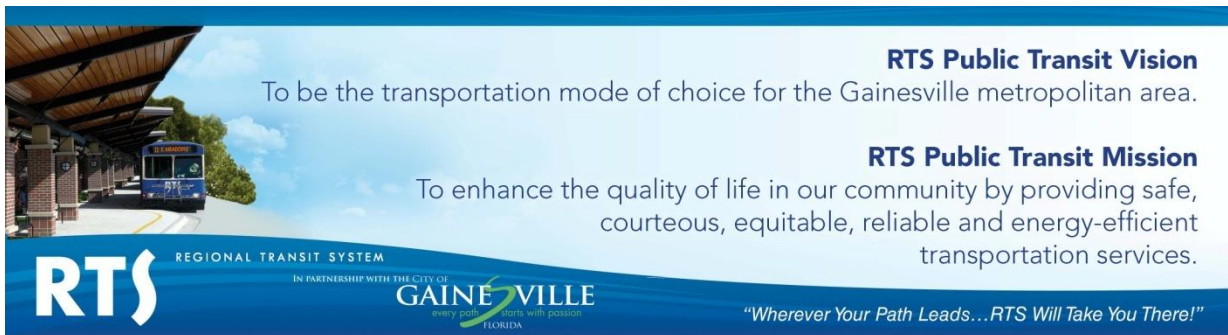


# RTS Rapid Transit System Plan

## Developing Premium Transit Services to Enhance Livability

May 2010



The banner features a photograph of a blue and white RTS bus at a station platform on the left. The background is a light blue sky with clouds. The text is arranged in a clean, professional layout with bold headings and clear, legible fonts.

**RTS Public Transit Vision**  
To be the transportation mode of choice for the Gainesville metropolitan area.

**RTS Public Transit Mission**  
To enhance the quality of life in our community by providing safe, courteous, equitable, reliable and energy-efficient transportation services.

**RTS** REGIONAL TRANSIT SYSTEM  
IN PARTNERSHIP WITH THE CITY OF **GAINESVILLE**  
every path starts with passion  
FLORIDA

*"Wherever Your Path Leads...RTS Will Take You There!"*

# Table of Contents

- 1. Introduction and Purpose..... 3
- 2. Premium Service Overview ..... 4
  - 2.1. Types of Transit Services and Vehicles ..... 4
    - 2.1.1. Local Bus Service ..... 4
    - 2.1.2. Limited-Stop Service ..... 5
    - 2.1.3. Express Bus Service ..... 6
    - 2.1.4. Bus Rapid Transit ..... 7
    - 2.1.5. Streetcar ..... 11
  - 2.2. Passenger Facilities ..... 13
  - 2.3. Bus Maintenance and Support Facilities..... 18
- 3. RTS Background ..... 19
  - 3.1. Existing services ..... 19
  - 3.2. Proposed services ..... 19
- 4. Potential New Funding Sources ..... 20
  - 4.1. Local ..... 20
  - 4.2. State ..... 20
  - 4.3. Federal..... 20
- 5. Recommended Implementation Strategy ..... 21
- Appendix..... 25

# 1. INTRODUCTION

To most people, premium transit service typically means a high quality transit, either rail or bus, that reduces transit travel times, enhances regional connectivity, and provides improved vehicles and transit amenities to attract new customers. Quite often, premium transit services are proposed in conjunction with changes in land use policies that allow for higher densities and a mix of uses to support the development of premium transit services.

The idea of implementing premium transit services in Gainesville dates back to 1989 when the Florida Department of Transportation researched and reported on the feasibility of building a light rail system in Gainesville. Improving transit service received little community support beyond research from 1989 until around 1997 when the University of Florida (UF), Florida Department of Transportation (FDOT), the City of Gainesville-RTS and Alachua County partnered to enhance transit services around the University to eventually create the current UF unlimited prepaid transit access program. The success and benefits of that partnership are now well known and it's that same partnership that allows Gainesville and Alachua County the current opportunity to begin work on implementing premium transit services.

Today, increased federal support and attention are arguably two important reasons to plan for premium transit services and a multimodal approach to transportation, but there are several important factors framing the renewed interest in rapid transit. Some reasons include community interest in creating a more pedestrian oriented environment designed for alternative modes of travel with emphasis on sustainable practices that reduce green house gases and dependency on foreign oil. Another reason is other communities' recent success in developing multimodal strategies focused on transit-oriented development (TOD). Yet another reason is the emerging success of Bus Rapid Transit (BRT) projects in the United States and their ability to compete with more costly forms of premium transit service such as light rail. Many communities also recognize the growing potential of BRT to spur economic development.

This report focuses on introducing the concepts and components of premium transit services, including information on vehicle types, passenger facilities, maintenance/support facilities, and potential funding sources. This report attempts to describe the elements needed to successfully operate, maintain and expand transit service and facilities to ultimately create a premium transit system in Gainesville and Alachua County.

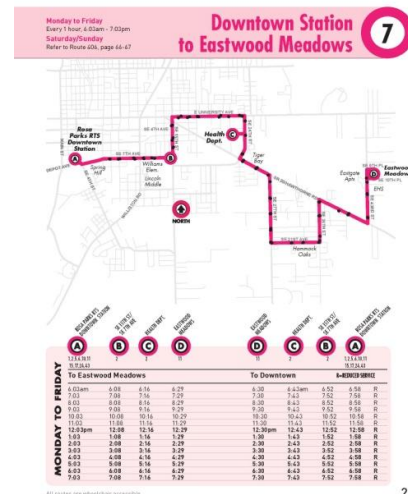
## 2. PREMIUM SERVICE OVERVIEW

### 2.1 TYPES OF TRANSIT SERVICES AND VEHICLES

#### 2.1.1. Local Bus Service

Local bus service involves frequent stops and consequent low average speeds, with the primary purpose to pick up transit passengers close to their destinations or origins.

- *Vehicle Type:* Standard 40 foot bus or Articulated Bus
- *Typical Frequency:* 10 to 60 minutes
- *Hours of Service:* Ranges from peak hour only to 22 hours per day
- *Average Operating Speed:* 10-12 mph
- *Stops per Mile:* 4 to 8 stops per mile depending on density and land uses
- *Support Resources:*
  - Typically 1 mechanic for every 3 standard buses in operation
  - Maintenance facility with drive through bays to accommodate articulated buses



21

Figure 1: Sample of local service 40' low-floor local bus and bus schedule

### 2.1.2. Limited-Stop Service

Limited-stop service is often operated in conjunction with a local service that does not serve every stop, providing a higher operating speed. It represents a middle ground between high-access, low speed local service and low-access, higher speed express service.

- **Vehicle Type:** 30, 35 or 40-foot bus; vehicle type depends on route
- **Typical Frequency:** 15 to 30 minutes
- **Hours of Service:** Typically during peak hours
- **Average Operating Speed:** 12-15 mph
- **Stops per Mile:** 3 to 4 stops per mile – skipping minor local bus stops
- **Support Resources:** Maintenance facility with pull through bays for articulated buses
- **Other Considerations:** Unique branding of buses, stops and schedules to distinguish service



**For more information**  
 Washington Metropolitan Area  
 Transit Authority (Metrolink)  
 202-637-7000  
 TTY 202-638-1700  
 www.MetroOpenDoor.com

**FARFAX CONNECTOR**  
 703-528-2200  
 TTY 703-528-3800  
 www.fairfaxconnectors.com

**Connector Stop Locations:**  
 • Springfield Park & Transit Station  
 • Washington Museum Park & Ride  
 • Northern Cross at Lincoln Park & Ride

**Guaranteed Ride Home**  
 1-800-745-8000  
 www.ConnectorConnectors.org

**Virginia Railway Express (VRE)**  
 1-800-800-1080  
 www.vre.org

**DMAX**  
 703-320-2274  
 www.dmax.com

**Univisitec**  
 703-320-2274  
 www.univisitec.org

**Richmond Highway Express**

Limited-stop Bus Service in the Richmond Highway Corridor

Introducing the new **S.M.A.R.T Bus**  
 Sun Metro Area Rapid Transit

**Featuring services such as**

- \* **11 minute travel time vs. 30 minute regular time**
- \* **Light Synchronization**  
 (Bus will electronically communicate with traffic lights for faster commute times)
- \* **Dedicated Bus Lane**
- \* **Mobile Wi-Fi**

**Limited stops for faster service**

The route will begin temporarily at International Bridge head located on the corner of Father Rahm St. and El Paso St. and proceed to make stops through Oregon St. on Franklin St. (Downtown area) Rio Grande Ave. (EPCC), Hague St. (Hospitals), University Ave. (UTEP) and Glory Road.

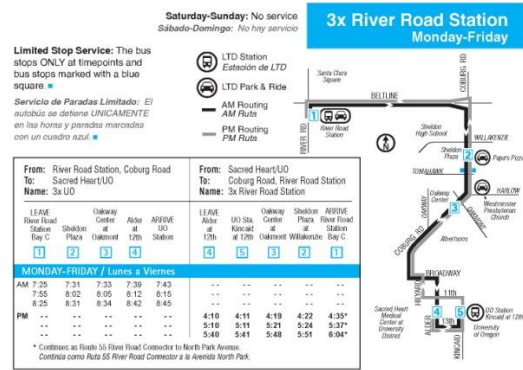
Service will be provided every 10 minutes during peak hours (6-9am, 3-6pm) and 15 min during off peak.

Figure 2: Sample of limited-stop service with branding

### 2.1.3. Express Bus Service

Express bus service has a limited number of stops and either connects a collector area directly to a specific destination or operates on a particular corridor with stops en route at major transfer points or activity centers. This type of service often connects major employment areas to park and ride lots.

- **Vehicle Type:** 40 or 60-foot buses and motorcoaches
- **Typical Frequency:** 15 to 30 minutes
- **Hours of Service:** Typically peak hours only
- **Average Operating Speed:** 15-25 mph
- **Stops per Mile:** 1 to 2 stops per mile



re 3: Samples of Express Service Vehicle with branding and schedule with designated stops - schedules shown from Eugene, OR [right] and Chapel Hill, NC [left]

#### 2.1.4. Bus Rapid Transit (BRT) Service

BRT is a flexible, rubber-tired rapid transit mode that combines stations, vehicles, services, running ways, alternative fare collection methods, and ITS elements into an integrated system with a strong positive image and identity.

- *Vehicle Type:* 40-foot bus or 60-foot Articulated bus (usually Hybrid)
- *Typical Frequency:* 5 to 10 minutes during peak hours and 12 to 15 minutes at other times
- *Hours of Service:* Minimum of 14 hours per day
- *Average Operating Speed:* 15-20 mph
- *Stops per Mile:* 1 to 2 stations per mile depending on density and land uses



**Figure 4: Samples of BRT running way types. TOP - mixed traffic running way; MIDDLE – at-grade median running way; BOTTOM – grade separated busway, Adelaide, Australia.**

**Components of BRT:**

**Running Ways** – are the central element in a BRT system around which other components revolve. BRT service can operate on running ways that range from mixed traffic to median running ways to grade-separated busways. A dedicated BRT corridor may consist of a number of segments, each with a different running way treatment. (Source: TCRP 90, Volume 2). A detailed running way selection process should be conducted during the Alternatives Analysis to determine the appropriate treatment for each segment of the locally preferred alternative BRT corridor.

**BRT Stations** – should be of high quality design with consistent themes of materials, form and color for stations and other BRT elements. Stations also need to be sized to serve the expected number of riders and should be configured to support the service plan and allow for easy transfers to intersecting transit routes. The height and length of BRT station platforms should match demand to make boarding faster and easier than simple bus stops. Median stations require vehicles with doors on both sides.



**Figure 5: Samples of BRT stations and vehicles.**  
**TOP** – height and length of station platforms improve boarding times, Eugene, OR; **MIDDLE** – 40' BRT-styled bus, Kansas, MO; **BOTTOM** – BRT vehicle at median station, Eugene, OR.

**Traffic Engineering for BRT** – is essential to ensure the proper development of bus running ways, station locations and the application of traffic controls. A good program of traffic controls will ensure safe vehicle and pedestrian crossings of bus lanes or busways and should minimize delays to BRT vehicles and general traffic.

**BRT Vehicles** – The overall design of the BRT vehicle affects service through cost, capacity, reliability, and speed. The mechanical systems of a vehicle have a significant and obvious impact on operating and maintenance costs as well as service reliability. The community’s perception of the service is crucial to the success, so community desire for unique identity is critical to success. Propulsion systems and alternative fuels also play an important role in community support and should be carefully examined during the vehicle selection process. The number and location of doors can influence dwell times at stations and therefore overall operating speeds. Other factors include interior layout to address capacity, wheelchair positions and whether or not bicycles are stored inside or outside the vehicle. Figures 6 provide some examples of different BRT vehicle options.



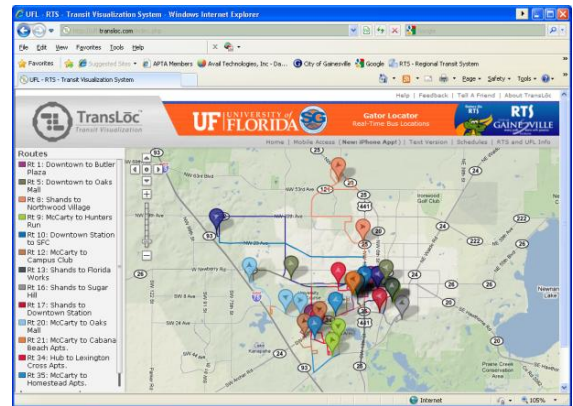
**Figure 6: Samples of BRT vehicles.**  
**TOP** – articulated BRT bus, Las Vegas, NV;  
**MIDDLE / BOTTOM** – articulated BRT buses at Rosa Parks Downtown Station, Gainesville, FL.

**Intelligent Transportation System (ITS) Elements – implementation of elements such as fare collection, automated vehicle location (AVL) and traffic management systems (TMS) are essential for efficient BRT operations.**

**Fare Collection** – is important to the overall success of a BRT service because it impacts operating efficiencies, service reliability and most importantly passenger convenience. Fares should be collected in advance of boarding the vehicle to minimize vehicle delay. If fares are collected before or while passengers enter the station, then passengers could board the vehicle through any door instead of using only the front door where the farebox is located. Without off-board fare collection, the transit operator, or another transit employee, must verify that every passenger has a valid pass or collect cash fare from the passenger. New fareboxes have several features that make fare collection faster and more convenient thereby justifying allowance of to pay fares while boarding. New features include a smart card reader (including rear doors), magnetic card reader and the ability to accept credit cards or issue passes and change cards. Off-board fare collection at stations is an alternative, but the cost must be factored into station construction and equipment maintenance must also be considered.

**AVL & TMS** - AVL is essentially the ability to track bus locations with a global positioning system (GPS). RTS began installing GPS equipment on its buses for bus tracking in June 2008. Today, over 60 buses can be tracked while in service. The entire fleet and all routes are expected to be online by the end of 2010. GPS is also the key to integrating BRT service with the City of Gainesville’s TMS. The plan is to provide signal priority to buses that are either full or behind schedule. Depending on traffic controls at intersections for BRT other features may also be possible. The integration of bus tracking into the TMS will begin once all TMS construction phases are complete.

**Bus Operations and Service** - BRT service should be fast, convenient and easy to understand. BRT routes should connect central business districts and other major employment centers to be successful at serving current and potential transit riders. Routes should typically not exceed 12 miles in length.



**Figure 7: Sample of ITS applications.**  
**TOP – GFI Odyssey validating farebox;**  
**MIDDLE – RTS bus tracking on the internet**  
**(<http://ufi.transloc.com/index.php>);**  
**BOTTOM – Ft. Collins, CO initial plan for BRT in FY12/13.**

### 2.1.5. Streetcar Service

An electrically powered rail car that is operated singly or in short trains in mixed traffic on track in city streets. In some areas, it is also referred to as a trolley car. Streetcar is a type of light rail that is typically used in areas to encourage redevelopment.

- *Vehicle Type:* Streetcar – one or two short trains
- *Typical Frequency:* 10 to 12 minutes
- *Average Operating Speed:* 7-10 mph
- *Hours of Service:* Minimum of 14 hours per day
- *Average Length:* Less than 5 miles
- *Stops per Mile:* 4 to 5 stops per mile
- *Comparable Cities:* Kenosha, WI (Vintage Trolley)
- *Other Cities:* Memphis, Portland, Tampa, San Francisco and Seattle
- *Special Considerations:* Single or double track running ways



**Figure 8: Sample streetcar applications.**  
**FROM TOP TO BOTTOM: Modern streetcar, Portland, OR;**  
**Streetcar, Kenosha, WI; Historic streetcar, Tampa, FL;**  
**Rubber-tired trolley replica, San Francisco, CA.**

**Table 1: SERVICE TYPE SUMMARY**

Service Type	Stops per Mile	Average Speed (mph)	Vehicle	Service Frequency (minutes)	Average Trip Time (minutes)	Support Density (dwelling units / acre)
Local Bus	4 to 8	10-12	30' to 60' Bus	10 to 60	20 to 40	6 or more
Limited-Stop Local Bus	3 to 4	12-15	35' or 40' Bus	10 to 30	15 to 30	6 or more
Express Bus	1 to 2	15-25	40' Bus	< 30	30 to 60	Park & Ride Lots (100 spaces or more)
BRT	1 to 2	20-25	40' or Articulated Bus	5-10 peak; 12-15 off-peak	10 to 30	10 or more
Streetcar	4 to 6	8-10	Electric Streetcar or Rubber Tired Trolley	10 to 15	10 to 20	15 or more

Note: Average trip time represents one-way travel time

**Table 2: VEHICLE TYPE SUMMARY**

Vehicle	Seating Capacity	Standing Capacity	Vehicle Cost	Annual Maintenance Cost	Fuel Economy (approximate)
30' Bus	28	20	\$385,000	\$10,000	4.1
35' Bus	32	22	\$395,000	\$10,000	4.4
40' Bus	40	25	\$400,000	\$10,000	4.2
40' BRT Styled Bus	40	25	\$425,000	\$15,000	4.2
40' Hybrid-Electric Bus	40	25	\$675,000	\$20,000	5.5
40-45' Motorcoach	50-55	-	\$1,100,000	\$20,000	-
60' Articulated Bus (Hybrid Electric)	65	35	\$900,000	\$20,000	-
Rubber-Tired Trolley	35	10	\$500,000	\$15,000	-
Streetcar	60		\$1,500,000	\$25,000	-

Note: Maintenance costs assumes new vehicles

## 2.2. TYPES OF PASSENGER FACILITIES

Transit stops, stations, centers and terminals are integral features that serve as points where transit passengers begin, end or continue their transit trips. In some cases, transit stations or centers serve as a focal point of a neighborhood, district or community and therefore function as civic spaces. The type of passenger facility is usually determined by the density and intensity of surrounding land uses but may also be determined by converging bus services.

### 2.2.1. Bus Stop

Bus stops are the most common of all the RTS passenger facilities. They are frequently served by one or a small number of routes; however, in some areas multiple routes may serve this facility type. Depending on passenger volumes, bus stops may include infrastructure such as benches, shelters and bicycle storage racks and informational signage. All bus stops should have landing pads that meet ADA requirements. The types of stops and associated infrastructure needs are detailed in the *RTS Bus Stop Improvement Plan*.



*Figure 9: RTS bus stop on Archer Road.*

### 2.2.2. Transit Station

Transit stations are served by multiple routes and typically have higher passenger volumes than bus stops. The higher passenger activity levels call for infrastructure such as large shelters with large paved waiting areas, bus pullouts, bicycle racks, informational signage and in some cases park-and-ride lots. The best examples of transit stations, within the RTS service area, occur on the University Florida campus at Rawlings Hall and the Reitz Union.



**Figure 10: Sample of transit stations in Gainesville. TOP – UF Rawlings Hall transit station; BOTTOM – UF Reitz Union transit station.**

### 2.2.3. Multimodal Transit Center

A transit center is a facility where multiple routes converge to allow transfers between routes. These facilities normally include information services, ticket vending sales and concessions. Larger transit centers may also include park-and-ride lots and facilities for other modes of transportation. RTS currently has one transit center, The Rosa Parks RTS Downtown Center, located in downtown Gainesville at 700 SE 3<sup>rd</sup> Street. The transit stations located at the Oaks Mall and Butler Plaza function as transit centers but lack the necessary infrastructure. As service continues to expand, transit centers will be implemented at both locations. A transit station was approved as one of the requirements associated with the Butler Plaza expansion. The following figures show current conditions and concepts for future transit centers.



**Figure 11: Sample of local multimodal transit centers. TOP – Rosa Parks RTS Downtown Transit Center; MIDDLE – Transit station at the Oaks Mall; BOTTOM – Transit station at Butler Plaza.**

Transit Centers are designed for transfers between modes and typically experience the highest passenger volumes of the three categories of transit stops. Transit Center will have all of the passenger infrastructure listed for the other transit stop categories and may also be integrated with retail shopping, services and entertainment. A multimodal transit center could potentially connect bicycles, taxis, local buses, intercity express buses, BRT, and streetcar. RTS believes the need for a regional multimodal transit center should be discussed during the current update of the Long Range Transportation Plan (LRTP).



**Figure 12: Sample of multimodal transit centers. TOP / MIDDLE – Downtown Multimodal Transit Center, Athens, GA; BOTTOM – Concepts of multimodal transit centers – proposal for Butler Plaza [left], at Archer Rd with BRT lanes [right].**



### 2.3. BUS MAINTENANCE AND SUPPORT FACILITIES

Every reliable public transportation system must have support to maintain continuity of service. RTS has excelled at maintaining an aging bus fleet despite rapid growth in the transit service and significant space constraints at the RTS facility. The existing RTS maintenance facility was built in 1980 and expanded to its current size in 1996 when three maintenance bays were added on the east end of the building. The 1996 expansion occurred prior to the partnership formed between RTS and University of Florida (UF) for unlimited prepaid transit access to all students. In 2003 RTS reached maximum capacity in its current facility when annual passenger ridership passed eight million. Since then, RTS has managed to add some services in an attempt to keep up with demand by obtaining healthy “retired” buses from other agencies usually at no cost except maintenance. Today, service expansion is not possible without expanding the bus maintenance facility due to federal regulations and funding restrictions.

RTS is working to fund and build a new maintenance facility that supports expansion of the fleet. Programming for the facility is based on the current Transit Development Plan and the 2025 Long Range Transportation Plan, which called for over 200 buses in the fleet at plan horizon. Given space constraints and overcrowding at the current facility certain activities are forced to overlap resulting in significant level of service reductions. For instance, access to maintenance bays is restricted during refueling and washing of buses (see Figure 14). The new maintenance facility, which will also accommodate articulated buses, will correct such operational deficiencies.



**Figure 14: TOP / MIDDLE – Access to maintenance bays is restricted when buses are being refueled and washed at the current maintenance facility; BOTTOM – Concept for new RTS maintenance facility will improve operations.**

### 3. RTS BACKGROUND

#### 3.1. Existing Services

The City of Gainesville Regional Transit System (RTS) consists of fixed route bus lines and contracted complementary paratransit services connecting the City of Gainesville, the University of Florida (UF) campus, and a portion of the unincorporated area in Alachua County. During weekdays, RTS operates 25 fixed-routes throughout the City of Gainesville and 9 routes on the UF main campus. The RTS service area covers 75-square miles and 75% of the current passengers attend or work and the University of Florida. Table 3 provides further details about RTS routes and service. RTS staff consists of 237 employees—184 operators, 41 maintenance workers, and 12 general administration staff. RTS operates all of its fixed route services out of one 12-acre facility that is located just southeast of downtown Gainesville. The entire City-owned fleet consists of a total of 105 vehicles. During peak service, RTS operates a fleet of 88 diesel buses—22 of which are bio-diesel-fueled vehicles.

**Table 3: RTS Routes and Service Description**

Service Period	Number of Routes	Hours of Service	Total Service Hours Per Day	Average Passenger Trips Per Day	Passengers Per Service Hour
Weekday (City)	25	21	878	35,813	40
Weekday (Campus)	9	19	210	9,896	47
Saturday	13	19	209	3,408	16
Sunday	10	8	77	1,430	19
Late Night (Thurs – Sat)	3	7	55	877	16

#### 3.2. Proposed Services

As shown in Table 4, the RTS Ten-Year Transit Development Plan (TDP) proposes the implementation of 17 new routes (including 2 BRT and 3 express), 11 enhancements to existing routes, and nearly 200,000 new service hours. Enhancements to existing routes will improve system-wide frequencies by 25 percent. If all proposed TDP routes are implemented, service hours would increase by 33 percent.

**Table 4: RTS Future Service Enhancements**

Enhancements Identified in the RTS 2010-2019 TDP				
	New Buses	New Service Hours	New Routes	Route Enhancements
<b>Total</b>	57	196,808	17	11
<b>Average Per Year</b>	6	21,667	2	1

## **4. POTENTIAL TRANSIT NEW FUNDING SOURCES**

### **4.1 Local Funding Sources**

#### **Alachua County One Half Percent Discretionary Sales Surtax**

In January 1, 2009 an additional Alachua County one half percent discretionary sales surtax (Alachua County Wild Spaces/Public Places Surtax) was implemented. This surtax applies to the sale or use of taxable merchandise or taxable services delivered into Alachua County and is applied in addition to the State's six percent sales tax and in addition to the current Alachua County one quarter percent surtax (Choices Surtax). The combined sales tax rate for the county is 6.75 percent (6.25 percent county rate + .50 percent surtax). This surtax is planned to expire on December 31, 2010. A continuation of this surtax after January 1, 2011 can be dedicated for transportation system improvements including transit. An implementation of fifteen-year surtax can generate up to \$262.5 million.

#### **Charter County Transportation System Surtax**

According to section 212.055, F.S., Alachua County, being a charter county, may levy a discretionary sales tax at a rate up to 1 percent. A levy at the maximum rate of 1% would generate an estimated \$37,833,390 annually in Alachua County for transportation system improvements.

#### **Other Potential Local Funding Sources:**

- Mobility Plan Impact Fees
- Private Partnerships
- Ad Valorem
- Additional Gas Tax

### **4.2. State of Florida Funding Sources**

#### **Florida Department of Transportation Service Development Grants –**

The Florida Department of Transportation (FDOT) has a long history of supporting the development of new transit services at RTS. FDOT funding support helped begin the UF prepaid unlimited access program and funding support continues today with more recent assistance to begin Sunday service and the new route 22. The current maximum amount of FDOT assistance available to Gainesville-RTS is \$400,000 annually. Eligibility for these funds is contingent on the provision of a fifty percent local match. Over the past decade, the University of Florida has matched the FDOT contributions to create new transit services. These funds are generally available for one year with a one year extension upon request.

### **4.3. Federal Funding Sources**

- New Starts and Small Starts Programs
- Economic Stimulus Funds including ARRA
- Discretionary Grant Programs such as TIGER and TIGGER
- Public Transportation Pilot Program Grants
- FTA Section 5303 Metropolitan Planning

## 5. RECOMMENDED IMPLEMENTATION PRIORITIES AND SERVICE COSTS

1. Enhance Existing Local Services
2. New Local Service
3. Add Express Service
4. Implement locally preferred BRT Service
5. Explore Streetcar Feasibility by testing Trolley Bus

**Table 5: Enhance Existing Local Routes  
Weekdays**

Route	Description	Frequency Current / Future	New Hours	# of New Buses	Hrs/Year	Added Operating Cost	Comments
2	Downtown to Health Dept.	60 / 20	8.5	2	4,284	\$255,755	Peak hour, 20 minute frequency
6	Downtown to Gainesville Mall	60 / 20	8.5	2	4,284	\$255,755	Peak hour, 20 minute frequency
7	Downtown to Eastwood Meadows	60 / 20	8.5	2	4,284	\$255,755	Peak hour, 20 minute frequency
10	Downtown to SFC	80 / 20	8.5	3	6,426	\$383,632	Peak hour, 20 minute frequency
11	Downtown to Eastwood Meadows	60 / 20	8.5	2	4,284	\$255,755	Peak hour, 20 minute frequency
24	Downtown to Job Corps	60 / 20	8.5	2	4,284	\$255,755	Peak hour, 20 minute frequency
43	Downtown to SFC	60 / 20	8.5	4	8,568	\$511,510	Peak hour, 20 minute frequency
75	Butler Plaza to Oaks Mall	35 / 20	8.5	3	6,426	\$383,632	Peak hour, 20 minute frequency
All Routes Above	Extend routes 2 to 75 from 8pm to Midnight	0 / 60	48	0	12,096	\$722,131	Late evening service
			<b>Total</b>	<b>20</b>	<b>54,936</b>	<b>\$3,279,680</b>	

Note: Cost based on 252 weekdays per year and an operating rate of \$59.70 per hour

### Weekends

Route	Description	Frequency Current / Future	New Hours	# of New Buses	Hrs/Year	Added Operating Cost	Comments
Saturday	Increase Hours of Service	60	30	0	1,560	\$93,132	30 hours per day
Saturday	All Saturday Routes extend to 8PM	60	2	0	1,456	\$86,923	Same Frequency
Sunday	All Sunday Routes begin at 9AM, end at 7pm	60	2	0	1,248	\$74,506	Same Frequency
			<b>Total</b>	<b>-</b>	<b>4,264</b>	<b>\$254,561</b>	

Note: Cost based on 52 Saturdays and 52 Sundays per year, and an operating rate of \$59.70 per hour

**Table 6: Implement New Local Routes**

Route	Description	Frequency	Hours	# of Buses	Hrs/Year	Operating Cost	Comments
23	SFC to Oaks Mall	25	25.5	2	6,426	\$481,950	1 bus 7a-12p, 2 bus peak hr.
25	Airport to UF	30	17	2	4,284	\$321,300	2 buses peak hr.
26	Town of Tioga to Oaks Mall	25	17	2	4,284	\$321,300	2 buses peak hr.
37	UF to Northwood	30	17	2	4,284	\$321,300	2 buses peak hr.
39	Springhill to Airport	30	17	2	4,284	\$321,300	2 buses peak hr.
44	Hunters Crossing to UF	30	17	2	4,284	\$321,300	2 buses peak hr.
45	Magnolia Park to UF	30	17	2	4,284	\$321,300	2 buses peak hr.
46	Downtown/UF Circulator	20	17	2	4,284	\$321,300	2 buses peak hr.
47	Turkey Creek to Oaks Mall	30	17	2	4,284	\$321,300	2 buses peak hr.
62	Oaks Mall to Butler Plaza	25	25.5	2	6,426	481,950	1 bus 7a-12p, 2 bus peak hr.
88	Oaks Mall to Wal-Mart	30	17	2	4,284	\$321,300	2 buses peak hr.
91	Haile Plantation to SFC	30	17	2	4,284	\$321,300	2 buses peak hr.
			Total	24	55,692	\$4,176,900	

Note: Cost based on 252 days per year and an operating rate of \$75/hr

**Table 7: Implement Express Routes**

Route	Description	Frequency	Hours	# of Buses	Hrs/Year	Operating Cost	Comments
800	City of Alachua to Northwood Village	30	17	2	4,284	\$321,300	Peak hour service, 6-10am, 4-7pm
801	City of Newberry – Jonesville to UF	30	17	2	4,284	\$321,300	Peak hour service, 6-10am, 4-7pm
802	Haile Plantation to UF	30	17	2	4,284	\$321,300	Peak hour service, 6-10am, 4-7pm
803	Eastside Activity Center to UF	30	17	2	4,284	\$321,300	Peak hour service, 6-10am, 4-7pm
804	City of Archer to UF	30	17	2	4,284	\$321,300	Peak hour service, 6-10am, 4-7pm
805	Hawthorne to Eastside Activity Ctr.	30	17	2	4,284	\$321,300	Peak hour service, 6-10am, 4-7pm
806	Waldo to Downtown to UF	30	17	2	4,284	\$321,300	Peak hour service, 6-10am, 4-7pm
			Total	14	29,988	\$2,249,100	

Note: Cost based on 252 days per year and an operating rate of \$75/hr

**Table 8: Implement Bus Rapid Transit Routes**

Route	Description	Frequency Peak / Off-Peak	Service Hours	# of Buses	Hrs/Year	Operating Cost
Blue	Oaks Mall to Airport	10 / 15	6am to 10pm	12	40,320	\$3,628,800
Orange	Northwood Village to Williston Rd./34 <sup>th</sup> St.	10 / 15	6am to 10pm	8	26,208	\$2,358,720
Green	Eastside Activity Center to Oaks Mall	10 / 15	6am to 10pm	8	26,208	\$2,358,720
Red	Northwood Village to Williston Rd./13 <sup>th</sup> St.	10 / 15	6am to 10pm	8	26,208	\$2,358,720
Blue Extended	Oaks Mall to SFC	10 / 15	6am to 10pm	5	16,632	\$1,496,880
Blue Extended	SFC to Springhills	10 / 15	6am to 10pm	1	4,032	\$317,520
Brown	Tower Plaza to Butler Plaza	10 / 15	6am to 10pm	2	6,048	\$544,320
Silver	Jonesville to Tower Plaza	10 / 15	6am to 10pm	6	20,160	\$1,814,400
Silver Extended	Tower Plaza to 24 <sup>th</sup> Ave. & 122 <sup>nd</sup> St.	10/15	6am to 10pm	3	10,080	\$907,200
Purple	24 <sup>th</sup> Ave & 122 <sup>nd</sup> St. to Springhills	10/15	6am to 10pm	4	14,112	\$1,270,080
			Total	57	189,504	\$17,055,360

Note: Cost based on 252 days per year and an operating rate of \$90.00 per hour

**Table 9: Streetcar or Trolley Bus Startup**

Route	Description	Frequency Peak / Off-Peak	Service Hours	# of Vehicles	Hrs/Year	Operating Cost
Orange & Blue	Downtown to UF	10 / 20	7am to 10pm	4	11,592	\$1,391,040
Orange & Blue	Late Night Streetcar	20	10pm to 3:30am	2	2,772	\$332,640
			Total	4	14,364	\$1,723,680

Note: Cost based on 252 days per year and an operating rate of \$120.00 per hour

**Table 10: Summary of Operating Costs**

Description	Number of Vehicles	Service Hours per Year	Operating Cost	Comments
Existing Service Enhancements*	24	59,200	\$3,534,240	20-minute frequency and service until midnight
New Service**	29	55,692	\$4,176,900	New routes 23, 25, 26, 37, 39, 44, 45, 46, 47, 62, 88 & 91
Express Service**	17	29,988	\$2,249,100	Create seven new express routes
BRT Service***	68	189,504	\$17,055,360	Create seven routes and three route extensions
Streetcar Service****	5	14,364	\$1,723,680	Create one streetcar route connecting downtown Gainesville and the University of Florida
<b>Total Costs</b>	<b>143</b>	<b>348,748</b>	<b>\$28,739,280</b>	

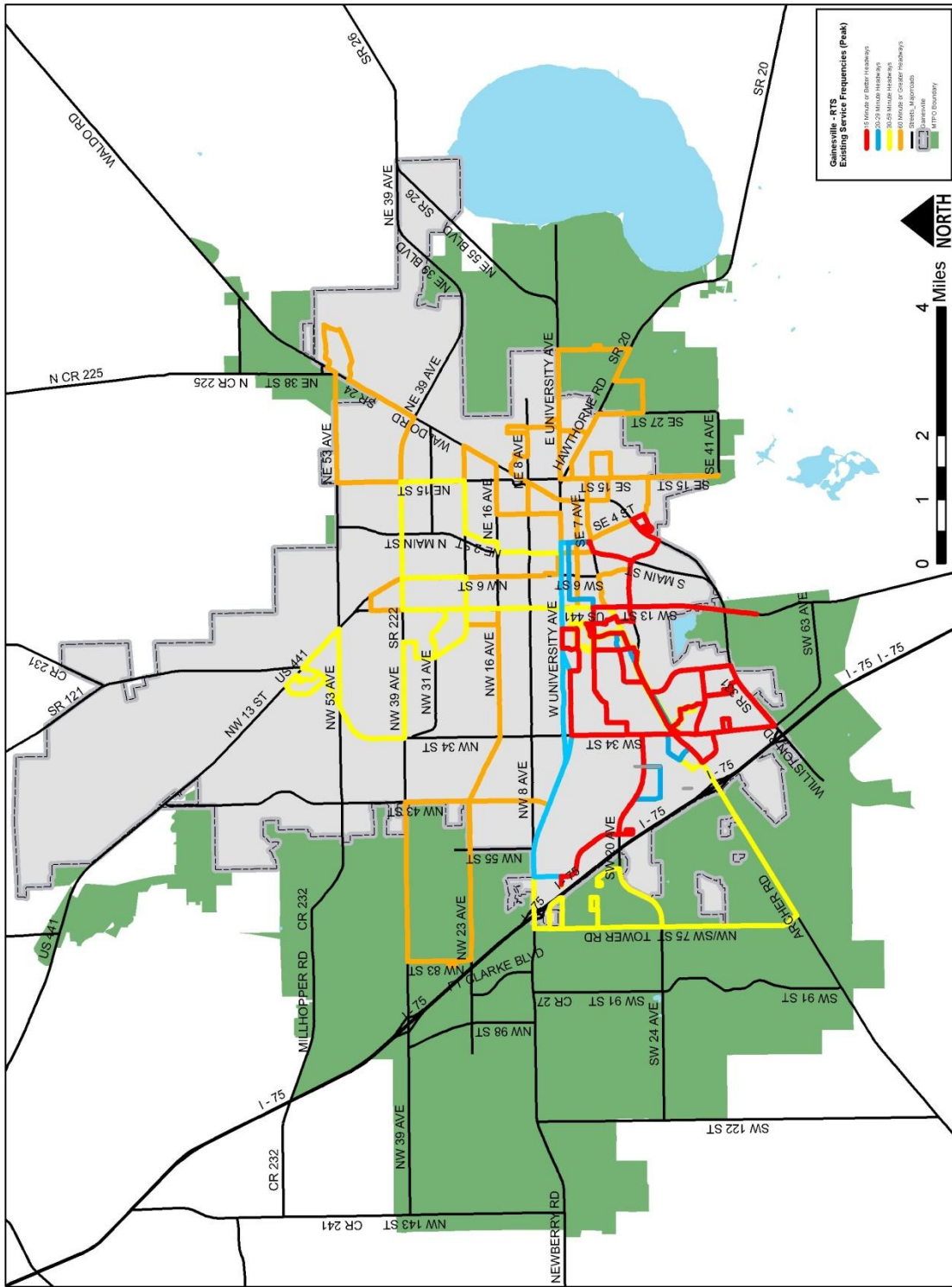
Note: Cost based on 252 days per year and rates of \*\*\$59\*59.70/hour; \*\*\$75/hour; \*\*\*\$90/hour; \*\*\*\*\$120/hour.

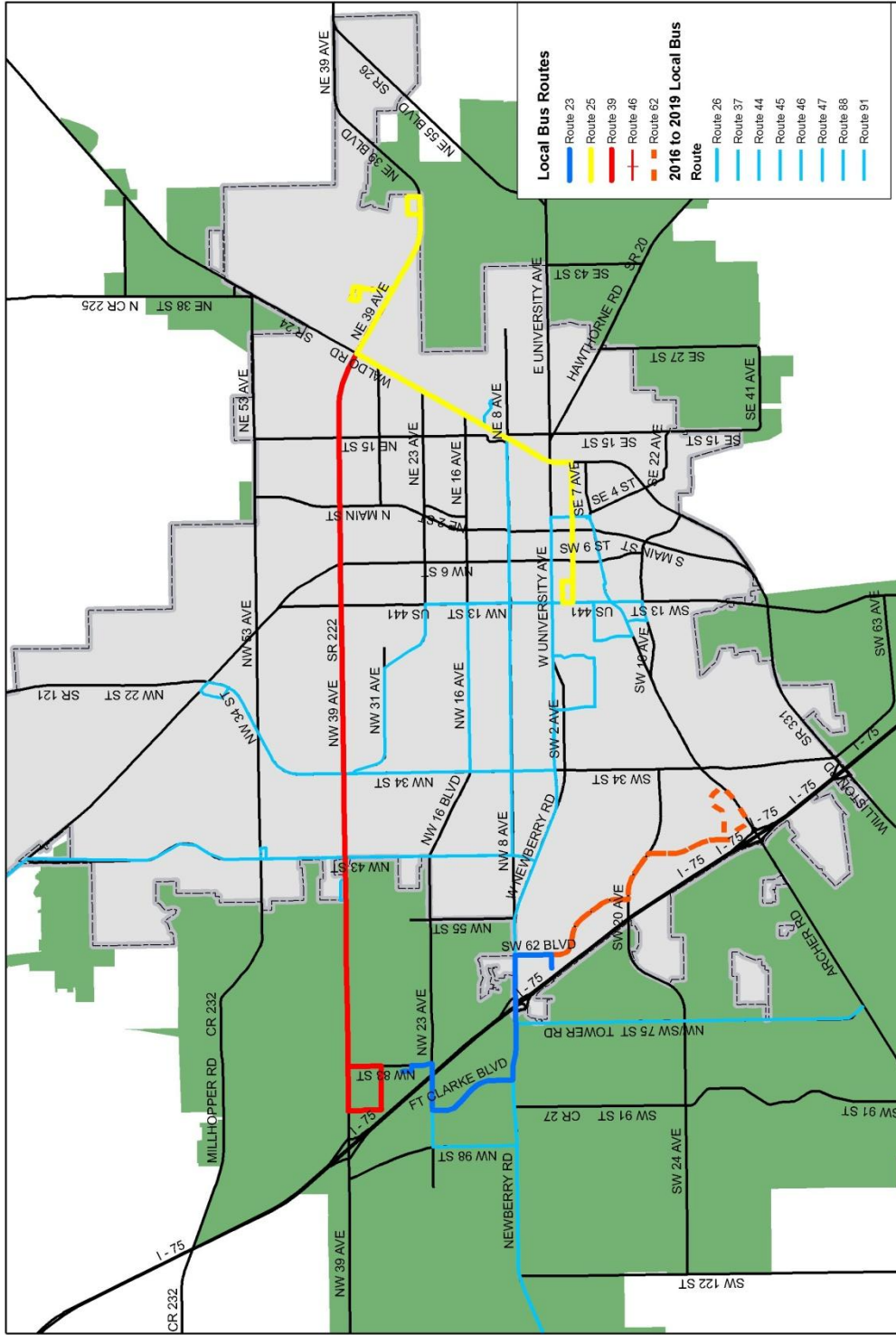
**Table 11: Summary of Capital Costs**

Project Description	Number of Vehicles	Total Cost	Comments
<b>Maintenance Facility Construction</b>			
Phase 1 – Existing Service		\$12,700,000	Accommodate 50 buses
Phase 2 – Express Bus /New Service		\$20,650,000	Accommodate 50 buses and a total of 100 buses
Phase 3 – BRT Service		\$24,200,000	Accommodate 65 buses and a total of 165 buses
Phase 4 – New Service / CTC		\$8,600,000	Accommodate 65 buses and a total of 230 buses
<b>Total</b>		\$66,150,000	
<b>Existing Service Enhancement Vehicles</b>	<b>24</b>	<b>\$9,600,000</b>	
<b>New Service Vehicles</b>	<b>29</b>	<b>\$11,600,000</b>	
<b>Express Service Vehicles</b>	<b>17</b>	<b>\$8,500,000</b>	
<b>Bus Rapid Transit (BRT)</b>			
Alternatives Analysis (AA) – First BRT Corridor	-	\$500,000	Required study to qualify for FTA funding
<b>Blue Line - BRT First Corridor</b>	<b>14</b>	<b>\$37,500,000</b>	Oaks Mall to Airport via SW Archer Road
AA – City Corridors	-	\$1,500,000	Required study to qualify for FTA funding
AA – County Corridors	-	\$1,500,000	Required study to qualify for FTA funding
Green Line	10	\$27,000,000	Oaks Mall to Eastside Activity Center via University Ave.
Orange Line	10	\$29,700,000	Northwood Village to SW Williston Road via 43 <sup>rd</sup> St and 34 <sup>th</sup> St
Red Line	10	\$21,600,000	Northwood Village to Williston Rd via US 441 (13 <sup>th</sup> Street / MLK Blvd)
Blue Line Extension 1	6	\$18,900,000	Oaks Mall to Santa Fe College
Blue Line Extension 2	1	\$6,000,000	Santa Fe College to Springhills
Brown Line	2	\$10,200,000	Tower Plaza to Butler Plaza
Grey Line	7	\$26,400,000	Jonesville to Tower Plaza
Grey Line Extension	4	\$16,500,000	24th Ave./122nd St. to Tower Plaza
Purple Line	4	\$16,200,000	Springhills to 24 <sup>th</sup> Ave./122 <sup>nd</sup> St.
<b>BRT Vehicles</b>	<b>68</b>	<b>\$62,100,000</b>	Articulated buses for all four BRT lines
<b>BRT Total</b>		<b>\$274,700,000</b>	
<b>Streetcar</b>			
Streetcar Corridor		\$100,000,000	
Streetcar Vehicles	5	\$7,500,000	
Phase 5 -Maintenance Facility		\$20,000,000	
<b>Streetcar Total</b>		<b>\$127,500,000</b>	
<b>Total Costs</b>		<b>\$498,050,000</b>	

Note: Cost based on \$3,000,000 per mile for BRT and \$20,000,000 per mile for Streetcar.

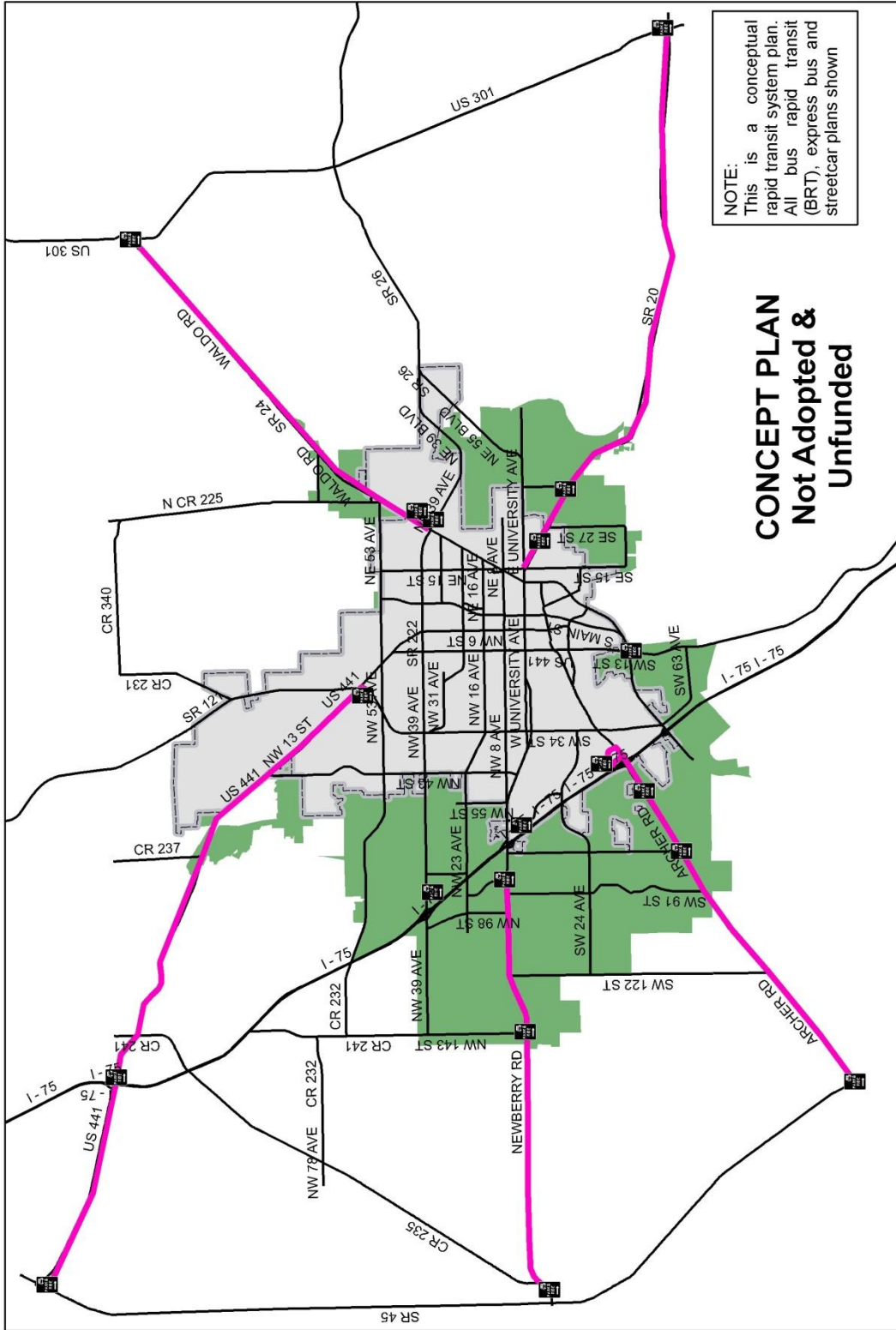
# Appendix





**Planned Local Bus Service - Rapid Transit System Plan (Draft)**

2011 - 2015 Planned Local Bus Routes are shown in distinct colors



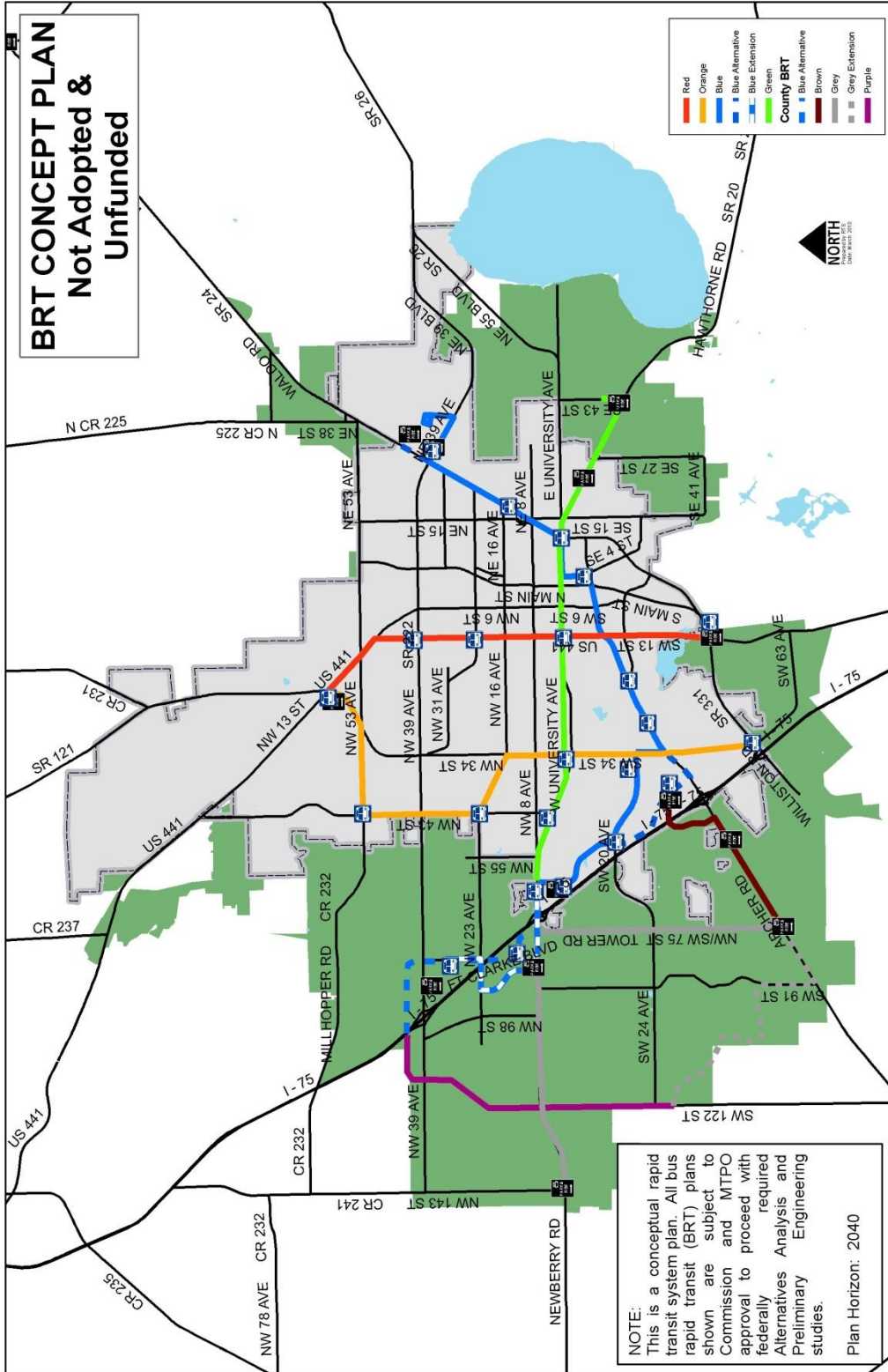
NOTE:  
 This is a conceptual rapid transit system plan. All bus rapid transit (BRT), express bus and streetcar plans shown

**CONCEPT PLAN  
 Not Adopted &  
 Unfunded**



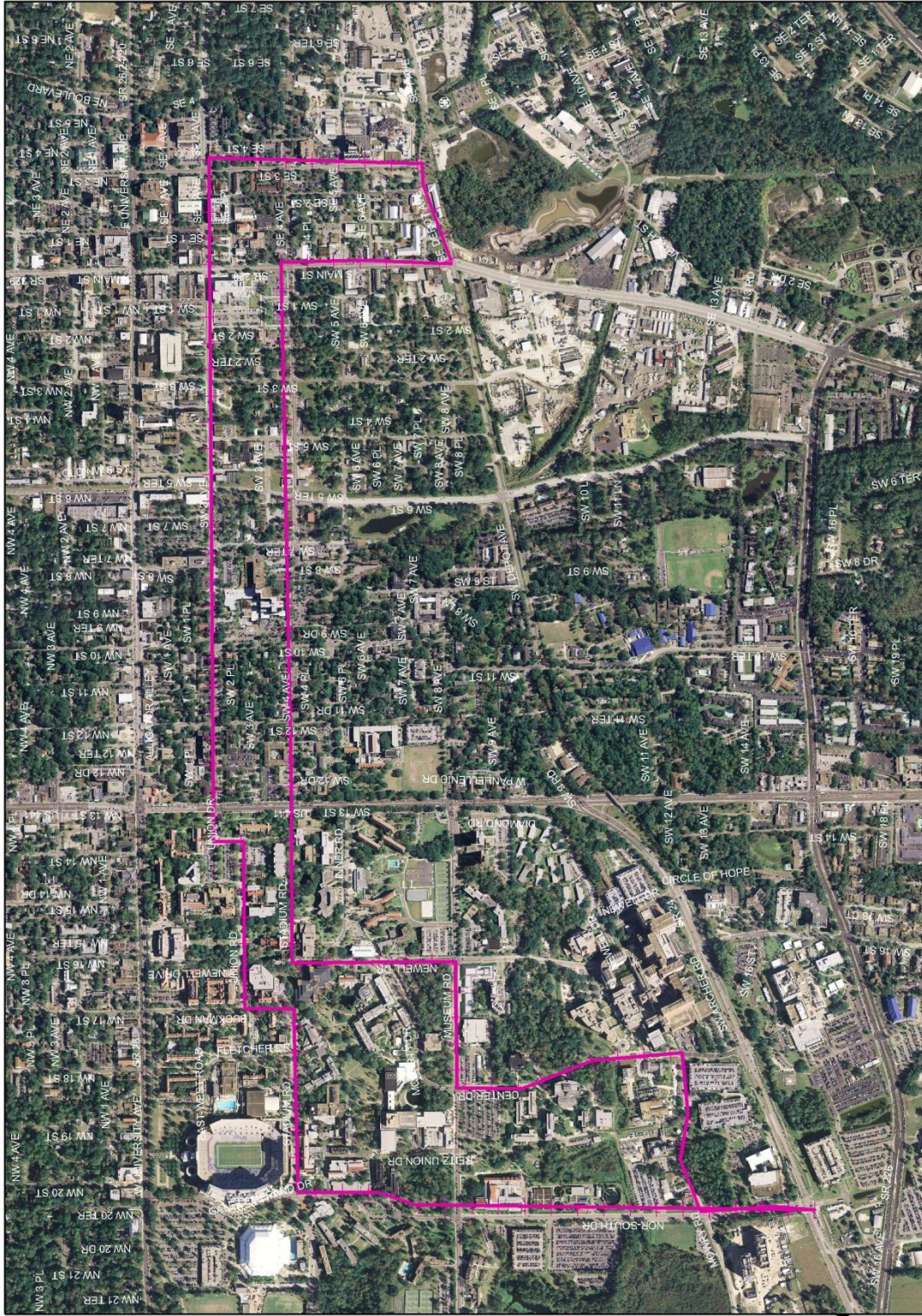
*Express Bus Service - Rapid Transit System Plan (Draft)*

Prepared by:  
 Gainesville-RTS  
 May 2010



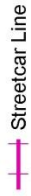
BRT Service Concept - Rapid Transit System Plan

Prepared by:  
Gainesville-RTS  
May 2010



**CONCEPT PLAN  
Not Adopted &  
Unfunded**

**Conceptual Downtown to UF Streetcar Alignment**



Streetcar Line



Prepared by:  
Gainesville-RTS  
May 2010