GOAL 1: To plan for future motorized and non-motorized traffic circulation systems to ensure the provision of adequate transit, circulation, and parking facilities to meet future transportation needs.

OBJECTIVE 1.1: To inventory annually and report parking demand, traffic demand, and traffic operating conditions.

POLICY 1.1.1: Parking utilization and parking space ratios shall be annually monitored by the University to determine that adequate parking is being provided.

POLICY 1.1.2: The University shall collect and report traffic data for on-campus roadways during the 5-year Master Plan Update process or as necessary

POLICY 1.1.3: On-campus traffic accident and safety-related data shallbe collected and reported as necessary. This information would continue to serve as a basis for identifying improvements necessary to reduce the number of accidents and improve campus safety.

POLICY 1.1.4: Every five years, the University Master Planning Committee and the Facilities Planning and Construction Department, together with appropriate faculty and administration, shall review all campus development plans for compliance with the master plan's criteria for parking, circulation, and access, as described in the Transportation Element.

POLICY 1.1.5: When financially feasible, the prioritization and timing of on- campus transportation infrastructure improvements shall be concurrent with the construction of campus land uses which impact existing and proposed campus infrastructure. All necessary on-campus roadways and parking facilities required to support the UCF Campus Master Plan development program must be in place and operating with available capacity to accommodate new development impacts without degradation in operations below the minimum levels of service, as defined and adopted by the University.

POLICY 1.1.6: The University shall not widen any existing campus roadway beyond four lanes, and shall not widen existing two-lane roads within the 1,200-foot radius sidewalk, as defined in this Transportation Element.

POLICY 1.1.7: When financially feasible, the University shall maintain a minimum level of service of ”E” for all campus roadways, as per the 2012 FDOT Quality Level of Service Handbook, except when that level

of service could only be accomplished by widening that campus roadway beyond the lane-widening limits identified in *Policy 1.1.6.*

POLICY 1.1.8: The University shall improve its internal circulation. If acceptable, and found to be consistent with the University's Capital Improvements Plan (CIP) and Future Land Use Element (FLUE), the University may widen Libra Drive to four lanes from Gemini Boulevard South to Research Parkway. Any impacts to designated environmentally sensitive areas shall be mitigated consistent with Conservation Element policies, the St. John's River Water Management District (SJRWMD) regulations, and any applicable state and local environmental regulatory agencies.

POLICY 1.1.9: The University shall encourage limited vehicular access to Gemini Boulevard and North Orion Boulevard by limiting the number of new driveways and attempting to consolidate access points, through the creation of cross- access and shared-access points between adjacent driveways.

POLICY 1.1.10: The University shall explore opportunities with the host local government, affected local governments, and the Florida Department of Transportation, as appropriate, to ensure that signalization and signal synchronization are available when needed to support roadway improvements or traffic operations.

OBJECTIVE 1.2: To provide safe, adequate, accessible, and effective campus parking facilities.

POLICY 1.2.1: The University shall maintain effective lighting at parking facilities and locate landscaping with an emphasis on safety through the use of Crime Prevention Through Environmental Design (CPTED) standards.

POLICY 1.2.2: The University shall annually monitor campus parking through 2020 to maintain a student-to-parking space ratio range of 3:1 to 4:1.

POLICY 1.2.3: The University shall annually monitor visitor parking to establish and maintain sufficient visitor parking on-campus.

POLICY 1.2.4: Replacement parking budgets shall be an integral part of new construction budgets if the new construction displaces existing parking spaces.

Funds allocated for replacement parking shall be considered on a case by case basis and included in the total construction costs.

POLICY 1.2.5: The University shall provide an additional 2,000 spaces through

2020, as identified in Figure 2.11-13. The timing, phasing requirements, and priorities for additional parking will be identified annually in the Capital Improvements Plan.

POLICY 1.2.6: To continually promote non-vehicular transportation, the University shall provide additional bicycle racks, as necessary, to ensure convenient access to users of the bicycle network.

GOAL 2: To create logical patterns of pedestrian and non-vehicular circulation systems which enhance the overall urban and social-academic quality of the campus.

OBJECTIVE 2.1: To continue to provide adequate on-campus pedestrian and non-vehicular circulation systems designed to meet the current and future needs of the University.

POLICY 2.1.1: Pedestrian crosswalks shall continue to be located, and enforced, at all points where pedestrian and other non-vehicular circulation crosses Gemini Boulevard, as well as at all access routes into campus. These crossings will continue to be evaluated by the University Administration and Facilities Planning and Construction Department to determine the appropriate level of pedestrian safety (traffic calming measures to pedestrian signalization) that should be provided.

POLICY 2.1.2: By 2020, the University shall study and generate feasible options for parking permits that restrict students from parking outside of residential parking areas in order to encourage increased pedestrian, cyclist, and transit usage.

OBJECTIVE 2.2: To annually review future pedestrian and non-vehicular circulation facilities for consistency with the Campus Safety Plan.

POLICY 2.2.1: The Director of Facilities Planning and Construction, Associate Vice President for Facilities and Safety, Department of Environmental Health and Safety, the Chief of the UCF Police Department, and the Director of Parking Services shall meet on a regular basis to ensure that provisions concerning pedestrian and non-vehicular circulation facilities are incorporated into the Campus Safety Plan and associated programs.

POLICY 2.2.2: The Facilities Planning and Construction Department, Associate Vice President for Facilities and Safety, Department of Environmental Health and Safety, the Chief of the UCF Police Department, and the Director of Parking Services shall coordinate the development of programs and procedures to improve the safety of persons using pedestrian and non-vehicular facilities on campus. The adopted Campus Master Plan shall be amended as needed to incorporate these new and revised programs and procedures.

OBJECTIVE 2.3: To review annually the need for additional lighting along pedestrian and non-vehicular circulation routes consistent with the recommendations contained within the Campus Safety Plan.

POLICY 2.3.1: The University shall include recommendations for type and location of future lighting requirements into the part of the Campus Safety Plan that addresses pedestrian and non-vehicular circulation systems.

POLICY 2.3.2: The Director of Facilities Planning and Construction, the Chief of the UCF Police Department, and the Associate Vice President of Facilities and Safety shall review all future plans for lighting along proposed pedestrian and non-vehicular systems to ensure compliance with both the Campus Safety Plan and the adopted UCF Architectural Design Guidelines.

POLICY 2.3.3: Appropriate lighting systems shall be constructed concurrent with pedestrian and non-vehicular circulation systems.

GOAL 3: To develop a financially feasible multi-modal transportation system that integrates services provided by the public transit system (e.g., the Central Florida Regional Transit Authority, a.k.a. LYNX) and the private transit system, UCF Shuttle (Veolia Transportation).

OBJECTIVE 3.1: To encourage the use of alternative modes of transportation and reduce dependence on the personal automobile.

POLICY 3.1.1: UCF shall continue to explore opportunities with applicable transportation management associations to promote Transportation Demand Management (TDM) techniques both on-campus and in the context area around campus.

POLICY 3.1.2: The University shall implement, as appropriate, TDM strategies, including, but not limited to:

- improved utilization of public or University-provided transit services;
- improved pedestrian and non-vehicular facilities;
- increased number of students living on or within walking/biking distance of campus;
- academic scheduling modifications;
- operational improvements to the on-campus roadway system, such

as additional signalization; and

- implementation of the Split Cycle Offset Optimization Technique (SCOOT) system on the on-campus roadway system, consistent with the operations of existing SCOOT system operation on off-campus roadways and through coordination with the affected local jurisdictions.

POLICY 3.1.3: By 2020, the University shall study the effectiveness of providing a high-occupancy vehicle parking incentive program that provides preferential parking treatment for automobiles carrying two or more persons.

POLICY 3.1.4: The University shall continue to coordinate with the host local government, LYNX, and affected local governments to promote Zimride and Zipcar as campus-wide ridesharing and carpool programs for UCF faculty, staff, and students.

POLICY 3.1.5: The University shall continue to study the effectiveness of distance learning (Internet and Satellite campuses) as a technique to reduce the need for students to travel to the University.

POLICY 3.1.6: The University shall continue to refine class scheduling, when feasible, as a method of mitigating peak-hour traffic conditions and to maximize utilization of existing transportation infrastructure investment.

POLICY 3.1.7: The University shall coordinate with the host local government and affected local governments concerning campus infrastructure development by submitting notices of development for review by the host community, as described in the Intergovernmental Coordination Element policies for reciprocal review, as appropriate.

POLICY 3.1.8: The University shall coordinate with the Central Florida Expressway Authority (CFX) regarding future transportation improvements, as appropriate.

POLICY 3 . 1 . 9 : The University shall continue to coordinate with the host local government regarding completing an east-west parallel route to reduce congestion on University Boulevard.

POLICY 3.1.10: The University shall work with the host local government, affected local governments, and LYNX to evaluate other mobility options for reducing the dependence on the personal automobile, such as enhanced transit service from businesses and residences off-campus, enhanced pedestrian and bicycle facilities and trails or other facilities to serve non-motorized transportation. If any of these proves to be economically feasible and practical, the University shall amend the adopted Campus

Master Plan, as needed, to incorporate these strategies into the overall transportation plan.

OBJECTIVE 3.2: To continue to improve future mobility options for UCF faculty, staff, students, and visitors by improving linkages between modes of travel.

POLICY 3.2.1: The University shall continue to encourage transit, bicycle, and pedestrian modes as a means of travel from residential areas and parking lots to other on-campus destinations.

POLICY 3.2.2: Visitor parking shall be connected to present and future walkways, as well as the existing campus transit system.

OBJECTIVE 3.3: To continue to facilitate safe and efficient multi-modal access to, from, and within the Campus, with an emphasis on maintaining traffic flow while minimizing conflicts.

POLICY 3.3.1: The University shall continue to monitor and improve ridership on its Shuttle Service through 2020.

POLICY 3.3.2: The University shall protect the restriction of general vehicular access to the campus core, as defined by the 1,200-foot radius sidewalk, unless vehicular access is deemed necessary to accommodate the University's parking demand.

POLICY 3.3.3: The University shall continue to minimize campus vehicular and non-vehicular conflicts by continuing to explore opportunities for the siting of additional multi-modal centers, particularly in conjunction with major new parking facilities.

POLICY 3.3.4: The University shall continue to include provisions for bicycle lanes on newly constructed or improved, on-campus roadways, where feasible.

OBJECTIVE 3.4: To implement measures to improve transit service to, from, and within the campus.

POLICY 3.4.1: The University shall continue to plan for future campus intermodal transportation terminals in conjunction with proposed parking facilities. The timing and phasing requirements and priorities for terminals would be identified in the Capital Improvements Element.

POLICY 3.4.2: The University, in conjunction with area public transportation systems and organizations, shall continue to enhance campus transit service to, from, and within

the University.

POLICY 3.4.3: The University shall continue to identify residential concentrations of students to provide convenient transit routes used most by campus patrons and increase transit service on these routes by decreasing bus headways, developing additional new routes, or modifying existing routes, as deemed appropriate by the University.

POLICY 3.4.4: The University shall continue to provide bicycle racks on transit vehicles serving the University.

POLICY 3.4.5: The University shall survey students every five years through 2025 regarding transit, bicycle, and pedestrian services.

POLICY 3.4.6: By 2020, the University shall implement, as appropriate, an evaluation of the availability of bicycle commuter support facilities (such as showers, lockers, and covered and secured bicycle parking) on campus on an annual basis.

GOAL 4: To provide adequate access (vehicular and transit) to the Campus, while continuing to coordinate required transportation improvements with local communities and appropriate planning agencies, as detailed in the Intergovernmental Coordination Element.

OBJECTIVE 4.1: To ensure the continued coordination of the University's transportation system improvements with the master plans and transportation improvement plans of the host local government, affected local governments, METROPLAN ORLANDO (the local Metropolitan Planning Organization), and the Florida Department of Transportation (FDOT).

POLICY 4.1.1: The University shall continue to coordinate with the host local government and affected local governments regarding their proposed transportation improvement projects.

POLICY 4.1.2: The University shall continue to coordinate with the FDOT, the host local government, the affected local governments, and METROPLAN ORLANDO to evaluate strategies and improvements to meet the projected need for additional access to the UCF campus. The adopted Campus Master Plan shall be amended, as needed, to incorporate the results of their evaluations.

POLICY 4.1.3: Proposed on-campus traffic circulation improvements shall be identified in the Capital Improvements Element.

OBJECTIVE 4.2: To continue to coordinate pedestrian and non-vehicular circulation systems with those developed by the host local government and affected local governments by reviewing their local comprehensive plans, bicycle plans, or pedestrian circulation plans, and meeting with local governments, as necessary.

POLICY 4.2.1: The University shall continue to coordinate with the host local government and affected local governments regarding the implementation of sidewalk, bicycle paths and lanes, and safety-enhanced pedestrian crosswalks along all vehicular corridors adjacent or leading into and out of campus.

POLICY 4.2.2: The University shall continue to coordinate with the host local government, affected local governments, and the FDOT, as appropriate, to ensure that signalization and signal synchronization is available when needed to reduce pedestrian and non-vehicular traffic conflicts. Any new signals shall be interconnected with adjacent signals, as appropriate.

Table A

UCF Campus Roadway Level of Service Capacities
Average Daily Traffic

No. Lanes	Level of Service (for NON-STATE other signalized roadways[1])				
	A	B	C	D	E
2L	N/A	N/A	6,570	13,320	***14,040
4LD	N/A	N/A	13,050	29,160	30,420

(1) FDOT Quality/Level of Service Handbook, 2012

Table B
UCF Campus Roadway Level of Service Capacities
Peak Hour Peak Direction

No. Lanes	Level of Service (for NON-STATE other signalized roadways[1])				
	A	B	C	D	E
1	N/A	N/A	333	675	720
2	N/A	N/A	657	1,467	1,530

(1) FDOT Quality/Level of Service Handbook 2012

1.0 INTRODUCTION

Since its inception in 1963 as the Florida Technical University, the University has experienced tremendous growth to the point where it is now the largest state University in Florida, based on enrollment. During the 2013 academic year the University had a total enrollment, including all campuses and web students of over 59,000 students. Current projections show the University's fundable headcount enrollment approaching 56,000 students as build-out by 2025.

This growing student population results in increased infrastructure demands in the form of new and improved roads, pedestrian walkways, bicycle facilities, transit improvements, and parking in the form of surface lots and garages. The University has already added significant transportation infrastructure to accommodate this growth. However, additional improvements will be required in order to keep pace with the University's growth.

The Transportation Element supports the Transportation Goals and Objectives and provides the collection and analysis of existing data. This analysis becomes the basis for measurable performance standards for the Goals, Objectives, and Policies. This supporting documentation is broken into three major sections. This first section inventories the existing transportation facilities within and surrounding the University including roadway, transit and bicycle/pedestrian facilities, and documents the current operating conditions of these facilities. The second section details planned transportation infrastructure improvements within the University Campus, as well as those planned in the surrounding host community and state agencies. The second section also projects future operating conditions of the transportation system. The final section details recommended mobility strategies to mitigate projected impacts. The multimodal mobility plan will address the long-term horizon YR 2025.

The purpose of this, and all Transportation Elements, as stipulated by Florida Statute, is to plan and provide for a multi-modal transportation system, with an emphasis on the integration and coordination of transportation modes. The University of Central Florida maintains a network of internal roadways, as well as a fleet of over 35 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. The increasing demands placed on all of these systems by the rapid growth of the student population creates an even greater need to integrate and coordinate all available modes of transportation within and surrounding the campus. The area that will be examined by this transportation element is shown in the context area map in Figure 2.11-1.

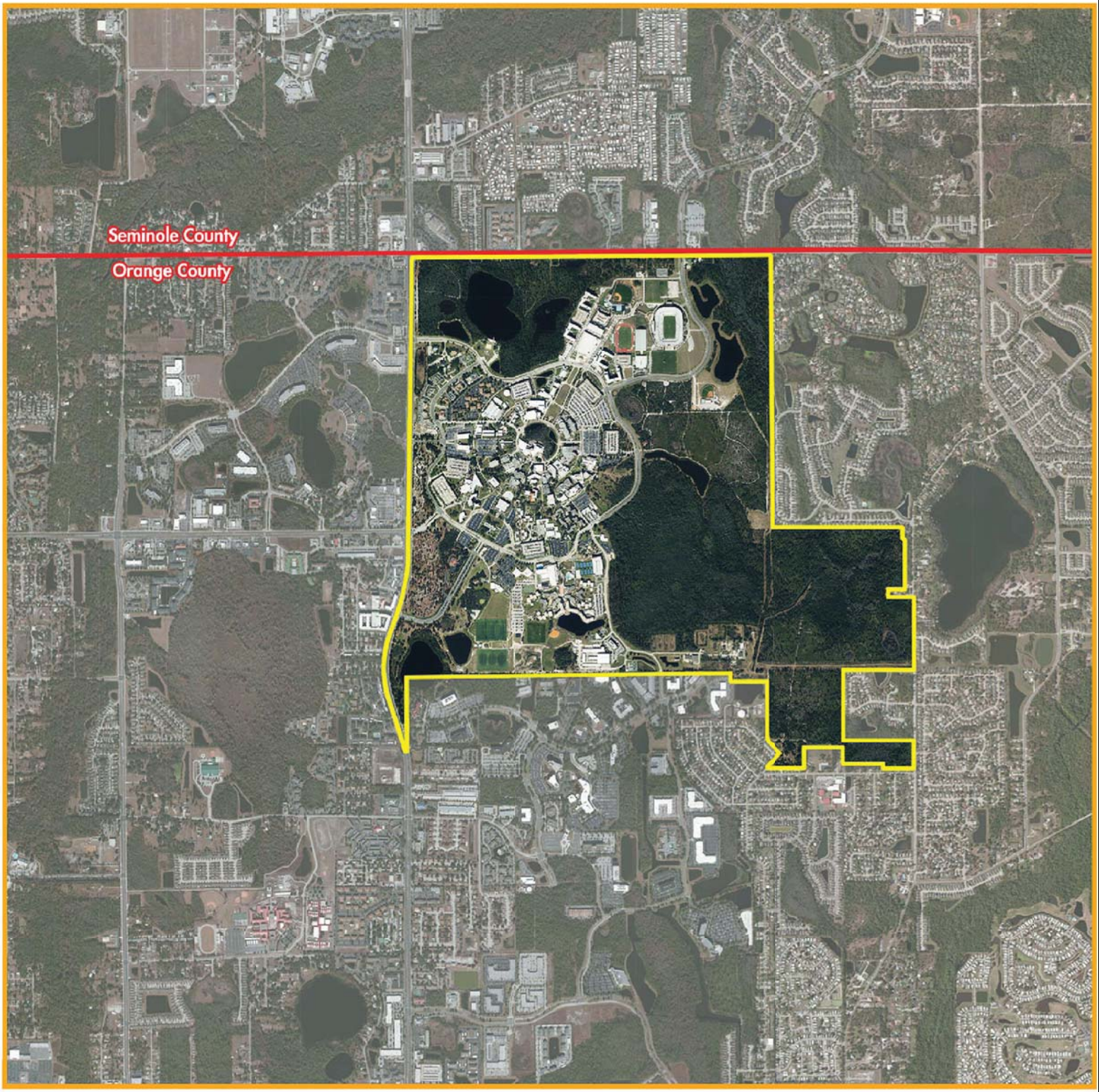

Figure 2.11-1

Context Area Map

Legend

- Study Area
- County Boundary
- UCF Campus Boundary

Comprehensive Master Plan Update
University of Central Florida
Orlando, Florida
2015-2025

All maps are diagrammatic and conceptual. The various areas shown are approximate and not to survey accuracy. The intent of these maps is to illustrate general areas of existing or potential use.

N

0 2,600 5,200 10,400 Feet

Rev. 20140415

2.0 EXISTING CONDITIONS

In order to evaluate the existing conditions of the transportation facilities within the UCF 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.

A. *Campus Population and Employment*

The University of Central Florida has several campuses in the Central Florida area. The population chart below reflects the existing and projected population on the Main Orlando campus. As shown below, the projected number of students attending the University steadily increases over the ten (10) year period from YR 2014-15 to YR 2024-25, with a 12.3% increase in student population.

Table 2.11-1: UCF Projected Attendance for the Main Orlando Campus

Year	Orlando Campus Annual FTE*	Orlando Campus Fall Headcount**
2014-15	22,946	49,923
2015-16	22,890	50,714
2016-17	23,128	52,026
2017-18	23,484	53,295
2018-19	23,661	54,288
2019-20	23,661	54,155
2020-21	23,646	54,163
2021-22	23,833	54,577
2022-23	24,038	54,917
2023-24	24,237	55,241
2024-25	24,591	56,061

Source: UCF FTE Enrollment Program

The number of students attending the University will place an increasing demand on University facilities, as well as on the surrounding transportation infrastructure, transit and pedestrian systems. Typically on-campus, students use forms of transportation other than cars to move around campus. However, many faculty, staff, and students live off campus and currently drive automobiles to reach the campus. There is a correlation between an increase of students and the increase in number of additional faculty and staff to accommodate the students.

Without planned and scheduled improvements to the transportation and transit systems, there is the possibility that campus and surrounding roads could become congested, increasing delays and the potential for increased conflicts between pedestrians, bicyclists and vehicular traffic.

B. *Roadway Circulation*

For the purposes of this transportation element, the roadway, or traffic circulation system, will be defined as all roadway facilities within the University Campus boundaries, as well as the external facilities located within the context area, as shown in Figure 2.11-1. An inventory of the existing roadway facilities located within the context area is shown in Table 2.11-2. 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 organization of roadways into a hierarchy based on the character of service provided. Typical classifications include arterial, collector, and local roadways." Roadways provide two functions within the classification noted above by providing varying levels of access and mobility. On the lower end of the spectrum, a local road essentially serves as total, direct access to the adjacent land uses. At the opposite end of the spectrum is the limited access freeway, which provides total mobility and no access. Generally speaking, as mobility increases, access decreases, and vice versa. Figure 2.11-2 shows the relationship between access and mobility. Figure 2.11-3 shows the relationship of the various roadway types to one another. The functional classification of a roadway is used to set level of service standards and to evaluate operational characteristics. Generally speaking there are six major classifications:

- Expressway Freeway,
- Principal Arterial,
- Minor Arterial,
- Collector (Major and Minor), and
- Local

Table 2.11-2 Roadway Facility Inventory

Road Name	From	To	No. of Lanes	Jurisdiction	Functional Classification	Adopted LOS
Alafaya Trail (SR 434)	Colonial Drive (SR 50)	Science Drive	6LD	State	Minor Arterial	E
	Science Drive	University Boulevard	6LD	State	Minor Arterial	E
	University Boulevard	McCulloch Road	6LD	State	Minor Arterial	E
	McCulloch Road	Chapman Road	6LD	State	Principal Arterial	E
Central Florida Boulevard	Alafaya Trail (SR 434)	Gemini Boulevard	4LD	UCF	Minor Collector	E
Centaurus Drive	Alafaya Trail (SR 434)	Gemini Boulevard	4LD	UCF	Minor Collector	E
Chapman Road	Aloma Avenue	Alafaya Trail (434)	4LD	Seminole County	Major Collector	E
Colonial Drive (SR 50)	Rouse Road	Alafaya Trail (434)	4LD	State	Principal Arterial	E
Discovery Drive/ Libra Drive	Research Parkway	Gemini Boulevard	2L	UCF	Minor Collector	E
Gemini Boulevard	Central Florida	University Boulevard	4LD	UCF	Minor Collector	E
	University Boulevard	Centaurus Drive	4LD	UCF	Minor Collector	E
	Alafaya Trail (SR 434)	Greek Park Drive	4LD	UCF	Minor Collector	E
	Greek Park Drive	N. Orion Boulevard	4LD	UCF	Minor Collector	E
	N. Orion Boulevard	Libra Drive	4LD	UCF	Minor Collector	E
Gemini Boulevard East	Libra Dr.	Scorpius St. (Star St.)	4LD	UCF	Minor Collector	E
Gemini Boulevard South	Andromeda Dr.	Hercules Dr.	4LD	UCF	Minor Collector	E
Greek Park Drive	Centaurus Drive	Gemini Boulevard	4LD	UCF	Minor Collector	E
Lake Pickett Road	Colonial Drive (SR 50)	Percival Road	2L	Orange County	Major Collector	E
	Percival Road	S. Tanner Road	2L	Orange County	Major Collector	E
Lokanotosa Trail	Rouse Road	Alafaya Trail (434)	2L	Orange County	Minor Collector	E
Lockwood Boulevard	McCulloch Road	Oviedo City Limits	4LD	Seminole County	Minor Collector	E
McCulloch Road	Alafaya Trail (SR 434)	Lockwood Boulevard	4LD	Seminole County	Minor Collector	E
	Lockwood Boulevard	Old Lockwood	2L	Seminole County	Minor Collector	E
N. Orion Boulevard	McCulloch Road	Gemini Boulevard	4LD	UCF	Minor Collector	E
Percival Road	Tanner Road	Lake Pickett Road	2L	Orange County	Minor Collector	E
Rouse Road	Colonial Drive (SR 50)	Lokanotosa Trail	4LD	Orange County	Minor Collector	E
	Lokanotosa Trail	University Boulevard	4LD	Orange County	Minor Collector	E
	University Boulevard	Seminole County Line	4LD	Orange County	Minor Collector	E
University Boulevard	Rouse Road	Alafaya Trail (434)	6LD	Orange County	Minor Arterial	E
	Alafaya Trail (SR 434)	Gemini Boulevard	6LD	UCF	Minor Collector	E
W. Plaza Dr.	Knights Victory Way	N. Orion Boulevard	2L	UCF	Minor Collector	E

Note: This table includes roadway segments within the context area, as shown in Figure 2.11-1

Roadways within the context area for the University's Campus Master Plan include the following classifications:

• Principal Arterial – This is the highest level of arterial and generally has restricted access, and serves longer distance through trips servicing larger metropolitan areas. The facility type connects minor arterials and freeways as well as other principal arterials.

• Minor Arterial – This type of roadways provides connections between principal arterials and collectors. It typically serves moderate lengths with less emphasis on mobility than a principal arterial and with a greater level of access to adjacent land parcels.

• Collector (Major and Minor) – 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.

• Local – 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 and to connect to the collector roadway system.

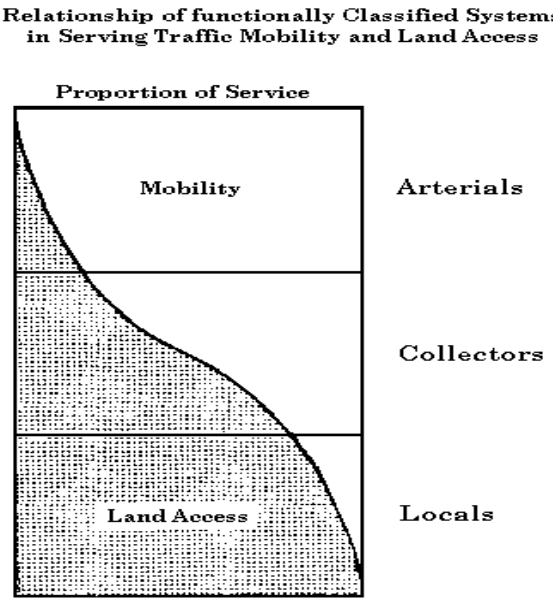

Figure 2.11-2 Mobility – Land Access Relationship

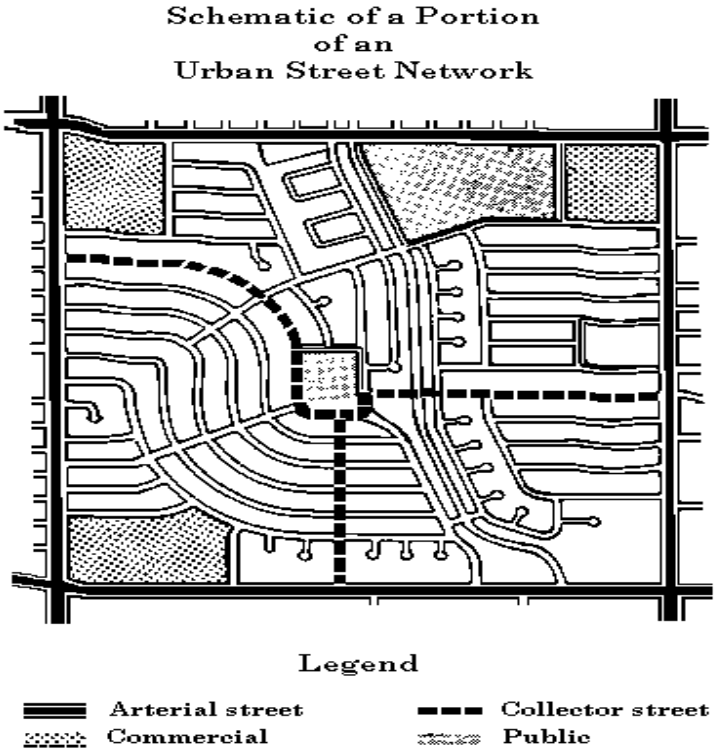

Figure 2.11-3 Roadway Functional Classification

Figure 2.11-4 details the functional classification of all study roadways within the context area.

Level of Service Standards

Level of service (LOS) is used to describe a qualitative measure of the operational performance of a roadway under existing or projected traffic conditions. There are six, alphabetical level designations used to describe the operating conditions of a roadway. These LOS designations range from the best, LOS "A", representing free-flow conditions, to the worst, LOS "F", representing breakdown conditions with significant delays. For the purposes of this update, this element will follow the LOS standards developed and adopted by the FDOT in the 2012 version of their Quality/Level of Service Manual. These standards are based on the research and analysis codified in the Highway Capacity Manual (HCM) developed by the Transportation Research Board (TRB) These standards delineate the threshold traffic volumes at which the perceived LOS changes from one designation to another, for a given roadway classification and area type. These threshold volumes are calculated using a variety of common traffic data, including number of lanes, free flow speed, intersection spacing, percentage of heavy vehicles, as well as a host of other traffic variables.

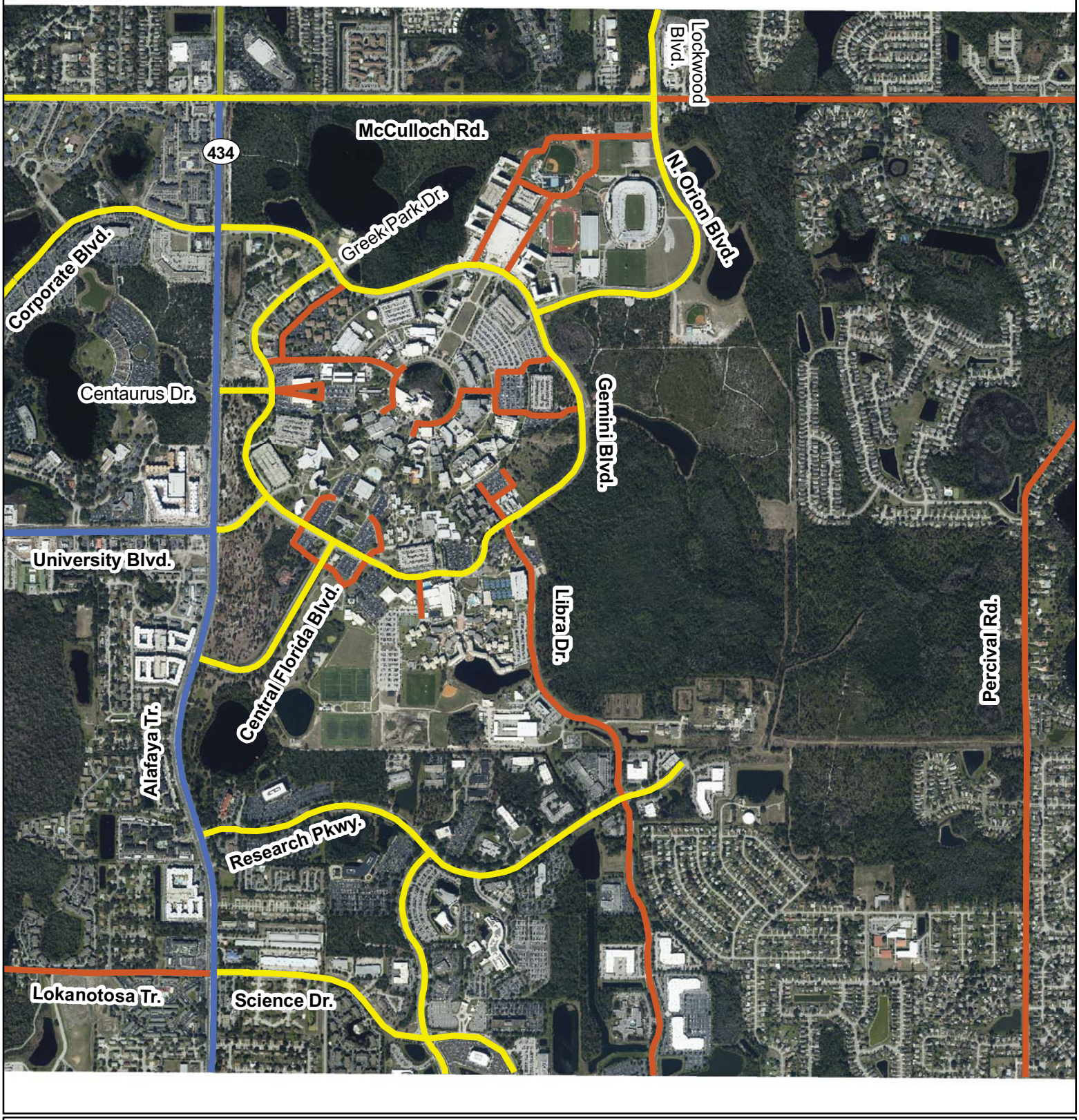

Figure 2.11-4

Campus Area Roadways by Functional Classification

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Legend

- Minor Arterial
- Minor Collector
- Principal Arterial
- Local Roadway

N

All maps are diagrammatic and conceptual. The various areas shown are approximate and not to survey accuracy. The intent of these maps is to illustrate general areas of existing or potential use.

0 1,515 3,030 6,060 Feet

Rev. 20140414

Table 2.11-3 details an analysis of existing conditions of the roadways shown in Table 2.11-2 and contained within the context area. The existing conditions documented in Table 2.11-3 include the following information: number of lanes, adopted level of service (LOS) standard, peak hour adopted level of service (LOS) standard, current peak hour volumes, and current LOS.

A copy of Table 7 from the FDOT 2012 Quality/Level of Service is shown below as Figure 2-11.5. Figure 2.11-6 shows the existing (2012/2013) traffic volumes, roadway geometry and Level of Service (LOS) for roadways within the Context Area.

TABLE 7

Generalized **Peak Hour Directional** Volumes for Florida's **Urbanized Areas**[1]

12/18/12

INTERRUPTED FLOW FACILITIES

STATE SIGNALIZED ARTERIALS

Class I (40 mph or higher posted speed limit)

Lanes	Median	B	C	D	E
1	Undivided	*	830	880	**
2	Divided	*	1,910	2,000	**
3	Divided	*	2,940	3,020	**
4	Divided	*	3,970	4,040	**

Class II (35 mph or slower posted speed limit)

Lanes	Median	B	C	D	E
1	Undivided	*	370	750	800
2	Divided	*	730	1,630	1,700
3	Divided	*	1,170	2,520	2,560
4	Divided	*	1,610	3,390	3,420

Non-State Signalized Roadway Adjustments
(Alter corresponding state volumes by the indicated percent.)
Non-State Signalized Roadways - 10%

Median & Turn Lane Adjustments

Lanes	Median	Exclusive Left Lanes	Exclusive Right Lanes	Adjustment Factors
1	Divided	Yes	No	+5%
1	Undivided	No	No	-20%
Multi	Undivided	Yes	No	-5%
Multi	Undivided	No	No	-25%
–	–	–	Yes	+ 5%

One-Way Facility Adjustment
Multiply the corresponding directional volumes in this table by 1.2

BICYCLE MODE[2]
(Multiply motorized vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)

Paved Shoulder/Bicycle Lane Coverage	B	C	D	E
0-49%	*	150	390	1,000
50-84%	110	340	1,000	>1,000
85-100%	470	1,000	>1,000	**

PEDESTRIAN MODE[2]
(Multiply motorized vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)

Sidewalk Coverage	B	C	D	E
0-49%	*	*	140	480
50-84%	*	80	440	800
85-100%	200	540	880	>1,000

BUS MODE (Scheduled Fixed Route)[3]
(Buses in peak hour in peak direction)

Sidewalk Coverage	B	C	D	E
0-84%	> 5	≥ 4	≥ 3	≥ 2
85-100%	> 4	≥ 3	≥ 2	≥ 1

UNINTERRUPTED FLOW FACILITIES

FREEWAYS

Lanes	B	C	D	E
2	2,260	3,020	3,660	3,940
3	3,360	4,580	5,500	6,080
4	4,500	6,080	7,320	8,220
5	5,660	7,680	9,220	10,360
6	7,900	10,320	12,060	12,500

Freeway Adjustments

Auxiliary Lane	Ramp Metering
+ 1,000	+ 5%

UNINTERRUPTED FLOW HIGHWAYS

Lanes	Median	B	C	D	E
1	Undivided	420	840	1,190	1,640
2	Divided	1,810	2,560	3,240	3,590
3	Divided	2,720	3,840	4,860	5,380

Uninterrupted Flow Highway Adjustments

Lanes	Median	Exclusive left lanes	Adjustment factors
1	Divided	Yes	+5%
Multi	Undivided	Yes	-5%
Multi	Undivided	No	-25%

[1] Values shown are presented as peak hour directional volumes for levels of service and are for the automobile/truck modes unless specifically stated. This table does not constitute a standard and should be used only for general planning applications. The computer models from which this table is derived should be used for more specific planning applications. The table and deriving computer models should not be used for corridor or intersection design, where more refined techniques exist. Calculations are based on planning applications of the Highway Capacity Manual and the Transit Capacity and Quality of Service Manual.

[2] Level of service for the bicycle and pedestrian modes in this table is based on number of motorized vehicles, not number of bicyclists or pedestrians using the facility.

[3] Buses per hour shown are only for the peak hour in the single direction of the higher traffic flow.

* Cannot be achieved using table input value defaults.

** Not applicable for that level of service letter grade. For the automobile mode, volumes greater than level of service D become F because intersection capacities have been reached. For the bicycle mode, the level of service letter grade (including F) is not achievable because there is no maximum vehicle volume threshold using table input value defaults.

Source:
Florida Department of Transportation
Systems Planning Office
www.dot.state.fl.us/planning/systems/sm/los/default.shtm

2012 FDOT QUALITY/LEVEL OF SERVICE HANDBOOK TABLES

Figure 2.11-5 FDOT Level of Service Table

Table 2.11-3 Existing Roadway Conditions

Road Name	From	To	No. of Lanes	Adopted LOS	AADT	K100	D	Adopted Pk. Hr. LOS Capacity	PM Pk. Hr./Dir. Volume	Source	2013/2014 LOS
Alafaya Trail (SR 434)	Colonial Drive (SR 50)	Science Drive	6LD	E	60,396	0.072	0.556	3,020	2,418	Orange Co. Annual Counts	C
	Science Drive	University Boulevard	6LD	E	60,396	0.072	0.556	3,020	2,418	Orange Co. Annual Counts	C
	University Boulevard	McCulloch Road	6LD	E	47,349	0.086	0.680	3,020	2,769	Orange Co. Annual Counts	C
	McCulloch Road	Chapman Road	6LD	E	38,000	0.090	0.528	3,020	1,806	FDOT Annual Counts	C
Central Florida Boulevard	Alafaya Trail (SR 434)	Gemini Boulevard	4LD	E	11,130	0.085	0.506	1,530	476	GMB Study	C
Centaurus Drive	Alafaya Trail (SR 434)	Gemini Boulevard	4LD	E	6,472	0.098	0.805	1,530	512	GMB Study	C
Chapman Road	Aloma Avenue	Alafaya Trail (434)	4LD	E	17,312	0.112	0.577	2,000	1,119	Seminole Co. Annual Counts	C
Colonial Drive (SR 50)	Rouse Road	Alafaya Trail (434)	4LD	E	46,439	0.065	0.528	2,000	1,594	Orange Co. Annual Counts	C
Discovery Drive/ Libra Drive	Research Parkway	Gemini Boulevard	2L	E	14,051	0.100	0.555	720	782	GMB Study	F
Gemini Boulevard	Central Florida Boulevard	University Boulevard	4LD	E	16,818	0.093	0.554	1,530	862	GMB Study	D
	University Boulevard	Centaurus Drive	4LD	E	12,818	0.098	0.678	1,530	855	GMB Study	D
	Alafaya Trail (SR 434)	Greek Park Drive	4LD	E	14,628	0.083	0.581	1,530	708	GMB Study	D
	Greek Park Drive	N. Orion Boulevard	4LD	E	15,021	0.094	0.504	1,530	712	GMB Study	D
	N. Orion Boulevard	Libra Drive	4LD	E	16,337	0.097	0.719	1,530	1,141	GMB Study	D
Gemini Boulevard East	Libra Dr.	Scorpius St. (Star St.)	4LD	E	21,447	0.097	0.586	1,530	1,217	GMB Study	D
Gemini Boulevard South	Andromeda Dr.	Hercules Dr.	4LD	E	15,998	0.090	0.521	1,530	747	GMB Study	D
Greek Park Drive	Centaurus Drive	Gemini Boulevard North	4LD	E	9,039	0.107	0.677	1,530	657	GMB Study	C
Lake Pickett Road	Colonial Drive (SR 50)	Percival Road	2L	E	13,570	0.082	0.748	880	832	Orange Co. Annual Counts	D
	Percival Road	S. Tanner Road	2L	E	9,220	0.137	0.867	880	1,095	Orange Co. Annual Counts	F
Lokanotosa Trail	Rouse Road	Alafaya Trail (434)	2L	E	8,179	0.111	0.625	800	567	Orange Co. Annual Counts	D
Lockwood Boulevard	McCulloch Road	Oviedo City Limits	4LD	E	15,972	0.101	0.733	1,700	1,182	Seminole Co. Annual Counts	D
McCulloch Road	Alafaya Trail (SR 434)	Lockwood Boulevard	4LD	E	26,918	0.082	0.630	2,000	1,391	Seminole Co. Annual Counts	C
	Lockwood Boulevard	Old Lockwood	2L	E	20,366	0.084	0.655	880	1,121	Seminole Co. Annual Counts	F
N. Orion Boulevard	McCulloch Road	Gemini Boulevard	4LD	E	13,164	0.1076	0.728	1,530	1,031	GMB Study	D
Percival Road	Tanner Road	Lake Pickett Road	2L	E	6,285	0.084	0.657	880	347	Orange Co. Annual Counts	C
Rouse Road	Colonial Drive (SR 50)	Lokanotosa Trail	4LD	E	19,694	0.092	0.584	2,000	1,058	Orange Co. Annual Counts	C
	Lokanotosa Trail	University Boulevard	4LD	E	18,907	0.103	0.533	2,000	1,038	Orange Co. Annual Counts	C
	University Boulevard	Seminole County Line	4LD	E	9,477	0.095	0.636	2,000	573	Orange Co. Annual Counts	C
University Boulevard	Rouse Road	Alafaya Trail (434)	6LD	E	51,344	0.082	0.505	3,020	2,126	Orange Co. Annual Counts	C
	Alafaya Trail (SR 434)	Gemini Boulevard	6LD	E	20,377	0.089	0.567	2,304	1,026	GMB Study	C
W. Plaza Dr.	Knights Victory Way	N. Orion Boulevard	2L	E	3,729	0.078	0.517	720	151	GMB Study	C

Note:
This table includes roadway segments included within the context area, as shown in Figure 2.11-1
LOS service volumes based on the 2012 FDOT Quality/Level of Service Manual, Seminole County CMS, Orange County
Traffic Volumes taken from latest Orange County (YR 2012) and Seminole County (YR 2013) count prograr
Traffic Volumes obtained from the GMB Study, conducted in January 2014

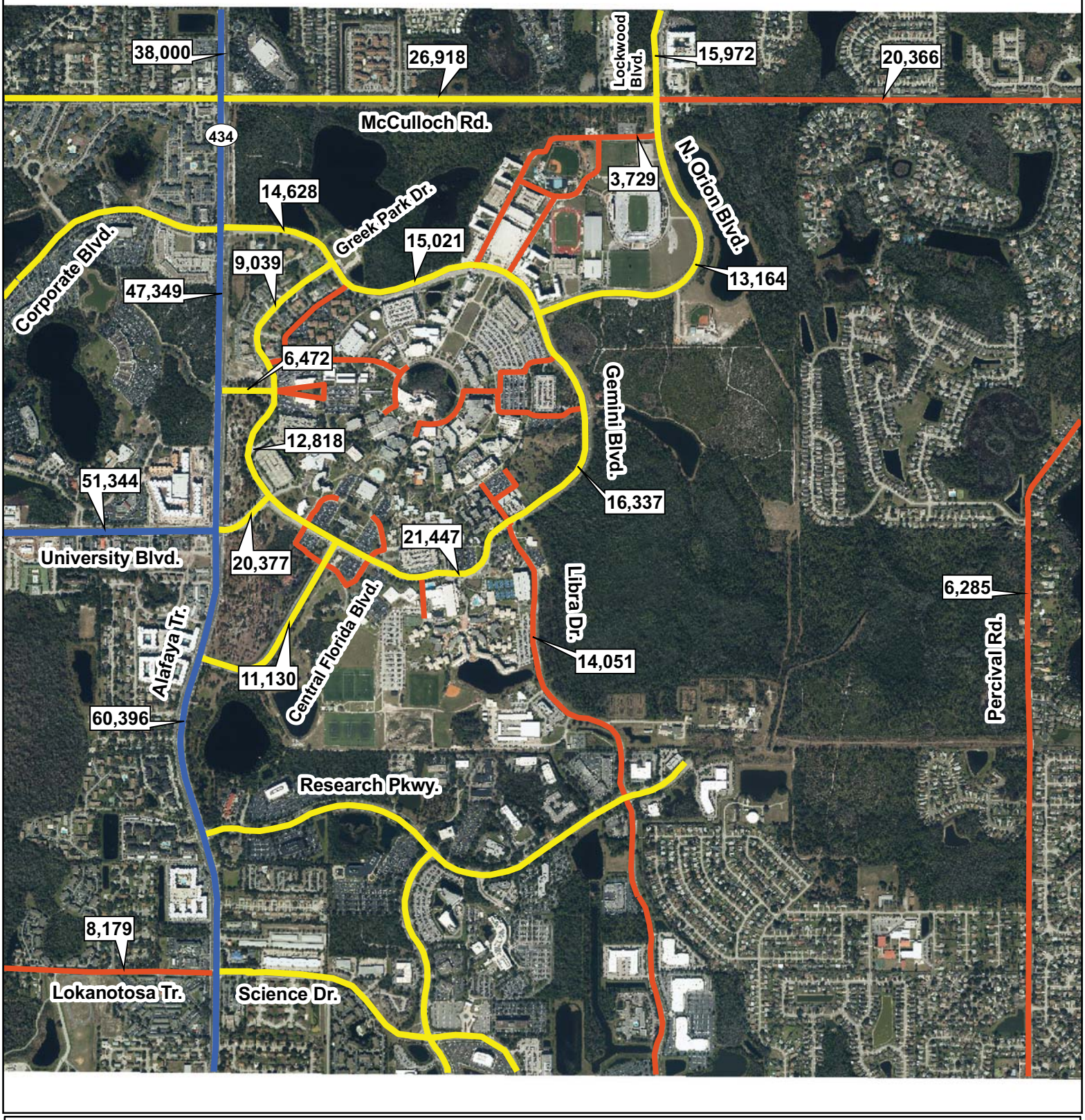

Figure 2.11-6

Existing Roadway Network and Daily Traffic Volumes

Comprehensive Master Plan Update
University of Central Florida
Orlando, Florida
2015-2025

Legend

- 6-Lane Roadway
- 4-Lane Roadway
- 2-Lane Roadway
- 11,111 Average Daily Traffic

N

All maps are diagrammatic and conceptual. The various areas shown are approximate and not to survey accuracy. The intent of these maps is to illustrate general areas of existing or potential use.

0 1,515 3,030 6,060 Feet

Rev. 20140414

C. *Parking System*

Since the majority (approximately 86%) of UCF's students commute to campus, as well as hundreds of faculty and staff members, the need for a large capacity of well-distributed parking is paramount. To accommodate parking demands, both permanent and temporary parking facilities are provided on campus. UCF has invested a great deal into providing this parking supply to form permanent and temporary parking facilities.

Parking is currently provided on the UCF campus in a variety of means such as surface lots, parking garages, metered spaces, and special locations, see Figure 2.11-7. There are currently six parking garages primarily used for student parking located around the perimeter of the campus and accessed by Gemini Boulevard. These facilities include Garages A, B, C, D H, and I. Garages B, C, D, and H, and I hold a maximum of approximately 1,300 vehicles, while Garage A has a capacity of approximately 1,650, for a total of 7,850 parking spaces in structured parking.

In addition to the structured parking, there are over forty (40) other surface parking lots spread throughout the campus. These surface lots are a combination of permanent and temporary spaces and are used by faculty, staff, students, and others, including specialty users such as motorcyclists. In total, the parking garages and surface lots add up to over 17,750 parking spaces available on campus. A detailed breakout of UCF's available parking supply is shown in Table 2.11-4.

Figure 2.11-7 Existing UCF Campus Parking Facilities

Table 2.11-4 UCF Campus Parking Facilities

LOT	Reserved	Faculty	Staff	Student	Disabled	Meters	Service	Motorcycle	Housing	Greek Park	Event Parking	Other	Total
AlphDeltPI					2					60			62
AlphXIDelt					2					56			58
Andromeda	1				4	16	1						22
ATO										43			43
B1	44	37			10	6	5	6					108
B2	18	71			15	6	6	6					122
B3	1		180		4	17							202
B4				174	2	17							193
B5				134									134
B6				142	2							20	164
B6-A (VPI)	1		17		1		2						21
B6- B												40	40
B7	2		35	255	6	8	4	4					314
B7-A (BPW)			18		1		3						22
B8	2		24	672	11			6				1	716
B9	4		36	179	6	3	10					3	241
B10			19		1							4	24
B11			42		1			2				9	54
B12			12	69	1		4	7				5	98
B13				42									42
B15	1			215	7	1		6					230
B16- Old Police			41	24	2			3				18	88
B17	1		77		8			10				94	190
B18			66										66
Bookstore					4		7						11
C1	25	146	277		10			19					477
C2	15		109				3						127
C3	17			140	4	3	13	5				46	228
C3 Extension					9			3					12
Chi Omega					2					40			42
Classroom 1					11		17						28
Comm. Bldg.	4						7					10	21
D1	5		65	532	22	6						4	634
D2				286									286
E1	1		42		2	6		5				3	59
E2				56									56
E4				101	3		2	2					108
East Plaza	2					34	11	4				4	55
Engineering							2					4	6
Fairwinds					3		1					24	28
Fraternity & Sorority Life						2	4					1	7
Garage A			7	1,616	10		2	12					1,647
Garage B				1,248	9		7	14				11	1,289
Garage C				1,272	2		2	14					1,290
Garage D				1,241	8		11	19					1,279
Garage E	1				15			4	677				697
Garage F	6		50		14						608		678
Garage G	2				14			4	677				697
Garage H		18	19	1,247	20			36					1,340
Garage I		5	6	1,220	12		12	15					1,270
H1	2	114			10	5	5	10					146
H2	2		143		6								151
H3			36	103	2								141
H4			65	188	10		2					2	267
H5					9								9
H5-LC									65				65
H6	1				1		2						4
H6-LC									25				25
H7					1								1
H7-LC									51				51
H8					3			2					5
H8-LC									132				132
H9					3			2					5
H9-LC									120				120
H10				65	3							2	70
HPA	1						5	8					14
Kap Delta										90			90
Kappa Kappa Gamma					2					40			42
Kappa Sig										40			40
Lake Claire												42	42
Library					12								12
Library Svc.							4					4	8
Life Center			13		3					82			98
Marketplace							1						1
Park-N-Ride												50	50
PI Beta Phi										35			35
PIKapAlph										30			30
Psychology					3		4					12	19
Rec. & Wellness							12						12
Sig Phi Ep										50			50
Sigma Chi										40			40
Stu. Union Svc.	4						4						8
TA-Int'l. Reading	1				1		4					10	16
T-200			35		1								36
Theatre Svc.					1		4						5
Theta Epsilon										60			60
Tri Delta										60			60
Visual Arts							4						4
West Plaza	2				4	35	10					6	57
Zeta					2					86			88
Sub-Total	**166**	**391**	**1,434**	**11,221**	**337**	**165**	**197**	**228**	**1,747**	**812**	**608**	**429**	**17,735**

UCF's parking supply is also segregated by user, i.e., faculty, staff, student, disabled, etc. Table 2.11-5 shows a detailed breakout of the Campus' parking supply by user type.

Table 2.11-5 Parking by User

Type of Parking	Number of Spaces	Percentage of Total (17,735)
Student	11,221	63.27%
Greek Park	812	4.59%
Lake Claire	393	2.22%
Garage E	677	3.82%
Garage G	677	3.82%
Overflow	132	0.74%
Staff	1,434	8.09%
Disabled	337	1.90%
Metered	165	0.93%
Faculty	391	2.20%
Specialty Parking	297	1.67%
Motorcycle	228	1.29%
Reserved	166	0.94%
Event Parking	608	3.43%
Service	197	1.11%

As Table 2.11-5 clearly shows, the majority of the parking is allocated for students, with slightly over 63% of the total spaces on campus. Faculty and staff total approximately 10% of the total number of spaces allocated on the campus. Some types of parking spaces could be used by all users, including faculty, staff, and students. These types of parking include disabled, overflow, event parking, and motorcycle and comprise slightly over 7% of the total number of spaces. Residential areas, such as the Greek Park, Garage E, Garage G, and Lake Claire comprise roughly 15% of the parking. These spaces may be used by students who keep their cars on campus not for the purpose of traveling to class, but for other means, such as trips off campus for tasks or to travel to and from their work.

Approximately 2,300 spaces on campus service "specialty" uses. These uses include: event parking, disabled, motorcycle, reserved, service, metered, overflow, and pay by space parking. Table 2.11-6 shows a breakout of these spaces.

Table 2.11-6 Specialty Parking

Event Garage (F)	608
Disabled	337
Motorcycle	228
Reserved	166
Service	197
Metered	165
Overflow	132
Pay by Space	20
Other (Visitor, Health Center, etc.)	409
Total	**2,262**

According to the number of spaces allocated for students (11,221) and the number of students attending the University in 2013(49,000), there are parking spaces for approximately 23% of the total student body.

University staff performed a detailed parking utilization study for all of the major facilities on Campus. The report lists number of vehicles parked in each lot, utilization of the parking areas by location and time, average lot counts by location and time of day, and parking capacity by type. The data collected by the University spans five (5) days in September 2013. The information is detailed to the lot location, time of day, and capacity of the lot.

Table 2.11-7 shows a breakout of parking utilization by user type for several periods during an average weekday. In summary, a review of the table shows that, in general, the faculty, staff, student, and housing parking lots are more than 70% occupied during most periods of the day, and several are at capacity (i.e., full). Based on the number of occupied spaces, the peak time period on an average weekday is between 10 am and 12 pm. During this time period, faculty and student lots were approximately 97 and 88 percent occupied, respectively. Availability in the faculty and student parking lots was seen after 4 pm on most days. A copy of the most recent study, dated September 2013, is included in Appendix A. In addition to the vehicular parking and as outlined in Section E, As the University also provides bicycle racks for approximately 6,500 bicycles throughout the campus. UCF's Parking and Transportation Services provides an interactive map for the locations of the bicycle racks around the campus. The interactive map is located at: http://map.ucf.edu/bikeracks/.

Table 2.11-7 Parking Utilization by User Type (Average Weekday)

Lot Type	Capacity	8:00 AM		10:00 AM		12:00 PM		2:00 PM		4:00 PM		6:00 PM		Average	
		Occupied Spaces													
FACULTY	391	353	90.23%	380	97.08%	379	96.98%	367	93.91%	300	76.83%	204	52.23%	331	84.54%
STAFF	1,434	854	59.58%	1,256	87.56%	1,267	88.33%	1,234	86.08%	1,056	73.65%	532	37.11%	1,033	72.05%
STUDENT	11,221	6,812	60.71%	9,617	85.70%	10,196	90.87%	9,551	85.12%	8,606	76.70%	7,434	66.25%	8,703	77.56%
DISABLED	327	111	34.07%	144	44.16%	147	44.89%	141	43.06%	124	37.92%	77	23.61%	124	37.95%
OVERFLOW	132	30	22.88%	47	35.91%	64	48.33%	62	46.97%	48	36.36%	40	30.45%	49	36.82%
HOUSING	1,747	1,389	79.50%	1,364	78.09%	1,369	78.37%	1,324	75.76%	1,272	72.79%	1,263	72.32%	1,330	76.14%
MOTORCYCLE	228	64	28.07%	96	42.11%	104	45.70%	101	44.39%	84	36.75%	61	26.75%	85	37.30%
EVENT PARKING	608	268	44.08%	506	83.29%	572	94.14%	563	92.63%	497	81.71%	394	64.84%	467	76.78%
TOTAL	16,088	9,881	58.47%	13,410	79.35%	14,098	83.42%	13,343	78.95%	11,987	70.93%	10,005	59.20%	12,122	71.73%
AVAILABLE		**6,207**	**41.53%**	**2,678**	**20.65%**	**1,990**	**16.58%**	**2,745**	**21.05%**	**4,101**	**29.07%**	**6,083**	**40.80%**	**3,966**	**28.27%**

D. *Transit Circulation*

Two transit systems; one public and one private currently serve the University.

LYNX is the regional, public transit service provider that connects the University to greater Orlando area, including Downtown Orlando. The bus service enters the campus via University Boulevard and utilizes the UCF/LYNX Super Stop, located near a parking garage, a large surface parking lot and outer perimeter pedestrian walkways. It is important to note that the LYNX bus routes also have stops near several residential clusters where they may serve students. UCF and LYNX have collaborated to implement the KnightLYNX bus service for a convenient and safe public transportation option. KnightLYNX consists of three distinguished routes that connects students with their high demand destinations. These routes are named as Red, Blue, and Green Lines. Each lines services different destinations and improves the transportation process for anyone from the UCF community by offering free rides to them. KnightLYNX operates on Friday and Saturday nights from 8 pm to 3 am.

LYNX

Link #13: This route is specific to the University, and it services the following areas:

- Commencement at the Downtown Bus Station
- Colonial Plaza Market Center
- Fashion Square Mall
- VA Clinic
- Winter Park Hospital
- Winter Park Pines
- Goldenrod
- University Boulevard
- The UCF/LYNX Super Stop at the University.

Primary stops for the link include the following:

- LYNX Central Station
- SR 436 & University Boulevard
- Colonial Plaza Market Center
- Corrine Drive & General Rees Avenue
- University Boulevard & Dean Road
- Lakemont Avenue & Aloma Avenue
- UCF/Lynx Super Stop

Link #104: This route stretches from Downtown Orlando at the LYNX Central Station, down to the UCF campus traveling on SR 50, Colonial Drive.

Primary stops for this link include:

- LYNX Central Station

- SR 436 & Colonial Drive
- Fashion Square Mall
- Valencia College East Campus
- Colonial Drive & Alafaya Trail
- UCF/Lynx Super Stop.

Link #434: This route offers a flex service within the City of Oviedo. The route originates at the Rosemont Super Stop and commences at the University, serving SR 434 in the following areas: University of Central Florida, Oviedo, Winter Springs, Longwood, and Forest City.

Primary stops for the link include:

- UCF/Lynx Super Stop
- Alafaya Tr. & Alafaya Woods BLVD.
- Oviedo Marketplace
- Winter Springs City Hall
- SR 434 & HWY. 17/92
- SR 434 & Markham Woods Rd.
- Seminole State College Altamonte Campus

KnightLYNX

1. **KnightLYNX Red (Link 212):** This line covers West Orlando area as it passes along Alafaya Tr. and the 408 Expressway towards downtown coming from UCF Main Campus.

   Serves:

   - Knights Plaza (UCF Arena)
   - UCF Recreation & Wellness Center
   - The Edge Apartments
   - Campus Crossings (Alafaya)
   - Pegasus Pointe Apartment
   - Alafaya Village S.C.
   - Downtown Orlando
   - Alafaya Commons S.C. (Colonial Dr. Stop)
   - Alafaya Commons S.C. (Alafaya Trail Stop)
   - Campus Crossings (College Station)
   - Boardwalk Apartments
   - Lake Claire Apartments/Greek Park Drive

   Stops:

   1. UCF Arena
   2. Colonial Drive & Alafaya Trail
   3. South Street & Bumby Avenue
   4. Garland Avenue & South Street

2. **KnightLYNX Blue (Link 210):** This line covers areas in East Orlando as it passes along Alafaya Tr. to Waterford Lakes Town Center and then commutes back to UCF Main Campus.

   Serves:

   - Knights Plaza (UCF Arena)
   - UCF Recreation & Wellness Center
   - The Edge Apartments
   - Campus Crossings (Alafaya)
   - Pegasus Pointe Apartments
   - Alafaya Village S.C.
   - Waterford Lakes Town Center (1)
   - Waterford Lakes Town Center (2)
   - Woodbury Road
   - Alafaya Commons S.C. (Colonial Drive Stop)
   - Alafaya Commons S.C. (Alafaya Trail Stop)
   - Campus Crossings (College Station)
   - Boardwalk Apartments
   - Lake Claire Apartments/Greek Park Drive

   Stops:

   1. UCF Arena
   2. UCF Recreation Center
   3. Alafaya Trail & Colonial Drive
   4. Alafaya Trails & Waterford Lakes Parkway

3. **KnightLYNX Green (Link 211):** This line mainly covers UCF Main Campus area starting from the UCF Arena to McCulloch and then it goes along Alafaya Tr. toward Central Florida Blvd. ending up at UCF Main Campus.

   Serves:

   - Knights Plaza (UCF Arena)
   - Northgate Lakes Apartments
   - Tivoli Apartments
   - University Palms S.C.
   - Pegasus Landings S.C.
   - University Commons S.C.
   - Sterling Central Apartments
   - UCF Recreation & Wellness Center

   Stops:

   1. UCF Arena
   2. University Boulevard & Turbine Drive
   3. UCF Recreation Center

All three LYNX routes circle areas where off-campus student housing exists, as well as running along the edge of single family residential and commercial/retail areas in Orange and Seminole Counties. The routes provide the opportunity for the transit service to alleviate congestion on roadways potentially created by student vehicles going from off-campus areas to the University or associated service areas. KnightLYNX service also has three routes that facilitate the movement of UCF community members from various locations such as downtown Orlando and the locations surrounding the campus. KnightLYNX service is free for anyone with a valid UCF ID while other riders are charged the regular rate. These three lines serve both UCF community members and the public while maintaining a safe and reliable transportation option.

Figure 2.11-8 Existing Campus Transit Service shows all of the existing LYNX routes.

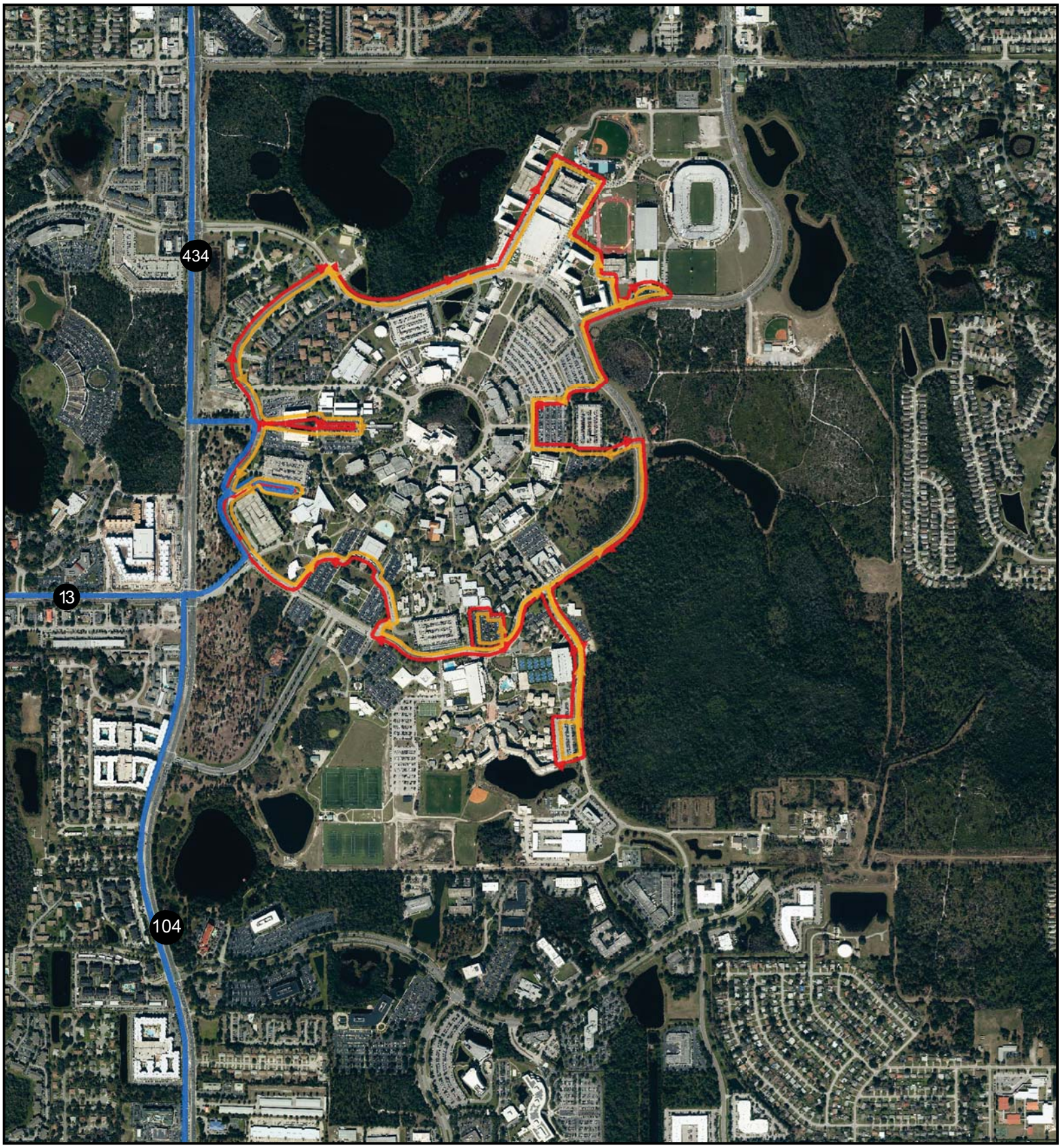

Figure 2.11-8

Existing Campus Transit Service

Comprehensive Master Plan Update
University of Central Florida
Orlando, Florida
2015-2025

Legend

- 13 Existing LYNX Routes
- Black Shuttle Route
- Gold Shuttle Route

N

All maps are diagrammatic and conceptual. The various areas shown are approximate and not to survey accuracy. The intent of these maps is to illustrate general areas of existing or potential use.

Rev. 20140414

0 1,110 2,220 4,440 Feet

Existing Campus Transit Shuttle

In addition to the LYNX and the KnightLYNX routes that service the UCF Campus, the University also maintains a fleet of approximately thirty-five (35) shuttle buses that service thirteen (13) off-campus transit routes to the surrounding student housing, two (2) on-campus routes, (1) route to the Rosen College of Hospitality Management, and one (1) route to the Health Sciences Campus at Lake Nona. These buses are air-conditioned and can carry a maximum of forty (40) passengers. The UCF Shuttle system provides a significant transportation alternative to the single passenger automobile. The UCF shuttle system carries approximately 13,500 riders per day during the 2013 fall semester. This equates to approximately 900 riders per day, per route.

The Rosen College of Hospitality Management and Health Sciences Campus routes provide a perfect transportation solution for students who attend these colleges. With nine round trips every day, the Rosen College shuttle bus provides a reoccurring transportation option for faculty, staff, and students to commute between the UCF Main Campus near the student union to their college. The Health Sciences route offers a convenient transportation mode from UCF Main Campus with eight round trips. This bus route stops near the physical sciences building and runs from the Biomolecular Research Annex to the UCF Main Campus until 10 pm.

To facilitate on-campus transportation for faculty, staff, and students, UCF offers two shuttles, Black and Gold, that operate on class days from 7 am to 7 pm. Shuttles on the gold route runs counter clockwise on Gemini Boulevard, while the black route runs clockwise on the same road offering convenience and easy mean of transportation.

The thirteen (13) off-campus routes that currently serve the surrounding student housing developments include:

UCF Shuttle

Route #1 Knights Circle:
Four buses travel along this route in a loop that starts and ends at the Student Union. Each bus turns right on Greek Park Dr. coming from Aquarius Agora Dr. towards Gemini Blvd. where it turns left and goes through Corporate Blvd. The first and second stops are Knights Cir. Apartment stop 5 and 6 which are reached by the bus as it turns right on Data Ct. They are then followed by stops 4 and 3 which are reached as the bus turns right on Knights Crossing Cir. Stops 2 and 1 are the last stops and they are reached through Golden Knight Cir. From which the bus exits to Corporate Blvd. back to Gemini Blvd. The bus then turns right on Greek Park Dr. followed by a left turn on Aquarius Agora Dr. to reach a stop at the Student Union.

Route #2 College Station/Boardwalk:
Two buses travel in a loop starting and ending at Millican Hall. After departure from Millican Hall, each bus makes a left turn on Gemini Blvd. S. followed by a right turn on

Central Florida Blvd. reaching Alafaya Tr. where the bus turns left. The bus travels along Alafaya Tr. passing Lokanotosa Tr. and then turning left on Renaissance Ct. to its first stop at College Station Apartments. Going to the second stop, the bus goes back on Alafaya Tr. towards UCF as it turns right on Boardwalk Dr. for the second stop at Boardwalk Apartments. On the way back to campus, the bus makes a right turn on Central Florida Blvd. from Alafaya Tr. and then makes a right turn on Gemini Blvd. by which it arrives to Millican Hall as it turns left on Andromeda Cir.

Route #3 The Edge/Arbor Apartments:
Three buses serve this route traveling in a loop with 4 stops. Departing from UCF/LYNX transit center, each bus turns right on Gemini Blvd W. towards Centaurus Dr. W. where it makes a left turn towards Alafaya Tr. The bus makes a left turn from that intersection passing University Blvd. until it reaches Mackay Blvd. where it turns right to the first and second stops at The Edge Apartments and Arbour Apartments. After that, the bus continues to the next two stops on Wagon Rd. which are also in Arbour Apartments Complex. Going back to Alafaya Tr. the bus turns right on Mackay Blvd. reaching Aalafaya Tr. where it is forced to make a right turn and then a U-turn at the first intersection going back to UCF. On University Blvd. the bus makes a right turn followed by a left turn on Gemini Blvd. and then another right turn to where the UCF/LYNX transit center is located.

Route#4: Alafaya Club/Campus Crossings/The Pointe at Central:
Four buses operate on this route starting from Millican Hall and stopping at three student housing complexes before it comes back to Millican Hall. Each bus makes a left turn on Gemini Blvd. towards Central Florida Blvd. where it turns right as continues to Alafaya Tr. Turning left from there, the bus proceeds to Lokanotosa Tr. where it turns right towards the first stop at Alafaya Club Dr. in Alafaya Club Apartments. Going back to Lokanotosa Tr., the bus after that turns right to Royal Wulff Ln. at the second stop of Campus Crossing Apartments. The last stop is at The Pointe at Central where the bus makes a right turn to College Park Tr. coming from Alafaya Tr. and then it makes a left on College Knight Ct. The way back to UCF campus is through Alafaya Tr. as the bus travels along the road and then it turns right at Central Florida Blvd. towards Gemini Blvd. where it makes another right and then left turn on Andromeda Cir. to reach Millican Hall.

Route # 5: Village At Science Dr./Human Resources
Two buses serve this route. They travel from the on-campus stop near the Student Health Center and depart the campus via Libra Drive, stopping at the Human Resources stop if any rider(s) desire. The buses turn right onto Research Parkway, left onto Technology Parkway, then right onto Science Drive. They enter VSD from Science Drive, and make the three designated stops therein. From VSD, the shuttles continue west on Science Drive into the Knights Landing property where there are two stops. They return to UCF via the same route, reversed, without stopping at VSD again. However, they will pick up and/or off-load passengers at the Human Resources stop on Libra Drive, if necessary.

Route # 6: Northgate Lakes/Tivoli Apartments
There are two buses on this route. They travel from the E1 Parking Lot stop located near the HPA, Engineering, and Business Administration buildings. They exit between Parking Lot E3 and the East Parking Garage onto to Gemini Boulevard, and turn left at the light. They continue east, and turn right onto North Orion Boulevard, then proceed to McCulloch Rd., where they turn left. Off McCulloch Rd, they make their first stop on this route inside the Northgate Lakes Apartments. From there, they turn right onto McCulloch Rd., then right again into the Tivoli Apartment complex, where there are two designated stops near the clubhouse. The shuttles return to UCF via McCulloch Rd. and North Orion Boulevard, back to E1 Parking Lot stop, approaching on Star Drive East.

Route # 7: Collegiate Village Inn
One bus serves the Collegiate Village Inn (CVI) route. Its on-campus stop is the Transit Center. From there, it travels outbound onto Alafaya Trail, proceeding south on University Boulevard. It turns left into CVI on Collegiate Drive, making its stop at the one designated pick-up/drop-off point at the entrance to the main office building and apartments. The shuttle then returns to the UCF Transit Center via the same route, reversed.

Route # 8: Riverwind Apartments
Two buses serve this route. They use the same on-campus stop as the Route 6 Shuttle, traveling from the E1 Parking Lot stop via Gemini Boulevard East and North Orion Boulevard onto McCulloch Rd. After turning left on McCulloch Rd, the shuttles proceed west to Alafaya Trail and turn right. Then they travel on to the Riverwind Apartments approximately one mile to the north. The shuttles stop inside the center of the property there, as well as at the entrance, as necessary. They return to UCF via the same route, reversed, to the E1 Parking Lot stop, making their approach on Star Drive East.

Route # 9: Research Park, Knights Landing
This route uses two buses, and it is the only route that is dedicated exclusively to Central Florida Research Park (CFRP). Nine stops in CFRP serve seven (7) entities there. They include the stop at UCF Human Resources on Libra Drive. The on-campus pick-up/drop-off point for this route is co-located with the Route 5 Stop at the Libra Drive terminus near the Student Health Center. The other CFRP stops are the Orlando Tech Center (OTC) (3 stops), and one each at Partnership Buildings I and II (PI & PII), the Institute for Simulative Training (IST), the Research Pavilion (RP), and the Bio-molecular Research Annex (BRA). From campus via Libra Drive, the shuttles will stop at HR, if necessary, before turning right onto Research Parkway. Then they make three stops at OTC, as necessary, before proceeding on to the IST stop. From there, they begin the return trip to UCF, stopping route at PI on Technology Parkway, PII and RP on Research Parkway, and BRA at the intersection of Research Parkway and Discovery Drive. They will also stop at HR on Libra Drive, as necessary.

Route #10: The Lofts/Orion on Orpington:
Two buses serve this route departing from UCF/LYNX transit center. Going towards

Alafaya, the bus turns right on Gemini Blvd. and then turns left on Centaurus Dr. Driving along Alafaya Tr., the bus makes a left turn on Orpington St. where it stops at Orion on Orpington Apartments. Two more stops are designated for this bus at Loftway Cir. which are The Lofts Apartments stop 1 and 2. The bus then drives back to Alafaya Tr. as it turns right on University Blvd. towards Gemini Blvd. and then it turns left from there to reach the right turn entrance of the UCF/LYNX transit center.

Route #11: Sterling University Central:
Two buses travel in a loop route serving Sterling University Central Apartment complex starting and ending at UCF/LYNX transit center. Coming out from UCF campus, the bus takes Gemini Blvd. and then Centaurus Dr. reaching Alafaya Tr. where it turns left. The first stop is reached as the bus turns right on Sterling University Ln. and then it departs back to UCF/LYNX transit center using Central Florida Blvd. and Gemini Blvd. passing University Blvd. then makes a right turn.

Route #12: University House Central Florida:
Two buses are designated to serve two communities coming back and forth from Millican Hall. The bus leaves Millican Hall by turning left on Gimini Blvd. and then it turns right on Central Florida Blvd. reaching Alafaya Tr. where it makes a left turn. The first community, University House, has two stops that are served by this bus which are located on Coed Dr. and Tudo Dr. After that, the bus makes a third stop at Campus Crossing Apartment Complex located on Royal Wulff Ln. which is reached through Lokanotosa Tr. The final trip goes from Lokanotosa Tr. to Central Florida Blvd. where the bus turns right towards Gemini Blvd. and then it makes another right turn to arrive at Millican Hall.

Route #13: NorthView:
One bus serves this route which covers the north area of the campus. Starting from CoHPA/Engineering bus stop, the bus travels on Gemini Blvd. towards N. Orion Blvd. and then it makes a right turn to reach McCulloch Rd. The bus passes the intersection of N. Orion Blvd. and McCulloch Rd. and then makes a right turn to the first stop at North View Apartment Complex. Traveling on Lockwood Blvd., the bus goes back to campus using N. Orion Blvd. and Gemini Blvd. to reach the CoHPA/Engineering bus stop.

Rosen College of Hospitality
Two busses operate from UCF Main Campus at the Student Union near stop no.1 on Aquarius Agora Drive to the Rosen College. This service is offered only on weekdays except Friday. In addition, it serves disabled patrons with an in advance contact.

Health Sciences Campus
Three busses are performing round trips from UCF Main Campus to the Health Sciences Campus at Lake Nona. The busses depart from the Physical Sciences building at UCF Main Campus and stops on their way to the Health Sciences Building at the Biomolecular Research Annex. This route serves students traveling from Laureate Blvd. (Health Sciences Building) to stop no. 9 at the UCF Main Campus.

Black and Gold

The Black and Gold routes stops:

1. Burnett Honors
2. Lake Claire Apartments
3. CFE Arena/Tower Apartments
4. COHPA/Engineering/Optics
5. Nike/Hercules/Neptune Communities
6. Marketplace/Student Resource Center
7. Welcome Center/Millican Hall
8. Teaching Academy/Welcome Center
9. Transit Center/Education Complex

UCF offers various options for faculty, staff, and students, faculty to transport on campus and off campus by providing UCF shuttle busses, Rosen College route, Health Sciences route, and Black and Gold bus lines. Using these free and convenient transportation modes would save UCF community members money, and money in addition to creating a stress free environment. Thirteen shuttle busses cover the locations where the majority of students live or commute to. Students of the Hospitality and Health Sciences colleges will be encouraged to rely on these free charge shuttles instead of driving their personal vehicles. In addition to UCF shuttle busses, Black and Gold on campus routes alleviate roadway congestion inside the campus which encourage students to use the shuttle on campus instead of using their personal vehicles. The two routes provide an alternative transportation option for faculty, staff, and students with 8 strategic bus stops around campus. Both on campus lines run also in Summer semesters from 7 pm to 4 pm except Saturdays.

Table 2.11-8 details the average ridership of all UCF shuttles for the 2013 fall semester. A review of Table 2.11-8 clearly shows that a significant portion of the University's faculty, staff, and students arrive each day via the shuttle system. This transit option significantly reduces the overall impact of the University on the surrounding roadway network.

Figure 2.11.9 Off-Campus UCF Shuttle Map shows all thirteen of the UCF Off-Campus Shuttle Routes.

Table 2.11-8 Average UCF Shuttle Ridership, Fall, 2013

Route No.	Route	Month					Total	Average Daily Ridership per Route
		August	September	October	November	December		
1	Knights Circle	39,829	70,525	77,283	50,223	14,508	252,368	3,658
2	College Station/Boardwalk	7,361	14,529	601	8,216	1,870	32,577	472
3	The Edge/Arbour	8,350	15,236	16,334	10,554	3,373	53,847	780
4	Alafaya Club/Campus Crossing/The Pointe at Central	17,481	33,011	30,529	25,059	7,567	113,647	1,647
5	Science Drive/Human Resources	6,958	14,246	15,269	9,933	2,770	49,176	713
6	Northgate/Tivoli	9,998	16,250	14,529	10,691	2,360	53,828	780
7	Collegiate Village Inn	1,781	4,029	4,470	2,867	904	14,051	204
8	Riverwind	4,949	9,632	9,029	5,667	1,639	30,916	448
9	Knights Landing/Research Parkway	3,977	7,011	7,463	5,363	1,536	25,350	367
10	Lofts/Orion Orpt.	8,357	14,806	15,992	10,535	2,631	52,321	758
11	Sterling	9,472	19,811	21,173	12,974	3,556	66,986	971
12	University House	12,927	20,610	22,577	14,722	3,764	74,600	1,081
13	Northview	6,043	9,173	6,818	9,658	2,946	34,638	502
B&G	Black and Gold Line	1,036	1,730	1,884	1,512	333	6,495	94
HSC	Health Sciences Campus	1,222	1,142	1,387	1,016	375	5,142	75
RC	Rosen College of Hospitality	10,211	20,469	21,126	14,142	3,439	69,387	1,006
Totals		149,952	272,210	266,464	193,132	53,571	935,329	
No. of Days of Service Per Month		12	20	12	18	7	69	
Average Daily Ridership		12,496	13,611	22,205	10,730	7,653	**13,555**	

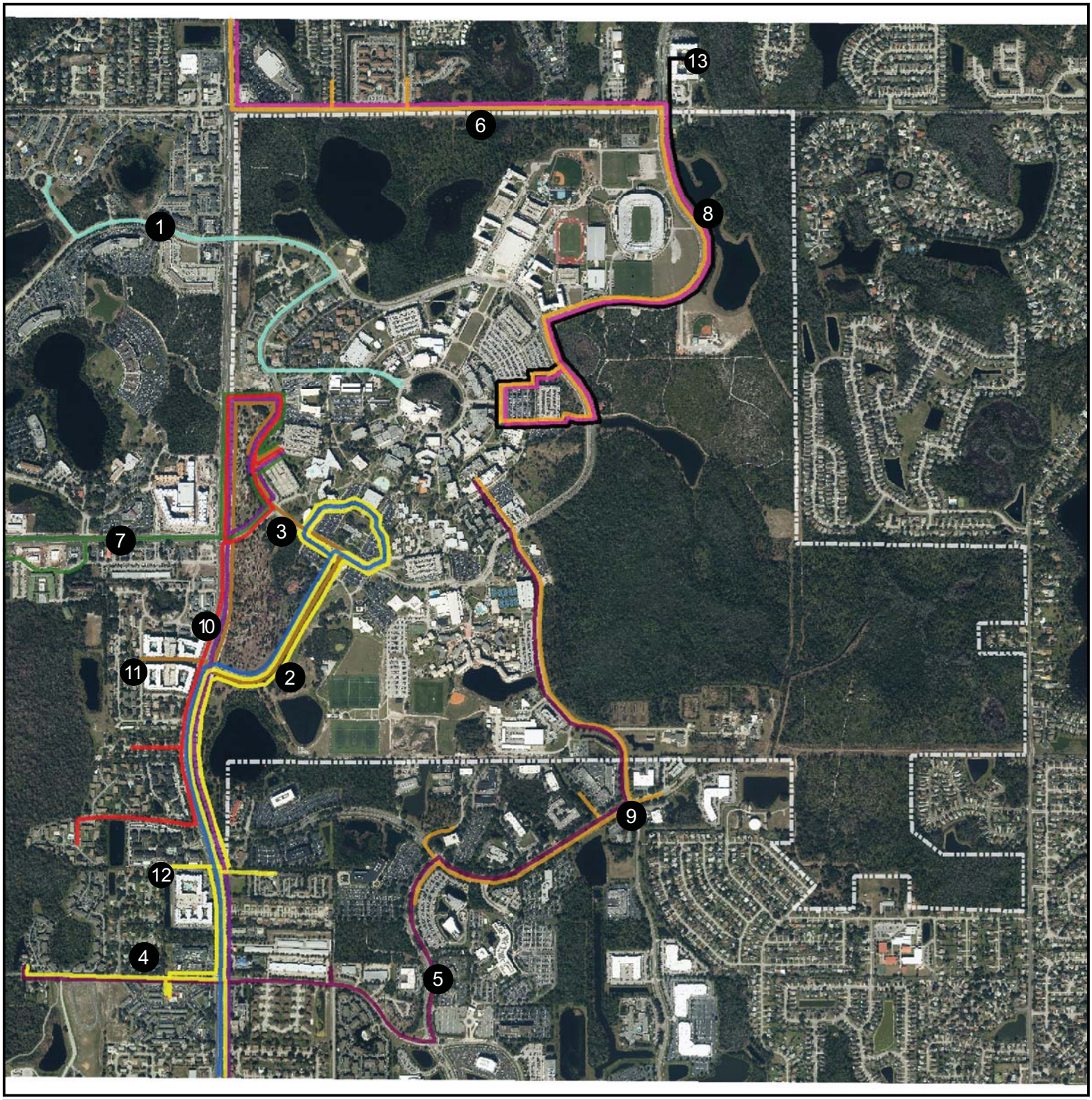

Figure 2.11-9

Off-Campus UCF Shuttle Map

Comprehensive Master Plan Update
University of Central Florida
Orlando, Florida
2015-2025

Legend

- 1 Knights Circle
- 2 College Station/Boardwalk
- 3 The Edge/Arbour Apartments
- 4 Alafaya Club/Campus Crossings /The Pointe at Central
- 5 Village at Science Dr./Human Resources
- 6 Northgate Lakes/Tivoli Apartments
- 7 Collegiate Village Inn
- 8 Riverwind Apartments
- 9 Research Park/Knights Landing
- 10 The Lofts/Orion on Orpington
- 11 Sterling University Central
- 12 University House Central Florida
- 13 NorthView

N

All maps are diagrammatic and conceptual. The various areas shown are approximate and not to survey accuracy. The intent of these maps is to illustrate general areas of existing or potential use.

Rev. 20140414

0 1,515 3,030 6,060 Feet

E. *Bicycle and Pedestrian Circulation*

A key part of the University's multi-modal transportation system is the pedestrian and bicycle network. Since most faculty, staff, and students walk between their destinations once on campus, it is important that a highly developed network exist that will allow for this circulation. To that end, the University has developed an intricate network of bicycle/pedestrian paths throughout the Campus. Figure 2.11-10 illustrates the location of the bicycle/pedestrian network on campus. This network is anchored with three concentric paths, as well as connecting paths that crisscross the campus and connect at significant pedestrian generators, such as academic buildings, parking facilities and on-campus residential units.

The bicycle/pedestrian network is key to ensuring that all of the other modes that access the Campus, such as personal vehicles (via parking facilities) and transit are utilized to their fullest extent.

To that end, the University has made significant investments in ensuring that the facilities necessary to encourage pedestrian and bicycle activity are in place, are aesthetically pleasing and are safe to use. These facilities see a great deal of use due to the large student population, as well as the active group of bicycle enthusiasts who enjoy the campus' scenic environment.

Other Bicycle Facilities

As noted above, bicyclists are able to use the walkway network throughout campus. In addition, most of the buildings that have significant student involvement also have one or more bicycle racks located at their entrances. As of the Spring 2014 semester, the University has provided bicycle racks for approximately 6,500 bicycles throughout the campus. UCF's Parking and Transportation Services provides an interactive map for the locations of the bicycle racks around the campus. The interactive map is located at: http://map.ucf.edu/bikeracks/.

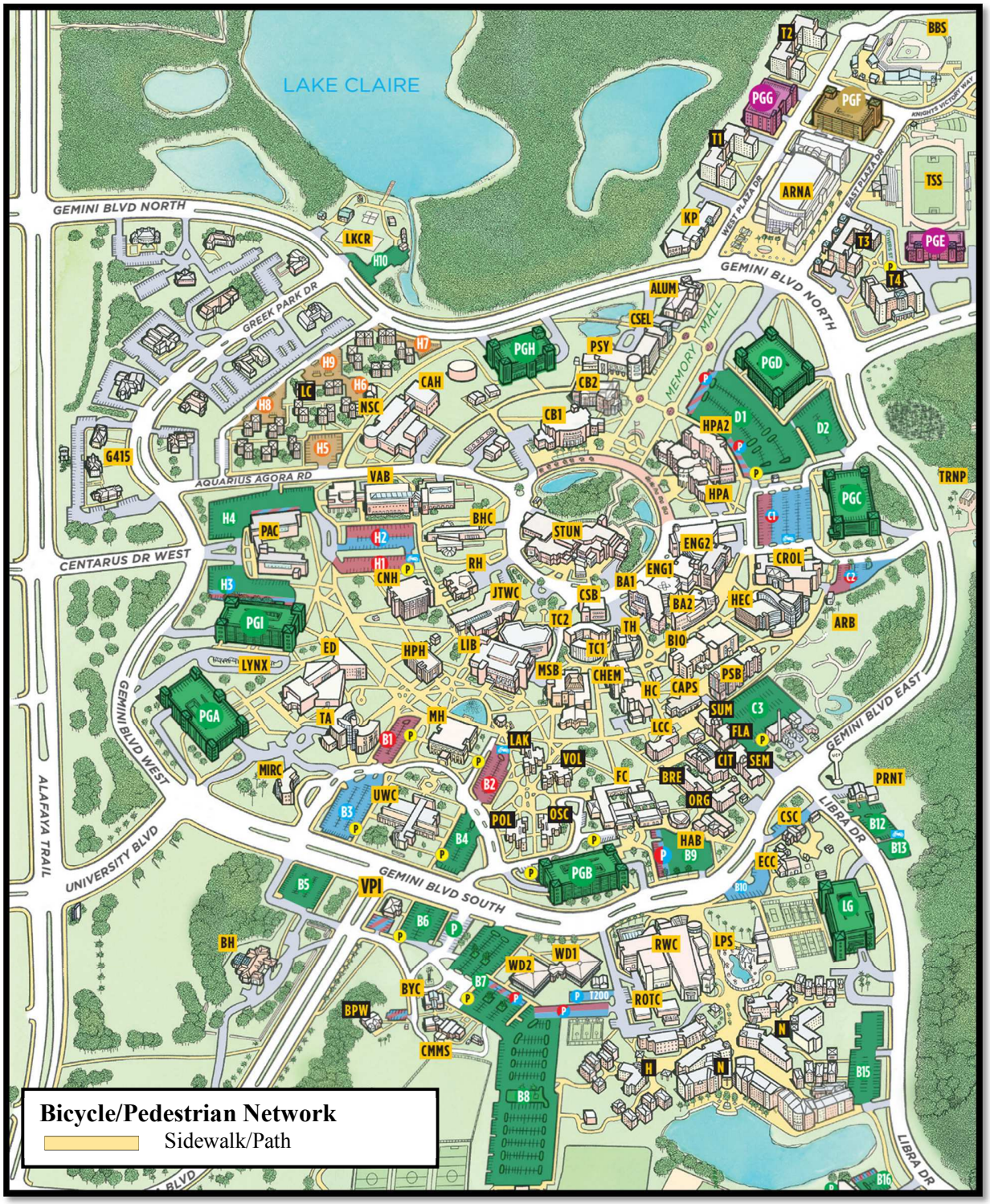

Figure 2.11-10 UCF Campus Map Detailing Bicycle/Pedestrian Network

F. *Other Mobility Options*

The University has been developing various mobility options to the use of the single-occupant vehicle and has been working to increase the student housing-to-enrollment balance within the context area. The primary mobility options and strategies to reduce the dependence upon the personal automobile offered by the University include enhanced transit service from businesses and residences off-campus and enhanced connectivity on-campus via pedestrian and bicycle facilities. In support of the enhanced bicycle facilities, the UCF Student Government Association in conjunction with the Student Union has a bike share program in place that allows students the daily rental of bicycles at two locations, the Student Union and the Recreation and Wellness Center. Another popular mobility option is the University's campus shuttle, with on-campus headways of 10 minutes or less during peak-periods and special events and off-campus headways of 15 minutes to University-affiliated housing in the context area. The University has identified residential concentrations of students in need of convenient transit routes, increased transit service, decreased bus headways, developing additional new routes, or modifying existing routes as deemed appropriate by the University.

Zipcar and ZimRide

Alternative transportation, such as Zimride and Zipcar offers driving solutions for the UCF community.

Zipcar is a membership-based car sharing company providing automobile reservations to its members billable by the hour, or day. It is an alternative to traditional car rental and car ownership. To date, over 750 University of Central Florida members actively participate in the service. There are six (6) existing Zipcar vehicles on campus located in lots B9, H4, and Garage G.

The University is committed to car-sharing for the reasons outlined below:

- helps to preserve the environment by reducing traffic congestion (every Zipcar reserved helps keep 15 vehicles off the road and helps reduce carbon dioxide);
- provides economical, stress-free, convenient, and safe alternative transportation for our faculty, staff, and students;
- promotes ridesharing and saves money on gasoline while reducing wear and tear on personally owned vehicles;
- enhance quality of life through the solution of alternative transportation provided by Zipcar.

In 2010, Student Government Association and Parking and Transportation Services initiated a ride sharing program called Zimride. This complimentary program offers faculty, staff, and students the flexibility to share rides to various destinations while using social networking. To date, 3,300 utilized the complimentary ride sharing program on http://zimride.ucf.edu/.

In summation, the UCF's transportation system reduces the demand for parking facilities on campus, gasoline consumption, carbon footprint, and traffic congestion on roads.

The University has also implemented park and ride lots within the context area. UCF shuttles continuously transport passengers every 15 minutes from Partnership II and the Orlando Tech Center to the University Health Services parking lot stop, with return shuttles approximately every 15 minutes. Furthermore, the University provides high-quality transit, bicycle, and pedestrian options for travel between residential areas and parking lots to other on-campus destinations. The University, in conjunction with LYNX continues to improve regional and campus transit service to, from, and within the University. The data collected shows the ridership throughout the academic school year, as well as the routes and locations of stops. Dormitories, visitor parking area, and campus parking lots are also connected to other campus destinations via a network of pedestrian walkways and bicycle paths as illustrated in Figure 2.11-10. Additionally, the University provides bicycle racks adjacent to classroom buildings and prohibits all non-service vehicles within the 1,200 ft Radius Sidewalk. The University has also adjusted class scheduling to mitigate peak-hour traffic conditions and maximize utilization of existing transportation infrastructure.

In a way to facilitate and increase UCF Shuttle ridership, shuttle buses are easily tracked through a website that offers a GPS locator for all of the busses. The website provides the estimated arrival/departure time, bus stop location, vehicle number, and direction of each bus to guarantee the process of transporting students in a timely manner. That service is provided by Unified Dispatch on this link: http://udishadow.veoliavision.com/UCF/.

The University actively promotes Transportation Demand Management (TDM) techniques both on-campus and in the context area. The University has implemented, where appropriate, TDM strategies, including, but not be limited to:

- flex scheduling for University staff;
- improved utilization of public or University-provided transit services;
- improved pedestrian and non-vehicular facilities;
- increased number of students living on or within walking/biking distance of campus;
- academic scheduling modifications; and
- traffic operational improvements to the on-campus roadway system, such as additional signalization and implementation of the SCOOT system.

The University also plans to study the effectiveness of distance learning (cable or internet classes) as a technique to reduce the need for students to travel to the University. The University has also opened a satellite campus, the Rosen School of Hospitality Management, which significantly reduces the commute from the tourist-related areas of the community to the campus.

G. *Intercollegiate Athletic Complex*

The Intercollegiate Athletic Complex is a mixed-use development located on the northern end of the campus. The Intercollegiate Athletic Complex was a major investment in on-campus athletic facilities to improve the quality of UCF's athletic programs and includes a 45,000 seat stadium which hosts UCF football games six to seven times a year. Although the football stadium is a special trip generator which does not occur in peak hour conditions, the impacts of the Intercollegiate Athletic Complex have been incorporated in the previous sections of this element,

Also in the north area, the convocation center includes three parking garages, 2,006 student residential units, and various retail and commercial spaces that generate traffic on a daily basis.

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 techniques include guide signing programs, post-game activities to decrease traffic peaks, and the reversal of travel lanes, which doubles the capacity of a roadway by restricting traffic flow in all lanes to one direction.

In addition to the special generation produced by the football games, the UCF Arena also hosts over 200 on campus events per year. Major events that occur on-campus and require coordination of guest parking include, but are not limited to commencements, basketball and football games, and concerts. UCF garages and surface parking lots were successful in accommodating the guests of all the events with efficiency.

3.0 FUTURE CONDITIONS

H. *Future Socioeconomic Conditions*

The main campus of the University of Central Florida has been growing at a rapid pace over the last ten years and the enrollment numbers are anticipated to continue growing for the near and mid-term planning horizons, although actual growth has slowed due to enrollment caps and decreasing growth trends in Florida high school graduates. Based on current projections, the student population on the main UCF Campus is projected to approach 56,061 full time students on the Main Orlando Campus by 2025. Table 2.11-1 (shown below) illustrates the current growth projections for the main campus.

Table 2.11-1 UCF Projected Attendance for the Main Orlando Campus

Year	Orlando Campus Annual FTE*	Orlando Campus Fall Headcount**
2014-15	22,946	49,923
2015-16	22,890	50,714
2016-17	23,128	52,026
2017-18	23,484	53,295
2018-19	23,661	54,288
2019-20	23,661	54,155
2020-21	23,646	54,163
2021-22	23,833	54,577
2022-23	24,038	54,917
2023-24	24,237	55,241
2024-25	24,591	56,061

Source: UCF FTE Enrollment Program

I. *Committed Transportation Improvements*

Future Roadway Improvements

Based on the Metroplan Orlando Transportation Improvement Program (YR 2013/2014 – 2017/2018) and the Seminole County Public Works Department, there are no programmed improvements for the external facilities located in the context area.

The University has also been proactive in constructing on-campus roadway improvements as they have become needed. The Libra road widening is due to begin construction in Spring 2015. In Phase 1, an eastbound right turn will be constructed at the intersection of Gemini Blvd. and Libra Rd. and Libra Dr. will be widened to 4-lanes from Gemini Blvd. to the Libra Garage. Libra Dr. between Gemini Blvd. South and Discovery Dr. is part of a known cut-through route and has significant right-of-way constraints due

to existing facilities specifically at the southern end of Libra Dr. approaching the intersection at Discovery Dr. and conservation land on the east side of the road. These issues will be addressed in Phase II of the Libra Dr. widening project.

Future Parking Facilities

Most recently the University has constructed Garage I, Libra Garage and several new surface parking lots. In an effort of seeking to accommodate the growth of the campus as well as making the most efficient use of the University's property, UCF is also planning to construct two (2) additional parking facilities, Garage VII will be located along Central Florida Blvd. near the Visitor's Center and Global UCF Garage will be located on the North East quadrant of the campus.

Figure 2.11-11 Existing and Planned Parking Structures illustrates the existing and planned parking structures on the UCF Campus.

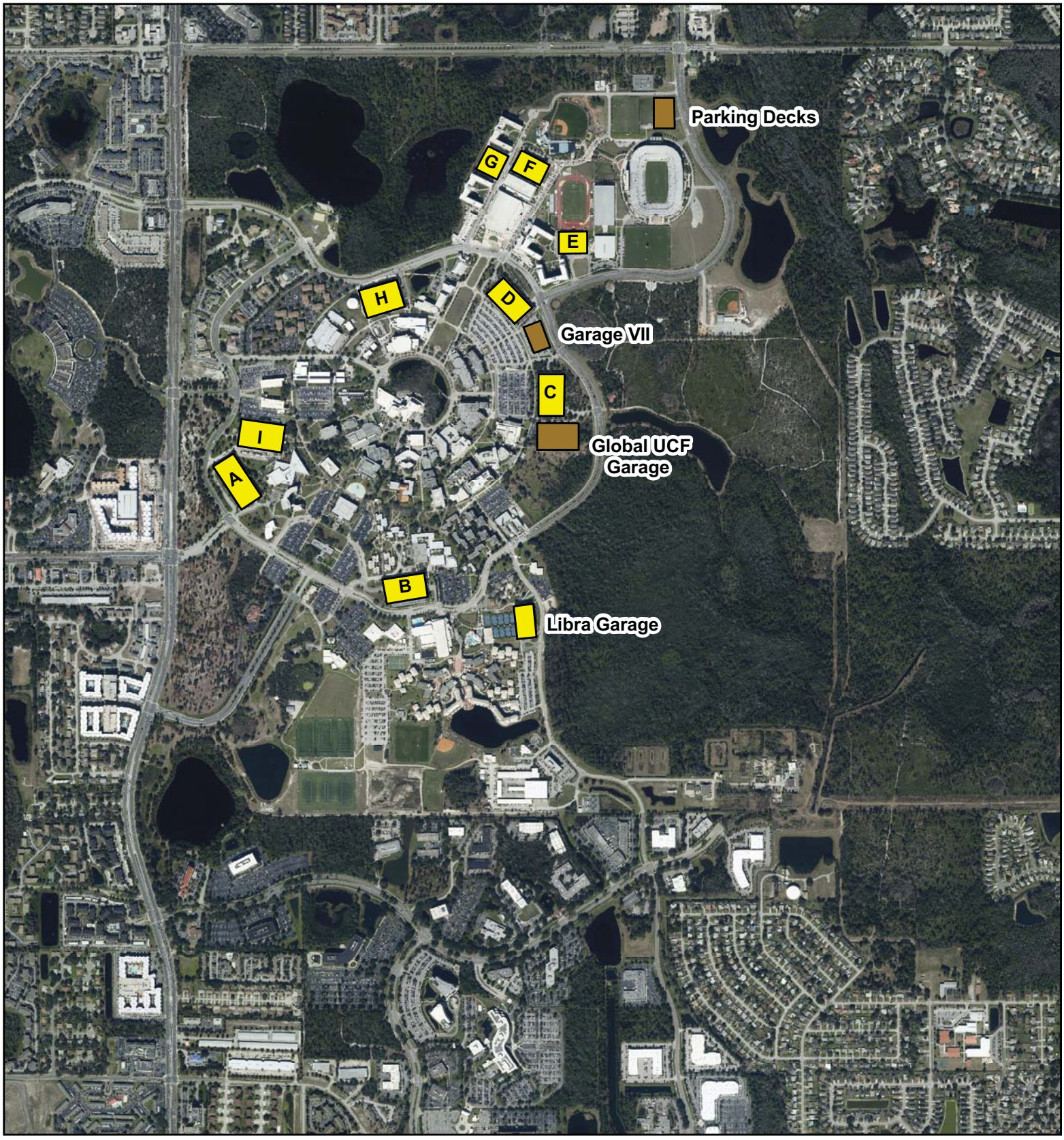

Figure 2.11-11

Existing and Planned Parking Structures

Comprehensive Master Plan Update
University of Central Florida
Orlando, Florida
2015-2025

Legend

- Existing Garage
- Planned Garage

N

All maps are diagrammatic and conceptual. The various areas shown are approximate and not to survey accuracy. The intent of these maps is to illustrate general areas of existing or potential use.

0 1,290 2,580 5,160 Feet

Rev. 20140512

J. *Horizon YR 2020 Roadway Conditions*

YR 2025 Offsite Roadway Analysis

Pursuant to Florida Statutes (FS) 1013.30(3) an analysis of the projected impacts of development on offsite infrastructure was conducted for horizon YR 2025. Similar to the existing roadway analysis, the YR 2025 Roadway Analysis was conducted for all offsite roadways within the context area. Growth rates were derived based on a comparison of historical traffic counts obtained from either the Orange County or Seminole County Annual Count Programs and growth rates obtained from the Orlando Urban Area Transportation Study (OUATS) model. Growth rates were then applied to the existing traffic counts to project future traffic volumes.

As shown in the Table 2.11-9, several roadways are projected to operate under adverse conditions based on the maximum service volumes provided in the 2012 FDOT Quality/Level of Service Handbook. It should be noted that these roadways will operate adversely with or without the anticipated trips generated by the campus student population growth; hence these roadways should be indentified as pre-existing deficiencies. As the University and the surrounding area continue to grow, the appropriate measures should be taken to ensure that the roadway facilities are concurrent with the traffic demands. The surrounding jurisdictions will monitor these roadways through the concurrency management systems, and if deemed necessary, conduct more detailed roadway analyses utilizing FDOT ARTPLAN software which provides a roadway specific maximum service volume.

Table 2.11-9 Horizon YR 2025 Offsite Roadway Conditions

Road Name	From	To	Roadway Characteristics						YR 2025 Background Traffic				UCF Trips Generated by Enrollment Growth			YR 2025 Total Trips				YR 2025 Traffic Conditions Comparison		
			No. of Lanes	Adopted LOS	Adopted Pk Hr. LOS Capacity	K100	D	Growth Rate	Daily	PM Peak	V/C	Pre-Existing Deficiency (Yes/No)	YR 2025 Distribution (%)	Daily Project Trips	PM Peak Project Trips	Daily	PM Peak	V/C	Deficiency (Yes/No)	YR 2025 Background V/C	YR 2025 Total V/C	Additional Deficiency Created (Yes/No)
Alafaya Trail (SR 434)	Colonial Drive (SR 50)	Science Drive	6LD	E	3,020	0.072	0.56	1.00%	68,247	2,732	0.90	No	21.07%	669	27	68,916	2,759	0.91	No	0.90	0.91	No
	Science Drive	University Boulevard	6LD	E	3,020	0.072	0.56	1.00%	68,247	2,732	0.90	No	24.12%	766	31	69,013	2,763	0.91	No	0.90	0.91	No
	University Boulevard	McCulloch Road	6LD	E	3,020	0.086	0.68	1.00%	53,504	3,129	1.04	Yes	80.50%	2557	150	56,061	3,278	1.09	Yes	1.04	1.09	No
	McCulloch Road	Chapman Road	6LD	E	3,020	0.090	0.53	1.00%	42,940	2,041	0.68	No	13.42%	426	20	43,366	2,061	0.68	No	0.68	0.68	No
Central Florida Boulevard	Alafaya Trail (SR 434)	Gemini Boulevard	4LD	E	1,530	0.085	0.51	1.00%	12,354	528	0.35	No	18.15%	577	25	12,931	553	0.36	No	0.35	0.36	No
Centaurus Drive	Alafaya Trail (SR 434)	Gemini Boulevard	4LD	E	1,530	0.098	0.81	1.00%	7,184	568	0.37	No	0.53%	17	1	7,201	570	0.37	No	0.37	0.37	No
Chapman Road	Aloma Avenue	Alafaya Trail (434)	4LD	E	2,000	0.112	0.58	1.00%	19,389	1,253	0.63	No	3.07%	98	6	19,487	1,259	0.63	No	0.63	0.63	No
Colonial Drive (SR 50)	Rouse Road	Alafaya Trail (434)	4LD	E	2,000	0.065	0.53	1.00%	52,476	1,801	0.90	No	5.56%	177	6	52,653	1,807	0.90	No	0.90	0.90	No
Discovery Drive/ Libra Drive	Research Parkway	Gemini Boulevard	2L	E	720	0.100	0.56	1.00%	15,597	868	1.21	Yes	13.44%	427	24	16,024	892	1.24	Yes	1.21	1.24	No
Gemini Boulevard	Central Florida Boulevard	University Boulevard	4LD	E	1,530	0.093	0.55	1.00%	18,668	957	0.63	No	18.26%	580	30	19,248	986	0.64	No	0.63	0.64	No
	University Boulevard	Centaurus Drive	4LD	E	1,530	0.098	0.68	1.00%	14,228	949	0.62	No	20.00%	635	42	14,863	992	0.65	No	0.62	0.65	No
	Alafaya Trail (SR 434)	Greek Park Drive	4LD	E	1,530	0.083	0.58	1.00%	16,237	786	0.51	No	14.12%	449	22	16,686	808	0.53	No	0.51	0.53	No
	Greek Park Drive	N. Orion Boulevard	4LD	E	1,530	0.094	0.50	1.00%	16,673	790	0.52	No	23.90%	759	36	17,432	826	0.54	No	0.52	0.54	No
	N. Orion Boulevard	Libra Drive	4LD	E	1,530	0.097	0.72	1.00%	18,134	1,266	0.83	No	20.74%	659	46	18,793	1,312	0.86	No	0.83	0.86	No
Gemini Boulevard East	Libra Dr.	Scorpius St. (Star St.)	4LD	E	1,530	0.097	0.59	1.00%	23,806	1,350	0.88	No	0.29%	9	1	23,815	1,351	0.88	No	0.88	0.88	No
Gemini Boulevard South	Andromeda Dr.	Hercules Dr.	4LD	E	1,530	0.090	0.52	1.00%	17,758	829	0.54	No	0.29%	9	0	17,767	829	0.54	No	0.54	0.54	No
Greek Park Drive	Centaurus Drive	Gemini Boulevard North	4LD	E	1,530	0.107	0.68	1.00%	10,033	729	0.48	No	9.77%	310	23	10,343	751	0.49	No	0.48	0.49	No
Lake Pickett Road	Colonial Drive (SR 50)	Percival Road	2L	E	880	0.082	0.75	1.00%	15,334	941	1.07	Yes	0.01%	0	0	15,334	941	1.07	Yes	1.07	1.07	No
	Percival Road	S. Tanner Road	2L	E	880	0.137	0.87	1.00%	10,419	1,238	1.41	Yes	0.16%	5	1	10,424	1,238	1.41	Yes	1.41	1.41	No
Lokanotosa Trail	Rouse Road	Alafaya Trail (434)	2L	E	800	0.111	0.63	1.00%	9,242	641	0.80	No	2.38%	76	5	9,318	646	0.81	No	0.80	0.81	No
Lockwood Boulevard	McCulloch Road	Oviedo City Limits	4LD	E	1,700	0.101	0.73	1.00%	17,889	1,324	0.78	No	7.17%	228	17	18,117	1,341	0.79	No	0.78	0.79	No
McCulloch Road	Alafaya Trail (SR 434)	Lockwood Boulevard	4LD	E	2,000	0.082	0.63	1.00%	30,148	1,557	0.78	No	5.53%	176	9	30,324	1,567	0.78	No	0.78	0.78	No
	Lockwood Boulevard	Old Lockwood Rd.	2L	E	880	0.084	0.66	1.00%	22,810	1,255	1.43	Yes	6.81%	216	12	23,026	1,267	1.44	Yes	1.43	1.44	No
N. Orion Boulevard	McCulloch Road	Gemini Boulevard	4LD	E	1,530	0.108	0.73	1.00%	14,612	1,145	0.75	No	15.22%	484	38	15,096	1,182	0.77	No	0.75	0.77	No
Percival Road	Tanner Road	Lake Pickett Road	2L	E	880	0.084	0.66	1.00%	7,102	392	0.45	No	0.21%	7	0	7,109	392	0.45	No	0.45	0.45	No
Rouse Road	Colonial Drive (SR 50)	Lokanotosa Trail	4LD	E	2,000	0.092	0.58	1.00%	22,254	1,196	0.60	No	5.65%	180	10	22,434	1,205	0.60	No	0.60	0.60	No
	Lokanotosa Trail	University Boulevard	4LD	E	2,000	0.103	0.53	1.00%	21,365	1,173	0.59	No	7.30%	232	13	21,597	1,186	0.59	No	0.59	0.59	No
	University Boulevard	Seminole County Line	4LD	E	2,000	0.095	0.64	1.00%	10,709	647	0.32	No	0.11%	3	0	10,712	647	0.32	No	0.32	0.32	No
University Boulevard	Rouse Road	Alafaya Trail (434)	6LD	E	3,020	0.082	0.51	1.00%	58,019	2,403	0.80	No	24.63%	782	32	58,801	2,435	0.81	No	0.80	0.81	No
	Alafaya Trail (SR 434)	Gemini Boulevard	6LD	E	2,304	0.089	0.57	1.00%	22,618	1,139	0.49	No	26.93%	856	43	23,474	1,182	0.51	No	0.49	0.51	No
W. Plaza Dr.	Knights Victory Way	N. Orion Boulevard	2L	E	720	0.078	0.52	1.00%	4,139	168	0.23	No	19.36%	615	25	4,754	192	0.27	No	0.23	0.27	No

Note:
This table includes roadway segments included within the context area, as shown in Figure 2.11-1
LOS service volumes based on the 2012 FDOT Quality/Level of Service Manual, Seminole County CMS, Orange County CMS
UCF Trips Generated by enrollment growth reflects the planned increase in student enrollment and the trip rate of 0.45 as determined between 2009 and 201

Multimodal Mobility Plan

An alternative analysis was conducted to identify the various methods the University is planning to continuously reduce the trip rate per student accessing the campus. These modal capture considerations include UCF shuttle ridership, Lynx Bus ridership, pedestrian and bicycle trips, park and ride areas, vehicle sharing, and high occupancy vehicle proposed parking. The projections for these considerations are based on existing data collected by UCF and consistent with the Goals, Objections, and Policies of the University to incorporate and promote the use of future alternative modes of transportation.

As shown in Table 2.11-10 and as utilized in Table 2.11-9, over the past five years, the University through its multimodal opportunities and travel demand strategies has produced a trip rate of 0.45 trips per student. This rate represents a 75% reduction from the ITE average rate of 1.71 trips per student.

As shown in Table 2.11-11, utilizing this trip rate and based on the YR 2025 enrollment projections the traffic generated by the University will increase by 3,177 daily trips over this Master Plan planning period. In order to not further exacerbate the traffic conditions on the surrounding roadways, the University has proposed to monitor and implement as necessary a multimodal mobility plan that encourages alternative modes of travel.

Table 2.11-10 UCF Trip Rate per Student (YR 2009 to YR 2014)

	YR 2009	YR 2014	Net Increase	**Trips per Student**
Students	42,150	49,000	6,850	**0.45**
Vehicle Trips	80,476	83,551	3,075	

Table 2.11-11 UCF Daily Vehicle Trips based on Enrollment Growth

	YR 2014	YR 2025	Net Increase
Students	49,000	56,061	7,061
Trips per Student	0.45		
Vehicle Trips	**83,551**	**86,728**	**3,177**

Internal and Multimodal Capture Projections

The following initiatives and strategies have been planned by the University to aid the increase multimodal capture. As discussed below, the University does not currently monitor all multimodal modes; therefore, the information presented below will be validated through the process of monitoring, surveying and conducting traffic counts as necessary.

On Campus Housing
Currently, approximately14.5% of the student population resides on campus. As the University approaches its goal of providing on campus housing for 16.5% of the student enrollment, the internal capture for the University will also increase.

Shuttle Ridership
Currently, UCF has a fleet of nearly 30 shuttle busses that account for an average daily ridership of approximately 13,500 riders per day. Based on the existing enrollment, this can be equated to approximately 28% of students attending the campus and approximately 16% of the average daily vehicles. The University currently has a new planned transit route to the Plaza on University student housing units which will increase this mass transit opportunity. The University should continue to provide transit service to all new communities within a one-mile radius of the campus.

Lynx Ridership
The University, in conjunction with LYNX continues to improve regional and campus transit service to, from, and within the University. To provide enhanced service, Link 47 is replaced with a new route for Link 434. This route will service the area north of the campus and the City of Oviedo specifically. It should also be noted that Link 104 now connects SunRail via the LYNX Central Station. The impact of this connection will be determined over the progression of this Master Plan planning period. The University will monitor ridership and develop a methodology for determining the optimal routes to serve the campus through surveys of current patrons and origin and destination studies. It is estimated that LYNX ridership accounts for approximately 3.5% modal capture under existing conditions. It is recommended that the University, in coordination with LYNX, provide the appropriate transportation plan to monitor, maintain, or potentially increase the 3.5% capture rate.

Pedestrian/Bicycle Facilities

At the current time the University does not monitor or quantify the existing amount of multimodal trips captured by pedestrians and cyclist. However, there are various planned improvements which should increase the connectivity and availability of bike/ped facilities in and around the campus. The Little Econ Greenway (LEG) Extension project (also known as the Innovation Way Trail and East Orange Trail) will provide a potential boost to this mode of travel. The existing Phase I of the LEG trail extends 4 miles from Blanchard Park to Goldenrod Road and features riverside recreation, picnicking, wildlife and horse and canoe trails. There are available parking areas on Harrel Road and Econlockhatchee Trail, just north of Colonial Drive. There is also a paved trailhead on the north side of 50, just east of Goldenrod Road. The LEG will eventually extend 10 miles linking the University of Central Florida to the Cady Way Trail, then to the Cross Seminole Trail system, through the City of Oviedo and back to Blanchard Park. While plans have not been completed, it is anticipated that the LEG extension will enter the UCF campus just south of Central Florida Boulevard and will skirt the southern edge of the existing recreational fields before joining the Libra Drive corridor. The trail will then follow the Libra Drive corridor north until it intersects with North Orion Boulevard, where it will turn north to McCulloch Road and out of the UCF Campus. Figure 2.11-12 Pedestrian and Bicycle Network shows all of the significant existing and planned pedestrian and bicycle facilities on the UCF campus.

It should also be noted that the FDOT is in the process of conducting a corridor planning study on Alafaya Trail from SR 50 (East Colonial Dr.) to McCulloch Road. The objective of this study is to evaluate several multimodal improvements that will transform Alafaya Trail into a walkable urban thoroughfare utilizing a context-sensitive approach. The study aims to increase intersection safety, improve transit access, improve crossing opportunities, and create safe and continuous bicycle and pedestrian facilities.

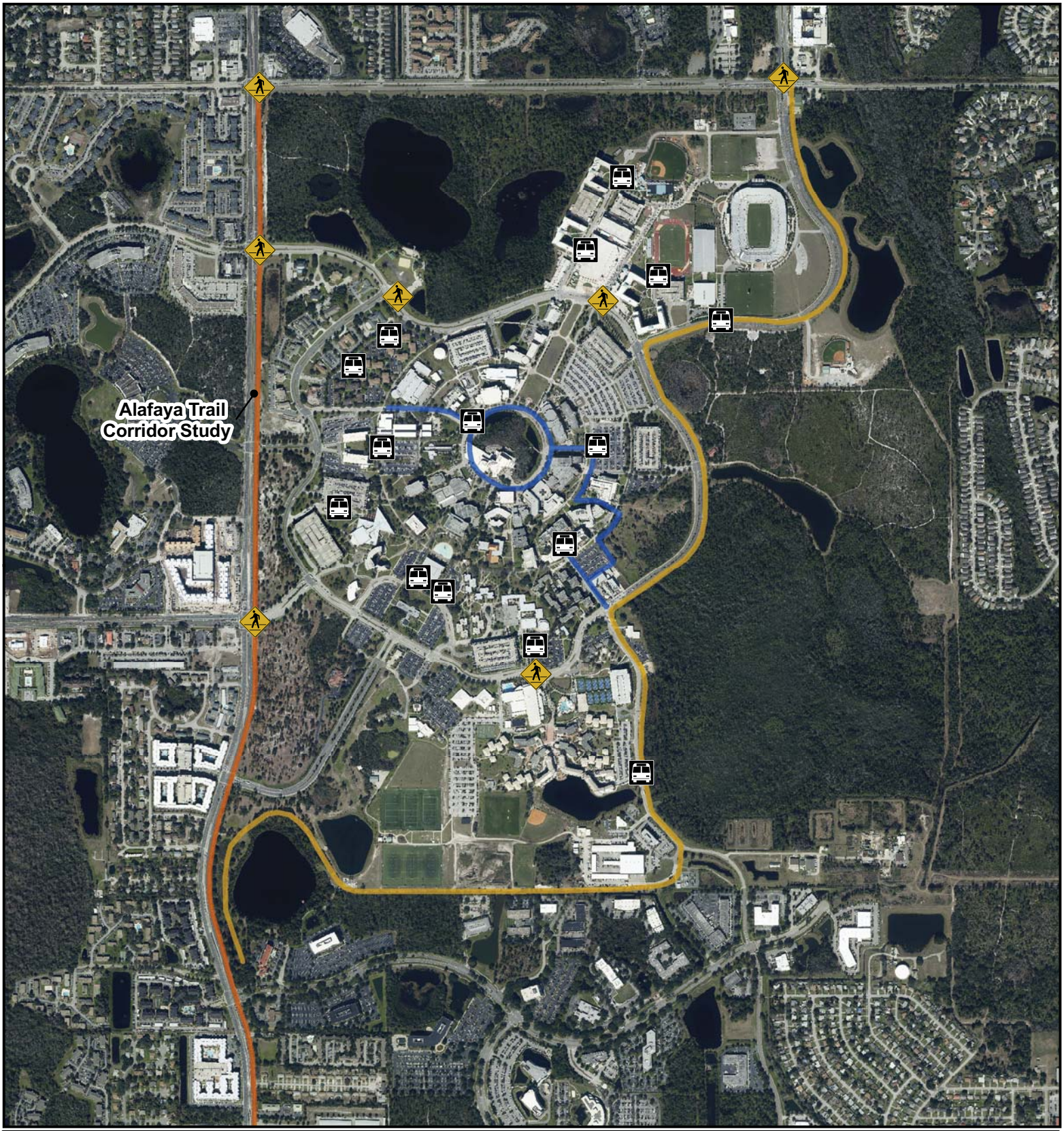

Figure 2.11-12

Pedestrian and Bicycle Network

Comprehensive Master Plan Update
University of Central Florida
Orlando, Florida
2015-2025

Legend

- Major Crossing Movements
- Proposed Little Econ Trail
- Pedestrian Activity Corridor
- Alafaya Trail Corridor Study
- Shuttle Stops

N

All maps are diagrammatic and conceptual. The various areas shown are approximate and not to survey accuracy. The intent of these maps is to illustrate general areas of existing or potential use.

Rev. 20140507

0 1,290 2,580 5,160 Feet

Park and Ride
As discussed in Section 2.0 of the Transportation Element, the University has implemented a park and ride area in Research Park for faculty, staff, and students to park their car and ride on the Black and Gold shuttle lines into the main campus.

Vehicle Sharing
There are currently two commuting and vehicle sharing alternatives utilized by the University. Zimride and Zipcar allow faculty, staff, and students with an alternate and convenient way to meet their transportation needs.

Zipcar is a membership-based car sharing company providing automobile reservations to its members billable by the hour, or day. Based on existing studies, it is estimated that every Zipcar reserved keeps fifteen (15) vehicles off the road. There are six (6) Zipcars available to use on a daily basis. These vehicles are strategically located in parking lot H4 and B9. In the last two years, three hundred (300) new members joined the Zipcar system.

Zimride, is a complimentary program which offers travelers the flexibility to share rides to various destinations while using social networking. For every ninety (90) days, about 140 new users join the Zimride community, which results in a significant decrease in the daily trips to and from the campus.

The University will continue to utilize these services to reduce the trips entering and exiting the campus on a daily basis.

Multimodal Mobility Plan

The University will play an integral role in ensuring that various modes of travel exist for the purposes of reducing the number of single occupant vehicles entering the campus, which in turn will reduce the number of vehicles utilizing the capacity of the surrounding offsite roadway network. The University will validate the assumptions made in this report and exemplify the results through the process of monitoring, surveying and conducting traffic counts as necessary. The University will also continue to coordinate with local jurisdictions and transportation authorities, while providing expansion of on campus and vicinity housing, and providing improved facilities to encourage multimodal travel (shuttle fleet, travel demand strategies, bike lanes, bike racks on campus, pedestrian networks).