Appendix A

Legal Memorandum

CONFIDENTIAL MEMORANDUM

TO: Mr. Sanford A. Minkoff, County Attorney

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DATE: May 15, 2001

RE: **Transportation Impact fees**

I. LEGAL CONSIDERATIONS FOR IMPACT FEES

A. Legal Precedents

1. The Dual Rational Nexus Test

Historically, impact fees came into common use in the 1970s. Initial treatment of these fees by the courts of Florida was not positive. See, Broward County v. Janis Development Corp., 311 So.2d 371 (Fla. 4th DCA 1975)(holding that an impact fee was an invalid tax where the ordinance provided that funds would be used solely for roads and bridges, but failed to indicate with specificity where and when the monies were to be used); City of Miami Beach v. Jacobs, 315 So.2d 227 (Fla. 3d DCA 1975)(holding similarly that an impact fee was an illegal tax because the funds collected weren't earmarked with specificity). Ultimately, the Florida Supreme Court, in Contractors & Builders Ass'n v. City of Dunedin, 329 So.2d 314 (Fla. 1976), upheld an impact fee similar to those stricken by the lower courts. The Dunedin court distinguished the Janis case, upholding the ordinance based on the fact that the local government had adduced evidence that the fees charged were less than the costs actually incurred by the local government based on the development. Id.

at 318. The court concluded that because the local government was able to demonstrate a nexus between the fee charged and the actual costs incurred by the local government, the fee was not an invalid tax. Id. at 319.

Several cases followed Dunedin and clarified the nexus requirement first developed by Dunedin into the modern "dual rational nexus" test. Initially, the court in Hollywood, Inc. v. Broward County, 431 So.2d 606 (Fla. 4th DCA 1983), upheld an impact fee ordinance based on the county's showing of a "reasonable connection," or a "rational nexus," between the expenditures of the funds collected under its ordinance and the benefits accruing to proposed development. Specifically, the court held that the local government must show this "reasonable connection" or "rational nexus" in two ways:

1) the fees must offset needs sufficiently attributable to the growth in population generated by the new subdivision; and

2) the funds collected must be sufficiently earmarked for the substantial benefit of the subdivision residents. Id. at 611.

The Broward ordinance required the funds collected to be " 'expended within a reasonable period of time, for the purpose of acquiring and developing land necessary to meet the need for County-level parks created by the development in order to provide a system of County-level parks which will be available to and substantially benefit the residents of the platted area.' " Id. at 612 (quoting the ordinance). The Broward ordinance further limited the use of the funds to acquiring and developing new land for park purposes within 15 miles of the proposed development. The court emphasized that "[t]he reasonableness of this distance is shown by the county's evidence that residents travel widely in order to take advantage of the features that can be provided at County-level parks. Based on this evidence, we believe that the ordinance adequately earmarks the funds

collected for use in expanding the regional park system to accommodate the subdivision residents." Id.[1]

The Second District Court of Appeals, in Town of Longboat Key v. Lands End, Inc., 433 So.2d 574 (Fla. 2d DCA 1983), adopted the dual rational nexus test described above, adding that the fees collected must be shown to offset but not exceed reasonable needs attributable to the new subdivision and must be adequately earmarked for capital assets that will sufficiently benefit the new residents. Id. at 575-576.

Thereafter, the Florida Supreme Court, in St. Johns County v. Northeast Florida Builders Association, Inc., 583 So. 2d 635 (Fla. 1991), took the opportunity, among other things, to rule on the "benefits test" for an impact fee relating to schools. The high court approved the imposition of impact fees that meet the requirements of the dual rational nexus test adopted by other courts in evaluating impact fees, and it stated with regard to the "benefits" requirement of the second prong of the dual rational nexus test as follows:

> "In addition, the government must show a reasonable connection, or rational nexus, between the expenditures of the funds collected and the benefits accruing to the subdivision. In order to satisfy this latter requirement, the ordinance must specifically earmark the funds collected for use in acquiring capital facilities to benefit the new residents."

Id. at 637 (quoting Hollywood, Inc. v. Broward County, supra).

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[1] The Hollywood court cautioned that a requirement that the funds be used to construct or improve roads "in the vicinity" of the proposed development was an "insufficient and nebulous limitation on the County's discretion in expending the funds," when it distinguished the case of Broward County v. Janis Development Corp., 311 So. 2d 371 (Fla. 4th DCA 1975). However, it noted that the ordinance at issue did not have this flaw, and it "sufficiently earmarks the future use of the money for capital facilities to serve the new subdivision." Id. at 613.

Perhaps, the Florida Supreme Court was most instructive on the second prong of the test when it explained:

> "The question of whether the ordinance meets the requirements of the second prong of the test is more troublesome. As indicated, we see no requirement that every new unit of development benefit from the impact fee in the sense that there must be a child residing in that unit who will attend public school. It is enough that new public schools are available to serve that unit of development . Thus, if this were a County-wide impact fee designed to fund construction of new schools as needed throughout the County, we could easily conclude that the second prong of the test had been met."

Id. at 639 (emphasis added).

The court suggested, at least with regard to school impact fees, that a valid ordinance should assess an impact fee against new development of residential structures, show the correlation between the need for school development and population growth, show how the funds collected are reasonably connected to benefits for new development, and assess the fee in a uniform manner throughout the county. See, commentary by Kenneth T. Murray, J.D., Ph.D., Impact Fee on New Residential Construction Used for New School Facilities Approved by Florida, 70 Ed. Law Rep. 273 (1991).

The court in Baywood Construction, Inc. v. City of Cape Coral, 507 So.2d 768 (Fla. 2d DCA 1987), the court found that an impact fee was not a zoning ordinance and did not substantially restrict the use of the subject property. This holding is important in the defense of possible constitutional challenges to impact fees arising out of a property owner's claim that the impact fee constitutes a taking of his property without just compensation.

The court in City of Key West v. R.L.J.S. Corp., 537 So.2d 641 (Fla. 3d DCA 1989), upheld an impact fee imposed upon the issuance of a certificate of occupancy. The developer argued that the fees were improper as they were not attendant with the issuance of the building permits and, as such, could not be passed on to the buyers. The court held that unanticipated fees could be imposed

on the developer, as the building permit merely indicated that the developer could build according to approved plans.

Finally, the court in City of Cape Canaveral v. Rich, 562 So.2d 445 (Fla. 5th DCA 1990), held that the passage of an impact fee was a quasi-legislative act, rendering certiorari appeal an inappropriate procedure to challenge its validity. This is important as the judicial scrutiny attendant with quasi-legislative acts is far less strict than government activities that are labeled judicial or quasi-judicial.

2. Close Relationship of Assessment to Impact

As described at length above, the validity of fees is more properly judged by how they are assessed and how they are spent. Thus, the local government must demonstrate that the need for the fee is created by the new growth assessed (and the fee does not exceed the proportionate share of the cost of facilities necessitated by the new growth) and that the funds collected are earmarked for the sufficient benefit of the new residents who pay. The cases described above indicate that the following are necessary in the proper analysis of impact fees:

a) the local government must carefully document estimates of cost of facilities to be financed with the fee;

b) the local government must utilize a reasonable formula for determining proportionate share attributed to new development

c) the local government must segregate the fee spent for the purpose for which it was collected

d) the expenditure must be localized; and

e) the ordinance must provide a time limit and provisions for a refund if the proceeds are not expended within the time limit.

See, supra; see also; Jurgensmeyer, Julian, Florida Land Use Law, 2nd Edition, Ch. 22, p. 36, (1998-99).

B. Legal Review of Lake County Comprehensive Plan

The following goals, objectives, policies and directives of the Comprehensive Plan may be applicable to implementation of impact fees or impact fee exemptions for the subheading indicated (e.g. low and very low income housing, industrial use, day care).

1. Traffic Circulation Element

a. Policy 2-2.5: Regulate Impacts of Development on Adopted Levels of Service. Lake County shall regulate the impacts created by new development on adopted levels of service by incorporating provisions in the Land Development Regulations by February 1992 that; (1) require future development to comply with level of service standards; (2) deny approval of or regulate the density of development according to adopted levels of service; and (3) require future development to pay an equitable share of the costs necessary to support transportation facilities demanded by the development.

b. Policy 2-3.5: Use of Traffic Impact Fees for Right-of-Way Acquisition. Lake County may designate right-of-way revenues collected via its traffic impact fee ordinance for acquiring right-of-way for arterial and collector roadways included in the County's Five-Year Road Capital Improvements Program. In particular, Lake County, by 1996, may designate right-of-way revenues, collected via its traffic impact fee ordinance, for acquiring right-of-way for: (1) the Eustis By-pass; and (2) the Leesburg East-West Connector, as identified in the Traffic Circulation Element Data Inventory and Analysis. The County shall decide on the final alignment of the Eustis By-Pass at an advertised public hearing. The County shall coordinate with the FDOT to receive credit for revenue designated for acquiring right-of-way for roadways in the State Highway System.

2. Housing Element

a. Goal 5: HOUSING. Support safe, affordable housing for all segments of the population by allocating sufficient land area to accommodate the diverse needs of current and future populations; creating opportunities for the public and private housing delivery system to meet housing needs; and protecting the character of residential neighborhoods by assuring the availability of supporting infrastructure, precluding the encroachment of incompatible land uses, and minimizing adverse impacts on the environment.

b. Objective 5-1: ASSURE THE AVAILABILITY OF AFFORDABLE HOUSING. Manage residential growth through policies herein that foster development opportunities supportive to a diverse and affordable housing market, and that assist the housing

delivery system to provide for the projected need of 25,365 single family, 2,066 multiple family and 20,709 mobile home residential dwelling units by 1996, and to provide an additional 14,944 units by 2005.

c. Policy 5-1.4 Affordable Housing Advisory Committee. The County shall continue to staff and support an affordable housing advisory committee, comprised of representatives of local government and private and non-profit organizations involved in the production of affordable housing. The goal of the committee is to assist the County in identifying improvements to the housing delivery system, with particular emphasis on the provision of affordable housing to very-low, low and moderate income households. The Affordable Housing Advisory Committee shall provide recommendations for the periodic revision of the Local Housing Assistance Plan and affordable housing incentives for Lake County. Responsibilities of the Affordable Housing Advisory Committee shall include the following:

1. Affordable Housing Finance. The Advisory Committee shall assist staff in seeking funding, drafting rules, responsibilities and guidelines to continue support for the existing county-wide Affordable Housing Program which implements affordable housing programs reviewed and approved by the Board of County Commissioners. The County shall seek funding sources for affordable housing consistent with the guidelines of the "William E. Sadowski Affordable Housing Act".

* * *

3. Affordable Housing Incentives. The Advisory Committee shall assist staff in investigating and evaluating the merits of revising incentives which encourage construction of affordable housing, particularly for very low, low and moderate income households during the development of the Lake County Housing Incentive Plan. Findings and recommendations resulting from this evaluation shall be presented to the Board of County Commissioners in the Housing Assistance Plan that includes the Housing Incentive Plan for its review and approval. At a minimum the Affordable Housing Advisory Committee shall make recommendations on affordable housing incentives in the following areas:

3. Capital Improvements Element

a. Policy 10B-1.3: Determination of Capacity for Preliminary Development Orders. The capacity of Category A public facilities shall be determined for preliminary development orders at the time an applicant of a development order requests a determination of such capacity as part of the review and approval of the preliminary development order provided that:

* * *

c) The determination that such capacity is available shall be binding on the County at such time as the applicant provides assurances, acceptable to the County in form and amount, to guarantee to the County the applicant's pro rata share of the County's

financial obligation for public facilities which are constructed by the County for the benefit of the subject property.

(1) The assurances to be provided by the applicant may include one or more of the following:

(a) prepayment of impact fees...

b. Policy 10-5.5: Inclusion of Funding Sources of Development Commitments. By February 1992 the Land Development Regulations shall include provisions which bind funding sources from capital projects provided by development commitments to the Five-Year Schedule of Capital Improvements. Such funding sources shall include, but are not limited to, prepayment or payment of impact fees or development exactions, establishment of either special taxing districts or community development districts, and fees paid in lieu of providing mandatory public facilities.

c. OBJECTIVE 10-9: FUTURE DEVELOPMENT TO BEAR COSTS OF THEIR RESPECTIVE INFRASTRUCTURE IMPACTS. Future Development Shall bear a Proportionate Share of Costs for Facility Improvements Necessary to Provide Capital Improvements Demanded by the Impacts Generated by New Growth and Development.

d. Policy 10-9.1: Continued Use of Adopted Impact Fees. Pursuant to the Lake County Road Impact Fee Ordinance, Lake County shall assess impact fees on new development to cover a proportionate share (85%) of the cost to provide additional road capacities and safety improvements to County and State arterial and collector roadways. The County shall contribute funds to cover the remaining cost (15%) to provide new facilities demanded by new growth and development. The impact fee shall not exceed the actual cost to provide road improvements required to meet the facility demand created by an applicant for new development or redevelopment.

e. Policy 10-9.2: Voluntary Payment of County's Designated Share of Impact Fees. Applicants of new development and redevelopment may voluntarily elect to pay all (100%) road impact fee costs to provide additional road capacities to expedite required improvements in the event Lake County will not have sufficient funds to meet its contribution until a succeeding year in the Five-Year Schedule of Capital Improvements due to the need to finance higher ranked road improvement priorities. Such payment of all fees to move up the timing of a project shall be conditioned on the approval of the Board of County Commissioners.

f. Policy 10-9.3: Analyze Potential of Additional Impact Fee Sources. Impact fees shall be initiated and maintained for as many public facilities as feasible, but with consideration to the economic impact on affordable housing (particularly very low, low and moderate income homes), and to the effects such fees might place on the local construction industry. By February 1992 lake County shall analyze the merits of imposing impact fees for other services and facilities comprised of Parks and Recreation, Fire Protection, Emergency Medical Services, Law Enforcement, Library, Potable Water and Sewer Services. Based on the impact fee study completed

in 1990, the County shall initiate additional impact fees as warranted by the anticipated facility and service needs of new development and redevelopment.

g. Policy 10-9.4: Limited Use of Impact Fees. Impact fees shall be used to fund capital facility needs resulting from new development and shall not be used to fund existing deficiencies.

h. Policy 10-9.5: Mandatory Provision of Certain Facilities or Fees in Lieu Thereof. Lake County shall incorporate provisions within the Land Development Regulations by February 1992 which require new development to bear all or a proportionate share of costs associated with the provisions of site-related public facilities needed to accommodate demands generated by such development and to maintain facilities and infrastructure according to adopted level of service standards. Development thresholds for which mandatory provision of on-site public facilities shall be incorporated into the Land Development Regulations. New development shall be required to assume responsibility for following facility costs, including all applicable impact fees:

a. Transportation Impacts. The Land Development Regulations shall describe the development conditions and thresholds which require transportation improvements to be provided by new development. New development shall be responsible for providing all on-site traffic circulation facilities, including facilities supporting pedestrian and bicycle transportation. New development shall pay road impact fees to bear its share of impacts to adjacent roadway network systems, except where additional road and signalization improvements are required to provide safe access to the subject site and to maintain quality of traffic flow.

i. OBJECTIVE 10-11: DEMONSTRATION OF THE FINANCIAL FEASIBILITY TO LAKE COUNTY'S ABILITY TO FINANCE IMPROVEMENTS PROGRAMMED IN THE FIVE YEAR SCHEDULE OF CAPITAL IMPROVEMENTS. The County Shall Demonstrate the Ability to Finance Improvements Programmed in the Five-Year Schedule of Capital Improvements for the Purpose of Eliminating Existing Deficiencies, to Replacing Obsolete or Worn Out Facilities, or Providing for Demands Created by New Growth and Development and Shall Establish Policies that Efficiently Manage Public Money in a Manner Conducive to Establishing a Balanced Government Budget.

j. Policy 10-11.1: Transportation Improvements. The County shall finance improvements to road facilities through the following funding mechanisms:

a. Transportation Trust Fund
b. Road Impact Fee Fund
c. Development Agreements/Commitments
d. ROW dedications

4. Economic Element

a. Policy 11-1.1: Create Desirable Business Environment. Lake County shall create a desirable business environment that attracts and retains business by: (1) fostering an

attitude that welcomes new industry, (2) providing necessary infrastructure for development, (3) eliminating unnecessary regulation and streamlining the review process, (4) maintaining competitive tax and fee structures, (5) making business incentives available, and (6) supporting employee training and education programs.

b. Policy 11-1.3: Maintain Economic Development Program. The County shall maintain an economic development program that serves the needs of existing business and actively markets Lake County and recruits new business and industry. Lake County shall continue to participate in the regional economic development efforts of the Economic Development Commission of Mid-Florida, Inc. or its successor as designated by the Board of County Commissioners.

c. OBJECTIVE 11-2: ENHANCE AND ENCOURAGE A SUSTAINABLE AGRICULTURE INDUSTRY. Lake County Shall Maintain Programs Which Are Designed to Enhance the Opportunity For Sustainable Agricultural Pursuits.

d. Policy 11-2.2: Agricultural Land Values. In order to maintain the viability of agricultural lands, Lake County shall encourage diversified agricultural pursuits on land formerly in agricultural production.

e. OBJECTIVE 11-5: DEVELOP BUSINESS INCENTIVE PROGRAM. Lake County, With Assistance From the Economic Development Commission of Mid-Florida, Inc. and Lake County Business Leaders, Will Develop a Full Range of Business Incentives. This Will Allow Lake County to Tailor an Incentives Package to Address the Specific Needs of an Existing Industry or a New Business Prospect.

f. Policy 11-5.4: Impact Fee Deferral Incentives. Lake County shall develop an impact fee deferral program for commercial (excluding retail) and industrial construction.

g. Policy 11-5.10: Competitive Impact Fee Schedule. The County shall maintain an impact fee schedule for residential, commercial and industrial development that will allow Lake County to remain competitive in the region and state.

C. Legal Review of Current County Road Impact Fee Program

1. Policies and Practices

a. Charges an impact fee based on the land use type, further divided by square footage, and occupancy for certain residential uses. In the event that proposed construction does not fit the land use categories set forth or involves a mixed use, the ordinance provides a methodology for fee calculation.

b. The developer may submit an alternate fee calculation to the county manager or designee providing data regarding traffic impact.

c. Requires the fee to be paid prior to issuance of a Building Permit or Development Permit as defined in the ordinance. The General regulations applicable to all impact fees collected provide for prepayment of the impact fees.

d. The developer may construct all or part of a required road improvement project as an alternative to paying the fee.

e. Permits the retention of 3% of the fees collected as compensation for the expense of collecting the fee.

f. Creates 6 Road Benefit Districts and limits use of fees collected to use within Road Benefit District in which the funds were collected. Further limitations on geographic area for use of funds collected are provided with regard to municipalities within the Road Benefit Districts.

g. A Road Benefit District Account is established for the fee proceeds.

h. If the funds are not used for road improvement within 6 years, the funs are returned to the then current landowner with interest at 6% per annum.

i. Ordinance No. 2001-1, amending section 15.02.11 of the Land Development Regulations, permits the transfer of impact fee credits and provides a procedure for such transfer, which includes approval by the Board of County Commissioners and prohibits the transfer of any credit outside the Road Impact Fee District in which the original project was completed.

2. Exemptions/Waivers

a. The General regulations applicable to all impact fees collected provide for a waiver of the fees for Very Low and Low Income Housing as defined in the ordinance. The Ordinance provides that "the Board of County Commissioners may choose to allocate interest earned in any impact fee trust fund to be used to provide waivers as provided herein for similar impact fees."

b. The General regulations applicable to all impact fees collected provide for a waiver of the fees for industrial land uses. The Ordinance provides that "the Board of County Commissioners may choose to allocate interest earned in any impact fee trust fund to be used to provide waivers as provided herein for similar impact fees."

c. The General regulations applicable to all impact fees collected provide for a waiver of up to 50% of the fees for day care centers if the County Commission finds that such a waiver is for good cause and is of benefit to Lake County. The Ordinance provides that "the Board of County Commissioners may choose to allocate interest earned in any impact fee trust fund to be used to provide waivers as provided herein for similar impact fees."

d. Alteration of an Existing Building where no additional residential density is created or where the nonresidential use is not changed.

e. Construction of accessory buildings.

f. Replacement of destroyed or partially destroyed Buildings or Structures of the same size and use.

g. Installation of a replacement mobile home with the same number of bedrooms on the same Site with the impact fee for the site has already been paid.

h. Installation of a replacement mobile home with the same number of bedrooms when a mobile home existed on the same site prior to march 15, 1985.

i. The replacement of a conventionally built home with another conventionally built home with the same number of bedrooms when the previous home has been moved to another Site.

j. Nonresidential Farm Buildings. The ordinance defines the various agricultural industries and uses to which the exemption applies.

D. Current County Transportation Impact Fee Study

1. Basis for fee calculations

a. The fees presented are based upon a demand or needs-driven approach whereby facility costs are allocated according to the proportionate impact of each unit of development and the costs for the roadway capacity required to accommodate each additional unit of development (derived from trip generation rates, trip lengths, percent of trips diverted to other land uses, and other data).

b. Fees calculated as described above are reduced by credits for other forms of payment, which avoids the problem of double-charging new development.

2. Traffic and Roadway Analysis

a. Adopts LOS minimum level "C" and "D" for minor arterials.

b. Includes an inventory of current transportation facilities and LOS status of each. Projects traffic volume through 2005. (Excludes improvements needed to correct existing deficiencies).

c. Sets forth roadway capacity by lane.

d. Sets forth costs necessary to provide added capacity to the roadway network.

e. Sets forth average trip generations per land use during a typical day drawing from numerous studies throughout the country.

f. Sets forth a methodology for calculating impact fee credits, taking into account federal and state gas tax revenues utilized for improvements to the transportation network.

g. Sets forth a transportation impact fee model. Provides mathematical formulae utilizing the data described above to arrive at the appropriate fee amount.

3. Appendices

a. Appendix 1-A is an inventory of the Lake County Traffic Circulation System, indicating location, length, lanes, average and projected traffic and LOS.

b. Appendix 1-B sets forth land use descriptions for use in the fee model.

c. Appendix 1-C sets forth Standard Industrial Classification Codes by the Institute of Traffic Engineers for use in the fee model.

d. Appendix 1-D sets forth Gas Tax Credit Calculations for use in the fee model.

II. Legal analysis of the subject ordinance

The following analysis discusses the major legal issues presented by the transportation impact fee format utilized by Lake County. Initially, the memorandum will discuss the general scheme utilized by Lake County in applying the transportation impact fee and calculating the amount thereof. Thereafter, the memorandum will examine the exemptions and waivers provided in the general impact fee ordinance and the exemptions and waivers specific to the transportation impact fee ordinance.

A. Imposition of the Impact Fee

Initially, as described above, impact fee jurisprudence mandates that a local government be able to show a "reasonable connection" or "rational nexus" between the impact fee collected and the impact of the proposed development on the public services of facilities for which the fee was collected. This is shown in two ways:

1) the fees must offset needs sufficiently attributable to the growth in population generated by the new development; and

2) the funds collected must be sufficiently earmarked for the substantial benefit of the new development.

With regard to the first of these inquiries, there is ample support in the Comprehensive Plan indicating that future growth necessitates expansion of County facilities, specifically including

transportation facilities. Objectives and Policies found throughout the Future Land Use, Traffic Circulation, and Capital Improvement Elements of the Comprehensive Plan support the imposition of transportation impact fees, describing the impact of new development on existing services and adopting minimum levels of service for County roadways. The Impact Fee Study utilizes extensive data, both local and national, to solidify these conclusions into economic realities. The demand/ needs-driven approach utilized in the analysis appears sufficient to tie the ultimate fee charged to the actual impact of the development, with variables such as land use and size accounted for.

Further, the subject ordinance utilizes a tiered structure for the calculation of the transportation impact fee. The tiering of impact fees is relatively new, however, as will be discussed below, is defensible under prevailing law in the impact fee area.

Historically, as a result of impact fee litigation, many communities have relied upon the tried and true methods of assessing impact fees. However, the regressive nature of unit-based methodology is apparent. Some local governments have reduced the most regressive aspects of impact fees by using a methodology which counts number of bedrooms per unit as a determinant of the amount of the impact fee. An assessment based on unit size, however, is both more accurate in terms of measuring impact and less regressive. There is some evidence that larger single family homes or homes with more bedrooms create more impacts to public facilities – the idea that more people in a house contribute more impact to the public facilities they use. Nicholas, "On the Progression of Impact Fees," Journal of the American Planning Association, Vol. 58, No. 4, Autumn 1992, p. 519-523. Growing out of this concept is the practice called "tiering." Simply put, tiering categorizes single family residential dwelling units into different classifications based on the level of impact the residents of a home will likely have on public facilities. The delineation among homes is typically expressed in terms of size (square footage) or number of bedrooms. See Hollywood, Inc.

v. Lake County, 431 So. 2d 606 (Fla. 4th DCA 1983) (upholding park impact fee which was based on the number of bedrooms per unit). Larger homes, with more residents, have greater impacts and therefore pay higher fees. Smaller homes pay less.

In analyzing the appropriateness of impact fee calculations, the first prong of the dual rational nexus test is the focal point. In essence, the fee must offset needs sufficiently attributable to the growth in population generated by the new development. Tiering arguably permits an even more direct relationship to be drawn between the impact of the development and the fee charged due to its fine tuning of the anticipated number of residents causing impact. Nicholas, "On the Progression of Impact Fees," Journal of the American Planning Association, Vol. 58, No. 4, Autumn 1992, p. 519-523.

An Oregon court in Oregon State Homebuilders Association v. City of Tigard, 604 P.2d 886 (Or. App. 1979), upheld an impact fee ordinance that included a graduated fee schedule based on the type and purchase price of residential units, providing substantially lower fees to affordable single-family housing projects. The trial court found that the ordinance was invalid as violative of the equal protection clause. Id. at 888. The trial court reasoned that there was no relationship between the cost of a residence and its impact on city facilities. Id. The appellate court reversed, finding that the charges were, in fact, taxes as opposed to fees. Id. at 890-891. Based on this conclusion, the court determined that the city need not demonstrate a relationship between the fee amount and the burden on public facilities. Id. Further, the Homebuilder's Association argued that there was no relationship between the charge and the production of affordable housing, observing that the differential tax rates would not promote affordable housing because the difference in the rates was small. Id. at 890. The court responded to this by holding that the rate structure validly served both the purpose of raising revenue for county facilities and the purpose of encouraging

affordable housing. Id. The court refused to second guess the city's determination that the charge disparity furthered affordable housing. Id.[2]

With regard to the second factor analyzed in the dual rational nexus test as described above, the inquiry is one of whether the funds collected are sufficiently earmarked for the substantial benefit of the new development. The Lake County Ordinance divides the County into 6 Road Benefit Districts and limits use of fees collected to use within the Road Benefit District in which the funds were collected. The Ordinance permits the use of funds outside the benefit district in which the fee is collected only upon a finding by the Board of County Commissioners that the use directly benefits the district in which the fees were collected. This approach is commonly used and, providing that the districts are appropriately drawn, should satisfy the second prong of the dual rational nexus test.

Further, with regard to the allocation of fees collected to the Road Benefit District from which the fees were collected, the subject ordinance provides, in section 15.02.09(E), that "[a]ll Road impact fee funds collected Shall be deposited in a separate Road Benefit District Account." It is unclear from the language utilized whether there is a separate trust account for each district. As an initial matter, we recommend clarifying the ordinance to make this provision clear. We recommend the creation and use of separate trust accounts for each benefit district. This further establishes compliance with the second prong of the dual rational nexus test.

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[2] Note, however, that a graduated rate structure based on unit sales prices would be questionable. A commentator expressed concern that "[i]f the fee system is designed on value ... it risks classification as a proscribed ad valorem tax." Morgan, "Shortcomings of Impact Fee Law and Future Trends", in Development Impact Fees: Policy Rationale, Practice, Theory and Issues, 116 (A. Nelson ed. 1988). Such a practice was also invalidated in Venditti-Sivaro, Inc. v. City of Hollywood, 39 Fla. Supp. 121 (1973).

Finally, the Ordinance provides that "the Board of County Commissioners may choose to allocate interest earned in any impact fee trust fund to be used to provide waivers as provided herein for similar impact fees." It is our opinion that utilizing funds, including interest, from other impact fee sources is problematic. As discussed above, it is important in satisfying the second prong of the "dual rational nexus" test that impact fees collected for roads be limited to use on road and transportation projects. By the County allowing interest on these road funds to be used to fund non-road-related purposes (e.g. affordable housing, day care, etc.) may run afoul of this segregation requirement as well as the first prong of the "dual rational nexus" test. Moreover, the moneys from different impact fee trust funds may, under this provision, be commingled or used for unrelated public facilities (i.e., the road impact fee interest may be used to fund waivers which include water impact fee waivers). We would recommend removing this option as a source of recovering the short-fall created any waivers or exemptions.

B. Legal analysis of exemptions/waivers

The current ordinance creates several exemptions to impact fees, including low and very low income housing, industrial use, day-care, and certain agricultural exemptions. It is important to recognize that only a few cases have been found that discuss the constitutionality of impact fee exemptions. However, a review of the body of case law regarding each of these substantive areas and impact fees generally indicates that these exemptions are legally defensible. Generally, for an exemption to be upheld, it must, at a minimum, be rationally related to a legitimate state interest and satisfy both prongs of the "dual rational nexus" test. Loxahatchee River Environmental Control District v. School Board of Palm Beach County, 496 So.2d 930, 937-939 (Fla. 4th DCA 1986). Again, however, one must recognize that even if the exemption meets this test, there is no certainty that it will be sustained by the courts, given the absence of case law on the subject.

1. Low and very low income housing waiver

There is support for the proposition that the promotion of affordable housing is a legitimate state interest. The legislative findings with regard to chapter 420, Florida Statutes, governing "Affordable Housing; Coalitions for Homeless; Family Emergency Assistance" state that "Decent, safe, and sanitary housing for persons of very low income, low income, and moderate income are a critical need in the state." Fla. Stat. §420.6015 (1999). Further statutory authority is found in chapter 163, Florida Statutes, governing community redevelopment, which states that "it is further found and declared that there exists in counties and municipalities of the state a severe shortage of housing affordable to residents of low or moderate income, including the elderly; that the existence of such condition affects the health, safety, and welfare of the residents of such counties and municipalities and retards their growth and economic and social development; and that such condition is a proper matter of state policy and state concern and is for a valid and desirable public purpose." Fla. Stat. §163.335(5) (1999).

In addition, the Florida Supreme Court has long recognized and upheld the legitimate police power purpose of providing safe and sanitary dwelling accommodations available at rents and prices at which persons of low incomes can afford, and of mitigating the conditions caused by unsanitary or unsafe dwelling accommodations. Specifically, the Supreme Court of Florida upheld the validity of the findings and provisions contained in the Florida Housing Authorities Law, Sec. 421.01 et. seq., Fla. Stat. Lynch v. Housing Authority of Miami, 73 So.2d 70 (1954); State ex rel. Grubstein v. Campbell, 1 So.2d 483 (1941); Lott v. City of Orlando, 196 So. 313 (1939); State ex rel. Houston v. Hillsborough County, 183 So. 157 (1938).

Actions taken pursuant to the Florida Housing Authorities Law were held to be for a "public purpose." The Legislature, by enacting this law, has declared that there exists a shortage of sanitary

and safe dwellings available for persons of low income and that under the police power of the State, the provision of affordable housing is necessary to prevent crime, overcrowding, spread of disease and congestion. These conditions, in the Legislature's opinion, constitute a menace to the health, safety, morals, and welfare of the residents of this State and impair economic values. The Legislature further found that these conditions necessitate excessive and disproportionate expenditures of public funds for public services and facilities. Lott v. City of Orlando, 196 So. 313 (1939); Marvin v. Housing Authority of Jacksonville, 183 So. 145 (1938). In sum, there is much authority upholding affordable housing as a legitimate state interest.

Further, there is much support for an affordable housing waiver in the Lake County Comprehensive Plan. The Housing Element sets forth a goal of "safe, affordable housing for all segments of the population by allocating sufficient land area to accommodate the diverse needs of current and future populations." In fact, Goal 5 of the Housing Element (and several objectives and policies thereunder) support the development of "safe, affordable housing for all segments of the population." Further, the Housing Element, in Policy 5-1.4(3) specifically describes various incentives to be utilized in encouraging the construction of affordable housing, particularly very low, low and moderate income households. Similar policies and objectives are incorporated in the Capital Improvement Element. These provisions encourage the development of affordable housing. Therefore, the impact fee waiver which promotes affordable housing may be viewed as consistent with these policies.

The more difficult questions arise from the application of the "dual rational nexus" test to exemptions. As discussed previously, the focus of this inquiry is on the relationship between the impact of the development proposed on various county facilities and the fees charged to mitigate this

impact. There are obvious questions raised with regard to this relationship when certain development is exempted from paying fees, regardless of its impact on the county facilities.

In Loxahatchee River Environmental Control District v. School Board of Palm Beach County, 496 So.2d 930, (Fla. 4th DCA 1986), the court addressed several constitutional challenges to a state statute affording an impact fee exemption. The public sewer district sought to impose its impact fees against the school board, and the school board invoked the statutory exemption for schools. In reviewing these constitutional challenges, the court readily dismissed equal protection charges and noted that the test is only whether the classification bears some rational relationship to a legitimate state purpose. "That the statute results in some inequality will not invalidate it; the statute must be so disparate in its effect as to be wholly arbitrary. (cite omitted) It is not the court's function to determine whether the legislation achieves its intended goal in the best manner possible, but only whether the goal is legitimate and the means to achieve it are rationally related to the goal. (cite omitted)." Id. at 938. The Loxahatchee court then turned its attention to the analysis from Home Builders v. Board of Palm Beach County Commissioners, 446 So.2d 140 (Fla. 4th DCA 1983), noting that the setting of impact fees in different amounts in different parts of the county did not deny equal protection to county residents in that case. The court recalled that in the Home Builders case, the court was not offended by unequal charges or fees assessed in incorporated and unincorporated areas, so long as the legislative body has authority to enact the legislation. The Palm Beach County ordinance allowed municipalities to "opt out" of the impact fee ordinance which meant that developers within the city limits of an "opted out" city would not be required to pay the fee. The court went on to find that a rational basis existed for the exemption of municipalities from the ordinance, and upheld the "opt out" exemption. The Loxahatchee court concluded that:

> "[i]f the present sub-issue refers to the fact the exemption may create disparity in costs to users in the Loxahatchee River Environmental Control District as compared with those to users where there is a privately owned sewer system, the reasoning of Home Builders seems equally applicable here. Territorial uniformity is not a blanket constitutional requirement. (Cite omitted)

Id. at 939. The Loxahatchee court went on to discuss an additional requirement which is actually part of the "dual rational nexus" test. The court, in ruling that revenue shortfalls created by the exemption must not be charged to other fee payers, stated:

> Finally, appellee correctly points out that under subject statute school boards are not exempted from charges from actual capital outlay made by the utility in order to provide a school with service, or charges for the service itself. Thus, other customers will not be picking up the direct actual costs of service provided here to the Jupiter middle school – if and when the Environmental Control Board actually provides such service to that educational facility.

Id. at 939. (emphasis added).

One commentator, in an expansive analysis of impact fee exemptions for affordable housing, further emphasized the "dual rational nexus" test in the exemption context as follows:

> When considering the validity of exactions such as impact fees, courts generally apply a causation-benefit standard focusing on the nexus between new development and the need for new facilities financed by the fees, and the benefit accruing to the new development from those facilities...Causation-benefit requirements alone should pose no obstacle to the legal validity of exemptions. Generally, the causation-benefit tests require only that revenue shortfalls created by the exemptions "will not be absorbed by other developers who remain subject to the fee." This result is a common sense application of the rational nexus test because the marginal deficit, caused by the affordable housing exemption bears no relationship to the need for infrastructure caused by market-rate developments. The rational nexus test may also be used, through careful studies, to demonstrate that occupants of affordable housing projects will not create the same demand for or derive the same benefit from, new roads and similar items supported by impact fees as will market-rate occupants.

Mark White, Development Fees and Exemptions for Affordable Housing: Tailoring Regulations to Achieve Multiple Public Objectives, 6 J. Land Use & Envtl. L. 25 (1990); citing, Larson & Zimet, Impact Fees: Et Tu, Illinois, 21 J. Marshall L. Rev. 489, 510 (1988).

As further support, a California appellate court in Griffin Homes, Inc. v. City of Simi Valley, 274 Cal.Rptr.2d 456 (Cal. 2d DCA 1990), held that:

> The desirability of encouraging subdividers to build low-cost housing cannot be denied and unreasonable exactions could defeat this objective, but these considerations must be balanced against the phenomenon of the appallingly rapid disappearance of open areas in and around our cities (citation omitted). Cities and counties possess the legislative discretion to determine which of the conflicting imperative must be chosen in order to promote public welfare. (citation omitted) Legislative choices in this area are presumed to be valid and so long as it remains 'a question upon which reasonable minds might differ,' there will be no judicial interference with the municipality's determination of policy.

See also, Asian Americans for Equality v. Koch, 527 N.E.2d 265 (N.Y. 1988).

While the Griffin court did not address an exemption for affordable housing, it again expressed judicial willingness to recognize and uphold a local government's efforts to balance numerous policies and objectives through impact fees.

In an unpublished opinion, the Superior Court of Connecticut, in William Gagne, Jr. v. City of Hartford, 1994 Conn. Super. LEXIS 61, addressed an affordable housing ordinance that imposed conditions on rezonings from residential to nonresidential uses. While this case is not directly on point, it is instructive. It shows how courts may defer to local government's legislative decisions when the governing body is attempting to balance competing goals, especially when one of those goals is the provision of affordable housing. In keeping with the requirements of the ordinance, the plaintiff in Hartford entered an agreement with the city whereby the plaintiff was required to provide

the city with residential housing in an equal or greater number of square feet to that of the property converted. Id. at 1. If this condition was not met within 18 months, the city would exact a fee (for which the plaintiff was required to provide a line of credit at the time of the passage of the rezoning) to be placed in the city's low income housing fund. Id. The court noted how the "phenomenon of undeterred non-residential development has exacerbated the need for lower-income housing, and has generated widespread efforts to link such needed residential development to non-residential development. (citation omitted) The linkage trend has gained momentum during the past decade. (citations omitted). We find a sound basis to support a legislative judgment that there is a reasonable relationship between unrestrained nonresidential development and the need for affordable residential development." Id. at 3. The court concluded that "[i]nclusionary zoning through the imposition of development fees is permissible because such fees are conducive to the creation of a realistic opportunity for the development of affordable housing; development fees are the functional equivalent of mandatory set-asides; and it is fair and reasonable to impose such fee requirements on private developers when they possess, enjoy, and consume land which constitutes the primary resource for housing. Such measures do not offend the zoning laws or the police powers." Id. at 3. The court rejected the plaintiff's claim that the ordinance effected a taking, noting that the ordinance substantially advanced a legitimate state interest and did not deprive the plaintiff of all reasonable use of his property. Id. at 4.

As one commentator noted with regard to impact fee exemptions, “despite the general rule that classifications between users must be based on their relative burdens on the system and on the benefits received, courts have had no trouble upholding different rates or outright exemptions for low income or elderly residents.” Mark White, Development Fees and Exemptions for Affordable

Housing: Tailoring Regulations to Achieve Multiple Public Objectives, 6 J. Land Use & Envtl. L. 25, 34 (1990); citing, Fort Collins Motor Homes, Inc. v. City of Fort Collins, 496 P.2d 1074 (Colo. App. 1972; Kootenai County Property Ass'n v. Kootenai County, 769 P. 2d 553 (Idaho App. 1989).

Another potential problem area for impact fee exemptions is the impact fee may be classified as a tax and invalidated on that basis. The court in Oregon Homebuilder's Association v. City of Tigard, as discussed above, in upholding what it classified as a tax, is not in keeping with the majority. However, the holding is instructive as to the court's willingness to recognize the validity of ordinances and posing differential charges to achieve more than one public purpose.

In 1986, the Florida Advisory Council on Intergovernmental Relations asserted that impact fees are "a form of user charge" and that the use of exemptions, which distinguishes between and among fee payers is vulnerable to court challenges on the basis that the fee is, in fact, a tax. Florida Advisory Council on Intergovernmental Relations, Impact Fees in Florida (1986). In essence, a rate structure based on sales price is subject to classification as an ad valorem tax; a rate structure based on occupant income is subject to classification as an income tax.

There has been considerable treatment of the difference between an impact fee and a tax in the courts. The court in McCarthy v. City of Leawood, 894 P.2d 836 (Ka. 1995) addressed a challenge to a development fee based on the plaintiff's assertion that the fee was an invalid tax. The court held that "[a] tax is a forced contribution to raise revenue for the maintenance of governmental services offered to the general public. In contrast, a fee is paid in exchange for a special service, benefit, or privilege not automatically conferred upon the general public. A fee is not a revenue measure, but a means of compensating the government for the cost of offering and regulating the

special service, benefit, or privilege. Payment of a fee is voluntary[3]--an individual can avoid the charge by choosing not to take advantage of the service, benefit, or privilege offered." Id. at 845. The court observed that an earlier case, involving a fuel flowage fee ultimately held to be an unlawful tax, was distinguishable because, in the earlier case, the "city was collecting revenue on the sale of fuel despite the legislature's intending to preempt local units of government from doing so." Id.

The Colorado Supreme Court exhaustively explored the fee versus tax issue in Bloom v. City of Fort Collins, 784 P.2d 304 (Colo. 1990). In Bloom, the city enacted an ordinance which imposed a charge, collected through monthly utility bills, for those lots making use of city utilities. Id. at 306. The funds collected were to be used for the operation and maintenance of City utility providers, however, the ordinance provided that excess funds could be transferred to other funds in the city. Id. A class action was brought on behalf of a number of property owners who asserted that the transportation fee was an invalid tax. Id. at 306. The court began its analysis with an explanation of the various forms of fees and taxes that may be used to generate funds, including ad valorem taxes, excise taxes, special assessments, and special fees. Id. at 307. The court distinguished ad valorem taxes from excise taxes based on the fact that ad valorem taxes are based on the assessed value of property, while excise taxes are based on a particular act, event, or occurrence. Id. The court distinguished both forms of taxes from special assessments, concluding that "[t]he essential characteristic of a special assessment is that it must confer some benefit to the property assessed." Id at 308. Finally, the court distinguished between taxes and special fees, finding that, "[u]nlike a

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[3] As will be discussed in detail, the Colorado Supreme Court, in Bloom v. City of Fort Collins, 784 P.2d 304 (Colo. 1990) held that the voluntary or compulsory nature of a charge is not dispositive of the fee vs. tax question. The Bloom court held that a charge may be mandatory and still be considered a valid fee.

tax, a special fee is not designed to raise revenues to defray the general expenses of government, but rather is a charge imposed upon persons or property for the purpose of defraying the cost of a particular governmental service." Id. at 308. The court noted that

> The amount of a special fee must be reasonably related to the overall cost of the service. (citation omitted) Mathematical exactitude, however, is not required, and the particular mode adopted by a city in assessing the fee is generally a matter of legislative discretion. (citation omitted) An ordinance creating a special service fee, therefore, generally will be upheld as long as the ordinance is reasonably designed to defray the cost of the particular service rendered by the municipality.

Id. Applying these principles to the transportation fee ordinance, the court upheld the transportation utility fee as a special fee. Id. at 309.

Modern impact fees, in observance of the "dual rational nexus" test, include policies and methodologies that demonstrate the relationship between the impact of the proposed development and the fees charged, which negate the classification of the charge as an invalid tax. While there are some potential risks in developing a rate structure based on purchase price or occupant income, the use of an exemption, in and of itself, should not give rise to the unlawful tax issues, provided the ordinance is tailored to satisfy the "dual rational nexus" test.

In conclusion, it appears that the waiver is supportable, provided the "dual rational nexus" test, with regard to the calculation of the fee, is observed. Careful analysis of the impact of development on county facilities is critical (as briefly discussed above, an affordable housing waiver could be further supported by detailed analysis of the differences in facilities usage as between residents in affordable housing and market-rate housing). The calculation of the fee should closely follow this analysis, such that the first prong of the test is satisfied, that is, that the fees must offset needs sufficiently attributable to the growth in population generated by the new development.

Further, careful analysis of how the waiver will further the affordable housing goals of the County is necessary to meet this prong of the test.

The second prong of the test requires that the funds collected be sufficiently earmarked for the substantial benefit of the subdivision residents. In order to achieve this, we recommend that the shortfall created by the wavier be paid out of the general fund or another unrestricted fund. Again, as set forth above, the causation-benefit analysis attendant with the "dual rational nexus" test requires that revenue shortfalls created by the exemptions "will not be absorbed by other developers who remain subject to the fee." See, Mark White, Development Fees and Exemptions for Affordable Housing: Tailoring Regulations to Achieve Multiple Public Objectives, 6 J. Land Use & Envtl. L. 25 (1990); citing, Larson & Zimet, Impact Fees: Et Tu, Illinois, 21 J. Marshall L. Rev. 489, 510 (1988). As described above, this waiver contains the problematic language which permits the short-fall created by the exemption to be recovered from other impact fee sources or for the impact fee interest windfall to benefit unrelated purposes. This is problematic for the reasons outlined above and we would recommend removing this option from the Ordinance. If these issues are addressed and if the calculation of the fee is based on careful analysis, the exemption appears legally supportable.

2. Industrial use waiver

Industrial uses logically fall within the "broadly defined" definition of legitimate state interests. See, e.g., Fla. Stat. § 163.3177(7)(j). Here, again, it would be difficult to argue that a local government's interest in promoting industry is not a legitimate state interest.

There is support for industrial development in the Lake County Comprehensive Plan. For example, the Economic Element provides, in Policy 11-5.10, for the maintenance of a competitive

impact fee schedule that will allow Lake County to remain competitive in the region and state. In keeping therewith, the Economic Element, in Objective 11-5, sets forth the objective of creating incentive programs tailored to new industry and business. Similarly, Policy 11-1.1 of the Economic Element provides that Lake County shall create a desirable business environment that attracts and retains business. Finally, Policy 11-5.4 of the Economic Element specifically provides that "Lake County shall develop an impact fee deferral program for commercial (excluding retail) and industrial construction" and Policy 11-5.10 provides that "[t]he County shall maintain an impact fee schedule for residential, commercial and industrial development that will allow Lake County to remain competitive in the region and state."

With respect to the issues raised by the "dual rational nexus" test, the analysis is similar to that discussed with regard to affordable housing, however, there is considerably less treatment of an industrial waiver in the caselaw. It appears that the use of a waiver would be supportable, provided the "dual rational nexus" test, with regard to the calculation of the fee, is observed. Careful analysis of the impact of development on county facilities is critical (and possibly further analysis concerning the differences, if any, in facilities usage as between industrial uses and other land uses in the County to further support the waiver). Here, again, the calculation of the fee should closely follow this analysis in order to satisfy the first prong of the test.

With regard to the second prong of the test, here again, the shortfall should be recouped in order that the shortfalls are not absorbed by the developers subject to the fee. Additionally, as discussed previously, the shortfalls should come from the general fund or another unrestricted fund. As described above, this waiver contains the problematic language which permits the short-fall created by the exemption to be recovered from other impact fee sources or for the impact fee interest

windfall to benefit unrelated purposes. This is problematic for the reasons outlined above and we would recommend removing this option from the Ordinance. If these issues are addressed and if the calculation of the fee is based on careful analysis, the exemption appears legally supportable.

Another issue concerning an industrial use waiver is the size of the waiver. Where a waiver creates a loophole that becomes the rule rather than an exception, the validity of the impact fee may be called into question based on constitutional issues. While an industrial use waiver may not affect a substantial number of developments County-wide, the larger the waiver, the more difficult it is to justify the ordinance under the dual rational nexus test. A substantial breach in the fee schedule based on an overly broad waiver may be difficult to defend. In fact, some of the "tax versus fee" arguments may be particularly applicable in a circumstance where many uses are exempted from an impact fee ordinance. However, these issues can be overcome by insuring that the exempt uses further the economic development goals of the County and that the waiver is not overly broad.

3. Day Care Waiver

This waiver is found in the provisions of general applicability with regard to impact fees imposed by Lake County. It provides for a waiver of up to fifty percent of the amount of the impact fee if the County Commission finds that the waiver is for good cause. There is little treatment of this type of waiver in the relevant statutes or caselaw. However, "[l]egitimate state interests have been broadly defined. They may include protection of natural resources, residential zoning, preservation of family oriented neighborhoods, prevention of economic blight in days of redevelopment activities, and landmark preservation." Lovrien, et al. v. City of Shorewood, 1989 Minn. App. LEXIS 381 (1989). Thus, while the day care waiver does not share the caselaw

treatment such as that supporting affordable housing, it would be difficult to argue that supporting business by promoting day care for children is not a legitimate state interest.

It can be inferred that this waiver was developed to promote business and commerce. As such, there are several objectives and policies within the Economic Element of the Comprehensive Plan that are supportive of this waiver. Several policies, including Policy 11-1.1 and Policy 11-1.3 provide that Lake County shall support existing business and industry and recruit new business and industry. These policies may be served by the waiver for day care. Note that while the Comprehensive Plan contains objectives and policies aimed at the promotion of industry and commerce generally, there is no specific objective or policy that connects these interests to the provision of day care.

The more difficult issue is whether the waiver would pass muster under the dual rational nexus test. There appears to be no data in the impact fee study which would support the day care waiver and we have not otherwise been provided with data which would demonstrate differences, if any, in facilities usage as between day care centers and other land uses as would support the waiver. However, as described above, if proper data can be collected to support the application of the waiver, we believe that it is defensible. Finally, as described above, the shortfall created by the waiver should be recouped from the general fund or another unrestricted fund in order that the shortfalls are not absorbed by the developers subject to the fee. As described above, this waiver contains the problematic language which permits the short-fall created by the exemption to be recovered from other impact fee sources or for the impact fee interest windfall to benefit unrelated purposes. This is problematic for the reasons outlined above and we would recommend removing

this option from the Ordinance. If these issues are addressed and if the calculation of the fee is based on careful analysis, the exemption appears legally supportable in concept.

4. Agricultural exemption

Agricultural uses logically fall within the "broadly defined" definition of legitimate state interests. Here, again, it would be difficult to argue that a local government's interest in promoting agricultural development was not a legitimate state interest.

Further, there is ample support for the exemption in the Lake County Comprehensive Plan. Specifically, Objective 11-2 of the Economic Element provides that Lake County shall "maintain programs which are designed to enhance the opportunity for sustainable agricultural pursuits." Policy 11-2.2 implements this objective by providing that Lake County "shall encourage diversified agricultural pursuits on land formerly in agricultural production."

With respect to the "dual rational nexus" test, the analysis described above is equally applicable. Here, again, the calculation of the fee should closely follow this analysis in order to satisfy the first prong of the test. As in the day care waiver analysis, we have not been provided with data concerning the differences, if any, in facilities usage as between agricultural uses and other land uses in the County to further support the exemption. Such data would be useful in defending the exemption under the first prong of the "dual rational nexus" test. With regard to the second prong of the test, here, again, the shortfall should be recouped from unrestricted funds in order that the shortfalls are not absorbed by the developers subject to the fee. Additionally, as discussed previously, the exemption should be tailored narrowly such that the exemption is not overbroad. Assuming that these issues are addressed and that the calculation of the fee is based on careful analysis, the exemption option appears legally supportable.

Appendix B

Right of Way Market Value Study

Stricklen Appraisal Services, P.A.

36 West Dicie Drive **Telephone: (352) 589-5124**
Eustis, Florida 32726 **Fax: (352) 589-9207**

April 27, 2001

Mr. Robert P. Wallace, P.E., AICP
Vice President
Tindale Oliver and Associates, Inc.
1000 N. Ashley Drive, Suite 100
Tampa, FL 33602

RE: Preliminary Market Value Study for Right-of-Way Costs in Lake County, Florida

Dear Bob:

As you have requested, I have performed a preliminary study with regard to projected unit values for right-of-way costs for various road improvement projects in Lake County, Florida. These costs are expressed on a dollars per square foot basis and are for planning purposes only. You should take special note that my estimates for per square foot cost for any of the projects do not represent an appraisal or specific cost which might be applicable to any individual or specific parcel within that project. This is because there is too much variation between individual parcels with regard to size, location, type of use and other numerous factors such that an overall unit value for a particular project can be applied to any given parcel.

The cost estimates developed in this survey represent my opinion of typical or average land values within the corridors the various road projects. These estimates were developed by analysis of my in-office database of Lake County sales which consist of over 1,200 sales. Sales which occurred after 1996 and were located either on the specific roadway for any given project or were, in my opinion, near enough to the project to warrant use were considered in the overall analysis. Sales from my database have been written up and confirmed with either grantor or grantee for the most part.

Additionally, I researched sales which occurred from April 1996 to April 2001 on the Microbase sales research program. Parameters also included land size from 1 to 500 acres and sale price from $1,000 to $5,000,000. This data in addition to the sales from my personal database were combined and the average or typical value for land in the area of any given project was used to formulate my estimate of the appropriate unit land value for that project. Once again you should note that the unit land values expressed in this survey do not apply to any specific parcel within a given project area. They do, however, represent my opinion of typical or average land values which have been developed from market analysis of confirmed and unconfirmed sales contained in the public records in that project area.

You should also be aware that even though these unit values represent typical market values that is not necessarily the total cost of the right-of-way when purchased from a property owner. Often condemning authorities pay significantly more than the actual market value of a parcel of land in order to avoid lengthy and expensive litigation. Property owners are aware of this and will often negotiate the sale of the necessary right-of-way at a unit value significantly higher than the land's actual market value. I have not considered this "condemnation factor" in this analysis. The various project name and project limits along with the estimated unit market value for the various projects are presented in the following charts.

TABLE NUMBER 1

Table – Lake County 5 Year CIP Roadway Construction Projects

	PROJECT NAME / PROJECT LIMITS	URBAN / RURAL	ROW COST/sf
1	**Project: Huffstettler Drive - Phase II**		
	From/To: US-441 to David Walker Drive	U	$ 1.65
	From/To: Lake Eustis Drive to Huffstettler Drive	R	$ 1.65
2	**Project: C-44**		
	From/To: Grand Island Shores Road to C-452	R	$ 0.25
3	**Project: Round Lake Road Extension**		
	From/To: Wolfbranch Road to SR-44	R	$ 0.20
4	**Project: Alfred Street**		
	From/To: SR-19 To Sinclair Ave.	U	$ 7.25
5	**Project: Tavares Western Collector**		
	From/To: Woodlea Road to Dead River Road	U	$ 1.10
	Project: Tavares Western Collector, South		
	project removed	R	N/A

31	**Project: C-44B**		
	From/To: US-441 to SR-44	U	$ 3.00
6a	**Project: Orange Avenue (SR-44)**		
	From/To: Haselton Street to C-439	R	$ 0.55
6b	**Project: Orange Avenue (SR-44)**		
	From/To: Haselton Street to C-439	U	$ 4.50
	Project: Mt. Homer Road		
	project removed	U	N/A
7	**Project: Kurt Street**		
	From/To: US-441 to Lakeview Avenue	U	$ 2.50
8	**Project: Marion County Road Extension**		
	From/To: Marion County Road to Marion County Line	R	$ 0.55
9	**Project: Lake Ella Road Realignment**		
	From/To: April Hills Boulevard to US-27	U	$ 0.50
10	**Project: C-460 East-West Connector Phase II**		
	From/To: Thomas Avenue to C-468		$ 0.30
11	**Project: Hook Street Extension**		
	From/To: US-27 to Hancock Road		$ 1.35
12	**Project: Hartwood Marsh**		
	From/To: US 27 to Orange County Line	R	$ 0.45
13	**Project: Citrus Tower Boulevard**		
	From/To: Hook Street Extension to SR-50		$ 1.35

14	**Project: South Clermont Connector**			
	From/To: Lake Susan Lodge Bridge to US-27	U	$	0.80
15	**Project: Hancock Road Extension North**			
	From/To: Skytop Subdivision to C-50	U	$	0.25
16	**Project: North Ridge Boulevard Extension**			
	From/To: North Ridge Boulevard to North Hancock Road	U	$	0.25
17	**Project: Oakley Seaver Road**			
	From/To: Citrus Tower Boulevard to North Hancock Road	U	$	0.25
18	**Project: Citrus Tower Boulevard**			
	From/To: Johns Lake Road to Hook Street		$	0.60
19	**Project: Minneola - Montverde Collector**			
	From/To: US-27 to Turkey Farms Road	R	$	0.25
	From/To: Turkey Farms Road to Blackstill Lake Road	R	$	0.25
20	**Project: North Connector**			
	From/To: C-50 to Minneola - Montverde Collector	R	$	0.25

TABLE NUMBER 2

Table - Lake County Pending Bid Roadway Construction Projects

ITEM NO.	PROJECT NAME / PROJECT LIMITS	URBAN / RURAL	ROW COST/sf
	OTHER IMF PROJECTS		
21	**Project: C-448 Extension**		
	From/To: SR-19 to C-561		$0.80
22	**Project: Huffstettler Drive - Phase I**		
	From/To: David Walker Drive to Kurt Street		$1.65

TABLE NUMBER 3
Table - FDOT 5 Year TIP Roadway Construction Projects

ITEM NO.	PROJECT NAME / PROJECT LIMITS	URBAN / RURAL	ROW COST/sf
	FDOT TIP PROJECTS		
23	Project: US 27		
	From/To: SR 530 /Polk Co. Line to Boggy Marsh Rd		$1.45
24	Project: US 27		.
	From/To: SR 50 WB Ramp to S. Grassy Lake Rd		$1.05
25	Project: US 441		
	From/To: Lake Eustis Dr to CR 44B		$6.80
26	Project: US 441		
	From/To: SR 44 Leesburg to College Rd		$7.55
27	Project: US 441		
	From/To: College Rd to .2 Mi. W. of Lake Shore		$5.70
28	Project: US 441		
	From/To: .2 Mi. W. of Lake Shore to Lake Eustis Dr		$15.90
29	Project: SR 19		
	From/To: CR 561 to US 441		$6.00
30	Project: SR 44		
	From/To: Sumter Co. Line to CR 468		$0.30

As previously stated, the preceding charts represent my estimates of the per square foot market value which could be used to estimate right-of-way costs for the various roadway improvement projects in Lake County. These estimates of unit costs do not include the "condemnation factor" or what the actual negotiated price for the right-of-way might be. These unit values should not be construed as an appraisal and do not represent the specific value of any given parcel of land within the project area. They do represent the typical values in the area, however, and should be utilized for planning purposes only.

If I may be of further assistance to you on this project please do not hesitate to contact me.

Respectfully submitted,

Albert L. Stricklen, MAI
State Certified General
Real Estate Appraiser 0000315

ALS/ew

Appendix C

Local Trip Characteristics Study Data

Appendix C

Local Trip Characteristics Study Data
Residential Land Uses

Appendix C

Local Trip Characteristics Study Data
Residential Site Number 1

Lake County Trip Characteristic Studies

Residential Site #1

Sort #	Trip Length	Liimit Check	Assessible Lengths
78	0.3	OK	0.3
84	0.3	OK	0.3
127	0.3	OK	0.3
166	0.3	OK	0.3
197	0.3	OK	0.3
211	0.3	OK	0.3
254	0.3	OK	0.3
113	0.5	OK	0.5
139	0.5	OK	0.5
228	0.5	OK	0.5
182	0.7	OK	0.7
10	0.8	OK	0.8
62	1.0	OK	1.0
215	1.0	OK	1.0
219	1.1	OK	1.1
89	1.3	OK	1.3
8	1.4	OK	1.4
34	1.4	OK	1.4
42	1.4	OK	1.4
12	1.7	OK	1.7
25	1.7	OK	1.7
115	1.7	OK	1.7
123	1.7	OK	1.7
143	1.7	OK	1.7
158	1.7	OK	1.7
170	1.7	OK	1.7
192	1.7	OK	1.7
194	1.7	OK	1.7
196	1.7	OK	1.7
203	1.7	OK	1.7
212	1.7	OK	1.7
224	1.7	OK	1.7
243	1.7	OK	1.7
253	1.7	OK	1.7
14	1.8	OK	1.8
27	1.8	OK	1.8
53	1.8	OK	1.8
97	1.8	OK	1.8
124	1.8	OK	1.8
181	1.8	OK	1.8
229	1.8	OK	1.8
234	1.8	OK	1.8
240	1.8	OK	1.8
9	1.9	OK	1.9
16	1.9	OK	1.9

Lake County Trip Characteristic Studies

Residential Site #1

Sort #	Trip Length	Liimit Check	Assessible Lengths
17	1.9	OK	1.9
38	1.9	OK	1.9
44	1.9	OK	1.9
46	1.9	OK	1.9
68	1.9	OK	1.9
86	1.9	OK	1.9
94	1.9	OK	1.9
95	1.9	OK	1.9
103	1.9	OK	1.9
106	1.9	OK	1.9
110	1.9	OK	1.9
111	1.9	OK	1.9
137	1.9	OK	1.9
173	1.9	OK	1.9
175	1.9	OK	1.9
176	1.9	OK	1.9
178	1.9	OK	1.9
189	1.9	OK	1.9
190	1.9	OK	1.9
207	1.9	OK	1.9
213	1.9	OK	1.9
218	1.9	OK	1.9
225	1.9	OK	1.9
232	1.9	OK	1.9
233	1.9	OK	1.9
239	1.9	OK	1.9
241	1.9	OK	1.9
250	1.9	OK	1.9
40	2.0	OK	2.0
132	2.0	OK	2.0
18	2.1	OK	2.1
26	2.1	OK	2.1
52	2.1	OK	2.1
63	2.1	OK	2.1
66	2.1	OK	2.1
101	2.1	OK	2.1
102	2.1	OK	2.1
237	2.1	OK	2.1
249	2.1	OK	2.1
59	2.2	OK	2.2
61	2.2	OK	2.2
58	2.4	OK	2.4

Lake County Trip Characteristic Studies

Residential Site #1

Sort #	Trip Length	Liimit Check	Assessible Lengths
160	2.5	OK	2.5
168	2.6	OK	2.6
236	2.7	OK	2.7
43	2.8	OK	2.8
67	2.8	OK	2.8
69	2.8	OK	2.8
79	2.8	OK	2.8
82	2.8	OK	2.8
117	2.8	OK	2.8
125	2.8	OK	2.8
144	2.8	OK	2.8
165	2.8	OK	2.8
5	2.9	OK	2.9
41	2.9	OK	2.9
55	2.9	OK	2.9
87	2.9	OK	2.9
90	2.9	OK	2.9
116	2.9	OK	2.9
131	2.9	OK	2.9
141	2.9	OK	2.9
150	2.9	OK	2.9
179	2.9	OK	2.9
30	3.0	OK	3.0
56	3.0	OK	3.0
19	3.2	OK	3.2
244	3.2	OK	3.2
7	3.4	OK	3.4
35	3.4	OK	3.4
36	3.4	OK	3.4
80	3.4	OK	3.4
98	3.4	OK	3.4
217	3.4	OK	3.4
119	3.5	OK	3.5
129	3.5	OK	3.5
161	3.5	OK	3.5
162	3.5	OK	3.5
174	3.5	OK	3.5
185	3.5	OK	3.5
195	3.5	OK	3.5
198	3.5	OK	3.5
199	3.5	OK	3.5
255	3.5	OK	3.5
256	3.5	OK	3.5
15	3.6	OK	3.6
64	3.6	OK	3.6

Lake County Trip Characteristic Studies

Residential Site #1

Sort #	Trip Length	Liimit Check	Assessible Lengths
77	3.6	OK	3.6
92	3.6	OK	3.6
134	3.6	OK	3.6
226	3.6	OK	3.6
76	3.7	OK	3.7
107	3.7	OK	3.7
112	3.7	OK	3.7
183	3.7	OK	3.7
96	3.8	OK	3.8
180	3.8	OK	3.8
221	3.8	OK	3.8
248	3.8	OK	3.8
188	3.9	OK	3.9
235	3.9	OK	3.9
83	4.0	OK	4.0
142	4.0	OK	4.0
21	4.1	OK	4.1
23	4.1	OK	4.1
45	4.1	OK	4.1
48	4.1	OK	4.1
54	4.1	OK	4.1
104	4.1	OK	4.1
118	4.1	OK	4.1
138	4.1	OK	4.1
167	4.1	OK	4.1
186	4.1	OK	4.1
222	4.1	OK	4.1
206	4.4	OK	4.4
223	4.4	OK	4.4
70	4.5	OK	4.5
122	4.6	OK	4.6
88	4.7	OK	4.7
214	4.7	OK	4.7
130	5.1	OK	5.1
247	5.2	OK	5.2
37	6.2	OK	6.2
202	6.2	OK	6.2
71	6.3	OK	6.3
252	6.3	OK	6.3
148	6.5	OK	6.5
6	7.2	OK	7.2
163	7.9	OK	7.9
164	7.9	OK	7.9
172	7.9	OK	7.9
205	7.9	OK	7.9

Lake County Trip Characteristic Studies

Residential Site #1

Sort #	Trip Length	Liimit Check	Assessible Lengths
208	7.9	OK	7.9
209	7.9	OK	7.9
230	7.9	OK	7.9
204	8.7	OK	8.7
153	12.2	OK	12.2
121	12.3	OK	12.3
187	13.1	OK	13.1
184	13.3	OK	13.3
32	14.4	OK	14.4
108	15.5	OK	15.5
81	18.2	OK	18.2
20	18.7	OK	18.7
200	18.7	OK	18.7
149	19.0	OK	19.0
157	19.4	OK	19.4
120	19.9	OK	19.9
140	20.2	OK	20.2
126	20.9	OK	20.9
231	21.9	OK	21.9
31	23.1	OK	23.1
33	23.8	OK	23.8
49	23.9	OK	23.9
155	24.2	OK	24.2
65	24.4	OK	24.4
154	24.4	OK	24.4
191	24.9	OK	24.9
105	25.4	OK	25.4
245	25.4	OK	25.4
99	25.5	OK	25.5
151	25.5	OK	25.5
171	25.6	OK	25.6
242	25.6	OK	25.6
29	25.7	OK	25.7
39	25.7	OK	25.7
75	25.9	OK	25.9
146	26.1	OK	26.1
156	26.2	OK	26.2
73	26.4	OK	26.4
60	26.9	OK	26.9
91	26.9	OK	26.9
159	27.1	OK	27.1
72	27.8	OK	27.8
128	28.6	OK	28.6
22	29.2	OK	29.2
50	29.2	OK	29.2
216	29.9	OK	29.9
177	32.2	OK	32.2
152	32.4	OK	32.4

Lake County Trip Characteristic Studies

Residential Site #1

Sort #	Trip Length	Liimit Check	Assessible Lengths
57	33.7	OK	33.7
24	34.5	OK	34.5
28	34.8	OK	34.8
51	34.8	OK	34.8
109	36.8	OK	36.8
100	37.5	OK	37.5
135	46.2	NO	
133	77.0	NO	

Average	**8.11**	**Average**	**7.64**
Standard Deviation	**10.86**	**Standard Deviation**	**9.58**
Average + 3σ	**40.70**		
Average – 3σ	**0.00**		
Coefficient of Variation	**1.340**	**Coefficient of Variation**	**1.254**
Number of Trip Length Samples	**233**	**Number of Trip Length Samples**	**231**

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Appendix C

Local Trip Characteristics Study Data
Residential Site Number 2

Lake County Trip Characteristic Studies

Residential Site #2

Sort #	Trip Length	LIMIT CHECK	ASSESSABLE LENGTHS
60	0.2	OK	0.2
97	0.2	OK	0.2
165	0.2	OK	0.2
85	0.3	OK	0.3
79	0.5	OK	0.5
150	0.7	OK	0.7
206	0.8	OK	0.8
178	0.9	OK	0.9
239	0.9	OK	0.9
25	1.0	OK	1.0
31	1.0	OK	1.0
71	1.0	OK	1.0
80	1.0	OK	1.0
234	1.0	OK	1.0
238	1.2	OK	1.2
252	1.2	OK	1.2
103	1.3	OK	1.3
124	1.3	OK	1.3
167	1.3	OK	1.3
195	1.3	OK	1.3
225	1.3	OK	1.3
230	1.3	OK	1.3
232	1.3	OK	1.3
110	1.4	OK	1.4
123	1.4	OK	1.4
141	1.4	OK	1.4
172	1.4	OK	1.4
18	1.5	OK	1.5
112	1.5	OK	1.5
207	1.5	OK	1.5
215	1.5	OK	1.5
247	1.5	OK	1.5
248	1.5	OK	1.5
249	1.5	OK	1.5
250	1.5	OK	1.5
98	1.6	OK	1.6
105	1.6	OK	1.6
113	1.6	OK	1.6
180	1.6	OK	1.6
254	1.6	OK	1.6
106	1.7	OK	1.7
164	1.7	OK	1.7
191	1.8	OK	1.8
198	1.8	OK	1.8
211	1.8	OK	1.8
212	1.8	OK	1.8
40	2.6	OK	2.6
135	2.6	OK	2.6

Lake County Trip Characteristic Studies

Residential Site #2

Sort #	Trip Length	LIMIT CHECK	ASSESSABLE LENGTHS
163	2.6	OK	2.6
119	2.9	OK	2.9
159	2.9	OK	2.9
229	3.1	OK	3.1
117	3.2	OK	3.2
10	3.3	OK	3.3
17	3.3	OK	3.3
20	3.3	OK	3.3
22	3.3	OK	3.3
28	3.3	OK	3.3
39	3.3	OK	3.3
43	3.3	OK	3.3
46	3.3	OK	3.3
48	3.3	OK	3.3
54	3.3	OK	3.3
56	3.3	OK	3.3
59	3.3	OK	3.3
63	3.3	OK	3.3
66	3.3	OK	3.3
70	3.3	OK	3.3
76	3.3	OK	3.3
78	3.3	OK	3.3
81	3.3	OK	3.3
83	3.3	OK	3.3
84	3.3	OK	3.3
94	3.3	OK	3.3
108	3.3	OK	3.3
109	3.3	OK	3.3
121	3.3	OK	3.3
133	3.3	OK	3.3
137	3.3	OK	3.3
139	3.3	OK	3.3
152	3.3	OK	3.3
160	3.3	OK	3.3
162	3.3	OK	3.3
176	3.3	OK	3.3
177	3.3	OK	3.3
192	3.3	OK	3.3
199	3.3	OK	3.3
219	3.3	OK	3.3
223	3.3	OK	3.3
231	3.3	OK	3.3
233	3.3	OK	3.3
235	3.3	OK	3.3
241	3.3	OK	3.3
242	3.3	OK	3.3
243	3.3	OK	3.3
253	3.3	OK	3.3

Lake County Trip Characteristic Studies

Residential Site #2

Sort #	Trip Length	LIMIT CHECK	ASSESSABLE LENGTHS
208	3.4	OK	3.4
8	3.5	OK	3.5
24	3.5	OK	3.5
26	3.5	OK	3.5
44	3.5	OK	3.5
52	3.5	OK	3.5
55	3.5	OK	3.5
102	3.5	OK	3.5
107	3.5	OK	3.5
155	3.5	OK	3.5
161	3.5	OK	3.5
228	3.5	OK	3.5
6	3.6	OK	3.6
9	3.6	OK	3.6
12	3.6	OK	3.6
14	3.6	OK	3.6
15	3.6	OK	3.6
53	3.6	OK	3.6
58	3.6	OK	3.6
61	3.6	OK	3.6
74	3.6	OK	3.6
92	3.6	OK	3.6
115	3.6	OK	3.6
127	3.6	OK	3.6
130	3.6	OK	3.6
136	3.6	OK	3.6
149	3.6	OK	3.6
151	3.6	OK	3.6
168	3.6	OK	3.6
190	3.6	OK	3.6
45	4.0	OK	4.0
95	4.1	OK	4.1
166	4.1	OK	4.1
173	4.3	OK	4.3
5	4.6	OK	4.6
7	4.6	OK	4.6
16	4.6	OK	4.6
21	4.6	OK	4.6
128	4.6	OK	4.6
145	4.6	OK	4.6
120	4.7	OK	4.7
227	5.0	OK	5.0
251	5.0	OK	5.0
132	5.1	OK	5.1
222	5.2	OK	5.2
89	5.3	OK	5.3
226	5.4	OK	5.4
210	5.5	OK	5.5

Lake County Trip Characteristic Studies

Residential Site #2

Sort #	Trip Length	LIMIT CHECK	ASSESSABLE LENGTHS
131	6.3	OK	6.3
122	6.5	OK	6.5
209	8.0	OK	8.0
33	8.1	OK	8.1
34	8.1	OK	8.1
134	8.1	OK	8.1
11	8.5	OK	8.5
73	8.7	OK	8.7
179	9.0	OK	9.0
240	10.0	OK	10.0
41	10.2	OK	10.2
188	10.2	OK	10.2
213	10.3	OK	10.3
50	10.7	OK	10.7
186	10.7	OK	10.7
216	10.7	OK	10.7
201	10.8	OK	10.8
220	10.8	OK	10.8
64	11.0	OK	11.0
82	11.0	OK	11.0
126	11.1	OK	11.1
72	12.6	OK	12.6
140	13.0	OK	13.0
237	13.6	OK	13.6
104	14.5	OK	14.5
68	14.6	OK	14.6
114	16.7	OK	16.7
62	17.4	OK	17.4
96	17.4	OK	17.4
90	17.9	OK	17.9
77	18.5	OK	18.5
203	18.5	OK	18.5
204	18.9	OK	18.9
111	19.5	OK	19.5
69	21.0	OK	21.0
175	21.2	OK	21.2
200	21.2	OK	21.2
118	22.2	OK	22.2
13	22.3	OK	22.3
19	22.8	OK	22.8
224	22.9	OK	22.9
38	23.2	OK	23.2
193	23.6	OK	23.6
196	23.6	OK	23.6
181	23.7	OK	23.7
138	24.0	OK	24.0
174	24.4	OK	24.4
101	25.2	OK	25.2

Lake County Trip Characteristic Studies

Residential Site #2

Sort #	Trip Length	LIMIT CHECK	ASSESSABLE LENGTHS
143	26.0	OK	26.0
129	27.2	OK	27.2
194	27.8	OK	27.8
87	28.1	OK	28.1
185	28.1	OK	28.1
183	28.6	OK	28.6
57	28.7	OK	28.7
184	29.4	OK	29.4
47	31.0	OK	31.0
93	31.0	OK	31.0
156	31.0	OK	31.0
169	31.0	OK	31.0
187	31.0	OK	31.0
205	31.2	OK	31.2
42	33.3	OK	33.3
236	36.0	OK	36.0
49	37.5	OK	37.5
202	45.5	OK	45.5
146	49.2	OK	49.2
170	55.9	NO	
147	59.1	NO	
36	91.1	NO	
65	132.9	NO	

Average	**9.74**	**Average**	**8.32**	
Standard Deviation	**14.79**	**Standard Deviation**	**9.76**	
3σ	**44.36**			
Average + 3σ	**54.11**			
Average – 3σ	**0.00**			
Coefficient of Variation	**1.518**	**Coefficient of Variation**		**1.173**
Number of Trip Length Samples	**215**	**Number of Trip Length Samples**		**211**

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Appendix C

Local Trip Characteristics Study Data
Residential Site Number 3

Lake County Trip Characteristic Studies

Residential Site #3

Sort #	Trip Length	Limit Check	Assessible Lengths
167	1.1	OK	1.1
85	1.5	OK	1.5
54	3.1	OK	3.1
52	3.3	OK	3.3
57	3.3	OK	3.3
63	3.3	OK	3.3
42	3.5	OK	3.5
68	3.5	OK	3.5
25	3.6	OK	3.6
84	3.6	OK	3.6
88	3.6	OK	3.6
105	3.6	OK	3.6
166	3.6	OK	3.6
186	3.6	OK	3.6
208	3.6	OK	3.6
209	3.6	OK	3.6
120	3.8	OK	3.8
50	3.9	OK	3.9
137	4.0	OK	4.0
148	4.0	OK	4.0
188	4.0	OK	4.0
91	4.1	OK	4.1
109	4.1	OK	4.1
111	4.1	OK	4.1
115	4.1	OK	4.1
129	4.1	OK	4.1
134	4.1	OK	4.1
135	4.1	OK	4.1
152	4.1	OK	4.1
177	4.1	OK	4.1
184	4.1	OK	4.1
16	4.4	OK	4.4
45	4.4	OK	4.4
83	4.4	OK	4.4
145	4.4	OK	4.4
75	4.5	OK	4.5
116	4.5	OK	4.5
144	4.5	OK	4.5
147	4.5	OK	4.5
154	4.5	OK	4.5
216	4.5	OK	4.5
125	4.6	OK	4.6
18	4.7	OK	4.7
19	4.7	OK	4.7
22	4.7	OK	4.7
23	4.7	OK	4.7
24	4.7	OK	4.7
27	4.7	OK	4.7

Lake County Trip Characteristic Studies

Residential Site #3

Sort #	Trip Length	Limit Check	Assessible Lengths
32	4.7	OK	4.7
46	4.7	OK	4.7
47	4.7	OK	4.7
74	4.7	OK	4.7
86	4.7	OK	4.7
87	4.7	OK	4.7
93	4.7	OK	4.7
97	4.7	OK	4.7
108	4.7	OK	4.7
117	4.7	OK	4.7
128	4.7	OK	4.7
130	4.7	OK	4.7
131	4.7	OK	4.7
132	4.7	OK	4.7
141	4.7	OK	4.7
143	4.7	OK	4.7
156	4.7	OK	4.7
159	4.7	OK	4.7
168	4.7	OK	4.7
193	4.7	OK	4.7
196	4.7	OK	4.7
212	4.7	OK	4.7
214	4.7	OK	4.7
223	4.7	OK	4.7
224	4.7	OK	4.7
49	4.8	OK	4.8
112	4.8	OK	4.8
122	4.8	OK	4.8
5	5.2	OK	5.2
31	5.2	OK	5.2
199	5.2	OK	5.2
78	5.3	OK	5.3
73	5.6	OK	5.6
80	5.6	OK	5.6
110	5.6	OK	5.6
127	5.6	OK	5.6
142	5.6	OK	5.6
190	5.7	OK	5.7
210	5.7	OK	5.7
219	5.7	OK	5.7
17	5.9	OK	5.9
36	5.9	OK	5.9
60	5.9	OK	5.9
113	5.9	OK	5.9
126	5.9	OK	5.9
157	5.9	OK	5.9
164	5.9	OK	5.9
169	5.9	OK	5.9

Lake County Trip Characteristic Studies

Residential Site #3

Sort #	Trip Length	Limit Check	Assessible Lengths
182	5.9	OK	5.9
198	5.9	OK	5.9
200	5.9	OK	5.9
202	5.9	OK	5.9
179	6.5	OK	6.5
66	6.6	OK	6.6
172	6.6	OK	6.6
29	6.8	OK	6.8
59	6.8	OK	6.8
170	6.8	OK	6.8
195	6.9	OK	6.9
37	7.0	OK	7.0
107	7.0	OK	7.0
201	7.4	OK	7.4
65	7.8	OK	7.8
119	7.8	OK	7.8
151	7.8	OK	7.8
104	8.1	OK	8.1
213	8.2	OK	8.2
6	8.4	OK	8.4
39	8.5	OK	8.5
197	8.5	OK	8.5
183	9.5	OK	9.5
185	11.2	OK	11.2
9	11.8	OK	11.8
98	12.6	OK	12.6
149	12.6	OK	12.6
181	12.8	OK	12.8
81	13.7	OK	13.7
70	14.4	OK	14.4
92	15.8	OK	15.8
56	16.9	OK	16.9
123	17.5	OK	17.5
203	18.2	OK	18.2
40	18.3	OK	18.3
51	18.5	OK	18.5
14	18.6	OK	18.6
34	18.6	OK	18.6
41	18.6	OK	18.6
12	19.0	OK	19.0
121	19.3	OK	19.3
13	20.9	OK	20.9
55	21.0	OK	21.0
94	21.0	OK	21.0
62	21.3	OK	21.3
71	21.3	OK	21.3
176	21.4	OK	21.4
102	21.7	OK	21.7

Lake County Trip Characteristic Studies

Residential Site #3

Sort #	Trip Length	Limit Check	Assessible Lengths
20	22.1	OK	22.1
89	23.0	OK	23.0
171	23.1	OK	23.1
8	23.4	OK	23.4
153	23.9	OK	23.9
158	24.1	OK	24.1
173	26.5	OK	26.5
15	26.9	OK	26.9
136	27.7	OK	27.7
146	27.7	OK	27.7
189	27.7	OK	27.7
150	28.3	OK	28.3
133	28.9	OK	28.9
11	30.2	OK	30.2
106	33.3	OK	33.3
58	34.1	OK	34.1
101	34.8	OK	34.8
10	35.5	OK	35.5
67	35.5	OK	35.5
96	37.9	OK	37.9
155	42.4	OK	42.4
221	42.4	OK	42.4
48	63.7	NO	
206	74.4	NO	
160	76.9	NO	

Average	**11.32**		**Average**	**10.23**	
Standard Deviation	**12.35**		**Standard Deviation**	**9.34**	
3σ	**37.04**		**3σ**		
Average + 3σ	**48.35**		**Average + 3σ**		
Average – 3σ	**0.00**		**Average – 3σ**		
Coefficient of Variation		**1.091**	**Coefficient of Variation**		**0.913**
Number of Trip Length Samples		**169**	**Number of Trip Length Samples**		**166**

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Appendix C

Local Trip Characteristics Study Data
Fast Food Restaurant Land Uses

Appendix C

Local Trip Characteristics Study Data
Fast Food Restaurant Site Number 1

Fast Food Restaurant #1

Trip Type*	Sort#	Direction	Trip Length	LIMIT CHECK	Assessable Lengths
D	31	Inbound	0.2	OK	0.2
D	31	Outbound	0.2	OK	0.2
D	75	Inbound	0.2	OK	0.2
D	75	Outbound	0.2	OK	0.2
D	103	Inbound	0.2	OK	0.2
D	103	Outbound	0.2	OK	0.2
P	173	Inbound	0.2	OK	0.2
P	173	Outbound	0.2	OK	0.2
P	245	Inbound	0.2	OK	0.2
P	245	Outbound	0.2	OK	0.2
P	255	Inbound	0.2	OK	0.2
P	255	Outbound	0.2	OK	0.2
D	298	Inbound	0.2	OK	0.2
D	298	Outbound	0.2	OK	0.2
P	40	Inbound	0.3	OK	0.3
P	40	Outbound	0.3	OK	0.3
P	57	Inbound	0.3	OK	0.3
P	57	Outbound	0.3	OK	0.3
P	115	Inbound	0.3	OK	0.3
P	115	Outbound	0.3	OK	0.3
P	152	Inbound	0.3	OK	0.3
P	152	Outbound	0.3	OK	0.3
P	153	Inbound	0.3	OK	0.3
P	153	Outbound	0.3	OK	0.3
P	154	Inbound	0.3	OK	0.3
P	154	Outbound	0.3	OK	0.3
P	167	Inbound	0.3	OK	0.3
P	167	Outbound	0.3	OK	0.3
P	177	Inbound	0.3	OK	0.3
P	177	Outbound	0.3	OK	0.3
P	198	Inbound	0.3	OK	0.3
P	198	Outbound	0.3	OK	0.3
P	231	Inbound	0.3	OK	0.3
P	231	Outbound	0.3	OK	0.3
P	237	Inbound	0.3	OK	0.3
P	237	Outbound	0.3	OK	0.3
P	266	Inbound	0.3	OK	0.3
P	266	Outbound	0.3	OK	0.3
P	296	Inbound	0.3	OK	0.3
P	296	Outbound	0.3	OK	0.3
D	12	Inbound	0.4	OK	0.4
D	12	Outbound	0.4	OK	0.4
D	56	Inbound	0.4	OK	0.4
D	56	Outbound	0.4	OK	0.4
P	58	Inbound	0.4	OK	0.4
P	58	Outbound	0.4	OK	0.4
P	76	Inbound	0.4	OK	0.4
P	76	Outbound	0.4	OK	0.4
D	99	Inbound	0.4	OK	0.4
D	99	Outbound	0.4	OK	0.4
P	138	Inbound	0.4	OK	0.4
P	138	Outbound	0.4	OK	0.4
P	139	Inbound	0.4	OK	0.4
P	139	Outbound	0.4	OK	0.4
D	183	Inbound	0.4	OK	0.4
D	183	Outbound	0.4	OK	0.4
D	252	Inbound	0.4	OK	0.4
D	252	Outbound	0.4	OK	0.4
D	258	Inbound	0.4	OK	0.4
D	258	Outbound	0.4	OK	0.4
D	285	Inbound	0.4	OK	0.4
D	285	Outbound	0.4	OK	0.4
D	294	Inbound	0.4	OK	0.4

Fast Food Restaurant #1

Trip Type*	Sort#	Direction	Trip Length	LIMIT CHECK	Assessable Lengths
D	294	Outbound	0.4	OK	0.4
P	297	Inbound	0.4	OK	0.4
P	297	Outbound	0.4	OK	0.4
D	299	Inbound	0.4	OK	0.4
D	299	Outbound	0.4	OK	0.4
P	60	Inbound	0.5	OK	0.5
P	60	Outbound	0.5	OK	0.5
P	66	Inbound	0.5	OK	0.5
P	66	Outbound	0.5	OK	0.5
P	213	Inbound	0.5	OK	0.5
P	213	Outbound	0.5	OK	0.5
P	232	Inbound	0.5	OK	0.5
P	232	Outbound	0.5	OK	0.5
P	269	Inbound	0.5	OK	0.5
P	269	Outbound	0.5	OK	0.5
P	44	Inbound	0.6	OK	0.6
P	44	Outbound	0.6	OK	0.6
D	88	Inbound	0.6	OK	0.6
D	88	Outbound	0.6	OK	0.6
D	116	Inbound	0.6	OK	0.6
D	116	Outbound	0.6	OK	0.6
P	133	Inbound	0.6	OK	0.6
P	133	Outbound	0.6	OK	0.6
P	145	Inbound	0.6	OK	0.6
P	145	Outbound	0.6	OK	0.6
P	147	Inbound	0.6	OK	0.6
P	147	Outbound	0.6	OK	0.6
P	148	Inbound	0.6	OK	0.6
P	148	Outbound	0.6	OK	0.6
P	149	Inbound	0.6	OK	0.6
P	149	Outbound	0.6	OK	0.6
D	158	Inbound	0.6	OK	0.6
D	158	Outbound	0.6	OK	0.6
D	176	Inbound	0.6	OK	0.6
D	176	Outbound	0.6	OK	0.6
D	181	Inbound	0.6	OK	0.6
D	181	Outbound	0.6	OK	0.6
P	185	Inbound	0.6	OK	0.6
P	185	Outbound	0.6	OK	0.6
D	281	Inbound	0.6	OK	0.6
D	281	Outbound	0.6	OK	0.6
D	287	Inbound	0.6	OK	0.6
D	287	Outbound	0.6	OK	0.6
D	290	Inbound	0.6	OK	0.6
D	290	Outbound	0.6	OK	0.6
D	292	Inbound	0.6	OK	0.6
D	292	Outbound	0.6	OK	0.6
D	300	Inbound	0.6	OK	0.6
D	300	Outbound	0.6	OK	0.6
D	310	Inbound	0.6	OK	0.6
D	310	Outbound	0.6	OK	0.6
D	311	Inbound	0.6	OK	0.6
D	311	Outbound	0.6	OK	0.6
P	46	Inbound	0.7	OK	0.7
P	46	Outbound	0.7	OK	0.7
P	246	Inbound	0.7	OK	0.7
P	246	Outbound	0.7	OK	0.7
P	35	Inbound	0.9	OK	0.9
P	35	Outbound	0.9	OK	0.9
P	226	Inbound	0.9	OK	0.9
P	226	Outbound	0.9	OK	0.9
P	227	Inbound	0.9	OK	0.9
P	227	Outbound	0.9	OK	0.9

Fast Food Restaurant #1

Trip Type*	Sort#	Direction	Trip Length	LIMIT CHECK	Assessable Lengths
P	229	Inbound	0.9	OK	0.9
P	229	Outbound	0.9	OK	0.9
P	20	Inbound	1.0	OK	1.0
P	20	Outbound	1.0	OK	1.0
P	202	Inbound	1.0	OK	1.0
P	202	Outbound	1.0	OK	1.0
P	274	Inbound	1.0	OK	1.0
P	274	Outbound	1.0	OK	1.0
P	279	Inbound	1.0	OK	1.0
P	279	Outbound	1.0	OK	1.0
P	286	Inbound	1.0	OK	1.0
P	286	Outbound	1.0	OK	1.0
P	225	Inbound	1.1	OK	1.1
P	225	Outbound	1.1	OK	1.1
D	249	Inbound	1.2	OK	1.2
D	249	Outbound	1.2	OK	1.2
P	136	Inbound	1.4	OK	1.4
P	136	Outbound	1.4	OK	1.4
P	157	Inbound	1.4	OK	1.4
P	157	Outbound	1.4	OK	1.4
P	190	Inbound	1.4	OK	1.4
P	190	Outbound	1.4	OK	1.4
S	305	Outbound	1.4	OK	1.4
P	67	Inbound	1.5	OK	1.5
P	67	Outbound	1.5	OK	1.5
P	108	Inbound	1.5	OK	1.5
P	108	Outbound	1.5	OK	1.5
P	1	Inbound	1.6	OK	1.6
P	1	Outbound	1.6	OK	1.6
P	13	Inbound	1.6	OK	1.6
P	13	Outbound	1.6	OK	1.6
P	32	Inbound	1.6	OK	1.6
P	32	Outbound	1.6	OK	1.6
D	89	Inbound	1.6	OK	1.6
D	89	Outbound	1.6	OK	1.6
P	90	Inbound	1.6	OK	1.6
P	90	Outbound	1.6	OK	1.6
P	100	Inbound	1.6	OK	1.6
P	100	Outbound	1.6	OK	1.6
P	119	Inbound	1.6	OK	1.6
P	119	Outbound	1.6	OK	1.6
P	201	Inbound	1.6	OK	1.6
P	201	Outbound	1.6	OK	1.6
P	204	Inbound	1.6	OK	1.6
P	204	Outbound	1.6	OK	1.6
P	205	Inbound	1.6	OK	1.6
P	205	Outbound	1.6	OK	1.6
P	218	Inbound	1.6	OK	1.6
P	218	Outbound	1.6	OK	1.6
P	219	Inbound	1.6	OK	1.6
P	219	Outbound	1.6	OK	1.6
P	223	Inbound	1.6	OK	1.6
P	223	Outbound	1.6	OK	1.6
P	233	Inbound	1.6	OK	1.6
P	233	Outbound	1.6	OK	1.6
S	2	Inbound	1.7	OK	1.7
P	39	Inbound	1.7	OK	1.7
P	39	Outbound	1.7	OK	1.7
P	52	Inbound	1.7	OK	1.7
P	52	Outbound	1.7	OK	1.7
P	151	Inbound	1.7	OK	1.7
P	151	Outbound	1.7	OK	1.7
P	155	Inbound	1.7	OK	1.7

Fast Food Restaurant #1

Trip Type*	Sort#	Direction	Trip Length	LIMIT CHECK	Assessable Lengths
P	155	Outbound	1.7	OK	1.7
P	156	Inbound	1.7	OK	1.7
P	156	Outbound	1.7	OK	1.7
P	184	Inbound	1.7	OK	1.7
P	184	Outbound	1.7	OK	1.7
P	228	Inbound	1.7	OK	1.7
P	228	Outbound	1.7	OK	1.7
P	236	Inbound	1.7	OK	1.7
P	236	Outbound	1.7	OK	1.7
S	253	Outbound	1.7	OK	1.7
P	264	Inbound	1.7	OK	1.7
P	264	Outbound	1.7	OK	1.7
P	272	Inbound	1.7	OK	1.7
P	272	Outbound	1.7	OK	1.7
P	284	Inbound	1.7	OK	1.7
P	284	Outbound	1.7	OK	1.7
P	37	Inbound	1.8	OK	1.8
P	37	Outbound	1.8	OK	1.8
D	85	Inbound	1.8	OK	1.8
D	85	Outbound	1.8	OK	1.8
P	95	Inbound	1.8	OK	1.8
P	95	Outbound	1.8	OK	1.8
S	165	Inbound	1.8	OK	1.8
P	174	Inbound	1.8	OK	1.8
P	174	Outbound	1.8	OK	1.8
S	253	Inbound	1.8	OK	1.8
P	302	Inbound	1.8	OK	1.8
P	302	Outbound	1.8	OK	1.8
S	55	Inbound	1.9	OK	1.9
P	97	Inbound	1.9	OK	1.9
P	97	Outbound	1.9	OK	1.9
S	105	Outbound	1.9	OK	1.9
S	113	Outbound	1.9	OK	1.9
P	162	Inbound	1.9	OK	1.9
P	162	Outbound	1.9	OK	1.9
P	241	Inbound	1.9	OK	1.9
P	241	Outbound	1.9	OK	1.9
S	305	Inbound	1.9	OK	1.9
D	10	Inbound	2.0	OK	2.0
D	10	Outbound	2.0	OK	2.0
D	161	Inbound	2.0	OK	2.0
D	161	Outbound	2.0	OK	2.0
D	309	Inbound	2.0	OK	2.0
D	309	Outbound	2.0	OK	2.0
S	55	Outbound	2.1	OK	2.1
P	135	Inbound	2.1	OK	2.1
P	135	Outbound	2.1	OK	2.1
P	33	Inbound	2.2	OK	2.2
P	33	Outbound	2.2	OK	2.2
P	78	Inbound	2.3	OK	2.3
P	78	Outbound	2.3	OK	2.3
D	251	Inbound	2.4	OK	2.4
D	251	Outbound	2.4	OK	2.4
P	54	Inbound	2.5	OK	2.5
P	54	Outbound	2.5	OK	2.5
P	65	Inbound	2.6	OK	2.6
P	65	Outbound	2.6	OK	2.6
P	106	Inbound	2.6	OK	2.6
P	106	Outbound	2.6	OK	2.6
P	132	Inbound	2.6	OK	2.6
P	132	Outbound	2.6	OK	2.6
S	186	Outbound	2.6	OK	2.6
P	240	Inbound	2.6	OK	2.6

Fast Food Restaurant #1

Trip Type*	Sort#	Direction	Trip Length	LIMIT CHECK	Assessable Lengths
P	240	Outbound	2.6	OK	2.6
S	254	Inbound	2.6	OK	2.6
P	9	Inbound	2.7	OK	2.7
P	9	Outbound	2.7	OK	2.7
P	45	Inbound	2.7	OK	2.7
P	45	Outbound	2.7	OK	2.7
P	53	Inbound	2.7	OK	2.7
P	53	Outbound	2.7	OK	2.7
P	79	Inbound	2.7	OK	2.7
P	79	Outbound	2.7	OK	2.7
P	92	Inbound	2.7	OK	2.7
P	92	Outbound	2.7	OK	2.7
P	140	Inbound	2.8	OK	2.8
P	140	Outbound	2.8	OK	2.8
S	2	Outbound	2.9	OK	2.9
S	28	Inbound	2.9	OK	2.9
S	28	Outbound	2.9	OK	2.9
P	77	Inbound	2.9	OK	2.9
P	77	Outbound	2.9	OK	2.9
P	215	Inbound	2.9	OK	2.9
P	215	Outbound	2.9	OK	2.9
S	217	Inbound	2.9	OK	2.9
S	217	Outbound	2.9	OK	2.9
P	263	Inbound	2.9	OK	2.9
P	263	Outbound	2.9	OK	2.9
P	69	Inbound	3.0	OK	3.0
P	69	Outbound	3.0	OK	3.0
S	134	Outbound	3.2	OK	3.2
S	186	Inbound	3.2	OK	3.2
P	16	Inbound	3.3	OK	3.3
P	16	Outbound	3.3	OK	3.3
S	105	Inbound	3.3	OK	3.3
S	165	Outbound	3.3	OK	3.3
P	38	Inbound	3.4	OK	3.4
P	38	Outbound	3.4	OK	3.4
P	93	Inbound	3.4	OK	3.4
P	93	Outbound	3.4	OK	3.4
P	111	Inbound	3.4	OK	3.4
P	111	Outbound	3.4	OK	3.4
S	113	Inbound	3.4	OK	3.4
P	239	Inbound	3.4	OK	3.4
P	239	Outbound	3.4	OK	3.4
S	254	Outbound	3.4	OK	3.4
S	257	Inbound	3.4	OK	3.4
P	146	Inbound	3.5	OK	3.5
P	146	Outbound	3.5	OK	3.5
P	62	Inbound	3.6	OK	3.6
P	62	Outbound	3.6	OK	3.6
D	87	Inbound	3.6	OK	3.6
D	87	Outbound	3.6	OK	3.6
P	126	Inbound	3.6	OK	3.6
P	126	Outbound	3.6	OK	3.6
D	169	Inbound	3.6	OK	3.6
D	169	Outbound	3.6	OK	3.6
P	216	Inbound	3.6	OK	3.6
P	216	Outbound	3.6	OK	3.6
D	261	Inbound	3.6	OK	3.6
D	261	Outbound	3.6	OK	3.6
D	267	Inbound	3.6	OK	3.6
D	267	Outbound	3.6	OK	3.6
P	21	Inbound	3.7	OK	3.7
P	21	Outbound	3.7	OK	3.7
P	84	Inbound	3.7	OK	3.7

Fast Food Restaurant #1

Trip Type*	Sort#	Direction	Trip Length	LIMIT CHECK	Assessable Lengths
P	84	Outbound	3.7	OK	3.7
P	63	Inbound	3.8	OK	3.8
P	63	Outbound	3.8	OK	3.8
P	48	Inbound	3.9	OK	3.9
P	48	Outbound	3.9	OK	3.9
S	128	Inbound	4.0	OK	4.0
S	128	Outbound	4.0	OK	4.0
S	72	Inbound	4.3	OK	4.3
S	72	Outbound	4.3	OK	4.3
P	120	Inbound	4.4	OK	4.4
P	120	Outbound	4.4	OK	4.4
P	34	Inbound	4.5	OK	4.5
P	34	Outbound	4.5	OK	4.5
P	118	Inbound	4.5	OK	4.5
P	118	Outbound	4.5	OK	4.5
D	277	Inbound	4.6	OK	4.6
D	277	Outbound	4.6	OK	4.6
P	43	Inbound	4.7	OK	4.7
P	43	Outbound	4.7	OK	4.7
P	68	Inbound	4.9	OK	4.9
P	68	Outbound	4.9	OK	4.9
P	270	Inbound	5.6	OK	5.6
P	270	Outbound	5.6	OK	5.6
P	47	Inbound	6.1	OK	6.1
P	47	Outbound	6.1	OK	6.1
P	73	Inbound	6.1	OK	6.1
P	73	Outbound	6.1	OK	6.1
S	134	Inbound	6.1	OK	6.1
D	280	Inbound	6.2	OK	6.2
D	280	Outbound	6.2	OK	6.2
P	11	Inbound	7.0	OK	7.0
P	11	Outbound	7.0	OK	7.0
P	23	Inbound	7.3	OK	7.3
P	27	Inbound	7.4	OK	7.4
P	27	Outbound	7.4	OK	7.4
D	81	Inbound	7.4	OK	7.4
D	81	Outbound	7.4	OK	7.4
P	23	Outbound	7.6	OK	7.6
P	74	Inbound	8.1	OK	8.1
P	74	Outbound	8.1	OK	8.1
D	244	Inbound	8.7	OK	8.7
D	244	Outbound	8.7	OK	8.7
P	125	Inbound	9.6	OK	9.6
P	125	Outbound	9.6	OK	9.6
P	193	Inbound	10.2	OK	10.2
P	193	Outbound	10.2	OK	10.2
P	29	Inbound	10.3	OK	10.3
P	29	Outbound	10.3	OK	10.3
P	122	Inbound	11.1	OK	11.1
P	122	Outbound	11.1	OK	11.1
P	222	Inbound	11.2	OK	11.2
P	222	Outbound	11.2	OK	11.2
D	192	Inbound	11.8	OK	11.8
D	192	Outbound	11.8	OK	11.8
P	171	Inbound	12.6	OK	12.6
P	171	Outbound	12.6	OK	12.6
P	83	Inbound	12.7	OK	12.7
P	83	Outbound	12.7	OK	12.7
S	257	Outbound	12.9	OK	12.9
P	123	Inbound	14.3	OK	14.3
P	123	Outbound	14.3	OK	14.3
P	42	Inbound	17.8	NO	
P	42	Outbound	17.8	NO	

Fast Food Restaurant #1

Trip Type*	Sort#	Direction	Trip Length	LIMIT CHECK	Assessable Lengths
D	194	Inbound	20.6	NO	
D	194	Outbound	20.6	NO	
P	104	Inbound	23.5	NO	
P	104	Outbound	23.5	NO	
P	110	Inbound	31.3	NO	
P	110	Outbound	31.3	NO	
C	3				
C	4				
C	5				
C	6				
C	7				
C	8				
C	14				
C	15				
C	19				
C	25				
C	70				
C	71				
C	80				
C	94				
C	96				
C	101				
C	102				
C	112				
C	117				
C	121				
C	127				
C	129				
C	130				
C	137				
C	142				
C	143				
C	159				
C	166				
C	178				
C	179				
C	188				
C	189				
C	191				
C	195				
C	197				
C	208				
C	209				
C	210				
C	220				
C	221				
C	224				
C	234				
C	235				
C	242				
C	256				
C	259				
C	262				
C	271				
C	273				
C	275				
C	276				
C	278				
C	282				
C	283				
C	288				
C	289				
C	295				

Fast Food Restaurant #1

Trip Type*	Sort#	Direction	Trip Length	LIMIT CHECK	Assessable Lengths
C	304				
C	306				
C	307				
C	308				
C	312				
C	313				
C	314				

Average	**2.91**	**Average**	**2.48**
Standard Deviation	**4.08**	**Standard Deviation**	**2.73**
Average + 3σ	**15.16**	**Average + 3σ**	
Average – 3σ	**0.00**	**Average – 3σ**	
Coefficient of Variation	**1.401**	**Coefficient of Variation**	**1.099**
Number of Trip Length Samples	**384**	**Number of Trip Length Samples**	**376**
		Number of Captured Trips	**64**
		Number of Secondary, Diverted and Primary	**188**
		Percent New Trips	**74.6%**

* C - Captured
D - Diverted
P - Primary
S - Secondary

Appendix C

Local Trip Characteristics Study Data
Fast Food Restaurant Site Number 2

Fast Food restaurant #2

Trip Type*	Sort#	Direction	Trip Length	LIMIT CHECK	Assessable Lengths
D	25	Inbound	0.2	OK	0.2
D	25	Outbound	0.2	OK	0.2
D	157	Inbound	0.2	OK	0.2
D	157	Outbound	0.2	OK	0.2
D	256	Inbound	0.2	OK	0.2
D	256	Outbound	0.2	OK	0.2
D	182	Inbound	0.4	OK	0.4
D	182	Outbound	0.4	OK	0.4
P	67	Inbound	0.5	OK	0.5
P	67	Outbound	0.5	OK	0.5
P	59	Inbound	0.6	OK	0.6
P	59	Outbound	0.6	OK	0.6
D	149	Inbound	0.6	OK	0.6
D	149	Outbound	0.6	OK	0.6
P	148	Inbound	0.8	OK	0.8
P	148	Outbound	0.8	OK	0.8
P	170	Inbound	0.9	OK	0.9
P	170	Outbound	0.9	OK	0.9
S	259	Inbound	0.9	OK	0.9
S	259	Outbound	0.9	OK	0.9
P	30	Inbound	1.1	OK	1.1
P	30	Outbound	1.1	OK	1.1
P	77	Inbound	1.1	OK	1.1
P	77	Outbound	1.1	OK	1.1
P	100	Inbound	1.1	OK	1.1
P	100	Outbound	1.1	OK	1.1
P	61	Inbound	1.2	OK	1.2
P	61	Outbound	1.2	OK	1.2
P	78	Inbound	1.2	OK	1.2
P	78	Outbound	1.2	OK	1.2
P	103	Inbound	1.2	OK	1.2
P	103	Outbound	1.2	OK	1.2
P	113	Inbound	1.2	OK	1.2
P	113	Outbound	1.2	OK	1.2
P	171	Inbound	1.2	OK	1.2
P	171	Outbound	1.2	OK	1.2
P	173	Inbound	1.2	OK	1.2
P	173	Outbound	1.2	OK	1.2
P	217	Inbound	1.2	OK	1.2
P	217	Outbound	1.2	OK	1.2
P	229	Inbound	1.2	OK	1.2
P	229	Outbound	1.2	OK	1.2
P	252	Inbound	1.2	OK	1.2
P	252	Outbound	1.2	OK	1.2
P	260	Inbound	1.2	OK	1.2
P	260	Outbound	1.2	OK	1.2
S	7	Outbound	1.3	OK	1.3
P	9	Inbound	1.9	OK	1.9
P	9	Outbound	1.9	OK	1.9
P	47	Inbound	2.0	OK	2.0
P	47	Outbound	2.0	OK	2.0
P	82	Inbound	2.0	OK	2.0
P	82	Outbound	2.0	OK	2.0
P	85	Inbound	2.0	OK	2.0
P	85	Outbound	2.0	OK	2.0
P	168	Inbound	2.0	OK	2.0

Fast Food restaurant #2

Trip Type*	Sort#	Direction	Trip Length	LIMIT CHECK	Assessable Lengths
P	168	Outbound	2.0	OK	2.0
D	186	Inbound	2.0	OK	2.0
D	186	Outbound	2.0	OK	2.0
P	200	Inbound	2.0	OK	2.0
P	200	Outbound	2.0	OK	2.0
P	54	Inbound	2.1	OK	2.1
P	54	Outbound	2.1	OK	2.1
P	88	Inbound	2.1	OK	2.1
P	88	Outbound	2.1	OK	2.1
D	32	Inbound	2.2	OK	2.2
D	32	Outbound	2.2	OK	2.2
P	120	Inbound	2.2	OK	2.2
P	120	Outbound	2.2	OK	2.2
D	210	Inbound	2.2	OK	2.2
D	210	Outbound	2.2	OK	2.2
D	109	Inbound	2.4	OK	2.4
D	109	Outbound	2.4	OK	2.4
D	160	Inbound	2.4	OK	2.4
D	160	Outbound	2.4	OK	2.4
D	215	Inbound	2.4	OK	2.4
D	215	Outbound	2.4	OK	2.4
P	107	Inbound	2.5	OK	2.5
P	107	Outbound	2.5	OK	2.5
P	122	Inbound	2.5	OK	2.5
P	122	Outbound	2.5	OK	2.5
P	135	Inbound	2.5	OK	2.5
P	135	Outbound	2.5	OK	2.5
S	3	Outbound	2.6	OK	2.6
D	56	Inbound	2.6	OK	2.6
D	56	Outbound	2.6	OK	2.6
P	237	Inbound	2.6	OK	2.6
P	237	Outbound	2.6	OK	2.6
P	275	Inbound	2.6	OK	2.6
P	275	Outbound	2.6	OK	2.6
D	70	Inbound	2.8	OK	2.8
D	70	Outbound	2.8	OK	2.8
S	33	Outbound	2.9	OK	2.9
S	6	Outbound	3.0	OK	3.0
D	97	Inbound	3.2	OK	3.2
D	97	Outbound	3.2	OK	3.2
D	214	Inbound	3.2	OK	3.2
D	214	Outbound	3.2	OK	3.2
D	92	Inbound	3.4	OK	3.4
D	92	Outbound	3.4	OK	3.4
P	201	Inbound	3.5	OK	3.5
P	201	Outbound	3.5	OK	3.5
D	124	Inbound	3.6	OK	3.6
D	124	Outbound	3.6	OK	3.6
D	125	Inbound	3.6	OK	3.6
D	125	Outbound	3.6	OK	3.6
P	218	Inbound	3.7	OK	3.7
P	218	Outbound	3.7	OK	3.7
S	3	Inbound	3.8	OK	3.8
S	7	Inbound	3.8	OK	3.8
D	63	Inbound	3.8	OK	3.8

Fast Food restaurant #2

Trip Type*	Sort#	Direction	Trip Length	LIMIT CHECK	Assessable Lengths
D	63	Outbound	3.8	OK	3.8
P	143	Inbound	3.9	OK	3.9
P	143	Outbound	3.9	OK	3.9
D	181	Inbound	4.0	OK	4.0
D	181	Outbound	4.0	OK	4.0
D	225	Inbound	4.2	OK	4.2
D	225	Outbound	4.2	OK	4.2
D	272	Inbound	4.2	OK	4.2
D	272	Outbound	4.2	OK	4.2
P	211	Inbound	4.6	OK	4.6
P	211	Outbound	4.6	OK	4.6
S	6	Inbound	4.9	OK	4.9
D	1	Inbound	5.0	OK	5.0
D	1	Outbound	5.0	OK	5.0
D	23	Inbound	5.0	OK	5.0
D	23	Outbound	5.0	OK	5.0
S	33	Inbound	5.1	OK	5.1
P	187	Inbound	5.2	OK	5.2
P	187	Outbound	5.2	OK	5.2
P	190	Inbound	5.2	OK	5.2
P	190	Outbound	5.2	OK	5.2
D	232	Inbound	5.2	OK	5.2
D	232	Outbound	5.2	OK	5.2
D	268	Inbound	5.2	OK	5.2
D	268	Outbound	5.2	OK	5.2
D	101	Inbound	6.0	OK	6.0
D	101	Outbound	6.0	OK	6.0
D	191	Inbound	6.0	OK	6.0
D	191	Outbound	6.0	OK	6.0
P	183	Inbound	6.2	OK	6.2
P	183	Outbound	6.2	OK	6.2
D	177	Inbound	7.2	OK	7.2
D	177	Outbound	7.2	OK	7.2
D	212	Inbound	8.8	OK	8.8
D	212	Outbound	8.8	OK	8.8
P	240	Inbound	9.3	OK	9.3
P	240	Outbound	9.3	OK	9.3
D	141	Inbound	9.6	OK	9.6
D	141	Outbound	9.6	OK	9.6
S	91	Inbound	10.5	OK	10.5
P	108	Inbound	10.5	OK	10.5
P	108	Outbound	10.5	OK	10.5
P	150	Inbound	10.5	OK	10.5
P	150	Outbound	10.5	OK	10.5
S	188	Inbound	10.7	OK	10.7
D	69	Inbound	10.8	OK	10.8
D	69	Outbound	10.8	OK	10.8
D	42	Inbound	11.0	OK	11.0
D	42	Outbound	11.0	OK	11.0
D	130	Inbound	11.8	OK	11.8
D	130	Outbound	11.8	OK	11.8
D	31	Inbound	12.6	OK	12.6
D	31	Outbound	12.6	OK	12.6
P	242	Inbound	14.7	OK	14.7

Fast Food restaurant #2

Trip Type*	Sort#	Direction	Trip Length	LIMIT CHECK	Assessable Lengths
P	242	Outbound	14.7	OK	14.7
D	98	Inbound	14.8	OK	14.8
D	98	Outbound	14.8	OK	14.8
S	253	Outbound	14.8	OK	14.8
S	146	Inbound	16.3	OK	16.3
S	146	Outbound	17.6	OK	17.6
S	188	Outbound	18.5	NO	
S	253	Inbound	19.3	NO	
S	91	Outbound	26.8	NO	
C	2				
C	4				
C	8				
C	11				
C	13				
C	14				
C	17				
C	18				
C	19				
C	21				
C	22				
C	24				
C	27				
C	28				
C	29				
C	35				
C	36				
C	37				
C	38				
C	40				
C	41				
C	44				
C	46				
C	48				
C	49				
C	50				
C	51				
C	52				
C	53				
C	57				
C	58				
C	62				
C	66				
C	68				
C	79				
C	87				
C	96				
C	111				
C	114				
C	115				
C	117				
C	121				
C	129				
C	136				

Fast Food restaurant #2

Trip Type*	Sort#	Direction	Trip Length	LIMIT CHECK	Assessable Lengths
C	137				
C	138				
C	140				
C	144				
C	151				
C	153				
C	154				
C	155				
C	158				
C	163				
C	172				
C	174				
C	185				
C	196				
C	198				
C	199				
C	202				
C	207				
C	209				
C	220				
C	221				
C	222				
C	223				
C	224				
C	226				
C	230				
C	231				
C	233				
C	236				
C	239				
C	243				
C	244				
C	245				
C	246				
C	249				
C	250				
C	251				
C	255				
C	261				
C	262				
C	263				
C	264				
C	265				
C	266				
C	267				
C	270				
C	271				
C	273				
C	274				

Fast Food restaurant #2

Trip Type*	Sort#	Direction	Trip Length	LIMIT CHECK	Assessable Lengths
C	276				
C	279				

Average	4.38	Average	4.08
Standard Deviation	4.43	Standard Deviation	3.80
Average + 3σ	17.68	Average + 3σ	15.49
Average – 3σ	0.00	Average – 3σ	0.00
Coefficient of Variation	1.012	Coefficient of Variation	0.933
Number of Trip Length Samples	174	Number of Trip Length Samples	171
		Number of Captured Trips	95
		Number of Secondary, Diverted and Primary	87
		Percent New Trips	47.8%

* C - Captured
D - Diverted
P - Primary
S - Secondary

Appendix C

Local Trip Characteristics Study Data
Fast Food Restaurant Site Number 3

Fast Food Restaurant #3

Trip Type*	Sort#	Direction	Trip Length	LIMIT CHECK	Assessable Lengths
D	27	Inbound	0.2	OK	0.2
D	27	Outbound	0.2	OK	0.2
P	117	Inbound	0.2	OK	0.2
P	117	Outbound	0.2	OK	0.2
D	155	Inbound	0.2	OK	0.2
D	155	Outbound	0.2	OK	0.2
D	175	Inbound	0.2	OK	0.2
D	175	Outbound	0.2	OK	0.2
P	120	Inbound	0.3	OK	0.3
P	120	Outbound	0.3	OK	0.3
P	4	Inbound	0.8	OK	0.8
P	4	Outbound	0.8	OK	0.8
P	12	Inbound	0.8	OK	0.8
P	12	Outbound	0.8	OK	0.8
P	21	Inbound	0.8	OK	0.8
P	21	Outbound	0.8	OK	0.8
P	34	Inbound	0.8	OK	0.8
P	34	Outbound	0.8	OK	0.8
P	73	Inbound	0.8	OK	0.8
P	73	Outbound	0.8	OK	0.8
P	77	Inbound	0.8	OK	0.8
P	77	Outbound	0.8	OK	0.8
P	78	Inbound	0.8	OK	0.8
P	78	Outbound	0.8	OK	0.8
P	82	Inbound	0.8	OK	0.8
P	82	Outbound	0.8	OK	0.8
P	85	Inbound	0.8	OK	0.8
P	85	Outbound	0.8	OK	0.8
P	94	Inbound	0.8	OK	0.8
P	94	Outbound	0.8	OK	0.8
P	98	Inbound	0.8	OK	0.8
P	98	Outbound	0.8	OK	0.8
P	100	Inbound	0.8	OK	0.8
P	100	Outbound	0.8	OK	0.8
P	101	Inbound	0.8	OK	0.8
P	101	Outbound	0.8	OK	0.8
P	102	Inbound	0.8	OK	0.8
P	102	Outbound	0.8	OK	0.8
P	104	Inbound	0.8	OK	0.8
P	104	Outbound	0.8	OK	0.8
P	108	Inbound	0.8	OK	0.8
P	108	Outbound	0.8	OK	0.8
P	113	Inbound	0.8	OK	0.8
P	113	Outbound	0.8	OK	0.8
P	116	Inbound	0.8	OK	0.8
P	116	Outbound	0.8	OK	0.8
P	165	Inbound	0.8	OK	0.8
P	165	Outbound	0.8	OK	0.8
P	170	Inbound	0.8	OK	0.8
P	170	Outbound	0.8	OK	0.8
P	173	Inbound	0.8	OK	0.8
P	173	Outbound	0.8	OK	0.8
P	193	Inbound	0.8	OK	0.8
P	193	Outbound	0.8	OK	0.8
P	194	Inbound	0.8	OK	0.8
P	194	Outbound	0.8	OK	0.8
P	186	Inbound	1.2	OK	1.2
P	186	Outbound	1.2	OK	1.2

Fast Food Restaurant #3

Trip Type*	Sort#	Direction	Trip Length	LIMIT CHECK	Assessable Lengths
P	11	Inbound	1.3	OK	1.3
P	11	Outbound	1.3	OK	1.3
S	52	Inbound	1.3	OK	1.3
S	52	Outbound	1.3	OK	1.3
S	75	Inbound	1.6	OK	1.6
S	75	Outbound	1.6	OK	1.6
S	65	Inbound	1.7	OK	1.7
S	65	Outbound	1.7	OK	1.7
D	96	Inbound	1.7	OK	1.7
D	96	Outbound	1.7	OK	1.7
P	201	Inbound	1.8	OK	1.8
P	201	Outbound	1.8	OK	1.8
P	42	Inbound	2	OK	2
P	42	Outbound	2	OK	2
P	43	Inbound	2	OK	2
P	43	Outbound	2	OK	2
P	47	Inbound	2	OK	2
P	47	Outbound	2	OK	2
P	71	Inbound	2	OK	2
P	71	Outbound	2	OK	2
P	72	Inbound	2	OK	2
P	72	Outbound	2	OK	2
P	86	Inbound	2	OK	2
P	86	Outbound	2	OK	2
P	130	Inbound	2	OK	2
P	130	Outbound	2	OK	2
P	136	Inbound	2	OK	2
P	136	Outbound	2	OK	2
P	150	Inbound	2	OK	2
P	150	Outbound	2	OK	2
P	159	Inbound	2	OK	2
P	159	Outbound	2	OK	2
P	166	Inbound	2	OK	2
P	166	Outbound	2	OK	2
P	176	Inbound	2	OK	2
P	176	Outbound	2	OK	2
P	182	Inbound	2	OK	2
P	182	Outbound	2	OK	2
P	125	Inbound	2.1	OK	2.1
P	125	Outbound	2.1	OK	2.1
P	25	Inbound	2.2	OK	2.2
P	25	Outbound	2.2	OK	2.2
P	111	Inbound	2.2	OK	2.2
P	111	Outbound	2.2	OK	2.2
P	142	Inbound	2.2	OK	2.2
P	142	Outbound	2.2	OK	2.2
P	143	Inbound	2.2	OK	2.2
P	143	Outbound	2.2	OK	2.2
P	172	Inbound	2.2	OK	2.2
P	172	Outbound	2.2	OK	2.2
D	181	Inbound	2.2	OK	2.2
D	181	Outbound	2.2	OK	2.2
D	20	Inbound	2.4	OK	2.4
D	20	Outbound	2.4	OK	2.4
P	93	Inbound	2.4	OK	2.4
P	93	Outbound	2.4	OK	2.4
P	115	Inbound	2.4	OK	2.4
P	115	Outbound	2.4	OK	2.4

Fast Food Restaurant #3

Trip Type*	Sort#	Direction	Trip Length	LIMIT CHECK	Assessable Lengths
D	2	Inbound	2.6	OK	2.6
D	2	Outbound	2.6	OK	2.6
D	3	Inbound	2.6	OK	2.6
D	3	Outbound	2.6	OK	2.6
D	8	Inbound	2.6	OK	2.6
D	8	Outbound	2.6	OK	2.6
D	46	Inbound	2.6	OK	2.6
D	46	Outbound	2.6	OK	2.6
S	62	Inbound	2.6	OK	2.6
S	62	Outbound	2.6	OK	2.6
P	66	Inbound	2.9	OK	2.9
P	66	Outbound	2.9	OK	2.9
P	128	Inbound	2.9	OK	2.9
P	128	Outbound	2.9	OK	2.9
P	129	Inbound	2.9	OK	2.9
P	129	Outbound	2.9	OK	2.9
P	144	Inbound	2.9	OK	2.9
P	144	Outbound	2.9	OK	2.9
P	145	Inbound	2.9	OK	2.9
P	145	Outbound	2.9	OK	2.9
P	167	Inbound	2.9	OK	2.9
P	167	Outbound	2.9	OK	2.9
P	174	Inbound	2.9	OK	2.9
P	174	Outbound	2.9	OK	2.9
P	24	Inbound	4.3	OK	4.3
P	24	Outbound	4.3	OK	4.3
P	107	Inbound	4.3	OK	4.3
P	107	Outbound	4.3	OK	4.3
P	134	Inbound	4.3	OK	4.3
P	134	Outbound	4.3	OK	4.3
P	118	Inbound	4.6	OK	4.6
P	118	Outbound	4.6	OK	4.6
P	45	Inbound	4.8	OK	4.8
P	45	Outbound	4.8	OK	4.8
P	191	Inbound	4.8	OK	4.8
P	191	Outbound	4.8	OK	4.8
P	44	Inbound	5.5	OK	5.5
P	44	Outbound	5.5	OK	5.5
P	189	Inbound	7.5	OK	7.5
P	189	Outbound	7.5	OK	7.5
P	80	Inbound	8.1	OK	8.1
P	80	Outbound	8.1	OK	8.1
P	81	Inbound	8.1	OK	8.1
P	81	Outbound	8.1	OK	8.1
D	162	Inbound	8.1	OK	8.1
D	162	Outbound	8.1	OK	8.1
D	51	Inbound	8.6	OK	8.6
D	51	Outbound	8.6	OK	8.6
S	50	Inbound	8.8	OK	8.8
S	50	Outbound	8.8	OK	8.8
P	121	Inbound	9	OK	9
P	121	Outbound	9	OK	9
D	74	Inbound	9.8	OK	9.8
D	74	Outbound	9.8	OK	9.8
P	37	Inbound	10.4	OK	10.4
P	37	Outbound	10.4	OK	10.4
P	146	Inbound	10.4	OK	10.4
P	146	Outbound	10.4	OK	10.4

Fast Food Restaurant #3

Trip Type*	Sort#	Direction	Trip Length	LIMIT CHECK	Assessable Lengths
P	161	Inbound	10.4	OK	10.4
P	161	Outbound	10.4	OK	10.4
P	39	Inbound	10.9	OK	10.9
P	39	Outbound	10.9	OK	10.9
P	84	Inbound	10.9	OK	10.9
P	84	Outbound	10.9	OK	10.9
P	15	Inbound	11.5	OK	11.5
P	15	Outbound	11.5	OK	11.5
P	147	Inbound	11.5	OK	11.5
P	147	Outbound	11.5	OK	11.5
P	190	Inbound	11.5	OK	11.5
P	190	Outbound	11.5	OK	11.5
P	56	Inbound	14.3	OK	14.3
P	56	Outbound	14.3	OK	14.3
P	114	Inbound	20.3	NO	
P	114	Outbound	20.3	NO	
P	123	Inbound	19.5	NO	
P	123	Outbound	19.5	NO	
P	148	Inbound	21.5	NO	
P	148	Outbound	21.5	NO	
C	99				
C	105				
C	110				
C	163				
C	192				
C	7				
C	10				
C	14				
C	18				
C	33				
C	40				
C	53				
C	54				
C	58				
C	59				
C	60				
C	61				
C	63				
C	64				
C	67				
C	68				
C	76				
C	89				
C	97				
C	112				
C	122				
C	124				
C	154				
C	156				
C	157				
C	180				
C	195				
C	196				
C	197				
C	199				
C	202				
C	203				
C	204				

Fast Food Restaurant #3

Trip Type*	Sort#	Direction	Trip Length	LIMIT CHECK	Assessable Lengths
C	205				
C	206				

Average	**3.87**	**Average**	**3.34**
Standard Deviation	**4.47**	**Standard Deviation**	**3.39**
Average + 3σ	**17.27**		
Average – 3σ	**0.00**		
Coefficient of Variation	**1.153**	**Coefficient of Variation**	**1.013**
Number of Trip Length Samples	**194**	**Number of Trip Length Samples**	**188**
		Number of Captured Trips	**40**
		Number of Secondary, Diverted and Primary	**97**
		Percent New Trips	**70.8%**

* C - Captured
D - Diverted
P - Primary
S - Secondary

Appendix C

Local Trip Characteristics Study Data
Shopping Center Land Uses

Appendix C

Local Trip Characteristics Study Data
Shopping Center Number 1

Shopping Center #1

Trip Type*	Sort #	Trip Length	LIMIT CHECK	Assessable Lengths
D	36	0.4	OK	0.4
D	36	0.4	OK	0.4
P	157	0.5	OK	0.5
P	157	0.5	OK	0.5
P	45	0.6	OK	0.6
P	45	0.6	OK	0.6
S	48	0.6	OK	0.6
P	62	0.6	OK	0.6
P	62	0.6	OK	0.6
P	63	0.6	OK	0.6
P	63	0.6	OK	0.6
P	251	0.6	OK	0.6
P	251	0.6	OK	0.6
D	268	0.6	OK	0.6
D	268	0.6	OK	0.6
P	148	0.7	OK	0.7
P	148	0.7	OK	0.7
D	103	0.8	OK	0.8
D	103	0.8	OK	0.8
P	119	0.8	OK	0.8
P	119	0.8	OK	0.8
P	135	0.8	OK	0.8
P	135	0.8	OK	0.8
P	150	0.8	OK	0.8
P	150	0.8	OK	0.8
D	261	0.8	OK	0.8
D	261	0.8	OK	0.8
P	115	0.9	OK	0.9
P	115	0.9	OK	0.9
P	190	0.9	OK	0.9
P	190	0.9	OK	0.9
P	203	0.9	OK	0.9
P	203	0.9	OK	0.9
D	246	0.9	OK	0.9
D	246	0.9	OK	0.9
S	65	1.0	OK	1.0
P	151	1.0	OK	1.0
P	151	1.0	OK	1.0
P	55	1.1	OK	1.1
P	55	1.1	OK	1.1
P	137	1.1	OK	1.1
P	137	1.1	OK	1.1
P	167	1.1	OK	1.1
P	167	1.1	OK	1.1
D	13	1.2	OK	1.2
D	13	1.2	OK	1.2
P	27	1.2	OK	1.2
P	27	1.2	OK	1.2
P	64	1.2	OK	1.2
P	64	1.2	OK	1.2
D	91	1.2	OK	1.2
D	91	1.2	OK	1.2
P	117	1.2	OK	1.2
P	117	1.2	OK	1.2
P	129	1.2	OK	1.2
P	129	1.2	OK	1.2
P	141	1.2	OK	1.2

Shopping Center #1

Trip Type*	Sort #	Trip Length	LIMIT CHECK	Assessable Lengths
P	141	1.2	OK	1.2
P	199	1.2	OK	1.2
P	199	1.2	OK	1.2
P	30	1.3	OK	1.3
P	30	1.3	OK	1.3
P	54	1.3	OK	1.3
P	54	1.3	OK	1.3
S	226	1.3	OK	1.3
D	264	1.3	OK	1.3
D	264	1.3	OK	1.3
S	65	1.4	OK	1.4
P	189	1.4	OK	1.4
P	189	1.4	OK	1.4
S	237	1.4	OK	1.4
P	93	1.6	OK	1.6
P	93	1.6	OK	1.6
P	110	1.6	OK	1.6
P	110	1.6	OK	1.6
P	124	1.6	OK	1.6
P	124	1.6	OK	1.6
P	183	1.6	OK	1.6
P	183	1.6	OK	1.6
P	229	1.6	OK	1.6
P	229	1.6	OK	1.6
P	243	1.6	OK	1.6
P	243	1.6	OK	1.6
P	41	1.8	OK	1.8
P	41	1.8	OK	1.8
S	48	1.8	OK	1.8
D	8	1.9	OK	1.9
D	8	1.9	OK	1.9
D	15	1.9	OK	1.9
D	15	1.9	OK	1.9
D	126	1.9	OK	1.9
D	126	1.9	OK	1.9
S	255	1.9	OK	1.9
P	5	2.0	OK	2.0
P	5	2.0	OK	2.0
P	39	2.0	OK	2.0
P	39	2.0	OK	2.0
P	172	2.0	OK	2.0
P	172	2.0	OK	2.0
P	12	2.1	OK	2.1
P	12	2.1	OK	2.1
P	153	2.1	OK	2.1
P	153	2.1	OK	2.1
P	68	2.2	OK	2.2
P	68	2.2	OK	2.2
P	104	2.2	OK	2.2
P	104	2.2	OK	2.2
P	206	2.2	OK	2.2
P	206	2.2	OK	2.2
P	233	2.2	OK	2.2
P	233	2.2	OK	2.2
P	267	2.2	OK	2.2
P	267	2.2	OK	2.2
P	53	2.3	OK	2.3

Shopping Center #1

Trip Type*	Sort #	Trip Length	LIMIT CHECK	Assessable Lengths
P	53	2.3	OK	2.3
P	184	2.3	OK	2.3
P	184	2.3	OK	2.3
P	262	2.3	OK	2.3
P	262	2.3	OK	2.3
P	32	2.4	OK	2.4
P	32	2.4	OK	2.4
P	75	2.4	OK	2.4
P	75	2.4	OK	2.4
P	164	2.4	OK	2.4
P	164	2.4	OK	2.4
P	29	2.5	OK	2.5
P	29	2.5	OK	2.5
P	70	2.5	OK	2.5
P	70	2.5	OK	2.5
P	138	2.5	OK	2.5
P	138	2.5	OK	2.5
P	156	2.5	OK	2.5
P	156	2.5	OK	2.5
P	194	2.5	OK	2.5
P	194	2.5	OK	2.5
D	195	2.5	OK	2.5
D	195	2.5	OK	2.5
P	202	2.5	OK	2.5
P	202	2.5	OK	2.5
P	242	2.5	OK	2.5
P	242	2.5	OK	2.5
P	78	2.6	OK	2.6
P	78	2.6	OK	2.6
D	111	2.6	OK	2.6
D	111	2.6	OK	2.6
D	112	2.6	OK	2.6
D	112	2.6	OK	2.6
P	230	2.6	OK	2.6
P	230	2.6	OK	2.6
S	250	2.6	OK	2.6
P	31	2.7	OK	2.7
P	31	2.7	OK	2.7
P	131	2.7	OK	2.7
P	131	2.7	OK	2.7
P	155	2.7	OK	2.7
P	155	2.7	OK	2.7
P	182	2.7	OK	2.7
P	182	2.7	OK	2.7
S	237	2.7	OK	2.7
P	210	2.9	OK	2.9
P	210	2.9	OK	2.9
S	226	3.0	OK	3.0
P	81	3.1	OK	3.1
P	81	3.1	OK	3.1
P	259	3.2	OK	3.2
P	259	3.2	OK	3.2
P	16	3.4	OK	3.4
P	16	3.4	OK	3.4
S	133	3.4	OK	3.4
P	2	3.5	OK	3.5
P	2	3.5	OK	3.5

Shopping Center #1

Trip Type*	Sort #	Trip Length	LIMIT CHECK	Assessable Lengths
P	37	3.5	OK	3.5
P	37	3.5	OK	3.5
P	67	3.7	OK	3.7
P	67	3.7	OK	3.7
P	162	3.7	OK	3.7
P	162	3.7	OK	3.7
P	174	3.9	OK	3.9
P	174	3.9	OK	3.9
P	211	3.9	OK	3.9
P	211	3.9	OK	3.9
P	90	4.0	OK	4.0
P	90	4.0	OK	4.0
P	154	4.0	OK	4.0
P	154	4.0	OK	4.0
P	171	4.0	OK	4.0
P	171	4.0	OK	4.0
P	42	4.1	OK	4.1
P	42	4.1	OK	4.1
P	96	4.1	OK	4.1
P	96	4.1	OK	4.1
P	106	4.2	OK	4.2
P	106	4.2	OK	4.2
P	179	4.2	OK	4.2
P	179	4.2	OK	4.2
P	209	4.2	OK	4.2
P	209	4.2	OK	4.2
P	201	4.4	OK	4.4
P	201	4.4	OK	4.4
P	143	4.6	OK	4.6
P	143	4.6	OK	4.6
P	257	4.6	OK	4.6
P	257	4.6	OK	4.6
S	255	5.0	OK	5.0
P	105	5.5	OK	5.5
P	105	5.5	OK	5.5
P	168	5.8	OK	5.8
P	168	5.8	OK	5.8
P	213	5.9	OK	5.9
P	213	5.9	OK	5.9
P	216	6.0	OK	6.0
P	216	6.0	OK	6.0
S	133	6.3	OK	6.3
S	84	6.4	OK	6.4
P	47	6.5	OK	6.5
P	47	6.5	OK	6.5
P	212	6.6	OK	6.6
P	212	6.6	OK	6.6
P	139	6.7	OK	6.7
P	139	6.7	OK	6.7
S	250	6.7	OK	6.7
P	130	7.3	OK	7.3
P	130	7.3	OK	7.3
P	98	7.6	OK	7.6
P	98	7.6	OK	7.6
P	178	8.4	OK	8.4
P	178	8.4	OK	8.4
S	83	8.5	OK	8.5

Shopping Center #1

Trip Type*	Sort #	Trip Length	LIMIT CHECK	Assessable Lengths
P	120	9.3	OK	9.3
P	120	9.3	OK	9.3
P	49	9.5	OK	9.5
P	49	9.5	OK	9.5
P	177	10.0	OK	10.0
P	177	10.0	OK	10.0
P	51	11.5	OK	11.5
P	51	11.5	OK	11.5
S	84	11.7	OK	11.7
P	205	11.7	OK	11.7
P	205	11.7	OK	11.7
P	208	14.8	OK	14.8
P	208	14.8	OK	14.8
P	95	15.5	OK	15.5
P	95	15.5	OK	15.5
P	186	16.5	OK	16.5
P	186	16.5	OK	16.5
S	272	16.8	OK	16.8
S	83	18.2	NO	
P	40	20.0	NO	
P	40	20.0	NO	
S	272	22.3	NO	
P	89	33.4	NO	
P	89	33.4	NO	
C	1			
C	4			
C	7			
C	9			
C	11			
C	14			
C	17			
C	19			
C	22			
C	33			
C	34			
C	35			
C	66			
C	73			
C	76			
C	80			
C	86			
C	92			
C	94			
C	102			
C	108			
C	109			
C	116			
C	122			
C	123			
C	127			
C	132			
C	140			
C	147			
C	149			
C	185			
C	200			
C	215			

Shopping Center #1

Trip Type*	Sort #	Trip Length	LIMIT CHECK	Assessable Lengths
C	217			
C	218			
C	220			
C	221			
C	222			
C	227			
C	228			
C	231			
C	238			
C	240			
C	247			
C	248			
C	249			
C	253			
C	258			
C	260			
C	263			
C	274			
	Average	**3.86**	**Average**	**3.35**
	Standard Deviation	**4.63**	**Standard Deviation**	**3.19**
	Average + 3σ	**17.74**		
	Average – 3σ	**0.00**		
	Coefficient of Variation	**1.199**	**Coefficient of Variation**	**0.953**
	Number of Trip Length Samples	**252**	**Number of Trip Length Samples**	**246**
			Number of Captured Trips	**51**
			Number of Secondary, Diverted and Primary	**126**
			Percent New Trips	**71.2%**

* C - Captured
D - Diverted
P - Primary
S - Secondary

Appendix C

Local Trip Characteristics Study Data
Shopping Center Number 2

Shopping Center #2

Trip Type*	Sort #	Trip Length	LIMIT CHECK	Assessable Lengths
P	45	0.1	OK	0.1
P	45	0.1	OK	0.1
P	58	0.1	OK	0.1
P	58	0.1	OK	0.1
P	81	0.1	OK	0.1
P	81	0.1	OK	0.1
P	101	0.1	OK	0.1
P	101	0.1	OK	0.1
P	146	0.1	OK	0.1
P	146	0.1	OK	0.1
P	147	0.1	OK	0.1
P	147	0.1	OK	0.1
P	163	0.1	OK	0.1
P	163	0.1	OK	0.1
P	169	0.1	OK	0.1
P	169	0.1	OK	0.1
P	249	0.1	OK	0.1
P	249	0.1	OK	0.1
P	253	0.1	OK	0.1
P	253	0.1	OK	0.1
P	259	0.1	OK	0.1
P	259	0.1	OK	0.1
P	260	0.1	OK	0.1
P	260	0.1	OK	0.1
P	264	0.1	OK	0.1
P	264	0.1	OK	0.1
P	273	0.1	OK	0.1
P	273	0.1	OK	0.1
P	274	0.1	OK	0.1
P	274	0.1	OK	0.1
P	275	0.1	OK	0.1
P	275	0.1	OK	0.1
P	283	0.1	OK	0.1
P	283	0.1	OK	0.1
P	290	0.1	OK	0.1
P	290	0.1	OK	0.1
P	292	0.1	OK	0.1
P	292	0.1	OK	0.1
P	319	0.1	OK	0.1
P	319	0.1	OK	0.1
P	342	0.1	OK	0.1
P	342	0.1	OK	0.1
P	350	0.1	OK	0.1
P	350	0.1	OK	0.1
P	356	0.1	OK	0.1
P	356	0.1	OK	0.1
P	360	0.1	OK	0.1
P	360	0.1	OK	0.1
P	362	0.1	OK	0.1
P	362	0.1	OK	0.1
S	365	0.1	OK	0.1
P	367	0.1	OK	0.1
P	367	0.1	OK	0.1
P	370	0.1	OK	0.1

Shopping Center #2

Trip Type*	Sort #	Trip Length	LIMIT CHECK	Assessable Lengths
P	370	0.1	OK	0.1
P	375	0.1	OK	0.1
P	375	0.1	OK	0.1
P	392	0.1	OK	0.1
P	392	0.1	OK	0.1
P	399	0.1	OK	0.1
P	399	0.1	OK	0.1
P	403	0.1	OK	0.1
P	403	0.1	OK	0.1
P	407	0.1	OK	0.1
P	407	0.1	OK	0.1
P	409	0.1	OK	0.1
P	409	0.1	OK	0.1
P	418	0.1	OK	0.1
P	418	0.1	OK	0.1
D	14	0.2	OK	0.2
D	14	0.2	OK	0.2
D	18	0.2	OK	0.2
D	18	0.2	OK	0.2
D	22	0.2	OK	0.2
D	22	0.2	OK	0.2
D	77	0.2	OK	0.2
D	77	0.2	OK	0.2
D	117	0.2	OK	0.2
D	117	0.2	OK	0.2
D	222	0.2	OK	0.2
D	222	0.2	OK	0.2
D	307	0.2	OK	0.2
D	307	0.2	OK	0.2
D	344	0.2	OK	0.2
D	344	0.2	OK	0.2
S	365	0.2	OK	0.2
D	426	0.2	OK	0.2
D	426	0.2	OK	0.2
P	3	0.4	OK	0.4
P	3	0.4	OK	0.4
P	79	0.4	OK	0.4
P	79	0.4	OK	0.4
P	80	0.4	OK	0.4
P	80	0.4	OK	0.4
P	205	0.4	OK	0.4
P	205	0.4	OK	0.4
D	6	0.6	OK	0.6
D	6	0.6	OK	0.6
P	192	0.7	OK	0.7
P	192	0.7	OK	0.7
D	12	0.8	OK	0.8
D	12	0.8	OK	0.8
P	30	0.8	OK	0.8
P	30	0.8	OK	0.8
P	104	0.8	OK	0.8
P	104	0.8	OK	0.8
P	123	0.8	OK	0.8
P	123	0.8	OK	0.8

Shopping Center #2

Trip Type*	Sort #	Trip Length	LIMIT CHECK	Assessable Lengths
P	135	0.8	OK	0.8
P	135	0.8	OK	0.8
P	300	0.8	OK	0.8
P	300	0.8	OK	0.8
P	400	0.8	OK	0.8
P	400	0.8	OK	0.8
P	423	0.8	OK	0.8
P	423	0.8	OK	0.8
S	27	1.0	OK	1.0
P	142	1.0	OK	1.0
P	142	1.0	OK	1.0
P	151	1.0	OK	1.0
P	151	1.0	OK	1.0
P	38	1.1	OK	1.1
P	38	1.1	OK	1.1
P	46	1.1	OK	1.1
P	46	1.1	OK	1.1
P	83	1.1	OK	1.1
P	83	1.1	OK	1.1
P	243	1.1	OK	1.1
P	243	1.1	OK	1.1
P	4	1.4	OK	1.4
P	4	1.4	OK	1.4
S	132	1.4	OK	1.4
S	132	1.4	OK	1.4
P	156	1.4	OK	1.4
P	156	1.4	OK	1.4
P	174	1.4	OK	1.4
P	174	1.4	OK	1.4
P	175	1.4	OK	1.4
P	175	1.4	OK	1.4
P	180	1.4	OK	1.4
P	180	1.4	OK	1.4
P	214	1.4	OK	1.4
P	214	1.4	OK	1.4
P	235	1.4	OK	1.4
P	235	1.4	OK	1.4
S	315	1.4	OK	1.4
P	75	1.5	OK	1.5
P	75	1.5	OK	1.5
P	78	1.5	OK	1.5
P	78	1.5	OK	1.5
S	94	1.5	OK	1.5
P	335	1.5	OK	1.5
P	335	1.5	OK	1.5
S	86	1.6	OK	1.6
S	86	1.6	OK	1.6
S	160	1.6	OK	1.6
P	209	1.6	OK	1.6
P	209	1.6	OK	1.6
P	211	1.6	OK	1.6
P	211	1.6	OK	1.6
D	269	1.6	OK	1.6
D	269	1.6	OK	1.6

Shopping Center #2

Trip Type*	Sort #	Trip Length	LIMIT CHECK	Assessable Lengths
P	291	1.6	OK	1.6
P	291	1.6	OK	1.6
P	383	1.6	OK	1.6
P	383	1.6	OK	1.6
S	13	1.7	OK	1.7
S	20	1.7	OK	1.7
S	27	1.7	OK	1.7
S	160	1.7	OK	1.7
P	278	1.7	OK	1.7
P	278	1.7	OK	1.7
S	110	1.8	OK	1.8
S	110	1.8	OK	1.8
S	158	1.8	OK	1.8
S	158	1.8	OK	1.8
P	301	1.9	OK	1.9
P	301	1.9	OK	1.9
P	55	2.0	OK	2.0
P	55	2.0	OK	2.0
S	94	2.0	OK	2.0
P	102	2.0	OK	2.0
P	102	2.0	OK	2.0
P	131	2.0	OK	2.0
P	131	2.0	OK	2.0
P	141	2.0	OK	2.0
P	141	2.0	OK	2.0
P	173	2.0	OK	2.0
P	173	2.0	OK	2.0
P	207	2.0	OK	2.0
P	207	2.0	OK	2.0
P	212	2.0	OK	2.0
P	212	2.0	OK	2.0
P	216	2.0	OK	2.0
P	216	2.0	OK	2.0
P	325	2.0	OK	2.0
P	325	2.0	OK	2.0
P	385	2.0	OK	2.0
P	385	2.0	OK	2.0
P	393	2.0	OK	2.0
P	393	2.0	OK	2.0
P	395	2.0	OK	2.0
P	395	2.0	OK	2.0
P	401	2.0	OK	2.0
P	401	2.0	OK	2.0
S	13	2.1	OK	2.1
S	20	2.1	OK	2.1
P	44	2.1	OK	2.1
P	44	2.1	OK	2.1
P	208	2.1	OK	2.1
P	208	2.1	OK	2.1
P	256	2.1	OK	2.1
P	256	2.1	OK	2.1
S	65	2.2	OK	2.2
S	65	2.2	OK	2.2
S	98	2.2	OK	2.2

Shopping Center #2

Trip Type*	Sort #	Trip Length	LIMIT CHECK	Assessable Lengths
D	186	2.2	OK	2.2
D	186	2.2	OK	2.2
P	193	2.2	OK	2.2
P	193	2.2	OK	2.2
P	257	2.2	OK	2.2
P	257	2.2	OK	2.2
P	311	2.2	OK	2.2
P	311	2.2	OK	2.2
P	343	2.2	OK	2.2
P	343	2.2	OK	2.2
P	347	2.2	OK	2.2
P	347	2.2	OK	2.2
P	352	2.2	OK	2.2
P	352	2.2	OK	2.2
S	376	2.2	OK	2.2
P	128	2.3	OK	2.3
P	128	2.3	OK	2.3
P	134	2.3	OK	2.3
P	134	2.3	OK	2.3
S	303	2.3	OK	2.3
P	26	2.4	OK	2.4
P	26	2.4	OK	2.4
P	97	2.4	OK	2.4
P	97	2.4	OK	2.4
P	287	2.4	OK	2.4
P	287	2.4	OK	2.4
S	315	2.4	OK	2.4
P	42	2.5	OK	2.5
P	42	2.5	OK	2.5
P	49	2.5	OK	2.5
P	49	2.5	OK	2.5
S	62	2.5	OK	2.5
S	62	2.5	OK	2.5
P	332	2.5	OK	2.5
P	332	2.5	OK	2.5
P	349	2.5	OK	2.5
P	349	2.5	OK	2.5
P	358	2.5	OK	2.5
P	358	2.5	OK	2.5
P	82	2.6	OK	2.6
P	82	2.6	OK	2.6
P	111	2.6	OK	2.6
P	111	2.6	OK	2.6
P	239	2.6	OK	2.6
P	239	2.6	OK	2.6
P	404	2.6	OK	2.6
P	404	2.6	OK	2.6
S	67	2.7	OK	2.7
S	67	2.7	OK	2.7
P	88	2.8	OK	2.8
P	88	2.8	OK	2.8
P	182	2.8	OK	2.8
P	182	2.8	OK	2.8
P	202	2.8	OK	2.8

Shopping Center #2

Trip Type*	Sort #	Trip Length	LIMIT CHECK	Assessable Lengths
P	202	2.8	OK	2.8
S	258	2.8	OK	2.8
P	302	2.8	OK	2.8
P	302	2.8	OK	2.8
P	265	3.0	OK	3.0
P	265	3.0	OK	3.0
P	19	3.1	OK	3.1
P	19	3.1	OK	3.1
P	31	3.1	OK	3.1
P	31	3.1	OK	3.1
P	85	3.1	OK	3.1
P	85	3.1	OK	3.1
P	91	3.1	OK	3.1
P	91	3.1	OK	3.1
P	187	3.1	OK	3.1
P	187	3.1	OK	3.1
P	206	3.1	OK	3.1
P	206	3.1	OK	3.1
P	299	3.1	OK	3.1
P	299	3.1	OK	3.1
P	40	3.2	OK	3.2
P	40	3.2	OK	3.2
S	303	3.2	OK	3.2
P	96	3.3	OK	3.3
P	96	3.3	OK	3.3
P	112	3.4	OK	3.4
P	112	3.4	OK	3.4
P	138	3.4	OK	3.4
P	138	3.4	OK	3.4
P	145	3.4	OK	3.4
P	145	3.4	OK	3.4
P	154	3.4	OK	3.4
P	154	3.4	OK	3.4
P	162	3.4	OK	3.4
P	162	3.4	OK	3.4
P	203	3.4	OK	3.4
P	203	3.4	OK	3.4
P	309	3.4	OK	3.4
P	309	3.4	OK	3.4
D	66	3.6	OK	3.6
D	66	3.6	OK	3.6
P	71	3.7	OK	3.7
P	71	3.7	OK	3.7
D	16	4.0	OK	4.0
D	16	4.0	OK	4.0
D	116	4.0	OK	4.0
D	116	4.0	OK	4.0
D	321	4.0	OK	4.0
D	321	4.0	OK	4.0
P	232	4.1	OK	4.1
P	232	4.1	OK	4.1
S	258	4.1	OK	4.1
S	376	4.2	OK	4.2
P	1	4.4	OK	4.4

Shopping Center #2

Trip Type*	Sort #	Trip Length	LIMIT CHECK	Assessable Lengths
P	1	4.4	OK	4.4
P	119	4.5	OK	4.5
P	119	4.5	OK	4.5
P	51	4.8	OK	4.8
P	51	4.8	OK	4.8
P	89	4.8	OK	4.8
P	89	4.8	OK	4.8
S	109	5.3	OK	5.3
P	68	5.4	OK	5.4
P	68	5.4	OK	5.4
P	213	5.4	OK	5.4
P	213	5.4	OK	5.4
P	246	5.5	OK	5.5
P	246	5.5	OK	5.5
P	268	5.5	OK	5.5
P	268	5.5	OK	5.5
P	41	5.7	OK	5.7
P	41	5.7	OK	5.7
D	11	5.8	OK	5.8
D	11	5.8	OK	5.8
P	284	6.0	OK	6.0
P	284	6.0	OK	6.0
S	159	6.2	OK	6.2
S	159	6.2	OK	6.2
S	109	7.0	OK	7.0
P	201	7.6	OK	7.6
P	201	7.6	OK	7.6
P	270	7.6	OK	7.6
P	270	7.6	OK	7.6
P	380	7.6	OK	7.6
P	380	7.6	OK	7.6
P	28	7.7	OK	7.7
P	28	7.7	OK	7.7
P	130	7.7	OK	7.7
P	130	7.7	OK	7.7
P	15	7.8	OK	7.8
P	15	7.8	OK	7.8
P	144	7.8	OK	7.8
P	144	7.8	OK	7.8
P	238	7.8	OK	7.8
P	238	7.8	OK	7.8
S	240	7.8	OK	7.8
S	242	8.1	OK	8.1
P	316	8.1	OK	8.1
P	316	8.1	OK	8.1
P	63	8.6	OK	8.6
P	63	8.6	OK	8.6
P	72	8.6	OK	8.6
P	72	8.6	OK	8.6
P	210	8.6	OK	8.6
P	210	8.6	OK	8.6
P	50	8.7	OK	8.7
P	50	8.7	OK	8.7
S	240	8.8	OK	8.8

Shopping Center #2

Trip Type*	Sort #	Trip Length	LIMIT CHECK	Assessable Lengths
S	53	9.1	OK	9.1
P	69	9.1	OK	9.1
P	69	9.1	OK	9.1
P	70	9.1	OK	9.1
P	70	9.1	OK	9.1
P	64	9.2	OK	9.2
P	64	9.2	OK	9.2
P	165	9.3	OK	9.3
P	165	9.3	OK	9.3
P	199	9.4	OK	9.4
P	199	9.4	OK	9.4
S	242	9.4	OK	9.4
S	179	9.8	OK	9.8
P	35	10.2	OK	10.2
P	35	10.2	OK	10.2
S	98	10.5	OK	10.5
P	103	10.9	OK	10.9
P	103	10.9	OK	10.9
P	36	12.4	OK	12.4
P	36	12.4	OK	12.4
P	56	13.8	OK	13.8
P	56	13.8	OK	13.8
S	53	14.5	OK	14.5
P	32	14.7	OK	14.7
P	32	14.7	OK	14.7
P	190	15.0	OK	15.0
P	190	15.0	OK	15.0
S	241	15.0	OK	15.0
P	254	15.2	OK	15.2
P	254	15.2	OK	15.2
P	262	15.2	OK	15.2
P	262	15.2	OK	15.2
P	139	15.3	OK	15.3
P	139	15.3	OK	15.3
P	233	15.3	OK	15.3
P	233	15.3	OK	15.3
P	237	15.3	OK	15.3
P	237	15.3	OK	15.3
P	245	16.3	OK	16.3
P	245	16.3	OK	16.3
P	317	16.5	OK	16.5
P	317	16.5	OK	16.5
P	217	16.7	OK	16.7
P	217	16.7	OK	16.7
S	87	18.3	OK	18.3
D	54	18.6	OK	18.6
D	54	18.6	OK	18.6
P	34	20.1	OK	20.1
P	34	20.1	OK	20.1
S	179	21.0	OK	21.0
S	195	22.6	OK	22.6
P	355	23.0	OK	23.0
P	355	23.0	OK	23.0
S	195	23.4	OK	23.4

Shopping Center #2

Trip Type*	Sort #	Trip Length	LIMIT CHECK	Assessable Lengths
P	39	27.5	OK	27.5
P	39	27.5	OK	27.5
P	25	30.6	OK	30.6
P	25	30.6	OK	30.6
S	87	34.8	OK	34.8
P	33	36.7	OK	36.7
P	33	36.7	OK	36.7
P	424	36.7	OK	36.7
P	424	36.7	OK	36.7
S	241	38.0	OK	38.0
P	422	151.3	NO	
P	422	151.3	NO	
C	2			
C	7			
C	10			
C	29			
C	47			
C	48			
C	57			
C	59			
C	73			
C	74			
C	84			
C	90			
C	92			
C	93			
C	95			
C	100			
C	105			
C	106			
C	108			
C	114			
C	118			
C	120			
C	121			
C	122			
C	124			
C	126			
C	149			
C	161			
C	166			
C	167			
C	168			
C	178			
C	181			
C	183			
C	184			
C	196			
C	197			
C	218			
C	224			
C	229			
C	231			
C	236			

Shopping Center #2

Trip Type*	Sort #	Trip Length	LIMIT CHECK	Assessable Lengths
C	247			
C	248			
C	251			
C	252			
C	255			
C	261			
C	266			
C	272			
C	279			
C	282			
C	285			
C	286			
C	312			
C	314			
C	318			
C	322			
C	323			
C	326			
C	330			
C	333			
C	336			
C	339			
C	357			
C	363			
C	391			
C	425			
C	298			
C	107			
C	17			
C	24			
C	61			
C	99			
C	113			
C	115			
C	136			
C	140			
C	148			
C	155			
C	157			
C	176			
C	177			
C	188			
C	191			
C	198			
C	215			
C	220			
C	226			
C	234			
C	244			
C	250			
C	267			
C	276			
C	281			
C	288			

Shopping Center #2

Trip Type*	Sort #	Trip Length	LIMIT CHECK	Assessable Lengths
C	304			
C	305			
C	313			
C	324			
C	328			
C	331			
C	348			
C	364			
C	366			
C	368			
C	373			
C	377			
C	381			
C	406			
C	420			
C	17			
C	24			
C	61			
C	99			
C	107			
C	113			
C	115			
C	136			
C	140			
C	148			
C	155			
C	157			
C	176			
C	177			
C	188			
C	191			
C	198			
C	215			
C	220			
C	226			
C	234			
C	244			
C	250			
C	267			
C	276			
C	281			
C	288			
C	298			
C	304			
C	305			
C	313			
C	324			
C	328			
C	331			
C	348			
C	364			
C	366			
C	368			
C	373			

Shopping Center #2

Trip Type*	Sort #	Trip Length	LIMIT CHECK	Assessable Lengths
C	377			
C	381			
C	406			
C	420			

Average	**5.17**	**Average**	**4.51**
Standard Deviation	**11.76**	**Standard Deviation**	**6.46**
Average + 3σ	**40.45**		
Average – 3σ	**0.00**		
Coefficient of Variation	**2.276**	**Coefficient of Variation**	**1.432**
Number of Trip Length Samples	**444**	**Number of Trip Length Samples**	**444**
		Number of Captured Trips	**154**
		Number of Secondary, Diverted and Primary	**222**
		Percent New Trips	**59.0%**

* C - Captured
D - Diverted
P - Primary
S - Secondary

Appendix D

Trip Characteristics Database

Appendix D
Tindale-Oliver and Associates, Inc.

Trip Characteristics Database

Industrial Park (ITE LUC 130)

General Development	Size (1000 Ft^2./units)	Location	Date	Total No. Interviews	# Trip Length Interviews	Trip Gen. Rate	Time Period	Trip Length	Percent New Trips	VMT per ksf	Source
Industrial Park	165.0	Sarasota Co, FL	6/93	58	58	16.95	-	8.0	-	135.6	Sarasota County
Industrial Park	367.0	Sarasota Co, FL	6/93	86	86	9.32	-	10.1	-	94.1	Sarasota County
Industrial Park	100.0	Sarasota Co, FL	6/93	26	26	6.06	-	6.6	-	40.0	Sarasota County
Total Size	632.0	Average				**10.8**		**8.2**		0.0	
		Weighted Average:				**10.80**		**9.0**		0.0	
		ITE:				6.97					

Single-Family Detached Housing (ITE LUC 210)

General Development	Size units	Location	Date	Total No. Interviews	# Trip Length Interviews	Trip Gen. Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Single Family	-	Gwinnett Co., GA	12/13-18/92	-	-	5.8	-	5.4	N/A	31.3	Street Smarts
Single Family	-	Gwinnett Co., GA	12/13-18/92	-	-	5.4	-	6.1	N/A	32.9	Street Smarts
Single Family	76	Hernando Co., FL	5/24/96	148	148	10.0	9a-6p	4.9	N/A	48.5	Tindale-Oliver & Associates
Single Family	301	Hernando Co., FL	5/24/96	264	264	8.9	9a-6p	3.3	N/A	29.3	Tindale-Oliver & Associates
Single Family	232	Hernando Co., FL	5/24/96	182	182	7.2	9a-6p	5.0	N/A	36.5	Tindale-Oliver & Associates
Single Family	128	Hernando Co., FL	5/24/96	205	205	8.2	9a-6p	6.0	N/A	49.3	Tindale-Oliver & Associates
Single Family	76	Sarasota Co, FL	6/93	70	70	10.0	-	6.0	N/A	60.2	Sarasota County
Single Family	79	Sarasota Co, FL	6/93	86	86	9.8	-	4.4	N/A	43.0	Sarasota County
Single Family	282	Sarasota Co, FL	6/93	146	146	6.6	-	8.4	N/A	55.5	Sarasota County
Single Family	393	Sarasota Co, FL	6/93	207	207	7.8	-	5.4	N/A	41.9	Sarasota County
Single Family	97	Sarasota Co, FL	6/93	33	33	13.2	-	3.0	N/A	39.6	Sarasota County
Single Family	193	Sarasota Co, FL	6/93	123	123	6.9	-	4.6	N/A	31.5	Sarasota County
Single Family	135	Sarasota Co, FL	6/93	75	75	8.1	-	5.9	N/A	47.5	Sarasota County
Single Family	152	Sarasota Co, FL	6/93	63	63	8.6	-	7.3	N/A	62.4	Sarasota County
Single Family		Volusia Co, Fl							N/A		
Single Family		Volusia Co, Fl							N/A		
Single Family		Volusia Co, Fl							N/A		
Single Family	215	Charlotte Co, FL	10/97	158		7.6	9a-5p	4.6	N/A	34.9	Tindale-Oliver & Associates
Single Family	142	Charlotte Co, FL	10/97	245		5.2	9a-5p	4.1	N/A	21.2	Tindale-Oliver & Associates
Single Family	383	Charlotte Co, FL	10/97	516		8.4	9a-5p	5.0	N/A	41.7	Tindale-Oliver & Associates
Single Family	257	Charlotte Co, FL	10/97	225		7.6	9a-5p	7.4	N/A	55.8	Tindale-Oliver & Associates
Single Family	345	Charlotte Co, FL	10/97	161		7.0	9a-5p	6.6	N/A	46.4	Tindale-Oliver & Associates
Single Family	1169	Charlotte Co, FL	10/97	348		6.1	9a-5p	8.0	N/A	49.1	Tindale-Oliver & Associates
Single Family	441	Charlotte Co, FL	10/97	195		8.2	9a-5p	4.7	N/A	38.3	Tindale-Oliver & Associates
Single Family	150	Charlotte Co, FL	10/97	160		5.0	9a-5p	10.8	N/A	54.4	Tindale-Oliver & Associates
Single Family	135	Charlotte Co, FL	10/97	230		5.3	9a-5p	7.9	N/A	41.9	Tindale-Oliver & Associates
Single Family	368	Charlotte Co, FL	10/97	152		6.6	9a-5p	5.7	N/A	37.8	Tindale-Oliver & Associates
Single Family	52	Lake Co, FL	04/01	212		10.0	7a-6p	7.6	N/A	82.7	Tindale-Oliver & Associates
Single Family	49	Lake Co, FL	04/01	170		6.7	7a-6p	10.2	N/A	75.4	Tindale-Oliver & Associates
Single Family	126	Lake Co, FL	04/01	217		8.5	7a-6p	8.3	N/A	82.5	Tindale-Oliver & Associates
Single Family	770	Collier Co, FL	12/99	175		4.3	8a-6p	5.0	N/A		Tindale-Oliver & Associates
Single Family	400	Collier Co, FL	12/99	389		7.8	8a-6p	6.4	N/A		Tindale-Oliver & Associates
Single Family	90	Collier Co, FL	12/99	91		12.8	8a-6p	11.4	N/A		Tindale-Oliver & Associates
Total Size	7,236.0	Average:				**7.78**		**6.3**		49.1	
		Weighted Average:				**7.15**		**6.2**		44.4	
		ITE:				9.55					

Apartment (ITE LUC 220)

General Development	Size units	Location	Date	Total No. Interviews	# Trip Length Interviews	Trip Gen. Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Apartment	243.0	Sarasota Co, FL	6/93	36	36	5.8	-	11.5	-	67.2	Sarasota County
Apartment	212.0	Sarasota Co, FL	6/93	42	42	5.8	-	5.2	-	30.1	Sarasota County
Total Size	455.0						**Average Trip Length:**	**8.4**			
							Weighted Average Trip Length:	**8.6**			

Weighted Average Trip Generation Rate: 5.81
ITE Average Trip Generation Rate: 6.47

Appendix D
Tindale-Oliver and Associates, Inc.

Trip Characteristics Database

Residential Condominium/Townhouse (ITE LUC 230)

General Development	Size units	Location	Date	Total No. Interviews	# Trip Length Interviews	Trip Gen. Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Condominium	128.0	Hernando Co., FL	5/24/96	198	198	6.5	9a-6p	5.2	N/A	33.5	Tindale-Oliver & Associates
Condominium	31.0	Hernando Co., FL	5/24/96	31	31	6.1	9a-6p	5.0	N/A	30.5	Tindale-Oliver & Associates
Total Size	159.0										

Average Trip Length: 5.1
Weighted Average Trip Length: 5.1

Weighted Average Trip Generation Rate: 6.40
ITE Average Trip Generation Rate: 5.86

Mobile Home Park (ITE LUC 240)

General Development	Size units	Location	Date	Total No. Interviews	# Trip Length Interviews	Trip Gen. Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Mobile Home Park	1892.0	Hernando Co., FL	5/24/96	425	425	4.1	9a-6p	4.1	N/A	17.1	Tindale-Oliver & Associates
Mobile Home Park	82.0	Marion County, FL	7/3/91	58	58	10.8	24hr.	3.7	N/A	40.2	Tindale-Oliver & Associates
Mobile Home Park	67.0	Marion County, FL	07/15/91	22	22	5.4	48hrs.	2.3	N/A	12.4	Tindale-Oliver & Associates
Mobile Home Park	137.0	Marion County, FL	7/2/91	22	22	3.1	24hr.	4.9	N/A	15.1	Tindale-Oliver & Associates
Mobile Home Park	235	Sarasota Co, FL	6/93	100	100	3.5	-	5.1	-	17.9	Sarasota County
Mobile Home Park	996	Sarasota Co, FL	6/93	181	181	4.2	-	4.4	-	18.4	Sarasota County
Total Size	3409.0										

Average Trip Length: 4.1
Weighted Average Trip Length: 4.3

Weighted Average Trip Generation Rate: 4.25
ITE Average Trip Generation Rate: 4.80

Retirement Community (ITE LUC 250)

General Development	Size units	Location	Date	Total No. Interviews	# Trip Length Interviews	Trip Gen. Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Retirement Community	67	Lakeland, FL	3/28-4/2/90	26	24	3.5	9a-4p	2.4	92.0	7.9	Tindale-Oliver & Associates
Total Size	67										

Average Trip Length: 2.4
Weighted Average Trip Length: 2.4

Weighted Percent New Trip Average: 92.0

Weighted Average Trip Generation Rate: 3.50
ITE Average Trip Generation Rate: -

Congregate Care Facility (ITE LUC 252)

General Development	Size units	Location	Date	Total No. Interviews	# Trip Length Interviews	Trip Gen. Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Retirement Community	200.0	Palm Harbor, FL	10/12/89	58	40	-	9am-5pm	3.4	69.0	-	Tindale-Oliver & Associates
Retirement Community	72.0	Pinellas Park, FL	8/21/89	25	19	3.5	9am-5pm	2.2	79.0	6.1	Tindale-Oliver & Associates
Total Size	272.0										

Average Trip Length: 2.8
Weighted Average Trip Length: 3.1

Weighted Percent New Trip Average: 71.6

Weighted Average Trip Generation Rate: 3.5
ITE Average Trip Generation Rate: 2.2

Elderly Housing -Attached (ITE LUC 253)

General Development	Size (1000 Ft^2./units)	Location	Date	Total No. Interviews	# Trip Length Interviews	Trip Gen. Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Retirement Community	208	Sun City Center, FL	10/91	726	726	2.5	24hr	3.3	N/A	8.1	Tindale-Oliver & Associates
Total Size	208.0										

Average Trip Length: 3.3
Weighted Average Trip Length: 3.3

Percent New Trip Average: N/A

Weighted Average Trip Generation Rate: 2.5
ITE Average Trip Generation Rate: -

Appendix D
Tindale-Oliver and Associates, Inc.

Trip Characteristics Database

Elderly Housing -Detached (ITE LUC -)

General Development	Size (1000 Ft^2./units)	Location	Date	Total No. Interviews	# Trip Length Interviews	Trip Gen. Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Retirement Community	2686	Sun City Center, FL	10/91	1145	1145	6.1	24hr	3.2	N/A	19.7	Tindale-Oliver & Associates
Total Size	2686.0										

Average Trip Length: 3.2
Weighted Average Trip Length: 3.2

Percent New Trip Average: N/A

Weighted Average Trip Generation Rate: 6.1
ITE Average Trip Generation Rate: -

Active Adult Community (ITE LUC -)

General Development	Occupied dus	Location	Date	Total No. Interviews	# Trip Length Interviews	Trip Gen. Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Residential Community	450	Leesburg	10/99			4.5	24hr	11.4		51.3	Tindale-Oliver & Associates
Residential Community	540	Leesburg	10/99			3.8	24hr	8.3		31.2	Tindale-Oliver & Associates
Residential Community	810	Clermont	10/99			3.5	24hr	3.5		12.0	Tindale-Oliver & Associates
Total Size	1800.0										

Average Trip Length: 7.7
Weighted Average Trip Length: 6.9

Weighted Percent New Trip Average: 0.0

Weighted Average Trip Generation Rate: 3.8
ITE Average Trip Generation Rate: -

Hotel (ITE LUC 310)

General Development	Size rooms	Location	Date	Total No. Interviews	# Trip Length Interviews	Trip Gen. Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Hotel	174.0	Pinellas Co.,FL	8/16/89	134	106	12.5	7-11a/3-7p	6.3	79.0	62.2	Tindale-Oliver & Associates
Hotel	114.0	Pinellas Co.,FL	10/17/89	30	14	7.3	12-7:30p	6.2	47.0	21.3	Tindale-Oliver & Associates
Total Size	288.0										

Average Trip Length: 6.3
Weighted Average Trip Length: 6.3

Weighted Percent New Trip Average: 66.3

Weighted Average Trip Generation Rate: 10.4
ITE Average Trip Generation Rate: 8.7

Motel (ITE LUC 320)

General Development	Size rooms	Location	Date	Total No. Interviews	# Trip Length Interviews	Trip Gen. Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Motel	54	Pinellas Co.,FL	10/26/89	32	22	-	12p-7p	3.8	69.0	-	Tindale-Oliver & Associates
Motel	48	Pinellas Co.,FL	10/20/89	46	24	-	10a-2:20p	2.8	65.0	-	Tindale-Oliver & Associates
Motel	120	Pinellas Co.,FL	10/10/89	26	22	-	2p-7p	5.2	84.6	-	Tindale-Oliver & Associates
Total Size	222.0										

Average Trip Length: 3.9
Weighted Average Trip Length: 4.3

Weighted Percent New Trip Average: 76.6

Weighted Average Trip Generation Rate: -
ITE Average Trip Generation Rate: 10.2

Resort Hotel (ITE LUC 330)

General Development	Size rooms	Location	Date	Total No. Interviews	# Trip Length Interviews	Trip Gen. Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Business Hotel	207	Pinellas Co.,FL	9/28/89	118	110	18.6	9a-7p	2.7	93.3	46.9	Tindale-Oliver & Associates
Business Hotel	390	Pinellas Co.,FL	9/28/89	116	90	-	10a-7p	7.9	78.0	-	Tindale-Oliver & Associates
Total Size	597.0										

Average Trip Length: 5.3
Weighted Average Trip Length: 6.1

Weighted Percent New Trip Average: 83.3

Weighted Average Trip Generation Rate: 18.6
ITE Average Trip Generation Rate: -

Appendix D
Tindale-Oliver and Associates, Inc.

Trip Characteristics Database

Movie Theater with Matinee (ITE LUC 444)

General Development	Size screens	Location	Date	Total No. Interviews	# Trip Length Interviews	Trip Gen. Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Movie Theater	8.0	Pinellas Co.,FL	10/03/89	151	116	113.1	2p-8p	2.7	77.0	235.1	Tindale-Oliver & Associates
Movie Theater	12.0	Pinellas Co.,FL	09/24/89	122	116	63.4	2p-8p	1.9	95.0	114.4	Tindale-Oliver & Associates
Total Size	20.0										

Average Trip Length: 2.3
Weighted Average Trip Length: 2.2
Weighted Percent New Trip Average: 87.8

Weighted Average Trip Generation Rate: 83.3
ITE Average Trip Generation Rate: 153.3

Health Club (ITE LUC 493)

General Development	Size (1000 Ft^2./units)	Location	Date	Total No. Interviews	# Trip Length Interviews	Trip Gen. Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Health Spa	-	Tampa, FL	3/86	33	31	-	-	7.9	94.0	-	Kimley-Horn & Associates
Average Size:											

Average Trip Length: 7.9
Percent New Trip Average: 94.0

Average Trip Generation Rate: -
ITE Average Trip Generation Rate: -

Day Care Center (ITE LUC 565)

General Development	Size (1000 Ft^2./units)	Location	Date	Total No. Interviews	# Trip Length Interviews	Trip Gen. Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Day Care Center	5.6	Pinellas Co.	8/29/89	94	66	67.0	7a-6p	1.9	70.0	89.1	Tindale-Oliver & Associates
Day Care Center	10.0	Pinellas Co.	9/27/89	179	134	67.0	7a-6p	2.1	75.0	105.5	Tindale-Oliver & Associates
Day Care Center	-	Tampa, FL	3/86	28	25	-	-	2.6	89.0	-	Kimley-Horn & Associates
Total Size	15.6										

Average Trip Length: 2.2
Weighted Average Trip Length: 2.0
Weighted Percent New Trip Average: 73.2

Weighted Average Trip Generation Rate: 67.0
ITE Average Trip Generation Rate: -

Nursing Home (ITE LUC 620)

General Development	Size beds	Location	Date	Total No. Interviews	# Trip Length Interviews	Trip Gen. Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Nursing Home	120	Lakeland, FL	03/21/90	74	66	2.9	11a-4p	2.6	89.0	6.6	Tindale-Oliver & Associates
Total Size	120										

Average Trip Length: 2.6
Weighted Average Trip Length: 2.6
Weighted Percent New Trip Average: 89.0

Weighted Average Trip Generation Rate: 2.9
ITE Average Trip Generation Rate: 2.6

Clinic (ITE LUC 630)

General Development	Size (1000 Ft^2./units)	Location	Date	Total No. Interviews	# Trip Length Interviews	Trip Gen. Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Medical Clinic	103.9	Largo, FL	8/24/89	614	572	37.0	7a-430p	5.1	93.0	175.6	Tindale-Oliver & Associates
Medical Clinic	-	St. Petersburg, FL	10/12/89	280	252	-	9a-5p	4.1	90.0	-	Tindale-Oliver & Associates
Total Size	103.9										

Average Trip Length: 4.6
Weighted Average Trip Length: 5.1
Weighted Percent New Trip Average: 93.0

Weighted Average Trip Generation Rate: 37.0
ITE Average Trip Generation Rate: 23.8

Appendix D
Tindale-Oliver and Associates, Inc.

Trip Characteristics Database

General Office Building (ITE LUC 710)

General Development	Size (1000 Ft^2./units)	Location	Date	Total No. Interviews	# Trip Length Interviews	Trip Gen. Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
General Office	98.0	Gwinnett Co., GA	12/13-18/92	-	-	4.3	-	5.4	-	-	Street Smarts
General Office	180.0	Gwinnett Co., GA	12/13-18/92	-	-	3.6	-	5.9	-	-	Street Smarts
General Office	262.8	St. Petersburg, FL	9/28/89	291	274	-	7a-5p	3.4	94.0	-	Tindale-Oliver & Associates
General Office	187.0	Pinellas Co.	10/6/89	431	388	18.5	7a-5p	6.3	90.0	104.8	Tindale-Oliver & Associates
General Office	14.3	Sarasota Co, FL	6/93	14	14	46.9	-	11.3	-	529.4	Sarasota County
Total Size	742.1						**Average Trip Length:**	**6.5**			
							Weighted Average Trip Length:	**5.2**			

Weighted Percent New Trip Average: 92.3

Weighted Average Trip Generation Rate: 10.8
ITE Average Trip Generation Rate: 11.0

Single Tenant Office Building (ITE LUC 715)

General Development	Size (1000 Ft^2./units)	Location	Date	Total No. Interviews	# Trip Length Interviews	Trip Gen. Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Single Tenant Office	82.0	Sarasota Co, FL	6/93	142	142	17.6	-	6.6	-	116.1	Sarasota County
Single Tenant Office	84.0	Sarasota Co, FL	6/93	79	79	11.5	-	7.2	-	83.1	Sarasota County
Total Size	166.0						**Average Trip Length:**	**6.9**			
							Weighted Average Trip Length:	**6.9**			

Weighted Average Trip Generation Rate: 14.5
ITE Average Trip Generation Rate: 11.5

Medical-Dental Office Building (ITE LUC 720)

General Development	Size (1000 Ft^2./units)	Location	Date	Total No. Interviews	# Trip Length Interviews	Trip Gen. Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Medical Office	28.0	Hernando Co., FL	5/24/96	202	189	49.8	9a-6p	6.1	93.8	282.6	Tindale-Oliver & Associates
Medical Office	58.4	Hernando Co., FL	5/24/96	390	349	28.5	9a-6p	6.5	89.5	165.1	Tindale-Oliver & Associates
Medical Office	-	St. Petersburg, FL	11/30/89	34	30	57.2	9a-4p	1.2	88.0	-	Tindale-Oliver & Associates
Medical Office	14.6	Palm Harbor, FL	10/23/89	104	76	34.0	9a-5p	6.3	73.0	156.3	Tindale-Oliver & Associates
Medical Office	-	Tampa, FL	3/86	33	26	-	-	6.0	79.0	-	Kimley-Horn & Associates
Medical Office	30.4	Charlotte Co, FL	10/97		324	39.8	9a-5p	3.3	83.5	133.1	Tindale-Oliver & Associates
Medical Office	28.0	Charlotte Co, FL	10/97		186	31.0	9a-5p	3.6	81.6	110.2	Tindale-Oliver & Associates
Medical Office	11.0	Charlotte Co, FL	10/97		186	49.5	9a-5p	4.6	92.1	225.8	Tindale-Oliver & Associates
Total Size	170.4						**Average Trip Length:**	**4.7**			
							Weighted Average Trip Length:	**5.2**			

Weighted Percent New Trip Average: 86.6

Average Trip Generation Rate: 36.3
ITE Average Trip Generation Rate: 34.2

Office Park (ITE LUC 750)

General Development	Size (1000 Ft^2./units)	Location	Date	Total No. Interviews	# Trip Length Interviews	Trip Gen. Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Office Park	30.0	Sarasota Co, FL	6/93	10	10	9.1	-	9.0	-	81.9	Sarasota County
Office Park	36.0	Sarasota Co, FL	6/93	17	17	20.5	-	8.3	-	170.2	Sarasota County
Office Park	45.0	Sarasota Co, FL	6/93	42	42	37.0	-	4.9	-	181.3	Sarasota County
Total Size	111.0						**Average Trip Length:**	**7.4**			
							Weighted Average Trip Length:	**7.1**			

Weighted Average Trip Generation Rate: 24.1
ITE Average Trip Generation Rate: 11.4

Appendix D
Tindale-Oliver and Associates, Inc.

Trip Characteristics Database

Business Park (ITE LUC 770)

General Development	Land use Code	Size (1000 Ft^2./units)	Location	Total No. Interviews	# Trip Length Interviews	Trip Gen. Rate	Time Period	Trip Length	Percent New Trips	VMT per ksf	VMT per ksf
Business Park		211.1	Collier Co, FL		284	17.91	8a-6p	5.4	93	89.9	
Business Park		66.0	Collier Co, FL		43	11.53	8a-6p	5.7	79	51.9	
Business Park		14.1	11/99		55	33.48	8a-6p	3.6	72.7	87.6	
		291.2	Average			**21.0**			**4.9**		83.8
			Weighted Average:			**17.22**			**5.4**		82.3

Weighted Percent New Trip Average: 81.6

Building Materials and Lumber Store (ITE LUC 812)

General Development	Size (1000 Ft^2./units)	Location	Date	Total No. Interviews	# Trip Length Interviews	Trip Gen. Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Plumbing	86.9	Tampa, FL	June '93	40	-	-	7a-430p	6.6	73.0	-	Tindale-Oliver & Associates
Plumbing	98.5	Tampa, FL	June '93	40	-	-	7a-430p	6.0	-	-	Tindale-Oliver & Associates
Plumbing	-	Tampa, FL	June '93	40	-	-	7a-430p	5.9	75.7	-	Tindale-Oliver & Associates
Total Size	185.4						**Average Trip Length:**	**6.2**			
							Weighted Average Trip Length:	**6.3**			

Weighted Percent New Trip Average: 74.4

Weighted Average Trip Generation Rate: -
ITE Average Trip Generation Rate: 30.6

Specialty Retail Center (ITE LUC 814)

General Development	Size (1000 Ft^2./units)	Location	Date	Total No. Interviews	# Trip Length Interviews	Trip Gen. Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Retail Center	56.5	Orlando, FL	1/16/96	-	602		varied	3.5	87.9	-	LCE, Inc. *
Electronics Retail	12.0	Collier Co., FL	5/99		13	19.7	8a-6p	3.7	75.0	54.7	Tindale-Oliver & Associates
Hardware Store	12.0	Collier Co., FL	5/99		146	127.5	8a-6p	2.2	84.3	240.8	Tindale-Oliver & Associates
Total Size	80.5	Average:				**73.6**		**3.2**	82.4	191.6	
		Weighted Average:				**22.0**		**3.4**	85.4	63.2	
		ITE:				40.7					

Appendix D
Tindale-Oliver and Associates, Inc.

Trip Characteristics Database

Shopping Center (ITE LUC 820)

General Development	Size (1000 Ft^2./units)	Location	Date	Total No. Interviews	# Trip Length Interviews	Trip Gen. Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Mall	1192.0	St. Petersburg, FL	8/28/89	384	298	-	11a-7p	3.6	78.0	-	Tindale-Oliver & Associates
Mall	425.0	Seminole, FL	10/15/89	674	586	-	-	-	87.0	-	Tindale-Oliver & Associates
Mall	696.0	Pinellas Park, FL	9/28/89	485	388	-	9a-6p	3.2	80.0	-	Tindale-Oliver & Associates
Shopping Center	107.8	Hernando Co., FL	5/24/96	608	331	77.6	9a-6p	4.7	54.5	197.9	Tindale-Oliver & Associates
Shopping Center	-	Collier County, FL	8/23/91	68	64	-	-	3.3	94.1	0.0	Tindale-Oliver & Associates
Shopping Center	-	Collier County, FL	8/23/91	208	154	-	-	2.6	74.0	0.0	Tindale-Oliver & Associates
Shopping Center	-	Tampa, FL	3/86	527	348	-	-	-	66.0	-	Kimley-Horn & Associates
Shopping Center	-	Tampa, FL	3/86	170	-	-	-	1.7	-	-	Kimley-Horn & Associates
Shopping Center	-	Tampa, FL	3/86	354	269	-	-	-	76.0		Kimley-Horn & Associates
Shopping Center	-	Tampa, FL	3/86	144	-	-	-	2.5	-	-	Kimley-Horn & Associates
Shopping Center	132.3	St.Petersburgh,FL	9/25-26/89	400	368	77.0	10a-7p	1.8	92.0	127.5	Tindale-Oliver & Associates
Mall	425.0	Largo, FL	8/31/89	160	120	26.7	10a-6p	2.3	75.0	46.1	Tindale-Oliver & Associates
Shopping Center	80.5	Dunedin, FL	9/21/89	276	210	81.5	9a-530p	1.4	76.0	86.7	Tindale-Oliver & Associates
Shopping Center	99.1	Gwinnett Co., GA	12/13-18/92	-	-	46.0	-	3.2	70.0	103.0	Street Smarts
Shopping Center	314.7	Gwinnett Co., GA	12/13-18/92	-	-	27.0	-	8.5	84.0	192.8	Street Smarts
Shopping Center	133.4	Ocala, FL	9/18-22/92	300	192	-	12am-6pm	-	64.0	-	King Engineering Associates, Inc.
Shopping Center	109.0	Sarasota/Bradenton, FL	9/15-9/18/92	300	185	-	12am-6pm	-	61.6	-	King Engineering Associates, Inc.
Shopping Center	67.8	Lake Co, FL	4/01	246	177	102.6		3.4	71.2	244.8	Tindale-Oliver & Associates
Shopping Center	72.3	Lake Co, FL	4/01	444	376	65.3		4.5	59.0	173.7	Tindale-Oliver & Associates
Shopping Center	110.0	Sarasota Co, FL	6/93	58	58	122.1	-	3.2	-	390.8	Sarasota County
Shopping Center	146.1	Sarasota Co, FL	6/93	65	65	51.5	-	2.8	-	144.3	Sarasota County
Shopping Center	157.5	Sarasota Co, FL	6/93	57	57	79.8	-	3.4	-	271.3	Sarasota County
Shopping Center	191.0	Sarasota Co, FL	6/93	62	62	66.8	-	5.9	-	394.1	Sarasota County
Shopping Center	88.0	Charlotte Co, FL	10/97			73.5	9a-5p	1.8	57.11	73.7	Tindale-Oliver & Associates
Shopping Center	51.3	Charlotte Co, FL	10/97			43.0	9a-5p	2.7	51.75	60.6	Tindale-Oliver & Associates
Shopping Center	191.9	Charlotte Co, FL	10/97			72.0	9a-5p	2.4	50.91	87.9	Tindale-Oliver & Associates
Total Size	4790.7									152.7	

Average Trip Length: 3.3
Weighted Average Trip Length: 3.5

239.5

Weighted Percent New Trip Average: 73.5

Weighted Average Trip Generation Rate: 52.9
ITE Average Trip Generation Rate: 54.5

Quality Restaurant (ITE LUC 831)

General Development	Size (1000 Ft^2./units)	Location	Date	Total No. Interviews	# Trip Length Interviews	Trip Gen. Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Quality Restaurant	7.5	St. Petersburg, FL	10/10/89	177	154	-	1130-230/430-830	3.5	87.0	-	Tindale-Oliver & Associates
Quality Restaurant	8.0	Clearwater, FL	10/5/89	60	40	110.6	10-230/5-830	2.8	67.0	207.5	Tindale-Oliver & Associates
Quality Restaurant	-	Tampa, FL	3/86	76	62	-	-	2.1	82.0	-	Kimley-Horn & Associates
Total Size	15.5										

Average Trip Length: 2.8
Weighted Average Trip Length: 3.1

Weighted Percent New Trip Average: 76.7

Weighted Average Trip Generation Rate: 110.6
ITE Average Trip Generation Rate: 96.5

High-Turnover Restaurant (ITE LUC 832)

General Development	Size (1000 Ft^2./units)	Location	Date	Total No. Interviews	# Trip Length Interviews	Trip Gen. Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Restaurant	5.0	St. Petersburg, FL	10/25/89	74	68	132.6	1130-7p	2.0	92.0	244.0	Tindale-Oliver & Associates
Restaurant	5.2	Kenneth City, FL	10/5/89	236	176	127.9	4p-730p	2.3	75.0	220.6	Tindale-Oliver & Associates
Restaurant	6.2	Hernando Co., FL	5/24/96	242	175	187.5	9a-6p	2.8	72.5	375.0	Tindale-Oliver & Associates
Restaurant	8.2	Hernando Co., FL	5/24/96	154	93	102.7	9a-6p	4.2	60.2	256.4	Tindale-Oliver & Associates
Total Size	24.6										

Average Trip Length: 2.8
Weighted Average Trip Length: 3.0

Weighted Percent New Trip Average: 72.9

Weighted Average Trip Generation Rate: 135.5
ITE Average Trip Generation Rate: 205.4

Appendix D
Tindale-Oliver and Associates, Inc.

Trip Characteristics Database

Fast Food Restaurant w/out Drive Thru (ITE LUC 833)

General Development	Size (1000 Ft^2./units)	Location	Date	Total No. Interviews	# Trip Length Interviews	Trip Gen. Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Fast Food w/out DriveThru	1.3	Gwinnett Co., GA	12/13-18/92	-	-	487.7	-	3.2	30.0	468.2	Street Smarts
Fast Food w/out DriveThru	2.4	Gwinnett Co., GA	12/13-18/92	-	-	480.4	-	1.2	53.0	305.5	Street Smarts
Total Size	3.7						**Average Trip Length:**	**2.2**			
							Weighted Average Trip Length:	**1.9**			

Weighted Percent New Trip Average: 44.9

Weighted Average Trip Generation Rate: 483.0
ITE Average Trip Generation Rate: 786.2

Fast Food Restaurant w/Drive Thru (ITE LUC 834)

General Development	Size (1000 Ft^2./units)	Location	Date	Total No. Interviews	# Trip Length Interviews	Trip Gen. Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Fast Food w/ Drive Thru	5.4	Hernando Co., FL	5/24/96	136	82	311.8	9a-6p	1.7	60.2	315.3	Tindale-Oliver & Associates
Fast Food w/ Drive Thru	3.1	Hernando Co., FL	5/24/96	168	82	547.3	9a-6p	1.6	48.8	425.0	Tindale-Oliver & Associates
Fast Food w/ Drive Thru	4.3	Pinellas Co.	10/11/89	456	260	660.4	1 day	2.3	57.0	865.8	Tindale-Oliver & Associates
Fast Food w/ Drive Thru	2.2	Pinellas Co.	8/16/89	81	48	502.8	11am-2pm	1.7	59.0	504.3	Tindale-Oliver & Associates
Fast Food w/ Drive Thru	-	Tarpon Springs,FL	10/24/89	233	114	-	7am-7pm	3.6	49.0	-	Tindale-Oliver & Associates
Fast Food w/ Drive Thru	4.0	Marion County, FL	6/14/91	75	46	625.0	48hrs.	1.5	61.3	590.0	Tindale-Oliver & Associates
Fast Food w/ Drive Thru	1.6	Marion County, FL	6/18/91	60	32	962.5	48hrs.	0.9	53.3	466.8	Tindale-Oliver & Associates
Fast Food w/ Drive Thru	-	Collier County, FL	8/23/91	66	44	-	-	1.9	66.7	-	Tindale-Oliver & Associates
Fast Food w/ Drive Thru	4.4	Marion County, FL	6/17/91	40	27	149.5	24hr.	1.2	67.5	117.1	Tindale-Oliver & Associates
Fast Food w/ Drive Thru	-	Collier County, FL	8/23/91	118	40	-	-	1.2	33.9	-	Tindale-Oliver & Associates
Fast Food w/ Drive Thru	-	Tampa, FL	3/86	61	-	-	-	2.7	-	-	Kimley-Horn & Associates
Fast Food w/ Drive Thru	-	Tampa, FL	3/86	306	-	-	-	-	65.0	-	Kimley-Horn & Associates
Fast Food w/ Drive Thru	2.2	Lake Co, FL	4/01	376	252	934.3		2.5	74.6	1728.5	Tindale-Oliver & Associates
Fast Food w/ Drive Thru	3.2	Lake Co, FL	4/01	171	182	654.9		4.1	47.8	1277.3	Tindale-Oliver & Associates
Fast Food w/ Drive Thru	3.8	Lake Co, FL	4/01	188	137	353.7		3.3	70.8	836.4	Tindale-Oliver & Associates
Total Size	25.1						**Average Trip Length:**	**2.2**			
							Weighted Average Trip Length:	**1.6**			

Weighted Percent New Trip Average: 59.1
Average Percent New Trips 58.2
Weighted Average Trip Generation Rate: 480.9
ITE Average Trip Generation Rate: 632.1

Automobile Repair Shop (ITE LUC 840)

General Development	Size (1000 Ft^2./units)	Location	Date	Total No. Interviews	# Trip Length Interviews	Trip Gen. Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Auto Repair Shop	5.2	Lakeland, FL	3/22/90	24	14	-	9a-4p	1.4	59.0	-	Tindale-Oliver & Associates
Auto Repair Shop	-	Lakeland, FL	3/22/90	54	42	-	9a-4p	2.4	78.0	-	Tindale-Oliver & Associates
Auto Repair Shop	25.0	Orange Co, FL	11/92	41	39	-	2-6pm	4.6	-	-	LCE, Inc. *
Auto Repair Shop	2.3	Jacksonville, FL	2/3-4/90	124	94	-	9a-5p	3.1	76.0	-	Tindale-Oliver & Associates
Auto Repair Shop	2.3	Jacksonville, FL	2/3-4/90	110	74	-	9a-5p	3.0	67.0	-	Tindale-Oliver & Associates
Auto Repair Shop	2.4	Jacksonville, FL	2/3-4/90	132	87	-	9a-5p	2.3	66.0	-	Tindale-Oliver & Associates
Auto Repair Shop	5.5	Largo, FL	9/6/89	34	30	37.6	9a-5p	2.4	88.0	79.5	Tindale-Oliver & Associates
Total Size	42.6						**Average Trip Length:**	**2.7**			
							Weighted Average Trip Length:	**3.6**			

Weighted Percent New Trip Average: 72.2

Weighted Average Trip Generation Rate: 37.6
ITE Average Trip Generation Rate: -

New Car Sales (ITE LUC 841)

General Development	Size (1000 Ft^2./units)	Location	Date	Total No. Interviews	# Trip Length Interviews	Trip Gen. Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Car Dealership	43.0	St.Petersburg, FL	10/19/89	152	120	-	9am-5pm	4.7	79.0	-	Tindale-Oliver & Associates
Car Dealership	-	Clearwater, FL	10/2/89	136	106	29.4	9am-5pm	4.5	78.0	103.2	Tindale-Oliver & Associates
Total Size	43.0						**Average Trip Length:**	**4.6**			
							Weighted Average Trip Length:	**4.7**			

Weighted Percent New Trip Average: 79.0

Weighted Average Trip Generation Rate: 29.4
ITE Average Trip Generation Rate: 47.9

Appendix D
Tindale-Oliver and Associates, Inc.

Trip Characteristics Database

Service Station (ITE LUC 844)

General Development	Size (1000 Ft^2./units)	Location	Date	Total No. Interviews	# Trip Length Interviews	Trip Gen. Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Service Station	0.6	Largo	11/30/89	70	14	-	8am-5pm	1.9	23.0	-	Tindale-Oliver & Associates
Service Station	-	Collier County, FL	8/23/91	168	40	-	-	1.0	23.8	-	Tindale-Oliver & Associates
Total Size	0.6										

Average Trip Length: 1.5
Weighted Average Trip Length: 1.9
Weighted Percent New Trip Average: 23.0

Average Trip Generation Rate: -
ITE Average Trip Generation Rate: -

Service Station w/Convenience Market (ITE LUC 853)

General Development	Size (1000 Ft^2./units)	Location	Date	Total No. Interviews	# Trip Length Interviews	Trip Gen. Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Service Sation w/ Store	4.4	Marion County, FL	6/19/91	85	25	486.7	48hrs.	1.1	29.4	151.7	Tindale-Oliver & Associates
Service Sation w/ Store	1.1	Marion County, FL	6/26/91	77	20	544.8	24hr.	0.9	26.0	126.1	Tindale-Oliver & Associates
Service Sation w/ Store	2.1	Marion County, FL	6/25/91	66	24	997.6	24hr.	1.7	36.4	606.4	Tindale-Oliver & Associates
Service Sation w/ Store	-	Collier County, FL	8/23/91	96	38	-	-	1.2	39.6	-	Tindale-Oliver & Associates
Service Sation w/ Store	-	Collier County, FL	8/23/91	78	16	-	-	1.1	20.5	-	Tindale-Oliver & Associates
Service Sation w/ Store	3.3	Ellenton, FL	10/20-22/92	124	44	-	24hr.	1.0	35.3	-	Tindale-Oliver & Associates
Service Sation w/ Store	2.3	Tampa, FL	10/13-15/92	239	74	-	24hr.	1.1	31.1	-	Tindale-Oliver & Associates
Service Sation w/ Store	3.8	Tampa, FL	11/10-12/92	142	23	-	24hr.	3.1	16.4	-	Tindale-Oliver & Associates
Service Sation w/ Store	-	Tampa, FL	3/86	72	-	-	-	2.0	-	-	Kimley-Horn & Associates
Total Size	17.1										

Average Trip Length: 1.4
Weighted Average Trip Length: 1.6
Weighted Percent New Trip Average: 28.5

Weighted Average Trip Generation Rate: 636.3
ITE Average Trip Generation Rate: -

Service Station w/Convenience Market and Car Wash (ITE LUC 846)

General Development	Size (1000 Ft^2./units)	Location	Date	Total No. Interviews	# Trip Length Interviews	Trip Gen. Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Car Wash	5.8	Largo, FL	11/30/89	111	84	-	8am-5pm	2.0	76.0	-	Tindale-Oliver & Associates
Car Wash	-	Clearwater, FL	11/30/89	177	108	-	10am-5pm	1.3	61.0	-	Tindale-Oliver & Associates
Total Size	5.8										

Average Trip Length: 1.7
Weighted Average Trip Length: 2.0
Weighted Percent New Trip Average: 76.0

Weighted Average Trip Generation Rate: -
ITE Average Trip Generation Rate: -

Gasoline/Fast Food/Convenience Store

General Development	Size (1000 Ft^2./units)	Location	Date	Total No. Interviews	# Trip Length Interviews	Trip Gen. Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
		Volusia Co., FL				918.0		2.4	33.0	727	Tindale-Oliver & Associates
Mobil	3.0	Indian River Co., FL	3/98	107	84	563.1	8a-6p	2.0	39.3	443	Tindale-Oliver & Associates
Amoco	3.1	Indian River Co., FL	3/98	132	110	1396.0	8a-6p	1.8	41.7	1048	Tindale-Oliver & Associates
Mobil	2.5	Indian River Co., FL	3/98	132	52	748.3	8a-6p	3.7	19.7	545	Tindale-Oliver & Associates
Vineyards Mobil	2.4	Collier Co., FL	11/99		128	1399.6	8a-6p	4.1	13.3	763	Tindale-Oliver & Associates
Curt's Mobil	3.3	Collier Co., FL	11/99		144	862.6	8a-6p	2.2	39.6	751	Tindale-Oliver & Associates
Total Size	14.3	Average:									

Average Trip Length: 2.7
Weighted Average Trip Length: 2.6
Weighted Average: ITE:
Weighted Percent New Trip Average: 32.1

Weighted Average Trip Generation Rate: 984.6
ITE Average Trip Generation Rate:

Supermarket (ITE LUC 850)

General Development	Size (1000 Ft^2./units)	Location	Date	Total No. Interviews	# Trip Length Interviews	Trip Gen. Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Supermarket	62.0	Palm Harbor, FL	8/18/89	163	62	106.3	9am-4pm	2.1	38.0	84.0	Tindale-Oliver & Associates
Total Size	62.0										

Average Trip Length: 2.1
Weighted Average Trip Length: 2.1
Weighted Percent New Trip Average: 38.0

Weighted Average Trip Generation Rate: 106.3
ITE Average Trip Generation Rate: -

Appendix D
Tindale-Oliver and Associates, Inc.

Trip Characteristics Database

Convenience Market-24hrs. (ITE LUC 851)

General Development	Size (1000 Ft^2./units)	Location	Date	Total No. Interviews	# Trip Length Interviews	Trip Gen. Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Convenience Store	3.2	Gwinnett Co., GA	12/13-18/92	-	-	-	-	-	37.0	-	Street Smarts
Convenience Store	2.9	Gwinnett Co., GA	12/13-18/92	-	-	-	-	2.3	48.0	0.0	Street Smarts
Convenience Store	-	Collier County, FL	8/23/91	146	36	-	-	2.5	24.7	-	Tindale-Oliver & Associates
Convenience Store	2.5	Marion County, FL	6/11/91	94	43	787.2	48hrs.	1.5	46.2	552.8	Tindale-Oliver & Associates
Convenience Store	2.5	Marion County, FL	6/12/91	74	20	714.0	48hrs.	0.8	27.0	144.6	Tindale-Oliver & Associates
Convenience Store	-	Collier County, FL	8/23/91	148	38	-	-	1.1	25.7	-	Tindale-Oliver & Associates
Convenience Store	2.5	Largo, FL	8/15,25/89	171	116	634.8	-	1.2	68.0	518.0	Tindale-Oliver & Associates
Convenience Store	2.5	Clearwater, FL	08/15/89	237	64	690.8	-	1.6	27.0	298.4	Tindale-Oliver & Associates
Convenience Store	-	Tampa, FL	3/86	80	-	-	-	1.1	-	-	Kimley-Horn & Associates
Convenience Store	2.1	Clearwater	11/30/89	143	50	635.2	24hr.	1.6	35.0	355.7	Tindale-Oliver & Associates
Total Size	18.2										

Average Trip Length: 1.5
Weighted Average Trip Length: 1.5
Weighted Percent New Trip Average: 41.3

Weighted Average Trip Generation Rate: 694.3
ITE Average Trip Generation Rate: 738.0

Convenience Market-15 to16 hrs. (ITE LUC 852)

General Development	Size (1000 Ft^2./units)	Location	Date	Total No. Interviews	# Trip Length Interviews	Trip Gen. Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Convenience Store	-	Collier County, FL	8/23/91	148	84	-	-	1.1	56.8	-	Tindale-Oliver & Associates
Total Size	0.0										

Average Trip Length: 1.1
Weighted Average Trip Length: 1.1
Percent New Trip Average: 56.8

Average Trip Generation Rate: -
ITE Average Trip Generation Rate: -

Furniture Store (ITE LUC 890)

General Development	Size (1000 Ft^2./units)	Location	Date	Total No. Interviews	# Trip Length Interviews	Trip Gen. Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Furniture Store	16.9	Tampa, FL	7/15/92	68	39	-	-	7.4	55.7	-	Tindale-Oliver & Associates
Furniture Store	15.0	Largo, FL	7/28-30/92	64	34	-	-	4.6	52.5	-	Tindale-Oliver & Associates
Total Size	31.9										

Average Trip Length: 6.0
Weighted Average Trip Length: 6.1
Weighted Percent New Trip Average: 54.2

Average Trip Generation Rate: -
ITE Average Trip Generation Rate: 4.3

Drive-In Bank (ITE LUC 912)

General Development	Size (1000 Ft^2./units)	Location	Date	Total No. Interviews	# Trip Length Interviews	Trip Gen. Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Bank	7.3	Hernando Co., FL	5/24/96	136	67	143.5	9a-6p	2.8	48.9	199.4	Tindale-Oliver & Associates
Bank	5.4	Hernando Co., FL	5/24/96	164	41	364.7	9a-6p	2.8	24.7	249.5	Tindale-Oliver & Associates
Bank	-	Tampa, FL	3/86	77	-	-	-	2.4	-	-	Kimley-Horn & Associates
Bank	-	Tampa, FL	3/86	211	-	-	-	-	54.0	-	Kimley-Horn & Associates
Bank	6.8	Gwinnett Co., GA	12/13-18/92	-	-	78.9	-	2.3	41.0	74.4	Street Smarts
Bank	0.4	Clearwater, FL	8/18/89	113	52	-	9am-6pm	5.2	46.0	-	Tindale-Oliver & Associates
Bank	2.0	Largo, FL	09/22/89	129	94	192.5	-	1.6	73.0	224.8	Tindale-Oliver & Associates
Bank	4.5	Seminole, FL	10/89	-	-	201.8	-	-	-	-	Tindale-Oliver & Associates
Bank	2.3	Marion County, FL	6/25/91	69	29	680.0	24hr.	1.3	42.0	379.8	Tindale-Oliver & Associates
Bank	2.5	Marion County, FL	7/1/91	57	26	386.0	48hrs.	2.7	45.6	475.2	Tindale-Oliver & Associates
Bank	3.5	Clermont, FL	4/01	20	20	510.8		4.0	65.0	1334.7	Tindale-Oliver & Associates
Bank	4.7	Leesburg, FL	4/01	51	51	1026.2		2.5	55.0	1433.6	Tindale-Oliver & Associates
Bank	5.3	Lady Lake, FL	4/01	42	42	769.7		3.9	95.0	2859.1	Tindale-Oliver & Associates
Bank	5.0	Lady Lake, FL	4/01	92	32	769.7		1.0	87.0	676.3	Tindale-Oliver & Associates
Bank	-	Collier County, FL	8/23/91	162	96	-	24hr.	0.9	59.3	-	Tindale-Oliver & Associates
Bank	-	Collier County, FL	8/23/91	116	54	-	-	1.6	46.6	-	Tindale-Oliver & Associates
Bank	-	Collier County, FL	8/23/91	142	68	-	-	2.1	47.9	-	Tindale-Oliver & Associates
Bank	3.1	Marion County, FL	6/24/91	47	32	580.8	24hr.	1.8	68.1	692.2	Tindale-Oliver & Associates
Total Size	52.6										

Average Trip Length: 2.4
Weighted Average Trip Length: 2.6
Weighted Percent New Trip Average: 57.6

Weighted Average Trip Generation Rate: 452.5
ITE Average Trip Generation Rate: 265.2

Appendix E

Summary of Meetings with Staff on Administrative Issues

Appendix E

Issues

Lake County Transportation Impact Fee Update
Administrative Procedures Manual Issues

15.00.03 – Waiver for Very Low and Low Income Housing

Forms for Applicant to file for waiver / deferral?
Formal application process?
BCC may waive or defer fees. Who reviews and makes recommendation to BCC? Lake County Affordable Housing Committee?
Time frames for application to be filed / reviewed by County / approved or denied?
Thresholds for low, very low income?

15.00.04 – Waiver for Industrial Land Uses

Forms for Applicant to file for waiver / deferral?
Formal application process?
BCC may waive or defer fees. Who reviews and makes recommendation to BCC?
Time frames for application to be filed / reviewed by County / approved or denied?

15.00.05 – Prepayment of Impact Fees

Forms for Applicant to file for prepayment?
Formal application process?
Optional for municipalities. How is prepayment approved / denied?
Time frames for process?

A. Formal review / process for cases where proposed development plans change and impact increases or decreases? Who conducts review?

C. Prepaid impact fees not refundable. Forms / application / process for equal credits to another project at same site?

D. Capacity Reservation Fees – Application / process for applicant to reserve capacity? How is cost determined? Who determines cost?

15.00.06 – Impact Fee Evaluation and Review Committee

Is this committee responsible for reviewing waivers / deferrals / etc.?

15.00.07 – Waiver for Day Care Centers

Copy of Application for waiver / deferral? Formal process? Who reviews and makes recommendation on waiver / deferral to BCC?

15.02.06 – Imposition of Impact Fees

B. If land use is not included in fee schedule, procedure given for determining fee by a County agent.

Two-digit SIC Code List – provide copy of this list in Manual?
Two-digit DOR Land Use Code list cross referenced to ITE Land Uses – provide copy of DOR list in Manual?

5. Feepayer has option of paying fee as determined by County agent or conducting traffic study. Does this mean applicant can disagree with County determination from cross reference land uses? However, see below (E). Is there discrepancy? Is there a formal set of events (Fee Schedule; Cross reference of land uses, then Independent fee calculation)?

E. Section E. states that applicant either pays according to schedule in ordinance section A. or conducts traffic study and independent impact fee calculation. In any event, Ordinance states that methodology shall follow that of Reynolds, Smith and Hills (1994).

States that appeals of County determination after review of study must be made to BCC by written request within 10 days of such determination. How long and by what process will County respond to applicant in relation to appeal? Furthermore, before the process goes that far, what are the actual time frames for conducting an independent fee calculation? For submitting to County? For review and approval or denial by County? For resubmittal by applicant, etc.?

F. (E. out of sequence) Claims for exemptions to be made no later than time of application for permit. Failure to make claim results in waiver of claim. Formal process / forms / time frames for applying for impact fee exemptions?

15.02.08 – Payment

B. Road improvement projects in lieu of all or part of impact fee – Provide sample road project/right-of-way developer contribution forms?

C. Credits – Provide sample developer contribution agreement form? Formal process for applying for credits? Review by County / Approval / etc.? Process for valuing projects?

15.02.09 – Use of Funds

B. Formal process / forms used for agreement between municipalities for use of funds in other than district funds were collected?

15.02.10 – Refund of Fees Paid

A. States that BCC may extend the 6 year period for fees to be expended by 3 year (total of 9 years). Under what circumstances?

Appendix E

March 19, 2001 Meeting

Memorandum

Date: 3/19/01

To: File

From: Doug Zaragoza, Tindale-Oliver and Associates, Inc.

RE: Lake County Impact Fee Study

A meeting was held at the office of Wendy Wickwire, Lake County Impact Fee Coordinator. In attendance at the meeting from Lake County was Wendy Wickwire. Cheryl Thomas, Human Services Manager, and Bruce Redus, Economic Development Director took part in some of the meetings to discuss Affordable Housing Waivers and Industrial Development Waivers, respectively.

The purpose of the meeting was to gather information on the current operations used in administering the County's Transportation Impact Fee. Information obtained will be used to develop an Administrative Procedures Manual.

Key topics of discussion at the meeting are summarized below.

IMPACT FEE WAIVERS FOR AFFORDABLE HOUSING

General Procedures

Cheryl Thomas is the Manager of the Lake County Human Services Department. She works with Wendy Wickwire to process Impact Fee Waivers for Affordable Housing. There are a few non-profit organizations (NPOs) that screen low income and very low income applicants for requests for impact fee waivers. Affordable Housing by Lake (AHBL) submits the majority of these applications. Others include Habitat for Humanity and Homes in Partnership (for Spanish speaking applicants). The NPOs provide a list of applicants who meet the County's criteria for the waivers to County Staff (Cheryl Thomas). This list is presented to the Board of County Commissioners (BCC) for approval. At this time, the list of applicants may or may not actually qualify for the Affordable Housing Waiver. This is because, in the past, home builders pulled permits and paid the impact fees, requiring applicants to request reimbursements for impact fees and pay filing fees, etc. More specifically, AHBL has a list of applicants interested in a new construction home, whom are potentially eligible for waivers. Once Cheryl Thomas receives the list it is sent to the Senior Director of Public Works, as a formality to approve the list. The list is sent back to Cheryl Thomas to schedule as a BCC Agenda Item. The list is presented to the BCC, who approves the list, by name only (eligibility has not yet been determined).

Cheryl Thomas issues an impact fee waiver certificate (Impact Fee Waiver Processing Form – copy attached) to the applicant or home builder, who then takes the certificate to the Building Services Department at the time a building permit is pulled. A copy of the certificate also goes to Wendy Wickwire for her records. Wendy Wickwire maintains a spreadsheet to track the interest that accrues on impact fee accounts. It is this interest that is used to pay the impact fees in those cases where impact fees are waived for the applicant, so staff must be sure there are funds available to cover the

amount being waived. Technically, if funds are not available in the interest account to cover the impact fees, the waiver cannot be processed. Historically, however, there has always been interest in this account to fund all the waivers. The amount of the waiver is entered as a debit to the impact fee interest account for the appropriate impact fee district. After Wendy Wickwire reviews the fund balances, the Waiver is applied. Paperwork is filed in the "Waiver Interest Allocation File."

Later, when applicants become participants in the State Housing Initiative Program (SHIP), AHBL will confirm applicants are actually eligible for waivers. The Impact Fee Waiver Processing Form is completed as part of the process. Human Services staff also conducts an official approval process for the County. This includes a review by Cheryl Thomas to make sure that the original list of applicants approved by the BCC includes the same people formally approved by AHBL and County Staff.

The majority of Affordable Housing Impact Fee Waivers are being issued in the Clermont area (District 5), where most of the County's development is occurring.

Prior to the list of waivers going to the BCC, the Lake County Affordable Housing Committee reviews the requests for waivers and makes recommendations to the BCC.

If a municipality takes the waiver request, they essentially conduct the same steps as the County Building Services Department would do. The Impact Fee Waiver Processing Form would come from the city, rather than the Building Department. Wendy Wickwire follows the same steps, and the paperwork is filed in the same manner.

Eligible Persons

The question was asked whether an y checks are conducted to confirm that an issued waiver is actually benefiting the eligible applicant, and not the builder only, or another homeowner, after the original applicant has moved, etc. No procedures are currently in place. It was recommended that some type of affidavit be signed by the homebuilder at the time the certificate of occupancy is completed which would be filed with a copy of the sales contract to the buyer. This would include line items showing impact fee amounts and waiver amounts, clearly identifying the waivers that should be benefiting the applicant / home buyer.

Time Frames

A minimum of one month is required for Wendy Wickwire to review Impact Fee Waiver Processing Forms and compare against the interest account balance. We agreed with Wendy that allotting ten (10) business days for this process was reasonable.

Affordable Housing Deferrals

No affordable housing impact fee deferrals have been processed by Lake County. Staff said that if they were to process one, it would be handled in the same manner as a waiver, but the impact fees would be payable at the time of the issuance of a certificate of occupancy. The approval form would be the Impact Fee Deferral Processing Form.

IMPACT FEE DEFERRALS FOR INDUSTRIAL LAND USES

Bruce Redus, Lake County Economic Development Director, handles impact fee deferrals for Industrial Land Uses. Industrial land uses must be at least 10,000 square feet to qualify for the deferral. This may be one or more than one building within the same project. All departments must approve the deferral, which is formally done with a Developer Agreement. Mr. Redus makes recommendations to the IDA at a public meeting, which, in turn makes recommendations to the BCC for approval of deferrals for industrial land uses. Impact fees have never been waived for industrial land uses, only

deferred until the certificate of occupancy has been issued. There has been no interest in waivers for industrial land uses, although waivers are included in the ordinance.

IMPACT FEE WAIVERS FOR DAYCARE CENTERS

Impact fee waivers can be given to daycare centers, which are viewed as economic development incentives. Wendy Wickwire processes daycare waiver requests. This process entails the applicant coming to Wendy Wickwire at the County Services building. There, Wendy gives the applicant a Daycare Center Impact Fee Waiver Application Form. The applicant completes the appropriate three sections; Wendy completes the rest of the form, including the agreement and calculation of waiver. The form is essentially the same as for the waiver of fees for affordable housing.

ITEMS RECEIVED FROM WENDY

1. Road Impact Fee Interest Allocation Tracking Report
2. Impact Fee Waiver Processing Form (for Daycare Center, Low and Very Low Income Housing, and Industrial Land Uses)
3. Daycare Center Impact Fee Waiver Application Form
4. Circuit City Industrial Impact Fee Deferral Agreement
5. Impact Fee Deferral Program for Industrial Land Uses
6. "Our House Child Development Center" Agreement to Reduce Impact Fees

POTENTIAL RECOMMENDATIONS

1. Formalize the affordable housing impact fee deferral process (if the County feels there is a need to begin processing deferrals).
2. Develop procedures for ensuring that affordable housing waivers actually benefit the correct homebuyer, not a resale, ineligible home buyer, and not the homebuilder.
3. Consider combing the Daycare Center Impact Fee Waiver Processing Form and the Affordable Housing Impact Fee Waiver Processing Form.
4. Review Daycare Center impact fee rate ($9,000 per 1,000 square feet?)
5. Have Bill Merrill review the provisions of using interest income to pay for deferrals.

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Appendix E

May 3, 2001 Meeting

Memorandum

Date: 5/3/01

To: File

From: Doug Zaragoza, Tindale-Oliver and Associates, Inc.

RE: Lake County Impact Fee Study

A meeting was held at the office of the Lake County Impact Fee Coordinator on May 2, 2001. In attendance at the meeting from Lake County was the Impact Fee Coordinator, Impact Fee Coordinator. Patty Harker, Right-of-Way Manager, took part in some of the meeting to discuss right-of-way requirements for road projects.

The purpose of the meeting was to gather information on the current operations used in administering the County's Transportation Impact Fee. Information obtained will be used to make recommendations for improving the operations and to develop an Administrative Procedures Manual.

Key topics of discussion at the meeting are summarized below.

GENERAL TOPICS

The Impact Fee Coordinator calculates and enters all impact fees into the CD Plus Permitting System, with the exception of fees for residential land uses. Permitting technicians in the Building Services Department handle impact fees for residential land uses.

Twice each week, the Impact Fee Coordinator runs a Plan Review Report from CD Plus. From a review of the report, she can tell which cases are pending for impact fees. For such cases, she calculates the fee and enters into CD Plus.

The County's Impact Fee Ordinance does not address how impact fees will be handled for minor additions to land uses. This issue will need to be addressed in the ordinance change recommendations.

MONTHLY ACTIVITY REPORTS FROM MUNICIPALITIES

Municipalities currently send monthly Activity Reports to Impact Fee Coordinator to report on their activities and collections for impact fees on projects within municipal boundaries. These reports are required per the interlocal agreements between the County and the various municipalities. Ms. Wickwire provided samples of these reports. Currently, these reports are sent by the municipalities directly to the County's Accounts Receivable Department, along with a check from the municipalities for impact fees collected (minus a handling fee, which the municipalities keep). The Impact Fee Coordinator receives these reports only after the

Accounts Receivable Department is finished with them. Ms. Wickwire would like to be copied on the reports from the municipalities for better coordination.

When the Impact Fee Coordinator receives the Activity Reports, she reviews them for reasonableness (i.e., Are rates calculated correctly?). If something appears unreasonable, she contacts the municipality for an explanation.

PREPAYMENT OF IMPACT FEES

Recently, there have been very few prepayments of impact fees processed (17 in the last two years). However, the Impact Fee Coordinator expects a large turnout for prepayment of impact fees when rates are changed as a result of the current Road Impact Fee Study. This was also the case when the fee schedule was changed the last time.

When an applicant who has prepaid his impact fees applies for a building permit, he is required to bring the original Certificate of Prepayment of Impact Fees to the Building Services Department. Certificates of Prepayment of Impact Fees never expire.

A prepayment package includes the Certificate, Property Record Card, and the receipt for the prepayment.

Currently, when an applicant wishes to prepay, he comes to the Impact Fee Coordinator's office and completes the form. RECOMMEND – having the applicant come to Building Services Department and fill out the form, not directly to the Impact Fee Coordinator. This could be aided with the development of preprinted forms in duplicate or triplicate, rather than having the Impact Fee Coordinator print out a form from her computer when an applicant needs to complete the form. If all information is not included on the application, the request for prepayment will not be processed until all needed items are provided.

Building permits are obtained from the Building Services Department. A Permitting Specialist is the staff person who takes the application from the applicant. When a development applicant completes a Building Permit Application, the Permitting Specialist will forward a copy of the application package to the Impact Fee Coordinator; she files the package in her office for later use. If the applicant has previously prepaid his impact fees, the Impact Fee Coordinator will match the Application for Building Permit with the Prepayment paperwork and update the prepayment information in her Quicken database.

Municipalities currently accept prepayment certificates and send the information to the Impact Fee Coordinator with their monthly impact fee activity reports. It was recommended that all prepayment certificates be issued and processed through the Impact Fee Coordinator's office. However, as municipalities currently keep three percent of all impact fees collected as a processing fee, there may be an issue of lost revenues for municipalities if they give up these responsibilities.

The "Alternate Key," which is the lot and parcel number information on the Permit Application can be matched with the same information on the Prepayment Application to confirm that a Permit being issued is for the same property for which impact fees were prepaid.

Currently, subdivisions are allowed to prepay impact fees for all lots within the project. This could present problems when only one prepayment certificate is acquired for numerous

individual lots. TOA will have Icard, Merrill, et. Al. review this provision. It was suggested that subdivisions not be allowed to prepay impact fees for all lots within the project in this manner. They should, instead, be prepaid on an individual lot basis.

PREPAYMENTS ARE NON-REFUNDABLE

Prepayments of impact fees are non-refundable to the applicant. However, in the case where a developer prepays the impact fees, and the builder later pays the impact fees again (at a higher rate), because he was not aware that the developer prepaid the fees, the County may repay/reimburse the builder for the fees paid (at the higher rate), since they were paid in error (the prepaid certificate was not presented at the time the building permits were pulled). The County will keep a percentage of the fees paid in error as an administrative fee (three percent for road impact fees and five percent for school impact fees).

IMPACT FEE REFUNDS PROCESS

If an owner wishes to get a refund for impact fees paid, he completes an Application for Refund of Impact Fees at the Building Services Department. This form is sent to the Impact Fee Coordinator, along with a copy of the Permit, Receipt of Fees Paid, and other relevant information. If the application is complete, and the applicant qualifies for the refund, the Impact Fee Coordinator completes a Check Request. If the application is incomplete, the Impact Fee Coordinator will complete the application herself.

RECOMMENDATION – Make Building Services Department Staff responsible for impact fee refund applications and process.

Once completed, the Check Request is sent to Mr. Jim Stivender (for Road Impact Fees). The information is then routed to Linda Lorenz at the Budget Department to be entered as a Board of County Commissioners agenda item. Once the Board of County Commissioners has approved the Check Request, Linda Lorenz then takes the information to the Finance Department (Joann Westbrook) for a check to be issued. The Impact Fee Coordinator would like to be able to bypass the Board of County Commissioners approval step for issuing impact fee refunds, especially for refunds resulting from administrative error or an error as described above.

The Impact Fee Coordinator maintains an Impact Fee Refund Request Status Log; she provided a copy.

CREDITS FOR CHANGE OF USE

In the case of a change of use, where impact fees were prepaid and the applicant pulls a building permit after impact fee rates change, the applicant will be entitled to credits at the old rate at which they were paid, not the new rate. For example, assume an applicant prepays his $1,200 impact fees for a three-bedroom home. Later, after impact fee rates have changed, the applicant pulls a permit for a four-bedroom home, but must pay fees of $2,000. The applicant will get credits for the fees he paid for a three-bedroom home, at the old rate.

Land Use	Old Rate	New Rate
3-bedroom S.F. home	$1,200	$1,500
4-bedroom S.F. home	$1,600	$2,000

Here, the applicant will pay $800 in new fees, after receiving credits of $1,200 for fees already paid for a three-bedroom house.

CAPACITY RESERVATION FEES

Applicants may pay capacity reservation fees (See Concurrency Management System Form 1 (CMS1 Form)). The applicant will complete the CMS1 form and submit to the Impact Fee Coordinator who then sends the form to all appropriate parties for their review. Once the appropriate parties have reviewed the information, they return it to the Impact Fee Coordinator; she then establishes the impact fee (residential only). A $675 capacity reservation fee is applied to road impact fees. The applicant now has an open concurrency account. Later, when the applicant comes in to pull his permit, he tells the Permitting Specialist that he has a concurrency account. The specialist notes this in the permit file and sends a copy to the Impact Fee Coordinator. The concurrency account is next converted to a prepaid impact fee certificate, and the balance in the concurrency account is $0.

Process of integrating concurrency balance and prepayment of fees for a net balance????

LAND USE CATEGORY DETERMINATION

Currently, when a project's land use category cannot be matched with those on the impact fee rate schedule, the Impact Fee Coordinator makes the final determination as to which land use category the project best fits. The Board of County Commissioners then approves such determinations. The land uses in the LDC has been expanded to a more extensive list, which the Impact Fee Coordinator reviews to determine the appropriate category. The Impact Fee Coordinator would like a procedure to be established whereby the applicant can challenge her (and therefore, the BCC's) land use determination. A formal appeals process could be established for the applicant to appeal to the County Manager and then to the BCC. Ms Wicdkwire mentioned that such an appeals process could apply in other scenarios.

The Impact Fee Evaluation and Review Committee (IFERC) (as described in Section 15.00.06 has no real authority in such matters. The Board of County Commissioners relies on the IFERC to make recommendations on various impact fee topics.

TEMPORARY BUILDINGS

Currently, Lake County has no provisions in their LDC regarding how to handle building permits, building code issues, impact fees, etc. for temporary structures, such as temporary sales offices for new construction projects. As part of the County's site plan review process, an agreement is negotiated for locating a temporary sales or leasing office. If the temporary

building is still located on the site beyond the negotiated time period, the project can be fined, per the agreement. The Impact Fee Coordinator would like to establish provisions for the exemption of impact fees for such temporary buildings for a specified period, such as one year. Impact fees are not currently assessed for temporary structures. This topic is also a concern for land uses such as flea markets, fruit/produce stands, and other open-air land uses.

REVIEW FEE SCHEDULE LAND USE CATEGORIES

A review of the land use categories included on the fee schedules needs to be conducted. There is some confusion regarding some specific land uses. For example, the current schedule includes "Convenience Market with Gas" as a land use, but also includes "Service Station with Convenience Market." Wholesale Nursery has its own category, although agricultural land uses are exempt from paying impact fees. Finally, under the land use category of "Retail Hardware/Paint Stores" is listed "Car Repair Shop, EZ Lube." Ms. Wickwire would like direction on assessing impact fees for shopping centers vs. malls vs. strip shopping centers vs. retail.

TRANSFER OF IMPACT FEE CREDITS

Impact fee credits may be transferred between developers within the same impact fee district. A "Public Works Credit Agreement" is a "Developer Contribution Agreement." The Impact Fee Coordinator sets up an impact fee credit account for a project when Patty Harker (Public Works) confirms, via a memo, that the conditions have been met for a Credit Agreement. RECOMMENDATION – There should be a more formal transmittal from DPW to the Impact Fee Coordinator to confirm that the conditions for a Credit Agreement have been met and an account can be established.

For the transfer of credits, the Lake County LDC/Ordinance calls for a "Credit Transfer Form." However, such a form has not yet been developed. Ms. Wickwire provided sample forms from Lee County that could be used as a model for Lake County. These forms include: 1) account set up, 2) account draw down, and 3) transfer of credits from one developer to another. Credit transfers cannot be "chained," or transferred from the second developer to a third developer.

There are five active Developer Contribution Agreements in Lake County.

ALTERNATIVE FEE CALCULATIONS

Fred Schneider, Lake County Engineering Director coordinates alternative fee calculation studies.

ITEMS RECEIVED FROM MS. WICKWIRE

1. Interlocal Agreement between Lake County and the City of Eustis
2. Ordinance No. 2001-1 amending Chapter XV of the Lake County Code, Appendix E, Land Development Regulation, creating "Transfer of Impact Fee Credits" section
3. Volusia County Impact Fee Survey
4. Application for Prepayment of Impact Fees, with Permit (old format)
5. Application for Prepayment of Impact Fees, with Property Record Card, Schedule, Permit, etc. (new format from CD Plus)
6. Concurrency Application Form – CMS, with Permit and Ledger
7. Concurrency Accounts List
8. Land Development Regulations Chapter V – Concurrency Management
9. Commercial Impact Fee Calculations Status Sheet / Plan Review Report (CD Plus)
10. Commercial Impact Fees (Processing Checklist From CD Plus)
11. Summit Greens Credit Account Ledger (CD Plus)
12. Developer Agreements Account List (CD Plus)
13. Developer Contribution Agreement (Public Works Road Credits Package) (Between Summit Greens/Levitt Homes/Diamond Players and Lake County) for North Hancock Road (Phase 1B) and the South Lake Trail
14. Transportation Impact Fee Determination Form
15. E-mail from Fred Schneider to Wendy Wickwire regarding treatment of shopping centers and malls
16. DPW Memo regarding Impact Fee Determination for Temporary Uses Associated with Sales Offices in New Subdivisions
17. Memo from Lake County Building Services Division regarding refunds for permits only to owner of record
18. Sample forms from Lee County:

    Impact Fee Credit Authorization Form

    Impact Fee Credit Usage Authorization Form

    Impact Fee Credit Transfer Authorization Form
19. Sample Lake County Building Permit
20. Memo from Wendy Wickwire regarding waiver of additional fees for Child Care Center add-on with no capacity increase
21. Memo from Wendy Wickwire regarding Legends Golf Course fee payment
22. E-mails between Wendy Wickwire and Carmen Carroll regarding refund of prepaid impact fees for unbuildable lot
23. Board of County Commissioners Agenda of May 1, 2001 with impact fee issues being heard

24. Impact Fee Refund Request package for administrative error
25. Impact Fee Refund Request Status Log
26. E-mail from Fred Schneider to Wendy Wickwire regarding fees for an active adult community including the golf course (based on Steve Tindale's comments)

FOLLOW UP ISSUES

1. Add a formal appeal process to the ordinance to provide guidelines for applicants to challenge rulings on impact fees charged for land uses not included in the County's impact fee schedule.
2. Introduce stricter requirements for the process of prepayment of impact fees (i.e., Should unplatted subdivisions be allowed to prepay impact fees for blocks of lots not yet platted?).
3. Allow provisions for impact fee refunds to be processed without Board of County Commissioners approval.
4. Assessment of impact fees for mobile homes. Currently all mobile homes are assessed in the same manner, regardless of whether they are located in a mobile home park or on a single-family home site (mobile home site vs. mobile home park site).
5. Add requirement of impact fees to be paid for golf courses that will be triggered other than when a clubhouse is built, such as when the land use opens for business (See Collier Ordinance language). Similar provisions should apply to other land uses that do not require a building permit.
6. Assessment of impact fees for the following land uses: sand/clay mines, flea markets, fruit stands, plant nurseries.
7. Wholesale nurseries are currently exempted, as they are considered agricultural land uses, which are exempted.
8. Codify that impact fee refunds should be paid to the property owner and not the developer or builder, unless a notarized letter accompanies the refund request stating that refund to be paid to developer/builder.
9. Add language to ordinance for minor additions to existing land uses. Currently, this is handled on a case-by-case basis.
10. Codify the requirement that municipalities in Lake County send copies of their monthly impact fee collections report to the County Impact Fee Coordinator.
11. Develop provisions for assessing fee to unimproved sections of a land use that includes a small office, such as a nursery.

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