

M-NCPPC TECHNICAL REPORT

ADAPTIVE REUSE: EXECUTIVE BOULEVARD AND ROCK SPRING OFFICE MARKETS

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M-NCPPC Technical Report
Adaptive Reuse: Executive Boulevard and Rock Spring Office Markets
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I. Executive Summary

Bolan Smart was asked to analyze factors pertaining to possible adaptive reuse of office properties at Executive Boulevard and Rock Spring in North Bethesda. This analysis evaluates some of the options available to a property owner, such as retaining and converting an existing building, demolishing a structure and redevelopment for alternative use, or redefining planned but unbuilt office spaces for other use. The study was conducted as part of the County's planning process focusing on these office submarkets as part of the White Flint II Sector Plan and Rock Spring Master Plan. Since office uses in both these submarkets have of recent been experiencing higher than historical market vacancies, the analysis also addresses if office conversions are imminent and appropriate.

Montgomery County has already witnessed several office building conversions primarily in central business district locations such as Silver Spring and Wheaton and redevelopment of generally isolated and abandoned office properties in other suburban locations. Though this is common for a large and diverse economy such as Montgomery County, recent concern has been raised that some office parks themselves are becoming obsolete.

While this Technical Report concentrates on specific conditions contributing to the feasibility of office conversions, Bolan Smart was also asked to consider issues of possible wider public economic interest. Summarized below are findings and observations on the market viability of conversions in Executive Boulevard (EB) and Rock Spring (RS), office park dynamics and public policy implications.

Adaptive Reuse / Conversion Prospects

1. **Existing office buildings in EB and RS are generally not ripe for near to medium term residential conversions.** Continued office reinvestment is still market viable, most existing buildings are not physically conducive to residential conversion, and the cost threshold is prohibitive. Precedents reviewed elsewhere underscore that all conversions are very circumstance specific, (truly obsolete structures, secondary locations / isolated properties, common ownership of multiple properties, etc.), and not submarket generic. Reuse for medical offices and institutional use is more akin to the original office use, and thus more feasible.
2. **Surface parking lots and vacant land planned for office represent the strongest prospects for reuse.** Existing parking structures, however, are less suited for conversion, as the cost of parking structure replacement is generally not offset by the value of the underlying land reallocated to an alternative use.
3. **There is strong market demand for lower to medium density residential use in both EB and RS, but less so for destination retail uses.** Given the lack of other comparably situated vacant land, these down-county central locations are highly coveted for residential use. While there is also potential demand for medical or institutional (i.e. school) use, retail demand is more limited due to plentiful surrounding offerings.
4. **Land values relative to existing improvements are key to inducing conversions.** The higher the land value relative to the existing building improvement, the more likely a building will be converted or demolished. One land use may have a significantly higher value per permitted unit of floor area than another. In the subject locations, in the past few years land values for residential use have started to match, if not eclipse, office.

5. **Underdeveloped office properties with older buildings and excess unused permitted floor area are well suited to adaptive use, with sites on EB closest to the Pike District being immediate prospects.** The spike in interest for conversion to mixed-use of “gateway” sites at the eastern entry to EB is underpinned by the prospect of higher density new construction piggy-backing on the newly emergent Pike District.
6. **Over the next few years, select single-user purpose-built existing office buildings, especially in RS, may be facing functional obsolescence.** Depending on the current occupants future plans (or corporate changes), possible obsolescence in these cases (i.e. Marriott Headquarters) may or may not translate into physical reuse, with redevelopment most likely focusing on combined building and unused permitted building area reconfigurations.

EB and RS Office Submarket Context

1. **The recent increase in submarket office vacancies is largely due to one-time federal government related shifts.** Office vacancies spikes in EB and RS are not market-wide systemic, having been primarily due to NIH-related government users moving to new properties at other locations in Montgomery County. These relocations were reportedly primarily related to price and expanding space needs and not related to any regional locational shortcomings of EB or RS.
2. **Office landlords (and investors) are generally positive about the office market dynamics and platform for added future mixed-use densities at the subject locations.** Apart from the uncertainty posed for example by the possible relocation of the Marriott Headquarters, landlords actually vested in these submarkets, as well as prospective outside institutional owners, remain committed to the future of RS and EB as primarily office investments, with mixed-use additions, primarily in the form of optimizing the build-out of unused density.
3. **Location, value pricing, and parking convenience, are still marketable.** Despite a popularized wish list featuring more walkability, restaurants, transit and new construction, the aging existing office buildings in EB and RS are still sustainable for office use. The EB and RS locations are highly viable, convenient to a broad base of employees served by a regional road network near a range of retail and lodging amenities, and most of the non-special purpose buildings have substantial continued economic life.
4. **Executive Boulevard is a sustainable office market for regional and sub-regional users.** Maybe no longer an “office park” per se, but EB, has new energy emanating from the adjacent mixed-use Pike District (including improved overall connectivity).
5. **If only the location mattered, RS would continue to be a preeminent, cost competitive suburban office park serving regional and national oriented users.** RS is bracketed by an array of retailing, and is surrounded by generally premier residential neighborhoods. Moreover, RS is Maryland’s closest rival to suburban employment centers in Northern Virginia, relegating its competitive position to one distinguished more by regional jurisdictional differences than office park characteristics (though now tempered somewhat by the arrival of Metro in the Tysons / Dulles Corridor). To the extent that the success of RS is undercut, the long planned Rock Spring Center remains a missing link.

The Mixed-Use Equation

1. **While marketable and widely advocated, adding residential uses internal to an office park is not considered key to office user locational decisions.** EB and RS are surrounded by accessible residential alternatives, albeit with less affordable options than might be desired. Though adding 18-hour, seven day a week street life helps support added retail use, this impact is very limited unless supported by a large volume of new people increasing market demand.
2. **Street visible retail (and food service) helps, but is not critical to office park success.** Both EB and RS are proximate to an enviable range (by suburban standards) of retailing alternatives, albeit auto-centric. Less noticed at both locations is the internal food service and convenience retail that is generally present in the larger office buildings. New office or mixed-use construction that might have integrated street oriented retail has been non-existent at EB and RS, and mixed-use is not necessarily consistent with the mission and security concerns of larger single-use occupants.
3. **Not all alternative uses may be compatible with office uses.** Retail uses are generally compatible with office use, residential use compatibility varies, and institutional uses depend on the nature of the use.

Public Policy Choices

1. **Private sector property owners want a combination of a positive local business environment and flexibility to add value in the future.** Attracting real estate investment commitments is facilitated by letting the market determine the building type and price points, along with public investments in long term planning and updated infrastructure.
2. **Office conversions can help add to the sense of activity and vitality, but will not singularly transform these submarkets, nor may there be County-wide benefits.** Reuse may eliminate a very limited amount of office inventory compared with the County total, but there may be no net County benefit if it means reducing office availability where it is in demand (even at reduced levels), or translates into higher cost office space.
3. **EB and RS represent some unique office related assets that could merit being preserved.** While experiencing some basic aging and constant office user changes, EB, and in particular RS, represent the last and only down-county suburban type locations with their unique set of local and regional locational characteristics. Montgomery County (and its incorporated cities) already has a plentiful supply of transit served potential density office sites and a virtually unlimited supply of underdeveloped traditional office park land in mid-county and locations beyond.
4. **Municipal land use regulation and policies effect conversion scenarios in a variety of ways.** Adaptive reuse by its very nature involves revisiting the original premise of a property planning and use. Clearly zoning and building envelope stipulations are direct influences. In Montgomery County, how adequate public facility impacts are compared between land uses are an added complexity.
5. **Possible other county-wide economic benefits from permitting or even incentivizing office use conversions in the subject office parks are not clear.** With the exception of accommodating townhome development down-county, there is an ample supply of retailing and multi-family development opportunities elsewhere in Montgomery County. If highest and best use implies conversion to medical office or institutional use, then the community economic benefit may be positive because of the merit of locating such facilities in the most market efficient location.

II. Technical Report Approach / Methodology

The approach to this targeted analysis of possible adaptive reuse of office properties comprised the following tasks:

1. Project Reconnaissance - review of prior studies, conducting site visits and data collection.
2. Precedent Office Market Conversion Conditions / Case Studies
 - a) Residential Reuse - Crystal Plaza, Crystal City, Virginia
 - b) Demolition / Residential Redevelopment – Altaire, Crystal City, Virginia
 - c) Hotel Reuse - Homewood Suites Hilton / Hampton Inn, Silver Spring, Maryland

Supplemental case study information was conducted regarding general practices associated with medical office conversions, the Bailey's Upper Elementary School in Falls Church (Fairfax), Virginia, and the Montgomery Row for-sale town homes in Rock Spring.

3. Office Park Impact Assessment
 - a) Profiling the characteristics of individual office submarkets concerning location, the needs of office users and landlords, relationships with other Montgomery County submarkets, possible shortfalls in submarket amenities, assessing broader objectives of economic development for the County at large and, as applicable, constraints on office conversions.
 - b) Assessment of appropriateness for mixed-use development in the subject submarkets.
 - c) Interviews with select building owners and tenants in each submarket discussing general office park and submarket dynamics and to validate possible conversion modelling metrics and parameters.
 - d) Categorization of the existing property inventory based on broad conversion parameters / metrics.
4. Modeling Implementation and Applicability – A conversion checklist / matrix and illustrative economic model were created that identify the key drivers, factors, and conditions to estimate the likelihood for an office building in these two submarkets to either be: a) retained and adaptively used, or; b) demolished and redeveloped.
5. Architectural Implications – The international architectural and design firm HOK prepared graphic illustrations highlighting primary physical opportunities and constraints for property owners to consider conversion. Executive Plaza on Executive Boulevard is analyzed in detail.
6. Public Policy Factors – Summary of possible public policy influences that could impact the prospects for office conversions.

III. Recent Montgomery County Office Market Report Highlights

An **Office Market Assessment** study prepared for M-NCPPC in 2015 by Partners for Economic Solutions (PES) reported that the office markets in Montgomery County and the Washington Metro region are currently facing unprecedented challenges. Trends such as telecommuting, advances in technology, and increasingly efficient space utilization are all reducing needs for office space. This downsizing impact has been further accelerated by reduced work force requirements for both larger private and Federal government employers. At the same time, workers increasingly have an affinity for walkable, transit accessed mixed-use districts offering a variety of restaurants, retail, entertainment and housing.

The study points out another possible trend on the horizon related to the fact that vacant office buildings often have declining property values that could contribute to the start of a down-cycle. This phenomenon is evidenced by current property tax assessed values for vacant office buildings at more than 50 percent below the cost to replace these buildings. These buildings may eventually sell at prices 40 to 60 percent below their replacement cost. Buildings that transact at below market prices can often afford to offer discounted rents, which undercut the ability of other building owners to achieve desired rents further contributing to a down-cycle.

While both the Executive Boulevard and Rock Spring office parks have positive office market attributes, neither possess the mixed-use qualities that characterize competitive office space noted in the PES's **Office Market Assessment**. The study suggests that retrofitting office environments by adding amenities, a mixture of uses and improved transportation connections should induce increased employee and employer interests in existing office parks. Although the study notes that conversion of office buildings can reduce the vacant space inventory, there are few buildings that are suitably designed and located to justify the investment. Among a range of options that could impact office vacancies, the study recommends:

- a) Incentives to convert, renovate or redevelop office buildings near transit or in mixed-use areas.
- b) Policies that facilitate site assembly to help owners of older, small office buildings to redevelop.
- c) Revisiting plans for approved but unbuilt office properties.
- d) Concentrating and redirecting development capacity to more competitive locations.
- e) Removing zoning impediments to redevelopment and land use diversification.
- f) Providing enhanced transit access and roadway improvements to better serve pedestrians.

Although the subject submarkets are still anchored by predominantly Class A and Class B buildings, the PES study notes that it is lesser Class B and C buildings that are typically being converted, most often to residential and hotel uses and in downtown settings. Of nine conversions identified in Montgomery County, the three building conversions were located in the older central business districts (CBD) of Silver Spring and Wheaton. The other conversions involved unbuilt office space and wholesale property redevelopment in a variety of locations.

The PES study also identified two case study examples located in Burlington, Massachusetts and another in Henrico County, Virginia related to the repositioning of office parks. Adaptive reuse of these office parks did not contemplate building conversions. Adding a mix of uses to these office parks was effectuated by demolition and redevelopment as well as converting planned but unbuilt office space to alternative uses. Implementation was facilitated by factors including, but not limited to, zoning changes, financial incentives, consolidated / single ownership, grocery retail anchors and infrastructure improvements.

Also in 2015 as part of the master plan process, M-NCPPC commissioned the Urban Land Institute (ULI) to conduct a Technical Assistance Panel to help determine how to make Executive Boulevard and Rock Spring more economically competitive. Released in March 2016, ULI's ***What's Next for Office Parks in Montgomery County***, described both study areas as being auto-centric, comprised of large superblocks that lack a sense of place. A summary of recommendations includes:

Executive Boulevard

- a) Enhancing connectivity to area amenities (i.e. accelerating the implementation of the new White Flint Metro Station entrance and implementing the planned Old Georgetown Road and Executive Boulevard realignment).
- b) Encouraging smaller street facing retail spaces.
- c) Considering converting some existing properties to residential use (i.e. Executive Plaza, a profiled illustration included in the appendices to this Adaptive reuse Technical Report).

Rock Spring

- a) Enhancing connectivity to area amenities (Montgomery Mall, Georgetown Square, etc.).
- b) Breaking up superblocks by adding mid-block street crossings.
- c) Creating a centrally located mixed-use "village center".
- d) Providing flexibility in allowable, market driven uses by eliminating zoning constraints.
- e) Leveraging redevelopment of green space and better utilization of surface parking lots.
- f) Supporting proposed developments, including the long planned Rock Spring Center mixed-use site.

As part of a larger county-wide initiative, in 2015 County Executive Isiah Leggett tasked the County government to work in a concerted partnership with private sector leaders to address the health of the local office market. An ***Office Market Working Group*** was established with the charge of developing recommendations to stimulate the leasing of vacant space, evaluate the viability of converting commercial structures into other uses, consider possibilities for retrofitting suburban office parks into more dynamic mixed-use settings, and looking at ways to enhance the economic climate in Montgomery County. The Office Market Working Group produced a report in early 2016 with the following office submarket / conversion related comments and recommendations:

- a) The single-use, suburban office park model is out-of-date and is a drag on the County's office market. This issue is a priority and should be addressed by:
 - Encouraging ground level retail to come out to the street
 - Providing as much flexibility in uses as possible, including residential uses

- Offering more convenient transportation to Metro stations
 - Programming outdoor spaces
 - Creating updated identities for these communities in the marketplace
- b) While there are possibilities associated with converting office buildings to other uses, these opportunities are limited, and are not likely to occur on a scale that would substantially impact overall county-wide office vacancies. Where possible, the transformation of obsolete office buildings and their properties into other uses should reflect current market conditions, encouraged through such vehicles as:
- Converting office buildings into schools in school districts experiencing over-crowding, provided the space to be converted is in the right location and is the correct configuration.
 - Transforming older office buildings into residential use by providing conversion incentives and addressing possible code issues.

IV. Precedent Conditions for Office Conversions

Regional Economies and Large Employer Based Factors

There are many factors contributing to the possible feasibility of adaptive use. On a macroeconomic level, office demand may have diminished or relocated to such a degree that there is no viable financial model for maintaining office use. This condition has been observed in many older downtowns across the country, as well as suburban environments where general economic vitality has diminished. In these more evident and dramatic environments, alternative uses may emerge, either underpinned by market investment, or often assisted by commitment of public resources.

Office properties in established submarkets, or even individual office properties in otherwise thriving regional economies may also be prone to conversion, usually due to a single or collection of microeconomic factors such as the departure of a dominant industry or employer, or also a change in the local transportation network. Prominent examples in the Washington region include Crystal City, which has experienced the wholesale relocation of large and dominant federal government agencies (Patent & Trademark Office and US Navy), as well as one-off employer properties such as the former Vitro site in Aspen Hill and the COMSAT complex in Clarksburg.

For reasons reviewed in Section V of this report, neither of these general submarket conditions describe the subject office parks. The regional economies supporting the EB and RS submarkets are diverse and generally growing. Further, the EB and RS office parks are not one-industry or employer dominant, having a substantial number of buildings serving a range of tenants.

Building Specific Conversion Examples

Notwithstanding the relative economic health and sustainability of a given office submarket, individual office properties may still be candidate for possible adaptive use. For this Technical Report three illustrative case studies were selected for detailed profiles, representing two office-to-residential conversions (one using the existing building and the other redeveloping the site) and a hotel conversion. These comprehensive case studies are supplemented with discussion of conversions to medical office buildings and a school. In addition, office land converted to for-sale residential townhomes within Rock Spring (EYA's Montgomery Row) is reviewed. (See Appendix A)

While most conversion examples are defined case-by-case by their own special circumstances, and thus may not be readily replicable, some of the generally applicable principle and lessons learned include the following:

1. *Building Age* – 1960s vintage buildings are more likely obsolete (primarily due to building design parameters identified below) for continued use as office compared with the predominate 1980s+ buildings (i.e. like some buildings on Executive Boulevard and most in Rock Spring).
2. *Building Design Parameters* – There are several key factors impacting conversions:
 - a) building floor plate depths should ideally be between 65 to 85 foot to facilitate residential reuse, allowing for a central corridor and perimeter windows; to degree, architectural design solutions such as inset balconies can help mitigate this issue

- b) lower floor-to-ceiling heights (less than 8.5 to 9.0 feet) may inhibit contemporary office, and while not ideal, may be OK for residential reuse
 - c) narrow wider building column support spacing (< 30 feet by 30 feet) inhibits efficient residential floor plans / layouts
3. *More Urban / Transit Proximate Conversions* – Regional conversion examples have been more probable in downtown environments such as Silver Spring, Wheaton and Crystal City and not in suburban environments.
 4. *Increasing Density* – Most conversions increase the existing property density and/or maximize property density via reuse.
 5. *Value in Parking* – Retaining parking garages, especially below grade, is both a cost savings and expedites construction delivery. Above grade surface and/or structured parking lots also often have reuse potential (i.e. by building on top of parking platform and or reducing the parking space footprint to allow for new construction).
 6. *Distressed Property Values* – Obsolete office buildings often experience declining property value over time and are typically sold at prices that may make conversion economically feasible.
 7. *Smaller Redevelopment Conversions Easier to Implement* – Smaller single use redevelopment conversions are generally less complicated and easier to implement than larger-scale mixed-use projects.
 8. *Market Support for Alternative Uses of Planned Office (Land Conversions)* – Unbuilt but planned office sites are being converted to alternative uses, particularly residential (i.e. EYA's Montgomery Row at Rock Spring).

V. Executive Boulevard and Rock Spring Submarket Suitability for Office Conversions

The interests and motivations of actual landlords and users in each submarket need to be understood as a preliminary step to contemplating the possible importance of office conversions to other uses and possible merit of directing public efforts towards that end. What has made the subject office parks successful in the past, what is the range of their prospective futures, and, what may be necessary to advance any preferred scenario?

The Big Picture

To varying degrees, and for different reasons, Executive Boulevard and Rock Spring both remain very viable office markets. They both have distinct histories and relative competitive positions in the hierarchy of office concentrations in the Washington metropolitan area. Respectively, they play a vital continuing role in the wider Montgomery County economy, providing space for a range of office users in central locations well served by transportation. The subject submarkets, while aging, have not experienced chronic building vacancies or overall decline. Landlords with major institutional investors remain committed to ongoing office use, albeit influenced by always evolving market factors. For the foreseeable future, the majority of office owners will continue to compete for office tenants based on location, price and periodic building updates. Discussions with industry participants affirm investment interest remains positive, motivated in some cases by longer term market driven redevelopment prospects.¹ Potential new investment is encouraged by already evident signs of public policy direction supporting enhanced connectivity links and possible future flexibility regarding added mixed-use.

Though attention on market success can be pinned on the specific aging suburban character of the subject office parks, clearly other factors are affecting the range of potential futures. Executive Boulevard and Rock Spring are competing with new office locations, some supported by a broad range of public policies, in an environment of limited overall office employment growth county-wide. Emergent and resurgent locations metro-wide, also reinforced by layers of public policy incentives, continue to dilute the pool of employer interest. Added, and very significant, large employer preference (and site availability) for new office buildings is trumping older properties regardless of neighborhood amenities or access factors.

¹ Over the course of this study multiple commercial office brokers, property owners, developers, prospective investors and actual users knowledgeable about the subject submarkets were contacted. While opinions varied on the relative importance of mixed-use, “walkability” and timeframe, most were in agreement that office use was still largely viable, and conversions were generally less likely in the near term.

Future Scenarios

The Executive Boulevard and Rock Spring locations, and most if not all of the existing buildings (with a few special exceptions) continue to be too valuable for prospective office use to either be converted to other uses or outright demolished, at least under prevailing zoning and density provisions. Current and pending office vacancies in these submarkets are more concentrated in the Class A type buildings serving large corporate users; not so much in Class B and C buildings. Class B and C buildings, including some Class A buildings, have and can default to more of a regional or local service office function, anchored by the still premium central location, and made more attractive by a tenant value equation compared to competing locations and newer buildings (plus high parking needs for medical discussed in Appendix A). Backfill office demand for Class B and C space at the subject locations is supported by a combination of background market growth, users displaced from redeveloping properties elsewhere (i.e. downtown Bethesda), and to some extent relocation from elsewhere for reasons of aging space, inferior locations and competitive pricing.

Overlaid on this office use background are public and private motivations to add value and update the prior office park model by adding a wider mix of uses. While in principle the merit of adding a mix of uses seems simple enough to comprehend, prioritizing specific public sector policy and actions towards this end raises more detailed considerations:

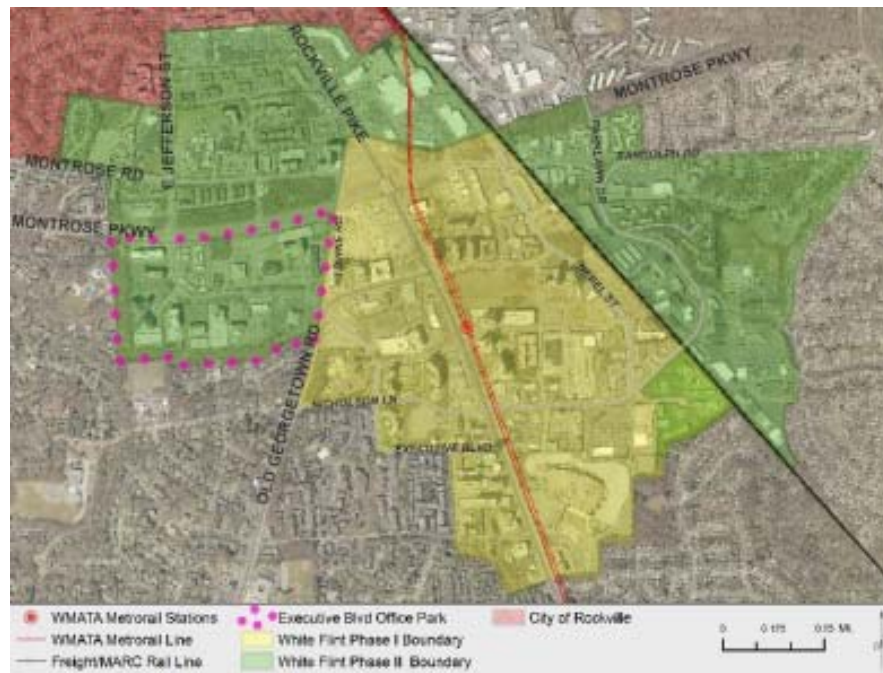
- How does adding alternative uses actually help stabilize the subject office markets?
- What is the basis for assumed results from adding alternative uses?
- How may additional allowed densities impact overall community planning objectives?
- What are possible ripple effects of mixed-use on other existing and planned submarkets?
- What is justified as a public response to private sector requests for flexibility of uses?
- How does a near term land use change advance, or perhaps compromise, an overall long term planning vision?

While it is not the charge of this Technical Report to address all these questions in detail, the consultant (Bolan Smart) has been mindful of these type of broader issues. Some important caveats related to these questions should be noted. First, the success of office parks is driven by many factors that have little or nothing to do with the *internal* presence of residential or a broad spectrum of retailing opportunities. Second, and perhaps for future study, adding an incremental residential component has not been documented as actually key to office success in the subject planning areas, nor has an added internal retail focus been proven market feasible. Third, not unlike for office use, the markets for residential (in particular multi-family county-wide) and retail uses are finite. Encouraging them in one location in some way or another is likely to undercut demand to some extent at another. And finally, there is the ongoing question of balancing public responses to private interest objectives. The significance of this public stewardship role entails many concerns, including for example, understanding how possible opportunistic responses to accommodate land use changes based on short term market conditions may or may not be conducive to a longer term thriving office market vision.

VI. Executive Boulevard

Office buildings within the White Flint II Plan Area are concentrated along Executive Boulevard, roughly bounded by Montrose Parkway and Old Georgetown Road. Executive Boulevard was originally designed to accommodate mostly single-use suburban office buildings, with large setbacks and a combination of surface parking and above grade parking garages. Retail amenities were generally nearby, focused on Rockville Pike, but organized in a manner that presumed vehicular access. In years past, this proximity to retail, including the prior premier White Flint Mall, as well as the arrival of a Metrorail Redline Station, contributed to EB being viewed as comparatively highly amenitized.

Exhibit 1 – White Flint II Plan Area



Source: M-NCPPC

The Executive Boulevard Office Park, comprising 15 buildings totaling over 2.1 million square feet (net of the office condominiums), accounts for three percent of the County's office inventory. EB has historically attracted regional and local office users drawn to its accessible down-county location with good vehicular and transit accessibility. For example, Bethesda based NIH currently occupies an estimated 525,000 square feet in four buildings equating to 25 percent of the EB inventory. Kaiser Permanent has its mid-Atlantic headquarters anchoring the western entrance onto EB from Montrose Road, another example of a large regional / local tenant with approximately 250,000 square feet equating to 12 percent of the EB inventory. An example of a smaller but still substantial regional user is the Jewish Federation of Greater Washington, which occupies 67,000 square feet (82 percent) of its owner-occupied building at 6101 Executive Boulevard. There are some 100 other tenants on EB that include adjuncts of the federal government, and local oriented health care and finance users who typically occupy smaller spaces (i.e. averaging less than 7,500 square feet).

As of year-end 2015, overall EB vacancy rates have risen recently to close to 30 percent, attributed almost exclusively to the 2013 / 14 relocation of the National Cancer Institute (NCI) to Medical Center Drive west of I-270. NCI had been a long term tenant comprising 535,500 sf in three buildings (6116 Executive Boulevard and Executive Plaza at 6120 and 6130 Executive Boulevard). As of year-end 2015, this vacancy represented 85 percent of overall EB vacancy.

Focusing attention on the significance of NCI's relocation is critical to understanding the ongoing status of the EB office market. Net of the three vacated former NCI buildings, the EB vacancy rate is close to five percent, well below the county-wide average approximating 15 percent. At its peak, NCI and NIH-related tenants occupied over 1.0 million square feet on EB, accounting for half of EB's inventory. It is vital to note that NCI's move is reported to have been driven primarily by space requirements and price, and not locational or neighborhood deficiencies associated with the EB submarket.

A summary of key EB office submarket factors comprise: (for inventory details see Appendix E)

Submarket Factor	YE 2015
Inventory SF	2,142,800
Vacant SF	630,300
Vacant %	29.4%
Vacancy % (net of NCI bldgs)	< 5.0%
Rent (full service per SF)	\$27.00+
Metro Proximate	0.5 miles

Source: CoStar and Bolan Smart, 3/2016

1. Average building size is in the 140,000 to 145,000 square foot range
2. Class A space totals over 1.2 million sf equating to more than half the EB inventory
3. Class A space accounts for the majority of the vacant space (over 550,000 square feet of 630,000+ vacant square feet accounting for 88 percent of the EB vacancy)
4. Although institutional users have dominated this submarket, there is a mix of institutional and local landlords each with different investor objectives
5. While EB rents can be higher than the County average, they are 20 to 30 percent less than in the nearby Pike District

Future Office Scenarios

Prospects for the future of the Executive Boulevard office market remain positive, being rejuvenated by the adjacent new Pike & Rose development as well as the upcoming White Flint transformations. Although the EB office cluster is today only one-half to one mile from the White Flint Metrorail Station, plans for a new metrorail entrance at Pike & Rose, combined with the Old Georgetown and Executive Boulevard street re-alignment will make EB even more transit accessible.

Although it is unlikely that a single large user will backfill NCI's vacated space, these three buildings in particular remain modern, well maintained and marketable office properties. Due to the aforesaid nearby enhanced amenity base and expected better connectivity, combined with the likelihood of some pricing discount compared with the Pike District, re-leasing for office use is probable. The initial leasing effort, however, is compromised by the necessary landlord strategic decision of when to open up leasing of a 100 percent vacant building to smaller tenants. Once one or more relatively larger users are secured, the infill of the rest of the office space can commence.²

Once stabilized post NCI, the overall EB office submarket is well positioned to cater to regional and local serving non-corporate users drawn to a central location proximate to both transit and retailing options. The ability of aging but still functional buildings to compete with other office submarkets on price, plus offering ample cost-effective parking, underpins this evolving office market dynamic.

The future competitiveness of the EB submarket will be impacted by the following:

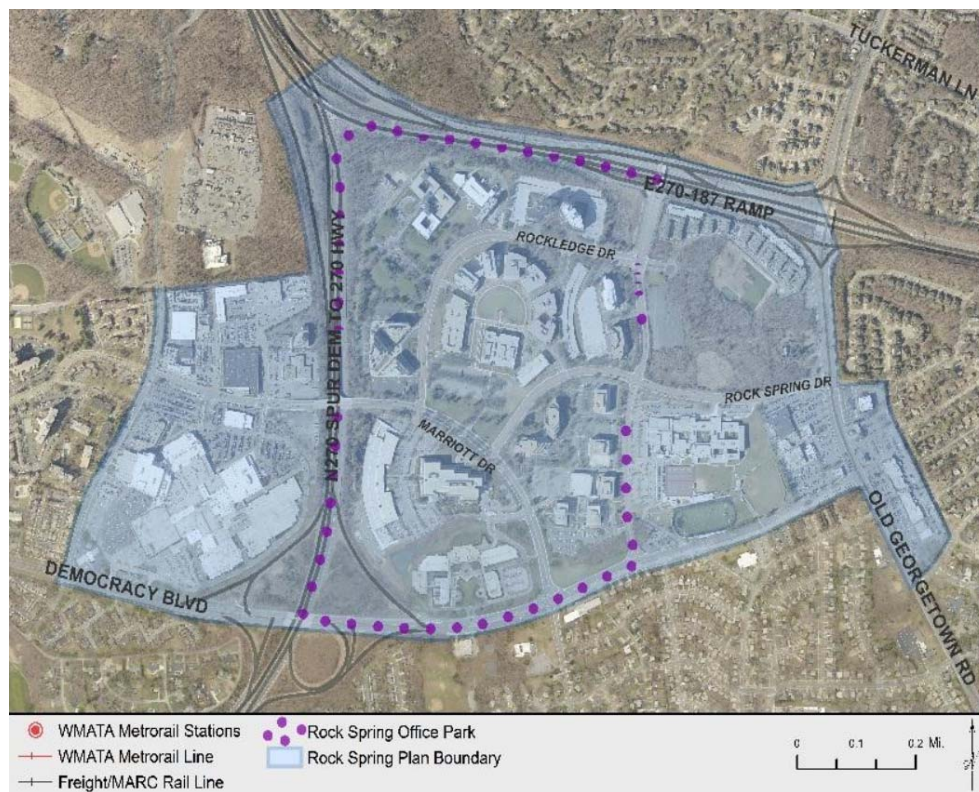
1. Positive energy finally flowing from the immediately adjacent Pike & Rose mixed-use complex (after over a decade of planning, demolition of prior uses, and the completion of new construction), plus spill over from the updating and arrival of new users to the overall greater Pike District submarket.
2. Implementation and completion of transportation upgrades (EB and Old Georgetown Road intersection and new metrorail entrance in the Pike District, plus the extended impact of the prior completed Montrose Parkway and Randolph Road / Rockville Pike interchange and still to be finished related road distribution network).
3. Retenancing / reenergizing the large three building Executive Plaza office complex, recently vacated by NCI, reflecting in part recent landlord investment in building improvements.
4. Updated EB property improvements, including significant new mixed-use construction likely at the two gateway sites flanking the eastern entrance to EB.

²As of mid-May 2016, Abt Associates, a global consulting firm, signed a full building lease (150,000+ square feet) at 6130 Executive Boulevard, one of two buildings comprising Executive Plaza. Abt Associates will be relocating and expanding its footprint from smaller older space it has been occupying for over 10 years in downtown Bethesda. The landlord recently spent roughly \$10.0 million on Executive Plaza common areas renovations, including installing new mechanical systems and adding amenities such as a café, fitness center and a 3,500 square foot conference center. Although the Executive Plaza buildings might be physically suited to residential conversion (see Appendix A), market affirmation supports investment for continued use as office.

VII. Rock Spring

The Rock Spring Master Plan area encompasses the majority of the commercial area straddling the I-270 spurs and includes a corporate office park, several shopping centers (including Westfield Montgomery Mall), a public high school, as well as some apartments and townhomes currently under construction.

Exhibit 2 – Rock Spring Plan Area



Source: M-NCPPC

Within this planning area, the Rock Spring Office Park comprises 25 buildings totaling over 5.3 million square feet accounting for seven percent of the County's office inventory. Rock Spring was originally developed as a premium suburban office park with mostly single-use buildings that are widely dispersed, having large setbacks, some garage parking, and substantial landscaping. Along with public bus and private shuttle service, the office park remains principally auto-oriented.

The office park's superior access to and visibility from freeways / I-270 spurs, proximity to Washington DC and Northern Virginia, and surrounding affluent neighborhoods have historically attracted large corporate headquarters, in particular Marriott, Lockheed Martin, Leidos (formerly SAIC), and more recently Host Hotels. Other large national entities like IBM have also had a long presence, as have institutional users such as NIH. In recent years however, Rock Spring's vacancy rate has risen to over 20 percent, well above the County average. Notably, as of October 2015, there are three office buildings that each have over 150,000 square feet that are completely vacant.

As in the case at EB, the recent relocation of an NIH agency (National Institute of Allergy and Infectious Disease, NIAID) to Twinbrook contributed significantly to the increased submarket vacancy. In addition, the Lockheed Martin merger with COMSAT eventually led to vacating COMSAT's former headquarters building at 6560 Rock Spring Drive. The combination of NIAID's relocation and the Lockheed / COMSAT merger accounts for the three large vacant buildings (close to 500,000 square feet of the 1.2+ million vacant square feet accounting for over 40 percent of the RS vacancy). Not unlike NCI's relocation out of EB, NIAID's move was driven by accommodating space requirements and price, and was not entirely a repudiation of the RS location or submarket dynamics. In fact, NIH has recently renewed other leases in RS.

Although there are over 300 tenants in RS, other notable mentions include:

1. Total Wine & More moved its headquarters to 6600 Rock Spring Drive in 2015 occupying more than 100,000 square feet.
2. Henry M. Jackson Foundation's relocation in 2011 from Rockville occupying close to 125,000 square feet in Piedmont Point I (6720-A Rockledge Drive), reportedly attracted by proximity to the NIH Bethesda campus.
3. Several medical office buildings / Camalier buildings comprising 300,000+ sf of regional serving tenants such as John Hopkins Health Care and Surgery Center, Suburban ENT Associates, Maryland Orthopedic Specialists and other specialized practices (oncology, hematology, fertility, etc.) and related support services.

Rock Spring, conceived in another era and then successfully anchored by large, high profile corporate users, has evolved into serving a broad spectrum of employers. Over time the location's proximity to NIH's Bethesda campus contributed to a growing US government related component of demand, which while still relevant, has subsided some for reasons of agency consolidations elsewhere. The average RS office tenant (if there is one), has not generally been affected by churning in the camps of the largest corporate and government sectors. Unlike places like Crystal City in Arlington VA, there are not a lot of private sector contractors in RS that have been displaced by the type of changes impacting the larger corporate / government presence.

A summary of key RS office submarket factors comprise: (for inventory details see Appendix E)

Submarket Factor	YE 2015
Inventory SF	5,296,700
Vacant SF	1,243,200
Vacant %	23.5%
Vacancy % (net of NIH / Lockheed)	< 15.0%
Rent (full service; per SF)	\$30.25+
Metro Proximate	3.5 miles

Source: CoStar and Bolan Smart, 3/2016

1. Largest average building size of all submarkets in the County at 150,000 to 200,000+ square feet.
2. Corporate headquarter space accounts for over 25 percent of the RS inventory.

3. Class A space (per Costar), equates to almost 90 percent of the RS inventory (representing eight percent of Class A space in Montgomery County). The year-end 2015 reported vacancy rate for this Class A space in RS was 25 percent.
4. The Class B space accounts for 10 percent of the overall submarket, with a reported vacant space of less than 5 percent.
5. RS office rents are on average 5.0+ percent higher than average rents county-wide but are also 25+ percent less than downtown Bethesda (within 4 miles)
6. Food service and pharmacy uses inside buildings in RS total an estimated 35,000+ square feet.
7. Landlords of corporate space are institutional owners.
8. Some buildings are subject to ground leases, which may or may not complicate interim or future property redevelopment scenarios.

Future Office Scenarios

The RS submarket could be considered to be experiencing a common and predictable mid-life cycle associated with aging, though not obsolete buildings, set against a backdrop of overall market changes (including the multi-year economic slowdown that began in 2007). There have been no new office deliveries in RS since 2008, the last of which have yet to be fully leased. A planned 117,000 square foot office building at 10301 Fernwood Drive has yet to move forward. This site, currently improved as parking, supports parking capacity overflow from the adjacent medical office buildings.

Regardless of actual office employment growth, competition from other submarkets that provide a newer format / image profile with a mix of uses is pulling existing Class A tenants to new locations. For Rock Spring, this is accelerating a shift of existing older space to becoming more skewed towards Class B space. For example, the mid-year 2015 acquisition of 6555 Rock Spring Drive for \$66.3 million equates to \$300 per square foot, considerably less than valuations of \$500+ per square foot for newer Class A office buildings in downtown Bethesda.

The future competitiveness of the RS office submarket will be impacted by the following:

1. Continued corporate level consolidations / space reconfigurations.
2. The possible relocation of Marriott (reportedly motivated by many factors, including that Marriott has occupied its present site for over 35 years), and the redevelopment of some 30+ acres.
3. Ongoing rebalancing of general office user locations in the region favoring more urban and closer in locations, including price motivated shuffling of down-county users, all helping underpin the longer term market demand for the RS location.
4. Strong medical-related user interest.
5. Uncertain fate of how and when the long planned Rock Spring Centre will move forward.
6. Incremental impacts related to the opening of the Westfield Transit Center at Montgomery Mall facility and other land use additions west of I-270 (such as a multi-story residential / retail development approved for the former Ourisman car dealer site and the continued addition of other uses internal to the Westfield Montgomery Mall property).

7. Possible supplemental transit access benefits from the arrival of a RS serving Transitway (BRT) with enhanced dedicated sub-regional linkages to nearby metro stations. (Note that the office densities at RS, as well as large user demand, already supports regularly scheduled shuttle services.)

VIII. Conversion Modeling

The Montgomery County Planning Department is concerned about a large volume and perhaps systemic character of office vacancies in the county. The Planning Department wishes to understand whether property owners who are facing ongoing challenges in leasing office space are considering converting their buildings for other uses. While the current master planning effort impacting land use planning and zoning in both EB and RS provide the impetus and focus for this Technical Report, the Planning Department has asked the consultant to organize contributing factors using a model that could have generic application for other office buildings in the County.

The following fundamental economic factors that must converge for office conversions to become feasible: market returns after conversion costs for alternative uses need to exceed the likely market returns from retaining a property for productive office use. Reaching this tipping point typically requires that an existing or planned office property experiences a substantial dilution of value relative to alternative uses. While this relative reduction in (or unfulfilled) economic value for office use can occur for many reasons, the required conditions are not generally common to either EB or RS. Simply put, the value equation (potential income vs. cost) in these submarkets for continued office use, though perhaps reduced from prior achieved rent levels, still exceeds that of the substantial cost of converting to alternative uses.

The cost differentials are pretty basic. Converting an office building to residential use requires demolition and replacement of existing interiors, extending plumbing throughout the building, changing out electrical and heating, air conditioning and ventilation systems. It also may mean installing new fire stairs to meet building codes, and invariably will include major exterior alterations. These additional costs associated with converting an office building to residential use are on top of the base value for the same building before possible renovation costs needed for continued office use.

Even if market conditions might merit repurposing, not every building is suited to conversion, residential markets (and building codes) require access to light and air, which may be difficult to achieve in large and wide office buildings where much of the interior space is too far from windows. Micro locational factors such as land use adjacencies and viewsapes may not be optimal. As evidenced by the case study examples, not every owner of a possibly obsolete office building will actually be interested in or easily able to effectuate a change of use (see Appendix D). Notwithstanding interim office vacancy, until the current owners are willing to value (or sell) the building at a reasonable price that will allow profitable reuse, conversion is unlikely to proceed.

Conversion Feasibility Checklist Model

The attached Sample Building Conversion Checklist catalogues a range of property specific factors that can be assessed to determine likely adaptive reuse probabilities from office to residential or hotel uses. The checklist is intended as a starting point from which to evaluate a property for preliminary likely suitability for conversion. Note it is not a progress flow chart to make go / no decisions (see Appendix D for an example flow chart for determining obsolete buildings), but a means to compile and organize a combination of factors that collectively need to be understood. Basic model parameters / metrics include:

1. **Location / Neighborhood** - proximate to existing residential and access to retail amenities
2. **Market Potential** – marketability, redevelopment value
3. **Property Characteristics** – age, footprint, light / air for residences, building structural factors, possible building code issues, etc.
4. **Unused Permitted Building Area (FAR)**
5. **Occupancy** – vacancy rate and tenant factors (how many, lease terms, etc.)
6. **Economic** – land and building values, office vs. non-office income thresholds
7. **Regulatory** – policy, zoning, overlay requirements, incentives

While the majority of possible adaptive reuse metrics need to be found positive to establish preliminary conversion feasibility from office to residential or hotel uses, some factors are less important, and others critical. Clearly even if all the contributing feasibility parameters suggest there is potential for conversion implementation, in the end, the fundamental economics need to work.

The attached checklist includes a range of physical and economic criteria meant to be answered either with a yes or no check, or with qualified response as appropriate. The example illustrates how the checklist can be completed in this case for the locational factors relevant to both EB and RS. The color coding ranks the relative importance of different factors, with the red boxes representing the most critical. If *any* of the red boxes do not check as positive (or yes), the prospects for a building conversion are very low. The yellow boxes identify variables of some importance, but not generally deal breakers. The green boxes may or may not represent fundamental tests, but in combination with other green boxes the indicated factors are more likely to add up to larger economic challenges for conversion. Note that in cases where the evaluated building does not pass basic feasibility tests, the default alternative may or may not be continued office use, leading at some point to possible abandonment and ultimate demolition.

The conversion checklist column titled **Potential for Policy Impact** suggests where public oversight or intervention may assist or incentivize conversions. With two exceptions (policy and zoning), these possible public policy related factors are not highlighted in color because they actually do not or cannot impact the building feasibility, or where they may convey influence, such influence is a matter for public determination.

SAMPLE BUILDING CONVERSION CHECKLIST

Office-to-Residential / Hotel (EB and RS)

Yellow = some importance **Green** = important **Red** = critically important

Criteria	Near Term	Future	Potential for Policy Impact
1. Location			
a) mixed-use proximate	yes	yes	possible
b) office growth	possible	possible	limited
2. Market for alternate uses	yes	yes	limited
3. Property / Buildings			
a) age / when reinvested > 25 years			no
b) < 85 feet wide bldg depth			no
c) bldg frame (> 30 foot column spacing)			no
d) window line open space views			limited
e) mostly bldg code compliant			limited
d) some conversion value			no
4. Underused FAR			possible
5. Occupancy			
a) vacant			no
b) single-user			no
c) multi-tenant (possible complicated)			no
6. Economic			
a) land to building value ratio > 1.0			no
b) non-office rents > office rents			no
c) value recovery > repositioning costs			no
7. Regulatory			
a) policy supported			possible
b) zoning compatible			possible
c) requirement factors (i.e. MPDUs)			possible
d) incentives (reg. relief, financial)			possible
8. Future infrastructure / other change			possible
Conversion Prospect			maybe

*Note ownership motivations are also key, vary widely, but are not considered in this generic “checklist”

Conversions to Alternative Uses - Medical, Institutional or Educational

Though the Sample Building Conversion Checklist targets the most dramatic existing building changes from office-to-residential or hotel uses, many of the most critical evaluation metrics are similar when applied to possible medical or institutional / school use. The primary differences are that medical and school adaptive reuse criteria are generally more akin to office use. Building footprint and light and air access issues are more relaxed, and while added plumbing is important, some of the existing HVAC systems and other common area building functions may be salvageable. In some respects parking provisions (medical offices typically require over 1.5 times the number of parking spaces for unit of building area than traditional office uses) and outdoor spaces for recreational use and possible bus staging for school reuse readily exceed original office use space configurations. (See Appendix A for further discussion.)

Economic Test

Assuming an existing office building meets the majority of the feasibility parameters identified in the Conversion Checklist, the next step a private owner would take is to test the basic income and cost equation (potential income from conversion exceeds added costs). The attached Existing Office Property Reinvestment Illustration uses estimated generic cost and value assumptions, applicable more or less comparably to both EB and RS, to depict variables that determine the ultimate cost equation of possible conversions. (See Appendix C for economic model example applied to a hypothetical building employing economic assumptions typical to older office properties in EB and RS. Note that the three most representative and market probable contrasting reinvestment illustrations involving an existing office building are profiled: Office Reinvestment and Lease-up; Residential Conversion; and New Residential Stick Built.)

Primary economic test measures include:

1. **“As-is” Acquisition Cost** – an existing office building has an initial value comprised of the land and usually some residual value for the improvements. This “as-is” value represents the base market value of the property in its current condition regardless of its ultimate use, which in the case of EB and RS is still some form of office use (albeit at possibly very low rents to attract users). Where the building is so obsolete as to render no prospect of office re-use, most if not all of the “as-is” value is attributable to the underlying value of the land.
2. **Additional Investment** – the cost of delivering an existing property to produce future income represents the investment in addition to the underlying “as-is” value. These extra costs may range from relatively minimal to substantial if for continued office use, or virtually equivalent to 100 percent for new development construction for new uses. The cost components include various degrees of possible re-use of existing building components, plus soft cost and contingencies that also vary based on the magnitude and complexity of change. (See Reinvestment Illustration for examples.) (Note the reuse and the type of parking provided in place of former office use is assumed to be the same regardless of the type of residential construction, with a totally new residential scenario – i.e. only land, no prior office building or parking – being accommodated primarily with a new parking structure).

3. **Required Return-on-Costs** – the minimum investor yield (or return) on project costs needed to justify the commitment of capital and time given the risks of construction costs, achieving budgeted project revenue, and future financial market variables. If this minimum return is not projected based on reasonable budget and market assumptions, a prospective redevelopment will not be financeable.
4. **Market Supported Value** – what a developer or investor could expect to be paid for a completed redevelopment. For rental properties, the value is what the property is worth when the net annual income after all operating costs are deducted provides for a specified rate of annual return on the total required upfront investment. (For the illustration below, the indicated Market Supported Values are based on estimated industry comparables for the subject type of development at an EB or RS type location).
5. **Positive Gain / (Economic Loss)** – if the investor required project value after all cost factors is more than the projected value, the considered redevelopment would not typically be able to be financed. Highest and best use is therefore the development scenario which supports a neutral to positive economic gain.

Property Ownership and Financing Variables

Additional to the above economic tests are specific property ownership motivations and financing impacts which may heavily influence a possible reinvestment scenario. A given property owner may have broader or perhaps alternative business objectives of which a particular property represents only one part. Existing financing liabilities may restrict the resolve of near-term property reuse options. The existence of a ground lease – relatively common in Rock Spring for example – may include use and redevelopment provisions which alter reinvestment assumptions.

Property Reinvestment Illustration

The following exhibit quantifies the economic prospects of six different alternatives available to a property owner to reposition their property or add value. This Illustration uses estimates that are roughly representative of a development in the EB and RS submarkets.

Existing Office Property Reinvestment Illustration

(per building square foot / FAR)

	Re-Leasing Vacant Building	Office Reinvestment and Lease-up	Residential Conversion	New Residential Stick-Built	New Residential High-Rise	Total New Residential Stick-Built
"As-is" Acquisition Cost						
Land (supporting existing bldg)			\$50			\$0
Existing Building			\$75			\$0
Unused FAR			<u>\$0</u>			<u>\$50</u>
total value "as is"			\$125			\$50
	<i>minimal expense</i>	<i>bldg updates</i>	<i>reuse of existing</i>	<i>demo existing</i>	<i>demo existing</i>	<i>no existing bldg</i>
Additional Investment						
demolition	\$0	\$0	\$0	\$5	\$5	\$0
site prep / utilities / access	\$0	\$0	\$5	\$10	\$10	\$20
excavation / basement	\$0	\$0	\$0	\$10	\$10	\$10
parking	\$0	\$0	\$5	\$5	\$5	\$15
base building	\$10	\$40	\$75	\$60	\$90	\$60
building finishes	<u>\$60</u>	<u>\$70</u>	<u>\$60</u>	<u>\$60</u>	<u>\$60</u>	<u>\$60</u>
total construction cost	\$70	\$110	\$145	\$150	\$180	\$165
Soft Costs ¹	10.0% \$20	12.0% \$28	25.0% \$68	25.0% \$69	25.0% \$76	25.0% \$54
Contingencies (on add'l invest)	5.0% \$4	5.0% \$7	15.0% \$32	10.0% \$22	10.0% \$26	10.0% \$22
Total Additional Investment	\$94	\$145	\$244	\$241	\$282	\$241
Total Direct Investment	\$219	\$270	\$369	\$366	\$407	\$291
Required Return-on-Cost	18.0% <u>\$39</u>	18.0% <u>\$49</u>	18.0% <u>\$66</u>	18.0% <u>\$66</u>	18.0% <u>\$73</u>	18.0% <u>\$52</u>
Total Required Value	\$258	\$319	\$436	\$431	\$480	\$343
Market Supported Value ²	<u>\$260</u>	<u>\$320</u>	<u>\$350</u>	<u>\$360</u>	<u>\$400</u>	<u>\$360</u>
Profit / (Loss)	\$2	\$1	(\$86)	(\$71)	(\$80)	\$17

¹ A&E, fees, marketing, etc., on total of "as-is" acquisition cost and construction cost² New base building investment typically will provide for more revenue and efficiencies, resulting in a higher overall market value per gsf

Source: Bolan Smart, 5/2016

The Conversion Investment Tipping Point

All things being even, when comparable office and non-office use valuations are close to being equal, the market will produce a mix of uses. Within a band of say five percent variance in proforma value estimates, (after market appropriate risk adjustments for respective property class income characteristics), the decision of whether to go in the direction of office or with another use gets down to investor preference, and not fundamental economics. The relevance of this is that discussion of incentives to help offset valuation gaps between continued office use and alternative development is of minimal consequence if the value difference being considered is less than at least 5 percent, with a value delta more like 10+ percent being a minimum threshold target to induce conversions (or \$30 to \$40 per square foot in the EB and RS submarkets to help incentivize non-office use).

IX. Conversion Candidates

How many properties in EB and RS may actually be prospective candidates for near or medium term conversions, and how much of the overall existing office submarket might this represent? Bolan Smart Associates conducted an inventory data analysis (see Appendix E) and limited property tours to assess possible near and medium term conversion prospects (for residential use) in the subject office submarkets.

Using the Conversion Checklist, very few existing office buildings met the probable conditions for outright conversion. For a variety of reasons, the list of candidate properties for wholesale redevelopment based on the criteria of unbuilt or potential additional FAR (100+ percent more FAR than currently built) is larger. The potential for preserving or wrapping around existing parking garages was considered, but not quantified. (Note that this analysis does not factor for the current EOF zoning in both EB and RS that limit residential, retail or other uses.)

Executive Boulevard

Market Potential

Although Executive Boulevard is currently office use dominated, it is surrounded by residential neighborhoods and is proximate to retail. The residential market potential is evidenced by new construction at Pike & Rose and elsewhere along Rockville Pike. The market potential for multifamily and attached residential uses is assumed to be positive (central location, metro / amenity proximate), more marginal for neighborhood convenience retail, hotel possible but more likely Pike District centric, not likely for school use and could possibly support medical offices.

Buildings

There is one vacant office property that has a narrow enough footprint to be conducive for conversion to residential, Executive Plaza (see Appendix B for detailed analysis). Conversion of these two buildings would likely also be accompanied by new multifamily construction to capture unused FAR.

Underdeveloped / Added FAR / Demolition

There are several properties that are well positioned for redevelopment, particularly those sites more proximate to the Pike District. These properties have a substantial amount of existing or potential unused FAR relative to their existing improvements, which in some cases are also considerably aged. Examples include:

1. The Washington Science Center is a large site and currently includes a planned but unbuilt office building; landlord is focusing on redevelopment plans
2. 6000 Executive Boulevard has significant unused FAR (approximately 100,000 square feet)
3. 6006 Executive Boulevard has significant unused FAR (approximately 100,000 square feet)

4. Kaiser's lab at 6111 Executive Boulevard also has unused FAR and possible redevelopment potential.

Other Sites

A substantial area of existing low-rise office condominiums are not likely candidates for redevelopment due to their ownership structure. Other existing office sites, such as the owner occupied Kaiser Permanente regional headquarters, are also unlikely nearer term conversion candidates.

Rock Spring

Market Potential

The Rock Spring office submarket is surrounded by residential (Berkshires and across I-270), retail (Westfield Montgomery Mall and Georgetown Square) and institutional uses (Walter Johnson High School). Market potential is strong for attached residential uses (central location, amenity proximate) as evidenced by the construction of Montgomery Row townhouse product, and possible for neighborhood convenience retail, hotel, school related and additional medical office.

Buildings

RS comprises larger high-rise buildings and mid-rise developments that often have multiple subcomponents (some of which are subject to different ownership). These types of buildings offer few residential conversion opportunities due to oversized building floorplate depths and configurations. One physically suitable currently vacant candidate is 6560 Rock Spring, though near term conversion of this building is considered unlikely from market and economic perspectives (see Appendix B). One of the former NIAID buildings at 6610 Rockledge Drive is vacant but the width of its floorplate is greater than 100 feet, making it ill-suited for conversion to residential.

Underdeveloped / Added FAR / Demolition

While there are a few properties with significant amounts of unused FAR, the majority are largely built out. As one would expect given that the RS submarket has on average the largest sized office buildings within Montgomery County, there are very few properties with unused FAR. There are two examples (both headquarter properties) of unused FAR and three examples of planned but unbuilt FAR as follows:

1. Unused FAR – Marriott has approximately 300,000 square feet and Lockheed Martin has over 1.0 million square feet of unused FAR

2. Unbuilt / Planned FAR – exists at three locations: a) 10301 Fernwood Road (117,000 square feet); b) 375,000+ square feet in Rock Spring Park (44.61 acres that has been subdivided into multiple properties primarily lining the interior “ring” along Rockledge Drive plus EYA’s Montgomery Row and 6555 Rock Spring Drive); and c) Rock Spring Centre, DRI’s long planned 1.5+ million square foot mixed-use “town center” concept

X. Public Policy Considerations

Market Findings and Observations for EB and RS

- a) Office markets (larger users in particular) going through change; locations still dynamic
- b) Landlords focused on reinvestment / market pricing adjustments to continue office use
- c) Smaller to medium sized properties can serve multi local and regional oriented tenants
- d) Building conversions unlikely, FAR conversions likely, driven by premium down county locations
- e) Some near term building demolition linked with additional FAR mixed use redevelopment
- f) Over time some bigger buildings may be demolished / divided per expanded FAR mixed use
- g) Limited destination retail potential; areas surrounded by retail of all sorts
- h) Residential can reduce vacant office land, but there are insufficient residential development opportunities at EB and RS to support of itself a substantial amount of new retail (though still helps).
- i) The market for new townhomes is essentially unlimited (central locations with little competition)
- j) No shortage of alternatively located new multi-family development
- k) EB likely to adapt / evolve based on success of Pike District
- l) RS has key large project development hurdles that will only be closed as they can be financed (RSC today, and possible Marriott site in the future)
- m) Desire for mixed use / outwardly visible vibrancy, transformation of underused spaces, new private investment and positive rebranding

Conversion Probabilities 5-20+ Years Executive Blvd. and Rock Spring*

Adaptive Reuse	5-10 Years	20+ Years (incl. 5-10)	Property Types per Submarket
Existing Building Conversions	0-15%	0-20%	<i>one or two smaller bldgs per market</i>
Unbuilt Office FAR Conversions	75+%	75+%	<i>multiple feasible properties</i>
Bldg Demo / FAR Combos	10-20%	25-30%	<i>aged bldgs on larger campuses</i>

* While reasons differ, indicated percentages apply similarly to both EB and RS submarkets.

Policy Constraints

While the Executive Summary highlights significant public policy factors, additional study considerations are summarized below:

- a) Density caps can = shorter term economic use, perhaps not longer term market contributing
- b) Lack of permissible building flexibility can mean less investor commitment
- c) Zoning mandates (particularly the EOF zone use restrictions in both submarkets), heights, setbacks, etc. all important, but also assumed somewhat open to district-wide and / or case-by-case recasting
- d) Ability to prioritize public investments across multiple office markets county-wide

Possible Actions

- a) Enhance connectivity at planning / public level, reinforced with zoning and site planning
- b) Zone to encourage kind of residential wanted. (Note low density zoning = townhomes)
- c) Maybe only able to require retail if land value bonus for other market use can subsidize the retail
- d) Incentives should focus on area related retail, not just property specific
- e) Scale streets for pedestrian and possible convenience retail (but suburban model)
- f) Be sympathetic to private economic solutions (i.e. combo of surface and above grade parking)
- g) Selective category tax abatements (especially for large office users)
- h) Prioritize if funding incentives are appropriate per competing county-wide economic development
- i) EB focus on eastern gateway profile properties
- j) RS focus on capturing more internal retail demand and challenge of moving forward large scale developments / redevelopments
- k) Should wait on specific planning details for Marriott and adapt RSC per market

APPENDIX A

Case Study Examples

Office-to-Residential: Crystal Plaza 2 to 220 Twentieth Street
Arlington County: Adaptive Use of 1960s Suburban Office Building



Project Summary

The project comprises the conversion of a 1968 vintage 12-story vacant Class C office building that had 200,000+ square feet into a 19-story residential tower, street-front retail and two levels of retained existing parking below grade that services the entire block. Specifically, the converted building to residential comprises 320,000 square feet (1,560 square feet of street level retail) housing 265 units situated on approximately 1.5 acres which equates to 4.8 FAR (allowable base density). The approval process took one year and the project delivered in 2009. The building was originally built by Charles E. Smith and is currently owned by Vornado.

Conditions Causing Change

The building was previously occupied by PTO who relocated to Alexandria in 2005. The submarket was also impacted by the Base Realignment and Closure Act of 2005 (BRAC) that shifted 13,000 jobs out of the Crystal City, leaving 3.2 million vacant square feet of office space. Due to small floor areas (<15,000 gsf) and low floor-to-floor heights (<9.0 feet), some of these office buildings, such as this example, no longer meet the criteria for Class A office space. In addition, with no setbacks from the street, the building would be difficult to retrofit for Federal tenancy given today's security requirements. Conversion of this building from office to residential supported Arlington County's long term Crystal City revitalization plan to increase density and create a more mixed-use environment.

Obstacles During Conversion Process

Obstacles during the conversion process occurred during the design process due to building configuration issues such as the existing column grid did not optimize unit layout and the fire stairs and core elements had to be replaced. During construction, unforeseen existing conditions encountered during the demolition had to be evaluated and construction staging was tight given no room to work around an already existing structure (and operating parking).

Effect of Government Regulations and Incentives

The project employed Arlington County's development related incentives, offering additional height in exchange for an environmentally sustainable design approach to the new construction (LEED certified).

Resulting Development

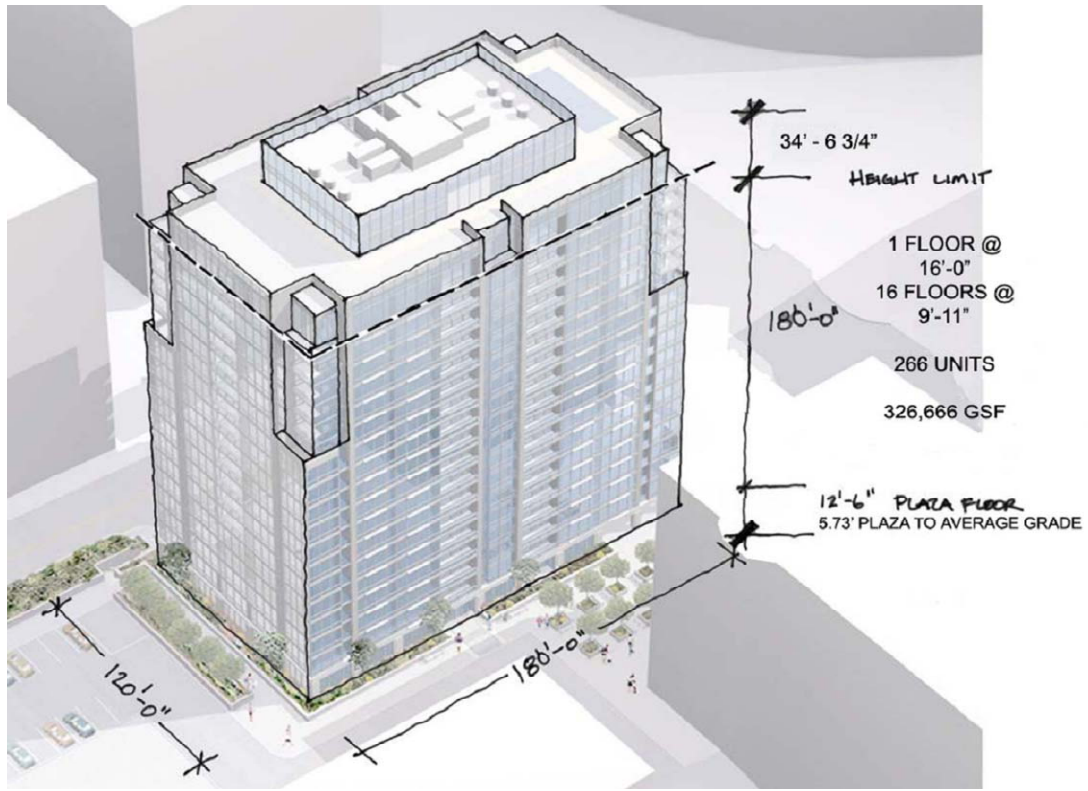
Six new floors were added to the existing structure of a 12-story office building (and roof deck was made into occupiable amenity space - 19th floor). This was feasible in part because residential floor loads are lower than for office uses. The original pre-cast concrete and glass facade was removed and reskinned with a glass curtain wall that was designed to provide solar shading, improve energy efficiency and limit sound transmission.

Lessons Learned

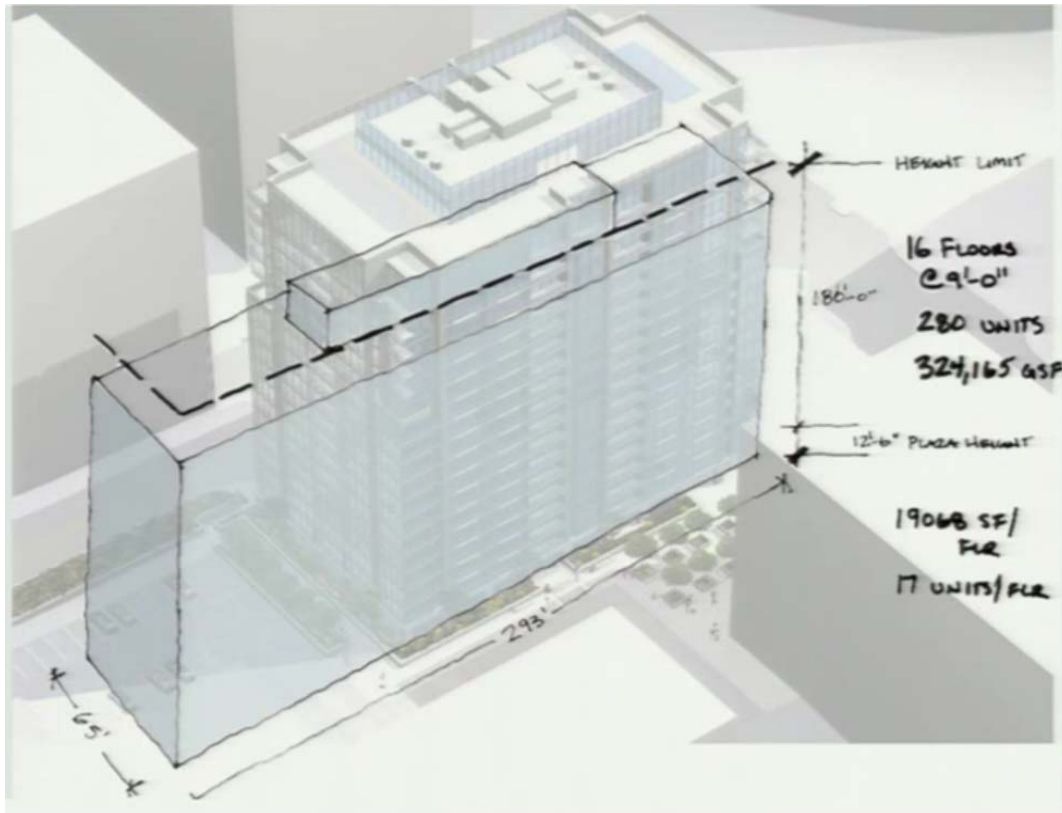
- 1 *Motivated Owner* - Because the developer has extensive office holdings in the neighborhood, the benefits of converting this property to residential (and investing in reconfiguration of building orientation / 20th Street entrance and retail) accrued incrementally to other parcels. In addition, the developer was able to increase the property's square footage since the allowable residential FAR of 4.8 exceeds the 3.8 FAR for office use.
- 2 *Floorplate / Building Depth Solution* - Inset balconies reduced excess units depths from the window line to hall corridor.
- 3 *Larger Unit Sizes* - Due to depth of floor plates, unit size averaging > 1,000 sf are larger than what might otherwise be built in new ground up development (i.e. more 1 bedroom + dens since dens do not require windows).
- 4 *Cost Savings* - Approximately \$50 per gsf in cost savings can be attributed to retaining the below grade parking and above grade building structure. However, compared to new construction, some higher costs were incurred with converting the existing building (i.e. A/E costs, structural modifications, unforeseen conditions and facade replacement).
- 5 *Shorter Time to Delivery* - Time savings during construction was attributed to no demolition (2 months) and the retained parking / building structure (6 months) and other existing on-site infrastructure (which provides another cost benefit by reducing the interest carry on the construction loan). However, long load items such as the curtain wall needed to be ordered further in advance. Finally, primary due to it's location and building reuse, the entitlement process did not encounter any community opposition.
- 6 *Less Building Waste* - Avoided sending over 17,000 tons of building waste to the landfill.

**Office-to-Residential: Crystal Plaza 2 to 220 Twentieth Street
Arlington County: Adaptive Reuse of 1960s Suburban Office Building**

Existing Building Reuse Design



New Construction Design



Lessons Learned

The new construction design has a narrower more efficient building that accommodates more units in a slightly smaller sized building / less square feet.

Office-to-Residential: 400 Army Navy Drive, Crystal City
Arlington County: Redevelopment of a 1960s Suburban Office Building



Project Summary

LCOR purchased this redevelopment property in 2012 for \$39 million. Redevelopment comprises the conversion of a 1.77 acre site improved with a class C vacant 1960s 10-story 235,000 square foot office building (known as the Paper Clip building due to window patterns) into a residential. This building was reportedly one of the first high-rises in Crystal City (at approximately a 3.0 FAR). Redevelopment into residential will consist of two 20-story towers housing a total of 450+ units (490,000 sf equating to a 6.4 FAR) on top of a common podium and parking platform. Construction costs estimated at \$100+ million combined with the site acquisition costs equate to slightly more than \$300,000 per unit for the finished product.

Conditions Causing Change

This office building served a special purpose to house multiple Federal defense agencies adjacent to the Pentagon. The space was vacated in 2009 as a result of the Base Realignment and Closure Act of 2005 (BRAC) which shifted 13,000 jobs out of the Crystal City and Pentagon City, leaving 3.2 million vacant square feet of office space.

Obstacles During Conversion Process

The site had to be rezoned from C-O to C-O Crystal City to conform with the 2010 Sector Plan (the benefit of which is increased density). Lengthy entitlement ensued (2+ years) due primarily to issues related to adjacent property owners.

Effect of Government Regulations and Incentives

In 2010, the County Board adopted the Crystal City Sector Plan to help guide redevelopment. The Sector Plan identifies the subject site as a component of the Northwest Gateway and recommends redevelopment with residential, commercial, hotel, or mixed-use in a manner that would achieve a minimum of 40% residential or hotel use across the block. The Sector Plan also recommended a maximum building height of 200 feet. The project received bonus density above the 4.8 FAR base resulting from community benefits (density credits) described below.

Resulting Development

Site redevelopment has been approved for the removal of the existing above-grade office building (in 2nd quarter 2016) and the retention of the three level underground parking garage. On top of this garage will be two additional levels of parking above grade (total of 1 space per unit) that will be surrounded by the residential buildings. The north tower will house 150 condominiums while the south tower accommodates 300 apartments. Community benefits total more than \$9.7 million including: a) streetscape improvements, b) 15 affordable housing units, c) contributions to the County's Affordable Housing Investment Fund, Utility Underground Fund, Art Fund and Open Space Fund; d) installation of an in-building wireless emergency responder communication system as well as public utility improvements; e) vacation of Old South Eads Street and additional street dedications; and f) LEED Gold project.

Lessons Learned

- 1 *Obsolete Office Building* - Column spacing is 20 ft by 20 ft with low ceiling heights so continued use as office would not be competitive (and would be difficult to achieve LEED status required by most Federal agencies). Site redevelopment retains the existing three-story underground garage.
- 2 *Unrealized FAR* - Site redevelopment more than doubled the property's square footage and FAR with a significant increase in height and better site configuration (two buildings each with smaller footprints than the single original office)
- 3 *Entitlement Process Subjectivity* - Interface issues with plans for the adjacent property (supposed to house proposed streetcar maintenance facility) delayed project approval. Project conformed with the Sector Plan and would normally have been approved within the typical 9-12 month process.

**Office-to-Hotel: 8728 Colesville Road, Silver Spring
Montgomery County: Adaptive Use of a 1960s Office Building**



Project Summary

Conversion of a Class C vacant 1969 13-story office building with approximately 142,000 gross square feet into a 239 room hotel. The site has 17,170 net square feet equating to an 8.3 FAR (or a 6.5 FAR based on a 21,881 square foot gross tract area including future right-of-way dedications). The building previously served for many years as a headquarter facility for the Computer Science Corporation. Hospitality Associates of Colesville LP purchased the building in October 2006 for approximately \$100 per gsf and reportedly spent another \$200 per gsf on building renovations. The site plan approval process took 15 months and the finished hotel opened in December 2008.

Conditions Causing Change

Building was vacant, had physical limitations if renovated for continued office use and had limited on-site parking.

Obstacles During Conversion Process

Optimal adaptive use of the building was predicated on delivery access from and parking on adjacent properties. The site plan included preferred options for an Agreement for Use with United Therapeutics and Montgomery County to accommodate deliveries at the rear of the building since the building sits on the southern property line and access via Colesville Road was to be repurposed as part of the conversion process. In addition, the building has very little existing on-site parking so another Agreement for Use with Montgomery County was contemplated for spaces in the adjacent parking lot. Neither agreement was ever consummated.

Effect of Government Regulations and Incentives

The existing building was constructed in 1969 under the C-2 zone. As an existing building, the subject property was exempt from post 1960s updated development standards of the CBD-I zone pursuant to sections 59-C-6.24(a) and 59-C-6.24(f). The change in use from office to hotel was permissible under both the then current CBD-I zoning and the Silver Spring CBD Sector Plan. Had the building been demolished, the maximum density per the optional method would have been reduced to 2.0 to 3.0 FAR depending on the use (less than half of the existing building's 6.5 FAR). The subject site is located in a parking district and is not required to provide on-site parking (estimated to be 122 spaces). No traffic study was required since the hotel use had fewer trip generations than as an office use.

Resulting Development

The building facades, lighting and landscaping, vehicular and pedestrian circulation systems were transformed. The lower level cellar space (previously a small garage) was converted into meeting and amenity space (including swimming pool). The building is composed of two different product types: floors two through eight house 149 rooms for Hampton Inn; floors nine through thirteen house 90 rooms for Homewood Suites. The first floor accommodates the lobby, reception area, meeting rooms, and amenities for the guests in addition to management and storage space. In addition to extensive facade modifications the entrance vestibule was expanded and a stairwell to meet fire code was constructed from the cellar.

Lessons Learned

- 1 *Existing Building Maximized Density* - The existing building with a 6.5 FAR and at 121.5 feet in height exceeded the then current CBD-I zoning FAR maximum and 90 foot height limit. Adaptive use of the building was more advantageous than property redevelopment.
- 2 *Conversion Expedited Delivery* - Demolition of the building and site redevelopment would have required lengthier entitlement and construction processes. In addition, reuse of the existing building in a CBD zone did not attract any community opposition.
- 3 *No On-Site Parking* - An off-site parking agreement with the County was never obtained so the hotel offers valet parking only. In 2012, the County sold the adjacent parking garage (underutilized / surplus parking) to United Therapeutics and is slated to be redeveloped into an office buildings with street level retail.
- 4 *Alternative Site Development Plans Needed* - Back up / alternative site development plans were required to provide on-site loading since the Agreements for Use did not materialize.

Supplemental Conversions

I. Medical Offices

1. Operational Parameters – Similar to office buildings but typically require more parking and plumbing, electrical and/or HVAC upgrades. May need structural upgrades to support weight of heavy medical scanning devices. For radiology labs, medical equipment often requires lead lined walls and floors. Need nonporous interior surface finishes and seal seams between finishes to control infections. More ADA requirements to accommodate patient needs especially bariatric, geriatric and neurological patients. In sum, adapting traditional office buildings for medical use can be very expensive, especially as the provided medical services become more elaborate (a reason why many are ground up purpose built).
2. Property Characteristics
 - a) Location – consumer convenient or proximate to hospitals
 - b) Size ranges from 5,000 sf up to 100,000 sf for more full service facilities
 - c) Larger floor plates that can be flexible to combine primary care, urgent care, specialty clinics, imaging, lab space, social services, a pharmacy and sometimes ambulatory care. One stop care with multiple interconnections and shared spaces.
 - d) Leased space is typically longer term (substantial user improvements, systems synergies, patient familiarity)
 - e) Access (auto and transit) and above office standard parking is critical
 - f) Cost factors support central locations, building quality can vary (Class B and C acceptable for older properties). Substantial investment in tenant / user improvements favor purpose-built new medical office buildings.

II. Bailey's Upper Elementary School for the Arts and Sciences, Falls Church, Virginia

Fairfax County Public Schools purchased a class B 1980's 5-story 99,000 square foot office building in December 2013 for \$9.37 million that had been vacant since September 2012 (and was reported in receivership / distressed sale). The building, located within a mile of the existing elementary school in the same school boundary, reopened in fall of 2014 with only eight months for design and construction. School use occupies the second through fifth floors and is a magnet school that accommodates 765 students in grades three through five. County administrative space is collocated on the first / ground floor.

Property renovations totaling \$20.88 million comprised gutting the office building except for the floors and exterior walls. Specific building renovations included new interior finishes, new energy efficient windows, new roofing, new HVAC and electrical service, new life safety systems, a full-sized cafeteria and other special purpose space (i.e. hybrid library, exercise rooms, theatre, science lab, etc.). The school does not have a traditional gymnasium but site upgrades to the existing 193 space surface parking lot (additional outdoor play areas and an enclosed field house) are planned for construction in summer 2016. Outdoor play areas are currently "coned" off in the parking lot (no real dedicated space partitioned off). Important conversion dynamics include:

1. Timeframe to Delivery – with only 6 weeks for design and 22 weeks of construction, limited if any design review was undertaken which had new / experimental style classroom space.
2. Space Flexibility – renovations included lots of internal wall space glass and flexible furniture to best accommodate school uses.
3. Dispersed Common Areas – cafeteria is on the second floor while the library and other collaborative work areas are on the upper floors.
4. Floor Plans – classrooms line the building perimeter while community and stacked areas are in the center.
5. Gymnasium Alternative – there are four fitness rooms totaling 5,000 square feet to accommodate physical education until the gymnasium gets constructed this summer.
6. Some Non-Traditional School Design / Format Standards – conversion will likely result in spaces that are not necessarily aligned with existing school standards but are still functional.

Exhibit 1 – Bailey's Upper Elementary School



III. Unused FAR-Residential: Montgomery Row, Rock Spring, Maryland

In 2011 the residential development firm EYA initiated discussions with the owners (Opus Group) of a planned office building at 10435 Fernwood Road that was part of an existing larger office complex. Compounded at the time by a lingering national economic downturn, the office market did not support the economics of initiating construction of a new unleased office building. A 10.62 acre site, including development rights for 300,000 square feet of residential use (representing approximately 100,000 square feet of prior approved office space) was carved out and acquired in 2014. At the time, for sale townhome use was determined to be highest and best use for site. EYA opted not to provide a retail mix of uses due to ample surrounding amenities (and suggested that to do this they would necessitate a larger scale project).

Townhomes were approved as a by-right development in the I-3 zone via the optional method of development. Selling prices were budgeted in middle of the market somewhat below EYA's competing projects and other supply in Bethesda and North Bethesda. The project included a parking agreement with an existing adjacent office garage for 75 additional visitor parking capacity. The site plan approved 168 town homes including 21 three bedroom MPDU's. With dedicated land to MDOT, approximately 9 acres remaining which equates to 18 units per net acre. The first units are scheduled to deliver in spring 2016. These townhomes are reportedly selling well, primarily to younger professionals and empty nesters. Marketing factors comprise its central location, great transportation infrastructure, existing retail (proximity to Montgomery Westfield Mall, Georgetown Square, Shops at Wildwood and some walkability).

Exhibit 2 – Montgomery Row Site Plan



APPENDIX B

**Office-to-Residential Conversion Feasibility Analysis
Executive Plaza and
6560 Rock Spring Drive**

Executive Plaza (6120 and 6130 Executive Boulevard)

Caveat: The following illustration depicts some of the physical opportunities that this conversion example could hypothetically offer. There is no representation implied that the property is actually ready for conversion, from the building owner's perspective or per economic and other factors, or that other redevelopment scenarios than the example depicted would not also be considered or be more viable.

From an implementation standpoint, Executive Plaza could be a good candidate for residential conversion:

1. Location adjacent to open space and residential uses and proximate to schools, retail, and transit (see Exhibit 1)
2. Current building configuration / footprint lends itself to residential use
3. Large site (13.0 acres, including a portion of shared common entry with the adjacent office building) with underused allowed FAR (0.58 FAR existing vs. 0.75 allowed) and excessive parking for residential use (four level, 863 space parking structure, 285 surface spaces – 1,148 total) suggests the possibility to add building area.
4. Currently vacant (as of May 2016)

Exhibit 1 – Executive Plaza Adjacent Land Uses



Building Conversion Design Factors

Executive Plaza is an approximately 355,000 gross square foot 30 year old office complex comprising two virtually identical eight story buildings (plus penthouses and a lower level in the south building only). The pair of 'V' shaped buildings is organized around a central plaza with vehicular drop off. Each building has a central core with four elevators and two wings with a fire stairwell near each end. The building wings have relatively narrow widths by office standards at approximately 68 feet wide, almost ideal for residential unit conversion. Common practice for residential use are in the range of 65 feet wide (two 30 foot deep units served by a 5+ foot corridor). Where unit depths would exceed 30 feet at building corner locations depths can be easily reduced by moving back the exterior windows, thereby converting some of the interior space into exterior balconies.

The existing building configuration and excess available parking provide flexibility to yield 250 to 400 units depending on what is deemed market optimal size. (Note market assumption for this illustration is that the location and building setting would support relatively high priced, larger condominiums.)

Key components to convert the office building to residential would require:

Building Support Systems

1. No structural issues are expected regarding the conversion from office to residential as normal office buildings require more floor load
2. Not likely to add height (though physically conceivable) if assume extension of current zoning provisions (100 feet, adjacent to single family residential area)
3. Contemplate adding living and amenity spaces to an expanded existing mechanicals penthouse
4. Column spacing @ 30+ feet works; floor to ceiling heights possibly up to 9.5+ feet ample
5. Reconfigure / remove some of the building core function space
 - a) Remove one or two passenger elevators depending on final unit count
 - b) Only two stairs at both ends are required per code (not need existing central stairs well)
 - c) Replace the HVAC systems, addition of plumbing, other electrical

Façade Treatment

1. Consideration of replacing or painting the existing precast aggregate concrete exterior
2. Window replacement and infill of portions of the continuous window line
3. Possible lowering of some of the existing window sill heights

Common Areas

1. Subdivision of the lower level / below grade space for amenity use, though still excessive; option of providing extensive unit auxiliary storage space
2. Preserve 350 existing semi-underground parking deck and additional surface spaces, converting excess parking areas into additional residential space (parking structure perimeter) and into amenity and additional landscaped areas
3. Consider connecting the entrances of the two buildings to form a single lobby to maximize operational functionality (and consolidate common amenities – see Exhibit 2)

Exhibit 2 – Possibility of Creating a Single Entrance / Lobby



Floorplate (see Exhibit 3)

1. Subdivision of the ground and typical floors into residential units
2. The addition of inset balconies that would reduce depth of building at select corners locations
3. Take advantage of existing stepped terraces at the both ends of the buildings to provide premium residential units on the upper three floors. (see Exhibit 4 for highlighted balconies)

Exhibit 3 – Office Floorplate (blue) and Residential Floorplate (yellow)

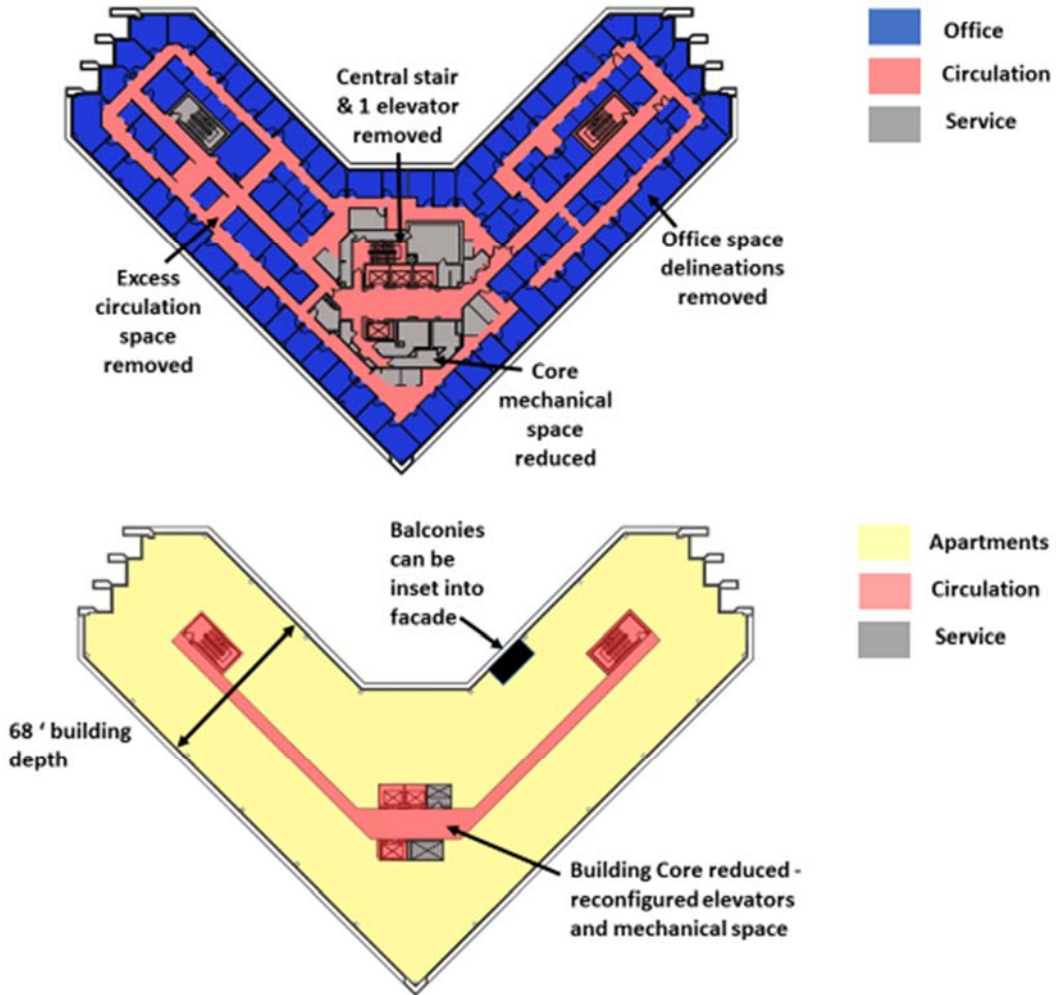
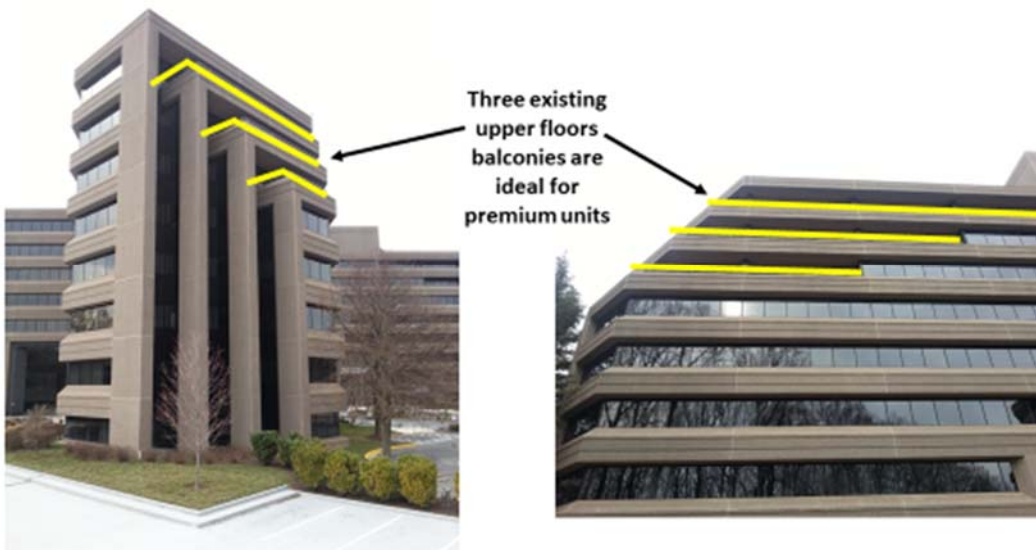


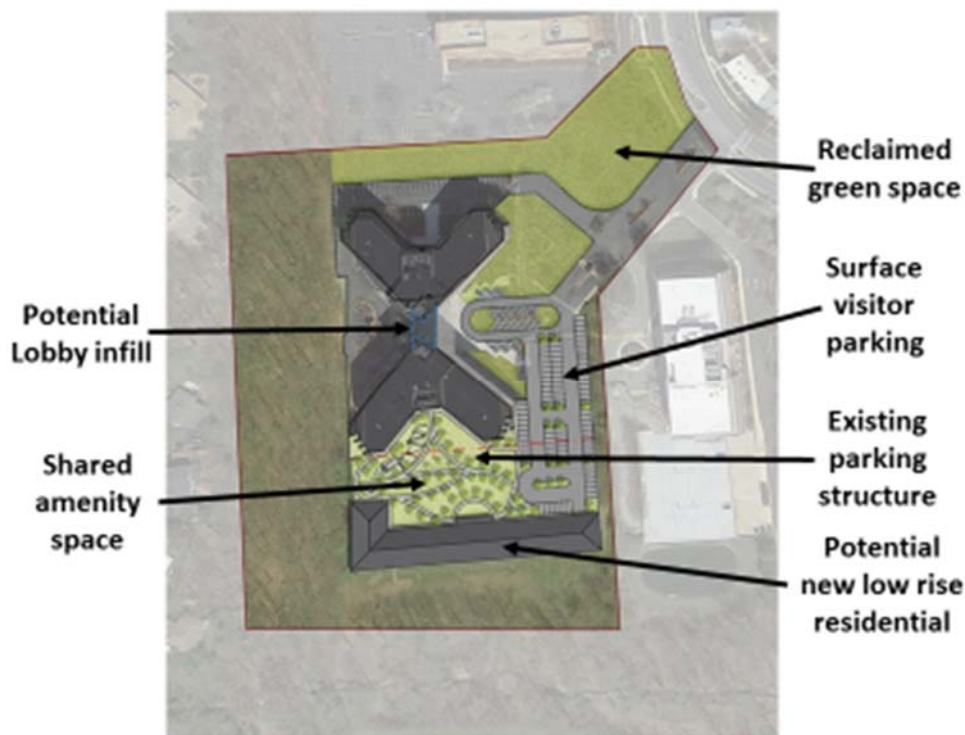
Exhibit 4 – Utilization of Existing Balconies



Additional Site Development Opportunities

The existing site accommodates 1,148 parking spaces, 863 of which are housed in a four level parking structure. Demolition of a portion of the three aisle parking structure appears feasible, providing what could be an ideal location to capture additional residential units (low-rise multifamily or townhomes). Although a variety of site plan configurations are possible, including additional components for demolition (i.e. all of the parking structure, part of the existing office structures, etc.), the illustrative site plan herein depicts a scenario based on the existing permitted density. Exhibit 5 shows a shared open/amenity space located between possible new perimeter residential use and the existing office towers (on top of retained parking structure). Alternative building and site plan options would depend on any number or combination of factors, including possible changes in zoning that may enhance economic feasibility.

Exhibit 5 – Illustrative Site Plan Configuration



Overall Conversion Dynamics

From a purely physical standpoint, Executive Plaza presents an excellent opportunity to consider an office-to-residential conversion. Apart from fundamental economic issues that may still favor office use, there are few apparent drawbacks regarding achieving an efficient residential reuse. Reworking the existing parking (structure and surface) provides opportunities for adding additional new residential space as well as preserving existing value. While the final parking treatment may not be perfect for marketing purposes, compared with ground up new construction, the scale and type of existing parking provides competitive and cost effective parking options. With the majority of the existing lower level in the south office tower below grade, conversion to living units is limited. While there are alternate uses for this lower level space that support the residences, it is unlikely that the effective use of lower level space would be achievable.

BUILDING CONVERSION CHECKLIST

Executive Plaza Office-to-Residential

Yellow = some importance
 Green = important
 Red = critically important

Criteria	Near Term	Future	Potential for Policy Impact
1. Location			
a) mixed-use proximate	<i>yes</i>		<i>possible</i>
b) office growth	<i>possible</i>		<i>limited</i>
2. Market for alternate uses	<i>yes</i>		<i>limited</i>
3. Property / Buildings			
a) age / when reinvested > 25 years	<i>no</i>		<i>no</i>
b) < 85 feet wide bldg depth	<i>yes</i>		<i>no</i>
c) bldg frame (> 30 foot column spacing)	<i>yes</i>		<i>no</i>
d) window line open space views	<i>yes</i>		<i>limited</i>
e) mostly bldg code compliant	<i>yes</i>		<i>limited</i>
d) some conversion value	<i>yes</i>		<i>no</i>
4. Underused FAR	<i>yes</i>		<i>possible</i>
5. Occupancy			
a) vacant	<i>yes</i>		<i>no</i>
b) single-user	<i>yes</i>		<i>no</i>
c) multi-tenant (possible complicated)	<i>n/a</i>		<i>no</i>
6. Financial			
a) land to building value ratio > 1.0	?	<i>possible</i>	<i>no</i>
b) non-office rents > office rents	<i>no</i>	<i>possible</i>	<i>no</i>
c) value recovery > repositioning costs	?	<i>possible</i>	<i>no</i>
7. Regulatory			
a) policy supported	<i>possible</i>	<i>possible</i>	<i>possible</i>
b) zoning compatible	<i>possible</i>	<i>possible</i>	<i>possible</i>
c) requirement factors (i.e. MPDUs)	<i>yes</i>		<i>possible</i>
d) incentives (reg. relief, financial)	<i>no</i>		<i>possible</i>
8. Future infrastructure / other change	<i>maybe</i>	<i>possible</i>	<i>possible</i>
Conversion Prospect	?	<i>possible</i>	<i>maybe</i>

Rock Spring Conversion Potential

Background

Bolan Smart and HOK initially identified one building in Rock Spring (6560 Rock Spring Drive) that might be a nearer term candidate for residential conversion. Since this building's physical characteristics meet many of the similar feasibility tests for the EB Executive Plaza example, a building specific design illustration was deemed redundant and therefore not included.

Neighborhood Context

Though potentially physically compatible for conversion to residential use, it is improbable that 6560 Rock Spring Drive will be converted nearer term for reasons of continued highest and best use for office use. Some of the property specific related constraints typical to any number of prospective conversions, include:

1. Though currently vacant, the building is part of an original two building office complex incorporating a variety of primarily exterior common areas. Access to below grade parking is currently shared with the second building (6550 Rock Spring Drive, an occupied multi-tenant office property). Moreover, the two buildings continue to read as one overall, highly integrated campus, featuring identical design features.
2. Notwithstanding their apparent shared history, the two buildings are owned separately by non-affiliated office portfolio entities.
3. The location is still commercial dominant. Unlike at Executive Plaza, 6560 Rock Spring Drive is not an edge property abutting residential areas, or otherwise conducive to being carved out as a quieter residential setting. (Note that while the same can be said for the EYA townhome property across the street, the EYA project represents a considerably larger parcel and land use adjacencies that provide more opportunity to define its own "residential" setting.)
4. In addition to being part of a two building complex, the other parcel adjoining 6560 Rock Spring Drive (10301 Fernwood Road) is presently a parking lot approved for an 117,500 square foot, five-story new office building. Though the prospects of this adjoining development proceeding near term are open to discussion (i.e. importance currently as economical surface parking for the Camalier related medical office buildings complex), the point for 6560 Rock Spring Drive is that until a new development actually proceeds, planning assumptions remain somewhat open-ended.
5. Similar uncertainties (and potentials) concerning future planning parameters per 10301 Fernwood Road apply on a different scale to the probable medium term redevelopment of the Marriott campus also across the street from 6560 Rock Spring Drive.

Building Conversion Checklist Evaluation

Based on the criteria identified in the building conversion checklist illustrated at the end of this appendix, the overall property assessment also supports nearer term continued use as office:

1. Location – In general, the property's central location and adjacency to a mix of uses and amenities does favor conversion, especially since residential demand currently exceeds possible office growth. But as noted above, the property's specific location within the interior of this office park is still commercial dominant.

2. Market for Alternative Uses – Although there is a market for alternative uses, not every site lends itself to a change in use.
3. Property / Building – In addition to conversion challenging building specific characteristics cited above, since the building was constructed in 1993, it is just nearing the 25+ year reinvestment threshold so the cost hurdle for conversion to an alternative exceeds continued use as office.
4. Underused FAR – There is limited underused FAR for this property.
5. Financial – Based on the current tax assessed value of the property, the ratio of the land value (approximately \$10.0 million) to building value (\$4.0 million) exceeds 1.0 (is actually 2.5). This suggests that demolition may be the more financial prudent adaptive reuse strategy. However, since the building still functions well as an office building, reinvestment for office use still has the lowest continued cost threshold.
6. Regulatory – Current EOF zoning limits residential so a change in zoning would be needed for a full building conversion. Current county requirements for affordable units would also add to the cost of conversion. There are no incentives to help off-set the high investment costs of conversion.

Exhibit 1 – 6560 Rock Spring Drive Site and Adjacent Land Uses

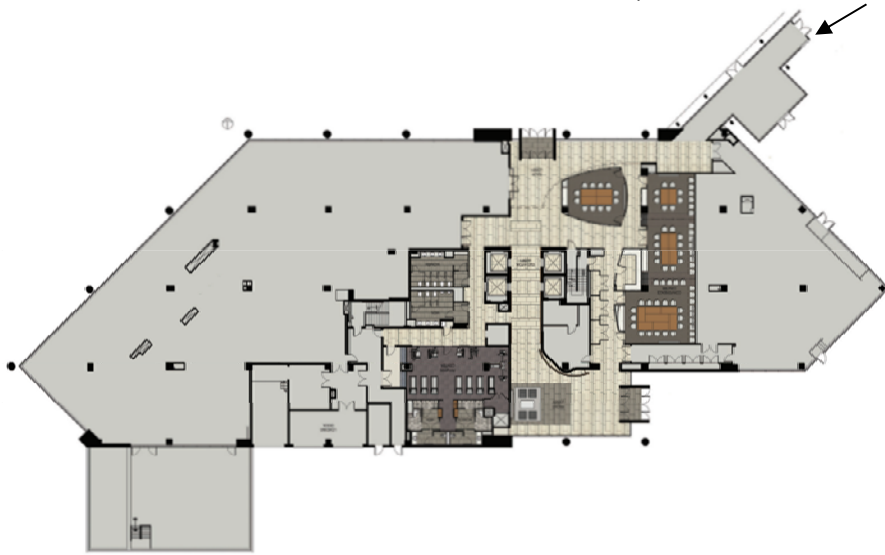


Exhibit 2 – Building Photo



Exhibit 3 – 1st Floor Sample Floor Plan (floorplate depths from 60 to 120 feet)

(connection to 6550 Rock Spring Drive)



BUILDING CONVERSION CHECKLIST
6560 Rock Spring Drive Office-to-Residential

Yellow = some importance **Green** = important **Red** = critically important

Criteria	Near Term	Future	Potential for Policy Impact
1. Location			
a) mixed-use proximate	yes	yes	<i>possible</i>
b) office growth	possible	possible	<i>limited</i>
2. Market for alternate uses	yes	yes	<i>limited</i>
3. Property / Buildings			
a) age / when reinvested > 25 years	close	possible	<i>no</i>
b) < 85 feet wide bldg depth	partial		<i>no</i>
c) bldg frame (> 30 foot column spacing)	yes		<i>no</i>
d) window line open space views	yes		<i>limited</i>
e) mostly bldg code compliant	yes		<i>limited</i>
d) some conversion value	possible		<i>no</i>
4. Underused FAR	minor		<i>possible</i>
5. Occupancy			
a) vacant	yes		<i>no</i>
b) single-user	yes		<i>no</i>
c) multi-tenant (possible complicated)	n/a		<i>no</i>
6. Financial			
a) land to building value ratio > 1.0	yes		<i>no</i>
b) non-office rents > office rents	possible		<i>no</i>
c) value recovery > repositioning costs	no	possible	<i>no</i>
7. Regulatory			
a) policy supported	no	possible	<i>possible</i>
b) zoning compatible	no	possible	<i>possible</i>
c) requirement factors (i.e. MPDUs)	yes		<i>possible</i>
d) incentives (reg. relief, financial)	no	possible	<i>possible</i>
8. Future infrastructure / other change	no	possible	<i>possible</i>
Conversion Prospect	no	possible	<i>maybe</i>

APPENDIX C

Economic Example

Property Reinvestment Illustration

The illustration below assumes the conversion or demolition of an existing 150,000 gsf office building using 2016 industry standard economic inputs. (Note that while the indicated results favor continued office use, were the illustration to test for a possible increase in density for new construction, the economic feasibility of this scenario would be improved.)

Existing Office Property Reinvestment Illustration

(hypothetical 150,000 gsf building)

	Office Reinvestment and Lease-up		Residential Conversion		New Residential Stick-Built	
"As-is" Acquisition Cost			<u>per FAR</u>	<u>total</u>		
Land (supporting existing bldg)			\$50	\$7,500,000		
Existing Building			\$75	\$11,250,000		
Unused FAR			<u>\$0</u>	<u>\$0</u>		
total value "as is"			\$125	\$18,750,000		
	<i>bldg updates</i>		<i>reuse of existing</i>		<i>demo existing</i>	
Additional Investment	<u>per FAR</u>	<u>total</u>	<u>per FAR</u>	<u>total</u>	<u>per FAR</u>	<u>total</u>
demolition	\$0	\$0	\$0	\$0	\$5	\$750,000
site prep / utilities / access	\$0	\$0	\$5	\$750,000	\$10	\$1,500,000
excavation / basement	\$0	\$0	\$0	\$0	\$10	\$1,500,000
parking	\$0	\$0	\$5	\$750,000	\$5	\$750,000
base building	\$40	\$6,000,000	\$75	\$11,250,000	\$60	\$9,000,000
building finishes	<u>\$70</u>	<u>\$10,500,000</u>	<u>\$60</u>	<u>\$9,000,000</u>	<u>\$60</u>	<u>\$9,000,000</u>
total construction cost	\$110	\$16,500,000	\$145	\$21,750,000	\$150	\$22,500,000
Soft Costs ¹	12.0%	\$28 \$4,230,000	25.0%	\$68 \$10,125,000	25.0%	\$69 \$10,312,500
Contingencies (on added invest)	5.0%	\$7 \$1,036,500	15.0%	\$32 \$4,781,250	10.0%	\$22 \$3,281,250
Total Additional Investment	<u>\$145</u>	<u>\$21,766,500</u>	<u>\$244</u>	<u>\$36,656,250</u>	<u>\$241</u>	<u>\$36,093,750</u>
Total Direct Investment	\$270	\$40,516,500	\$369	\$55,406,250	\$366	\$54,843,750
Required Return on Cost	18.0%	<u>\$49</u> <u>\$7,292,970</u>	18.0%	<u>\$66</u> <u>\$9,973,125</u>	18.0%	<u>\$66</u> <u>\$9,871,875</u>
Total Required Value	\$319	\$47,809,470	\$436	\$65,379,375	\$431	\$64,715,625
Market Supported Value ²	<u>\$320</u>	<u>\$48,000,000</u>	<u>\$350</u>	<u>\$52,500,000</u>	<u>\$360</u>	<u>\$54,000,000</u>
Positive Gain / (Economic Loss)	\$1	\$190,530	(\$86)	(\$12,879,375)	(\$71)	(\$10,715,625)

¹ A&E, fees, marketing, etc., on total of "as-is" acquisition cost and construction cost

² New base building investment typically will provide for more revenue and efficiencies, resulting in a higher overall market value per gsf

APPENDIX D

NCKF Obsolete Office Building Flow Chart

APPENDIX E

Submarket Property Inventory

Executive Boulevard Inventory Year End 2015

#	Address	Building Name	Yr Built	# Stories	Class	Acres	FAR ¹	Zoning When Built ¹	RSF	% Vacancy	RSF Vacant	Rent RSF	Tenants	Ownership	Leasing	2016 Bldg Tax Assessment	2016 Land Tax Assessment	2016 Total Assessment	Bldg % of Total
<i>Existing Office Space</i>																			
1	6000 Executive Blvd		1972	6	A	6.78	0.42	I-3	124,388	8.6%	10,735	\$20-27	40+ / 3,000sf	Guardian Realty Investors	Transwestern	\$19,950,100	\$3,885,100	\$23,835,200	83.7%
2	6001 Executive Blvd	Washington Science Cntr	1965/99	8	A	2.70	2.13	I-3	250,000	0.0%	0	N/A	NIH	Cohen Siegel Investors	Axent Realty	\$41,215,700	\$1,784,300	\$43,000,000	95.9%
3	6003 Executive Blvd	Washington Science Cntr	1974	4	A	8.37	0.30	I-3	109,841	6.7%	7,369	\$33.50	5 / 20,000 sf	Richard Cohen	JLL	\$9,910,400	\$5,128,200	\$15,038,600	65.9%
4	6006 Executive Blvd		1963	3	C	5.16	0.22	I-3	48,600	0.0%	0	N/A	1 / Child Dev	Peel Properties	JLL	\$1,071,100	\$3,928,900	\$5,000,000	21.4%
5	6010 Executive Blvd		1963	10	B	5.39	0.57	I-3	134,450	13.9%	18,680	\$25-\$26	25 / 5,000sf	Ronald D. Paul Companies	HBW	\$9,598,200	\$3,381,100	\$12,979,300	74.0%
6	6011 Executive Blvd	Energy Building	1965	6	B	3.06	1.06	I-3	141,592	24.8%	35,159	\$28-\$30	5 / NIH=65K	Richard Cohen	JLL	\$17,978,700	\$2,021,300	\$20,000,000	89.9%
7	6100 Executive Blvd	Executive Building	1979	8	B	4.43	0.64	I-3	124,241	0.0%	0	N/A	3 / NIH=83K	Steven A Goldberg Co	Axent Realty	\$7,437,300	\$4,260,700	\$11,698,000	63.6%
8	6101 Executive Blvd	Atrium Building	1980	3	B	3.03	0.62	I-3	81,652	0.0%	0	N/A	10 / JFGW=67K	Jewish Federation of GW	Lincoln	\$11,686,550	\$2,688,050	\$14,374,600	81.3%
9	6110 Executive Blvd		1970	19	B	6.24	0.76	I-3	206,876	11.0%	22,807	\$19.25-\$26.50	30 / < 7,000sf	WRIT	Cushman	\$16,998,400	\$6,001,600	\$23,000,000	73.9%
10	6111 Executive Blvd	Kaiser	1970	2	C	4.00	0.18	I-3	31,892	0.0%	0	N/A	Kaiser Lab	Kaiser Permanente	N/A	\$135,200	\$2,564,800	\$2,700,000	5.0%
11	6116 Executive Blvd		1989	8	A	4.84	0.99	I-3	209,717	98.7%	207,055	Withheld	Former NCI	LNR Partners	CBRE	\$15,382,300	\$5,043,000	\$20,425,300	75.3%
12	6120 Executive Blvd	Executive Plaza South	1985	8	A	12.92	0.58	I-3	177,006	100.0%	177,006	Withheld	Former NCI	Angelo, Gordon Co	Avison Young	\$20,108,200	\$11,391,800	\$31,500,000	63.8%
13	6130 Executive Blvd	Executive Plaza North	1985	8	A	see	6120	I-3	151,451	100.0%	151,451	Withheld	Former NCI	Angelo, Gordon Co	Avison Young	see 6120	see 6120	see 6120	N/A
14	2115 E Jefferson St		1981	6	B	5.57	0.53	I-3	128,645	0.0%	0	N/A	NIH	Gov't Properties Income T	Avison Young	\$21,711,690	\$3,593,310	\$25,305,000	85.8%
15	2101 E Jefferson St	Executive Office Center	1989	7	A	4.07	1.26	I-3	222,462	0.0%	0	N/A	Kaiser	Kaiser Foundation	N/A	\$32,535,400	\$5,864,600	\$38,400,000	84.7%
Totals / Averages:						76.55	0.64		2,142,813	29.4%	630,262	\$19.25-33.50				\$225,719,240	\$61,536,760	\$287,256,000	78.6%
<i>Proposed</i>																			
1	6015 Executive Blvd		Proposed	9	A	5.26	0.76	I-3	172,992	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

¹ Current EOF Zoning has a 0.75 FAR and 100 foot height limit. Note that the highlighted cells in the FAR column exceed the current allowable FAR in this EOF zone.

Rock Spring Inventory Year End 2015

#	Address	Building Name	Yr Built	# Stories	Class	Acres	FAR ¹	Zoning When Built	RSF	% Vacancy	RSF Vacant	Rent RSF	Tenants	Ownership	Leasing	2016 Bldg Tax Assessment	2016 Land Tax Assessment	2016 Total Assessment	% Bldg of Total					
Existing Office Space																								
1	6701 Democracy Blvd	Democracy Plaza 1	1986	10	A	7.15	0.73	I-3	226,346	5.9%	13,252	\$32-\$34	100+ / < 2,000sf	Vornado Realty Trust	CBRE	\$51,409,000	\$6,591,000	\$58,000,000	88.6%					
2	6707 Democracy Blvd	Democracy Plaza 2	1990	10	A	4.36	1.45	I-3	275,663	7.5%	20,651	\$32-\$34	22 / = 12,530sf	Vornado Realty Trust	CBRE	\$56,712,000	\$7,688,000	\$64,400,000	88.1%					
3	10215 Fernwood Dr	Camalier Building	1978	7	B	3.79	0.71	I-3	117,780	14.8%	17,459	N/A	30+ / < 5,000sf	DK Realty	Gittleson	\$23,514,000	\$5,161,600	\$28,675,600	82.0%					
4	10400 Fernwood Dr	Marriott	1978	7	A	33.65	0.55	I-3	800,000	0.0%	0	N/A	Marriott	Marbeth / Minkoff	N/A	\$135,309,400	\$23,878,100	\$159,187,500	85.0%					
5	6550 Rock Spring Dr	One Rock Spring Plaza	1989	8	A	4.42	1.14	I-3	219,295	33.3%	73,082	\$20-\$33.50	23 / < 10,000sf	Tishman Speyer	Tishman	\$29,683,900	\$5,316,100	\$35,000,000	84.8%					
6	6555 Rock Spring Dr	The Atrium at RSP	1969	3	B	6.23	0.87	I-3	235,417	14.5%	34,171	N/A	N/A	Lincoln Property Co.	Lincoln	\$46,566,500	\$9,068,500	\$55,635,000	83.7%					
7	6560 Rock Spring Dr	former COMSAT HQ	1993	7	A	3.11	1.33	I-3	180,394	100.0%	180,394	\$28.50-\$31	0	AEGON USA Realty	CBRE	\$4,043,700	\$9,956,300	\$14,000,000	28.9%					
8	6410 Rockledge Dr	Champlain Building	1971	6	A	3.22	0.90	I-3	126,608	7.0%	8,834	asking \$40	medical	DK Realty	Gittleson	\$26,912,500	\$4,417,500	\$31,330,000	85.9%					
9	6420 Rockledge Dr	Rock Spring Court	2001	4	B	2.89	0.79	I-3	100,000	N/A	N/A	N/A	15 / < 5,000 sf	Anne Camalier	Gittleson	\$20,828,400	\$4,171,600	\$25,000,000	83.3%					
10	6430 Rockledge Dr	Westmoreland Bldg	1980	6	A	3.90	0.77	I-3	130,440	49.3%	64,320	\$19	35+ / < 5,000sf	DK Real Estate	Gittleson	\$23,353,600	\$3,649,000	\$27,029,600	86.4%					
11	6500 Rockledge Dr	Bedford Building	1981	6	B	3.90	0.72	I-3	122,623	5.8%	7,110		Medical	Fourth Donocam Assoc	Gittleson	\$22,915,600	\$3,917,700	\$26,833,300	85.4%					
12	6600 Rockledge Dr	Rockledge Exe Plaza 1	1981	6	A	4.60	0.80	I-3	160,173	N/A	0	N/A	5 / 100,000sf -	Brandywine Realty	Brandywine	\$25,038,695	\$4,598,339	\$29,666,700	84.4%					
13	6610 Rockledge Dr	Rockledge Exe Plaza 2	1982	6	A	4.46	0.78	I-3	150,797	100.0%	150,792	\$26.75	N/A	Tansamerica	CBRE	\$11,245,200	\$5,004,800	\$16,250,000	69.2%					
14	6700-A Rockledge Dr	Capital Gateway I A	1993	5	A	8.33	1.18	C-O/I-3	155,475	57.7%	89,700	\$29.75	< 10 / =11,000sf	TIAA-CREF	Transwestern	\$16,192,700	\$14,019,400	\$30,212,100	53.6%					
15	6700-B Rockledge Dr	Capital Gateway I B	1993	5	A	See	Above	C-O/I-3	151,181	100.0%	151,181	\$29.75	0	TIAA-CREF	Transwestern	see	above	see	above					
16	6701 Rockledge Dr	Two Rockledge Cntr	1985	10	A	5.63	1.08	CP	265,356	0.0%	0	N/A	NIH	GE	Pollinger	\$39,775,200	\$7,224,800	\$47,000,000	84.6%					
17	6705 Rockledge Dr	One Rockledge Cntr	1984	10	A	5.69	1.01	CP	250,000	0.0%	0	N/A	NIH +	JLL	JLL	\$45,212,700	\$7,752,900	\$52,965,600	85.4%					
18	6710-A Rockledge Dr	Capital Gateway II A	1993	5	A	5.23	0.74	I-3	149,174	11.1%	16,525	\$29.75		TIAA-CREF	Transwestern	\$26,392,600	\$8,152,700	\$34,545,300	76.4%					
19	6710-B Rockledge Dr	Capital Gateway II B	1993	5	A	See	Above	I-3	160,029	86.4%	138,223	\$29.75	Leidos	TIAA-CREF	Transwestern	see	above	see	above					
20	6720-A Rockledge Dr	Piedmont Pointe II A	2007	8	A	4.7	2.10	I-3	189,499	32.5%	61,522	N/A	5 / ?	Piedmont Office RT	CBRE	\$35,563,400	\$2,717,800	\$38,281,200	92.9%					
21	6720-B Rockledge Dr	Piedmont Pointe II B	2008	8	A	See	Above	I-3	239,499	42.3%	101,242	\$24-\$27	11 / 5,000sf	Piedmont Office RT	CBRE	\$31,187,400	\$1,531,400	\$32,718,800	95.3%					
22	6801 Rockledge Dr	Lockheed Martin HQ	1974	4	A	26.51	0.18	CP	210,000	0.0%	0	N/A	Lockheed Martin	Lockheed Martin	LM	\$77,347,500	\$12,748,700	\$90,096,200	85.8%					
23	6901 Rockledge Dr	One Democracy Cntr	1984	9	A	15.36	1.02	CP	185,154	21.2%	39,271	\$35.50-\$36.50	30 / < 5,000sf	Prudential Ins	Cushman	\$110,331,500	\$19,668,500	\$130,000,000	84.9%					
24	6903 Rockledge Dr	Two Democracy Cntr	1985	15	A	See	Above	CP	311,000	19.9%	61,829	\$35.50-\$36.50	30 / < 10,000sf	Prudential Ins	Cushman	see	above	see	above					
25	6905 Rockledge Dr	Three Democracy Cntr	1987	9	A	See	Above	CP	184,787	7.4%	13,654	\$36.50	< 10 / 25,000sf	Prudential Ins	Cushman	see	above	see	above					
									5,296,690	23.5%	1,243,212													
Proposed Office																								
1	10301 Fernwood Dr	The Lincoln Building	TBD	5	A	2.62	1.03	EOF	117,500															
2	Rock Spring Dr	Town Center	TBD		A			CRN	500,000															
									617,500															
Other																								
1	6711 Democracy Dr	Marriott Suites	1990	Hotel		4.76			223,510							\$34,463,000	\$6,442,600	\$40,905,600	84.3%					
2	6710 Rockledge Drive	Montgomery Row	U/C	TH's		10.62			168 Units															

¹ Current EOF Zoning has FAR ranging from .75-1.50 and 100-150 foot height limits. Note that the highlighted cell in the FAR column exceeds the current allowable FAR in this EOF zone.