

# MEMORANDUM

RE: Changes to Alachua County Transportation Impact Fees

DATE: July 11, 2004

AUTHOR: James Nicholas

Several changes are required to the transportation impact calculations previously submitted. These changes affect the following land uses:

- Drive-in Bank
- Racquet Club
- Day-care Center
- Quality Restaurant
- High Turn-over Restaurant
- Medical Offices.

These uses are characterized by shorter than average trip lengths. Shorter than average trip lengths were integrated into the commercial land use calculations but not into the above. This was an oversight and needs to be corrected.

One other change is needed. Drive-in banks tend to function like convenience stores in that a high percentage of the traffic to them are captured from existing travel on the roads. This was not incorporated into the drive-in bank calculations and was an oversight in need of correction.

The July 11, 2004 impact fee report makes these changes.

# A REPORT PRESENTING

DEVELOPMENT IMPACT FEES FOR:

- Public Buildings
- Fire & Rescue
- Parks & Recreation
- Transportation

PREPARED FOR THE  
BOARD OF COUNTY COMMISSIONERS  
OF ALACHUA COUNTY

Prepared by James C. Nicholas, Ph.D

July 11, 2004

## INTRODUCTION

Impact fees evolved in Florida in the 1970's. They were a response to rapid development and extraordinarily high rates of inflation. Growing areas of the United States found themselves with increasing demands for infrastructure that was needed to serve new development at a time when the cost of that infrastructure was increasing faster than revenues. The choices facing many jurisdictions were (1) increase general taxes, (2) allow deterioration of levels of service, or (3) seek new sources of revenue. Impact fees were an additional source of revenue.

All jurisdictions considering impact fees have had to fit them into the fiscal policy and fiscal philosophy of the community. Impact fees are an additional source of revenue. As such, they can be used to reduce reliance on another revenue source, typically property taxes, or they can be used to increase spending on capital improvements. The best evidence is that impact fees do both, i.e., reduce reliance on property taxes and increase spending on infrastructure. Communities at or near their constitutional limit on property taxes have few options other than seeking new revenue sources or doing without additional improvements. The role of general taxation is a matter delegated to elected officials, subject to certain constitutional and statutory limitations. In most instances local elected officials have the ability to raise taxes to provide additional improvements. Florida law provides several options. First there is taking the property tax rate to its legal maximum. The next option is to increase motor fuel taxes. A third is the creation of special taxing districts such as the Community Development District. Additionally, the so-call "infrastructure sales" tax is available, but it required voter approval. Most of these options involve an increase in general taxes.

The State of Florida has structured a system of revenue that is doomed to lag behind growth. Personal incomes and services are exempt from taxation. Those are the growing sectors and sources. The State has chosen to concentrate its revenue raising on retail sales, specifically the retail sale of non-essential goods. This results in a focus on the lagging sector. Local governments are authorized to tax real property and the sale of utilities. The property tax has proven to be the most controversial of all existing taxes. Perhaps this is due to the fact that it does not respect the ability of the individual to pay.<sup>1</sup> Many states, including Florida, have amended their constitutions to limit property taxes and tax assessments. The net effect is to limit the ability of the property taxes as a source of revenue. Whether property taxes are limited by law or by the will of the people, the result has been that alternative sources of revenue have been sought.

Development impact fees have become a commonly used alternative source of revenue to supplement available means of funding capital facility improvements

---

<sup>1</sup> If someone faces a decline in income, say to loss of employment, income taxes go down automatically and sales taxes diminish due to lower expenditures on non-essentials. But the property tax continues as before.

needed to accommodate new development. Impact fees grew out of two rather commonly held notions:

1. Generally, new development does not pay the cost of capital facilities needed to accommodate the residents and businesses from standard sources of revenue, and
2. It would be inequitable to impose the cost of extending facilities to new developments on existing residents and taxpayers.

In Florida, both the courts<sup>2</sup> and the Florida Statutes<sup>3</sup> acknowledge local governments' authority to impose equitable impact fees. Impact fees are not taxes and are governed by a standard that has become known as the "dual rational nexus test." This test has two major components:

1. That the facilities to be charged to new development as impact fees must be needed to serve that new development, and
2. That the funds collected as impact fees must be earmarked and spent for the purposes for which they were collected.

Implied in this test is that any impact fee cannot exceed a *pro rata* or proportionate share of the anticipated costs of providing new developments with capital facilities.

This memorandum will set out how the impact calculations for Alachua County were calculated. The method used complies with the dual rational nexus test, first by establishing or identifying the demand for facility expansions that new development will require, and then calculating the County's cost of providing those facilities on a *pro rata* basis. After review of these methods and data, if the County finds the data and methods are reasonable, the County should not adopt any impact fees that exceed the amounts set out herein.

The method employed herein is the so-called "needs driven" approach. It is also known as the "standards approach." This method begins by identifying the level of service for a facility or service. For example, 3 acres of parks per 1,000 population. This would convert to 131 square feet of park area per capita. It would follow that a new home with 2.5 persons in residence would need 327 square

---

<sup>2</sup> See *Hollywood, Inc. v. Broward County*, 431 So.2d 606 (Fla. 4<sup>th</sup> DCA 1983). In this opinion the Court observed:

*[W]e discern the general legal principle that reasonable dedication or impact fee requirements are permissible so long as they offset needs sufficiently attributable to the subdivision and so long as the funds collected are sufficiently earmarked for the substantial benefit of the subdivision residents.*

<sup>3</sup> See Section 163.3202(3), Florida Statutes.

feet of park area in order to maintain that standard. Hence the names of this method. Using the historic or projected costs of the jurisdiction, the cost for providing an acre of parks is calculated and then applied to the needs of particular units or types of development. If park costs per acre are found to be \$20,000, the cost per square foot would be \$0.46, the cost per capita would be \$60 and the cost per residence would be \$150.

The alternate method is to so-called “improvements driven” approach. This approach begins by developing an improvement program for a service such as parks. The cost of the growth serving park improvements are then spread over the units of growth expected during the life of the improvement program. If the level of service is 3 acres of parks per 1,000 population and if parks will cost \$20,000 per acre in the future, the cost would be the same as that of the needs driven calculation. However, it is a rare occurrence when future costs for capital improvements, especially land acquisition, are equal to historic costs. The result is that improvements based impact fees tend to be higher than needs based.

The method used herein is the needs method. It uses existing and historic costs and existing levels of service to identify the cost of providing new development with infrastructure at the existing level of service.

## LAND USE & DEVELOPMENT ASSUMPTIONS

The first set of critical data are the land use assumptions. The land use assumptions for Alachua County, and used herein, are set out below. These data are drawn from the Census and other available data from the Alachua County Comprehensive Plan.

Table LU1  
**LAND USE ASSUMPTIONS**

	2000	2004	2005	2009	2010
<b>COUNTYWIDE</b>					
Population	215,498	225,501	229,967	248,722	253,643
Dwelling Units	95,113	99,528	101,499	109,777	111,949
Households	87,509	91,571	93,384	101,001	102,999
Residential Floor Area	171,203,400	179,150,337	182,698,225	197,598,576	201,507,875
Office Floor Area	9,405,834	10,391,501	10,577,108	11,317,313	11,557,267
Industrial Floor Area	9,549,169	10,270,777	10,405,283	11,125,264	11,356,194
Retail Floor Area	8,034,555	8,617,640	8,735,609	9,181,358	9,355,909
Total Building Area	198,192,958	208,430,255	212,416,225	229,222,511	233,777,245
<b>UNINCORPORATED</b>					
Population	104,479	97,388	100,114	111,725	114,814
Dwelling Units	47,535	44,309	45,549	50,832	52,237
Households	43,350	40,408	41,539	46,357	47,638
Residential Floor Area	85,563,000	79,755,787	81,987,886	91,497,211	94,026,841
Office Floor Area	7,793,405	8,181,599	8,763,889	9,413,595	9,576,021
Industrial Floor Area	5,545,421	5,744,287	6,042,586	6,484,359	6,594,802
Retail Floor Area	5,515,470	5,707,971	5,996,722	6,337,375	6,422,538
Total Building Area	104,417,296	99,389,643	102,791,084	113,732,539	116,620,202

SOURCES: Bureau of the Census, 2000 Decennial Census; Alachua County, March 2004; Florida Statistical Abstract, various years;

Bureau of the Census, Annual Estimates of Population for Counties of Florida: April 1, 2000 to July 1, 2003 (CO-EST2003-01-12);

Bureau of Economic and Business Research, Florida Population Studies: Projections of Florida Population by County 2003-2030, Bulletin 138, February 2004;

Bureau of Economic and Business Research, Florida Estimates of Population, January 2004. Fishkind & Associates, March 19, 2001, memo to Ken Zeichner, Alachua County Principal Planner.

NOTE: The population reported is the total population less those institutionalized.

The population shown is the total population less those institutionalized (incarcerated, in nursing homes, and juvenile institutions) as reported in the year 2000 Decennial Census. The 2000 Decennial Census was the base for the countywide and unincorporated demographic data, and the 2003 Annual Census data was combined and interpolated with published Bureau of Economic and Business Research countywide population projections for 2010 to derive countywide

population for 2004 through 2009. Unincorporated area population estimates are based on the total unincorporated area population in 2003 (per BEBR estimate) as a % share of total countywide population (per annual Census estimate for 2003), which was 42.5%, increasing gradually to 45% of the total projected Countywide population in 2010. Non-residential projections were provided by Fishkind and Associates. These data are used to establish levels of service for the facilities and services proposed for impact fees.

## PUBLIC BUILDINGS (Countywide)

The existing supply of public buildings is set out below. These buildings are divided among the various uses – present use, future use, and non-countywide use. Buildings that are included in other impact fee calculations, such as fire stations, are excluded in this inventory. Only public buildings or portions of public buildings that provide a countywide service are included in the calculation.

**TABLE PB1  
PUBLIC BUILDING COSTS AND NEEDS**

<b>Public Buildings - Square Feet</b>	<b>920,242</b>
Population Served	225,501
Level of Service	4.081
Cost:	
Replacement cost of Public Buildings	\$136,565,096
Outstanding Debt	\$44,018,572
Net Value	\$92,546,524
Total Floor Area	208,430,255
Cost per Foot	\$0.444

Source: Alachua County Risk Management Division adjusted for Countywide use and other items.

The allocation of major buildings is shown below:

**TABLE PB2  
SPACE ALLOCATION**

<b>Administration Building</b>	71,500	100%
Clerk of Court (4th Floor)	13,534	19%
Property Appraiser (2nd Floor)	7,860	11%
Property Appraiser (1st Floor)	2,950	4%
Tax Collector	12,681	18%
SOE	3,684	5%
<b>Included</b>		<b>57%</b>
<b>Wilson Building</b>	28,004	100%
TDC	850	3%
Court Services	14,654	52%
<b>Included</b>		<b>55%</b>
<b>Star Garage</b>	16,302	100%
Guardian Ad Litem	6,785	42%
EEO	2,920	18%
<b>Included</b>		<b>60%</b>
<b>Facilities Allocation</b>		
Included SF	920,242	
Total SF	1,281,716	
<b>Included/Total</b>		<b>72%</b>



**TABLE PB3  
INVENTORY OF PUBLIC BUILDINGS AND  
ALLOCATION OF COUNTYWIDE USAGE**

<b>INVENTORY</b>	<b>Total Sq Ft</b>	<b>Total Value</b>	<b>% In-cluded</b>	<b>Adjusted Size</b>	<b>Adjusted Value</b>
Administration Bldg	\$71,500	\$8,700,950	57%	40,709	\$4,953,944
Wilson Bldg	\$28,004	\$2,198,945	55%	15,504	\$1,217,413
Judical/Cths Bldg	\$101,000	\$18,862,779	100.0%	101,000	\$18,862,779
Public Defender	\$20,040	\$1,738,213	100.0%	20,040	\$1,738,213
Admin Annex	\$12,408	\$1,319,980	0.0%	0	\$0
Growth Management	\$10,400	\$655,435	0.0%	0	\$0
Fire/Rescue Offices	\$13,600	\$1,132,538	0.0%	0	\$0
Facilities Shop	\$7,874	\$300,551	72.0%	5,591	\$213,391
Voting Machine Whse	\$8,800	\$5,326	100.0%	8,800	\$5,326
Sheriff's Radio Bldg	\$600	\$10,414	100.0%	600	\$10,414
Storage	\$110	\$3,995	100.0%	110	\$3,995
Record Storage Clerk	\$10,200	\$3,995	100.0%	10,200	\$3,995
Facilities Strg	\$200	\$3,995	72.0%	142	\$2,836
Fire/Rescue Bike T	\$336	\$26,226	0.0%	0	\$0
Fire/Rescue Cln/Ann	\$34,462	\$0	0.0%	0	\$0
Agricultural Center	\$10,230	\$708,420	100.0%	10,230	\$708,420
Agricultural Center Garage	\$1,350	\$56,063	100.0%	1,350	\$56,063
Animal Shelter	\$28,267	\$1,598,951	0.0%	0	\$0
Exht. Bldg Fairgrounds	\$28,750	\$2,002,871	100.0%	28,750	\$2,002,871
Fairgrounds Bldg	\$13,080	\$148,453	100.0%	13,080	\$148,453
Frgrds Frt Gate	\$1,260	\$20,827	100.0%	1,260	\$20,827
Adult Detention Center	\$298,000	\$55,474,646	100.0%	298,000	\$55,474,646
Work Release Facility	\$15,400	\$320,631	100.0%	15,400	\$320,631
AC Corrections Dorm	\$5,400	\$0	100.0%	5,400	\$0
Trailer/Office	\$400	\$0	100.0%	400	\$0
Adult Detention Mod # 1	\$2,100	\$29,909	100.0%	2,100	\$29,909
Adult Detention Mod # 2	\$2,100	\$31,242	100.0%	2,100	\$31,242
Adult Detention Shed # 1	\$200	\$3,995	100.0%	200	\$3,995
Adult Detention Shed # 2	\$200	\$3,995	100.0%	200	\$3,995
Metamorphosos	\$6,137	\$120,917	100.0%	6,137	\$120,917
Public Works Dept.	\$7,800	\$744,170	0.0%	0	\$0
Public Works Warehouse	\$7,500	\$288,538	0.0%	0	\$0
Public Works Main Bldg	\$12,000	\$428,590	0.0%	0	\$0
Public Works Equip. Shop	\$3,000	\$52,305	0.0%	0	\$0
Public Works Storage	\$2,750	\$28,816	0.0%	0	\$0
Public Works Storage	\$2,000	\$82,454	0.0%	0	\$0
Public Works Storage	\$858	\$6,659	0.0%	0	\$0
Main Office	\$2,288	\$135,376	0.0%	0	\$0
Leachate Disp F	\$3,300	\$283,928	0.0%	0	\$0
Trainer 3 & 4	\$720	\$67,808	0.0%	0	\$0
Trailer & 2	\$200	\$20,827	0.0%	0	\$0
Scalehouse	\$200	\$3,995	0.0%	0	\$0

<b>INVENTORY</b>	<b>Total Sq Ft</b>	<b>Total Value</b>	<b>% In-cluded</b>	<b>Adjusted Size</b>	<b>Adjusted Value</b>
Port Storage Bldg	\$220	\$3,995	0.0%	0	\$0
Bailing Building	\$1,160	\$19,495	0.0%	0	\$0
Port Office Building	\$192	\$11,744	0.0%	0	\$0
Materials Storage	\$4,544	\$52,066	0.0%	0	\$0
Crew Office Building	\$135	\$6,659	0.0%	0	\$0
Carport	\$1,600	\$3,995	0.0%	0	\$0
Equipment Storage	\$3,200	\$29,294	0.0%	0	\$0
Fairbanks Collection Station	\$144	\$3,995	0.0%	0	\$0
High Springs Collection Stn.	\$144	\$2,664	0.0%	0	\$0
Phifer Ref. Collection	\$144	\$2,664	0.0%	0	\$0
N. Central Collection Center	\$144	\$3,995	100.0%	144	\$3,995
Tag Agency	\$3,650	\$319,302	100.0%	3,650	\$319,302
Home Economics Building	\$1,320	\$96,385	100.0%	1,320	\$96,385
Vehicle Inspection Station	\$12,145	\$322,064	0.0%	0	\$0
Voting Machine Whse	\$13,954	\$0	100.0%	13,954	\$0
Maint. Grounds Building	\$1,120	\$26,154	72.0%	795	\$18,569
Maint. Grounds Shed 1	\$276	\$5,326	72.0%	196	\$3,781
Maint. Grounds Shed 2	\$276	\$5,326	72.0%	196	\$3,781
Maint. Grounds Shed 3	\$276	\$5,326	72.0%	196	\$3,781
Maint. Mower Shed	\$80	\$2,664	72.0%	57	\$1,891
Fire/Rescue EMT # 5	\$1,500	\$125,199	0.0%	0	\$0
Fire/Rescue EMT # 6	\$2,520	\$79,313	0.0%	0	\$0
Fire/Rescue EMT # 7	\$1,500	\$15,503	0.0%	0	\$0
Fire/Rescue EMT # 9	\$1,500	\$15,503	0.0%	0	\$0
Fire/Rescue EMT # 8	\$4,380	\$15,503	0.0%	0	\$0
Fire/Rescue EMT # 18/19	\$5,140	\$325,959	0.0%	0	\$0
Jonesville Fire Station	\$3,000	\$57,393	0.0%	0	\$0
Fireman's Quarters	\$770	\$0	0.0%	0	\$0
Mobile Home	\$0	\$0	0.0%	0	\$0
State Attorney	\$34,320	\$3,041,976	100.0%	34,320	\$3,041,976
Farmers Market	\$5,060	\$76,035	100.0%	5,060	\$76,035
Farmers Market Rest Room	\$480	\$49,404	100.0%	480	\$49,404
Poe Springs Park Mul.	\$2,975	\$233,090	0.0%	0	\$0
Poe Springs Gate HS	\$444	\$11,744	0.0%	0	\$0
Poe Springs Pump HS	\$224	\$6,659	0.0%	0	\$0
Poe Springs Con. Bldg	\$1,979	\$155,108	0.0%	0	\$0
Poe Springs Rest Room	\$670	\$61,149	0.0%	0	\$0
Poe Springs Shelter #1	\$1,547	\$37,899	0.0%	0	\$0
Poe Springs Shelter #2	\$1,547	\$37,899	0.0%	0	\$0
Poe Springs Shelter #3	\$324	\$2,664	0.0%	0	\$0
Poe Springs Shelter #4	\$324	\$2,664	0.0%	0	\$0
Fire Station # 16	\$7,500	\$501,143	0.0%	0	\$0
Fire Station # 12	\$4,400	\$375,363	0.0%	0	\$0
Winndixie Mall	\$0	\$0	0.0%	0	\$0
Fire Station # 15	\$4,014	\$222,422	0.0%	0	\$0
Fire Station # 21	\$0	\$119,406	0.0%	0	\$0

<b>INVENTORY</b>	<b>Total Sq Ft</b>	<b>Total Value</b>	<b>% In-cluded</b>	<b>Adjusted Size</b>	<b>Adjusted Value</b>
Transfer Station	\$27,900	\$245,932	0.0%	0	\$0
Admin Bldg	\$3,100	\$64,472	0.0%	0	\$0
Scalehouse	\$504	\$41,027	0.0%	0	\$0
Hazard Household	\$5,490	\$14,064	0.0%	0	\$0
Training Bldg	\$800	\$20,600	0.0%	0	\$0
Recvy Mat Proc.	\$21,667	\$257,500	0.0%	0	\$0
Fleet Maintenance Bldg	\$4,000	\$82,400	0.0%	0	\$0
Sheriff's Office	\$56,000	\$5,142,319	100.0%	56,000	\$5,142,319
Sheriff's Vehicle Maint.	\$4,735	\$216,300	100.0%	4,735	\$216,300
911 Comm Center	\$0	\$5,188,432	100.0%	0	\$5,188,432
911 Comm Center	\$23,870	\$15,393,792	100.0%	23,870	\$15,393,792
Health/community services	\$71,158	\$3,467,878	100.0%	71,158	\$3,467,878
Fire/Rescue St/Gar.	\$4,320	\$0	0.0%	0	\$0
Clock Tower	\$144	\$20,600	100.0%	144	\$20,600
Public Health MD/B	\$0	\$101,607	100.0%	0	\$101,607
Public Health MD/BL	\$0	\$101,607	100.0%	0	\$101,607
Public Health MD/BL	\$0	\$93,869	100.0%	0	\$93,869
Court Services	\$1,800	\$25,750	100.0%	1,800	\$25,750
Union Station EPA	\$8,800	\$30,900	0.0%	0	\$0
Fire-Rescue EMT	\$1,200	\$20,600	0.0%	0	\$0
Butler Tag Agency	\$2,700	\$41,200	100.0%	2,700	\$41,200
Sun Plaza Tag Agency	\$2,160	\$41,200	100.0%	2,160	\$41,200
Gator Apartments D-21	\$1,200	\$20,600	0.0%	0	\$0
Rest Room/Pavilion	\$0	\$51,500	0.0%	0	\$0
Star Garage	\$16,302	\$20,600	60%	9,705	\$12,264
New Courthouse	\$118,000	\$20,194,236	85.0%	100,300	\$17,165,101
<b>TOTAL</b>	<b>\$1,281,716</b>	<b>\$155,018,824</b>	<b>72%</b>	<b>920,242</b>	<b>\$136,565,096</b>

## PARKS AND RECREATION (Unincorporated-Residential Only)

The inventory of parks and population served are:

**TABLE P1  
PARK INVENTORY AND LEVEL OF SERVICE  
ALACHUA COUNTY**

Park Type	Acres		Population Served	Per 1,000	
	Total	Developed		Unincorporated	Incorporated
Pocket	0.00	0.00	97,388	0.000	0.000
Neighborhood	60.55	33.55	97,388	0.345	0.000
Community	157.30	59.30	225,501	0.263	0.263
Regional	0.00	0.00	225,501	0.000	0.000
Special Facility	1,208.42	1,208.42	225,501	5.359	5.359
School	1,094.60	1,094.60	225,501	4.854	4.854
Total	2,520.87	2,395.87		10.820	10.476
County	1,426.28	1,301.28			

Source: Alachua County Department of Parks, February 2004.

**TABLE P2  
DEVELOPED PARK INVENTORY**

Developed Park Inventory	Acres	Population Served	Level of Service
Countywide Parks	1,267.72	225,501	5.62
Unincorporated Area Parks	33.55	97,388	0.34
School Parks	1,094.60	225,501	4.85

Source: Alachua County Department of Parks, February 2004.

**TABLE P3  
RECREATION FACILITY INVENTORY**

FACILITY	Provided By		Area Served	
	County	School Board	Unincorporated	County-wide
Picnic	17	0	3	14
Baseball	0	9	0	9
Softball	5	35	3	34
Soccer	6	54	1	58
Football	0	15	0	15
Playground	11	60	4	64
Hard court	0	42	0	42
Basketball	6	84.5	3	84.5
Tennis	0	21	0	21
Volleyball	9	16	0	25
Track	0	10	0	10
Trails	5	4	0	9
Handball	0	7	0	7
Gym/Center	0	15	0	15
Pool	0	0	0	0

Source: Alachua County Department of Parks, February 2004.

**TABLE P4  
PARK & RECREATION LEVELS  
OF SERVICE AND COSTS**

	COUNTY		Schools
	Unincorporated	Incorporated	
Land per 1,000 Population	5.97	5.62	4.85
Land per Dwelling – Acres	0.014	0.013	0.011
Land Cost per Acre:			
Acquisition	\$5,676	\$5,676	\$5,676
Development	\$7,500	\$7,500	\$7,500
Land Cost per Dwelling	\$178.11	\$167.82	\$144.90
Facility Cost per Dwelling	\$48.37	\$48.37	\$701.99
Total Cost per Dwelling	\$226.48	\$216.19	\$846.89
Per Square Foot	\$0.126	\$0.120	\$0.470

Source: Alachua County Department of Parks, February 2004.

## Fire & Rescue

Fire and rescue inventory and level of service are:

**TABLE FR1  
FIRE LEVEL OF SERVICE  
ALACHUA COUNTY**

Existing Fire Stations	5
Area Served – Unincorporated	95,413
Population per Station	19,083
Value per Station	\$912,615
Value of Stations	\$4,563,075
Value of Equipment	\$4,200,000
Total Value	\$8,763,075
Outstanding Debt	\$1,221,699
Net Fire Service Cost	\$7,541,376
Unincorporated Floor Area	99,389,643
Cost per Foot	\$0.076

SOURCE: Alachua County Department of Fire/ Rescue Services, March 2004

**TABLE FR2  
RESCUE LEVEL OF SERVICE  
ALACHUA COUNTY**

Existing Rescue Stations	11
Free Standing & County Provided	3
Free Standing & County Leased	2
Area Served – Countywide	225,501
Population per Station	75,167
Collocated Stations	6
Value per Station	\$517,583
Value of Stations	\$1,552,750
Value of Equipment	\$2,750,000
Total Value	\$4,302,750
Outstanding Debt	\$288,288
Net Rescue Cost	\$4,014,462
Countywide Floor Area	208,430,255
Cost per Foot	\$0.019

SOURCE: Alachua County Department of Fire/ Rescue Services, March 2004

## TRANSPORTATION (Countywide or Unincorporated Area Only)

The data presented in Table T1 are the cost parameters used in calculating impact on the road system, the cost of new roads and the net impact of growth on the road capital finance system. The sources are listed below. The formula for calculation is set out below.

TABLE T1

### ROAD COST PARAMETERS ALACHUA COUNTY

<b>PER LANE MILE ROAD COSTS:</b>				
	<b>Construction</b>	<b>R.O.W.</b>	<b>Engineering</b>	<b>Total</b>
2003	\$1,250,000	\$250,000	\$250,000	\$1,750,000
	71.43%	14.29%	14.29%	100.00%

SOURCE: Florida Department of Transportation.  
Right of way costs estimated.

In Alachua County the primary means of financing road construction are motor fuel taxes paid to the federal, state and county governments. Secondary means include requiring developers to construct and dedicate road improvements and, potentially, impact fees. In order to establish a fair and proportionate set of road impact fees, it is necessary to give consideration to the amounts that new development pays toward the road improvements that will be needed. These payments will be in the form of motor fuel taxes that are devoted to capital improvements.

TABLE T2  
**ROAD IMPACT PARAMETERS  
ALACHUA COUNTY**

<b>MOTOR FUEL TAXES</b>	<b>\$ PER GALLON *</b>	<b>% CAPI-TAL</b>	<b>EFFECTIVE RATE</b>
FEDERAL	\$0.167	50.1%	\$0.084
STATE	\$0.154	43.4%	\$0.067
<b>CITY/COUNTY:</b>			
5TH & 6 <sup>TH</sup>	\$0.020	20.0%	\$0.004
7TH	\$0.010	0.0%	\$0.000
8TH	\$0.010	0.0%	\$0.000
9 <sup>TH</sup>	\$0.010	0.0%	\$0.000
OPTIONAL 1	\$0.060	50.0%	\$0.030
OPTIONAL 2	\$0.000	0.0%	\$0.000
<b>TOTAL</b>	<b>\$0.430</b>		<b>\$0.185</b>
<b>OTHER PARAMETERS:</b>			
MILES PER GALLON			17.000
LANE CAPACITY (Vehicles Per Day)			10,081
CAPITALIZATION PERIOD (Years)			25
DISCOUNT RATE			3.75%
PRESENT VALUE FACTOR			16.043

SOURCES: Alachua County, April 2003.

Florida Department of Transportation, "Florida's Transportation Tax Sources," January 1994.

Statistical Abstract of the US 1999, p. 651 and 652.

US Department of Transportation, website, for updated data.

NOTES: (1) The Federal tax of \$.184 is reduced to \$.1544 because \$0.286 is transferred to mass transit and \$.001 is used to fund underground storage tank clean up.

\*(2) The motor fuel tax rates shown are for both gasoline and diesel, with the rate being a weighted average of the two.

Generally the traffic data shown in Table 3 are those presently used by the Alachua County Department of Public Works and by the Florida Department of Transportation. One exception is the introduction of a "pass-by" percentage. "Pass-by" measures the extent to which a particular use of land will "capture" existing trips that were passing-by the site rather than attracting new trips to the site. A study of "pass-by" trips was presented in the 1987, 1992, 1997 and the 2001 *ITE, Trip Generation Manual*. This study shows net road impact as a function of the size of the commercial destination. Not all trips to a particular building or development are new or impact trips. Rather, many new developments, especially retail developments, capture existing or "passer-by" trips. This factor is represented by the following formula:



ITE "PASS BY" FORMULA

$$\text{Pass-By Trip \%} = 45.1 - [ .0225 * ( X ) ]$$

X - 1,000 Square Feet Gross Leasable Area

**TABLE T2a**  
**PASS-BY TRIPS**  
**% OF TOTAL TRIP ENDS**

BUILDING SIZE	PASS-BY PERCENT	NEW TRIPS PERCENT
Under 100,000 FT <sup>2</sup>	44.9	55.1
100,000 -199,999 FT <sup>2</sup>	44.0	56.0
200,000 - 399,999 FT <sup>2</sup>	43.4	56.6
400,000 FT <sup>2</sup> & Over	42.9	57.1

SOURCE: Institute of Transportation Engineers,  
*TRIP GENERATION*, 6th Edition, 1997

**TABLE T2b**  
**LANE CAPACITY**  
**LOS "C" Non-State Roadways**

Lanes	Capacity	Type	Per Lane
2	14,600	Undivided	7,300
4	31,100	Divided	7,775
<b>LOS "D" Uninterrupted Flow</b>			
2	19,600	Undivided	9,800
4	61,800	Divided	15,450
Grand Average			10,081

SOURCE: Florida Dept. of Transportation, using Non-State Roadways at LOS D.

**TABLE T3  
AVERAGE TRIP LENGTHS**

<b>TRIP LENGTHS (Miles):</b>	<b>TOTAL</b>	<b>ALACHUA COUNTY</b>	<b>ON ARTERIAL &amp; COLLECTOR ROADS</b>
All Trips	9.06	7.25	6.16
To/From Work	11.80	9.44	8.02
Work Related Business	20.28	16.22	13.79
Shopping	5.64	4.51	3.84
Personal Business	6.93	5.54	4.71
School/Church	5.98	4.78	4.07
Social & Recreational	11.24	8.99	7.64
Travel on Local Roads			15%
Residential Based			6.16
Office Based			6.37
Commercial Based			4.67
Industrial Based			7.65
Recreational Based			7.64

SOURCE: Patricia Hun and Jennifer Young, "Summary of Travel Trends: 1995 Nationwide Personal Transportation Survey," prepared for the US Dept. of Transportation, December 1999, p.12 & 13.

**TABLE T4  
ROAD NEEDS BY LAND USE TYPE  
ALACHUA COUNTY**

<b>LAND USE TYPE (UNIT)</b>	<b>ITE No.</b>	<b>No. of Trips</b>	<b>Avg. Length (Miles)</b>	<b>% New</b>	<b>New Roads (Lane Feet)</b>
<b>RESIDENTIAL:</b>					
Single Family Detached Unit	210	9.57	6.2	100.0%	15.42
Attached Housing Unit	230	5.86	6.2	100.0%	9.45
Multi-Family Unit	220	6.72	6.2	100.0%	10.82
Mobile Home	240	4.99	6.2	100.0%	8.03
All Residential per 1,000 FT <sup>2</sup>		4.77	6.16	100.0%	7.71
<b>NON-RESIDENTIAL:</b>					
DRIVE-IN BANK PER 1,000 FT <sup>2</sup>	912	246.49	<b>2.36</b>	<b>27.6%</b>	41.92
MINI-WAREHOUSE PER 1,000 FT <sup>2</sup>	151	2.50	4.71	95.0%	2.96
HOTEL/MOTEL PER ROOM	310	8.92	6.16	95.0%	13.68
MOVIE THEATER PER SEAT	443	1.76	7.64	100.0%	3.54
RACQUET CLUB PER COURT	492	38.70	<b>3.82</b>	100.0%	38.76
CHURCH/SYNAGOGUE PER 1,000 FT <sup>2</sup>	560	9.11	4.07	100.0%	9.72
DAY CARE CENTER PER 1,000 FT <sup>2</sup>	565	79.26	<b>2.03</b>	70.0%	29.52
QUALITY RESTAURANT PER 1,000 FT <sup>2</sup>	831	89.95	<b>2.34</b>	85.0%	46.78
HIGH TURNOVER SIT-DOWN RESTAURANT PER 1,000 FT	832	127.15	<b>2.34</b>	85.0%	66.11
CAR SALES PER 1,000 FT <sup>2</sup>	841	33.34	3.84	95.0%	31.79
<b>OFFICE PER 1,000 FT<sup>2</sup> :</b>					

Under 100,000 FT <sup>2</sup>	For.	13.76	6.37	95.0%	21.81
100,000 -199,999 FT <sup>2</sup>	For.	12.15	6.37	95.0%	19.27
200,000 - 399,999 FT <sup>2</sup>	For.	10.36	6.37	95.0%	16.42
400,000 FT <sup>2</sup> & Over	For.	9.21	6.37	95.0%	14.57
<b>MEDICAL BUILDINGS:</b>					
MEDICAL OFFICES PER 1,000 FT <sup>2</sup>	720	36.13	<b>3.18</b>	95.0%	28.62
HOSPITALS PER 1,000 FT <sup>2</sup>	610	17.57	4.07	95.0%	17.79
NURSING HOME PER 1,000 FT <sup>2</sup>	620	6.10	6.16	95.0%	9.35
<b>INDUSTRIAL BUILDINGS:</b>					
GEN. INDUSTRIAL PER 1,000 FT <sup>2</sup>	110	6.97	7.65	95.0%	13.25
WAREHOUSING PER 1,000 FT <sup>2</sup>	150	4.96	7.65	95.0%	9.45
GENERAL COMMERCIAL RETAIL PER 1,000 FT <sup>2</sup> :					
Under 100,000 FT <sup>2</sup>	For.	71.16	4.7	55.1%	48.00
100,000 -199,999 FT <sup>2</sup>	For.	58.93	4.7	56.0%	40.39
200,000 - 399,999 FT <sup>2</sup>	For.	46.23	4.7	56.6%	32.00
400,000 FT <sup>2</sup> & Over	For.	38.66	4.7	57.1%	27.03
PHARMACY WITH DRIVE THRU	881	88.16	1.9	50.0%	22.12
FAST FOOD RESTAURANT	834	496.12	1.9	35.0%	87.17
SERVICE STATION PER FUELING STN.	844	168.56	1.9	20.0%	16.95
CONVENIENCE RETAIL	851	737.99	1.9	27.6%	102.12

NOTE: Mobile home rates are for mobile homes located within mobile home parks.

For.-- Rate determined by formulae set out below.

SOURCE: Institute of Transportation Engineers, Trip Generation, 7th Edition, 2001.

**NOTES TO TABLE T4:** The office and commercial retail rates shown and only examples. The actual trip rates for these land uses will be determined by the following formulae:

**A. Office;**

$$\text{Total Daily Trips} = \text{Ln}(T) = 0.77\text{Ln}(X) + 3.655$$

*T* = Total Daily Trips

*X* = Area in 1,000 sq. ft.

*Ln* = Natural Logarithm

**B. Shopping Center;**

$$\text{Total Daily Trips} = \text{Ln}(T) = 0.65 \text{Ln}(X) + 5.83$$

*T* = Total Daily Trips

*X* = Area in 1,000 sq. ft.

*Ln* = Natural Logarithm

The data in Table 4 show the number of trip ends associated with each type of land development. For example, a single family home has 9.57 trip-ends per day – 4.785 outbound and 4.785 inbound. Each trip has a Alachua County average length of 6.2 miles per day on arterial and collector roads. This results in 29.5 miles of daily travel attributable to a single family home. The other half of the travel is attributable to the places that the homebound trips are starting from. With an average capacity of 10,081 vehicles per lane per day, one lane of road

15.42 feet long – to accommodate a new single family home. It follows that every time a new home is built; 15.42 feet of roadway will be consumed by the expected travel from that home. This nexus is the first component of the dual rational nexus test.

The formula for calculating the road impact fees is:

$$\text{ATTRIBUTABLE TRAVEL} = [(\text{TRIP RATE} \times \text{TRIP LENGTH})/2] * \% \text{NEW TRIPS}$$

$$\text{NEW LANE MILES} = \text{ATTRIBUTABLE TRAVEL} / \text{LANE CAPACITY}$$

$$\text{CONSTRUCTION COST} = \text{NEW LANE MILES} \times \text{CONSTRUCTION COST PER LANE MILE}$$

$$\text{RIGHT OF WAY COST} = \text{NEW LANE MILES} \times \text{RIGHT OF WAY COST PER LANE MILE}$$

$$\text{TOTAL COST} = \text{CONSTRUCTION COST} + \text{RIGHT OF WAY COST}$$

$$\text{MOTOR FUEL CREDIT} = \{[(\text{ATTRIBUTABLE TRAVEL} * 365) / \text{MPG}] * \text{TAX}\} * \text{PV}$$

$$\text{NET COST} = \text{TOTAL COST} - \text{MOTOR FUEL CREDIT}$$

PV = Present Value Factor.

Where;

Lane Capacity	= 10,081
Construction Cost	= \$1,200,000 per Lane-Mile
Right of Way Cost	= \$250,000 per Lane-Mile
Engineering Cost	= \$250,000 per Lane-Mile
MPG	= 19 Miles per Gallon
Capital Tax Rate	= ¢18.5 per Gallon
Present Value Factor	= 16.043

The land uses employed in this presentation of road impact are rather general. The primary reason for the use of general classifications is that most non-residential structures can have a wide variety of tenants within their general zoning classifications. This formulation bases impact on the use classification rather than the particular mix of tenants. This would relieve the need for reassessment of impact and possibly of impact fees when tenants change. It also will mean that the particular mix of tenants would not be a basis for road impact or traffic impact assessment.

**TABLE T5  
NET ROAD COST BY LAND USE TYPE  
ALACHUA COUNTY**

	<b>ITE No.</b>	<b>Annual Gas Taxes</b>	<b>Credit</b>	<b>Const- ruction</b>	<b>R.O.W. and Engineering</b>	<b>Net Cost</b>
<b>RESIDENTIAL:</b>						
Single Family Detached Unit	210	\$117.09	\$1,878	\$3,650	\$1,460	\$3,232
Attached Housing Unit	230	\$71.70	\$1,150	\$2,238	\$895	\$1,983
Multi-Family Unit	220	\$82.22	\$1,319	\$2,563	\$1,025	\$2,269
Mobile Home	240	\$61.06	\$980	\$1,900	\$760	\$1,680
All Residential per 1,000 FT <sup>2</sup>		\$58.37	\$936	\$1,825	\$730	\$1,619
<b>NON-RESIDENTIAL:</b>						
DRIVE-IN BANK PER 1,000 FT <sup>2</sup>	912	\$317.77	\$5,098	\$9,925	\$3,970	\$8,797
MINI-WAREHOUSE PER 1,000 FT <sup>2</sup>	151	\$22.23	\$357	\$700	\$280	\$623
HOTEL/MOTEL PER ROOM	310	\$103.68	\$1,663	\$3,238	\$1,295	\$2,870
MOVIE THEATER PER SEAT	443	\$26.72	\$429	\$838	\$335	\$744
RACQUET CLUB PER COURT	492	\$293.73	\$4,712	\$9,175	\$3,670	\$8,133
CHURCH/SYNAGOGUE PER 1,000 FT <sup>2</sup>	560	\$73.57	\$1,180	\$2,300	\$920	\$2,040
DAY CARE CENTER PER 1,000 FT <sup>2</sup>	565	\$224.04	\$3,594	\$6,988	\$2,795	\$6,189
QUALITY RESTAURANT PER 1,000 FT <sup>2</sup>	831	\$354.79	\$5,692	\$11,075	\$4,430	\$9,813
HIGH TURNOVER SIT-DOWN RESTAU- RANT PER 1,000 FT	832	\$501.51	\$8,046	\$15,650	\$6,260	\$13,864
CAR SALES PER 1,000 FT <sup>2</sup>	841	\$241.25	\$3,870	\$7,525	\$3,010	\$6,665
<b>OFFICE PER 1,000 FT<sup>2</sup> :</b>						
Under 100,000 FT <sup>2</sup>	For.	\$165.33	\$2,652	\$5,163	\$2,065	\$4,576
100,000 -199,999 FT <sup>2</sup>	For.	\$145.98	\$2,342	\$4,563	\$1,825	\$4,046
200,000 - 399,999 FT <sup>2</sup>	For.	\$124.48	\$1,997	\$3,888	\$1,555	\$3,446
400,000 FT <sup>2</sup> & Over	For.	\$110.66	\$1,775	\$3,450	\$1,380	\$3,055
<b>MEDICAL BUILDINGS:</b>						
MEDICAL OFFICES PER 1,000 FT <sup>2</sup>	720	\$217.05	\$3,482	\$6,775	\$2,710	\$6,003
HOSPITALS PER 1,000 FT <sup>2</sup>	610	\$134.80	\$2,163	\$4,213	\$1,685	\$3,735
NURSING HOME PER 1,000 FT <sup>2</sup>	620	\$70.90	\$1,137	\$2,213	\$885	\$1,961
<b>INDUSTRIAL BUILDINGS:</b>						
GEN. INDUSTRIAL PER 1,000 FT <sup>2</sup>	110	\$100.62	\$1,614	\$3,138	\$1,255	\$2,779
WAREHOUSING PER 1,000 FT <sup>2</sup>	150	\$71.60	\$1,149	\$2,238	\$895	\$1,984
<b>GENERAL COMMERCIAL PER 1,000 FT<sup>2</sup></b>						
Under 100,000 FT <sup>2</sup>	For.	\$363.89	\$5,838	\$11,363	\$4,545	\$10,070
100,000 -199,999 FT <sup>2</sup>	For.	\$306.27	\$4,913	\$9,563	\$3,825	\$8,475
200,000 - 399,999 FT <sup>2</sup>	For.	\$242.84	\$3,896	\$7,575	\$3,030	\$6,709
400,000 FT <sup>2</sup> & Over	For.	\$204.87	\$3,287	\$6,400	\$2,560	\$5,673
PHARMACY WITH DRIVE THRU	881	\$167.87	\$2,693	\$5,238	\$2,095	\$4,640
FAST FOOD RESTAURANT	834	\$661.30	\$10,609	\$20,638	\$8,255	\$18,284
SERVICE STATION PER FUELING STN.	844	\$128.39	\$2,060	\$4,013	\$1,605	\$3,558
CONVENIENCE RETAIL	851	\$774.31	\$12,422	\$24,175	\$9,670	\$21,423

The data in Table T5 show;

1. The annual motor fuel tax payments made that are available to fund road

- construction,
2. The present value of future motor fuel tax payments available to fund road construction, which is accepted as representing what that unit of new development pays toward the costs of roads that it consumes,
  3. The cost of providing the needed quantity of roads at level of service D,
  4. The cost of providing the needed rights of way at level of service D, and
  5. The net cost of providing roads at level of service D.

## Benefit Areas

Should Alachua County proceed toward the adoption of road impact fees, it will be necessary to consider sub-county areas or zones within which impact fees collections must be expended. Florida case law requires that developments paying impact fees must receive a substantial benefit from the expenditure of those fees. Typically benefit is defined in terms of proximity. It is presumed that benefit will diminish with distance between the development paying fees and the location of the improvement funded with those impact fees. There is no set distance. Rather, the benefit rule must be met and there should be some showing that it has been met.

It is recommended that the County consider dividing the area of the county into three benefit areas or zones. These areas should follow primary commuting patterns. The benefit zones within the existing ordinance are consistent with this recommendation.