



**Thrive Montgomery 2050 – Issues Briefing**

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**Staff Recommendation:**

Receive briefing and provide comments to be incorporated into an Issues Report that will be presented to the Planning Board in February.

**Introduction:**

Staff briefed the Planning Board on November 7<sup>th</sup> about the progress of the Thrive Montgomery 2050 Plan including information on the extensive outreach activities that have been undertaken. The Board was also briefed on the upcoming schedule for the project as we move from the "Excite" phase to the "Educate" phase.

As a part of the extensive outreach efforts and as a result of the initial thinking of the Staff Working Groups, a list of important issues and challenges has been developed that staff believes the Thrive Montgomery 2050 Plan should address. All the issues developed to date relate to how to accomplish the three primary outcomes for the plan: Equitable Communities; Economic Health; and Environmental Resilience. The project is still at the point of simply identifying issues – **policy recommendations have not yet been developed**. The Board will continue to be involved as policy ideas are developed.

Staff has grouped these issues into eight categories, which will be the beginning framework of how the Thrive Montgomery 2050 Plan will be organized. It is this set of issues and the way that they are organized that is the primary focus of the Board's December 12<sup>th</sup> worksession. It is this material that staff wants Board feedback on before progressing further.

In addition to identifying current and potential issues, this staff report also raises questions for the Thrive Montgomery 2050 Plan that are meant to go beyond the known list of issues, and spark new ways of thinking to set higher goals for the future and not just be limited to the most pressing needs and issues known to us today.

After receiving feedback from the Board and additional community input, the information will be incorporated into an Issues Report that will be published and presented to the Board in February 2020.

Staff recognizes that the issues identified in this report are not isolated and standalone issues. They overlap each other and many could fit into several of the categories. For example, traffic congestion related issues can be classified under access to opportunities, or affordable housing, or – since vehicular transportation is a major source of Greenhouse Gas emissions – under climate change. Therefore, the issues have been grouped into the eight categories based on the desired outcomes we should focus on when trying to design policies to deal with these issues in the next phase of the plan development process.

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## Context and Background

The overriding question for Thrive Montgomery 2050 is how to plan for a future Montgomery County, with anticipated growth of more than 200,000 people within the next 25-30 years, so that the county will be a thriving place with a strong economy, fairness and opportunity for a dynamic and very diverse population, and environmental resiliency to address the threats of climate change. And how can we grow in a way that will retain and enhance what we have and cherish today as a community while addressing challenges such as housing affordability, environmental degradation, traffic congestion, and social injustice.

When the 1964 General Plan was written, much of Montgomery County was not developed and it made sense to lay out the broad planning principles, based on the “Wedges and Corridors” concept, that would guide the growth of the county over the ensuing 50 years. These principles have worked, and the county has grown in an orderly fashion following the Wedges and Corridors approach. Today, the county is an extremely diverse blend of cities, towns, villages, suburban neighborhoods, farms and open space. We are no longer defined by our past as a suburban and rural white-majority county but rather by the diversity of population, diversity of living and working experiences and the diversity of natural and built resources found within the county’s borders.

Therefore, a unique, defining feature and core aspect in this look at future growth and change in Montgomery County is diversity - but in the broadest sense: diverse types of communities, diverse modes of travel, a diversified economy, racial and ethnic diversity, and ecological diversity.

In addition, it is important to recognize that the footprint of development in the county is largely in place. Most of the land is already built upon, is already planned for development, or is part of our critical open space – including parkland, the Agricultural Reserve and environmentally sensitive areas. There are few vacant or greenfield properties of the type that accommodated the growth of the post WWII period – which was primarily in the form of single-family subdivisions. Today, the highest share of the county’s land area, about 29.5 percent, is consumed by approximately 182,330 single-family detached houses (including rights-of-way within these single-family areas) while 207,400 townhouses and multifamily units (73,800 and 133,600, respectively) take up about 3.1 percent of the county’s land (townhouses 1.3 percent and multifamily 1.8 percent including rights-of-way within these areas).

Planning for the next stage of the county’s growth defined by infill and redevelopment for a diverse community living in a far advanced technological era and threatened by climate change will require a new planning paradigm. It will build upon the foundation already set by the 1964 General Plan and all the subsequent plans and policies. Thrive Montgomery 2050 will modernize the Wedges and Corridors concept and refine it for the next 30 years to be relevant for tomorrow’s challenges. It will need to accommodate new growth in a highly built-out county and harness technological innovations in order to thrive in the future.

Significant issues that must be addressed in the Thrive Montgomery 2050 Plan have been grouped into eight categories: Complete Communities, Connectedness, Diverse Economies, Safe and Efficient Travel, Affordability, Healthy and Sustainable Environment, and Diverse and Adaptable Growth, and Culture and Design. These categories are based on the desired outcomes that will be the focus of the next phase of the plan development process – developing policies and recommendations.

# Major Issues

## Complete Communities

*Complete communities encompass the idea of places that have a variety of housing choices for ethnically and demographically diverse populations with a range of incomes. They offer living within walking distance of essential amenities and services and provide a strong sense of place for all residents. Amenities - such as transit stops, parks, recreation centers, libraries, schools, retail nodes, health care facilities or other destinations - serve as local gathering places and should be available to everyone without having to drive. The idea of walkability is essential to the concept of complete communities and is woven into each community's fabric at a micro level. Complete communities can have different characteristics based on their urban, suburban and agricultural context and areas of the County.*

### Lack of walkable nodes with provisions for pedestrians and other modes of travel

The county's current land use pattern has generally been designed for the automobile. It forces most people to drive everywhere. Residents want to walk more but often can be limited by either a lack of destinations within walking distance or an absence of safe and convenient infrastructure that supports walkability. Walkable communities need destinations within walking distance of residences, and they need easy, convenient and attractive connections that support walking and other forms of non-vehicular mobility. Retrofitting our existing car-oriented neighborhoods to be more pedestrian and bicycle-friendly would require us to recalibrate many of the rules and regulations to allow these places to incrementally change into complete communities.

### Neighborhoods that separate rather than connect

Many existing neighborhoods are inward focused so that residents may know the people on their cul-de-sac, but not the people three blocks away. The overall racial and ethnic diversity of the county is not reflected at the neighborhood level. While neighborhoods and schools are legally integrated, the legacy of restricting where certain groups of people could live (redlining and restrictive covenant policies common before 1960) perpetuated separation and isolation within Montgomery County. This has resulted in an east/west divide, which is particularly reflected in the quality of schools in certain parts of the county.

### Safe and life cycle communities

The aging baby boomers are expected to increase the county's 65-plus population from 10 percent of the total population (77,500 residents) in 1990 to 19 percent (218,000 people) in 2030 when all the baby boomers will be over the age of 65. Lack of diversity of housing types forces people to make difficult housing choices as they age. Most people would prefer to continue to live in the same neighborhoods where they lived and raised their families albeit in a smaller space, but the current pattern of neighborhoods containing a limited type of housing types prevents that option. We would also need to provide equitable and attractive mobility options for our older population.

Another important aspect of complete communities is personal safety and wellbeing. According to the Safe Communities Foundation New Zealand, "Perceptions of community safety, whether they are real or perceived, impact on the way people feel and interact in their community. Community safety is not just about injury prevention and crime prevention; it is about increasing well-being and building strong, cohesive, vibrant, participatory communities." Montgomery County is generally considered a safe place, but personal safety must always be a high priority as part of the county's commitment to a high quality of life for all communities.

## Questions

1. "How do we develop, implement, and evaluate more walkable communities, where it is not necessary to drive everywhere due to sprawl and other poor design decisions? How do we create and assess incentives to encourage necessary changes at both the community and individual level?" (<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1247493/>)
2. How can we transform our existing neighborhoods generally dominated by only one type of housing to have a diversity of housing types for a variety of family types and sizes?
3. How should our planning process, most of it established long time ago when the county was far less diverse, evolve to plan for a county that is now a majority of people of color with a multitude of ethnic and cultural variations?
4. Should neighborhood serving retail be introduced in single-family neighborhoods at strategic locations to improve access to services and opportunities for social interaction?

## Connectedness

*A thriving community must have a sense of connectedness (physical as well as social) and make full use of its social capital. The Full Frame Initiative (FFI) defines social connectedness as the degree to which a person has and perceives a sufficient number and diversity of relationships that allow her or him to give and receive information, emotional support, and material aid; create a sense of belonging and value; and foster growth. [https://fullframeinitiative.org/wp-content/uploads/2011/05/SocialConnectedness\\_Factsheet.pdf](https://fullframeinitiative.org/wp-content/uploads/2011/05/SocialConnectedness_Factsheet.pdf)*

*Social capital broadly refers to those factors of effectively functioning [social groups](#) that include such things as [interpersonal relationships](#), a shared sense of [identity](#), a shared understanding, shared [norms](#), shared [values](#), [trust](#), [cooperation](#), and [reciprocity](#). However, the many views of this complex subject make a single definition difficult. (Wikipedia)*

## Social isolation and declining social capital

People desire social interaction, but lifestyle changes and the decline of opportunities for traditional gathering places is increasing social isolation. As retail is changing, the closing of malls and loss of specialty retail like hardware and bookstores is causing a decline of social interactions that create a feeling of connectedness in a community. According to a Brookings article, sociologist Ray Oldenburg "has blamed [unfunctional zoning](#) that bans commercial establishments in residential areas, leading to suburban Americans having to use their cars for everything they need, and malls and box stores crowding out small businesses and hang-out places." <https://www.brookings.edu/blog/up-front/2016/09/14/third-places-as-community-builders/>.

The consolidation of public and private services and amenities into larger facilities in fewer locations raises questions of accessibility and social interaction for a diverse section of the population, particularly if these facilities are too far to walk or do not have adequate sidewalks or bike paths connecting them to the adjoining communities or transit. This can have a significantly greater impact on the elderly.

## Technological dependence

Despite its many benefits, the proliferation of digital devices and social media can also be extremely isolating. While technology may have made us more connected in some ways, it has also decreased the need for face-to-face contact. Also, access to computers and the ability to access and afford internet services varies geographically. If this digital divide is not addressed, lower income communities will be left behind.

## Unequal access to opportunities

Montgomery County is among the most diverse counties nationwide and considered among the best places to live and work. However, access to opportunities are not equally available to all parts of the county. Many communities in the county face disadvantages in terms of access to jobs, quality retail, high-performing schools, parks and other amenities, and opportunities for upward mobility.

Montgomery County's population is very well educated, but the level of educational attainment differs by race and ethnicity between and within groups thereby limiting job opportunities and associated income. The quality of public schools in Montgomery County varies dramatically, along lines of race, income, and geography. Montgomery College and the Universities at Shady Grove are not easily accessible by Metro, making them difficult to access for populations that rely on public transportation. They have the potential to not only be more accessible and walkable but become the centers of communities around them.

## Community engagement on planning and development issues

Not all residents are captured in our traditional community engagement processes. The innately complex development process has historically favored those with power and influence. This has most often resulted in Locally Unwanted Land Uses (LULUs) such as bus depots and landfills being disproportionately located in low-income areas. Language barriers, lack of time and access to transportation to attend meetings, distrust of government institutions, and lack of provision for residents with disabilities can prevent inclusive community engagement.

## Questions

1. What is the role of the public realm and private "third places," like retail centers, to help combat social isolation?
2. If conventional retail is shrinking and may not be feasible everywhere, could other types of private or public uses, such as restaurants, libraries, parks, etc. become the local gathering places and focal points of neighborhoods?
3. How can planning be done with a grassroots approach where neighborhoods become the center for planning efforts and all residents are empowered to have a bigger share in decision making?
4. How can we help residents to self-organize and create a culture of do-it-yourself community building?

## Diverse Economies

*"Don't put all of your eggs in one basket." Like natural ecosystems, diverse economies comprise multiple small, medium and large businesses of all types and across a range of industries. They are more resilient as they are able to adapt to economic fluctuations, technological innovations, and competitive pressure. They also support and reinforce each other and are better connected to the local community.*

## Competitiveness

Chief among the challenges facing the county is economic competitiveness. The county's recent job growth has been relatively flat – the number of jobs in the county has been increasing since 2010, but in 2016 it was still just shy of the 2006 pre-recession peak.

The federal government is a major presence in the county with 48,000 direct jobs and thousands of contractor jobs in the private sector. Historically, the presence of the federal government drove much

of the economic growth through expanded spending in the 1980s and 1990s and helped insulate the county economy from recessions. However, those dynamics are changing as federal spending has slowed and the county aims to diversify its economy.

With 65,000 county-based jobs, the Professional, Scientific and Technological Services (PSTS) sector has grown by 35 percent since 1990 and has achieved higher wage increases (2 percent annually between 1990 and 2016) than other sectors. This sector includes many government contracting jobs as well as other high skill and high-wage jobs. In contrast, wage increases in the rest of the private sector stagnated or declined for the same period. Stagnant wage growth has impacted county residents' incomes, which peaked at \$111,334 (inflation adjusted 2018 dollars). Median income still has not fully recovered from the Great Recession and only reached levels from 1999—almost 20 years ago—in 2018, at \$108,188.

Slowing growth in employment and changes in the way firms use space has had a downward impact on the commercial real estate market in the county reflected in higher office vacancy rates. The preference for more dense, walkable and amenity-rich locations has changed the office submarkets favoring downtown, Metrorail accessible locations over suburban office parks that supported the county's earlier growth periods. The trend of firms using spaces differently will likely continue due to changes in technology and how people work.

### Education and economic competitiveness

The previous Federal Reserve Chair, Ben Bernanke once stated that, “as an investment, education provides excellent returns, both for individuals and for society.” A good public school system and higher education and research institutions can be key drivers of economic growth. Montgomery County has well-regarded public schools, Montgomery College, the Universities at Shady Grove, and strong institutions, such as the National Institutes of Health. And the University of Maryland is nearby even though it is not within Montgomery County. The county does not realize the full benefits from these institutions for a variety of factors.

### Technology and automation

Emerging trends in digital technology and artificial intelligence could further impact the current economic and employment picture in significant ways. E-commerce allows people to start and run businesses from home, and some workers are loosening ties to traditional offices. In the retail sector, physical shopping malls and stores have been partially impacted by online goods and services. The future of traditional brick-and-mortar retail is uncertain as people conduct more business and personal shopping online. There is also concern that emerging technologies will further displace workers who lack the skills or training to thrive in digital workplaces. While the issue of technological displacement is urgent, it should not obscure the fact that opportunities for those at the bottom rungs of the workforce have already been limited by poor and unpredictable working conditions, stagnating wages, excessive commutes, and competition from global trade. Montgomery County should ensure that jobs within its borders are of high quality regardless of pay or skill requirements.

### Small businesses and entrepreneurship

Small, independent businesses are important for the economy because they create a path to the middle class and can produce higher local economic impact multipliers than large national chains, which export profits to headquarters elsewhere. Currently, Montgomery County is a difficult environment for small businesses from a zoning and regulatory standpoint. Many existing county “downtowns” (Friendship Heights, Bethesda, Silver Spring, and Wheaton) are home to national chains that have sufficient capital to build out and pay higher rents, but there are fewer local stores and restaurants operated by local entrepreneurs to enact their own concepts for retail and dining establishments.



## Jobs/housing balance

“A recent analysis by the TPB [Transportation Planning Board] determined that additional housing in the region would significantly improve transportation system performance, particularly if those units were strategically located in Activity Centers and near High-Capacity Transit Stations. Using a widely accepted economic metric for “balancing” the number of households and jobs, the analysis showed that the region needs, by 2045, more than 100,000 additional households than are currently projected. The TPB endorsed this as an improvement that would help address the region’s transportation performance challenges.” (Regional Housing memo to Council of Governments Board, September 2, 2018.) <https://www.mwcog.org/documents/2018/09/12/regional-housing-memo-to-cog-board-cog-board-affordable-housing-housing/>

If Montgomery County does not maintain adequate job growth while adding housing units, the resultant adverse jobs/housing imbalance would increase traffic congestion, increasing our Vehicle Miles Travelled (VMT) and Greenhouse Gas (GHG) emissions, and decrease tax revenue. In addition to the east-west divide of the county, the higher concentration of jobs in the southern part of the county (Bethesda, NIH, Silver Spring) has also created a north-south jobs/housing imbalance that has exacerbated the rush hour traffic congestion on I-270 and the Beltway, which has spillover effect on the adjacent communities.

## Questions

1. How can we ensure that the county’s economy is sufficiently diverse to soften the impact of inevitable economic downturns and competition with other places for jobs?
2. How should our zoning codes and regulatory framework evolve to adapt to changes and emerging trends in business and commerce, including home businesses?
3. How can we aid Montgomery County businesses in recruiting and retaining talent by creating places that workers want—and can afford—to live in through all stages of their careers?
4. How can we create places that facilitate interactions between and among Montgomery County’s various public and private innovators to boost entrepreneurship and spin-off activity?
5. How can we strengthen partnerships with the county’s educational institutions so that a homegrown talent pipeline can be cultivated and expanded?

## Safe and Efficient Travel

*A high-quality transportation system is about moving people, goods and services from one point to another in the most efficient, safe, and equitable way possible (walk, bike, drive, transit, fly, shipping). Generally, it is meant to assess how far you can travel in a given time. For this issue paper, it also includes the idea of how many places you can get to conveniently by different modes of travel (generally referred to as accessibility in transportation terms).*

## A legacy of car-oriented land use

The main structure of the county’s transportation network was designed in the early 20<sup>th</sup> century. It was based on the then existing pattern of roads following the predominantly north-south ridges of land and all major roads leading to Washington DC. Since then, the region has grown to have major employment centers in all surrounding jurisdictions including Montgomery County. While the land use pattern in the county and the region has evolved in response to market forces and through planning initiatives, it has not avoided the worst aspects of sprawl, mainly traffic congestion.

Peak period congestion in Montgomery County decreased between 2011 and 2013 but rebounded in 2015. In 2016, 65 percent of the working county residents (down from 68 percent in 1990) commuted by driving alone, followed by public transportation at 16 percent. The average commute time has been

steadily increasing and currently stands at 35 minutes. Although the Vehicle Miles Travelled (VMT) per capita have declined slightly, the overall VMT are on the rise again (the overall VMT declined between 2005 and 2012). The number of commuters using public transit has increased from 13 to 16 percent since 1990, but it is still a small share of the overall commuting pattern in the county.

### Challenges for transit network

Montgomery County started concentrating new development around Metrorail stations through the implementation of Central Business District zones in the early 1970s and later through mixed-use centers in the 1990s. Since then, it has aggressively invested in transit, bikeways, and other non-auto drive modes of travel, which has prevented the worst-case scenarios of traffic congestion while creating walkable, mixed-use places and protecting existing communities from the adverse effects of excessive highway building and associated impacts of noise and environmental degradation. However, these efforts have not changed the basic underlying problems of separation of jobs and housing. Concentration of jobs in few locations, some of them not accessible by transit, and dispersal of housing all over the region, most of it also not served by transit, has created a jobs-housing mismatch that reinforces travel by car and exacerbates the transportation issues for the county and the region.

Although the county's transit network ranks among best in the country, it has significant challenges in meeting needs of the low-income communities that rely more heavily on public transit than the more affluent communities for access to regular and late night jobs, and a range of basic services like education, health, food, and entertainment.

Another result of the mismatch between land use and the transportation network compounded by the non-grid layout of the streets is a lack of redundancies in the major road network, especially the east-west connections. The Purple Line and the recently approved Bus Rapid Transit Plan network will improve some of the east-west connections, but the lack of a robust grid of major streets with built-in redundancy still leaves it vulnerable to traffic incidents on the major roads.

### Equity and transportation

Employment has historically followed major transportation infrastructure investments, resulting in employment centers concentrated mostly inside the beltway and on the west side of the county, which has the Metro, the MARC train, and I-270. Most of the housing in these areas is too expensive for low and middle-income families. This means that most of the lower-income households have longer commutes and face greater limitations, such as bus routes and operating hours, intermodal transfer, and cost in accessing employment centers. In addition to the environmental problems it creates, excessive and inefficient commuting is an economic drag. Time and money spent commuting robs county residents of other productive work they could be doing.

### Emerging technologies

It is still too early to confidently predict what impact autonomous vehicles (AVs), as well as other short-distance modes of travel generally classified as micromobility, such as electric bikes, shared bikes, electric scooters, electric skateboards, Segway, etc. will have on our transportation network. AVs could encourage sprawl and potentially take ridership away from public transit (current data suggests that ride-sharing services have hurt transit ridership in larger cities like New York and Chicago).

Micromobility options offer alternatives to travel by car within a limited geography in high-density centers. Contrary to AVs' negative impact on transit, micromobility options could solve the "first mile/last mile" problem and thereby help increase transit ridership. However, because of their range and speed, and higher densities needed for financial viability, micromobility options are less likely to be feasible in more spread out suburban and rural areas unless our neighborhoods evolve to become complete communities with more local gathering places for people to reach without having to use cars.

The advent of AVs and ride sharing services may bring significant shifts in the interaction between private travel, public transit and the use of the public rights-of-way that has much wider implications than traffic congestion and may require us to reexamine the adequacy of how to generate revenue and who controls the information generated and collected by private companies using public rights of way. For example, If AVs don't need human drivers, and sharing rides eliminate the need for owning cars, how do we replace the revenue currently generated by driver's license and vehicle registration fees?

These innovations in mobility could also raise equity issues for low-income populations. Micromobility options may help reduce one's transportation cost by making transit more accessible (if you live farther than walking distance from transit) and increase access to nearby destinations. But if micromobility options are feasible only in high-density areas and places with adequate infrastructure their benefits may not be shared by residents in all parts of the county.

The county must also create new mechanisms and regulatory framework to deal with the emerging questions about the non-tangible impacts of innovations in mobility as the private companies assume a bigger share of providing mobility options through ride sharing and thereby collecting and controlling the data generated by AVs and other options. The county has a public interest in accessing the data collected by these companies so it can design and manage the transportation network in a more equitable way than dictated only by the profit-driven interest of the market.

### Major corridors act as barriers

A legacy of the road network designed primarily for cars, and expanded through lane widening and other changes to increase its capacity to handle ever increasing volume of vehicular traffic is that all the major roadways in the down-county areas (University Boulevard, Randolph Road, Georgia Avenue, Rockville Pike, Connecticut Avenue, Veirs Mill Road, New Hampshire Avenue, etc.) are unsafe for all modes of travel, but especially for walking, biking and other modes of non-vehicular traffic. They have become barriers as they divide the adjacent neighborhoods. Many of the low-income populations living along these corridors who rely heavily on transit access are disproportionately impacted by the unsafe conditions for walking and biking along these corridors. Although the county's Vision Zero initiative will improve pedestrian and bicycle accessibility, a greater emphasis on safety of all modes of travel is essential for creating more livable places.

### Questions

1. How can we transform the major roadways from unsafe arteries of traffic into livable, walkable places and gateways into surrounding neighborhoods with a strong sense of place?
2. With the recently approved Bus Rapid Transit network along some of these corridors, could these corridors be reimagined to accommodate some of the projected growth while also evolving into real places?
3. If AVs are available on-call and people wouldn't need to own cars, what happens to publicly and privately-owned land now used for vehicle parking and storage, including driveways and garages in single-family detached houses?
4. How will public rights-of-way be used to accommodate cars, buses, delivery vehicles, pedestrians, wheelchairs, bikes, and various micromobility options?
5. How will the travel data, generated and collected by private companies, be shared with the public sector who will need this information to design and manage the transportation network?
6. Is the proposed Bus Rapid Transit network ambitious enough? Would we need more lines to support a more connected and accessible transit network?

## Affordability

*Affordability means being able to purchase certain essential goods and services without harming one's ability to pay for other goods and services. It is the ability to support and sustain a reasonable quality of life commensurate with one's income for now and in the future.*

Montgomery County is a very expensive place to live. According to “Best Places to Live”, ([https://www.bestplaces.net/cost\\_of\\_living/county/maryland/montgomery](https://www.bestplaces.net/cost_of_living/county/maryland/montgomery)) Montgomery County's overall cost of living index is 139.4 compared to the U.S. average of 100 (less than 100 means less expensive, more than 100 means more expensive than average across U.S.). After housing at 195, transportation at 139.7 is the second largest contributor to the overall score of 139.4. High cost of living, including transit, food, health, education, technology, childcare and other life essentials makes the county an especially expensive place for all workers and residents except for the higher income groups.

### Housing affordability

Housing affordability remains one of the biggest issues facing Montgomery County now and in the future. The popularity of walkable, transit accessible, amenity rich places in the down-county locations, combined with high land prices and high construction costs, has created a challenging environment for providing an adequate supply of affordable housing for residents looking in the mid to low price range in desirable locations.

Housing affordability is primarily driven in the county by three major factors: stagnant incomes since 1990 with rising development costs; new housing supply that has not kept pace with demand; and lack of a variety of housing types in new housing production.

Despite its pioneering inclusionary housing programs and like many other prosperous jurisdictions across the country, Montgomery County has not been able to avoid housing affordability issues for low and middle-income families. This has been especially true for renters, whose numbers have been increasing as homeownership in the county has declined since the Great Recession. Forty-one percent of all renters in the county are cost-burdened, spending more than 35 percent of their income on housing expenses.

Low-income workers are most impacted by the county's spatial mismatch between jobs and affordable housing. Lower-income households could reap the most benefits from livable, transit-rich neighborhoods but they are also some of the most expensive places to live. Lower income housing is most available in the outer suburbs, leading to higher transportation costs and long commutes for this segment of the population.

### Affordability for small businesses and the creative sector

The affordability crisis is not limited to housing alone; it is negatively impacting every aspect of life within the county. Small businesses, tech and other entrepreneurs, art spaces, cultural institutions, nonprofits, and even public spaces are being negatively impacted due to the high cost of land, buildings and regulations within the county. Small businesses can only exist in limited parts of the county, where costs are lower.

### Questions

1. Should we look beyond the current set of tools to meet the housing affordability gaps?
2. How can the county encourage new growth of different types of housing?
3. How do we ensure that the county does not become a place with a very high bar of entry for artists and entrepreneurs?

4. How do we make sure that small businesses can afford to locate, grow and survive?

## Healthy and Sustainable Environment

*A healthy and sustainable environment is a network of natural and built habitats that supports healthy and diverse human, animal, and plant communities, clean air and water, and continues to provide these benefits as the earth and climate change. The built environment influences human health by influencing behaviors, physical activity, social connections and access to resources and the quality of the environment.*

The last several decades have seen great changes in the county with respect to all aspects of the environment and our knowledge and understanding of it, including its vital importance to human society, health, the economy, and our ability to protect and enhance it. These changes include new sources of environmental data and the ability to track trends, new scientific understanding, new global and regional climatic trends, new technologies and strategies for improving the environment, and new regulatory frameworks.

### Health

While Montgomery County ranks as Maryland's healthiest county, this overall ranking masks the health disparities found in the County. Socioeconomic factors and the physical environment greatly contribute to length and quality of life. Opportunities to eat well and be active are constrained by quality and design of neighborhoods and the services and opportunities available – including access to parks that offer opportunities for active recreation. For example, “the likelihood of obesity declines with increases in mixed land use, but rises with increases in time spent in a car per day.” (<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1247493/>). Walkability and mixed-use neighborhoods have also been reported to be related to an enhanced sense of community and social capital. The level of tree cover, integration of greenspace, and safety and quantity of the sidewalks directly impact the physical and mental health of residents through the mitigation of the effects of the built environment.

Low-income residents face greater barriers to accessing healthcare because they are less likely to have health insurance and less likely to have access to primary and secondary care. These residents are less likely to be employed by organizations that offer health insurance, have less access to fresh food, live in areas with higher density of fast-food restaurants, and have less access to preventative health care and recreation facilities/programs. As Montgomery County is becoming an increasingly expensive place to live, lower-income residents are further impacted because of economic constraints – increased spending on housing results on less money available for transportation, medical, and food costs. Income-based health issues disproportionately impact Hispanic and African American residents due to their significantly lower income levels.

Mental health and substance abuse are also pressing issues. Mental health ER visits and drug-induced mortality rates have both significantly increased over the last 10 years. While there are many determinants that impact the rates of these illnesses, the socioeconomic conditions and the quality and design of neighborhoods--housing type and quality, easy access to active and passive recreation, noise, crowding, indoor air quality, and light have all been linked to personal mental health.

Although the county has one of the best park systems with a variety of local, neighborhood, and regional parks with playgrounds, trails and other amenities, many residents, especially in low-income communities, do not live within walking distance of a park entrance or trailhead. With a few exceptions, the county's Regional and Recreational Parks are generally located in lower-density up-county areas,

and about half of them are not accessible by transit or need improved pedestrian connections disproportionately impacting lower-income communities most of whom live in down county areas.

One of the issues Montgomery County will be facing is that of an aging population and the physical structures necessary for healthy living and healthcare requirements. This issue is further compounded by the County's diverse population. For example, the Asian-American community has expressed a desire for multi-generational living arrangements. This can have implications for healthy living and healthcare delivery.

Montgomery County exceeds Environmental Protection Agency's maximum standards for ozone and particulates. These pollutants are responsible for increases in cases of asthma and cardiovascular disease. Air pollution is directly related to the combustion of fossil fuels and exacerbated by urban heat island effects. Human and ecosystem health are also affected by water pollution.

### Environmental concerns

Montgomery County has always been in the forefront of protecting and enhancing the natural environment through a broad range of planning initiatives and policies. However, despite the county's rigorous regulatory framework to protect sensitive environmental resources, many indicators such as water quality of the streams, forest lost, and increased imperviousness point to a downward trend. All the County's water bodies fail to meet one or more of the State's water quality standards for their designated uses, and many are under review for additional water quality impairments. Since the start of the State's Total Maximum Daily Load (TMDL) program implementing water quality standards, the number of water bodies that require TMDLs has been steadily increasing. The downward trend in water quality and increases in listed impairments are due to several factors such as decreases in forested and other natural lands, increases in development footprint and impervious cover, and climate change trends towards more frequent, intense, and erosive storms and associated runoff.

Although there are a variety of factors that affect stream condition in the County, the loss of natural areas and the degree of imperviousness is one of the more significant ones. Higher impervious cover leads to higher amounts of stormwater runoff and urban pollutants that tend to erode and degrade stream channels and habitat and the biologic communities they support, leading to degraded stream condition scores and narrative rankings. The down-county areas with higher levels of impervious cover and disturbed and compacted soils, older and less effective stormwater management, and fewer natural areas and undisturbed soils that can filter and infiltrate rainfall to groundwater effectively, consistently show lower quality streams over the years. The Agricultural Reserve and other up-county areas have much lower imperviousness, uncompacted soils, and greater natural and other undisturbed vegetated areas, and generally have higher quality streams.

### Climate change

In addition to chronic sustainability issues, climate change caused by Greenhouse Gas emissions (GHG) has emerged as a major issue in the last few decades. Climate change has huge impacts including sea level rise, extreme temperatures, and extreme weather events. Our infrastructure is not designed to withstand the shocks of extreme weather conditions and will require greater resiliency in dealing with growing environmental threats. Impacts will be direct and indirect; for example, the Blue Plains Treatment Plant that treats much of the sewage from the county is in a flood zone threatened by sea level rise.

Climate change will further exacerbate health related issues. Increased temperatures and precipitation extremes have health implications that we are already seeing. Extreme weather events may impact our housing and infrastructure, as well as restrict access to care and community health facilities.

Although the trend for up-county area streams continues to be dominated by streams in good condition, over the years there has been a significant loss of streams in excellent condition. This may be partially due to the more intense and erosive storms related to climate change.

Meeting the challenges of climate change and reducing Greenhouse Gas emissions will require a renewed commitment to conserving and protecting natural areas and other green open space, and limiting development footprint and impervious cover as key strategies to protect water quality and handle increasing stormwater.

## Water and sewer

The Washington Suburban Sanitary Commission (WSSC) provides water and sewer service within the Washington Suburban Sanitary District, which includes most of Montgomery and Prince George's Counties except for most of the City of Rockville and the Town of Poolesville. Most of Montgomery County's water comes from the Potomac River, the rest from the Patuxent River. The main question for the water supply system is whether it has the capacity to adequately handle the needs of an additional 200,000 people in the next 30 years while facing the potential impacts of climate change as droughts become more frequent.

## Questions

1. How can we improve health by providing parks and recreational opportunities and by creating neighborhoods that encourage walking?
2. How can we plan future growth to provide a desired land use pattern and protect natural resources in a way that addresses water quality impairments and meets State standards?
3. What is the capacity of the county's and the region's electricity grid? Can it handle the needs for the AVs and other cyber technologies and higher cooling and heating needs because of climate change?

## Diverse and Adaptable Growth

*Diversity in this context means a variety of building types, especially the variety of housing types, to meet the needs of a diverse population (race, culture, household type and size, age, physical ability, income) and to be able to create complete communities. Change is a constant, but today change is occurring at a faster pace than at any time in the past. Adaptability is the ability to respond quickly and change/adjust to the changing needs and circumstances. Our planning tools and regulatory mechanisms must evolve as our needs change.*

## Corridors in the 21st century

In 1964, the Wedges and Corridors concept for the entire Washington DC region imagined Washington DC as the center of all activity and the major employment center for the region. The concept included major highway corridors throughout the entire region with a string of corridor cities along each corridor. It envisioned each corridor city to have about 100,000 residents, local employment and services, and parks and open spaces surrounding the community. In Montgomery County, the corridor cities were Rockville, Gaithersburg, Germantown, and Clarksburg along I-270, and Fairland in eastern Montgomery County (as part of the I-95 corridor in Prince George's County).

Over the years, this simple framework has evolved in response to the growth of the region and market forces. The land use pattern of the County is now more complex and varied. In addition to the I-270 corridor, it has numerous other corridors, employment centers, major retail nodes and significant residential development. In the southern half of the county, these corridors are Rockville Pike, Georgia Avenue, Colesville Road, University Boulevard, Veirs Mill Road, Connecticut Avenue, Randolph Road

and New Hampshire Avenue. The implementation of the 2013 *Countywide Transit Corridors Functional Master Plan* will potentially change the nature of many of these corridors by eventually providing bus rapid transit along Georgia Avenue, Colesville Road/Route 29, Veirs Mill Road, Randolph Road, Rockville Pike/Route 355, and parts of New Hampshire Avenue. The Maryland Department of Transportation's Purple Line project has created its own transit corridor, with a unique character and physical characteristics.

The evolution of these corridors, each with its own unique characteristics, has created a development pattern different than envisioned in the original Wedges and Corridors plan of 1964. Due to incremental widenings over the years, many of these corridors are carriers of heavy traffic and have become dividers of the adjacent communities and unsafe for travel by pedestrians and bicyclists. As the county has become fully built out and has started its next phase of incremental infill and redevelopment, some of these corridors present a unique opportunity to reimagine their role in the evolving land use picture.

### The Agricultural Reserve

The Preservation of Agriculture & Rural Open Space Functional Master Plan (1980) established the Agricultural Reserve through the mechanism of Transfer of Development Rights (TDRs). It was a pioneering and bold initiative that made the county a leader in preserving land for farming and open space. Subsequent controls and policies such as Building Lot Termination and associated preservation easements further strengthened the preservation goals against development pressures.

The Agricultural Reserve covers about 114,000 acres or about 35 percent of the County. Second to parkland, the Ag Reserve contains most of the forested land in the County—38,000 acres or about 40 percent of all forest in the County.

According to the 2017 Census of Agriculture, there are 558 farms occupying 65,537 acres of land. Although big farms (50 acres or more) are decreasing, the number of farms between 10 and 49 acres is increasing, as are farms less than 10 acres. Traditional agricultural activities, including grain farms and livestock operations, have been sustained, while tabletop food production as well as the horticulture and equestrian industries have increased. In addition, interest in agricultural and cultural education and tourism experiences is on the rise.

Many of the County's streams begin in the Agricultural Reserve and other up-county areas. Protecting downstream water quality and stream condition depends on protecting the upstream portions. Without the existing protection afforded by the up-county areas, particularly the Agricultural Reserve, the stream condition of many of the down-county streams would be even more impaired. The benefits of the Agricultural Reserve to the environment in general, and to stream condition in the rest of the County in particular, are inestimable and cannot be overemphasized.

The Ag Reserve is protecting agricultural land, rural open space, and providing important environmental and economic benefits, but at the same time there are competing demands for land for other purposes such as solar energy production and this is putting pressure on the Ag Reserve. New strategies are needed to ensure the Ag Reserve remains protected and economically viable for the next 30 years.

### Growth management

The county adopted the Adequate Public Facilities Ordinance (APFO) in 1973, with the goal of synchronizing development with the availability of public facilities needed to support that development. In 1986, responding to concerns that too much development was being approved during the building boom of the 1980s, the County Council enacted legislation requiring adoption of an Annual Growth Policy (AGP) for the County. Since then the Council has used AGP, later called the Subdivision Staging



Policy (SSP), to direct the Planning Board's administration of the APFO. The county uses several mechanisms including development impact fees and taxes, special taxing districts, school facility payments, moratoria and public/private partnerships to meet the infrastructure needs of the current and planned growth in the county.

Currently, the SSP is primarily focused on two factors: traffic congestion and school overcrowding. And the efficiency as well as efficacy of the tools used to measure these two metrics has been questionable given that occasionally it has led to moratoria on new development in places where new development was most appropriate and needed. As the County enters a "mature" phase of slower growth than past decades—infill and redevelopment versus greenfields—we should re-examine how we manage growth.

## Questions

1. Are current tools to assess the adequacy of the infrastructure and services (roads, schools, water and sewer, safety and security, utilities and other services) adequate for managing growth in the future? Should we instead measure how new growth will meet our three goals of economic growth, social equity and environmental resilience?
2. Today less than 10 percent workers work remotely. If 20 percent or 30 percent work remotely in the future, it will have a dramatic effect on the traffic congestion. Would we still need to count traffic the way we do today?
3. How can the Agricultural Reserve be supported and enhanced in a changing agricultural context and economy?

## Culture and Design

*Culture refers to a combination of history, art, literature, traditions, ideas, beliefs, religions, customs and aspirations of the county's diverse population and the places and institutions that support all the myriad ways this diversity is expressed.*

*Design is not just about architecture, it affects all aspects of the built environment—buildings, open spaces, infrastructure, ADA and universal accessibility, streets and public spaces, overall land use pattern. Good design is a critical outcome as it has huge implications for the quality of life of the community.*

### Culture/art

The 1964 Wedges and Corridors plan was adopted before the Civil Rights Acts (1964, 1968), which had profound effects upon where people could live, work, and attend school within the county. Today, nearly a fifth of the county, 19 percent, identifies as Hispanic. One-third of the county is foreign-born, the highest concentration in the region. How we experience and react to the arts, design and culture is changing as cultural creators can now mine global influences and reach worldwide audiences. At the same time, people are seeking deeper connections to "place" and authentic experiences rooted in the history of the county and the region. The cultural identity of the county is complex and continues to evolve with population growth. This diversity is reflected in everyday life in the county and its many arts and cultural venues. As parts of the county becomes more urban, they need an urban vibe and identity with a distinct feel. The county has invested in cultural and entertainment facilities but there is still a need for music and other entertainment venues to attract a younger generation of patrons and visitors.

### Design

The '64 plan envisioned a variety of living environments and encouraged "imaginative urban design" to avoid sterile suburban sprawl. From its agricultural roots the county has evolved into a place with strong urban, suburban and rural communities with unique and interesting places. The Planning Department's

emphasis on design excellence in its built environment and especially the public realm has heightened awareness of the important role good design can play in enhancing the quality of life of the county.

As the county matures from development of greenfields to infill and redevelopment, good design, preservation of historic resources, and compatibility and integration of new development with existing communities will play an increasingly important role in creating desirable places to live in a variety of urban, suburban and rural environments. While “Wedges” have thrived as low-density residential suburbs with parks and open spaces, many “Corridors” within the county have withered, becoming auto-dominated traffic arteries, devoid of a sense of place. As the county strives to create more places with an emphasis on walkability and opportunities for social interaction, the design of these corridors, streets and public realm and their role in the community life will be a critical consideration. We behave very differently in public spaces today than we did before smartphones. Personal and professional relationships today evolve simultaneously online and in the real world, creating different kinds of demands for public spaces to provide opportunities of social interactions.

## Questions

1. How can art and culture be woven into the county’s future to become an intrinsic part of its evolution?
2. How do we ensure that the county does not become a barren cultural landscape with a very high bar of entry for artists and entrepreneurs?
3. Should “Cultural Excellence” be a key goal for all public and private investment in the county?
4. How can we use design as a tool to harness the cultural diversity of the county and create great places that bring people together?