

Law Enforcement Impact Fees

December 2010

Department of Capital Planning and Management – Office of Impact Fees

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1.0 Executive Summary

This document updates the Jefferson County Law Enforcement Impact Fee from the impact fee study done in December of 2007. The maximum justifiable fee schedule for new residential and commercial land uses are presented in Table 1.

Table 1. CY 2010 Maximum Justifiable Impact Fees

Residential Impact Fee		
Housing Type	PPH	Fee /1
Single Family	2.63	\$279
Townhome/Duplex	2.01	\$213
Multi-family	1.98	\$210
Non Residential Impact Fee		
Commercial Use Category	Adj Trip Ends	Fee /2
Com/Shop Ctr 25,000 SF or less	24.27	\$378
Com/Shop Ctr 25,001 – 50,000 SF	22.51	\$350
Com/Shop Ctr 50,001 – 100,000 SF	19.69	\$307
Com/Shop Ctr 100,001 – 200,000 SF	17.05	\$266
Com/Shop Ctr over 200,000 SF	14.63	\$228
Office/Inst 10,000 SF or less	11.33	\$176
Office/Inst 10,001 – 25,000 SF	9.18	\$143
Office 25,001 – 50,000 SF	7.78	\$121
Office/Inst 50,001 – 100,000 SF	6.67	\$104
Office/Inst over 100,000 SF	5.69	\$89
Business Park	6.38	\$99
Light Industrial	3.49	\$54
Warehousing	1.78	\$28
Manufacturing	1.91	\$30

Notes

/1 Expressed as fee per dwelling unit

/2 Expressed as fee per 1,000 square feet usable space

1.1 Trends Driving the Fee Schedule

Relative to the 2007 fee study, the law enforcement impact fee schedule is higher for both residential and nonresidential development. There are a number of factors which serve to increase or decrease the fee schedules:

- The capitalization of the Sheriff's inventory is significantly higher than in 2007. There is \$1.28 million more invested in police cruisers and the equipment required to outfit them relative to the inventory in 2007.
- Commercial demand, as jobs within specific commercial categories, have increased in all sectors (refer to Appendix 1 and overall economic summaries from the West Virginia Bureau of Employment Programs). Beyond this increase, the number of calls for emergency law enforcement service to commercial establishments has increased relative to the 2004 study. Since the previous study, several major commercial ventures have

been completed in the county and these appear to have driven this increase in law enforcement calls to non-residential addresses.

Thus, although both residential population and non-residential vehicular trips have increased, the value of the Sheriff's assets increased at a greater pace, driving the fee calculations up relative to their place in 2007. There was also a shift in the calls to addressable locations, with more calls coming from non-residential addresses in 2010 relative to 2007. This fact shifted much of the increase toward the non-residential component while the residential fee saw only a modest rise relative to the 2007 fee calculation.

1.2 What are Impact Fees?

Impact fees are one-time payments that may be assessed by a locality to offset the costs associated with providing necessary public services. Impact fees for the County are proportionate and reasonably related to the capital facility service demands of new development. The fee methodologies establish that the fees will substantially benefit new development. The County's impact fee methodology also identifies the extent to which newly developed properties are entitled to various types of credits to avoid potential double payment of capital costs.

TischlerBise, Inc. (formerly Tischler & Associates) had previously evaluated possible methodologies and documented appropriate demand indicators by type of development, for each type of fee. Specific capital costs have been identified using local data and current dollars. The formula used to calculate each impact fee is diagrammed in Figure 1. Also, for each type of fee the report includes a summary table indicating the specific factors used to derive the impact fee. These factors are also referred to as Level-Of-Service (LOS) standards. This current study utilizes the same approach previously applied by TischlerBise.

1.3 How are Impact Fees Calculated?

There are three basic approaches used to evaluate the various components of Jefferson County's impact fees. A **plan-based method** is best suited for public facilities that have adopted plans or commonly accepted service delivery standards to guide capital improvements. This method is not used in the Law Enforcement Impact Fee.

The **incremental expansion** methodology documents the current Level-Of-Service (LOS) for each type of public facility in both quantitative and qualitative measures. LOS standards are determined in a manner similar to the current replacement cost approach used by property insurance companies. However, in contrast to insurance practices, Jefferson County will not use the funds for renewal and/or replacement of existing facilities. Rather the County's intent is to use impact fee revenue to expand or provide additional facilities, as needed to accommodate new development. An incremental expansion cost method is best suited for public facilities that will be expanded in regular increments, with LOS standards based on current conditions in the community. This methodology is used to calculate all components of the Law Enforcement Impact Fee.

A third method, known as the **buy-in approach**, is based on the rationale that new development will pay for its share of the useful life and remaining capacity of recently constructed facilities. This methodology is not used in this report.

Another general requirement that is common to impact fee methodologies is the evaluation of credits. There are several types of credits that have been considered. First, a **future revenue credit** has been evaluated to avoid potential double payment for capital facilities through on-going revenues that may fund system improvements. For example, this type of potential double payment may occur if facilities are bond financed.

The second type of credit is a **site-specific credit** for system improvements that have been included in the impact fee calculations. Policies and procedures related to site-specific credits for system improvements are addressed in the ordinance that establishes the County's fees. However, 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.

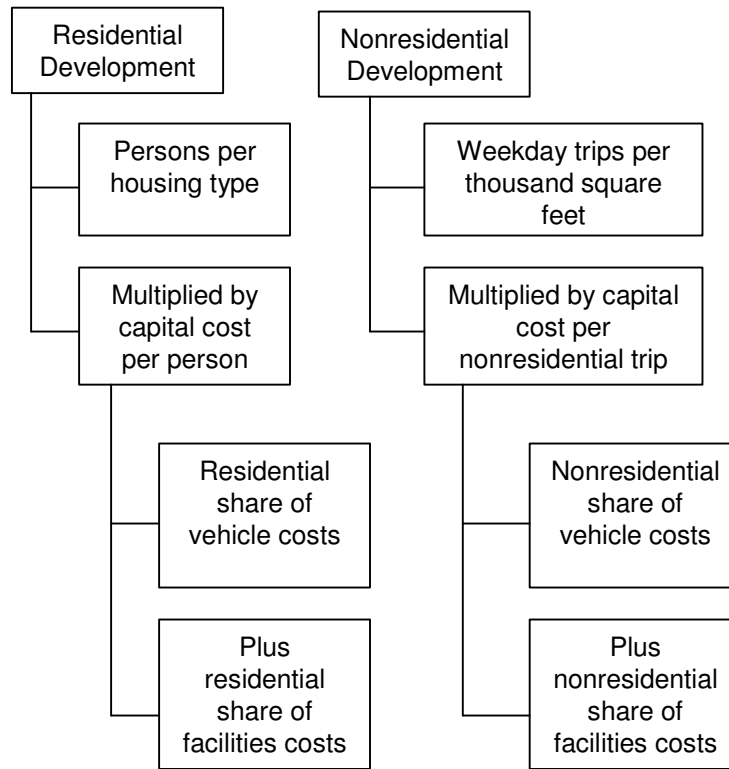
The Law Enforcement Impact Fee Calculations are entirely based on the incremental expansion approach. There are no general obligation bonds or excess levies for the benefit of Law Enforcement and all funding for law enforcement capital expenses has historically come from general revenue funds, thus there are no credits to consider in any of the fee calculations. The impact fees are based on a countywide service area, although the five incorporated municipalities presently maintain separate law enforcement agencies and by ordinance this fee only applies to the unincorporated portions of the county. Fees for residential development are assessed per housing unit and are collected prior to issuance of a building permit. For nonresidential development, the fees are assessed per thousand square feet of floor area and are also collected prior to issuance of a building permit.

2.0 Base Data

The incremental expansion methodology has been used to determine impact fees for law enforcement including facilities and vehicles for the Sheriff's Office. As shown in Figure 1, the Law Enforcement Impact Fee uses different demand generators for residential and nonresidential development. Residential impact fees are calculated on a per capita basis and then converted to an appropriate amount by type of housing using household size multipliers. To calculate nonresidential impact fees, TischlerBise had previously recommended using nonresidential vehicle trips as the best demand indicator for Sheriff facilities, vehicles, and communications equipment. That approach was continued in this study.

In addition to the demand generators, discussed above, the other set of base data are the capital inventories for law enforcement. This includes the Sheriff's vehicle and facilities inventories.

Figure 1. Law Enforcement Impact Fee Methodology Chart



2.1 Demand Generators

The demand generators for either residential or nonresidential construction are first determined and then proportioned in a manner which reflects the Sheriff's workload.

- Discussions with the Sheriff's office indicate that roughly 50% of all time and resources are spent responding to criminal and traffic calls for service, with the remaining 50% being spent on calls for service related to civil processing.
- Of all criminal and traffic calls (50% of total workload), 67% are spent on calls to residential addresses (down from 87% in 2007) while 33% are spent on calls to nonresidential addresses (up from 13% in 2007). This proportioning is of the total calls to physical addresses and omits calls for roadside service since these cannot be allocated to either residential or nonresidential development (a person could be on their way to work or home or passing through the county).

These proportions are outlined in Table 2.

Table 2. Law Enforcement Demand Breakdown

		multiplier	
Total Workload /1	100%		100.0%
Criminal/Traffic	50%		
of which residential		67%	33.5%
of which non-residential		33%	16.5%
Civil	50%		
of which residential		100%	50.0%

References

/1 Memo from E. Maloney - Sheriff's Department. Analysis of January to Nov 2010 workload.

Table 3 lists the base generators for residential (number of residents) and nonresidential (number of nonresidential vehicular trips) for CY 2010. The methodology for calculating the nonresidential trips is presented in Appendix 1.

Table 3. Base Generators for 2010

Population Base Data	Value Note
2009 County Population	52,750 /1
2010 Non Residential Trips	74,628 /2

References

/1 American Fact Finder - US Census. Accessed on 1 Dec 2010
 /2 Appendix 1.

2.2 Law Enforcement Capital Inventory

The Sheriff's capital inventory includes two major groups: facilities and vehicles. Since 2007 there has been a significant increase both in the number of law enforcement vehicles and in the cost to replace them. Over time each law enforcement vehicle requires more sophisticated electronics and recording equipment, raising the vehicle replacement cost. The Sheriff's land and building inventory has remained unchanged relative to the 2007 study.

Table 4. Sheriff's Facilities Capital Inventory

	<i>Square Feet</i>	<i>Cost/SF*</i>	<i>Cost</i>	<i>Notes</i>
Sheriff's Building - Bardane	15,000	\$ 250	\$ 3,750,000	/1
Blue Ridge Community Facility	1,000	\$ 115	\$ 115,000	/2
Total Cost			\$3,865,000	/3

References

/1 Building sited on 2.51 acres. Cost is actual total acquisition and construction costs.
 /2 Building replacement cost is an estimate
 /3 Data verified by Lt. Hansen, JCSD, November 2010

Table 5. Sheriff's Vehicle Capital Inventory

<i>Vehicle</i>	<i># Units in Service FY 2011</i>	<i>2011 Replacement Cost /2</i>	<i>Total Cost FY 2011</i>	<i>Ref (A, B or C)</i>
Ford Crown Victoria	31	\$55,150.00	\$1,709,650.00	C
Ford Explorer	9	\$52,744.00	\$474,696.00	C
Jeep Cherokee	3	\$54,340.00	\$163,020.00	C
Chevrolet Motorhome	1	\$155,000.00	\$155,000.00	C
BMW 5401	1	\$6,500.00	\$6,500.00	C
Buick Leasbre	1	\$5,000.00	\$5,000.00	C
Chrysler Concorde	1	\$3,000.00	\$3,000.00	C
Ford Taurus	1	\$47,043.00	\$47,043.00	C
Dodge Durango	3	\$27,059.00	\$81,177.00	C
Total Vehicles	52		\$2,645,086.00	

Additional Law Enforcement Items

<i>Item</i>	<i># Units in Service FY 2011</i>	<i>2011 Replacement Cost /2</i>	<i>Total Cost FY 2011</i>	<i>Ref (A, B or C)</i>
Traffic Monitoring Cam	6	\$24,100.00	\$144,600.00	A
Total equipment	6		\$144,600.00	

Total Asset Value **\$2,789,686.00**

References

- 2010 vehicle inventory provided by Lt. Hansen, Sheriff's office [CTS ID 3093]
- (A) Recent purchase (within past year)
- (B) Vendor quote
- (C) Insurance estimate of replacement cost

2.2 Consultant Study

The current study as well as the previous fee study were conducted in-house using staff of the Jefferson County Commission. The current best practice is to engage a fee study consultant at some point in the fee update cycle in order to introduce any new best practices. Since nearly 7 years has passed since the last consultant-generated fee recalculation, it is appropriate to include that future cost at this time.

The cost for a study in three years is estimated to be \$10,000. This amount is allocated to the projected increase in population and non-residential trips over the next three years. The US Census Bureau estimated the 2006 population of Jefferson County at 52,750 and the population estimate for 2009 was 50,960. Assuming the past 3-year trend continues for the next three years, this yields a 3-year population increase of 2,060 persons. During the same time, staff project an additional 6,607 non-residential vehicular trips. Taken

together, these additional increments (8,667) divided by the estimated future study cost of \$10,000 result in a study cost per person or non-residential vehicular trip to be \$0.86.

3.0 Fee Calculations

Fees are calculated by relating the demand generators to the capitalized costs for facilities and vehicles. The results of these calculations are presented in Table 6. The data from Table 6 serves as the source for the final calculated maximum justifiable fees, expressed per housing unit type or commercial use category. Those data are presented in Table 7, which is a duplicate of the data in Table 1. A detailed explanation of the methodology follows these tables.

Table 6. Fee Calculations – Demand Unit Costs

Category	Demand Unit Cost		Demand Unit Break Down		
	Per Person	Per Trip	Civil	Criminal/Traffic	
			Residential	Residential	Non Residential
Facilities	\$61.18	\$8.55	\$36.64	\$24.55	\$8.55
Vehicles	\$44.16	\$6.17	\$26.44	\$17.72	\$6.17
Consultant Study	\$ 0.86	\$ 0.86			
Totals	\$106.20	\$15.57			

Table 7. Fee Calculations - Maximum Justifiable Impact Fees

Residential Impact Fee		
<u>Housing Type</u>	<u>PPH</u>	<u>Fee /1</u>
Single Family	2.63	\$279
Townhome/Duplex	2.01	\$213
Multi-family	1.98	\$210
Non Residential Impact Fee		
<u>Commercial Use Category</u>	<u>Adj Trip Ends</u>	<u>Fee /2</u>
Com/Shop Ctr 25,000 SF or less	24.27	\$378
Com/Shop Ctr 25,001 – 50,000 SF	22.51	\$350
Com/Shop Ctr 50,001 – 100,000 SF	19.69	\$307
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Office 25,001 – 50,000 SF	7.78	\$121
Office/Inst 50,001 – 100,000 SF	6.67	\$104
Office/Inst over 100,000 SF	5.69	\$89
Business Park	6.38	\$99
Light Industrial	3.49	\$54
Warehousing	1.78	\$28
Manufacturing	1.91	\$30

Notes

/1 Expressed as fee per dwelling unit

/2 Expressed as fee per 1,000 square feet usable space

3.1 Fee Calculation Methodology

The **Demand Unit Cost** expressed as *Per Person* for facilities and vehicles constitutes the total *per person* cost of law enforcement. These values serve to ultimately calculate the Law Enforcement Impact Fee for each residential dwelling unit type, based on the average persons per household for those dwelling types. Conversely, the *Per Trip* costs for facilities and vehicles constitute the total *per nonresidential vehicular trip* cost of law enforcement. These values serve to calculate the Law Enforcement Impact Fee for each commercial use category (for a set of predefined uses) and also serve as the base of any custom commercial fee calculations. The commercial fee schedule is calculated by relating the per vehicular trip cost to the number of weekday vehicular trips associated with each commercial use. The trip numbers are adjusted since traffic engineers count entry and exit to a property as two separate trips, thus the minimum trip adjustment is 50%. For commercial land uses that tend to capture on-property trips, such as large shopping centers, the adjustment is higher.

3.1.1 Residential Fee Calculations

The per person costs of \$61.81 for facilities and \$44.16 for vehicles presented in Table 6 are derived as follows:

- The per person cost for vehicles or facilities is the sum of the residential civil component plus the residential criminal component. These are the third and fourth columns, respectively, in Table 6.
- The residential civil component (third column, Table 6) is the total capitalization of either facilities or vehicles (from Table 4 and Table 5) multiplied by the value of 50% as presented in Table 2 (recall that half of the Sheriff's work load is in responding to civil matters and that all of those calls are residential). Finally, this value is divided by the total county residential population from Table 3 to yield the cost per person for the civil component of facilities or of vehicles.
- The residential criminal component (fourth column, Table 6) is calculated in a similar manner with the exception that it is the product of the total capitalization of either facilities or vehicles multiplied by the value of 33.5% (from Table 2). This product is again divided by the total residential population to yield the cost per person for the criminal component of either facilities or of vehicles.

3.1.2 Nonresidential Fee Calculations

- For the nonresidential criminal component, the values in the fourth column of Table 6 are derived by multiplying the total capital costs for either vehicles or facilities (from Table 4 and Table 5) by the value of 16.5% from Table 2 (this is the product of the ratio of civil calls to commercial vs. residential addresses times the 50% workload for criminal vs. civil calls). This value is divided by the total number of nonresidential vehicular trips expressed in Table 3.
- There is no nonresidential civil component as previously discussed.

Appendix 1. Non-Residential Weekday Trips

Table 8. Base Data for Non Residential Weekday Trips - Projected for 2010

Land Use	Knowns			Calculated Values				
	Wkly Trip Ends Per 1000 sq ft	Square Feet per employee	2010 Jobs	Total Floor Area (IxJ)	Total Floor Area per 1000 (J)	Total Trips/Floor Area (J*F)	Trip Adjustment	Total Daily Trips
Comm Shop Ctr (820) 100K gross leasable area	68.17	450	6,610	2974500	2974.5	202771.665	32%	64887
General Office (710) 10K gross leasable area	22.64	228	2,786	635106.67	635.1067	14378.8149	50%	7189
Light Industrial (110)	6.97	433	1,691	732251.11	732.2511	5103.79024	50%	2552
			11,087					74628
	/1	/2	/3	/4	/5	/6	/7	/8

References

- /1 Wkdy Trip Ends Per 1,000 sq ft - Table 1 - memo dated 3 June 2004 from Chris Cullinan, T&A.
- /2 From ITE Trip Generation, 7th edition.
- /3 Data from CY2010 Q1 worksheet using First Quarter FY 2010 BEP data
- /4 Calculated value - product of Square feet per employee and 2010 Jobs.
- /5 Calculated value - Total Floor Area divided by 1000.
- /6 Calculated value - product of Total Floor Area per 1000 and Weekly Trip Ends per 1000 sq ft.
- /7 Trip Adjustment - Table 2 - memo dated 3 June 2004 from Chris Cullinan, T&A. Original source data from ITE Trip Generation, 6th Edition.
- /8 Calculated value - Total Trips per floor area divided by trip adjustment.

Table 8 data source is Microsoft Excel Workbook *2010 12 03 BEP Data.xls*

Appendix 2. Fee Schedule History

Table 9. Law Enforcement Impact Fee Schedule History.

	2005	2006	2007	2008	2011
Residential Impact Fee	/1	/2	/2	/1	/3
Housing Type	Impact Fee per Dwelling Unit				
Single Family	\$120	\$127	\$135	\$262	\$279
Town home/Duplex	\$92	\$105	\$112	\$200	\$213
Multi-family	\$90	\$105	\$112	\$197	\$210
Non Residential Impact Fee	Impact Fee per 1,000 square feet gross usable floor area				
Commercial Use Category					
Com/Shop Center 25,000 SF or less	\$214	\$226	\$241	\$126	\$378
Com/Shop Center 25,001 – 50,000 SF	\$198	\$209	\$223	\$117	\$350
Com/Shop Center 50,001 – 100,000 SF	\$172	\$182	\$194	\$101	\$307
Com/Shop Center 100,001 – 200,000 SF	\$148	\$156	\$166	\$87	\$266
Com/Shop Center over 200,000 SF	\$127	\$134	\$143	\$75	\$228
Office/Inst 10,000 SF or less	\$99	\$105	\$112	\$58	\$176
Office/Inst 10,001 – 25,000 SF	\$80	\$84	\$89	\$47	\$143
Office/Inst 25,001 – 50,000 SF	\$68	\$72	\$77	\$40	\$121
Office/Inst 50,001 – 100,000 SF	\$58	\$61	\$65	\$34	\$104
Office/Inst over 100,000 SF	\$49	\$52	\$55	\$29	\$89
Business Park	\$56	\$59	\$63	\$33	\$99
Light Industrial	\$30	\$32	\$34	\$18	\$54
Warehousing	\$22	\$23	\$25	\$13	\$28
Manufacturing	\$17	\$18	\$19	\$10	\$30

Note:

/1 Fee Study.

/2 Annual Inflation Adjustment.

/3 Proposed new fee schedule for CY 2011 –this study.