

Fairfax County Public Schools Occupancy Model Assessment



LEADERSHIP • PROBLEM SOLVING • VALUE CREATION

JUNE 5, 2008

Submitted by:

**Alvarez & Marsal
Real Estate
Advisory
Services, LLC**

Contact:

Jay Brown

Managing Director

Phone: 202-729-2110

jbrown@alvarezandmarsal.com



ALVAREZ & MARSAL



2001 K Street, NW, Ste. 803
Washington, DC 20006
Phone: (202) 729-2110
Fax: (202) 729-2101

www.alvarezandmarsal.com

June 5, 2008

Ms Lee Ann Pender
Director
Office of Administration
Facilities and Transportation Services
Fairfax County Public Schools
10640 Page Avenue
Fairfax, Virginia 22030

FINAL REPORT
Fairfax County Public Schools
Occupancy Model Assessment

Dear Ms. Pender:

Alvarez & Marsal Real Estate Advisory Services LLC (A&M) is pleased to submit this Final Report of our firm's assessment of the Fairfax County Public Schools' (FCPS) Occupancy Model for the purchase of the BPG Building in Fairfax, Virginia. The Draft Report outlines our approach, our findings, and our conclusions as to the validity of the Occupancy Model.

As outlined in the following report, the methodology used in the Occupancy Model to estimate occupancy costs is based upon reasonable financial assumptions, the Occupancy Model accurately calculates the cost of occupancy and the projected savings, and the resulting recommendation is based upon sound real estate fundamentals given the current state of the economy and budgetary constraints. The findings of the assessment are supported by specific comments and recommendations.

Should you have any questions, please call me at (202) 729-2110 or Brian at (202) 729-2115.

Very truly yours,

Alvarez & Marsal Real Estate Advisory Services, LLC

A handwritten signature in black ink, appearing to read 'Jay Brown', with a long horizontal flourish extending to the right.

Jay Brown
Managing Director



Background

FCPS is in Phase II of an administrative consolidation project approved by the County. Phase I of the consolidation project included the purchase and occupancy of an approximately 208,000 square foot facility with an adjacent site for potential office expansion. FCPS and its commercial real estate agent have evaluated and modeled several potential occupancy options for Phase II, including: (1) building a similarly sized facility on the adjacent site; (2) purchasing and renovating a separate 275,000 square foot facility on the same property; or (3) continuing with the status quo of decentralized administrative offices.

The recommendation of FCPS and the agent is to purchase and renovate the separate facility on the same property, based upon several factors, most notably the long term occupancy savings potential of this option over the other options as illustrated in the Occupancy Model created by FCPS and its commercial real estate agent.

The Fairfax County School Board has requested a third party validation of the model to ensure the methodology used in the Occupancy Model to estimate occupancy costs is based upon reasonable financial assumptions, the model accurately calculates the cost of occupancy and the projected savings, and that the resulting recommendation is based upon sound real estate fundamentals given the current state of the economy and budgetary constraints.

Approach

The assessment of the Occupancy Model was organized around the following occupancy model principles. Each principle was reviewed and evaluated for reasonableness.

1. Total Cost of Occupancy

- a. Illustration of an apples-to-apples comparison of the total cost of occupancy for the recommended scenario and the status quo scenario.
- b. FCPS growth assumptions for administrative staff and space requirements.
- c. Occupancy and life-cycle cost categories.

2. Financial Assumptions

- a. Costs of capital and capitalization rates.
- b. Projected inflation/growth rates applied to operational costs.
- c. Cost per square foot to renovate and upgrade separate facility.

3. Model Accuracy

- a. Linkages and flexibility within the Excel model framework.
- b. Tabulations of costs and savings figures.
- c. Calculation of Net Present Value (NPV) of saving potential.

4. Real Estate Fundamentals

- a. Sales prices of similarly-sized facilities in the market given contiguous space requirement, condition of asset, and location of asset.
- b. Opportunity costs based upon the real estate business cycle, expected future occupancy and construction costs, and current FCPS leasehold/occupancy positions.

The assessment included the following activities:

1. **Meeting with FCPS.** This initial meeting provided project background, the framework of the analysis, the various contributors to the occupancy analysis, and other data about the model.
2. **Review of Occupancy Model.** The review of the Occupancy Model included a review of the accuracy of the formulas used to determine the costs of occupancy and the net present value calculations. The Occupancy Model review also included checking all the assumption and data linkages, and ensuring the model's variables were correctly sourced within the model.
3. **Model Inquiries.** After the review of the model, a list of model inquiries and clarifications was communicated to FCPS. A meeting was held with FCPS representatives and the commercial real estate agent to discuss the requested clarifications, which focused predominantly on "hard-coded" data in the model which did not permit the reviewer to validate its source.

4. **Discussions with Real Estate and Construction Professionals.** Variables and assumptions within the model were checked in part through brief interviews with financial, real estate, and construction experts.
5. **Review of Real Estate Market Data.** Real estate market data, such as trends in value, market rents, expense ratios, and the general state of the real estate market, was reviewed to validate the variables used in the model and to assess the strength of the real estate market given the recommendation to purchase a facility at this particular time.

The assessment included the following interviews and documentation review.

Figure 1. Chart of Interviews Conducted and Documents Reviewed

Interviews Conducted	Documents Reviewed
<ul style="list-style-type: none"> ▪ Bob Cordova, FCPS ▪ John Gibb, Staubach ▪ Patti Restrepo, Staubach ▪ Mason Osborn, Staubach ▪ Sarah Greear, PFM ▪ Bob Schridder, Balfour Beatty 	<ul style="list-style-type: none"> ▪ Occupancy Cost Model - Status Quo and Option 4, dated 06/02/08, created by Commercial Real Estate Agent with input from FCPS, FPM, and the FCPS Administrative Center Life-Cycle Cost Projections Model ▪ Administrative Center Life-Cycle Cost Projections Model, dated 05/25/07, created by FCPS and revised by Commercial Real Estate Agent 06/02/08 ▪ Gatehouse Administration Center II Purchase vs. Build Analysis, dated 05/08/08, created by FCPS ▪ Executive Summary, BPG Building Purchase, created by FCPS ▪ Gatehouse Administration Center: Phase I cost Savings Report, created by FCPS

Findings

The assessment of the Occupancy Model found the model to be reasonable on all principles, and reflective of sound real estate fundamentals and decision making. The model reflects total cost of occupancy comparisons; the financial assumptions are generally well supported; the model generally links assumptions; and the model accurately calculates sums and net present value figures. Additionally, given the information available today, the recommendation to proceed with the purchase of the BPG Building is based upon an understanding of the market, the opportunity available, and reflects sound real estate judgment. The model, with minor updating, should serve FCPS well as a valuable decision support tool for FCPS' administrative center consolidation activities.

The Findings are supported by specific comments for each principle assessed during the assessment of the model.

1. Total Cost of Occupancy

- a. *Illustration of an apples-to-apples comparison of the total cost of occupancy for the recommended scenario and the status quo scenario.*

The Occupancy Model clearly outlines a total cost of occupancy scenario for the status-quo option over a thirty year horizon, illustrating the costs to FCPS for maintaining their current operational model of a single administrative headquarters (Gatehouse I) and multiple decentralized operations housed in both owned and leased facilities. The costs in the model include, as expected: the cost of ownership and renovation of the owned facilities (debt service); the cost of ongoing maintenance and utilities of the owned facilities; the cost of leases and lease renewals; and custodial services. Additional costs related to costs associated with a decentralized operational model, include training room rental and travel costs of employees between locations, are also included.

The Occupancy Model for Option 4 – the purchase of the BPG Building – also outlines a total cost of occupancy scenario. This option reflects the proposed change in the real estate costs to two owned facilities (Gatehouse I and the BPG Building) as a result of the consolidation of all the remaining FCPS offices into the BPG Building, with few exceptions. In addition to the cost categories listed above in the status quo option, this model correctly includes short-term occupancy costs of the existing expiring leases and the owned facilities FCPS will be vacating and returning to either the County or to other non-administrative FCPS programs, as well as ongoing maintenance and replacement reserves for the BPG Building.

Recommendations

It is important that occupancy models which compare the cost of two or more options accurately reflect the total cost of occupancy, including short term and long term occupancy costs. As the Occupancy Model is modified and updated to assess various option scenarios it is important for FCPS to ensure changes to the status quo option or other options are consistently applied to all options to maintain a true comparison of total cost of occupancy for FCPS, and to serve as a solid decision making tool for FCPS.

Additionally, facility consolidations such as the consolidation FCPS is undertaking often result in significant cost savings from non-real estate expenses such as the natural attrition of redundant positions no longer necessary due to the reduced number of facilities (receptionists, mailroom workers, etc.). These costs should be calculated for each option under consideration, and included “below the line” of real estate costs so the comparison of real estate to real estate costs, and non-real estate to non-real estate costs can clearly be illustrated and evaluated separately.

b. FCPS growth assumptions for administrative staff and space requirements.

The Occupancy Model assumes zero growth in administrative staff over the thirty year horizon of the model. This is consistent with other public sector organizations operating on annual budgetary cycles. Future fluctuations in administrative staff beyond the immediate staff reductions resulting from the consolidation are not projected and therefore the model only reflects a snapshot of the current portfolio without any expansion/contraction assumptions driving future space requirements.

c. Occupancy and Life Cycle cost categories.

As discussed above, the occupancy costs included in the Occupancy Model (both the status quo option and the Option 4 model for the purchase of the BPG Building) aim to calculate a total cost of occupancy for FCPS’ administration space. The Occupancy Model and its supporting Administrative Life-Cycle Cost Projections Model include the proper and expected cost categories necessary to accurately calculate total cost of occupancy for the FCPS administrative portfolio. The chart below illustrates the cost categories represented in the Occupancy Model and the supporting Administrative Life-Cycle Cost Projections Model.

Figure 2. Chart of Cost Categories in the Occupancy Model and the Life-Cycle Cost Model

Occupancy Model Cost Categories for Occupancy Options	Life-Cycle Cost Categories for Owned Facilities
<ul style="list-style-type: none"> ▪ Full service lease payments ▪ Utility costs for owned facilities ▪ Custodial costs for owned facilities ▪ Debt service on bond-funded renovation costs and maintenance costs ▪ Non-bond funded major maintenance and base maintenance costs 	<ul style="list-style-type: none"> ▪ Periodic renovation costs such as HVAC and roofing ▪ Major maintenance costs such as carpeting, painting, and window replacement ▪ Base maintenance costs

Together, the inclusion of these cost categories indicates a solid methodology for managing and calculating a total cost of occupancy for FCPS.

2. Financial Assumptions

a. Cost of capital and capitalization rates.

A significant portion of FCPS’ capital requirements is funded through bond financing. The County maintains a solid bond rating and the County leverages these low cost funds to bring greater value to the County’s capital improvement dollars. The County works to maintain its debt capacity and thresholds, and capital decisions are made in relation to debt capacity and market timing of debt. As such, the occupancy model includes a calculation of debt service for the bond-funded project, with debt service commencement starting in 2013 based upon the ability of the County to advantageously time its access to bond funds and the delay of debt service until the facility is renovated. PFM, a contractor to the County for its bond financing analyses, confirmed the bond debt financing assumptions, including total bond size, All-In Interest Rate, term, commencement date, and all assumptions appear to be reasonable and consistently applied across the various options under consideration.

b. Projected inflation/growth rates applied to operational costs.

The Occupancy Model accurately uses inflationary and other growth rate variables to adjust 2008 dollars over the thirty year time horizon. Several of the growth variables in the model were specific to FCPS and the County. In discussions with FCPS staff, these variables were confirmed to be based upon historic data.

Other variables used in the Occupancy Model are real estate specific, such as lease cost growth. These variables were confirmed to be reasonable based upon conversations with local commercial real estate agents, and the Korpacz Report (1st Q 2008), a national real estate economic report published quarterly that tracks real estate investment costs, returns, and growth rates. The chart below illustrates the variables and growth rates represented in the Occupancy Model.

Figure 3. Chart of Operational Variables and Growth Rates used in Occupancy Model

FCPS-provided Operational Variables and Growth Rates	Real Estate Industry Variables and Growth Rates
<ul style="list-style-type: none"> ▪ Annual increases in utility costs ▪ Annual increases in personnel costs ▪ Annual increases in travel expenses 	<ul style="list-style-type: none"> ▪ Annual increases in full service lease costs ▪ Annual increases in utility costs ▪ Annual increases in operating expenses ▪ Annual replacement reserves ▪ Annual general maintenance reserves

Recommendations

Although these variables are applied evenly across all options in the Occupancy Model, and any changes to these variables are relative – meaning any variable change will similarly impact the calculations of all options – FCPS should consider conducting sensitivity analyses around individual variables. Sensitivity analyses reveal the impact on the model and its calculated outcomes across value ranges of any single variable. Sensitivity analyses generally indicate which variable changes pose the highest risk to the Occupancy Model outcomes and recommendations.

c. Cost per square foot to renovate and upgrade separate facility.

Cost to renovate and upgrade facilities appear in two models – in the Administrative Life-Cycle Cost Projections Model (the ongoing scheduled maintenance and renovation schedule of the owned facilities), and in the Occupancy Model (through the debt service for the renovation cost and upgrades outlined for the BPG Building). Based upon previous experience and discussions with local general contractors operating in Fairfax County, real estate agents, and FCPS staff, the cost assumptions for these renovations appear reasonable and appropriate for this type of occupancy model.



3. Model Accuracy

a. Linkages and flexibility within the Excel model framework.

The Occupancy Model was reviewed for linkages and references to various assumptions. A document of clarifications and questions about the model functionality was provided to FCPS and the commercial real estate agent during this assessment exercise, focusing predominantly on numbers that were “hard-coded” (meaning numbers entered directly into cells without linkage to source data) in the model which could not be validated without additional information. FCPS and the commercial real estate agent are currently revising the Occupancy Model to reduce the presence of hard-coded data, and to provide the supporting data in the model for cross-referencing and auditing.

b. Tabulations of costs and savings figures.

The Occupancy Model was reviewed for completeness and accuracy in cell formulas and the tabulations of figures across the thirty year time horizon of the model. The methodology, design and layout of the Occupancy Model were very easy to follow, and a high-level review of the non-bond tabulations and new present value calculations were found to be accurate.

c. Calculation of NPV of saving potential.

The Occupancy Model accurately calculates net present value figures and calculates potential savings between the two options under consideration.

Recommendations

The Occupancy Model is a living, dynamic model that is used to assess various occupancy scenarios. As such, changes to the model assumptions and inputs are often made to see the impact on the model outcomes. With this level of access to the model, by both FCPS and the commercial real estate agent, it is important that the integrity of the model is safeguarded for future auditability and continued accuracy. Safeguarding the model might include the following:

- Performing regular quality control checks on the model and its formulas;
- Locking/protecting the cells which calculate formulas so the cells are not changed accidentally or temporarily;
- Removing all hard coded data from the model cells, and providing linkages to sourced data;
- Establishing a master document and document owner; and
- Providing an auditable log of personnel entry, dates, and changes to the model.

4. Real Estate Fundamentals

a. Sales prices of similarly-sized facilities in the market given contiguous space requirement, condition of asset, and location of asset.

The recommendation resulting from the Occupancy Model is the purchase and renovation of the BPG Building located adjacent to the Gatehouse I facility. A review of sales prices - on a per square foot basis, of similarly-sized facilities located in Fairfax County sold within the past 12 months - is illustrated in the chart below.

Figure 4. Chart of Sales Prices of Facilities Sold in Fairfax County in the Past Year

Properties	Building SF	Cost/SF	Sales Price	Sale Date	Year Built	Class	Variance (\$/SF) from Subject Property
SUBJECT PROPERTY 8111 Gatehouse Road Falls Church, VA 22042	275,000	\$189.09	\$52,000,000	Fall 2008	1973	A	\$0.00
12150 Monument Drive Fairfax, VA 22033	221,538	\$274.22	\$60,750,000	11/29/2007	1990	A	\$85.13
2980 Fairview Park Drive Falls Church, VA 22042	333,402	\$314.94	\$105,000,000	9/27/2007	1991	A	\$125.84
4035 Ridge Top Road Fairfax, VA 22030	191,237	\$325.77	\$62,300,000	6/7/2007	1989	A	\$136.68
Average Cost/SF of the 3 Sale Comparables		\$304.98					\$115.89



The chart illustrates that the three comparable building sales have an average sales price of just over \$300 per square foot, and are all approximately 18 years old. The BPG Building's purchase price of \$189 per square foot is significantly lower than the comparable sales; however, the BPG Building is approximately twice the age of the comparables at 35 years old. The chart below includes planned renovation costs (tenant fit out, HVAC upgrades, and elevator upgrades) for the BPG Building which, when added to the sales price, provides a more reasonable comparison of costs between the purchase of the BPG Building and the comparable local sales.

Figure 5. Chart of Sales Price and Renovation Costs of the BPG Building

Properties	Building SF	Cost/SF	Sales Price/ Renovation Costs	Sale Date	Year Built	Class	Variance (\$/SF) from Average Sale Comparables
SUBJECT PROPERTY 8111 Gatehouse Road Falls Church, VA 22042	275,000	\$189.09	\$52,000,000	Fall 2008	1973	A	
Tenant Fit Out Floors 1-6			\$15,400,000				
HVAC Plant			\$11,000,000				
Elevator Upgrade			\$600,000				
Renovated Value (2008 Dollars)			\$79,000,000				
Average Cost/SF of Upgraded Subject Property		\$287.27					(\$17.70)

This chart illustrates that with planned renovation costs of the BPG Building added to its sales price, the purchase price on a square foot basis of a renovated BPG Building is still less than the recent sales comparables. Factoring in that the sales comparables would probably also require some level of upgrade, the purchase and upgrade of the BPG Building could be approximately \$20 - \$25 less expensive per square foot than the comparable properties, potential saving FCPS several million dollars.

In regards to FCPS' consolidation need for contiguous space, the comparable sales data does not indicate if the facilities were sold as investment properties (providing income from leased tenants) or were sold as vacant contiguous space. Vacant contiguous space of over 250,000 square feet is not easy to find in existing facilities, and no facilities with this characteristic are currently for sale in Fairfax County.

b. Opportunity costs based upon the real estate business cycle, expected future occupancy and construction costs, and current FCPS leasehold/occupancy positions.

As mentioned above, vacant contiguous space of over 250,000 square feet is not easy to find in existing facilities, and no facilities with this characteristic are currently for sale in Fairfax County. Without the option to purchase the BPG Building, FCPS would have to construct a new facility of 275,000 square feet to meet the administrative consolidation space requirements.

Construction Costs

In discussions with the commercial real estate agent and Balfour Beatty, a Fairfax County general contractor with significant construction expertise, shell construction costs for new large (greater than 250,000 SF) class A office buildings in Fairfax County are in the \$130 - \$150/ SF range, with structured underground parking spaces in the range of \$30,000 – \$40,000 per space. These cost ranges are the same for concrete and steel construction, although steel construction costs have risen dramatically in the past few years. Using these cost ranges, the cost to construct a shell office building of 275,000 square feet with 850 structured parking spaces approaches \$275 per square foot in 2008 dollars.

Additionally, in discussions with Balfour Beatty, annual construction costs increases have experienced dramatic shifts over the past four years. For the period 2004 – 2007, annual construction costs increased almost 10% - 12% a year due to rising cost of materials and labor.



However, with the change in demand from the construction industry, the annual construction cost increase for 2008 is expected to be in the 3%-5% range. After the industry rebounds in 2008, it is expected that annual construction cost increases will rise again, averaging 4% - 6% annually for the foreseeable future.

FCPS Occupancy Position

The administrative offices of FCPS are located in several owned and leased facilities throughout the County. Each of the leases expires in the next few years, providing a natural transition to other facilities. The administrative space requirement of 275,000 square feet is large, and in the absence of building a new building over the next three to four years, the requirement can be met in 2009 by the BPG Building. The consolidation of FCPS administrative staff into one large facility should also bring economies of scale and adjacency to the FCPS operations, providing operational cost reductions due to position attrition, training room rental, and employee travel costs.

Real Estate Business Cycle

The national economy has seen reduced output over the past few quarters due to the impact of the credit crunch and rising fuel costs. Both the credit crunch and the rising fuel costs impact the real estate industry, and as such the commercial real estate industry is in a downward cycle in comparison to the previous five years, and has experienced value reductions, higher vacancy rates, and extended absorption projections due to limited projected job growth. It is unclear when the downward cycle will turn upward, although predictions for recovery in late 2008 and early 2009 are often mentioned.

The opportunity cost of purchasing real estate is different in a downward cycle or an upward cycle. Downward cycles are a good time to buy for those with credit, cash, or leverage capability, because when the cycle turns upward, the "deals" immediately dissipate and everyone begins to pay the rising fair market value of the properties or the rising construction costs. However, in either cycle, for those entities buying and holding long term (like FCPS), value for dollar invested equal to fair market value at the time of purchase, and buying sufficient space, is considered a strong investment.

Real Estate Fundamentals

Office sector capitalization rates, an indicator of changes of perceived long term value in the market place, which have been at an all time low over the past several years due to the availability of inexpensive credit, have begun to tick back up in the past two quarters for some national markets forecasting lower job growth and lower overall space absorption. However, this trend is not evident in the Washington DC market or the Northern Virginia market. According to the First Quarter Korpacz Report, both markets continue to see declining capitalization rates year-over-year, indicating strong underlying fundamentals in the markets, even given the recent credit crunch the national economy is experiencing.

The Korpacz Report indicates that most investors expect the Northern Virginia office market to hold up reasonably well during the current economic slowdown. Even though some values have dipped about 5.0% since the credit crisis, it is still too early to tell exactly how much prices have shifted due to a lack of recent sale transactions. The forecasted value change for the next 12 months range from -15% to 10%, however, the average value change for Northern Virginia office properties is expected to be 1.29%, with the DC average value change approximately 4% over the same period.

It should be noted that the fundamentals of the Northern Virginia real estate market – market rental rate change, expense rate change, value change – have been fairly constant over the past several years, and are attached to this document. The anticipated market rental rate change and the expense rate change expected in the Northern Virginia market are accurately reflected in the Occupancy Model.

Conclusion and Recommendations

The assessment of the Occupancy Model found the model to be reasonable on all principles, and reflective of sound real estate fundamentals and decision making. The model reflects total cost of occupancy comparisons; the financial assumptions are generally well supported; the model generally links assumptions; and the model accurately calculates sums and net present value figures. Additionally, given the information available today, the recommendation to proceed with the purchase of the BPG Building is based upon an understanding of the market, the opportunity available, and reflects sound real estate judgment. The model, with minor updating, should serve FCPS well as a valuable decision support tool for FCPS' administrative center consolidation activities.

Recommendation – Total Cost of Occupancy

It is important that occupancy models which compare the cost of two or more options accurately reflect the total cost of occupancy, including short term and long term occupancy costs. As the Occupancy Model is modified and updated to assess various options it is important for FCPS to ensure changes to the status quo option or other options are consistently applied to all options to maintain a true comparison of total cost of occupancy for FCPS, and to serve as a solid decision making tool for FCPS.

Recommendation – Financial Assumptions

Although the model variables are applied evenly across all options in the Occupancy Model, and any changes to these variables are relative – meaning any variable change will similarly impact the calculations of all options – FCPS should consider conducting sensitivity analyses around individual variables. Sensitivity analyses reveal the impact on the model and its calculated outcomes across value ranges of any single variable. Sensitivity analyses generally indicate which variable changes pose the highest risk to the Occupancy Model outcomes and recommendations.

Recommendation – Model Accuracy

The Occupancy Model is a living, dynamic model that is used to assess various occupancy scenarios. As such, changes to the model assumptions and inputs are often made to see the impact on the model outcomes. With this level of access to the model, by both FCPS and the commercial real estate agent, it is important that the integrity of the model is safeguarded for future auditability and continued accuracy. Safeguarding the model might include the following:

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- Establishing a master document and document owner; and
- Providing an auditable log of personnel entry, dates, and changes to the model.



Supporting Documentation from Korpacz Report, First Quarter 2008

FORECAST PERIODS AND GROWTH RATES First Quarter 2008										
MARKET	FORECAST PERIOD		MARKET RENT GROWTH RATES INITIAL YEAR		FORECAST PERIOD AVERAGE		EXPENSE GROWTH RATES INITIAL YEAR		FORECAST PERIOD AVERAGE	
	RANGE	AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE
National Regional Mall	10 – 10	10	0.00% – 3.90%	2.63%	1.40% – 3.40%	2.93%	3.00% – 3.00%	3.00%	3.00% – 3.00%	3.00%
National Power Center	3 – 10	9	0.00% – 4.00%	2.88%	1.40% – 4.00%	2.99%	3.00% – 3.00%	3.00%	3.00% – 3.00%	3.00%
National Strip Shopping Center	10 – 10	10	1.20% – 3.90%	2.86%	1.40% – 3.40%	2.93%	3.00% – 4.00%	3.10%	3.00% – 4.00%	3.10%
National CBD Office	10 – 10	10	0.00% – 10.00%	4.05%	0.60% – 6.00%	3.40%	1.50% – 4.00%	2.96%	3.00% – 3.00%	3.00%
National Suburban Office	5 – 10	10	0.00% – 8.00%	3.14%	0.00% – 6.00%	3.17%	3.00% – 4.00%	3.09%	3.00% – 3.50%	3.05%
Atlanta Office	3 – 10	9	0.00% – 8.00%	3.25%	2.00% – 4.50%	3.17%	2.00% – 3.00%	2.81%	2.00% – 3.00%	2.88%
Boston Office	5 – 10	10	0.00% – 5.00%	3.56%	3.00% – 5.00%	3.32%	3.00% – 3.00%	3.00%	3.00% – 3.00%	3.00%
Charlotte Office	3 – 10	7	3.00% – 6.00%	3.70%	2.50% – 3.50%	3.00%	3.00% – 3.00%	3.00%	2.50% – 3.00%	2.92%
Chicago Office	5 – 10	9	0.00% – 10.00%	2.95%	2.00% – 5.00%	2.99%	2.00% – 3.00%	2.90%	2.00% – 3.00%	2.91%
Dallas Office	3 – 10	9	0.00% – 7.00%	3.50%	0.00% – 3.70%	2.54%	2.00% – 3.00%	2.67%	3.00% – 3.00%	3.00%
Denver Office	2 – 12	8	3.00% – 10.00%	5.63%	3.00% – 8.00%	4.28%	3.00% – 5.00%	3.40%	3.00% – 3.00%	3.00%
Houston Office	5 – 10	9	0.00% – 5.00%	3.26%	2.00% – 7.50%	3.68%	2.00% – 5.00%	3.19%	3.00% – 4.00%	3.17%
Los Angeles Office	3 – 12	9	2.00% – 8.00%	4.56%	3.00% – 5.00%	3.46%	2.50% – 5.00%	3.17%	3.00% – 3.00%	3.00%
Manhattan Office	3 – 10	9	3.00% – 10.00%	6.03%	3.00% – 5.00%	4.13%	3.00% – 4.00%	3.21%	3.00% – 4.00%	3.19%
Nonhem Virginia Office	5 – 10	10	0.00% – 4.00%	2.94%	3.00% – 4.00%	3.16%	3.00% – 3.50%	3.06%	3.00% – 3.50%	3.06%
Pacific Northwest Office	5 – 12	10	0.00% – 7.00%	3.60%	3.00% – 5.00%	3.63%	2.00% – 5.00%	3.33%	3.00% – 3.75%	3.05%
Philadelphia Office	5 – 11	9	0.00% – 5.00%	2.58%	3.00% – 3.00%	3.00%	2.00% – 3.00%	2.83%	3.00% – 3.00%	3.00%
Phoenix Office	3 – 12	8	1.00% – 6.00%	4.25%	3.00% – 4.00%	3.38%	3.00% – 5.00%	3.50%	3.00% – 3.00%	3.00%
San Diego Office	2 – 12	9	1.00% – 8.00%	4.22%	2.00% – 5.00%	3.40%	2.50% – 5.00%	3.19%	2.50% – 3.00%	2.95%
San Francisco Office	5 – 12	9	2.50% – 15.00%	7.23%	3.00% – 9.00%	4.82%	2.00% – 5.00%	3.32%	3.00% – 3.00%	3.00%
Southeast Florida Office	5 – 12	9	0.00% – 5.00%	2.75%	0.00% – 5.00%	3.33%	3.00% – 5.00%	3.36%	2.00% – 3.00%	2.93%
Suburban Maryland Office	5 – 10	10	0.00% – 4.00%	2.81%	3.00% – 3.25%	3.06%	3.00% – 3.00%	3.00%	3.00% – 3.00%	3.00%
Washington, DC Office	5 – 10	10	3.00% – 7.00%	3.77%	3.00% – 4.50%	3.55%	3.00% – 3.50%	3.06%	3.00% – 3.50%	3.05%
National Flex/R&D	10 – 12	10	0.00% – 5.00%	2.75%	0.00% – 5.00%	3.00%	2.00% – 3.00%	2.94%	2.00% – 3.50%	3.00%
National Warehouse	5 – 12	10	0.00% – 10.00%	3.23%	0.00% – 4.00%	2.88%	2.00% – 3.50%	3.00%	2.00% – 3.50%	2.97%
National Apartment	1 – 10	8	0.00% – 8.00%	3.51%	1.00% – 6.00%	3.57%	2.00% – 3.75%	2.91%	2.50% – 3.50%	3.00%
National Net Lease	3 – 15	7	0.00% – 3.00%	2.33%	0.00% – 15.00%	3.88%	2.00% – 3.00%	2.75%	2.00% – 3.00%	2.75%

Source: Personal survey conducted by PricewaterhouseCoopers LLP during January 2008.





INVESTMENT AND PROPERTY CHARACTERISTICS: OFFICE MARKETS
First Quarter 2008

MARKET ⁽¹⁾	FORECAST VALUE CHANGE NEXT 12 MONTHS		PRICE AS % OF REPLACEMENT COST		STRUCTURAL VACANCY		YEARS TO STRUCTURAL VACANCY		TIS - NBV (PSF)		TIS - RENEWAL (PSF)	
	RANGE	AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE
National CBD	(5.00%) - 10.00%	2.23%	60.00% - 110.00%	88.86%	4.00% - 15.00%	7.79%	1 - 5	2.2	\$10.00 - \$60.00	\$27.73	\$5.00 - \$45.00	\$12.14
National Suburban	(15.00%) - 5.00%	0.27%	70.00% - 120.00%	93.93%	5.00% - 20.00%	9.48%	0 - 5	1.7	\$0.00 - \$50.00	\$22.45	\$0.00 - \$20.00	\$8.00
Atlanta	(5.00%) - 5.00%	1.19%	80.00% - 120.00%	95.00%	7.00% - 12.00%	10.05%	0 - 4	1.8	\$15.00 - \$40.00	\$23.50	\$5.00 - \$20.00	\$9.57
Boston	(5.00%) - 5.00%	1.36%	35.00% - 110.00%	85.56%	5.00% - 10.00%	8.42%	0 - 3	1.6	\$20.00 - \$60.00	\$38.33	\$5.00 - \$25.00	\$13.06
Charlotte	0.00% - 5.00%	1.33%	75.00% - 120.00%	93.50%	6.00% - 10.00%	8.20%	0 - 5	2.4				
Chicago	(5.00%) - 3.00%	(1.31%)	50.00% - 120.00%	88.18%	6.00% - 11.00%	9.03%	0 - 7	2.9	\$10.00 - \$75.00	\$41.25	\$5.00 - \$35.00	\$19.84
Dallas	0.00% - 5.00%	1.70%	50.00% - 125.00%	88.33%	3.00% - 15.00%	8.00%	0 - 3	1.5	\$10.00 - \$35.00	\$19.00	\$3.00 - \$15.00	\$8.80
Denver	1.00% - 5.00%	4.00%	60.00% - 95.00%	74.17%	7.00% - 15.00%	9.83%	2 - 3	2.3	\$16.00 - \$35.00	\$25.17	\$8.00 - \$15.00	\$11.00
Houston	0.00% - 10.00%	3.43%	50.00% - 125.00%	93.13%	5.00% - 12.00%	7.50%	0 - 2	0.8	\$8.00 - \$40.00	\$20.25	\$3.00 - \$15.00	\$7.25
Los Angeles	(5.00%) - 10.00%	2.94%	80.00% - 110.00%	93.21%	5.00% - 10.00%	7.58%	0 - 3	1.3	\$10.00 - \$45.00	\$27.92	\$5.00 - \$25.00	\$12.07
Manhattan	0.00% - 10.00%	6.21%	85.00% - 110.00%	95.36%	5.00% - 10.00%	6.21%	0 - 3	0.8	\$35.00 - \$60.00	\$43.86	\$0.00 - \$40.00	\$18.93
Northern Virginia	(15.00%) - 10.00%	1.29%	90.00% - 120.00%	98.13%	3.00% - 10.00%	6.86%	0 - 3	1.0	\$3.00 - \$45.00	\$24.83	\$3.00 - \$25.00	\$15.21
Pacific Northwest	0.00% - 3.00%	2.06%	80.00% - 105.00%	93.83%	4.00% - 15.00%	7.17%	0.5 - 1	0.9	\$10.00 - \$35.00	\$23.50	\$5.00 - \$15.00	\$9.50
Philadelphia	(2.50%) - 10.00%	1.75%	50.00% - 120.00%	89.00%	5.00% - 12.00%	7.70%	1 - 3	2.0	\$10.00 - \$40.00	\$24.38	\$5.00 - \$15.00	\$9.38
Phoenix	1.00% - 3.00%	2.50%	90.00% - 90.00%	90.00%	10.00% - 15.00%	11.25%	2 - 3	2.5	\$17.00 - \$45.00	\$28.00	\$7.00 - \$15.00	\$11.00
San Diego	(5.00%) - 5.00%	0.67%	85.00% - 95.00%	88.75%			1 - 3	2.3	\$18.00 - \$50.00	\$30.50	\$8.00 - \$15.00	\$11.00
San Francisco	(5.00%) - 10.00%	4.61%	60.00% - 110.00%	90.56%	3.00% - 10.00%	7.06%	1 - 5	3.4	\$20.00 - \$70.00	\$34.25	\$0.00 - \$20.00	\$10.50
Southeast Florida	0.00% - 15.00%	3.67%	90.00% - 110.00%	97.86%	5.00% - 10.00%	6.50%	0.5 - 3	1.3	\$12.00 - \$50.00	\$24.00	\$5.00 - \$20.00	\$9.83
Suburban Maryland	(10.00%) - 15.00%	3.00%	80.00% - 120.00%	96.25%	5.00% - 15.00%	8.14%	0 - 2	0.5	\$3.00 - \$45.00	\$27.58	\$3.00 - \$25.00	\$14.86
Washington, DC	0.00% - 6.00%	4.06%	75.00% - 120.00%	98.90%	4.00% - 10.00%	6.17%	0 - 2	0.5	\$10.00 - \$50.00	\$30.36	\$5.00 - \$35.00	\$20.28

⁽¹⁾ An insufficient number of responses were received for certain markets.
Source: Personal survey conducted by PricewaterhouseCoopers LLP during January 2008.