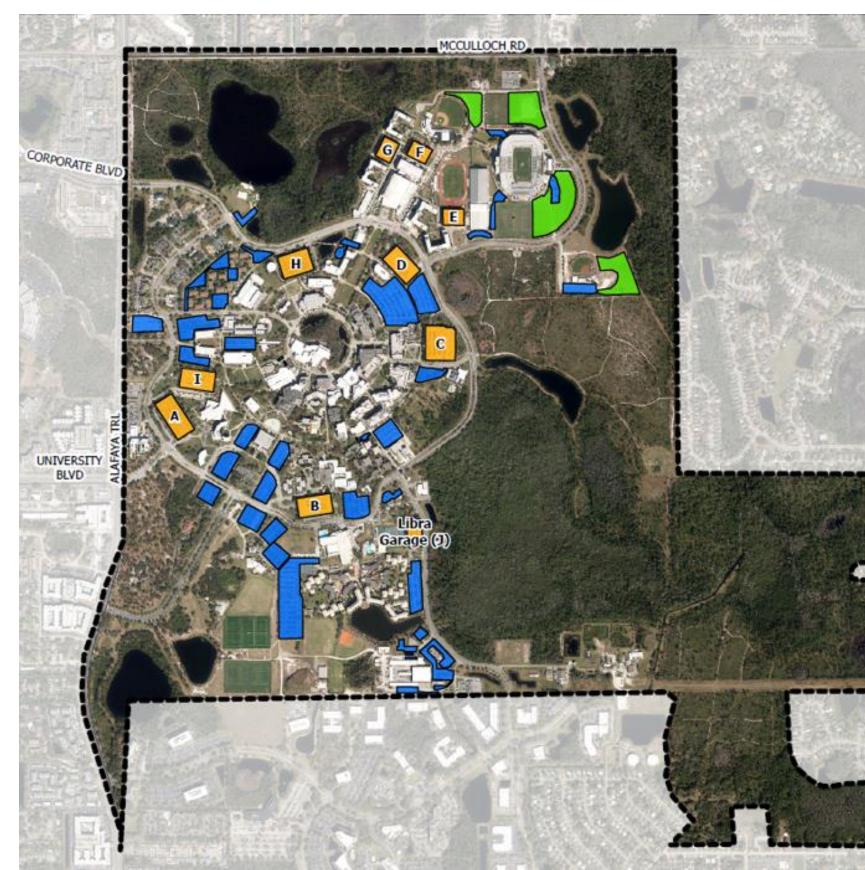
Future Roadway Conditions Table

			Roadway Characteristics			YR 2035 Background Traffic				UCF Trips Generated by Enrollment Growth			YR 2035 Total Trips				YR 2035 Traffic Conditions Comparison			
Road Name	From	То	No. of Lanes	Adopted LOS	Adopted Pk Hr./Dir. LOS Capacity	Growth Rate	Daily	PM Peak Directional	V/C	Pre-Existing Deficiency (Yes/No)	YR 2035 Distribution (%)	Daily Project Trips	PM Peak Project Trips	Daily	PM Peak Directional	V/C	Deficiency (Yes/No)	YR 2035 Background V/C	YR 2035 Total V/C	Additional Deficiency Created (Yes/No)
	Colonial Drive (SR 50)	Science Drive	6LD	D	2,680	1.00%	66,289	3,341	1.25	Yes	20.08%	557	28	66,846	3,369	1.26	Yes	1.25	1.26	No
Alafava Trail (SR 434) [1]	Science Drive	University Blvd.	6LD	D	2,680	1.00%	67,455	3,339	1.25	Yes	7.88%	218	11	67,673	3,350	1.25	Yes	1.25	1.25	No
Alalaya Irali (SIX 434) [1]	University Blvd.	McCulloch Road	6LD	D	2,680	1.00%	50,935	2,567	0.96	No	9.00%	249	13	51,184	2,580	0.96	No	0.96	0.96	No
	McCulloch Road	Chapman Road	6LD	D	2,680	1.00%	50,935	2,567	0.96	No	12.70%	352	18	51,287	2,585	0.96	No	0.96	0.96	No
Central Florida Blvd.	Alafaya Trail (SR 434)	Gemini Blvd. S	4LD	E	1,530	1.00%	10,019	454	0.30	No	13.73%	381	17	10,400	471	0.31	No	0.30	0.31	No
Centaurus Drive	Alafaya Trail (SR 434)	Gemini Blvd. W	4LD	E	1,530	1.00%	6,875	408	0.27	No	9.24%	256	15	7,131	423	0.28	No	0.27	0.28	No
Chapman Road	Aloma Avenue	Alafaya Trail (434)	4LD	E	2,000	1.00%	25,208	1,177	0.59	No	1.66%	46	2	25,254	1,179	0.59	No	0.59	0.59	No
Colonial Drive (SR 50) [2]	Rouse Road	Alafaya Trail (434)	6LD	D	2,680	1.00%	60,697	2,786	1.04	No	3.01%	83	4	60,780	2,790	1.04	Yes	1.04	1.04	No
Discovery Drive/Libra Drive	Research Parkway	Gemini Blvd.	4LD	E	1,530	1.00%	15,584	739	0.48	No	17.11%	474	22	16,058	761	0.50	No	0.48	0.50	No
	Alafaya Trail (SR 434)	Greek Park Drive	4LD	E	1,530	1.00%	18,355	808	0.53	No	9.24%	256	13	18,611	821	0.54	No	0.53	0.54	No
Gemini Blvd. North	Greek Park Drive	Dixon Way (N. Orion Blvd.) [3]	4LD	E	1,530	1.00%	12,476	621	0.41	No	18.79%	521	22	12,997	643	0.42	No	0.41	0.42	No
	Dixon Way (N. Orion Blvd.) [3]	Scorpius St	4LD	E	1,530	1.00%	13,589	1,062	0.69	No	30.47%	845	36	14,434	1,098	0.72	No	0.69	0.72	No
Gemini Blvd. East	Scorpius St.	Libra Drive	4LD	E	1,530	1.00%	19,306	586	0.38	No	30.47%	845	41	20,151	627	0.41	No	0.38	0.41	No
	Libra Drive	Ursa Minor St	4LD	E	1,530	1.00%	16,329	650	0.42	No	19.02%	527	23	16,856	673	0.44	No	0.42	0.44	No
Gemini Blvd. South	Ursa Minor St	Central Florida Blvd.	4LD	E	1,530	1.00%	14,989	1,032	0.67	No	25.27%	700	28	15,689	1,060	0.69	No	0.67	0.69	No
	Central Florida Blvd.	University Blvd.	4LD	E	1,530	1.00%	10,447	664	0.43	No	14.32%	397	21	10,844	685	0.45	No	0.43	0.45	No
Operative Direct West	University Blvd.	Centaurus Drive	4LD	E	1,530	1.00%	10,447	421	0.28	No	15.84%	439	24	10,886	445	0.29	No	0.28	0.29	No
Gemini Blvd. West	Centaurus Drive	Aquarius Agora Dr	4LD	E	1,530	1.00%	5,648	878	0.57	No	8.84%	245	16	5,893	894	0.58	No	0.57	0.58	No
Gemini Blvd. East	Libra Dr.	Scorpius St. (Star St.)	4LD	E	1,530	1.00%	21,430	1,032	0.67	No	19.02%	527	35	21,957	1,067	0.70	No	0.67	0.70	No
Gemini Blvd. South	Andromeda Dr.	Hercules Dr.	4LD	E	1,530	1.00%	16,638	664	0.43	No	25.27%	700	35	17,338	699	0.46	No	0.43	0.46	No
Greek Park Drive	Centaurus Drive	Gemini Blvd. North	4LD	E	1,530	1.00%	6,269	421	0.28	No	8.84%	245	13	6,514	434	0.28	No	0.28	0.28	No
Laba Dishaw Daval	Colonial Drive (SR 50)	Percival Road	2L	E	880	1.00%	17,731	878	1.00	No	0.02%	1	0	17,732	878	1.00	No	1.00	1.00	No
Lake Pickett Road	Percival Road	S. Tanner Road	2L	E	740	1.00%	12,886	673	0.91	No	0.00%	0	0	12,886	673	0.91	No	0.91	0.91	No
Lokanotosa Trail	Rouse Road	Alafaya Trail (434)	2L	E	800	1.00%	11,331	576	0.72	No	0.74%	21	1	11,352	577	0.72	No	0.72	0.72	No
Lockwood Blvd.	McCulloch Road	Oviedo City Limits	4LD	E	1,700	1.00%	14,906	696	0.41	No	7.35%	204	10	15,110	706	0.42	No	0.41	0.42	No
McCullach Dead	Alafaya Trail (SR 434)	Lockwood Blvd.	4LD	E	2,000	1.00%	30,418	1,448	0.72	No	0.04%	1	0	30,419	1,448	0.72	No	0.72	0.72	No
McCulloch Road	Lockwood Blvd.	Old Lockwood Rd.	2L	E	880	1.00%	20,362	1,045	1.19	Yes	5.42%	150	7	20,512	1,052	1.20	Yes	1.19	1.20	No
Dixon Way (N. Orion Blvd.) [3	McCulloch Road	Gemini Blvd.	4LD	E	1,530	1.00%	15,602	1,220	0.80	No	12.82%	355	18	15,957	1,238	0.81	No	0.80	0.81	No
Percival Road	Tanner Road	Lake Pickett Road	2L	E	800	1.00%	7,445	368	0.46	No	4.48%	124	6	7,569	374	0.47	No	0.46	0.47	No
	Colonial Drive (SR 50)	Lokanotosa Trail	4LD	E	2,000	1.00%	32,051	1,615	0.81	No	2.01%	56	3	32,107	1,618	0.81	No	0.81	0.81	No
Rouse Road	Lokanotosa Trail	University Blvd.	4LD	E	2,000	1.00%	28,844	1,350	0.68	No	3.27%	91	4	28,935	1,354	0.68	No	0.68	0.68	No
	University Blvd.	Seminole County Line	4LD	E	2,000	1.00%	14,162	663	0.33	No	0.00%	0	0	14,162	663	0.33	No	0.33	0.33	No
	Rouse Road	Alafaya Trail (434)	6LD	E	3,020	1.00%	62,317	3,085	1.02	Yes	20.38%	565	31	62,882	3,116	1.03	Yes	1.02	1.03	No
University Blvd.	Alafaya Trail (SR 434)	Gemini Blvd.	6LD	E	2,304	1.00%	17,419	760	0.33	No	17.74%	492	27	17,911	787	0.34	No	0.33	0.34	No
W. Plaza Dr.	Knights Victory Way	Dixon Way (N. Orion Blvd.) [1]	2L	E	720	1.00%	2.254	126	0.18	No	3.75%	104	6	2.358	132	0.18	No	0.18	0.18	No

Alafaya Trail is under FDOT Jurisdiction from Colonial Drive to McCulloch Road, LOS standard for all urbanized state facilities is LOS D according to FDOT Procedures
 Colonial Drive is under FDOT Jurisdiction from Rouse Road to Alafaya Trail, LOS standard for all urbanized state facilities is LOS D according to FDOT Procedures
 On June 25, 2024, N. Orion Blvd was renamed "Ken Dixon Way" by UCF Board of Trustees

### 2.4 TRANSPORTATION Exhibits

Exhibit 2.4-3 UCF On-Campus Parking Facilities





### 2.4 TRANSPORTATION Exhibits



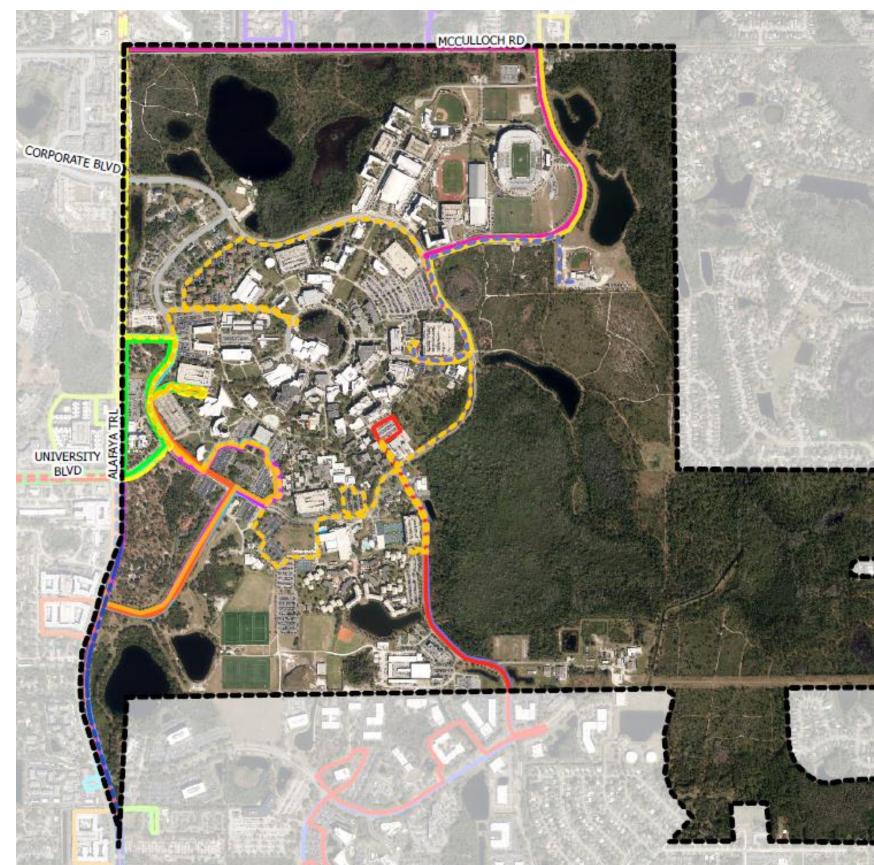
# Legend

 UCF Campus Boundary
 Existing UCF Garages
 Existing Surface Parking
 Existing Overflow / Grass Parking

Name	Capacity	Year
Garage A	1647	2007
Garage B	1289	2000
Garage C	1852	1998 / 2016
Garage D	1279	2002
Garage E	696	2007
Garage F	678	2008
Garage G	696	2000
Garage H	1340	2011
Garage I	1270	1997
Libra Garage (J)	1039	2014



### Exhibit 2.4-4 UCF Transit Services





### 2.4 TRANSPORTATION Exhibits



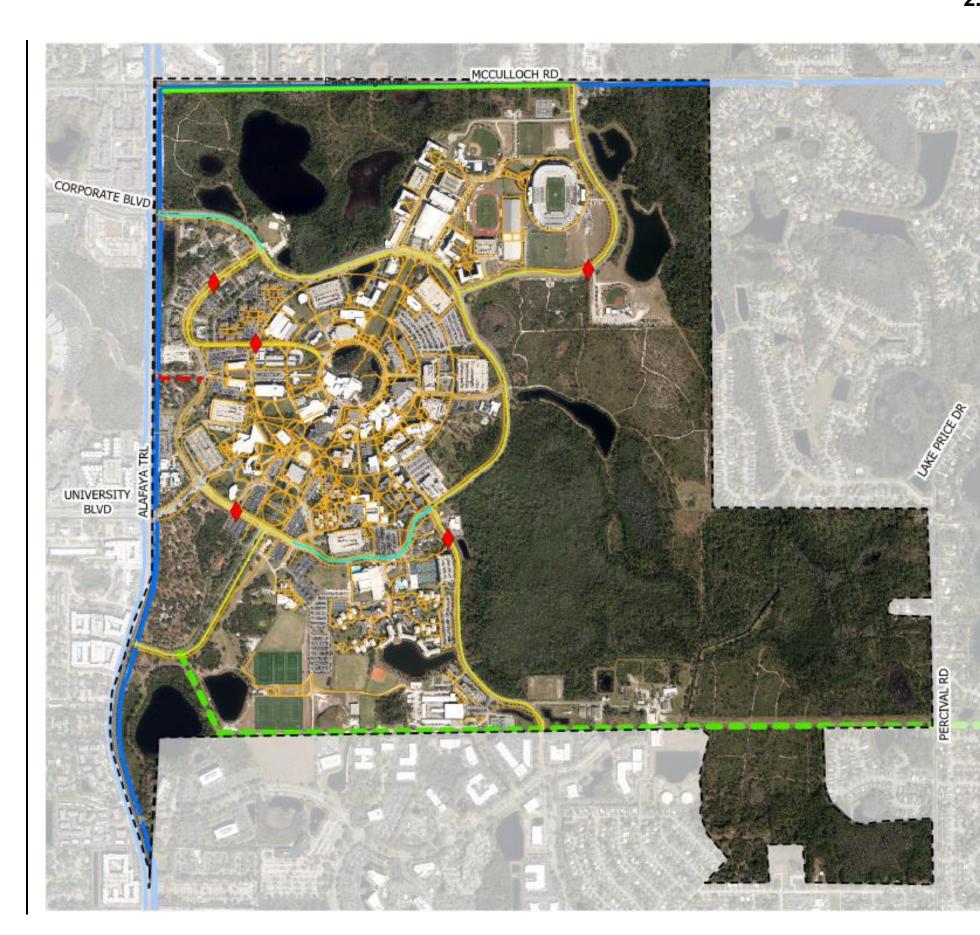
# Legend

- UCF Campus Boundary
- Park and Ride
- Pegasus Express Route
- 104 East --- Colonial Drive /
- UCF 13 - University of
- Central Florida / LCS
- 434 SR 434 Crosstown
- Orion on Orpington
- 11 The Aves @ Twelve100
- 12 Lake Central Florida
- 13 Northview
- 14 Plaza on University
- 15 Collegiate Village Inn / Arden Villas 2 - College Station/ Boardwalk 3 - The Verge / The Place at Alafaya 4 - Mercury 3100 / Campus Crossing 5 - Village of Science Drive / The Nine at Central 6 - Northgate Lakes / Tivoli 7 - The Pointe at
- Central
- 8 Riverwind at Alafaya / The Station
- 9 Knights Landing / Research Park



Exhibit 2.4-5 UCF Bike and Pedestrian Facilities

Exhibit 2.4-5 revised Nov 2024





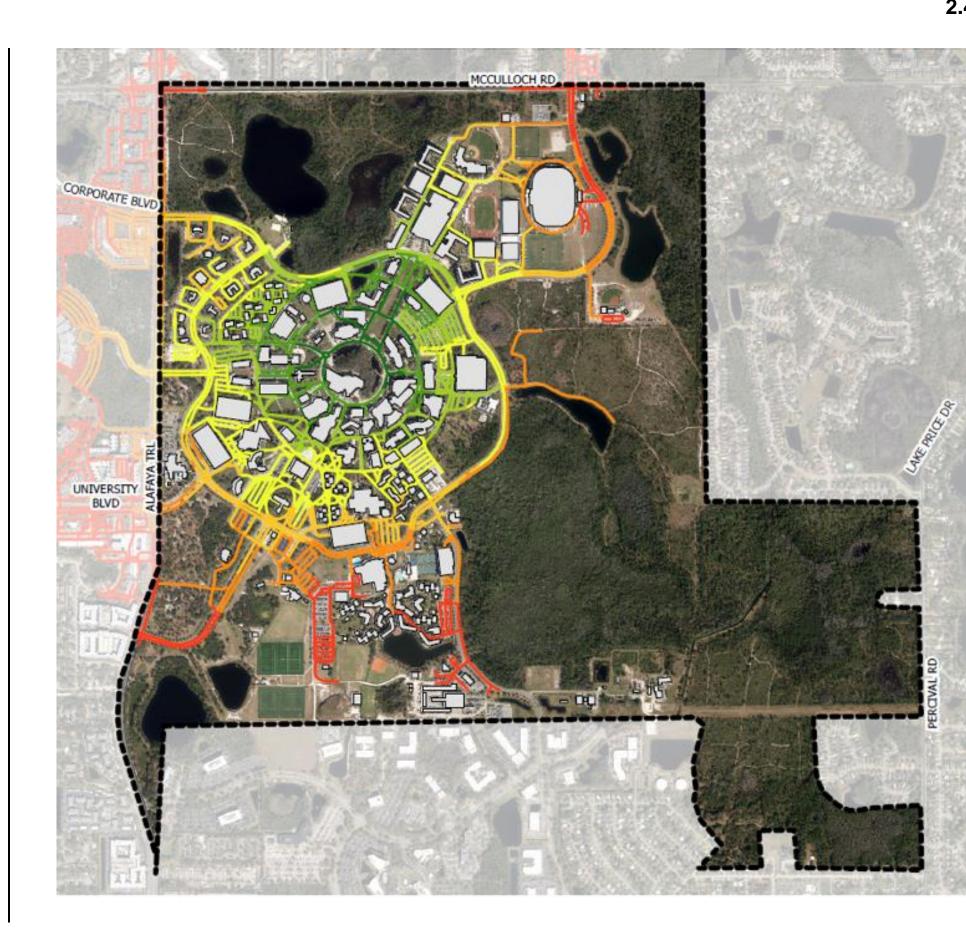
### 2.4 TRANSPORTATION Exhibits

# <u>Legend</u>

- **EES** UCF Campus Boundary
  - Mid-Block Pedestrian Crossing
- Existing East Orange Trail
- Designated Bike Lanes [Both Sides]
- Designated Bike Lanes [One Side]
- Existing Sidewalks
- Existing Off-Campus Sidewalks
- Sidewalk Gaps
- Proposed East Orange
   Trail Spur



Exhibit 2.4-6 Walking Distances from the Student Union





### 2.4 TRANSPORTATION Exhibits

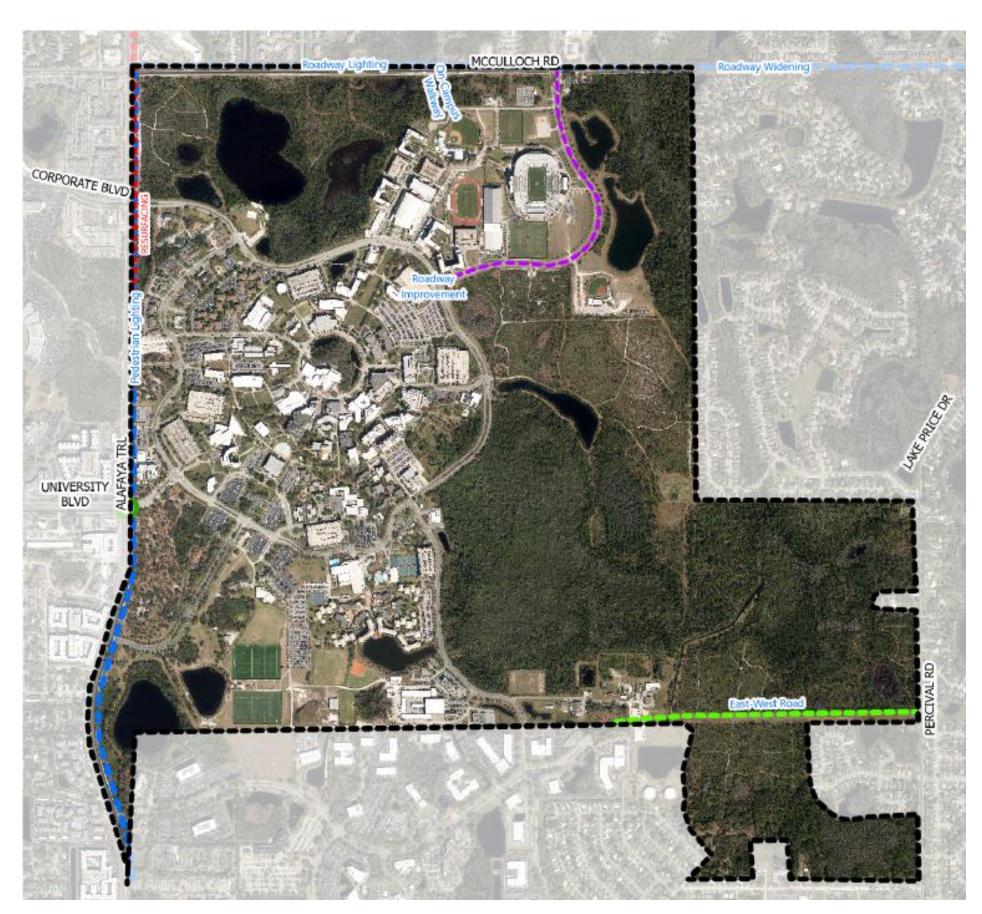


- UCF Campus
  - Boundary
- UCF Buildings
- Less than 2.5
- Minutes
- 2.5 to 5 Minutes
- 5 to 7 Minutes
- 7 to 10 Minutes
- 10 to 12 Minutes
- 12 to 15 Minutes
  - Greater than 15
  - Minutes



Exhibit 2.4-7 Proposed Transportation Roadway Projects

Exhibit 2.4-7 revised Nov 2024





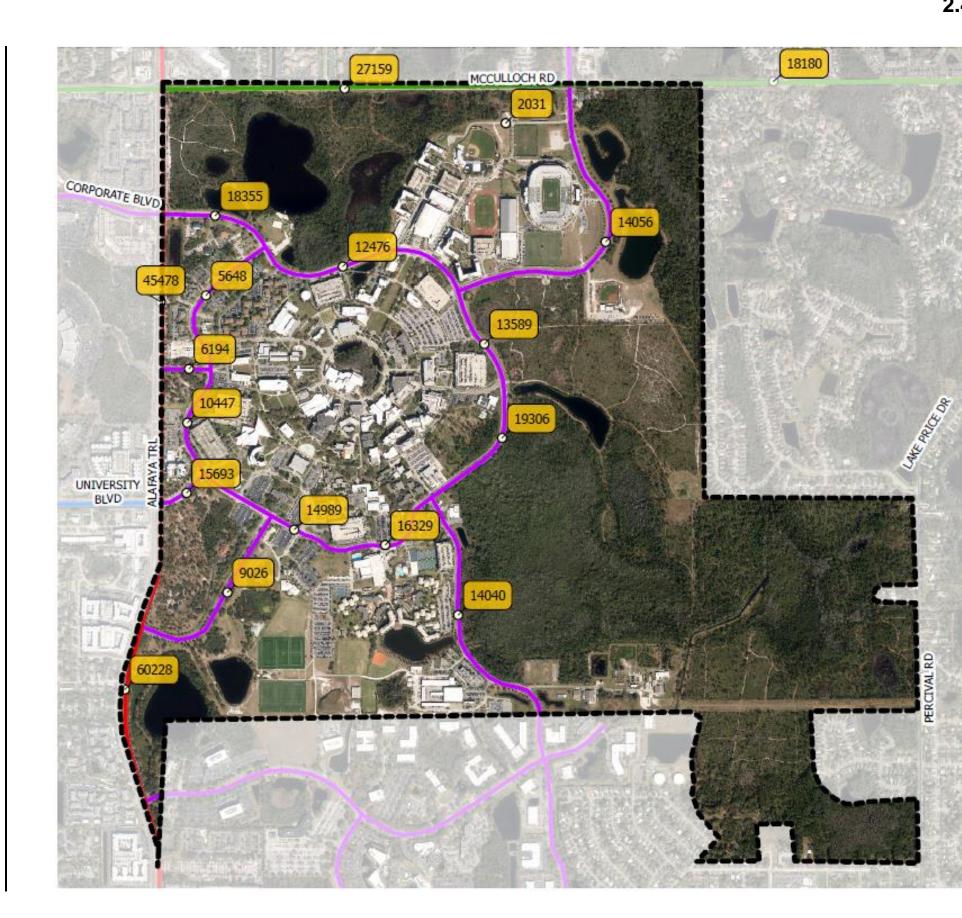
### 2.4 TRANSPORTATION Exhibits

# <u>Legend</u>

- CD UCF Campus Boundary
  - Future
- O Intersection Improvements
  - Campus
- Development
   Agreements
  - Future Roadway
- Improvements by Others
  - Future Roadway
- --- Improvement by UCF
- FDOT 2025-2029 Work Program



Exhibit 2.4-8 Existing Roadway Characteristics and Traffic Counts





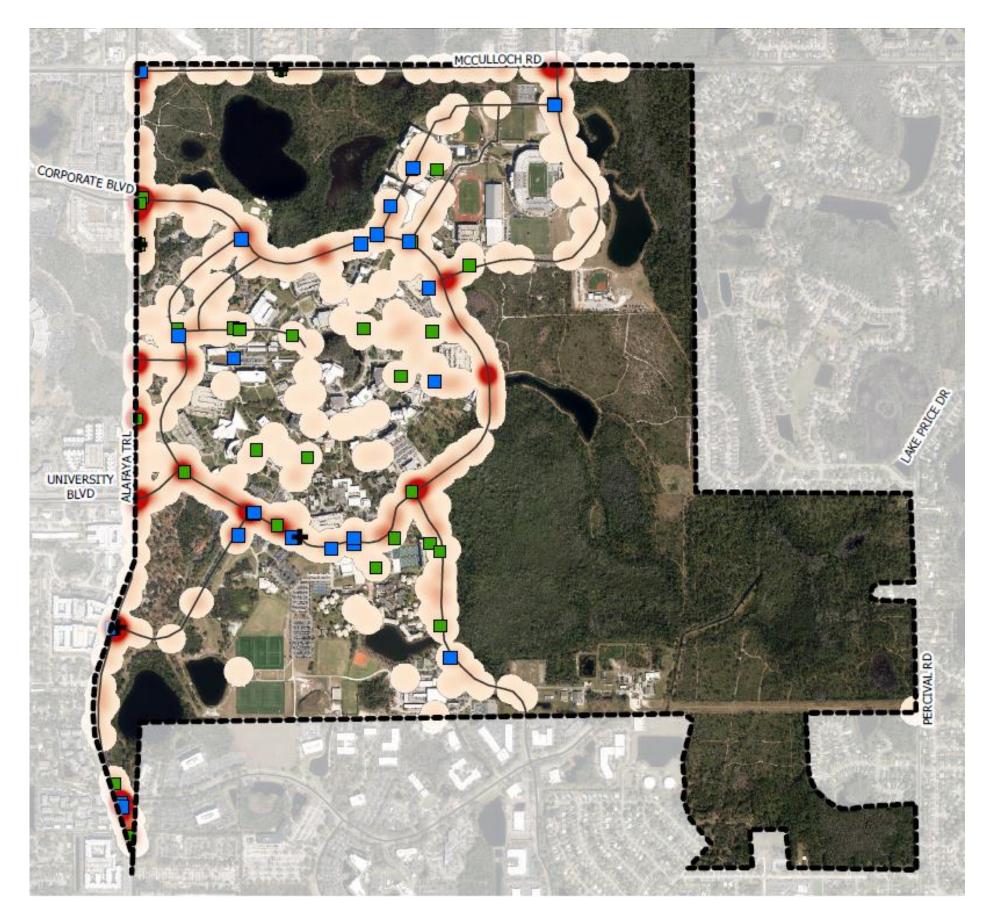
### 2.4 TRANSPORTATION Exhibits



- UCF Campus Boundary
- o Existing UCF Traffic Volumes
- Principal Arterial
- Minor Arterial
- Major Collector
- Minor Collector
  - Average Daily Traffic



Exhibit 2.4-9 UCF Crash Analysis (Jan 2018 - Dec 2023)





### 2.4 TRANSPORTATION Exhibits

# Legend

- CO UCF Campus Boundary
- UCF Pedestrian Crashes
- UCF Bicycle Crashes
- UCF Fatal
  - Crashes
  - Low Crashes High Crashes

