



## III: ECONOMY

Economy is the second aspect of sustainability. A sustainable economy supports a sustainable environment, and in turn supports a sustainable community.

- **Chapter 5, Economic Development**, is the first of the Maryland State Visions to be addressed. *PlanHoward 2030* sets out policies to grow the County's economy through continued collaboration among the Howard County Economic Development Authority, County agencies, and the business community.
- **Chapter 6, Growth**, presents job and housing projections and incorporates the new "place designations" as set forth in *PlanMaryland* which is the State's first proposed statewide plan.
- **Chapter 7, Transportation**, focuses on job accessibility, transit, bicycle and pedestrian facilities, as well as highway priorities to create a better transportation network for the County and the region.





Michelle Seu, Grade 12, River Hill High School

## 5. Economic Development

### Overview

Economic development that is sustainable must meet local and regional needs in the context of national and global economic conditions. Sustainability seeks to utilize renewable resources while conserving finite or longer-cycle resources. Ensuring a sustainable workforce is another crucial component, so a well-educated and properly trained labor pool is available for business ventures as opportunities arise.

Building upon the successes of *General Plan 2000*, *PlanHoward 2030* updates the current employment information in the previous general plan, reviews the innovative work and policies of Howard County's Economic Development Authority (EDA), and examines the results of a study by Robert Charles Lesser & Co. (RCLCO) to set policies and implementation actions for the next 20 years.

### State of Maryland Vision

*Economic development and natural resource-based businesses that promote employment opportunities for all income levels within the capacity of the State's natural resources, public services and public facilities are encouraged.*

### County Context

Howard County is extremely well located and has been successful in attracting and growing diverse businesses. While the County has been impacted by the economic downturn, it has been to a lesser degree than many other counties. Over the next two decades, growth associated with Fort George G. Meade in conjunction with the innovative work of the Howard County Economic Development Authority (EDA) will accelerate recovery in the County. EDA's proven experience has been applied to the County's recent launch of the Maryland Center for Entrepreneurship, which is dedicated to strengthening economic development opportunities throughout Maryland by fostering innovation at the local level and creating a culture of entrepreneurship.

## Progress under General Plan 2000



*Business services, biotech, cyber security, life sciences and information technology are growing fast in Howard.*

*General Plan 2000* addresses economic development in two different contexts as an important element of balanced and phased growth in the County: (1) the preservation and enhancement of commercial and industrial areas, and (2) agricultural growth and commercial development in the Rural West.

To promote balanced and phased growth, *General Plan 2000* set targets for job growth that were achieved, as discussed in Chapter 6. Enhancement of commercial and industrial areas occurred through policies aimed to encourage continued construction in various business parks and shopping centers as well as a renewed focus on revitalization and redevelopment. The Route 1 Corridor, Route 40 Corridor, and Downtown Columbia were the targets and beneficiaries of these approaches. To promote redevelopment and increase project quality, new zoning and design guidelines were adopted for all three areas. To further support revitalization, regulatory flexibility, development incentives, and supporting infrastructure and services were provided. Due to the economic downturn that began in 2008 and the limited demand for nonresidential development, not all the potential for growth was realized.

Under *General Plan 2000*, the County continued to focus on the economic viability of the farm community. Additional acreage was added to the County's Agricultural Land Preservation Program (ALPP), thus shielding it from further development and preserving land for farming. Progress in the Howard County agriculture industry over the last ten years includes:

- The ability for farms to incorporate agritourism into their farm enterprise.
- An increase in value-added processing on Howard County farms.
- An increase in direct marketing, farmers' markets, and on-farm markets as the demand for locally grown food has increased.

## Employment Growth

*General Plan 2000* set job growth targets of 4,000 new jobs per year between 2000 and 2010 and 3,000 jobs per year between 2010 and 2020. This was based on a rationale that the strong job growth of the mid- and late-1990s would continue into the first decade of the plan before slowing down in the following decade. Actual job growth between 2000 and 2009 averaged about 3,100 jobs per year, less than the 4,000 annual growth targets for this initial decade. Considering the recession, the County fared relatively well, as shown in Figure 5-1. This was due to strong job growth in the middle of the last decade.

**Figure 5-1  
Central Maryland Employment (1,000's)**

Jurisdiction	2000		2009		2000 to 2009	
	Jobs	Percent	Jobs	Percent	Jobs	% Increase
Anne Arundel County	295.2	11%	357.0	13%	61.8	21%
Baltimore County	448.5	17%	505.6	18%	57.1	13%
Carroll County	68.1	3%	82.0	3%	13.9	20%
Harford County	97.1	4%	114.9	4%	17.8	18%
<b>Howard County</b>	<b>159.2</b>	<b>6%</b>	<b>187.1</b>	<b>7%</b>	<b>27.9</b>	<b>18%</b>
Baltimore City	446.4	17%	384.8	14%	(61.6)	-14%
Frederick County	103.9	4%	127.3	4%	23.4	23%
Montgomery County	593.0	23%	645.2	23%	52.2	9%
Prince George's County	391.2	15%	428.4	15%	37.2	10%
<b>TOTAL</b>	<b>2,602.5</b>	<b>100%</b>	<b>2,832.4</b>	<b>100%</b>	<b>229.9</b>	<b>9%</b>

Source: U.S. Bureau of Economic Analysis, May 2011

## Jobs by Type in Howard County



*Science and technology firms are major employers and innovators in Howard County.*

Howard County offers a diverse job base. Jobs discussed in this section include all employment within Howard County and are not limited to jobs held by residents of Howard County, albeit home-based jobs are held by residents.

In 2009, about 83% of all jobs in the County were wage and salary jobs, while the remaining 17% were proprietor or self-employed. Proprietors increased by 42% from 2001 to 2009, a larger increase than the 9% increase in wage and salary jobs. This trend is likely to continue as both home-based and small businesses continue to prosper due to technological innovation and the changing economy.

Of the major job classifications, professional and technical services take the lead with 31,159 jobs in 2009, or 17% of the total. This is followed by retail trade and government jobs at 10% each. Although retail jobs remain the second largest category in 2009, this sector had the greatest losses of all categories between 2001 and 2009. This is due to the recession, which began in 2008, and perhaps the changing retail job landscape associated with the growth of web-based commerce. Manufacturing, construction, transportation, and warehousing jobs also experienced declines. All other categories saw increases and are summarized in Figure 5-2.

As shown in Figure 5-3, compared to other Central Maryland jurisdictions, Howard County is less dependent upon Federal civilian employment. In 2009, there were about 600 Federal Federal civilian jobs, which is only 0.34% of the total jobs in the County. (However, 10% of Howard County residents worked in Federal jobs located outside the county.) By comparison, 11% of Anne Arundel County's job base was Federal. Prince George's and Montgomery Counties' had 6% and 7%, respectively. Consequently, if the Federal government downsizes over the next decade, the impact may be less in Howard County than in other jurisdictions.

Of all Central Maryland jurisdictions, Howard County has the greatest percentage of professional and service jobs. These jobs are expected to grow with the growth of the knowledge economy.

## Unemployment Trends

Howard County continues to have a strong and growing labor force which is closely correlated with employment growth. The only exception was during the recent "great recession" beginning in 2008, when the labor force declined slightly due to some residents no longer looking for work. Employment declined during the same period. Similar patterns occurred nationally, but comparatively the dip in employment was relatively modest in Howard County. This trend is not expected to last as the economy continues to rebound and the County's highly educated workforce fills the growing technical and professional job base. Figure 5-4 summarizes labor force and employment trends since 1990 in Howard County.

Howard County consistently has lower unemployment rates than the statewide average. In general, the County has had the lowest unemployment rate of all jurisdictions in the state. This is due to a highly educated workforce and ample job opportunities in both the Washington and Baltimore metropolitan areas. It is anticipated that this trend will continue as the County continues to attract a highly educated population, given its quality of life and locational advantages.

**Figure 5-2  
Jobs in Howard County by Detailed Job Type**

Year ==>	2001		2009		2001 to 2009	
	Jobs	Percent	Jobs	Percent	Jobs	% Increase
<b>By Type</b>						
Wage and salary	142,284	86%	154,944	83%	12,660	9%
Proprietors	22,700	14%	32,152	17%	9,452	42%
Farm proprietors	330	0%	270	0%	(60)	-18%
Nonfarm proprietors (1)	22,370	14%	31,882	17%	9,512	43%
<b>By Major Industry</b>						
Farm	581	0%	476	0%	(105)	-18%
Nonfarm	164,403	100%	186,620	100%	22,217	14%
<b>Private</b>	147,856	90%	167,860	90%	20,004	14%
Forestry, fishing, related activities, and other	(D)	(D)	(D)	(D)	(D)	(D)
Mining	(D)	(D)	(D)	(D)	(D)	(D)
Utilities	232	0%	212	0%	(20)	-9%
Construction	13,530	8%	12,065	6%	(1,465)	-11%
Manufacturing	8,639	5%	6,312	3%	(2,327)	-27%
Wholesale trade	13,400	8%	15,262	8%	1,862	14%
Retail Trade	21,058	13%	18,075	10%	(2,983)	-14%
Transportation and warehousing	5,380	3%	4,391	2%	(989)	-18%
Information	2,855	2%	4,472	2%	1,617	57%
Finance and insurance	7,132	4%	9,228	5%	2,096	29%
Real estate and rental and leasing	5,734	3%	9,173	5%	3,439	60%
Professional and technical services	23,299	14%	31,159	17%	7,860	34%
Management of companies and enterprises	312	0%	1,622	1%	1,310	420%
Administrative and waste services	9,483	6%	12,531	7%	3,048	32%
Educational services	2,296	1%	4,358	2%	2,062	90%
Health care and social assistance	13,081	8%	15,303	8%	2,222	17%
Arts, entertainment, and recreation	3,901	2%	4,112	2%	211	5%
Accommodation and food services	9,417	6%	10,745	6%	1,328	14%
Other services, except public administration	7,883	5%	8,586	5%	703	9%
<b>Government and Government Enterprises</b>	16,547	10%	18,760	10%	2,213	13%
Federal, civilian	735	0%	628	0%	(107)	-15%
Military	876	1%	823	0%	(53)	-6%
State and local	14,936	9%	17,309	9%	2,373	16%
State	3,908	2%	3,305	2%	(603)	-15%
Local	11,028	7%	14,004	7%	2,976	27%
<b>TOTAL JOBS</b>	<b>164,984</b>	<b>100%</b>	<b>187,096</b>	<b>100%</b>	<b>22,112</b>	<b>13%</b>

Source: U.S. Bureau of Economic Analysis, May 2011 Classification is NAICS, which replaced SIC starting in 2001.

(1) Excludes limited partners.

"(D)" Not shown to avoid disclosure of confidential information, but estimates for this item are included in the totals.

**Figure 5-3  
Percent of Total Jobs by Job Type for Central Maryland Counties - 2009  
(Excluding job type categories that are small percentages of the total)**

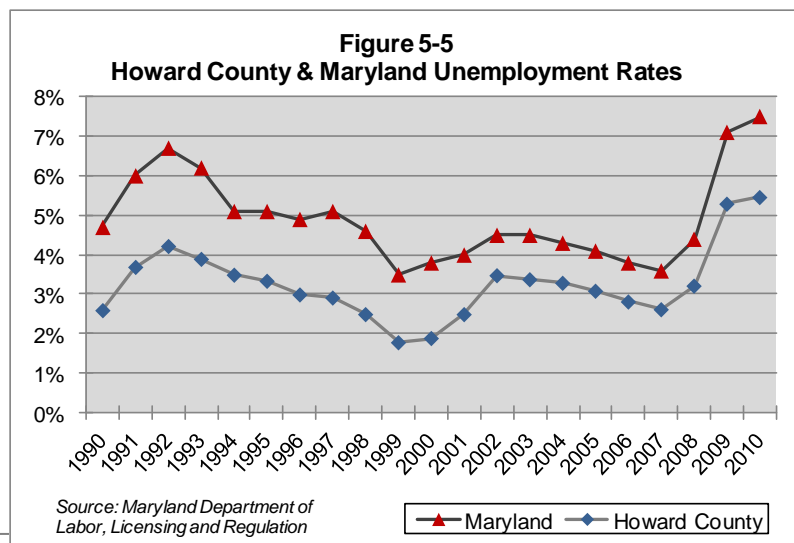
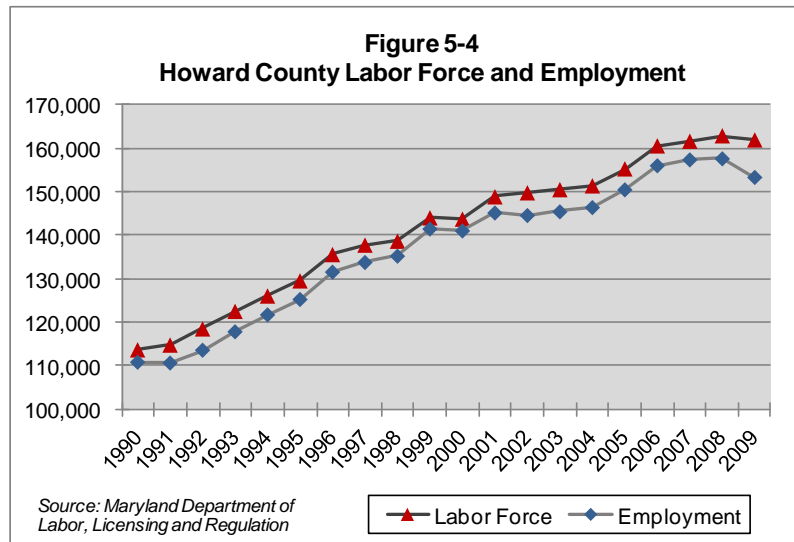
Major Job Category	Anne		Baltimore			Prince			TOTAL	
	Howard	Montgomery	Arundel	Baltimore	City	Frederick	Carroll	George's		Harford
Construction	6%	6%	6%	6%	3%	9%	10%	9%	7%	<b>6%</b>
Manufacturing	3%	2%	4%	4%	4%	4%	6%	3%	4%	<b>3%</b>
Retail Trade	10%	8%	11%	11%	5%	11%	13%	11%	13%	<b>9%</b>
Finance & Insurance	5%	6%	3%	7%	5%	7%	4%	3%	4%	<b>5%</b>
Real Estate & Rental & Leasing	5%	6%	5%	6%	3%	4%	5%	4%	5%	<b>5%</b>
Professional & Technical Services	17%	16%	9%	9%	7%	11%	6%	8%	9%	<b>11%</b>
Administrative & Waste Services	7%	7%	5%	6%	5%	5%	7%	7%	5%	<b>6%</b>
Educational Services	2%	3%	1%	3%	8%	3%	2%	2%	1%	<b>3%</b>
Health Care & Social Assistance	8%	11%	8%	14%	20%	9%	12%	9%	10%	<b>12%</b>
Accommodation & Food Services	6%	5%	7%	6%	6%	7%	7%	6%	7%	<b>6%</b>
Federal, civilian	0%	7%	11%	3%	3%	3%	0%	6%	8%	<b>5%</b>
State and Local	9%	6%	8%	8%	18%	9%	10%	15%	8%	<b>10%</b>

Source: U.S. Bureau of Economic Analysis

Some businesses in the County face significant challenges in filling lower-paid service and retail positions. Howard’s relatively high housing costs make it difficult for some workers to live here. Long commutes from other communities and limited public transportation further add to the difficulty. Continued innovation, creative solutions, and thoughtful policies will address these issues, as the County’s economy continues to grow.

Figure 5-5 shows the State and County unemployment rates since 1990. The three recessions that occurred during this time period are apparent, with the greatest impact resulting from the most recent “great recession.” During this time, the unemployment rate for both the State and the County increased for each of the last three years. Beginning in 2009, Howard County exceeded a 5% unemployment rate for the first time since 1990. In 2010, it was 5.5%. This is still lower, however, than the statewide unemployment rate of more than 7%. Maryland fares well compared to the U.S. as a whole, which has had an unemployment rate of as much as 10% in recent years.

Taking this information into account, the Howard County Economic Development Authority prepared a 2011 Strategic Plan which proposes its approach to continue supporting Howard County’s growing, diverse, and increasingly sustainable economy.



## EDA's 2011 Strategic Plan

The Howard County Economic Development Authority (EDA) is a nonprofit organization whose mission is to promote economic growth and stability in Howard County by supporting existing businesses, attracting targeted new businesses such as corporate and / or regional headquarters, and serving as the liaison between public and private economic development and planning organizations. EDA promotes small business growth, entrepreneurship, and innovation through various initiatives and makes policy recommendations to County government in support of the achievement of planned economic goals.

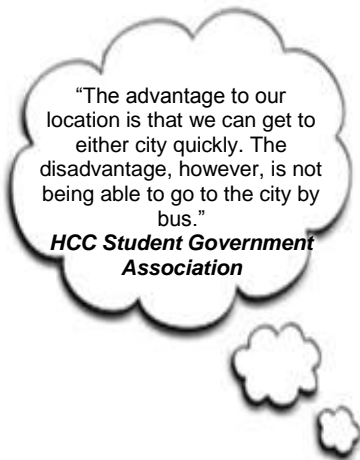
As part of its support of businesses, EDA assists companies with land and building selection, financing, employee recruitment and training, permit and regulatory issues, and other development support services. Developing a strategic plan in collaboration with the business community is an important part of business support.

Howard County is widely recognized as one of the best places in the U.S. to live, work, and operate a business. To help ensure the continued success of Howard County, part of EDA's work is to promote the County's successes and describe the reasons behind those successes and to expand them.

As part of the expanding successes for Howard County, the Maryland Center for Entrepreneurship (MCE) will encompass the business incubator (formerly the NeoTech Incubator), the Business Resource Center, the Howard Technology Council, and the Catalyst Loan Fund. The programs offered at the MCE will be provided in partnership with other Howard County and State-based resources, including research institutions that will facilitate the commercialization of technologies to help spur innovation and create new businesses.

EDA's 2011 Strategic Plan identified four themes designed to describe the business community in Howard County. A summary of the four themes appears below and are followed by policies and implementation actions developed by DPZ in tandem with EDA.

- **Knowledge Community.** This theme focuses on the importance of a highly educated population and excellent education resources to the County's economic and quality of life success. The top priorities for the knowledge theme are development of a comprehensive workforce strategy, prekindergarten through college education, and lifelong learning.
- **Connected Community.** The Connected Community theme is designed to highlight, promote, and improve access to regional, national, and global markets and to emphasize the importance of local and regional partnership among government, business, education, and not-for-profit entities. The critical components of this theme are Fort Meade growth, the most comprehensive public and private broadband networks, efficient local and regional transportation, and strategic alliances and partnerships.
- **Reinvent the Community.** This theme focuses on preserving key characteristics and qualities valued by the community and devising new ways to accommodate healthy and necessary growth in Howard County. The components are implementing the Downtown Columbia plan; redeveloping existing employment centers and business parks; creating great, diverse, unique, and renewed communities; ensuring adequate natural resources; and developing the tools to make these priorities a reality.





- **Innovation Community.** Howard County and Central Maryland are rich with the innovation and quality of life assets found in the nation’s best-known tech centers. The Innovation theme stresses the importance of entrepreneurship; new product and technology development; problem-solving; information sharing; the attraction of young, upwardly mobile professionals; and the creation of a culture of innovation.

Together these four themes describe a community that is well poised for job growth and economic development. In anticipation of demand for new skills in a growing economy, the County and EDA could work to expand the knowledge base and training in science, technology, engineering, and math (STEM) at all levels of public and private education. The Maryland Department of Labor, Licensing and Regulation estimates the recent job growth trends by skill levels in Figure 5-6.

**Figure 5-6  
Howard County Job Openings  
Skill Level by Occupational Group**

Skill Level	Occupational Group	Total Openings in 2008 to 2012
High	Management	5,850
	Business & Finance	4,790
	Professional & Related	25,420
Middle	Sales & Related	10,110
	Office & Administration	13,025
	Construction	4,255
	Installation & Repair	3,625
	Production	2,415
	Transportation & Material Moving	5,400
Low	Service Occupations	25,100
	Farm, Fish & Forestry	175

Source: Maryland Department of Labor, Licensing and Regulation  
Howard County Fact Sheet, July 2001

Additionally, EDA estimates total direct, indirect, and induced employment related to Fort Meade will grow from 134,000 to 195,695 jobs in several years due to BRAC, Cyber Command, NSA, and other planned expansions. This will have a profound impact on Howard County in terms of new and expanding IT and government contractors, an increasing residential population, and spin-off development.

## Policies and Implementing Actions

**POLICY 5.1 – ~~Implement key actions from EDA’s 2011 Strategic Plan~~  
Identify, develop, implement and refine a comprehensive program to foster a diversified economy and encourage innovation and entrepreneurship.**

### Implementing Actions

- Fort Meade Economic and Job Growth.** Focus on the anticipated growth due to BRAC, Cyber Command, NSA, and other planned expansions to capture new growth.
- Branding.** Develop and implement a comprehensive branding effort for Howard County to establish a distinct and readily identifiable research

and technology brand in the global marketplace as a “top global tech center.”

- c. **Entrepreneurship.** Develop a comprehensive strategy to enable entrepreneurs to be creative, grow their businesses, and access capital.
- d. **Downtown Columbia Revitalization.** Implement the Downtown Columbia Plan to create a vibrant, mixed-use urban center for Howard County. This walkable, livable, revitalized Downtown will create a needed urban anchor that will attract and retain the creative class, and will advance the rebranding of Howard County for the 21st century.
- e. **Renewed Approach to Route 1 and Existing Business Parks.** Address the demand for business growth in the Baltimore-Washington Corridor, despite the declining availability of greenfield development sites, through new redevelopment strategies.
- f. **Funding for Transportation.** Expand multimodal transportation options and connectivity to ensure an adequate workforce for Howard County employers and to maintain quality of life.
- g. **Workforce Development Strategy.** Ensure an adequate, trained workforce is available to meet the need for service, entry level, and highly skilled workers through the provision of pre-kindergarten through college education, lifelong learning, diverse housing, commuting and transportation, health care, and benefits costs.
- h. **Existing Businesses.** Continue to support and address the needs of existing businesses.

#### **POLICY 5.2 – Establish Howard County as a leader in 21st century entrepreneurship, information technology, and cyber security.**

##### **Implementing Actions**

- a. **Marketing.** Create a development and marketing program to attract prime information technology and cyber businesses, as well as the critical skilled workforce.
- b. **Infrastructure Capacity.** Define broadband, mobile communications, and utility infrastructure requirements, and ensure that service capacity and quality are available.
- c. **Innovation.** Develop programs and facilities to promote a new culture of entrepreneurship and innovation. Encourage the creation of technology-driven entrepreneurial businesses.
- d. **Education.** Engage with local businesses to identify the need for leading programs in science, technology, engineering, and math (STEM) in the public schools, Howard Community College, and branch campuses of leading Maryland universities. ~~Increase participation by minorities and females.~~ Increase participation by minorities, women, and individuals with disabilities.

#### **POLICY 5.3 – Promote future energy and green industries.**

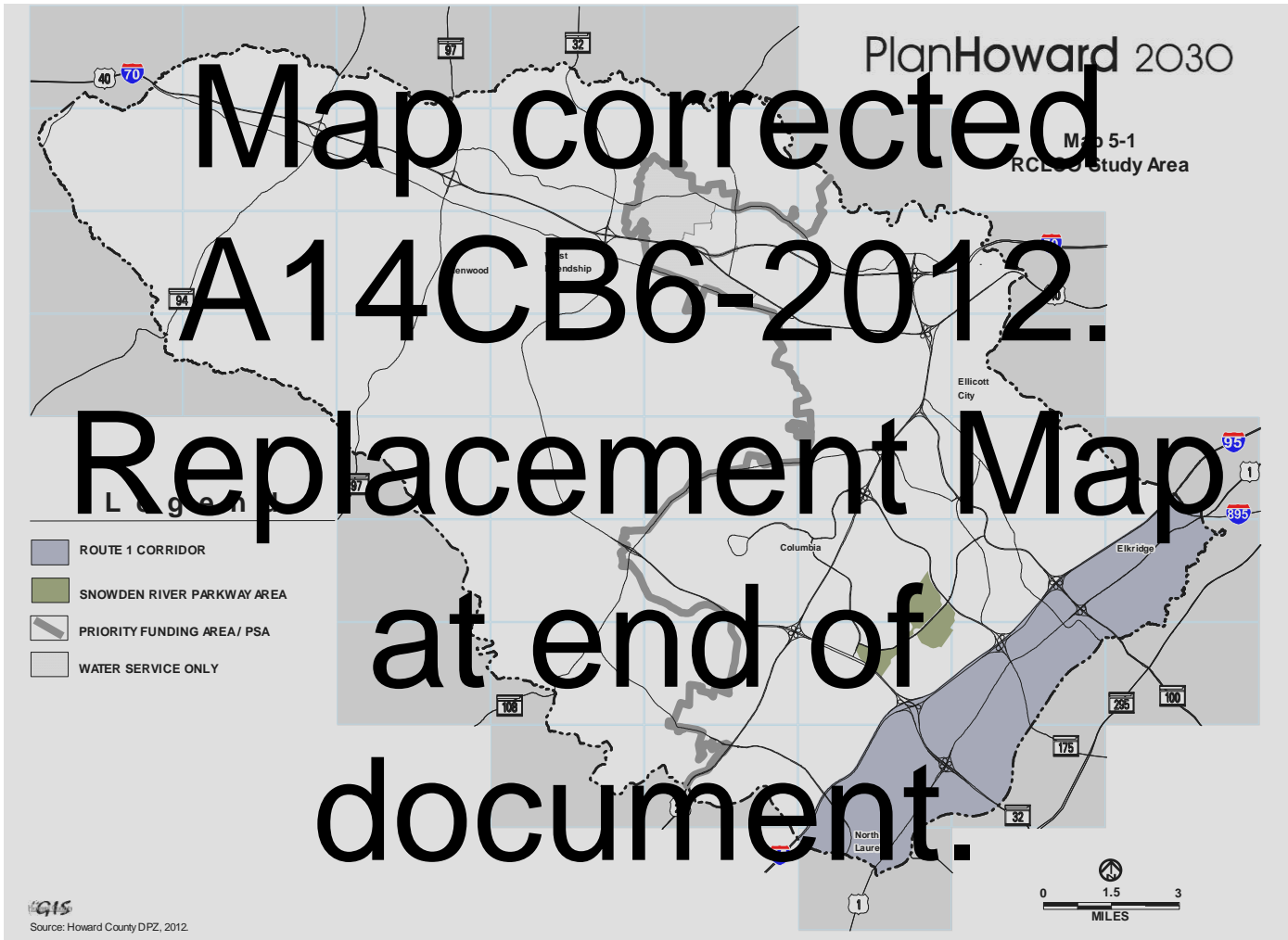
##### **Implementing Actions**

- a. **Differentiation.** Integrate forward-thinking energy and resource use into the County’s economic development agenda, particularly considering green infrastructure and transportation solutions that differentiate the County from neighboring jurisdictions.

- b. **Management.** Explore evolving energy markets, plus options for enabling “smart grid” developing technologies, which reveal new opportunities to create, store, consume, and invest in energy commodities and related assets.
- c. **Commercial Opportunities.** Identify and promote green technologies and associated business opportunities.
- d. **Incentivizing Sustainability.** Create incentives to attract new businesses demonstrating sustainable practices or developing sustainable, technologies, materials, and products.

### US 1 Corridor Redevelopment

Robert Charles Lesser & Company (RCLCO), a market research and real estate advisory firm, evaluated Route 1 commercial and industrial market conditions (Map 5-1). RCLCO reported that the Route 1 Corridor is a vital economic asset. Though it comprises only 8% of Howard County’s land area, the corridor is home to 30% of the County’s jobs. Encouraging mixed-use development via revitalization of older, “underdeveloped” properties resulted in limited success as the demand for housing paced much of the development activity while office and retail components did not materialize. However, because there are few unencumbered greenfield sites remaining in the County, redevelopment and



revitalization will remain a necessary instrument to accommodate future growth and stimulate economic development, and in this sense the Route 1 Corridor represents a significant opportunity.

Projections show regional demand for Class A/B+ office space will be low relative to the projected capacity. Through 2030, the demand for office space is expected to peak at just over three million square feet. This demand is low when compared to the 14.1 million square feet of approved office space in the pipeline in Howard and Anne Arundel Counties. Yet while this suggests a challenging environment, Howard County, and Route 1 in particular, holds competitive advantages in several key sectors (e.g., financial services, information technology, life science industries, and cyber security support) that may present opportunities for targeted development of high-visibility employment areas. The expansion of jobs within the Route 1 Corridor will also generate additional opportunities for commercial and residential development, some of which may be absorbed through the redevelopment of sites with marginal or very-low-intensity uses.



*The Route 1 Corridor presents opportunities for sustainable growth of the local economy.*

The Route 1 Corridor is 90% “built out” with much of the remaining 10% already committed to future residential or commercial development. While this limits readily apparent greenfield development opportunities, the sheer size of the corridor in Howard County (21 square miles) means there are sizeable opportunities for strategic redevelopment in the near term, as well as some opportunity for future development of uncommitted sites. To maximize these opportunities and achieve the desired vision for the Route 1 Corridor, the County will need to consider employing strategies that offset any inherent drawbacks associated with redevelopment. The “redevelopment toolbox” would be comprised of specific instruments aimed at facilitating new development and redevelopment projects that catalyze economic growth, protect existing employment areas, and enhance existing communities. Potential strategies include creating tiered development incentives, establishing servicing districts to help brand and market the corridor, and developing a corridor land bank. These and other recommendations should be evaluated as part of a long-term strategic plan for the Route 1 Corridor. The full report is available online at DPZ’s site for the *PlanHoward 2030* process.

## Policies and Implementing Actions

**POLICY 5.4 – Enhance the Route 1 Corridor revitalization strategy to recognize the distinct character and market potential of diverse corridor segments, and the potential at various intersections, crossings, and nodes for additional retail, restaurant, and employment development as identified in the 2011 Route 1 Market Analysis.**

### **Implementing Actions**

- a. **Opportunities.** Focus planning efforts to maximize development potential in four types of land-use opportunity areas: redevelopment of high-visibility employment areas; greenfield development of high-visibility employment areas; major industrial park development; and mixed-use opportunity sites.
- b. **Zoning Review.** Evaluate the efficacy of existing Route 1 zoning districts (CE, CAC, TOD); consider more flexibility, especially regarding commercial uses, ~~and revise~~ Reduce strip commercial development along Route 1 frontage by directing retail uses to retail centers and mixed use developments and by directing truck-oriented uses, uses that require outdoor storage, and most auto-oriented retail uses such as gasoline service stations, automobile repair facilities and similar uses to

parts of the corridor not fronting on Route 1 and not near residential areas. Revise zoning as needed to ensure County vision is achieved.

- c. **Residential Expansion and Employment Preservation Preservation of Land for Employment and Industrial Use.** Accommodate residential development in key nodes in the Route 1 Corridor so that it does not erode opportunities to preserve or redevelop employment and industrial areas.
- d. **Refine the Vision.** Clarify residential and nonresidential land use goals as a framework for evaluating future proposals.
- e. **Transportation.** ~~Develop transit and road improvements solutions to support revitalization of the US-1 Corridor.~~ **Transportation.** Develop transit and road improvement solutions including bicycle and pedestrian accessibility to promote connectivity and support revitalization of the Route 1 Corridor.

**POLICY 5.5 – Proactively consider innovative tools to enhance the Route 1 Corridor’s competitiveness, attract and retain businesses, and maximize redevelopment opportunities.**

### Implementing Actions

- a. **Economic Growth.** Focus incentives on opportunity sites within the Route 1 Corridor and on key industry market sectors with strong growth potential in Howard County.
- b. **Beneficial Projects.** Adopt a tiered incentive program that provides benefits commensurate with the proposed project’s potential benefit to the County.
- c. **Nodes.** Develop plans for key opportunity areas that allow for significant future intensification, while maximizing current and intermediate development potential and protecting industrially zoned land.
- d. **Land Assembly.** Encourage land assembly to prevent piecemeal redevelopment and facilitate projects that are integral to the County’s long-term development strategy.
- e. **Partnering.** Evaluate specific scenarios where the County might benefit from engaging in public / private development partnerships ~~(i.e., County/EDA as developer)~~, including opportunities for non-profits.
- f. **Transportation.** Promote, plan, and protect bicycle and pedestrian, and transit access in the Corridor.

## Snowden River Parkway Area

RCLCO also evaluated market demand and redevelopment potential for the Snowden River Parkway area including Dobbin Road and the former General Electric (GE) Appliance buildings (Map 5-1). RCLCO reported that although the Snowden area comprises less than 1% of the County’s land area, it is home to 5% of the County’s jobs and is an opportunity area for new Class A office space in conjunction with mixed-use development, particularly on the east side of Snowden River Parkway. Redevelopment plans for the Snowden River Parkway area need to consider the impact that increased development along Snowden River Parkway would have on Columbia and its village centers. Redevelopment of Snowden River Parkway should be discouraged until revisions are made to the NT Zoning Regulations to ensure redevelopment is consistent with well planned evolution of the Preliminary Development Plan for Columbia, which

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balances changing market conditions and opportunities with the need to avoid adverse impacts on Village Centers and surrounding properties. Redevelopment of the Snowden River Parkway area must recognize the distinct characteristics of different sub-areas. Scattered, uncoordinated redevelopment is already occurring along Snowden River Parkway and needs a planning framework to guide redevelopment. Restrictive covenants on the former GE properties begin to expire in 2017, which affords time to evaluate options and plan for redevelopment.

RCLCO recommended Howard County take a proactive role in planning for redevelopment. Land-use mix, intensity, and design need to be studied in conjunction with transportation options. Rezoning of the Snowden-GE area will be needed, as well as road and transit improvements to support intensification. Owners of redevelopment projects should participate in the funding of transit and amenity improvements.

Similar to Downtown Columbia, the Snowden River Parkway area may also benefit from either a public-private partnership or a private organization, such as a Business Improvement District or Commercial District Management Authority, to provide enhanced services for mixed-use, transit-oriented redevelopment.

## **Policies and Implementing Actions**

**POLICY 5.6 –Plan for Class A office, industrial, and mixed-use redevelopment of commercial and industrial properties within the Snowden River Parkway area.**

## Implementing Actions

- a. **Plan for Redevelopment.** Work with area property owners and other stakeholders to evaluate market, infrastructure, and design options to develop a plan for transitioning the Snowden River Parkway area into a more intensive and integrated mix of Class A office, residential, retail, and amenity spaces, with multimodal transportation options. **Plan for Coordinated Redevelopment.** Work with Snowden River Parkway and east Columbia Village Center property owners, as well as other community stakeholders to evaluate market conditions and redevelopment options to determine how to best position redevelopment of different parts of the Snowden River Parkway Area in relation to redevelopment of the Village Centers.
- b. **Partner on Implementation.** Consider establishing a partnership or special servicing district to promote and manage redevelopment.
- c. **Differentiate when planning.** Distinguish among the sections along Snowden River Parkway that exhibit different characteristics and merit different treatment.

## Transportation Connections between Economic Centers

RCLCO also identified the potential for enhancing transportation connections between the County's major economic activity areas. To improve transit service, RCLCO recommended study of a potential Bus Rapid Transit (BRT) line to connect Downtown Columbia to the Snowden River Parkway area, Gateway Business Park, Route 1, and Fort Meade. To obtain the necessary rights-of-way (ROW) to create the Howard County portion of the system, the County would need to acquire railroad ROW now being abandoned in a piecemeal manner by CSX.

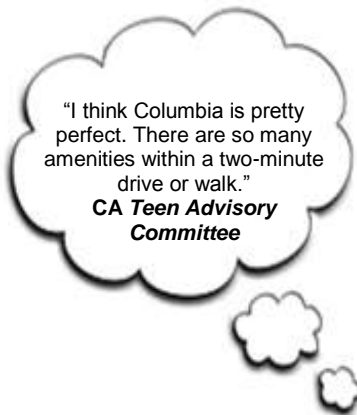
RCLCO recommended a new roadway connection between Snowden River Parkway and Route 1, bridging over I-95. As redevelopment occurs in the study area, improving the local east-west traffic circulation across the corridor through improved local roadway connectivity is a critical means to reduce traffic congestion on existing roadways such as MD 32, Snowden River Parkway, MD 175, I-95 and US 1. RCLCO suggested that providing a new arterial between Snowden River Parkway and US 1 would also create direct access to multiple parcels, thus increasing the potential for additional economic development.

## Policies and Implementing Actions

**POLICY 5.7 – Plan for future transit and road capacity to service and transportation services and facilities that connect Downtown Columbia, the Snowden River Parkway area, Gateway, and Route 1 to regional connections to Baltimore, Washington, and Fort Meade.**

### Implementing Actions

- a. **Connect Development Nodes.** Study the feasibility of regional Bus Rapid Transit (BRT), as well as enhanced local bus service between major business and residential nodes from Downtown Columbia through the Snowden River Parkway area, Gateway Business Park, and the Route 1 corridor to Fort Meade and Odenton in Anne Arundel County. If viable, take action to secure existing CSX rail spur ROW.



- b. **Make More Connections.** Study the feasibility and cost-benefits of a new roadway connection crossing I-95 between US 1 and Gateway Business Park.
- c. **Alternative modes of transportation.** Study the feasibility of alternative modes of transportation, including facilities for bicyclists and pedestrians, to connect Downtown Columbia, the Snowden River Parkway Area, Gateway, Route 1, and other major business and residential nodes in and near the County.
- d. **Transportation Management Associations.** Evaluate the utility and benefit of developing transportation management associations.

## Route 40 Corridor and Columbia's Village Centers

*General Plan 2000* identified both the Route 40 Corridor and older Columbia Village Centers for study regarding possibilities for redevelopment and enhancements. As the Route 40 Corridor and Columbia's Village Centers have matured, there is increasing potential for new projects that take advantage of growing demand for mixed-use, pedestrian- and transit-friendly development.

In 2004, the Route 40 Corridor Enhancement Study was completed, followed by some rezoning, and adoption of the Route 40 Design Manual. In 2009, the County adopted new zoning for the revitalization of Village Centers in Columbia. *PlanHoward 2030* endorses implementation of these initiatives and supports the continued evolution of both the Village Centers and the Route 40 Corridor using the frameworks established under the Village Center Revitalization zoning process and Route 40's Zoning, Design Manual, and Streetscape Master Plan, respectively.

Robust connectivity to and among *Howard County's commercial centers* is critical to their long-term health and vitality. Consideration must be given to alternative modes of transportation including maintaining, updating, and expanding bicycle and pedestrian facilities.

## Policies and Implementing Actions

**POLICY 5.8 – Enhance Continue to enhance the vitality and redevelopment of Columbia's Village Centers . and plan for future connections among Village Centers and with other commercial centers.**

### Implementing Actions

- a. **Strengthen Village Centers.** Encourage Village Center property owners, Village Boards, and residents to develop and implement *plans for enhancing or redeveloping older Village Centers to maintain them as attractive focal points for the villages.*
- b. **Market Analysis.** Collaborate with the Columbia Association to undertake market assessments to assist in repositioning older centers in relation to each other, Downtown Columbia, and other competing commercial centers.
- c. **Connect commercial centers.** *Plan for future transportation connections, including bicycle, pedestrian, and transit, among and between Village Centers and other commercial centers.*



**POLICY 5.9 – Continue to enhance the vitality of the Route 40 Corridor.**

**Implementing Actions**

- a. **Enhance Route 40.** Encourage commercial renovation and where appropriate mixed-use redevelopment by promoting collaboration between owners and neighbors to create attractive focal points that serve the community.

**Agribusiness**



*The County is supporting the next generation of farmers.*

Cultivating the next generation of farmers, whether young or just new to farming, is critically important. The national trend of an aging farmer population, and concerns about who will replace them, is relevant in Howard County. Most of the original agricultural easement grantors are approaching, or are already beyond, retirement age. A very positive development within the last several years is the number of preservation farm families where the next generation has either taken over the daily operation of the farm or is preparing to do so. In most cases, the younger farmers have transitioned the operation or added a new venture in order to increase profitability. This is a very encouraging trend, one that will hopefully continue.

The County has taken a very active role in assisting the agricultural community to expand, diversify, and succeed since the Agricultural Marketing Program was established within the Economic Development Authority (EDA) in 1994. Due to its location, Howard County and its farmers have long been at the forefront of adapting to the transition from commodity-based agriculture to specialized, higher-value operations. As farmers have diversified over the years, the County has responded by amending its regulations. As a result of policies in *General Plan 2000*, the Zoning Regulations were changed to allow value-added processing, direct farm marketing, and agritourism enterprises.

Farming on the “urban fringe” presents both challenges and opportunities. Trends suggest that agritourism and other on-farm production and sales activities will increase. High land values will encourage these activities on smaller farm parcels than in the past. As a result, the next generation of farmers will likely face more nonfarm neighbor conflict than their parents did. However, they will also have access to an expanding market of affluent consumers increasingly interested in buying locally grown and produced food. Just in the last few years, the growth in CSAs (community supported agriculture) has been tremendous, both in the number of farms that are participating in CSAs and the number of subscribers the CSAs have, and also in the financial success enjoyed by the CSA farmers. The CSA model is still relatively new and evolving; it is an example of innovative marketing trends aimed at keeping both the food and food dollar local.

The increasing diversity in farming operations often necessitates a broadening and deepening of the farmer’s skills. In addition to the mechanics of a new farming venture, there are other, related fields of expertise for which a farmer must have a working knowledge. These include elements such as marketing, logistics, financial planning, public relations, and a familiarity with health department and land use regulations. The County and EDA have been addressing this need through a variety of educational seminars and training sessions for many years. The need for this type of technical assistance will continue and most likely increase over the planning horizon.

Along these same lines, educational opportunities in agricultural related fields for the County’s youth must be reintroduced. Although farming continues to be one

**GREEN TIP!**

Buy local. It’s fresher: Produce shipped from outside the country travels up to two weeks before it arrives in grocery stores.

of the largest employers in Maryland, the Howard County Public School System has not included agriculture education in their course offerings for many years. According to the Maryland Agricultural Education Foundation, “Incorporating agriculture into teaching and learning creates the foundation that students, as future citizens, need to make educated decisions regarding food choices and nutrition, community issues, land use planning and natural resource conservation.” In addition, expanding the current curricula to include the wide variety of disciplines that agriculture covers will help ensure food security into the future.

## Policies and Implementing Actions

### **POLICY 5.9 5.10 – Expand programs to support and enhance agribusiness.**

#### **Implementing Actions**

- a. **Training.** Promote County and regional training programs for existing and new farmers to enhance critical business skills.
- b. **Diversification.** Use Agricultural Land Preservation Program funds to offer matching grants for farmers to diversify their agriculture operations through agribusiness innovations.
- c. **Mentoring.** Create a mentoring program that will connect the younger generation of farmers with experienced farmers and also with farmers who may have property but no one to farm it.
- d. **New Leaders.** Establish an agricultural leadership program for middle / high school students to teach a broad range of skills both specific to agriculture and also general skills such as team building and public speaking. Work with the Howard County public schools to introduce elements of agricultural education back into the public school curriculum.



Irene Lu, Grade 6, Hammond Middle School

## 6. Growth

### Overview

*PlanHoward 2030* incorporates the framework and the designated place types called for in the new statewide plan, *PlanMaryland*. *PlanMaryland* proposes five “place types” as the central organizing element for coordinating State and local growth policies and resources. The *PlanHoward 2030* map of designated places in this chapter (Map 6-2) categorizes all land in Howard County as one of the *PlanMaryland* place types. These new place designations will play a major role achieving the sustainability goals expressed in *PlanHoward 2030*.

This chapter includes growth projections for housing, population, and employment. The housing projections will be utilized to set the Adequate Public Facilities housing allocation schedule. The chapter concludes with a section addressing the need for more compact development.

### State of Maryland Vision

*Growth is concentrated in existing population and business centers, growth areas adjacent to these centers, or strategically selected new centers.*

### County Context

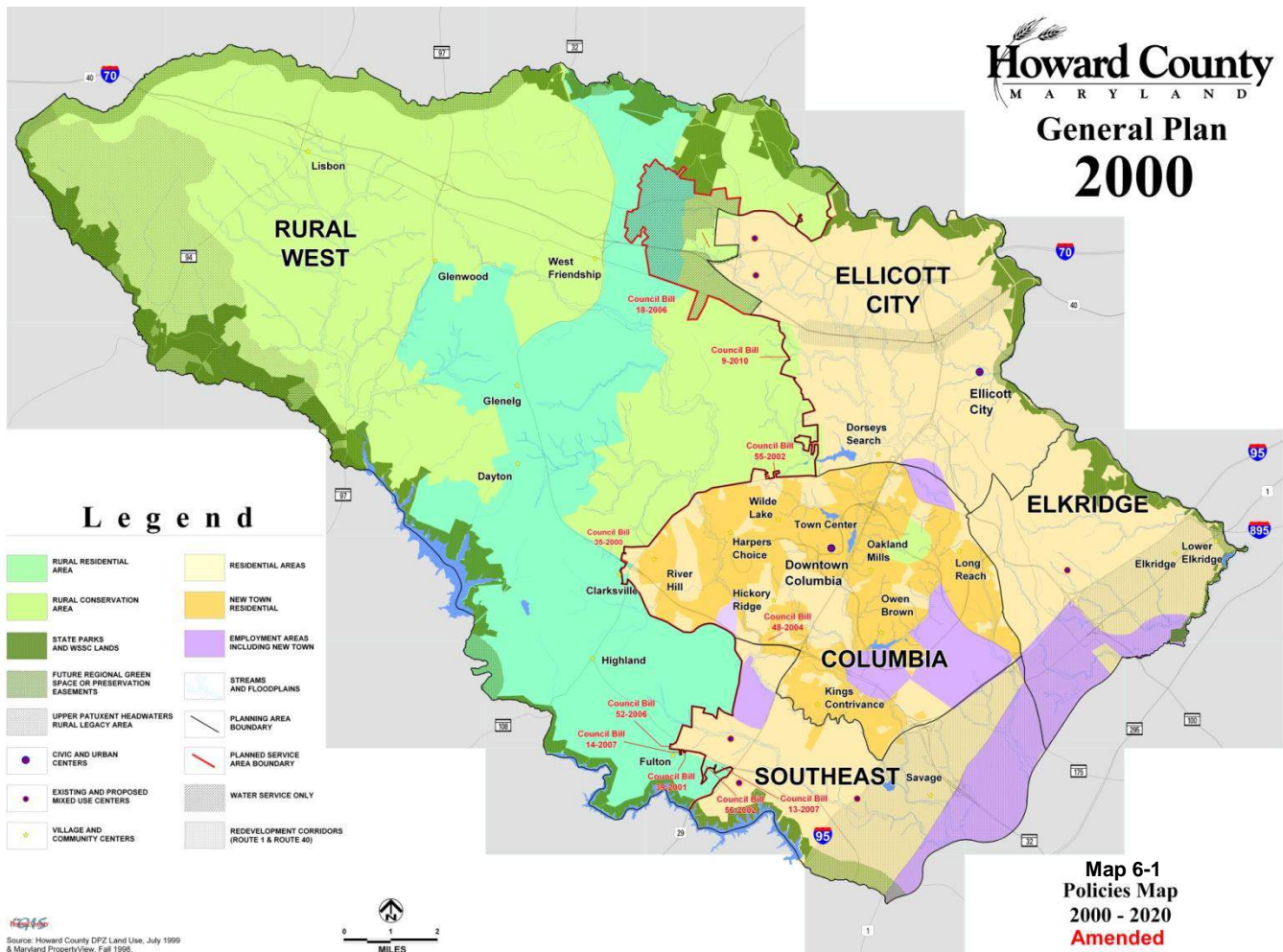
In response to long-standing State Smart Growth requirements, *General Plan 2000* established Howard County's growth boundary and Priority Funding Area (PFA) as all land within the Planned Service Area for both public water and sewerage. Our PFA occupies the easternmost 40% of the County. Maryland's new State Development Plan, *PlanMaryland*, calls for local jurisdictions to refine their PFAs by identifying more focused areas for future growth as well as clarifying growth policies for rural areas. The State's five designated place types include three within the PFA: targeted growth and revitalization areas, established community areas, and future growth areas, and two for rural areas outside the PFA: low density development areas and rural resource areas. This approach seeks to focus and coordinate local and State resources to support smart growth goals.

*PlanHoward 2030* also incorporates the recently adopted State legislation that implements new restrictions on major subdivisions using septic systems in rural areas. This legislation, known as the Sustainable Growth and Agricultural Preservation Act, requires local jurisdictions to classify land into one of four “Growth Tiers.” The intent of this legislation is to prohibit major subdivisions of five or more lots in Tier IV areas. The tiers for Howard County are designated in accordance with this 2012 law and are also shown in this chapter on Map 6-3.

## Progress under General Plan 2000

Since adoption of *General Plan 2000*, most residential and nonresidential growth has occurred in the County’s PFA. Zoning changes were approved allowing higher-density, mixed-use development in targeted areas, particularly along the Route 1 Corridor where several projects have been completed and others are under construction or planned. Some mixed-use development has also been planned in parts of the Route 40 Corridor. The Downtown Columbia Plan was adopted, establishing the framework for progressive redevelopment and intensification of Howard County’s urban center. Regulations allowing revitalization of older Columbia Village Centers have also been adopted.

Map 6-1 is the Policies Map from *General Plan 2000* summarizing the major land use policies implemented with that plan. This map shows the five planning areas established under *General Plan 2000*. In that plan growth projections were established for each of the planning areas and serve as the basis for the annual

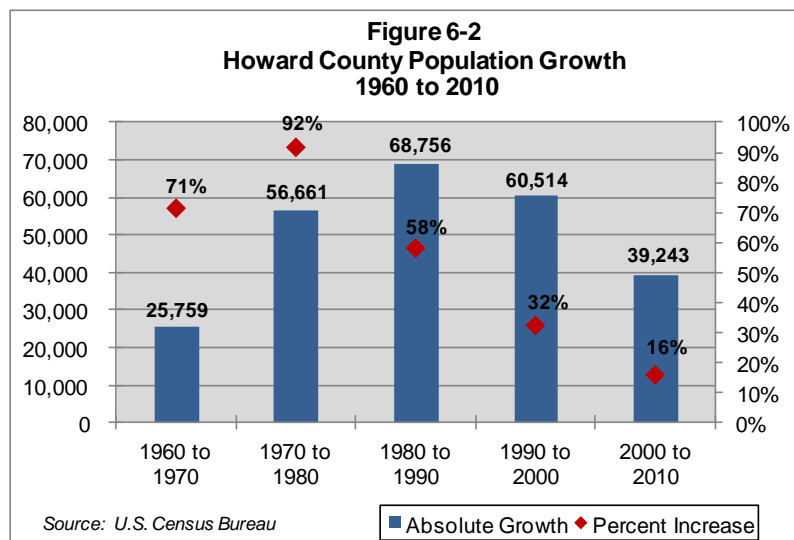
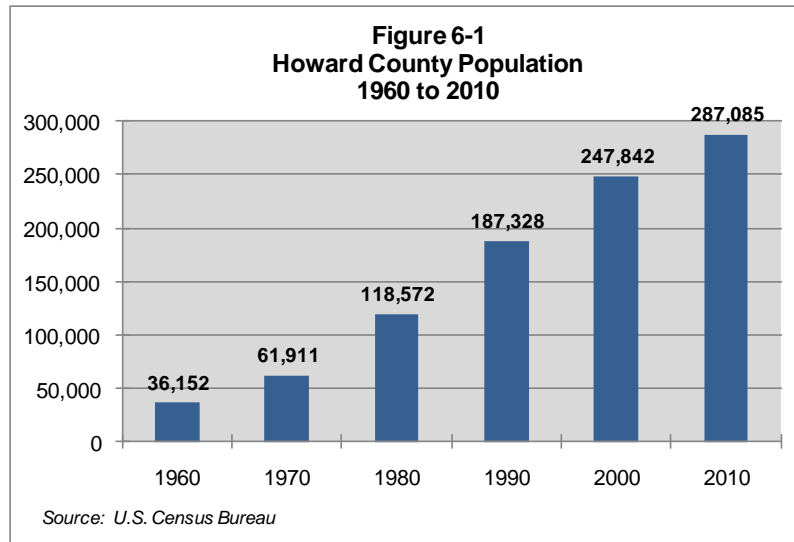


Source: Howard County DPZ Land Use, July 1999 & Maryland PropertyView, Fall 1998.

housing unit allocations as part of the County's Adequate Public Facilities (APF) Act, first adopted in 1992. These allocations, along with the open/closed schools test, have been used to phase residential growth to ensure that adequate school capacity and other public infrastructure is built to accommodate new development. *PlanHoward 2030* proposes that allocations be granted based on the designated place types rather than the five planning areas. This change is discussed later in this chapter.

## Population and Household Growth

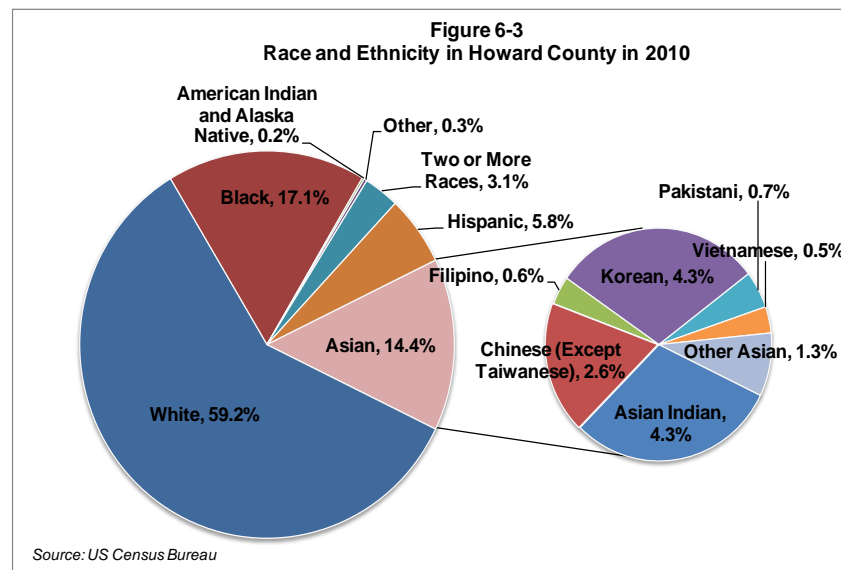
The population of Howard County has grown by 16% over the last decade, from 247,842 residents in 2000 to 287,085 residents in 2010, an increase of about 39,000 according to the U.S. Census. This is half the growth rate of the 1990s when the County grew by 32%, or 60,500 residents. The slower growth rate of the last decade was dictated in large part by *General Plan 2000* policies and the APF Act. *General Plan 2000* set the pace of growth and the County's APF Regulations are the control measure. Prior to this, the County had grown by 68,800 residents in the 1980s and 56,700 residents in the 1970s. Figures 6-1 and 6-2 demonstrate the population increases.



*General Plan 2000* anticipated that by 2010 there would be 107,450 housing units in the County. The 2010 Census recently counted 109,282 housing units, slightly more than *General Plan 2000*'s projection. It is likely that the 2010 Census included newly constructed homes that were nearly complete but did not yet have certificates of occupancy. DPZ's estimate of total units based on certificates of occupancy on April 2010 was 106,420. This is an increase of about 16,500 new units over ten years, an average of 1,650 per year.

### A Diversifying Population

The 2010 Census shows that the population of Howard County is 59% non-Hispanic White, 17% non-Hispanic African American, 14% non-Hispanic Asian, and close to 6% Hispanic. About 3% of the population indicated that they were of more than one race. The remaining 0.5% is of another race including a small number of American Indians and Native Alaskans. Hispanics can be of any race (Figure 6-3).



Compared to a decade ago, it is clear that the County has become increasingly diverse (Figure 6-4). In 2000, the non-Hispanic White population was 73% of the total. The remaining 27% consisted of minority populations. By 2010, the minority populations have increased to 41% of the total, a significant increase over a relatively short period of time.

The non-Hispanic Asian population increased the most between 2000 and 2010, by more than 22,000 people, a 116% increase. This is followed by the non-Hispanic African American population which grew by close to 14,000 residents, a 39% increase. Hispanics increased by about 9,200 residents, representing the largest growth rate at 123%. By comparison, the non-Hispanic White population decreased by 10,000 residents, a 5.6% decline.

This is the first time the non-Hispanic White population has decreased in Howard County between decennial censuses. At the current rate of change it is likely that Howard County will be a "majority-minority" county sometime over the next five to ten years.

**Figure 6-4  
Howard County Population by Race - 2000 to 2010**

	2000		2010		Growth	
	Population	%	Population	%	Population	%
<b>Population of One Race Alone (Non-Hispanic)</b>	<b>235,591</b>	<b>95.1%</b>	<b>261,585</b>	<b>91.1%</b>	<b>25,994</b>	<b>11.0%</b>
White (Non-Hispanic)	180,010	72.6%	169,972	59.2%	(10,038)	-5.6%
African American (Non-Hispanic)	35,353	14.3%	49,150	17.1%	13,797	39.0%
Amer. Ind. & Alaska Native (Non-Hispanic)	515	0.2%	511	0.2%	(4)	-0.8%
Asian & Pacific Islander (Non-Hispanic)	19,057	7.7%	41,206	14.4%	22,149	116.2%
Some Other Race (Non-Hispanic)	656	0.3%	746	0.3%	90	13.7%
<b>Population of Two or More Races (Non-Hispanic) (1)</b>	<b>4,761</b>	<b>1.9%</b>	<b>8,771</b>	<b>3.1%</b>	<b>4,010</b>	<b>84.2%</b>
<b>TOTAL NON-HISPANIC POPULATION</b>	<b>240,352</b>	<b>97.0%</b>	<b>270,356</b>	<b>94.2%</b>	<b>30,004</b>	<b>12.5%</b>
<b>TOTAL HISPANIC POPULATION (2)</b>	<b>7,490</b>	<b>3.0%</b>	<b>16,729</b>	<b>5.8%</b>	<b>9,239</b>	<b>123.4%</b>
<b>GRAND TOTAL POPULATION</b>	<b>247,842</b>	<b>100.0%</b>	<b>287,085</b>	<b>100.0%</b>	<b>39,243</b>	<b>15.8%</b>

(1) This option was available for the first time in the 2000 Census.

(2) Hispanic Origin can be from any race.

Source: U.S. Census Bureau

### An Aging Population

There has been much discussion in the press and among policy makers, both nationally and locally, regarding the rapid aging of the population. Baby boomers, defined as those born between 1946 and 1964, currently make up a significant share of the national population. The first baby boomers are turning 65 now and over the next two decades will be entering their retirement years. Whereas the total U.S. population grew by 9.7% from 2000 to 2010, those entering the 45 to 64 year age cohort, the approximate ages of the baby boomers, increased by 31.5% during that time period. Baby boomers currently make up about 29% of the countywide population and are starting to move into the 65-plus age cohort (Figure 6-5).

**Figure 6-5  
Howard County Population by Age - 2010 to 2030**

	2010		2030		2010 to 2030 Growth	
	Population	%	Population	%	Population	%
Under 5	17,363	6.0%	22,039	6.5%	4,676	27%
5 to 19	63,360	22.1%	67,688	19.8%	4,328	7%
20 to 44	92,961	32.4%	112,923	33.1%	19,962	21%
45 to 64	84,356	29.4%	72,710	21.3%	(11,646)	-14%
65 and over	29,045	10.1%	65,907	19.3%	36,862	127%
<b>Total</b>	<b>287,085</b>	<b>100.0%</b>	<b>341,267</b>	<b>100.0%</b>	<b>54,182</b>	<b>19%</b>

Source: 2010 from Census - 2020 through 2030 age breakdown are estimates based on adjusted MDP cohort model (from round 7D).

Those currently age 65 and older have also increased over the last decade. Whereas the overall County population increased by 16%, those 65 and over increased by 57%. There are now 10,577 more residents 65 and older compared to ten years ago – 29,045 total in 2010 compared to 18,468 in 2000. Almost 27% of the total increase of 39,243 residents over the decade was comprised of those aged 65 and older. The very old, 85 and over, increased by 47%.

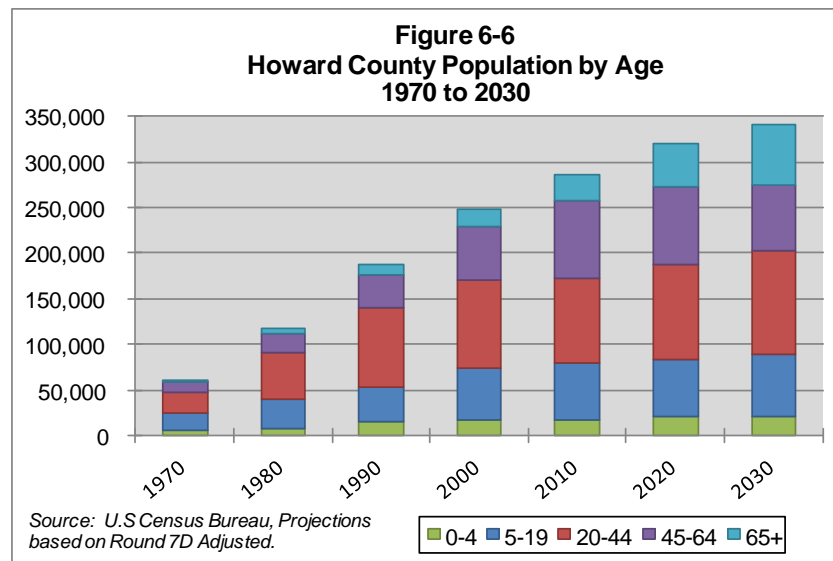
This trend will continue as the baby boomers continue to age. A key question is whether residents will “age in place,” or will they instead retire to some other place. Although some residents do move when they retire, the majority are expected to stay in Howard County. This was evidenced in a 2006 Maryland task force report (The Dynamics of Elderly and Retiree Migration into and out of Maryland, 2006) that documented a trend of the people moving back after initially moving away post-retirement. These trends should be followed closely over the

next five to ten years in order to fully understand the choices of older Howard County residents, so policies and resources can be appropriately adopted and adjusted.

Figure 6-6 summarizes the Howard County population by age from 1970 to 2010, with projections to 2030. The chart clearly shows that the growth rate of the 65-plus population has accelerated over the last ten years and is expected to accelerate even more over the next 20. On the other end of the age spectrum, the number of school-aged children five to 19 has also grown over the last ten years and makes up about 22% of the population. As a result school enrollments in Howard County have increased during the past decade. However, young children under five have decreased from 18,248 in 2000 to 17,363 in 2010, a 5% decline. As the baby boomers age, the children of the baby boomers are aging as well, putting less pressure on school enrollments.

### Changing Household Types

The suburban single-family detached home is associated typically with a nuclear family of parents and children. However, the population of Howard County, just as the population of the United States, is diversifying with a trend towards smaller households, particularly as the population ages (Figure 6-7). While the total number of households in Howard County has increased by 53% between 1990 and 2010, family households with children under 18 have increased by only 47%. During this same time period, the number of residents living alone has increased by 75% and those residents 65 and older living alone has increased by 154%. Consequently, the single-family detached house is no longer preferred by many households. Smaller-sized housing will be in greater demand in the future. This demographic shift aligns well with the decreasing availability of land for the traditional single-family detached home and the increased emphasis on planning for more compact, higher-density residential development. Condominiums, apartments, and townhouses also will be a greater portion of the new homes built in the County in the future.





**Figure 6-7  
Household Type in Howard County**

Category	1990		2010		1990 to 2010	
	Number	Percent	Number	Percent	Growth	% Increase
Family Households	50,691	74.2%	76,333	72.9%	25,642	50.6%
With children under 18	26,442	38.7%	38,764	37.0%	12,322	46.6%
With no children under 18	24,249	35.5%	37,569	35.9%	13,320	54.9%
Nonfamily households	17,646	25.8%	28,416	27.1%	10,770	61.0%
Householder living alone	13,088	19.2%	22,903	21.9%	9,815	75.0%
Householder 65 years and older	2,664	3.9%	6,754	6.4%	4,090	153.5%
<b>Total Households</b>	<b>68,337</b>	<b>100.0%</b>	<b>104,749</b>	<b>100.0%</b>	<b>36,412</b>	<b>53.3%</b>

Source: U.S. Census

## Location of Future Residential Development

### Current Residential Development Capacity

Figure 6-8 provides information on the location and mix of existing residential development, as well as future capacity for additional development under current zoning. Map 6-1 shows the locations of each of the planning areas referred to in the chart. *General Plan 2000* policies and County zoning limit development in the Rural West and direct growth into more compact development patterns in the East, primarily along the Route 1 Corridor and in Downtown Columbia, but also in the Route 40 corridor and potentially Columbia's older Village Centers. The result is a total current capacity of 141,000 housing units, which would be an increase of an additional 34,000 units over the built total in 2010 of 107,000, if all the potential units are eventually built. Due to the stable zoning and land preservation goals being met, the capacity in the Rural West portion of the County has remained about the same at a total of 17,750 units.



*Single-family detached homes form the dominant development pattern in parts of the County.*

Figure 6-8 also shows existing units, permitted units (those under construction), recorded unbuilt lots, in-process units (those with a subdivision or site plan under review), and undeveloped units. About 45% of the additional 34,000 units allowed under current zoning are either in-process, recorded but unbuilt, or permitted. Consequently, the exact location and type of these units is already determined. They include a significant number of larger phased plans in the Route 1 Corridor. Note that many of these in-process units have been delayed over the past three to four years due to the recent economic downturn. Including the 5,500 Downtown Columbia units (which are counted in the undeveloped category), more than 60% of future housing units are known in detail, including location, type, and likely phasing.

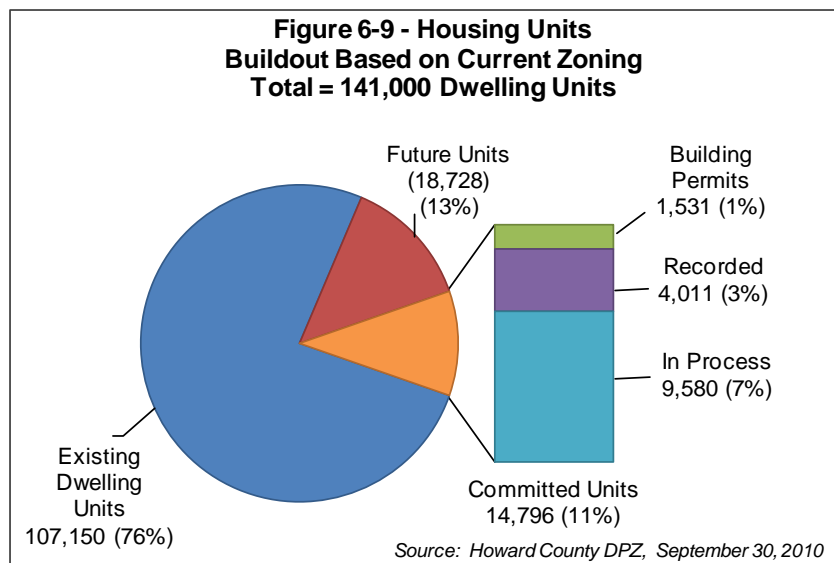
Over the past two decades, 55% of all new homes built were single-family detached and 45% were townhouses, condominiums, or apartments. Based on current zoning, only 33% of future new homes will be single-family detached and 67% will be townhouses, condominiums, or apartments (Figure 6-9).

**Figure 6-8  
Residential Unit Distribution by Stage and Type in Howard County**

		<b>SFD</b>	<b>SFA</b>	<b>APT</b>	<b>MH</b>	<b>Total</b>	<b>Percent</b>
<b>Columbia</b>	Existing	15,905	10,835	13,098	0	<b>39,838</b>	<b>83.8%</b>
	Permit	17	9	374	0	<b>400</b>	<b>0.8%</b>
	Unbuilt	123	57	18	0	<b>198</b>	<b>0.4%</b>
	In-Process	46	151	132	0	<b>329</b>	<b>0.7%</b>
	Undeveloped	212	42	6,509	0	<b>6,763</b>	<b>14.2%</b>
	<b>Total</b>	<b>16,303</b>	<b>11,094</b>	<b>20,131</b>	<b>0</b>	<b>47,528</b>	<b>100.0%</b>
<b>Ellicott City</b>	Existing	14,560	3,744	5,873	0	<b>24,177</b>	<b>80.7%</b>
	Permit	50	28	162	0	<b>240</b>	<b>0.8%</b>
	Unbuilt	379	53	58	0	<b>490</b>	<b>1.6%</b>
	In-Process	623	740	1,225	0	<b>2,588</b>	<b>8.6%</b>
	Undeveloped	1,451	632	368	0	<b>2,451</b>	<b>8.2%</b>
	<b>Total</b>	<b>17,063</b>	<b>5,197</b>	<b>7,686</b>	<b>0</b>	<b>29,946</b>	<b>100.0%</b>
<b>Elkridge</b>	Existing	6,879	3,345	3,650	854	<b>14,728</b>	<b>65.6%</b>
	Permit	67	30	32	0	<b>129</b>	<b>0.6%</b>
	Unbuilt	365	292	75	1	<b>733</b>	<b>3.3%</b>
	In-Process	374	1,063	1,965	0	<b>3,402</b>	<b>15.2%</b>
	Undeveloped	752	446	2,253	0	<b>3,451</b>	<b>15.4%</b>
	<b>Total</b>	<b>8,437</b>	<b>5,176</b>	<b>7,975</b>	<b>855</b>	<b>22,443</b>	<b>100.0%</b>
<b>Southeast</b>	Existing	6,952	4,886	2,595	441	<b>14,874</b>	<b>63.7%</b>
	Permit	45	151	433	4	<b>633</b>	<b>2.7%</b>
	Unbuilt	427	331	166	15	<b>939</b>	<b>4.0%</b>
	In-Process	662	436	1,623	4	<b>2,725</b>	<b>11.7%</b>
	Undeveloped	1,413	1,267	1,481	0	<b>4,161</b>	<b>17.8%</b>
	<b>Total</b>	<b>9,499</b>	<b>7,071</b>	<b>6,298</b>	<b>464</b>	<b>23,332</b>	<b>100.0%</b>
<b>Rural West</b>	Existing	13,375	149	5	3	<b>13,532</b>	<b>76.2%</b>
	Permit	121	8	0	0	<b>129</b>	<b>0.7%</b>
	Unbuilt	1,645	6	0	0	<b>1,651</b>	<b>9.3%</b>
	In-Process	536	0	0	0	<b>536</b>	<b>3.0%</b>
	Undeveloped	1,902	0	0	0	<b>1,902</b>	<b>10.7%</b>
	<b>Total</b>	<b>17,579</b>	<b>163</b>	<b>5</b>	<b>3</b>	<b>17,750</b>	<b>100.0%</b>
<b>Countywide</b>	Existing	57,671	22,959	25,221	1,298	<b>107,149</b>	<b>76.0%</b>
	Permit	300	226	1,001	4	<b>1,531</b>	<b>1.1%</b>
	Unbuilt	2,939	739	317	16	<b>4,011</b>	<b>2.8%</b>
	In-Process	2,241	2,390	4,945	4	<b>9,580</b>	<b>6.8%</b>
	Undeveloped	5,730	2,387	10,611	0	<b>18,728</b>	<b>13.3%</b>
	<b>Total</b>	<b>68,881</b>	<b>28,701</b>	<b>42,095</b>	<b>1,322</b>	<b>140,999</b>	<b>100.0%</b>

Note: Existing acres as of Sept. 30, 2010 & In-Process Acres as of end of Nov. 2010

Source: Howard County DPZ Land Use Database



### Expansion of the Planned Service Area

Expansions to the Planned Service Area (PSA) *for water and sewer service* since 1990 have been very limited. In 1993, the County Council voted to extend water service to include the area around the Alpha Ridge Landfill. This extension was done solely out of concern for potential future groundwater contamination that might originate from the Alpha Ridge Landfill; therefore, only water service is provided in this area. No sewer service is allowed and no change from rural land uses or zoning is authorized. Map 6-1 shows the current boundary for public water and sewer as well as the water-service-only area.

The boundary of the PSA for both water and sewer service is important not only to determine which parcels will be served by public water and sewer service, but also because the PSA is Howard County's designated growth boundary or Priority Funding Area per the State's Smart Growth Act. The PFA/PSA is also the boundary for *PlanHoward 2030's* rural place designations. As such, adjustments to the PSA would have significant ramifications in terms of both permitted development intensity and the level of other County and State services.

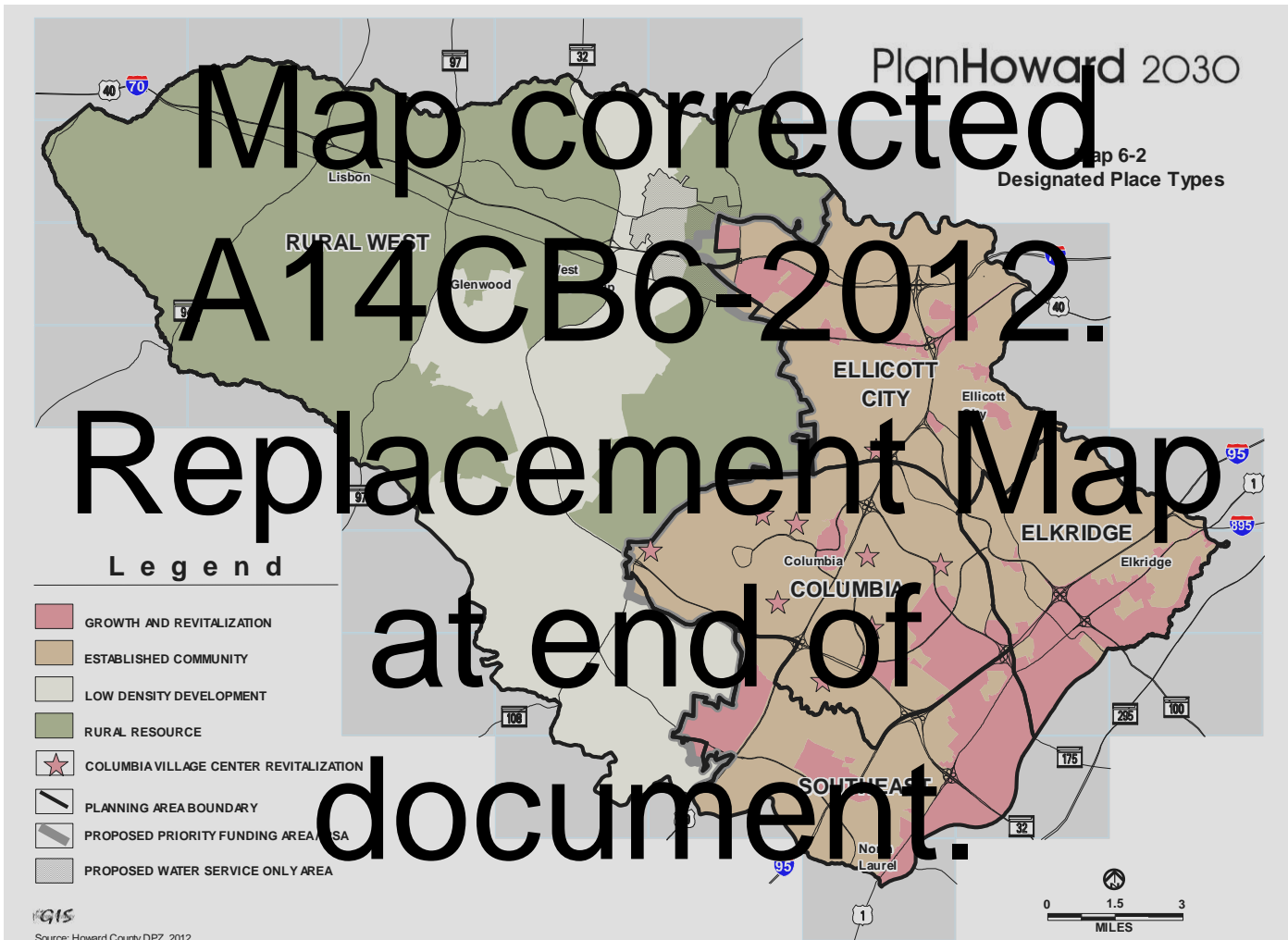
*PlanHoward 2030* proposes three minor expansions of the Planned Service Area (adjoining Ellicott City, Clarksville, and Maple Lawn). To achieve Bay restoration goals it is preferable to include these properties in the PSA, rather than have them utilize septic systems particularly where the area drains to reservoirs or high quality stream systems. These properties, because of their location at the interface of the rural residential zone and the planned service area, should be designed and zoned to establish a transition that is compatible with and enhances surrounding communities. In addition, they should create an environmental benefit through environmental site design that mitigates impervious surfaces so that storm water will be captured onsite and not affect nearby waterways.

In the future, it should be anticipated that there may be isolated situations where minor PSA adjustments may be appropriate. A PSA revision requires a General Plan Amendment to Map 6-2. Any requests for a General Plan Amendment for expansion of the PSA should be denied unless either:

- 1) The proposed expansion of the Planned Service Area is intended to provide for a public or institutional use such as a religious facility, philanthropic institution, or academic school; or
- 2) The proposed expansion of the Planned Service Area includes a zoning proposal that is consistent with the General Plan and Smart Growth policies. Sewer and water infrastructure capacity and costs must be analyzed to confirm the feasibility and availability of scheduled capacity.

As established in *General Plan 2000* and subsequent amendments, institutional or public use expansions of the Planned Service Area boundary are limited to:

- 1) Properties adjoining the existing PSA boundary without including an intervening privately owned parcel;
- 2) The minimum area necessary to serve the proposed use. Subdivision of the parcel consistent with the PSA boundary amendment is required after approval of the General Plan amendment and prior to the inclusion of the parcel into the Metropolitan District; and
- 3) The particular use proposed at the time of expansion, with a deadline



for the completion of the improvements for the proposed use and connection to the public water and/or sewerage system. If the proposed public or institutional use is not actually constructed and connected to the public water and/or sewerage system by the deadline specified in the Bill, the Planned Service Area expansion shall be null and void and the Planned Service Area automatically shall revert to its location prior to the Council Bill approving the expansion.

## Designated Place Types – Future Residential Development

As indicated at the beginning of this chapter, *PlanMaryland* asks local jurisdictions to refine their Priority Funding Areas (PFA) by identifying more focused target areas for future growth. These include three designated place types within the PFA: Targeted Growth and Revitalization areas, Established Community areas, and Future Growth areas. The Future Growth area is not proposed for Howard County as this place type applies to large areas of rural land outside the PFA/PSA that are planned for extension of public water and sewer service in the future. An example of this would be a Maryland county that has municipalities with future annexation potential. The other two place types are for rural areas outside the PFA: Low Density Development areas and Rural Resource areas where agricultural land preservation has priority, which are combined on Map 6-2 “Designated Place Types” as the “Rural West until the Sustainable Growth and Agricultural Preservation Act Growth Tiers are established in the Fall of 2012”. These correspond to the County’s RR (Rural Residential) and RC (Rural Conservation) zoning districts. *PlanMaryland* place designations are intended both to decrease sprawl via compact development and to focus local and State resources to support smart growth. Map 6-2 designates the relevant ~~four~~ place types for Howard County.

Map 6-2 also shows the five planning areas that were introduced and have been utilized since the adoption of *General Plan 2000* (also shown in Map 6-1). These five planning areas will continue to be used for some development tracking and statistical purposes, coordination with other County master plans such as the Howard County Land Preservation, Recreation and Parks Plan, and potential small area planning efforts.

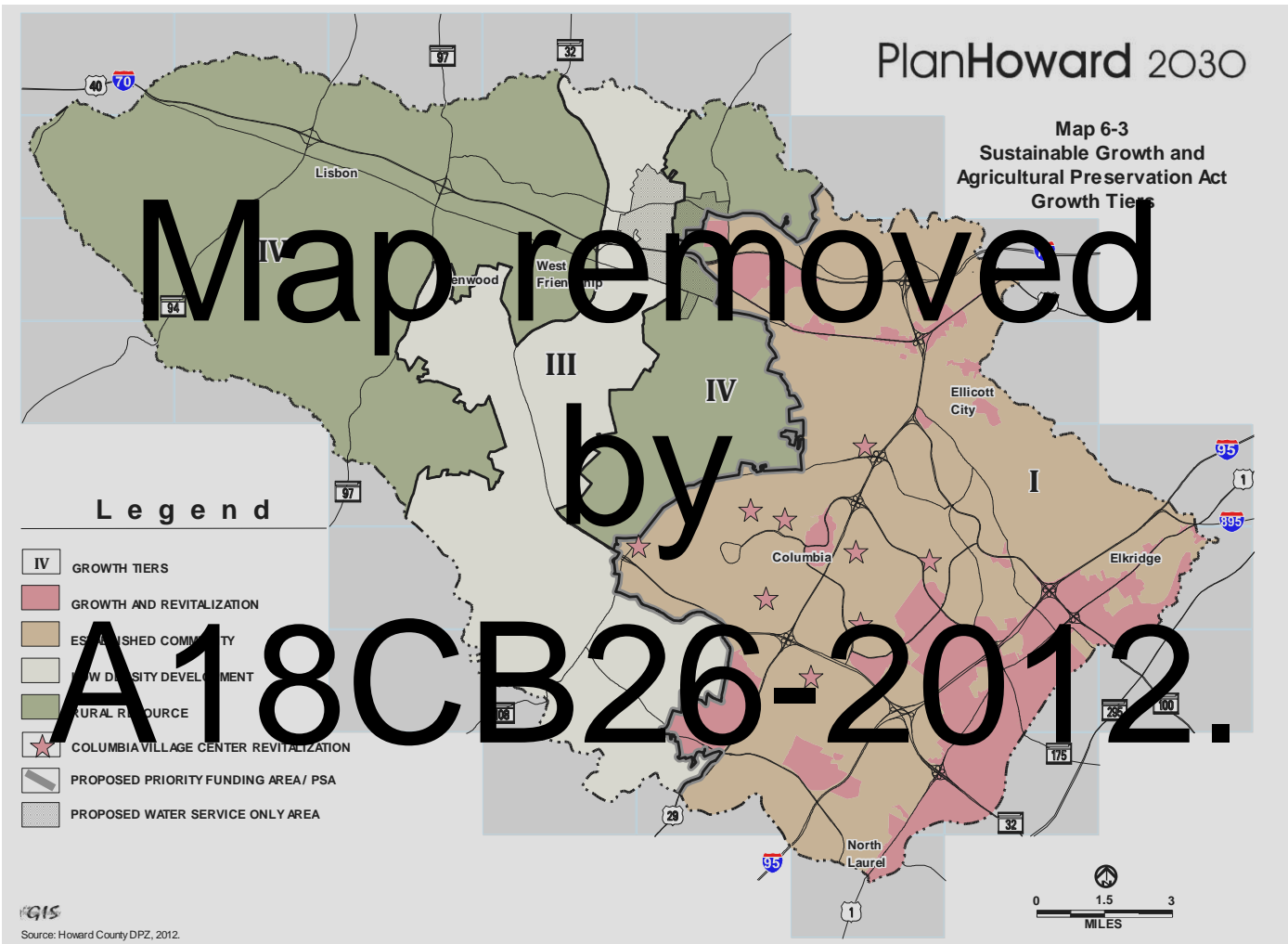
## ~~Sustainable Growth and Agricultural Preservation Act of 2012~~

~~New restrictions on the development of major subdivisions using septic systems in rural areas were adopted by the Maryland General Assembly in April 2012 through the Sustainable Growth and Agricultural Preservation Act (Senate Bill 236). This Act requires local jurisdictions to classify land into one of four “Growth Tiers” based on the following:~~

- ~~▪ **Tier I** – designated growth area served by public sewer;~~
- ~~▪ **Tier II** – designated for future extension of public sewer service;~~
- ~~▪ **Tier III** – not planned for sewer service, not dominated by agricultural or forest, and planned for large lot development with septic systems;~~
- ~~▪ **Tier IV** – not planned for sewer service, dominated by agricultural and forest land planned for resource protection.~~

~~The intent of this legislation is to prohibit major subdivisions or five or more lots in Tier IV areas. Local jurisdictions must adopt tier designations by December 31, 2012 or all areas not served by public sewer will be restricted to minor subdivisions of four or fewer lots. Map 6-3 shows the Growth Tiers for Howard County. Tier I is our Priority Funding Area, which is the Planned Public Water and Sewer Service Area. No areas are designated for Tier II, since there are no plans for further extension of the Public Water and Sewer Service Area in the future. Tier III equates to the RR zoning district and Tier IV is the RC zoning district. The purpose statements in these two zoning districts clearly reflect the planning objectives for these two tiers.~~

~~Two amendments were adopted to this State law to moderate the impact of prohibiting new major subdivisions in Tier IV. One is to “grandfather” any subdivision rights that were specifically retained in an agricultural, environmental,~~



or historic preservation easement for a particular property. The other is an allowance for the possibility of density transfer of development rights from Tier IV properties. Howard County's DEO (Density Exchange Option) zoning district

Effective on ( \_\_\_\_\_ )

currently allows for density transfer under certain conditions. The density transfer provisions in the DEO district should be reviewed and updated to reflect SB 236 during the Comprehensive Zoning process.

## Amount & Phasing of Future Residential Development

Howard County adopted Adequate Public Facility (APF) Regulations in 1992 in response to growth that exceeded 4,000 new homes per year in the late 1980s. The APF regulations control the pace of residential development and ensure the adequacy of school and road capacity in relation to growth. The pace of residential growth is set by the General Plan and controlled by a system of annual housing allocations that limit the amount of new residential development that is allowed to be processed through the plan review process each year. The APF Housing Allocation chart, which controls how allocations are distributed geographically to achieve General Plan policies, is adopted annually by the County Council. Currently allocations are distributed among the five planning

**Figure 6-10  
Howard County APFO Allocations Chart**

Year	Downtown Columbia	Growth and Revitalization	Established Communities	Green Neighborhood	Rural West	Total County
2015	400	1,200	400	150	100	2,250
2016	350	1,200	400	150	100	2,200
2017	300	1,200	400	150	100	2,150
2018	100	1,200	400	150	100	1,950
2019	100	1,200	400	150	100	1,950
2020	96	1,200	400	150	100	1,946
2021	400	1,200	400	150	100	2,250
2022	350	1,200	400	150	100	2,200
2023	300	1,200	400	150	100	2,150
2024	225	1,200	400	150	100	2,075
2025	200	1,200	400	150	100	2,050
2026	200	1,200	400	150	100	2,050
2027	200	1,200	400	150	100	2,050
2028	179	1,200	400	150	100	2,029
2029	175	1,200	400	150	100	2,025
2030	175	1,200	400	150	100	2,025
<b>20-Year Totals</b>	<b>3,750</b>	<b>19,200</b>	<b>6,400</b>	<b>2,400</b>	<b>1,600</b>	<b>33,350</b>

Source: Howard County DPZ

Effective on ( )

areas shown on Maps 6-1 and 6-2 with additional pools of allocations for senior housing, moderate income housing, Route 1, Downtown, and Green Neighborhoods.

*PlanHoward 2030* proposes to simplify allocation distribution. Figure 6-10 shows how APF Housing allocations will be used to pace growth through 2030. Only five allocation pools are proposed: Downtown Columbia; Targeted Growth and Revitalization; Established Communities; Green Neighborhood; and the Rural West. The Downtown Columbia, Targeted Growth and Revitalization, Established Communities, and Rural West areas are shown on Map 6-2. Green Neighborhood allocations can be granted anywhere in the PFA for development meeting green neighborhood design standards. Allocations are granted at the initial planning stage when sketch or preliminary plans are first reviewed by DPZ. Since it typically takes several years from initial plans to the construction and occupancy of all units in a project, allocations are granted three years in the future per the APF law. The first allocation year in Figure 6-10 is thus 2015, three years after the 2012 adoption year of *PlanHoward 2030*.

- **Downtown Columbia.** These allocations are based on the Downtown Columbia Plan adopted in 2010. The annualized pace of growth shown in Figure 6-10 is based on the current housing unit allocation chart adopted by the County Council. Over the 16-year allocation period from 2015 through 2030, 3,750 Downtown Columbia allocations are available. Including the 950 allocations that were made available in the 2013 and 2014 allocation years in previous allocation charts, a total of 4,700 of the 5,500 ultimate approved Downtown units will be allocated, reflecting the maximum units allowed in the first two of the three total growth phases in the Downtown Plan.
- **Targeted Growth and Revitalization.** These areas are defined on Map 6-2 and include the Route 1 Corridor, the Snowden River Parkway area, Maple Lawn, Emerson, Turf Valley, Waverly Woods, Columbia Village Centers, nodes along the Route 40 Corridor, and other locations. These are areas where current policies, zoning, and other regulations, as well



as policies suggested in *PlanHoward 2030*, seek to focus most future County growth. Allocations for the entire Targeted Growth and Revitalization area are set at 1,200 housing units per year.

- **Established Communities.** These areas are also defined on Map 6-2 and consist of already established residential and commercial areas in the eastern portion of the County where limited growth is expected, primarily through residential infill development. This entire area is much larger than the entire Targeted Growth and Revitalization area, but has much less growth capacity and at 400 units per year contains only a third of the phased growth compared to the Targeted Growth and Revitalization area.
- **Green Neighborhood.** This category replicates the Green Neighborhood set-aside in the currently adopted APF allocation chart. This set-aside was first added to the allocation chart in 2007. These units can be built anywhere in the County if the proposed plans meet Green Neighborhood standards as defined in the Howard County Subdivision and Land Development Regulations. The current APF chart includes 100 Green Neighborhood allocations per year. *PlanHoward 2030* increases the annual number to 150 with the goal of promoting more green development in Howard County.
- **Rural West.** This area is outside of the Priority Funding Area, is not served by public water and sewer, ~~and includes both the Low Density Development and Rural Resource designated place types.~~ The current APF chart includes 150 Rural West allocations per year. *PlanHoward 2030* decreases the annual number to 100, slowing future development in the West through 2030. There are, however, currently a significant number of grandfathered lots.

The total annual pace in Figure 6-10 for all areas combined is based on the current adopted APF allocation totals through 2020, with the same pace extended through 2030. Development has slowed due to the recession that began at the end of 2008, but it is expected that as the economy picks up over the next several years the housing market will return to more typical levels. The APF allocation chart based on Figure 6-10 allows for renewed development opportunities, while still capping growth so that it will not exceed current housing allocation levels. The APF schools test will continue to prevent development in areas of school overcrowding.

As noted above, Figure 6-10 does not include the Senior East, Route 1 and MIHU allocation set-asides, nor the Columbia, Elkridge, Ellicott City, and Southeast Planning areas that are included in the current APF chart, thus reducing the number of allocation pools from ten to five. Age-restricted units and moderate income housing units can continue to be built, but rather than having their own allocation pool, they will utilize allocations from the areas in the new APF chart. The new chart simplifies APF and better targets future development to intended targeted growth and revitalization areas.

As stated earlier, a lot of future development will consist of higher density projects. Numerous allocation categories with small numbers of allocations have not worked well for larger multifamily or mixed-use projects. Project design, financing, and market flexibility will be better supported by having larger numbers of allocations available in fewer areas, while retaining the same overall residential development cap.

## Policies and Implementing Actions

### **POLICY 6.1 – Maintain adequate facilities and services to accommodate growth.**

#### **Implementing Actions**

- a. ~~Place Types and Tiers.~~ Obtain State concurrence on *PlanHoward 2030* place designations and tiers in accordance with *PlanMaryland's* final criteria and procedures and the Sustainable Growth and Agricultural Preservation Act on or before December 31, 2012. **Limited Planned Service Area Expansion.** Zoning requirements for approved PSA expansions should include a development proposal that is consistent with the General Plan and establishes a transition that is compatible with and enhances surrounding communities and provides an environmental benefit.
- b. ~~Revise APF Regulations.~~ Amend the current Adequate Public Facilities regulations to reduce allocation categories and reflect designated places. **Place Types and Tiers.** Obtain State concurrence on *PlanHoward 2030* place designations and tiers in accordance with *PlanMaryland's* final criteria and procedures and the Sustainable Growth and Agricultural Preservation Act on or before December 31, 2012.
- c. ~~APF Housing Allocations.~~ Incorporate the *PlanHoward 2030* housing forecasts into the Adequate Public Facilities Housing Allocation Chart. **Revise APF Regulations.** Amend the current Adequate Public Facilities regulations to reduce allocation categories and reflect designated places.
- d. ~~Zoning.~~ Reduce competition for land resources by promoting more compact development in appropriate targeted growth and revitalization areas. **APF Housing Allocations.** Incorporate the *PlanHoward 2030* housing forecasts into the Adequate Public Facilities Housing Allocation Chart.
- e. ~~Density Exchange Option.~~ Review and, as appropriate, amend the density exchange provisions of the DEO zoning district during the Comprehensive Zoning process to help mitigate subdivision restrictions placed on Tier IV properties. **Zoning.** Reduce competition for land resources by promoting more compact development in appropriate targeted growth and revitalization areas.
- f. ~~Targeted Funding.~~ Optimize the use of State and County infrastructure funding and program resources targeted to County-designated place types. **Density Exchange Option.** Review and, as appropriate, amend the density exchange provisions of the DEO zoning district during the Comprehensive Zoning process to help mitigate subdivision restrictions placed on Tier IV properties .
- g. ~~Schools.~~ Make efficient use of existing school capacity avoiding unnecessary capital outlays. **Targeted Funding.** Optimize the use of State and County infrastructure funding and program resources targeted to County-designated place types.
- h. **Schools.** Make efficient use of existing school capacity avoiding unnecessary capital outlays.

### **POLICY 6.2 – Ensure that the County's needs for land for government facilities and land preservation are met in light of competing needs for housing and economic development.**

## Implementing Actions

- a. **Infrastructure Concurrency.** Determine the amount and location of land needed for future schools and other facilities, including park and green infrastructure preservation priorities.
- b. **Capital Improvements Master Plan.** Implement land acquisition priorities and funding via the ten-year Capital Improvement Master Plan.
- c. **Connectivity.** Ensure that planning for government and public school facilities should incorporate consideration of transportation connectivity and access for pedestrians, bicyclists, and individuals with disabilities.

## Nonresidential Growth and Development

### Job Growth

Job growth in Howard County has been robust over the past two decades. In 1990, there were 106,000 jobs in the County. By 2009, the total increased to 187,000 jobs. This is an average growth of about 4,280 new jobs per year over the 19-year period. This time period includes three recessions – 1990/91, 2001, and 2008/09. Despite these recessionary periods, Howard County only lost jobs during the most recent recession, known as the “great recession,” when there was a 2,300 job decline between 2008 and 2009. Job growth remained basically flat in Howard County as a result of the other two recessions. From 2000 to 2009, Howard gained 27,900 new jobs, an 18% increase. This ranks Howard fifth in Central Maryland in absolute job growth for this most recent nine-year period, following Anne Arundel, Baltimore, Montgomery, and Prince George’s Counties, respectively. Baltimore City has experienced job declines over the last two decades. Figure 6-11 summarizes this historical job growth.

Significant job increases that have occurred over the past 20 years necessitate new nonresidential development. Figure 6-12 summarizes the total nonresidential rentable building area by building type for jurisdictions in the Baltimore region as of 2010. About 15%, or 71 million of the total 485 million square feet, is located in Howard County. Baltimore County, Baltimore City, and Anne Arundel County have the greatest amount of total space, respectively.

**Figure 6-11  
Central Maryland Employment (1,000s)**

Jurisdiction	1990		2000		2009	
	Jobs	Percent	Jobs	Percent	Jobs	Percent
Anne Arundel County	250.1	11%	295.2	11%	357.0	13%
Baltimore County	399.5	17%	448.5	17%	505.6	18%
Carroll County	52.4	2%	68.1	3%	82.0	3%
Harford County	75.1	3%	97.1	4%	114.9	4%
<b>Howard County</b>	<b>105.8</b>	<b>5%</b>	<b>159.2</b>	<b>6%</b>	<b>187.1</b>	<b>7%</b>
Baltimore City	508.5	22%	446.4	17%	384.8	14%
Frederick County	72.3	3%	103.9	4%	127.3	4%
Montgomery County	512.6	22%	593.0	23%	645.2	23%
Prince George's County	372.4	16%	391.2	15%	428.4	15%
<b>TOTAL</b>	<b>2,348.6</b>	<b>100%</b>	<b>2,602.5</b>	<b>100%</b>	<b>2,832.4</b>	<b>100%</b>

Source: U.S. Bureau of Economic Analysis, May 2011

**Figure 6-12  
Baltimore Region Rentable Building Area by Type in 2010 (X 1,000 sq. ft.)**

Jurisdiction	Office Space		Flex Space		Industrial Space		Retail Space		Total Space	
	Area	Percent	Area	Percent	Area	Percent	Area	Percent	Area	Percent
Baltimore County	37,300	30%	17,200	35%	44,100	24%	44,400	35%	143,000	29%
Baltimore City	45,400	36%	5,700	12%	54,800	30%	27,100	21%	133,000	27%
Anne Arundel County	19,800	16%	11,000	22%	25,100	14%	27,000	21%	82,900	17%
<b>Howard County</b>	<b>16,800</b>	<b>13%</b>	<b>11,500</b>	<b>23%</b>	<b>31,300</b>	<b>17%</b>	<b>11,000</b>	<b>9%</b>	<b>70,600</b>	<b>15%</b>
Harford County	4,600	4%	2,700	6%	19,200	11%	11,500	9%	38,000	8%
Carroll County	2,100	2%	900	2%	7,900	4%	7,000	5%	17,900	4%
<b>TOTAL</b>	<b>126,000</b>	<b>100%</b>	<b>49,000</b>	<b>100%</b>	<b>182,400</b>	<b>100%</b>	<b>128,000</b>	<b>100%</b>	<b>485,400</b>	<b>100%</b>

Source: Howard County Economic Development Authority, 4th quarter 2010 data

*General Plan 2000* set job growth targets of 4,000 new jobs per year between 2000 and 2010 and 3,000 jobs per year between 2010 and 2020. This was based on a rationale that the strong job growth of the mid- and late-1990s would continue for a while before slowing down into the next decade as undeveloped land became scarcer. Actual job growth between 2000 and 2009 averaged about 3,100 jobs per year, less than the 4,000 annual growth targets for this initial decade. However, considering that the two recessions that occurred since 2000 had not been anticipated, the County fared relatively well due to strong job growth in the middle of the last decade.

### Capacity for Future Nonresidential Growth

In 2010 there was a total of 10,000 acres of developed commercial (office and retail), industrial, and institutional land. About 314 additional acres had signed site plans where construction was already under way or would begin soon. Another 227 acres were being reviewed for proposed future development. The remaining 1,351 acres with additional nonresidential capacity based on current zoning were undeveloped with no plans for them yet. This includes 614 commercially zoned acres and 737 industrially zoned acres. Figure 6-13 shows these acres, including their distribution in each planning area.

This nonresidential land use capacity can be translated into potential jobs based on zoning density. Based on current zoning, there is an estimated capacity for an additional 78,000 jobs in Howard County. This includes new jobs associated with the Downtown Columbia plan. The Downtown acreage for this is not included in Figure 6-14 since it is primarily a redevelopment or intensification project. With just over 11% of nonresidential land in Howard County undeveloped, much of the

**Figure 6-13**  
**Nonresidential Acreage Distribution by Stage and Type in Howard County**

		<b>Commercial</b>	<b>Industrial</b>	<b>Institutional</b>	<b>Total</b>	<b>Percent</b>
<b>Columbia</b>	Existing	2,000	481	298	<b>2,779</b>	<b>86.9%</b>
	Signed	45	12	0	<b>57</b>	<b>1.8%</b>
	In-Process	45	18	0	<b>63</b>	<b>2.0%</b>
	Undeveloped	210	88	0	<b>298</b>	<b>9.3%</b>
	<b>Total</b>	<b>2,301</b>	<b>599</b>	<b>298</b>	<b>3,197</b>	<b>100.0%</b>
<b>Ellicott City</b>	Existing	588	49	301	<b>938</b>	<b>82.5%</b>
	Signed	37	4	0	<b>41</b>	<b>3.6%</b>
	In-Process	6	0	0	<b>6</b>	<b>0.6%</b>
	Undeveloped	128	24	0	<b>152</b>	<b>13.4%</b>
	<b>Total</b>	<b>759</b>	<b>77</b>	<b>301</b>	<b>1,137</b>	<b>100.0%</b>
<b>Elkridge</b>	Existing	566	1,124	372	<b>2,061</b>	<b>79.7%</b>
	Signed	25	34	0	<b>58</b>	<b>2.3%</b>
	In-Process	7	32	0	<b>38</b>	<b>1.5%</b>
	Undeveloped	63	364	0	<b>427</b>	<b>16.5%</b>
	<b>Total</b>	<b>660</b>	<b>1,553</b>	<b>372</b>	<b>2,585</b>	<b>100.0%</b>
<b>Southeast</b>	Existing	952	1,749	168	<b>2,870</b>	<b>81.9%</b>
	Signed	147	12	0	<b>158</b>	<b>4.5%</b>
	In-Process	76	0	0	<b>76</b>	<b>2.2%</b>
	Undeveloped	138	261	0	<b>399</b>	<b>11.4%</b>
	<b>Total</b>	<b>1,313</b>	<b>2,021</b>	<b>168</b>	<b>3,502</b>	<b>100.0%</b>
<b>Rural West</b>	Existing	406	45	992	<b>1,443</b>	<b>92.4%</b>
	Signed	0	0	0	<b>0</b>	<b>0.0%</b>
	In-Process	43	0	0	<b>43</b>	<b>2.8%</b>
	Undeveloped	74	0	0	<b>75</b>	<b>4.8%</b>
	<b>Total</b>	<b>523</b>	<b>46</b>	<b>992</b>	<b>1,561</b>	<b>100.0%</b>
<b>Countywide</b>	Existing	4,512	3,449	2,130	<b>10,091</b>	<b>84.2%</b>
	Signed	253	61	0	<b>314</b>	<b>2.6%</b>
	In-Process	177	49	0	<b>227</b>	<b>1.9%</b>
	Undeveloped	614	737	0	<b>1,351</b>	<b>11.3%</b>
	<b>Total</b>	<b>5,556</b>	<b>4,296</b>	<b>2,130</b>	<b>11,982</b>	<b>100.0%</b>

Note: Existing acres as of Sept. 30, 2010 & In-Process Acres as of end of Nov. 2010

Source: Howard County DPZ Land Use Database

future economic growth will occur through redevelopment or a more intensive use of existing properties.

**Figure 6-14  
Howard County Employment Growth Targets**

<b>Year</b>	<b>Job Increase</b>	<b>Total Jobs</b>
2000		159,200
2010	29,900	189,100
2015	15,000	204,100
2020	15,000	219,100
2025	15,000	234,100
2030	15,000	249,100

*Source: 2000 job total from U.S. BEA*

*2010 job estimate from MDP*

**Job Growth to 2030**

Based on the average pace of job growth in Howard County of about 3,100 new jobs per year over the last decade, continuing to add 3,000 new jobs per year between 2010 and 2030 is a reasonable job target for this general plan. Figure 6-14 summarizes these projections.

Therefore, over the 20-year period a total of 60,000 new jobs are forecast. Based on the available nonresidential land in the County described above and future redevelopment and intensification projects such as Downtown Columbia, there is enough land capacity to accommodate these projected jobs. At this rate it is estimated that there will be about 249,000 jobs in the County by 2030. Howard County’s prime location between Baltimore and Washington is a natural attractor of new businesses which will lead to continued job growth.

**Jobs / Housing Balance**

Since job growth also depends on having the workforce to fill the jobs, a common measure of how growth has been balanced is the ratio of jobs to housing. Figure 6-15 summarizes the jobs to housing ratio in Howard County since 1990. The jobs to housing ratio has increased from 1.51 in 1990 to 1.78 in 2009. This is a result of continued job growth in the County even while there have been constraints on residential growth due to the County’s Adequate Public Facilities Act. Setting housing limits too low in relation to job growth and associated housing demand contributes to higher housing prices, forcing many Howard County workers to commute greater distances for affordable housing.

**Figure 6-15  
Jobs to Housing Ratio in Howard County**

<b>Year</b>	<b>Jobs</b>	<b>Households</b>	<b>Jobs/ Households</b>
1990	105,800	70,000	1.51
2000	159,200	90,000	1.77
2009	187,100	105,000	1.78

*Source: Jobs data - U.S. Bureau of Economic Analysis*

*Households - Howard County DPZ*

*(Data rounded to the nearest 100)*

Howard County’s current jobs to housing ratio is similar to those in Montgomery and Anne Arundel Counties. In 2010 all three are essentially the same at 1.77, 1.79 and 1.80, respectively. These three counties all have significant numbers of

jobs given their centrality within the Baltimore-Washington area. By comparison, other jurisdictions in Central Maryland have smaller ratios. The average for Central Maryland is 1.58. Statewide the average is a slightly smaller 1.54 (Figure 6-16).

**Figure 6-16**  
**Jobs to Housing Ratio Comparisons - Central Maryland Jurisdictions**

Jurisdiction	2000			2010 Estimates		
	Jobs	Households	Jobs/House.	Jobs	Households	Jobs/House.
Anne Arundel County	295,200	178,700	1.65	359,300	199,600	1.80
Montgomery County	593,000	324,600	1.83	645,000	360,500	1.79
<b>Howard County</b>	<b>159,200</b>	<b>90,000</b>	<b>1.77</b>	<b>189,100</b>	<b>107,100</b>	<b>1.77</b>
Baltimore County	448,500	299,900	1.50	503,200	319,900	1.57
Frederick County	103,900	70,000	1.48	128,200	83,700	1.53
Baltimore City	446,400	258,000	1.73	388,500	260,300	1.49
Prince George's County	391,200	286,600	1.36	423,600	307,500	1.38
Carroll County	68,100	52,500	1.30	81,900	60,600	1.35
Harford County	97,100	79,700	1.22	116,800	92,200	1.27
<b>Central MD Region</b>	<b>2,602,600</b>	<b>1,640,000</b>	<b>1.59</b>	<b>2,835,600</b>	<b>1,791,400</b>	<b>1.58</b>
<b>State Total</b>	<b>3,065,200</b>	<b>1,980,900</b>	<b>1.55</b>	<b>3,359,800</b>	<b>2,181,800</b>	<b>1.54</b>

Source: 2000 households from the U.S. Census (rounded), 2000 jobs from U.S. BEA.

2010 household and job estimates from Maryland Department of Planning, except HC households which are based on Howard County DPZ estimated (Data rounded to the nearest 100)

Looking forward to 2030, assuming all the future housing units in Figure 6-10 (plus actual units built in 2011 and forecasts through 2014) and 3,000 new jobs per year are attained, the jobs to housing ratio would fall to 1.68 from 1.77. The ratio for the 20-year growth increment is 1.45. Note that while these numbers are important for determining expected trends at the County level, and with the ultimate goal of achieving a good "balance" between jobs and housing, this ratio is really more appropriate as a regional measure, since residents live and work throughout the region (Figure 6-17).

**Figure 6-17**  
**Howard County Projected Jobs to Housing Ratio**

Year	Jobs	Households	Jobs/House
2010	189,100	107,150	1.77
2020	219,100	127,700	1.72
2030	249,100	148,600	1.68
<b>20 Year Growth</b>	<b>60,000</b>	<b>41,450</b>	<b>1.45</b>

Source: Howard County DPZ

While a high jobs to housing ratio is generally considered desirable from a fiscal perspective, an important consideration is the ratio of County jobs actually held by County residents. This has a significant impact on both where income taxes are paid and on the amount of commuter traffic generated. In 1990, 36% of the County resident labor force worked in the County, 64% commuted to areas outside the County, and 56% of jobs in Howard County were filled by non-County residents. By 2000, 38% of the County resident labor force worked in the County and 62% commuted to areas outside the County. This is a positive trend with more Howard County residents working in the County. In 2000, 57% of jobs in Howard County were filled by non-County residents, a slight increase compared

to 1990. Chapter 7, Transportation, includes further discussion on the implications of regional workforce community patterns.

### **Fiscal Impacts**

A fiscal impact study has been conducted as part of *PlanHoward 2030*. The fiscal study is provided as a supplement to this document and summarizes the fiscal impacts of various growth and market value scenarios. Overall, the study shows that future job and housing growth outlined in this plan pays for itself. That is, revenues such as property and income taxes from new development are enough to cover costs for public services. The study does show, however, that with property and income taxes making up about 90% of General Fund revenues, trends in market values should be watched closely. This is important particularly because the net fiscal margins from multifamily units, which will be built at a higher proportion in the future, are not as great as from single-family detached units. Trends in public school enrollments should also be closely watched given school costs account for about 60% of General Fund costs. Generally, multifamily units generate fewer school children, but if there are fewer single-family detached units built, student yields in these types of units could potentially rise.

The fiscal study also shows that the residential and nonresidential growth targets outlined in this plan achieve a good balance in the commercial-residential assessable base ratio maintaining existing levels. This relates to the importance of achieving an optimal jobs/housing balance as discussed earlier. Similar to the importance of having a diverse job base, maintaining a diverse tax base is healthy from a fiscal perspective to avoid too much reliance on a single land use type.

## **Policies and Implementing Actions**

### **POLICY 6.3 – Use *PlanHoward 2030* job and housing forecasts to guide County, regional, and State agency decision making regarding infrastructure and services.**

#### Implementing Actions

- a. Baltimore Metropolitan Council. Incorporate *PlanHoward 2030* housing, population, and job forecasts into the Baltimore Metropolitan Council's official regional forecasts.
- b. Monitoring. Monitor the amount, type, and location of actual housing, population, and job growth for comparison with *PlanHoward 2030* forecasts.

### **POLICY 6.4 – Ensure that the County continues to capture future job and business growth opportunities.**

#### Implementing Actions

- a. Economic Development. Partner with the Economic Development Authority to develop County policies and programs to implement the County's Strategic Plan for Economic Development.
- b. Zoning Regulations. Update zoning and other regulations to address the evolving commercial and industrial markets and development trends.
- c. **Commercially and Industrially Zoned Properties.** Establish policies to protect and promote commercially and industrially zoned land for future job and business growth opportunities.



## The Need for More Compact Development

Howard County is centrally located within the Baltimore-Washington corridor. With its highly educated workforce Howard County is poised for growth in business and professional services, biotechnology, the health sciences, and alternative energy opportunities. BRAC, cyber security, and related information sciences will also play a central role in the County's future.

The total Central Maryland population in 2000 was 4.38 million (Figure 6-18). This includes Anne Arundel, Baltimore, Baltimore City, Carroll, Harford, Howard, Frederick, Montgomery, and Prince George's Counties. Over the last ten years the total population has grown by 350,000, totaling 4.73 million by 2010. This represents a regional growth rate of 8% over the decade (Figure 6-19). Howard County represents about 11% of this total growth and with 287,000 residents; it is currently about 6% of the total regional population.

Based on projections from the Maryland Department of Planning, the state will grow by an additional 890,000 residents by 2030. The Central Maryland region is expected to accommodate 588,000 of these new residents. About 7% of that growth, 41,000 new residents, will occur in Howard County. By 2030 Howard County will be 6% of the total regional population, similar to its share in 2010.

**Figure 6-18**  
**Central Maryland and State Population 2000, 2010 and 2030**

Jurisdiction	2000		2010		2030	
	Population	Percent	Population	Percent	Population	Percent
Anne Arundel County	489,656	11.2%	537,656	11.4%	574,300	10.8%
Baltimore County	754,292	17.2%	805,029	17.0%	857,000	16.1%
Carroll County	150,897	3.4%	167,134	3.5%	207,300	3.9%
Harford County	218,590	5.0%	244,826	5.2%	287,700	5.4%
<b>Howard County</b>	<b>247,842</b>	<b>5.7%</b>	<b>287,085</b>	<b>6.1%</b>	<b>328,200</b>	<b>6.2%</b>
Baltimore City	651,154	14.9%	620,961	13.1%	682,950	12.8%
Frederick County	195,277	4.5%	233,385	4.9%	328,550	6.2%
Montgomery County	873,341	19.9%	971,777	20.5%	1,125,000	21.1%
Prince George's County	801,515	18.3%	863,420	18.2%	928,300	17.5%
<b>Central MD Region</b>	<b>4,382,564</b>	<b>100.0%</b>	<b>4,731,273</b>	<b>100.0%</b>	<b>5,319,300</b>	<b>100.0%</b>
<b>State Total</b>	<b>5,296,486</b>		<b>5,773,552</b>		<b>6,664,250</b>	

Source: 2000 and 2010 from U.S. Census. 2030 from Maryland Department of Planning as of May, 2011

**Figure 6-19**  
**Central Maryland and State Population Growth**

Jurisdiction	2000 to 2010		2010 to 2030	
	Population	% Increase	Population	% Increase
Anne Arundel County	48,000	9.8%	36,644	6.8%
Baltimore County	50,737	6.7%	51,971	6.5%
Carroll County	16,237	10.8%	40,166	24.0%
Harford County	26,236	12.0%	42,874	17.5%
<b>Howard County</b>	<b>39,243</b>	<b>15.8%</b>	<b>41,115</b>	<b>14.3%</b>
Baltimore City	(30,193)	-4.6%	61,989	10.0%
Frederick County	38,108	19.5%	95,165	40.8%
Montgomery County	98,436	11.3%	153,223	15.8%
Prince George's County	61,905	7.7%	64,880	7.5%
<b>Central MD Region</b>	<b>348,709</b>	<b>8.0%</b>	<b>588,027</b>	<b>12.4%</b>
<b>State Total</b>	<b>649,418</b>	<b>9.0%</b>	<b>890,698</b>	<b>15.4%</b>

Source: 2000 and 2010 from U.S. Census. 2030 from Maryland Department of Planning as of May, 2011

## Smarter Growth

Under *General Plan 2000*, Howard County designated areas for increased compact, mixed-use development. These included planned new communities such as Maple Lawn, Emerson, Waverly, and Turf Valley, as well as the redevelopment of Downtown Columbia, Route 1, and Route 40. In 2004 comprehensive rezoning established mixed-use zones along the Route 1 Corridor. In 2008 the Route 40 Study resulted in a mixed-use overlay zone for that corridor. In 2010 the Downtown Columbia Plan established the strategy for mixed-use revitalization in the County's urban center. The earliest mixed-use zones in the Route 1 Corridor should now be reevaluated and revised, if necessary, based on experience gained over the last eight years. Because Howard County's population will continue to increase while the amount of land available for development in the Priority Funding Area will continue to decrease, more compact development will be needed to accommodate future growth.

### Challenges and Opportunities

Current challenges for redevelopment that have been recognized, particularly along the Route 1 Corridor, include assembly of smaller parcels, business relocation, zoning impediments, land use incompatibility issues, higher costs of multifamily development with structured parking, and financing and infrastructure needs. These challenges need to be addressed to facilitate new growth and capitalize on redevelopment opportunities.

On the other hand, opportunities exist in select locations within both Existing Communities and Targeted Growth and Revitalization areas for well-designed, compact development that enhances the surrounding community. In both types of areas new development needs to be context sensitive so that it fits well into the surrounding area in terms of uses and design. More flexibility is needed within the Zoning Regulations to allow and promote context sensitive design rather than uniform approaches. Planned Unit Development (PUD) zoning allows for such flexibility and should be included as a zoning strategy during the Comprehensive Zoning process.

## Policies and Implementing Actions

**POLICY 6.5 – Plan compact, well designed, and complete communities through the Comprehensive Zoning process.**

### Implementing Actions

- a. Zoning Regulations. Revise the Zoning Regulations to better promote compact redevelopment and appropriate infill including consideration of connectivity and safe routes to school.
- b. Development Opportunities. Designate appropriate additional areas within the County's Priority Funding Area for well-designed, compact development in order to accommodate future job and housing growth.
- c. Planned Unit Development. Consider Planned Unit Development (PUD) zoning to allow increased flexibility for unique, well-designed, site-specific developments, which provide benefits and protections to surrounding communities.
- d. **Compact development.** Encourage compact development with adequate green spaces and connectivity within and between developments which provide residents with a high quality of life and

allows residents to take advantage of the benefits of the compact development.



Jennifer Fourney, Grade 4, Gorman Crossing Elementary School

## 7. Transportation

### Overview

Howard County has an extensive interstate and intrastate highway network that provides connectivity to Washington, DC; Baltimore; Thurgood Marshall BWI airport; the Port of Baltimore; Annapolis; and Fort George G. Meade, as well as good access to the Eastern seaboard and the Midwest. Freight and passenger rail service is also available. However, existing peak hour road and highway congestion is projected to increase significantly.

While opportunities for highway improvements are identified, *PlanHoward 2030* also focuses on transit, cycling, and pedestrian alternatives, with particular attention paid to supporting sustainable future growth.

### State of Maryland Vision

*A well-maintained, multimodal transportation system facilitates the safe, convenient, affordable, and efficient movement of people, goods, and services within and between population and business centers.*

### County Context

Howard County is well located in terms of access to the State and Federal highway system, rail service, BWI airport, and the Port of Baltimore. High projected employment, housing, and freight volume require significant investment to address the anticipated capacity constraints and congestion. Commuter bus and rail service to both Baltimore and Washington is available at several locations in the County. The County's transit system, Howard Transit, provides fixed route and paratransit service to most of eastern Howard County and limited paratransit service to the Rural West. However, the frequency and reliability of both regional and local transit service ~~is restricted~~ are inadequate. To promote other modes of travel, the County is implementing a Pedestrian Master Plan and developing a Bicycle Master Plan in 2012.



Howard Transit serves the local community connecting riders to their destinations.

## Progress under General Plan 2000

Over the last decade, the County achieved the following as called for in *General Plan 2000*:

- Built the MD 32 / Burntwoods Road Interchange
- Expanded MD 216 to four lanes from US 29 to Maple Lawn Boulevard
- Built MD 216 as a new four-lane roadway from US 29 to I-95
- Built a new four-lane roadway from Gorman Road to MD 216 interchange
- Built the MD 216 / Loop Road East Interchange
- Expanded Dorsey Run Road to four lanes from the CSX railroad spur to MD 32
- Built Maple Lawn Boulevard, a new two-lane road from Johns Hopkins Road to MD 216
- Expanded and upgraded transit fleet, passenger amenities, and bus shelters
- Provided more paratransit service to medical centers
- Expanded public outreach and marketing programs including the development of Howard Transit and Commuter Solutions Internet sites
- Implemented Pedestrian Plan and initial sidewalk projects

## Existing Transportation System

The overall regional transportation network is challenged by congestion, energy consumption, greenhouse gases, ozone emission restrictions, the limited availability of additional land for rights-of-way, and constricted Federal, State, and local funding.

The County offers a variety of multimodal transportation options. Currently, Howard County residents and visitors choose the automobile for most travel in and out of the County. About 90% of work, school, and shopping trips are primarily by car. Based on regional trends, the share of car trips is expected to rise to 98% by 2030. Based on the BMC travel model, in 2008, the baseline year for the model, over 94% of person trips were by automobile, with the balance of trips completed by transit, walking and cycling; based on current projected future land use and forecasted funding for transportation projects, the mode shares are not currently projected to change significantly by 2035. As new and revised land use, transportation plans, and funding are developed, the impacts will be reflected in the travel model and are expected to reduce automobile trips. Plan Howard 2030 aims to promote a better balance among all of the County's transportation options.

### GREEN TIP!

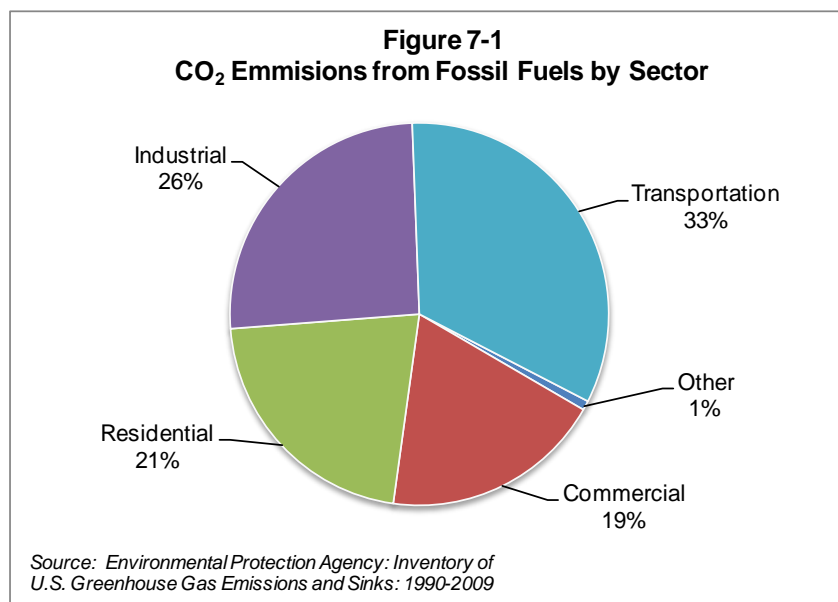
Bike or walk. Save gas, save money, and save the environment.

The regional and local economy relies on an efficient transportation system to allow people to get to jobs and shopping, move goods to stores, and transport freight through the region. The County has an extensive road and highway network, linked to one of the nation's largest port facilities, rail terminals, food and retail distribution centers, and major airports. Due to changing distribution and warehousing business practices, freight movement nationally and in the region is expected to grow at an increasing rate. From 2006 to 2035, freight traffic in, out, and through the State by truck, rail, water, and air is projected to increase from 692 to 1,422 million tons a year, a 105% increase.

The continued growth in trips and congestion will result in increased demand for congestion relief. Some congestion relief can be achieved through highway capacity improvements; however, opportunities for relief will be limited due to limited available rights-of-way, funding, and cost-effectiveness. Congestion can also be partially mitigated through alternative transportation programs including expanding and increasing the frequency of public transit services, high occupancy vehicle and high occupancy toll lanes, ride sharing, and car sharing.

## Transportation and Emissions

Greenhouse gas emissions are a byproduct of burning fossil fuels to generate energy to move people and goods, as well as powering businesses and homes. Energy use for transportation can be reduced by a variety of methods: reducing vehicle miles traveled (VMT); using a renewable fuel, such as E-85, an ethanol fuel blend; or improving vehicle mileage. Howard County has committed itself to



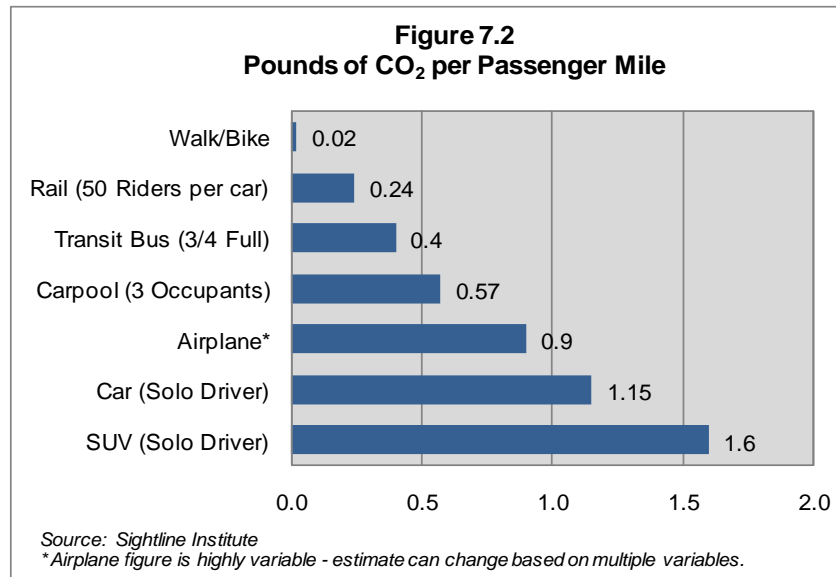
purchasing fuel-efficient fleet vehicles and transit vehicles. In addition, reducing demand for oil could reduce the nation's dependence on oil and gasoline imports.

In 2009, the transportation sector in the United States accounted for 33% of U.S. CO<sub>2</sub> emissions: 65% of that total resulted from gasoline consumption in cars and light trucks. From 1990 to 2009, emissions of CO<sub>2</sub> increased from 1,489 to 1,724 teragrams (or million metric tons) of CO<sub>2</sub> equivalent (Tg CO<sub>2</sub> Eq).

Between 1990 and 2009, EPA data shows that greenhouse gas emissions from passenger vehicles increased by 17%; it was caused mainly by increased sales of light-duty vehicles (SUVs, minivans, etc.) and an increase in the number of miles Americans travel every year. However, there has been a 4% decrease in CO<sub>2</sub> emissions from 2008 to 2009 due to the recession. Meanwhile, the average fuel economy of new vehicles declined because of increasing sales of light-duty trucks.

In Howard County, based on Baltimore Metropolitan Council (BMC) model data, daily CO<sub>2</sub> emissions from cars and trucks traveling in and through the County from 2008 to 2035 will increase from 6,817 tons to 9,636 tons a day. More compact mixed-use development patterns have been identified as a strategy that

could reduce the growth of VMT and how much we drive. Three major studies have examined the impact of compact growth patterns: Moving Cooler, Growing Cooler, and Driving and the Built Environment. These studies reviewed data and past studies to determine the actual effects of compact growth. Generally they found that people who live in areas with compact land use patterns travel less often and travel shorter distances. However, it is an incremental process. A single compact development might not result in less travel, but as adjacent land follows the same pattern, automobile travel starts to decline. In addition, these changes tend to be permanent, as it is the land use pattern that is driving the trend, not an outside intervention that needs to be sustained. Moving Cooler determined that with suburban compact, mixed-use development, defined as areas with more than 4,000 persons per square mile or eight persons per acre, there could be VMT reductions of 5-20%. This decrease is not Howard County specific; additional modeling should be conducted to assess the potential impact



on greenhouse gas emissions and travel behavior in Howard County.

Alternative modes of transportation are also mechanisms to reduce VMT and greenhouse gases. Figure 7-2 summarizes the emissions output per passenger mile for a range of transportation choices. The automobile is the greatest contributor, which is also the predominant transportation option for Howard County residents. The chart shows the emissions benefits of mode shifts on greenhouse gases and the benefits of promoting and investing in land uses that support other travel modes and in the direct promotion of alternative modes.

The Baltimore region is currently a nonattainment area for air quality, which means air pollution levels persistently exceed National Ambient Air Quality Standards. Due to the nonattainment designation, the County participates in the Baltimore Metropolitan Council planning efforts to improve air quality, including mitigating emissions from diesel buses through the Congestion Mitigation and Air Quality Improvement Program.

## Policies and Implementing Actions

**POLICY 7.1 – Increase public awareness of the relationship between personal vehicle miles traveled and highway congestion, air quality, greenhouse gases, and energy independence, as well as how more**

**compact growth patterns and alternate modes of travel can help achieve a sustainable and more environmentally and personally healthy balance.**

### Implementing Actions

- a. **Green Central Station.** ~~Update the County's Green Central Station website to address transportation's role in achieving a healthy community. Include emissions calculators and other tools residents can use to measure greenhouse gas savings, map walking or biking distances, organize ridesharing, and access car sharing.~~ **Green website.** Update the County's website that is devoted to providing information to consumers designed to help make Howard County greener, healthier, and sustainable, to address transportation's role in achieving a healthy community. Include emissions calculators and other tools residents can use to measure greenhouse gas savings, map walking or biking distances, organize ridesharing, and access car sharing.
- b. **Awareness.** Expand resident and business awareness and use of alternative transportation modes, including transit, carpooling, walking, and cycling.
- c. **Safe Routes.** ~~Expand and promote the Safe Routes to School Program.~~ **Safe Routes.** Expand, support and promote programs, such as the Safe Routes to School Program, that will enable communities to make walking and bicycling to school a safe and routine activity.



### Regional and Local Transportation Planning

Howard County actively participates in a variety of regional transportation planning initiatives as a member of the Baltimore Regional Transportation Board (BRTB). The County participates every four years in the Baltimore region's long-range transportation plan. BRTB's 2011 long-range transportation plan, Plan-It 2035, was adopted on November 14, 2011.

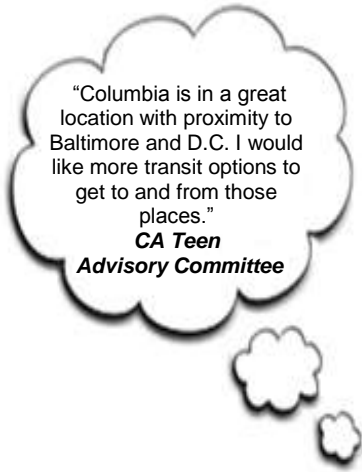
Traditionally in the United States, transportation planning has focused on vehicle speed, congestion mitigation, and cost as the primary indicators in the evaluation of transportation investments. In recent years, planning practices have evolved to encompass a broader approach that provides for a more balanced set of evaluation criteria, including impact on climate change, negative environmental impacts, and disproportionate negative impacts on low income and minority populations.

Howard County, as a member of the BRTB and a participant in the Plan-It 2035 process, endorsed an updated process to evaluate regionally significant transportation projects. The process assessed the three major types of infrastructure projects: highways, transit, and bicycle/pedestrian from a qualitative policy and technical quantitative perspective. The key evaluation criteria were:

- Improve Transportation System Safety
- Improve Accessibility
- Increase Mobility
- Preserve the Environment
- Improve Transportation System Security
- Promote Prosperity and Economic Opportunity
- Foster Participation and Cooperation among All Stakeholders

*Regional cooperation is crucial to coordinate the road network to serve local, regional, as well as interstate traffic and commerce.*





The BRTB models used to test projects extend beyond the Baltimore Region and also incorporate data from the Washington Council of Governments. Because the BRTB process is used regionally and represents a consensus view among all the Counties in the region, the criteria provide a suitable foundation to evaluate local transportation options.

Howard County also plans for local transportation improvements to implement the General Plan. Additionally, every five years the County's Transit Development Plan is updated to assess and prioritize transit needs for Howard County's local transit services. The County also has a pedestrian master plan, which will be updated during 2012 to 2013, and the County is initiating a bicycle plan. The planning process results in prioritization of funding for State and local transit, freight, highway, bicycle, and pedestrian projects.

~~The major goal of Plan-It 2035 and Howard County's local planning effort is to develop plans that better balance highway, transit, bicycle, and pedestrian needs and reflect expected funding constraints.~~ The major goal of Plan-It 2035 and Howard County's local planning effort is to develop an integrated approach to all modes of transportation that balances highway, transit, bicycle, and pedestrian needs and reflects expected funding constraints.

Key Transportation Improvements Anticipated by 2025 (Map 7-1) and Key Transportation Improvements Anticipated by 2035 (Map 7-2) are the major transportation improvements that have been identified from these planning initiatives. Figures 7-3 and 7-4, located at the end of this chapter, provide more information on specific transportation improvements.

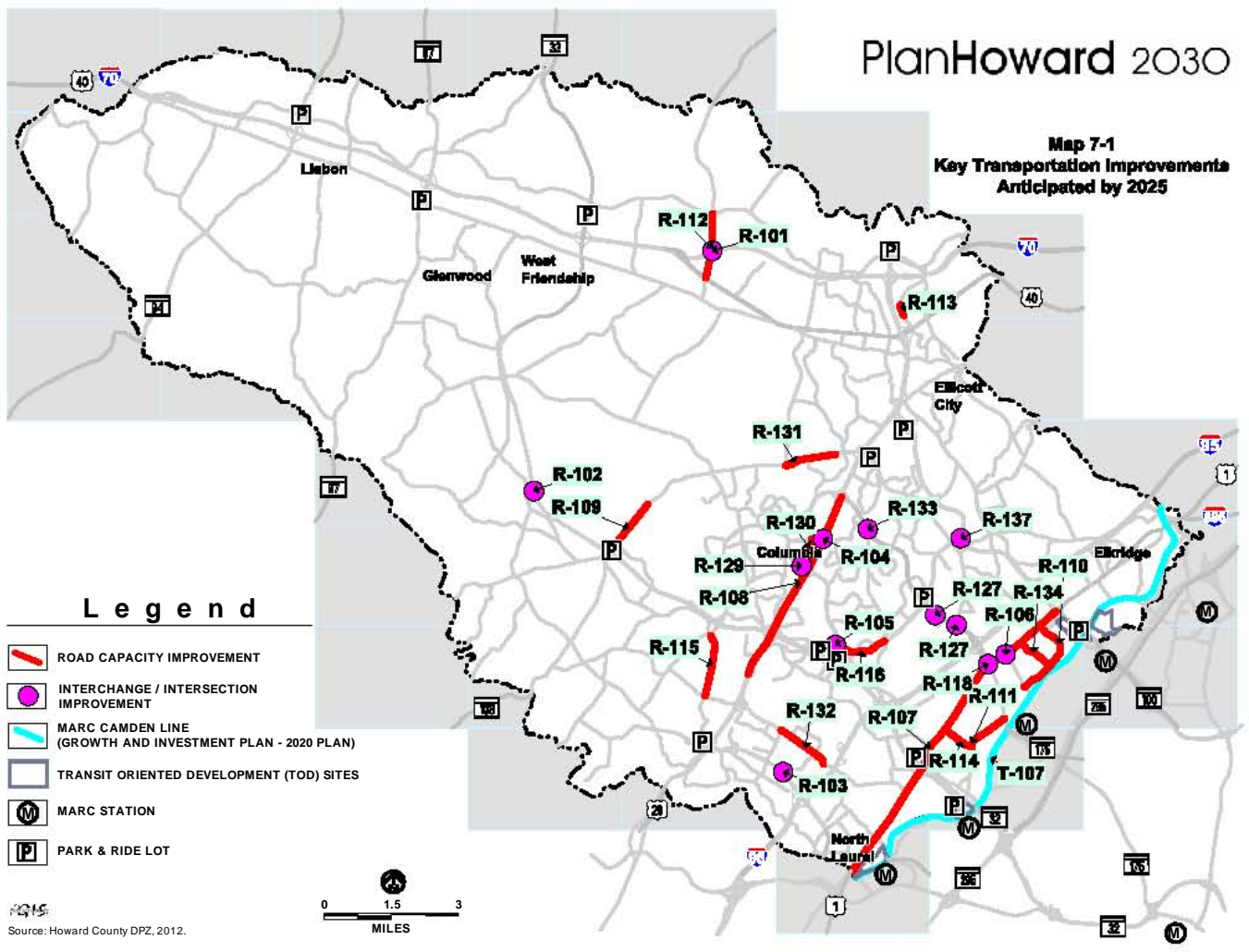
## **Policies and Implementing Actions**

**POLICY 7.2 – Coordinate State, regional, and local planning and implementation for critical improvements and new transportation facilities based on evaluation of options using a wide range of performance, health, environmental, and financial criteria.**

### **Implementing Actions**

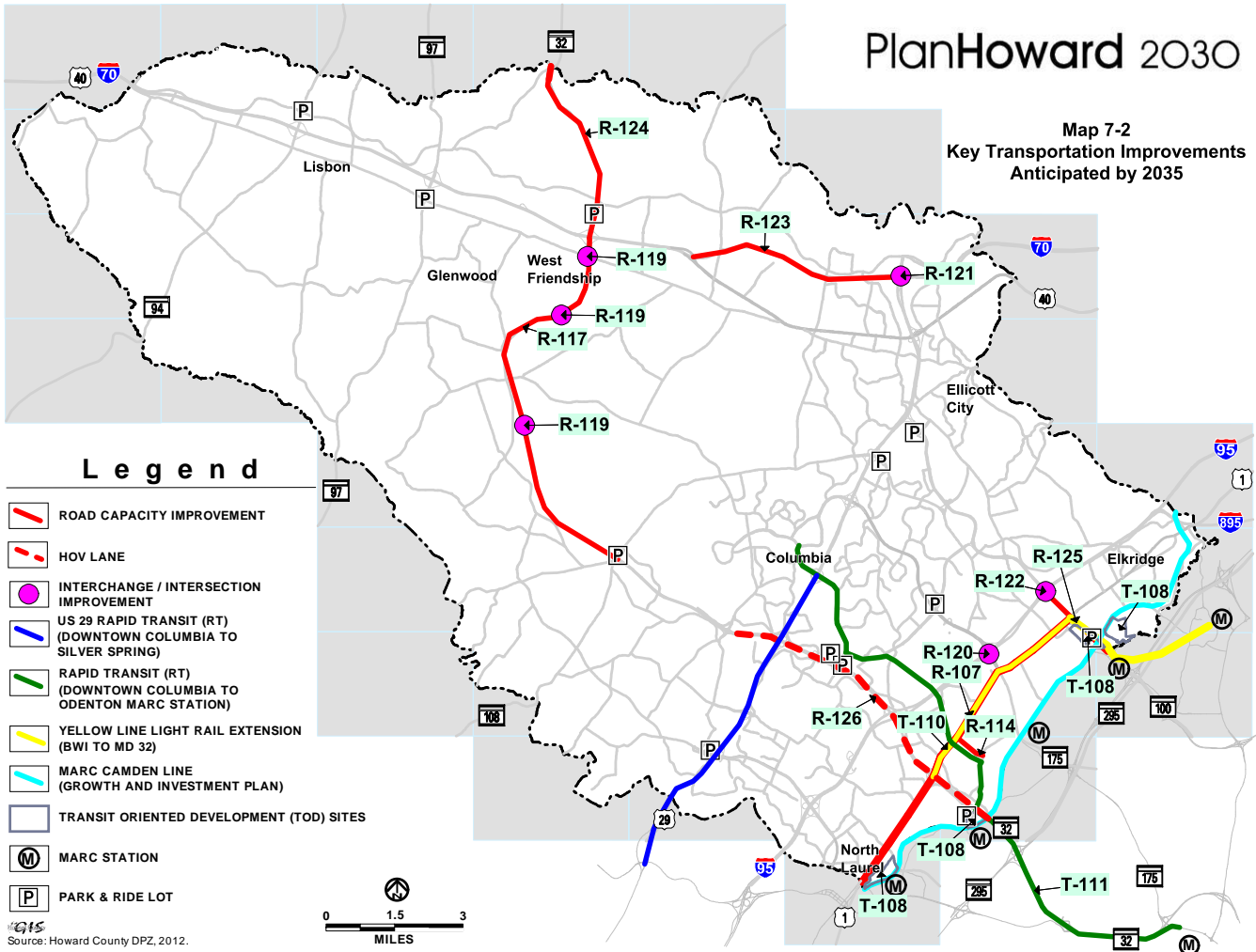
- a. **Key Projects.** Refine transportation plans and fund the County's share of projects as identified in: Key Transportation Improvements Anticipated by 2025 (Map 7-1); Key Transportation Improvements Anticipated by 2035 (Map 7-2); Road, Bicycle and Pedestrian Improvements (Figure 7-3); and Transit Priorities (Figure 7-4).

- b. **Regional Cooperation.** Engage in State and regional discussions to develop solutions to transportation funding shortfalls.



# PlanHoward 2030

Map 7-2  
Key Transportation Improvements  
Anticipated by 2035



## Roads and Highways

The road and highway network in Howard County consists of 1,200 miles of local roads, collectors, and arterials. Each roadway type has a defined traffic carrying function and depends on the functioning of other roads in the network. The entire highway network depends upon the regionally significant highways with the greatest traffic carrying capacity operating efficiently and effectively.

Map 7-3 shows the functional classifications for the County's road network. These functional classifications are used to determine the right-of-way and road improvements required for both private developments and County capital projects.

- **Principal Arterial:** Provides for efficient and uninterrupted travel across state and metropolitan areas through elimination of intersections and signals.
- **Intermediate Arterial:** Provides access between principal arterial highways and major streets in highly developed areas through the limitation of the type and number of access points from adjacent land uses.

- **Minor Arterial:** Provides interconnection between principal and intermediate arterials, as well as access to or through high density residential, commercial, retail, or industrial land areas.
- **Major Collector:** Provides primary access to an arterial road for one or more neighborhoods, as well as travel through neighborhoods from external points.
- **Minor Collector:** Connects local roads to one or more major collectors. Provides direct access to abutting properties and internal trips within a neighborhood.
- **Local Road:** Comprises all roads not classified as an arterial or collector. Provides direct access to abutting land uses and higher order roadway classes.

The BMC travel model indicates that congestion and travel time delay in Howard County and the region will continue to increase. Model projections for vehicle travel hours indicate that from 2008 to 2035 vehicle hours of delay will increase by 57%. Vehicle hours of delay are the number of hours drivers will experience due to congestion as compared to free-flowing roads and highways. In addition, significant segments of highways, especially those highways used to transport goods through the region and get people to work, will continue to experience peak period traffic congestion.



Effective on ( \_\_\_\_\_ )

Congestion can be mitigated either by increasing the capacity of roads and highways or by reducing demand.

The County's Adequate Public Facilities (APF) legislation was enacted in 1992 to assess the impact of new development proposals on the level of service at nearby intersections and to require improvements to mitigate congestion, if needed. Highway Level of Service (LOS) is a quantitative and qualitative measure of how well traffic flows through an intersection. LOS relates to such factors as number of lanes, percentage of trucks, total traffic volume, turning movements, signal timing, and other factors which affect intersection congestion. LOS can be described as follows:

#### GREEN TIP!

Check your tire pressure. Increase your gas mileage by keeping your tires properly inflated.

- **Level A** is a condition with low traffic volumes, high speeds, and free-flow conditions.
- **Level B** is a condition with light traffic volumes, minor speed restrictions, and stable flow.
- **Level C** is a condition with moderate traffic volumes, where speed and maneuvering are restricted to a limited degree.
- **Level D** is a condition with heavy traffic operating at reasonable speeds, although temporary slowdowns may occur.
- **Level E** is a condition of very heavy flow, relatively low speeds, and short stoppage may occur.
- **Level F** is a condition of extremely heavy flow, with frequent stoppage, and very slow speeds.

New development is also charged a road excise tax, to help fund high priority road improvements anywhere in the County highway network. The tax rate was set in 1992 but was not indexed to inflation until 2008, which has reduced available funding, despite significant increases in highway construction costs in the interim.

Increasing road capacity reduces congestion; however, the effects are not always long-lasting, as people increase their driving in response. Reducing congestion can be accomplished by promoting mechanisms to shift driving to off-peak hours and alternate travel modes (transit, car pools, bicycle, and walking). The APF regulations for Downtown Columbia were amended to include analysis of alternate travel modes and the option to count bicycle and pedestrian improvements in required mitigation.

## Policies and Implementing Actions

**POLICY 7.3 – Prioritize and pursue cost-effective, long-term capacity improvements to the road and highway network to support future growth in accordance with place type designations.**

### **Implementing Actions**

- a. **Capital Planning.** Use Howard County's Capital Improvement Master Plan to provide predictable funding for the County's highest priority road projects.
- b. **APF Regulations.** Evaluate the merits of amending the APF regulations to evaluate alternative modes of travel, as well as both increasing the APF road excise tax and allowing a portion of the funds to be used for transit, bicycle, or pedestrian improvements. **Adequate public facilities regulations.** Evaluate adequate public facilities (APF) regulations to

determine the merit of adding alternative modes of travel as well as whether the APF road excise tax amount is appropriate and whether a portion of it should be used for safety, transit, bicycle, or pedestrian improvements.

- c. **Targeted, Strategic Investments.** Evaluate new and innovative approaches to maximize the use of highway investments such as High Occupancy Vehicle (HOV) lanes and/or express toll lanes, focus road improvements to support existing communities and future growth areas, and limit rural road improvements to safety, rather than capacity improvements.

## Transit Services

As shown on Map 7-4, Howard County's local transit service, Howard Transit, currently operates eight bus routes in the eastern portion of the County, with two routes extended to Laurel Mall and BWI airport. All these routes are operated on one-hour frequencies, with only the Green Route operating on half-hour frequencies during peak hours. Howard Transit's low service frequency makes service less convenient and slower, which discourages many potential riders. This results in a transit system primarily serving riders who do not have access to a car and who are dependent on public transit to travel. Central Maryland Regional Transit, which contracts with Howard County to provide Howard Transit service, also operates Connect-a-Ride with nine routes extending to College Park and Annapolis and two routes extending service into Howard County. Howard Transit provides about one million trips a year. The County is also served by a number of MTA commuter bus routes, with peak hour service to Washington, Baltimore, Fort Meade, Gaithersburg, and Rockville. MARC Commuter Rail provides service on the Camden line to Washington and Baltimore via train stations in Jessup, Savage, and Dorsey on the Howard County border with Anne Arundel County.



Howard Transit also operates HT Ride. HT Ride provides specialized paratransit curb-to-curb transportation for individuals with disabilities and senior citizens. HT Ride is provided for those individuals who cannot use the fixed-route Howard Transit services. This specialized service is categorized in two forms:

- 1) General Services transportation is provided, for those eligible, to and from locations within Howard County with limited service available to medical centers in Baltimore.
- 2) Americans with Disabilities Act (ADA) transportation service is limited to areas that are within three-quarters of a mile from the Howard Transit fixed-route service. HT Ride has initiated a pilot program using taxis to serve paratransit customers more cost-effectively.

Transit services continue to face a number of issues and challenges that need to be addressed, as they affect financial viability, reliability, public perception, and demand for transit services.

Howard Transit's Federal and State funding has remained flat for several years while the cost of providing transit services has increased. In 2012, the County is expected to expend about \$8 million to support transit services, which is about 77% of the total operating cost for the service. In addition, bus replacement costs are projected at \$2 to \$2.5 million per year. Increasing service frequency is a highly desirable goal outlined in Howard County's 2009 Short-Range Transportation Development Plan (see page ES-10 of that document); however, securing additional funding for increased frequency is a challenge.



*The increasing number of diesel-hybrid buses in the Howard County transit system contribute to cleaner air.*

The Federal Americans with Disabilities Act of 1990 requires the provision of complementary paratransit services when a fixed-route service is offered in a jurisdiction. Service providers must fulfill each ADA trip requested; therefore, ADA service costs are unconstrained. An expansion of fixed-route service areas would result in an increased paratransit obligation.

Howard County's land use and road design policies have resulted in a street network that can be disconnected and indirect in some situations. This has led to circuitous bus routes that are not serving passengers efficiently. This has also resulted in limited pedestrian and bicycle connections between bus stops and surrounding areas and communities. Howard County expects future development and growth to be directed to Downtown Columbia and nodes along Routes 1 and 40. Concentrating development would support easier and more efficient transit service.

Maps 7-1 and 7-2 and Figures 7-3 and 7-4 identify transit improvements. In 2012, the Baltimore Metropolitan Council is initiating a regional transit study to evaluate existing and potential transit corridors to determine how to more efficiently plan, fund, and coordinate transit options to support future growth.

In 2011, an appointed Transportation Commission recommended the County establish a new Office of Transportation to determine how to enhance the efficiency and quality of the County's existing transit system, as well as explore regional service models as a cost-effective option of providing increased service. The new office is also intended to facilitate coordination between transit and other transportation modes to enhance connectivity and effectiveness.

## **Policies and Implementing Actions**

**POLICY 7.4 – Enhance the accessibility and quality of existing and future transit services.**



## Implementing Actions

- a. **Transit Operations Facility.** Develop a transit operations facility to reduce costs by centralizing fleet maintenance and opening competitive bidding to additional transit service operators.
- b. **Efficiency and Route Alignment Howard Transit.** Maximize efficiency of Howard Transit and HT Ride operations via route alignment and paratransit taxi services, paying particular attention to improving access to government facilities and health and human service locations.
- c. ~~**Other Jurisdictions.** Expand and maximize efficiency of mid-corridor regional transit with Anne Arundel County, Baltimore County, Montgomery County, Prince George's County, the City of Laurel, and Fort Meade. Evaluate potential and, if advantageous, establish a new multijurisdictional regional transit agency to provide enhanced mid-corridor bus service that also maximizes investment and connectivity with other Baltimore-Washington regional transportation facilities.~~  
**Regional Transit.** Expand and maximize the efficiency, investment and connectivity of mid-corridor regional transit with Anne Arundel County, Baltimore County, Montgomery County, Prince George's County, the City of Laurel, and Fort Meade, as well as connectivity with Baltimore and Washington regional transit service.
- d. ~~**Service Frequency.** Enhance Howard Transit by implementing half-hour service frequencies, increasing connectivity to other Baltimore-Washington regional transportation facilities (MARC, park-and-ride, pedestrian and bicycle facilities, and Transportation Demand Management initiatives), and instituting other service improvements identified in the Transit Development Plan.~~ **Multijurisdictional agencies.** Evaluate potential and, if advantageous, establish a new multijurisdictional agency for the administration and operation of public transportation services that would improve the efficiency and effectiveness of regional transit services, improving connectivity and coordination among public and private providers and maximizing the use of federal, state and local funding.
- e. **Service Frequency.** Enhance Howard Transit by implementing half-hour service frequencies, increasing connectivity to other Baltimore-Washington regional transportation facilities (MARC, park-and-ride, pedestrian and bicycle facilities, and Transportation Demand Management initiatives), and instituting other service improvements identified in the Transit Development Plan.
- f. ~~**Land Use Decisions.** Establish, enforce, and enhance policies and regulations requiring connectivity, prior to approval of new development plans that integrate land use decisions with options for promoting improved transit access~~ connectivity and transportation accessibility.

**POLICY 7.5 – Utilize the BMC's Regional Transit Study regional studies to develop an effective plan for significantly expanded regional transit service.**

## Implementing Actions

- a. **Corridor Evaluation.** Evaluate existing and potential transit corridors for future ridership, transit mode options, and cost-effectiveness in order to prioritize public investment within transit corridors.

- b. **Rights-of-Way.** Preserve transit rights-of-way within existing and potential transit corridors.
- c. **Transit Nodes.** Identify locations within the Targeted Growth and Revitalization areas for more detailed planning for the development of transit-supportive densities and land uses, as well as pedestrian and bicycle connectivity.
- d. **Compact Development.** Adopt land use policies and regulations to promote compact development patterns that support transit demand through sufficient densities and interconnected street and pedestrian networks.
- e. ~~**Downtown Columbia.** Develop the Downtown Columbia multimodal transit facility and circulator.~~ **Downtown Columbia.** Work with the Downtown Columbia Partnership to develop the Downtown Columbia Transportation Demand Management Plan, multimodal transit facility and circulator.
- f. **Baltimore Metropolitan Council.** Cooperate with the Baltimore Metropolitan Council (BMC) to develop a new regional transit study.

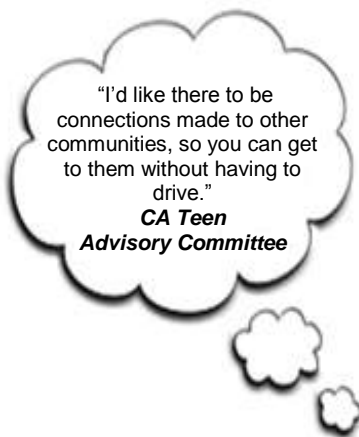
## Pedestrian and Bicycle Master Plans

Most of Howard County's growth has occurred since 1950, coinciding with the rise in automobile ownership and resulting in the County's automobile-oriented development patterns. This has resulted in poorly connected bicycle, and pedestrian transportation networks, leaving most residents dependent on the personal automobile to travel to nearly all destinations in and around the County.

~~A major asset of any community is choice -- including choices in how one travels. Being able to make transportation choices means that for any particular trip, a person would have many viable and efficient transportation options from which to choose. Transportation options are an important aspect of community development. Being able to make transportation choices means that for any particular trip, a person would have many viable and attractive transportation options from which to choose: bus, bicycle, car, or on foot. Mode choice provides people with the flexibility to adapt their transportation behaviors depending on the goals of their trip, weather, time, and cost. The concept of "complete streets" is an approach to road design that incorporates pedestrian, bicycle, and transit with motor vehicles so that they are safe and comfortable and allow convenient transfer between modes.~~

For several decades in Howard County sidewalks were not an integral part of the road improvements. Sidewalk requirements have been strengthened and in 2007, a Pedestrian Master Plan was completed to enable the County to develop safe and reliable pedestrian connections. The economic downturn since 2008 has limited implementation funding, although a number of projects identified in the plan have been initiated. However, the rate of pedestrian improvements and projects identified in the plan should be accelerated.

Cycling is also an excellent option for many trips. There are many areas in the County where residents are close enough to bicycle to shops, school, or work. However, they are often faced with physical and safety barriers that hinder access and utilization; only a few are willing to breach these barriers. A Bicycle Master Plan has been funded and will be initiated in early 2012 to identify a network of cycling routes, identify barriers, and prioritize projects for implementation. The County's work on the Bicycle Master Plan will be



coordinated with the Columbia Association which is developing an “Active Transportation Action Agenda” for the Columbia pathway system.

## Policies and Implementing Actions

**POLICY 7.6 – Reduce highway congestion, energy consumption, and greenhouse gases by increasing the number of residents using alternate modes of transportation.**

### **Implementing Actions**

- a. **Bicycle Master Plan.** Develop a Bicycle Master Plan that defines priority projects and identifies those that can be integrated with pedestrian improvements and transit facilities. Establish an implementation schedule and identify funding.
- b. ~~**Complete Streets.** Promote complete streets by amending the Design Manual for road improvements to address bus stops and transit shelters, as well as pedestrian pathways, crossings, and bicycle improvements.~~ **Pedestrian Master Plan.** Assess progress and refine priorities of the existing Pedestrian Master Plan.
- c. ~~**Pedestrian Master Plan.** Assess progress and refine priorities of the existing Pedestrian Master Plan.~~ **Bus Stops.** Expand the study of bus stop infrastructure needs to identify gaps in bicycle and pedestrian connections between bus stops and surrounding destinations.
- d. **Evaluate Alternative Mobility Options.** Evaluate the options to meet the needs of seniors and people with disabilities.
- e. ~~**Capital Projects.** Establish an interdepartmental team including the Howard County Office of Transportation, Department of Planning and Zoning, Department of Public Works, and Department of Recreation and Parks to prioritize and coordinate implementation of the Bicycle and Pedestrian Master Plans through both capital projects and review of private sector development plans.~~ **Complete Streets.** Promote complete streets by amending the Design Manual for road improvements to address bus stops and transit shelters, as well as pedestrian pathways, crossings, and bicycle improvements.
- f. ~~**Bus Stops.** Expand the study of bus stop infrastructure needs to identify gaps in bicycle and pedestrian connections between bus stops and surrounding destinations.~~ **Capital Projects.** Establish an interdepartmental team including the Howard County Office of Transportation, Department of Planning and Zoning, Department of Public Works, and Department of Recreation and Parks to prioritize and coordinate implementation of the Bicycle and Pedestrian Master Plans through both capital projects and review of private sector development plans.
- g. **Public Outreach.** Develop strategies to promote public awareness and use of alternative travel modes for work, errands, and recreation.

## TDM Transportation Demand Management

Transportation Demand Management (TDM) involves diverse programs designed to alter travel behavior by mode, frequency, time, route, or trip length. It is also used to maximize the efficiency and sustainable use of transportation facilities.



These programs can be used to address a range of objectives, including reducing congestion, emissions, and energy use.

Some typical TDM programs are Transit, Transportation Management Associations, HOV Lanes, Reversible Lanes, Congestion Pricing, High Occupancy Toll Lanes, Ridesharing Programs, Bike to Work Programs, Telecommuting, and Video Conferencing.

Howard County has run a successful commuter rideshare program that provides assistance with transit services, ride matching, van pools, and shuttle bus development, in addition to other services to get people to jobs in and out of the County.

Technology can be integrated into TDMs to reduce congestion by coordinating signals, integrating freeway and arterial operations, improving traffic flow, reducing incident clearance times, improving bus travel through the use of priority signals for buses and bus arrival information, and enhancing special event traffic management. Howard Commuter Solutions manages a ride matching database that is linked to the greater Baltimore-Washington region.

Howard Transit provides real time bus arrival information to all transit riders via telephone or a smart phone application. Furthermore, more transit agencies have opened up data feeds to independent developers, which have resulted in the development of new applications to provide detailed and customized transit data to individuals.

## Policies and Implementing Actions

**POLICY 7.7 – Reduce highway congestion, energy consumption, and greenhouse gases through ~~transportation demand management and innovative technologies~~.**

### **Implementing Actions**

- a. **Ride Sharing.** Promote car share and bike share systems, HOV programs, and expanded park and ride lots.
- b. **TDM Program.** Study and develop the Downtown Columbia Transportation Demand Management Plan as well as additional TDM programs as mechanisms to mitigate traffic/congestion impacts and expand transit services.
- c. **Data Sharing.** Investigate sharing of bus location data generated by Howard Transit for potential use by independent software developers to promote transit and transit alternatives.
- d. ~~Broadband Connections~~ **Innovative Technologies.** Leverage the County's investment in the intra-County broadband network to develop a Howard County traffic control center to monitor traffic conditions and coordinate with Maryland State Highway Administration traffic control.
- e. **Alternative Modes of Transportation.** Make pedestrian, bicycle, and transit modes of transportation attractive and viable options.

**Figure 7-3  
Road, Bike and Pedestrian Priorities**

Project Number	Project Description	2010-2025	Post 2025
R-101	I-70 and Marriottsville Road: Capacity, ramp and bridge improvements over I-70; Expansion of Marriottsville Road to 4 and 6 lanes from MD 99 to US 40	✓	✓
R-102	MD 32 and Linden Church Road: New Interchange	✓	
R-103	MD 216 and Skyark Boulevard Extended: New signalized intersection	✓	
R-104	US 29: Interchange at Corporate Boulevard Extended to access Downtown Columbia	✓	
R-105	Broken Land Parkway and Snowden River Parkway: Roadway capacity improvements	✓	
R-106	US 1 - Montevideo Road and Port Capital Drive: Realignment of roadway and new 4-way intersection	✓	
R-107	US 1 - MD 100 to the Prince George's County line: Expand to closed section with 6 lanes	✓	✓
R-108	US 29 - Middle Patuxent River to MD 175: Expand to 6 lanes	✓	
R-109	MD 108 - Trotter Road to MD 32: Expand to 5 lanes	✓	
R-110	Dorsey Run Road - Montevideo Road to MD 103: Expand to 4 lanes	✓	
R-111	Dorsey Run Road - New 4 lane road: CSX Railroad Bridge spur to Guilford Road	✓	
R-113	North Ridge Road - Terminus to Town & Country Boulevard: Extend existing 2-lane road	✓	
R-114	Patuxent Range Road - US 1 to Dorsey Run Road: Expand to 4 lanes		✓
R-115	Sanner Road - Hopkins Road to Guilford Road: Expand to 2 lane sections, left turn capacity and bike lanes	✓	
R-116	Snowden River Parkway - Oakland Mills Road to Broken Land Parkway: Expand to 6 lanes	✓	
R-117	MD 32 - I-70 to MD 108: Expand to 4 lanes		✓
R-118	US 1: Urban Interchange at MD 175	✓	
R-119	MD 32: New interchanges at Dayton SHA Facility, Rosemary Lane and MD 144		✓
R-120	I-95: Upgrade interchange for capacity and safety at MD 175		✓
R-121	I-70: Reconstruct interchange at US 29 to allow for I-70 to be widened to 6 lanes		✓
R-122	I-95: Upgrade interchange at MD 100 to allow for 6-lane expansion on MD 100 and capacity expansion on I-95		✓
R-123	I-70 - US 29 to US 40: Expand to 6 lanes		✓
R-124	MD 32 - I-70 to the Carroll County border: Expand to 4 lanes		✓
R-125	MD 100 - I-95 to Anne Arundel County border: Expand to 6 / 8 lanes		✓
R-126	MD 32 - Cedar Lane to Anne Arundel Co.: Expand to 8 / 10 lanes with HOV		✓
R-127	MD 175 / MD 108 / Columbia Gateway Drive: New grade separated intersection	✓	
R-128	MD 175: US 1 Interim intersection improvements	✓	
R-129	Broken Land Parkway and North South Collector: Interchange Modification	✓	
R-130	North South Collector: Broken Land Parkway and Little Patuxent Parkway - new 4-lane road	✓	
R-131	MD 108: Woodland Road to Centennial Lane - Expand to 5 lanes	✓	
R-132	Gorman Road - Skylark Road and Leishear Road: Modify alignment	✓	
R-133	Oakland Mills Road and MD 175: Limited access interchange for Blandair Park	✓	
R-134	Kit Kat Road: Extension/connection to Dorsey Run Road	✓	
R-135	MD 32/US 1 Park and Ride Lot: Park and Ride lot located on the northwest quadrant of MD 32 and US 1	✓	
R-136	US 29/MD 99 Park and Ride Lot: Park and Ride lot located north of the intersection of MD 29 and MD 99		✓
R-137	MD 100, MD 108 and Snowden River Parkway: Intersection and interchange upgrades	✓	
B-101	<b>Bicycle Facility Projects: Proposed in pending Bicycle Master Plan and BRTB Plan</b>	✓	✓
P-101	<b>Transit Stops: Improve pedestrian and bicycle access</b>	✓	✓
P-102	<b>Pedestrian Facility Projects: Proposed in Pedestrian Master Plan and BRTB Plan</b>	✓	✓

Source: 2011 Long-Range Transportation Plan, Baltimore Metropolitan Council (updated every four years)

**Figure 7-4  
Transit Priorities**

<b>Project Number</b>	<b>Project Description</b>	<b>2010-2025</b>	<b>Post 2025</b>
T-101	<b>Central Maryland Transit Operations Facility:</b> New facility for Howard Transit, western Anne Arundel and Connect-a-Ride	✓	
T-102	<b>Howard Transit:</b> Continue expansion and upgrade of buses	✓	
T-103	<b>Howard Transit:</b> Increase frequency and service hours	✓	
T-104	<b>Downtown Circulator:</b> New circulator using hybrid and/or electric buses	✓	
T-105	<b>Regional Transfers:</b> MTA, WMATA, MARC, Connect-a-Ride	✓	
T-106	<b>Howard Transit:</b> Improve amenities at bus stops and shelters	✓	
T-107	<b>MARC:</b> Camden Line Growth and Investment Plan: Frequency and Service improvements; 2020 Phase Improvements	✓	✓
T-108	<b>Transit-Oriented Developments (TOD):</b> Savage, North Laurel, and Dorsey MARC Stations	✓	
T-109	<b>Bus Rapid Transit:</b> Along US 29 from Downtown Columbia to Burtonsville		✓
T-110	<b>Yellow Line Light Rail:</b> Service from Dorsey MARC Station to MD 32		✓

Source: 2011 Long-Range Transportation Plan, Baltimore Metropolitan Council (updated every four years)