# Impact Fee Study

Prepared for:

## City of Foley, Alabama

Prepared by:

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# Executive Summary

TischlerBise was retained by the City of Foley, Alabama to prepare this Impact Fee Study. Impact fees are one-time payments used to fund system improvements needed to accommodate new development. As documented in this report, the methods used to calculate impact fees in this study are intended to satisfy all legal requirements governing such fees, including provisions of the U.S. Constitution and Alabama Act 2006-300. TischlerBise evaluated impact fees for four types of public facilities: parks and recreation, transportation, fire, and police.

TischlerBise evaluated possible methodologies and documented appropriate demand indicators by type of development for each type of impact fee. Specific capital costs have been identified using local data and current dollars. The formula used to calculate each impact fee amount is diagrammed in a flow chart at the beginning of each section. Also, for each type of impact fee the report includes a summary table indicating the specific factors used to derive the amounts. These factors are referred to as "Level of Service" (LOS) standards. Parks and recreation impact fees are based on residential demand only; transportation, fire, and police impact fees are based on both residential and nonresidential demand.

## METHODOLOGIES

There are three basic *methods* used to calculate impact fees. The **incremental expansion method** documents the current level of service for each type of public facility in both quantitative and qualitative measures. The intent is to use impact fee revenue to expand or provide additional facilities, as needed to accommodate new development, based on the current cost to provide capital improvements. Other methods include the plan-based method and the cost recovery method. The **plan-based method** is commonly used for public facilities that have adopted plans or engineering studies to guide capital improvements, such as a transportation improvement plan. A third approach, known as the **cost recovery method**, is based on the rationale that new development is paying for its share of the useful life and remaining unused capacity of an existing facility.

A general requirement common to impact fee methodologies is the evaluation of credits. Two types of credits should be considered: **future revenue credits** and **site-specific credits**. Future revenue credits are necessary to avoid potential double payment situations arising from a one-time impact fee payment plus the payment of other revenues that may also fund growth-related capital improvements.

Future revenue credits are dependent upon the impact fee methodology used in the cost analysis. As new development will provide front-end funding of infrastructure, there is a

potential for double payment of capital costs due to future principal payments on existing debt for public facilities. A credit is not necessary for interest payments if interest costs are not included in the impact fees. For Foley, a future principal payment credit is necessary for all four impact fees – due to outstanding debt for capacity enhancement projects.

The second type of credit is a site-specific credit for system improvements that have been included in the impact fee calculations. The general concept is that developers may be eligible for site-specific credits or reimbursements *only if they provide system improvements that have been included in the impact fee calculations.* Project improvements normally required as part of the development approval process are not eligible for credits against impact fees. Policies and procedures related to site-specific credits for system improvements should be addressed in the City's Impact Fee Policy.

## Impact Fee Calculations

The following summarizes the methodologies used in each fee category. Also presented is the maximum supportable fee amount. Alabama's enabling legislation for Baldwin County allows for impact fees not exceeding one (1%) percent of the estimated fair and reasonable market value of the new development after completion. The City of Foley will calculate this 1% maximum for each new unit or development, as applicable. Due to this provision in the law, the City may be able to collect only a portion of the maximum supportable fee amounts presented here.

*Parks and Recreation*

The parks and recreation impact fee uses the incremental-expansion method to calculate new growth's contribution for future parkland and amenities. Parks and recreation is driven by residents only; therefore, the impact fee is imposed on new residential development. The City will use the impact fee revenue to expand parkland acreage and amenities to maintain existing levels of service due to new growth.

*Transportation*

The incremental-expansion method is used to calculate the City's transportation impact fee based on additional lane miles of arterials and collectors added to accommodate new growth. Also included in the impact fee is the addition of vehicles and equipment. Demand for the transportation system is driven by residents and businesses, so the impact fee is imposed on both new residential and nonresidential development. The City will use revenue generated from the impact fee to add capacity on road projects identified later in this report as well as expand the vehicle and equipment inventory to maintain existing levels of service due to new growth.

*Fire*

The fire impact fee uses the incremental-expansion method to calculate new growth's contribution for future fire stations and apparatus. As fire service is driven by residents and businesses, the impact fee is imposed on both new residential and nonresidential development. The City will use the impact fee revenue to expand fire facility square footage and apparatus to maintain existing levels of service due to new growth.

*Police*

The police impact fee uses the incremental-expansion method to calculate new growth's contribution for police station expansion and vehicles. As with fire, police service is driven by residents and businesses, so the impact fee is imposed on both new residential and nonresidential development. The City will use the impact fee revenue to expand police facility square footage and vehicles to maintain existing levels of service due to new growth.

## SUMMARY OF MAXIMUM SUPPORTABLE IMPACT FEE AMOUNTS

Figure 1 provides a schedule of the maximum supportable impact fee amounts for residential and non-residential development in Foley.

The impact fees shown are for parks and recreation, transportation, fire, and police. For a detached housing unit, the maximum supportable impact fee amount is $4,776 and $3,197 for attached housing units. Non-residential impact fees vary based on the use and/or size of the development. For example, the maximum supportable impact fee for a 3,000 square foot fast food facility is $22,110. This fee is calculated from the commercial/shopping center category for a building that is 100,000 square feet or less. This type of nonresidential development would have an impact fee of $7,370 for every 1,000 square feet of building space.

## Figure 1: Schedule of Maximum Supportable Impact Fees

| RESIDENTIAL - per HOUSING UNIT | | | | | |
|---|---|---|---|---|---|
| Housing Type | Recreation and Parks | Fire | Police | Transportation | **Total** |
| Detached Housing | $1,268 | $559 | $285 | $2,665 | **$4,776** |
| Attached Housing | $817 | $361 | $184 | $1,835 | **$3,197** |
| | | | | | |
| **NONRESIDENTIAL** | | | | | |
| Business Type | Recreation and Parks | Fire | Police | Transportation | **Total** |
| **Nonresidential (per 1,000 Sq Ft of floor area)** | | | | | |
| Comm / Shop Ctr 100,000 SF or less | --- | $658 | $610 | $6,102 | **$7,370** |
| Comm / Shop Ctr 100,001 - 200,000 SF | --- | $563 | $522 | $5,222 | **$6,307** |
| Comm / Shop Ctr 200,001 SF or more | --- | $478 | $443 | $4,438 | **$5,359** |
| Office 50,000 SF or less | --- | $229 | $213 | $2,350 | **$2,792** |
| Office 50,001 - 100,000 SF | --- | $195 | $181 | $1,998 | **$2,374** |
| Office 100,001 SF or more | --- | $166 | $154 | $1,707 | **$2,027** |
| Business Park | --- | $123 | $114 | $1,264 | **$1,501** |
| Medical-Dental Office Building | --- | $530 | $491 | $5,425 | **$6,446** |
| Hospital | --- | $258 | $239 | $2,638 | **$3,135** |
| Mini-Warehouse | --- | $36 | $34 | $375 | **$445** |
| Warehousing | --- | $72 | $67 | $745 | **$884** |
| Manufacturing | --- | $56 | $51 | $574 | **$681** |
| Light Industrial | --- | $102 | $94 | $1,047 | **$1,243** |
| Elementary School | --- | $140 | $130 | $1,436 | **$1,706** |
| **Nonresidential (per unique demand indicator)** | | | | | |
| Nursing Home (per bed) | --- | $34 | $32 | $356 | **$422** |
| Day Care (per student) | --- | $31 | $29 | $323 | **$383** |
| Secondary School (per student) | --- | $18 | $16 | $185 | **$219** |
| Elementary School (per student) | --- | $12 | $11 | $128 | **$151** |
| Lodging (per room) | --- | $82 | $76 | $845 | **$1,003** |

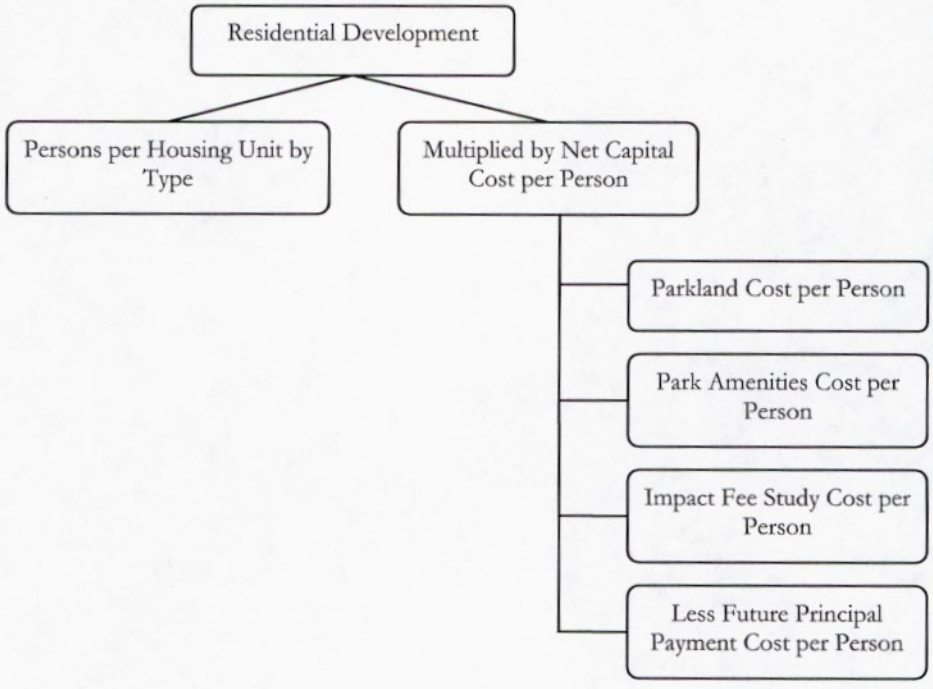
All costs in the impact fee calculations are given in current dollars with no assumed inflation rate over time. Necessary cost adjustments can be made as part of the recommended annual evaluation and update of impact fees. One approach is to adjust for inflation in costs by means of an index like the one published by Marshall Swift Valuation Service or RSMeans Costworks. An index could be applied against the calculated impact fees on an annual basis. If cost estimates change significantly, the impact fees should be recalculated.

## Parks and Recreation

The parks and recreation fee uses an incremental expansion cost approach method to determine the need for parkland and park amenities.

As shown in Figure 2, this impact fee is imposed on residential development. Standards have been shown on a per capita basis. Persons per housing unit are used to differentiate the impact fees by type of unit (see the Appendix for demographic information). There is a future principal payment credit associated with this impact fee.

**Figure 2: Parks and Recreation Impact Fee Formula**




### PARKLAND – INCREMENTAL EXPANSION

Figure 3 shows the inventory of the City's parkland as well as the estimated current acquisition cost for an acre of parkland. To calculate the residential cost per person, the total numbers of acres (80.3) is multiplied by the cost per acre ($35,000) to obtain the total value of land in the City, which is $2,810,500. This total land value is divided by the current population in 2007-08 of 14,386 to yield a parkland cost per person of $195.35.

In order for the City to maintain its current level of service of 5.58 acres per 1,000 residents, the Parks and Recreation Department will need 21 acres in the next five years assuming the rate of growth stays constant. This was calculated using 5.58 acres per 1,000 residents multiplied by the next increase in population from 2007-08 to 2012-13 and then divided by 1,000 (3,756 x 5.58)/1,000 = 21). An additional acre will cost the City $35,000, totaling $735,000. However, depending on the acres needed this cost can either increase or decrease.

**Figure 3: Parkland Level of Service and Cost Standards**

| Park Land [1] | Acres |
|---|---|
| Griffin | 13.0 |
| Roberts | 20.0 |
| Foley | 3.0 |
| Heritage | 7.0 |
| Beulah Heights | 8.0 |
| Aaronville | 13.0 |
| Aaronville Pool | 2.0 |
| Evans Park | 14.3 |
| **Total Acres** | **80.3** |
| Price per Acre [1] | $35,000 |
| Total Land Cost | $2,810,500 |
| | |
| Population in 2007-08 | 14,386 |
| Acres per 1,000 Residents | 5.58 |
| Land Cost per Person | $195.35 |

[1)] City of Foley Parks and Recreation

## PARK AMENITIES – INCREMENTAL EXPANSION

Figure 4 provides an inventory of current park amenities by City park, including pavilions, playgrounds, restrooms, softball fields, tennis courts, baseball fields, and basketball courts. Current purchase price for each amenity is provided by City staff. To calculate the residential cost per person, each amenity cost is multiplied by the number of amenities to create a total amenity value of $5,475,000. This total amenity value is divided by the current population in 2007-08 of 14,386 to yield an amenity cost per person of $380.56.

**Figure 4: Park Amenities Level of Service and Cost Standards**

| Parks and Recreation | Pavilion | Playground | Restroom | Softball Field | Tennis Court | Baseball Field | Basketball Court |
|---|---|---|---|---|---|---|---|
| Griffin | 1 | 1 | 2 | 2 | 1 | | 1 |
| Roberts | 1 | | | | 4 | 3 | 1 |
| Foley | | | 1 | | | | |
| Heritage | | 1 | | | | | |
| Beulah Heights | | 1 | 1 | 1 | | | 4 |
| Aaronville | 1 | 1 | 1 | 1 | 2 | 1 | 4 |
| Aaronville Pool | | 1 | 1 | | | | 1 |
| Evans Park | | | | | | | |
| Total | 3 | 5 | 6 | 4 | 7 | 4 | 11 |
| Cost per Amenity | $150,000 | $100,000 | $125,000 | $425,000 | $30,000 | $425,000 | $15,000 |
| **Total Cost per Amenity** | **$450,000** | **$500,000** | **$750,000** | **$1,700,000** | **$210,000** | **$1,700,000** | **$165,000** |

| | |
|---|---|
| Population in 2007-08 | 14,386 |
| Persons per Amenity | 360 |
| Total Amenity Cost | $5,475,000 |
| Amenity Cost per Person | $380.56 |

Source: City of Foley Parks and Recreation

## Parks and Recreation Impact Fee Study

The City plans on updating its impact fees study every five years to ensure the methodologies, assumptions, and cost factors used in the calculations are still valid and accurate. TischlerBise has included the cost of preparing this portion of the study in the parks and recreation impact fee calculations in order to create a source of funding to conduct this regular update. The cost of this component ($13,400) is allocated to the projected increase in population over the next five years. This results in an impact fee study cost per demand unit of $3.57 per person ($13,400/3,756 people).

## Credits for Future Principal Payments on Parks and Recreation Improvements

TischlerBise recommends a credit for future principal payments. The City has outstanding debt on park and recreation facilities purchased with a portion of the Series 2006A General Obligation Warrant. Figure 5 provides the credit calculation based on the annual principal payments each year until the bond has been fully repaid. A credit is necessary since new development that pays impact fees will also contribute to future lease payments through taxes. To account for the time value of money, annual lease payments per demand unit are discounted using a net present value formula based on the applicable discount rate.

The amount of the debt has been allocated to reflect the portion of outstanding bond payments to be borne by residential property owners. The credit amount of $23.25 per person will be subtracted from the gross capital cost per person to derive a net capital cost per person.

**Figure 5: Credit for Future Payments – Parks and Recreation**

**Series 2006A General Obligation Warrant**

| *Fiscal Year* | *Total Principal* | *Principal for Parks - 5.9%* | *Projected Population* | *Payment per Person* |
|---|---|---|---|---|
| 2008-09 | $625,000 | $36,706 | 15,138 | $2.42 |
| 2009-10 | $655,000 | $38,468 | 15,889 | $2.42 |
| 2010-11 | $685,000 | $40,230 | 16,640 | $2.42 |
| 2011-12 | $720,000 | $42,285 | 17,391 | $2.43 |
| 2012-13 | $750,000 | $44,047 | 18,142 | $2.43 |
| 2013-14 | $785,000 | $46,102 | 18,893 | $2.44 |
| 2014-15 | $820,000 | $48,158 | 19,644 | $2.45 |
| 2015-16 | $860,000 | $50,507 | 20,396 | $2.48 |
| 2016-17 | $900,000 | $52,856 | 21,147 | $2.50 |
| 2017-18 | $940,000 | $55,206 | 21,898 | $2.52 |
| 2018-19 | $980,000 | $57,555 | 22,649 | $2.54 |
| 2019-20 | $1,015,000 | $59,610 | 23,400 | $2.55 |
| **TOTAL** | **$9,735,000** | **$571,730** | | **$29.60** |

| | |
|---|---|
| Interest Rate | 3.885% |
| Credit per Person | $23.25 |

## Parks and Recreation Input Variables & Maximum Supportable Impact Fee

Figure 6 shows level of service standards and cost factors for Foley parks and recreation impact fees. Impact fees for parks and recreation are based on household size (i.e., persons per housing unit) and are charged to residential development. Level of service standards are based on current costs per person for parkland, park amenities, and the parks and recreation component of the impact fee study. A credit is also included for future principal payments due to outstanding debt on existing bonds.

Also contained in Figure 6 is a schedule of maximum supportable parks and recreation impact fees for Foley. The amounts are calculated by multiplying the persons per housing unit for each type of unit by the net capital cost per person. For example, for a detached housing unit, the persons per housing unit number of 2.28 is multiplied by the net capital cost per person of $556 for a parks and recreation impact fee amount of $1,268 per detached housing unit. The calculation is repeated for the attached housing category.

**Figure 6: Parks and Recreation Input Variables and Impact Fee Schedule**

| INPUT VARIABLES | Residential |
|---|---|
| *Persons Per Housing Unit* | |
| Detached Housing | 2.28 |
| Attached Housing | 1.47 |
| *Level Of Service* | |
| *Park Land (Cost Recovery)* | |
| Park Land Cost per Person | $195.35 |
| *Park Amenities (Cost Recovery)* | |
| Park Amenities Cost per Person | $380.56 |
| *Impact Fee Study* | |
| Impact Fee Study Cost Per Person | $3.56 |
| **Gross Capital Cost Per Person** | **$579.47** |
| Less Principal Payment Credit Per Person | $23.25 |
| **Total Capital Cost per Person** | **$556** |
| **MAXIMUM SUPPORTABLE IMPACT FEE AMOUNTS** | |
| *Impact Fee per Housing Unit* | |
| Detached Housing | $1,268 |
| Attached Housing | $817 |

## Projected Cash Flow For Parks and Recreation

Growth-related parks and recreation improvements needed to accommodate residential development are projected to cost approximately $433,000 per year, as shown in Figure 7. At the maximum supportable level impact fees will cover about 97% of the costs for services identified in the study. The cash flow does analysis assumes bond financing of parks and recreation improvements.

The cash flow analysis summary provides an indication of the impact fee revenue and expenditures necessary to meet the demand for public facilities. To the extent the rate of development either accelerates or slows down, there will be corresponding change in the impact fee revenue and capital costs. See the Appendix for discussion of the development projections that drive the cash flow analysis.

## Figure 7: Cash Flow Summary for Parks and Recreation

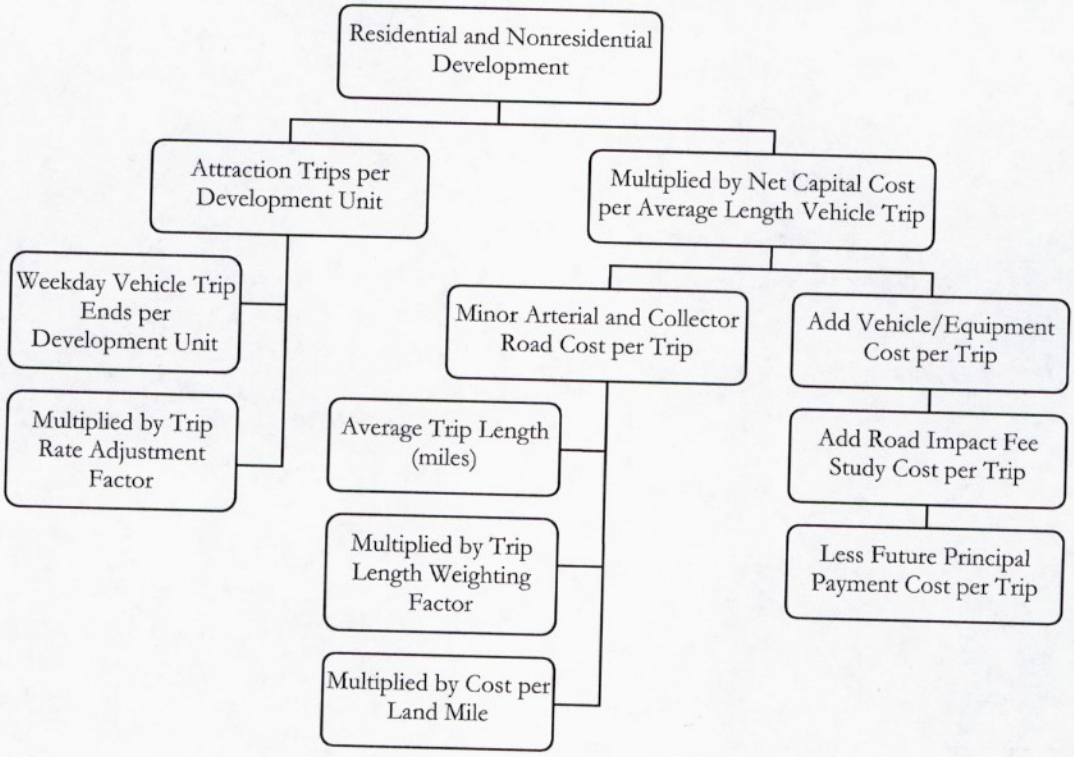
| City of Foley, Alabama<br>*(Current $ in thousands)* | 1<br>2008-09 | 2<br>2009-10 | 3<br>2010-11 | 4<br>2011-12 | 5<br>2012-13 | Average<br>Annual | Cumulative<br>Total 5 Years |
|---|---|---|---|---|---|---|---|
| *REVENUES* | | | | | | | |
| **PARKS AND REC** | | | | | | | |
| Rec Fee - Detached Housing | $358 | $358 | $358 | $358 | $358 | $358 | $1,791 |
| Rec Fee - Attached Housing | $59 | $59 | $59 | $59 | $59 | $59 | $297 |
| ***Subtotal Parks and Rec Fees*** | $418 | $418 | $418 | $418 | $418 | *$418* | *$2,088* |
| *CAPITAL COSTS* | | | | | | | |
| **PARKS AND REC** | | | | | | | |
| Parks and Rec-Land | $147 | $147 | $147 | $147 | $147 | $147 | $734 |
| Parks and Rec-Amenities | $286 | $286 | $286 | $286 | $286 | $286 | $1,429 |
| ***Subtotal Parks and Rec Costs*** | $433 | $433 | $433 | $433 | $433 | *$433* | *$2,163* |
| *NET CAPITAL FACILITIES CASH FLOW -PARKS AND REC* | | | | | | *Current $ in thousands* | |
| Annual Surplus (or Deficit) | ($15.0) | ($15.0) | ($15.0) | ($15.0) | ($15.0) | ($15.0) | |
| Cumulative Surplus (or Deficit) | ($15.0) | ($30.1) | ($45.1) | ($60.2) | ($75.2) | | ($75.2) |

## Transportation

The Transportation Impact Fee uses an incremental expansion methodology to determine transportation improvements necessary to accommodate new development. Transportation demand is driven by residents and businesses, so the impact fee is imposed on both new residential and nonresidential development.

This impact fee is allocates capital costs on a per trip basis for residential development and nonresidential development. The impact fee is composed of specified expansion of arterial and collector roads. Also, included are vehicles and equipment and the transportation component of the impact fee. As shown in Figure 8, trip generation rates by type of development are multiplied by the total capital cost per trip to yield the transportation impact fees. This methodology includes trip adjustment factors for commuting patterns and pass-by trips.

**Figure 8: Transportation Impact Fee Formula**



## VEHICLE TRIP GENERATION RATES AND ADJUSTMENTS

Vehicle trip generation rates are from the reference book Trip Generation (Institute of Transportation Engineers, 2003). Foley's transportation impact fees are based on average weekday vehicle trip ends. A vehicle trip end represents a vehicle either entering or exiting a development (as if a traffic counter were placed across a driveway). To calculate the impact fees, trip generation rates are adjusted to avoid double counting each trip at both the origin and destination points. Therefore, the basic trip adjustment factor is 50%. As discussed further below, the impact fee methodology includes additional adjustments to make the fees proportionate to the infrastructure demand for particular types of development.

### Vehicle Miles of Travel

VMT is the product of the number of vehicle trips multiplied by the average trip length. Vehicle trips are discussed below. To derive average trip length in the City of Foley requires an inventory of current lane miles and a lane capacity standard. Each of these components is discussed in turn.

### Adjustment for Journey-To-Work Commuting

Residential development has a higher trip adjustment factor of 57% to account for commuters leaving Foley for work. According to the National Household Travel Survey (see Table 29, Federal Highway Administration, 2001) home-based work trips are typically 31% of production trips (i.e., all out-bound trips, which are 50% of all trip ends). Also, Census 2000 data from Table P27 in Summary File 3 indicates that 47% of Foley's workers travel outside the City for work. In combination, these factors (0.31 x 0.50 x 0.47 = 0.07) account for 7% of production trips. The total adjustment factor for residential includes attraction trips (50% of trip ends) plus the journey-to-work commuting adjustment (7% of production trips) for a total of 57%.

### Adjustment for Pass-by Trips

A simple factor of 50% has been applied to the office, public sector, goods production and lodging categories. The commercial/retail, business park, and elementary categories have a trip factor less than 50% because these types of development attracts vehicles as they pass-by on arterial and collector roads. For example, when someone stops at a convenience store on their way home from work, the convenience store is not their primary destination. As documented in Trip Generation, there is an inverse relationship between shopping center size and pass-by trips. Therefore, appropriate trip adjustment factors have been calculated according to shopping center size. For this type of development, the trip adjustment factor is less than 50 percent because retail uses attract vehicles as they pass by. For example, when someone stops at a convenience store on the way home from work, the convenience store is not the primary destination. For example, the ITE Manual indicates that on average 36% of the vehicles entering shopping centers from 100,000 to 50,000 square feet are passing by on the way to some other primary destination and 64% of the attraction trips have the shopping center as their primary destination. Therefore, the adjusted trip factor is 33% (0.64 x 0.50).

**Figure 9: Commercial/Shopping Center Trip Rates and Pass-By Adjustments**

| Floor Area in thousands (KSF) | Commercial Pass-by Trips (1) | Commercial Trip Adj Factor (2) | Weekday - 2003 Data Shopping Centers ITE 820 | |
|---|---|---|---|---|
| | | | Trip Ends | Rate/KSF |
| 50 | 39% | 31% | 4,328 | 86.56 |
| 100 | 34% | 33% | 6,791 | 67.91 |
| 200 | 29% | 36% | 10,656 | 53.28 |
| 400 | 23% | 39% | 16,722 | 41.80 |

Source: Trip Generation, Institute of Traffic Engineers, 2003

(1) Based on data published by ITE in Trip Generation Handbook (2004), the best trendline correlation between pass-by trips and floor area is a logarithmic curve with the equation: ((-7.6967*LN (KSF)) + 69.448).
(2) To convert trip ends to vehcile trips, the standard adjustment factor is 50%. Due to pass-by trips, commercial trip adjustment factors are lower, as derived by the following formula (0.50*(1-passby pct.)).

### Average Trip Length Adjustment by Type of Land Use

The average trip length is weighted to account for trip length variation by type of land use. As documented by the National Household Travel Survey (see Table 6 in the 2001 publication by the Federal Highway Administration), vehicle trips from residential development, for home-based work trips, social and recreation purposes, are approximately 122% of the average trip length. Conversely, shopping trips associated with commercial development are roughly 68% of the average trip length while other nonresidential development typically account for trips that are 75% of the average trip length.

## Average Daily Vehicle Trip Estimates

Figure 10 provides a summary of the residential and nonresidential vehicle trip calculations used in this analysis.

The vehicle trip estimates use average weekday vehicle trip ends shown in Figure 10, adjustments for trip rates, and the current residential and nonresidential development in the City.

Average daily vehicle trips are calculated by multiplying the vehicle trips ends by the trip adjustment and the amount of development in the City. For example, the estimated number of average vehicle trips generated by detached units is calculated using the equation (9.57 x .57 x 5,411 = 29,514). This is repeated for all development in the City.

There is an average of 86,136 vehicle trips generated by existing development in Foley on an average weekday. As the table below indicates, residential development generates 34,744 vehicle trips and nonresidential development generates 51,392 vehicle trips on an average weekday.

## Figure 10: Average Daily Vehicle Trips

| Factors | Vehicle Trips Ends [1] | Trip Adjustment | Development 2007-08 [2] | Trip Estimates |
|---|---|---|---|---|
| **Residential:** | | | | |
| Detached Units | 9.57 | 57% | 5,411 | 29,514 |
| Attached Units | 6.59 | 57% | 1,392 | 5,230 |
| **Total Residential** | | | | **34,744** |
| **Nonresidential:** | | | | |
| Goods Prodcuing KSF | 4.96 | 50% | 1,690 | 4,290 |
| Retail/Restaurant KSF | 86.56 | 31% | 1,470 | 40,250 |
| Other Commercial Services KSF | 12.76 | 50% | 960 | 4,169 |
| Education KSF | 14.49 | 50% | 340 | 1,674 |
| Government KSF | 18.35 | 50% | 110 | 1,009 |
| **Total Nonresidential** | | | | **51,392** |
| **TOTAL TRIPS** | | | | **86,136** |

[1] Trips rates are from the ITE Trip Generation Manual (2003).

[2] Square footage estimates (KSF) derived using squar footage per employee factors from ULI and ITE.

## LANE MILES

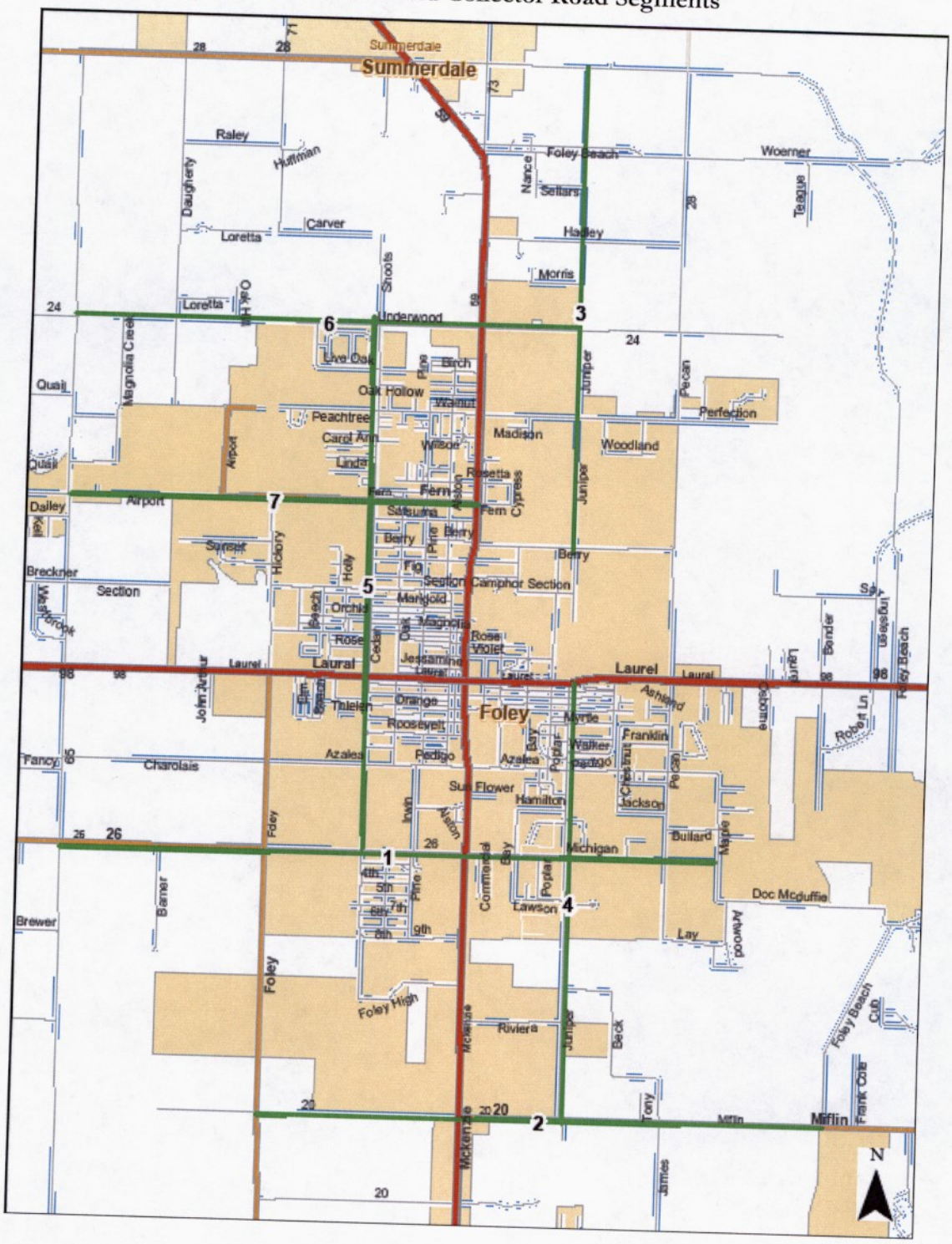
The impact fee analysis is based on minor arterial and collector roads within the City limits. The road segments shown in Figure 11 are roads that will need to be improved due to growth based on discussions with the Foley Highway Department. This list includes roads in the City that are classified as collectors or minor arterials and were chosen because they make up the minimum road network for movement of traffic within City limits. The number of lane miles include 12.14 for minor arterials and 24.84 for collectors. The list of road segments along with their lane miles and classification is shown in Figure 11. The map id shown for each road segment corresponds with the id shown in the map in Figure 12 (green line).

### Figure 11: City of Foley Lane Mile Summary

| Map ID | Street Name | Number of Lane Miles |
|---|---|---|
| | **Minor Arterials** | |
| 1 | Michigan Ave. | 6.58 |
| 2 | Milfin Rd (CR-20) | 5.57 |
| | Total Minor Arterials | 12.14 |
| | **Collectors** | |
| 3 | North Juniper St | 4.66 |
| 4 | South Juniper St | 5.00 |
| 5 | Cedar St | 6.06 |
| 6 | Underwood (CR-24) | 5.07 |
| 7 | W Fern Ave (Airport Rd) | 4.05 |
| | Total Collectors | 24.84 |

Source: City of Foley

Figure 12: Map of Minor Arterial and Collector Road Segments



## Minor Arterial Improvements – Incremental Expansion

Figure 13 summarizes the input variables to be used in the analysis. The variables with light blue shading are ITE trip rates and adjusted trip factors. The variables with peach shading are factors from the National Household Travel Survey (NHTS) data. These variables adjust the average trip length by type of land use to account for the distance of travel. This is an important variable because it is directly related to the average miles per trip for minor arterial roads (the purple shaded variable), which helps calculate total vehicle miles traveled in Foley. Both are discussed below. Capacity per minor arterial lane mile, the green shaded variable, was provided by TischlerBise from the Florida Department of Transportation capacity per type of road tables. Cost data, the yellow shaded variable, was provided to TischlerBise by the City and Volkert and Associates, Inc. The relationship between development units in the City over the next five years and travel demand on the City's minor arterials is documented in Figure 16.

**Figure 13: Minor Arterial Input Variables**

| INPUT VARIABLES | Weekday |
|---|---|
| Detached Res Weekday VTE per Unit | 9.57 |
| Attached Res Weekday VTE per Unit | 6.59 |
| Goods Producing Weekday VTE/KSF* | 4.96 |
| Retail Weekday VTE/KSF** | 86.56 |
| Other Com Weekday VTE/KSF | 12.76 |
| Education Weekday VTE/KSF | 14.49 |
| Government Weekday VTE/KSF*** | 18.35 |
| Residential Trip Adj Factor | 57% |
| Retail Trip Adj Factor | 31% |
| Business Park and Elem Trip Adj Factor | 33% |
| All Other Trips Adj | 50% |
| Avg Miles/Trip on City Minor Arterials | 0.87 |
| Residential Trip Length | 122% |
| Retail Trip Length | 68% |
| Other Nonresidential Trip Length | 75% |
| Minor Arterial Capacity per Lane Mile | 5,600 |
| Cost per Lane-Mile Minor Arterials | $1,200,000 |

** Trip rate per 1,000 sf for Warehousing (ITE 150)*

*** Trip rate per 1,000 sf for 50,000 sf shopping center (ITE 820)*

**** Trip rate per 1,000 sf 25,000 sf Office (ITE 710)*

VTE=Vehicle Trip Ends

*Sources: ITE; TischlerBise; Florida DOT; City of Foley; Volker and Associates, Inc.*

## Figure 14: Minor Arterial Capacity Analysis

| Year-> | Base 2007-08 | 1 2008-09 | 2 2009-10 | 3 2010-11 | 4 2011-12 | 5 2012-13 |
|---|---|---|---|---|---|---|
| **DEMAND DATA** | | | | | | |
| DETACHED UNITS | 5,411 | 5,693 | 5,976 | 6,258 | 6,541 | 6,823 |
| ATTACHED UNITS | 1,392 | 1,465 | 1,538 | 1,610 | 1,683 | 1,756 |
| GOODS PRODUCING KSF | 1,730 | 1,770 | 1,810 | 1,850 | 1,890 | 1,930 |
| RETAIL KSF | 1,500 | 1,540 | 1,580 | 1,610 | 1,650 | 1,680 |
| OTHER COM KSF | 990 | 1,010 | 1,030 | 1,060 | 1,080 | 1,100 |
| EDUCATION KSF | 350 | 350 | 360 | 370 | 380 | 390 |
| GOVERNMENT KSF | 110 | 120 | 120 | 120 | 120 | 130 |
| DETACHED TRIPS | 29,514 | 31,055 | 32,596 | 34,137 | 35,678 | 37,219 |
| ATTACHED TRIPS | 5,230 | 5,503 | 5,776 | 6,049 | 6,322 | 6,596 |
| **RES TRIPS** | **34,744** | **36,558** | **38,372** | **40,186** | **42,000** | **43,815** |
| GOODS PRODUCING TRIPS | 4,290 | 4,390 | 4,489 | 4,588 | 4,687 | 4,786 |
| RETAIL TRIPS | 40,250 | 41,324 | 42,397 | 43,202 | 44,275 | 45,080 |
| OTHER COM TRIPS | 4,169 | 4,253 | 4,337 | 4,463 | 4,548 | 4,632 |
| EDUCATION TRIPS | 1,674 | 1,674 | 1,721 | 1,769 | 1,817 | 1,865 |
| GOVERNMENT TRIPS | 1,009 | 1,101 | 1,101 | 1,101 | 1,101 | 1,193 |
| **NONRES TRIPS** | **51,392** | **52,741** | **54,045** | **55,124** | **56,428** | **57,556** |
| **TOTAL TRIPS** | **86,136** | **89,299** | **92,418** | **95,310** | **98,429** | **101,371** |
| Minor Arterial VMT | 67,960 | 70,700 | 73,411 | 75,991 | 78,702 | 81,315 |
| Minor Arterial | 12.14 | 12.62 | 13.11 | 13.57 | 14.05 | 14.52 |
| ANL LN MI Increase | | 0.49 | 0.48 | 0.46 | 0.48 | 0.47 |
| | | | | | 5-yr total | 2.38 |
| ANL CAPACITY COST Minor Arterial (millions) | | $0.6 | $0.6 | $0.6 | $0.6 | $0.6 |
| | | | | | 5-yr total | $2.9 |

Figure 14 shows projected travel demand based on the input variables from Figure 13. Development projections at the top of the figure are multiplied by the input variables to yield average weekday travel demand on the City's minor arterials. The demographic data shown at the top of Figure 14 is discussed further in the Appendix. Trip generation rates and trip adjustment factors convert projected development into average weekday vehicle trips on arterial roads. For example, in the year 2009-10, the projected 5,976 detached housing units will produce 32,596 weekday trips (5,976 x 9.57 x 57% = 32,596).

### Minor Arterial Lane Miles

The arterial component of the transportation impact fee is based on a lane capacity standard of 5,600 vehicles per lane, which is an average day volume for a two-lane undivided minor arterial.

### Minor Arterial Average Trip Length

The average trip length on the City arterials is determined through a series of iterations using spreadsheet software because the VMT calculations include the same adjustment factors used in the impact fee calculations (i.e., residential journey-to-work and commercial pass-by adjustments and average trip length adjustment by type of land use (see earlier discussion)). Knowing current vehicle trips, lane-miles currently accommodating the existing travel and lane capacity, it is possible to derive the average trip length. TischlerBise determined the average trip length on minor arterials in the City of Foley to be 0.87 miles. The formula for

calculating the average trip length is to multiply the existing arterial lane miles by the capacity and then divide by the current number of trips.

### Minor Arterial Road Cost Estimate

The construction cost for minor arterials in the City of Foley is estimated at $1.2 million per lane mile. This estimate was provided Volkert and Associates, Inc. the transportation consultant for the City.

## COLLECTOR IMPROVEMENTS – INCREMENTAL-EXPANSION

Figure 15 summarizes the input variables to be used in the analysis and to project travel demand for collector roads. The explanation of the input variables is the same as stated in minor arterial input variables. The only difference is the average miles per trip on collectors, the cost per lane mile, and capacity per lane mile.

**Figure 15: Collector Input Variables**

| INPUT VARIABLES | Weekday |
|---|---|
| Detached Res Weekday VTE per Unit | 9.57 |
| Attached Res Weekday VTE per Unit | 6.59 |
| Goods Producing Weekday VTE/KSF* | 4.96 |
| Retail Weekday VTE/KSF** | 86.56 |
| Other Com Weekday VTE/KSF | 12.76 |
| Education Weekday VTE/KSF | 14.49 |
| Government Weekday VTE/KSF*** | 18.35 |
| Residential Trip Adj Factor | 57% |
| Retail Trip Adj Factor | 31% |
| Business Park and Elem Trip Adj Factor | 33% |
| All Other Trips Adj | 50% |
| Avg Miles/Trip on City Collectors | 1.45 |
| Residential Trip Length | 122% |
| Retail Trip Length | 68% |
| Other Nonresidential Trip Length | 75% |
| Collector Capacity per Lane Mile | 4,550 |
| Cost per Lane-Mile Collectors | $700,000 |

** Trip rate per 1,000 sf for Warehousing (ITE 150)*

*** Trip rate per 1,000 sf for 50,000 sf shopping center (ITE 820)*

**** Trip rate per 1,000 sf 25,000 sf Office (ITE 710)*

VTE=Vehicle Trip Ends

*Sources: ITE; TischlerBise; Florida DOT; City of Foley; Volker and Associates, Inc.*

**Figure 16: Collector Capacity Analysis**

| Year-> | Base | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|
| | 2007-08 | 2008-09 | 2009-10 | 2010-11 | 2011-12 | 2012-13 |
| **DEMAND DATA** | | | | | | |
| DETACHED UNITS | 5,411 | 5,693 | 5,976 | 6,258 | 6,541 | 6,823 |
| ATTACHED UNITS | 1,392 | 1,465 | 1,538 | 1,610 | 1,683 | 1,756 |
| GOODS PRODUCING KSF | 1,730 | 1,770 | 1,810 | 1,850 | 1,890 | 1,930 |
| RETAIL KSF | 1,500 | 1,540 | 1,580 | 1,610 | 1,650 | 1,680 |
| OTHER COM KSF | 990 | 1,010 | 1,030 | 1,060 | 1,080 | 1,100 |
| EDUCATION KSF | 350 | 350 | 360 | 370 | 380 | 390 |
| GOVERNMENT KSF | 110 | 120 | 120 | 120 | 120 | 130 |
| DETACHED TRIPS | 29,514 | 31,055 | 32,596 | 34,137 | 35,678 | 37,219 |
| ATTACHED TRIPS | 5,230 | 5,503 | 5,776 | 6,049 | 6,322 | 6,596 |
| **RES TRIPS** | **34,744** | **36,558** | **38,372** | **40,186** | **42,000** | **43,815** |
| GOODS PRODUCING TRIPS | 4,290 | 4,390 | 4,489 | 4,588 | 4,687 | 4,786 |
| RETAIL TRIPS | 40,250 | 41,324 | 42,397 | 43,202 | 44,275 | 45,080 |
| OTHER COM TRIPS | 4,169 | 4,253 | 4,337 | 4,463 | 4,548 | 4,632 |
| EDUCATION TRIPS | 1,674 | 1,674 | 1,721 | 1,769 | 1,817 | 1,865 |
| GOVERNMENT TRIPS | 1,009 | 1,101 | 1,101 | 1,101 | 1,101 | 1,193 |
| **NONRES TRIPS** | **51,392** | **52,741** | **54,045** | **55,124** | **56,428** | **57,556** |
| **TOTAL TRIPS** | **86,136** | **89,299** | **92,418** | **95,310** | **98,429** | **101,371** |
| **Collector VMT** | **113,266** | **117,833** | **122,352** | **126,652** | **131,171** | **135,525** |
| Collector | 24.89 | 25.90 | 26.89 | 27.84 | 28.83 | 29.79 |
| ANL LN MI Increase | | 1.00 | 0.99 | 0.95 | 0.99 | 0.96 |
| | | | | | 5-yr total | 4.89 |
| ANL CAPACITY COST Collector (millions) | | $0.7 | $0.7 | $0.7 | $0.7 | $0.7 |
| | | | | | 5-yr total | $3.4 |

Figure 16 shows projected travel demand based on the input variables from Figure 15. Development projections at the top of the figure are multiplied by the input variables to yield average weekday travel demand on the City's collectors. The demographic data shown at the top of Figure 16 is discussed further in the Appendix. Trip generation rates and trip adjustment factors convert projected development into average weekday vehicle trips on collector streets. The same number of total vehicle trips used for minor arterials is used for collectors because the same trips occur on both types of roads.

## Collector Lane Miles

The collector component of the transportation impact fee is based on a lane capacity standard of 4,550 vehicles per lane, which is an average day volume for a two-lane undivided major roadway.

## Collector Average Trip Length

The average trip length on City collectors is determined through a series of iterations using spreadsheet software because the VMT calculations include the same adjustment factors used in the impact fee calculations (i.e., residential journey-to-work and commercial pass-by adjustments and average trip length adjustment by type of land use (see earlier discussion)). Knowing current vehicle trips, lane-miles currently accommodating the existing travel and lane capacity, it is possible to derive the average trip length. TischlerBise determined the average trip length on collectors in the City of Foley to be 1.45 miles. The formula for

calculating the average trip length is to multiply the existing major collector lane miles by the capacity and divide by the current number of trips.

**Major Collector Road Cost Estimate**

The construction cost for major collectors in the City of Foley is estimated at $700,000 per lane mile. This estimate was provided Volkert and Associates, Inc. the transportation consultant for the City.

## VEHICLES AND EQUIPMENT – INCREMENTAL EXPANSION

The incremental expansion methodology is also used to derive the vehicles and equipment component of the transportation impact fee. Figure 17 provides an inventory of current transportation vehicles and equipment. Current replacement cost is provided by the City.

To calculate the level of service, the total number of vehicles/equipment is divided by vehicle trips in 2007-08, resulting in 0.0004 vehicles per trip. The calculation is repeated with the total cost, resulting in a cost per demand unit of $28.74 per trip. In order to maintain current levels of service the City will need an additional 7 vehicles in five years. This was calculated by subtracting the total trips in 2012-13 from total trips in 2007-08, which are trips attributable to growth (101,371-86,136 = 15,234). The trips attributable to growth are then multiplied by the number of vehicles/equipment per trip (0.0004) to yield approximately 7 new vehicles.

**Figure 17: Transportation Vehicles and Equipment Level of Service and Cost Standards**

| Vehicle Inventory | Count | Cost per Unit | Total Cost |
|---|---|---|---|
| Pick-ups, Vans, etc. | 11 | $23,000 | $253,000 |
| F350-550 Trucks | 7 | $48,000 | $336,000 |
| F800 with Dump Body | 2 | $75,000 | $150,000 |
| 6 YD Dump Trucks | 2 | $64,500 | $129,000 |
| 10 YD Dump Trucks | 2 | $70,000 | $140,000 |
| AT 37 Bucket Trucks | 2 | $75,000 | $150,000 |
| At 600 Bucket Trucks | 1 | $125,000 | $125,000 |
| Loaders | 2 | $100,000 | $200,000 |
| Backhoes | 3 | $120,000 | $360,000 |
| Forklift | 1 | $54,000 | $54,000 |
| Large Tractors with Bushhog | 4 | $70,000 | $280,000 |
| Gradall | 1 | $299,000 | $299,000 |
| **TOTAL** | **38** | | **$2,476,000** |

| | |
|---|---|
| Total Vehicle Trips in 2007-08 | 86,136 |
| Total Vehicles per Vehicle Trip | 0.0004 |
| Total Cost per Vehicle Trip | $28.74 |

## Transportation Impact Fee Study

The City plans to update its impact fees every five years to ensure the methodologies, assumptions, and cost factors used in the calculations are still valid and accurate. TischlerBise has included the cost of preparing this portion of the study in the impact fee calculations in order to create a source of funding to conduct this regular update. The cost of this component ($15,800) is allocated to the projected increase in residential and non-residential vehicle trips over the five years. This results in an impact fee study cost per demand unit of $1.03 per vehicle trip ($15,800/15,234 vehicle trips).

## Credit for Future Principal Payments on Transportation Improvements

The City is currently making payments to retire the Series 2006 General Obligation Warrant, which is used to help finance several transportation projects. TischlerBise recommends a credit per trip on this outstanding debt. Foley Finance staff provided the amount of projected outstanding debt for the Series 2006 Bond, the principal payment schedule, and the Transportation portion of this bond.

Figure 18 provides the credit calculation based on the principal payments to be made by the City on the outstanding debt. A credit is necessary since new development that pays impact fees will also contribute to future principal payments on debt through taxes. To account for the time value of money, annual principal payments per demand unit are discounted using a net present value formula based on the applicable discount rate

The amount of debt has been allocated to reflect a credit per vehicle trip. A credit per trip is used because residential and nonresidential development will be affected by this bond. Based on future vehicle trips estimates, TischlerBise was able to calculate the affect of an additional vehicle trip in the City. The credit amount is $38.88 per vehicle trip, which will be subtracted from the gross capital cost per trip to derive a net capital cost per trip for residential and nonresidential development.

**Figure 18: Credit for Future Principal Payments – Transportation**

**Series 2006A General Obligation Warrant**

| *Fiscal Year* | *Principal* | *Share for Transportaion - 54.4%* | *Projected Trips* | *Payment per Trip* |
|---|---|---|---|---|
| 2008-09 | $625,000 | $340,223 | 89,299 | $3.81 |
| 2009-10 | $655,000 | $356,553 | 92,418 | $3.86 |
| 2010-11 | $685,000 | $372,884 | 95,310 | $3.91 |
| 2011-12 | $720,000 | $391,936 | 98,429 | $3.98 |
| 2012-13 | $750,000 | $408,267 | 101,371 | $4.03 |
| 2013-14 | $785,000 | $427,320 | 104,509 | $4.09 |
| 2014-15 | $820,000 | $446,372 | 107,359 | $4.16 |
| 2015-16 | $860,000 | $468,146 | 110,520 | $4.24 |
| 2016-17 | $900,000 | $489,921 | 113,730 | $4.31 |
| 2017-18 | $940,000 | $511,695 | 116,581 | $4.39 |
| 2018-19 | $980,000 | $533,469 | 119,741 | $4.46 |
| 2019-20 | $1,015,000 | $552,522 | 122,544 | $4.51 |
| **TOTAL** | **$9,735,000** | **$5,299,308** | | **$49.73** |

| | |
|---|---|
| Discount Rate | 3.885% |
| Creidt per Trip | $38.88 |

## TRANSPORTATION INPUT VARIABLES

Figure 19 shows the input variables and level of service standards that are used to calculate the maximum supportable impact fee.

**Figure 19: Transportation Input Variables**

| INPUT VARIABLES | Weekday Vehicle Trip Ends | Trip Rate Adjustment Factors | Trip Length Adjustment Factors |
|---|---|---|---|
| Weekday Vehicle Trip Ends | | | |
| *Residential (per housing unit)* | | | |
| Detached Housing | 9.57 | 57% | 122% |
| Attached Housing | 6.59 | 57% | 122% |
| *Nonresidential (per 1,000 Sq Ft of floor area)* | | | |
| Com / Shop Ctr 100,000 SF or less | 67.91 | 33% | 68% |
| Com / Shop Ctr 100,001-200,000 SF | 53.28 | 36% | 68% |
| Com / Shop Ctr 200,001 SF or more | 41.80 | 39% | 68% |
| Office 50,000 SF or less | 15.65 | 50% | 75% |
| Office 50,001-100,000 SF | 13.31 | 50% | 75% |
| Office 100,001 SF or more | 11.37 | 50% | 75% |
| Business Park | 12.76 | 33% | 75% |
| Medical-Dental Office Building | 36.13 | 50% | 75% |
| Hospital | 17.57 | 50% | 75% |
| Min-Warehouse | 2.50 | 50% | 75% |
| Warehousing | 4.96 | 50% | 75% |
| Manufacturing | 3.82 | 50% | 75% |
| Light Industrial | 6.97 | 50% | 75% |
| Elementary School | 14.49 | 33% | 75% |
| *Nonresidential (per unique demand indicator)* | | | |
| Nursing Home (per bed) | 2.37 | 50% | 75% |
| Day Care (per student) | 4.48 | 24% | 75% |
| Secondary School (per student) | 1.71 | 36% | 75% |
| Elementary School (per student) | 1.29 | 33% | 75% |
| Lodging (per room) | 5.63 | 50% | 75% |

| | |
|---|---|
| **Infrastructure Standards/Cost Factors** | |
| Average Miles per Minor Arterial Vehicle Trip | 0.87 |
| Cost per Minor Arterial Lane Mile | $1,200,000 |
| Lane Capacity of Minor Arterial | 5,600 |
| **Minor Arterial Cost per Trip** | **$186.42** |
| Average Miles per Collector Vehicle Trip | 1.45 |
| Cost per Collector Lane Mile | $700,000 |
| Lane Capacity of Collector | 4,550 |
| **Collector Cost per Trip** | **$223.07** |
| Vehicle and Equipment Cost per Trip | **$28.74** |
| Development Fee Study Cost per Trip | **$1.03** |
| Revenue Credit per Trip | **($38.87)** |

## MAXIMUM SUPPORTABLE TRANSPORTATION IMPACT FEES

Figure 20 shows the schedule of maximum supportable impact fee amounts for transportation in the City of Foley. The average cost per trip for a minor arterial is

calculated by multiplying the average miles per minor arterial vehicle trip by the cost per minor arterial lane mile and then dividing by the lane capacity of a minor arterial. The average cost per minor arterial trip is (0.87 x 1,200,000)/ 5,600 = $186.42. This same process is also repeated for the collector roads. To calculate the transportation impact fee the cost factors per trip (minor arterial, collector, vehicles and equipment, development fee study, less the revenue credit) are multiplied by the weekday vehicle trip ends by type of development, the trip rate adjustment factor, and trip length adjustment factor. For example, the maximum supportable transportation impact fee for a detached housing unit is 9.57 x 0.57 x 1.22 (186.42 + 223.07 + 28.74 + 1.03 – 39.64) = $2,665 per housing unit.

**Figure 20: Transportation Impact Fee Schedule**

| Maximum Supportable Transportation Impact Fee | |
|---|---|
| *Residential (per housing unit)* | |
| Detached Housing | $2,665 |
| Attached Housing | $1,835 |
| *Nonresidential (per 1,000 Sq Ft of floor area)* | |
| Com / Shop Ctr 100,000 SF or less | $6,102 |
| Com / Shop Ctr 100,001-200,000 SF | $5,222 |
| Com / Shop Ctr 200,001 SF or more | $4,438 |
| Office 50,000 SF or less | $2,350 |
| Office 50,001-100,000 SF | $1,998 |
| Office 100,001 SF or more | $1,707 |
| Business Park | $1,264 |
| Medical-Dental Office Building | $5,425 |
| Hospital | $2,638 |
| Min-Warehouse | $375 |
| Warehousing | $745 |
| Manufacturing | $574 |
| Light Industrial | $1,047 |
| Elementary School | $1,436 |
| *Nonresidential (per unique demand indicator)* | |
| Nursing Home (per bed) | $356 |
| Day Care (per student) | $323 |
| Secondary School (per student) | $185 |
| Elementary School (per student) | $128 |
| Lodging (per room) | $845 |

Impact fees for most types of nonresidential development are listed per 1,000 square feet of floor area. Calculating transportation cost for the nonresidential sector uses the process as the one stated for the above. For example, the maximum supportable transportation impact fee for a commercial building no bigger than 100,000 square feet is 67.91 x 0.33 x 0.68 (186.42 + 223.07 + 28.74 + 1.03 – 38.87) = $6,102 per 1,000 square feet of floor area. For a restaurant with 3,000 square feet of floor area, the total transportation impact fee would be $18,306 (3 x $6,102). At the bottom of Figure 20 are some nonresidential development types that have unique demand indicators. For example, the impact fee for lodging is based on the number of rooms.

## PROJECTED CASH FLOW FOR TRANSPORTATION

Growth-related transportation improvements needed to accommodate residential and nonresidential development are projected to cost approximately $1.35 million per year, as shown in Figure 21. At the maximum supportable level impact fees will cover about 90% of the costs for services identified in the study. The cash flow does analysis assumes bond financing of transportation improvements. There is no revenue from the Government and Education nonresidential development because the City will not collect impact fees from these institutions.

The cash flow analysis summary provides an indication of the impact fee revenue and expenditures necessary to meet the demand for public facilities. To the extent the rate of development either accelerates or slows down, there will be corresponding change in the impact fee revenue and capital costs. See the Appendix for discussion of the development projections that drive the cash flow analysis.

**Figure 21: Projected Cash Flow Summary for Transportation**

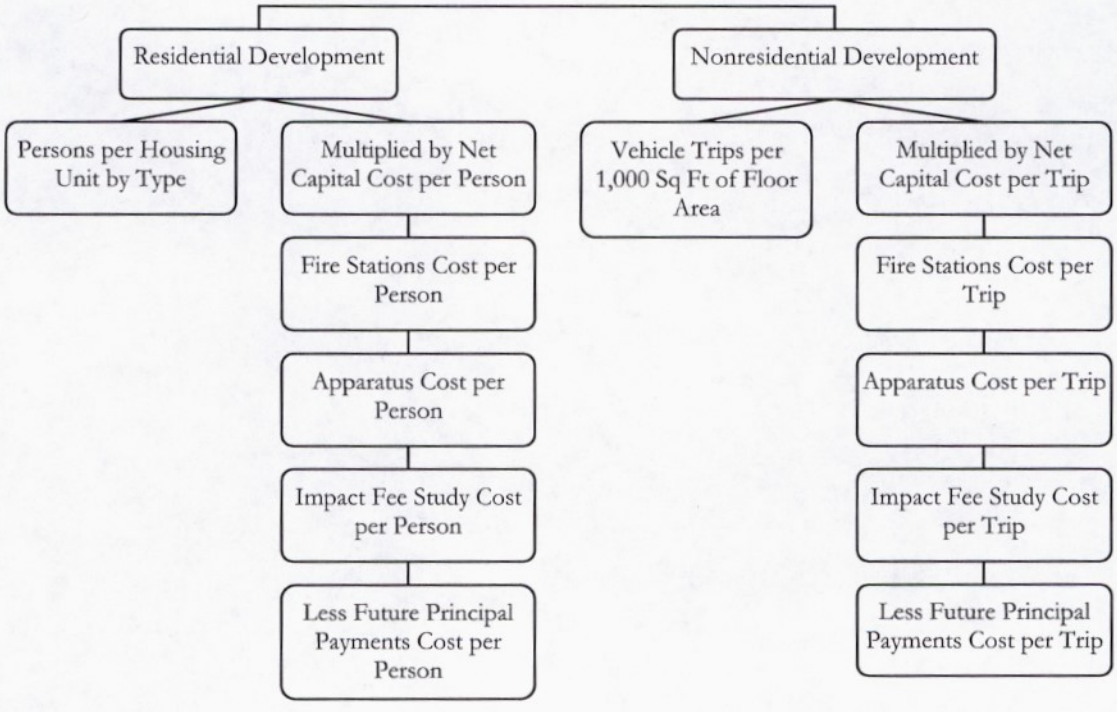
| City of Foley, Alabama | 1 | 2 | 3 | 4 | 5 | Average | Cumulative |
|---|---|---|---|---|---|---|---|
| *(Current $ in thousands)* | 2008-09 | 2009-10 | 2010-11 | 2011-12 | 2012-13 | Annual | Total 5 Years |
| *REVENUES* | | | | | | | |
| TRANSPORTATION | | | | | | | |
| Transporation Fee - Detached Housing | $753 | $753 | $753 | $753 | $753 | $753 | $3,764 |
| Transporation Fee-Attached Housing | $133 | $133 | $133 | $133 | $133 | $133 | $667 |
| Transporation Fee - Retail | $292 | $292 | $219 | $292 | $219 | $263 | $1,315 |
| Transporation Fee - Other Com Srvcs | $38 | $25 | $25 | $38 | $25 | $30 | $152 |
| Transporation Fee - Goods Producing | $30 | $30 | $30 | $30 | $30 | $30 | $149 |
| Transporation Fee - Education | $0 | $0 | $0 | $0 | $0 | $0 | $0 |
| Transportation Fee - Government | $0 | $0 | $0 | $0 | $0 | $0 | $0 |
| ***Subtotal Transportation Fees*** | $1,246 | $1,233 | $1,160 | $1,246 | $1,160 | *$1,209* | *$6,046* |
| *CAPITAL COSTS* | | | | | | | |
| TRANSPORTATION | | | | | | | |
| Road Improvements - Minor Arterial | $587 | $581 | $553 | $581 | $560 | $572 | $2,862 |
| Road Improvements - Collector | $703 | $695 | $662 | $695 | $670 | $685 | $3,424 |
| Vehicles and Equipment | $91 | $90 | $83 | $90 | $85 | $88 | $438 |
| ***Subtotal Transportation Costs*** | $1,381 | $1,366 | $1,298 | $1,366 | $1,314 | *$1,345* | *$6,724* |
| *NET CAPITAL FACILITIES CASH FLOW - TRANSPORTATION* | | | | | | | *Current $ in thousands* |
| Annual Surplus (or Deficit) | ($135) | ($132) | ($137) | ($120) | ($154) | ($136) | |
| Cumulative Surplus (or Deficit) | ($135) | ($267) | ($404) | ($524) | ($678) | | ($678) |

## Fire

The fire impact fee uses an incremental expansion cost approach to determine the need for fire stations and apparatus. The Foley Fire Department serves both residential and non-residential development, providing fire protection and rescue services to residents and businesses. The fire department provides services inside and outside of the city. Since the impact fee can only be assessed to residents and businesses inside the city limits the fee is reduced based on the percentage of fire calls that were within the city.

As shown in Figure 22, this impact fee is allocated on a per capita basis for residential development. For nonresidential development, the impact fee methodology allocates the capital cost on a per nonresidential trip basis. TischlerBise recommends using nonresidential vehicle trips as the best nonresidential demand indicator for fire facilities and vehicles and equipment. Other possible nonresidential demand indicators, such as employment or floor area, do not accurately reflect the demand for fire service. If employees per thousand square feet were used as the demand indicator, impact fees would be too high for office/institutional development. If floor area were used as the demand indicator, impact fees would be too high for industrial development.

**Figure 22: Fire Impact Fee Formula**



## SERVICE AREA SHARE FACTORS

The Foley Fire Department provided data on calls for service by location of calls within and not within the City limits for a sample period of one year, from January 1 – December 31, 2006. Of the 753 total calls received during the sample period (excluding calls for motor vehicle accidents and vehicle fires), 444 calls (59%) were related to calls for service within the City limits. As impact fees will be collected only within the Foley city limits, this share (59%) of the costs for fire stations and apparatus cost are included in the fire impact fee.

**Figure 23: Foley Fire Department Calls for Service**

| Location of Calls | Calls | Distribution |
|---|---|---|
| Calls within City Limits | 444 | 59.0% |
| Calls not within City Limits | 309 | 41.0% |
| **Total Calls** | **753** | **100.0%** |

Note: 506 calls related to vehicle accidents were not used in the cost allocation.

Source: City of Foley Fire Department from 1/1/06-12/31/06

## SHARE FACTORS BY TYPE OF LAND USE

One of the more accurate ways for determining demand for fire services is calls for service generated by residential and nonresidential land uses. A breakdown of calls for service was not able to be provided; therefore, TischlerBise recommends using the 2000 U.S. Census proportionate share factors for hours in a day for residential and nonresidential development. The recommended allocation is a variation of the population and jobs cost allocation method, with an adjustment to avoid double counting the estimated number of Foley residents that also work within the City.

As shown in Figure 24, functional population takes into account commuting patterns and average daily person hours at home and work to determine the relative demand for fire infrastructure. For residential development, the proportionate share factor is based on estimated person hours of non-working residents, plus the non-working hours of workers who also live in Foley. For resident workers, two-thirds of a day (i.e. 16 hours) was allocated to residential demand. Time spent at work (i.e. 8 hours) was allocated to nonresidential development. In 2000, the U.S. Census Bureau estimated that 1,740 Foley residents also worked in the City. According to the Census Transportation Planning Package (CTPP 2000 place of work data), there were 8,420 jobs located in Foley. Based on estimated person hours, the cost allocation for residential development is 70% while nonresidential development accounts for 30% of the demand for capital costs.

**Figure 24: Proportionate Share Factors by Residential and Nonresidential Land Uses**

| | Demand Units in 2000 | Demand Hours/Day | Person Hours |
|---|---|---|---|
| ***Residential*** | | | |
| Year-Round Population (2000)[1] | 7,590 | | |
| Residents Not Working | 4,314 | 24 | 103,536 |
| Workers Living in Foley[2] | 3,276 | | |
| Residents Working in Foley[3] | 1,740 | 16 | 27,840 |
| Residents Working outside of Foley | 1,536 | 16 | 24,576 |
| | | *Residential Subtotal* | 155,952 |
| | | | **70%** |
| ***Nonresidential*** | | | |
| Jobs Located in Foley (2000) [4] | 8,420 | | |
| Residents Working in Foley[3] | 1,740 | 8 | 13,920 |
| Non-Resident Workers | 6,680 | 8 | 53,440 |
| | | *Nonresidential Subtotal* | 67,360 |
| | | | **30%** |
| | | TOTAL | 223,312 |

[1] U.S. Census, SF3.

[2] Source: U.S. Census, Table P27.

[3] Source: U.S. Census, Table P27.

[4] Source: U.S. Census, PHC-T-40.

## FIRE STATIONS – INCREMENTAL EXPANSION

Figure 25 provides an inventory of fire stations with square footage. Construction cost per square foot is provided by the Foley Fire Department. As the Fire Department serves the City as well as areas not within the city limits, only the City's share of the fire station cost is included in the calculations. The City's share equates to 59% of the total, based on calls for service within the City limits (see discussion under "service area share factors)."

To calculate the residential level of service, the total square footage is multiplied by 70% (based on share factors by type of land use shown in Figure 24), then by 59% (percent of total calls within the city limits), and then divided by the current population, resulting in 0.86 square feet per person. Nonresidential level of service is calculated by multiplying the total square footage by 30% (see Figure 24) then by 59%, and dividing by the number of nonresidential vehicle trips in the City in 2007-08, providing for 0.10 square feet per nonresidential trip. To determine the current cost per demand unit, the square feet per person or nonresidential vehicle trip is multiplied by the average cost per square foot. This results in a cost per demand unit of $179.89 per person and $21.75 per nonresidential vehicle trip.

**Figure 25: Fire Station Level of Service and Cost Standards**

| Facility | Bldg Sq Ft |
|---|---|
| Station 1 | 21,150 |
| Station 2 | 4,400 |
| Station 3 | 1,500 |
| Training Center | 2,860 |
| TOTAL | 29,910 |

Service Area: 59%
Average Cost per Sq Ft for New Station => $210

| | Proportionate Share | 2007-08 Demand Units | Cost per Demand Unit |
|---|---|---|---|
| Residential | 70% | 14,386 population | $179.89 |
| Nonresidential | 30% | 51,392 nonres veh trips | $21.75 |

0.86 sq ft per person
0.10 sq ft per nonres vehicle trip

Note: The total costs and infrastructure standards are reduced to reflect only the city's share of fire station costs (59%). The Fire Department serves areas outside the City Limits, and the remainder of the costs are attributable to these areas

In order for the City to maintain its current level of service for city residents the Foley Fire Department will need approximately 3,850 square feet of additional fire station space in the next five years assuming the rate of growth stays constant. Residential growth will account for 3,200 square feet of additional station space. This was calculated using 0.86 square feet per person multiplied be the net increase in population from 2007-08 to 2012-13 (3,756 x 0.86 = 3,200). Nonresidential growth will account for the remaining 650 square feet of space. This was calculated using 0.10 square feet per nonresidential vehicle trip multiplied by the net increase in nonresidential vehicle trips from 2007-08 to 2012-13. (6,164 x 0.10 = 650). Using the current replacement cost of $210, the additional fire station square footage will cost approximately $808,500 ($210 x 3,850 = $808,500) or about $162,000 per year.

## Fire Apparatus – Incremental Expansion

Figure 26 provides an inventory of current apparatus. Current cost for fire apparatus is provided by the Foley Fire Department. As the Fire Department serves the City as well as areas not within the city limits, only the City's share of the vehicle and apparatus replacement cost is included in the calculations. The City's share equates to 59% of the total cost, based on calls for service within the City limits (see discussion under "service area share factors)."

To calculate the residential level of service, the total number of apparatus is multiplied by 70% (based on Figure 24), then multiplied 59% (city service area share), and then divided by the current population, resulting in 0.17 vehicles and equipment per 1,000 people. Nonresidential level of service is calculated by multiplying the total number of apparatus by 30% (see Figure 24), then multiplied by 59%, and dividing by the number of nonresidential vehicle trips in the City in 2007-08, providing for 0.02 vehicles and equipment per 1,000 nonresidential trips. To determine the current cost per demand unit, the vehicles and

equipment per person or nonresidential vehicle trip is multiplied by the weighted average cost per apparatus. This results in a cost per demand unit of $96.40 per person and $11.65 per nonresidential vehicle trip.

**Figure 26: Fire Apparatus Level of Service and Cost Standards**

| *Type* | *Count* | *Vehicle and Equipment Cost* | *Total Cost* |
|---|---|---|---|
| Pumper Engine | 4 | $540,000 | $2,160,000 |
| Rescue | 1 | $370,000 | $370,000 |
| Ladder Truck | 1 | $835,243 | $835,243 |
| TOTAL | 6 | | $3,365,243 |

Service Area: 59%
Weighted Average Cost => $561,000

| | Proportionate Share | 2007-08 Demand Units | Cost per Demand Unit |
|---|---|---|---|
| Residential | 70% | 14,386 population | $96.40 |
| Nonresidential | 30% | 51,392 nonres veh trips | $11.65 |

0.17 vehicles and equipment items per 1,000 persons
0.02 vehicles and equipment items per 1,000 nonres veh trips

Note: The total costs and infrastructure standards are reduced to reflect only the city's share of fire station costs (59%). The Fire Department serves areas outside the City Limits, and the remainder of the costs are attributable to these areas

In order for the City to maintain its current level of service for city residents the Foley Fire Department will need at least one additional fire truck in the next five years assuming the rate of growth stays constant. Residential growth will account for 0.65 vehicles per person. This was calculated using 0.17 vehicles and equipment per 1,000 people multiplied by the net increase in population from 2007-08 to 2012-13 and then divided by 1,000 (3,756 x 0.17/1,000 = .65). Nonresidential growth will account for 0.13 vehicles in the next five years. This was calculated using 0.02 vehicles and equipment per 1,000 nonresidential vehicle trips multiplied by the net increase in nonresidential vehicle trips from 2007-08 to 2012-13 then divided by 1,000. (6,164 x 0.02/1,000 = .13). An additional vehicle will cost the city on average about $561,000. However, depending on the vehicle needed this cost can either increase or decrease.

## Fire Impact Fee Study

The City plans to update its impact fees every five years to ensure the methodologies, assumptions, and cost factors used in the calculations are still valid and accurate. TischlerBise has included the cost of preparing this portion of the study in the fire impact fee calculations in order to create a source of funding to conduct this regular update. The cost of this component ($11,600) is allocated to the projected increase in population and nonresidential trips over the next five years. The residential cost of this impact fee study is $2.15 per person (($11,600 x .70) /3,756 people). The cost is reduced by 70% for the residential side because of the proportionate share factors. The nonresidential cost of this

impact fee study is $0.56 per nonresidential vehicle trip (($11,600 x .30) /6,164 nonresidential vehicle trips).

## CREDITS FOR FUTURE PRINCIPAL PAYMENTS ON FIRE IMPROVEMENTS

TischlerBise recommends a credit for future principal payments. The City has outstanding debt on fire facilities and apparatus purchased with a portion of the Series 2006A General Obligation Warrant. Figure 27 provides the credit calculation based on the annual principal payments each year until the bond has been fully repaid. A credit is necessary since new development that pays impact fees will also contribute to future lease payments through taxes. To account for the time value of money, annual lease payments per demand unit are discounted using a net present value formula based on the applicable discount rate.

The amount of the debt has been allocated to reflect the portion of outstanding bond payments to be borne by residential and non-residential property owners. The bond payments are multiplied by the proportionate share factors shown in Figure 24 and then divided by the appropriate demand factor (population or nonresidential vehicle trips). The credit amount of $33.22 per person will be subtracted from the gross capital cost per person to derive a net capital cost per person. The credit amount of $4.59 per nonresidential vehicle trip will be subtracted from the gross capital cost per nonresidential vehicle trip to derive a net capital cost per trip.

### Figure 27: Credit for Future Payments – Fire

**Series 2006A General Obligation Warrant**

| *Fiscal Year* | *Total Principal* | *Principal for Fire - 12.0%* | *Residential Share - of Principal (70%)* | *Projected Population* | *Payment/ Person* | *Nonresidential Share of Principal (30%)* | *Projected Nonres Trips* | *Payment/ Trip* |
|---|---|---|---|---|---|---|---|---|
| 2008-09 | $625,000 | $75,113 | $52,456 | 15,138 | $3.47 | $22,657 | 52,741 | $0.43 |
| 2009-10 | $655,000 | $78,719 | $54,974 | 15,889 | $3.46 | $23,745 | 54,045 | $0.44 |
| 2010-11 | $685,000 | $82,324 | $57,492 | 16,640 | $3.46 | $24,832 | 55,124 | $0.45 |
| 2011-12 | $720,000 | $86,530 | $60,429 | 17,391 | $3.47 | $26,101 | 56,428 | $0.46 |
| 2012-13 | $750,000 | $90,136 | $62,947 | 18,142 | $3.47 | $27,189 | 57,556 | $0.47 |
| 2013-14 | $785,000 | $94,342 | $65,885 | 18,893 | $3.49 | $28,457 | 58,880 | $0.48 |
| 2014-15 | $820,000 | $98,549 | $68,822 | 19,644 | $3.50 | $29,726 | 59,916 | $0.50 |
| 2015-16 | $860,000 | $103,356 | $72,180 | 20,396 | $3.54 | $31,176 | 61,263 | $0.51 |
| 2016-17 | $900,000 | $108,163 | $75,537 | 21,147 | $3.57 | $32,626 | 62,659 | $0.52 |
| 2017-18 | $940,000 | $112,970 | $78,894 | 21,898 | $3.60 | $34,076 | 63,696 | $0.53 |
| 2018-19 | $980,000 | $117,778 | $82,251 | 22,649 | $3.63 | $35,527 | 65,042 | $0.55 |
| 2019-20 | $1,015,000 | $121,984 | $85,189 | 23,400 | $3.64 | $36,795 | 66,031 | $0.56 |
| **TOTAL** | **$9,735,000** | **$1,169,964** | **$817,055** | | **$42.30** | **$352,909** | | **$5.90** |
| | | | | Interest Rate | 3.885% | | Interest Rate | 3.885% |
| | | | | Credit per Person | $33.22 | | Credit per Nonres Trip | $4.59 |

## Fire Impact Fee Input Variables

Figure 28 shows input variables and cost factors for the Foley fire impact fee. Impact fees for fire are based on household size (i.e., persons per housing unit) for residential uses and weekday vehicle trips per 1,000 square feet of floor area for non-residential uses. Cost factors are based on costs per person and per nonresidential trip for fire stations, apparatus, and the fire component of the impact fee study. The revenue credit cost factor is also based on costs per person and per nonresidential trip.

**Figure 28: Fire Impact Fee Input Variables**

| INPUT VARIABLES | Persons per Housing Unit | Weekday Vehicle Trip Ends | Trip Rate Adjustment Factor |
|---|---|---|---|
| *Residential (per housing unit)* | | | |
| Detached Housing | 2.28 | | |
| Attached Housing | 1.47 | | |
| *Nonresidential (per 1,000 Sq Ft of floor area)* | | | |
| Com / Shop Ctr 100,000 SF or less | | 67.91 | 33% |
| Com / Shop Ctr 100,001-200,000 SF | | 53.28 | 36% |
| Com / Shop Ctr 200,001 SF or more | | 41.80 | 39% |
| Office 50,000 SF or less | | 15.65 | 50% |
| Office 50,001-100,000 SF | | 13.31 | 50% |
| Office 100,001 SF or more | | 11.37 | 50% |
| Business Park | | 12.76 | 33% |
| Medical-Dental Office Building | | 36.13 | 50% |
| Hospital | | 17.57 | 50% |
| Min-Warehouse | | 2.50 | 50% |
| Warehousing | | 4.96 | 50% |
| Manufacturing | | 3.82 | 50% |
| Light Industrial | | 6.97 | 50% |
| Elementary School | | 14.49 | 33% |
| *Nonresidential (per unique demand indicator)* | | | |
| Nursing Home (per bed) | | 2.37 | 50% |
| Day Care (per student) | | 4.48 | 24% |
| Secondary School (per student) | | 1.71 | 36% |
| Elementary School (per student) | | 1.29 | 33% |
| Lodging (per room) | | 5.63 | 50% |

| Cost Factors | per Person | per Trip |
|---|---|---|
| Fire Facilties | $179.89 | $21.75 |
| Fire Apparatus | $96.40 | $11.65 |
| Development Fee Study | $2.15 | 0.56 |
| Less Revenue Credit per Demand Unit | ($33.22) | ($4.59) |

## Maximum Supportable Impact Fee Amounts for Fire

Figure 29 contains a schedule of the maximum supportable fire impact fees for Foley. Residential impact fee amounts are calculated by multiplying the persons per housing unit for each type of housing by the summed cost factors. For example, for a detached housing unit, the cost factors are added together (179.89+96.40+2.15-33.22) and then multiplied by the persons per housing unit number of 2.28 to yield an impact fee amount of $559 per detached housing unit. The calculation is repeated for the attached housing type. For non-residential development, the summed cost factors per trip are multiplied by the appropriate number of weekday vehicle trip ends and trip adjustment factor. For example, for a commercial/shopping center less than 100,000 sq. ft., the per trip cost factors are summed (21.75+11.65+0.56-4.59) and then multiplied by 67.91 weekday vehicle trip ends and the trip rate adjustment factor of 33%, which results in a fire impact fee of $658 per 1,000 square feet of floor area. This calculation is repeated for the remaining non-residential categories.

**Figure 29: Fire Impact Fee Schedule**

| Maximum Supportable Fire Impact Fee | |
|---|---|
| *Residential (per housing unit)* | |
| Detached Housing | $559 |
| Attached Housing | $361 |
| *Nonresidential (per 1,000 Sq Ft of floor area)* | |
| Com / Shop Ctr 100,000 SF or less | $658 |
| Com / Shop Ctr 100,001-200,000 SF | $563 |
| Com / Shop Ctr 200,001 SF or more | $478 |
| Office 50,000 SF or less | $229 |
| Office 50,001-100,000 SF | $195 |
| Office 100,001 SF or more | $166 |
| Business Park | $123 |
| Medical-Dental Office Building | $530 |
| Hospital | $258 |
| Min-Warehouse | $36 |
| Warehousing | $72 |
| Manufacturing | $56 |
| Light Industrial | $102 |
| Elementary School | $140 |
| *Nonresidential (per unique demand indicator)* | |
| Nursing Home (per bed) | $34 |
| Day Care (per student) | $31 |
| Secondary School (per student) | $18 |
| Elementary School (per student) | $12 |
| Lodging (per room) | $82 |

## Projected Cash Flow For Fire

Growth-related fire improvements needed to accommodate residential and nonresidential development are projected to cost approximately $249,000 per year, as shown in Figure 30. At the maximum supportable level impact fees will cover about 88% of the costs for services

identified in the study. The cash flow analysis assumes bond financing of fire improvements. There is no revenue from the Government and Education nonresidential development because the City will not collect impact fees from these institutions.

The cash flow analysis summary provides an indication of the impact fee revenue and expenditures necessary to meet the demand for public facilities. To the extent the rate of development either accelerates or slows down, there will be corresponding change in the impact fee revenue and capital costs. See the Appendix for discussion of the development projections that drive the cash flow analysis.

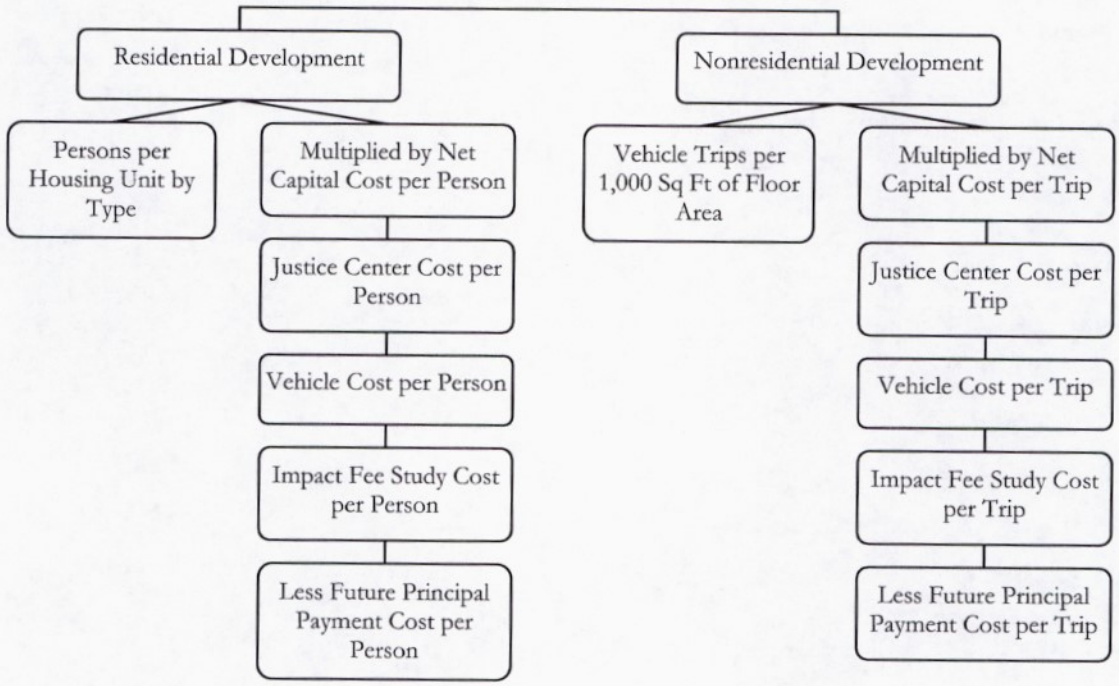
**Figure 30: Projected Cash Flow Summary for Fire**

| **City of Foley, Alabama** | 1 | 2 | 3 | 4 | 5 | Average | Cumulative |
|---|---|---|---|---|---|---|---|
| *(Current $ in thousands)* | 2008-09 | 2009-10 | 2010-11 | 2011-12 | 2012-13 | Annual | Total 5 Years |
| *REVENUES* | | | | | | | |
| **FIRE** | | | | | | | |
| Fire Fee- Detached Housing | $158 | $158 | $158 | $158 | $158 | $158 | *$790* |
| Fire Fee-Attached Housing | $26 | $26 | $26 | $26 | $26 | $26 | *$131* |
| Fire Fee- Retail | $32 | $32 | $24 | $32 | $24 | $28 | *$142* |
| Fire Fee-Other Services | $2 | $2 | $4 | $2 | $2 | $3 | *$14* |
| Fire Fee-Goods Producing | $3 | $3 | $3 | $3 | $3 | $3 | *$14* |
| Fire Fee-Education | $0 | $0 | $0 | $0 | $0 | $0 | *$0* |
| Fire Fee-Government | $0 | $0 | $0 | $0 | $0 | $0 | *$0* |
| ***Subtotal Fire Fees*** | $221 | $221 | $214 | $221 | $213 | *$218* | *$1,091* |
| *CAPITAL COSTS* | | | | | | | |
| **FIRE** | | | | | | | |
| Fire-Facilities | $164 | $164 | $159 | $164 | $160 | $23 | $810 |
| Fire-Apparatus | $88 | $88 | $85 | $88 | $86 | $13 | $434 |
| ***Subtotal Fire Costs*** | $253 | $251 | $244 | $251 | $245 | *$249* | *$1,244* |
| *NET CAPITAL FACILITIES CASH FLOW - FIRE* | | | | | | *Current $ in thousands* | |
| Annual Surplus (or Deficit) | ($32) | ($30) | ($29) | ($30) | ($32) | ($31) | |
| Cumulative Surplus (or Deficit) | ($32) | ($62) | ($91) | ($121) | ($153) | | ($153) |

## Police

The incremental expansion method is used to determine the need for additional Justice Center space and police vehicles as a result of new development. The Foley Police Department serves both residential and non-residential development, providing protection to residents and businesses. As shown in Figure 31, this impact fee is allocated on a per capita basis for residential development. For nonresidential development, the methodology allocates the capital cost on a per nonresidential trip basis. TischlerBise recommends using nonresidential vehicle trips as the best nonresidential demand indicator for police facilities and vehicles. Other possible nonresidential demand indicators, such as employment or floor area, do not accurately reflect the demand for police services. If employees per thousand square feet were used as the demand indicator, impact fees would be too high for office/institutional development. If floor area were used as the demand indicator, impact fees would be too high for industrial development.

**Figure 31: Police Impact Fee Formula**




### Proportionate Share Factors – Police Calls for Service

One of the most accurate sources for determining demand for police services is calls for service generated by residential and nonresidential land uses. The Foley Police Department provided data on calls for service by residential and nonresidential land uses for a sample period of one year, from April 2006 – April 2007. TischlerBise used the results to determine residential and nonresidential proportionate share factors. Of the 11,743 calls received

during the sample period within the City limits, 6,464 calls (55%) were to residential land uses, with nonresidential uses accounting for 5,279 calls (45%).

**Figure 32: Foley Police Department Calls for Service (April 2006-April 2007)**

| Destination | Calls | % Share |
|---|---|---|
| Reidential | 6,464 | 55.0% |
| Nonresidential | 5,279 | 45.0% |
| **Total** | **11,743** | **100.0%** |

Source: City of Foley Police Department
Calls from the period April 1, 2006 - April 10, 2007

The Foley Police Department has recently pulled back its service area to the City limits. Therefore, the impact fee can be charged 100% to City residents unlike the fire impact, which was reduced based on the percentage of calls that were within city limits.

## JUSTICE CENTER – INCREMENTAL EXPANSION

Figure 33 shows the total estimated current construction for the justice center facility. Current cost per square foot of $180.23/sq. ft. is obtained from Marshall & Swift Valuation Service using an excellent Class C jails-police station category.

To calculate the residential level of service, the total square footage is multiplied by 55% (based on calls for service shown in Figure 32) and then divided by the current population, resulting in 0.65 square feet per person. Nonresidential level of service is calculated by multiplying the total square footage by 45% (see Figure 32) and dividing by the number of nonresidential vehicle trips in the City in 2007-08, providing for 0.15 square feet per nonresidential trip. To determine the current cost per demand unit, the square feet per person or nonresidential vehicle trip is multiplied by the cost per square foot. This results in a cost per demand unit of $117.23 per person and $26.80 per nonresidential vehicle trip.

**Figure 33: Justice Center Level of Service and Cost Standards**

| *Site* | *Square Feet* |
|---|---|
| Justice Center Building | 17,000 |

Cost per Sq Ft of New Building => $180

| | Proportionate Share | 2007-08 Demand Units | Cost per Demand Unit |
|---|---|---|---|
| Residential | 55% | 14,386 population | $117.23 |
| Nonresidential | 45% | 51,392 nonres veh trips | $26.80 |

0.65 sq ft per person
0.15 sq ft per nonres vehicle trip

Source: Foley Police Department; Marshalll & Swift Valuation Service

In order for the City to maintain its current level of service the Foley Police Department will need approximately 3,350 square feet of additional Justice Center space in the next five years assuming the rate of growth stays constant. Residential growth will account for 2,450 square

feet of additional station space. This was calculated using 0.65 square feet per person multiplied be the net increase in population from 2007-08 to 2012-13 (3,756 x 0.65 = 2,450). Nonresidential growth will account for the remaining 900 square feet of space. This was calculated using 0.15 square feet per nonresidential vehicle trip multiplied by the net increase in nonresidential vehicle trips from 2007-08 to 2012-13. (6,164 x 0.15 = 900). Using the current replacement cost of $180.23, the additional Justice Center square footage will cost $604,000 ($180.23 x 3,350 = $604,000) or about $121,000 per year.

## POLICE VEHICLES – INCREMENTAL EXPANSION

Figure 34 provides an inventory of current police vehicles. The current cost for police vehicles is provided by the Foley Police Department.

To calculate the residential level of service, the total number of vehicles is multiplied by 55% (see Figure 32) and then divided by the current population, resulting in 1.87 vehicles per 1,000 people. Nonresidential level of service is calculated by multiplying the total number of vehicles by 45% (see Figure 32) and dividing by the number of nonresidential vehicle trips in the City in 2007-08, providing for 0.43 vehicles per 1,000 nonresidential trips. To determine the current cost per demand unit, the vehicles per person or nonresidential vehicle trip is multiplied by the weighted average cost per vehicle. This results in a cost per demand unit of $59.99 per person and $13.71 per nonresidential vehicle trip.

**Figure 34: Police Vehicles Level of Service and Cost Standards**

| *Type* | *Count* | *Unit Cost* | *Total Cost* |
|---|---|---|---|
| Patrol Cars | 46 | $31,852 | $1,465,192 |
| SUVs | 3 | $37,609 | $112,827 |
| TOTAL | 49 | | $1,578,019 |

Weighted Average Cost => $32,000

| | Proportionate Share | 2007-08 Demand Units | Cost per Demand Unit |
|---|---|---|---|
| Residential | 55% | 14,386 population | $59.99 |
| Nonresidential | 45% | 51,392 nonres veh trips | $13.71 |

1.87 vehicles per 1,000 persons
0.43 vehicles per 1,000 nonres vehicle trips

Source: Foley Police Department

In order for the City to maintain its current level of service the Foley Police Department will need ten additional police vehicles in the next five years assuming the rate of growth stays constant. Residential growth will account for seven vehicles. This was calculated using 1.87 vehicles per 1,000 people multiplied by the net increase in population from 2007-08 to 2012-13 and then divided by 1,000 (3,756 x 1.87/1,000 = 7). Nonresidential growth will account for three vehicles in the next five years. This was calculated using 0.43 vehicles per 1,000 nonresidential vehicle trips multiplied by the net increase in nonresidential vehicle trips from 2007-08 to 2012-13 then divided by 1,000. (6,164 x 0.43/1,000 = 3). An additional vehicle will cost the city on average about $32,000. However, depending on the vehicle needed this cost can either increase or decrease

## Police Impact Fee Study

The City plans to update its impact fees every five years to ensure the methodologies, assumptions, and cost factors used in the calculations are still valid and accurate. TischlerBise has included the cost of preparing this portion of the study in the impact fee calculations in order to create a source of funding to conduct this regular update. The cost of this component ($10,400) is allocated to the projected increase in population and nonresidential trips over the next five years. The residential cost of this impact fee study is $1.63 per person (($10,400 x .55) /3,756 people). The cost is reduced by 55% for the residential side because of the police calls proportionate share factors by land use. The nonresidential cost of this impact fee study is $0.69 per nonresidential vehicle trip (($11,600 x .45) /6,164 nonresidential vehicle trips).

## Credit for Future Principal Payments on Police Improvements

The City is currently making payments to retire the Series 1999 General Obligation Warrant, which was used to help finance the construction of the Justice Center and Communication Tower. TischlerBise recommends a credit for future principal payments on this outstanding debt. Foley Finance staff provided the amount of outstanding debt for the Series 1999 Bond, the principal payment schedule, and the Police portion of this bond.

Figure 35 provides the credit calculation based on the principal payments to be made by the City on the outstanding debt. A credit is necessary since new development that pays impact fees will also contribute to future principal payments on debt through taxes. To account for the time value of money, annual principal payments per demand unit are discounted using a net present value formula based on the applicable discount rate.

The amount of the debt has been allocated to reflect the portion of outstanding principal to be borne by residential and non-residential property owners based on the proportionate share factors shown in Figure 32. The credit amount of $37.88 per person will be subtracted from the gross capital cost per person to derive a net capital cost per person. The credit amount of $9.83 per nonresidential vehicle trip will be subtracted from the gross capital cost per trip to derive a net capital cost per trip.

### Figure 35: Credit for Future Principal Payments - Police

**Series 1999 General Obligation Warrant**

| *Fiscal Year* | *Total Principal* | *Principal for Police - 60.8%* | *Residential Share - of Principal (55%)* | *Projected Population* | *Payment/ Person* | *Nonresidential Share of Principal (45%)* | *Projected Nonres Trips* | *Payment/ Trip* |
|---|---|---|---|---|---|---|---|---|
| 2008-09 | $190,000 | $115,477 | $63,565 | 15,138 | $4.20 | $51,912 | 52,741 | $0.98 |
| 2009-10 | $200,000 | $121,555 | $66,911 | 15,889 | $4.21 | $54,644 | 54,045 | $1.01 |
| 2010-11 | $210,000 | $127,633 | $70,256 | 16,640 | $4.22 | $57,377 | 55,124 | $1.04 |
| 2011-12 | $220,000 | $133,710 | $73,602 | 17,391 | $4.23 | $60,109 | 56,428 | $1.07 |
| 2012-13 | $230,000 | $139,788 | $76,947 | 18,142 | $4.24 | $62,841 | 57,556 | $1.09 |
| 2013-14 | $245,000 | $148,905 | $81,965 | 18,893 | $4.34 | $66,939 | 58,880 | $1.14 |
| 2014-15 | $255,000 | $154,982 | $85,311 | 19,644 | $4.34 | $69,672 | 59,916 | $1.16 |
| 2015-16 | $270,000 | $164,099 | $90,329 | 20,396 | $4.43 | $73,770 | 61,263 | $1.20 |
| 2016-17 | $280,000 | $170,177 | $93,675 | 21,147 | $4.43 | $76,502 | 62,659 | $1.22 |
| 2017-18 | $295,000 | $179,293 | $98,693 | 21,898 | $4.51 | $80,600 | 63,696 | $1.27 |
| 2018-19 | $310,000 | $188,410 | $103,711 | 22,649 | $4.58 | $84,699 | 65,042 | $1.30 |
| **TOTAL** | **$2,705,000** | **$1,644,030** | **$904,965** | | **$47.73** | **$739,064** | | **$12.49** |
| | | | | Interest Rate | 4% | | Interest Rate | 4% |
| | | | | Credit per Person | $37.88 | | Credit per Nonres Trip | $9.83 |

TischlerBise also recommends a credit for future principal payments for the Series 2006A General Obligation Warrant. Figure 36 provides the credit calculation based on the annual principal payments each year until the bond has been fully repaid.

The amount of the debt has been allocated to reflect the portion of outstanding bond payments to be borne by residential and non-residential property owners. The bond payments are multiplied by the proportionate share factors shown in Figure 32 and then divided by the appropriate demand factor (population or nonresidential vehicle trips). The credit amount of $15.88 per person will be subtracted from the gross capital cost per person to derive a net capital cost per person. The credit amount of $4.15 per nonresidential vehicle trip will be subtracted from the gross capital cost per nonresidential vehicle trip to derive a net capital cost per trip.

### Figure 36: Credit for Future Payments – Police

**Series 2006A General Obligation Warrant**

| *Fiscal Year* | *Total Principal* | *Principal for Police - 7.3%* | *Residential Share - of Principal (55%)* | *Projected Population* | *Payment/ Person* | *Nonresidential Share of Principal (45%)* | *Projected Nonres Trips* | *Payment/ Trip* |
|---|---|---|---|---|---|---|---|---|
| 2008-09 | $625,000 | $45,556 | $25,076 | 15,138 | $1.66 | $20,479 | 52,741 | $0.39 |
| 2009-10 | $655,000 | $47,742 | $26,280 | 15,889 | $1.65 | $21,462 | 54,045 | $0.40 |
| 2010-11 | $685,000 | $49,929 | $27,484 | 16,640 | $1.65 | $22,445 | 55,124 | $0.41 |
| 2011-12 | $720,000 | $52,480 | $28,888 | 17,391 | $1.66 | $23,592 | 56,428 | $0.42 |
| 2012-13 | $750,000 | $54,667 | $30,092 | 18,142 | $1.66 | $24,575 | 57,556 | $0.43 |
| 2013-14 | $785,000 | $57,218 | $31,496 | 18,893 | $1.67 | $25,722 | 58,880 | $0.44 |
| 2014-15 | $820,000 | $59,769 | $32,900 | 19,644 | $1.67 | $26,869 | 59,916 | $0.45 |
| 2015-16 | $860,000 | $62,685 | $34,505 | 20,396 | $1.69 | $28,180 | 61,263 | $0.46 |
| 2016-17 | $900,000 | $65,600 | $36,110 | 21,147 | $1.71 | $29,490 | 62,659 | $0.47 |
| 2017-18 | $940,000 | $68,516 | $37,715 | 21,898 | $1.72 | $30,801 | 63,696 | $0.48 |
| 2018-19 | $980,000 | $71,432 | $39,320 | 22,649 | $1.74 | $32,112 | 65,042 | $0.49 |
| 2019-20 | $1,015,000 | $73,983 | $40,724 | 23,400 | $1.74 | $33,258 | 66,031 | $0.50 |
| **TOTAL** | **$9,735,000** | **$709,577** | **$390,591** | | **$20.22** | **$318,987** | | **$5.33** |
| | | | | Interest Rate | 3.885% | | Interest Rate | 3.885% |
| | | | | Credit per Person | $15.88 | | Credit per Nonres Trip | $4.15 |

## POLICE IMPACT FEE INPUT VARIABLES

Figure 37 shows input variables and cost factors for the Foley police impact fee. Impact fees for police are based on household size (i.e., persons per housing unit) for residential development and weekday vehicle trip ends per 1,000 square feet of floor area for non-residential development. Cost factors are based on costs per person and per nonresidential trip for the justice center, vehicles, and the police component of the impact fee study. The revenue credit cost factor is also based on costs per person and per nonresidential trip.

**Figure 37: Police Impact Fee Input Variables**

| INPUT VARIABLES | Persons per Housing Unit | Weekday Vehicle Trip Ends | Trip Rate Adjustment Factor |
|---|---|---|---|
| *Residential (per housing unit)* | | | |
| Detached Housing | 2.28 | | |
| Attached Housing | 1.47 | | |
| *Nonresidential (per 1,000 Sq Ft of floor area)* | | | |
| Com / Shop Ctr 100,000 SF or less | | 67.91 | 33% |
| Com / Shop Ctr 100,001-200,000 SF | | 53.28 | 36% |
| Com / Shop Ctr 200,001 SF or more | | 41.80 | 39% |
| Office 50,000 SF or less | | 15.65 | 50% |
| Office 50,001-100,000 SF | | 13.31 | 50% |
| Office 100,001 SF or more | | 11.37 | 50% |
| Business Park | | 12.76 | 33% |
| Medical-Dental Office Building | | 36.13 | 50% |
| Hospital | | 17.57 | 50% |
| Min-Warehouse | | 2.50 | 50% |
| Warehousing | | 4.96 | 50% |
| Manufacturing | | 3.82 | 50% |
| Light Industrial | | 6.97 | 50% |
| Elementary School | | 14.49 | 33% |
| *Nonresidential (per unique demand indicator)* | | | |
| Nursing Home (per bed) | | 2.37 | 50% |
| Day Care (per student) | | 4.48 | 24% |
| Secondary School (per student) | | 1.71 | 36% |
| Elementary School (per student) | | 1.29 | 33% |
| Lodging (per room) | | 5.63 | 50% |

| Cost Factors | per Person | per Trip |
|---|---|---|
| Justice Center Facility | $117.23 | $26.80 |
| Police Vehicles | $59.99 | $13.71 |
| Development Fee Study | $1.63 | $0.69 |
| Less Revenue Credit per Demand Unit | ($53.76) | ($13.98) |

## Maximum Supportable Impact Fee Amounts for Police

Figure 38 contains a schedule of the maximum supportable police impact fees for Foley. Residential impact fee amounts are calculated by multiplying the persons per housing unit for each type of housing by the summed cost factors. For example, for a detached housing unit, the cost factors are added together (117.23+59.99+1.63-53.76) and then multiplied by the persons per housing unit number of 2.28 to yield an impact fee amount of $285 per detached housing unit. The calculation is repeated for the attached housing type. For non-residential development, the summed cost factors per trip are multiplied by the appropriate number of weekday vehicle trip ends and trip adjustment factor. For example, for a commercial/shopping center less than 100,000 sq. ft., the per trip cost factors are summed (26.80+13.71+0.69-13.98) and then multiplied by 67.91 weekday vehicle trip ends and the

trip rate adjustment factor of 33%, which results in a police impact fee of $610 per 1,000 square feet of floor area. This calculation is repeated for the remaining non-residential categories.

**Figure 38: Police Impact Fee Schedule**

| Maximum Supportable Police Impact Fee | |
|---|---|
| *Residential (per housing unit)* | |
| Detached Housing | $285 |
| Attached Housing | $184 |
| *Nonresidential (per 1,000 Sq Ft of floor area)* | |
| Com / Shop Ctr 100,000 SF or less | $610 |
| Com / Shop Ctr 100,001-200,000 SF | $522 |
| Com / Shop Ctr 200,001 SF or more | $443 |
| Office 50,000 SF or less | $213 |
| Office 50,001-100,000 SF | $181 |
| Office 100,001 SF or more | $154 |
| Business Park | $114 |
| Medical-Dental Office Building | $491 |
| Hospital | $239 |
| Min-Warehouse | $34 |
| Warehousing | $67 |
| Manufacturing | $51 |
| Light Industrial | $94 |
| Elementary School | $130 |
| *Nonresidential (per unique demand indicator)* | |
| Nursing Home (per bed) | $32 |
| Day Care (per student) | $29 |
| Secondary School (per student) | $16 |
| Elementary School (per student) | $11 |
| Lodging (per room) | $76 |

## PROJECTED CASH FLOW FOR POLICE

Growth-related police improvements needed to accommodate residential and nonresidential development are projected to cost approximately $183,000 per year, as shown in Figure 39. At the maximum supportable level impact fees will cover about 68% of the costs for services identified in the study. The cash flow analysis assumes bond financing of police improvements. There is no revenue from the Government and Education nonresidential development because the City will not collect impact fees from these institutions.

The cash flow analysis summary provides an indication of the impact fee revenue and expenditures necessary to meet the demand for public facilities. To the extent the rate of development either accelerates or slows down, there will be corresponding change in the impact fee revenue and capital costs. See the Appendix for discussion of the development projections that drive the cash flow analysis.

## Figure 39: Projected Cash Flow Summary for Police

| City of Foley, Alabama<br>*(Current $ in thousands)* | 1<br>2008-09 | 2<br>2009-10 | 3<br>2010-11 | 4<br>2011-12 | 5<br>2012-13 | Average<br>Annual | Cumulative<br>Total 5 Years |
|---|---|---|---|---|---|---|---|
| *REVENUES* | | | | | | | |
| **POLICE** | | | | | | | |
| Police Fee-Detached Housing | $81 | $81 | $81 | $81 | $81 | $81 | $403 |
| Police Fee-Attached Housing | $13 | $13 | $13 | $13 | $13 | $13 | $67 |
| Police Fee-Retail | $29 | $29 | $22 | $29 | $22 | $26 | $131 |
| Police Fee-Other Services | $2 | $2 | $3 | $2 | $2 | $3 | $13 |
| Police Fee-Goods Producing | $3 | $3 | $3 | $3 | $3 | $3 | $13 |
| Police Fee-Education | $0 | $0 | $0 | $0 | $0 | $0 | $0 |
| Police Fee-Government | $0 | $0 | $0 | $0 | $0 | $0 | $0 |
| ***Subtotal Police Fees*** | $128 | $128 | $122 | $128 | $121 | *$125* | *$627* |
| *CAPITAL COSTS* | | | | | | | |
| **POLICE** | | | | | | | |
| Police-Facilities | $124 | $123 | $117 | $123 | $118 | $121 | $605 |
| Police-Vehicles/Equipment | $64 | $63 | $60 | $63 | $61 | $62 | $310 |
| ***Subtotal Police Costs*** | $188 | $186 | $177 | $186 | $179 | $183 | $915 |
| *NET CAPITAL FACILITIES CASH FLOW - POLICE* | | | | | | *Current $ in thousands* | |
| Annual Surplus (or Deficit) | ($60) | ($58) | ($55) | ($58) | ($58) | ($58) | |
| Cumulative Surplus (or Deficit) | ($60) | ($118) | ($173) | ($230) | ($289) | | ($289) |

# Appendix: Demographic Data and Development Projections

As specified in Task 1 of our Work Scope, TischlerBise has prepared documentation on current demographic *estimates* and development *projections* that will be used in the Foley Impact Fee Study. The following sections will review in detail the residential and non-residential demand factors that will be used to calculate impact fees for the City of Foley.

## Persons Per Housing Unit

A differentiation by type of housing is necessary to make residential impact fees proportionate and reasonably related to the demand for public facilities. Persons per housing unit is an important demographic factor that helps account for variations in service demand by type of housing. The best source of this data is the 2000 U.S. Census, Summary File 3. The data for Foley is shown in Figure A1 below. Two housing unit categories are recommended based on the demographic characteristics of Foley and discussions with City staff: detached housing units and attached housing units. Detached units have on average 2.28 persons per unit and attached housing types have an average of 1.47 persons per unit.

**Figure A1: Persons Per Housing Unit in Foley**

| *Units in Structure* | *Renter & Owner* Persons | Hsehlds | PPH | *Housing Units* | *Persons Per Hsg Unit* | *Vacancy Rate* |
|---|---|---|---|---|---|---|
| 1-Detached | 5,300 | 2,073 | 2.56 | 2,286 | 2.32 | 9.3% |
| Mobile Homes | 911 | 340 | 2.68 | 438 | 2.08 | 22.4% |
| 1-Attached | 105 | 45 | 2.33 | 45 | 2.33 | 0.0% |
| Two (Duplex) | 326 | 140 | 2.33 | 152 | 2.14 | 7.9% |
| 3 or 4 | 184 | 159 | 1.16 | 163 | 1.13 | 2.5% |
| 5 or more | 386 | 304 | 1.27 | 335 | 1.15 | 9.3% |
| Other | 31 | 6 | 5.17 | 6 | 5.17 | 0.0% |
| Total SF3 Sample Data | 7,243 | 3,067 | 2.36 | 3,425 | | |
| 100-Percent Data | 7,355 | 3,126 | 2.35 | 3,468 | 2.12 | 10.0% |
| | | | Vacant HU | 342 | | |

***2000 Persons Per Household by Type of Housing***

| | *Persons* | *House-holds* | *Persons per Household* | *Housing Units* | *Persons Per Hsg Unit* | *Housing Mix* |
|---|---|---|---|---|---|---|
| Detached Housing | 6,211 | 2,413 | 2.57 | 2,724 | 2.28 | 79.53% |
| Attached Housing | 1,032 | 654 | 1.58 | 701 | 1.47 | 20.47% |
| Group Quarters | 235 | | | | | |
| Sample Difference | 112 | 59 | | | | |
| TOTAL | 7,590 | 3,126 | | 3,425 | | 100.00% |

Source: 2000 US Census.

## Housing Unit Estimates and Projections

To estimate housing units in 2007-08, TischlerBise reviewed the City's building permit data for residential construction over the past 7 years. During the 2000-2006/07 period, the City added 2,980 housing units within the City limits, for an average of 426 housing units per year. This is shown in Figure A2.

**Figure A2: Foley Residential Building Permits, 2000-2007**

| Housing Type | 1999-00 | 2000-01 | 2001-02 | 2002-03 | 2003-04 | 2004-05 | 2005-06 | 2006-07 | Avg. Annual 2000-2007 |
|---|---|---|---|---|---|---|---|---|---|
| Detached Housing Units | 2,758 | 3,094 | 3,429 | 3,764 | 4,100 | 4,435 | 4,846 | 5,128 | 339 |
| Attached Housing Units | 710 | 796 | 882 | 969 | 1,055 | 1,141 | 1,247 | 1,320 | 87 |
| **Total Housing Units** | **3,468** | **3,890** | **4,311** | **4,733** | **5,155** | **5,577** | **6,093** | **6,448** | **426** |

Source: US Census; City of Foley

Adding these new housing units to the existing stock of 3,468 housing units in 2000 (shown in Figure A1), the total number of housing units in the City is estimated at 6,803 in 2007-08 (5,411 detached units and 1,392 attached housing units). The City does not expect that future housing construction will keep pace with the trend from 2000-06/07; therefore, an adjustment has been made to lower the annual housing unit construction to 355 new housing units, which is the projected number of units to be constructed in 2007-08. Figure A3 presents this housing unit growth for the next ten years by housing type, through 2017-18.

**Figure A3: Current Foley Housing Units and Projections, 2007-08 to 2017-18**

| Housing Type | *Annual Increases* | Base Year FY 07-08 | 1 FY 08-09 | 2 FY 09-10 | 3 FY 10-11 | 4 FY 11-12 | 5 FY 12-13 | 10 FY 17-18 |
|---|---|---|---|---|---|---|---|---|
| Detached Housing Units | *283* | 5,411 | 5,693 | 5,976 | 6,258 | 6,541 | 6,823 | 8,236 |
| Attached Housing Units | *73* | 1,392 | 1,465 | 1,538 | 1,610 | 1,683 | 1,756 | 2,119 |
| **Total Housing Units** | | **6,803** | **7,158** | **7,513** | **7,869** | **8,224** | **8,579** | **10,355** |

## Population Estimates and Projections

To estimate population, TischlerBise multiplied the number of housing units by type shown in Figure A3 by the 2000 Census persons per housing unit by type (shown in Figure A1). This generated the total population for each type of housing unit. For example, in 2007-08, 5,411 detached housing units are multiplied by a persons per housing unit number of 2.28, generating a population estimate for detached housing units of 12,337. This was repeated for attached housing units yielding a total population of 2,050. The group quarters population was held constant every year at 250. Adding these three population estimates generated a total population of 14,636 in 2007-08. The population projections use the same persons per housing unit by type (Figure A1) multiplied by the housing units to generate population projections for the next ten years, through 2017-18, as shown in Figure A4.

**Figure A4: Population Estimates and Projections**

| Population | *Annual Increases* | Base Year FY 07-08 | 1 FY 08-09 | 2 FY 09-10 | 3 FY 10-11 | 4 FY 11-12 | 5 FY 12-13 | 10 FY 17-18 |
|---|---|---|---|---|---|---|---|---|
| Detached Housing Pop | 644 | 12,337 | 12,981 | 13,625 | 14,269 | 14,913 | 15,557 | 18,778 |
| Attached Housing Pop | 107 | 2,050 | 2,157 | 2,264 | 2,371 | 2,478 | 2,585 | 3,120 |
| Group Quarters Pop | 0 | 250 | 250 | 250 | 250 | 250 | 250 | 250 |
| **Total Population** | | **14,636** | **15,388** | **16,139** | **16,890** | **17,641** | **18,392** | **22,148** |

## NONRESIDENTIAL DEVELOPMENT

In addition to data on residential development, the calculation of impact fees requires data on nonresidential construction in Foley. In lieu of current data on non-residential development in the City, TischlerBise estimated non-residential square footage using a 2007 employment estimate by ESRI Business Information Solutions. To convert the employment estimate to gross floor area of nonresidential development, average square feet per employee multipliers are used. These multipliers are also used to calculate the number of average weekday vehicle trips from nonresidential development in Foley. Trips from hotel and lodging establishments are established on the basis of rooms.

Figure A5 show square footage per employee by land use type and size. These multipliers are derived from national data published by the Institute of Transportation Engineers (ITE) and the Urban Land Institute (ULI). The multipliers used in the Foley study reflect existing development in the City, anticipating that future development will be of similar scale, and are highlighted in grey.

## Figure A5: Floor Area per Employee and Nonresidential Trip Rates

| ITE Code | Land Use / Size | Demand Unit | Wkdy Trip Ends Per Dmd Unit* | Wkdy Trip Ends Per Employee* | Emp Per Dmd Unit** | Sq Ft Per Emp |
|---|---|---|---|---|---|---|
| ***Commercial / Shopping Center*** | | | | | | |
| 821 | 25K gross leasable area | 1,000 Sq Ft | 110.32 | na | 3.33 | 300 |
| **820** | **50K gross leasable area** | **1,000 Sq Ft** | **86.56** | **na** | **2.86** | **350** |
| 820 | 100K gross leasable area | 1,000 Sq Ft | 67.91 | na | 2.50 | 400 |
| 820 | 200K gross leasable area | 1,000 Sq Ft | 53.28 | na | 2.22 | 450 |
| 820 | 400K gross leasable area | 1,000 Sq Ft | 41.80 | na | 2.00 | 500 |
| ***General Office*** | | | | | | |
| 710 | 10K gross floor area | 1,000 Sq Ft | 22.66 | 5.06 | 4.48 | 223 |
| **710** | **25K gross floor area** | **1,000 Sq Ft** | **18.35** | **4.43** | **4.15** | **241** |
| 710 | 50K gross floor area | 1,000 Sq Ft | 15.65 | 4.00 | 3.91 | 256 |
| 710 | 100K gross floor area | 1,000 Sq Ft | 13.34 | 3.61 | 3.69 | 271 |
| 710 | 200K gross floor area | 1,000 Sq Ft | 11.37 | 3.26 | 3.49 | 287 |
| ***Industrial*** | | | | | | |
| **770** | **Business Park*** ** | **1,000 Sq Ft** | **12.76** | **4.04** | **3.16** | **317** |
| 151 | Mini-Warehouse | 1,000 Sq Ft | 2.50 | 56.28 | 0.04 | 22,512 |
| **150** | **Warehousing** | **1,000 Sq Ft** | **4.96** | **3.89** | **1.28** | **784** |
| 140 | Manufacturing | 1,000 Sq Ft | 3.82 | 2.13 | 1.79 | 558 |
| 110 | Light Industrial | 1,000 Sq Ft | 6.97 | 3.02 | 2.31 | 433 |
| ***Other Nonresidential*** | | | | | | |
| 720 | Medical-Dental Office | 1,000 Sq Ft | 36.13 | 8.91 | 4.05 | 247 |
| 620 | Nursing Home | bed | 2.37 | 6.55 | 0.36 | na |
| 610 | Hospital | 1,000 Sq Ft | 17.57 | 5.20 | 3.38 | 296 |
| 565 | Day Care | student | 4.48 | 28.13 | 0.16 | na |
| 530 | Secondary School | student | 1.71 | 19.74 | 0.09 | na |
| 520 | Elementary School | student | 1.29 | 15.71 | 0.08 | na |
| **520** | **Elementary School** | **1,000 Sq Ft** | **14.49** | **15.71** | **0.92** | **1,084** |
| 320 | Lodging | room | 5.63 | 12.81 | 0.44 | na |

* Source: Trip Generation, Institute of Transportation Engineers (2003).

** Employees per demand unit calculated from trip rates, except for Shopping Center data, which are derived from Development Handbook and Dollars and Cents of Shopping Centers, published by the Urban Land Institute.

*** According to ITE, a Business Park is a group of flex-type buildings served by a common roadway system. The tenant space includes a variety of uses with an average mix of 20-30% office/commercial and 70-80% industrial/warehousing.

## Current Job and Nonresidential Square Footage Estimates

TischlerBise calculated current employment numbers using the most recent data available (2007 ESRI Business Solutions) and adding annual growth each year. The annual employment growth was calculated using the 2000 estimate daytime population and employment residence ratios (from Census 2000 PHC-T-40) and the 2007 ESRI employment estimates. The 2007 ESRI job distribution by sector was applied to the estimated employment by type for 2007-08.

Total estimated employment in the City in 2007-08 is 10,401 as shown in Figure A6.

**Figure A6: Citywide Job and Nonresidential Square Footage Estimates**

| Employment Sector | 2007-08 Jobs [1] | % of Nonres Employment [2] | Sq Ft per Employee [3] | 2008 Nonres Floor Area |
|---|---|---|---|---|
| Good Producing | 2,204 | 21% | 784 | 1,728,000 |
| Retail/Restaurant | 4,296 | 41% | 350 | 1,504,000 |
| Other Commercial Services | 3,114 | 30% | 317 | 987,000 |
| Education | 319 | 3% | 1,084 | 345,000 |
| Government | 467 | 4% | 241 | 113,000 |
| **Total** | **10,401** | **100%** | | **4,677,000** |

[1)] Job total based on annual projection from 2000 Census and 2007 ESRI

[2)] Distribution from ESRI Business Information Solutions

[3)] Square footage estimates from ITE Trip Generation Manual

## JOB AND NONRESIDENTIAL SQUARE FOOTAGE PROJECTIONS

Figure A7 lists the projected number and types of jobs in the City of Foley as well as projected nonresidential square footage over the next ten years.

To project the future number of jobs in the City, TischlerBise assumed the annual growth from the 2000 Census (PHC-T-40) and the 2007 ESRI would remain constant at 248 jobs. TischlerBise also assumed that the number of jobs would increase in the same proportion by sector according to ESRI. Average annual growth is shown in the far right column of Figure A7 for jobs and square footage. The square footage estimates are a function of job growth and the square footage estimates per employee, which is shown in Figure A5.

Using the employment density multipliers in Figure A5, the projected number and type of future jobs are converted into nonresidential square footage projections in Figure A7.

## Figure A7: Citywide Job and Nonresidential Square Footage Projections

| *Employment* | Base Year FY 07-08 | 1 FY 08-09 | 2 FY 09-10 | 3 FY 10-11 | 4 FY 11-12 | 5 FY 12-13 | 10 FY 17-18 | Avg. Ann. Growth |
|---|---|---|---|---|---|---|---|---|
| Goods Producing | 2,204 | 2,257 | 2,309 | 2,362 | 2,414 | 2,467 | 2,729 | 52 |
| Retail/Restaurant | 4,296 | 4,399 | 4,501 | 4,603 | 4,705 | 4,808 | 5,319 | 102 |
| Other Comm. Services | 3,114 | 3,188 | 3,262 | 3,337 | 3,411 | 3,485 | 3,855 | 74 |
| Education | 319 | 326 | 334 | 341 | 349 | 357 | 394 | 8 |
| Government | 467 | 478 | 489 | 500 | 512 | 523 | 578 | 11 |
| **Total Employment** | **10,401** | **10,648** | **10,896** | **11,143** | **11,391** | **11,638** | **12,876** | **248** |
| *Sq Ft of Floor Area (x 1,000)* | | | | | | | | |
| Goods Producing | 1,728 | 1,769 | 1,811 | 1,852 | 1,893 | 1,934 | 2,140 | 41 |
| Retail/Restaurant | 1,504 | 1,539 | 1,575 | 1,611 | 1,647 | 1,683 | 1,862 | 36 |
| Other Comm. Services | 987 | 1,011 | 1,034 | 1,058 | 1,081 | 1,105 | 1,222 | 24 |
| Education | 345 | 354 | 362 | 370 | 378 | 386 | 428 | 8 |
| Government | 113 | 115 | 118 | 121 | 123 | 126 | 139 | 3 |
| **Total Sq Ft of Floor Area** | **4,677** | **4,788** | **4,900** | **5,012** | **5,122** | **5,234** | **5,791** | **111** |

Source: ESRI Business Solutions; ITE Trip Generation Manual