

pursuing new development because of their specific needs.

Several recent developments in Gaithersburg, adjacent to the 2010 Plan area, illustrate the types of life sciences development the plan area may anticipate. The first is an 80,000 square foot office-to-lab conversion project from Alexandria Real Estate Equities and Scheer Partners, leased by Novavax, a biotech company that received \$2 billion in funding for its COVID-19 work, at 704 Quince Orchard Road. Novavax is also leasing the adjacent property (700 Quince Orchard Road), which is a 122,000 square foot conversion project to which Novavax plans to add an additional approximately 50,000 square feet of purpose-built space. Other recent developments in the Life Sciences Center, such as the 85,000 square foot purpose-built space for Autolus and the recently completed 175,840 square foot research and development infill building at 9800 Medical Center Drive, exemplify the demand for specialty and purpose-built space, space designed for the particular needs of a company or institution.

The 700 Quince Orchard property was originally planned as a live-work-play mixed-use development with 175 townhomes in the City of Gaithersburg. Although not in the 2010 Plan area, the conversion of the 700 Quince Orchard Road project from a mixed use to a single purpose project is a step away from the vision for the area, which envisioned a mix of land uses.

LIMITED MIXED-USE DEVELOPMENT

A mixed-use, urban environment has not been achieved 10 years after the adoption of the 2010 Plan, nor does it appear to be achievable in the next decade, the horizon of the approved plan.

⁹ There has been some positive development in the North Rockville-Germantown area since 2003, which

The Life Sciences Center has experienced limited retail development, although there has been a fair amount of retail growth in the larger North Rockville-Germantown market.⁹ The Travilah Grove Shopping Center project, which included a facelift of approximately 42,000 square feet of existing retail as well as nearly 14,500 square feet of new retail, is the most substantial retail development in the area. However, due to the limited availability of vacant land and the increased construction cost of including retail on the ground floor of new multifamily buildings and potentially reduced demand for retail space after the COVID-19 pandemic, it is unlikely that retail will be a significant source of growth in the Life Sciences Center area.

The scale of both the housing development and the accompanying retail has occurred at a lower density than anticipated in the 2010 Plan. There has been limited success with attracting mixed-use retail/residential development, with projects such as Mallory Square including just 3,500 square feet of retail. Whether due to waning national support for brick-and-mortar retail or to the staging restriction on non-residential development, there have been fewer commercial services in proposed developments.

The proposed development for the former Public Safety Training Academy site, relocated as part of the staging requirements, exemplifies the type of development the area is attracting, and its departure from the 2010 Plan vision. The 2010 Plan envisions the PSTA site as a hub of activity that draws people from other parts of the Shady Grove Life Sciences Center. The Plan's zoning recommendations allow up to 2,000 dwelling units and 150-foot building heights at the site. The Plan also envisions redevelopment with neighborhood-serving retail, employment uses, parks and active public spaces, as well as a CCT station.

is significant because of the limited demand nationally for new retail space in the past 15 years.

The preliminary plan submitted for the Elms at PSTA proposes approximately 645 dwelling units and 1,940 square feet of ground floor retail space in one of the multi-family structures, as well as parks and public spaces smaller than anticipated in the 2010 Plan. The planned unit mix includes approximately 281 townhouses, 64 2-over-2 condominiums, and 300 multi-family units in a mid-rise building with surface parking. While the proposed development includes several elements identified as priorities in the 2010 Plan, the overall mixture of uses and densities are less than anticipated—consistent with the overall development pattern in the area.

There appears to be further demand for multi-family housing in the area. New development will likely take the same form of the recent multi-family buildings—stick-frame wood construction wrapping a pre-cast parking garage. Retail and mixed-use are generally limited with this form of development as it requires a more costly concrete podium. This stick-frame multi-family typology is typically four to five stories in height, and projects generally utilize four to six acres of land.

FORM

The Plan prioritized life sciences development in mid- and high-rise mixed-use buildings, and promoted urban-style design with structured parking, pedestrian scale streets, signature buildings, and shorter distances between buildings and the sidewalk, which creates a frame for the street. The Design Guidelines that accompanied the 2010 Plan recognized that “Today, the buildings and spaces in Great

Seneca Science Corridor Master Plan area are complementary in use and function, but unsustainable as self-sufficient entities. They function like typical research parks, with wide roadways and setback buildings forming visually separated spaces and physical barriers that prevent a cohesive and accessible built environment.” (Design Guidelines, p. 5) As an earlier draft of the guidelines stated, the “area exists as a series of tenuously linked adjacencies whose sum is less than their individual parts.”

The pejorative description of the 2010 Life Sciences Center from the Design Guidelines could easily describe the Life Sciences Center today. Development has not achieved the urban style form envisioned; the form of the built environment remains relatively unchanged. New development, although it employs best design practices like high quality construction materials and infill redevelopment of surface parking lots, remains primarily suburban and auto-centric in form. The 2010 Plan identified four principles to set the scale and character of the LSC:

- ❖ Buildings that define the public spaces, streets, plazas, parks, and views.
- ❖ Circulation on a pedestrian-oriented street grid that creates pedestrian and bicycle connections to transit and between uses and districts.
- ❖ A system of public open spaces that provides a setting for community activity and also preserves natural resources.
- ❖ A standard for sustainability that reflects the LSC’s cutting edge science.

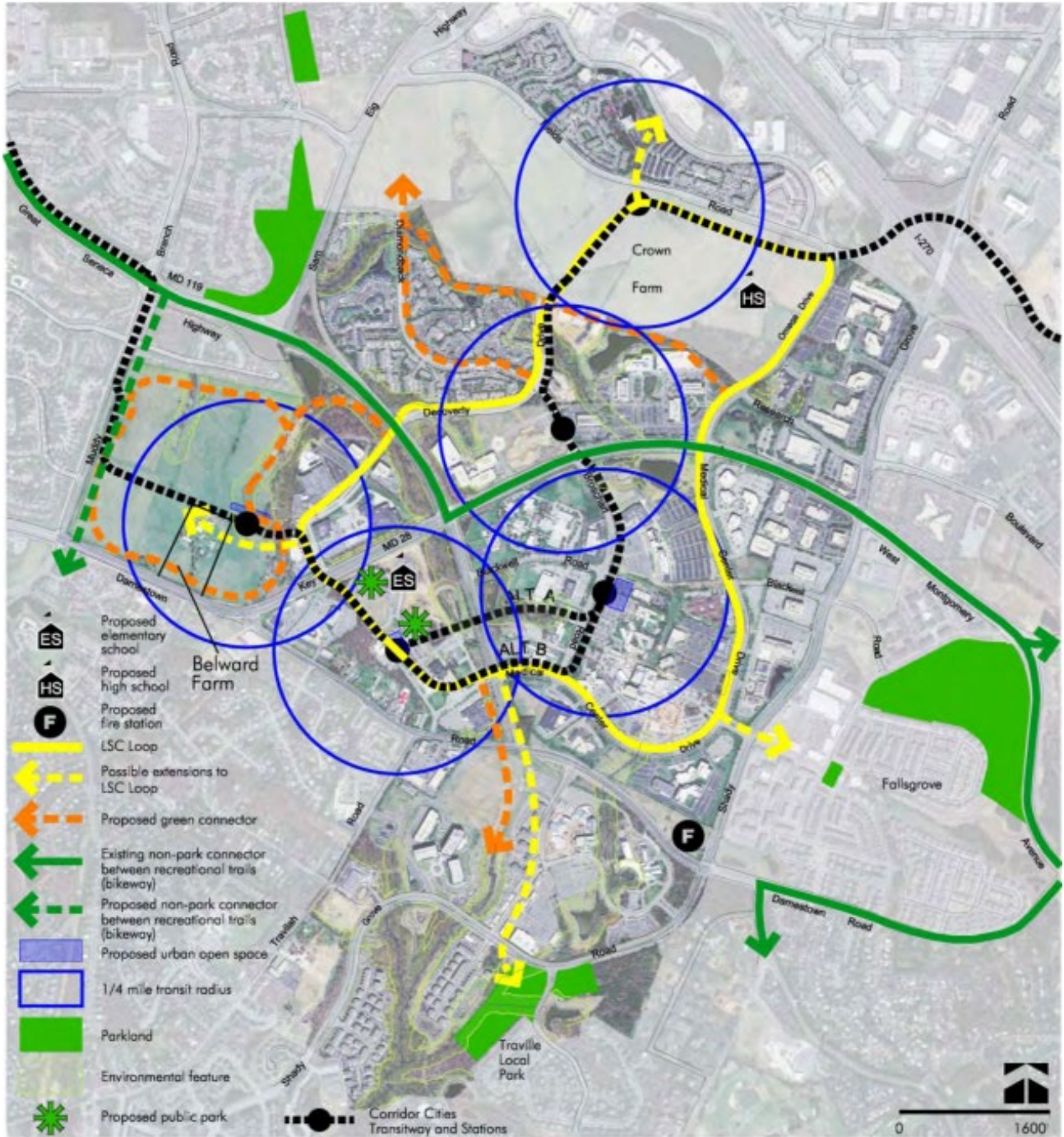


Figure 8: 2010 Plan Open Space Map: Open space network comprised of public parks and trails such as the LSC Loop Trail, Traville Local Park, and Muddy Branch Trail Connector, and the LSC West Urban and LSC West Local Parks, as well as public privately owned civic greens and linear parks have not been delivered.

Buildings should define the public realm, however many of the recent developments and applications for development in the Life Sciences Center are inward-facing suburban campuses. The entrances are not oriented to the street, the setbacks are close to 100 feet, second tier street grids are not implemented, and the projects do not integrate with surrounding sites. Buildings that do not have a relationship with the street inhibit the walkability and safety of the area.

The vision of a walkable urban form is elusive too. Building orientation and site connection create challenges for people walking, rolling, and taking transit in the area, by increasing the distance between destinations and offering a less active, interesting public realm. Absence of a street grid, connections between sites, and site orientation can also affect the safety and comfort of people walking, rolling, and taking transit. Longer distances between buildings and the street and infrequent intersections contribute to higher design speeds—speeds at which drivers feel comfortable driving fast on a road. Easily identifiable connections to adjacent properties, low-speed, low-traffic roadways or paths allow people to safely and comfortably walk or roll to nearby destinations.

Park and recreational facilities planned to serve the community and shape the public realm of

the Life Sciences Center have yet to be delivered. Key community facilities envisioned in the 2010 Plan, such as the North Potomac Community Center and Travilah Fire Station 32, have been built, but open spaces, both public parks and privately owned public spaces have not been implemented. These parks and open spaces have not moved forward for a variety of reasons--private pipeline development has not been constructed, competing funding priorities in the county's Capital Improvements Program—but their absence from the landscape has been a great departure from the 2010 Plan vision. This departure has contributed to the lack of community gathering spaces, activated space, and non-motorized connectivity.

The departure in urban form is perhaps a function of the other departures: a stalled CCT, existing hostile public streetscapes, lower density due to unrealized pipeline projects, less dense residential projects, and commercial space that accommodates fewer workers, and the limited mix of uses. However, the form is the most acutely apparent departure from the vision. To describe the progress of the 2010 Plan over the past decade, one resident quoted Gertrude Stein: “There is no there, there.” The area does not have a cohesive organizing principle, and many amenities and connections have not been constructed.

BARRIERS TO AND DEPARTURES FROM THE 2010 PLAN VISION:

KEY TAKEAWAYS

- ❖ The CCT is at the center of both the 2010 Plan and the staging requirements. There are no immediate plans to fund the CCT, which means that no new non-residential development can occur under the current staging.
- ❖ Key large projects remain unbuilt.

- ❖ Available office space may not meet the needs of the life science industry. Recent projects have suggested the preference or need for specialty or purpose-built spaces.
- ❖ Mixed-use vision has not been realized.
- ❖ New projects have largely maintained traditional suburban, auto-centric, office park design.

OUTREACH

Outreach targeted to fit the timeline and technical material of the Amendment; focused on information sharing and reciprocal education. Montgomery Planning held smaller meetings with stakeholders. Due to COVID-19 precautions, all outreach activities were virtual, offering community members to participate by phone or internet.

Throughout the process, staff consulted with the Great Seneca Science Corridor Implementation Advisory Committee (IAC), established by the 2010 Plan and comprised of residents, and institutional and private representatives. They provided guidance for the approach of the amendment, outreach to the community as well as history and context of development. Through interviews, life science industry experts as well as developers in the Life Sciences Center shared unique considerations for the industry.

Montgomery Planning Staff coordinated closely with county partners, Montgomery County Economic Development Corporation (MCEDC) and Montgomery County Department of Transportation (MCDOT). In addition to sharing data and analysis, Montgomery Planning and co-hosted a virtual public meeting.

Montgomery Planning hosted a virtual public meeting and virtual office hours with community members to benefit from community knowledge and understand their experiences as well as their perceptions of progress, opportunities, and obstacles, to realizing the Plan's vision.

Do you feel like we've made progress towards the vision over the past 10 years?
Is it the progress you've expected?



Figure 9: Feedback from the Implementation Advisory Committee on the progress of the 2010 Plan vision. A majority of responses referenced parks, connectivity, and/or a sense of place.



Recommendations

The purpose of this Amendment is to support economic health and opportunity in the Life Sciences Center by enabling growth. The scope of the Amendment is narrow in order to provide rapid, targeted analysis and recommendations that move toward realizing the 2010 Plan vision despite lack of funding for the CCT. The following recommendations of the Amendment seek to provide relief to the life sciences industry development pressure at this crucial time for the county and the industry and support a more comprehensive evaluation of the plan area in the near term.

Recommendation 1

Create an interim stage, between Stage 1 and Stage 2, that shifts 400,000 square feet of non-residential development from Stage 2 to this interim stage. Release 400,000 square feet of non-residential development capacity immediately through this interim stage. The 400,000 square feet of non-residential development capacity is limited to the LSC North, LSC Central, and LSC South districts. New development capacity allocations through this interim stage are prohibited in the LSC West and LSC Belward Districts.

Recommendation 2

Initiate a comprehensive amendment to the 2010 Plan to address the departures and barriers from the 2010 Plan vision identified through this Amendment, as well as changes to or the potential elimination of the staging requirements. The comprehensive amendment provides an opportunity to integrate policy guidance from countywide plans and initiatives including Corridor Forward: The I-270 Transit Plan, Thrive Montgomery 2050, and Vision Zero, as well as to employ a robust outreach and engagement strategy to create a plan that advances racial equity and social justice.

Advancing the Plan Vision

The implementation of the 2010 vision, both the achievements and departures, raise considerations that influenced the short-term recommendations of this Amendment: the needs of the life science industry, density of projects and their traffic impacts, potential transit options, and future planning opportunities. These considerations informed the reasoning for the Amendment recommendations.

THE LIFE SCIENCES INDUSTRY

The life sciences industry is central to the economic health of the county, providing jobs and revenue, and the Life Sciences Center is the hub for this industry’s growth in the county. Interviews with life sciences industry stakeholders, MCEDC, as well as economic leaders and developers, emphasized the importance of colocation—the desire for life sciences companies to be located near other life sciences companies. Employment and growth data show that the life sciences industry has consolidated in and around the Life Sciences Center. If development cannot proceed in the

Life Sciences Center, there is a potential that life sciences companies will locate elsewhere, near other life sciences hubs outside of the county, which could diminish the viability of the Life Sciences Center.

Through the Amendment recommendations, it is crucial to enable some development capacity immediately to meet the growth needs of the industry. Referencing recent life sciences development projects in the area, development capacity of 400,000 square feet would accommodate between two and five projects.

Table 6: Recent lab/research and development projects in and near the Life Sciences Center*			
Project	Square Feet	Location	Project Delivery
704 Quince Orchard Road	80,000	Gaithersburg	2019
700 Quince Orchard Road	172,000	Gaithersburg	2020
9950 Medical Center Drive	85,000	Life Sciences Center	2019
9800 Medical Center Drive (Parcel F)	175,840	Life Sciences Center	2020
Traville Parcel N	200,000	Life Sciences Center	Under Review**
9800 Medical Center Drive (Parcel X)	93,560	Life Sciences Center	Under Review**
* None of the projects in the table require new development capacity to move forward. They are either not in the 2010 Plan area, were part of approved pipeline development or already received approvals under stage 1.			
**Under review by Montgomery Planning as of March 2021.			

TRANSPORTATION PLANNING

The density anticipated in the 2010 Plan has not been realized. Residential development has remained far below what is allowed in Stage 1 of development. In 2010 there were 3,262 existing dwelling units. Stage 1 allowed an additional 2,500 units to be built and only 311 of those units have been allocated, with 2,189 residential units of capacity remaining in Stage 1.¹⁰

The density of employees in the area remains lower than projected as well. First, several projects in the pipeline of approved development that received approvals prior to the approval and adoption of the 2010 Plan have yet to be constructed. The County Council extended their adequate public facilities (APF) validity period beyond the typical seven years and in some cases beyond the 12-year APF validity period maximum. The 2010 Plan anticipated that the 3.7 million square feet of approved pipeline development would proceed, but approximately 2.4 million square feet of non-residential pipeline development remains unbuilt.

Second, the types of employment that have moved in and spaces that have been built require more space per employee, meaning that the same amount of gross floor area accommodates fewer employees. According to

the MCEDC, life-science uses require up to twice the amount of space per employee than the average office space.

Over the past decade, there has been a substantial increase in telework. The 2010 Plan predicted minimal telework, just one percent of employees. However, according to the Shady Grove Transportation Management District, over seven percent of employees currently telework.

Fewer residents, visitors, and workers translates into fewer car trips. Fewer anticipated trips than projected, coupled with increases in the NADMS even beyond the Stage 2 requirements, has led to relatively stable traffic. Stage 1 of development allocated 400,000 square feet and approximately 1.2 million square feet of pipeline non-residential has been constructed since 2010. Over the past decade, however, there has been very little up or down movement in the average of daily traffic on the major roadways in the area.

Assuming all pipeline development were to be built out to its full, approved development—which has not been the trend in the area—an additional 400,000 square feet of new lab/research development would yield a negligible number of additional peak-hour trips beyond what was projected for stage 1.

¹⁰ An additional 1,212 residential units have been converted from approved non-residential pipeline development. The 2010 Plan provided that the owner of a property approved for commercial

development may re-subdivide and convert to residential development. This conversion will be exempt from staging, if the conversion does not increase vehicle trips.

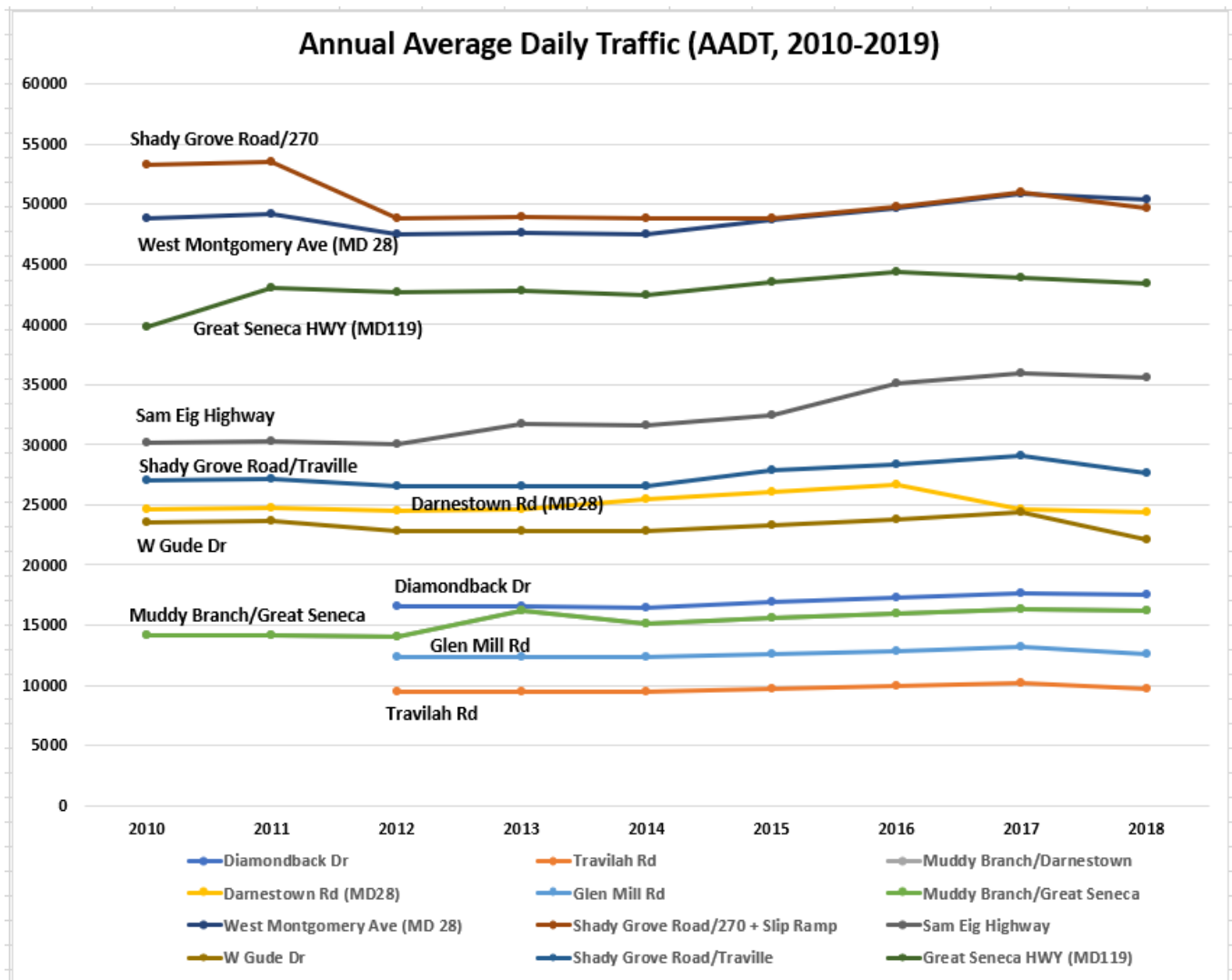


Figure 1: Annual Average Daily Traffic on select roadways in and near the Life Sciences Center.

POTENTIAL TRANSIT OPTIONS

The Montgomery County Department of Transportation (MCDOT) is requesting funding in the fiscal year 2022 County budget for planning and design for the Great Seneca Transit Network, an enhanced bus network to service the Life Sciences Center. The Corridor Cities Transitway remains the long-term transit vision for MCDOT, but the county recognizes that implementation in the near-term is not realistic and quality transit is needed now.

The proposed network aims to improve access for residents to major transit hubs and jobs, expand mobility choices, enhance economic activity, and strengthen connections for essential healthcare and education workers.

The five transit lines proposed by the Montgomery County Department of Transportation would potentially connect priority destinations, including the Shady Grove Metrorail Station, Rockville Town Center and Metrorail Station, RIO, and Falls Grove as well as residential centers such as Crown Farm, Kentlands, and King Farm to sites throughout the Life Sciences Center.

The proposed bus network would prioritize and enhance transit through dedicated bus lanes, transit signal prioritization, and queue jumps, as well as improved bus stations. The frequency of transit service would bring it well above current service levels. MCDOT is working to secure funding to advance this project in the next fiscal year, which would support planning and design for the proposed route network and improvements.

The proposed network would provide many of the connections recommended in the planned alignment of the CCT. The bus routes are a departure from vision of the high quality, permanent infrastructure that would accompany the CCT. However, key dedicated infrastructure elements would speed travel

times and increase reliability of transit options. Installation for enhanced bus shelters with real-time information could improve the desirability of transit as well.

The 2010 Plan recognized that the CCT may involve a staged or phased implementation and key factors to consider would be frequent service (10 minutes or less), faster average speed than conventional bus, branding and clean technology vehicles, and distinctive well-lit station areas. The Great Seneca Transit Network would meet all these considerations. In the near-term this project, or another of comparable scale, could increase transit ridership by offering fast, alternative transit.

FUTURE PLANNING OPPORTUNITIES

Over the past decade, Montgomery County has adopted policies and enacted legislation that have far-reaching consequences for how the county plans and provide a framework for future planning initiatives. Montgomery Planning has also developed guidelines to direct safe, equitable and sustainable development. A comprehensive amendment recommended in Recommendation 2 will provide an opportunity to align the vision, recommendations, and overall staging requirements of the 2010 Plan with the county's defined goals, priorities, and values. Policy initiatives, including but not limited to the following, will be incorporated into future planning initiatives:

- ❖ The Racial Equity and Social Justice Act was approved and adopted by the Montgomery County Council in December 2019 and requires that the Planning Board consider racial equity and social justice when preparing Master Plans.
- ❖ The Vision Zero resolution was adopted by the Montgomery County Council in 2016 resolution and commits to eliminating traffic fatalities and severe injuries. Currently underway is the ten-year action plan to eliminate traffic fatalities and severe injuries by 2030.
- ❖ The Planning Board Draft of Thrive Montgomery 2050, an update to the county's General Plan, includes policy guidance broad range of land-use and planning issues and for achieving the overarching objectives of economic competitiveness, racial and social equity, and environmental sustainability.

In addition to integrating policy guidance from countywide plans and initiatives, the comprehensive amendment offers an

opportunity to examine and develop recommendations regarding:

- ❖ The staging requirements of the 2010 Plan, including requirements involving the funding and construction of the CCT.
- ❖ Transportation recommendations of the 2010 Plan, including the six recommended grade separated interchanges, to ensure they are consistent with county transportation goals and priorities.
- ❖ The safety and comfort of the transportation network for people walking, biking and rolling, to ensure consistency with the county's Vision Zero policy and Complete Streets Guidelines.
- ❖ Land use and zoning recommendations of the 2010 Plan, considering existing and planned transit as well as multimodal improvements.
- ❖ Housing affordability and attainability in the area.
- ❖ The status of public and private open space, parks and trails, including the LSC Loop trail.
- ❖ The urban design guidelines that accompanied the 2010 Plan.
- ❖ Opportunities to advance racial equity and social justice.

CONCLUSION

Following the approval and adoption of this Amendment, 400,000 square feet of new non-residential development capacity will be released without any additional staging requirements. Stage 1 of the 2010 Plan allocated 400,000 square feet of non-residential capacity and provides a benchmark to evaluate future development in the area. While the Stage 1 development was allocated with the approval of two preliminary plans within two years of the Plan adoption, much of this development was just recently completed – a decade following the approval of the 2010 Plan. In addition, over the last decade approximately 400,000 square feet of approved but unbuilt commercial development was converted to residential units. The immediate allocation of 400,000 square feet restores the non-residential development anticipated in the staging requirements of the 2010 Plan.

Based on recent development trends in the Life Sciences Center and surrounding areas as well as the precedent of Stage 1 allocation and development, the creation of an interim stage with 400,000 square feet of new non-residential development provides the potential for a few projects to proceed, relieves immediate demand in the area, and provides sufficient capacity to sustain development pressure while

a comprehensive amendment to the 2010 Plan is completed.

The immediate allocation of 400,000 square feet of non-residential development capacity, coupled with the existing approved but unbuilt development, will address the urgent need to accommodate growth in the life sciences industry in the near-term, supporting the county's economic health and employment opportunities as well as maintaining the county's leadership in life sciences innovation. This additional development capacity will also respond to the three critical factors that required this Amendment —a pressing need to accommodate life sciences development, inability of commercial development to proceed due to staging requirements, and the stagnation of the CCT.

The second recommendation, to initiate a comprehensive amendment to the 2010 Plan, provides an opportunity to address issues that fall outside of the scope of this Amendment without the urgent need to accommodate demand. The Amendment process will enable engagement with residents and stakeholders to produce recommendations that further the development of the area, reflecting the county's goals and trends. The comprehensive amendment offers an opportunity to examine and develop recommendations regarding a wide range of issues.