# **Universal Access/Fare Free System**

#### Introduction

The City of Gainesville currently owns and operates the Regional Transit System (RTS) in Gainesville and areas of Alachua County in the Urbanized Area directly adjacent to city limits. The debates regarding additional gas tax increases and distribution of the resulting proceeds have created several questions concerning what those increased revenues would purchase. Would there be increased service? Would there be sufficient funds for a capital program addressing the aging fleet replacement requirements? Could the system be implemented Countywide? An additional question is: What would be required to implement a Universal Access or fare free program?

At first glance, it would seem to be a simple request. Simply replace the cash fares received with tax revenues and let everyone get on the bus for free. The reality is not nearly so simple. There is a direct link between fares and ridership, system demand, Americans with Disabilities Act (ADA) transportation, capital requirements and personnel levels. It is possible to quantify these requirements and provide an initial estimate of costs related to establishing a system wide, fare free program. The amount of money generated by an additional gas tax is also important. Estimated revenues are approximately \$1 million per penny of gas tax. Assuming a five-cent increment, that would provide approximately \$5 million in new revenue to be distributed. Preliminary discussions have proposed that 2 cents of the gas tax be dedicated to transit or approximately \$2 million. Additionally, Alachua County has indicated that it would roll its current funding (approximately \$426,000.00) into that \$2 million, leaving a net amount of \$1,574,000.00.

# University of Florida

The partnership between the RTS and the University of Florida (UF) has been beneficial to both and assisted city and county residents through the reduction in traffic in certain areas of the urbanized area (consider what Archer Road would be like if the buses were not operating). UF provides a significant percentage of RTS's operating budget (nearly 41%) through three main sources. The student fee is \$2.00 per credit hour per student, and generates approximately \$2.1 million, the Parking and Transportation Office provides \$1.2 million for the campus shuttle services and the Campus Development Agreement (CDA) between UF, the City and Alachua County contributes about \$600,000 per year (this agreement expires in 2004). The prime issue would be UF's concern about the student fee, which provides all Gator One cardholders unlimited access to RTS services on a pre-paid basis. The students approved this fee and it would be a vital part of any larger unlimited access program. A major question would be: Why should we pay this fee if the entire system is fare-free?

The campus shuttle service would most likely remain as a separate service, independent of any citywide system. The CDA will need to be renegotiated when it expires and may provide the same level of funding. The primary concern will be justification for retaining the student fee and emphasizing its importance to the overall success of the system.

# **Fixed Route and Demand Response Services**

There are two components to the current RTS service, a fixed-route service and an ADA service. The City and RTS operate the fixed-route service and ADA service is currently contracted with the Community Transportation Coordinator (CTC), ATC/Paratransit. For this analysis, it is assumed that RTS would be the CTC and operate all transportation services within the urbanized area and contract with other service providers for portions of the service in the rural areas of Alachua County.

Although fixed route (FR) and demand response (DR) services are linked with regard to RTS responsibility, they are distinctly opposite in terms of how transportation is provided to elements of the population. The linkages are important to understand, as they will have a pronounced affect on any universal access system costs. First, the ADA provides any disabled person who lives within 3/4ths of a mile of a mile on either side of a fixed route be afforded service complementary to what able bodied receive. A simple concept but for reasons too involved for this analysis, the reality of that service is a significant factor in current and future transit service planning and delivery. Secondly, an ADA fare can be no more than twice the standard one-way fare (RTS standard fare is \$1.00). If a disabled person cannot access the fixed route system, then he or she must be afforded demand response service that mirrors the FR available to an able bodied person with the same origin and destination and may be charged no more than twice the standard one-way fare for each unlinked trip.

For this analysis each service has a different cost basis and the estimates are calculated separately. As an example the per passenger trip cost for FR is \$1.29 while the trip cost for DR is \$21.40 minus the \$2.00 allowable co-pay, with a net per trip cost of \$19.40. Ridership projections are also somewhat problematic, with growth for FY 01 at 26% and ridership increases of 190% for the past five years, we have not yet had sufficient capacity to accommodate unmet demand. This high demand and growth combined with the fare elasticity factor makes it difficult to accurately project real expansion, however, previous ridership estimates for FR and DR have been significantly below projections. That is both good news and bad news. For this analysis we have assumed a low or level growth rate and based cost estimates on current ridership for fixed route and ADA services.

#### Fare Free Scenario Ridership Estimates

In order to estimate the operating costs that additional ADA Complementary Paratransit Service and Regular service that can incur, an estimate of the ridership needs to be studied. A common means to estimate the demand for transit is through the use of fare and service elasticities. The American Public Transit Association (APTA) has published a value of -.43 for the elasticity of ridership with respect to fare (for systems serving areas with population of less than 1 million). A ten (10) percent increase in fare would result in 4.3 percent decrease in ridership, and ten (10) percent decrease in fare would result in 4.3 percent increase in ridership.

In addition to the fare elasticity, an assumption must be made regarding how to account for the various fare discounts and the student fee program. Given that the majority (70 to 80%) of riders are UF students, the initial projections were made including the students as a fare-paying group. This was done to provide a best guess at the worst-case (in terms of financial impact) scenario for potential ridership increases. Further in the report, we factor out the student ridership and project the financial impact using the number of riders either using a pass or paying at the farebox.

Table 1 represents the results of a fare-pricing scenario given the assumption of reducing the ADA fare from \$2.00 to free (100% reduction). Based on the fare elasticity analysis, the fare reduction results in 43% increase in ridership. This means a projected increase of 16,023 passenger trips per year.

Table 1. Projected Passenger Trip Increases / ADA

	FARE	Passenger Trips
Current FY 2001	\$2.00	37,263
Projected	\$0.00	53,286
Change	-100%	+43 %

Table 2 represents the results of a fare-pricing scenario given the assumption of reduction the fare from \$1.00 to free (100% reduction). Based on the fare elasticity analysis, the fare reduction results in 43% increase in ridership. This means a projected increase of 1,946,445 passenger trips per year, not withstanding historic growth of over 20% per year. This table does not include the separate campus shuttle service.

Table 2. Projected Passenger Trip Increases / Fixed Route (City Routes)

	FARE	Passenger Trips
Current FY 2001	\$1.00	4,526,616
Projected	\$0.00	6,473,061
Change	-100%	+43 %

## **Operations Costs:**

Table 3 shows the fiscal impact projected to result from the reduction of passenger fares. An increment in ridership of 16,023 additional trips would result in additional operating costs of \$342,892.20 or more.

Table 3. Operating Cost Estimates / ADA

	Passenger Trips	Cost per trip	Operating Cost
Current FY 2001	37,263	\$21.40	\$797,428
Projected	53,286	\$21.40	\$1,140,320
Difference	16,023	-	\$342,892

Note: Operating Costs were based on FY 2001 contract with CTC.

Assuming an incremental operating cost of \$42.50 Table 4 shows the fiscal impact that is projected to result from the reduction of passenger fares. An increment in ridership of 1,946,445 more trips with an extra \$2,454,247.50 in operating costs.

Table 4. Operating Cost Estimates Fixed Route (City Routes)

	Passenger Trips	Revenue hour	Operating Cost
Current FY 2001	4,526,616	134,295	\$5,707,538
Projected	6,473,061	192,042	\$8,161,785
Difference	1,946,445	57,747	\$2,454,248

Note: Operating Costs were based on \$42.50 per revenue hour.

# **Capital Needs**

# ADA Capital Needs

Lift Equipped Vans: Vans are necessary for door-to-door services. Seven (7) vehicles would be needed for the additional service created by free fare scenario. Assuming RTS has acquired 8 vehicles, 7 vehicles are needed to meet the new demand.

Hardware and Software: Hardware includes a file server, scheduling workstation, workstations, network hardware, and printers. Software includes operating system, utilities, and compilers, networking software, relational database, and software for workstations, application software, and data conversion.

Table 5. ADA Capital Needs

	Quantity	Unit Cost	Total Cost
Lift Equipped Vans	7	\$50,000	\$350,000
Hardware and Software	1	\$125,000	\$125,000
Miscellaneous Equipment	1	\$50,000	\$50,000
Training	1 .	\$25,000	\$25,000
Total	-	-	\$550,000

# Fixed Route Capital Needs

Table 6 shows the capital needs for the scenario in study. New, additional buses would need to be purchased and received to provide suitable service to meet new demands generated by the fare free scenario. To maintain the same average level of service on city routes, 23 additional buses will be needed to provide the extra service. Land acquisition, design and construction of office space and extra parking space are also needed to accommodate the buses and expanded staff personnel.

**Table 6. Fixed Route Capital Needs** 

	Quantity	Unit Cost	<b>Total Cost</b>
Lift Equipped Bus	23	\$260,000	\$5,980,000
Land Acquisition	1	\$200,000	\$200,000
Design & Construction Parking Lot and Office Space		\$2,000,000	\$2,000,000
Total		-	\$8,180,000

#### Personnel:

Additional administrative, operations and maintenance personnel are necessary for the increasing workloads of additional service to meet the demand. These personnel include Supervisors, Staff Assistants, and Mechanics. Table 7 displays the additional personnel costs necessary to operate the additional service. Bus Operators are included in the operational cost estimates.

**Table 7. Personnel Costs** 

Position	Quantity	Salary	Fringe Benefits	Total Cost
Operations Staff	2	\$30,000	\$7,500	\$75,000
Admin Staff	2	\$40,000	\$10,000	\$100,000
Maintenance	3	\$25,000	\$6,250	\$93,750
Total	7			\$268,750

## **Total Costs**

Table 8 shows a summary of minimum personnel, capital and operating costs necessary for additional ADA Complementary Paratransit Service and Fixed Route Service. Note that lost revenue is added because the fare free system would not generate revenue.

**Table 8. Additional Total Costs** 

	Amount (\$)
ADA Operating Costs	\$342,892
Fixed Route Operating Costs	\$2,454,248
Personnel Costs	\$268,750
Lost Revenue due to Fare Free System	\$600,000
Total Annual Operating Costs	\$3,665,890
ADA Capital Costs	\$550,000
Fixed Route Capital Costs	\$8,180,000
Total Capital Costs	\$8,730,000

As discussed in the Fare Free Ridership projections, we also estimated ridership increases exclusive of UF students. Table 9 indicates a projected increase of slightly over 800,000 trips. The remaining tables illustrate potential financial impacts to RTS operating and capital expenditures and potential total costs.

Table 9. Projected Passenger Increases / Fixed Route (City Routes)

	FARE	Passenger Trips
Current FY 2001	\$1.00	1,775,867
Projected	\$0.00	2,539,490
Change	-100%	+43 %

Table 10. Operating Cost Estimates Fixed Route (City Routes)

	Passenger Trips	Revenue hour	Operating Cost
Current FY 2001	1,775,867	52,686	\$2,239,155
Projected	2,539,490	75,341	\$3,201,993
Difference	763,623	22,655	\$962,838

Note: Operating Costs were based on \$42.50 per revenue hour.

**Table 11. Fixed Route Capital Needs** 

	Quantity	Unit Cost	Total Cost
Lift Equipped Bus	10	\$260,000	\$2,600,000
Land Acquisition	1	\$200,000	\$200,000
Design & Construction Parking Lot and Office Space		\$2,000,000	\$2,000,000
Total	-	(A)	\$4,800,000

**Table 12. Additional Total Costs** 

	Amount (\$)
ADA Operating Costs	\$342,892
Fixed Route Operating Costs	\$962,838
Personnel Costs	\$268,750
Lost Revenue due to Fare Free System	\$600,000
Total Annual Operating Costs	\$2,174,480
ADA Capital Costs	\$550,000
Fixed Route Capital Costs	\$4,800,000.
Total Capital Costs	\$5,350,000

# Summary

The above Table 8 does not reflect potential loss of revenue from UF student fees, which would be a minimum of \$2,000,000.00. As discussed earlier in this analysis, UF must be included in this issue to ensure support and continued participation in the unlimited access program they are funding. This preliminary analysis is also a minimum of what might happen if a Universal Access program is initiated. If we factor in the greater than 20% growth we have experienced over the past five years, these estimates will be significantly lower than the actual amount needed.

## Recommendations

- There is insufficient funding under the proposed gas tax increase to implement a universal access program. Other revenue sources must be identified.
- UF must be involved in any discussions about future RTS expansions or programs to ensure their continued support.
- RTS staffing and facilities must be expanded in order to maintain current levels of service. Expansion to now has been concentrated on operations.
- The desire to create a beneficial program for all needs to be tempered with financial reality. A balanced system that meets the expectations of our citizens is not inexpensive and requires appropriate funding.