### Tysons Corner Urban Center

# FISCAL IMPACT ANALYSIS: COMPARISON OF CURRENT COMPREHENSIVE PLAN AND GMU HIGH FORECAST

September 2009

PREPARED FOR:

FAIRFAX COUNTY, VIRGINIA

PREPARED BY:

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#### Tysons Corner Urban Center Fiscal Impact Analysis Fairfax County, VA

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#### **EXHIBITS**

Exhibit A: Comprehensive Plan (Scenario A)

Exhibit B: GMU Forecast (Scenario B)

## TYSONS CORNER URBAN CENTER FISCAL IMPACT ANALYSIS FAIRFAX COUNTY, VA

#### Executive Summary

The purpose of this study is to compare two development forecasts for the Tysons Corner Urban Center. Specifically, Fairfax County retained MuniCap, Inc. to project the potential revenues and costs that the county would receive over time based on:

- Scenario A –the "Comprehensive Plan," which represents the potential for growth for Tysons Corner under the current Fairfax County Comprehensive Plan; and
- Scenario B the "GMU forecast," which represents the "High Forecast" for development in a report prepared by George Mason University, dated September 17, 2008.

In both scenarios, revenues and expenditures for future years are shown in current dollars, unadjusted for inflation.

A comparison of the projected development for Tysons Corner under each of these scenarios is shown in the table below.

TABLE A

Development Forecast for Tysons Corner in Square Feet

| Property Type        | 2010       | 2020       | 2030       | 2040       | 2050       |
|----------------------|------------|------------|------------|------------|------------|
| Commercial           |            |            |            |            |            |
| Office               |            |            |            |            |            |
| Scenario A           | 27,400,000 | 35,594,516 | 43,789,031 | 43,789,031 | 43,789,031 |
| Scenario B           | 27,400,000 | 36,200,000 | 44,900,000 | 52,600,000 | 60,200,000 |
| Hotel                |            |            |            |            |            |
| Scenario A           | 2,400,000  | 2,879,976  | 3,359,951  | 3,359,951  | 3,359,951  |
| Scenario B           | 2,400,000  | 3,000,000  | 3,700,000  | 4,300,000  | 4,900,000  |
| Retail               |            |            |            |            |            |
| Scenario A           | 6,200,000  | 6,024,424  | 5,848,848  | 5,848,848  | 5,848,848  |
| Scenario B           | 6,200,000  | 6,600,000  | 7,200,000  | 7,300,000  | 7,400,000  |
| Sub-total commercial |            |            |            |            |            |
| Scenario A           | 36,000,000 | 44,498,915 | 52,997,830 | 52,997,830 | 52,997,830 |
| Scenario B           | 36,000,000 | 45,800,000 | 55,800,000 | 64,200,000 | 72,500,000 |

TABLE A

Development Forecast for Tysons Corner in Square Feet (cont.)

| Property Type     | 2010       | 2020       | 2030       | 2040        | 2050        |
|-------------------|------------|------------|------------|-------------|-------------|
| Residential       |            |            |            |             |             |
| Scenario A        | 11,160,000 | 16,244,966 | 21,329,932 | 21,329,932  | 21,329,932  |
| Scenario B        | 11,160,000 | 18,840,000 | 26,640,000 | 38,400,000  | 51,480,000  |
|                   |            |            |            |             |             |
| Total Development |            |            |            |             |             |
| Scenario A        | 47,160,000 | 60,743,881 | 74,327,762 | 74,327,762  | 74,327,762  |
| Scenario B        | 47,160,000 | 64,640,000 | 82,440,000 | 102,600,000 | 123,980,000 |

Within each of these broad categories, MuniCap, Inc. made specific assumptions about the product mix and location for each development category. These assumptions are outlined in the body of this report.

Likewise, projecting revenue streams such as future real property tax, personal property tax, and sales tax necessarily calls for the projection of future real property values and sales. The methodology employed to make these projections is also thoroughly outlined in the text and accompanying schedules of this report.

Upon comparison of the scenarios, this report concludes the following:

- Both the GMU and Comprehensive Plan projections represent a significant positive fiscal impact;
- The GMU forecast is projected to generate substantially more revenue over time than the Comprehensive Plan, despite the GMU forecast having a notably larger residential component, which seems to dispel concern that residential units necessarily impose an added burden on County resources; and
- In addition to higher density in general, the GMU forecast contemplates a higher concentration of transit-oriented-development ("TOD") over non-transit-oriented-development ("non-TOD"), which results in higher projected property values and real property taxes when compared to projections for the Comprehensive Plan.

These conclusions must be considered in the context of the assumptions and methodology adopted in this report. MuniCap, Inc. did not attempt to analyze the viability of either scenario from a market standpoint. Moreover, this report does not evaluate the qualitative impacts of either development scenario. Based on the specific assumptions and forecasting methodology outlined in the remainder of this report, however, the projected net fiscal impacts of both scenarios are shown in the table that concludes this executive summary.

It should be noted that MuniCap, Inc. considered 2010 to be the base year for forecasting impacts. In other words, it is assumed that the fiscal impacts shown below for Tysons Corner in 2010 are already being generated in Fairfax County.

TABLE B
Comparison of Net Annual Fiscal Impacts to Fairfax County over Time

|  | 2010           | 2020           | 2030            | 2040            | 2050            |
|--|----------------|----------------|-----------------|-----------------|-----------------|
| Scenario A (Comp Plan without Inflation) |                |                |                 |                 |                 |
| Revenues                                 | \$324,607,147  | \$402,088,959  | \$482,208,874   | \$482,110,258   | \$482,110,258   |
| Expenditures                             | (\$49,977,619) | (\$68,201,972) | (\$86,487,433)  | (\$86,486,332)  | (\$86,486,332)  |
| Capital costs                            | \$0            | (\$7,120,009)  | (\$19,242,022)  | (\$15,370,638)  | (\$12,707,867)  |
| Net impact                               | \$274,629,529  | \$326,766,978  | \$376,479,420   | \$380,253,288   | \$382,916,059   |
|  |                |                |                 |                 |                 |
| Scenario B (GMU                          | forecast with  | out Inflation) |                 |                 |                 |
| Revenues                                 | \$327,033,841  | \$430,071,092  | \$538,123,238   | \$651,992,092   | \$771,823,203   |
| Expenditures                             | (\$50,223,320) | (\$75,780,713) | (\$101,799,569) | (\$135,646,888) | (\$172,754,356) |
| Capital costs                            | \$0            | (\$13,494,646) | (\$31,036,791)  | (\$37,388,618)  | (\$44,055,106)  |
| Net impact                               | \$276,810,520  | \$340,795,733  | \$405,286,878   | \$478,956,587   | \$555,013,741   |

Detailed calculations of impacts included in exhibits accompanying this report. Net revenues are incorporated into the County's general fund and allocated by the Board of Supervisors on an annual basis.

Through 2030, approximately 50% of the differentiation in projected revenue between the GMU forecast and the Comprehensive Plan is attributable to real property taxes. This is due not only to added density, but also because the GMU development is more TOD-intensive. This is shown in Table C on the following pages.

The main components of the revenues shown in Table B are real property taxes and sales taxes, which combine to represent approximately 75% of revenue in both scenarios. Table D provides a summary of the sources of revenues and expenditures for both scenarios.

TABLE C
Property Tax Generation in 2030 (No Inflation)

| Property Type                                       | Exhibit A          | Exhibit B           | Variation from      | Variation  |
|---|--------------------|---------------------|---------------------|------------|
| 1 7 71  | Comprehensive Plan | GMU Forecast (High) | GMU Forecast (High) | Percentage |
| <u>TOD Development</u>                              |                    |                     |                     |            |
| Office  | \$95,941,787       | \$110,672,888       | \$14,731,101        | 15%        |
| Mall Retail   | \$23,511,600       | \$23,511,600        | <b>\$</b> O         | 0%         |
| Large Retail  | \$3,484,845        | \$6,272,721         | \$2,787,876         | 80%        |
| Specialty Retail                                    | \$2,447,550        | \$4,405,590         | \$1,958,040         | 80%        |
| Restaurant  | \$1,159,358        | \$2,086,844         | \$927,486           | 80%        |
| Hotel   | \$5,312,980        | \$6,582,007         | \$1,269,027         | 24%        |
| Sub-total commercial                                | \$131,858,119      | \$153,531,649       | \$21,673,530        | 16%        |
| Residential For-sale                                | \$28,985,084       | \$42,285,863        | \$13,300,778        | 46%        |
| Residential For Rent                                | \$15,846,977       | \$23,118,893        | \$7,271,917         | 46%        |
| Sub-total residential                               | \$44,832,061       | \$65,404,756        | \$20,572,695        | 46%        |
| Total TOD Development                               | \$176,690,180      | \$218,936,405       | \$42,246,225        | 24%        |
| Non-TOD Development                                 |                    |                     |                     |            |
| Office  | \$43,173,804       | \$33,201,866        | -\$9,971,938        | -23%       |
| Large Retail  | \$1,568,180        | \$1,881,816         | \$313,636           | 20%        |
| Specialty Retail                                    | \$1,101,398        | \$1,321,677         | \$220,280           | 20%        |
| Restaurant  | \$521,711          | \$626,053           | \$104,342           | 20%        |
| Hotel   | \$2,390,841        | \$1,974,602         | -\$416,239          | -17%       |
| Sub-total commercial                                | \$48,755,934       | \$39,006,015        | -\$9,749,919        | -20%       |
| Residential For-sale <sup>1</sup>                   | \$21,326,490       | \$20,985,853        | -\$340,637          | -2%        |
| Residential For Rent                                | \$7,131,139        | \$6,935,668         | -\$195,471          | -3%        |
| Sub-total residential                               | \$28,457,629       | \$27,921,521        | -\$536,108          | -2%        |
| Total Non-TOD Development                           | \$77,213,563       | \$66,927,536        | -\$10,286,027       | -13%       |
| Total TOD and Non-TOD                               | \$253,903,743      | \$285,863,941       | \$31,960,198        | 13%        |
| <sup>1</sup> Includes townhouse property tax revenu | es.                |                     |                     |            |

TABLE D
Annual Fiscal Impacts in 2030 (No Inflation)

| Property Type                         | Exhibit A Comprehensive Plan | Exhibit B<br>GMU Forecast (High) | Variation from<br>GMU Forecast (High) | Variation<br>Percentage |
|---------------------------------------|------------------------------|----------------------------------|---------------------------------------|-------------------------|
| <u>Revenues</u>                       |                              |                                  |                                       |                         |
| Real property tax                     | \$253,903,743                | \$285,863,941                    | \$31,960,198                          | 12.6%                   |
| Sales tax                             | \$29,446,573                 | \$36,603,411                     | \$7,156,837                           | 24.3%                   |
| Personal property tax                 | \$36,632,608                 | \$38,282,224                     | \$1,649,616                           | 4.5%                    |
| BPOL tax                              | \$87,302,889                 | \$90,900,286                     | \$3,597,397                           | 4.1%                    |
| Hotel lodging tax                     | \$8,076,293                  | \$8,893,643                      | \$817,350                             | 10.1%                   |
| Recordation tax                       | \$16,516,354                 | \$19,260,901                     | \$2,744,547                           | 16.6%                   |
| Additional projected tax <sup>1</sup> | \$50,330,414                 | \$58,318,832                     | \$7,988,418                           | 15.9%                   |
| Sub-total revenues                    | \$482,208,874                | \$538,123,238                    | \$55,914,364                          | 11.6%                   |
| Expenditures                          |                              |                                  |                                       |                         |
| Resident                              | \$32,678,184                 | \$41,545,195                     | \$8,867,011                           | 27.1%                   |
| Employee                              | \$33,410,824                 | \$35,291,641                     | \$1,880,817                           | 5.6%                    |
| Student                               | \$12,591,988                 | \$16,008,741                     | \$3,416,753                           | 27.1%                   |
| Public Works                          | \$2,261,196                  | \$2,552,337                      | \$291,141                             | 12.9%                   |
| Park acreage                          | \$165,601                    | \$398,220                        | \$232,619                             | 140.5%                  |
| \$1,000's of revenues                 | \$9,022,365                  | \$9,738,579                      | \$716,214                             | 7.9%                    |
| Fire and police capital costs         | \$16,732,702                 | \$23,107,339                     | \$6,374,637                           | 38.1%                   |
| Library and education capital costs   | \$2,509,320                  | \$7,929,452                      | \$5,420,132                           | 216.0%                  |
| Sub-total expenditures                | \$105,729,455                | \$132,836,360                    | \$27,199,324                          | 25.7%                   |
| Net fiscal impact <sup>2</sup>        | \$376,479,420                | \$405,286,878                    | \$28,807,459                          | 7.7%                    |

<sup>&</sup>lt;sup>1</sup>Includes consumers utility tax, permits, intergovernmental fees, charges for services, and fines, ect.

<sup>&</sup>lt;sup>2</sup>Net impacts are inclusive of base value.

#### A. Purpose and Scope of Study

The purpose of this study is to compare the potential fiscal impacts of two development scenarios for the Tysons Corner Urban Center, hereafter referred to simply as "Tysons Corner." The two development scenarios considered in this report are:

- Scenario A –the potential growth for Tysons as represented in the current Comprehensive Plan, with projected revenues and expenditures not increasing with inflation; and
- Scenario B the GMU High Forecast for development as referenced in the GMU Report dated September 17, 2008, with projected revenues and expenditures not increasing with inflation.

The goal of the study is to show whether a more intensive development forecast, as represented by Scenario B, or the GMU forecast, represents a fiscal strain or benefit to Fairfax County when contrasted with the current plan. While adding density in terms of additional development will logically result in additional property tax, sales tax, and other recurring revenue sources for the County, it is also reasonable to assume that this added development will place additional burdens on the County, primarily in the form of increased demand for services. Moreover, much of the added development in Scenario B is residential, which typically represents increased educational and human services costs.

To complete this analysis, MuniCap, Inc. prepared detailed estimates of future County revenues and expenditures for both analyses, with forecasts starting in 2010 and continuing through 2050. In turn, estimating these funds involved the projection of future assessed values and sales, as well as a forecast of population and employment impacts.

The Comprehensive Plan does not provide any projection of development after 2030. Therefore, through 2030, comparisons between the GMU forecast and the Comprehensive Plan illustrate the differences between the two growth scenarios. From 2030 to 2050, contrasting the two scenarios shows the effects of additional growth in the GMU forecast compared to no growth in the Comprehensive Plan.

#### B. Methodology

Based on the projected development under both scenarios, MuniCap, Inc. estimated future impacts on Fairfax County using a combination of accepted approaches for projecting fiscal impacts.

Projections of assessed value were based on interviews with the Real Estate Division within the Fairfax County Department of Taxation. First, MuniCap, Inc. estimated values based on the methodology outlined by the Real Estate Division. As a check, MuniCap, Inc. also researched comparable properties by type in the area. The actual valuation methods employed and values used are shown in the exhibits that accompany this report.

Projections of sales are based on national and local data for comparable properties, as noted in the exhibits that accompany this report.

To calculate employment impacts, MuniCap, Inc. used IMPLAN Professional 2.0 software developed by MIG, Inc. IMPLAN is an industry-accepted economic impact assessment

software system with which trained users can create local area *Social Accounting Matrices* and develop *Multiplier Models* that can be used to estimate detailed economic impacts of new firms moving into an area, special events such as conventions or professional sports games, recreation and tourism, military base closures, and many more activities. For the inputs used in developing the models, such as square footage and sales revenue, MuniCap, Inc. relied on a variety of sources, which are noted in the accompanying exhibits. Finally, MuniCap, Inc. analyzed current commuting trends among employees in Fairfax County to estimate the percentage of projected new employees likely to be non-residents. Non-resident employees are estimated to generate partial costs for Public Safety and other public services, due to their only being present in the County for part of the week.

For the calculation of economic benefits, primarily in the form of increased tax revenue, MuniCap, Inc. applied the actual taxing methodology by multiplying the applicable tax rate by the estimated taxable item in question whenever possible. For instance, real property taxes were estimated by multiplying estimated assessed value by the current applicable real property tax rate. Other revenues calculated in this manner include sales taxes, personal property taxes, hotel lodging taxes and recordation taxes. In some instances, revenues were estimated on a per capita basis, typically when the revenue source was not in the form of a tax. In still other cases, revenues that will likely increase as a result from the development of Tysons Corner were dismissed altogether, as they represent charges for services that will likely be offset by the cost of providing said services, such as utilities.

To calculate fiscal impacts in the form of additional costs to Fairfax County, MuniCap, Inc. consulted with County personnel from a variety of departments to determine the most appropriate approach to estimating potential increases. In some cases, expenses were estimated on a per capita basis using service population, while in other cases, another pro rata basis was used, such as tax revenue. Finally, in cases when a charge for services was eliminated from the estimation of revenues, the corresponding costs for services were also eliminated from the estimation of expenses.

While estimating impacts in future years, MuniCap, Inc. uniformly assumed no inflation in Scenarios A and B. Tax rates are expressed at their level as of the date of this analysis, with the exception of the real property tax rate, which is based on the proposed County levy for 2009.

The specific calculations used to estimate these impacts, along with the sources of the underlying assumptions, are included in the exhibits accompanying this report.

these revenues have not been included in this analysis.

<sup>&</sup>lt;sup>1</sup> Fairfax County has adopted a "piggy back" tax on Commercial and Industrial properties specifically for raising dedicated revenues to fund the documented shortfall in revenue available for investments to improve the County's transportation infrastructure. This is known as the C&I tax. Currently the tax is levied at \$0.11 per \$100 of assessed value and is estimated to generate approximately \$50 million per year Countywide. A portion of this revenue could be used to fund the costs of transportation improvements in Tysons Corner; however,

#### C. Comparison of Scenarios

Fairfax County requested projections of fiscal impacts for two scenarios that were provided by the Fairfax County Department of Planning and Zoning. The two scenarios are referenced in the current Comprehensive Plan and as the "high forecast" in the George Mason University report dated September 17, 2008. Within these two scenarios, the Department of Planning and Zoning provided a development forecast for the following types of properties:

- Office;
- Hotel;
- Retail; and
- Residential

TABLE E

Development Forecast for Tysons Corner in Square Feet

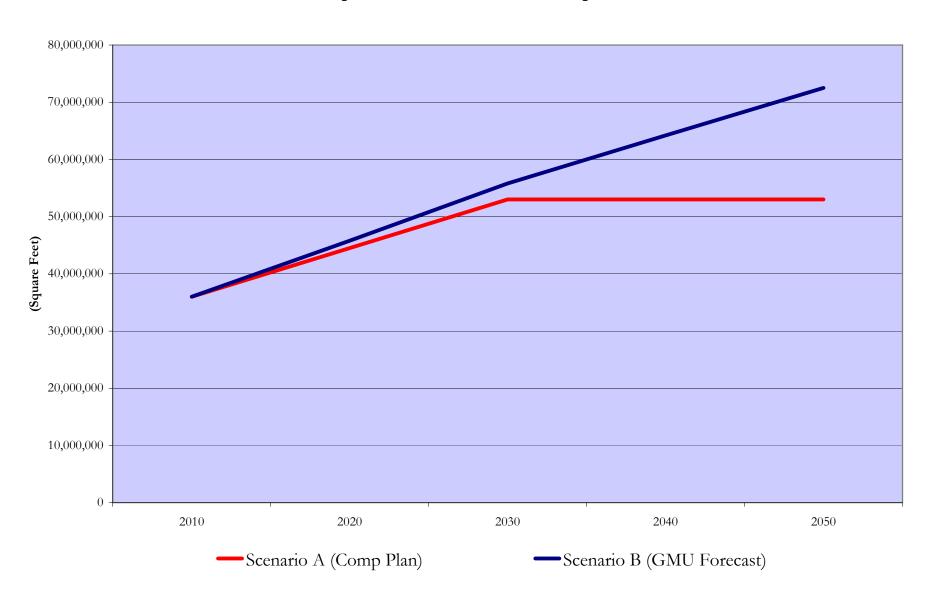
| Property Type        | 2010       | 2020       | 2030       | 2040        | 2050        |
|----------------------|------------|------------|------------|-------------|-------------|
| Commercial           |            | '          |            |             |             |
| Office               |            |            |            | 1           |             |
| Scenario A           | 27,400,000 | 35,594,516 | 43,789,031 | 43,789,031  | 43,789,031  |
| Scenario B           | 27,400,000 | 36,200,000 | 44,900,000 | 52,600,000  | 60,200,000  |
| Hotel                |            |            |            | -           |             |
| Scenario A           | 2,400,000  | 2,879,976  | 3,359,951  | 3,359,951   | 3,359,951   |
| Scenario B           | 2,400,000  | 3,000,000  | 3,700,000  | 4,300,000   | 4,900,000   |
| Retail               |            |            |            |             |             |
| Scenario A           | 6,200,000  | 6,024,424  | 5,848,848  | 5,848,848   | 5,848,848   |
| Scenario B           | 6,200,000  | 6,600,000  | 7,200,000  | 7,300,000   | 7,400,000   |
| Sub-total commercial |            |            |            |             |             |
| Scenario A           | 36,000,000 | 44,498,915 | 52,997,830 | 52,997,830  | 52,997,830  |
| Scenario B           | 36,000,000 | 45,800,000 | 55,800,000 | 64,200,000  | 72,500,000  |
| Residential          |            |            |            |             |             |
| Scenario A           | 11,160,000 | 16,244,966 | 21,329,932 | 21,329,932  | 21,329,932  |
| Scenario B           | 11,160,000 | 18,840,000 | 26,640,000 | 38,400,000  | 51,480,000  |
| Total Development    |            |            |            |             |             |
| Scenario A           | 47,160,000 | 60,743,881 | 74,327,762 | 74,327,762  | 74,327,762  |
| Scenario B           | 47,160,000 | 64,640,000 | 82,440,000 | 102,600,000 | 123,980,000 |

Based on materials provided to and obtained from Fairfax County Department of Planning and Zoning. Scenarios are as follows: A= Comp Plan without inflation; B = GMU forecast without inflation.

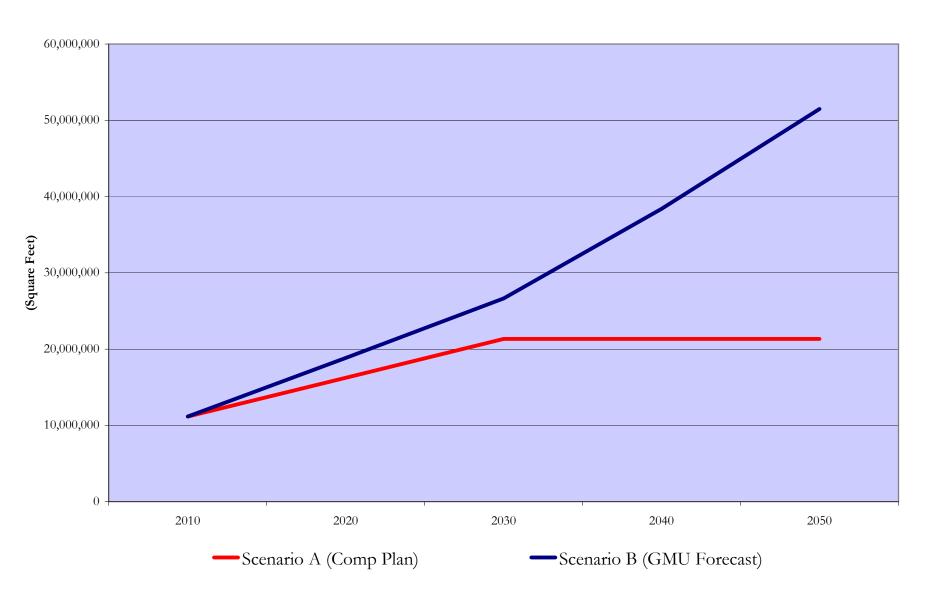
For purposes of this study, the development shown for year 2010 is assumed to exist already in Tysons Corner. Development in future years as shown in Table E is cumulative, inclusive of the existing development shown in 2010.

Comparisons of the commercial and residential development forecasts for both scenarios are shown in Charts 1 and 2 on the following pages, respectively.

**CHART 1: Comparison of Commercial Development Forecasts** 



**CHART 2:** Comparison of Residential Development Forecasts



#### D. Assumptions Regarding Development

As can be seen in Table A, the projected growth at Tysons Corner is substantial. Fairfax County requested that the development be analyzed in terms of location in proximity to transit hubs. Specifically, the County requested that the development be shown in terms of transit-oriented-development ("TOD") and non-transit-oriented-development ("non-TOD"). In addition, the County requested specific assumptions be made regarding affordable and workforce housing. Within the broader retail component, it was necessary to sub-categorize by type of retail, including restaurant. Though it is impossible to know exactly what shape the development will take under either scenario, MuniCap, Inc. made the following assumptions regarding the development at Tysons Corner:

- For the GMU forecast, it is assumed that 75% of all future development will be TOD and 25% will be non-TOD. For the Comprehensive Plan, it is assumed that 66.6% of all future development will be TOD and 33.3% will be non-TOD. This is based on a broad review of forecasts and existing development patterns, analysis of projected low-rise and high-rise development, and discussions with Fairfax County Department of Planning and Zoning staff.
- TOD will command a 10% premium over property values classified as non-TOD for properties of the same type. This is based on premiums observed in other counties adjacent to the District of Columbia.
- 50% of all future housing will be for-sale and 50% will be rental. The assumption is based on analysis of existing development patterns and discussions with Fairfax County Department of Planning and Zoning staff.
- Existing town homes will remain in Tysons Corner and are shown as part of the 2010 base figures, but all future housing contemplated in this study will be either high-rise or low-rise multi-family units.
- For projected TOD, it is assumed that 90% of future housing will be high-rise and 10% will be low-rise. For projected non-TOD, it is assumed that 75% of future housing will be high-rise and 25% will be low-rise.
- Within each residential category except existing townhomes, it is assumed, on instruction from Fairfax County, that 88% of the housing will be market rate units, and 12% will be affordable or workforce units. Moreover, it is assumed that this 12% will consist of:
  - ➤ 4% targeted at households earning 70% of area median income (AMI);
  - ➤ 4% targeted at households earning 90% of AMI; and
  - ➤ 4% targeted at households earning 110% of AMI.
- Residential development will average 1,200 square feet per unit, regardless of type.
- 37% of future retail space will be small or specialty retail, 46% will be large retail, and 17% will be restaurant, based on current retail patterns in Tysons Corner. Small or specialty retail stores include apparel, electronics, health and personal care, and hobby and sporting goods. Large retail stores are those that sell food and beverages, general merchandise, and home and garden.
- Mall retail is based on existing space within Tysons Corner and is not projected to change throughout the scope of this study.

 All development is shown as occurring linearly, with the same amount being produced annually in between years for which specific figures are provided (2010, 2020, 2030, 2040, and 2050).

While these assumptions are believed to be reasonable, they should not be construed as a definitive forecast of future events. Actual development will differ from the assumptions outlined above, and could result in materially different fiscal impacts than those projected herein.

#### E. Projected Property Values

As stated previously, property values were estimated with input from the Real Estate Division within the Department of Taxation. For each type of property, two valuation approaches were used to estimate future values. In all cases, one of these approaches was to research current assessed values for existing properties in or near Tysons Corner for each property type. The second approach was to mimic the assessment methodology that the Real Estate Division will most likely use to evaluate the various property types in the future.

For commercial property, including for-rent residential units, the approach most likely to be used by the assessor is the *income capitalization approach*. This approach is based on the premise that the value of a property is directly related to the income it will generate. The Real Estate Division analyzes both the property's ability to produce future income and its expenses, and then estimates the property's value. The Real Estate Division develops a capitalization rate by analyzing the sales of similar income properties and determining the relationship between the sale price and net income.

The steps in applying the income capitalization approach are to determine the stabilized, netoperating income by:

- Estimating potential gross income from all sources;
- Deducting an allowance for vacancy and bad debts; and
- Deducting all direct and indirect operating expenses.

The resulting net-operating income is capitalized by a market rate, which reflects the property type and effective date of valuation to produce an estimate of overall property value. When using this approach to valuation, the Real Estate Division relies on a mass appraisal approach: market rents, expenses, vacancies, and capitalization rates for a given area are used in estimating value, rather than the actual figures for a specific property.

For affordable for-sale residential property, the Real Estate Division uses a modified cost approach. Essentially, the guidelines for how much a developer can charge for a property are set forth by Fairfax County under its affordable housing program. The Real Estate Division uses this figure to set assessed value. For affordable rental residential property, the guidelines for how much rent can be charged for a unit are set forth by Fairfax County. These rents are then used as the income that is capitalized under the income capitalization approach. Market rate for-sale residential properties are valued using a sales-comparison approach, and this is reasonably replicated through the analysis of comparable properties outlined previously.

The projected values by property type on a per square foot and per unit basis are shown in Tables F and G below and on the following page. Detailed calculations of these values, along with documented sources, are included in the accompanying exhibits.

TABLE F
Projected Property Values by Type, TOD Development

|                              | Projected Assessed Value |              |  |
|------------------------------|--------------------------|--------------|--|
| Property Type                | Per SF                   | Per Unit     |  |
| Office                       | \$313.00                 | NA           |  |
| Mall Retail                  | \$622.00                 | NA           |  |
| Large Retail                 | \$481.00                 | NA           |  |
| Specialty Retail             | \$420.00                 | NA           |  |
| Restaurant                   | \$433.00                 | NA _         |  |
| Hotel                        | \$225.89                 | NA           |  |
| Residential For-sale         |                          |              |  |
| Multi-family High Rise       |                          |              |  |
| Market                       | \$520.47                 | \$624,564.96 |  |
| Affordable/Workforce Level 1 | \$125.90                 | \$151,078.31 |  |
| Affordable/Workforce Level 2 | \$161.87                 | \$194,243.54 |  |
| Affordable/Workforce Level 3 | \$197.84                 | \$237,408.77 |  |
| Multi-family Low Rise        |                          |              |  |
| Market                       | \$354.80                 | \$425,754.82 |  |
| Affordable/Workforce Level 1 | \$125.90                 | \$151,078.31 |  |
| Affordable/Workforce Level 2 | \$161.87                 | \$194,243.54 |  |
| Affordable/Workforce Level 3 | \$197.84                 | \$237,408.77 |  |
| Residential For Rent         |                          |              |  |
| Multi-family High Rise       |                          |              |  |
| Market                       | \$265.11                 | \$318,127.88 |  |
| Affordable/Workforce Level 1 | \$128.21                 | \$153,856.49 |  |
| Affordable/Workforce Level 2 | \$164.71                 | \$197,646.41 |  |
| Affordable/Workforce Level 3 | \$201.20                 | \$241,436.34 |  |
| Multi-family Low Rise        |                          |              |  |
| Market                       | \$265.11                 | \$318,127.88 |  |
| Affordable/Workforce Level 1 | \$128.21                 | \$153,856.49 |  |
| Affordable/Workforce Level 2 | \$164.71                 | \$197,646.41 |  |
| Affordable/Workforce Level 3 | \$201.20                 | \$241,436.34 |  |

TABLE G
Projected Property Values by Type, non-TOD Development

|                                  | Projected Assessed Value |              |  |
|----------------------------------|--------------------------|--------------|--|
| Property Type                    | Per SF                   | Per Unit     |  |
| Office                           | \$281.70                 | NA           |  |
| Large Retail                     | \$432.90                 | NA           |  |
| Specialty Retail                 | \$378.00                 | NA           |  |
| Restaurant                       | \$389.70                 | NA _         |  |
| Hotel                            | \$203.31                 | NA           |  |
| Residential For-sale             |                          |              |  |
| Multi-family High Rise<br>Market | \$468.42                 | \$562,108.46 |  |
| Affordable/Workforce Level 1     | \$113.31                 | \$135,970.48 |  |
| Affordable/Workforce Level 2     | \$145.68                 | \$174,819.18 |  |
| Affordable/Workforce Level 3     | \$178.06                 | \$213,667.89 |  |
| Multi-family Low Rise            | π - 1 - 3 - 3 - 3        | π = -0,00,,  |  |
| Market                           | \$319.32                 | \$383,179.34 |  |
| Affordable/Workforce Level 1     | \$113.31                 | \$135,970.48 |  |
| Affordable/Workforce Level 2     | \$145.68                 | \$174,819.18 |  |
| Affordable/Workforce Level 3     | \$178.06                 | \$213,667.89 |  |
| Townhouse                        | \$246.53                 | \$606,272.17 |  |
| Residential For Rent             |                          |              |  |
| Multi-family High Rise           |                          |              |  |
| Market                           | \$238.60                 | \$286,315.09 |  |
| Affordable/Workforce Level 1     | \$115.39                 | \$138,470.84 |  |
| Affordable/Workforce Level 2     | \$148.23                 | \$177,881.77 |  |
| Affordable/Workforce Level 3     | \$181.08                 | \$217,292.70 |  |
| Multi-family Low Rise            |                          |              |  |
| Market                           | \$238.60                 | \$286,315.09 |  |
| Affordable/Workforce Level 1     | \$115.39                 | \$138,470.84 |  |
| Affordable/Workforce Level 2     | \$148.23                 | \$177,881.77 |  |
| Affordable/Workforce Level 3     | \$181.08                 | \$217,292.70 |  |

#### F. Projected Real Property Taxes

Based on the development forecasts shown in Table E, the values outlined in Tables F and G, and current tax rates, the projected real property tax revenues for each scenario is as shown in Table H on the following page.

TABLE H
Projected Real Property Taxes

|  | 2010          | 2020          | 2030          | 2040          | 2050          |
|--|---------------|---------------|---------------|---------------|---------------|
| Scenario A   |               |               |               |               |               |
| Real property tax                                      | \$164,635,199 | \$209,155,215 | \$253,903,743 | \$253,903,743 | \$253,903,743 |
|  |               |               |               |               |               |
| Scenario B   |               |               |               |               |               |
| Real property tax                                      | \$165,843,850 | \$225,219,192 | \$285,863,941 | \$355,109,164 | \$428,974,412 |
| Taxes calculated in exhibits accompanying this report. |               |               |               |               |               |

Again, all figures are cumulative, with the figures for 2020 inclusive of the existing development shown in 2010.

#### G. Projected Employment Impacts

With the rapid increase in commercial space at Tysons Corner, the number of employees in the area is also expected to rise over time. Table I below shows the estimated existing and projected employees for the area under the two scenarios.

TABLE I
Projected Direct Employees

|                                | 2010                      | 2030    | 2050    |
|--------------------------------|---------------------------|---------|---------|
| Scenario A                     |                           |         |         |
| Office                         | 115,080                   | 183,914 | 183,914 |
| Mall retail                    | 9,451                     | 9,451   | 9,451   |
| Large retail                   | 2,446                     | 2,117   | 2,117   |
| Specialty retail               | 3,478                     | 3,010   | 3,010   |
| Restaurant                     | 4,661                     | 4,027   | 4,027   |
| Hotel                          | 1,566                     | 2,193   | 2,193   |
| Total Scenario A               | 136,682                   | 204,712 | 204,712 |
| Scenario B                     |                           |         |         |
| Office                         | 115,080                   | 188,580 | 252,840 |
| Mall retail                    | 9,451                     | 9,451   | 9,451   |
| Large retail                   | 2,446                     | 3,388   | 3,576   |
| Specialty retail               | 3,478                     | 4,818   | 5,086   |
| Restaurant                     | 4,661                     | 6,453   | 6,812   |
| Hotel                          | 1,566                     | 2,415   | 3,198   |
| Total Scenario B               | 136,682                   | 215,105 | 280,963 |
| Impacts calculated in exhibits | accompanying this report. |         |         |

#### H. Fiscal and Economic Impacts

As development is added to Tysons Corner, Fairfax County can expect to see some economic benefit in terms of revenue, such as the real property tax already discussed. In addition to these revenues, MuniCap, Inc. calculated several other potential streams of revenue. These revenues are outlined below in Table J.

TABLE J
Economic Benefits to Fairfax County over Time
(Annual Revenues)

|                                      | 2010                   | 2020                | 2030          | 2040          | 2050          |
|--------------------------------------|------------------------|---------------------|---------------|---------------|---------------|
| Scenario A                           |                        |                     |               |               |               |
| Real property tax                    | \$164,635,199          | \$209,155,215       | \$253,903,743 | \$253,903,743 | \$253,903,743 |
| Sales tax                            | \$30,672,212           | \$29,930,643        | \$29,446,573  | \$29,446,573  | \$29,446,573  |
| Personal property tax                | \$23,893,099           | \$30,249,555        | \$36,632,608  | \$36,632,608  | \$36,632,608  |
| BPOL tax                             | \$56,983,075           | \$72,115,700        | \$87,302,889  | \$87,302,889  | \$87,302,889  |
| Hotel lodging tax                    | \$5,768,849            | \$6,922,571         | \$8,076,293   | \$8,076,293   | \$8,076,293   |
| Recordation tax                      | \$13,236,317           | \$13,853,304        | \$16,516,354  | \$16,417,738  | \$16,417,738  |
| Additional projected tax             | \$29,418,396           | \$39,861,971        | \$50,330,414  | \$50,330,414  | \$50,330,414  |
| Sub-total Scenario A                 | \$324,607,147          | \$402,088,959       | \$482,208,874 | \$482,110,258 | \$482,110,258 |
| Scenario B                           |                        |                     |               |               |               |
| Real property tax                    | \$165,843,850          | \$225,219,192       | \$285,863,941 | \$355,109,164 | \$428,974,412 |
| Sales tax                            | \$30,672,212           | \$33,092,765        | \$36,603,411  | \$37,478,964  | \$38,354,517  |
| Personal property tax                | \$23,893,099           | \$31,063,257        | \$38,282,224  | \$44,438,208  | \$50,516,501  |
| BPOL tax                             | \$56,983,094           | \$73,917,958        | \$90,900,286  | \$105,457,190 | \$119,827,677 |
| Hotel lodging tax                    | \$5,768,849            | \$7,211,062         | \$8,893,643   | \$10,335,855  | \$11,778,067  |
| Recordation tax                      | \$14,395,781           | \$15,792,358        | \$19,260,901  | \$22,311,094  | \$25,292,541  |
| Additional projected tax             | \$29,476,956           | \$43,774,500        | \$58,318,832  | \$76,861,618  | \$97,079,489  |
| Sub-total Scenario B                 | \$327,033,841          | \$430,071,092       | \$538,123,238 | \$651,992,092 | \$771,823,203 |
| Detailed calculations of impacts inc | cluded in exhibits acc | ompanying this repo | ort.          | •             |               |

Taxes specifically mentioned in Table J are calculated in the exhibits that accompany this report, with assumptions and sources noted. "Other revenue" includes revenue sources likely to increase with future development, but estimated on a pro rata basis, as shown in the accompanying exhibits. These other revenues include: the consumer utility tax; permits, privilege fees, and licenses; intergovernmental revenues; fines and forfeitures; use of money and property; and recovered costs. As stated previously, figures for 2010 are assumed to represent revenue already received by the County, with totals thereafter representing cumulative amounts.

From these revenues, estimated expenditures must be netted out to arrive at the projected fiscal impacts. These expenditures were also estimated on a pro rata basis, as shown in the accompanying exhibits. Expenditures include the provision of public safety, including fire and police services, and public schools, as well as the costs of providing general government services and the costs of government administration. It should be noted that only transportation-related expenditures included in this analysis are based on the current expenditures by the County's Department of Public Works and Environmental Services.

The analysis assumes that the Virginia Department of Transportation will continue to be responsible for the majority of road maintenance.

In addition to the general operating expenditures, Fairfax County will have to provide capital improvements to accommodate the increased development. These improvements include the relocation and construction of fire and police stations, the construction of schools and libraries, parks, and equipment for public safety personnel. The cost of these improvements must also be netted out of projected revenues to arrive at the projected fiscal impacts. Under either scenario, growth at Tysons Corner is projected to generate net revenues. A portion of these revenues could be used toward the County's share of transportation infrastructure and other public facilities. Some of these net revenues could also be used to enhance the current level of County services at Tysons Corner. This analysis does not include per capita debt service representing current County general obligation bond spending for roads and other major capital facilities.

The resultant net fiscal impacts from these estimates are shown below in Table K. Detailed calculations are in the accompanying exhibits.

TABLE K
Comparison of Net Annual Fiscal Impacts to Fairfax County over Time

|  | 2010                    | 2020                 | 2030            | 2040            | 2050            |
|--|-------------------------|----------------------|-----------------|-----------------|-----------------|
| Scenario A (Comp Plan without inflation) |                         |                      |                 |                 |                 |
| Revenues                                 | \$324,607,147           | \$402,088,959        | \$482,208,874   | \$482,110,258   | \$482,110,258   |
| Expenditures                             | (\$49,977,619)          | (\$68,201,972)       | (\$86,487,433)  | (\$86,486,332)  | (\$86,486,332)  |
| Capital costs                            | \$0                     | (\$7,120,009)        | (\$19,242,022)  | (\$15,370,638)  | (\$12,707,867)  |
| Net impact                               | \$274,629,529           | \$326,766,978        | \$376,479,420   | \$380,253,288   | \$382,916,059   |
| Samuela P (CMI) for                      | a a a a t i th a t i mi | flation)             |                 |                 |                 |
| Scenario B (GMU for                      | _                       | <u> </u>             |                 |                 |                 |
| Revenues                                 | \$327,033,841           | \$430,071,092        | \$538,123,238   | \$651,992,092   | \$771,823,203   |
| Expenditures                             | (\$50,223,320)          | (\$75,780,713)       | (\$101,799,569) | (\$135,646,888) | (\$172,754,356) |
| Capital costs                            | \$0                     | (\$13,494,646)       | (\$31,036,791)  | (\$37,388,618)  | (\$44,055,106)  |
| Net impact                               | \$276,810,520           | \$340,795,733        | \$405,286,878   | \$478,956,587   | \$555,013,741   |
| Detailed calculations of imp             | bacts included in exh   | ibits accompanying i | this report.    |                 |                 |

In Table L on the following page, 2010 values are treated as base revenues and expenditures already experienced by the County, and are not included because they are not due to new development at Tysons Corner.

TABLE L
Cumulative Incremental Net Fiscal Impacts to Fairfax County over Time

|   | 2010 | 2020          | 2030            | 2040            | 2050            |  |  |
|---|------|---------------|-----------------|-----------------|-----------------|--|--|
| Scenario A  |      |               |                 |                 |                 |  |  |
| Net impact  | \$0  | \$255,191,226 | \$1,006,861,492 | \$2,056,499,079 | \$3,139,364,367 |  |  |
|   |      |               |                 |                 |                 |  |  |
| Scenario B  |      |               |                 |                 |                 |  |  |
| Net impact  | \$0  | \$291,944,356 | \$1,218,887,494 | \$2,886,912,476 | \$5,311,700,430 |  |  |
| Detailed calculations of impacts included in exhibits accompanying this report. |      |               |                 |                 |                 |  |  |

This information is shown graphically in the attached Charts 3 through 7.

CHART 3: Projected Revenues vs. Expenditures, Scenario A

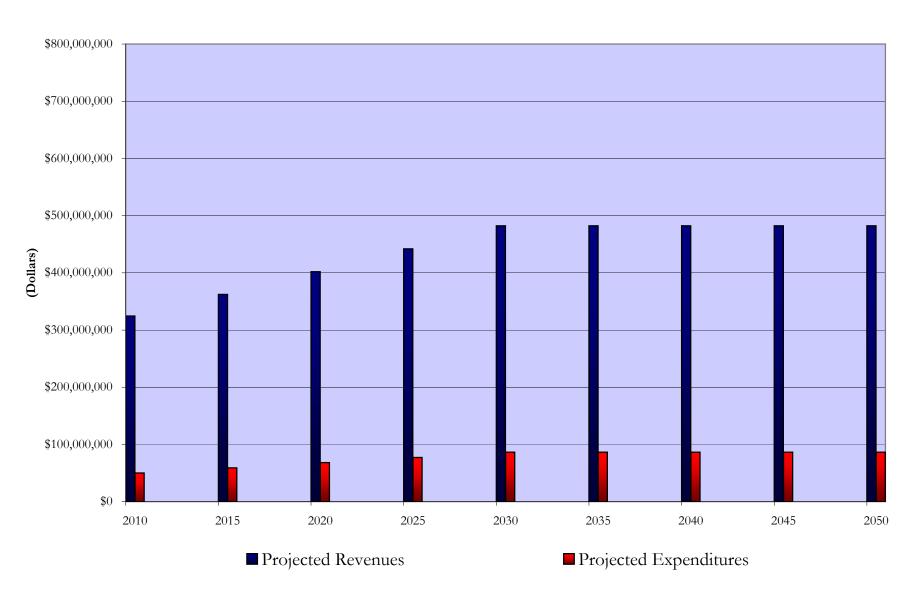


CHART 4: Projected Revenues vs. Expenditures, Scenario B

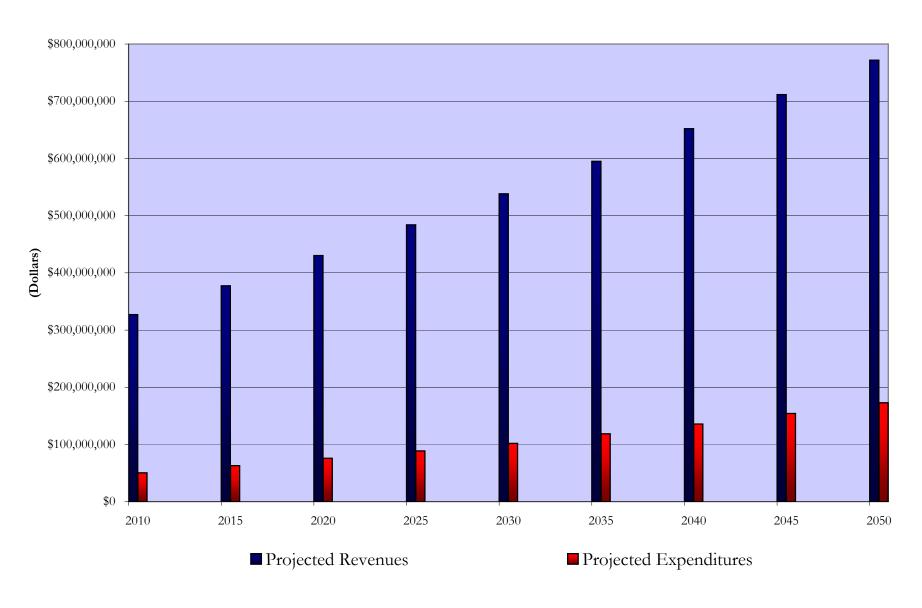


CHART 5: Projected Revenues vs. Expenditures Comparison of Scenario A vs. Scenario B

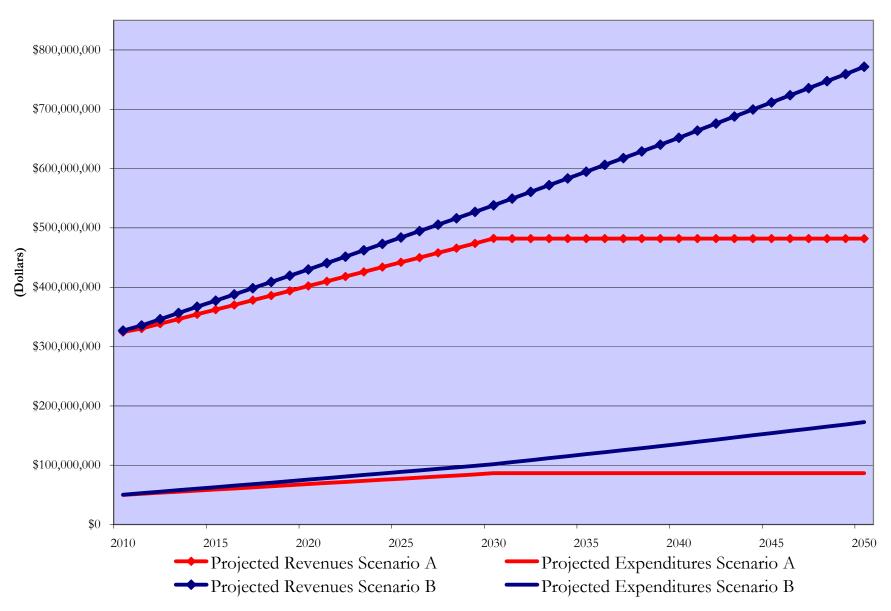


CHART 6: Comparison of Incremental Revenue

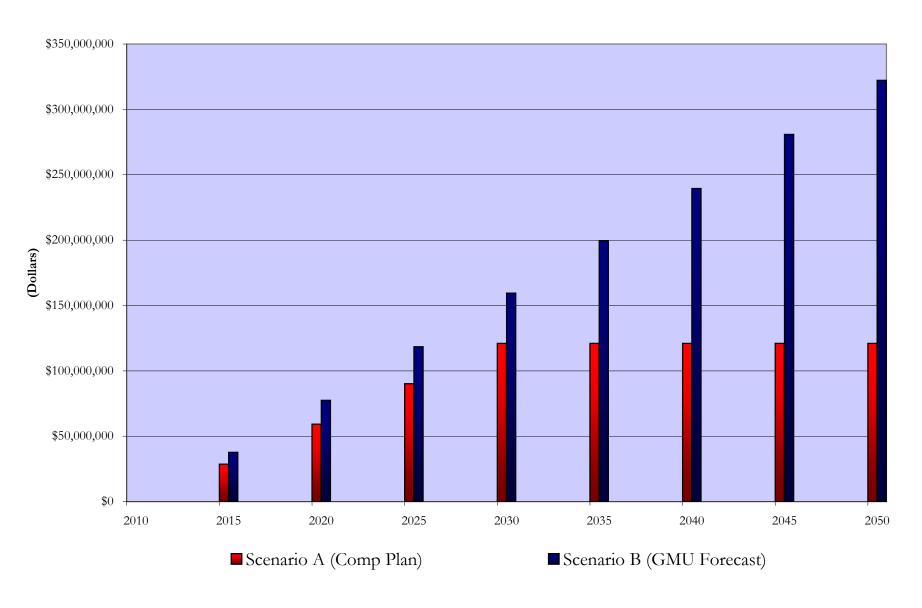
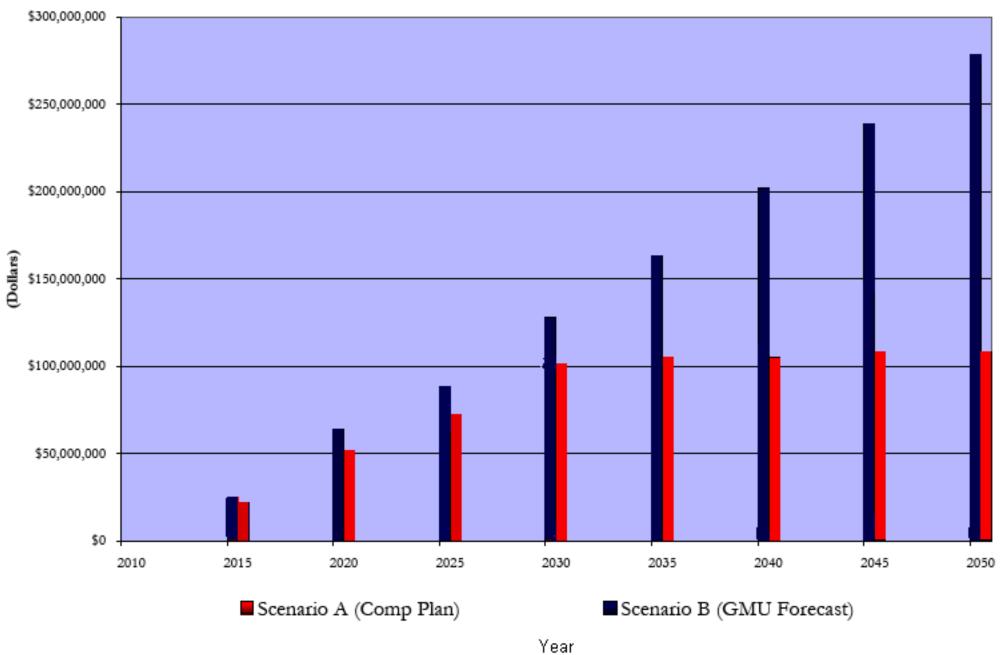


CHART 7: Comparison of Incremental Surplus Net of Capital Costs



#### I. Assumptions and Limitations

These projections are an illustration of certain information based on specific assumptions, not a forecast of future events. The assumptions are likely to be different than actual future events. Tax increment revenues will probably not be levied, collected, or available in the precise amounts shown in these projections. Assessed values and tax rates will probably not be the precise amounts shown in these projections. There are likely to be other variables (not addressed in the projections) that could affect the amount and the availability of revenues.

Key assumptions and the sources of information relied upon in these projections are as follows:

Projected Development and Projected Absorption: The projected development and absorption scenarios were provided by the Fairfax County Department of Planning and Zoning. They represent the potential for growth under the current Comprehensive Plan for Tysons Corner and the GMU High Forecast dated September 17, 2008. No effort was undertaken to evaluate the reliability of this information. No effort was undertaken to evaluate the viability of the projections from a market standpoint, or to evaluate whether the absorption pace was attainable in the market area in and around Tysons Corner.

Property Values: Property values were estimated by researching current assessed values in Fairfax County, as well as the assessment practices in the County. While it is believed that the properties used to estimate values are a reasonable basis for future development, differences in market area, build quality, design, end use, and other factors could result in assessed values materially different than those estimated in this study. The projection of property values herein is intended only to be a reasonable estimate based on specific assumptions. Actual values will almost certainly be different than those shown in this study.

Projected Sales: projected sales are based on national and local data. While the data is believed to be representative of future development, different commercial mixes will yield different sales, and, consequently different revenue amounts to Fairfax County.

Projected Tax Rates: tax rates were obtained from Fairfax County records and from interviews with County staff. The projections herein assume a static tax rate and inflation rate. In reality, changes in real property tax rates and inflation rates historically have not been uniform and likely will not be so in the future.

Transportation Expenditures: It should be noted that only transportation-related expenditures included in this analysis are based on the current level of service for County maintenance of roads. The analysis assumes that the Virginia Department of Transportation will continue to be responsible for the majority of road maintenance.

MuniCap, Inc. has not independently verified any of the information utilized in these projections and has relied on the information provided by various sources. These projections assume that the projected development will be completed as shown. No analysis has been made to confirm or evaluate whether the development will be completed as assumed. A narrative description of each schedule in the projections has not been provided and the projections may not be self-explanatory. Questions regarding the projections should be addressed to MuniCap, Inc. MuniCap, Inc. is not responsible for any misuse, misunderstanding, or misapplication of these projections.