ECONO PARK
RE-DEVELOPMENT
STUDY:

RIDGE CROSSING
BUSINESS
CAMPUS

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Chapter 1  Preface

Chapter Contents

This chapter serves as the gateway to the Practicum on the Econo Park Re-development Study. The challenge and benefit statement focuses on the forces and factors impacting the property. The scope and purpose will state the primary objectives of the Practicum and scope will set the boundaries of research.

1.1 Challenge and Benefit Statement

Econo Park is a functioning, private parking facility site catered towards airport travelers using Baltimore Washington International Thurgood Marshall Airport (BWI). This site and its neighboring boundaries are increasing being impacted by three levels of Government (County, State and Federal) and area developers. Re-development of this site will be an eventual consideration as forces have and are taking hold – BWI and its growth including a surrounding Aerotropolis; Arundel Mills and its neighboring development; and Base Re-alignment and Closure (BRaC) in Maryland, particularly at Fort George Meade. Both Government and developers, working in concert, are stabilizers for economic development.
A functioning model of development must both start with and move beyond the confines of land use and zoning. The development activity, the action of a developer to move forward with a project, is dependent upon an area economy, defined by its current activity (indicators) and movement (engine, what creates activity). For an economy to be in motion, the area must address adequate transportation infrastructure network to provide access to those entities and participants that make it move. The transportation network requires funding in order to be designed, built and maintained. These funds are made available from sources such as development activity and its end users. The re-development challenge now lies in determining an end use that will be a benefit to and benefit from the faces (activity, economy, infrastructure and funding) and the stabilizers (private developers, County Government, State Government and Federal Government) that bind them together.

1.2 Scope and Purpose

One solution to the subject property's (Econo Park) re-development proposal lies with in the shape of the tetrahedron (Exhibit 1.2A), composed of four (triangular) faces (activity, economy, infrastructure and funding), three of which meet at each vertex (private developers, County Government, State Government and Federal Government). The tetrahedron symbolizes the “classical element fire.” In order for a choice of a development to “burn bright,” the economy must support the activity, the infrastructure must support the economy, the funding must support the infrastructure and activity must support the funding.
The re-development selection will be based on a “highest and best use study” within the confines of current zoning. Each face and their stabilizing forces will be studied:

- Economy (stabilized by private developer, County Government and State Government).
- Funding (stabilized by private developer, County Government and Federal Government).

These faces (Exhibit 1.2B) communicate current market observations, data supported with historical and academic conclusions. The purpose lies with communicating observations with the goal of fueling the “fire” for thoughts on “facing” future development challenges.
Chapter 2 Property, Land Use and Zoning

Chapter Contents

This chapter will explore the property housing Econo Park at BWI in Anne Arundel County. The property is located near major local areas of influence, starting with Thurgood Marshall Baltimore/Washington International (BWI) Airport, followed by Arundel Mills and Fort George Meade. The physical characteristics, permitted uses and the Airport Zoning District impacts on the property will be examined.

2.1 Location

The subject property is sited on 15.86 acres and located at Ridge and Weeping Willow Roads in Hanover (per Exhibit 2.1A), Anne Arundel County, Maryland. The property falls in close proximity to the Thurgood Marshall Baltimore/Washington International (BWI) Airport approximately 4 miles (10 minutes) from the subject property. The subject property is too in close proximity to both Arundel Mills (approximately 3 miles (6 minutes)) in the Route 100 Development District and Fort George Meade (approximately 5.5 miles (11 minutes)). Thus, these forces created at
County, State and Federal Government levels have a strong influence on the market where the property is located (per Exhibit 2.1B).

2.2 Property Description

The subject property is currently home to Econo Park at BWI, a 1,208 space private parking facility catered towards airport travelers. Parking patrons enter and leave the site through a canopy structure with ticket booths (per Exhibit 2.2A) from Weeping Willow Road at an approximate elevation of 176. The site, with its boundaries secured with a chain link fence, is buffered by an earth berm that predominately runs parallel to Weeping Willow Road. The grades for the berm run from the Road below elevation 172 to elevation 178 towards the parking lot. The average elevation of the top of curb (and gutter) along the berm is 179 with a drop in elevation to 178 on the parking lot with a fall north towards the curb (and gutter) before the storm water management pond (per Exhibit 2.2B) at a predominate elevation of 164. Weeping Willow Road is accessed from and perpendicular to Ridge, the County road which fronts the site. The steep slopes (per Exhibit 2.2C) and a retaining wall that transition from the property to adjacent MAA properties fronting the site impede the view from the lot to Ridge Road (Econo 2004).

Paving with its subbase and site utilities accounted for roughly half of the initial site development costs at slightly below four million in 2005 (Application 2005). Visually, bituminous paving, not grasses and landscaping, is the predominate cover (per Exhibit 2.2D) for the site (Econo 2004). This could be a hidden asset for a site incorporating re-development as this feature with its coverage is not found on virgin sites and the index for liquid asphalt has increased significantly ($212.50 to $378.33) since
construction started in 2004 (“Monthly” 2008). The property is currently served with water (per Exhibit 2.2E) and septic. Sewer is planned for the site (per Exhibit 2.2F) (“Map” 2003; “Map” 2006).

2.3 Land Use and Zoning

The subject property (per Exhibit 2.3) is located on W-1 Industrial zoning, within the BWI/Linthicum Small Area Plan. The existing stock of zoning within the BWI/Linthicum Small Planning Area of 12,515 acres appears dominated by residential and industrial zoned areas at 48.3 and 35.9% respectively. Open space and commercial zoned areas follow these zoning categories at 14.5 and 1.3% respectively (BWI/Linthicum 2003). Industrial areas in Anne Arundel County are segregated into three classifications: Industrial Park, Light Industry and Heavy Industry. The Industrial Park (W-1) designation defines areas that “are well designed employment areas that may include ancillary commercial uses” and “are typically located in a park-like setting, with convenient access to major roads and rail.” The Light Industrial (W-2) designation defines areas that “are intended for manufacturing, processing, warehousing and storage activities” and “may require good access to rail and transportation routes to accommodate truck traffic.” The Heavy Industrial (W-3) designation defines areas that “are designed for heavy manufacturing and processing uses” and a select amount of uses with in this group require “access for transport of goods and materials.” The latter industrial designations (W2 and W3), unlike Industrial Park (W-1), require a stronger consideration of “buffer” with surrounding areas such as residential uses (General 1997a). Uses within
the Industrial Districts (W-1, W-2 and W-3) are categorized into permitted, conditional and special exception uses.

2.4 Parking

Zoning dictates parking requirements and varies depending upon use. Notable variations of (minimum) requirements include (and are not limited to): hotels and motels have 1 space for each room or unit; manufacturing, general has 1 space for every 1,000 SF of floor area; offices, professional and general have 1 space for every 200 square feet of floor area except that medical and dental offices shall provide 1 space for every 150 square feet of floor area; religious facilities have 1 space for every 3 seats (fixed seats) or 1 space for every 100 square feet of floor area (unfixed seating), whichever is greater; research offices and laboratories have 1 space for every 200 square feet of floor area; and warehouse and goods storage areas have 1 space for every 1,000 square feet of floor area. Parking requirements for a project are based on the square footage of a structure to be served based on 75% of the floor area. Per seat parking calculations are determined by the number of individual seats, with bench type seating being set in increments of twenty inches being the equivalent of one seat. Requirements for two or more uses on the property are the sum of the individual requirements for each use (“Article 18” 2007).

The availability of parking has recently surfaced as an economic development issue for Anne Arundel County, particularly the City of Annapolis. Founded in 1998, MedAssurant is a growing health care industry information technology firm looking to find a home for 500 employees. The firm considered three locations including the City of Annapolis, City of Bowie and a location in Howard County, looking for 100,000 SF with
amenities near Annapolis. After looking starting the second quarter of 2007 and set to move at the end of first quarter 2008, Bowie has been chosen by MedAssurant for expansion due to its availability, green building, visibility, affordable pricing and amenities at Bowie Town Center. The search for a new headquarters originally took the firm to the Park Place development being constructed at inner West Street. After resistance from the City (of Annapolis) in assisting with an annual parking bill of $750,000, “the company and its jobs were courted off to Bowie” and will be considered this City’s “largest private employer.” BOMI International, a current tenant at Park Place (in Annapolis), is not “surprised that higher parking rates were a dealbreaker” as “once you get here, you’re stuck with the rates that the city (of Annapolis) dictates.” Parking rates in (the City of) Annapolis are set by law to “ensure that bonds issued by the City on behalf of private investors to finance the Park Place Garage are properly paid off.” The City, identifying itself “as not a business,” has moved away from “asking residents to pay tax subsidies for parking” and claims that Annapolis has “lost between $10 million and $20 million in the past 15 years” for “under-pricing parking.” MedAssurant will keep 300 jobs at its current location at Admiral Cochrane Drive and add 50 more by the summer. Its president, Dr. Keith Dunleavy, is “planning his next expansion and will again be scouting in Anne Arundel (Arcieri 2008).”

2.5 The Noise and Height Zones

In addition to County permitted use considerations, the Maryland Aviation Administration (MAA) administers both noise and height zones, “establishing limits in addition to those in local zoning and subdivision controls.” The first Airport Noise Zone
(ANZ) and Abatement Plan was established in 1976 and updated in 1998 (per Exhibit 2.5A) "using existing and projected noise levels based upon the expected growth in aircraft traffic and the mandated usage of new or retrofitted quieter jet engines in commercial aircraft (Chapter 2 2000)." The "overlay" is considered a combination of three noise contours that are calculated using current conditions along with 5 and 10-year post certification forecast conditions. The current ANZ (per Exhibit 2.5B) was presented in September 2007 and projects the number of departures to rise from 309,801 arrivals and departures in 2005 to 359,809 and 422,773 in years 2012 and 2017 respectively. The noise level contours are described by "the annual noise metric Day-night Average Sound Level (Ldn). This Ldn is currently segmented into five-decibel increments from 65 to 75 Ldn. There are currently estimated populations of 3,304, 115 and 10 in the 65-70, 70-75 and 75+ contours respectively. In terms of households, there are currently estimated housing units of 1,355, 45 and 5 in the 65-70, 70-75 and 75+ contours respectively (2007 Airport 2007). The Federal Aviation Administration (FAA) defined the 65 Ldn decibel in 1978 as the threshold "at which the general population could be expected to tolerate noise." The American National Standards Institute holds that thresholds "above 65" are not considered "compatible with residential living (Glass and Hahn 2007)."

Studies on the impact of airports on home values are "mixed" even though the majority of studies indicate "some statistically significant negative impact attributable to noise." The impact on humans at noise levels of 65 Ldn and above has been measured with typical effects including annoyance, interference with speech and learning, and potential sleep disturbance. More severe health impacts, such as temporary hearing loss, may occur for a population at noise levels beyond 75 Ldn. As a point of reference,
normal background levels are estimated in urban areas at “approximately 50-60 decibels during daytime hours and 40 decibels during nighttime.” A 2004 study estimated “noise discount” for 23 airports in both the United States and Canada concluded both “a noise discount between 0.50 and 0.60 per decibel” and “properties would sell at approximately 10-12 percent less if located at 75 dB rather than 55 dB.” In September 2006, the Federal Reserve Bank of St. Louis found that homes located in the 70 Ldn contour “command significantly lower prices” while a comparable study of the 65 Ldn contour “were statistically insignificant (A Deeper 2007).”

The BWI Noise Abatement Plan (NAP) establishes a program to “monitor and reduce or eliminate” impacted land use areas defined by the boundaries of ANZ to “the extent feasible, while maintaining efficient airport operations.” The NAP, recognizing requirements from both State of Maryland under COMAR and Federal Aviation Regulation (FAR) Part 150, is developed and monitored by the MAA, working in conjunction with the BWI Neighbors Committee consisting of representation from eleven communities neighboring the Airport (2007 Airport 2007). The BWI Neighbors Committee holds quarterly meetings between the MAA and the community to keep an open line of communication on issues that include ground access; long-range plans; operational changes; noise; parking and land use. Another outreach program, the BWI Community Ambassadors Program consists of MAA “employees who regularly meet with residents in 20 nearby communities impacted by airport operations to exchange information on airport facilities and services.” The MAA furthers its community service with noise monitoring and assistance programs. Noise is monitored around the BWI airport with stations at twenty-three properties. With federal assistance, MAA provided
$9.3 million to four schools (completed in 1991) and $19.9 million to residents to address soundproofing. An entire mobile home park was purchased and residents relocated for approximately $10 million. Federal and State governments have spent $41 million since 1985 to relocate owners and acquire their homes (Glass and Hahn 2007). Most industrial, commercial and recreational uses are permitted within the ANZ while residential uses and community facilities including churches, libraries, schools and hospitals are not allowed, with the exception of pre-existing conditions. Developers can file an appeals process to pursue identified non-conforming uses through the Board of Airport Zoning Appeals (BAZA) provided their “proposals” meet specific “standards (“Chapter 2” 2000).”

While the MAA’s Division of Noise Abatement determines development conforms to uses permitted in an overlay, the Office of Facilities Planning performs stormwater management review, landscape review and an obstruction analysis. Both stormwater management and landscape reviews seek to determine whether these two “environmental factors have the potential to attract wildlife detrimental to aircraft flight operations.” The obstruction analysis establishes whether “any construction or equipment use within the Airport Zoning District (AZD) would obstruct airspace around BWI (Glass and Hahn 2007).” A four-mile radius around the BWI Airport, predominately located in Anne Arundel County, defines the AZD (per Exhibit 2.5C) geographically (The BWI 2005). Both Federal and State mandates govern height (per Exhibit 2.5D) as shown for the subject property. The “FAA 100:1” is considered the “max allowable to satisfy Federal Regulations.” Developers seeking to exceed this allowable height, such as the case of the subject property where the “max” elevation
identified as 196' Mean Sea Level (MSL), would be required to submit a Form 7460 to the Federal Aviation Administration. The “Allowable P77” is considered the “heights that are State requirements” found in “COMAR” and “enforced by” the MAA. As the case with “noise,” developers seeking to exceed this allowable height, such as the case of the subject property where the “max” elevation identified as 278’ MSL, would request a “variance to go higher” through “an administrative hearing” with BAZA (Nalesnik 2008a). Further noting, it has later been clarified that the “Allowable P77” for the subject property is in fact approximately a 296’ MSL (Nalesnik 2008b). Applicants seeking county “permit for development” must “first obtain an approved Airport Zoning Permit (AZP) from the MAA (Glass and Hahn 2007).” In addition to environmental and height factors, other “non-height related obstructions such as lighting” are too subject to MAA regulations (“Chapter 2” 2000).
Chapter Key Findings

- The property is in proximity to BWI (4 miles), Arundel Mills (3 miles) and Fort George Meade (5.5 miles) (2.1).

- Paving and site utilities accounted for roughly half of the initial site development costs. Bituminous paving is the predominate cover for the site. This could be a hidden asset for a site incorporating re-development as this feature with its coverage not found on virgin sites. The property is currently served with water and septic. The site is planned for sewer (2.2).

- The property is located on W-1 (Industrial Park) Industrial Zoning within the BWI/Linthicum Small Area Plan, an area dominated by residential and industrial zoned areas at 48.3% and 35.9% respectively (2.3). The Maryland Aviation Administration (MAA) administers both noise and height zones in addition to local zoning controls (2.5).

- The availability of parking has recently surfaced as an economic development issue for Anne Arundel County. A growing health care firm seeking space has also given preference for site selection to availability, green building, visibility, affordable pricing and amenities (2.4).

- The majority of studies indicate some statistically significant negative impact attributable to noise. The American National Standards Institute holds that thresholds above 65 Ldn are not considered compatible with residential living (2.5).

- The State, with Federal assistance, soundproofed four schools and residences for $9.3 and $19.9 million respectively as well as relocating an entire mobile home park for $10 million. The levels of government have spent $41 million since 1985 to relocate owners and acquire their homes (2.5).
Chapter 3  Defining and selecting the Re-development Use

Chapter Contents

This chapter will define potential re-development uses under the premise of “highest and best use.” Potential uses selected will be limited to those that are legally permissible under the current zoning. A re-development selection will be made after exploring other “highest and best use” decision criteria of physical possibility, financial feasibility and maximum productivity.

3.1  Determining the Highest and Best Use

The Dictionary of Real Estate Appraisal Fourth Edition (2002) defines the “highest and best use” as “the reasonable probable and legal use of vacant land or an improved property, which is physically possible, appropriately supported, financially feasible, and that results in the highest value. The four criteria that highest and best use must meet are legal permissibility, physical possibility, financial feasibility, and maximum productivity (Powell and Peabody 2004). In terms of legally permissible, the subject property is zoned in the W-1 district, a classification that permits a variety of uses highlighted by religious, industrial (warehouse/manufacturing), hotel and office facilities
– each remain tested by physical possibility, financial feasibility and maximum productivity (“Article 18” 2007).

3.2 Religious, a Faith-Based Option

In 1998, 14% of all community development corporations are faith-based organizations. These groups seek “large tracks of suburban land” for campus development, building schools, housing and site development for outdoor activities such as playing fields or amphitheatres. Parking is considered one of the “biggest issues” as one family of two to four will usually “drive more than one car,” more land will be needed to accommodate an extended volume of vehicles (Moreno 2005). The church itself is considered a vehicle to “transform both individuals and the society around it.”

This today is evidenced by the existence of 835 churches with a weekly attendance exceeding 2,000, when compared to two-dozen twenty years ago and ten thirty years ago. Thirty of these megachurches exceed 10,000 worshipers – a gigachurch. Three million attend megachurches when compared to approximately 900,000 worshipers ten years ago (Easum 2004). In 2007, 25% of all megachurches have more than one site and experts are predicting that by 2010, 50% of all these churches will be multi-site (multisitechurchrevolution.com). This trend and corresponding projection are moving at a “rapid” pace considering 5% of megachurches had multiple locations in 2000.

Additionally, seven of the current top ten fastest-growing churches on the Outreach 100 list (Exhibit 3.2) are multi-site churches. According to Leadership Network, 60% of multi-site churches today are likely to launch additional sites in 2008. Locally, McLean Bible Church, with its weekly attendance of 13,000, has planned to expand from its
current $93 million dollar campus to nine different campuses located around the Capital Beltway (Stetzer 2008).

Many churches are considering “the multi-site strategy” – a plan where “campuses can bring together the strengths of a large church with the intimacy of a smaller congregation.” Multi-site churches use a variety of facilities ranging from schools, warehouses, existing churches and theatres – each provide instant seating space and parking with facility advantages and disadvantages. Megachurches are steering away from constructing larger buildings in one location “to extending themselves geographically through multiple locations.” New church plants typically reach more people better, faster and cheaper than existing churches but have a short life span. Four out of five of these “plants” do not survive five years, similar to the success rate of most small businesses. This rate is surprising considering that franchises in the marketplace command a success rate of 75% due to usually being “better resourced, planned and executed.” Land and buildings are “extremely expensive” and traffic issues can be creating for local residents and users (Doyle 2008). Churches move to “smaller sites for 500 to 1,800 persons” due to the expensive of building. For example, facilities with seating over 3,000 increase the costs of children’s and worship spaces – making it costly to “build so large under one roof.” These smaller sites distribute the congregation into “metro stops (Moreno 2005).” A “major building program” for a “growing congregation” would “in all likelihood stop the church’s growth and create financial bondage for years to come.” This observation encourages a movement finding methods to use “existing buildings more effectively (Bowman and Hall 2008).” The planning of “expansion opportunities” are increasingly being challenged by jurisdictions enacting zoning laws limited the sizes of churches to
seating capacities such as 500 people (Vaughan 2005). A segment of the public states concern about churches as “many” operate every hour and day of the week – the “park” setting of twenty years ago is considered a “social agency” today. Religious uses are increasingly not encouraged in commercial zoning primarily due to no “tax revenue” being generated (Johnson 2005).

Comparatively, the Bay Area Community Center (BACC) is housed in a 67,322 SF multi-purpose worship facility built in 2006 and located on 13.35 acres. The property was purchased for $250,000 in 2000 (“Maryland” 2008). The comparable land sales researched of industrial land in the Hanover area supports “rates between $8.00 to $12.00 per square foot (Worthington 2007).” The extension of an average ($10.00/SF) comparable (undeveloped) land sales rate to this BACC site acreage would generate an approximate purchase price of just under $6,000,000. This potential price tag creates the challenge of “affordability” that moves beyond the issue of a use, while permitted, considered questionable as a “community” facility under the airport zone. Catherine Purple Cherry, an Annapolis based Architect specializing in design of buildings for non-profit entities and member of BACC, recommends the land cost alone would prohibit a comparable religious use for consideration at the subject property (Cherry 2008).

3.3 **Industrial Option**

The Route 1 / BWI Area Industrial Market (per Exhibits 3.3A and 3.3B) contains four submarkets: BWI North / Linthicum (per Exhibit 3.3C); BWI / Anne Arundel (per Exhibit 3.3D); Route 1 Corridor (per Exhibit 3.3E) and Route 1 / BWI Howard (per Exhibit 3.3F). The industrial market is further segmented by flex and warehouse
designations. The Route 1/ BWI Area Industrial Market has an inventory of 193 flex buildings with an average size of 42,177 SF, a vacancy of 12.7% and a quoted rate of $10.12. This Market also has an inventory of 441 warehouse buildings with an average size of 82,935 SF, a vacancy of 10% and a quoted rate of $5.94. The subject property is located in the BWI / Anne Arundel Submarket. For flex, this submarket contains a total of 3,120,351 SF from 72 buildings with a vacancy rate of 12.2% and quoted rate of $9.94. For warehouse, this submarket contains a total of 9,558,028 SF from 110 buildings with a vacancy rate of 8.2% and a quoted rate of $5.88 (The CoStar 2007a).

Industrial buildings are traditionally single-story when compared to the multi-story uses of hotel and office, where multiple levels of floor space still allow the subject property to maintain the adequacy of surface parking. This observation tests maximum productivity at the subject property presuming a FAA waiver on height is received. The industrial option for the subject property is too challenged by physical possibility as most facilities of this product type require “well-designed truck access, docks, and doors,” necessitating the need for an adequately sized truck apron from the truck dock (Peiser and Frej 2003).” The footprints of proposed industrial buildings and their neighboring aprons would require mass demolition of the existing parking lot, essentially being unable to utilize many existing parking spaces when compared to other uses requiring parking such as hotel or office.

3.4 Hotel Option

BWI currently recognizes thirty-five “hotels and motor inns” located in close proximity (per Exhibit 3.4A) to the airport (Terminal 2007). There are a total of 5,432
rooms found at these lodging destinations (per Exhibit 3.4B). The number of these buildings constructed by decade of the 1960s, 1970s, 1980, 1990s, and 2000s can be segmented in number of 1, 3, 9, 9 and 13 hotels/motels respectively according to (2008) Internet search sites such as Travel Post, Roadside American, and Travel Yahoo. These buildings fall under nine of the ten current lodging chain types (per Exhibits 3.4C and 3.4D): upper upscale, upscale, midprice without food and beverage, midprice with food and beverage, upper upscale extended stay, upscale extended stay, midprice extended stay, economy and budget. Only the “deluxe” type does not exist among the thirty-five buildings surveyed. Midprice without food and beverage along with midprice with food and beverage are both considered to be the current predominate chain types among the thirty-five lodging destinations at 11 and 7 respectively. The extended stay product (8 of the 35 aforementioned lodging) is segmented into upper upscale, upscale and midprice (4, 2 and 2 hotels respectively) (“Special” 2007).

Over a five-year span according to Smith Travel Associates, the Baltimore Washington Airport lodging market has witnessed a decline in occupancy rate from 80.1% in 2002 to 71.3% in 2006. The revPAR, known as revenue per available room, increased from $97.98 to $98.59 during this time. There are four new hotels under construction with a total of 538 rooms while there are six additional hotels planned for a total of 1,263 rooms, all with a scheduled complete on or before 2009 (Byrd 2007). This proposed (new and future) inventory of 1,801 rooms is one/third the magnitude of the total rooms of the thirty-five lodging destinations surveyed.
3.5 Office Option

A CoStar survey indicates 158 office buildings in the Route 1 / BWI Area Office Market. Within this market (per Exhibit 3.5A), the total contains an allocation of 52 Class “A,” 78 Class “B” and 28 Class “C” office buildings. There is a total of 5,193,943 (rentable) SF Class “A” space within the Route 1 / BWI Area Office Market at a current vacancy of 18.7% and an average gross (full service) rent of $24.50/yr. There is a total of 3,084,756 SF Class “B” space within this Market at a current vacancy of 20.5% and an average gross rent of $21.79/yr. There is a total of 382,390 SF Class “C” space within this Market at a current vacancy of 1.2% and an average gross rent of $18.36/yr. This single (and relevant local) survey reinforces that Class “A” properties are on average larger (99,994 SF) when compared to their “B” (39,548 SF) and “C” (13,657 SF) counterparts.

Route 1/ BWI Area Office Market (per Exhibit 3.5B) contains three submarkets: BWI North / Linthicum (per Exhibit 3.5C), BWI / Anne Arundel (per Exhibit 3.5D) and the Route 1 Corridor (per Exhibit 3.5E). The subject property is located in the BWI / Anne Arundel Office Submarket. A CoStar survey indicates 68 office buildings in this submarket with an allocation of 31 Class “A,” 22 Class “B” and 15 Class “C” office buildings. There is a total 3,744,165 SF Class “A” space within the BWI / Anne Arundel Office Submarket at a current vacancy of 22.3% and an average gross rent of $24.11/yr. There are a total of 645,883 SF Class “B” space within this Submarket at a current vacancy of 42.8% and an average gross rent of $20.44/yr. There is a total of 136,671 SF Class “C” space within this Submarket at a current vacancy of 2.2% and an average gross rent of $20.63/yr (The CoStar 2007b). Like the market, there is a direct correlation in
Class and average size of building in this submarket. Class “A” properties are on average larger (102,780 SF) when compared to their “B” (29,358 SF) and “C” (9,111 SF) counterparts too.

Beyond the CoStar survey, brokers weigh in on the subject market with quarterly documents that reach conclusions that vary in vacancy, class of buildings and geography. Colliers Pinkard report concludes that the “BWI Airport” market has a total stock of 114 Class “A” and “B” buildings with a total rentable area of 8,073,975 SF with a stated vacancy of 14.13%. The geography (per Exhibit 3.5F) is larger when compared to the Route 1 / BWI Area Office Market of CoStar. Yet there are less surveyed buildings in comparison. There are less Class “A” buildings (33) and more Class “B” buildings (81) when compared to the CoStar Office Market (Baltimore 2007). The sum of rentable SF for both Class “A” and “B” buildings in the CoStar Submarkets of BWI North / Linthicum Office and BWI / Anne Arundel Office closely resemble the “BWI” Market by Manekin. However with geography uncertain, Manekin’s stock of buildings (88) and vacancy rate (11.12%) is less when compared to the respective CoStar figures (107 and 19.37% respectively) (“Anne Arundel” 2007). CB Richard Ellis’s boundaries of geography (per Exhibit 3.5G) appear like no other document mentioned and their statistics for the “BWI Corridor” carry a total rentable SF of 6,394,973 (MarketView 2007).

3.6 **New Construction**

A variety of notable “major” projects are being constructed in Anne Arundel County at Fort Meade, Arundel Mills and in proximity to the BWI Airport. The
Annapolis Junction Business Park is a 200-acre office park containing 2.3 million SF of office, hotel and retail space. The first office building being constructed is a 425,000 SF permitted structure. The National Business Park Phases II and III is 178 acres of expansion on 285 acres of an existing park, home to over 25 defense-related contractors. With an economic impact of 15,000 jobs currently and an additional 15,000 jobs expected, this project includes a stock of 1.9 million SF of office completed and leased, 1.2 million SF planned for the existing park and 1.2 million SF to be built for Phase III. The Arundel Preserve, $1 billion dollar expected economic impact to be constructed over a 10-year timeframe, is a mixed-use project on 270 acres including: 1.8 million SF of office space, 443,000 SF of retail, two hotels, a high-rise condominium, and over 400 single family and townhomes (“Major” 2008).

National Business Park and Arundel Preserve join four other Anne Arundel County projects (The Crosswinds Resort, Village at Odenton Station, Odenton Town Center and Annapolis Towne Center at Parole Redevelopment) as the “Major Projects of the Baltimore/Washington Corridor (per Exhibit 3.6).” This designation spans Anne Arundel and three adjacent (Howard, Montgomery and Prince George’s) Counties with twenty-four developments expected to produce 47% of the jobs and 44% of the population in the State (“Major” 2007). Anne Arundel County Economic Development Corporation identified nearly thirty “commercial projects” of significance between “2006 – 2008.” Projects in proximity noted and not already identified include: Arundel Mills Corporate Park; Arundel Mills Mall; Arundel Overlook; BWI Hilton Park; Hillside Business Park; Parkside; Preston Gateway Corporate Park; Preston Gateway North; and Preston Partners The Mills on Dorsey Road. Arundel Mills Corporate Park has two
150,000 SF buildings (with General Dynamics leasing 62,000 SF) and 126-room hotel. Secondary development continues around Arundel Mills Mall including 25,000 SF Neiman Marcus Last Call Clearance Center; 46,258 SF Best Buy (opened in 2006); Goddard Daycare Center (opened in 2006) and pad restaurants.

Arundel Overlook, developed by St. John Properties and Somerset Construction, will contain eight flex space buildings totaling 313,000 SF on 68 acres at Dorsey Road and Route 295. BWI Hilton Park is a 27-acre mixed-use project on Elm Road (Linthicum) that includes a 280-room hotel/conference center with future expansion of an additional 60 rooms and a proposed 400,000 SF Class A office building. Hillside Business Park, located at Dorsey Road and Route 295, includes tenants Corporate Express (200,000 SF), Oceaneering Int’l (145,000 SF); Carrier Corp. (75,000 SF); and ArchivesOne (46,650 SF). Parkside is a mixed-use development at Route 175 and Route 295 (near Blob’s Park) on 244.6 acres with a proposed 1,003 residential units; 136,250 SF of retail and 408,750 SF of office space. Preston Gateway Corporate Park is a $60 million dollar development containing four industrial buildings totaling 1.1 million SF. Preston Gateway North is a development of 80 acres containing a preliminary layout of 7 buildings containing 750,000 SF of office and warehouse space. This project is located at Route 100 along Route 295 (north of Preston Gateway) and will allow for a connection between Magellan Road and Hanover Road. The Mills on Dorsey Road is an $80 million dollar project on 25 acres containing 375,000 of office space in three buildings located at Route 100 across from the Arundel Mills Mall (Boone 2006). Trammell Crow will construct approximately 15 office buildings amassing between a total of 2 to 2.5 million SF through enhanced use lease (EUL) on approximately 175 Fort Meade acres. Under
EUL, the Army applies proceeds from the development to “support facilities operations (Fickes 2007).”

3.7 Making a Choice

Which option do you choose for re-development of the subject property? Some options (industrial and faith-based) are clear to avoid while other (hotel and office) appear to be dependent on the timing of re-development. The inventory and proposed projects in both hotel and office create a void of certainty on when and what to build if a decision needs to be made in the near future. Projects, such as the Patapsco Valley Office Campus, are being built in anticipation of events to come: Transportation Infrastructure Improvements – Route 295, Hanover Road and (Old) Ridge Road; Base Realignment and Closure (BRaC) at Fort Meade; and BWI Growth including an Aerotropolis.

Despite the uncertainty on the subject of vacancies in identified neighboring submarkets, developers are continuing to deliver office product on comparable sites, even in neighboring counties such as Howard. The Patapsco Valley Office Campus, looking to “benefit from new future interchange at Hanover Road & MD Route 295 (See Exhibit 3.7A),” is a project on 10 acres consisting of four (three two-story and one single story) multi-tenant buildings located at Hi Tech Drive and Coca Cola Drive (See Exhibit 3.7B) and borders on an active railroad. Buildings A, B, C and D contain a total GSF of 48,888, 40,998, 40,998 and 12,332 respectively. The parking for the development will contain at total of 599 spaces at a stated ratio of 4.5 spaces/1,000 usable SF. The A, B and C buildings (per Exhibit 3.7C) contain “tilt-up cast panels with glass curtainwalls with solar glass” and “high-efficiency gas fired rooftop HVAC units” with “detailed zone
temperature control through terminal units in ceiling.” Building D (per Exhibit 3.7D) will be delivered as a “cold dark shell.”

This project is currently marketed as a “Class A office project in the Arundel Mills / Route 100 Submarket” and boasts a “two-mile amenity (per Exhibit 3.7E) base (Hotels, Arundel Mills Mall, Restaurants / Cafes and MARC Train Station)” and location “within five miles of major employment centers (Ft. Meade, Columbia and BWI Airport) and educational facilities (UMUC, Hopkins and UMBC) via I-95 and I-295 (“Patapsco” 2007).” The subject property could mirror (per Exhibit 3.7F) the concept displayed at Patapsco Valley Office Campus, acting as one viable potential solution.
Chapter Key Findings

- The four criteria that highest and best use must meet are legal permissibility, physical possibility, financial feasibility and maximum productivity (3.1).
- The subject property is zoned in the W-1 district, a classification that permits a variety of uses highlighted by religious, industrial, hotel and office facilities (3.1).
- Religious uses for the property are challenged by land affordability and permitted use within the Airport Zoning District (3.2).
- Industrial uses for the property are challenged by being traditionally single-story, testing maximum productivity. This use would also be physically challenged on the site through requiring mass demolition of the parking lot to accommodate the footprint of the building and the adjacent aprons (3.3).
- Hotel/lodging uses for the property are in question. The BWI lodging market has witnessed a five-year decline in occupancy rate (80.1% to 71.3%). The proposed (new (538) and future (1,263)) inventory of 1,801 rooms is one/third the magnitude of the total rooms of the thirty-five lodging destinations surveyed (3.4).
- Office uses for the property are challenged by the (overall) vacancy rate, which varies (ranges from 11.12% to 22.3%) dependent upon each respective survey and its geographical boundaries (3.5).
- While two uses appear clear to avoid (religious and industrial), the inventory and proposed projects in both hotel and office create a void of certainty on when and what to build if a decision needs to be made in the future. Projects, such as Patapsco Valley Office Campus, are being built in anticipation of events to come: Infrastructure, BRaC and Aerotropolis. The subject property could mirror this concept, acting as one viable solution (3.7).
Chapter 4 The Area Economic Indicators

Chapter Contents

This chapter will discuss area economic indicators in proximity to the subject property. Indicators explored include population, income, employment and housing. Observations within these indicators will be highlighted to support the decision for re-development.

4.1 State Population Migration

Between July 2006 and July 2007, Maryland’s population increased 0.3% to 5,618,344 based on estimates. Within the resident numbers, the population both lost 36,270 to other states and 43,205 to deaths while gaining 77,910 to births and 17,704 via immigration (Aizenman 2007). State tax records indicate that approximately 20,000 more residents moved to other designations in the country than moving to Maryland marking the “largest net loss in a quarter-century” and the “3rd year in a row of net migration loss.” Capital News Service research of Internal Revenue Service data indicates “Maryland residents are increasingly heading to areas where jobs are more plentiful.” This conclusion is reinforced through observations of Peter Morici of the University of Maryland Robert H. Smith School of Business that “Maryland’s high
regulation, high tax environment could be turning off businesses and noted that rising energy prices might also prompt residents to move south” (Becker 2007b). Moving beyond point “south,” four of the ten states (Pennsylvania, West Virginia, Delaware and Virginia) considered most popular destinations for residents leaving Maryland between 2003 and 2006 border the State. Pennsylvania, only second to Florida, has welcomed a net total of 23,145 Maryland residents over this time, more than West Virginia, Delaware and Virginia combined (three states have 17,754 new residents). A local real estate agent states “80% of his clients are Maryland residents who can find a 4,000 SF house in Pennsylvania for the cost of a town house in some Maryland Counties” and adds that “most of those leaving Maryland keep their jobs after moving north.” In some instances, these new residents commute as far as “Reston, Virginia.” This observation is supported by Mark Goldstein, an economist for the Maryland Department of Planning, who hypothesizes that “it is likely that many Marylanders are keeping jobs here and migrating across state lines to take advantage of cheaper real estate prices in Pennsylvania and West Virginia (Becker 2007a).” According to Bert Sperling of Sperling’s Best Places, “affordable housing” and the “economy” are among other (per Exhibit 4.1) determinates (such as climate, education and schools, crime, recreation, arts and culture, etc.) for establishing “your best place (“Find” 2008).”

Both Prince George’s and Anne Arundel Counties lost population for the first time in six years. This rate of county growth had been considered the second and fifth largest respectively for the State. The leading cause of reduced population appears linked to out-migration. Goldstein adds “the Census Bureau data does not identify where the residents are moving, or how many came in and out of each county.” Both Montgomery
County and Baltimore City followed suit, being impacted significantly by out-migration. This change occurring in Anne Arundel and other counties may be result of several factors including: “rising housing prices, the increasing ability of people to work and live in different places, residential building restrictions to ease school overcrowding, or laws requiring more stringent building standards.” Anne Arundel County Executive John Leopold feels the lack of affordable housing locally is “a reason why counties such as Cecil and Caroline are increasing in population so quickly.” Leopold identifies the current County growth as “the calm before the storm” – an expectation to “gain population over the next decade through BRaC (Nguonly 2007).”

From April 1, 2000 to July 1, 2006, Anne Arundel County (decrease of 1,679 residents) along with three other counties in Maryland and Baltimore City (the highest, a decrease of 64,168 residents) experienced a decline in internal (domestic) migration over this time. In fact, Baltimore City lost 130,583 residents to domestic out migration in the 1990s and this population decline has been labeled as “discouraging” considering an “annual average decline of 1.65%” at the time exceeded the historical declines of 0.66% in the 1980’s and 1.40% in the 1970’s. Montgomery and Prince George’s counties experienced the largest increases of international migration in the State and offset their significant internal migration over the period of 2000 to 2006. This international influx, considered a “significant source of population growth,” is considered consistent with the previous decade (1999-1990) where Montgomery and Prince George’s accounted for 70.5 of the foreign immigrants settling in the State. In a State that lay witness to the highest death toll recorded in its history based on both an expanding and aging population, Anne Arundel County has distinguished itself with its Baltimore Region
(Baltimore City, Baltimore County, Carroll, Harford and Howard) counterparts with the largest gain in natural net increase between births and deaths at 20,282 from 2000 to 2006 (Goldstein 2007; “Highlights” 2007).

4.2 Population and Income

The population of Maryland in 2003 ranked 19th nationally with 5,508,909. In 2002, Anne Arundel County ranked 4th in the State in population (Bureau 2005a). There appears to be no direct correlation of population in RPD 202 compared to Anne Arundel County figures with respected to age. “Pre-school” children (under five) in the planning area constitute 2.6% of the population when compared to 6.76% for the County. “School-age” children (ages 5-17) in the planning area constitute 15.1% of the population when compared to 18.49% of the County. “The college and career building years” (18-44) represent the largest segment by constituting 31.1% of the population when compared to 40.90% for the County. The “peak earning” years (ages 45-64) constitute 27.4% of the population when compared to 23.88% for the County. The “seniors” (ages 65 and older) constitute 23.8% of the population when compared to 9.97% for the County (Edgewater 2002; Community 2003c). The age composition becomes closer to representing County figures when incorporating the population figures of neighboring Community Profiles of Brooklyn Park/Linthicum; Glen Burnie; Jessup/Severn and Fort Meade (Community 2003b; Community 2003d; Community 2003e and Community 2003f).

Understanding the impact of a well-educated population on employment, the Baltimore primary metropolitan statistical area (PMSA) study of education ranked above the national average with high school diploma and bachelor’s degree according to 2000
demographics. However, Baltimore's 82% high school education and 29% bachelor's degree has been overshadowed by the neighboring Washington D.C. PMSA at 87% and 42% respectively (Boyko 2004). BWI via RPD 202 is under performing in both high school and bachelor education when compared to Baltimore at 75% and 18% respectively. Each of the neighboring Community Profiles of Brooklyn Park/Linthicum; Glen Burnie; Jessup/Severn and Fort Meade varies in both high school and bachelor's degree performance when compared to Baltimore PMSA results. Only Jessup/Severn and Fort Meade exceeds Baltimore's high school education performance at 84% and 95% respectively (both Brooklyn Park/Linthicum and Glen Burnie are 77%). With the exception of Fort Meade (29%), all other surrounding Community Profiles bachelor's degree % fall below the Baltimore PMSA (Community 2003a; Community 2003b; Community 2003c; Community 2003d; Community 2003e and Community 2003f).

The majority of the BWI/Linthicum Small Planning Area (per Exhibit 4.2) feeds into the North County system. The other schools that fall into planning area are Glen Burnie, Old Mill and Meade (BWI/Linthicum 2004). With the exception of Old Mill's performance in Government, all four schools perform below the Anne Arundel County average % of students passing in the subjects of Algebra, Biology, English and Government. While all four finish in the bottom half and three schools fall in the bottom third, North County performs last of twelve County schools in the total analysis of performance on the four academic subjects (Maryland 2007). Maryland ranked 5th in the Country with a per capita income of $37,424 and 14th in the Country with total personal income. There had been growth in these figures form 2002 of 2.7% and 3.8% in the State when compared to 2.2% and 3.2% respectively in the Country. As of 2002, Anne
Arundel County ranked fourth in the State behind Montgomery, Howard and Talbot Counties in per capita personal income at $39,273 and fourth in personal income at $19,756,050 (Bureau 2005d).

4.3 Employment

Jobs coincide with demand for real estate. A well-educated population can be the incubator for business and corresponding employment (Peabody 2005). Jobs in the traditionally democratic State of Maryland grew by 177,311 under the first term of the re-elected President George W. Bush. In fact, jobs in Maryland, which specifically added a net of 44,915 net jobs in the Baltimore Metro area, grew more under this past term when compared to his predecessor President Bill Clinton’s era, a time of national economic expansion. Ironically, Maryland as a State fairied well over the recent term considering that the net gain added 119,000 jobs in the United States over these 4 years (Basu 2005).

The labor force in RPD of BWI has reduced from 1,143 persons in 1990 to 772 in 2000, representing a decline of 32%. Each of the neighboring Community Profiles of Brooklyn Park/Linthicum; Glen Burnie; Jessup/Severn and Fort Meade faced declines in the labor force over this period of time at 5.2, 7.8, 7.6 and 29.4% respectively. With the exception of Fort Meade (armed forces), BWI and the other aforementioned communities are mostly white collar. Employment designations are segregated into manufacturing; transport/communications/utilities; wholesale/retail trade; finance/insurance/real estate; services; government and other. Year 2000 place of work employment data figures reveal that 31,740 persons were employed in the RPD, with the majority working in Transport/Communications/Utilities (25.6%), Services (22.5%) and Wholesale/Retail
Trade (21.7%) sectors. Major employers in BWI include US Airways; Computer Sciences Corporation; Allegis Group; Office Secretary Division Finance; CBS Corporation – Support Division; Northwest Airlines; Host Marriott Corporation; Signature Flight Support Corporation; and Southwest Airlines. Interestingly, each of the neighboring communities of Brooklyn Park/Linthicum; Glen Burnie; Jessup/Severn and Fort Meade each distinctly have a different employment sector leading its community: Manufacturing (35.5%); Wholesale/Retail Trade (39.9%); Services (31.3%) and Government (98.8%) respectively (Community 2003a; Community 2003b; Community 2003c; Community 2003d; Community 2003e and Community 2003f). The BWI/Linthicum planning area alone is considered “a major employment center for many people working in Anne Arundel County,” providing “nearly 20% of the jobs.” This planning area projects an increase in employment by 2015 and will “continue to be a major employment and commuter destination (BWI/Linthicum 2003).”

Maryland employment trends (as evidenced by Exhibit 4.3) saw agriculture, mining, manufacturing and trade experience downward trends between 2001 and 2003 (Bureau 2005b; Bureau 2005c). The strongest employment sector in Metro Baltimore is education, health and services, which currently accounts for roughly a quarter of the civilian workforce. Local academic and research institutions, such as Johns Hopkins, University of Baltimore and University of Maryland-Baltimore County are developing considerable space, mainly in research parks, with “considerable” state and local funding. Net profit margins on medical supplies and pharmaceuticals are among the highest for all goods and services. Per Delta Associates year-end 2003 report on the economy, biotechnology and medical research has been earmarked as “the only option we have” in
metro area (Boyko 2004). Subject to national competition, the pharmaceutical sector has been identified as the “big holy grail for economic development.” Focused on the pharmaceutical and bio-technical industries, a Baltimore-based developer and a Chicago-based developer are in the process of developing 2.5 million square feet each for office and manufacturing/industrial sectors respectively at the Baltimore Crossroads @95. This project, on approximately 1,000 Baltimore County acres, “may be the last large-scale development and the last opportunity for development to occur.” This undertaking appears to be welcomed by the “community” as it serves to be the potential driver in replacement of “all those manufacturing jobs that have been lost in recent decades (Mirabella 2004).” According to the U.S. Labor Department findings, it is expected that thirteen of the twenty fastest growing occupations between 2004 and 2014 will be related to health care (Zappala 2007).

Department of Homeland Security and defense related interest is expected to be a benefit to the office market in Baltimore-Washington Corridor due to location and more economic rents when compared to the District of Columbia rates (Boyko 2004). The presence of Fort Meade and its proximity to Washington D.C. has been an incubator for defense contractors to locate in the area “to take advantage of the increase in federal defense spending.” Owen J. Rouse, Jr. of Columbia-based Manekin, LLC supports that “NSA and Fort Meade have been driving a lot of the growth (Fieser 2004).” The Base Realignment and Closure (BRaC) Commission 2005 recommendations on military base realignment and closure process resulted in potential for net jobs gains in 22 States and losses in 28 States and three territories. Maryland, largely due to the existence of bases at Fort Meade and Aberdeen, is expected to lead states that gain with a net addition of 9,293
jobs (Donnelly 2005). Of these jobs, Fort Meade’s gain from BRaC appears to be approaching approximately 5,700 workers. In addition, Anne Arundel County projects National Security Agency growth of 4,000+ workers, Enhanced Use Lease capacity of 10,000 contractors, and additional organizations of 2,000+ workers – a growth of 22,000 additional workers expected at Fort Meade between “2006 and 2013 (Anne Arundel 2007a; Anne Arundel 2007b; Anne Arundel 2007c; Anne Arundel 2007d).” The “housing supply” is a “major driver of commercial real estate markets” and “housing affordability” remains “a key to job growth in the region (Boyko 2004).”

4.4 Housing and Household Units

The subject property is located in the Regional Planning District of BWI – RPD 202. The median housing unit value within RPD 202 increased from $132,363 in 1990 to $170,000 in 2000, representing a growth of 28.4% (Median rent saw a growth of 24.2% over this period) (Community 2003c). The latest median price is slightly below the National Association of Realtors (NAR) identified “Washington area’s 2000 median house price” of $182,600 (Boyko 2004). Comparatively, the latest median price is significantly above the Baltimore Region median housing unit value of $131,840 (in fact the 1990 value for RDP 202 was as well) (Community 2003a). The latest median price also outperforms the neighboring Community Profiles of Brooklyn Park/Linthicum; Glen Burnie; Jessup/Severn and Fort Meade. Of these neighboring profiles, Fort Meade, interestingly, experienced the only decline (of 2.6% since 1990) in median household value and the largest increase in median rent (of 81.8% since 1990) (Community 2003a; Community 2003b; Community 2003d; Community 2003e and Community 2003f).
Housing units within RDP 202 declined from 824 in 1990 to 526 in 2000, joining only Fort Meade in experiencing a decrease of housing units among the five RDP above surveyed. Also, RDP 202 pales in magnitude in terms of units when compared to Brooklyn Park/Linthicum; Jessup/Severn and Glen Burnie at 9,442; 14,075 and 18,274 in terms of stated units in 2000 respectively (Community 2003b; Community 2003c; Community 2003d; Community 2003e and Community 2003f). For 2000 in RDP 202, single-family detached made up the largest percentage of housing units at 87.3%, followed by multi-family housing at 10.8% and single-family attached 1.9%. Single-family and multi-family homes declined 23.3 and 6.5% respectively from 1990 to 2000. Mobile homes were eliminated from the planning area during this decade. Owner-occupied units in RDP 202, which accounts for 73.6% of the planning area, decreased from 654 in 1990 to 387 in 2000 (Community 2003c).

Housing, while not particularly statistically significant in RDP 202, is becoming a bigger consideration locally with “growth resulting from BRaC 2005,” increasing “development pressures in several jurisdictions in the context of what are already fairly high growth rates across much of the Baltimore – Washington, D.C. metropolitan area.” These “growth pressures” are anticipated from 2009 to 2015, a “seven-year period when BRaC housing demand is expected to be strongest.” The Maryland Department of Planning (MDP) expects a “total of 28,176 new households as a result of BRaC, 25,312 of which will locate (per Exhibit 19) in the eight-jurisdiction (Anne Arundel; Baltimore City; Baltimore County; Cecil; Harford; Howard; Montgomery; and Prince George’s) study area.” Of the these eight jurisdictions, the majority of those seeking households will “look for housing of higher cost/quality” at 54%, followed by “medium cost/quality”
and “lower cost/quality” at 28 and 18% respectively. MDP predicts that 85% of the 25,312 households “will locate within areas designated as Priority Funding Areas (PFA) or served by sewer, existing or shortly planned.” MDP also “expects household totals to be highest in Harford County (6,533, or 26%) and Anne Arundel County (4,457, or 18%)” of the eight jurisdictions, outpacing Baltimore County, Howard and Montgomery (Final 2007). With the exception of recognizing Cecil County, the findings on anticipated “household demand” predominately in Western Shore Counties (Exhibit 4.4) are interesting considering that “a growth spike is expected to occur on the Eastern Shore” from the “availability of affordable real estate.” A total of 18,500 housing units were added between 1970 and 2000 and an additional 27,000 units are expected “over the next 30 years,” representing an expected increase of 150 percent (Task 2006).
Chapter Key Findings

- In terms of State population, Maryland’s population suffered its largest net loss in a quarter of a century and its third consecutive annual net migration loss (4.1).

- Maryland’s high regulation, high tax environment could be turning off businesses, as well as high energy prices might prompt residents to move. Marylanders are keeping jobs here and migrating across State lines to take advantage of real estate prices (4.1).

- The “college and career building (18-44) years” represent the largest segment by age in Anne Arundel County at 40.90% (4.2).

- The majority of the BWI/Linthicum Small Planning Area feeds into the North County school system, which performs last of twelve County schools in the total analysis of performance on the subjects of Algebra, Biology, English and Government (4.2).

- Anne Arundel ranked fourth in the State in per capita personal income (4.2).

- BWI and the other neighboring communities are mostly white collar. The majority of persons employed in BWI work in Transport/Communications/Utilities (25.6%) and Services (22.5%). The BWI/Linthicum planning area alone is considered a major employment center in the County, providing nearly 20% of all jobs (4.3).

- The strongest employment sector in Metro Baltimore is education, health and services. Thirteen of the twentieth fastest growing occupations between 2004 and 2014 will be related to health care (4.3).

- Department of Homeland Security and defense related interest is expected to be a benefit to the office market in the Baltimore-Washington Corridor due to location and more economic rents when compared to the District of Columbia (4.3).

- BWI housing units are in decline and pale in comparison to its neighboring districts. The BWI average median housing price outperforms its neighboring districts (4.4).
Chapter 5  The Area Economic Engine

Chapter Contents

This chapter will study the Baltimore/Washington International Thurgood Marshall Airport (BWI). The airport, located in Anne Arundel County in close proximity to the site, is considered to be an area economic engine. The study will include research on the airport’s history including the timeline of improvements, flight trends in passengers and freight, competition and industry trends.

5.1 BWI Marshall Airport

Baltimore/Washington International Thurgood Marshall Airport (BWI), situated on approximately 3,596 acres and recently (2005) named in honor of the late United States Supreme Court Justice and Baltimore native, is an important economic engine for the State of Maryland considering its business revenue of $5.1 billion and its employment of approximately 11,000 people (489 employees at the Maryland Aviation Administration (MAA) and 10,659 (full and part time) employees (with badges) at BWI). In terms of macro employment, BWI Airport is considered responsible for a total of 99,913 direct/induced/indirect jobs (“BWI Timeline” 2007). Owned and operated by the MAA, BWI houses 850 operations, flies 350 daily nonstop departures with 73
destinations, and currently services approximately 20.7 million passengers in 2006 with the projection 30 million passengers by 2023 (Lins 2007). As of 2007, forty-eight airlines, in either commuter, charter or cargo capacities, use BWI. Of the daily operations as of July 2006, there are 692 domestic passenger flights, 22 scheduled international non-stop flights, and 24 cargo flights (Glass and Hawn 2007).

Dedicated in 1950 by President Harry Truman, the airport opened under the name of Friendship International Airport and was subsequently renamed Baltimore/Washington International in 1972 when the State of Maryland purchased the site from the City of Baltimore. In 1975, the Maryland Aviation Administration began a “modernization and improvement plan” that has led to three consecutive decades of expansion. By the close of the 1970’s, BWI expanded with a modernized terminal building complete with enlarged piers A and E to house departure gates, upper and lower level roadways, and the addition of three piers: B, C and D. Pier D expanded in 1983 with 12 new gates upon the arrival of Piedmont Airlines. This pier, renamed D/Y, became modified with 8 departure gates and a 17-gate commuter terminal in 1987 to accommodate Piedmont’s growth.

In the decade of the 1990’s, BWI expanded with an international terminal with light rail service; an upper level roadway extension; and an addition to the parking garage in front of the terminal. The arrival of Southwest Airlines in 1993 prompted the addition of six gates at Pier C and an extension to Pier B in 2000. The turn of the century has began with a six-year wave of expansion through improvement to the incoming and outgoing roadway system; a consolidated rental car facility; a new 8,400-space daily parking garage; and the completion of Concourse A and B. Completed in 2003, the consolidated rental car facility includes operations for eight rental car facilities. The
8,400-space daily parking garage was completed the following year and implements the “smart parking” technology that allows patrons to monitor availability, making “easier and faster to find a parking space” (“Parsons” 2007). The “smart parking” technology is “the first automated parking guidance system in North America” (Lins 2007). Construction of Concourses A and B were completed in 2005 and 2006 respectively. This expansion replaced demolished Piers A and B, accommodates additional passenger screening and security checkpoints, and created a 26-gate terminal for Southwest Airlines (“Parsons” 2007). With the completion of the five-year $1.8 billion dollar “Improvement and Expansion Program,” the BWI currently consists of 45.4 acres of passenger terminals; 70 jet gates; 12 commuter aircraft gates; cargo facilities including a 395,000 SF Air Cargo Center; 25,600 regular parking spaces and 7,500 overflow parking spaces.

BWI is presently committed to Southwest Airlines, the “predominate air carrier” representing over half (50.5%) of BWI’s passengers flying in and out of the airport as of September 2006 (Glass and Hawn 2007). The continued success of Southwest appears paramount for BWI considering the commitment made during the “Improvement and Expansion Program.” Southwest Airlines currently has the second highest Airline Domestic Market Share at 12.1% according to Bureau of Transportation Statistics (“Bureau” 2007). The Airline Quality Rating annually judges airlines, such as Southwest, as a measurement tool considered to be “an objective method for assessing airline quality on combined multiple performance criteria.” The rating emphasizes “15 elements in four major areas that focus on airline performance important to air travel consumers.” These major areas are on-time performance, involuntary denied boardings, mishandled baggage reports, and consumer complaints. In addition to exceeding average
industry performance indexes in timeliness, boarding and baggage, Southwest “is consistently the airline with the lowest customer complaint rate in the industry (Bowen and Headley 2007).”

5.2 Passengers, Cargo and Non-airline Revenues

In 2006, the Baltimore / Washington metropolitan’s three major airports BWI, Dulles and Reagan had total passengers of 20.7, 22.8 and 18.5 million respectively, totaling 90.3 million in the region. Over a five-year period (2002 to 2006), BWI, Dulles and Reagan experienced an 8.9%, 33.6% and 44.1% growth passenger rate respectively (Economic 2007). Over a ten-year period (1997 to 2006), BWI, Dulles and Reagan experienced a 46.8%, 65.8% and 16.6% growth passenger rate respectively. Over a fifteen-year period (1992 to 2006), BWI, Dulles and Reagan experienced a 135.2%, 97.8% and 18.9% growth passenger rate respectively (Woolsey 1998). Comparatively, Philadelphia International Airport (PHL) had a total of 31.8 million passengers in 2006, a 150% increase from 1986 (“Center” 2007). Over a five-year period, PHL Airport experienced a 28.1% growth passenger rate.

Beyond consistent passenger growth over an extended period of time, PHL Airport has experienced a net decline in cargo from 2000 to 2006 (“PHL” 2007). Also during this timeframe, all Baltimore / Washington metropolitan airports have experienced a net decline in cargo (freight and mail) growth (“Passenger” 2008; “Ronald” 2007; “Washington” 2007). The decline comes after a decade where Dulles and BWI experienced new growth of 104.5% and 49.9% respectively in pounds of freight (Richmond 2001). However, the pattern of decline is a consistent occurrence at Reagan,
as the airport has seen its freight weight drop from 138 million pounds in 1982 to 83 million pounds in 2000. At the close of 2006, total freight at Reagan has dropped to under 8 million pounds (“Ronald” 2007). In the case of the four aforementioned airports, there appeared to be no direct correlation between the aftermath of September 11, 2001 and performance of airport cargo measured by weight. Between 2001 and 2002, weight increased at PHL and BWI while decreasing at Dulles and Reagan (“Passenger” 2008).

The Metropolitan Council of Governments conducted a survey of passengers as late as 1998 from BWI, Reagan and Dulles Airports. The study segments passengers by trip purpose with the following categories: Federal business, State business, private business, vacation, personal/family, student/school and other. Regardless of segmentation (business versus non-business), passengers show “strong preferences for using convenient airports and flying low-fare carriers.” Unless airlines offer low-fares, it is “unlikely that business or leisure passengers will travel to a “less convenient” airport for service, frequent flyer plans notwithstanding.” Other similarities for both sets of passengers include “checking about the same number of bags” and “the distribution of parking requirements,” whether it be arrival by taxi or rental car, not parked/dropped off, private off-site operators, long term/satellite parking, premium parking and short term/hourly parking. Non-business passengers at BWI, Reagan and Dulles accounted 57.6%, 45.9% and 51.4% of the total passengers in the study. Southwest, the leading Carrier at BWI, has a higher percentage of non-business travelers in the study when compared to other carriers and has a lower percentage of business travelers when compared to other carriers. “Lost cost” carriers appear “more likely to attract a higher percentage of non-business” passengers when compared to “network carriers. The non-
business passenger, when compared to the business passenger, have shown tendencies to fly less frequently, arrive at the airport earlier, require more terminal space, require more parking space, appear to be less of a burden on security lines, be more likely to require more assistance from ticket agents, be less likely to use automated ticketing machines, be less likely to be a last minute arrival, and be likely to spend more on food and services (Dresner 2005).

The "patterns of airport passengers" have been "greatly altered" since the terrorist attacks of September 11, 2001. Security changes have required passengers to "now arrive earlier to get through security checkpoints and have more reason to eat before they get on a plane since they're less likely to be fed in the air." In 2002, BWI ranked 37th among domestic airports in concession revenue per passenger. The "Improvement and Expansion Program" brought the expectations of the eventual expansion of the "shopping and eating space" at BWI Airport from 60,000 to 120,000 SF with projected revenues of $11 million in annual revenues starting in 2006, up from $7 million in 2004. BWI hired BAA USA Inc. under a 12-year agreement to "operate retailing" at the airport. BAA, an owner and operator of several airports in the United Kingdom, created the concept of "Airmall" in the United States where "spaces are leased to national chains as at a mall" with operator and airport sharing the proceeds (Walker 2005).

The "Airmall" at BWI currently contains "57 shops, restaurants and service providers (Hosmer 2007)." The concept is seen as a "challenge for retailers" due to "shopping" not being considered as "the first priority for most travelers" as passengers navigate through the airport "to board their flight." Adding to the business versus non-business segmentation, airport retailing further focuses on other characteristics of the
passenger such as gender or whether the person is traveling internationally versus domestically. Airports distinguish themselves from the traditional mall through “access to a rapid turnover of thousands of people” and commanding “up to $1,500 per square foot in annual sales, roughly five times the average $250 to $400 per square foot at a regional mall.” Airport passengers are being targeted as the “nontraditional shopper” with generalities such as “more men shop in airports than women” and “an airport with large international traffic will have passengers with more layover time to browse.”

Airport retail may emphasize “quick service” and “extensive shipping services” for those passengers looking to catch their flight and limit carry-on packages. Southwest, the “predominate air carrier” at BWI, may present a significant challenge to the “Air Mall” concept at the airport as “passengers tend to get in line early” with the policy of “no assigned seating (Walker 2005).” Retail concessions are one of several forms of non-airline revenue generated for airports. Parking, followed by rental cars among others, is considered to be “the number one non-airline revenue source” by the “majority of airports.” Airports are now being forced to “diversify service offerings” to counteract “increasing off-airport competition (Thompson 2007).”

5.3 Flying Forward

The airport is a transportation system considered “particularly prone to risk” as “people usually do not travel for traveling sake.” Its “success” appears dependent upon factors such as “demand for tourism and business, to general economic inputs such as regional GDP and income per capita, to oil and gas prices, and to general shifts in customer preferences (Chambers 2007).” According to the FAA, terrorism is identified
as the “greatest risk” in forecasting the aviation industry towards 2020. In the short term, the “health of the commercial aviation industry” is gauged by both “the price of jet fuel” and the “health of the economy.” With a cost of $8.9 billion in 2006, the higher price of fuel offset any gains network carriers made in “reducing operating costs.” Domestically, economic growth may limit the demand for aviation services should the dollar be weaker, housing downturn grows and increases in oil prices, and both inflation and employment continue. In addition to the local economy, the strength of international flights depends upon “global economic activity” and “loosening of international regulatory constraints” such as “bilateral agreements between the United States and European Union.” Looking ahead, the aviation industry is expecting increases in both the “average size of domestic aircraft” and air traffic through the introduction of Very Light Jets (VLJs), less expensive twin-engine microjets looking to “redefine on-demand air taxi service.” The mix of aircraft “operating at most hubs” will create challenges of “complexities of the national airspace system” and the increased potential for delays. Despite these challenges ahead, the FAA expects the commercial aviation industry “to grow significantly (“Forecast” 2007).”

BWI Airport annual enplanements are “forecasted to reach 23 million by 2030, an increase of 134%” from 2000. Dulles and Reagan National are forecasting over the thirty year time frame increased enplanements as well over this timeframe as well at 227% and 35% respectively. Collectively, the volume of air traffic is projected to increase at a pace of more than 140% at these three region airports over this time frame. Local air passenger origins are expected to exceed 200% in Anne Arundel County, western Howard County, the majority of Frederick County; and southern Charles County. Less
order of magnitude growth (50% to 200%) is expected in Baltimore City, Baltimore County and Carroll County during the aforementioned forecast period. In comparison of the three region airports, most of these “originations” are in closest proximity to BWI Airport (Mohommed 2007).

5.4 The Flight of Competition

BWI Airport’s slogan “easy come, easy go” states “a commitment to making travel easy” – both air travel and the trip to and from the airport. In addition to the recent six year “Improvement and Expansion Program,” BWI looks to improve the passenger experience through “using and investing in technology.” Beyond the automated parking guidance system, the airport has variable and dynamic roadway signage; flight status information available via the web and interactive voice response system; a “state of the art” Flight Information Display System (FIDS) with both weather and flight tracking information; and development of an “Automated BWI Ground Transportation and Trip Planning System.” The latter system will be accessed through the BWI website with “elements” that include: drive time, directions and mapping; BWI area hotel information; and the rail schedule, station location, rates and connection information. The emphasis on the “passenger experience” and “technology” ties to BWI Airport’s identity as “An Inter-modal Facility” that brings “together easy access to and from I-95, AMTRAK, MARC & Light Rail services in one convenient location between Baltimore and Washington.” BWI is looking towards a “Catchment Area” where competition would continue with Dulles, Reagan and Philadelphia International Airport and a radius of influence would extend to Airports as far north as Harrisburg, Pennsylvania and as far
south as Richmond, Virginia. Approximately 60% of the BWI passengers currently “live outside of the Baltimore Region.” Beyond Baltimore metropolitan area’s share of 41%, BWI customer base is primarily segmented into Washington DC metropolitan, southern Pennsylvania, and Delaware/New Jersey/Eastern Shore regions at market share percentages of 44%, 10% and 4% respectively (Lins 2007).

This current allocation of market share indicates in recent years that BWI passengers are increasingly coming from the Baltimore metropolitan area, even though the majority remains in the Washington DC metropolitan area. A “ground-level transportation survey” at BWI between December 2002 and January 2003 by the Baltimore Metropolitan Council studied three activities for the MAA marketing and multi-model access plan in order to “identify the originating jurisdictions of BWI users:” a license plate survey of vehicles parked in BWI lots; a survey of transit riders; and a survey of demand responsive transportation user services such as limo, shuttle and taxi riders. A four-day parking lot study of 16,002 vehicles found that BWI passengers “live in and around” the Washington metropolitan area, Baltimore metropolitan, southern Pennsylvania and Delaware at shares of 47%, 28.9%, 14.4%, and 7.9% respectively. The Washington metropolitan and Pennsylvania shares increased from the figures 44.6% and 12.4% stated respectively in a 2001 study. The more recent study also found that of the Maryland jurisdictions, Montgomery and Baltimore counties had the largest share of passenger percentage at 12% and 8% respectively (“Who’s” 2003). Geographically, BWI is the closest major airport to the majority of Maryland County Seats when compared to Dulles, Reagan and Philadelphia International counterparts. Of the 23 counties and Baltimore City, 14 jurisdictions are closest to BWI in terms of mileage and
expected driving time, followed by Reagan, Dulles and Philadelphia at 5, 4 and 1 respectively. Seventeen of the twenty-four jurisdictions’ (per Exhibit 5.4) county (city) seats are separated by an expected driving time of less than a hour and a half. Nine of the aforementioned seventeen seats are within an expected driving time of less than an hour ("Mapquest" 2007). This is particularly significant considering a study found that a survey of “BWI passengers” found their “first choice for choosing” the airport was mostly based on BWI being “the closest airport” when compared to other reasons including: the only airport with non-stops, only airport serving market, more convenient flight times, easy road access and less expensive airfare (Dresner 2005).

In terms of transit use, the second study, also over a four-day period, indicated that 50% of the 1,402 public transportation users surveyed are BWI passengers (equally split between business and non-business) while 31% of users work at or around BWI. This survey, conducted over BWI’s six public transit routes (B30 Express Bus, Red Express Bus, Local Bus #17, Light Rail, Amtrak/MARC Shuttle, and Sky Blue Bus), concluded that the Baltimore City is the “most popular origin or destination” of public transit users among the Baltimore metropolitan area at 68%, followed by Baltimore and Anne Arundel counties at 13% and 11% respectively. Approximately one third of the riders in this study consider the District of Columbia and surrounding metropolitan area a point of origin or destination. In terms of demand responsive transportation, the largest percentage of 8,120 users surveyed came from Baltimore City at 48% (“Who’s” 2003).

In terms of flying, passengers must choose both “an airline and an airport for their travel.” Traditionally, research from the past thirty plus years indicates distance to the airport, frequency of service, fare and access time as “determinates of airport choice.” In
2000, a phone survey questioned 1,100 residents in the Philadelphia market region studying the Philadelphia International Airport and its three competitors: BWI (smallest sized competitor), JFK International, and Newark International (largest sized competitor). The study found that the “choice of airline” is a strong consideration for choosing PHL or BWI, who both at the time had the least amount of air carriers at the time. Passengers in higher income groups are more likely to choose BWI over JFK primarily due to “the opportunity cost of their time.” With public transit remaining “very good” to distant airports from Philadelphia, BWI distinguishes itself in the study of the three competitors with the “importance of parking” and “importance of waiting time” being stressed by the participants. At the time, BWI has the most parking while Philadelphia International had the “least parking” and the “worst parking situation by reputation.” The availability of both international flights and non-stop service “was not important among those choosing” BWI, which had the least of the four airports compared at the time. In conclusion, the survey adds other elements such as income, use of competing airports, convenience of parking and availability of international flights are too “significant determinates of airport usage (Blackstone, et al. 2006).”

Another form of passenger survey, Philadelphia International Airport recently has been ranked number one in AXE’s Best Airports for “Making a Connection.” AXE, considered “a leader in men’s grooming and known commentator on the chemistry between 18-24 year old guys and girls,” joined with Sperling’s BestPlaces “to commission a study targeting the Country’s largest metropolitan airports and unveiled some surprising results.” According the survey, PHL, now coined “Airport of Brotherly Love,” garnered its recent ranking due to being recognized for “some of the nation’s
longest and most frequent flight delays (32 percent of all flights, averaging 60 minutes),” allowing one to “hang your hat in one of 16 bars and seven lounges or grab a cheese steak at one of 57 restaurants.” Dulles, Reagan National and BWI followed Philadelphia’s lead ranking 4, 19 and 20 respectively among the thirty-seven metropolitan airports surveyed (“Best” 2008). Secretary of Transportation Mary E. Peters stresses the need for improvement in the United States air traffic control system as “delays” in 2006 “reached an all time high and now cost the nation’s economy over $10 billion annually (“FAA” 2007).”
Chapter Key Findings

- BWI is an important State economic engine for its business revenue of $5.1 billion and being responsible for 99,913 direct/induced/indirect jobs (5.1).

- Significant capital improvements at BWI span the past four decades (5.1).

- BWI is currently committed to Southwest Airlines as the “predominate air carrier,” representing over half the passengers flying in and out (5.1). Passengers in the metropolitan area show a strong preference for using convenient airports and flying low-fare carriers. Southwest attracts a higher % of non-business travelers (5.2).

- BWI, when compared to Dulles and Reagan, ranked first, second and third in passenger growth over the past fifteen, ten and five years respectively (5.2).

- These three metropolitan and Philadelphia International (PHL) airports have experienced a net decline in cargo (freight and mail) in the past five years. This occurrence comes a decade after Dulles and BWI experienced steady growth (5.2).

- Parking, followed by rental cars among others, is considered to be the number one non-airline revenue source by the majority of airports (5.2).

- Airports are dependent upon the demand for tourism and business, regional GDP and income per capita, oil and gas prices, general shifts in consumer preferences, avoiding terrorism, global economy, loosening international regulatory constraints, emerging technologies and minimizing delays (5.2). BWI, when compared to the three airports (PHL, Dulles and Reagan), ranks last in delays that in part burden the Nation’s economy $10 billion annually (5.4).

- BWI annual enplanements are forecasted to reach 23 million by 2030, an overall increase of 134%. Dulles and Reagan project at 227% and 35% respectively (5.3).

- The majority of the BWI passengers live outside of the Baltimore Region (5.4).
Chapter 6  Transportation Infrastructure Network

Chapter Contents

This chapter will explore infrastructure at and areas leading to the airport and immediate surrounding areas. Development at the airport is controlled through master planning. Development in proximity to the airport, as the case of the subject property, is influenced by the master plan and improvements through infrastructure.

6.1  Anticipating the Airport Master Plan

Master planning “provides a standard for airport development.” Common elements of a master plan in order of its development include:

1).  *Current environmental survey*;

2).  *Aviation activity forecasts*;

3).  *Evaluation of airport alternatives*;

4).  *Facilities implementation plan* and

5).  *Financial analysis*.

A current environmental survey revolves around an assessment of “existing conditions” with focus on “factors” that include “environmental restrictions, regional socio-economic indicators, an inventory of political players, and a description of the geographic location.” Aviation activity forecast is considered “central” to planning and
requires in some form “speculative data on aviation activity in terms of the number of airport operations, passenger types and aircraft mix over the short term (5 years), medium term (10 years) and long term (over 10 years).” The Federal Aviation Administration (FAA) encourages that the master plan “account for future trends in regional business and economic activity, the activity of competitor modes of transportation, and possible future trends in aviation including airline mergers and new aircraft technologies.” Other factors of consideration include “average amount of leisure time, favored recreational activities, and the level of disposal income per capita” along with “the distance between urban centers in the airport region, influence of local politics and taxes, fuel costs and shifting attitudes toward air transport.”

Evaluation of airport alternatives entails planners “focus on creating different strategies for accommodating predicated level of activity” through accounting for “the capacity required for the airfield, airspace and airport landside.” Facilities implementation plan is communicated through two documents, an airport layout plan (ALP) and capital improvement plan (CIP). The ALP, considered a “blueprint for airport development,” reveals land use in proximity to the airport and is “a graphic representation of the expected evolution of facilities over the airport lifetime.” The CIP is “a description of all planned airport facilities, settles on dates for their construction and opening, and assigns activities and responsibilities to key stakeholders.” Financial analysis follows completion of the CIP with a determination of the “sponsor’s ability to fund the airport project based on an accounting of various funding sources and an analysis of expected cash flows.” Construction will move forward provided the master plan will “survive” both the availability of funding and public approval. The concept of
master planning is challenged with “the ability to predict even 15 years ahead” being
“questionable” and that “no single forecast can be entirely correct” with “small disparities
in assumption” carrying the potential to “yield large differences (Chambers 2007).”

The challenges of “master planning” move beyond projections, particularly in the
case of open “lines of communication” between MAA (the authority of BWI Airport) and
Anne Arundel County. The County, through its associated Small Area Plan, recommends
that “the MAA should create and adopt a program to inform, educate, and answer the
public’s questions and concerns about BWI Airport plans, facilities and operations”
through the creation of a program identified as Neighborhood Information and
Communication Exchange (NICE). The County SAP also projects that BWI Airport
“will expand significantly beyond its current boundaries” over the “next ten to twenty
years (BWI Linthicum 2003).” The current stock of MAA/FAA properties south of the
proposed Hanover Road connection between Route 295 and Aviation Boulevard (per
Exhibit 6.1A) supports this conclusion (Schuman 2008). Developers of property adjacent
to these parcels will be challenged with “uncertainty” should open “lines of
communication” between the County and community with MAA remain in question.
The recent completion of the five-year $1.8 billion dollar “Improvement and Expansion
Program” marked closure to the first phase of improvements outlined in the ALP for BWI
(per Exhibit 6.1B) where a “proposed construction time frame” is categorized in four
projected increments of time: before 2005, between 2005 to 2010, between 2011 to 2020
and after 2020 (Airport 2003). Access roads have been “widened” to “support terminal
and concourse expansions.” The “Terminal Entrance Roadway Improvements are aimed
to relieve traffic congestion including a noted “bottleneck at Elm Road to MD 170.” A
study is in progress for proposed construction of a “people mover system” that would serve the purpose of connecting the terminal building to the support entities of the BWI rail station, the consolidated rental car facility and public airport parking facilities (Mohammed 2007). Through a Congressional mandate on airports, the current Runway 15R 33L at BWI Airport does not meet “the required 1000’ extension” standard to be met by 2015. Prior to an environmental assessment on the matter, MAA identified a “preferred alternative” to be the “tunneling of Dorsey Road underneath what would be the extended safety area.” A parallel runway, identified on the master plan since 1987, is projected to be considered by “2020 or 2025” as an additional runway in response to increased air traffic (Baltimore/Washington 2006).

6.2 Transportation Infrastructure Assessment

Light rail service to and from Baltimore connects directly to BWI airport terminal. Amtrak and MARC train service are available from both Baltimore and Washington through the BWI Rail Station and a link from the station to the terminal via shuttle service. Regular Metrobus services connects the Metrorail Green Line to BWI. Interstate 95 opened in 1990 providing “direct” vehicular access between BWI and Interstate 95. Super Shuttle ground transportation service opened in 1995 providing access to Annapolis, Baltimore and Washington. Buses, van, limousines and other vehicles provide access to other portions such as southern Maryland. It is anticipated that the InterCounty Connector (ICC) will improve access for passengers traveling from western Washington area suburbs (Glass and Hahn 2007). The ICC, the proposed 18-mile “state of the art multi-modal toll facility,” will move forward in 2008 and when
complete will be “one of the greenest highways in history.” A United States District Court judge recently upheld decisions of State approval in 2005 and corresponding Federal approval in 2006 by denying “legal attempts by environmental groups” to halt construction (Edgar et al. 2007). Estimated in 2005 to cost $2.4 billion to complete, the ICC (per Exhibit 6.2A) will is considered to be a essential “link” between the “thriving business community that runs along I-270” and “I-95” access to BWI and the Port of Baltimore (Ginsberg and Shaver 2005).

According to a 2005 Washington-Baltimore Regional Air Passenger Survey date, an overwhelming majority (93%) of the “originating air passengers used modes of transportation” to the three commercial airports “travel by way of the highway network” via the automobile (private cars, rental cars and taxi cabs). With passenger growth expected between 2000 and 2030, the need for progression in “facilities/ground access issues” will become a “priority” considering the “highway network” has “a significant impact on ground access to the region’s three commercial airports.” The “regional ground transportation system” will need to “maintain quick and efficient access” for patrons (local residents, business travelers and visitors) to ensure continued viability of the three commercial airports (Mohammed 2007).

Anne Arundel County established a goal of “upgraded road and transportation systems in the area” in the BWI/Linthicum Small Area Plan (per Exhibit 6.2B) released in 2003. Several “recommendations” would have an influence on the subject property as potential improvements (per Exhibit 6.2C) are emphasized on Ridge and Hanover Roads and Route 295:

- **Reconstruct Ridge Road as a Parkway form New Ridge to the BW Parkway.**
• Provide a new interchange at the Baltimore-Washington Parkway and Hanover Road. This would serve the planned industrial park development west of the BWI Airport as well as the new employee parking and car rental facilities and the Airport.

• In coordination with MAA and SHA, conduct feasibility and design studies to determine right-of-way needs, alignment, design and phasing improvements of Hanover Road between Howard County and MD 170.

Other Anne Arundel County improvements recommended on or in proximity to Route 295 – Baltimore-Washington Parkway include:

• Improve the MD 295 Interchange at West Nursery Road to reduce traffic congestion in the vicinity of this interchange.

• Widen and straighten Nursery Road from Hammonds Ferry Road to MD 295 bridge. This would create a better access to business and hotel areas in the BWI area.

• Widen the Baltimore-Washington Parkway to three lanes in each direction between MD 175 and I-695.

The Baltimore Regional Transportation Board (BRTB) through its “Transportation Outlook 2035 (November 2007)” identified both “committed” and “preferred alternative” projects. Projects that will be completed by 2012 are deemed “Committed” while “Preferred Alternative” projects are “based on reasonably available funds between 2013 and 2035. In terms of “Committed,” Anne Arundel County has no
identified projects while “regionally” – MD 295 (per Exhibit 6.2D) will “widen from 4 to 6 lanes” from “I-695 to I-195” between 2008 and 2012. In terms of “preferred alternatives,” it is estimated MD 295 (per Exhibit 6.2E) will “widen from 4 to 6 lanes” with a “full interchange at Hanover Road” from “I-195 to MD 100” and “open” by year “2015 (Transportation 2007).” Additionally, the Transportation Improvement Program (TIP) identifies these two aforementioned projects with anticipated timing, cost and rational for federally-funded transportation improvements to be made” in the coming years respectively. Transportation Outlook 2035 reports on “regional growth” and “demonstrates how the existing and committed (2008-2012) transportation network will be inadequate to accommodate future travel demand in an acceptable manner to ensure regional mobility objectives.” This report “includes a range of projects through the year 2035” to “address the projected demands of the transportation system (Baltimore 2007).”

The Maryland Department of Transportation has earmarked twenty six BRaC related-projects in the “$8.5 billion draft Fiscal Year 2008-2013 Capital Transportation Program and the Maryland Transportation Authority’s $4.3 billion six-year capital program.”

Complete funding is in question, as the State has currently “allocated” only $1.6 billion for these projects (Berkheimer 2008). While the State Highway Administration has started “looking” at the proposed Route 295/Hanover Road Interchange, a study on the matter “does not have funding for design, construction, or right-of-way.” The proposed interchange would encompass improvements to Hanover Road from High Tech Drive in Howard County to MD 170 in Anne Arundel County. Hanover Road would encompass a typical section of two lanes in each direction with a twenty-foot median with further
consideration for a trail on the northbound side and a sidewalk on the southbound side (Baltimore/Washington 2006).

A traffic study conducted at the intersection of Old Ridge Road and Stoney Run Road in 2006 indicated Average Daily Traffic (ADT) of approximately 3,000. The stated ADT “should increase significantly” with “numerous planned developments” in the area (Hohman 2006). A MD 175 Project Planning Study indicated ADT for roads near the interchange MD 175 and MD 295 in 2004. These roads immediately off this interchange found ADT near 30,000 (MD 175 2006). These roads with immediate access to a Route 295 interchange achieve approximately ten times the amount found recently at the Old Ridge Road @ Stoney Run. These findings provide a potential order of magnitude expected upon the arrival of the Hanover Road and Route 295 interchange. This exponential increase through the completion of an interchange in close proximity to the subject property would allow consideration for development types such as self-storage not currently justified in being comprehended. For example, successful self-storage development considers both “visibility” and “traffic counts between preferably 40,000 and 60,000 cars per day” (ADT) to be “the most reliable predictors of success (Rogers and Knutson 1996).
Key Chapter Findings

- Master planning provides a standard for airport development. Aviation activity forecasting is considered “central” to planning and requires speculative data in terms of the number of airport operations, passenger types at 5, 10 and over 10 years (6.1).

- The BWI Small Area Plan projects that BWI Airport will significantly expand beyond its current boundaries over the next ten to twenty years (6.1).

- Developers of property adjacent to MAA/FAA parcels will be challenged with uncertainty should “open lines of communication” between County and community with MAA remain in question (6.1). Improvements on (Old) Ridge Road, particularly along these MAA controlled parcels, maybe continually challenged (6.2).

- The tunneling of Dorsey Road has been identified as the preferred alternative for the Federally required 1000’ extension of BWI Runway 15R 33L by 2015 (6.1).

- An overwhelming (93%) majority of the originating air passengers used modes of transportation to the three local commercial airports (BWI, Dulles, Reagan) by way of the highway network via automobile (6.2).

- Roads with immediate access to a Route 295 interchange have been found to achieve approximately ten times the current traffic found in close proximity to the site (at the intersection of Old Ridge Road and Stoney Run Road). In addition to the Route 295 Hanover Road Interchange expected by 2015, the County, thru the BWI SAP, recommends improvements to (Old) Ridge Road and Hanover Road (6.2).

- The Maryland Department of Transportation (MDOT) has earmarked twenty-six BRaC related projects in the $8.5 billion draft fiscal year 2008-2013 Capital Transportation Program and Maryland Transportation Authority’s $4.3 billion six-year capital campaign. The State has allocated $1.6 currently for these projects (6.2).
Chapter 7  Creating Funding for Infrastructure

Chapter Contents

A funding vehicle, such as Tax Increment Financing (TIF), is designed to support local government infrastructure and utility projects. This chapter will explore an economic tool that may be deemed appropriate for both an area in an anticipation of growth (BWI/Linthicum and neighboring areas) and (potentially) lacking government support for infrastructure funding (as the case for the State of Maryland with its current shortfall). The Route 100 Development District is one local and recent case study implementing the TIF strategy. The discussion will also include current (Odenton Town Center) and proposed (Aerotropolis at BWI) mixed-use concepts that may require and/or benefit from the enactment of such an economic tool.

7.1 The Route 100 Development District

Arundel Mills, a $230 million project at the time of its opening consisting of 1.3 million square feet of retail, is located on 174 acres at the intersection of Maryland Route 295 and Maryland Route 100 in Hanover. This mall parcel coupled with 220 acres (135 acres of which are developable) identified as an “Auxiliary Use Parcel” form the Route 100 Development District. The Mills project, which lies within 10 miles of 800,000 people “in one of the wealthiest areas in the United States,” is located eight miles south
of Baltimore and twenty-three miles north of Washington D.C (Johnson 2002). Built in 2000, this shopping and entertainment destination is home to 17 anchor and over 225 specialty stores ranging from outlet retail to restaurants. Arundel Mills features the 24-screen Muvico megaplex theater and is considered to be “the best-attended movie theatre in the country” with approximately 2.8 million tickets sold in 2006 (Llovio 2007).

The Route 100 Development District was created in 1997 through Tax Increment Financing (TIF). Originating from California law to self-finance re-development in blighted areas, TIF has surfaced throughout the United States and has been identified today as “an effective tool for local governments to finance capital projects in support of economic development.” Such financing now supports both blighted and non-blighted areas. TIF districts (TIDs) must be capable of “realizing a significant increase in assessed property value.” The proceeds of tax collections from TIF revenues in the Route 100 TID allowed Anne Arundel County to sell $28 million in bonds two years later, aiding in the funding of the Arundel Mills project through primarily financing “a portion of the costs related to major public infrastructure transportation and utility improvements. The TIF process is executed in five primary steps: Initiation, Formulation, Adoption, Implementation and Evaluation & Termination. The expected maximum duration of the process is between twenty and thirty years provided the debt has been repaid (Johnson 2002).”

TIF Zoning is considered by the State as one method on the table to make up the anticipated “shortfall” in funding for BRaC transportation projects (Berkheimer 2008). Such a consideration is under discussion by County officials and residents at the nearby Odenton Town Center, a 240-acres bound by “Routes 170, 32 and 175” as well as “the
Historic District next to the MARC station on the south side of 175.” This TIF will form boundaries around properties where “tax assessments rise” due to the construction of neighboring infrastructure improvements” and the proceeds (from these assessments) are “used to pay off the debt service on the bonds.” The Greater Odenton Improvement Association (GOIA), an organization representing the community, recognizes that “town center infrastructure needs to be in place” with an “associated funding mechanism.” However, the GOIA opposes the concept as such an assessment may pose “the potential for economic hardship on the moderate and low-income residents and small businesses” falling within the proposed boundaries (Smith 2008).

At Fort Meade, Trammell Crow will not pay rent for the land and will build two 18-hole golf courses on the base. Neither Trammell Crow nor the Army will have to pay taxes, impact fees or permits costs due to the development being located on Federal property. This arrangement can be a cause of concern for neighboring development, particularly neighboring Arundel Mills Mall and Odenton Town Center. Arundel Mills, which is half the size of the proposed development, currently contributes $9 million a year in property taxes. Odenton Town Center Boulevard will be considered a “major thoroughfare to the Trammell Crow development” and financed by County residents. Exempted from “the red tape of the county’s building permit process,” the Trammel Crow’s EUL will “get out of the ground faster” and will obtain “leases faster at a disadvantage to other developments,” such as the “yet-to-be-built Odenton Town Center” that would be competing for the same infrastructure (Stewart 2007c).
7.2 Mixed-use Land Use Approach

The upcoming Anne Arundel General Development Plan (GDP), a “comprehensive plan used to guide decisions related to growth, development, preservation, resource management and the provision of public services,” will look to shape forthcoming development and land use. The 2008 GDP will emphasize five major themes including: Balanced Growth and Fiscal Stability; Environmental Stewardship; Community Enhancement and Revitalization; Preserving Rural South County; and Promoting Town Centers and Targeted Growth Areas (General 2008).

Anne Arundel County adopted in its 1997 General Development Plan (GDP) adopted the concept of new “innovative” land use called “Mixed Use,” development that “allows residential, commercial, employment, open space, recreation and community uses to be combined in close proximity to one another.” The GDP outlines four different types of mixed uses concepts with a variety of levels of use and intensity: Employment, Transit, Commercial and Residential (or Community) Mixed Use (BWI/Linthicum 2003). An Employment Mixed-use area would include predominately employment uses such as industrial and office parks located near major transportation corridors and employment centers. A Transit Mixed-use area would include a combination of employment and residential uses, located in close proximity to light and commuter rails. A Commercial Mixed-use area would be predominated by office and retail uses. A Community Mixed-use would be primarily residential supported by retail and/or office components. All four concepts are supported in either a primary or secondary fashion by the residential use: 10 to 20 dwellings/acre for Employment; 5 to 15 dwellings/acre for both Transit and Commercial; and 2 to 5 dwellings/acre for Community (General 1997b).
Three sites recommended for study of mixed-use capability at the development of the BWI Linthicum Small Area Plan include the North Linthicum Light Rail Station and vicinity, the BWI MARC Station and vicinity and an area west of the BWI Airport in Hanover (BWI/Linthicum 2003). There is precedence for a zoning change of W-1 (industrial) to MXD-T (mixed-use transit). Anne Arundel County “awarded” Merritt Properties this “change in zoning on their new project.” As a result, Merritt Properties plans a combination of office, retail and residential on their 32-acre project purchased from the State Highway Administration at auction for $189,000 an acre (“Anne” 2005). At the time, the price of $6.05 million for a property of unused industrial zoned land on Route 100 near the BWI Airport had been considered “aggressive for the airport area” as a finished lot in the area with water and sewer by comparison went for $235,000 an acre at time of sale (Zibel 2005).

Anne Arundel County is expected to “have the fourth strongest BRaC-related development pressure in the study area.” MDP also calculates that “the overwhelming majority (97%) of BRaC households in Anne Arundel County will locate within a 45-minute commute of Fort Meade (Final 2007). The Infrastructure Sub-committee of the (Anne Arundel) County BRaC Task Force recommends that the forthcoming General Development Plan (GDP) “make sure the County grows in the most beneficial way” through accommodating “new BRaC households and support growth in Odenton, Parole and Glen Burnie.” The GDP should also encourage “mixed-use development – a blend of homes, shops and offices all within a small, walkable area – near BWI Thurgood Marshall Airport (Stewart 2008).” With “signals” of embrace “particularly from the
County Executive’s office, developers “have begun working closely with Anne Arundel County” on a “rewrite of the General Development Plan” and are attempting to assemble a “development center in the triangle created by BWI Thurgood Marshall Airport, Baltimore-Washington Parkway and Hanover Road.” This assemblage looks to benefit from a forthcoming “zoning ordinance” that would “include reduced setbacks, larger percentages of retail, and incentives for green space,” creating a “high-density, mixed-use center that thrives off its proximity to an airport” – “an aerotropolis (“Crafting” 2007).”

7.3 Aerotropolis

The Aerotropolis is considered a concept (see Exhibit 7.3A) based on “an emerging worldwide phenomenon of dense, mixed-use developments around airports, particularly in Asia and Europe (“BWI Town” 2007). The author of the “concept,” University of North Carolina-Chapel Hill Professor John D. Kasarda, considers “airports will be as important to business location and urban development in the 21st century as automobiles and trucks were in the 20th century, railroads were in the 19th century and seaports were in the 18th century.” The present economy has been progressively more dependent upon “supply-chain-linked” business models, such as “just-in-time and custom manufacturing and the global shipment of goods described as small, light, compact and high value to weight (Arend et al. 2004).” This conclusion is supported by soaring statistics: the global GDP increasing by 154%; value of world trade growing by 355%; and value of air cargo rising at a rate of 1,395%. These rates of increase are under the context that air cargo presently represents “40% of the total economic value of all goods produced in the world, barely comprising 1% of the total weight (Lindsay 2006).”
To "serve the economic demands of connectivity, speed and agility," the concept of Aerotropolis will "require localized infrastructure planning of unprecedented scale."

The primary factor of land value, lease rates and type of commercial development selected will be "the cost of moving people and products to and from the airport and, via the airport, to distant markets" – driven principally by a measure "in time to the airport" and "not necessarily of spatial distance." Thus, a site in longer proximity to the airport "on a high-speed train line" would generate a higher value when compared to another closer site with "poor road and rail connections." Therefore, "accessibility" becomes an important subset of consideration within the three most important words in "Aerotropolis" real estate (location, location and location).

Global information and communications technology (ICT) networks look to "evolve around airports, instantly connecting companies to their global suppliers, distributors, customers and branch offices and partners." Companies specializing in ICT and other high-tech industries consider "air accessibility" critical. Workers in these professions demand air travel at least 60% more frequently than other professionals. These "nerd birds" are found on commercial aircraft connecting to "techie" destinations such as Austin, Boston, Raleigh-Durham and San Jose. These observations can be supported with a local example of a high-performing employment corridor between the "26-mile corridor" connecting the Airports of Dulles and Reagan National. Employment within the corridor increased from 50,000 in 1970 to 600,000 by 1996, representing an increase of 1,100% in comparison to the Nation's overall employment growth during this duration of 59%. The corridor between the airports attracted notable technology firms

Attendees at the 2007 Airport Cities Conference in Frankfurt, Germany concluded the potential for a “world-class” Aerotropolis at BWI exists due to factors including: “prime location at the epicenter of the Atlantic; unparalleled quadra-modal transportation network; the strength and vitality of our regional economy; the unprecedented BRaC-driven job growth; the planned D.C. Metro extension to BWI and Baltimore; Crosswinds Resort & Conference Center; and Southwest’s recent announcement of international service” at BWI in the coming years. At planning charette recently hosted by Hefner and Weber, local developers and stakeholders established “unifying objectives for the BWI Town Center that emerged and have been shared with the County:”

1. Utilize common architectural elements, a streetscape, landscape and signage, and the BWI Aerotropolis/town center designation;

2. A symbolic mix of uses that complement the airport and encourage a vibrant and dynamic pedestrian oriented main street for the BWI Town Center;

3. Inclusion of residential uses, preferably unique, urban-style prototypes spread amongst a wide variety of supporting uses;

4. Work closely with County to modify in GDP (and consider engaging Dr. Kasarda);

5. Build flexibility into the proposed new zoning to allow a market-driven mix of uses;
6. Allow interim changes to current zoning so developments proceeding ahead of GDP modifications may embrace Aerotropolis planning principals, including reduced setbacks that place buildings closer to roads for pedestrian oriented streetscapes;

7. County/SHA coordination on Hanover Road extension/Route 295 interchange to accelerate design and construction;

8. Proceed with widening/straightening (Old) Ridge Road to facilitate coordination with Hanover Road extension;

9. Encourage/support MDOT in the planning and coordination of the proposed D.C. Metro Green Line extension from Greenbelt to Fort Meade, BWI and Baltimore;

10. Encourage and support MDOT in the planning and coordination of the proposed people mover from BWI Thurgood Marshall Airport to the BWI rail station and rental car facility;

11. Aerotropolis branding/marketing;

12. Support/encourage branding the BWI Aerotropolis along the three designated neighborhoods: BWI Town Center North in the West Nursery Road corridor, BWI Town Center in the MDOT area and BWI Town Center South in the Arundel Mills Area.

The Maryland Department of Transportation (MDOT) is on the frontline of the concept with its decision to locate its headquarters in the epicenter of expectation ("BWI Town" 2007). Additionally, six or seven major developers have expressed interest in
buying land in this area. If accepted, the BWI Aerotropolis is expected to make a $1.5 billion impact over 10 to 15 years with two “massive developments” planned: BWI Town Center and Crosswinds Resort (per Exhibit 7.3B). The BWI Town Center development projects “up to 10 million square feet of mixed-use, office, retail, hotels and residential.” Heffner and Weber will develop approximately one third of the Town Center. The Crosswinds Resort is the other major piece, a “high-end resort and conference center (Slater 2007).” The project is planned with 1,111 Deluxe Guest Rooms & Suites Hotels (Crosswinds – 327, Hotel Indigo – 200, Crown Plaza – 284 and Radisson – 300); a 145,000 SF Indoor Aquatic Center containing “the East Coast’s largest collection of water slides and attractions;” a 90,000 SF Conference Center that will feature a ballroom that will occupy approximately half the space; and a Plaza containing 100,000 SF of mixed-use space (“Company News” 2007; “Facts” 2007).

The Crosswinds Resort alone is expected to generate $150 and exceed $90 million for both State and County governments respectively over 10 years. These proceeds could assist in funding “the heavy expense of multi-billion dollar mass transit projects.” Current Anne Arundel County Executive John Leopold affirms his support of the “Aerotropolis” concept:

- “That kind of development, that mixed-use, transit-oriented development, is a vision..........I intend to pursue.”

- “It’s energy-saving, it’s environmentally friendly; it’s responsive to political and growth realities that we face in the 21st century.”
"I want to work closely and collaboratively with the private sector to accomplish my vision, to obtain that vision."

Views appear split among select County Councilmen. Ed Reilly adds "that's just a continuation of a good philosophy" while Jamie Benoit contends the potential for impact of tourism on towns such as Annapolis through stating "you get people to the airport, then you get them away from there because they will spend their money (McGowan 2007)." Moving beyond local concern or opposition, economists and planners have begun to raise issues of concern with the "Aerotropolis" concept. An essay titled Airport Futures: Towards a Critique of the Aerotropolis Model (Michael B. Charles et al.) announces that this concept has in fact "not yet been critiqued adequately, especially from a long-term public policy and planning perspective." Its "critique" highlights three areas of concern: peak oil and sustainability; response to climate change and the increased risk of threat scenarios (McGreal 2007). Looking beyond "climate change," the two remaining areas of concern mirror primary "risks" identified by the Federal Aviation Administration's on their look at the airline industry towards 2020 and beyond. Communities, such as Hamilton, Ontario, question the impact of the concept in with several concerns (Santa Barbara 2007):

- **Is it compatible with Smart Growth?**
- **What are the economic and environmental implications of an unprecedented expansion of the urban boundary onto productive (in this case agricultural) land?**
- **Will land use-planning account for the increased cost of transportation?**
- **Can taxpayers afford to service these lands once they are re-zoned?**
Chapter Key Findings

- Tax Increment Financing (TIF) has surfaced throughout the United States and has been identified today as an “effective” tool for local governments to finance capital projects in support of economic development. TIF Districts (TIDs), such as the Route 100 Development District (including Arundel Mills), must realize a significant increase in assessed property value to work. TIF Zoning is one method to make up the “shortfall” in funding of BRaC transportation projects. Fort Meade will not generate funding from taxes; impact fees or permits costs due to the development being located on Federal property. Odenton will be considered a “major thoroughfare” to the development at Fort Meade and maybe financed by County residents. GOIA opposes the concept for the potential of economic hardship on the moderate and low-income residents and small businesses within the district (7.1).

- The County recommends supporting growth via mixed-use developments in existing (Odenton, Parole and Glen Burnie) and proposed (near BWI Airport) districts (7.2).

- The Aerotropolis, a concept by John Kasarda that requires “localized” infrastructure planning of unprecedented scale, considers airports will be as important to the business location and urban development in the 21st century. If accepted, the BWI Aerotropolis is expected to make a $1.5 billion impact over 10-15 years (7.3).

- Global information and communications technology (ICT) companies consider “air accessibility” critical, with their workers demanding air travel 60% more frequently than other professionals. These observations can be supported by the 26-mile high performing corridor connecting Dulles and Reagan Airports, where employment increased from 50,000 in 1970 to 600,000 by 1996, an increase of 1,100% in comparison to the Nation’s overall growth during this duration of 59% (7.3).
Chapter 8  Conclusion

8.1 Using the Tetrahedron to Support a Solution

Pythagoras (569BC to 475BC), thought to be the “first pure mathematician,” is
the inspiration on the concept of using a real estate “tetrahedron” to support a re-
development solution. This historical mathematician and “philosopher” kept deep beliefs
that “reality is mathematical in nature.” Proclus, “the last major Greek philosopher,”
believed that “Pythagoras transformed study of geometry into a liberal education,
examining the principles of the science from the beginning and probing the theorems in
an immaterial and intellectual manner (“Pythagoras” 1999).”

Each of the faces and their vertices (stabilizers) are revisited to support the
selection for the re-development use - office:

- Economy (stabilized by private developer, County Government and State
  Government).
- Infrastructure (stabilized by County Government, State Government and
  Federal Government).
- Funding (stabilized by private developer, County Government and Federal
  Government).
• Activity (stabilized by private developer, State Government and Federal Government).

On the economy, the office use is appropriate in an area considered to be “a major employment center,” providing “20 percent” of County jobs. The Department of Homeland Security and defense related interest is expected to be a benefit to the “office market” in the Baltimore-Washington Corridor with its lower rents when compared to the D.C. market. This sector will look to complement “education, health and services,” the “strongest employment sector in Metro Baltimore.” The State of Maryland’s reputation for “high regulation” and “high tax environment” could be “turning off businesses.”

Baltimore Washington International Thurgood Marshall Airport (BWI), controlled by the State of Maryland, is located in a multi-regional airport system, competing with Dulles, Reagan National and Philadelphia International. While achieving over 135% over the last fifteen years, the last more recent third of this time frame saw BWI rank last in passenger growth among the group (this does not help airport supported hotels and their occupancy). Cargo at BWI Airport currently outpaces only Reagan (not Dulles or PHL) in terms of volume, a competitor whose freight is now virtually non-existent (this does not help airport supported industrial uses). Based on conducted surveys, BWI distinguishes itself from the competition on passenger “delays” and “availability of parking.” The move toward eventual re-development of the subject property (currently a private parking facility for airport patrons) would be additionally supported if in fact this latter track record continues at BWI.
In 2007, Dulles, along with Philadelphia International to a “smaller degree,” creates “the biggest challenge for BWI in attracting international carriers.” BWI “lost market share” with a minimal 1.7% gain of passengers compared to its aforementioned neighbor in Virginia, who gained 7.5%. BWI’s ability to attract “international service” has been seen by management (at MAA) as “the premier challenge we have.” In addition to North American Airlines discontinuing service this year, both Icelandair and Mexicana “pulled out” of BWI last year (Dance 2008). Why is this significant? Regional airports, such as BWI with its business revenue of “$5.1 billion” and employment of “11,000” people (100,000 overall), are considered “as engines of economic development” and considered “critical” for the success of a region. The airline economy is considered “still primarily domestic.” Airports, such as Chicago’s O’Hare International Airport, are looking towards the “potential” for economic growth “in international service.” Chicagoland Chamber of Commerce commissioned Booz-Allen & Hamilton for a study on the airport and discovered that “the total value to the local economy of a single international passenger” at O’Hare is “five to six times greater than that of a North American connecting passenger.” Similar to the effect on many other cities, the success of Chicago’s “growth” appears dependent upon the prosperity of “international service (Freidheim and Hansson 1999).”

While observing the half vacant World Trade Center in Baltimore, an economist with the Sage Policy Group equates “the failure of the State (Maryland) to be able to recruit and retain a strong international presence is closely linked to the failure of BWI to offer nonstop international flights to major business hubs in Europe (Chappelle 2007).” In the coming years, BWI’s international growth appears tied to its current major carrier
Southwest, a relationship that began with the Airport in the early 1990’s, around the time BWI expanded with an international terminal. Southwest, currently an “all-domestic carrier,” will grow its partnership with ATA Airlines to “offer service to Canada, Mexico and the Caribbean by 2009” and additionally “offer connections to Europe” by 2010 (Newton 2007). Inspired by the performance of Southwest, some of the twenty-seven low cost carriers in Europe, such as Ryanair and EasyJet, have “expressed interest in serving BWI (Wilson 2007).” In the present and moving forward, the success of BWI Airport will continue to be the primary impact on the planning area and region. BWI lacks “international” presence. Thus, international enplanements are seen as a “key” to growth of airports and surrounding areas. In a recent survey of North Carolina businesses (Rondinelli and Burpitt 2000), international executives surveyed considered the following four (of eleven) factors most important when locating in the United States (in order of importance):

- Labor Force (labor availability; area wage rates; comparative productivity of labor pool and right-to-work laws);

- Transportation (interstate & highway systems; air transport; ports – availability & facilities and rail systems);

- Quality of Life (education for families; cost of living; climate; cultural and recreational activities; nearby population of families of similar nationality; availability of sporting events; and proximity to golf courses);

- Business Climate (Local government’s attitude towards business growth & development; comparative (business/corporate) tax burdens; and area/regional growth rate; area regulatory climate).
If these findings are any indication, “international” improvement at and surrounding BWI must move beyond labor force and emphasize business climate, quality of life and transportation (as well) to promote progress. Infrastructure improvements at Route 295, Hanover Road and (Old) Ridge Road will look to greatly benefit access, create added traffic and improve visibility – all keys to a property contemplating redevelopment. Utility work has commenced along Hanover Road after a recent (early March) visual inspection (per Exhibit 8.1A). The only scheduled time frame on the balance of these improvements so far is an “estimated” date of completion for the interchange – 2015. The completion of the ICC will be one major force that could push earlier completion of the interchange – creating a major link (aerolane in an Aerotropolis) or thoroughfare to the airport via Hanover Road for neighboring counties. With these improvements, increased traffic will ultimately open the door to uses at the subject property such as gas stations and banks, which are permitted under the current zoning. In the case of the subject property, two natural pad sites could develop at the location of the canopy (potential gas station) and frontage along Ridge Road (potential bank). Redevelopment should consider the subdivision process under the County Code (Article 17. Subdivision and Development) realizing that the W1 – Industrial Park District regulates “20 acres” for “industrial park (“Article 18” 2007).

The gas station could act as a “last stop” for those patrons return to the Consolidated Rental Facility – gas is a “huge expense” for companies such as Enterprise, a firm that requires customers to bring the vehicle “back with a full tank” or face a “charge” to make up the “difference to fill the tank up (Woodward 2008).” Pads sites accommodating these uses are worth twice the amount of industrial lands designated for
flex in the Hanover area (Worthington 2007). The County, who supported the improvements in its local Small Area Plan, will have to cooperate with the MAA when improving Ridge Road, considering the State owns several parcels (review Exhibit 6.1A) fronting this destination. This could create development uncertainty in the immediate area including the subject property considering that “communication” is considered a challenge between the State, County and the community. The challenges continue State Highway projects are currently under funded. Thus, private developer, County Government and Federal Government, must stabilize funding for infrastructure.

The strain will appear to continue with the arrival of Trammell Crow’s Fort Meade development, financially and physically. The Odenton Town Center will be a “major thoroughfare” for this development, an area currently in tension over how to fund needed infrastructure improvements. Tax Increment Financing (TIF) has been discussed as a means to finance these Odenton improvements and called into question as it may impose “economic hardship” on “moderate to low income families” and “small businesses” within the boundaries. TIF has precedent in the County, both at Arundel Mills built earlier in the decade and Parole Town Center currently under construction. Town Center Growth Management Areas boundaries were established for both Parole and Odenton in 1990 and adopted in 1994 and 1995 respectively. Glen Burnie became a “designated” Town Center in 1997 in the General Development Plan. Recently, the Infrastructure Sub-committee of the County BRaC Task Force reaffirmed the recommendations published 1997 to absorb the projected growth of BRaC households, despite the support of the County Executive and local name developers for the BWI Town Center at the Aerotropolis. The GDP under development and slated to be released
later this year will clarify the intentions of the County on the matter of an added (BWI) Town Center, potentially significantly impacting the subject property. An Aerotropolis, anchored by the Crosswinds Resort and BWI Town Center, brings thoughts of a “growth” management tool and “source” (from tax proceeds) of funding for State and County projects. The State’s discouragement of “community uses” such as religious facilities would be appropriate in a TIF, as these entities are usually tax-exempt and would not generate tax revenue. It should also be noted that properties acquired under the “noise” program would not generate revenue while in Government hands. If history is an indication of things to come, the BWI Town Center, like its predecessors of Parole and Odenton, may take time to materialize (per Exhibit 8.1B) once boundaries are established and subsequently adopted in a future GDP.

8.2 One Solution

The subject property is located in the BWI/Linthicum Area, considered to be “a major employment center for many people working in Anne Arundel County (BWI/Linthicum 2003).” BWI and its planning area can build on the success of airports such as Dulles, a case study that occurred before the turn to this century where an employment corridor exploded by adding 550,000 jobs over 25 years at an alarming growth rate of 1,100%. This corridor near Dulles has hosted several name technology firms. In fact, studies have shown firms in global information and technology (ICT) paths employ professionals dependent upon air travel, 60% more than any other profession. Several “technology” employers are currently making noise in the area surrounding the airport, such as AT&T “moving 290 workers to Hanover” and Northrop
Grumman “will land” the majority of their “500 new jobs” through the “Electronic Systems Sector in Linthicum (“AT&T” 2007; Arcieri 2008).” The ability to attract and maintain employers in Anne Arundel County will be on the economic development radar, particularly considering the recent loss of MedAssurant to neighboring Prince George’s County. The timing of development and ability to lock in major tenants could be “critical” considering the stock of office product proposed (per Exhibit 8.2A). This creates a dilemma for developers of office as early as “2010” as tenants “such as a defense contractor in need of 100,000 SF of Class “A” office could have a half dozen buildings from which to choose (“Anne” 2007).

The “office option” has been presented as a solution for redevelopment at the subject property. A site concept has been developed based on establishing select parameters. A total of seventeen office projects (per Exhibit 8.2B) have been surveyed in both Howard and Anne Arundel Counties in recent history to gauge land comparables for $ per Floor Area Ratio, which produced a range of figures from as low as $17.29 and as high as $49.23 (an average of $30.85) (Baltimore – Washington 2008). The “recommended developable (building) SF” is established by dividing estimating property value by the (average) $ per FAR. Property value in the case of the subject property has been established by carving the pad sites out of the equation and determining value based on appraised value of industrial land plus any (usable) site improvements escalated to current construction costs projected (“Design” 2008). The average “$ per FAR” produced a “recommended developable SF” of 319,596 with corresponding required parking of 1,198 spaces. This surface-parking scenario does not work because two acres of pads site have been carved out of the original 15.86 acres with corresponding 1,208
parking spaces. Parking must account both for the acres lost to pad sites and area lost to the footprints of the proposed buildings. In order to maximize existing surface parking and meet requirements, the “recommended developable SF” needs to be modified to three buildings totaling 250,000 SF – resulting in a modified $ per FAR of $39.44 (per Exhibit 8.2C). The three buildings consist of two 3-story total 75,000 SF (each) buildings and one 4-story 100,000 SF building. This redevelopment concept could be identified as Ridge Crossing Business Campus at BWI Airport.
List of Exhibits

Chapter 1

- Exhibit 1.2A – The Tetrahedron
- Exhibit 1.2B – The Faces of the Tetrahedron and Their Stabilizing Forces.

Chapter 2

- Exhibit 2.1A – Subject Property Tax Map 8, Parcel 99.
- Exhibit 2.1B – Location and Vicinity Maps.
- Exhibit 2.2A – Econopark Express Entry Canopy and Booths
- Exhibit 2.2B – Stormwater Management Pond at Econopark Express
- Exhibit 2.2C – Steep Slopes at Econopark Express.
- Exhibit 2.2D – Parking Lot at Econopark Express.
- Exhibit 2.2E – Water Service and Official Maps.
- Exhibit 2.2F – Sewer Service and Official Maps.
- Exhibit 2.3 – BWI / Linthicum Small Area Planning Area – Existing Zoning.
- Exhibit 2.5A – 1998 Airport Noise Zone.
- Exhibit 2.5B – 2007 Airport Noise Zone.
- Exhibit 2.5C – The BWI Airport 4-mile District.
- Exhibit 2.5D - Allowable FAA and MAA Elevation.
Chapter 3

- Exhibit 3.2 – Fastest-growing U.S. Churches.
- Exhibit 3.3A – Industrial Flex and Warehouse Market.
- Exhibit 3.3B – Route 1 / BWI Area in the Baltimore Industrial Market.
- Exhibit 3.3C – BWI North / Linthicum Industrial Submarket.
- Exhibit 3.3D – BWI / Anne Arundel Industrial Submarket.
- Exhibit 3.3E – Route 1 Corridor Industrial Submarket.
- Exhibit 3.3F – Route 1 / BWI Howard Industrial Submarket.
- Exhibit 3.4A – BWI Area Lodging.
- Exhibit 3.4B – BWI Area Lodging by Product Type and Room Count.
- Exhibit 3.4C – BWI Area Lodging Count Segmented by Year Built and Product Type.
- Exhibit 3.4D – BWI Area Lodging Room Count Segmented by Year Built and Product Type.
- Exhibit 3.5A – Office Class A, B and C Markets.
- Exhibit 3.5B – Route 1 / BWI Area in the Baltimore Office Market.
- Exhibit 3.5C – BWI / North Linthicum Office Submarket.
- Exhibit 3.5D – BWI / Anne Arundel Office Submarket.
- Exhibit 3.5E – Route 1 Corridor Office Submarket.
- Exhibit 3.5F – Colliers Pinkard “BWI Airport” Geography.
- Exhibit 3.5G – CB Richard Ellis “BWI Corridor” Geography.
- Exhibit 3.6 – Major Projects of the Baltimore / Washington Corridor.
- Exhibit 3.7A – Proposed MD 295 / Hanover Road Interchange Upgrade.
• Exhibit 3.7B – Patapsco Valley Office Campus Brochure

• Exhibit 3.7C – Patapsco Valley Office Campus: Buildings A, B, C Elevations and Floor Plans.

• Exhibit 3.7D - Patapsco Valley Office Campus: Buildings D Elevations and Floor Plans.

• Exhibit 3.7E – Patapsco Valley Office Campus Neighboring “Amenities.”

• Exhibit 3.7F – Aerial of Patapsco Valley Office Campus and Subject Property.

Chapter 4

• Exhibit 4.1 – Find Your Best Place.

• Exhibit 4.2 – BWI / Linthicum Small Area Planning High School Locations & Feeder Boundaries.

• Exhibit 4.3 – Maryland State Employment Trends.

• Exhibit 4.4 – BRaC Household Demand in Eight Jurisdiction Study Area.

Chapter 5

• Exhibit 5.4 – County Seat Expected Mileage and Driving Time to BWI Airport.

Chapter 6

• Exhibit 6.1A – Stock of Existing MAA / FAA Properties South of Proposed Hanover Road.

• Exhibit 6.1B – Airport Layout Plan (ALP).

• Exhibit 6.2A – ICC Connector Route Chosen.
• Exhibit 6.2B – BWI / Linthicum Small Planning Area Existing Road Network.

• Exhibit 6.2C – BWI / Linthicum Small Planning Area Proposed Transportation Improvements.

• Exhibit 6.2D – Transportation Outlook 2035 – Committed Projects, 2008-2012.


**Chapter 7**

• Exhibit 7.3A – Aerotropolis Concept / Schematic Layout

• Exhibit 7.3B – Aerotropolis BWI Map

**Chapter 8**

• Exhibit 8.1A – Hanover Road Site Visit March 2008.

• Exhibit 8.1B – Crosswinds Resort Site Visit March 2008.

• Exhibit 8.2A – “The Calm Before the BRaC Storm” – Manekin

• Exhibit 8.2B - $ per FAR of Recent Office Projects in Howard and Anne Arundel Counties.

• Exhibit 8.2C – Office Campus Calculations – Ridge Crossing Business Campus.
Figure 1
Major Commercial Developments in the Baltimore Washington Parkway Corridor and Vicinity
OFFICIAL SEWER MAP ADOPTED
BY THE ANNE ARUNDEL COUNTY COUNCIL
ON OCTOBER 7, 2003 BY BILL NO. 41-03,
EFFECTIVE NOVEMBER 28, 2003
AND AMENDED ON FEBRUARY 6, 2006
BY BILL NO. 56-03, EFFECTIVE MARCH 27, 2006

SIGNATURES:

Joseph Ruttle
Planning and Zoning Officer
Anne Arundel County

The symbols represent the 3W with
sewer service areas divided by the
Department of Public Works.
### 100 FASTEST-GROWING U.S. CHURCHES

<table>
<thead>
<tr>
<th>Rank</th>
<th>Church Name</th>
<th>City</th>
<th>State</th>
<th>牧师</th>
<th>Website</th>
<th>Current Size</th>
<th>Growth Rate</th>
<th># of Sites</th>
</tr>
</thead>
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<td>Hollywood</td>
<td>FL</td>
<td>Ruby and Mario Groso</td>
<td>seguinos.com</td>
<td>3,050</td>
<td>109%</td>
<td>1</td>
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<td>2</td>
<td>Colony Community Church</td>
<td>Phoenix</td>
<td>AZ</td>
<td>Mark Hower</td>
<td>ecolony.org</td>
<td>2,847</td>
<td>64%</td>
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<td>Crossroads Community Church</td>
<td>Garden City</td>
<td>NY</td>
<td>Howard and Janis</td>
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<td>4</td>
<td>New Life Church</td>
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<td>Rob Heber</td>
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<td>Valley Bible Fellowship</td>
<td>Bakersfield</td>
<td>CA</td>
<td>Ron Venn</td>
<td>valbible.org</td>
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<td>NC</td>
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<td>1,500</td>
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<tr>
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<td>Thomas Road Baptist Church</td>
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<tr>
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<tr>
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<td>GA</td>
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<td>1</td>
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<tr>
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<td># Bldgs</td>
<td>Total RBA</td>
<td>Ave SF / Bldg.</td>
<td>Vacancy Direct SF</td>
<td>Total SF</td>
<td>Vac %</td>
<td>YTD Net Absorption</td>
<td>YTD Deliveries</td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>---------</td>
<td>------------</td>
<td>----------------</td>
<td>-------------------</td>
<td>-----------</td>
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<td>269,264</td>
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<td>43,338</td>
<td>347,320</td>
<td>381,220</td>
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<td>6,577</td>
<td>159,480</td>
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<td>197,719</td>
<td>197,719</td>
<td>8.8%</td>
<td>(18,532)</td>
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<td>24</td>
<td>967,373</td>
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<td>138,961</td>
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<td>42,177</td>
<td>993,301</td>
<td>1,033,706</td>
<td>12.7%</td>
<td>143,431</td>
<td>381,572</td>
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<td>38,051</td>
<td>4,551,577</td>
<td>4,721,481</td>
<td>11.7%</td>
<td>320,025</td>
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<th>Ave SF / Bldg.</th>
<th>Vacancy Direct SF</th>
<th>Total SF</th>
<th>Vac %</th>
<th>YTD Net Absorption</th>
<th>YTD Deliveries</th>
<th>Under Const SF</th>
<th>Quoted Rates</th>
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<td>692,674</td>
<td>782,045</td>
<td>8.2%</td>
<td>454,368</td>
<td>-</td>
<td>409,353</td>
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<td>911,689</td>
<td>925,698</td>
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<td>215,066</td>
<td>-</td>
<td>$ 5.59</td>
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<tr>
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<td>82,935</td>
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<td>3,642,211</td>
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LEASING HIGHLIGHTS IN SELECT COSTAR MARKETS

Color Coded by Vacancy Rate

Source: Costar Property
Area Lodging

35 hotels and motels are located within a few miles of BWI. They offer accommodations ranging from luxury suites to quality rooms at economy rates. Most offer courtesy shuttle service to and from BWI. For more information about accommodations available, or about shuttle arrangements, please use the numbers listed below.

1. FOUR POINTS by Sheraton on Airport Grounds
   7032 Elm Road
   410-859-3300 • 1-800-325-3535
2. AMERISUITES
   640 International Drive
   410-859-3366 • 1-800-933-1516
3. BEST WESTERN
   6755 Dorney Road
   410-756-3300 • 1-800-528-1234
4. CANDLEWOOD SUITES
   1247 Winton Road
   410-850-9214 • 1-888-226-3539
5. COMFORT INN
   6921 Balto-Arnapolis Blvd.
   410-789-9100 • 1-800-228-5150
6. COMFORT SUITES
   815 Elkridge Landing Road
   410-891-3360 • 1-800-228-5150
7. COUNTRY INN & SUITES
   1717 West Nursery Road
   443-577-1036 • 1-888-201-1746
8. COURTYARD by Marriott
   1671 West Nursery Road
   410-859-8855 • 1-800-321-2211
9. ECONO LODGE
   5695 Bonniview Lane
   410-796-1020 • 1-800-553-2666
10. EMBASSY SUITES
    1300 Concourse Drive
    410-859-0747 • 1-800-362-2779
11. EXTENDED STAY AMERICA
    1500 Aero Drive
    410-859-0400 • 1-800-238-7829
12. HAMPTON INN
    829 Elkridge Landing Road
    410-850-0600 • 1-800-426-7866
13. HAMPTON INN & SUITES
    7027 Arundel Mills Circle
    410-540-9225 • 1-800-426-7866
14. HILTON GARDEN INN
    1516 Aero Drive
    410-681-9500 • 1-800-774-1500
15. HILTON HOTEL
    1739 West Nursery Road
    410-694-0800 • 1-800-445-8667
16. HOLIDAY INN
    890 Elkridge Landing Road
    410-859-8400 • 1-800-465-4329
17. HOLIDAY INN EXPRESS
    7481 Ridge Road
    410-884-3388 • 1-800-465-4329
18. HOMESTEAD
    935 International Drive
    410-691-2500 • 1-888-782-9473
19. HOMEWOOD SUITES
    1181 Winton Road
    410-684-6100 • 1-888-225-5466
20. LA QUINTA INN AND SUITES
    1734 West Nursery Road
    410-859-2333 • 1-800-531-5900
21. MARRIOTT, BWI
    1743 West Nursery Road
    410-859-8300 • 1-800-228-9290
22. MICROTEL INN & SUITE
    1170 Winton Road
    410-866-7500 • 1-888-771-7171
23. RAMADA BWI HOTEL
    7263 Parkway Drive
    410-712-4300 • 1-800-272-6232
24. RED ROOF INN
    827 Elkridge Landing Road
    410-850-7600 • 1-800-943-7663
25. RED ROOF INN
    7306 Parkway Drive
    410-712-4070 • 1-800-843-7663
26. RESIDENCE INN by Marriott
    1160 Winton Road
    410-691-0255 • 1-800-331-3131
27. RESIDENCE INN by Marriott
    7035 Arundel Mills Circle
    410-799-7222 • 1-800-331-3131
28. SHERATON, BWI
    1100 Old Elkridge Landing Road
    443-577-2100 • 1-888-627-9231
29. SLEEP INN AND SUITES
    6055 Belle Grove Road
    410-789-7223 • 1-800-221-2222
30. SPRINGHILL SUITES
    by Marriott
    829 Elkridge Landing Road
    410-684-6555 • 1-888-287-9400
31. SPRINGHILL SUITES
    by Marriott
    7544 Teague Road
    410-799-7100 • 1-800-331-3131
32. STAYBRIDGE SUITES BWI
    1301 Winton Road
    410-850-5666 • 1-877-238-8889
33. TOWNEPLACE SUITES
    by Marriott
    1171 Winton Road
    410-694-0060 • 1-800-257-3000
34. WESTIN HOTEL
    1110 Old Elkridge Landing Road
    443-577-2100 • 1-800-537-8461
35. WINGATE INN
    1510 Aero Drive
    410-859-0003 • 1-800-993-7232
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</table>
LEASING HIGHLIGHTS IN SELECT COSTAR MARKETS

Color Coded by Vacancy Rate

- **Central Baltimore County**
  - Vacancy: 11.5%
  - YTD Abs: 31,500 SF
  - Avg Rent: $20.79 PSF

- **Baltimore City-West**
  - Vacancy: 13.3%
  - YTD Abs: 170,000 SF
  - Avg Rent: $21.57 PSF

- **Prince George's County**
  - Vacancy: 9.5%
  - YTD Abs: 31,500 SF
  - Avg Rent: $19.47 PSF

- **Baltimore County, S.E.**
  - Vacancy: 10.5%
  - YTD Abs: 169,500 SF
  - Avg Rent: $24.56 PSF

- **Howard County**
  - Vacancy: 7.1%
  - YTD Abs: 29,500 SF
  - Avg Rent: $27.17 PSF

- **Baltimore City, East**
  - Vacancy: 11.5%
  - YTD Abs: 246,000 SF
  - Avg Rent: $21.28 PSF

- **Southern Anne Arundel**
  - Vacancy: 11.1%
  - YTD Abs: 69,500 SF
  - Avg Rent: $26.55 PSF

**Vacancy Rate:**
- Less than 5%
- 5% to 10%
- 10% to 15%
- 15% to 20%
- Over 20%

Source: Costar Property®
Downtown

- Downtown's newest office building, 650 Exeter Street is almost 90% pre-leased. Laureate, Inc., the anchor tenant, had the space it vacated at 1001 Fleet Street back-filled by Educate, Inc.

- Legg Mason's sale of its retail brokerage unit to Smith Barney resulted in the latter relocating to 650 Exeter Street. Legg's sale of its Capital Markets business to Stifel Nicolaus resulted in the relocation of that group into 76,000 square feet at 1 South Street.

- Constellation Energy will be joined at 750 E. Pratt Street by Venable, Inc., one of the largest law firms in the Baltimore area, which will bring the building to full occupancy.

- 1 E. Pratt Street is being redeveloped to incorporate more retail space at one of the Central Business District's key intersections.

Howard County

- Overall leasing activity in the County slowed, as the market absorbed 175,000 square feet, while adding 213,000 square feet. This pushed the vacancy rate to 16.3%.

- Health care firms were active during the first half with United Healthcare and Maxim leasing sizable amounts of space (49,000 square feet and 60,000 square feet respectively) while Magellan Health gave up space.

- Amerix also gave up a sizeable block of space (100,000 square feet).

- The Howard County market has the most space under construction of any of the Suburban markets.

BWI Airport

- Vacancy rate in the BWI Airport market climbed into double digits for the first time in three years.

- Several notable government contractors, like Baez Allen Hamilton, CSC, and Titan Corporation, were subleasing some of their space, including SCIP space.

- While some defense contractors downsized, others like Sceptor and Force 3 moved into new space. The BWI market has been the principle beneficiary of the growth in spending for defense and homeland security. As those budgets come under pressure, contractors have had to reconfigure the size of their real estate portfolio.
## Top 3Q 2007 Baltimore Lease Transactions

<table>
<thead>
<tr>
<th>Size (SF)</th>
<th>Tenant</th>
<th>Address</th>
<th>Submarket</th>
</tr>
</thead>
<tbody>
<tr>
<td>79,450</td>
<td>DBED</td>
<td>401 East Pratt St.</td>
<td>CBD</td>
</tr>
<tr>
<td>55,319</td>
<td>Cingular</td>
<td>7229 Parkway Dr.</td>
<td>BWI</td>
</tr>
<tr>
<td>40,294</td>
<td>MD Government</td>
<td>6835 Deepdene Rd.</td>
<td>BWI</td>
</tr>
<tr>
<td>37,000</td>
<td>MD School For The Blind</td>
<td>3501 Taylor Ave.</td>
<td>East Baltimore County</td>
</tr>
</tbody>
</table>

## Baltimore Submarket Map

### Exhibit 3.5G

**Available Square Feet**
Available building area which is either physically vacant or occupied.

**Availability Rate**
Available square feet divided by the net rentable area.

**Average Asking Lease Rate**
Rate determined by multiplying the asking lease rate for each building by its available space, summing the products, then dividing by the sum of the available space with leases for all buildings in the summary.

**Full Service**
Rent is inclusive of operating expenses and rates.

**Market Coverage**
Includes all competitive office buildings 10,000 square feet and greater in size.

**Net Absorption**
The change in occupied square feet from one period to the next.

**Net Leases**
Includes all lease terms whereby the tenant pays an agreed rent plus most, or all, of the operating expenses and taxes for the property, including utilities, insurance and/or maintenance expenses.

**Net Rentable Area**
The gross building square footage minus the elevator core, flues, pipe shafts, vertical ducts, balconies, and stairwell areas.

**Occupied Square Feet**
Building area not considered vacant.

**Under Construction**
Buildings which have begun construction as evidenced by site excavation or foundation work.

**Vacant Square Feet**
Existing building area which is physically vacant and immediately available.

**Vacancy Rate**
Vacant building feet divided by the net rentable area.

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Marianne Swartwanger
Research Manager
marianne.swartwanger@cbre.com

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Washington, DC 20004
T: 202.783.8200
F: 202.783.1723
The Major Projects Profile is a product that is emblematic of the interests and scope of the Baltimore Washington Corridor Chamber. With the assistance of the chief executive officers at the Anne Arundel, Howard, Montgomery and Prince George’s County offices of economic development, the 27"x30" poster showcases six top development projects for each of the counties.

An initial run has been printed, but the final run is waiting on a single or multiple sponsors who would like to be identified with this world-class region and the major projects taking place. These beautifully designed and produced posters on heavy stock are suitable for framing and will be displayed in offices around the region. A Google "Map-Up," allowing virtual tours of these project locations, is also in development. To become a sponsor, contact Walt Townshead, president & CEO of BWCC, at 301-725-4000 or 410-792-8714.
PATAPSCO VALLEY OFFICE CAMPUS
Baltimore-Washington Corridor / Arundel Mills / BWI Submarket
Hi Tech Drive, Hanover, Maryland

OFFICE SPACE FOR SALE OR LEASE

FEATURES

- Building A - 48,000 RSF
- Building B - 40,000 RSF
- Building C - 40,000 RSF
- Building D - 12,000 RSF (For Sale or Lease)

- Two-story construction allows for efficient and flexible floor plans

- Class A office project in the Arundel Mills / Route 100 Submarket

- Two-mile amenity base includes:
  - Hotels
  - Arundel Mills Mall
  - Restaurants / Cafes
  - Marc Train Station

- Located within five miles of major employment centers (Ft. Meade, Columbia and BWI Airport) and educational facilities (UMUC, Hopkins and UMBC) via I-95 or I-295.

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asmith@collierspinkard.com

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dfenwick@collierspinkard.com

Information furnished regarding property is from sources deemed reliable, but no warranty or representation is made to the accuracy thereof. Colliers International is a worldwide affiliation of independently owned and operated companies.

WWW.COLLIERSPINKARD.COM
MASTER PLAN

www.patapscovalleyofficecampus.com

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BLDG. 'A' - REAR ELEVATION

SIDE ELEVATION

SIDE ELEVATION
Find Your Best Place

Where would you like to live, work, or retire? What's the perfect spot for you?

It seems everyone wants to live in a city with a low crime rate, great schools, a warm sunny climate, affordable housing, and plentiful jobs. But there are always tradeoffs in the real world, and that's where this tool is invaluable.

With our feature, you define your ideal place to live by indicating the importance to you of each category. Our computers then run through thousands of calculations and display a ranking of the cities which best meet your criteria.

Find your Best Place now!
Find Your Best Place

Tell us a little about the climate you enjoy. We have given some example cities below. If you like a climate, tell us how much you like it by choosing a range from 1 (least) to 7 (most). The higher the value, the more likely we'll pick a city with that climate. Or, you can click the box next to ignore and we'll assume you don't care about that climate.

- New York, Boston, Philadelphia
  - Moderate temperatures, some snow, humid summer

- Chicago, Detroit, Indianapolis
  - Harsh winter, hot summer, short fall and spring

- San Diego, Los Angeles, Orange County
  - Warm, sunny, dry summers

- San Francisco, Oakland, San Jose
  - Mild temperatures, cool summers, some fog

- Seattle, Portland, Tacoma
  - Moderate temperatures, drizzle, little snow

- Miami, New Orleans, Tampa
  - Tropical, sunny, warm, humid

- Atlanta, Norfolk, Charlotte
  - Warm, humid, little snow

- Denver, Salt Lake City
  - Omaha
  - High altitude, harsh winter, cool summer

- Dallas, Oklahoma City
  - Little Rock
  - Dry, hot summer, mild winter

- Phoenix, Las Vegas, El Paso
  - Desert, hot, very dry, mild winter

Next
BWI/Linthicum
Small Planning Area

High School Locations
& Feeder Boundaries

Scale: 1 inch = 4,500 feet
<table>
<thead>
<tr>
<th>2001 Name</th>
<th>2002 and 2003 Name</th>
<th>2001</th>
<th>% +/-</th>
<th>2002</th>
<th>% +/-</th>
<th>2003</th>
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</thead>
<tbody>
<tr>
<td>Employment by Place of Work</td>
<td></td>
<td>3127243</td>
<td>1%</td>
<td>3155416</td>
<td>1%</td>
<td>3183390</td>
</tr>
<tr>
<td>Farm Employment</td>
<td>Farm Employment</td>
<td>18727</td>
<td>2%</td>
<td>19088</td>
<td>-8%</td>
<td>17614</td>
</tr>
<tr>
<td>Agriculture</td>
<td>Agriculture</td>
<td>36414</td>
<td>-79%</td>
<td>7730</td>
<td>9%</td>
<td>8395</td>
</tr>
<tr>
<td>Mining</td>
<td>Mining</td>
<td>2827</td>
<td>-8%</td>
<td>2612</td>
<td>-5%</td>
<td>2487</td>
</tr>
<tr>
<td>Construction</td>
<td>Construction</td>
<td>210499</td>
<td>2%</td>
<td>213681</td>
<td>1%</td>
<td>216127</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>Manufacturing</td>
<td>185692</td>
<td>-12%</td>
<td>163873</td>
<td>-5%</td>
<td>155235</td>
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<tr>
<td>Transportation and Public Utilities</td>
<td>Transportation and Warehousing; Utilities; Information</td>
<td>138928</td>
<td>16%</td>
<td>161571</td>
<td>-3%</td>
<td>156056</td>
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<tr>
<td>Wholesale Trade</td>
<td>Wholesale Trade</td>
<td>120261</td>
<td>-16%</td>
<td>100739</td>
<td>-2%</td>
<td>98665</td>
</tr>
<tr>
<td>Retail Trade</td>
<td>Retail Trade</td>
<td>511142</td>
<td>-31%</td>
<td>354899</td>
<td>0%</td>
<td>355919</td>
</tr>
<tr>
<td>Finance, insurance and real estate</td>
<td>Finance and insurance; Real estate, rental and leasing</td>
<td>259443</td>
<td>1%</td>
<td>282012</td>
<td>3%</td>
<td>270060</td>
</tr>
<tr>
<td>Services</td>
<td></td>
<td>1124805</td>
<td>19%</td>
<td>1343705</td>
<td>2%</td>
<td>1374874</td>
</tr>
<tr>
<td></td>
<td>Professional and technical services</td>
<td>289447</td>
<td></td>
<td>295924</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Management of companies and enterprises</td>
<td>11484</td>
<td></td>
<td>11777</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Administrative and waste services</td>
<td>190468</td>
<td></td>
<td>192680</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Educational services</td>
<td>73140</td>
<td></td>
<td>75747</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Health care and social assistance</td>
<td>334929</td>
<td></td>
<td>344838</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Arts, entertainment and recreation</td>
<td>65806</td>
<td></td>
<td>66855</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Accommodation and food services</td>
<td>193483</td>
<td></td>
<td>197313</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other services, except public administration</td>
<td>185148</td>
<td></td>
<td>189736</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Government and government enterprise</td>
<td>518505</td>
<td>1%</td>
<td>525536</td>
<td>0%</td>
<td>527956</td>
</tr>
</tbody>
</table>
MDP expects household totals to be highest in Harford County (6,533, or 26%), and Anne Arundel County (4,457, or 18%), followed by Baltimore County (3,653, or 14%), Baltimore City (2,549, or 10%), Montgomery County (2,274, or 9%), Cecil County (1,998, or 8%), Prince George's County (1,995, or 8%) and Howard County (1,853, or 7%) (Exhibit 7).
<table>
<thead>
<tr>
<th>County</th>
<th>County Seat</th>
<th>Street Address</th>
<th>BWI Mileage</th>
<th>BWI Hours</th>
<th>Dulles Mileage</th>
<th>Dulles Hours</th>
<th>Reagan Mileage</th>
<th>Reagan Hours</th>
<th>PHL Mileage</th>
<th>PHL Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allegany</td>
<td>Cumberland</td>
<td>57 North Liberty St.</td>
<td>140.75</td>
<td>2.37</td>
<td>130.17</td>
<td>2.25</td>
<td>138.84</td>
<td>2.42</td>
<td>232.11</td>
<td>3.88</td>
</tr>
<tr>
<td>Anne Arundel</td>
<td>Annapolis</td>
<td>44 Calvert St.</td>
<td>23.93</td>
<td>0.52</td>
<td>61.96</td>
<td>1.20</td>
<td>36.12</td>
<td>0.75</td>
<td>119.96</td>
<td>2.13</td>
</tr>
<tr>
<td>Baltimore County</td>
<td>Towson</td>
<td>400 Washington Ave.</td>
<td>27.73</td>
<td>0.62</td>
<td>76.26</td>
<td>1.47</td>
<td>63.74</td>
<td>1.28</td>
<td>92.68</td>
<td>1.65</td>
</tr>
<tr>
<td>Baltimore City</td>
<td>Baltimore City</td>
<td>100 N. Holliday St.</td>
<td>10.92</td>
<td>0.32</td>
<td>61.38</td>
<td>1.29</td>
<td>43.28</td>
<td>0.97</td>
<td>97.01</td>
<td>1.73</td>
</tr>
<tr>
<td>Calvert</td>
<td>Prince Frederick</td>
<td>150 Main St.</td>
<td>54.91</td>
<td>1.17</td>
<td>74.96</td>
<td>1.50</td>
<td>44.85</td>
<td>1.02</td>
<td>150.95</td>
<td>2.78</td>
</tr>
<tr>
<td>Caroline</td>
<td>Denton</td>
<td>109 Market St.</td>
<td>63.78</td>
<td>1.27</td>
<td>101.81</td>
<td>1.95</td>
<td>75.97</td>
<td>1.52</td>
<td>107.68</td>
<td>2.02</td>
</tr>
<tr>
<td>Carroll</td>
<td>Westminster</td>
<td>225 North Center St.</td>
<td>37.84</td>
<td>0.82</td>
<td>72.66</td>
<td>1.57</td>
<td>73.84</td>
<td>1.47</td>
<td>120.44</td>
<td>2.17</td>
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<tr>
<td>Cecil</td>
<td>Elkton</td>
<td>107 North St.</td>
<td>66.54</td>
<td>1.25</td>
<td>118.06</td>
<td>2.13</td>
<td>98.90</td>
<td>1.90</td>
<td>42.48</td>
<td>0.85</td>
</tr>
<tr>
<td>Charles</td>
<td>La Plata</td>
<td>200 Baltimore St.</td>
<td>56.79</td>
<td>1.18</td>
<td>63.82</td>
<td>1.28</td>
<td>36.97</td>
<td>0.83</td>
<td>152.82</td>
<td>2.80</td>
</tr>
<tr>
<td>Dorchester</td>
<td>Cambridge</td>
<td>501 Court Lane</td>
<td>77.94</td>
<td>1.53</td>
<td>115.97</td>
<td>2.22</td>
<td>90.13</td>
<td>1.78</td>
<td>121.84</td>
<td>2.28</td>
</tr>
<tr>
<td>Frederick</td>
<td>Frederick</td>
<td>12 East Church St.</td>
<td>51.68</td>
<td>0.97</td>
<td>42.14</td>
<td>0.87</td>
<td>50.32</td>
<td>1.05</td>
<td>143.04</td>
<td>2.48</td>
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<tr>
<td>Garrett</td>
<td>Oakland</td>
<td>313 East Alder St.</td>
<td>196.42</td>
<td>3.30</td>
<td>153.29</td>
<td>2.93</td>
<td>194.51</td>
<td>3.42</td>
<td>287.78</td>
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<td>Harford</td>
<td>Bel Air</td>
<td>220 S. Main St.</td>
<td>38.53</td>
<td>0.80</td>
<td>90.05</td>
<td>1.68</td>
<td>70.89</td>
<td>1.45</td>
<td>70.75</td>
<td>1.37</td>
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<tr>
<td>Howard</td>
<td>Ellicott City</td>
<td>3430 Courthouse Dr.</td>
<td>16.65</td>
<td>0.40</td>
<td>52.25</td>
<td>1.10</td>
<td>44.68</td>
<td>0.93</td>
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<td>1.93</td>
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<tr>
<td>Kent</td>
<td>Chestertown</td>
<td>118N Cross St.</td>
<td>67.91</td>
<td>1.42</td>
<td>105.94</td>
<td>2.10</td>
<td>80.10</td>
<td>1.65</td>
<td>79.36</td>
<td>1.52</td>
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<tr>
<td>Montgomery</td>
<td>Rockville</td>
<td>111 Rockville Pike</td>
<td>39.74</td>
<td>0.82</td>
<td>27.48</td>
<td>0.53</td>
<td>23.60</td>
<td>0.58</td>
<td>135.00</td>
<td>2.42</td>
</tr>
<tr>
<td>Prince George's</td>
<td>Upper Marlboro</td>
<td>14741 Governor Oden Bowie Dr.</td>
<td>31.15</td>
<td>0.70</td>
<td>51.12</td>
<td>1.03</td>
<td>21.02</td>
<td>0.55</td>
<td>127.18</td>
<td>2.32</td>
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<td>Queen Anne's</td>
<td>Centreville</td>
<td>107 N. Liberty St.</td>
<td>52.31</td>
<td>1.08</td>
<td>90.34</td>
<td>1.75</td>
<td>64.50</td>
<td>1.32</td>
<td>87.21</td>
<td>1.65</td>
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<tr>
<td>Saint Mary's</td>
<td>Leonardtown</td>
<td>23115 Leonard Hall Dr.</td>
<td>77.99</td>
<td>1.77</td>
<td>85.02</td>
<td>1.87</td>
<td>58.18</td>
<td>1.42</td>
<td>174.02</td>
<td>3.38</td>
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<tr>
<td>Somerset</td>
<td>Princess Anne</td>
<td>30489 Broad St.</td>
<td>127.88</td>
<td>2.40</td>
<td>165.91</td>
<td>3.08</td>
<td>140.08</td>
<td>2.63</td>
<td>146.32</td>
<td>2.67</td>
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<tr>
<td>Talbot</td>
<td>Easton</td>
<td>11 North Washington St.</td>
<td>62.57</td>
<td>1.27</td>
<td>100.60</td>
<td>1.93</td>
<td>74.76</td>
<td>1.50</td>
<td>106.47</td>
<td>2.00</td>
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<td>Washington</td>
<td>Hagerstown</td>
<td>100 West Washington St.</td>
<td>76.65</td>
<td>1.40</td>
<td>66.07</td>
<td>1.28</td>
<td>74.74</td>
<td>1.45</td>
<td>168.01</td>
<td>2.92</td>
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<tr>
<td>Wicomico</td>
<td>Salisbury</td>
<td>North Division St. and Route 50</td>
<td>108.86</td>
<td>2.12</td>
<td>146.89</td>
<td>2.78</td>
<td>121.05</td>
<td>2.35</td>
<td>130.24</td>
<td>2.43</td>
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<tr>
<td>Worcester</td>
<td>Snow Hill</td>
<td>1 West Market St.</td>
<td>130.64</td>
<td>2.55</td>
<td>168.67</td>
<td>3.22</td>
<td>142.83</td>
<td>2.78</td>
<td>149.08</td>
<td>2.80</td>
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FIGURE 5-12 (continued)
COMMITTED PROJECTS, 2008-2012

<table>
<thead>
<tr>
<th>PROJECT</th>
<th>LIMITS</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>North Ave</td>
<td>US 1 to MD 924</td>
<td>new 2 lane road</td>
</tr>
<tr>
<td>US 4, Bel Air Rd</td>
<td>Connally Rd to MD 147/Business US 1</td>
<td>widen from 4 to 5 lanes; provide separate left turn lanes at each intersection</td>
</tr>
<tr>
<td>MD 24</td>
<td>MD 7 to Singer Rd</td>
<td>upgrade at MD 24 interchange and construct new interchange at MD 924/MD 24</td>
</tr>
<tr>
<td>Pettyman East</td>
<td>MD 715 to Michaelsville Rd</td>
<td>new 2 lane road</td>
</tr>
<tr>
<td>MD 159</td>
<td>US 40 to existing facility</td>
<td>new 2 lane road; intersection improvement</td>
</tr>
<tr>
<td>MD 715</td>
<td>at US 40</td>
<td>upgrade to full interchange</td>
</tr>
<tr>
<td>MD 924, Emmorton Rd</td>
<td>Woodside Rd to Box Hill South Pkwy</td>
<td>widen from 3 to 5 lanes</td>
</tr>
<tr>
<td>Tollgate Rd</td>
<td>Plintree Rd to Bel Air South Pkwy</td>
<td>new 2 lane road</td>
</tr>
<tr>
<td>HOWARD COUNTY</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dorsey Run Rd</td>
<td>North Montevideo Rd to MD 175</td>
<td>construct 1 lane each direction plus 1 center turn lane at intersections (5 lanes at MD 175 intersection)</td>
</tr>
<tr>
<td>Guilford Rd</td>
<td>Anne Arundel Co line to Dorsey Run Rd</td>
<td>widen from 2 to 5 lanes (includes bridge over CSX line)</td>
</tr>
<tr>
<td>Loop Rd (Stephens &amp; Gorman Rds)</td>
<td>MD 216/Leidheer Rd to All Santos Rd</td>
<td>new 4 lane road</td>
</tr>
<tr>
<td>Loop Rd (Stephens &amp; Gorman Rds)</td>
<td>at MD 216 East</td>
<td>new interchange</td>
</tr>
<tr>
<td>Dorsey Run Rd North</td>
<td>MD 103 to Montevideo Rd</td>
<td>add 1 center turn lane at intersections; build 2 lanes plus 1 center turn lane at intersections for new road</td>
</tr>
<tr>
<td>Dorsey Run Rd</td>
<td>CSX RR spur to Guilford Rd (new alignment from existing Dorsey Run Rd to Guilford Rd)</td>
<td>new 2 lane road plus 1 center turn lane at intersections</td>
</tr>
<tr>
<td>Dorsey Run Rd</td>
<td>MD 175 to CSX RR spur crossing</td>
<td>add 1 center turn lane at intersections</td>
</tr>
<tr>
<td>US 29</td>
<td>South of MD 175 to Middle Patuxent River (south of MD 32)</td>
<td>widen northbound US 29 from 2 lanes to 3 lanes</td>
</tr>
<tr>
<td>Linden Church Rd</td>
<td>at MD 32</td>
<td>new interchange</td>
</tr>
<tr>
<td>MD 108, Clarksville Pk</td>
<td>Woodland Rd to W of Centennial Ln</td>
<td>widen from 2 to 4 lanes</td>
</tr>
<tr>
<td>Wellworth Way Access</td>
<td>adjacent to MD 32</td>
<td>extend roadway to provide access</td>
</tr>
<tr>
<td>REGIONAL</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MD 295, BW Pkwy</td>
<td>I-95 to I-195</td>
<td>widen from 4 to 6 lanes</td>
</tr>
<tr>
<td>MdTA, Section 100</td>
<td>Baltimore City &amp; Baltimore County; I-95 from south of the I-895(N) split to apx 2.7 miles north of MD 43</td>
<td>improve interchanges at I-895, I-695, and MD 43 and construct two express toll lanes in each direction</td>
</tr>
</tbody>
</table>
**FIGURE 5-22**
**DETAILED LIST OF PREFERRED ALTERNATIVE PROJECTS**

<table>
<thead>
<tr>
<th>PROJECT</th>
<th>LIMITS</th>
<th>DESCRIPTION</th>
<th>2007 COST ESTIMATE (S)</th>
<th>YEAR OPEN</th>
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<tbody>
<tr>
<td><strong>REGIONALLY SIGNIFICANT PROJECTS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Red Line-Regional</td>
<td>Social Security to Bayview</td>
<td>Construct an east-west rapid transit system</td>
<td>$1,538,750</td>
<td>2015</td>
</tr>
<tr>
<td>I-695-Baltimore Co</td>
<td>I-83 Harrisburg to I-95 North</td>
<td>Widen from 6 to 8 lanes</td>
<td>$373,200</td>
<td>2015</td>
</tr>
<tr>
<td>I-695-Baltimore Co</td>
<td>I-95 South to MD 122</td>
<td>Widen from 6 to 8 lanes</td>
<td>$375,300</td>
<td>2015</td>
</tr>
<tr>
<td>I-95 South-Baltimore Co</td>
<td>I-695 (Arbutus) to Baltimore/Howard Co line</td>
<td>Widen from 8 to 10 lanes</td>
<td>$461,900</td>
<td>2020</td>
</tr>
<tr>
<td>I-95 South Howard Co</td>
<td>Baltimore/Howard Co line to Howard/PG Co line</td>
<td>Widen from 8 to 10 lanes</td>
<td>$629,900</td>
<td>2020</td>
</tr>
<tr>
<td>US 50/301-Anne Arundel Co</td>
<td>I-97 to WPL Bay Bridge</td>
<td>Add 2 lanes</td>
<td>$215,200</td>
<td>2020</td>
</tr>
<tr>
<td><strong>SUBTOTAL</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>REGIONALLY SIGNIFICANT TRANSIT PROJECTS</strong></td>
<td></td>
<td></td>
<td><strong>$1,538,750</strong></td>
<td></td>
</tr>
<tr>
<td><strong>REGIONALLY SIGNIFICANT HIGHWAY PROJECTS</strong></td>
<td></td>
<td></td>
<td><strong>$2,055,500</strong></td>
<td></td>
</tr>
<tr>
<td><strong>HIGHWAY PROJECTS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Anne Arundel County</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MD 175</td>
<td>MD 295 to MD 170</td>
<td>AA County line to MD 295; widen from 2 to 4 lanes; MD 295 to MD 170; widen from 4 to 6 lanes</td>
<td>$213,000</td>
<td>2015</td>
</tr>
<tr>
<td>MD 198</td>
<td>MD 295 to MD 32</td>
<td>Widen from 2 to 4 lanes</td>
<td>$50,000</td>
<td>2015</td>
</tr>
<tr>
<td>MD 295</td>
<td>I-95 to MD 100</td>
<td>Widen from 4 to 6 lanes; full interchange at Hanover Rd</td>
<td>$144,000</td>
<td>2015</td>
</tr>
<tr>
<td>MD 170</td>
<td>MD 175 to MD 100</td>
<td>Widen from 2 to 4 lanes</td>
<td>$76,000</td>
<td>2020</td>
</tr>
<tr>
<td>MD 100</td>
<td>AA/Howard Co line to I-97</td>
<td>Widen from 4 to 6 lanes</td>
<td>$517,000</td>
<td>2025</td>
</tr>
<tr>
<td>MD 713</td>
<td>MD 175 to MD 176</td>
<td>MD 175 to Arundel Mills Blvd.; widen from 2 to 4 lanes Arundel Mills Blvd. to MD 176; widen from 4 to 6 lanes</td>
<td>$55,300</td>
<td>2025</td>
</tr>
<tr>
<td>MD 174</td>
<td>MD 175 to MD 170</td>
<td>Capacity improvements</td>
<td>$50,000</td>
<td>2025</td>
</tr>
<tr>
<td>I-97</td>
<td>MD 32 to US 50/301</td>
<td>Widen from 4 to 6 lanes</td>
<td>$229,000</td>
<td>2025</td>
</tr>
<tr>
<td>MD 3</td>
<td>AA/PG Co line to MD 32</td>
<td>Widen from 4 to 6 lanes; new interchange at MD 450</td>
<td>$336,700</td>
<td>2030</td>
</tr>
<tr>
<td>MD 2</td>
<td>US 50 to MD 10</td>
<td>Widen from 4 to 6 lanes</td>
<td>$178,900</td>
<td>2030</td>
</tr>
</tbody>
</table>
Figure 1

Aerotropolis Schematic
"Airports today are much more than aviation-infrastructures. They have become multimodal multifunctional enterprises generating considerable commercial development within and well beyond their boundaries."

"All commercial functions of a modern metropolitan center are located on and immediately around major airport sites transforming them from 'city airports' to 'airport cities.'"

-Dr. John D. Kasarda Ph. D.
Anne Arundel County

Annapolis, the next largest office submarket in the County, has maintained a strong history of a low vacancy rate. Historic surges in the vacancy in that submarket have been short-lived. Annapolis is currently one of the tightest submarkets in the entire Baltimore area with a 6% vacancy.

CONSTRUCTION
Despite a slightly higher vacancy rate and somewhat sluggish leasing activity, new office is under construction in Anne Arundel County. Corporate Office Properties Trust has 44,000 sf of recently completed space at 1362 Mellon Road and 152,000 sf under construction at Arundel Preserve. Trammell Crow recently broke ground for 120,000 sf at Aviation Business Park. Boston Properties/Konterra Realty's Annapolis Junction Business Park has 150,000 sf underway. In Annapolis, 68,000 sf of office condos is under construction at Parole Town Center and a significant 125,000 sf of redevelopment at 185 Admiral Cochrane Drive. In addition, the second office building at Park Place in the City of Annapolis is underway. All of these new developments will deliver in 2008, just in time for some of the initial "BRAC" related office requirements.

LOOKING TO THE FUTURE:
THE CALM BEFORE THE BRAC STORM
Commercial real estate developers have staked out numerous patches of soil in anticipation of significant growth in Anne Arundel County. The most obvious growth will occur in 2009 - 2011 with an additional 20,000 - 25,000 new jobs. BRAC-related government contractors will have a reasonable number of choice locations to house their employees; there is a strong possibility that by 2010 a defense contractor in need of 100,000 sf of Class "A" office could have a half dozen buildings from which to choose. This first wave of BRAC-related office construction should add the immediate needs, ensuring a bright future for those office developments. Once the immediate BRAC storm has passed, Anne Arundel County may be poised for a steady, healthy growth pattern. The NSA has been a long-time economic driver for the Anne Arundel economy and is anticipating direct and indirect growth to be 1,500 jobs per year. With the addition of DISA as another major economic driver, Anne Arundel County residents and businesses will enjoy the economic boost for many years.

TRENDS
Conditions in Anne Arundel County have changed enough to cause some landlords to provide a few concession packages with leases. Some free rent, additional tenant improvement dollars and moving allowances may be included. The need for concessions is possibly due to fewer customers in the market looking for space and a slow down of new government contracts. This change in leasing activity has slowed the planning for the BRAC related activity. The development community is deep into preparations for the 2009 - 2011 onslaught of office users. County, state and federal agencies are making arrangements for upgrading numerous road transportation networks. In the forefront of all of the intense activity, the Anne Arundel Economic Development Corporation (AAEDC) is busy communicating with numerous government contractors who will follow the DISA relocation. AAEDC will be assisting these contractors throughout their transition into Anne Arundel County.

PROPOSED / UNDER CONSTRUCTION (U/C)
- Odenton Town Center, 3.5 million sf
- Annapolis Junction Business Park, 2.3 million sf, 150,000 sf U/C
- Fort Meade Technology Center, 2 million sf
- Arundel Preserve, 1.6 million sf, 152,000 sf U/C
- National Business Park South, 1.5 million sf
- BWI Town Center South, 11 million sf
- Seneca/ New Boston, 600,000 sf
- Preston Commons, 500,000 sf
- Parksides, 400,000 sf
- Liberty at BWI, 375,000 sf
- Candlewood Corporate Center, 343,000 sf, renovation
- Aviation Business Park, 330,000 sf, 100,000 sf U/C
- Merritt at BWI, 300,000 sf
- BWI Hilton Office, 200,000 sf
- Arundel Mill Corporate Park, 150,000 sf

ANNAPOLIS ARUNDEL COUNTY
Greg Masi
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410-290-1452
Gregory Horne
ghorne@manekin.com
410-423-2012

MANEKIN
Full Service Real Estate
<table>
<thead>
<tr>
<th>Address</th>
<th>County</th>
<th>Date</th>
<th>Price</th>
<th>Office SF</th>
<th>$ Per FAR (+/-)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emerson Corporate Commons</td>
<td>Howard</td>
<td>12/31/2007</td>
<td>$2,810,000</td>
<td>65,000</td>
<td>$43.23</td>
</tr>
<tr>
<td>7005 Columbia Gateway Drive, Columbia, MD</td>
<td>Howard</td>
<td>12/14/2007</td>
<td>$2,520,000</td>
<td>70,000</td>
<td>$36.00</td>
</tr>
<tr>
<td>Benjamin Franklin Drive, Columbia</td>
<td>Howard</td>
<td>4/27/2007</td>
<td>$4,300,240</td>
<td>120,000</td>
<td>$35.84</td>
</tr>
<tr>
<td>6820 Benjamin Franklin Drive, Columbia Gateway</td>
<td>Howard</td>
<td>12/21/2006</td>
<td>$8,300,000</td>
<td>210,000</td>
<td>$39.52</td>
</tr>
<tr>
<td>9070 Sterling Drive, Laurel</td>
<td>Howard</td>
<td>12/20/2006</td>
<td>$5,649,800</td>
<td>160,000</td>
<td>$35.31</td>
</tr>
<tr>
<td>Hi Tech Drive, Hanover, MD</td>
<td>Howard</td>
<td>11/1/2006</td>
<td>$2,845,000</td>
<td>143,216</td>
<td>$19.87</td>
</tr>
<tr>
<td>7651 Montpelier Road, Laurel</td>
<td>Howard</td>
<td>7/27/2006</td>
<td>$4,202,100</td>
<td>243,000</td>
<td>$17.29</td>
</tr>
<tr>
<td>8601 Robert Fulton Drive</td>
<td>Howard</td>
<td>5/15/2006</td>
<td>$2,560,000</td>
<td>52,000</td>
<td>$49.23</td>
</tr>
<tr>
<td>Parcels B &amp; C Emerson Corporate Commons</td>
<td>Howard</td>
<td>12/22/2005</td>
<td>$4,750,000</td>
<td>120,000</td>
<td>$39.58</td>
</tr>
<tr>
<td>Parcel A - Emerson Corporate Commons</td>
<td>Howard</td>
<td>12/15/2005</td>
<td>$1,275,300</td>
<td>30,000</td>
<td>$42.51</td>
</tr>
<tr>
<td>Eastridge</td>
<td>Howard</td>
<td>12/15/2005</td>
<td>$6,500,000</td>
<td>170,100</td>
<td>$38.21</td>
</tr>
<tr>
<td>Lee DeForest Drive</td>
<td>Howard</td>
<td>4/1/2005</td>
<td>$3,250,000</td>
<td>130,000</td>
<td>$25.00</td>
</tr>
<tr>
<td>Columbia Gateway</td>
<td>Howard</td>
<td>10/5/2004</td>
<td>$6,319,170</td>
<td>220,000</td>
<td>$28.72</td>
</tr>
<tr>
<td><strong>Howard</strong></td>
<td></td>
<td><strong>2004 - 2007</strong></td>
<td><strong>$55,281,610</strong></td>
<td><strong>1,733,316</strong></td>
<td><strong>$31.89</strong></td>
</tr>
<tr>
<td>Race Road and Green Lane (7 Parcels)</td>
<td>Anne Arundel</td>
<td>7/15/2007</td>
<td>$4,100,000</td>
<td>197,000</td>
<td>$20.81</td>
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<tr>
<td>West Nursery Road and International Drive, Linthicum</td>
<td>Anne Arundel</td>
<td>6/15/2007</td>
<td>$6,500,000</td>
<td>160,000</td>
<td>$40.63</td>
</tr>
<tr>
<td>NW Quadrant of Ridge Road &amp; Dorsey Road, Hanover</td>
<td>Anne Arundel</td>
<td>4/15/2007</td>
<td>$3,640,000</td>
<td>110,000</td>
<td>$33.09</td>
</tr>
<tr>
<td>Ridge and Corporate Center Drive</td>
<td>Anne Arundel</td>
<td>12/15/2006</td>
<td>$9,151,875</td>
<td>350,000</td>
<td>$26.15</td>
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<tr>
<td><strong>Anne Arundel</strong></td>
<td></td>
<td><strong>2006-2007</strong></td>
<td><strong>$23,391,875</strong></td>
<td><strong>817,000</strong></td>
<td><strong>$28.63</strong></td>
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<tr>
<td><strong>Total Surveyed</strong></td>
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<td><strong>$78,673,485</strong></td>
<td><strong>$2,550,316</strong></td>
<td><strong>$30.85</strong></td>
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</tbody>
</table>
Lot 1

- Less Forest Conservation Easements: $15,659
- Less Forest Conservation Easements: $2,150
- Less Forest Conservation Easements: $0.322
- Less ROW Widening Strips: $0.280
- Less ROW Widening Strips: $0.195
- Less ROW Widening Strips: $0.046
- Less ROW Widening Strips: $0.375

**Net Developable Acres:** 12,492

**Cost of Site Improvements per DCD:** $3,070,673

**Escalation per DCD:** 880,116

**Duration measured from date of contract to May 2008**

**Cost of Site Improvements - Adjusted:** $4,830,789

**Site Improvement - Adj. Cost/Acre:** $386,711 /acre

**Net Developable Acres**
- 12,492
- 0.34

**Less Future Pad Site for Bank or etc.:**
- (1,000) acres
- (0.08) /acre

**Less Future Pad Site for Gas or etc.:**
- (1,000) acres
- (0.08) /acre

**Pad Sites prorated over Lot 1:** 2,539 acres

**Balance of Site prorated over Lot 1:** 13,320 acres

**Lot 1 Total:** 15,859 acres

**Pad Sites Estimated* Appraisal:** $2,212,033

**Balance of Site Estimated* Appraisal:** $5,802,164

**Site Improvement - Adj - Bal. of Site:** $4,057,368

**Balance of Site Estimated* Appraisal:** $5,802,164

**Estimated Value of Property less Pads:** $9,859,531

**Balt.-Wash. Corridor $ per FAR:** $30.85

**Recommended Developable SF:** 319,596 SF

**Number of Buildings:** 3

**Average SF per Building:** 106,532

**Number of Stories:** 4

**Average SF of Floor Plate:** 26,633

**Length of Building:** 250

- 107

**75% of Total SF:** 239,607 SF

**Parking Spaces 5 per 1,000 SF:** 1,198 Spaces

**Total Footprint of Three Buildings:** 75,000 SF

**Space and Lanes Average / Space:** 400

**Parking On-site:** 1,208

**Spaces Lost due to Footprint:** (189) Spaces

**Spaces Lost due to Pads Sites:** (77) Spaces

**Parking Available On-site:** 944

**Recomm. SF due to surface parking:** 251,600 SF

**Total Levels among three buildings:** 10.06 Levels

**Buildings**
- 1). Four Story - Total SF: 100,000
- 2). Three Story - Total SF: 75,000
- 3). Three Story - Total SF: 75,000

**Total:** 250,000 SF

**Subject Property $ per FAR - Adjusted:** $39.44

**Projected Parking Available on Site:** 938 Spaces
Works Cited

1. 2007 Airport Noise Zone Update and Noise Abatement Plan. (2007). Maryland Aviation Administration, Hanover, MD.


Colliers Pinkard, Columbia, MD. (March).

20. *Baltimore/Washington International Airport Neighbors Committee Meeting.*

Baltimore Regional Transportation Board, Baltimore, MD. (July 27).


   [sboone@aaedc.org](mailto:sboone@aaedc.org). Anne Arundel County Economic Development Corporation, Annapolis, MD.


64. Econo Park at BWI. (2004). Boyd & Dowgiallo, P.A., Glen Burnie, MD


Department of Planning and Code Enforcement, Anne Arundel County,
Annapolis, MD.

Department of Planning and Code Enforcement, Anne Arundel County,
Annapolis, MD.

Department of Planning and Code Enforcement, Anne Arundel County,
Annapolis, MD.


www.mdp.state.md.us.


88. Lins, B. (2007). The Case for a BWI Ground Transportation & Trip Planning System. Maryland Aviation Administration, Hanover, MD.

www.greaterbaltimore.org. (February 3).


100. MD 175 Project Planning Study. (2006). West Anne Arundel County Chamber of Commerce, MD. (September 21).


Governments National Capital Region Transportation Planning Board,
Washington, D.C. (March).


(February 28).


   *Aviation Week.* (May 29).


   (January 19).

    (September).


    *Baltimore Business Journal.* (April 8).