

**Market & Fiscal Impacts Analyses**  
**Roseland Townhomes**  
**Spotsylvania County, Virginia**

**Prepared for:**

**Mr. Shujaat Ali**  
**Spectrum Partners Investments, LLC**

**November 6, 2017**

**S. Patz and Associates, Inc.**  
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▪ S. PATZ & ASSOCIATES, INC ▪

▪ REAL ESTATE CONSULTANTS ▪

November 6, 2017

Mr. Shujaat Ali  
Partner  
Spectrum Partners Investments, LLC  
435 Fincastle Drive  
Carey, North Carolina 27516

Dear Mr. Ali:

This will submit our Fiscal Impacts Analysis (FIA), based on current Spotsylvania County budget data, for the proposed 14-lot townhome development, Roseland, that is planned for development in 2018. The attached analysis also includes a summary market study for the townhomes that shows sufficient market support for the 14 planned homes at a full cost of approximately \$250,000 per townhome, on average, and with upgrade costs included.

The FIA is also positive, albeit at a modest level of \$2,060 annually, and after build-out. The detailed market and financial data and analyses that support this level of benefit are presented in the attached report. Please call if additional data or clarification are needed.

Sincerely,

Stuart M. Patz  
President

SMP/mes

## **Introduction**

Following is a summary market analysis and the resulting Fiscal Impacts Analysis for the proposed development of the 14-unit Roseland Townhomes to be built on a largely vacant site along Hudgins Road in the Concord Heights section of Spotsylvania County, just off of U.S. Route 1 and just south of the City of Fredericksburg, Virginia. The study is presented in two subsections. The first is a site description and overview market study of the Spotsylvania County new townhome

market. Trends in new townhome sales show the level of demand that exists for new homes and the achievable sales price for new homes. These data will be used to confirm the data used for the Fiscal Impacts Analysis (FIA).

The second subsection is the FIA that shows the net fiscal tax benefits that the Roseland Townhomes will generate for the County at build out. The 14 proposed townhomes are expected to be built in 2018 and sold within a six-month period or by 2019 at the latest.

## **Site Description and Market Analysis**

A site location map is shown following the site description. The site is located on the east side of Route 1, just west of Tignor Road. Hudgins Road connects with Route 1 to the west of the site and Lafayette Boulevard to the east. Both locations have active townhome subdivisions. The photos show Hudgins Road at the site location and three views of the site.



**View of Hudgins Road West**



**View into Site with Existing Home**



**Additional View into Site**



**View to rear of Site**

The site has a vacant home and is nearly fully wooded. It is located on the south side of Hudgins Road. Hudgins Road at this location is a mix of mature single family homes and commercial/light industrial uses. To the west of Route 1, Hudgins Road is the location of a new single family and townhome subdivision - Summerfield. The recently sold out Lafayette Crossing is located east of the study site, but also nearby.



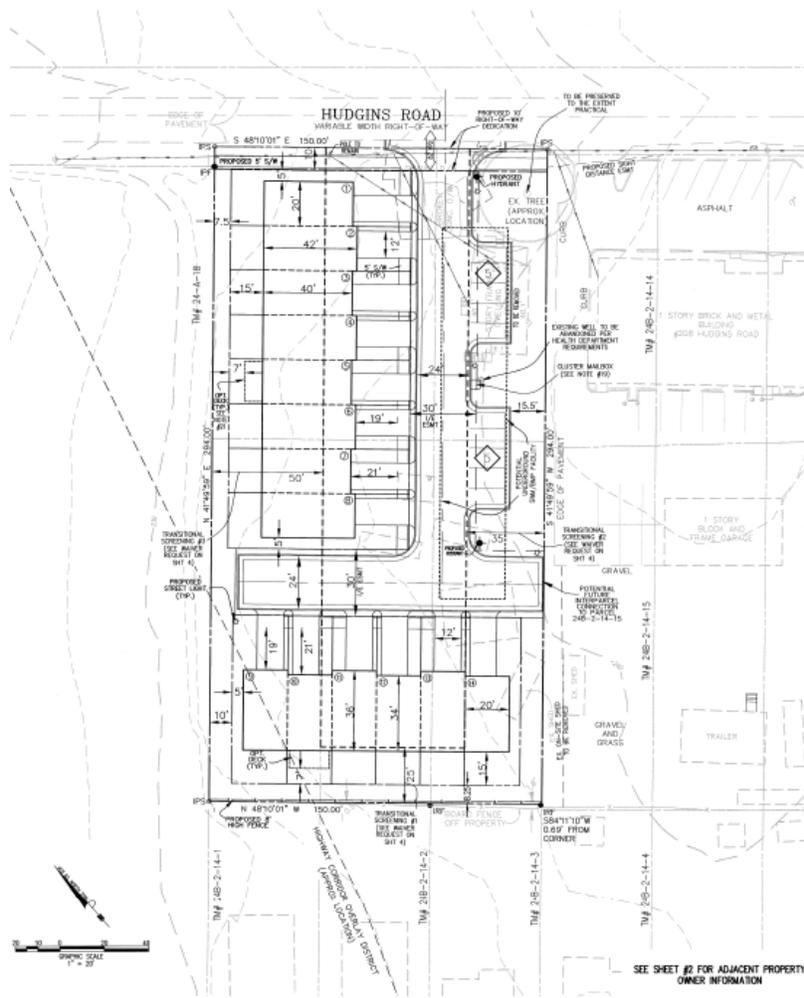
Notes: 1/ Summerfield; 2/ Lafayette Crossing

### Map A - Site Location Map

#### Site Plan and Development Proposal

The property is 1.012 acres and is zoned R-1. The proposed zoning is Mixed-Use District, Residential Townhouse Sub-District (MU-2). The proposal is for 14 new construction townhomes, 4 with 20-foot widths and 10 with 18-foot widths.

The site plan shows a new road into the site with eight towns fronting on the north-south street and six fronting on the east-west street that forms a “T” in the site. The property will have some surface parking spaces to serve the residents and guests.



### Roseland GDP

Following is a photo of the type of home to be built on the Roseland property. These will be three-story garage homes of 1,800 to 2,200 square feet, plus basement and with attractive exteriors. The applicant proposes a total average sales price of \$250,000, which includes all fees for upgrades. The sales price is reported in constant 2017 dollars.



## **Roseland Townhome Proposal**

### **Market Analysis: Townhomes**

This section of the report presents an overview of the new townhome for-sale market in Spotsylvania County and shows the level of demand for townhomes of the type proposed for Roseland. Roseland will have 14 homes with total home prices, after upgrades and reported in constant 2017 dollars, of \$250,000. Site development is likely to commence in 2018 with home delivery in early-2019.

At present, there are three active townhome communities in the County located in close proximity to the Roseland site. These are listed in Table 1. A fourth community, Lafayette Crossing, is now sold out. Another community, Village at Courthouse, has a mix of towns and singles. Sixty-townhomes are planned; some presales have been realized to date. Sale prices for the active communities are presented next.

<b>Table 1 <u>Characteristics of Active Townhome Subdivisions, Spotsylvania County, Virginia, November, 2017</u></b>			
	<b><u>Total Homes</u></b>	<b><u>Homes Sold</u></b>	<b><u>Date Started</u></b>
Townhomes at Lakeside	100	100 2/	2013 1/
Mallard Landing	150	60 1/	3/14
Summerfield Towns	110	90 1/	2/15
Lafayette Crossing	<u>105</u>	<u>105</u>	2013 1/
Total	465	355	
Notes: 1/ Estimate 2/ Sold out or nearly sold out			
Source: Field and telephone survey by SPA			

Key data presented in Table 1 is that approximately 355 of the 465 homes at the active subdivisions in the County are now sold. The 355 home sales occurred over a 4± year period, for a market area sales pace of 90± home sales per year. For 2017, annual new townhome sales exceeded 90.

Prior to 2015, the new home sales market was “slow”, with a limited number of homes sold at that time. The for-sale home market is now far more active, as evidenced by the number of homes sold recently at these subdivisions and new communities planned for 2017 and after. New home sales at the three active townhome communities during 2016 and 2017 to date, equals 150±. These data show that the 110 available homes at the existing active townhome communities represent less than a one-year supply of homes.

The following photos show the types of homes being built at the three active townhome subdivisions. All are three-story, garage townhomes.



**Townhomes at Lakeside**



**Townhomes at Lakeside (UC)**



**Mallard Landing**



**Summerfield**



**Summerfield (UC)**

**Sales Price Analysis.** The sale prices shown in Table 2 are base home prices, plus premiums for upgrades at active townhome communities. The prices shown were confirmed by the developers. The premiums average \$40,000± over the base sales price at these communities. These are compared with the proposed sale price at Roseland (base plus premiums) of \$250,000.

<b><u>Table 2 Current Home Prices at Active Townhome Communities, Spotsylvania County, November, 2017</u></b>	
	<b><u>Average Final Sales Price 1/</u></b>
Townhomes at Lakeside	\$280,000
Mallard Landing	\$290,000
Summerfield Towns	\$320,000
Average	(\$290,000)
Note: 1/ Average final sales price includes \$40,000 in upgrades.	
Source: Field surveys by SPA.	

## Pipeline Proposals

In addition to the 14 units planned at Roseland, Tricord has a second phase planned at Mallard Landing. These units are included in the totals shown in Table 1.

There are other townhome communities planned in Spotsylvania County. These are listed below:

- **Alexander's Crossing**, a mixed-use development near Cosner's Corner, has 144 towns planned. These too could be started in 2018.
- **Jackson Village**, also near Cosner's Corner will have a large townhome section in a community of 1,700± homes. A townhome developer is currently committed to 300 townhome lots. These homes may not be started until after 2018, at the earliest.
- **Wheatland**, a new proposal for 98 townhomes, could be started in early-2018. The site is on Jim Morris Boulevard.
- **Keswick**, located along Route 208 in the Courthouse area, will be a large mixed-use planned community with townhomes. The start date for the towns is not yet set.

The following townhome community is also planned nearby, in the City of Fredericksburg:

- **The Hampton at Noble and Telegraph Hill** are communities in the City of Fredericksburg. Both are planned for mixed-use developments. The Hampton will have 78 townhomes; Telegraph Hill will have 45 towns. Both developers could start development in early-2018. Data on whether the towns will be developed in Phase I are not yet available.

## Summary

Current sales data, and increased developer interest, are clear indications of an improving for-sale townhome market. Townhome sales at active subdivisions in 2016 and 2017 were more than double the rate compared with prior years and several active subdivisions are likely to be sold out soon and prior to the opening of sales at Roseland.

By 2018, at least two communities in Fredericksburg could be started. These are not large proposals. New towns are expected to be started shortly at Alexander’s Crossing, and Wheatland. The towns at Jackson Village may not be started in 2018, as the proposed apartment units there are expected to be started first.

The planned townhome developments, by 2018, will have more homes on the market than in 2017 and prior. However, the home sales demand is expected to be larger than in the past. An active, but balanced market for new townhome sales is expected over the next few years, and during the expected marketing period for Roseland. This is shown in the following chart.

<b><u>Pipeline Townhome Subdivisions</u></b>	
<b><u>Late-2017-2020</u></b>	
	<b><u>Number of</u></b>
	<b><u>Units</u></b>
Hamptons	78
Telegraph Hill	45
Alexandria’s Crossing	144
Jackson Village	NA 1/
Wheatland	<u>98</u>
Total	365
Note: 1/ Start date not known.	

The townhome market in Spotsylvania County will be more active than in the past. However, most of these new communities will be priced above the rate at Roseland. Also of note is that Roseland is well located in comparison to existing, successful communities and closer to the City of Fredericksburg.

**Fiscal and Economic Impact Analysis**

## Fiscal and Economic Impact Analysis

This section presents the analysis of the fiscal and economic impacts of the proposed 14-lot Roseland Townhome development. The analysis is treated in two ways. First is the analysis of those impacts which occur directly from activities on-site at the property based on new real estate taxes and from expenditures of home buyers. Second, are those impacts which occur off-site which calculate the multiplier or spin-off effects of resident expenditures and additional spin-offs from business expenditures in the County which results from new business from Roseland Townhomes residents.

The off-site impacts will be explained further in this report; the present section deals with the on-site impacts. These include the various taxes generated by the development to accrue to the County, such as the real property and personal property taxes for the development.

The fiscal impact analysis also projects the public service and facility costs to be incurred by Spotsylvania County from development of the site and for off-site spin-off effects. The results of the fiscal impact analysis will be to compare the tax revenues generated by the property with the tax-supported costs incurred by the County to determine the net fiscal benefits in terms of annual revenue surpluses or annual deficits over costs. This analysis is prepared for both on-site and off-site impacts. Total annual impacts for the property are projected at complete buildout of this phase of the project. Results are given in constant year 2017 dollars, rounded to the nearest ten dollars.

Overall, the Roseland Townhomes will result in a small net surplus for the County, with revenues to the County exceeding costs of County services. On-site costs of education for resident public school pupils creates an on-site deficit of \$13,650. Off-site impacts have much lower costs because there are no public school children and thus create a revenue surplus of \$15,710, for an overall net revenue surplus of \$2,060 annually after build out, in year 2017 dollars. This is essentially a break-even result, with revenues just covering costs, including education.

<b><u>Total Fiscal Impacts</u></b>	<b><u>On-site</u></b>	<b><u>Off-site</u></b>	<b><u>Total</u></b>
Total Tax Revenue	\$45,560	\$22,330	\$67,890
Tax-supportable Costs	\$59,210	\$6,620	\$65,830
Net Fiscal Benefit	-\$13,650	\$15,710	\$2,060

**On-site Impacts: Tax Revenues**

The revenues to be considered in this report are taxes collected by Spotsylvania County for General Fund use. These include the property taxes, utility taxes, and other smaller taxes. The paragraphs to follow document the derivation of the tax amounts for the on-site development at the property.

**Real Property Tax.** This is a tax on the assessed value of real estate. Home prices at the property are planned for a \$250,000 value per home, including upgrades. For 14 homes at this value, taxed at the rate of \$0.85 per \$100 of valuation, the total real property tax at the site would be almost \$30,000 each year, when reported in constant 2017 dollars, as Table 3 shows.

<b><u>Table 3 Real Estate Taxes for Roseland Townhomes at Buildout, Spotsylvania County, VA (constant \$2017)</u></b>	
	<b><u>Amount</u></b>
Number of Homes	14
Average Value Per Home	\$250,000
Total Market Value	\$3,500,000
Tax Rate/\$100	\$0.850
Real Estate Tax	\$29,750
Sources: Spectrum Partners and S. Patz & Associates., Inc.	

**Personal Property Taxes.** Residences are assessed personal property taxes. For residents, this is primarily a tax on motor vehicles. To address residential personal property taxes, the first step is to estimate the average depreciated value per vehicle in the County. The sequence of calculation to achieve this are shown in Table 4, and summarized as follows:

- The FY 2018 Adopted Budget for Spotsylvania County gives an allocation of \$43 million for expected personal property taxes, including delinquent taxes.
- Of this amount 20 percent is estimated to be from non-residential taxes, so that residential personal property taxes are 80 percent of annual totals, or \$34.2 million. To this is added the Personal Property Relief Act (PPTRA) revenue from the state of \$14.5 million.
- Dividing the total residential personal property tax by the tax rate produces the total assessed value of vehicles in the County at \$1.5 billion
- It is estimated that there are 94,600 vehicles in the County, based on the U.S. Census. Based on the County's current population of 132,000, the average number of vehicles per person is 0.72. Dividing the number of vehicles into the total assessed value of vehicles gives an average assessed value per vehicle of about \$15,700.

**Table 4. Estimation of the Average Depreciated Value of Residential Vehicles, Spotsylvania County, Virginia (constant \$2017)**

	<u>Amount</u>
Personal Property Tax FY 2018	\$42,849,188
Percent Residential	0.8
Residential Property Tax	\$34,279,350
PPTRA	<u>\$14,500,000</u>
Total Residential Property Tax	\$48,779,350
Property Tax Rate Per \$100	\$6.55
Assessment Ratio	0.5
Effective Tax Rate	\$3.28
Depreciated Value of Vehicles	\$1,489,445,814
Number of Vehicles in County	94,604
Depreciated Value per Vehicle	\$15,744
County Population	132,010
Vehicles Per Capita	0.717

Sources: FY 2018 Adopted Budget for Spotsylvania County, Virginia, and the U.S. Census of Population

The last step in deriving the personal property tax for the 14 households at Roseland Townhomes is to estimate the number of vehicles that subdivision households own, applying the average vehicle depreciated value, and computing the property tax at the County rate of \$6.55, and assessed at 50 percent of value, to the average value per vehicle. In this analysis, an occupancy rate of 97 percent for homes is assumed to account for normal turnover. The result is a projection of the personal property tax of almost \$12,090 annually.

**Table 5. Derivation of Personal Property Taxes at The Roseland Townhomes at Buildout, Spotsylvania County, Virginia (constant \$2017)**

	<u>Amount</u>
Number of Homes	14
Occupancy Rate	0.97
Number of Households	14
Persons Per Household	2.41
Numbers of Persons	33
Vehicles Per Capita	0.717
Number of Vehicles	23
Average Value of Vehicles	\$15,744
Total Vehicle Value	\$369,262
Assessment Ratio	0.5
Vehicle Assessed Value	\$184,631
Tax Rate per \$100	\$6.55
Personal Property Tax	\$12,090

Sources: FY 2018 Adopted Budget for Spotsylvania County, Virginia, and S. Patz & Associates., Inc.

**Consumer Utility Taxes.** Expenditures on utilities are typically taxed in Virginia municipalities on the following utilities: electric, gas, water, land line, cell phone, and internet. For households, most utility taxes are approximately \$3.00 per month per utility; for five utilities, this is \$180 per household per year. For 14 households at the site, utility taxes would come to \$2,440 annually, as the following chart shows.

	<u>Amount</u>
Number of Utilities	5
Ave. Monthly Tax/Utility	\$3.00
Number of Months	12
Annual Utility Tax	\$180
Households	14
Utility Tax	\$2,440

**Motor Vehicle License Fees.** It was shown above that there would be an estimated 23 vehicles at the homes at the 14-lot new subdivision. Motor vehicle license fees in the County are \$25 per vehicle, yielding total fees at the site of \$590.

**Recordation Tax.** The last tax to be considered is the recordation tax, which yields a negligible amount per year for the property. At a total property value of \$3.5 million, and assuming a home resale every ten years, plus the initial recordation fee, the total taxable amount for recordation over 20 years would be \$10.5 million. The state taxes the grantees of (re-)sales at \$0.25 per \$100 of valuation, of which one third is returned to the municipality. Total grantee taxes over 20 years would come to \$8,660 or \$430 annually.

The state also taxes grantors to transactions at the rate of \$0.10 per \$100, with one-half retained by the municipality. For Roseland Townhomes, this produces a total tax over 20 years of \$5,250 or \$260 annually. Total recordation taxes come to \$690.

**Summary of Tax Revenues.** Table 6 summarizes the total tax revenues that can be expected to flow from future residents at Roseland Townhomes annually after buildout, in constant \$2017. The total would come to over \$45,500 each year.

<b>Table 6. <u>Summary of Annual Taxes by Source to Spotsylvania County from Roseland Townhomes at Buildout (constant \$2017.</u></b>	
	<b><u>Amount</u></b>
Real Estate Tax	\$29,750
Personal Property Tax	\$12,090
Utility Tax	\$2,440
Motor Vehicle Licenses	\$590
Recordation Tax	<u>\$690</u>
Total Tax Revenue	\$45,560
Source: S. Patz & Associates., Inc.	

**Costs to Spotsylvania County**

The previous section derived the major tax revenues that would accrue to Spotsylvania County from the on-site development of 14 homes at the Roseland site. The fiscal impacts analysis compares these revenues with costs to the County as the result of increased population in the County generated by new home development. In this case, because taxes are deposited in the County’s General Fund, those revenues are compared with the tax-supported costs that the County would incur in serving the residents at the townhome site. Other sources of revenue are not relevant for this analysis, as they accrue to separate funds in which expenditures generally equal revenues.

The source for determining the tax-supported costs the County incurs for service to the site is the County’s FY2018 Adopted Budget. In the succeeding paragraphs, the budget will be presented both in terms of budgeted expenses and the portion that must be tax supported as reported in the budget. The tax-supported portion of the budgeted expenditures are derived and expressed on a per capita basis - for population (representing residents), employment (representing businesses), and pupils

(representing costs of public education). The per capita costs to the County are then applied to the population and pupils at the site to determine the overall costs to the County from the development of the site.

**Tax-supported County Costs.** The FY2018 Adopted Budget for Spotsylvania County gives the proportion of each departmental or functional expenditure that must be supported by local taxes; these are shown in Table 7. Funds or departments not requiring tax support are not shown. Of the total General Fund budget, 73 percent must be supported by taxes. This is 100 percent for the transfer to the schools, and 52 percent for all other expenditures. The tax supported expenditures are considered costs that must be made up by taxpayers, such as the residents of the proposed Roseland Townhomes.

<b>Table 7. <u>FY2018 Budget for Spotsylvania County, Virginia: Adopted General Operating Expenditures, Designated Revenue, and Net Tax Support</u></b>				
<b><u>Department or Function</u></b>	<b><u>Adopted FY2018</u></b>	<b><u>Designated Revenue</u></b>	<b><u>Net Tax Support</u></b>	<b><u>Percent Taxes</u></b>
Executive Services	\$5,014,724	\$29,000	\$4,985,724	99.4%
Administrative Services	\$13,451,416	\$2,351,253	\$11,100,163	82.5%
Voter Services	\$438,212	\$60,000	\$378,212	86.3%
Judicial Administration	\$4,182,973	\$2,044,052	\$2,138,921	51.1%
Public Safety	\$56,449,784	\$16,131,177	\$40,318,607	71.4%
Public Works	\$50,063,165	\$43,280,382	\$6,782,783	13.5%
Health and Welfare	\$20,711,920	\$10,137,285	\$10,574,635	51.1%
Parks, Recreation & Culture	\$7,520,722	\$689,692	\$6,831,030	90.8%
Community Development	\$5,539,728	\$3,073,326	\$2,466,402	44.5%
Total Gen. Oper. Fund	\$163,372,644	\$77,796,167	\$85,576,477	52.4%
Local Transfer to Schools	<u>\$124,075,315</u>	<u>\$0</u>	<u>\$124,075,315</u>	100.0%
Total Including Educ. Xfer.	\$287,447,959	\$77,796,167	\$209,651,792	72.9%
Source: Adopted FY2018 Annual Budget for Spotsylvania County, Virginia				

**Per Capita County Costs.** In Table 8 budgeted General Fund tax-supported expenditures for FY2018 are allocated to population (residents), employment (businesses) and public school pupils. One hundred percent of the General Fund transfer to the School Fund is tax supported, meaning that General Fund tax-supported costs per pupil are \$5,271 based on FY2017 enrollment of 23,540 pupils in the County school system. Non-school expenditures are allocated by department to the two other classes of users, population and employment.

For most functional non-school departments, total FY2018 expenditures are allocated to the users in proportion to their numbers, 79 percent population and 21 percent employment. The exceptions are health and welfare and parks, recreation and culture, which are allocated in their entirety to population. The data in the table shows that the per capita cost of services and facilities for the population average \$540 per capita; for employees, the amount is \$409 per capita. Public school pupils require \$5,271 per pupil in tax support.

**Table 8. Allocation of FY2018 Tax-supported General Operating Fund Expenditures to Residents, Employees, and Public School Pupils, Spotsylvania County, Virginia**

<u>Department or Function</u>	<u>Total Net Tax Support</u>	<u>Population Share</u>	<u>Employment Share</u>
Executive Services	\$4,985,724	\$3,944,914	\$1,040,810
Administrative Services	\$11,100,163	\$8,782,914	\$2,317,249
Voter Services	\$378,212	\$299,257	\$78,955
Judicial Administration	\$2,138,921	\$1,692,404	\$446,517
Public Safety	\$40,318,607	\$31,901,769	\$8,416,838
Public Works	\$6,782,783	\$5,366,822	\$1,415,961
Health and Welfare	\$10,574,635	\$10,574,635	\$0
Parks, Recreation & Culture	\$6,831,030	\$6,831,030	\$0
Community Development	<u>\$2,466,402</u>	<u>\$1,951,520</u>	<u>\$514,882</u>
Total Gen. Operating Fund	\$85,576,477	\$71,345,265	\$14,231,212
Persons	166,839	132,010	34,829
Net Tax Support Per Cap.	\$513	\$540	\$409
Local Transfer to Schools	\$124,075,315	\$124,075,315	\$0
Public School Pupils	23,539	23,539	0
Net Tax Support Per Cap.	\$5,271	\$5,271	\$0
Total Including Educ. Xfer.	\$209,651,792	\$195,420,580	\$14,231,212

Sources: Adopted FY2018 Annual Budget for Spotsylvania County, Virginia, and S. Patz & Associates, Inc.

**On-site Costs to the County.** Both residents and public school pupils living on-site at the Roseland subdivision would incur tax-supported costs to Spotsylvania County for services and facilities. The table above derived the per capita tax supported costs for each of these. The discussion to follow estimates the numbers of residents and pupils that would be living at the site after buildout. The estimation of the number of residents is straightforward. The 14 households (occupied housing units) are expected to have 2.41 persons per household. This is a total of 33 people; at a cost of \$540 per person, the resident cost (including children) would come to \$17,690.

The County and School District have prepared estimates of pupil generation by type of housing unit for the County, as a whole. For townhomes, this is 0.58 public school pupils per home. For 14 households, this would give 8 pupils; at \$5,271 in General Fund expenditures per pupil, the cost of education of \$41,500.

Total General Fund costs to the County of the development of the 14-lot townhome subdivision would be over \$59,000, as shown in the following chart:

	<u>Amount</u>
Population Costs	\$17,690
Pupil Costs	<u>\$41,520</u>
Total Tax-supported Cost	\$59,210

**Net Fiscal Impact On-site**

The cost of educating public school pupils would create a fiscal deficit at the site, with costs to the County exceeding revenues. (It will be shown below that an off-site revenue surplus for spin-off impacts would more than compensate for this deficit.) The following chart shows that the deficit would come to \$13,650 annually. Such deficits are typical of many residential developments.

<u>On-site Impacts</u>	<u>Amount</u>
Total Tax Revenue	\$45,560
Tax-supportable Costs	<u>\$59,210</u>
Net Fiscal Benefit	-\$13,650

**Off-site Impacts: Economic and Fiscal**

In addition to the revenues and costs that accrue to Spotsylvania County from the 14-home development “on-site,” there are also off-site impacts that occur as residents spend money at businesses off-site in the County, and these businesses then re-spend the business receipts for other purchases of goods and services from other

vendors in the County. The multipliers used in this analysis are specific to Spotsylvania County, Virginia. Consumer budgets are identified by the U.S. Bureau of Labor Statistics by area and income level. About 77 percent of this income is spent on a variety of consumer goods and services. Other household costs are taxes, savings and transfers to others not living in the household. Expenditures outside the County have been accounted for in the spin-off multipliers that area applied.

Consumer expenditures made off-site in the County are translated into economic impacts in the County using multiplier matrices provided for the local area by the U.S. Bureau of Economic Analysis. These multipliers capture the round-by-round flows of expenditures in the County initiated by residents from on-site. There are separate matrices for off-site business receipts, employment and employee earnings. The items in the consumer budget are multiplied in turn by these expenditure-specific categories in each matrix and summed to give the “ripple effect,” “spin-off,” or “multiplier effect” of circulation of money through the economy. The multipliers applied account for a certain proportion of impacts that “leak” to businesses outside the County. The ripple effects, plus the original consumer expenditures, equal the total economic impacts of residents on the County’s economy.

### **Business Receipts**

The chart below shows the economic dollar flows set in motion by activities on-site at the property. The direct expenditures represent the expenditures by residents directly. They total \$1.2 million, when housing units are occupied. Another \$3.2 million in indirect ripple effects or spin-off are created within the County. In addition, there is the \$0.7 million in “induced” effects, a spin-off that occurs when employees at impacted business spend their revenues for required goods in the County. The indirect and induced “ripple” expenditures are three times direct expenditures. Altogether, the business impact in Spotsylvania County would come to \$3.1 million. These off-site impacts also create tax receipts and costs to the County as do on-site impacts (see above). These will be explained in paragraphs to follow.

<u>Source of Impacts Off-site</u>	<u>Amount</u>
Direct Expenditures	\$842,552
Indirect Ripple Effect	<u>\$2,211,031</u>
Total Business Receipts	\$3,053,582

### Employment and Earnings

The off-site expenditures by residents living at the property would create 16 jobs in the County. These off-site employment impacts would generate \$445,000 in employee earnings in the County. This is an average of about \$27,000 per employee. This is a modest amount since most of the job impacts are in services such as retail trade, eating establishments, and overnight accommodations.

### Off-site Fiscal Impacts

The methodology used in projecting fiscal impacts off-site mirror those used to project fiscal impacts on-site. As before, revenues will be limited to taxes, and costs will be those that must be tax-supported, as based on off-site employment. The RIMS II multipliers from the Bureau of Economic Analysis separate receipts, employment and earnings impacts into 21 different sectors, and the impact dollar amounts (business revenues) in the sectors form the basis for determining taxes.

Many taxes can be calculated directly from these receipts, such as the retail sales tax, the lodging tax, and the meals tax. Other taxes are based on employment impacts in particular sectors. For example, utility taxes in the County accrue from businesses at the average rate of \$80 per employee. Similar relations to employment can be derived for real property taxes and personal property taxes, based on square footage per employee and costs per square foot for real property and personal property, from experience on-site.

To calculate each tax for 21 sectors for the off-site impacts would be tedious, so the tax results will be presented here in summary form in Table 9.

The residences on-site would generate over \$22,000 in taxes off-site for the County annually some time after buildout and stabilized occupancies on-site. Impacts are not immediate, but would build over time as businesses gradually expanded to meet increased demand for goods and services. As with tax-supported costs to the County for on-site uses, the cost to the County for serving expanded business is based on projected employment. The property would generate about 16 jobs off-site in the County. It was shown previously that each job represents about \$409 in costs to the County, for a total cost of \$6,620 to the County from off-site uses. Deducting these tax-supported costs from projected tax revenues would leave a net fiscal benefit (tax revenue surplus) of \$15,700 annually, in constant year 2017 dollars.

<b>Table 9. <u>Summary of Fiscal Impacts Generated Off-site by Development at Roseland Townhomes at Full Impact, Spotsylvania County, Virginia (constant \$2017)</u></b>	
	<b><u>Amount</u></b>
Real Estate Tax	\$7,470
Business Property Tax	\$3,830
Machinery and Tools	\$610
BPOL Taxes	\$290
Retail Sales Tax	\$3,130
Meals Tax	\$3,580
Transient Occupancy	\$1,710
Utility Taxes	\$1,570
Recordation Tax	<u>\$140</u>
Total Taxes	\$22,330
Total Cost	<u>-\$6,620</u>
Net Fiscal Benefit	\$15,710
Sources: Bureau of Economic Analysis, U.S. Department of Commerce, and S. Patz & Associates, Inc.	

### Total Fiscal Impacts

With an off-site fiscal surplus of \$15,700 and an on-site deficit of \$13,700 per year, the net fiscal benefit to Spotsylvania County would be a small surplus of approximately \$2,100 per year. This is a break-even situation. As noted above, the off-site impacts may not all happen coincident with the on-site impacts, as the expansion of the local economy from the development will lag slightly behind on-site development as businesses adjust to increased demand for their goods and services. The chart below summarizes the on-site and off-site fiscal impacts for the proposed 14-lot subdivision.

	<u>On-site</u>	<u>Off-site</u>	<u>Total</u>
Total Tax Revenue	\$45,560	\$22,330	\$67,890
Tax-supportable Costs	<u>-\$59,210</u>	<u>-\$6,620</u>	<u>-\$65,830</u>
Net Fiscal Benefit	-\$13,650	\$15,710	\$2,060