



MONTGOMERY COUNTY PLANNING DEPARTMENT
THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION

MCPB
Item # 5
7/16/09

July 10, 2009

MEMORANDUM

TO: Montgomery County Planning Board
VIA: Glenn Kreger, Acting Chief, Vision Division *gk*
FROM: Nancy Sturgeon, Planner Coordinator, Vision Division (301-495-1308) *ns*
SUBJECT: Planning Board Draft Gaithersburg West Master Plan

STAFF RECOMMENDATION: Review and approve the Planning Board Draft Gaithersburg West Master Plan for transmittal to the County Council and County Executive.

Attached is the Planning Board Draft Gaithersburg West Master Plan. On July 2, the Board received review copies of the Planning Board Draft Master Plan and the Appendix. Comments received from the Board have been incorporated into this revised draft.

Staff recommends that the Board approve the Plan for transmittal to the County Council and County Executive. Any additional comments or suggestions from the Board can be discussed at the July 16 Board meeting and incorporated into the final document subsequent to the meeting. The final document will have a slightly different layout than this draft as staff intends to include photos and make minor changes to several graphics, including map titles and captions.

Staff notes that the draft the Board received on July 2 did not include the additional proposed dwelling units in the LSC North District that the Board approved during worksessions. This change is reflected in the total number of dwelling units discussed on pages 17, 19, and 23.

The draft Design Guidelines for the Life Sciences Center portion of the Gaithersburg West Master Plan were reviewed by the Planning Board at the May 14 worksession. The Design Guidelines are illustrative and are intended to help shape the public realm in accordance with the recommendations in the Gaithersburg West Master Plan. After the Planning Board approves the transmittal of the Master Plan, staff will produce a revised draft of the Design Guidelines and provide it to the County Council for their information. After the County Council has approved the Master Plan, staff will ensure that the Guidelines are in accordance with the final Master Plan. The Planning Board will hold worksessions and approve the final Design Guidelines after the Master Plan has been approved and adopted.

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Attachment: Planning Board Draft Gaithersburg West Master Plan

July 2009
Planning Board Draft

gaithersburg west master plan

The Life Sciences Center



Montgomery County Planning Department
The Maryland-National Capital Park and Planning Commission

MontgomeryPlanning.org

gaithersburg west master plan

The Life Sciences Center

Abstract

This plan for areas of western Gaithersburg within the County's planning jurisdiction contains the text and supporting maps for a comprehensive amendment to the approved and adopted 1982 *Oakmont Special Study Plan*, the 1985 *Gaithersburg Vicinity Master Plan*, and the 1990 *Shady Grove Study Area Master Plan*. It also amends *The General Plan (On Wedges and Corridors) for the Physical Development of the Maryland-Washington Regional District in Montgomery and Prince George's Counties*, as amended, the *Master Plan of Highways within Montgomery County*, as amended, and the *Countywide Bikeways Functional Master Plan*, as amended. This Plan makes recommendations for land use, zoning, urban design, transportation, environment, and community facilities.

Source of Copies

The Maryland-National Capital Park and Planning Commission
8787 Georgia Avenue
Silver Spring, MD 20910-3760

The Maryland-National Capital Park and Planning Commission

The Maryland-National Capital Park and Planning Commission is a bi-county agency created by the General Assembly of Maryland in 1927. The Commission's geographic authority extends to the great majority of Montgomery and Prince George's Counties; the Maryland-Washington Regional District (M-NCPPC planning jurisdiction) comprises 1,001 square miles, while the Metropolitan District (parks) comprises 919 square miles, in the two counties.

The Commission is charged with preparing, adopting, and amending or extending *The General Plan (On Wedges and Corridors) for the Physical Development of the Maryland-Washington Regional District in Montgomery and Prince George's Counties*.

The Commission operates in each county through Planning Boards appointed by the county government. The Boards are responsible for all local plans, zoning amendments, subdivision regulations, and administration of parks.

The Maryland-National Capital Park and Planning Commission encourages the involvement and participation of individuals with disabilities, and its facilities are accessible. For assistance with special needs (e.g., large print materials, listening devices, sign language interpretation, etc.), please contact the Community Outreach office, 301-495-4600 or TDD 301-495-1331.

Planning Board Draft Plan
gaithersburg west master plan
The Life Sciences Center

Prepared by the Montgomery County Planning Department
8787 Georgia Avenue
Silver Spring, MD 20910-3760

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the plan process

A master plan or sector plan provides comprehensive recommendations for the use of public and private land. Each plan reflects a vision of the future that responds to the unique character of the local community within the context of a countywide perspective.

Together with relevant policies, plans guide public officials and private individuals when making land use decisions.

The PUBLIC HEARING DRAFT PLAN is the first formal proposal to amend an adopted master plan or sector plan. Its recommendations are not necessarily those of the Planning Board; it is prepared for the purpose of receiving public testimony. The Planning Board holds a public hearing and receives testimony, after which it holds public worksessions to review the testimony and revise the Public Hearing Draft Plan as appropriate. When the Planning Board's changes are made, the document becomes the Planning Board Draft Plan.

The PLANNING BOARD DRAFT PLAN is the Board's recommended Plan and reflects their revisions to the Public Hearing Draft Plan. The Regional District Act requires the Planning Board to transmit a master plan or sector plan to the County Council with copies to the County Executive who must, within sixty days, prepare and transmit a fiscal impact analysis of the Planning Board Draft Plan to the County Council. The County Executive may also forward to the County Council other comments and recommendations.

After receiving the Executive's fiscal impact analysis and comments, the County Council holds a public hearing to receive public testimony. After the hearing record is closed, the Council's Planning, Housing, and Economic Development (PHED) Committee holds public worksessions to review the testimony and makes recommendations to the County Council. The Council holds its own worksessions, and then adopts a resolution approving the Planning Board Draft Plan, as revised.

After Council approval, the plan is forwarded to the Maryland-National Capital Park and Planning Commission for adoption. Once adopted by the Commission, the plan officially amends the master plans, functional plans, and sector plans cited in the Commission's adoption resolution.

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plan summary

The Gaithersburg West Master Plan envisions a vibrant Life Sciences Center (LSC) where the foundation of science, business, health care, and academic uses combine to create a dynamic, sustainable science and medical hub. It will be a place where knowledge drives the agenda and students of all ages can rub shoulders with the industry's best minds, creating an environment that will attract new thought and investment.

This Plan envisions an LSC where the built environment reflects the inspiring discoveries occurring inside the labs, research centers, and universities.

This Plan's vision will develop over 25 to 30 years. During that time, the local and national economy will experience three or four fluctuations. Clearly, these cycles make it imperative to check in periodically to assess the Plan's progress and recommendations.

This Plan is about the future, but it is also about the people who have already invested in the area and who have contributed to not only the local economy, but to advancing world-leading scientific research. It is important to plan for these investments to grow, and not just for those who have yet to arrive. While national and world economic and market conditions will impact the pace of build-out, it is essential to establish parameters and provide a blueprint for growth, including staging, no matter how fast growth occurs.

Key Recommendations

- Transform the LSC into a dynamic live/work community while ensuring growth opportunities for research, medical, and bioscience interests.
- Realign the Corridor Cities Transitway (CCT) through the LSC to provide three transit stations that will be the focal point of new development in LSC Central, LSC West, and LSC Belward.
- Concentrate density, building height, and civic green spaces at the CCT stations. Provide appropriate transitions to adjacent neighborhoods and to the historic Belward Farm.

City of Gaithersburg, City of Rockville, Town of Washington Grove

Shady Grove Sector Plan

Area and Enclave Names

Gaithersburg West Master Plan Area

Current Corridor Cities Transitway and Stations

Proposed Corridor Cities Transitway and Stations

MARC Train Station

Shady Grove Metro Station

0 4500

- Create a grid pattern of new streets that improve local circulation, promote alternatives to car use for local trips, and enhance access to the future transit stations.
- Create the LSC Loop as the organizing element of the open space plan to connect districts and destinations, incorporate natural features, and provide opportunities for recreation and non-motorized transportation.
- Replace the Public Safety Training Academy (PSTA) in the LSC West district with a new residential community that includes supporting retail, open spaces, and community facilities.
- Maintain the established residential neighborhoods throughout Gaithersburg West.
- Create a sustainable neighborhood that will attract nationwide interest with design and materials that minimize carbon emissions, maximize energy conservation, and preserve water and air quality.
- Ensure that development in the Piney Branch Special Protection Area uses the best available stormwater management treatment techniques to protect the watershed's headwaters.
- Meet the recreation needs of the Gaithersburg West area by identifying and acquiring a site for a new local public park.
- Support the County's Agricultural Reserve with zoning that requires acquisition of Building Lot Termination (BLT) easements to achieve maximum densities.

overview and context

Forty-five years ago, the County identified the I-270 Corridor as a place for higher densities in a series of Corridor Cities supported by a comprehensive transportation network. Since then, jobs and business opportunities have attracted skilled workers and business investment that have in turn enabled local government to provide quality schools, amenities, and services.

The *Gaithersburg West Master Plan* addresses the heart of the I-270 Corridor. It includes the Life Sciences Center, which has played a significant role in establishing the Corridor as a globally-known center for science and technology-driven industry, home to biotechnology companies, higher education facilities, and a quality medical center. This Plan provides a blueprint for the future that will transform the LSC into a vibrant place served by transit and enhanced by open spaces.

The Gaithersburg West Plan area covers 4,360 acres. In addition to the Life Sciences Center, it includes the western Quince Orchard neighborhoods and enclave areas such as the National Institute of Standards and Technology (NIST) and Rosemont, which are completely or nearly completely surrounded by a municipality. The City of Gaithersburg occupies ten square miles in the center of the Plan area. The City of Rockville borders the Plan area on the east and the Town of Washington Grove is located to the northeast. The incorporated municipalities have their own planning and zoning authority and are not part of the County's master plans.

Planning Framework

The Plan's recommendations are consistent with State and County planning policies.

- The 1964 General Plan identifies the I-270 Corridor (which includes the LSC) for concentrated, high-density development supported by a comprehensive transportation system including a major highway network, rail lines, and centers called Corridor Cities.
- The 1992 Economic Growth, Resources Protection and Planning Act requires local plans to protect sensitive environmental resources.
- The 1993 *General Plan Refinement* supported the Corridor Cities concept but acknowledged that it had not yet fully evolved.
- The 1997 Priority Funding Areas Act directs State spending to support smart growth, typically to existing communities and places where local governments want investment to support future growth. The entire Plan area is within a Priority Funding area and is eligible for State funding.

The Future of the I-270 Corridor

The I-270 Corridor is the County's economic engine and the biotechnology industry is a critical driver. Area businesses benefit from proximity to the federal government—the world's largest technology buyer. Locally-based federal research centers support a major biotechnology industry cluster and offer promising future opportunities such as nanotechnology.

Economic expansion, population growth, and diversification will stimulate new development. New residents—many from highly skilled backgrounds—will augment an extraordinary talent pool. This larger, more varied skill base could open new creative and entrepreneurial business directions—from digital media to international market development to technology commercialization. New and expanding opportunities combined with a “quality of place” that fosters innovation could encourage younger residents and recruits to stay in the area.

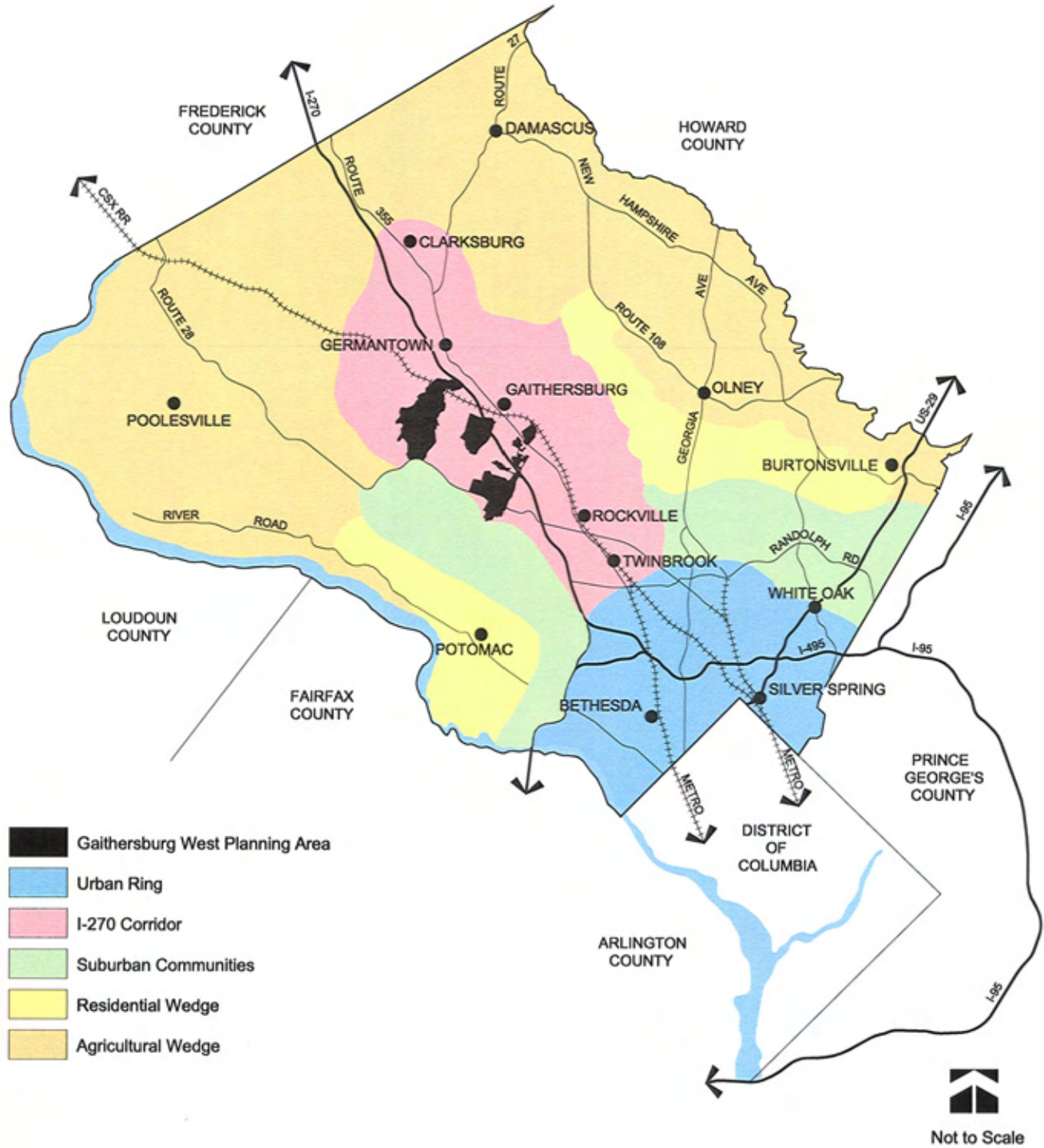
By channeling development into existing centers served by transit, highways and infrastructure, the County will protect its natural environment and agricultural land that contribute to our quality of life while making better use of existing transportation and service infrastructure.

The County's approach to managing growth could bolster the Corridor's competitive strengths—a high quality of place, exceptional talent base, strong employment resources and the potential for enhanced economic opportunity. Mixed-use environments offer mobility, affordable housing, diversity in services and employment and environmental advantages.

This Plan's recommendations work within the comprehensive overview of the 2008 *MD 355/I-270 Corridor Study*, which provides a policy framework for the individual master and sector plans. Creating higher density, mixed-use communities at transit stations epitomizes smart growth and sound planning principles by:

- balancing land use and transportation
- providing opportunities to live near work

Wedges and Corridors



- maximizing public investments in infrastructure
 - reducing sprawl and protecting the environment
 - reducing the carbon footprint and reliance on fossil fuels
 - producing more sustainable forms of development
 - creating the types of places many people want to live and work.
-
- The 2006 *Shady Grove Sector Plan* would transform the area around the Shady Grove Metro Station from a light industrial service park to a high-density mixed-use community with a residential focus that makes the best use of Metro proximity.
 - The 2009 *Twinbrook Sector Plan* builds on the area's proximity to the Metro station and allows growth for technology-oriented businesses as well as a supportive mix of housing and industrial uses.
 - The proposed 2009 *Germantown Master Plan* builds on the Corridor City concept and envisions an up-County center for community life with mixed uses and density focused at transit stations.
 - The proposed 2009 *White Flint Sector Plan* envisions the Metro station area and Rockville Pike as a vibrant and sustainable urban center that can adapt to future challenges.

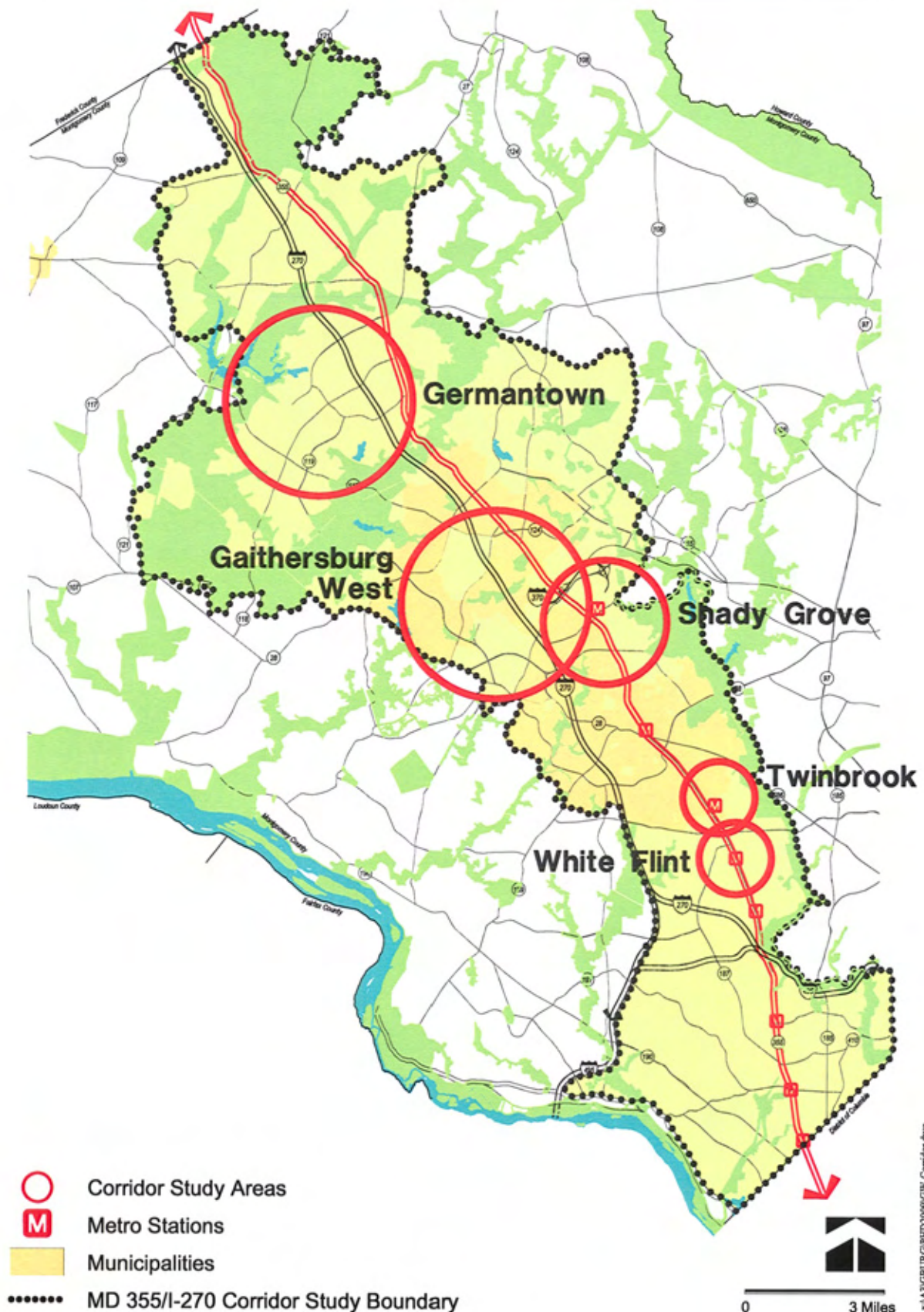
This Plan focuses development around future transit stations in the LSC and provides bicycle and pedestrian systems that enhance access to transit. The Corridor Cities Transitway (CCT) will enable people who work at the LSC to live in nearby communities connected by transit. This Plan also recommends new housing in the LSC to create more opportunities to live near work. In addition to promoting a compact form of development, this Plan seeks to promote a healthy community by fostering walkability, creating new opportunities for recreation, and providing growth potential for important medical services. The result will be a sustainable form of development and a community where people want to live and work.

Annexation

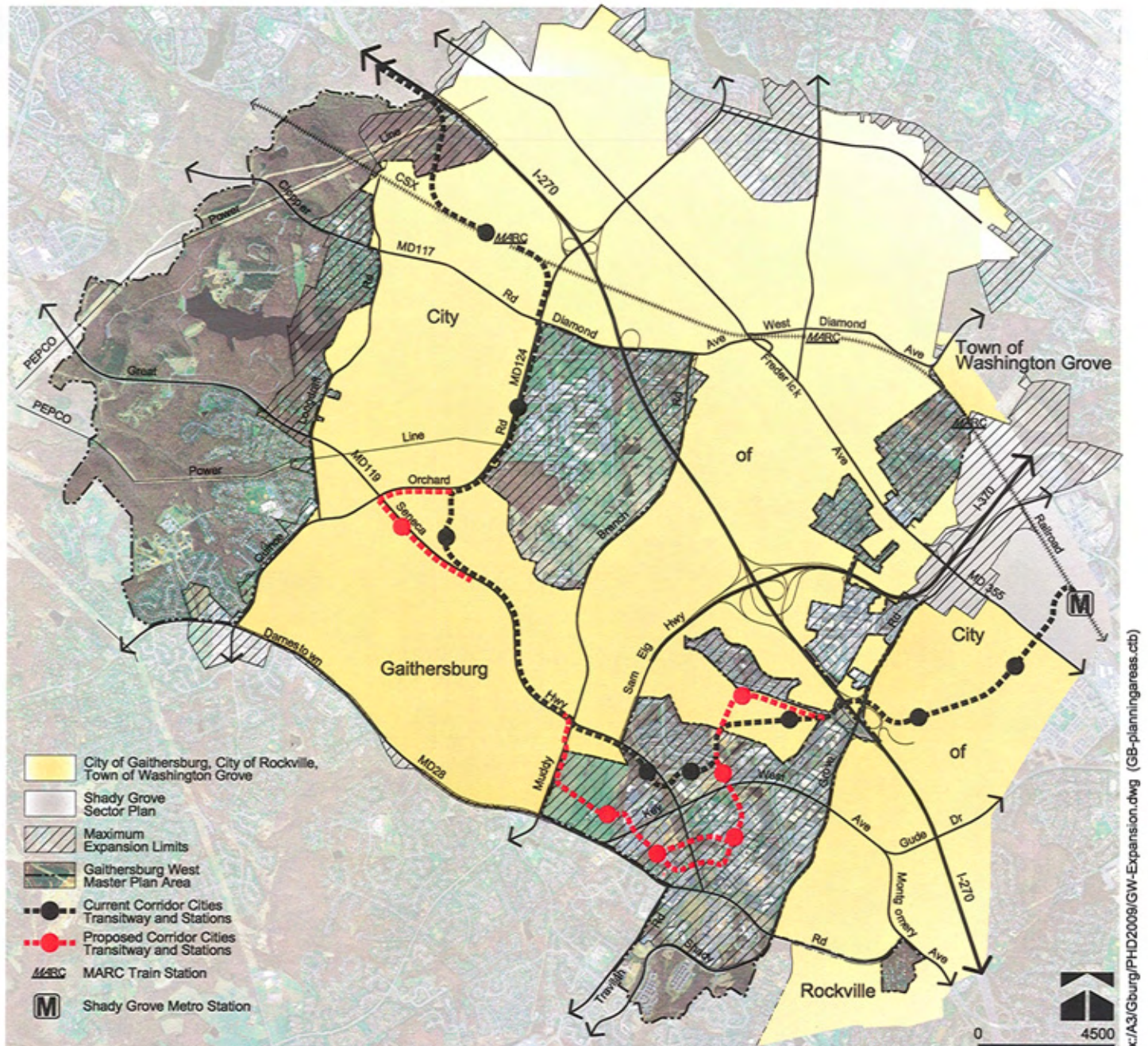
Municipalities establish Maximum Expansion Limits (MEL) to set boundaries for future potential annexations of unincorporated land. The Maryland State Code (Article 23A, Section 19) requires that municipalities produce a Municipal Growth Plan delineating the MEL. Only land within the MEL and adjoining the municipal boundaries can be considered for annexation.

In 2009, the City of Gaithersburg established a new MEL as part of its adopted *Municipal Growth Element*. The City's new MEL includes nearly all of the Gaithersburg West Master Plan area, including the Life Sciences Center. This Master Plan recognizes that future annexations may occur and that annexing properties surrounded by municipalities would help create coherent boundaries. Ideally, the boundaries between the County and the municipalities would be logical and well-defined, following roads or natural features such as streams. This Plan strongly opposes annexation of any portion of the Life Sciences Center, which is not an enclave. Over the past 30 years, the County has invested substantial resources to create and develop the LSC. Annexing any of the LSC would leave the County without control of a significant element of its economic development strategy and create irretrievable revenue losses.

MD 355 / I-270 Corridor



City of Gaithersburg Maximum Expansion Limits



the life sciences center

Planning for Science, Health Care, and Transit

The Plan's vision for the LSC builds on the strong foundation of existing institutions and businesses, and the County's land use plan that brought together health services, academia, and research and development companies. Today, the LSC has the largest concentration of, and is the premier location for, research and biotechnology companies in the County.

The future viability of the LSC requires the following components:

- opportunities for growth and expansion of existing enterprises
- a dynamic environment that will attract skilled workers and investment
- infrastructure and services to support future development
- staging development to balance growth and minimize adverse impacts
- sustainable practices that provide a "quality of place."

Transit is an essential element of this Plan and is the basis for the land use and zoning recommendations. A strong public and private commitment to the Plan's transit proposals will help ensure that the LSC is connected internally as well as to the rest of the Corridor.

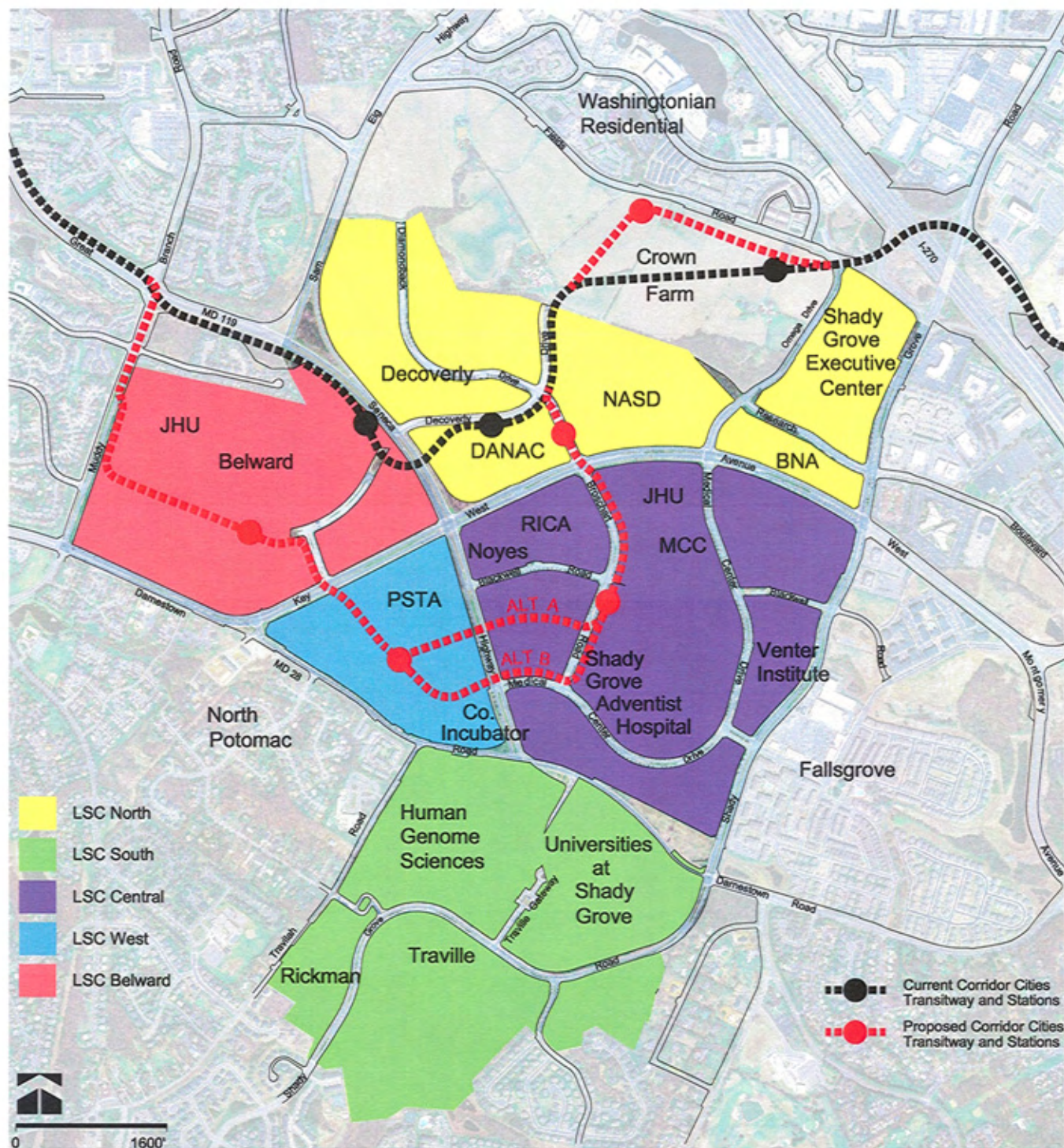
Vision

"It's heading right at us, but we never see it coming...The most important things happening in the world today won't make tomorrow's front page...They'll be happening in laboratories—out of sight, inscrutable and unhyped until the very moment when they change life as we know it."
— "The Future is Now," *The Washington Post*, April 13, 2008

This Plan establishes a blueprint for the LSC that includes an expanded, first-class medical center, research facilities, academic institutions, and an array of services and amenities for residents, workers, and visitors. It will have an open space system that incorporates the area's natural environmental features into a larger network, connecting destinations by paths and trails, and providing opportunities for a range of outdoor experiences.

The LSC of the future will be served by a fully-integrated transit system that links mid-County activity centers via the Corridor Cities Transitway (CCT). Access to high quality transit is increasingly important to businesses trying to attract knowledge-based, creative class workers. The LSC will continue to be a specialized employment center but it will be connected by transit with nearby residential communities at the Shady Grove Metro Station, the King Farm, the Crown Farm, Kentlands, and the Watkins Mill Town Center.

LSC: Districts



Today's LSC

The LSC's two academic institutions—the Universities at Shady Grove (USG) and the Johns Hopkins University-Montgomery County Campus (JHU-MCC)—have increased its prominence and expanded opportunities for collaboration. Shady Grove Adventist Hospital provides the broader community with a full range of health care services. A number of biotechnology companies, including Human Genome Sciences, BioReliance, and the J. Craig Venter Institute, are located here.

Many of the goals for the LSC have been realized. As originally envisioned, the LSC had a specific land use purpose with a unique employment niche. Residential and retail development was planned for large tracts surrounding the LSC, rather than integrated within the Center. The LSC and R&D Zones ensured that land would be reserved for life sciences to concentrate these uses and accomplish the original vision for the LSC. Housing and retail were specifically excluded from the LSC and R&D zones to enable the primary land uses of medical, life science, and academia to become established and have room to grow.

Today, the LSC contains nearly seven million square feet of commercial development and has 3.7 million square feet of approved development in the pipeline. Many LSC sites have maximized their development potential under the existing zoning.

The LSC's physical framework is modeled on a 20-year old development program for suburban research parks. The LSC looks and functions like a conventional office park with single-purpose clusters separated by wide highways and surrounded by parking lots. This model ensured auto-dependence while discouraging walking. There is so little variety of uses in the LSC today that employees often drive to lunch spots.

Existing Life Sciences Center Zoning		
Zone	Description	Acreage
LSC	Life Sciences Center	226
R&D	Research & Development	167
O-M	Office, Moderate Intensity	85
I-3	Technology & Business Park	24
H-M	Hotel-Motel	3
C-2	General Commercial	42
C-3	Highway Commercial	3
C-4	Limited Commercial	4
MXN	Mixed-Use Neighborhood	192
MXPD	Mixed-Use, Planned Residential	42
R-10	Multifamily, High-Density	7
R-60/TDR	Single-Family Residential/TDR	60
R-90/TDR	Single-Family Residential/TDR	62
R-200	Single-Family Residential	22

R-200 Residential, One-Family
R-60/TDR Residential, One-Family
R-60/TDR Residential, One-Family
RT-8 Residential, Townhouses
R10 Multiple-Family, High Density
MXPd Mixed-Use, Planned Residential
MXN Mixed-Use, Neighborhood Zone
O-M Office Building, Moderate Intensity
C-2 General Commercial
C-3 Highway Commercial
C-4 Limited Commercial
H-M Hotel-Motel
I-3 Technology and Business Park
R&D Research and Development
LSC Life Sciences Center

Current Corridor Cities Transitway and Stations
Proposed Corridor Cities Transitway and Stations

[illegible]

Tomorrow's LSC: Linking Land Uses/Connecting Communities

This Plan envisions a future LSC with an enhanced role as the County's premier life sciences location. Transforming today's suburban, auto-oriented LSC into tomorrow's walkable, vibrant science center requires changing the built environment and the mix of uses. The CCT is the centerpiece of the Plan's vision for the LSC.

The CCT in the I-270 Corridor will:

- provide a transit option among the Corridor Cities
- improve mobility within the Corridor
- alleviate congestion on I-270
- extend transit service west and north of the Shady Grove Metro Station (the terminus of the Red Line).

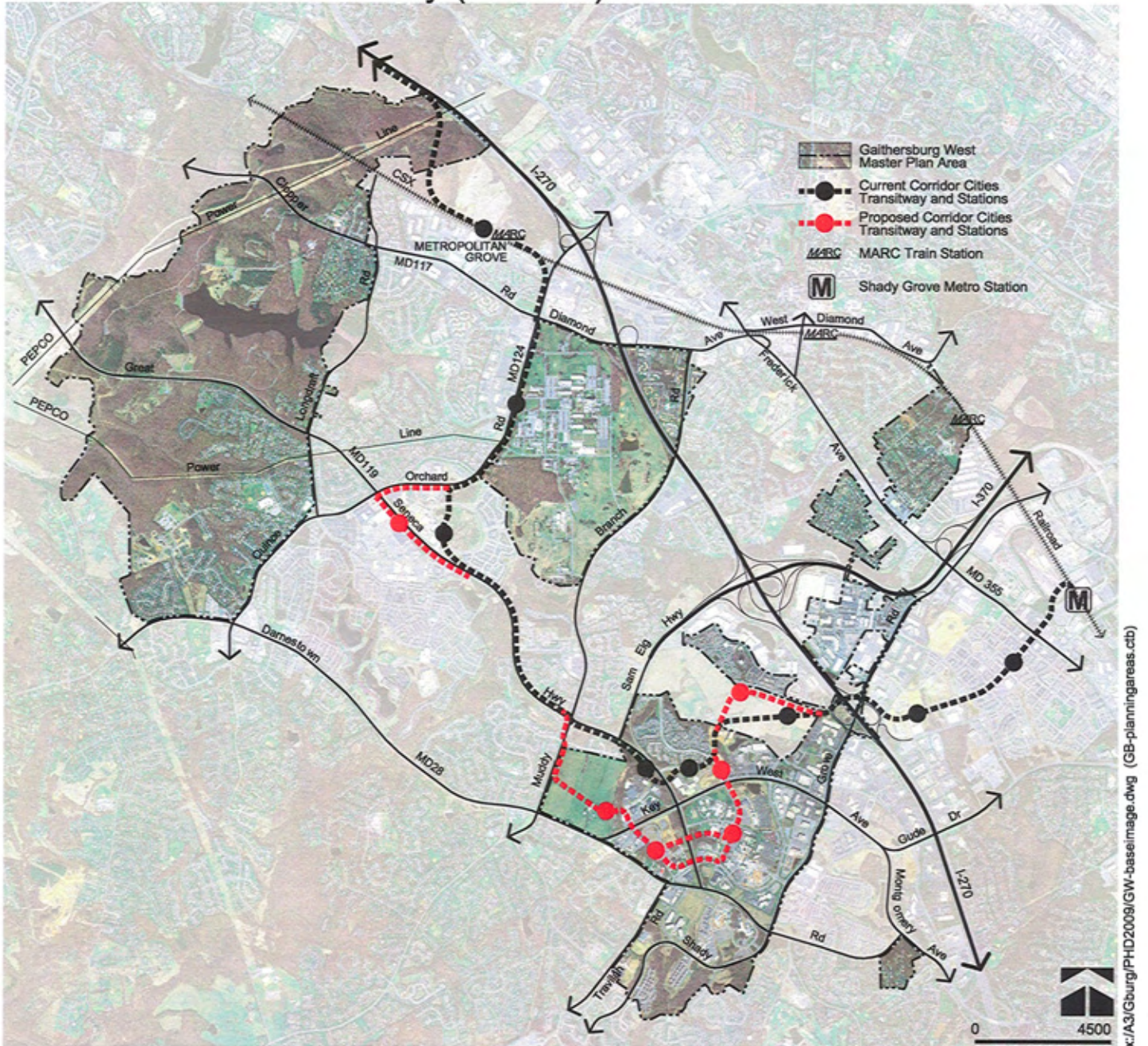
The 14-mile CCT transit line will run from the Shady Grove Metro Station to the Comsat site in Clarksburg. Fourteen stations are planned, with park-and-ride facilities at seven. The alignment is planned as an exclusive, dedicated facility for either light rail transit (LRT) or bus rapid transit (BRT) with limited interaction with vehicular traffic at local street crossings. It is planned to include a multi-use path.

Both the 1964 General Plan and the 1970's Gaithersburg and Germantown plans included the concept of a transitway. It has also been recommended in all subsequent I-270 Corridor master plans, including the 1994 *Clarksburg Master Plan and Hyattstown Special Study Area* and the 1993 *Frederick County Comprehensive Plan*.

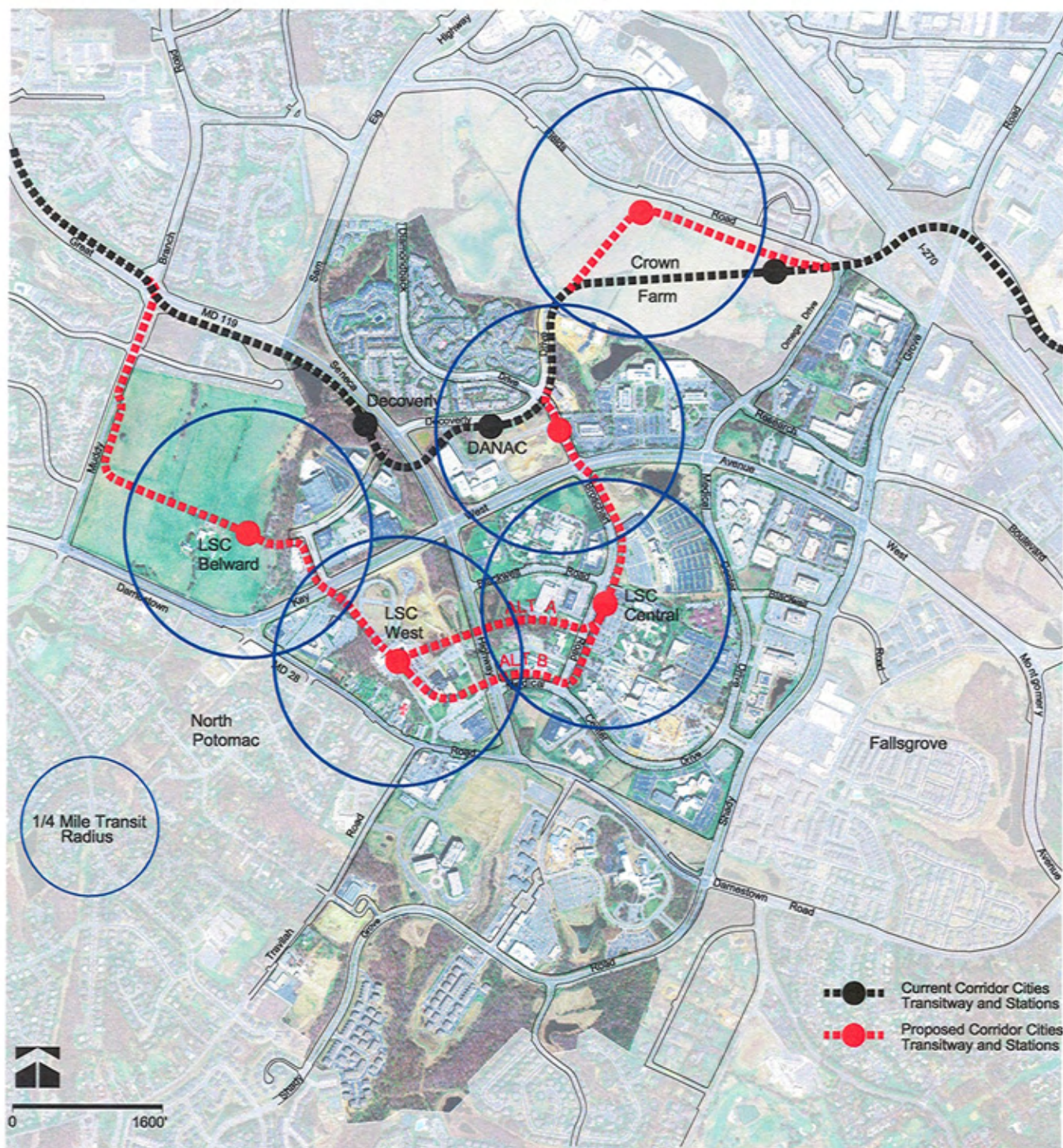
This Plan recommends realigning the CCT to bring transit into the heart of the LSC where it can serve more businesses, institutions, and other users than the current route. The Plan builds a pattern of density focused on the three LSC Districts where CCT transit stations are proposed: Central, West, and Belward. Increased density is recommended at proposed transit stations and development can only proceed in stages that are linked to the provision of infrastructure, most importantly, the CCT. The LSC South District is not recommended for increased densities largely because it is within the Piney Branch Special Protection Area. Realigning the CCT route into the center of the LSC will bring transit closer to LSC South, where it can serve the Universities at Shady Grove, Human Genome Sciences, and the Traville community. The proposed alignment offers two alternatives between the LSC Central and LSC West stations.

The two current station locations—DANAC (on the south side of Decoverly Drive) and Decoverly (along Great Seneca Highway near Sam Eij Highway) are not located to serve the LSC Districts with the most growth potential and the greatest number of future transit riders. The Decoverly station would serve primarily as a park-and-ride facility since it is located along a highway rather than in the center of development. Also, the alignment near the Decoverly station would impact an environmentally sensitive wetland and stream buffer area, which could be avoided if the route is relocated.

Corridor Cities Transitway (Phase I)



LSC: Proposed Corridor Cities Transitway Alignment and Stations



The Plan's three new proposed stations locate the stops in the center of large blocks where new development and redevelopment is expected, increasing the number of potential CCT riders within a quarter mile radius, or a five-minute walk. The proposed realignment would lengthen the route by one mile. This Plan shows both the current alignment and the proposed alignment because the Maryland Transit Administration (MTA) is studying the route and selecting an alternative. If the CCT is ultimately provided as a BRT, this mode may make it possible to incorporate both the old (current) and new (proposed) alignments, but the land use and zoning recommendations in this Plan require the investment in the realignment through the LSC to serve the three new proposed stations.

Housing

This Plan's primary goal is to create a world class life sciences center. A range of housing options and amenities is needed to support this development and help achieve County housing goals. The transportation infrastructure proposed in this Plan will link the LSC Districts in a sustainable development pattern where people can walk, bike, or use transit to reach their destinations.

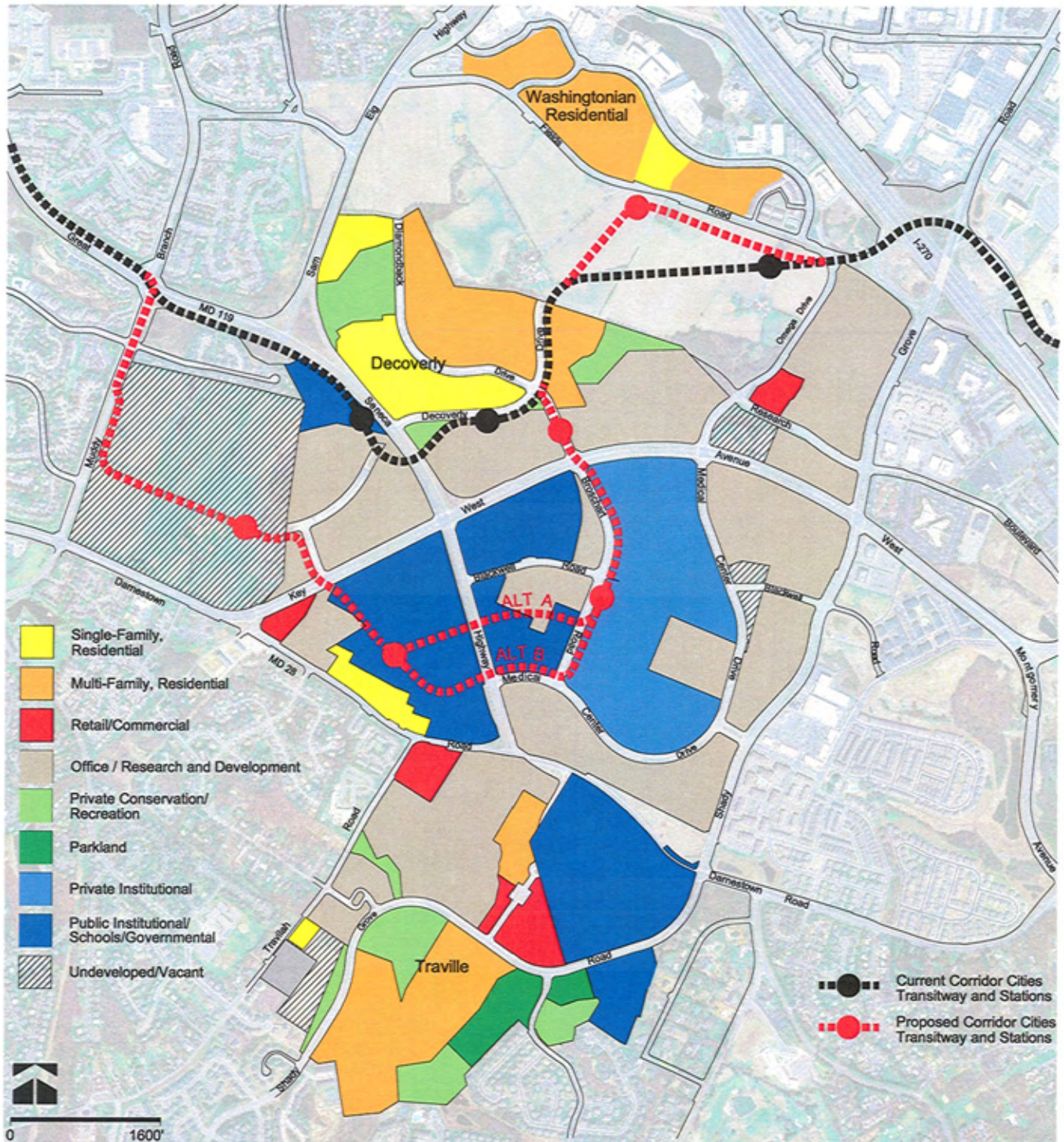
One of the County's fundamental planning tools is the jobs/housing balance, the ratio of jobs to housing units in an area. Creating a balance provides the opportunity for people to live near work, which can reduce traffic congestion. While a balanced jobs/housing ratio does not guarantee that the housing will be occupied by those who work nearby, opportunities to live near work should be provided.

To date, the LSC has developed as a single-purpose, single-use employment center. Housing has not been a permitted use so the jobs/housing ratio within this area is not balanced. Because the LSC's focus has been on economic development and jobs, not housing, achieving the optimal jobs/housing balance within this small geographic area is unrealistic. However, over a broader area, the appropriate ratio can be achieved.

The 1990 Plan proposed new residential neighborhoods on large tracts of land near the LSC, including new neighborhoods at the King Farm, the Crown Farm, and the Thomas Farm (Falls Grove). King Farm and Falls Grove were annexed into the City of Rockville and are nearly built-out. The Crown Farm was annexed into the City of Gaithersburg, which approved a mixed-use community with 2,250 dwelling units that is not yet under construction. Existing housing that is near the LSC and within the Plan boundaries totals 3,262 dwelling units (of which 230 are senior units) at the Decoverly and Traville communities and the Washingtonian cluster north of Crown Farm.

This Plan recommends a new residential community on the current site of the County's Public Safety Training Academy (PSTA), LSC West. Housing development on this site could yield 2,000 new dwelling units. In addition, the Plan recommends that housing be allowed as a secondary use in the LSC Central District, which, along with several other sites in the greater LSC, could yield 3,000 new dwelling units. In LSC Central, the Plan allows 30 percent of the density to be used for housing. If all LSC Central property owners utilized this option, the total dwelling units in the District could be 2,225. This maximum theoretical amount will not be achieved in LSC Central due to the existing built environment and the nature and business objectives of the property owners. Residential development must provide Moderately Priced Dwelling Units and workforce housing.

Existing Land Use



Overall, the potential residential land use for the greater LSC could yield a maximum theoretical of 5,750 additional dwelling units to complement a projected total of 60,000 jobs (based on existing, approved, and proposed development). The resulting ratio of 6.6 jobs per dwelling unit is based on the existing housing in the greater LSC area (3,262 dwelling units) combined with the potential new housing (5,750 dwelling units) for a total of 9,012. This jobs/housing balance reflects the Plan's emphasis on the life sciences and health care services but does not include the substantial amount of existing housing nearby in Rockville, Gaithersburg, and Potomac. Within an approximate two mile radius of the LSC, there are over 25,000 existing households and the jobs/housing ratio is 2.8.

The LSC will be part of a continuum of communities linked by the CCT, enabling people to live and work within the corridor and get where they need to go by transit. At CCT stations to the east and west of the LSC, over 10,000 dwelling units are planned in pedestrian-oriented, mixed-use communities, including the Shady Grove Metro Station, the Crown Farm, and Watkins Mill Town Center. Creating such places fosters sustainable development and helps reduce sprawl as well as our dependence on autos.

Urban Form and Open Spaces

The LSC's five districts will be connected through a refined street network, transit, and trails. The highest density and building height will be concentrated at the proposed CCT stations. People may live and work in the same district, but interact with colleagues in another district. Overall, mobility will be enhanced through options other than cars, and shorter trips.

The streets, buildings, and open spaces will create a physical environment that supports the research community and enhances opportunities for people to interact. Design guidelines, in a separate document, provide detail to guide new development and implement the urban form recommendations in this Plan.

The Plan's urban design recommendations set the scale and character for the LSC.

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

Circulation

The LSC will have a walkable street system with a finer grid network than exists today. Streets and transit will tie the districts together. The LSC Loop, described below, will unify the pedestrian and bicycle circulation system of sidewalks, bikeways, trails, and paths that provide mobility and recreation options. The CCT will include a multi-use path that will enhance connectivity among the LSC Districts.

- Grid network of streets
- Sidewalks connecting districts, providing access to transit and public spaces
- CCT transit stations and multi-use path

Buildings

Buildings oriented to the streets and public spaces will be built based on development standards that accommodate a variety of uses, including laboratories, prototype manufacturing, offices, academic

buildings, residences, and retail spaces. Allowing mixed uses is critical to achieving the Plan's vision. Building standards will also ensure that new development provides compatible transitions to adjacent neighborhoods along Darnestown and Muddy Branch Roads.

- Buildings and residential entrances oriented to streets
- Parking garages located on block interiors
- Visible retail focused at CCT stations

Public Open Spaces

A comprehensive system of public open spaces for collaboration, recreation, and other public activity will preserve important resources including streams, forests, and historic properties. This open space system will also provide the setbacks and green spaces that contribute to compatibility with the adjacent neighborhoods.

- Public open spaces at each CCT station
- Stream valley parks
- Transitional green areas

Sustainability

New development must feature building, site, and street designs that respect natural systems, respond to sun, shade and topography, and make maximum use of renewable resources, reducing disruption of the natural environment to the highest extent feasible. Development should be compact and feature a diversity of land uses, making more efficient use of land, energy and building materials, and enabling people to live, work and shop in one area. The CCT, trails, and attractively designed sidewalks will connect the districts and adjacent neighborhoods, encouraging walking instead of driving. Trail systems within developed areas will connect with trails surrounding parks.

Montgomery County law directs that planning efforts focus on reducing automobile use and carbon emissions. This Plan recommends reinforcing and expanding the use of green buildings to emphasize green site design and energy conservation practices. Development should incorporate approaches and technology to maximize energy conservation and increase renewable energy use such as solar, wind and geothermal. Environmental site design and stormwater management techniques should be used to improve water conservation and reduce energy required for water treatment and distribution. Building re-use, deconstruction techniques that recover reusable building materials, and recycling should be employed to further reduce energy associated with development.

Minimizing imperviousness will be necessary to reduce construction energy costs, but also reduce urban heat island effect and improve water conservation. Improving connectivity through the provision of trails, transit, and sidewalks will reduce automobile use. Forestation approaches are recommended, including preserving existing forest, adding urban tree canopy and landscaping to reduce local carbon concentrations. All these building and site design approaches will benefit air quality, water quality, and human health.

- **Air Quality Protection**

The Washington Metropolitan region, including the Gaithersburg West Master Plan area, has been identified as a non-attainment area for ground-level ozone and fine particulate matter. The same recommendations this Plan makes for creating a sustainable community and improving climate protection, including forestation, green buildings, reducing Imperviousness, and improving connectivity, will provide overall air quality benefits.

- Water Quality Protection
County, State and Federal regulations establish water quality protection goals. In addition, this Plan recommends protecting existing streams and wetlands and their buffers through site design. Stormwater management should include best management practices that capture stormwater on-site for re-use in non-potable water applications.
- Active Living
All of the environmental recommendations can contribute to maintenance of the physical and mental well-being of the residents and employees in Gaithersburg West. Besides the direct health benefits of protecting the climate, air quality and water quality, compact, pedestrian-friendly design will encourage walking and bicycle riding, increasing physical fitness, known to reduce stress and promote better mental health.

The LSC Loop

The LSC's proposed redevelopment offers an opportunity to create an interconnected pedestrian and bike system linking neighborhoods, both existing and future, to each other, parks, transit, and other destinations. This Plan recommends using urban design, parks, and trails to create an interconnected open space network for the LSC that will provide a range of experiences and a sense of place, integrating the built and natural environments and passive and active spaces.

The organizing element of the LSC open space plan is a 3.5 mile multi-use path loop connecting the districts and destinations. The LSC Loop will run alongside existing streets, such as Medical Center Drive and Omega Drive, and be completed on new streets in LSC West. It will incorporate the proposed CCT path through LSC West and onto the Belward property.

The LSC Loop will link activity centers and community facilities, including the planned high school on the Crown Farm (in the City of Gaithersburg), the historic Belward Farm, and the civic green and retail center on LSC West. CCT stations along the Loop include the Crown Farm, Belward, and LSC West. From the Loop, paths will connect with other destinations and activities in the area, including Falls Grove and Traville. Traville Local Park, in LSC South, is proposed for a small rectangular field, half-court basketball, older children's playground, and a tot lot, and should be accessible from the LSC Loop.

The LSC's existing stream buffer areas should be seamlessly integrated with the Loop, offering passive outdoor experiences. The on-road hard surface portion of the Muddy Branch Trail Corridor intersects the Plan area at the southwest corner of the Belward property, and should connect to the rest of the Countywide trail system.

Not all open space can or should be publicly owned and managed. Public amenity spaces in new developments will provide needed recreation and open space. Public parks and publicly accessible open spaces should complement each other and be seamlessly integrated to create a cohesive pattern of open space.

The LSC Loop will:

- create a primary recreational feature that connects the districts, destinations, and open spaces throughout the area
- provide connections to area amenities, including the historic Belward Farm, retail destinations, the proposed high school and elementary school, and the natural path system through the stream buffer areas

The map illustrates the Belward Farm area with various proposed and existing infrastructure. Key features include:

- Proposed Transitway:** A network of transitway and stations, including a proposed high school (HS) and elementary school (ES).
- LSC Loop:** A yellow dashed line representing the LSC Loop, with possible extensions shown as yellow dashed lines.
- Proposed Green Connector:** A red dashed line with arrows indicating the proposed green connector.
- Proposed Urban Open Space:** Blue shaded areas representing proposed urban open space.
- 1/4 Mile Transit:** Blue circles indicating the 1/4 mile transit radius.
- Parkland:** Green shaded areas representing parkland.
- Environmental Feature:** Light green shaded areas representing environmental features.
- Proposed Fire Station:** A blue circle with a 'F' representing a proposed fire station.
- Proposed Public Park:** A green star symbol representing a proposed public park.
- Current Corridor Cities Transitway and Stations:** A black dashed line with a black circle representing the current corridor cities transitway and stations.
- Proposed Corridor Cities Transitway and Stations:** A red dashed line with a red circle representing the proposed corridor cities transitway and stations.
- Existing Non-Park Connector Between Recreational Trails (Bikeway):** A green arrow representing an existing non-park connector between recreational trails (bikeway).
- Proposed Non-Park Connector Between Recreational Trails (Bikeway):** A green dashed arrow representing a proposed non-park connector between recreational trails (bikeway).

The map also shows major roads such as MD 119, MD 28, and I-270, as well as local roads like Seneca, Branch, and Key. Landmarks include Belward Farm, Traville Local Park, and Falls Grove.

- connect destinations by paths, including stream valley park trails such as Muddy Branch
- integrate regulated green spaces such as wetlands, streams, and forest conservation easements to provide passive recreational experiences
- provide connections to Traville Local Park in LSC South.

The LSC Districts

The Plan's land use, zoning, circulation, and design recommendations for the LSC Districts focus density at the proposed CCT stations to fulfill the Plan's vision of connected centers.

Life Sciences Center: Existing and Proposed Development				
	<i>Existing</i>	<i>Existing & Approved</i>	<i>1990 Master Plan</i>	<i>Proposed 2009 Plan</i>
Commercial (sf)	6,940,000	10,700,000	13,000,000	20,000,000
Dwelling units	3,300	3,300	3,800	9,000
Jobs	21,200	30,550	38,000	60,000

The largest property owners (20 acres or more) at the proposed CCT stations — JHU's Belward and MCC sites, Shady Grove Adventist HealthCare, DANAC, and the future developers of LSC West (the PSTA site)—will be required to submit Concept Plans that demonstrate how their site will achieve the Plan's vision -- highest densities and heights at the stations, mixed uses, a local street network, neighborhood buffers, the LSC Loop, historic properties, and open spaces.

LSC Central: A Medical and Biotech Center

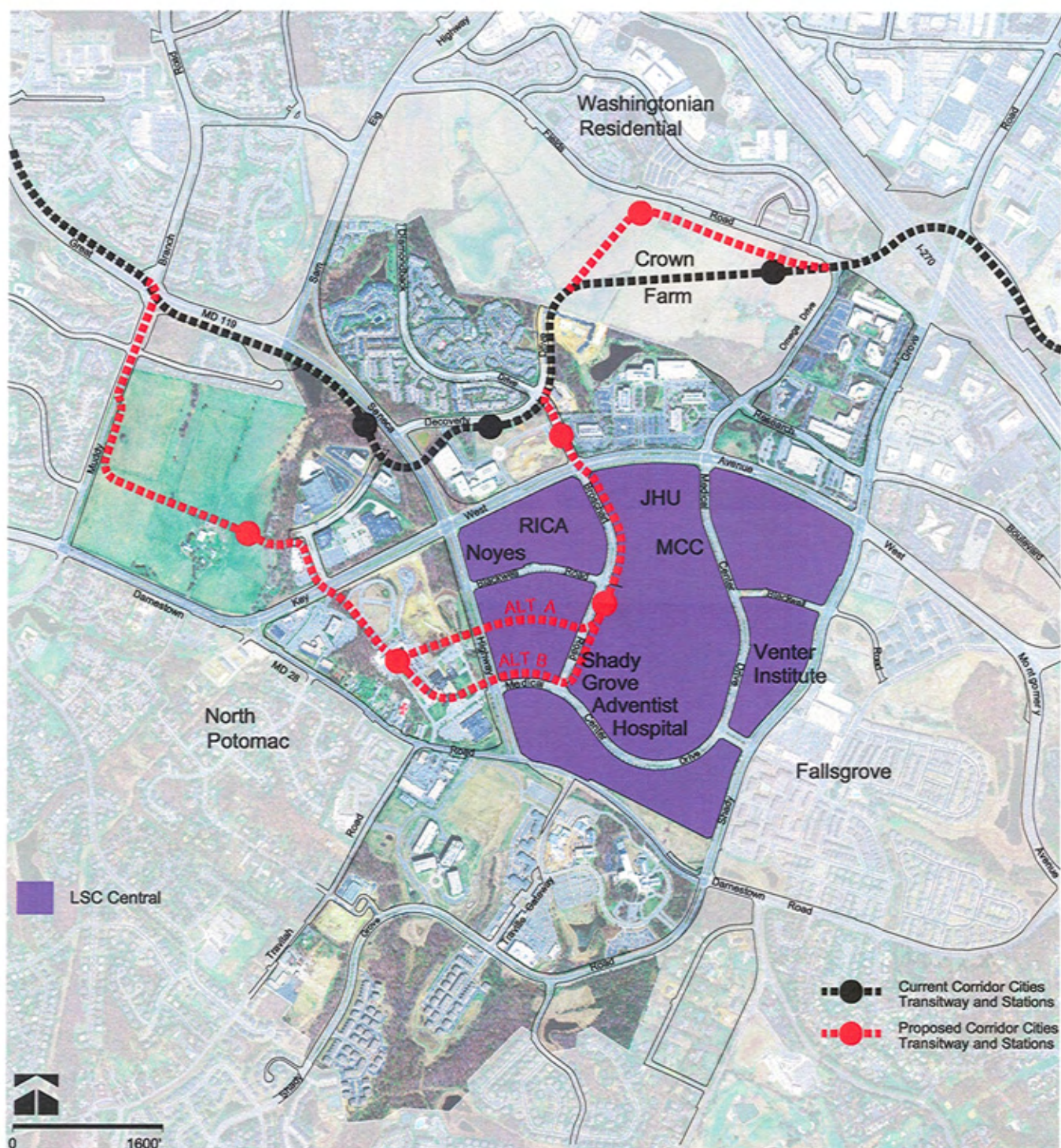
This 230-acre center includes Shady Grove Adventist Hospital, several medical office buildings, the Johns Hopkins University-Montgomery County Campus (JHU-MCC), the Regional Institute for Children and Adolescents (RICA) and Noyes Institute facilities, and some County social service uses. This area also includes the Key West Corporate Center and biotech companies such as the J. Craig Venter Institute, BioReliance, and Otsuka.

Today, LSC Central is a single-purpose destination for workers, students, and hospital visitors. It should continue to focus on medical and biotech uses, but other uses should be introduced, including retail and a limited amount of housing (approximately 30 percent of permitted floor area ratio). The Plan recommends a CCT station on Broschart Road near Blackwell Road and these streets should be enlivened with activating uses. Future development, in its design and use, should be carefully planned to take advantage of transit and contribute to creating a vibrant LSC hub.

Adventist HealthCare (AHC) and JHU, as the district's largest property owners, will play a significant role in achieving the land use vision. Population growth, combined with demographic shifts and aging baby boomers, is fueling demand for additional capacity at the Shady Grove Adventist Hospital. To meet these needs, the 48-acre facility will continue to evolve, including centers of cardiac and vascular services, oncology, and women's and children's services.

AHC intends to develop medical offices, diagnostic and outpatient treatment facilities, and convenience retail. Accompanying these physical improvements will be structured parking, landscaped open spaces, and other public amenities. Under the current zoning, AHC would not be able to expand its facilities substantially. This Plan supports an expanded, first-class medical center and recommends zoning changes to accommodate future growth.

LSC: Districts



Most of the land in LSC Central is zoned LSC. To implement the Plan's vision of a mixed-use, transit oriented center, this Plan recommends modification of the LSC Zone to permit more uses, density, and height. The revised zone would allow housing and the Plan recommends that up to 30 percent of the floor area ratio (FAR) in LSC Central could be residential. LSC Central properties zoned R-200, O-M, and R&D are recommended for rezoning to the revised LSC Zone. One zone for all LSC Central properties will enhance development or redevelopment possibilities, provide consistent land use options and development standards, and improve design cohesiveness.

The Plan envisions redevelopment of portions of the block surrounded by Broschart Road, Medical Center Drive, Great Seneca Highway, and Blackwell Road. Currently, this area is developed with low-density, low-scale uses. With a transit station along Broschart Road, portions of this block could redevelop to higher densities with a mix of housing, retail, and employment uses. The Plan recommends rezoning the RICA and Noyes facilities (from R-200 to LSC) to accommodate redevelopment consistent with the vision for LSC Central if these uses are relocated.

A fire station is needed in this area and the preferred location is the northwest corner of Shady Grove Road and Darnestown Road. This County-owned parcel is appropriately sized and located for the future Travilah fire station. The 1990 *Shady Grove Study Area Master Plan* identified this intersection for a possible grade-separated interchange, which is being removed by this Plan.

Recommendations

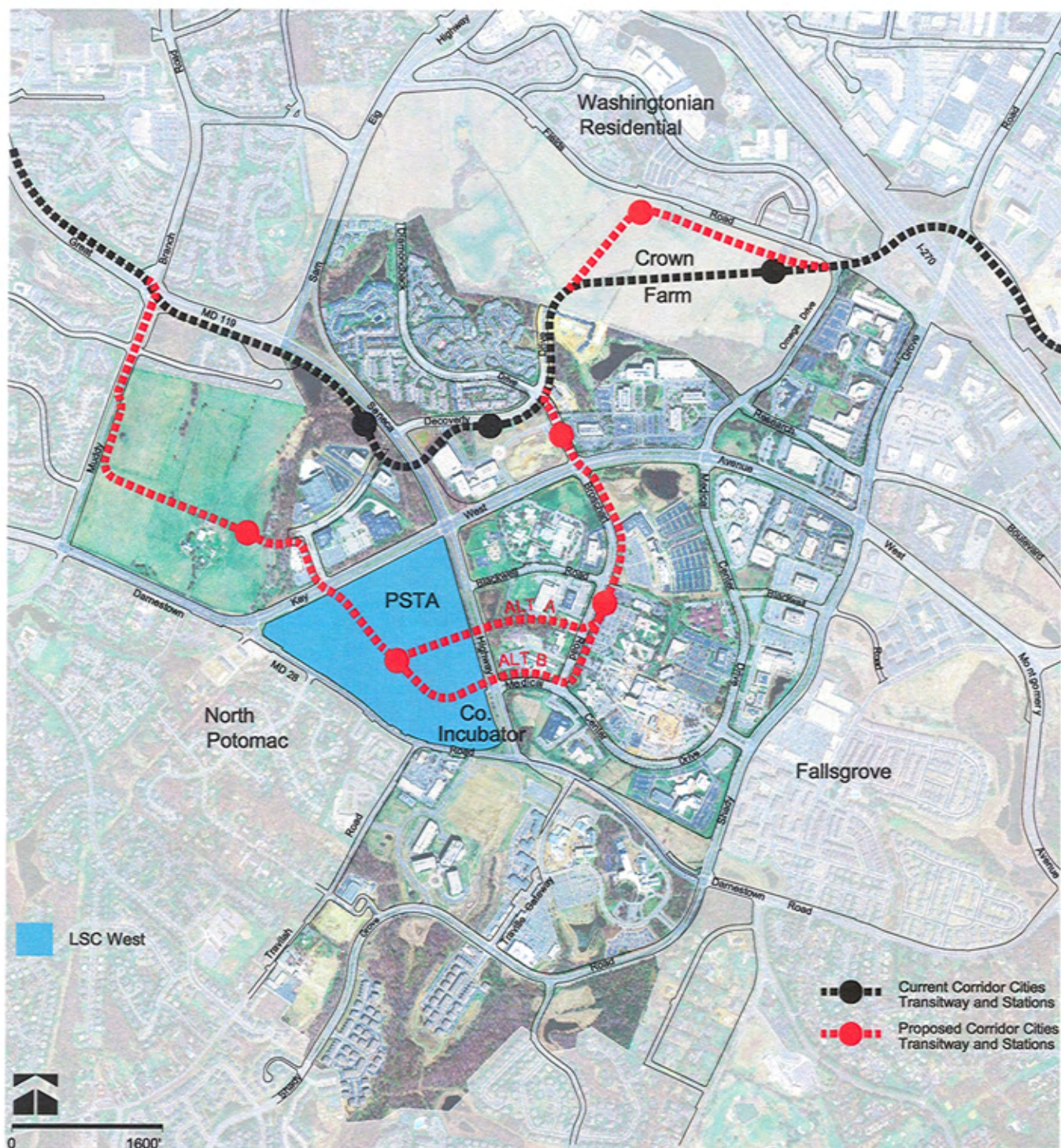
Land Use and Zoning

- Amend the LSC Zone to allow mixed uses and increased density and height.
- Amend the LSC zoning standards to reflect current technology and allow future flexibility.
- Allow a maximum of 1.0 FAR for properties in LSC Central.
- Allow a maximum of 1.5 FAR for properties in the center of the District (bounded by Key West Avenue, Medical Center Drive, and Broschart Road): Adventist HealthCare, JHU-MCC, and 9707, 9711, and 9715 Medical Center Drive.
- Allow a maximum of 30 percent of permitted FAR to be used for housing.
- Rezone the RICA and Noyes properties from the R-200 Zone to the LSC Zone.
- Rezone the R&D parcels to the LSC Zone.
- Rezone the O-M parcels to the LSC Zone.
- Require submission of a Concept Plan prior to approval of any future individual development projects for AHC and JHU to address the Plan's guidelines, including the location of the CCT, the highest densities and height at transit, the mix of uses, creation of a local street network, and provision of open spaces.
- Accommodate a fire station on the northwest corner of Shady Grove Road and Darnestown Road.

Urban Form and Open Spaces

- Locate the highest density and tallest buildings (150 feet) adjacent to the transit station to form an identifiable center. Future developments should be well-integrated with each other.
- Create an identifiable LSC Loop along Medical Center Drive that connects pedestrians to other transit centers, the network of natural pathways along the stream buffers, and the open spaces.
- Design Broschart Road as an urban street, lined with buildings and activating street-level uses. The east side of Broschart Road is shared by AHC and JHU, and both property owners have opportunities to create a lively street edge that takes full advantage of transit station proximity.

LSC: Districts



- Design Blackwell Road between the AHC and JHU properties with a building edge and improved connections.
- Provide at least 15 percent of the net tract area as public use space.
- Include the following public open spaces:
 - LSC Loop
 - Stream buffers
 - Urban square at the CCT station
 - Urban promenade to connect between buildings and public spaces.

Mobility

- Locate a CCT Station along Broschart Road near Blackwell Drive in the vicinity of the Shady Grove Adventist Hospital and the JHU-MCC campus.
- Extend Blackwell Road between Medical Center Drive and Broschart Road.
- Create additional streets to encourage an urban building form and to improve access and circulation for pedestrians and vehicles.

LSC West: A New Residential Community

Most of this site is the County's Public Safety Training Academy (PSTA), on 52 acres of this 75-acre parcel. The PSTA has been at this site, bordered by Key West Avenue, Great Seneca Highway, and Darnestown Road, since 1973 when the area was mostly farmland. Since the 1980s, when the County decided to create the LSC, the uses around the PSTA have changed dramatically.

This training facility for firefighters, police officers, and operators of large vehicles is next to the County's Innovation Center (Incubator), which provides space for biotech start-up businesses. On the north side of Darnestown Road are a small retail center, medical office buildings, and several single-family homes that have been assembled and are proposed for townhouse development (RT-8 Zone).

While the PSTA is an important public facility, it has no relationship to the LSC. The County recognizes that all of the PSTA's needs cannot be satisfied at this location that has little expansion capability. The County has identified a site where the PSTA could be relocated.

The Plan supports relocating the PSTA and redeveloping the site with a residential community that includes amenities and services, bringing housing opportunities within walking distance of jobs in the LSC. The corner of Great Seneca Highway and Darnestown Road has the potential to become a signature site. The Innovation Center could remain at this location or, ideally, be incorporated into redevelopment of the PSTA or elsewhere in the LSC.

The Plan recommends the Commercial Residential (CR) Zone with a 1.0 FAR that could yield 2,000 dwelling units with supporting retail, services, and community uses. The CR Zone is recommended for the PSTA and PEPCO parcels (currently zoned R-90/TDR), the Innovation Center (LSC Zone), and the small retail center (C-3) and medical office buildings (O-M) at the intersection of Darnestown Road and Key West Avenue. The following CR components will promote development of the new residential community that the Plan envisions for LSC West: CR 1.0, C 0.5, R 1.0, H 150. The Plan recommends that the two special exception uses (at 10109 and 10111 Darnestown Road) be rezoned from R-90/TDR to C-T (Commercial-Transition) and confirms the RT-8 Zone for the remainder of parcels along Darnestown Road.

Residential buildings with the most density and height should be adjacent to the CCT station and the new LSC West community should include retail, civic spaces, and, if needed, a new public elementary school. If a new elementary school is needed, it could be combined with a local park on the northern portion of LSC West. If the school is needed and if the northern area is chosen, the proposed local street (B-5 on the LSC Circulation Map) should be eliminated to create adequate space for a park/school site. If the school is not needed, a local public park for active recreation should be provided. In addition to the park/school site, development should be accompanied by a new public urban park to serve as the central open space for the proposed residential community. This public green space should be near the CCT station and one-half to one acre in size to create a gathering place and focal point for the community.

The Plan recommends that impacts to the forested area at the corner of Great Seneca Highway and Key West Avenue be minimized. Since rare, threatened, or endangered species information has never been gathered for this site, a Natural Resources Inventory should be prepared when the site is redeveloped.

Recommendations

Land Use and Zoning

- Relocate the PSTA and create a new residential community on the site with supporting retail, open space, transit, and community facilities.
- Rezone the PSTA and PEPCO parcels from R-90/TDR to the CR 1.0 Zone.
- Rezone the County's Innovation Center site from the LSC Zone to the CR Zone.
- Rezone the C-3 and O-M parcels to the CR Zone.
- Properties rezoned to CR 1.0 have the following components: CR 1.0, C 0.5, R 1.0, H 150.
- Rezone 10109 and 10111 Darnestown Road (special exception uses) from R-90/TDR to C-T (Commercial, transitional) to reflect the existing uses.
- Require a Concept Plan for LSC West with the first Preliminary Plan application to address the CCT location, the placement of highest densities and building height at transit, creation of a local street network, public open spaces, and the LSC Loop.
- Locate highest density housing and retail uses and the tallest buildings (150 feet) closest to the CCT station to provide convenience and activity.
- Minimize impacts to the forest at the corner of Key West Avenue and Great Seneca Highway.
- Accommodate a new public elementary school combined with a local park, and a central public open space near the proposed CCT station.

Urban Form and Open Spaces

- Extend the LSC Loop along Medical Center Drive to connect pedestrians to other transit centers, the network of natural pathways along the stream buffers, and the open spaces.
- Locate a multi-story elementary school, if needed.
- Provide facilities for active recreation on the park/school site.
- Provide at least 15 percent of the net tract area as public use space.
- Integrate the following public open spaces:
 - LSC Loop
 - Stream buffers
 - Forest preserve along Great Seneca Highway and Key West Avenue
 - Civic green at the CCT Station
 - Urban promenade to connect between buildings and public spaces.

- Use the visible corner at Darnestown Road and Great Seneca as a signature site for a significant building.

Mobility

- Locate a CCT station along Medical Center Drive extended near the center of the LSC West site.
- Create a grid of streets on LSC West as part of the new residential community.

LSC Belward: A New Science and Research Community

The Belward property, owned by JHU, is surrounded by major roads and by residential neighborhoods on three sides. The 1990 *Shady Grove Study Area Master Plan* designated Belward as part of the greater Life Sciences Center and recommended it be developed as a research campus with a limited amount of employee housing. JHU received Preliminary Plan approval in 1996 for 1.8 million square feet on 138 acres, a density of 0.3 FAR in the R&D Zone. The eastern portion of the property, with access from Key West Avenue, was sold and developed. The remaining 107 acres is currently undeveloped.

This Plan recommends increased density on the Belward property, served and supported by a CCT transit station. The Plan recommends that both the 107-acre undeveloped Belward property as well as the developed, eastern portion, be rezoned from the R&D Zone to the revised LSC Zone to allow a mix of uses and higher densities focused on the CCT station. Development on the Belward property should provide housing for the employees and/or visiting researchers. Compatible transitions and buffers for the adjacent single-family neighborhoods are critical.

The property's historic Belward Farm includes the 1891 farmhouse as well as barns and outbuildings. A 6.98-acre environmental setting was established for the historic properties by the 1996 Preliminary Plan approval, and includes the driveway from Darnestown Road to preserve views of the site.

Due to the proposed increase in development recommended for Belward, this Plan recommends expanding the farmstead's environmental setting to between 10 and 12 acres. New development adjacent to and near the historic farmstead must be compatible in scale and graduated in height to be sensitive to the historic resource. Views of the farmstead from Darnestown Road, as well as other vantage points within Belward should be incorporated into future site planning and design. Reuse of the Belward Farm offers opportunities for a community or cultural center that could become a destination on the CCT and the LSC Loop.

To meet the recreation needs of this area, as well as provide facilities for those working on-site at Belward, areas should be reserved for both active and passive recreation. Two rectangular fields for active recreation should be provided within the designated buffer areas along Muddy Branch and Darnestown Roads.

Recommendations

Land Use and Zoning

- Rezone the Belward property from R&D to the LSC Zone and allow up to 1.0 FAR.
- Require a Belward Concept Plan with the first Preliminary Plan application to address the Plan's guidelines, including the CCT location, the highest densities and height at transit, preservation of the historic property, creation of a local street network and the LSC Loop, and neighborhood buffers.
- Maintain Belward as an open campus development.

The map displays the LSC Belward area, highlighting the current and proposed transitway and stations. The current transitway is shown as a black dashed line with black circles representing stations. The proposed transitway is shown as a red dashed line with red circles representing stations. The map includes labels for Washingtonian Residential, Crown Farm, JHU Belward, North Potomac, and Falls Grove. It also shows various roads like MD 119, MD 28, and I-270. A legend indicates current and proposed transitway and stations, and a scale bar shows 0 to 1600 feet.

- Provide a network of active and passive open spaces.

Historic Belward Farm

- Preserve views of the farmstead from Darnestown Road, looking north, east, and west as well as other vantage points within the larger Belward site.
- Step new buildings down to 60 feet (four stories) adjacent to the Belward Farm.
- Use the site, including the house and barns, for recreational, educational, social, or cultural uses that complement the community and new development.
- Preserve open space and mature trees surrounding the farmstead. Retain an environmental setting large enough to convey the agricultural character of the historic resource, between 10 and 12 acres.

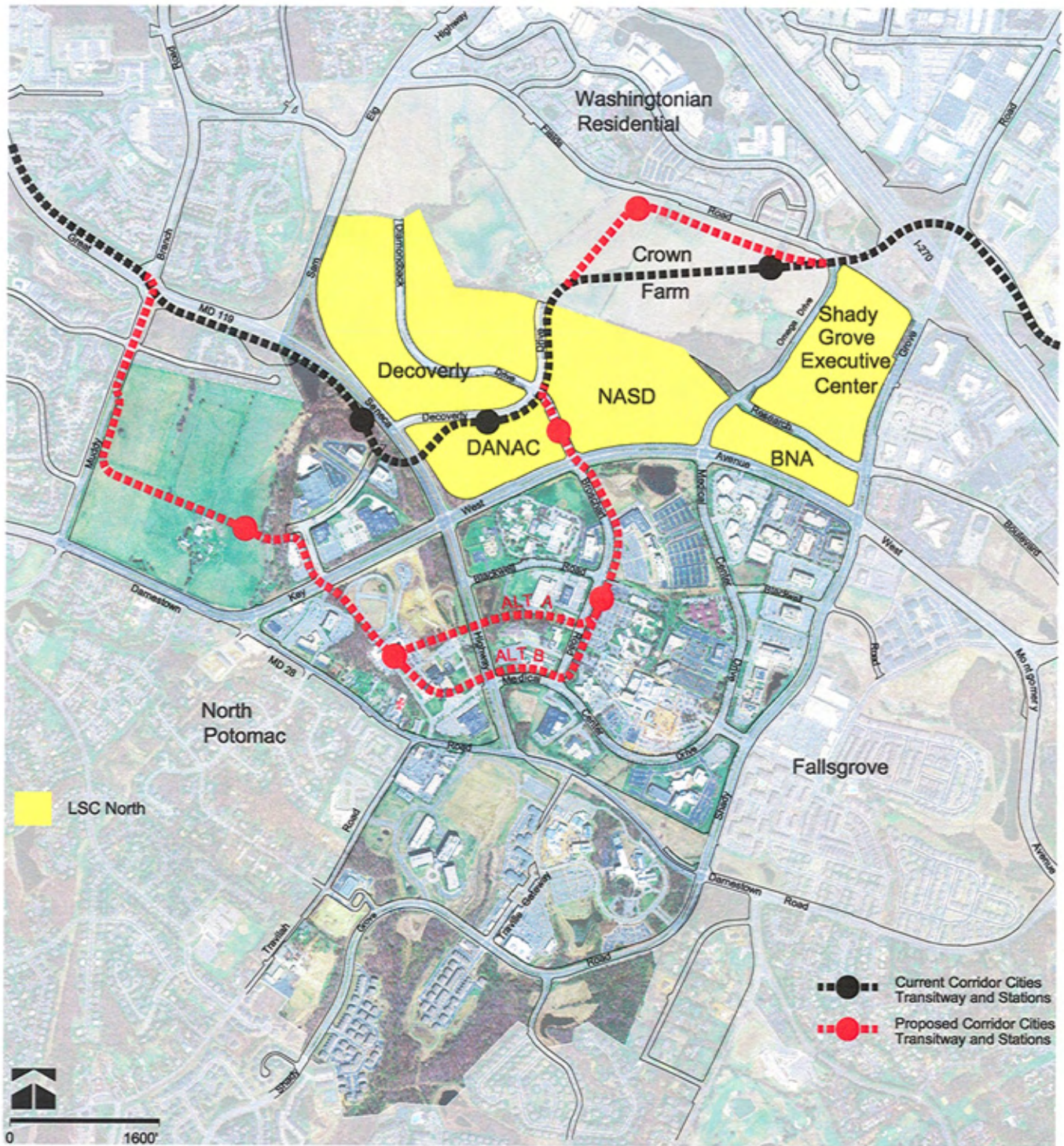
Urban Form and Open Spaces

- Concentrate the highest density and building heights (150 feet) near the CCT station.
- Organize the significant roads to provide views of the historic Belward Farm.
- Complete the Muddy Branch Trail Corridor from Dufief Mill Road and Darnestown Road to Great Seneca Highway along the Belward property on the east side of Muddy Branch Road.
- Create the LSC Loop along Medical Center Drive and Discoverly Drive to connect pedestrians with other transit centers, the network of natural pathways along the stream buffers, and the open spaces.
- Preserve the landmark tree on the Muddy Branch Road side of the property.
- Include the following public open spaces:
 - LSC Loop
 - Stream buffers
 - Belward Farm environmental setting
 - Urban square at the CCT station
 - Urban promenade connecting buildings and public spaces.
- Provide at least 15 percent of the net tract areas as public use space.
- Create a 300-foot buffer along Muddy Branch Road and a 60-foot buffer along Darnestown Road.
- Provide two rectangular fields for active recreation in these buffer areas, with permitting by the Parks Department.
- Preserve and augment the existing trees along the northern boundary as a transition to the existing single-family houses in Mission Hills.
- Provide a 200-foot buffer along the property's northern edge, adjacent to Mission Hills, between the property line of the single-family homes and any buildings on Belward.
- Provide a 100-foot wide stream buffer around the two tributaries of the Muddy Branch.

Mobility

- Realign the CCT through the LSC with a station on the Belward property along Discoverly Drive near the intersection with Medical Center Drive extended.
- Extend Discoverly Drive across Great Seneca Highway into and through the Belward site to Muddy Branch Road.
- Create a network of new streets with short blocks.
- Provide a comprehensive pedestrian network throughout Belward with an emphasis on easy and convenient access to the proposed CCT station.
- Implement the LSC Loop, including natural surface trails through the stream valleys and connected paths and sidewalks throughout the site and in the perimeter buffer areas.
- Build the proposed trail connection (a non-park connector between recreational trails/bikeway) on the east side of Muddy Branch Road from Darnestown Road to Great Seneca Highway.

LSC: Districts



- Improve connections and access from surrounding neighborhoods to enable residents to easily access the CCT station, the LSC Loop, the historic site, as well as other amenities in the Belward District.

LSC North: Residential and Office

The 195-acre LSC North District is developed with several office parks, including DANAC, the National Association of Securities Dealers, Shady Grove Executive Center, and the Bureau of National Affairs. These properties are zoned I-3, O-M, and C-2. LSC North also includes the residential communities of Decoverly, with 1,144 townhouse and multifamily units along Diamondback Drive west of Decoverly Drive.

The current CCT alignment includes a station on the north side of the DANAC property. The DANAC station should be relocated to the east side of the property. The Plan recommends that the DANAC property be rezoned from the I-3 Zone to a CR Zone. Rezoning DANAC to a mixed use zone with higher density will take better advantage of this transit station location. The parcel on the southeast corner of Key West Avenue and Diamondback Drive (Lot 7) is largely undeveloped and is adjacent to the proposed CCT station on the east side of the property. The recommended Zone for this parcel (Lot 7) is: CR 2, C 1.5, R 1.5, H 150. The remainder of the DANAC property should be zoned CR 1.0, C 0.5, R 0.5, H 80. Building height along Decoverly Drive adjacent to the residential community to the north is limited to 50 feet within 100 feet of the right-of-way.

Each of the other office parks in LSC North has some remaining development capacity. Current zones for several of the office parks allow relatively high density for the area (1.5 FAR) and the Plan does not recommend increases because the objective is to concentrate additional density at the proposed CCT stations and achieve an overall balance between land use and transportation infrastructure.

The possibility of residential as an infill use on remaining developable sites in LSC North would increase the amount of housing near the jobs in the greater LSC. To create a sense of community, the Plan encourages clustering any housing to create a residential neighborhood rather than isolated housing sites in scattered office parks. The Plan recommends the Planned Development (PD) Zone option for the 6.9-acre site in the Shady Grove Executive Center and for the 10.5-acre Bureau of National Affairs (BNA) site. These sites would be appropriate for urban, high density housing and the zoning can be requested through a Local Map Amendment. Pedestrian-oriented local retail facilities that are compatible with and provide convenience for residents are encouraged. Community-serving amenities should be provided, including the LSC Loop along Omega Drive as well as pedestrian connections to CCT stations at DANAC and/or Crown Farm.

Recommendations

- Extend Decoverly Drive north from its current terminus, into and through the Crown Farm to Fields Road.
- Extend Diamondback Road north from its current terminus into and through the Crown Farm to Fields Road.
- Rezone DANAC from the I-3 Zone to the CR Zone.
- Allow a Planned Development option for high density residential use at the Shady Grove Executive Center and the Bureau of National Affairs sites.
- Provide for the LSC Loop, to be accompanied with the CCT from Fields Road to Diamondback Drive, and then along Decoverly Drive and across Great Seneca to the Belward site.

[illegible]

LSC South: Mixed-Use Center

This 245-acre area south of Darnestown Road includes the Traville community's retail and residential uses, Human Genome Sciences (HGS), and the Universities at Shady Grove, an innovative academic center that is part of the University System of Maryland.

The retail and residential developments at Traville are built-out, with approximately 100,000 square feet of retail and 750 dwelling units, 230 of which are senior housing. The HGS site is approximately half built-out. The Universities at Shady Grove have produced a master land use plan for their site, which is approximately half built-out.

Only the 13-acre Rickman property on Travilah Road (zoned R&D) is currently undeveloped. The Plan supports R&D uses on this site, but housing would also be compatible with surrounding properties. The Plan recommends the Planned Development option (PD-22) for the Rickman property. The property owner can initiate the rezoning by filing a Local Map Amendment. A Development Plan and Site Plan are required in the PD Zone.

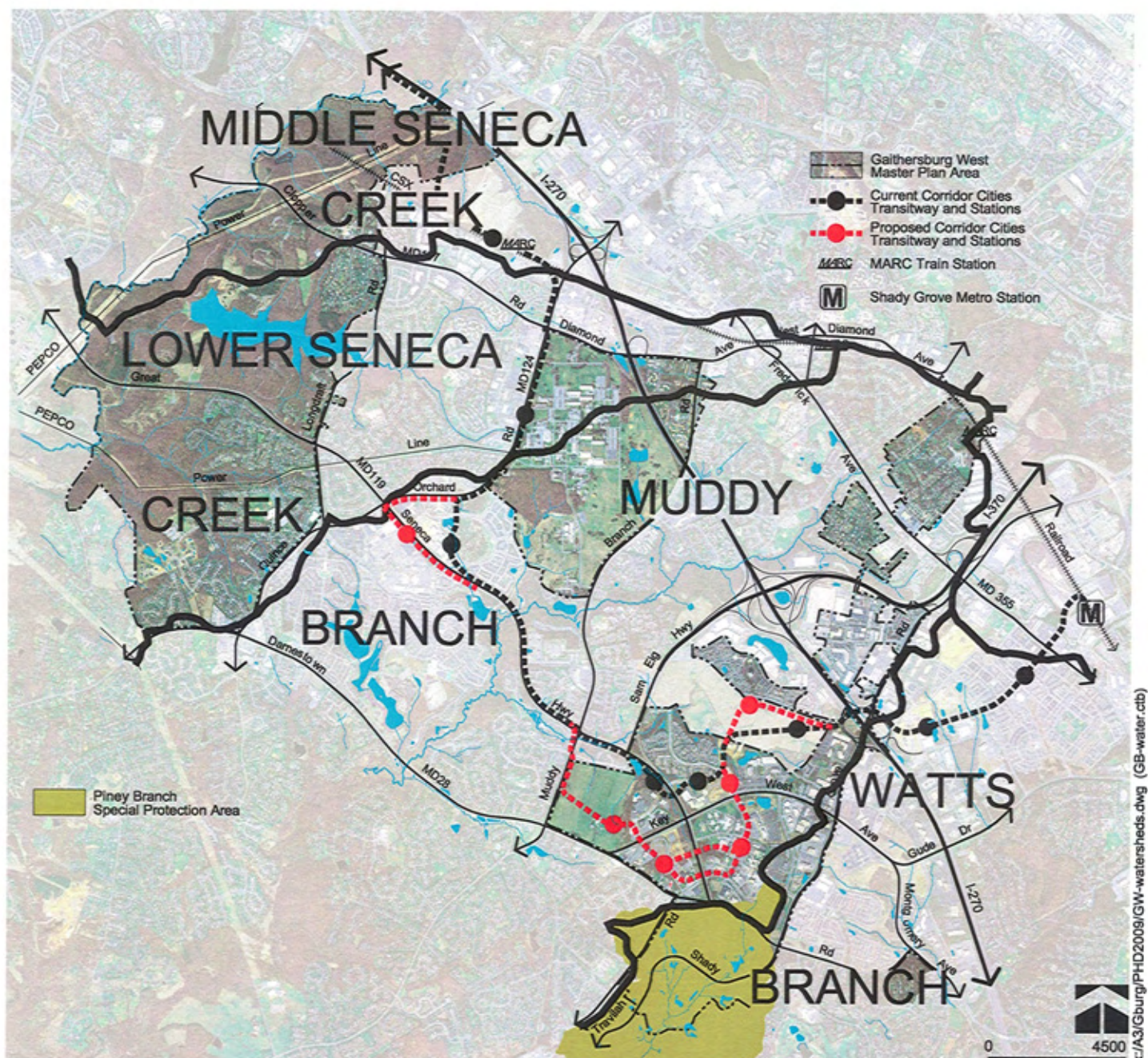
LSC South is in the Watts Branch Watershed and is part of the Piney Branch sub-watershed, which was designated a Special Protection Area (SPA) due to its fragile ecosystem, unusually good water quality, and susceptibility to development pressures. SPAs require approval of a water quality plan demonstrating a high level of stormwater control and treatment. Accordingly, this Plan recommends minimal additional development.

This Plan encourages the physical and visual integration of LSC South with the areas north of Darnestown Road, through building design and massing, street character and improved connections across Darnestown Road, and access to the CCT stations at LSC Central and West. These stations are between one-half to three-quarters of a mile (a 10-15 minute walk) from LSC South destinations. With higher density development around the CCT stations, the transit locations will become more visible and recognizable as landmark features.

HGS and USG, along the south side of Darnestown Road, have developed as campus-style, inward-focused designs with parking lots adjacent to Darnestown Road. Future development at these sites should create a building edge along Darnestown Road near Great Seneca Highway. On the north side of Darnestown Road, redevelopment of the PSTA site will also create opportunities for new buildings to address the street edge, especially the corner of Darnestown Road and Great Seneca Highway.

Extending Great Seneca Highway as a local business district street south of Darnestown Road provides an additional, signalized access point for LSC South. This proposed improvement should be coordinated with HGS's future plans, including their internal street network. A major benefit of improving the intersection of Great Seneca Highway and Darnestown Road would be to provide direct access, particularly for pedestrians and bicyclists, between LSC South and the proposed CCT station at LSC West.

Watersheds



Recommendations

- Maintain the R&D Zone on the Rickman site, but recommend rezoning to PD-22 by a Local Map Amendment to encourage residential development.
- Protect the Piney Branch sub-watershed and support the SPA by limiting development in LSC South beyond existing and approved projects to only the undeveloped Rickman parcels on Travilah Road.
- Extend Great Seneca Highway as a business district street south of Darnestown Road.
- Improve pedestrian connections between LSC South and areas to the north—LSC West and LSC Central—emphasizing pedestrian access to the future transit stations.
- Construct Traville Local Park and provide connections to the LSC Loop.

LSC Circulation

The Plan provides a comprehensive transportation network for all modes of travel, including bicycle and pedestrian routes and constructing the CCT on the proposed realignment through the LSC. The local street network will supplement existing arterials by extending and connecting existing roads, and by creating new streets. In addition to the specific mobility recommendations for each district, this section provides overall transportation goals and guidelines for the LSC.

An enhanced and expanded transportation network will:

- better integrate and connect the five LSC Districts
- improve local circulation and take trips off the major roads
- improve the pedestrian environment
- provide access to transit by creating short, walkable blocks directly connected to CCT stations.

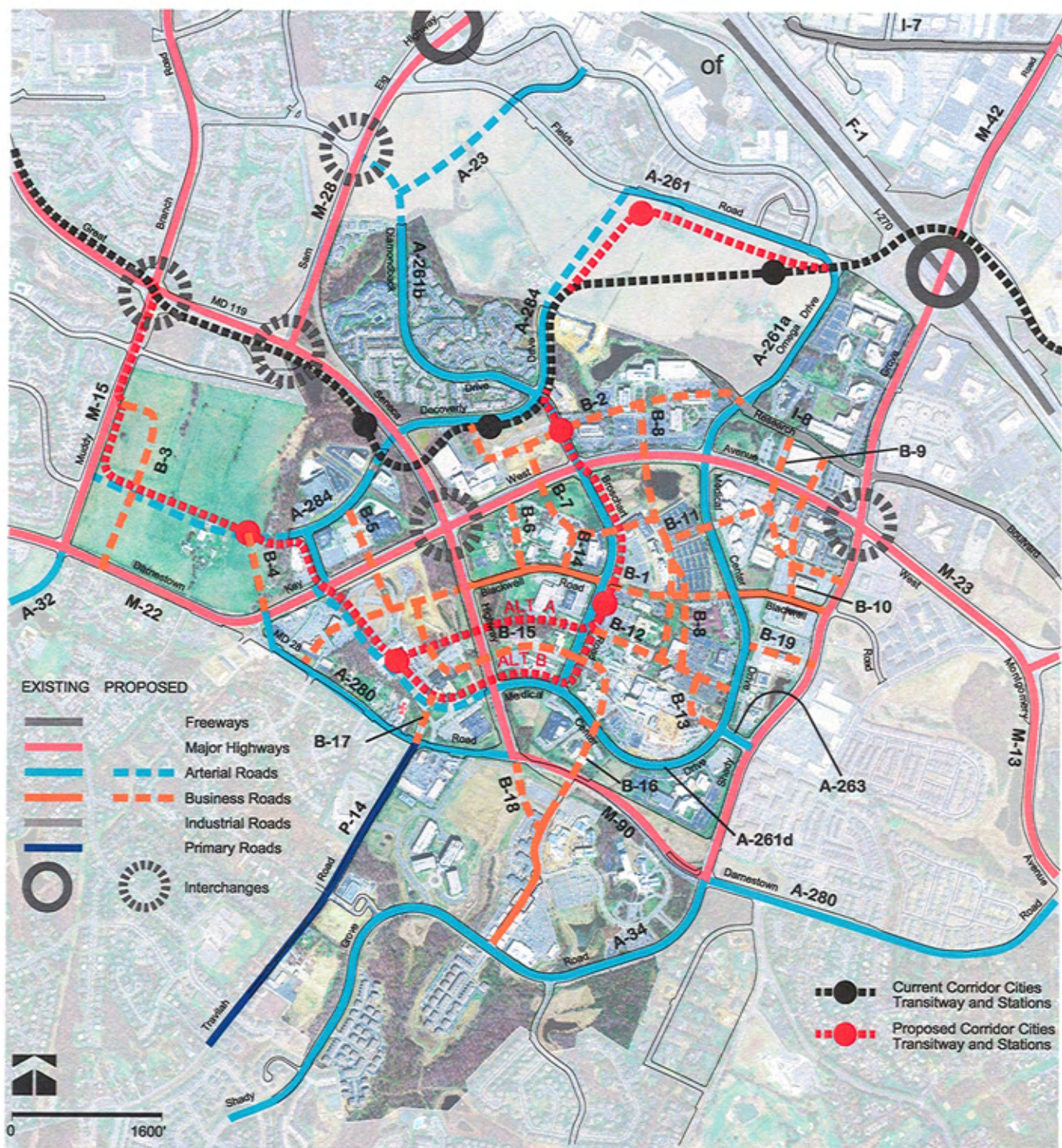
Street System

This Plan recommends a network of major highways, arterial roads, and local streets that provide safe access and help shape the community's character. The Plan includes recommendations for major infrastructure projects to support existing and proposed development based on build-out of the LSC to the proposed maximum zoning capacity. Maximum zoning capacity is not always achieved and some of the street network recommendations may not be necessary. Staging of development and infrastructure provision, particularly the CCT, is addressed in the Implementation section. Revisiting the Plan in six years will assess the pace of build-out and the need for infrastructure delivery.

The proposed local street network will create a finer grid and improve vehicular and pedestrian connections between the districts. Streets and transit tie the districts together. The LSC Loop unifies the pedestrian and bicycle circulation system with sidewalks, bikeways, trails, and paths that provide mobility and recreation options.

The local street network should be built to business district street standards with sidewalks on both sides. Business district streets are two lanes with parking on one side (60-foot right-of-way) or both sides (70- or 100-foot right-of-way) and should include curb extensions at crosswalks to further reduce pedestrian exposure to vehicular traffic. The proposed streets on the LSC Circulation map are intended to show the general locations of new streets, not the actual alignments. Specific alignments of proposed streets will be determined through the regulatory development review process.

LSC: Mobility Network



Recommendations

- Augment the master planned street network to include a grid of business district streets with 60-, 70-, and 100-foot right-of-ways. Master planned streets should be consistent with the design standards in the County Code. Exceptions to this treatment include portions of Key West Avenue and Sam Eig Highway, which will require separate design treatments.
- Design local streets and intersections with pedestrian-friendly characteristics such as minimal corner radii, special crosswalk pavement, wide sidewalks, and street trees.
- Reconstruct Sam Eig Highway as a grade-separated highway within a 250-foot right-of-way with three through lanes in each direction; shoulders suitable for peak-period, peak-direction bus rapid transit (BRT); two-lane, one-way frontage roads connecting to Fields Road and Diamondback Drive; and a flyover ramp from eastbound Great Seneca Highway to northbound Sam Eig Highway.
- Reconstruct Key West Avenue within a 200-foot right-of-way between Great Seneca Highway and Shady Grove Road to provide a consistent design treatment including a wide landscaped median, eight through travel lanes (four in each direction), and a separate curb lane that can serve as a through lane for transit vehicles and a right turn lane for other vehicles during peak periods.
- Construct urban diamond, grade-separated interchanges at three LSC locations: Great Seneca Highway over Muddy Branch Road, Great Seneca Highway over Key West Avenue, and Key West Avenue over Shady Grove Road.
- Remove the grade-separated interchange from the intersection of Shady Grove and Darnestown Roads and from the intersection of Darnestown Road and Wootton Parkway (as recommended in the 1990 *Shady Grove Study Area Master Plan*).
- Develop an LSC bicycle network that facilitates bicycle travel in mixed traffic along local streets. This network should include an interconnected system of shared use paths (Class I bikeways), signed shared roadways/on-road paths (Class III bikeways along local streets), and shared roadways with wide curb lanes or paved shoulders.
- Implement the LSC Local Bikeway network described in the Implementation section.

Transit System

Project planning for the CCT takes into account the potential need to reconfigure existing bus service to avoid duplication and ensure the most efficient allocation of vehicles and personnel. There are currently six Ride On routes from the Shady Grove Metro Station, three of which provide service to the LSC area, including Shady Grove Adventist Hospital and the Trville Transit Center. When the CCT is in place, these routes may need to be adjusted to ensure the most efficient service.

Recommendations

- Realign the CCT with line-haul service between the proposed LSC CCT stations. To reduce delays for transit and vehicles, this realignment may require CCT grade separations at Key West Avenue and Great Seneca Highway.
- Develop express bus service using value-priced lanes from I-270 and the Intercounty Connector (ICC) to serve the LSC.
- Develop shuttle bus routes serving the LSC area.

Travel Demand Management

With development focused in the LSC, the Plan recommends an aggressive non-auto driver mode share goal. The current mode share in the LSC area is roughly 16 percent. The proposed goal of 30 percent

relies on a combination of land use (density, diversity, and design) and zoning requirements, transit improvements (including the CCT), Travel Demand Management (TDM) programs, and staging.

R e c o m m e n d a t i o n s

- Actively manage parking supply and demand and promote shared parking efficiencies, particularly relieving the requirement for smaller properties to self-park. Public/private parking agreements should be encouraged as private properties redevelop and potentially act as a funding source for the CCT.
- Define public garage sites at Preliminary Plan for publicly-owned properties in LSC Central (near Shady Grove Adventist Hospital) and LSC West.
- Establish long-term parking space capacity limits in LSC Central, LSC West, and LSC Belward.
- Establish a 30 percent non-auto driver mode share goal for LSC employees.