

PRELIMINARY DRAFT - MAY 12, 2015

Report to Metro Council Regarding Annexations

Louisville-Jefferson County Metro Government

May 2015

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Metro Council
Louisville-Jefferson County Metro Government

You engaged us to provide certain consulting services for Louisville-Jefferson County Metro Government ("Metro Government") in connection with the possible annexation of unincorporated areas by suburban cities. We have performed our services in accordance with Statements on Standards for Consulting Services issued by the American Institute of Certified Public Accountants.

In connection with our work, we reviewed various documents provided to us and interviewed selected employees of Metro Government and others. Our observations and analysis follows.

We did not audit, review, or otherwise verify the accuracy or completeness of your financial statements or accounting records in accordance with generally accepted accounting principles. The audit of your financial statements is performed on an annual basis by another accounting firm. We relied on the accuracy and completeness of the documents and information you and Metro Government employees provided or made available to us. Our engagement cannot be relied upon to disclose errors, fraud, or other illegal acts that may exist. We have no responsibility to identify and communicate significant deficiencies or material weaknesses in your internal controls as part of this engagement, and our engagement cannot, therefore be relied upon to make disclosure of such matters.

We appreciate being selected to perform this engagement, and are available to answer any questions or provide any follow-up services that you deem necessary.

Louisville, Kentucky
May 12, 2015

Scope of the Project and Background

Scope

We were asked to provide analysis and review of the financial effects to Metro Government of the annexation of Beckley Woods subdivision by the City of Middletown ("Middletown"). We were also asked to provide suggestions for a template that could be used by Metro Council to evaluate the financial effects of future annexations.

Background

On January 6, 2003, the City of Louisville and Jefferson County merged to form Louisville-Jefferson County Metro Government. In connection with that merger, certain portions of Jefferson County were located in unincorporated areas. This means that they were not part of another suburban city such as Middletown or Jeffersontown. In connection with the Kentucky legislation that caused this merger, a 12 year moratorium was put in place on suburban cities so that they could not annex unincorporated areas. That moratorium has since expired.

State law governing mergers includes Kentucky Revised Statutes ("KRS") 67C.111, which applies only to Metro Government and KRS 81A which applies to all annexations throughout Kentucky. In addition, Metro Council has passed Resolutions No. 056 and 057, Series 2014, which provide additional guidance on such annexations.

The KRS mentioned above may be found at:

- KRS 67C.111 www.lrc.ky.gov/statutes/statute.aspx?id=24007
- KRS 81A www.lrc.ky.gov/statutes/chapter.aspx?id=37451

Financial Effects of Annexations - Revenues

When a suburban city annexes an unincorporated area within Jefferson County, Metro Government gives up certain revenue streams to that city. On the other hand, they also relinquish responsibility for certain services, and the related costs, which then become the responsibility of the suburban city.

Revenue sources given up by Metro Government include:

- Insurance Premium Tax
- Kentucky Municipal Aid and County Road Aid
- Fee on Natural Gas

These revenue sources are explained in more detail, as follows:

Insurance Premium Tax

This is a tax of 5% on insurance premiums. Certain kinds of insurance are excluded from the tax, including accident, health (except in the Urban Services District), crop, flood, title and workers' compensation insurance. It is difficult to know exactly how much revenue this tax produces in a particular area. For example, property and casualty premiums vary depending on factors such as (1) the value of the underlying items insured, (2) premium differences between various insurance companies, and (3) the amount of insurance needed. As an example, residents who own expensive cars or who have teenage drivers would pay higher insurance premiums than their neighbors. Each insurance company collects the tax and remits it to Metro Government or applicable suburban cities directly. As such, statistics on taxes collected in any particular unincorporated area are not available.

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The Metro Louisville Office of Management & Budget ("OMB") made an estimate of insurance premium tax revenues based on information collected from the Kentucky Department for Local Government on seven suburban cities they believed to be comparable to Beckley Woods. These cities were:

- Bancroft
- Broeck Point
- Brownsboro Farm
- Goose Creek
- Creekside
- Old Brownsboro Place
- Thornhill

They computed the tax per household based on information obtained from the US Census Bureau for those cities. From this analysis, OMB computed an estimated average of \$198.72 of tax per household. When this estimate is applied to the 157 homes in Beckley Woods, this computes to total estimated annual tax of \$31,199.

Another study was performed at the direction of a Metro Council member by sampling specific households within Beckley Woods. Fourteen homeowners were interviewed and asked the amount of their property and casualty insurance. That analysis produced an estimated average of \$146.78 of tax per household. When this estimate is applied to the 157 homes in Beckley Woods, this computes to total estimated annual tax of \$23,044.

Kentucky Municipal Aid and County Road Aid

Metro Government receives state funding based on population. Total aid received for 2013-2014 was approximately \$14,690,000 (source: Louisville Metro Revenue Estimates and Receipts - Fiscal Year 2014-2015). Based on the population estimate of 616,612 (see below), this is \$23.82 per person in Louisville. If this amount is applied to Beckley Woods' 400 residents, the total aid amount would be \$9,528. OMB used \$23.47 per person in their analysis, resulting in a total estimated amount for Beckley Woods of \$9,388.

The above population estimate of 616,612 was determined by taking the total population of Louisville, estimated at 756,832 (source: 2014 Comprehensive Annual Financial Report), less the population of suburban cities within Louisville of 140,220 (Source: League of Cities).

Fee on Natural Gas

Metro Government receives a fee of 2% on natural gas used. As with the other amounts discussed above, it is difficult to determine a revenue estimate for a particular geographic area. A June 6, 2014 Courier Journal article reported that the estimated annual cost of this fee to each household would be \$13 per year. If this amount is applied to Beckley Woods' 157 households, the total fee revenue would be \$2,041. This fee is subject to periodic re-approval and could go away in the future.

Summary

Based on the analysis above, the annual revenue loss to Metro Government of allowing the Beckley Woods annexation by Middletown would be in the range of approximately \$43,000 (high estimate) to \$34,000 (low estimate). See Exhibit D for a summary of estimated revenues for Beckley Woods. If the fee on natural gas were to go away, the above annual revenue amounts would decrease to approximately \$41,000 and \$32,000, respectively.

Financial Effects of Annexations - Expenses

When a suburban city such as Middletown annexes an unincorporated area such as Beckley Woods, it assumes responsibility for certain governmental services. The significant ones related to this situation include the following:

- Street maintenance and paving
- Sidewalk maintenance and replacement
- Curb maintenance and replacement
- General maintenance such as mowing of common areas and street sign replacement

In conjunction with the Beckley Woods annexation, a Report on Annual Maintenance Costs was prepared by Advanced Engineering and Surveying, LLC (the "AES Report"). The AES Report stated that the estimated annual cost to maintain pavement, sidewalks, curbs and street signs in Beckley Woods was as follows:

Pavement	\$8,174
Sidewalks	30,525
Curbs	20,220
Other	600
	<u>\$59,519</u>

The detail of the computations of the above amounts in the AES Report is presented as Exhibit A. Also, computations based on our discussions with officials at the Louisville Metro Department of Public Works ("Public Works") are contained on Exhibit B

Streets in a neighborhood such as Beckley Woods are expected to last up to 25 years without repaving. The AES Report projects future paving needs on Beckley Woods roads as follows:

	Years To Replace
Beckley Woods Drive	14
Bromwell Drive	20
Bromwell Court	10
Tree Crest Court	22
Beckley Trace	25
Timberlake Trail	17
Old Station Road	10
Lake Forest Lane	12

The annual estimated cost of paving is presented in the AES Report as an amount needed to be saved every year in order to pay for this future paving (i.e. it is not a current annual cost).

We consulted with Andrew Metcalfe, an engineer with Public Works, about the AES Report and about the costs that Metro Government typically incur in conjunction with unincorporated areas such as Beckley Woods. As explained below, it was Mr. Metcalfe's opinion that the replacement schedule in the AES Report for sidewalks and curbs was too high. In other words, the sidewalks and curbs would not have to be replaced as quickly as the AES Report estimates.

Street Maintenance and Paving

The AES Report estimates that a total of \$181,712 (based on 2014 dollars) will need to be spent on replacing pavement in Beckley Woods. See Exhibit A for their estimate of when this will occur. The annual estimate of \$8,174 in the AES Report assumes that the government will put that amount aside over the next 20-25 years to pay for this.

Public Works uses an estimate of \$90,000 per mile for paving of residential roads. See Exhibit B for the application of this \$90,000 per mile estimate to the Beckley Woods subdivision.

The AES Report did not address ongoing annual street maintenance such as filling in potholes. According to Mr. Metcalfe, this varies widely from year to year depending on the severity of the weather. This type of work is performed by Public Works employees, and is rarely contracted out. Even though Metro Government will no longer be responsible for this type of maintenance in Beckley Woods, it doesn't really save any money because Public Works will not reduce their staff because of the change.

Sidewalks

The AES Report estimates that 10% of Beckley Woods' sidewalks would need to be replaced in any given year (approximately 913 linear feet per year). This results in an estimated annual cost of \$30,525 for sidewalk replacement.

Mr. Metcalfe stated that Metro Government only replaces sidewalks when they develop a significant crack or other structural deformity. He stated that there were some sidewalks in Louisville that were 100 years old. When they replace sidewalks, they generally only replace the sections affected by the damage. He estimated that, in a subdivision like Beckley Woods, one sidewalk section would be replaced annually for every two households. As such, with 157 houses, 78.5 sections would be replaced per year at a cost of \$150 per section. This results in an estimated annual cost of \$11,775, significantly less than the amount in the AES Report.

Curbs

The AES Report estimates that 5% of Beckley Woods' curbs would need to be replaced in any given year (approximately 337 linear feet) at a cost of \$60 per foot. This results in an estimated annual cost of \$20,220 for curb replacement.

Mr. Metcalfe's estimate of curb replacement is 2% per year, at a cost of \$50 per foot. This results in an estimated annual cost of \$6,730 for curb replacement.

Police Protection

Some suburban cities offer police protection to their residents. In these cases, that city's police become the first responders to any calls. This is not applicable to Beckley Woods because the City of Middletown does not have a police department. However, in future annexations, this might be a factor.

Based on information obtain from the Louisville Metro Police Department ("LMPD"), it costs approximately \$58,000 per year for a patrol officer (including salary, benefits and vehicle expenses). Exhibit E contains information provided by the LMPD by division, which may be helpful in evaluating future annexation requests in cases where police protection is a factor.

Other Costs

Whenever an unincorporated area is transferred to a suburban city, that city also assumes other costs and responsibilities. These include responsibility for things like street signs, speed bumps, mowing common areas, street cleaning, snow removal and so forth. Except for signs, these items were not

considered in the AES Report. We have not considered them either because of the relatively small dollar amounts as compared to the items discussed above (e.g. paving), and because of the difficulty in estimating these amounts.

Overall Financial Effect of the Beckley Woods Annexation

It is difficult to assess the financial effect on Metro Government of annexations such as Beckley Woods. The income sources that Metro Government loses due to the annexation must be estimated and cannot be known with certainty. It is somewhat easier to estimate the costs that Metro Government will no longer have to incur because of the annexation; however, these amounts must also be estimated.

A key factor in the financial analysis is the age and condition of the streets. As explained above, streets can last for 25 years in residential areas. In the case of Beckley Woods, Middletown inherited roads in relatively good condition that may not need paving for several years (see page 4). Because paving is such a large financial component in the analysis, and because paving occurs infrequently, we believe that the financial effects of annexations such as Beckley Woods need to be assessed over a longer period of time. In our analysis, we looked at a 25 year period.

Please see Exhibit C, Twenty Five Year Cash Flows, for our financial analysis of the Beckley Woods annexation over a projected 25 year period. Revenue estimates used in Exhibit C are shown on Exhibit D. We used an assumed annual inflation rate of 2.5% for both revenues and costs.

Following is an explanation of each of the four scenarios presented in Exhibit C:

- **Scenario One.** This scenario uses a higher estimate of revenues, much of which was based on an analysis prepared by OMB. This scenario uses estimated costs based on the AES Report. This scenario implies that the annexation of Beckley Woods by Middletown saved Metro Government an average of approximately \$22,000 per year over a 25 year period.
- **Scenario Two.** This scenario uses the same higher estimate of revenues as Scenario One. However, this scenario uses costs developed based on our discussions with Public Works. This scenario implies that the annexation of Beckley Woods by Middletown resulted in a financial loss to Metro Government averaging approximately \$21,000 per year over a 25 year period.

The \$43,000 difference between these first two scenarios is because of the different cost estimates used.

- **Scenario Three.** This scenario uses a lower estimate of revenues and the cost estimates based on the AES Report. This scenario implies that the annexation of Beckley Woods by Middletown saved Metro Government an average of approximately \$34,000 per year over a 25 year period.
- **Scenario Four.** This scenario uses the same lower estimate of revenues as Scenario Three, but uses the lower cost estimates based on our discussions with Public Works. This scenario implies that the annexation of Beckley Woods by Middletown resulted in a financial loss to Metro Government averaging approximately \$9,000 per year over a 25 year period.

As with the comparison of Scenario One and Scenario Two, the difference between Scenario Three and Scenario Four is \$43,000 because of the difference in the cost estimates.

The above scenarios assume that the natural gas fee continues in existence. We also ran some scenarios as if the natural gas fee went away.

Following is a summary of all of our calculations:

Approximate Average Annual Effect Over a 25 Year Period
Net Gain (Loss) to Metro Louisville

	High Revenue Estimate		Low Revenue Estimate	
	w/ Gas Fee	wo/ Gas Fee	w/ Gas Fee	wo/ Gas Fee
Cost Estimates:				
AES Report	\$ 22,000	\$ 25,000	\$ 34,000	\$ 36,000
Public Works	(21,000)	(18,000)	(9,000)	(7,000)
Difference	43,000	43,000	43,000	43,000

Observations and Recommendations Related to Future Annexation Decisions

Based on the analysis above, and in the attached exhibits, we offer the following observations. We also provide recommendations related to decision-making with respect to future annexations.

1. Estimates of revenues may not be as important as cost estimates.

In the four scenarios presented in Exhibit C, the two scenarios using cost estimates based on our discussions with Public Works imply that Metro Government would have a net financial loss, regardless of the estimate used for revenues. We recommend that Metro Council work closely with Public Works in order to develop cost estimates for each future proposed annexation area.

2. The age and condition of existing roadways is the most important financial consideration in evaluating the financial effects of a potential annexation.

In the case of the Beckley Woods annexation, in our opinion, Middletown received a benefit from obtaining many roads which may not need paving in the near future. With respect to future annexation requests, the age of the roadways should be carefully analyzed. Turning over responsibility for older roadways to a suburban city would result in more of a financial benefit to Metro Government. The opposite is also true.

3. Lessons learned from the analysis of the Beckley Woods annexation should be applied to future annexations.

The exhibits contained in this report can be used as a template for the evaluation of future annexation requests. If police protection is applicable, those costs should be considered.

Exhibits

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Exhibit A

**Estimated Annual Maintenance Costs for Beckley Woods
Per the Advanced Engineering and Surveying Report**

Pavement

	Years To Replace	In Today's Dollars		Cost Per Year
		Replacement Cost	Cost Per Year	
Beckley Woods Drive	14	\$ 90,550	\$ 4,528	
Bromwell Drive	20	25,242	1,010	
Bromwell Court	10	3,677	147	
Tree Crest Court	22	6,828	273	
Beckley Trace	25	14,007	560	
Timberlake Trail	17	20,135	805	
Old Station Road	10	13,307	532	
Lake Forest Lane	12	7,966	319	
Total estimated cost		<u>\$ 181,712</u>	<u>\$ 8,174</u>	\$ 8,174

Sidewalks

	Linear Feet	Replace Per Year	Yards per Linear Foot	Yards	In Today's Dollars		Cost Per Year
					Cost Per Yard	Cost Per Year	
		10%					
Beckley Woods Drive	3,950	395	0.44557	176	\$ 75	\$ 13,200	
Bromwell Drive	2,525	253	0.44557	113	75	8,438	
Timberlake Trail	2,240	224	0.44557	100	75	7,486	
Old Station Road	415	42	0.44557	18	75	1,387	
Rounding						15	
	<u>9,130</u>	<u>913</u>				<u>\$ 30,525</u>	30,525

Curbs

	Linear Feet	Replace Per Year	In Today's Dollars		Cost Per Year
			Cost Per Foot	Cost Per Year	
		5%			
Beckley Woods Drive	5,600	280	\$ 60	\$ 16,800	
Lake Forest Lane	1,130	57	60	3,390	
Rounding				30	
				<u>\$ 20,220</u>	20,220

Signs

			<u>\$ 600</u>	600
Grand Total			<u>\$ 59,519</u>	

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Exhibit B

Estimated Annual Maintenance Costs for Beckley Woods Per Discussions With Public Works

Pavement

	Years To Replace	Public Works Data	
		Centerline Feet	Dollars Per Road
	A		
Beckley Woods Drive			
Public Works footage		2,192	
Allow for double wide road		2,192	
	14	4,384	\$ 74,727
Bromwell Drive	20	1,568	26,727
Bromwell Court	10	198	3,375
Tree Crest Court	22	604	10,295
Beckley Trace	25	1,410	24,034
Timberlake Trail	17	1,673	28,517
Old Station Road	10	1,028	17,523
Lake Forest Lane	12	695	11,847
Totals		11,560	
Feet per mile		5,280	
Number of miles		2.18939	
Average cost per mile		\$ 90,000	
Total estimated cost		\$ 197,045	\$ 197,045

A - used AES Report estimates.

Sidewalks

	Houses	Section Replace- ment Rate Per House	Sections Replaced Per Year	In Today's Dollars	
				Cost Per Section	Cost Per Year
Beckley Woods Drive	157	0.5	78.5	\$ 150	\$ 11,775
Bromwell Drive					
Timberlake Trail					
Old Station Road					

Curbs

	Linear Feet	Replace Per Year	In Today's Dollars	
			Cost Per Foot	Cost Per Year
		2%		
Beckley Woods Drive	5,600	112	\$ 50	\$ 5,600
Lake Forest Lane	1,130	23	50	1,130
				\$ 6,730

Signs

Used the same sign cost assumption as the AES Report.

Exhibit C

Twenty Five Year Cash Flows

Scenario One

Uses the higher estimate of revenues
Uses estimates of costs based on the AES Report

Year	REVENUES	COSTS					NET	
		Paving		Other Costs - Future Dollars				
		Current Dollars	Future Dollars	Sidewalks	Curbs	Other		
1	\$ 42,628			\$ 30,525	\$ 20,220	\$ 600	\$ 51,345	\$ (8,717)
2	43,694			31,289	20,726	615	52,629	(8,935)
3	44,786			32,071	21,244	630	53,945	(9,159)
4	45,906			32,872	21,775	646	55,293	(9,388)
5	47,053			33,694	22,319	662	56,676	(9,622)
6	48,230			34,537	22,877	679	58,093	(9,863)
7	49,435			35,400	23,449	696	59,545	(10,109)
8	50,671			36,285	24,035	713	61,034	(10,362)
9	51,938			37,192	24,636	731	62,559	(10,621)
10	53,237	\$ 16,984	\$ 21,211	38,122	25,252	749	85,334	(32,097)
11	54,567		-	39,075	25,883	768	65,726	(11,159)
12	55,932	7,966	10,452	40,052	26,530	787	77,822	(21,890)
13	57,330		-	41,053	27,194	807	69,054	(11,724)
14	58,763	90,550	124,824	42,080	27,873	827	195,604	(136,841)
15	60,232		-	43,132	28,570	848	72,550	(12,317)
16	61,738		-	44,210	29,285	869	74,363	(12,625)
17	63,282	20,135	29,891	45,315	30,017	891	106,113	(42,831)
18	64,864		-	46,448	30,767	913	78,128	(13,264)
19	66,485		-	47,609	31,536	936	80,081	(13,596)
20	68,147	25,242	40,353	48,799	32,325	959	122,436	(54,289)
21	69,851		-	50,019	33,133	983	84,135	(14,284)
22	71,597	6,828	11,468	51,270	33,961	1,008	97,707	(26,110)
23	73,387		-	52,552	34,810	1,033	88,395	(15,008)
24	75,222		-	53,865	35,680	1,059	90,605	(15,383)
25	77,102	14,007	25,335	55,212	36,572	1,085	118,205	(41,102)
	\$ 1,456,079	\$ 181,712	\$ 263,534	\$ 1,042,679	\$ 690,670	\$ 20,495	\$ 2,017,377	\$ (561,298)
							Per year	\$ (22,452)

Inflation rate = 2.5%

Inflation rate =

2.5%

- Uses the higher estimate of revenues
- Uses estimates of cost based on discussions with Public Works

Exhibit C

Twenty Five Year Cash Flows

Scenario Three

Uses the lower estimate of revenues
Uses estimates of costs based on the AES Report

Year	REVENUES	COSTS					NET	
		Paving		Other Costs - Future Dollars				
		Current Dollars	Future Dollars	Sidewalks	Curbs	Other		
1	\$ 34,473			\$ 30,525	\$ 20,220	\$ 600	\$ 51,345	\$ (16,872)
2	35,335			31,289	20,726	615	52,629	(17,294)
3	36,219			32,071	21,244	630	53,945	(17,726)
4	37,124			32,872	21,775	646	55,293	(18,169)
5	38,052			33,694	22,319	662	56,676	(18,623)
6	39,004			34,537	22,877	679	58,093	(19,089)
7	39,979			35,400	23,449	696	59,545	(19,566)
8	40,978			36,285	24,035	713	61,034	(20,055)
9	42,003			37,192	24,636	731	62,559	(20,557)
10	43,053	\$ 16,984	\$ 21,211	38,122	25,252	749	85,334	(42,281)
11	44,129		-	39,075	25,883	768	65,726	(21,597)
12	45,232	7,966	10,452	40,052	26,530	787	77,822	(32,590)
13	46,363		-	41,053	27,194	807	69,054	(22,691)
14	47,522	90,550	124,824	42,080	27,873	827	195,604	(148,082)
15	48,710		-	43,132	28,570	848	72,550	(23,840)
16	49,928		-	44,210	29,285	869	74,363	(24,436)
17	51,176	20,135	29,891	45,315	30,017	891	106,113	(54,937)
18	52,455		-	46,448	30,767	913	78,128	(25,673)
19	53,767		-	47,609	31,536	936	80,081	(26,314)
20	55,111	25,242	40,353	48,799	32,325	959	122,436	(67,325)
21	56,489		-	50,019	33,133	983	84,135	(27,647)
22	57,901	6,828	11,468	51,270	33,961	1,008	97,707	(39,806)
23	59,349		-	52,552	34,810	1,033	88,395	(29,046)
24	60,832		-	53,865	35,680	1,059	90,605	(29,772)
25	62,353	14,007	25,335	55,212	36,572	1,085	118,220	(55,867)
	\$ 1,177,536	\$ 181,712	\$ 263,534	\$ 1,042,679	\$ 690,670	\$ 20,495	\$ 2,017,392	\$ (839,856)
							Per year	\$ (33,594)

Inflation rate =

2.5%

- Uses the lower estimate of revenues
- Uses estimates of cost based on discussions with Public Works

Year	REVENUES		COSTS					NET
	Current Dollars	Paving Future Dollars	Other Costs - Future Dollars					
			Sidewalks	Curbs	Other	Total		
1	\$ 34,473		\$ 11,775	\$ 6,730	\$ 600	\$ 19,105	\$ 15,368	
2	36,335		12,069	6,898	615	19,583	15,753	
3	36,219		12,371	7,071	630	20,072	16,146	
4	37,124		12,680	7,247	646	20,574	16,550	
5	38,052		12,997	7,429	662	21,088	16,964	
6	39,004		13,322	7,614	679	21,616	17,388	
7	39,979		13,655	7,805	696	22,156	17,823	
8	40,978		13,997	8,000	713	22,710	18,268	
9	42,003		14,347	8,200	731	23,278	18,725	
10	43,053	\$ 26,098	14,705	8,405	749	49,958	(6,905)	
11	44,129	-	15,073	8,615	768	24,456	19,673	
12	45,232	11,847	15,450	8,830	787	40,611	4,621	
13	46,363	-	15,836	9,051	807	25,694	20,669	
14	47,522	74,727	16,232	9,277	827	129,349	(81,827)	
15	48,710	-	16,638	9,509	848	26,995	21,715	
16	49,928	-	17,054	9,747	869	27,670	22,258	
17	51,176	28,517	17,480	9,991	891	70,695	(19,519)	
18	52,455	-	17,917	10,240	913	29,071	23,385	
19	53,767	-	18,365	10,497	936	29,797	23,970	
20	55,111	26,727	18,824	10,759	959	73,270	(18,159)	
21	56,489	-	19,295	11,028	983	31,306	25,183	
22	57,901	10,295	19,777	11,304	1,008	49,380	8,521	
23	59,349	-	20,272	11,586	1,033	32,891	26,458	
24	60,832	-	20,778	11,876	1,059	33,713	27,119	
25	62,353	24,034	21,298	12,173	1,085	78,027	(15,674)	
	\$ 1,177,536	\$ 197,045	\$ 402,208	\$ 229,882	\$ 20,495	\$ 943,063	\$ 234,473	
		2.5%				Per year	\$ 9,379	

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Exhibit D

Estimates of Revenues

Housing units 157
People 400

	High Estimate	Low Estimate
Insurance premium tax	A \$ 31,199	D \$ 23,044
Kentucky Road Aid	B 9,388	E 9,388
Subtotal	40,587	32,432
Fee on natural gas	C 2,041	C 2,041
	<u>\$ 42,628</u>	<u>\$ 34,473</u>

A - based on OMB estimate of \$198.72 per household times 157 houses.

B - based on OMB estimate of \$23.47 per person.

C - based on Strothman and Company estimate, as explained in our report.

D - based on study performed on a sample of actual Beckley Woods residents - \$146.78 per household.

E - OMB's estimate of \$23.47 per person was used. Our estimate was \$23.82 per person.

Exhibit E

Estimates of Police Patrol Costs by Division

(provided by the Louisville Metro Police Department)

Division	1st	2nd	3rd	4th	5th	6th	7th	8th								
Patrol officers	68	65	76	75	64	64	60	61								
Residents	31,720	50,169	120,273	74,031	67,095	94,729	116,550	120,894								
Square miles	10.52	19.36	82.75	14.12	21.17	33.43	101.79	88.75								
Residents per patrol officer	466	772	1,583	987	1,048	1,480	1,943	1,982								
Square miles per patrol officer	0.15	0.30	1.09	0.19	0.33	0.52	1.70	1.45								
Annual expense per new officer	\$	50,733														
Annual fleet operating expense		6,915														
Total	\$	57,648														
Cost per resident	\$	123.58	\$	74.69	\$	36.43	\$	58.40	\$	54.99	\$	38.95	\$	29.68	\$	29.09
Cost per square mile	\$	372,630	\$	193,550	\$	52,946	\$	306,204	\$	174,278	\$	110,364	\$	33,981	\$	39,623