Fiscal Impact Analysis of Multiple Growth Scenarios

Prepared for:

Lawrence, Kansas

February14, 2007

Prepared by:

TischlerBise
Fiscal, Economic & Planning Consultants

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I. EXECUTIVE SUMMARY

A. Background

TischlerBise, Inc. is under contract with the City of Lawrence to evaluate the fiscal impact of development four different subareas. This fiscal impact analysis determines whether revenues generated by new growth are sufficient to cover the resulting costs to the City. Three of the four subareas assume two different growth scenarios. By comparing multiple land use scenarios within a subarea, the City will have a better understanding of what different land use mixes and forms have on the City's bottom line. This report follows on the Cost of Land Use Study, completed in March 2006, which examined ten land use types (4 residential prototypes and 6 nonresidential prototypes) to determine net surplus or deficit to the City (See Cost of Land Use Fiscal Impact Analysis: Lawrence, Kansas, TischlerBise, March 10, 2006.)

As a first step in this analysis, TischlerBise evaluated levels of service as well as determined cost and revenue assumptions. These assumptions are based on our on-site interviews and subsequent discussions with department heads, their representatives, and other related personnel in addition to a detailed analysis of Lawrence's adopted FY2007 Budget. A number of these assumptions are included and discussed in this document.

The revenue and cost projections are based on the assumption that in most cases the current level of spending, as provided in the FY07 budget, will continue over time. The current level of spending is referred to as the current level-of-service in this type of analysis. The intent of this analysis is to include all tax-supported funds. Enterprise funds (i.e., self-funded operations) and internal services funds are not included in this analysis since revenues generated from fees are assumed to cover costs to provide those services. In addition, current 2007 dollars are used throughout.

B. Growth Areas and Scenarios

Four geographic subareas were evaluated as part of this fiscal impact analysis. The amount of development assumed in each is based on land use plans prepared by City staff for purposes of this evaluation. Each is summarized below:

- Area west of K-10 – Two scenarios, one reflecting suburban style development versus a more new urbanism slant.

- Area south of Wakarusa River – Two scenarios, one reflecting suburban style development versus a more new urbanism slant.
- Area southeast east of O'Connell – Two scenarios, one reflecting predominantly residential development versus predominantly industrial.
- Airport area – One scenario reflecting business park development.

A summary comparison of pertinent demand factors (e.g., population, housing units, etc.) for each of the subareas and scenarios is shown in Figure 1 below. The growth scenarios are discussed in more detail in Section III of this report.

Figure 1: Growth Area and Scenario Net Increases

	SCENARIO						
	SE Area Residential	SE Area Industrial	South of Wakarusa	South of Wakarusa TND	Airport Industrial Park	West of K-10	West of K-10 TND
Population	12,474	4,721	33,962	33,816	0	32,783	33,086
Housing Units							
Very Low Density	0	0	333	317	0	570	542
Low Density	2,996	1,240	10,330	8,927	0	8,947	7,629
Medium Density	1,420	500	1,400	874	0	1,280	552
High Density	864	216	1,526	691	0	2,678	900
TND Low Density	0	0	0	586	0	0	1,416
TND Medium Density	0	0	0	1,271	0	0	1,194
TND High Density	0	0	0	966	0	0	1,058
Live/Work Units	0	0	0	57	0	0	53
Mixed Use MF	0	0	0	60	0	0	156
Total Units	**5,280**	**1,956**	**13,589**	**13,748**	**0**	**13,475**	**13,500**
Nonresidential Building Area							
Office	152,460	0	497,891	457,380	0	267,894	568,458
Office/Warehouse	1,188,317	6,957,403	0	0	1,747,976	542,217	293,246
Industrial	1,485,396	1,485,396	0	0	0	0	0
Commercial	250,470	250,470	901,692	901,692	120,226	400,752	400,752
Institutional	210,830	210,830	346,302	376,358	376,358	372,438	496,584
Mixed Use Commercial	0	0	0	110,207	0	0	98,184
Total Square Footage	**3,287,473**	**8,904,100**	**1,745,885**	**1,845,637**	**2,244,560**	**1,583,301**	**1,857,224**

C. Fiscal Impact Results

The fiscal impact results are shown in a number of different ways. First, annual net results are discussed and show the fiscal impacts from one year to the next. Average annual results are then shown over different time intervals to provide an easy way to compare multiple scenarios and summarize the general fiscal impacts over time. Finally, cumulative results are shown

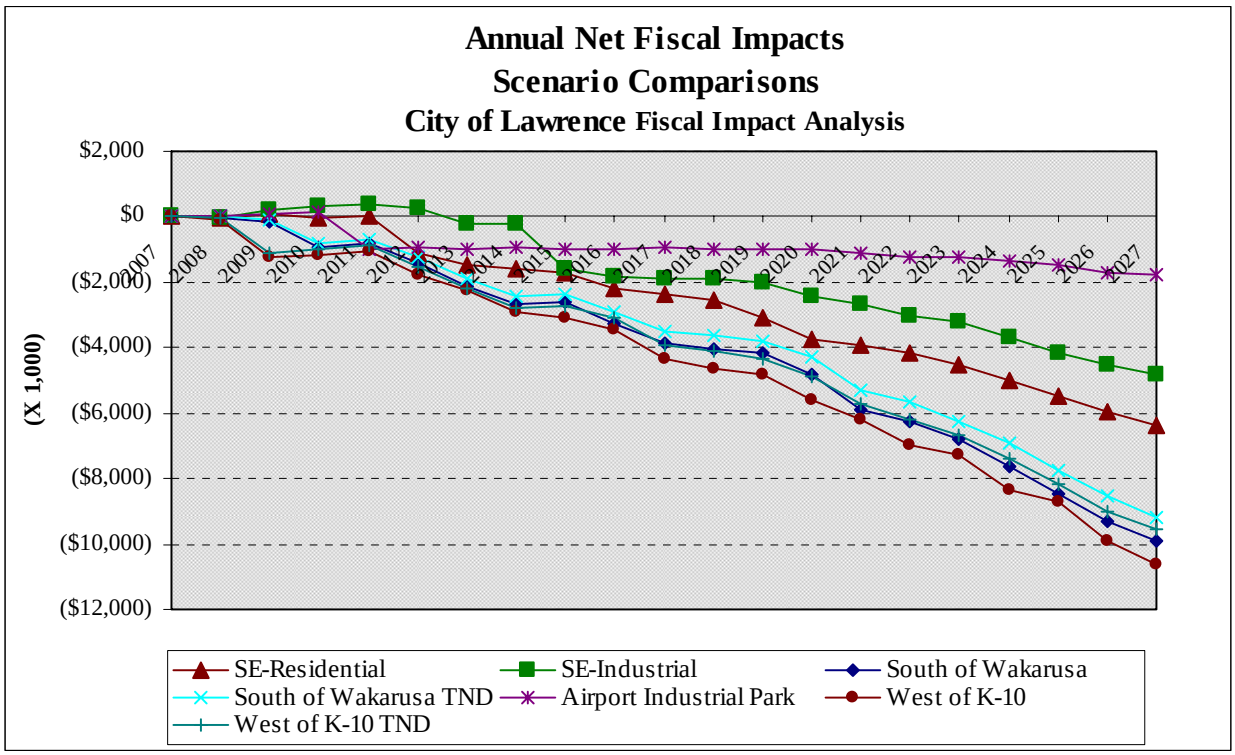
reflecting total revenues, expenditures, and net fiscal results over the 20-year development timeframe.

1. Annual Net Fiscal Impacts

Figure 2 below shows the annual net fiscal impacts to the City for each subarea/scenario over the 20-year development period. By showing the results annually, the magnitude, rate of change, and timeline of deficits and surpluses can be observed over time. Data points above the $0 line represent annual surpluses; points below the $0 line represent annual deficits. The "bumpy" nature of the annual results during particular years represents the opening of capital facilities and/or major operating costs being incurred.

As shown in Figure 2, all subareas/scenarios produce annual net deficits to the City throughout most years of the 20-year development period. Some of the subareas/scenarios generate fiscal surpluses in the initial year(s) (i.e. Southeast Area-Industrial scenario and Airport Industrial Park). The worst fiscal results are in Year 20, due to the compounding nature of debt service payments, primarily for roads.

Figure 2:

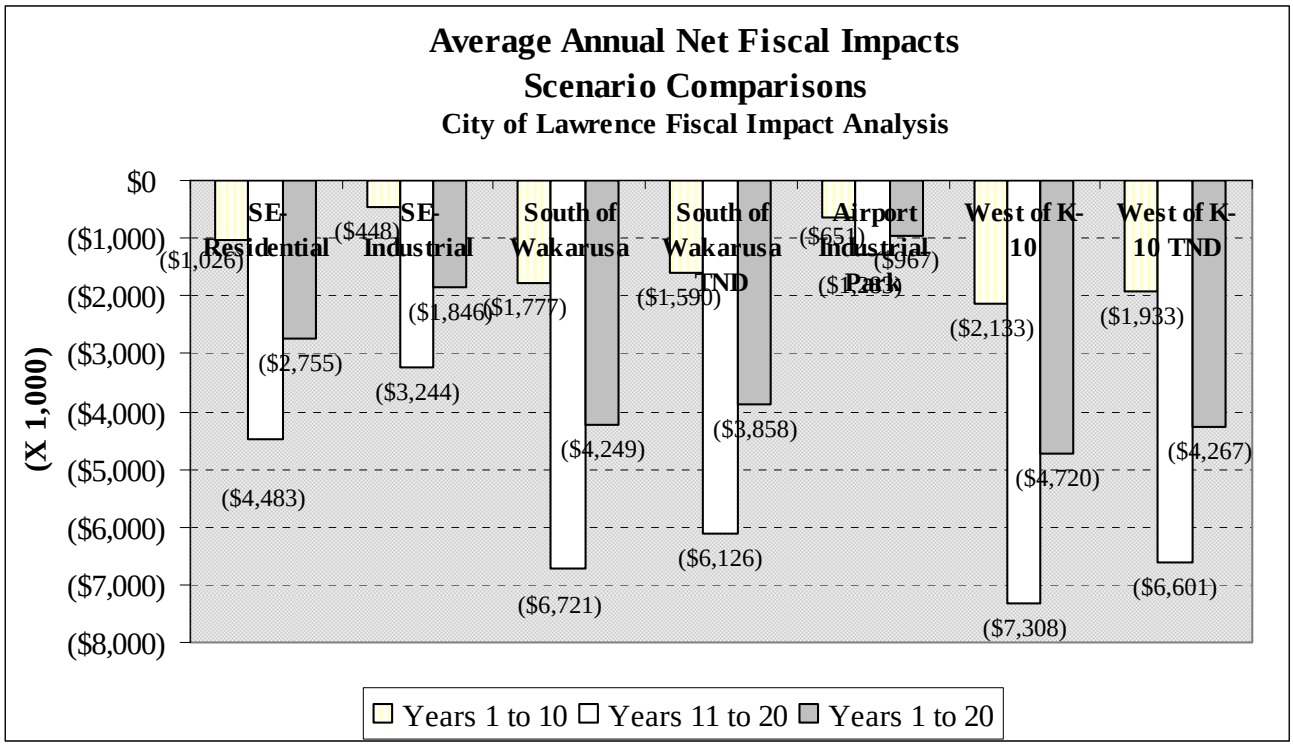


2. Average Annual Net Fiscal Impacts

The chart below shows the average annual net fiscal impact (revenues minus expenditures) over the 20-year development period for each subarea/scenario. The fiscal results are shown for three time periods: 1) Years 1-10, 2) Years 11-20, and 3) Years 1-20 and include both operating and capital impacts. ***All results are those accruing from new growth only, and do not include costs and revenues from the existing population and employment base of the City.*** As Figure 3 below indicates, new growth generates average annual net *deficits* to the City in all three time periods.

As shown in Figure 3, average annual net deficits are generated over all time periods. Over the 20-year time frame, the Airport Industrial Park Area produces the smallest net deficit. Average annual net deficits are higher in the last ten years of development in all Areas. This is due to the compounding nature of debt service payments as well as the number of facilities that are required in later half of the analysis period, as well as the fact the revenues are insufficient to cover the required costs. Average annual net deficits over the 20-year period range from a low of $967,000 for the Airport Industrial Park Area to a high of over $4.7 million for the West of K-10 Area.

Figure 3:



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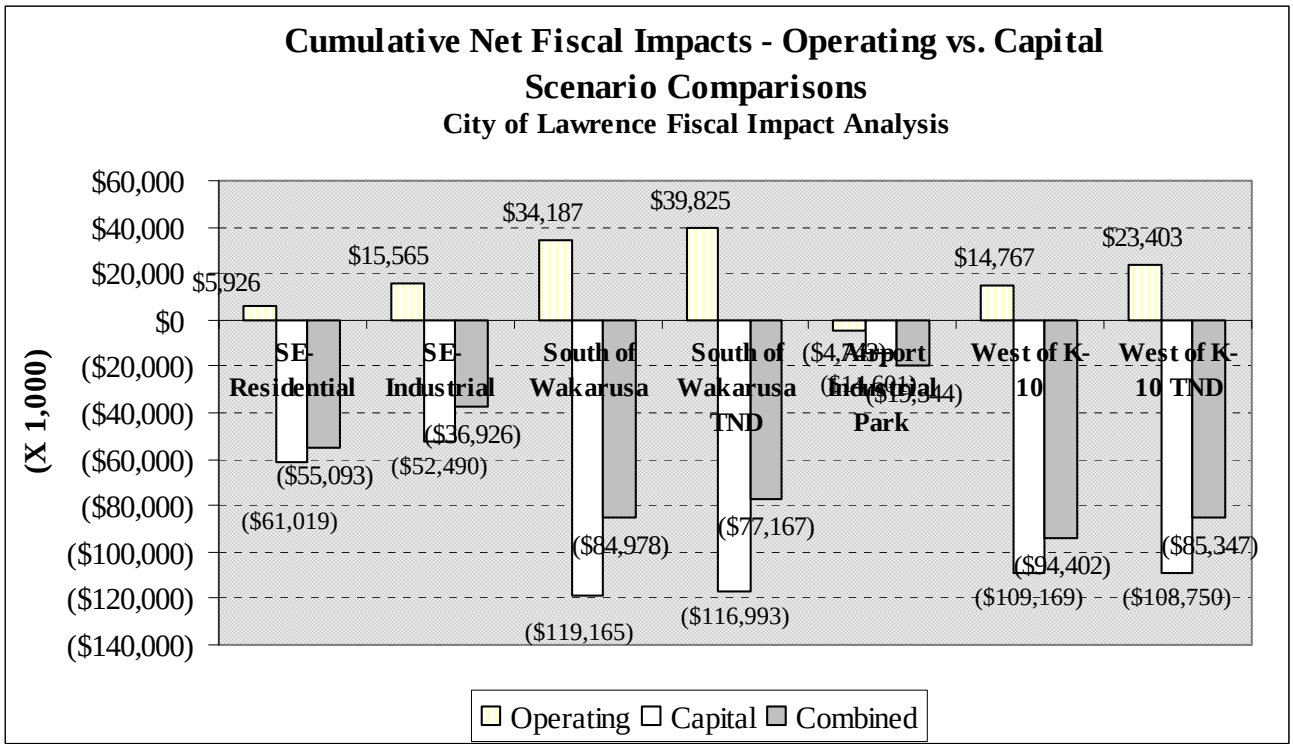
3. Cumulative Net Fiscal Impacts

Figure 4 below shows the cumulative net fiscal impacts to Lawrence for the operating budget, capital budget as well as the combined net impact. The cumulative impact is the total amount of money lost or gained over the 20-year analysis period.

While all subareas/scenarios generate cumulative net *combined* deficits, the overall net deficits are a result of deficits to the capital funds, as the net surpluses are generated to the operating budgets in all but one case (Airport Industrial Park).

Figure 4:



D. Discussion of the Results

Each of the subareas/scenarios generates net deficits throughout the 20-year analysis period, with the deficits following a generally increasing trend over time. As discussed further below, capital costs are the primary reason for the magnitude of net deficits. In summary:

- This analysis reflects the cash flow to the City. Depicting cash flow captures the actual annual cost to the City during the projection period, which includes the assumption (in keeping with current policy) that most capital costs are debt

financed. This enables policymakers and City staff to further discuss financing options and tradeoffs regarding pay-as-you-go versus debt financing as it relates to operating and capital needs.

- It is important to note that this analysis is based on maintaining existing levels of service as defined by the FY07 Budget and does not measure the cost of correcting what some may define as deficiencies in current service levels. The cost of correcting any perceived service level deficiencies would significantly increase the net deficits outlined in this analysis.

- The fiscal impact results are quite similar for both scenarios evaluated for the West of K-10 Area and the South of Wakarusa River Area. One reason is that the two scenarios evaluated in each Area assume similar amounts of population, housing and nonresidential building area increases over the 20-year analysis period.

- The Airport Industrial Park generates the best fiscal results, a cumulative net deficit of $19.3 million, or average annual net deficits of $967,000. One reason this Area generates the lowest deficits is that no residential development is assumed. Although all of the development assumed in this Area is nonresidential, approximately 376,000 square feet is assumed to be institutional uses, from which the City receives no property tax. There is also only 120,000 square feet of retail space assumed, so the majority of revenue received is from the 1.7 million square feet of office/warehouse space. The revenue received is not enough to offset the costs of primarily having to construct a fire station to serve this Area, as well as the road capacity needs.

- Arterial road capacity projects represent the largest capital expense over the 20-year development period for both scenarios. Arterial road construction was projected using a marginal approach, based on the average capacity of arterial streets and vehicle miles of travel generated from new growth.

- Fire, General Government and Police represent the largest growth-related operating expenses for Lawrence.

- Net deficits are larger in the second half of the analysis period primarily due to the compounding nature of debt service payments for growth related capital improvements, as well as the number of capital facilities required in the last half of the analysis period.

- The majority of growth-related revenue accruing to the City is property tax and sales tax.

E. Analysis Highlights

The following major conclusions can be drawn from this analysis:

- **The average annual net deficits generated in all subareas/scenarios indicate the City's present revenue structure cannot provide current levels of service to new development without finding new revenue sources or raising existing rates.**

- **Unlike the fiscal findings from most communities, new growth generates net surpluses to the Operating Budget in Lawrence in all but one case.** This is because the City's revenue structure is equally as reliant on sales tax as it is on property tax. Sales tax is a more broad-based revenue source than property tax.

- **The City is severely constrained as to the amount of revenue available for support of capital improvements needed to serve new development.** The City's primary source for funding capital infrastructure is General Obligation bonds, which are financed over a period of 20 years and paid back through property tax. The only other sizeable source of capital funding is an annual transfer made from the General Fund to the Capital Improvements Project Fund. However, most of these funds go simply to maintain City facilities and equipment. The amount of this transfer is also driven by what the City can afford in a given year and often comes in as a lower priority than ongoing operations funding. Because the current revenue sources available to the City to fund capital improvements to serve new development are so limited, the City should consider alternative financing sources such as impact fees for growth-related infrastructure, particularly for roads, fire, police and parks and recreation.

- **The analysis does show that the City benefits from encouraging traditional neighborhood development (TND) reflecting New Urbanism principles.** The TND scenarios assumed in the South of Wakarusa River and West of K-10 Areas generate deficits that are 10% lower than the Suburban alternatives evaluated for each area. These fiscal results would have been even better if a greater amount of the development in each Area was assumed to be TND neighborhoods. For example, only 21% of the residential development assumed in the South of Wakarusa River Area and 29% of the residential development assumed in the West of K-10 Area utilized TND principles.

- **The results for the Airport Industrial Park Area and the Southeast Area-Industrial Option show that the City benefits from encouraging additional nonresidential development, especially in the office, business park and industrial categories.** As shown in the Cost of Land Use Fiscal Analysis prepared earlier for the City by

TischlerBise, the costs to serve these land uses are relatively low compared to residential land uses.

- From a land use policy perspective, it is important to acknowledge that fiscal issues are only one concern. Environmental, housing affordability, jobs/housing balance, traffic and other issues must also be taken into consideration when making final assessments on what is best for the City.

II. MAJOR ASSUMPTIONS

A fiscal impact analysis determines whether revenues generated by new growth are sufficient to cover the resulting costs for service and facility demands placed on the City. The fiscal impact analysis conducted by TischlerBise incorporates the case study-marginal cost approach wherever possible. The case study-marginal methodology is the most realistic method for evaluating fiscal impacts. This methodology takes site or geographic-specific information into consideration. Therefore, any unique demographic or locational characteristics of new development are accounted for, as well as the extent to which a particular infrastructure or service operates under, over or close to capacity. Therefore, available facility capacity determines the need for additional capital facilities and associated operating costs. Many of the administrative/general government costs that are impacted by general growth in the City, regardless of location, are projected using a marginal/average cost hybrid methodology that attempts to determine capacity and thresholds for staffing but projects non-salary operating costs using an average cost approach.

The following major assumptions regarding the fiscal impact methodology should be noted.

Marginal, Growth-Related Costs and Revenues: For this analysis, costs and revenues that are directly attributable to new development are included. Some costs and revenues are not expected to be impacted by demographic changes, and are considered as fixed costs and revenues in this analysis. To determine fixed costs and revenues, TischlerBise reviewed the FY2007 budget and all available supporting documentation. Funds evaluated as part of this analysis include the City's tax-supported funds. Based on this review, preliminary assumptions were developed that were reviewed and discussed with appropriate City department representatives. In some cases, a determination was made based on TischlerBise's extensive national experience conducting public sector fiscal impact analyses.

Level of Service: The cost projections are based on the "snapshot approach" in which it is assumed the current level of service, as funded in the City's FY2007 budget, will continue through the 20-year analysis period. Current demand base data was used to calculate unit costs and service level thresholds. Examples of demand base data include population, dwelling units, employment by type, vehicle trips, etc. In summary, the "snapshot" approach does not attempt to speculate about how levels of service, costs, revenues and other factors will change over 10 years. Instead, it evaluates the fiscal impact to the City as it currently conducts business under the present budget.

Revenue Structure and Tax Rates: Revenues are projected assuming that the current revenue structure and tax rates, as defined by the FY2007 budget, will not change during the analysis period.

Inflation Rate: The rate of inflation is assumed to be zero throughout the projection period, and cost and revenue projections are in constant 2007 dollars. This assumption is in accord with current budget data and avoids the difficulty of speculating on inflation rates and their effect on cost and revenue categories. It also avoids the problem of interpreting results expressed in inflated dollars over an extended period of time. It is important to note that the actual fiscal impact model being implemented for the City does have the capability of incorporating inflation in the analyses.

Non-Fiscal Evaluations: It should be noted that while a fiscal impact analysis is an important consideration in planning decisions, it is only one of several issues that should be considered. Environmental, social and public safety issues, for example, should also be considered when making planning and policy decisions. For example, even though infrastructure to support development may already be in place in areas adjoining the City's airports, housing projects posing a threat to continued airport operations would be opposed by the City's planning policies. The above not withstanding, this analysis will enable interested parties to understand the fiscal implications of future development.

III. SCENARIOS

Four geographic subareas were evaluated as part of this fiscal impact analysis. The amount of development assumed in each is based on land use plans prepared by City staff for purposes of this evaluation. Each is summarized below:

- Area west of K-10 – Two scenarios, one reflecting suburban style development versus a more new urbanism slant.
- Area south of Wakarusa River – Two scenarios, one reflecting suburban style development versus a more new urbanism slant.
- Area southeast east of O'Connell – Two scenarios, one reflecting predominantly residential development versus predominantly industrial.
- Airport area – One scenario reflecting business park development.

A summary comparison of pertinent demand factors (e.g., population, housing units, etc.) for each of the subareas and scenarios is shown in Figure 5 below.

Figure 5: Scenarios Net Increases

	SCENARIO						
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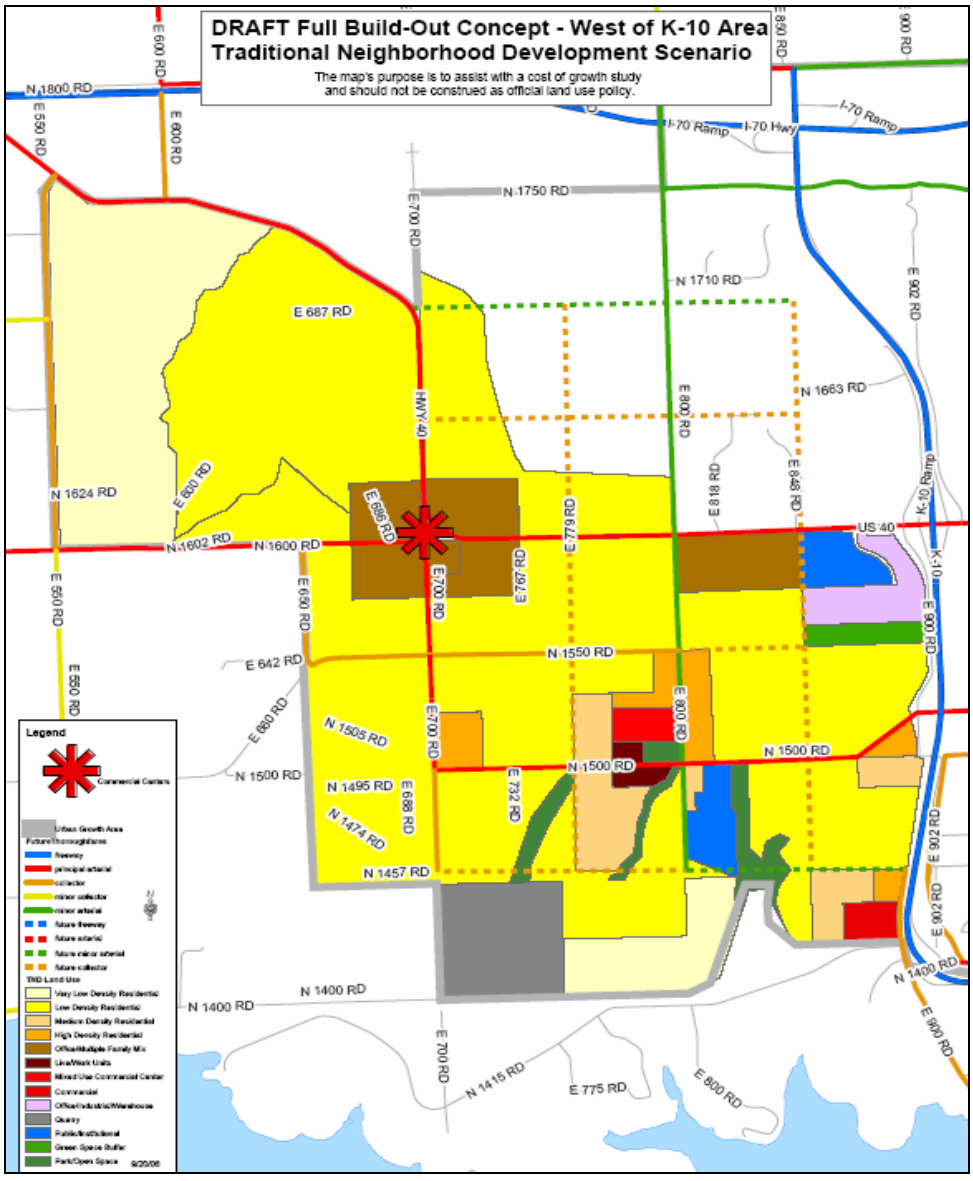
Industrial	1,485,396	1,485,396	0	0	0	0	0
Commercial	250,470	250,470	901,692	901,692	120,226	400,752	400,752
Institutional	210,830	210,830	346,302	376,358	376,358	372,438	496,584
Mixed Use Commercial	0	0	0	110,207	0	0	98,184
Total Square Footage	**3,287,473**	**8,904,100**	**1,745,885**	**1,845,637**	**2,244,560**	**1,583,301**	**1,857,224**

A. West of K-10 Area

Two growth scenarios are evaluated for the West of K-10Area, one reflecting suburban style development versus a more traditional neighborhood development (new urbanism) slant. As shown above in Figure 5, both scenarios assume very similar increases in population (approximately 33,000 persons), housing units (between 13,475 and 13,500) and nonresidential building area (1.58 million and 1.85 million square feet). The difference is that the Traditional Neighborhood option assumes a greater mix of housing types and more development using new urbanism design principles. For orientation purposes Figure 6 below shows the geography of the West of K-10 subarea under the Traditional Neighborhood Design option.

Figure 6:



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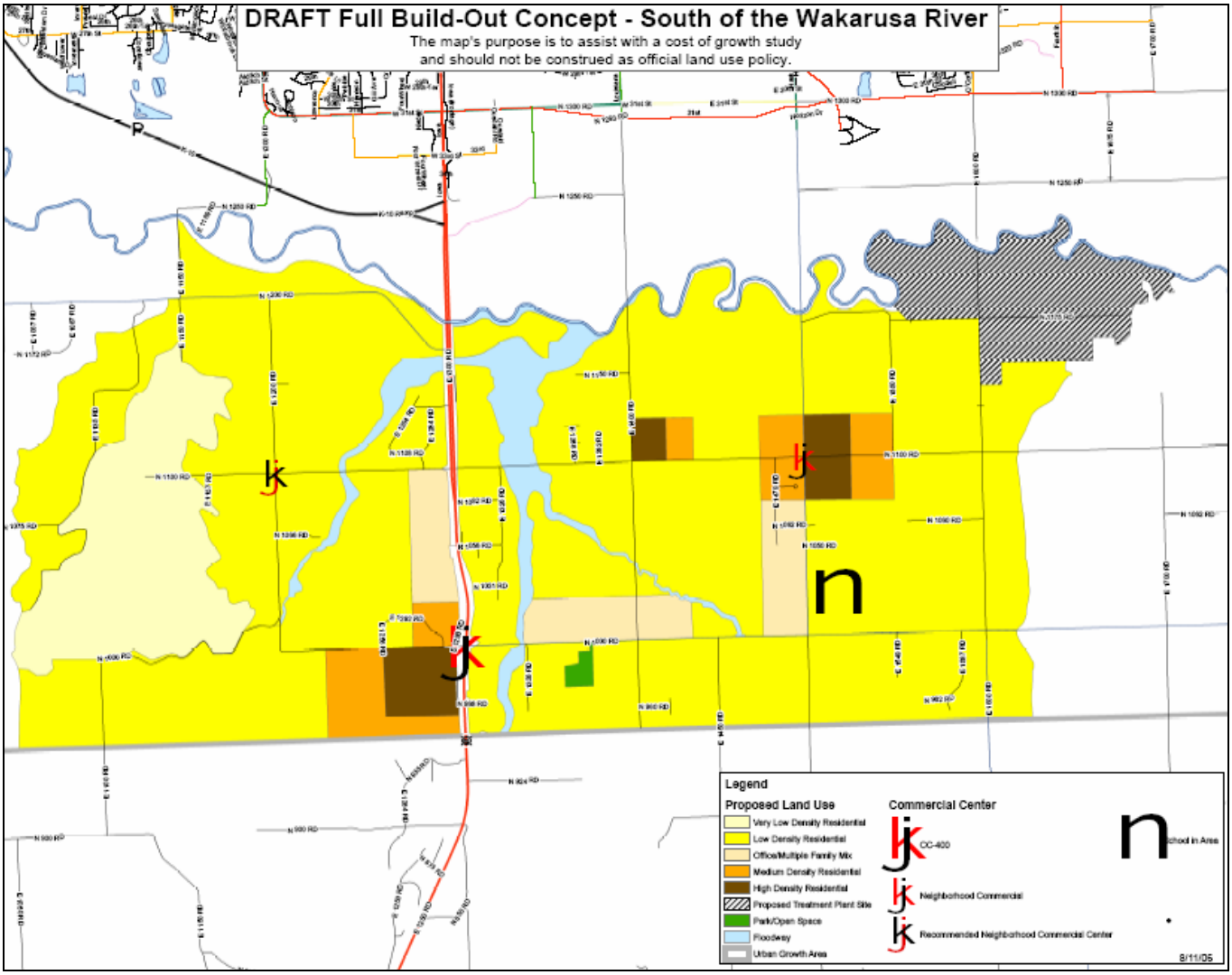
B. South of Wakarusa River Area

Two growth scenarios are evaluated for the South of Wakarusa River Area, one reflecting suburban style development versus a more traditional neighborhood development (new urbanism) slant. As shown above in Figure 5, both scenarios assume very similar increases in population (approximately 34,000 persons), housing units (between 13,590 and 13,150) and nonresidential building area (1.74 million and 1.84 million square feet). The difference is that the Traditional Neighborhood option assumes a greater mix of housing types and more development using new urbanism design principles. For orientation purposes Figure 7 below shows the geography of the South of Wakarusa River subarea.

Figure 7:



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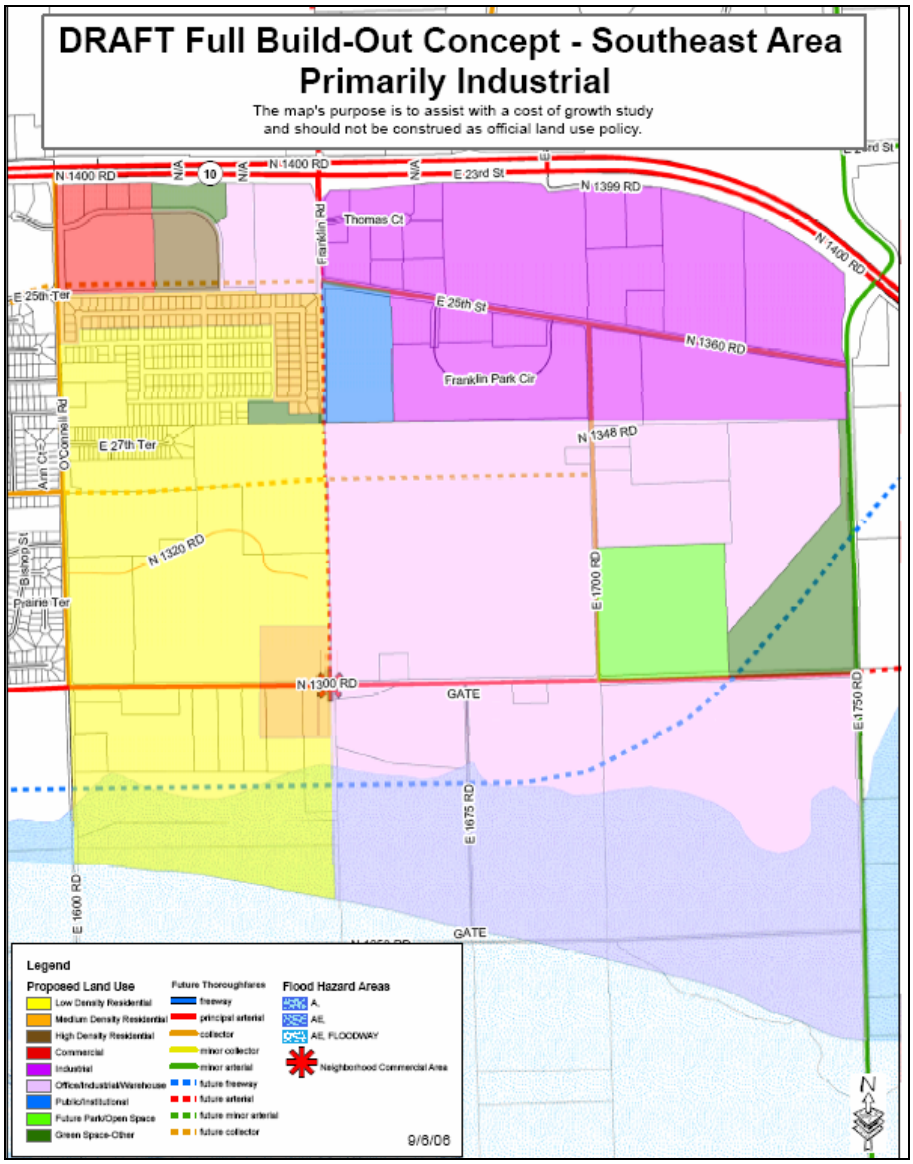
C. Southeast Area

Two growth scenarios are evaluated for the Southeast Area, one reflecting primarily residential land uses versus primarily industrial uses. As shown above in Figure 5, the Residential scenario assumes 5,280 housing units and almost 12,500 persons compared to 1,956 housing units and approximately 4,700 persons under the Industrial option. In terms of nonresidential development, the Industrial option assumes 8.9 million square feet of nonresidential building area compared to 3.2 million under the Residential option. For orientation purposes Figure 8 below shows the geography of the Southeast subarea under the Industrial option.

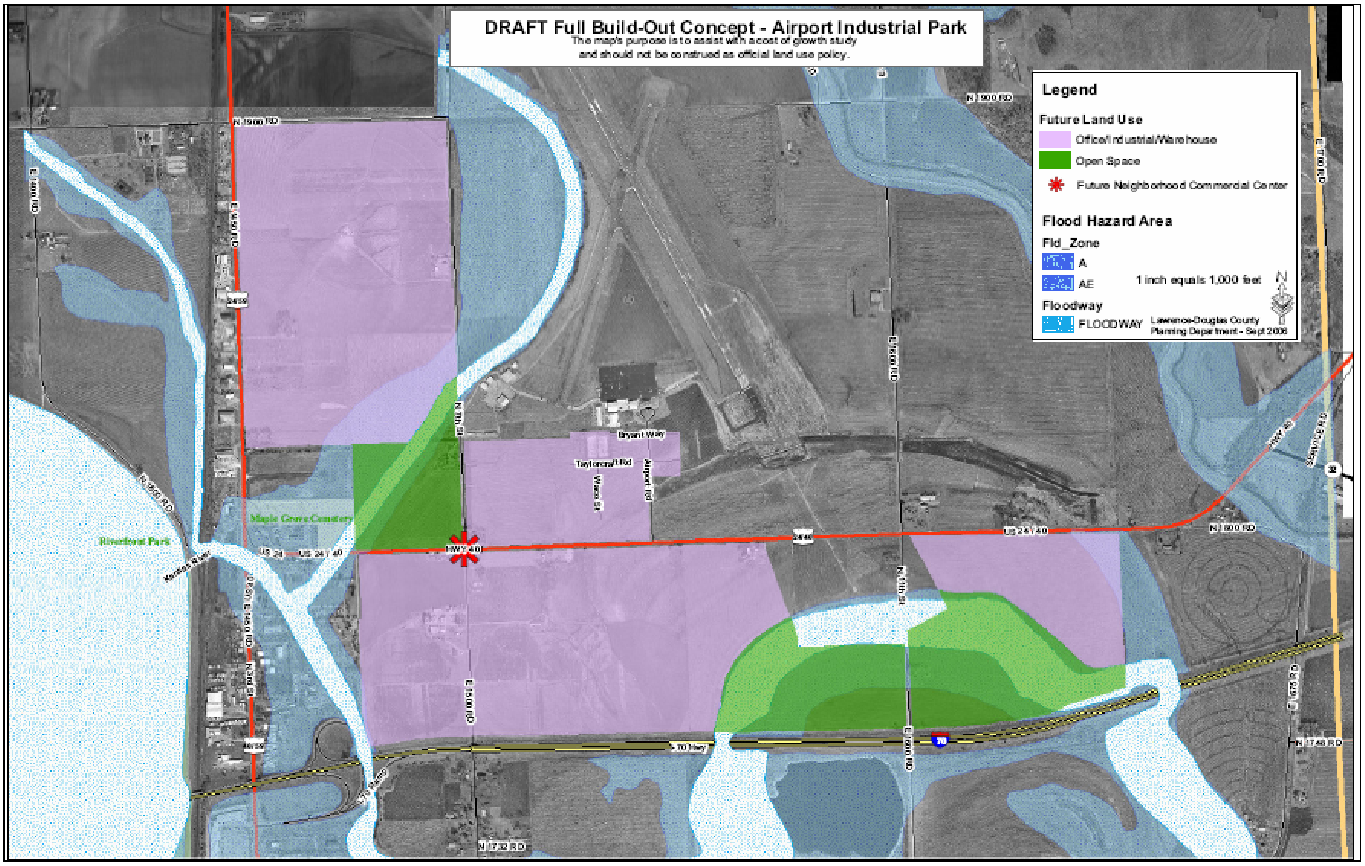
Figure 8:



D. Airport Industrial Park Area

Only one scenario is evaluated for the Airport Industrial Park Area, which reflects only nonresidential land uses. As shown above in Figure 5, a total of 2.24 million square feet of nonresidential building area is assumed. The majority of this space can be classified as office/warehouse (1.74 million square feet), with the remaining development in the commercial (120,225 square feet) and institutional (376,350 square feet) categories. For orientation purposes Figure 9 below shows the geography of the Airport Industrial Parks subarea.

Figure 9:



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VI. FISCAL IMPACT RESULTS

The following sections provide further discussion on the fiscal impact analysis results and revenue and cost details for the subareas/scenarios development evaluated for the City of Lawrence.

Fiscal impact results are shown in a number of different ways. First, *annual* net results are discussed and show the fiscal impacts from one year to the next. *Average annual* results are then shown over different time intervals to provide an easy way to compare multiple scenarios and summarize the general fiscal impacts over time. Finally, *cumulative* results are shown reflecting total revenues, expenditures, and net fiscal results over the 20-year development timeframe.

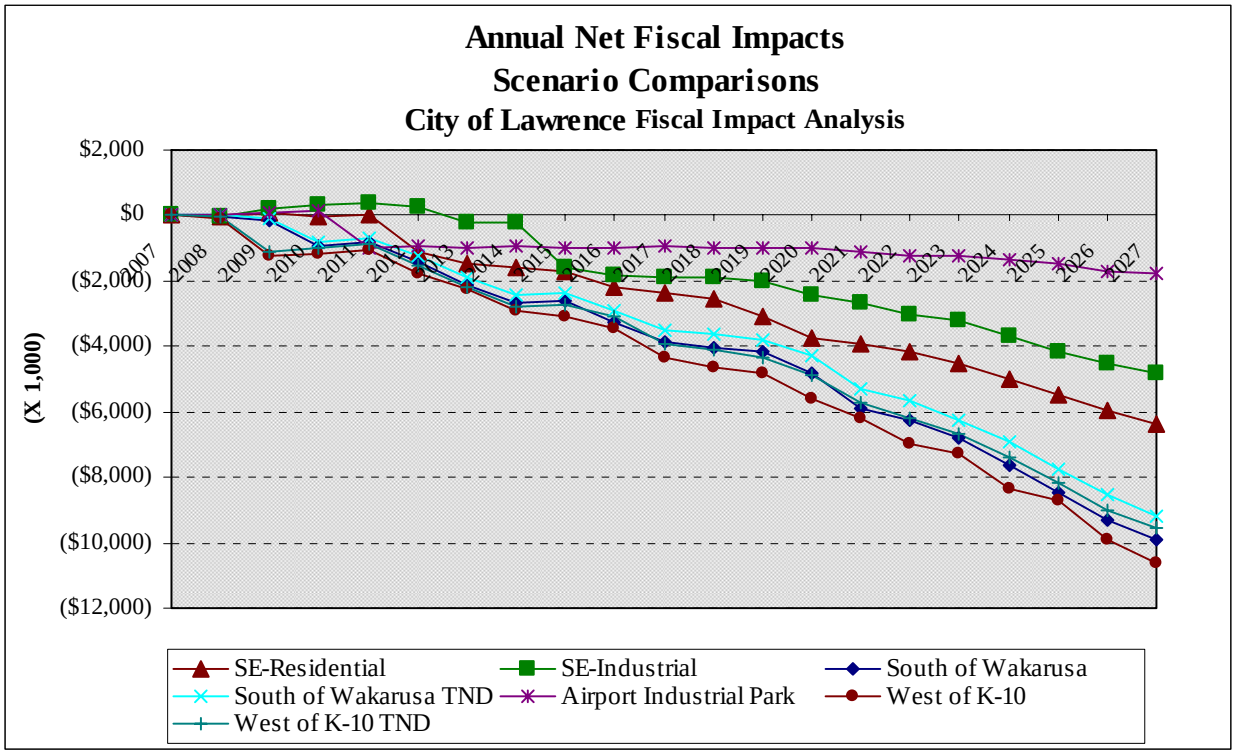
A. Annual Results

Figure 10 shows the annual (year to year) net results to the City for each subarea/scenario over the study time horizon. Each year reflects total revenues generated minus total expenditures incurred in the same year. Both capital and operating costs are included. By showing the results annually, the magnitude, rate of change, and timeline of deficits and revenues can be observed over time.

The "bumpy" nature of the annual results during particular years represents the opening of capital facilities and/or major operating costs being incurred. Data points above the $0 line represent annual surpluses; points below the $0 line represent annual deficits. Each year's surplus or deficit is not carried forward into the next year. This enables a comparison from year-to-year of the net results without distorting the revenue or cost side of the equation. In reality, those surpluses would be carried forward or deficits would be funded through other means such as debt financing for capital improvements where there is a shortfall.

As shown in Figure 10, all subareas/scenarios produce annual net deficits to the City throughout most years of the 20-year development period. Some of the subareas/scenarios generate fiscal surpluses in the initial year(s) (i.e. Southeast Area-Industrial scenario and Airport Industrial Park). The worst fiscal results are in Year 20, due to the compounding nature of debt service payments, primarily for roads.

Figure 10:



All subareas/scenarios generally produce net deficits primarily due to the capital expenditures required and a tax base that is not sufficient to cover costs of the required services and improvements. While the analysis includes the property tax dedicated to the Bond and Interest Fund, this revenue source alone is not enough to cover all necessary major capital expenditures required to implement each land use plan. Those capital expenditures include Police space, Fire stations, parks and roads. Furthermore, because the capital expenditures are assumed to be debt financed, those costs are spread out evenly over a longer period of time than is included in the analysis. That is, after Year 20, debt is still owed on capital facilities built to accommodate growth during the projection period and is not shown in the results.

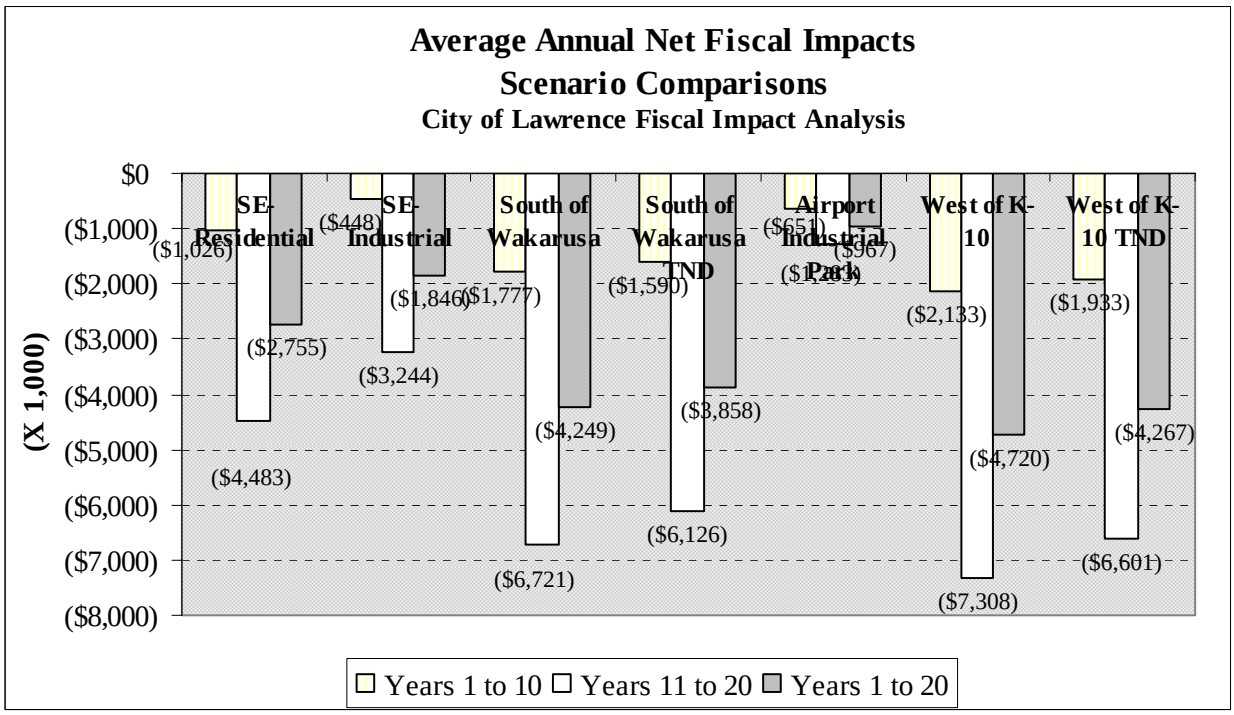
B. Average Annual Results

Figure 11 below shows the average annual net fiscal impact (revenues minus expenditures) over the 20-year development period for each subarea/scenario. The fiscal results are shown for three time periods: 1) Years 1-10, 2) Years 11-20, and 3) Years 1-20 and include both operating and capital impacts. ***All results are those accruing from new growth only, and do not include costs and revenues from the existing population and employment base of the City.*** As Figure 3

below indicates, new growth generates average annual net *deficits* to the City in all three time periods.

As shown in Figure 3, average annual net deficits are generated over all time periods. Over the 20-year time frame, the Airport Industrial Park Area produces the smallest net deficit. Average annual net deficits are higher in the last ten years of development in all Areas. This is due to the compounding nature of debt service payments as well as the number of facilities that are required in later half of the analysis period, as well as the fact the revenues are insufficient to cover the required costs. Average annual net deficits over the 20-year period range from a low of $967,000 for the Airport Industrial Park Area to a high of over $4.7 million for the West of K-10 Area. These average annual net deficits indicate the City's present revenue structure cannot provide current levels of service to new development without finding new revenue sources or raising existing rates.

Figure 11:



The Airport Industrial Park generates the best fiscal results, a cumulative net deficit of $19.3 million, or average annual net deficits of $967,000. One reason this Area generates the lowest deficits is that no residential development is assumed. Although all of the development assumed in this Area is nonresidential, approximately 376,000 square feet is assumed to be institutional uses, from which the City receives no property tax. There is also only 120,000 square feet of retail space assumed, so the majority of revenue received is from the 1.7 million square feet of office/warehouse space. The revenue received is not enough to offset the costs of

primarily having to construct a fire station to serve this Area, as well as the road capacity needs.

The fiscal impact results are quite similar for both scenarios evaluated for the West of K-10 Area and the South of Wakarusa River Area. One reason is that the two scenarios evaluated in each Area assume similar amounts of population, housing and nonresidential building area increases over the 20-year analysis period. The fiscal results for these two Areas also indicate that the City benefits from encouraging traditional neighborhood development (TND) reflecting New Urbanism principles. The TND scenarios assumed in the South of Wakarusa River and West of K-10 Areas generate deficits that are 10% lower than the Suburban alternatives evaluated for each area. These fiscal results would have been even better if a greater amount of the development in each Area was assumed to be TND neighborhoods. For example, only 21% of the residential development assumed in the South of Wakarusa River Area and 29% of the residential development assumed in the West of K-10 Area utilized TND principles.

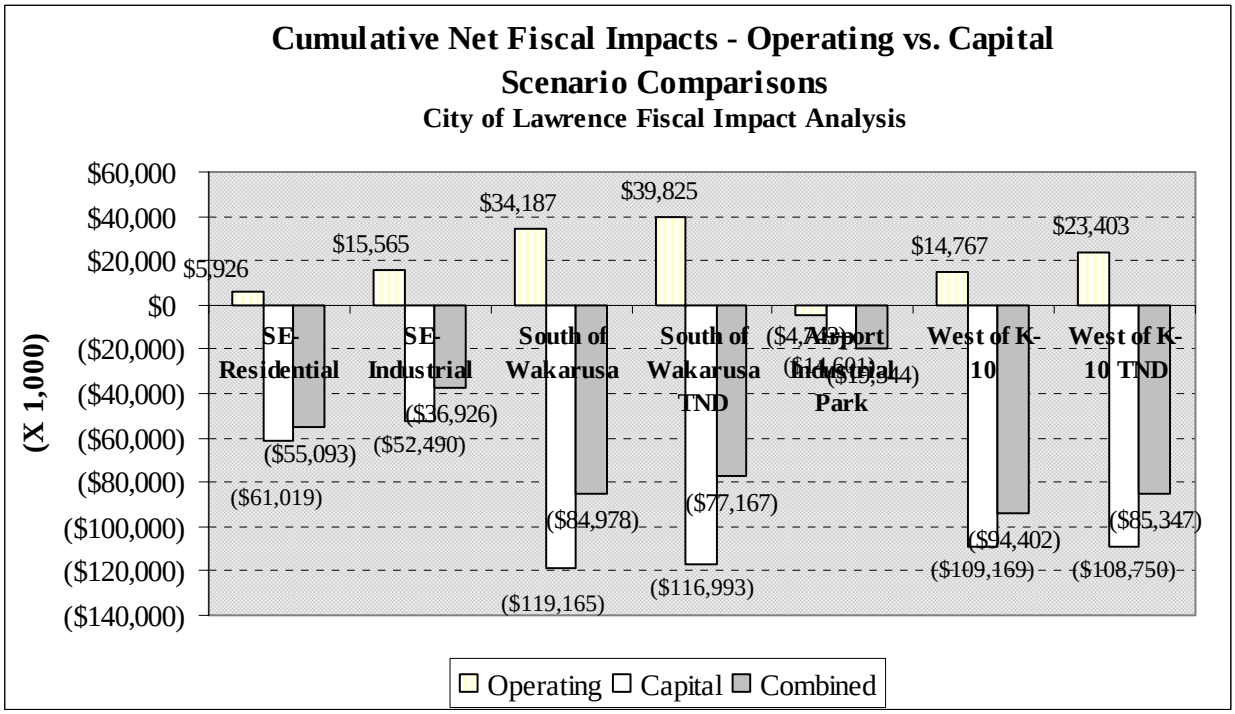
The results for the Airport Industrial Park Area and the Southeast Area-Industrial Option show that the City benefits from encouraging additional nonresidential development, especially in the office, business park and industrial categories. As shown in the Cost of Land Use Fiscal Analysis prepared earlier for the City by TischlerBise, the costs to serve these land uses are relatively low compared to residential land uses.

C. Cumulative Results

Figure 12 below shows the cumulative net fiscal impacts to Lawrence for the operating budget, capital budget as well as the combined net impact. The cumulative impact is the total amount of money lost or gained over the 20-year analysis period.

While all subareas/scenarios generate cumulative net *combined* deficits, the overall net deficits are a result of deficits to the capital funds, as the net surpluses are generated to the operating budgets in all but one case (Airport Industrial Park).

Figure 12:



The net deficits generated by the capital budget indicate the City is severely constrained as to the amount of revenue available for support of capital improvements needed to serve new development. The City's primary source for funding capital infrastructure is General Obligation bonds, which are financed over a period of 20 years and paid back through property tax. The only other sizeable source of capital funding is an annual transfer made from the General Fund to the Capital Improvements Project Fund. However, most of these funds go simply to maintain City facilities and equipment. The amount of this transfer is also driven by what the City can afford in a given year and often comes in as a lower priority than ongoing operations funding. Because the current revenue sources available to the City to fund capital improvements to serve new development are so limited, the City should consider alternative financing sources such as impact fees for growth-related infrastructure, particularly for roads, fire, police and parks and recreation.

V. REVENUE AND COST DETAIL

Further details on revenue and cost projections that are generated by growth in the City of Lawrence for each development subarea/scenario are presented and discussed in this section. Projections are shown as cumulative and average annual results as well as percentage of the total.

A. Operating Revenue

Figure 13 shows cumulative operating revenue for each of the subareas/scenarios over the 20-year development period, broken down by fund. These sources and the reasons for the results are then discussed briefly. As Figure 13 indicates, the South of Wakarusa Area scenarios generate the greatest cumulative revenue at $214.4 million and $208.6 million, respectively. This is primarily due to the amount of sales tax generated by this subarea to the General Fund. The West of K-10 Area scenarios generate the second greatest cumulative operating revenue at $190.5 million for the TND option and $178.8 million under the Suburban option. There is a direct correlation between the amount revenue generated and the amount of development assumed in each geography.

Figure 13:

Cumulative Operating Revenue - Scenario Comparisons (x$1,000)
City of Lawrence Fiscal Impact Analysis

	SCENARIO													
Category	SE Residential	%	SE Ind.	%	South of Wakarusa	%	South of Wakarusa TND	%	Airport Ind. Park	%	West of K-10	%	West of K-10 TND	%
General Fund	$85,910	82%	$91,238	85%	$173,453	83%	$178,903	83%	$19,902	89%	$145,478	81%	$155,599	82%
Library Fund	$7,886	8%	$9,987	9%	$13,570	7%	$13,883	6%	$1,866	8%	$12,623	7%	$13,680	7%
Public Transp. Fund	$2,103	2%	$2,384	2%	$3,745	2%	$3,814	2%	$422	2%	$3,506	2%	$3,753	2%
Recreation Fund	$3,657	3%	$2,360	2%	$7,309	4%	$7,332	3%	$257	1%	$6,985	4%	$7,186	4%
Special Gas Tax Fund	$5,002	5%	$1,893	2%	$10,591	5%	$10,546	5%	$0	0%	$10,224	6%	$10,318	5%
TOTAL	**$104,557**	**100%**	**$107,863**	**100%**	**$208,667**	**100%**	**$214,477**	**100%**	**$22,448**	**100%**	**$178,816**	**100%**	**$190,536**	**100%**

The majority of revenue generated to the Library Fund and Public Transportation Fund are from Property Taxes. Although the Recreation Fund has its own millage, the majority of revenue is generated from fees, which is a function of increased population. All of the growth-related revenue generated by the Special Gas Tax Fund is from Fuel Tax, which is distributed to the City using a population-based formula.

Figure 13 above illustrates the City's reliance on revenue from the General Fund. As Figure 14 below indicates, the majority of growth-related revenue (34% to 47%) from the General Fund comes from Property Taxes. The second largest source of growth-related revenue comes from Sales/Other Taxes, which is comprised primarily of sales tax. Local sales tax was projected on a marginal basis using the City tax rate (1.0%) and a projection of retail sales (new retail space multiplied by sales per square foot of $357 and $397 depending on type). These figures were obtained from data published by the Urban Land Institute and BizStats.com. Countywide sales tax was projected on a per capita basis, as this is the current allocation formula used.

Figure 14:

Cumulative General Fund Revenue - Scenario Comparisons (x$1,000)
City of Lawrence Fiscal Impact Analysis

	SCENARIO													
Category	SE Residential	%	SE Ind.	%	South of Wakarusa	%	South of Wakarusa TND	%	Airport Ind. Park	%	West of K-10	%	West of K 10 TND	%
Property Taxes	$33,972	40%	$42,912	47%	$58,561	34%	$59,987	34%	$7,918	40%	$54,376	37%	$59,081	41%
Franchise Fees	$8,553	10%	$11,306	12%	$14,266	8%	$14,287	8%	$2,537	13%	$13,689	9%	$14,197	10%
Sales/Other Taxes	$28,034	33%	$17,100	19%	$74,841	43%	$78,812	44%	$5,012	25%	$52,667	36%	$56,679	39%
Intergovernmental	$7,486	9%	$9,523	10%	$12,665	7%	$12,678	7%	$2,103	11%	$12,158	8%	$12,586	9%
Licenses & Permits	$2,638	3%	$3,487	4%	$4,400	3%	$4,407	2%	$783	4%	$4,222	3%	$4,379	3%
Fines	$5,227	6%	$6,909	8%	$8,718	5%	$8,731	5%	$1,550	8%	$8,366	6%	$8,676	6%
User Fees	$0	0%	$0	0%	$0	0%	$0	0%	$0	0%	$0	0%	$0	0%
Miscellaneous	$0	0%	$0	0%	$0	0%	$0	0%	$0	0%	$0	0%	$0	0%
TOTAL	**$85,910**	**100%**	**$91,238**	**100%**	**$173,453**	**100%**	**$178,903**	**100%**	**$19,902**	**100%**	**$145,478**	**100%**	**$155,599**	**107%**

B. Operating Expenditures

Figure 15 shows cumulative operating expenditures for each of the subareas/scenarios over the 20-year development period, broken down by major category. These categories and the reasons for the results are then discussed briefly. As shown below in Figure 15 the largest share of operating expenditures is for Fire followed by General Government and Police. As shown above in Figure 15, the largest share of operating expenditures is for Fire, followed by General Government and Police.

Figure 15:

Cumulative Operating Expenditures - Scenario Comparisons (x$1,000)
City of Lawrence Fiscal Impact Analysis

	SCENARIO													
Category	SE Residential	%	SE Ind.	%	South of Wakarusa	%	South of Wakarusa TND	%	Airport Ind. Park	%	West of K 10	%	West of K 10 TND	%
General Government	$20,131	20%	$22,294	24%	$35,219	19%	$35,127	19%	$3,661	13%	$33,900	20%	$34,768	20%
Public Works	$13,425	13%	$11,192	12%	$23,664	13%	$23,559	13%	$1,572	6%	$23,031	13%	$23,299	13%
Parks/Facility Maint.	$4,224	4%	$1,514	2%	$7,671	4%	$7,660	4%	$0	0%	$7,446	4%	$7,549	4%
Police	$16,470	16%	$17,193	18%	$31,833	17%	$32,146	18%	$2,798	10%	$28,425	17%	$29,125	17%
Fire	$33,176	32%	$35,889	38%	$51,592	28%	$51,977	29%	$19,021	70%	$47,449	28%	$48,758	28%
Library	$5,611	5%	$2,124	2%	$11,881	7%	$11,830	6%	$0	0%	$11,469	7%	$11,575	7%
Public Transportation	$3,152	3%	$1,193	1%	$6,674	4%	$6,645	4%	$0	0%	$6,442	4%	$6,502	4%
Recreation	$3,223	3%	$320	0%	$6,249	3%	$6,241	3%	$0	0%	$6,186	4%	$6,202	4%
Special Gas Tax	$3,410	3%	$2,050	2%	$7,312	4%	$7,070	4%	$129	0%	$7,091	4%	$6,848	4%
TOTAL	**$102,822**	**100%**	**$93,768**	**100%**	**$182,095**	**100%**	**$182,256**	**100%**	**$27,181**	**100%**	**$171,442**	**100%**	**$174,627**	**100%**

C. Capital Revenue

Dedicated capital revenue is shown below in Figure 16 for the Bond and Interest Fund. As shown in Figure 16, there are two growth-related revenue sources that accrue to the City's Bond and Interest Fund. The primary growth-related revenue source for this fund is the Property Tax. Property tax was projected on a marginal basis using assessed value assumptions for new construction, based on a sample of new construction data obtained through Douglas County. Motor Vehicle Taxes are the second growth-related source.

Figure 16:

Cumulative Bond and Interest Fund Revenue - Scenario Comparisons (x$1,000)
City of Lawrence Fiscal Impact Analysis

	SCENARIO													
Category	SE Residential	%	SE Ind.	%	South of Wakarusa	%	South of Wakarusa TND	%	Airport Ind. Park	%	West of K 10	%	West of K 10 TND	%
Ad Valorem	$16,007	94%	$20,220	94%	$27,593	95%	$28,265	95%	$3,731	93%	$25,621	94%	$27,838	95%
Ad Valorem-Delinquent	$0	0%	$0	0%	$0	0%	$0	0%	$0	0%	$0	0%	$0	0%
Motor Vehicle Taxes	$950	6%	$1,256	6%	$1,585	5%	$1,587	5%	$282	7%	$1,521	6%	$1,577	5%
PILOT	$0	0%	$0	0%	$0	0%	$0	0%	$0	0%	$0	0%	$0	0%
Special Assessments	$0	0%	$0	0%	$0	0%	$0	0%	$0	0%	$0	0%	$0	0%
Interest on Investments	$0	0%	$0	0%	$0	0%	$0	0%	$0	0%	$0	0%	$0	0%
Miscellaneous	$0	0%	$0	0%	$0	0%	$0	0%	$0	0%	$0	0%	$0	0%
TOTAL	**$16,957**	**100%**	**$21,475**	**100%**	**$29,178**	**100%**	**$29,852**	**100%**	**$4,012**	**100%**	**$27,142**	**100%**	**$29,415**	**100%**

D. Capital Expenditures

Figure 17 shows cumulative growth-related capital expenditures incurred by the City for each of the subareas/scenarios over the 20-year development period, broken down by category. These categories and the reasons for the results are then discussed briefly.

Figure 17:

Cumulative Capital Expenditures - Scenario Comparisons (x$1,000)
City of Lawrence Fiscal Impact Analysis

	SCENARIO													
Category	SE Residential	%	SE Ind.	%	South of Wakarusa	%	South of Wakarusa TND	%	Airport Ind. Park	%	West of K-10	%	West of K-10 TND	%
General Government	$1,989	3%	$2,962	4%	$3,907	3%	$3,912	3%	$695	4%	$3,749	3%	$3,888	3%
Police	$1,196	2%	$1,782	2%	$2,350	2%	$2,354	2%	$418	2%	$2,255	2%	$2,339	2%
Fire	$4,862	6%	$3,792	5%	$5,586	4%	$5,586	4%	$5,224	28%	$5,948	4%	$5,948	4%
Roads	$55,712	71%	$60,932	82%	$102,022	69%	$100,516	68%	$12,277	66%	$91,275	67%	$91,805	66%
Parks and Recreation	$14,217	18%	$4,497	6%	$34,477	23%	$34,477	23%	$0	0%	$33,083	24%	$34,185	25%
TOTAL	**$77,976**	**100%**	**$73,966**	**100%**	**$148,342**	**100%**	**$146,844**	**100%**	**$18,614**	**100%**	**$136,310**	**100%**	**$138,165**	**100%**

As shown in Figure 17, road improvements represent the largest single capital cost item for the City. Road construction was projected using a marginal approach, based on vehicle trips, vehicle miles of travel (VMT) and road design capacities. It should be noted that these costs are for arterial streets only, as it was assumed that collector streets were built by developers. All road construction projects are assumed to be debt financed. Therefore, expenditures shown above represent debt service payments from year of "construction" to end of the projection period. Because of this, additional debt service is owed on these improvements after the projection period, thus increasing the overall costs.

The next largest capital expenditure under all scenarios is for parks and recreation. Parks and recreation facility construction is factored on a marginal basis, based on current levels of service for various parks and facilities.

VI. APPENDIX - REVENUE AND COST ASSUMPTIONS

TischlerBise, Inc. is under contract with the City of Lawrence to evaluate the fiscal impact of development four different subareas. This fiscal impact analysis determines whether revenues generated by new growth are sufficient to cover the resulting costs to the City. Three of the four subareas assume two different growth scenarios. By comparing multiple land use scenarios within a subarea, the City will have a better understanding of what different land use mixes and forms have on the City's bottom line. This report follows on the Cost of Land Use Study, completed in March 2006, which examined ten land use types (4 residential prototypes and 6 nonresidential prototypes) to determine net surplus or deficit to the City (See Cost of Land Use Fiscal Impact Analysis: Lawrence, Kansas, TischlerBise, March 10, 2006.)

The first step of the analysis is to determine current service levels and capacities and associated revenues and operating costs. This was done through on-site interviews with City staff as well as a review of applicable budgets and other relevant documents.

The information herein will establish the baseline standards on which revenue and cost projections will be based. For example, when the methodology calls for projections based on population growth, the current level of service standard is based on the current spending divided by the current population served. Future costs will then be projected based on the population projected in each development scenario multiplied by this per person cost.

A. Major Assumptions

This fiscal impact analysis can be regarded as a snapshot of the current budget. The Fiscal Year 2007 Budget has been used to represent a "snapshot" of the City's current costs, revenues and levels of service. In summary, the "snapshot" approach does not attempt to speculate about how services, costs, revenues and other factors such as productivity will change over 20 years. Instead, it evaluates the fiscal impact to the City as it currently conducts business under the present budget.

The following major assumptions regarding the fiscal methodology should be noted.

1. Variable versus Fixed Costs and Revenues

For this analysis, costs and revenues that are directly attributable to new development are included. Some costs and revenues are not expected to be impacted by demographic changes, and may be fixed in this analysis. To determine fixed costs and revenues, TischlerBise reviewed in detail the FY2007 budget and all available supporting documentation. Based on this review, preliminary assumptions were developed that were reviewed and discussed with appropriate City department representatives.

Examples of budget items that have generally been allocated as fixed, or non-growth related include:

- Salaries and benefits of department heads
- Salaries and benefits for certain support personnel (varies by department)
- One-time costs for special studies or services unrelated to growth and development
- Revenue sources that are not growth-related

2. Level of Service

The cost projections are based on the "snapshot approach" in which it is assumed the current level of service, as funded in the FY2007 budget, will continue through the 20-year analysis period. The current level of spending is referred to as the current level of service (LOS) in this type of analysis.

3. Revenue Structure and Tax Rates

Revenues are projected assuming that the current revenue structure and tax rates, as defined by the FY2007 budget, will not change during the analysis period. However, if it is known that a particular revenue source will change in the near-term, it has been noted and reflected in the fiscal model.

4. Inflation Rate

The rate of inflation is assumed to be zero throughout the projection period, and cost and revenue projections are in constant 2007 dollars. This assumption is in accord with current budget data and avoids the difficulty of speculating on inflation rates and their effect on cost and revenue categories. It also avoids the problem of interpreting results expressed in inflated dollars over an extended period of time.

B. General Methodology for Operating Costs

Annual costs attributable to new development will be projected by applying the applicable cost factors to new development. In general, four different methodologies are used to determine how various City services are impacted by new development. For example, some City services have a clearly defined relationship to a particular land use or have workload measure that indicate different service/cost requirements for specific types of development. Other services have a more general relationship and are impacted proportionately by all types of development. And other services are essentially administrative or are provided in support of other City departments and have an indirect relationship to new development. With this in mind, the

following cost distribution methods have been used to determine the applicable cost and revenue factors:

- ***General Land Use Distribution Method*** – Costs are distributed to both residential and nonresidential land use. When it is determined that operating costs are impacted by *general growth* within the City, including both residential and nonresidential land uses, costs are allocated to both population and jobs.

- ***Proportionate Share Distribution Method*** – Costs are distributed to each land use based upon the proportion of total workload or demand for service that is attributable to each land use. This distribution is typically based on an analysis of available records. Examples include Police and Fire costs that are distributed to land uses based on actual calls for service data.

- ***Direct Relationship Distribution*** – Costs are distributed to each land use based upon a known, direct relationship to one or more land uses. An example would be parks and recreation costs distributed directly to residential land uses.

- ***Indirect Relationship Distribution*** – This method is used for departments that provide services that correlate to overall increases in other department's services. An example of this method is a support department such as personnel. Personnel management and administration costs are typically tied to the number of employees within the organization rather than to development.

C. City of Lawrence Cost and Revenue Factors

1. General Fund Revenue

Figure 18 provides an inventory of General Fund revenue factors used in this fiscal impact analysis. The table shows revenue category, specific revenue type, base year budget amount, projection methodology, and the level of service (LOS) standard, or dollar per demand unit. For instance, for those categories projected based on "POP AND JOBS," the current budget amount is divided by the current estimated total population and jobs in the City. Specifically, Franchise Fees: the current budget of $4,500,000 is divided by 130,408 to yield a revenue factor of $34.51, which is then used to project future Franchise Fees from new growth. Fixed revenue items are those that are one-time only or are not projected to increase due to new development. More detail is provided below regarding the marginal calculations for ad valorem and countywide sales tax.

Figure 18:

Revenue	Base Year Budget Amount	Project Revenue Using:	LOS Std $ per Demand Unit	
Ad Valorem-Current	$11,864,000	CUM AV	$14.869	Mill Rate
Ad Valorem-Delinquent	$200,000	FIXED	$0.00	
Motor Vehicle Taxes	$1,077,876	POP AND JOBS	$8.27	
PILOT	$28,731	FIXED	$0.00	
Franchise Fees	$4,500,000	POP AND JOBS	$34.51	
Local Sales Tax	$13,800,000	RETAIL SALES	$0.01	Tax Rate
Countywide Sales Tax	$9,250,000	POPULATION	$104.47	
Special Liqour Tax	$550,000	FIXED	$0.00	
Highway Commission	$142,000	FIXED	$0.00	
Douglas County-Medical	$3,731,013	POP AND JOBS	$28.61	
Douglas County-Health Dept.	$207,753	POPULATION	$2.35	
Licenses	$230,000	POP AND JOBS	$1.76	
Permits/Inspections	$850,000	POP AND JOBS	$6.52	
Fines and Forfeits	$2,750,000	POP AND JOBS	$21.09	
Township Fire Levy	$35,000	FIXED	$0.00	
Contractor Licensing Fees	$108,000	POP AND JOBS	$0.83	
Engineering Fees	$200,000	POP AND JOBS	$1.53	
Douglas County Planning/Personnel	$225,184	FIXED	$0.00	
Lots and Foundation Charges	$65,000	FIXED	$0.00	
Burial	$45,000	FIXED	$0.00	
KAW Drainage District	$20,000	FIXED	$0.00	
Interest on Investments	$1,000,000	FIXED	$0.00	
Other Charges	$100,000	FIXED	$0.00	
Miscellaneous	$235,000	FIXED	$0.00	
Transfers In	$3,025,600	FIXED	$0.00	

Customized/Marginal Calculations

- Ad Valorem Taxes: Revenues will be projected based on assessed value of real property for each land use type multiplied by the current City property tax rate of 14.869 mils.
- Sales Tax: Components of sales tax are projected separately to account for revenue generation from the demand generators of retail square footage and population growth.
    - Local Sales Tax is point-of-sale based, with sales generated in the City being returned to the City. Revenues will be calculated by multiplying retail square footage by retail sales by square foot of $397 (community scale) and $357 (neighborhood scale).
    - Countywide Sales Tax is distributed to jurisdictions within the County based on population—Lawrence therefore only receives a portion of the total amount generated.

2. Special Revenue Fund Revenue

Figure 19 provides an inventory of Special Revenue Fund revenue factors used in this fiscal impact analysis. The table shows revenue category, specific revenue type, base year budget amount, projection methodology, and the level of service (LOS) standard, or dollar per demand unit. For instance, for those categories projected based on "POP AND JOBS," the current budget amount is divided by the current estimated total population and jobs in the City. Specifically, Motor Vehicle Taxes: the current budget of $231,534 is divided by 130,408 to yield a revenue factor of $1.78, which is then used to project future revenue from new growth. Fixed revenue items are those that are not projected to increase due to new development. More detail is provided below regarding the marginal calculations for ad valorem taxes.

Figure 19:

Revenue Category	Revenue	Base Year Budget Amount	Project Revenue Using:	LOS Std $ per Demand Unit	
Library Fund	Ad Valorem	$2,600,000	CUM AV	$3.259	Mill Rate
	Ad Valorem-Delinquent	$20,000	FIXED	$0.00	
	Motor Vehicle Taxes	$231,534	POP AND JOBS	$1.78	
	PILOT	$8,180	FIXED	$0.00	
Public Transportation	Ad Valorem	$595,000	CUM AV	$0.746	Mill Rate
	Ad Valorem-Delinquent	$30,000	FIXED	$0.00	
	Motor Vehicle Taxes	$44,797	POP AND JOBS	$0.34	
	PILOT	$1,836	FIXED	$0.00	
	Fare Box Receipts	$165,000	POPULATION	$1.86	
Recreation Fund	Ad Valorem	$385,000	CUM AV	$0.483	Mill Rate
	Ad Valorem-Delinquent	$14,000	FIXED	$0.00	
	PILOT	$1,188	FIXED	$0.00	
	Fees	$473,000	POPULATION	$5.34	
	Aquatics Programs	$560,000	POPULATION	$6.32	
	Building Rentals	$95,000	FIXED	$0.00	
	Concessions	$6,000	POPULATION	$0.07	
	Special Populations	$55,350	POPULATION	$0.63	
	Field Rent	$23,000	POPULATION	$0.26	
	Class Enrollment	$225,000	POPULATION	$2.54	
	Miscellaneous	$5,000	FIXED	$0.00	
	Transfer from General Fund	$1,400,000	FIXED	$0.00	
	Motor Vehicle Taxes	$28,766	FIXED	$0.00	
Special Gas Tax	Fuel Tax	$2,629,770	POPULATION	$29.70	
Special Recreation	Liquor Tax	$550,000	FIXED	$0.00	
Bond and Interest	Ad Valorem	$5,590,000	CUM AV	$7.006	Mill Rate
	Ad Valorem-Delinquent	$70,000	FIXED	$0.00	
	Motor Vehicle Taxes	$499,849	POP AND JOBS	$3.83	
	PILOT	$17,660	FIXED	$0.00	
	Special Assessments	$1,500,000	FIXED	$0.00	
	Interest on Investments	$150,000	FIXED	$0.00	
	Miscellaneous	$85,000	FIXED	$0.00	

Customized/Marginal Calculations

- Ad Valorem Taxes: Revenues will be projected based on assessed value of real property for each land use type multiplied by the current City property tax rate for each Fund (i.e. 0.746 mills for the Public Transportation Fund).

3. Operating Expenditures

The following figures provide an inventory of operating expenditures used in the fiscal impact analysis. The tables provide the departmental budget broken down into budgeted personnel, contractual services, commodities, capital outlay and transfer expenditures, projection methodology, and the level of service (LOS) standard, or dollar per demand unit to be used to project future expenditures.

As shown in Figure 20, most non-salary operating expenditures (contractual services and commodities) are projected based on an increase in population or population and jobs. or personnel costs, the projections are marked as "marginal" as these budget items will be customized based on position type and existing capacities. or example, no matter the growth in the City, the City will not hire an additional City Administrator. However the growth may precipitate a need for additional support staff in the City Manager/Administrator's office. Personnel expenditures are projected separately and the approach is described following Figure 20

Capital costs are noted as fixed for the purposes of this report on personnel and operating expenses. Capital costs in the fiscal impact analysis will reflect planned capital improvements in the City's Capital Improvement Program and/or projected capital needs based on LOS standards.

Figure 20:

Dept./Division	Expenditure Category	Base Year Budget Amount	Projected Expenditure Calculation Based on	LOS Standard ($ per Demand Unit)
CITY COMMISSION	Personal Services	$52,950	FIXED	$0.00
	Contractual Services	$17,600	POP AND JOBS	$0.13
	Commodities	$1,000	FIXED	$0.00
	Capital Outlay	$0	FIXED	$0.00
	Transfers	$0	FIXED	$0.00
CITY MANAGER	Personnel	$573,983	MARGINAL*	$0.00
	Contractual Services	$20,000	POP AND JOBS	$0.15
	Commodities	$5,100	POP AND JOBS	$0.04
	Capital Outlay	$0	FIXED	$0.00
	Transfers	$0	FIXED	$0.00
PUBLIC INFORMATION OFFICE	Personnel	$134,841	POPULATION	$1.52
	Contractual Services	$10,760	POPULATION	$0.12
	Commodities	$3,450	POPULATION	$0.04
	Capital Outlay	$0	FIXED	$0.00
	Transfers	$0	FIXED	$0.00
PLANNING	Personnel	$1,069,056	MARGINAL*	$0.00
	Contractual Services	$116,300	POP AND JOBS	$0.89
	Commodities	$40,300	POP AND JOBS	$0.31
	Capital Outlay	$8,000	POP AND JOBS	$0.06
	Transfers	$0	FIXED	$0.00
CITY CLERK	Personnel	$115,190	POP AND JOBS	$0.88
	Contractual Services	$88,739	POP AND JOBS	$0.68
	Commodities	$19,800	POP AND JOBS	$0.15
	Capital Outlay	$0	FIXED	$0.00
	Transfers	$0	FIXED	$0.00
HIUMAN RELATIONS	Personnel	$258,265	POPULATION	$2.92
	Contractual Services	$35,653	POPULATION	$0.40
	Commodities	$20,057	POPULATION	$0.23
	Capital Outlay	$0	FIXED	$0.00
	Transfers	$0	FIXED	$0.00
PERSONNEL	Personnel	$401,960	POP AND JOBS	$3.08
	Contractual Services	$222,252	POP AND JOBS	$1.70
	Commodities	$24,516	POP AND JOBS	$0.19
	Capital Outlay	$0	FIXED	$0.00
	Transfers	$0	FIXED	$0.00
RISK MANAGEMENT	Personnel	$158,133	POP AND JOBS	$1.21
	Contractual Services	$425,878	POP AND JOBS	$3.27
	Commodities	$19,000	POP AND JOBS	$0.15
	Capital Outlay	$0	FIXED	$0.00
	Transfers	$0	FIXED	$0.00
FINANCIAL ADMINISTRATION	Personnel	$310,074	MARGINAL*	$0.00
	Contractual Services	$16,990	POP AND JOBS	$0.13
	Commodities	$15,700	POP AND JOBS	$0.12
	Capital Outlay	$0	FIXED	$0.00
	Transfers	$0	FIXED	$0.00

Figure 20 (continued):

Dept./Division	Expenditure Category	Base Year Budget Amount	Projected Expenditure Calculation Based on	LOS Standard ($ per Demand Unit)
GENERAL OVERHEAD	Personnel	$0	FIXED	$0.00
	Contractual Services	$3,101,289	POP AND JOBS	$23.78
	Commodities	$32,500	POP AND JOBS	$0.25
	Capital Outlay	$0	FIXED	$0.00
	Transfers	$19,376	FIXED	$0.00
TRANSFERS	Personnel	$3,576,669	FIXED	$0.00
	Contractual Services	$0	FIXED	$0.00
	Commodities	$0	FIXED	$0.00
	Capital Outlay	$0	FIXED	$0.00
	Transfers	$6,006,000	FIXED	$0.00
INFORMATION SERVICES	Personnel	$610,831	MARGINAL*	$0.00
	Contractual Services	$272,670	POP AND JOBS	$2.09
	Commodities	$76,775	POP AND JOBS	$0.59
	Capital Outlay	$9,000	POP AND JOBS	$0.07
	Transfers	$0	FIXED	$0.00
LEGAL SERVICES	Personnel	$660,454	MARGINAL*	$0.00
	Contractual Services	$95,700	POP AND JOBS	$0.73
	Commodities	$31,300	POP AND JOBS	$0.24
	Capital Outlay	$0	FIXED	$0.00
	Transfers	$0	FIXED	$0.00
MUNICIPAL COURT	Personnel	$463,978	POPULATION	$5.24
	Contractual Services	$182,868	POPULATION	$2.07
	Commodities	$31,000	POPULATION	$0.35
	Capital Outlay	$12,500	FIXED	$0.00
	Transfers	$0	FIXED	$0.00
HEALTH	Personnel	$66,156	FIXED	$0.00
	Contractual Services	$949,319	POPULATION	$10.72
	Commodities	$18,600	POPULATION	$0.21
	Capital Outlay	$0	FIXED	$0.00
	Transfers	$0	FIXED	$0.00
STREET MAINTENANCE	Personnel	$369,970	MARGINAL*	$0.00
	Contractual Services	$283,990	LANE MILES	$458.05
	Commodities	$1,944,800	LANE MILES	$3,136.77
	Capital Outlay	$20,000	FIXED	$0.00
	Transfers	$0	FIXED	$0.00
CITY ENGINEER	Personnel	$51,240	MARGINAL*	$0.00
	Contractual Services	$55,080	POP AND JOBS	$0.42
	Commodities	$35,000	POP AND JOBS	$0.27
	Capital Outlay	$0	FIXED	$0.00
	Transfers	$951,990	POP AND JOBS	$7.30
TRAFFIC ENGINEERING	Personnel	$450,775	MARGINAL*	$0.00
	Contractual Services	$53,200	LANE MILES	$85.81
	Commodities	$122,800	LANE MILES	$198.06
	Capital Outlay	$16,000	FIXED	$0.00
	Transfers	$0	FIXED	$0.00

Figure 20 (continued):

Dept./Division	Expenditure Category	Base Year Budget Amount	Projected Expenditure Calculation Based on	LOS Standard ($ per Demand Unit)
AIRPORT	Personnel	$39,609	FIXED	$0.00
	Contractual Services	$62,750	POP AND JOBS	$0.48
	Commodities	$3,700	POP AND JOBS	$0.03
	Capital Outlay	$7,500	POP AND JOBS	$0.06
	Transfers	$0	FIXED	$0.00
BUILDING MAINTENANCE	Personnel	$296,958	MARGINAL*	$0.00
	Contractual Services	$640,320	FACILITY SF	$2.03
	Commodities	$43,800	FACILITY SF	$0.14
	Capital Outlay	$0	FIXED	$0.00
	Transfers	$0	FIXED	$0.00
STREET LIGHTS	Personnel	$0	FIXED	$0.00
	Contractual Services	$610,000	POPULATION	$6.89
	Commodities	$0	FIXED	$0.00
	Capital Outlay	$0	FIXED	$0.00
	Transfers	$0	FIXED	$0.00
LEVEE MAINTENANCE	Personnel	$78,522	FIXED	$0.00
	Contractual Services	$21,000	FIXED	$0.00
	Commodities	$19,300	FIXED	$0.00
	Capital Outlay	$0	FIXED	$0.00
	Transfers	$0	FIXED	$0.00
PARKS/FACILITIES MAINTENANCE	Personnel	$2,393,150	MARGINAL*	$0.00
	Contractual Services	$609,965	PARK ACRES	$174.57
	Commodities	$324,830	PARK ACRES	$92.97
	Capital Outlay	$100,000	PARK ACRES	$28.62
	Transfers	$0	FIXED	$0.00
CODE ENFORCEMENT	Personnel	$855,112	MARGINAL*	$0.00
	Contractual Services	$178,400	POP AND JOBS	$1.37
	Commodities	$59,220	POP AND JOBS	$0.45
	Capital Outlay	$23,000	POP AND JOBS	$0.18
	Transfers	$0	FIXED	$0.00
FIRE AND MEDICAL	Personal Services	$11,061,181	MARGINAL*	$0.00
	Contractual Services	$806,999	TOTAL FIRE CALLS	$93.70
	Commodities	$479,074	TOTAL FIRE CALLS	$55.62
	Capital Outlay	$352,500	FIXED	$0.00
	Transfers	$0	FIXED	$0.00
POLICE CHIEF	Personal Services	$248,956	POP AND JOBS	$1.91
	Contractual Services	$181,450	POP AND JOBS	$1.39
	Commodities	$8,166	POP AND JOBS	$0.06
	Capital Outlay	$0	FIXED	$0.00
	Transfers	$0	FIXED	$0.00
POLICE-PATROL	Personal Services	$6,149,916	MARGINAL*	$0.00
	Contractual Services	$307,550	TOTAL POLICE CALLS	$97.20
	Commodities	$257,558	TOTAL POLICE CALLS	$81.40
	Capital Outlay	$285,000	FIXED	$0.00
	Transfers	$0	FIXED	$0.00

Figure 20 (continued):

Dept./Division	Expenditure Category	Base Year Budget Amount	Projected Expenditure Calculation Based on	LOS Standard ($ per Demand Unit)
POLICE-INVESTIGATIONS	Personal Services	$2,094,081	MARGINAL*	$0.00
	Contractual Services	$101,600	TOTAL POLICE CALLS	$32.11
	Commodities	$56,730	TOTAL POLICE CALLS	$17.93
	Capital Outlay	$27,500	FIXED	$0.00
	Transfers	$0	FIXED	$0.00
POLICE-COMMUNITY SERVICES	Personal Services	$688,470	FIXED	$0.00
	Contractual Services	$221,300	POPULATION	$2.50
	Commodities	$28,607	POPULATION	$0.32
	Capital Outlay	$15,000	FIXED	$0.00
	Transfers	$0	FIXED	$0.00
ANIMAL CONTROL	Personnel	$133,980	MARGINAL*	$0.00
	Contractual Services	$16,835	POPULATION	$0.19
	Commodities	$12,400	POPULATION	$0.14
	Capital Outlay	$35,000	POPULATION	$0.40
	Transfers	$0	FIXED	$0.00
POLICE-TRAINING	Personnel	$344,213	MARGINAL*	$0.00
	Contractual Services	$73,770	TOTAL POLICE CALLS	$23.32
	Commodities	$39,100	TOTAL POLICE CALLS	$12.36
	Capital Outlay	$0	FIXED	$0.00
	Transfers	$0	FIXED	$0.00
POLICE-TECHNICAL SERVICES	Personnel	$615,443	MARGINAL*	$0.00
	Contractual Services	$24,050	TOTAL POLICE CALLS	$7.60
	Commodities	$42,460	TOTAL POLICE CALLS	$13.42
	Capital Outlay	$0	FIXED	$0.00
	Transfers	$0	FIXED	$0.00
POLICE-IT	Personnel	$492,409	POP AND JOBS	$3.78
	Contractual Services	$20,700	POP AND JOBS	$0.16
	Commodities	$78,605	POP AND JOBS	$0.60
	Capital Outlay	$0	FIXED	$0.00
	Transfers	$0	FIXED	$0.00
POLICE-TRAFFIC	Personnel	$525,207	MARGINAL*	$0.00
	Contractual Services	$29,400	VEHICLE TRIPS	$0.10
	Commodities	$23,980	VEHICLE TRIPS	$0.08
	Capital Outlay	$40,000	VEHICLE TRIPS	$0.13
	Transfers	$0	FIXED	$0.00

4. Staffing Methodology Example

Figure 21 shows Patrol Division positions for the Police Department. In order to project the marginal personnel cost increases that will occur as a result of new growth, TischlerBise has documented the current level of service in terms of calls for service by type of employee (it was determined with City staff that calls for service is most appropriate indicator of demand for additional police officers. For example, there are currently 81 Police Officers. For purposes of the fiscal impact analysis it is assumed that one new Police Officer is hired for every 39 increase

in calls for service (3,164 calls for service divided by 81 positions). However, in order to help maintain the current level of service, it is assumed the next position is hired when 50% of the 39 count screening level of service threshold is reached. It is assumed these personnel are hired with a salary/benefits package of $52,519. This same methodology is used for all growth-related staffing needs highlighted as "marginal" in Figure 20. Obviously the demand base used for each type of position varies. For example, the park maintenance staff is a function of additional park acres added to the City's inventory, whereas road maintenance staffing needs are based on additional road miles added to the City's inventory.

Figure 21:

PATROL STAFFING INPUT						
Category	2007 FTE Positions	Project Using Which Demand Base?	Current Demand Units Served Per Position	% Estimate of Available Capacity	Remaining Capacity/ Initial Hire Threshold	Estimated Service Capacity Per Position
Police Captain	3.0	TOTAL POLICE CALLS	1,055	20%	211	844
Police Sergeant	7.0	TOTAL POLICE CALLS	452	20%	90	407
Police Officer	81.0	TOTAL POLICE CALLS	39	50%	20	39
Civilian Teleserve Officer	3.0	TOTAL POLICE CALLS	1,055	50%	527	923

D. Capital Cost Methodology

This section discusses the major capital cost assumptions used in the fiscal impact analysis.

1. Parks and Recreation

Park construction is projected on a marginal basis using current levels of service (i.e. acres per capita) for active parkland. For example, according to information provided by City staff, the current level of service for athletic complexes is .00091 acres per capita (81 acres divided by city population of 88,541). The "typical" athletic complex is approximately 15 acres in size, with a cost of $2.95 million. In order to forecast the need for future athletic complexes, the fiscal model will apply the level of service standard discussed above to the population increases under current growth trend scenario and will construct an athletic complex when new growth triggers the need for an additional 15 acres of athletic complex acres. The same methodology is used for the other types of capital improvements provided by the City. The current inventory, LOS factor, average facility size and average cost are shown in Figure 22 below.

Figure 22:

Facility	Current Inventory	Current LOS Per Capita	Avg. Size	Avg. Cost
Athletic Complexes	81 Acres	0.0009	15 Acres	$2,950,000
Athletic Fields	12 Acres	0.00014	1 Acre	$65,000
Neighborhood Parks	103 Acres	0.00116	5 Acres	$650,000
Community Parks	292 Acres	0.0033	30 Acres	$2,900,000
Aquatics Centers	4 Centers	0.00005	N/A	$3,000,000
Natural Areas	1,110 Acres	0.0125	100 Acres	$2,500,000
Recreation Centers	84,600 Sq. Ft.	0.9555	25,000 Sq. Ft.	$3,200,000

*Based on population of 88,541

2. Police

Additional Police facility construction is factored on a marginal basis, based on the current level of service for office space. The Police Department currently operates out of a 30,000 square foot facility in downtown Lawrence. Conversations with staff indicate that additional space will be needed if the City is to continue to provide the same level of service to new residents in the future. Additional police space is projected based on the current level of service of .2300 (30,000 square feet divided by current population and jobs of 130,408). For purposes of this analysis, it is assumed additional space is built in 2013. The amount of space varies for each subarea/scenario based on the net increase in population and jobs over the 20-year analysis period. For example, the West of K-10-Suburban Option generates the need for 8,692 square feet of additional space (.2300 square feet per person and job multiplied by a net increase of 37,782 persons and jobs). The cost per square foot is assumed at $225, for a capital cost of $1,955,631.

3. Fire and Medical

Growth-related fire stations and apparatus were factored on a marginal basis, based on information provided by the Fire and Medical Department. According to information provided by staff, each Area will require an additional fire station and apparatus in order to provide current level of service. The difference between and subarea/scenario is the timing of station construction. Figure 23 below shows the assumptions used in this analysis.

Figure 23:

Area/Scenario	Year Constructed	Station Cost	Apparatus Cost*
SE-Residential	2012	$2,550,000	$970,000
SE-Industrial	2015	$2,550,000	$970,000
South of Wakarusa	2010	$2,550,000	$970,000
South of Wakarusa TND	2010	$2,550,000	$970,000
Airport Industrial Park	2011	$2,550,000	$970,000
West of K-10	2009	$2,550,000	$970,000
West of K-10 TND	2009	$2,550,000	$970,000

*Assumes a Quint and a Medic Unit

4. General Government

Additional General Government space construction is factored on a marginal basis, based on the current level of service for office space. The City of Lawrence currently has an inventory of 49,872 square feet dedicated to General Government activities. Conversations with staff indicate that additional space will be needed if the City is to continue to provide the same level of service to new residents in the future. Additional General Government space is projected based on the current level of service of .3824 (49,872 square feet divided by current population and jobs of 130,408). For purposes of this analysis, it is assumed additional space is built in 2014. The amount of space varies for each subarea/scenario based on the net increase in population and jobs over the 20-year analysis period. For example, the West of K-10-Suburban Option generates the need for 14,449 square feet of additional space (.3824 square feet per person and job multiplied by a net increase of 37,782 persons and jobs). The cost per square foot is assumed at $225, for a capital cost of $3,251,041.

5. Roads

In order to forecast additional arterial road capacity that is needed to support new development, TischlerBise utilized a marginal cost methodology based on vehicle miles of travel (VMT). This approach calculates an average VMT for each type of land use and determines how much it will cost per VMT to provide that amount of infrastructure, namely lane miles. VMT is the product of the number of vehicle trips multiplied by the average trip length.

Vehicle trips are average weekday vehicle trip ends from the reference book, Trip Generation, 7th Edition, published by the Institute of Transportation Engineers (ITE) in 2003. A vehicle trip end represents a vehicle either entering or exiting a development (as if a traffic counter were placed across a driveway). Trip generation rates are adjusted to avoid double counting each trip at both the origin and destination points. For all nonresidential development except commercial/shopping center development, the trip adjustment factor is 50 percent. As documented in the Fifth Edition of Trip Generation (see Table VII-1 of the 5th edition, 1991),

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. (See Figure 24**Error! Reference source not found.**.) For commercial/shopping center development (ITE code 820), the trip adjustment factor is less than 50 percent because retail uses attract vehicles as they pass by on arterial and collector roads. For example, when someone stops at a convenience store on the way home from work, the convenience store is not the primary destination. For a small-size shopping center of 50,000 square feet of floor area, the ITE manual indicates that on average 48 percent of the vehicles that enter are passing by on their way to some other primary destination. The remaining 52 percent of attraction trips have the shopping center as their primary destination. Because attraction trips are half of all trips, the trip adjustment factor is 52 percent multiplied by 50 percent, or approximately 26 percent of the trip ends.

Figure 24:

	Trips Ends	Adj Factor
VERY LOW DENSITY	9.57	50%
LOW DENSITY	9.57	50%
MEDIUM DENSITY	5.86	50%
HIGH DENSITY	6.59	50%
TND LOW DENSITY	8.57	50%
TND MEDIUM DENSITY	4.86	50%
TND HIGH DENSITY	5.59	50%
LIVE/WORK	22.66	50%
MIXED USE	6.59	50%
OFFICE KSF	18.35	50%
OFFICE/WAREHOUSE KSF	12.76	50%
INDUSTRIAL KSF	6.97	50%
COMMERCIAL KSF	67.91	36%
INSTITUTIONAL KSF	4.48	50%
MIXED USE COMMERCIAL KSF	53.28	31%

*KSF stands for 1,000 square feet

The relationship between development units in the City of Lawrence over the next twenty years and travel demand is documented in Figure 25. Figure 25 summarizes the input variables to be used in the analysis. The variables with light blue shading are factors from the National Personal Transportation Survey (NPTS) data, and the yellow shaded average trip length is the average trip length, lane capacity for an arterial street and cost to construct a lane mile, which was provided by the City. The average trip length is weighted to account for trip length variation by type of land use. As documented by the National Personal Transportation Survey (see Table 5 in the 1999 publication by Federal Highway Administration) vehicle trips from residential development, for home-based work trips, social and recreational purposes, are approximately 122 percent of the average trip length. Conversely, shopping trips associated with commercial development are roughly 68 percent of the average trip length while other

nonresidential development typically account for trips that are 75 percent of the average trip length.

Figure 25:

Residential Trip Length	122%
Commercial Trip Length	68%
Other Nonres Trip Length	75%
First Projection Year	2008
Arterial Capacity Per Lane	7,325 Trips
Arterial Avg Miles/Trip	4.47 Miles
Cost per Lane Mile	$1,000,000

V. REVENUE AND COST DETAIL

The following section summarizes the demographic and data assumptions to be used in this fiscal impact analysis.

1. Major Data Assumptions

Major data used in the analysis such as current population, housing units, employment levels and residential and nonresidential vehicle trips are shown below and used to calculate unit costs and service level thresholds.

Figure 26:

	Base 2007
POPULATION	88,541
POP AND JOBS	130,408
SINGLE FAMILY	16,914
OTHER	19,082
TOTAL UNITS	35,996
COMMERCIAL JOBS	31,858
INDUSTRIAL JOBS	5,879
OFFICE JOBS	1,974
OTHER JOBS	2,156
TOTAL JOBS	41,867
COMMERCIAL SF	5,450,000
INDUSTRIAL SF	8,310,000
OFFICE SF	2,650,000
TOTAL NR KSF	16,410,000
RESIDENTIAL TRIPS	143,809
NONRES TRIPS	160,606
VEHICLE TRIPS	304,415
LANE MILES	620
PARK ACRES	3,494
FACILITY SF	315,474

2. Police Calls for Service

A custom methodology is used to allocate police costs based on an analysis of calls for service. The Lawrence Police Department provided a summary of calls for service in 2005 (the most recent available) by land use. Those calls that could not be assigned to a land use and traffic-related calls were excluded from the analysis. Of the remaining calls, it is estimated that 62.9% percent of police calls for service were to residential land uses. Nonresidential calls account for 37.1% of the total.

To project future police calls for service, this data is used to determine a call per person and call per nonresidential trip. Since specific records for calls for service by type of nonresidential land use is not available, trips by type of nonresidential land use are utilized as a realistic proxy. This methodology indicates that the greatest calls for service on a per square foot basis are for retail, then office and then industrial and flex uses. If calls for service were allocated on a per employee basis, office uses would generate the greatest number of calls due to its high employment density, which is contrary to actual experience. Growth projections for each scenario are then used in conjunction with the calls for service factors to project future calls for service. (e.g., for every new person in the City, .02 calls for service are generated.) See Figure 27.

Figure 27:

Police Calls for Service Data (1)

Land Use	2005	Percent
Residential	1,989	62.9%
Nonresidential	1,175	37.1%
TOTAL CALLS FOR SERVICE	**3,164**	**100.0%**

Calls for Service Projection Factors	
Current Population	88,541
Current Nonresidential Vehicle Trips	160,606
Calls per Capita	0.02
Calls per Nonres. Trip	0.01

(1) Based on information provided by the Police Department. Includes only calls that can be classified by land use.

3. Fire Calls for Service

Fire calls for service by land use was provided by the Lawrence Fire and Medical Department. The data indicates that 50.6% of total City fire calls for service are to residential land uses. Nonresidential calls account for 41.5% of the total, while traffic-related responses account for 7.9%. To project future Fire calls for service, the information in Figure 28 is used to determine a call per person, call per nonresidential trip, and call per vehicle trip. Growth projections for each

scenario are then used in conjunction with the calls for service factors to project future calls for service. (e.g., for every new person in the City, .05 calls for service are generated.)

Figure 28:

Fire/Rescue Calls for Service Data (1)

Land Use	2002	Percent
Residential Land Uses	4,356	50.6%
Nonresidential Land Uses	3,573	41.5%
Traffic Related	684	7.9%
TOTAL CALLS FOR SERVICE	**8,613**	**100.0%**

Calls for Service Projection Factors	
Current Population	88,541
Current Nonresidential Vehicle Trips	160,606
Current Citywide Vehicle Trips	304,415
Calls per Capita	0.05
Calls per Nonres. Trip	0.02
Calls per Vehicle Trip	0.002

(1) Based on information provided by the Fire Department