



Master Plan Reality Check

2002 POTOMAC SUBREGION PLAN

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Executive Summary

The Montgomery County Planning Department initiated the Master Plan Reality Check project in 2017 as a way to evaluate the extent to which goals in master plans near their horizon dates (20+ years) have been achieved. Specifically, the study analyzes the degree to which selected master plans have realized the vision, densities, land uses, infrastructure, and amenities described in their respective recommendations. The first three plans studied were the *Germantown Master Plan* (1989), the *Friendship Heights Sector Plan* (1998), and the *Fairland Master Plan* (1997). Some more recent plans, such as the *Great Seneca Science Corridor* (2000), *Shady Grove Sector Plan* (2006), *White Flint Sector Plan* (2010), and *Bethesda Downtown Plan* (2015), have included requirements for more frequent monitoring.

This report evaluates the 2002 *Potomac Subregion Master Plan*. The analysis presented in this report is not meant to be a critique of the plan recommendations, but an assessment of the extent to which the recommendations have been met. This study employed both quantitative and qualitative analysis to comprehensively evaluate all parts of the master plan and used a variety of primary and secondary data sources to do so.

The Potomac Subregion plan area in 2002 totaled approximately 66 square miles and was bound by I-270 and I-495 on the east, the Potomac River on the south, Seneca Creek to the west, and Darnestown Road and the City of Rockville to the north. The primary challenges facing the Subregion in 2002 included protecting environmentally sensitive areas, maintaining low-density residential character, and enhancing park, recreational, and transportation links. Thus, the Potomac Master Plan centered on the careful preservation of environmental resources and the strategic development of remaining vacant property. The following are key findings from the master plan reality check analysis.

● Environment

- The primary vision for the Subregion’s environment was to maintain and reaffirm a low-density residential “green wedge.”
- It was successful in doing so by acquiring, by dedication, nine of the 12 recommended parcels as parkland. The acquisitions of the 258-acre Miller & Smith property and 65-acre Tipton tributary property that are now the Serpentine Barrens Conservation Park were particularly noteworthy.
- The 2002 Master Plan recommended conformance with the Water and Sewer Plan service policies to limit the extension of sewer service in areas zoned for low-density development. This restricted sewer extension has been followed, as exemplified by six denials or deferrals of water and sewer category change requests in Glen Hills.

● Land use and zoning

- The master plan’s land-use recommendations focused on strengthening and supporting the Subregion’s low-density residential communities.
- One notable recommendation was to build an additional 750 housing units for elderly residents within the Subregion’s boundaries. Since 2002, an additional 828 senior housing units have been built or approved, exceeding the master plan’s recommendation.
- Based on in-depth analysis of six case study sites, Montgomery Planning staff observed that recommendations for development on greenfield sites were more frequently fully implemented than recommendations for infill development. For instance, while Quarry Springs and Mount Prospect were built on vacant land and closely resemble the master plan vision, Potomac Village and Darnestown Village were already existing centers and have witnessed little to no change since 2002.
- As emphasized in the master plan, there has been more residential development than commercial development. An example of this is the Park Potomac development, where dwelling units (that exceed the limit set by the master plan) have been approved on a parcel originally designated as office use in the preliminary plan.

● **Transportation**

- The plan proposed maintaining a transportation network that provided needed links and alternatives, while preserving the subregion's semi-rural character.
- Recommendations to preserve the subregion's semi-rural character have been met through the maintenance of the two-road policy and the designation of nine additional rustic roads.
- Transit recommendations that were met included the construction of two multi-modal transit centers and the new Route 301 bus route to Tobytown.
- As recommended in the master plan, 11 bikeway routes were added to the Bicycle Master Plan that was approved on November 27, 2018. However, to date, none of these routes have been fully constructed.

● **Community facilities**

- The plan set out a vision to establish and expand community facilities, such as parks, trails, and community centers, to provide needed services and foster a sense of community.
- Many of the community facility recommendations were met, as seen by the newly constructed Nancy H. Dacek North Potomac Community Recreation Center and the significant renovation of the Bette Carol Thompson Scotland Neighborhood Recreation Center.
- The master plan placed more emphasis on repurposing surplus school sites as parks than on building new sites. However, as schools have become overcrowded during the past 20 years, no sites have been declared as surplus or converted to parks since 2002.

Regarding broader implications for master planning, this study echoed the findings from the first three studies:

- **Importance of data documentation.** Planners should preserve data used at the time of master plan analysis for documentation of baseline assumptions.
- **Greater understanding of economic conditions.** More detailed market analysis should be conducted as part of a master plan to provide more quantitative data on baseline conditions and support for recommendations.
- **Acknowledgment of flexibility.** Plans reflect the time and place in which they are completed as well as the unique plan area characteristics, and this should be considered during the evaluation process.
- **Prioritization of monitoring.** Performing a master plan reality check before the horizon date can be useful to determine whether incentives or other interventions should be considered to stimulate development.

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SECTION 1

PURPOSE OF THIS STUDY



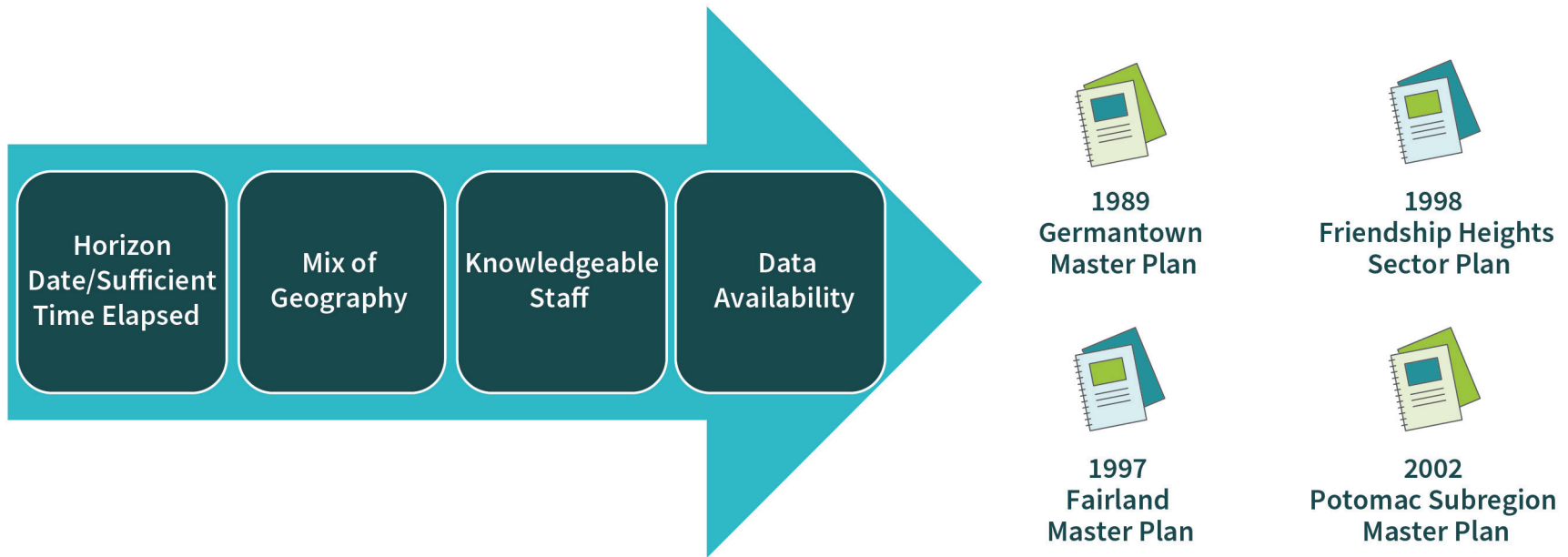
The master planning process has long sought ways in which to evaluate the implementation of a master plan. The Master Plan Reality Check project serves as one way to do this. This project analyzes the degree to which select master plans have realized the vision, densities, land uses, infrastructure, and amenities described in their respective recommendations. By assessing the difference between a plan's aspirations and the on-the-ground reality among a broad set of planning indicators, the study sheds light on why some plan aspects materialize as envisioned and others do not. The results of this project can influence the direction of future planning and monitoring efforts in Montgomery County.

This report examines the 2002 *Potomac Subregion Master Plan* and provides an in-depth evaluation of the implementation of the recommendations set out in the plan. It is not meant to be a critique of the plan recommendations, but an assessment of the extent to which the recommendations have been met. Planning staff chose this plan based on a set of criteria that included a significant plan horizon date, a mix of geographical contexts, the presence of institutional knowledge, and the availability of data.

Planners used these same criteria when initiating the project in 2017 with three master plans: the 1989 *Germantown Master Plan*, the 1998 *Friendship Heights Sector Plan*, and the 1997 *Fairland Master Plan*. All three of these plans were at least 20 years old. They differed in geography, plan focus and vision, and market conditions. The planning elements analyzed fell into six categories: non-residential development, residential development, community facilities, urban design, transportation, and the environment. Using quantitative analysis comparing the plans' projected goals with the current figures and incorporating baseline data when available, the reality check assessment tested whether traditional assumptions of the master planning process should be modified.¹

1. See *Master Plan Reality Check Key Findings from Analysis of Plans for Germantown, Fairland, and Friendship Heights* (https://montgomeryplanning.org/wp-content/uploads/2017/06/RealityCheck_ConsolidatedFinal_20170504_PB.pdf) for key findings from the analysis of these three plans.

Figure 1: Selection criteria for plans studied in the Master Plan Reality Check



In 2019, the Master Plan Check-Up Project was developed as a continuation of this study. Employing lessons from the Master Plan Reality Check, planners analyzed an additional six master plans that have been drafted since 2010. What resulted was a group of high-level indicators that could be used consistently to measure implementation across plans.² Other recent efforts by Montgomery County planners have included individual master plan monitoring devices for the *Great Seneca Science Corridor (2000)*, *Shady Grove Sector Plan (2006)*, *White Flint Sector Plan (2010)*, and *Bethesda Downtown Plan (2015)*.

Plan evaluations are important, but they are often omitted from regular planning practices. The Montgomery County Planning Department is committed to learning from past experiences and applying lessons learned to improve future projects. The department’s Research and Strategic Projects Division, and its availability of high-quality resources, creates a conducive environment for such evaluations. This report comprehensively documents the process, analysis, and findings from a reality check of the 2002 *Potomac Subregion Master Plan* and serves as an example for future monitoring efforts of this scale.

2. These high-level indicators included Residential Development (number of units, number of MPDUs), Non-Residential Development (square footage numbers, non-residential construction building permits since plan adoption), Community Facilities (school count, new park acreage), and Transportation (average CLV intersection count).



SECTION 2

METHODOLOGY AND REPORT STRUCTURE

Methodology

This study employed quantitative and qualitative analysis to comprehensively evaluate all parts of the 2002 Potomac Subregion Master Plan. Given the range of recommendations—from specific senior housing targets to broader air quality goals—it was necessary to collect information from various sources and adopt multiple methodological approaches. Based on this analysis, this report aims to present the story of the Potomac Subregion over the past 20 years through the lens of its master plan, underscoring which areas have been most successfully implemented and offering takeaways for future master planning.

Planning staff began the reality check process with a detailed reading of the master plan to document the 2002 baseline conditions and compile the cited recommendations. If measurable, staff identified relevant indicators and data sources, both quantitative and qualitative. Staff primarily used ArcGIS Pro to conduct the quantitative analysis and built and preserved an extensive repository of spatial data here. Staff used preliminary plans and site plans to complement the available spatial data. Discussions with other Planning Department and county staff were vital in gathering specialized data on sector-specific recommendations. The planning team interviewed individuals who were involved in the creation and implementation of the master plan to provide further context about the Subregion and gain insights into the master planning process. Staff also conducted a site visit to Potomac to evaluate the more qualitative recommendations on land-use design proposed in the plan. Table 1 outlines the data sources used in this study.

Table 1: Data Sources

DATA SOURCE	DETAILS
GIS Layer Files	Maryland State Department of Assessments & Taxation (SDAT) parcels, transportation, places of interest, forests, easements, housing, development plans (pipeline, site, preliminary), trails, parks, etc.
Preliminary and site plans	Approved staff reports
Master planning documents	Plan archives, related plans and reports for background and context
Planning Department	Lead planners on the Potomac Master Plan, other master planners specializing in transportation, environment, etc.
Other county departments	Parks Department, Housing and Community Affairs (DHCA)
Montgomery County residents	Interviews with relevant citizens involved in the creation and implementation of the Master Plan
Site visit	Evaluation of qualitative recommendations on land use and design guidelines proposed in the Master Plan

Report Structure

This document provides a comprehensive evaluation of the recommendations outlined in the 2002 *Potomac Subregion Master Plan*. It offers a broad understanding of each metric through a high-level scoring system, while also providing additional details for deeper context. The report follows the organizational structure of the master plan beginning with the Environment section, then Land Use and Zoning, Transportation, and lastly Community Facilities. As previously mentioned, the intent of this evaluation is not to label each recommendation as “good” or “bad,” nor to provide comment on the nature of the plan itself, but rather to assess the extent to which the approved recommendations have been met.




Each chapter of the subsequent “The Reality Check” section opens with the overall vision for that topic as presented in the master plan. The subsections follow a standardized format:

1. The existing conditions in 2002
2. A text box with the specific recommendations from the master plan and their evaluation status

3. Maps and/or images comparing the 2002 conditions with the 2023 conditions (or most recent date for which data is available). Maps/images of 2002 conditions are sourced directly from the original master plan, while maps/images of today’s conditions are sourced from current Montgomery Planning data.
4. The current conditions in 2023 (or most recent date for which data is available).
5. Further details and supplementary information to complete the overall narrative of the subsection.

As scoring was not feasible for every metric, some sections do not employ this coding system. For example, some of the sites for the six case studies evaluated in the Land Use and Zoning chapter are in their development phase, so it was not valuable to assign a score to their implementation status. Yet, a comparison between the plan’s projection and today’s reality is still presented.

Table 2: Evaluation Criteria for Plan Recommendations

EVALUATION STATUS	EVALUATION CRITERIA
 Recommendation met	All or nearly all components of the recommendation have been implemented. The change seen between 2002 and 2023 is completely in line with the stated recommendation.
 Recommendation partially met	Some component(s) of the recommendation has/have been implemented. The change seen between 2002 and 2023 is somewhat in line with the stated recommendation.
 Recommendation not met	No component of the recommendation has been implemented. There has been no change since 2002 with regards to the stated recommendation.
Recommendation could not be evaluated	Elements of the recommendation are no longer applicable or relevant today, or the event mentioned in the recommendation did not take place.



SECTION 3

THE REALITY CHECK

The 2002 Potomac Subregion Master Plan

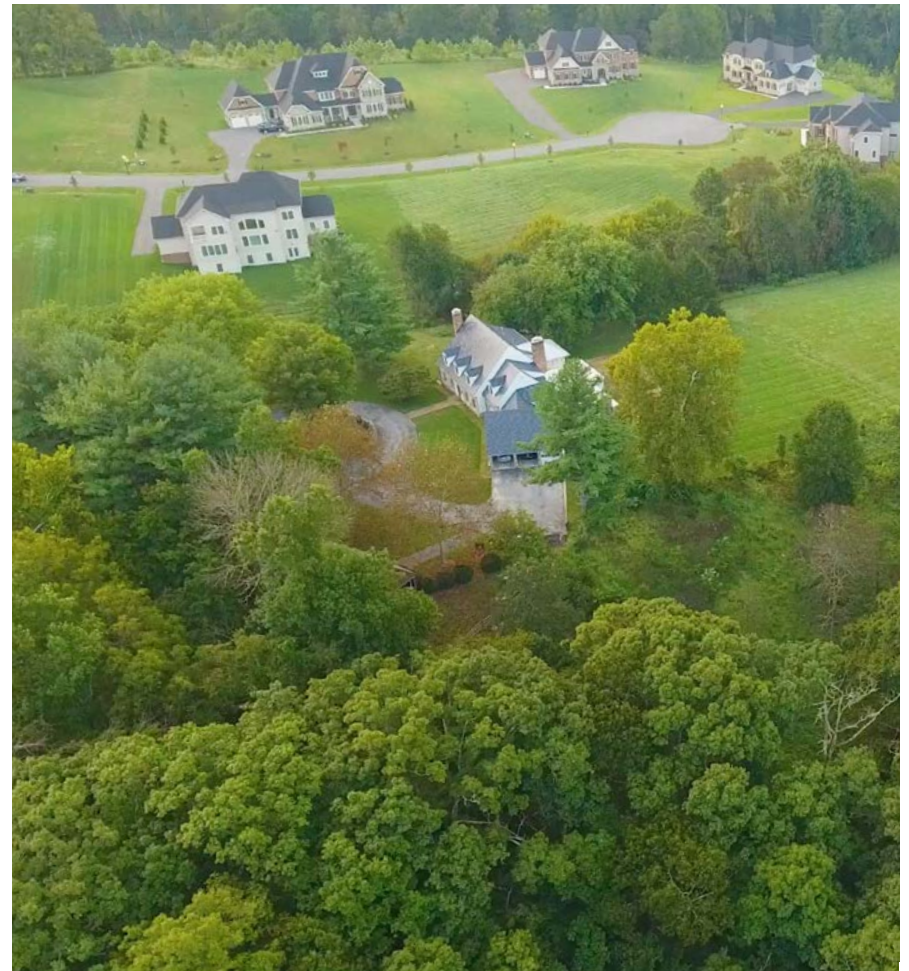
The Potomac Subregion derives its name from the Potomac River that flows along its southern and western boundaries. The Subregion consists of three communities—Potomac, Travilah, and Darnestown—totaling an area of approximately 66 square miles bounded by I-270 and I-495 on the east, the Potomac River on the south, Seneca Creek to the west, and Darnestown Road and the City of Rockville to the north (see [Figure 2](#)).

The first area master plan for the Potomac-Travilah and Vicinity Planning Area was adopted in 1967. It intended to serve regional and county needs for open space and low-density development and recommended several stream valley parks to preserve the area’s rural-residential character. The current Potomac Subregion plan was adopted in 1980 and has since been amended six times. The Environmental Resources Plan, a study conducted prior to the master plan, addressed the subregion’s 100-year floodplains, streams and their buffer areas, habitats of threatened and endangered species, and steep slopes.

As described in the General Plan for Montgomery County, *On Wedges and Corridors General* (1964), the Potomac Subregion was composed of suburban and residential communities. The suburban area was described as single-family subdivisions built on quarter- and half-acre lots with few employment opportunities that were separated from other neighborhoods, transit, and services. The residential wedge was characterized by predominantly two- and five-acre residential areas with occasional small-scale commercial uses serving the local community. The challenges facing both the suburban and residential communities included protecting environmentally sensitive areas, maintaining low-density residential character, and enhancing park, recreational, and transportation links.

Considering these challenges, the 2002 *Potomac Subregion Master Plan* centered around environmental principles to implement the plan’s vision of the subregion as a “green wedge.” As such, the environmental section emphasized protecting the area’s rich natural and unique ecosystems through preserving stream valley parks and forest areas.

The land-use recommendations suggested relying on the framework established by earlier plans to strengthen and support the subregion’s low-density residential communities. The plan proposed maintaining a transportation network that provided needed links and alternatives, while preserving the subregion’s semi-rural character through the two-lane policy and rustic road program. The plan set out a vision to establish and expand community facilities, such as parks, trails, and community centers, to provide needed services and foster a sense of community.



Environment

As outlined in the Master Plan, the primary vision for the Subregion's environment was to maintain and reaffirm a low-density residential "green wedge." The plan noted that one of the primary challenges of the Subregion was to maintain environmental integrity considering development trends. The Subregion's natural resources, including forests, floodplains, wetlands, and stream valleys, benefited the entire region and their protection was critical. The environmental resources chapter comes first in the plan, demonstrating that these recommendations are of considerable importance, and many have been fully or partially met.

FOREST RESOURCES

According to the master plan, in 2002, almost one quarter of the Potomac Subregion was forested. It had an estimated 11,000 acres of forest.

As of 2023, there were 13,573 acres of forest land, which was an increase of over 2,500 acres since 2002. A comparison of [Figure 3](#) and [Figure 4](#) shows that the majority of the existing forest from 2002 has remained intact in 2023. Specific parcels that were recommended to be preserved will be examined in the Watersheds and Stream Valleys section. The mature, high-quality deciduous forest on the southwest corner of the Fortune Parc site (now called Park Potomac) and on the steep slopes along Seven Locks Road have been preserved, as noted in [Figure 38](#) and Table 18 of the Land Use and Zoning section of the report.

Plan Recommendations:

1. Preserve priority reforestation areas. These areas were primarily within stream valleys, but connections between forest tracts were also recommended to be preserved.

📌 Recommendation partially met

2. Preserve properties containing forested areas to prevent fragmentation or to maintain stream valley buffers. This could be accomplished under the zoning existing in 2002, which allowed clustering of homes away from sensitive areas.

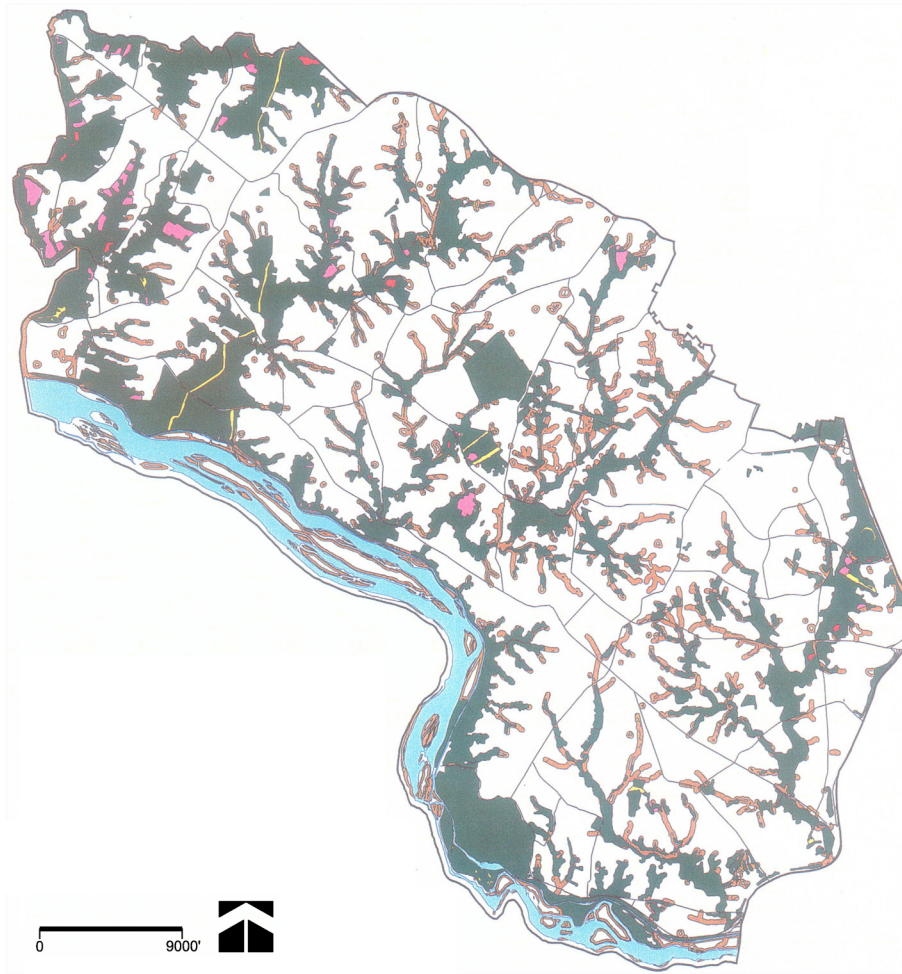
📌 Recommendation partially met

3. Preserve mature, high-quality deciduous forest on the southwest corner of the Fortune Parc site and on the steep slopes along Seven Locks Road.

✅ Recommendation met



Figure 3: Forest Parcels Recommended to be Restored in the Potomac Subregion (2002)



- Potomac Subregion Boundary
- Major roads
- Existing forest
- Forest Restoration Categories**
- Restoration Category 1 --Unforested environmental buffers
- Restoration Category 2
- Restoration Category 3
- Restoration Category 4

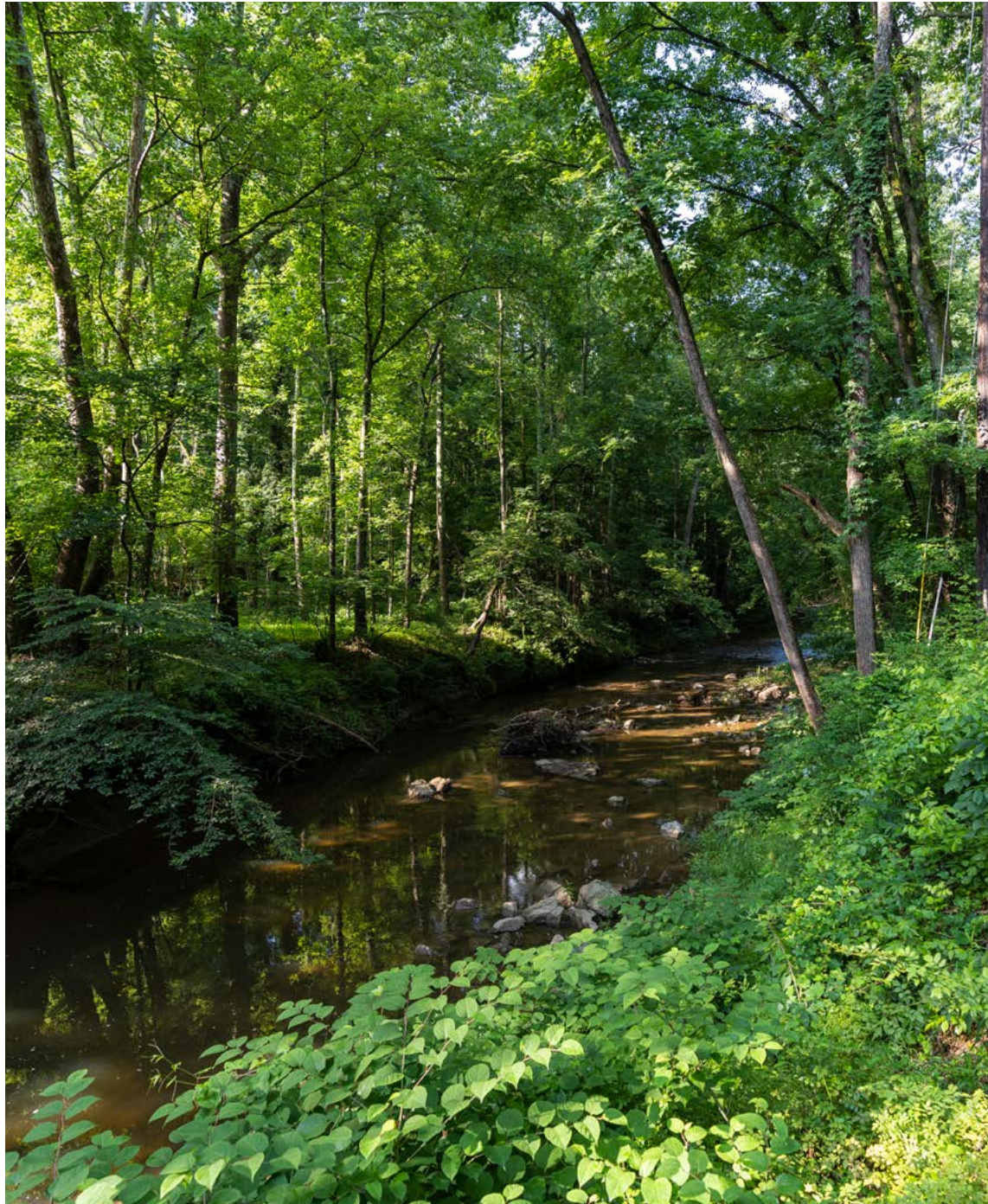
Source: Potomac Subregion Master Plan, 2002

Figure 4: Forest Cover in Potomac Subregion (2023)



- Potomac Subregion Boundary
- Forest Cover in 2023
- Potomac River

Source: Montgomery Planning, 2023



WATER AND WETLAND RESOURCES

The 2002 plan emphasized that it was critical to protect the Subregion’s water resources, which included several healthy aquatic ecosystems in the area and the Watts Branch, which drains to the Potomac River upstream of the WSSC Potomac Water Filtration Plant, directly affecting raw water quality. Over the decades, several County, statewide, and local initiatives have addressed water resource issues throughout the Subregion.

According to the 2002 plan, there were about 8,000 acres of wetlands in the Subregion, mostly associated with the Potomac River and its tributary floodplains³. These included the Great Falls floodplain, the Great Falls National Heritage Area, and the Violettes Lock floodplain. Though many of the wetlands have been protected by their location within parkland, those in developed areas of the Subregion have been adversely affected by streambank erosion, tree loss, and sedimentation, impacting stream water quality. Planners were unable to conduct a similar calculation for wetland acreage in 2023 due to the lack of access to the same data sources used in 2002.

3. These data were sourced from National Wetlands Inventory (NWI) wetlands maps, Department of Natural Resources (DNR) wetlands guidance maps, M-NCPPC planimetric GIS coverage of streams, riparian areas within 15 feet of a stream, and hydric soils from the 1995 Soil Survey of Montgomery County.

The following are general recommendations presented in the Plan for protecting these water and wetland resources.

Plan Recommendations:

1. Protect the function and value of stream buffers by placing storm water management and sediment and erosion control measures outside the stream buffer areas.

Recommendation met

The Department of Permitting Services no longer allows forest clearing in buffers for stormwater management.

2. Maintain and protect existing stream buffer forest and supplement the existing riparian forest by replanting any unforested buffer.

Recommendation met

This is a requirement that is implemented during the development review process.

3. Support efforts to provide more stringent County inspection programs for development sites and inspection and maintenance programs for storm water management facilities.

Recommendation met

Covered under the Forest Conservation Inspection program, with easement areas inspected and enforced by the Department of Environmental Protection.

4. Support efforts to identify and implement storm water management and stream restoration projects in a timely manner to improve water quality and aquatic habitat in streams exhibiting deteriorating conditions.

Recommendation met

Covered under the Forest Conservation Inspection program, with easement areas inspected and enforced by the Department of Environmental Protection.

5. Encourage development clustering to protect environmentally sensitive areas. If applicable, development sites should provide forested stream buffers and open space to protect natural resources.

Recommendation met

Implemented by the environmental guidelines for development during the development process.

6. Incorporate site design features to preserve the acreage and functions of existing priority wetlands if redevelopment of private golf courses is proposed.

Recommendation met

Under the Final Forest Conservation Plan Amendment No. CBA-1206, the Congressional Country Club got approval to construct a Performance Center, modify the Arrival Area of the Clubhouse, and do stream stabilization work.

PUBLIC WATER SUPPLY

The Washington Suburban Sanitary Commission (WSSC) provides community water service to the master plan area primarily from its Potomac Water Filtration Plant. In 2002, before the plan was adopted, WSSC conducted a study to evaluate possible efficiency improvements for the Potomac Plant. The plan noted that a reservoir could address some of the region’s water quality and quantity issues and serve as an attractive community amenity. A study evaluating what is now called Travilah Quarry for water supply storage was conducted in 2014 by the Black & Veatch engineering firm and commissioned by the Interstate Commission on the Potomac River Basin (ICPRB). President Biden has subsequently approved this quarry to be a location for a backup reservoir to combat the drinking water supply challenge in the Washington, D.C. region.

Plan Recommendation:

Evaluate the feasibility of the Rockville Crushed Stone Quarry as a long-term regional reservoir. It is anticipated that its reserves will continue to be mined beyond the life and projections of the master plan. In the very long term, it offers the potential of a reservoir after mining operations cease.

 **Recommendation met**

WATERSHEDS AND STREAM VALLEYS

Rock Run is the only watershed entirely contained within the Subregion. The headwaters of both Muddy Branch and Watts Branch are located north and east of the Subregion, although substantial portions of the watersheds are within it. The watershed of Cabin John Creek also extends outside the Subregion. The Seneca Creek watershed is much more extensive than the others, and only the Lower Seneca portion is within the Subregion. Each one is very important to the Subregion, and specific land-use recommendations have been made to preserve their sustainability.

Plan Recommendations:

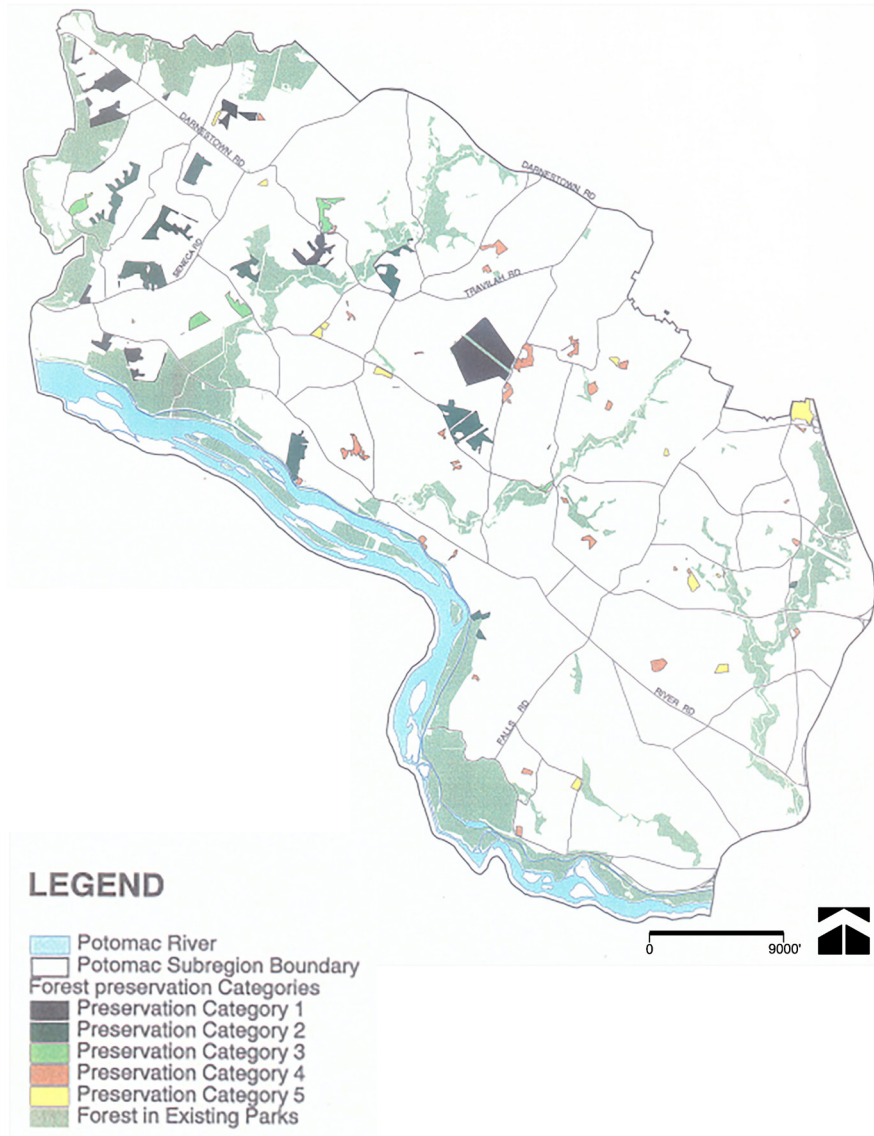
Acquire by dedication 12 parcels of land identified as parkland, or obtain conservation easements when acquisition or dedication is not possible.

 **Recommendation partially met**

Figure 5 shows forest parcels recommended to be preserved in the Potomac Subregion, classified by preservation category, with category 1 as the highest priority and category 5 as the lowest priority. In addition, the plan identified 12 specific parcels of land throughout the Subregion to be acquired by dedication. These 12 parcels and their acquisition status are displayed in Figure 6.

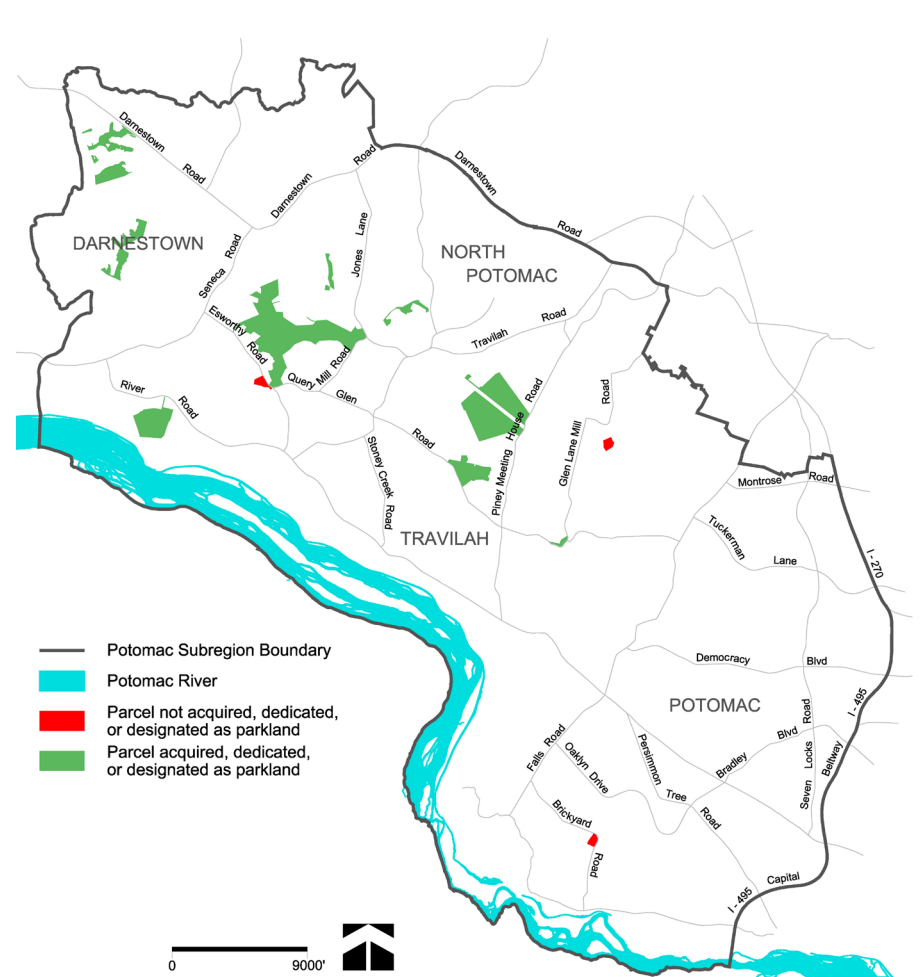
As of 2023, nine of the 12 recommended parcels of land have been acquired by dedication as conservation park land or have been conserved through easements. The remaining three parcels have not been formally protected. The most notable acquisitions include the Miller & Smith property (258 acres), a Preservation Category 1 parcel that is now the Serpentine Barrens Conservation Park. An additional 65 acres of the Tipton tributary properties (Preservation Category 2) were acquired by dedication as conservation parkland to form the South Unit of the Serpentine Barrens Conservation Park. These sites comprise one of the few remaining serpentine barren ecosystems in the County and State; therefore, this large acquisition preserves rare and unusual ecosystems in a natural, viable, and sustainable manner. The recommended parcels that have yet to be acquired are shown in red in Figure 6. They are a surplus school site on Brickyard Road, a vacant school site along the mainstream of Piney Branch, and a single-family detached property surrounded by the Muddy Branch SVP. As noted in the “Schools” section of the report, it is unlikely that the first two of these sites will be acquired by parks given a shift in the dialogue around schools since 2002.

Figure 5: Forest Parcels Recommended to be Preserved in the Potomac Subregion (2002)



Source: Potomac Subregion Master Plan, 2002

Figure 6: Parcels Recommended to be Acquired as Parkland in Potomac Subregion (2023)



Source: Montgomery Planning, 2023



SEWER SERVICE

A critical policy related to water quality is the provision of community sewer service. Providing community sewer service to relieve failed septic systems minimizes groundwater contamination. However, the provision of community sewer service can damage the environment and water resources by facilitating development to the maximum zoning density. Generally, the County’s water and sewer policies allow the provision of sewer service only to those areas zoned for moderate to dense development (i.e., greater than or equal to one unit per 20,000 square feet). However, at the recommendation of the 1980 *Potomac Subregion Master Plan*, sewer service was provided to some areas zoned for one- and two-acre lots, creating both a policy dilemma and, in some cases, environmental damage. One of the greatest challenges facing the Potomac Subregion and the 2002 master plan was to develop compatible land use and sewer service recommendations that protect the Subregion’s environmental quality.

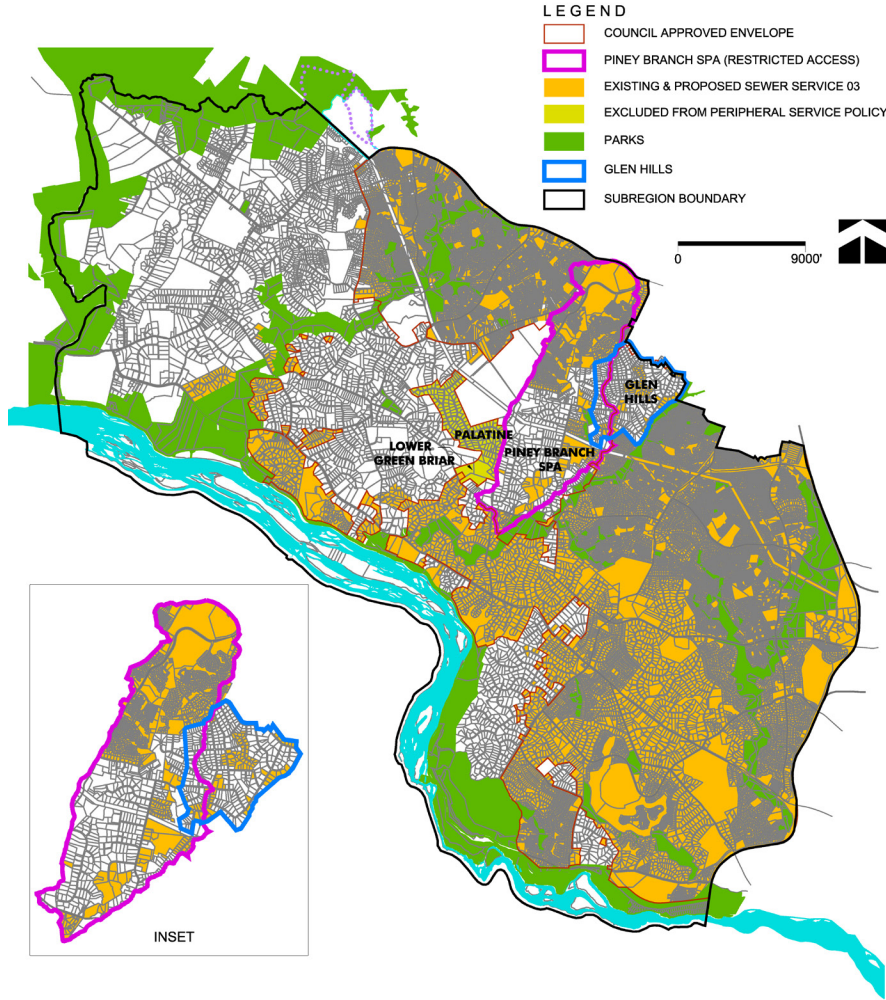
Figure 7 shows the Potomac Sewer Service Envelope from the 2002 master plan. The council-approved envelope is outlined in red, the Piney Branch Special Protection Area in pink, and Glen Hills in blue. The orange areas represent the existing and proposed sewer service. A comparable visual is presented in Figure 8, showing the sewer lines of 2023 along with the areas of restriction – Piney Branch Subwatershed in pink, Glen Hills in dark blue, and Darnestown Triangle in dark red.

Plan Recommendations:

Provide community sewer service in the Subregion generally in conformance with Water and Sewer Plan service policies. This would generally exclude areas zoned for low-density development that are not already approved for service from further extension of community service. In addition, allow for the limited provision of community sewer service for areas zoned RE-1 and RE-2 within and at the periphery of the proposed sewer service envelope.

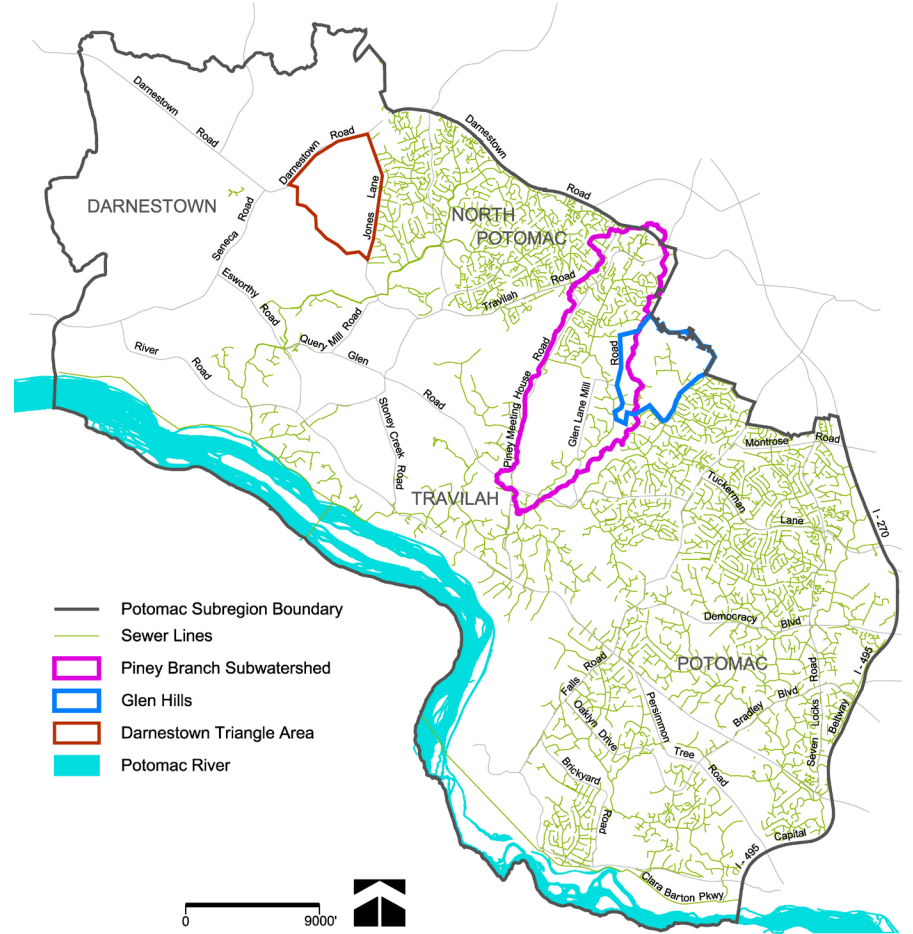
Recommendation met

Figure 7: Potomac Sewer Service Envelope (2002)



Source: Potomac Subregion Master Plan, 2002

Figure 8: Sewer Lines and Exceptional Sewer Service Policy Areas (2023)



Source: Montgomery Planning, 2023

Table 3: Area-Specific Sewer Service Recommendations

AREA	PLAN RECOMMENDATION IN 2002	STATUS IN 2023	
Glen Hills	Based on the results of a Glen Hills study, develop a policy outlining the measures needed to ensure the long-term sustainability of septic service for new home construction and existing home renovations, minimizing the need for future sewer service extensions. Under this policy, the sole basis for providing new sewer service would be well-documented septic failures where extension could be provided, consistent with results of the study and in a logical, economical, and environmentally acceptable manner. Until a policy is developed, restrict further sewer service extensions in Glen Hills to properties with documented public health problems resulting from septic system failures.	A study of Glen Hills was completed in 2013. ⁴ The 2017 Water and Sewer Plan update removes the Glen Hills area from exclusion, except for those properties at the periphery of the planned sewer envelope within the Piney Branch Watershed.	<input checked="" type="checkbox"/>
Piney Branch Subwatershed	<p>Confirm the existing restricted access sewer policy in the Comprehensive Water Supply and Sewerage Systems Plan for the subwatershed, with three exceptions:</p> <ol style="list-style-type: none"> 1. Amend Piney Branch Restricted Access Policy to allow single-home sewer hookups in the Piney Branch subwatershed for existing lots that abut and predate an existing sewer main. This exception is for single houses only and shall not be used to allow multiple sewer hookups for subdivision/resubdivision of existing properties. 2. Provide sewer to former sewer Stage I and II properties that were not TDR receiving areas and therefore not generally eligible for community sewer service. These properties are now enclaves in the existing sewer envelope among the moderate- and high-density development in northern Piney Branch. 3. Provide public sewer service in the RE-2C Zone for a cluster development at the southeast quadrant of Boswell Lane and Piney Meetinghouse Road. 	All amendments have been executed.	<input checked="" type="checkbox"/>
Darnestown Triangle	Public sewer service should not be extended to the Darnestown Triangle area except as is technically and economically feasible to relieve any public health threat due to failing septic systems.	Sewer extension has been restricted here (see Figure 8).	<input checked="" type="checkbox"/>
Hanson Farms	Provide community sewer service on the Hanson Farms only if development is clustered away from environmentally sensitive features and if an emphasis is placed on minimizing wetland disturbance caused by sewer main construction.	Public water and sewer will serve the site. The development went from two sewer connections on the approved development plan to one sewer connection to minimize environmental impacts and tree disturbances.	<input checked="" type="checkbox"/>

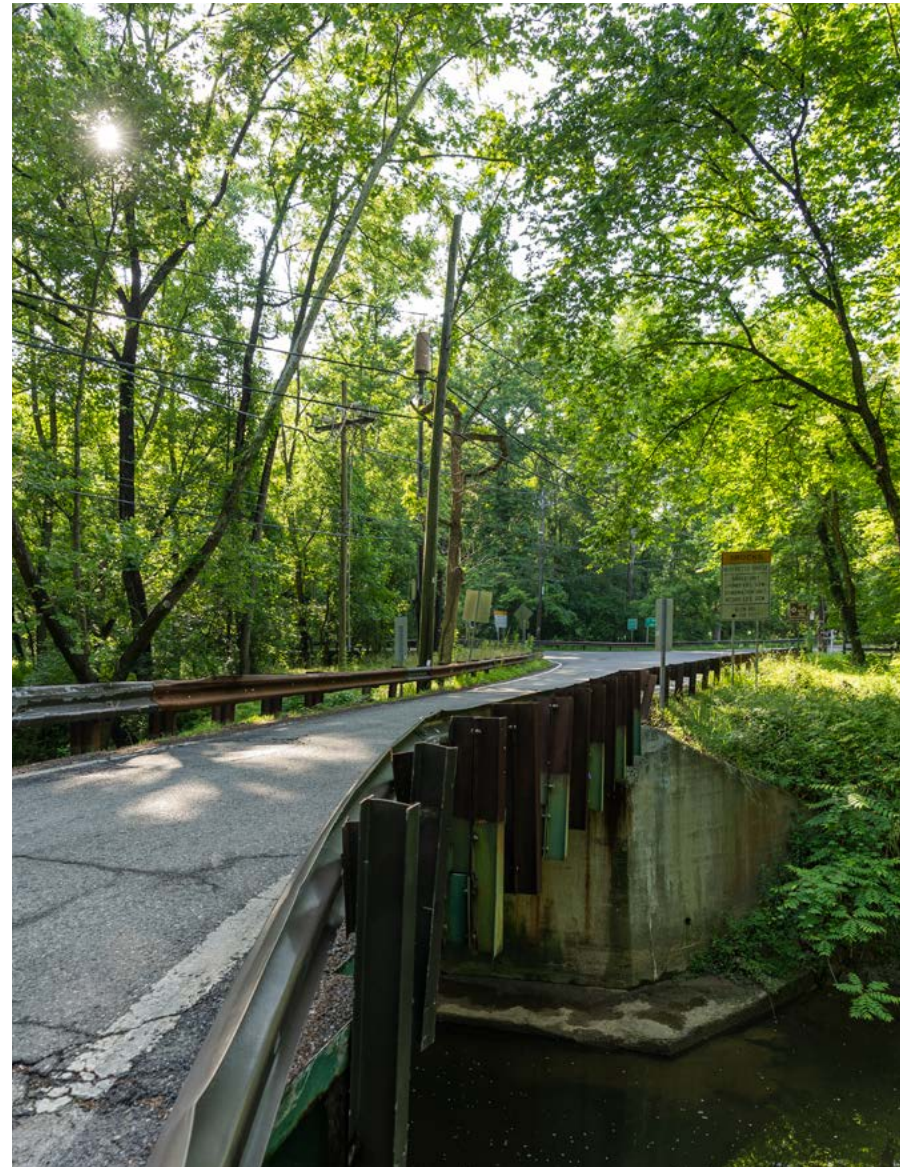
4. See <https://www.montgomerycountymd.gov/water/supply/glen-hills.html> for further details on the Glen Hills Area Sanitary Study.

In March 2023, the County Council denied or deferred six water and sewer category change requests in Glen Hills based on the 2002 Potomac Subregion Master Plan's exclusion of Glen Hills from the peripheral sewer service policy recommended in the plan. These denials are in line with the overall vision to limit sewer extension to the recommended sewer envelope. The three deferred cases were awaiting state approval of a clarification in the 2022-2031 *Ten-Year Comprehensive Water Supply and Sewerage Systems Plan* regarding where the peripheral sewer policy applied for properties adjacent to the City of Rockville's sewer envelope versus the WSSC-served sewer envelope outlined in the 2002 Potomac plan. The state agreed that properties adjacent to Rockville's sewer envelope were not eligible for service under the peripheral sewer service policy.

The three deferred cases and five new Glen Hills cases were included in category change requests considered by the Council in April 2023. One of these eight cases was found to meet the requirements of the peripheral sewer service policy, but six others were not, and therefore were denied public sewer service per existing county policies and the recommendations of the 2002 Potomac plan. The other case was deferred to determine if a former gas transmission line right-of-way prevents application of the peripheral sewer service policy.

During their deliberations on the category change requests, the Planning Board raised concerns with the current policies, which require a documented failure before public service can be considered. Property owners must exhaust all other possible solutions before receiving proper failure documentation, sometimes at great expense and great inconvenience. Some property owners may even receive approval of connecting to the public sewer system, but the costs of extending the necessary sewer lines is cost-prohibitive for an individual property owner. The Planning Board suggested that it may be time to reconsider the idea of a limited master plan amendment to the 2002 *Potomac Subregion Master Plan* or to consider other possible solutions to more proactively address the potential public health impacts of failing or potentially failing septic systems. One suggested alternative solution is to revisit the Water and Sewer Plan's Health Area Survey Policy, which requires at least one documented septic failure for the study to move

forward. The County Council agreed with the concerns of the Planning Board and are supportive of either a limited master plan amendment or reconsideration of Water and Sewer Plan policies that would lead to a long-term solution to the current problems.



Land Use and Zoning

RESIDENTIAL DEVELOPMENT

Dwelling Units

Plan Forecast:

The plan anticipated that Potomac’s rate of growth would drop during the following 20 years. As reported by the plan, the number of existing dwelling units in 1999 was 26,327, and the number of dwelling units forecast in the plan for 2020 was approximately 32,000.

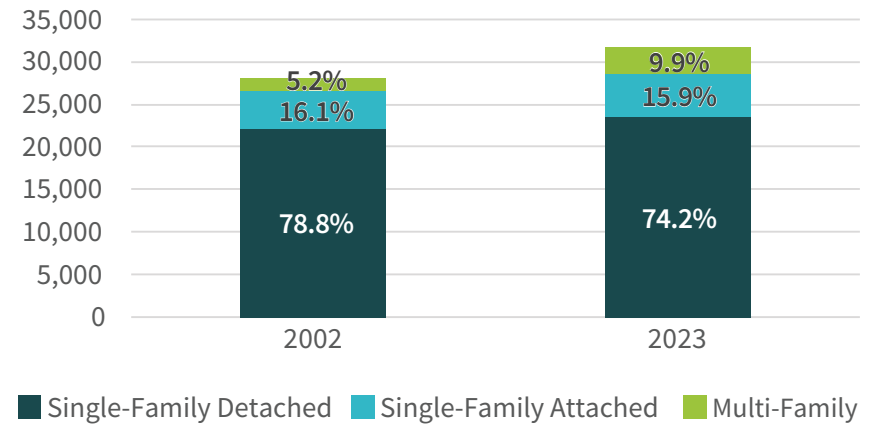
✓ **Forecast met 31,720 units**

According to the master plan, in 1999, there were 26,327 dwelling units in the Subregion. This increased to 28,056 dwelling units at the time the plan was completed in 2002. By 2020, there were 31,079 dwelling units in the Subregion, an increase of 3,664 units or 10.8% over nearly 20 years. This small amount of development is in line with the plan’s anticipation of a decline in Potomac’s growth rate and speaks to the low desire for further development in this area. While the 32,000 dwelling unit target for 2020 was nearly met, this plan forecast has been fully met as of 2023, with 31,720 dwelling units in the Subregion.

A further breakdown of these dwelling units is shown in [Figure 9](#). Between 2002 and 2023, there was a slight decrease in the share of single-family detached units, from 79% in 2002 to 74% today. During this time, there was a doubling in the share of multi-family units in the Subregion from 5% to 10%. The share of single-family attached units stayed approximately the same over the past two decades.

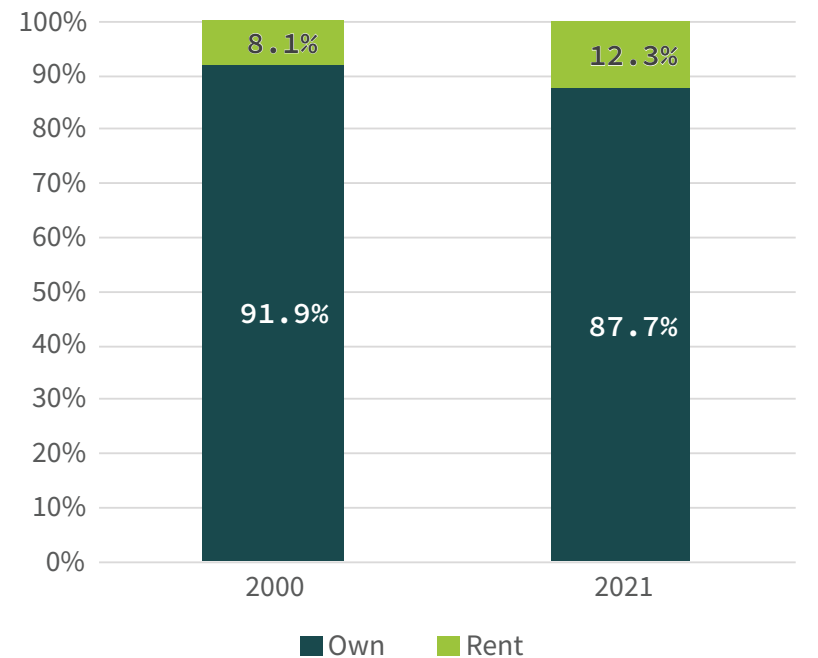
Unsurprisingly, the Subregion has remained primarily owner-occupied since the time of the master plan. Although the share of renter-occupied housing has increased slightly from 8% to 12% over the past 20 years, home ownership continues to predominate (see [Figure 10](#)). This is strongly linked to the landscape of single-family detached housing in the Subregion.

Figure 9: Residential Units in Potomac Subregion (2002 & 2023)



Source: Maryland State Department of Assessments and Taxation (SDAT), 2023

Figure 10: Housing Tenure in Potomac Subregion (2000 & 2021)



Source: Decennial Census, 2000; American Community Survey (ACS) 5-Year Estimates, 2021



Senior Housing

The master plan identified a senior housing shortage of 450 units, accounting for the existing and approved communities at the time. According to the master plan, in 2002, there were 326 existing senior housing units and 378 units approved or pending approval (see [Figure 11](#)).

Plan Recommendation:

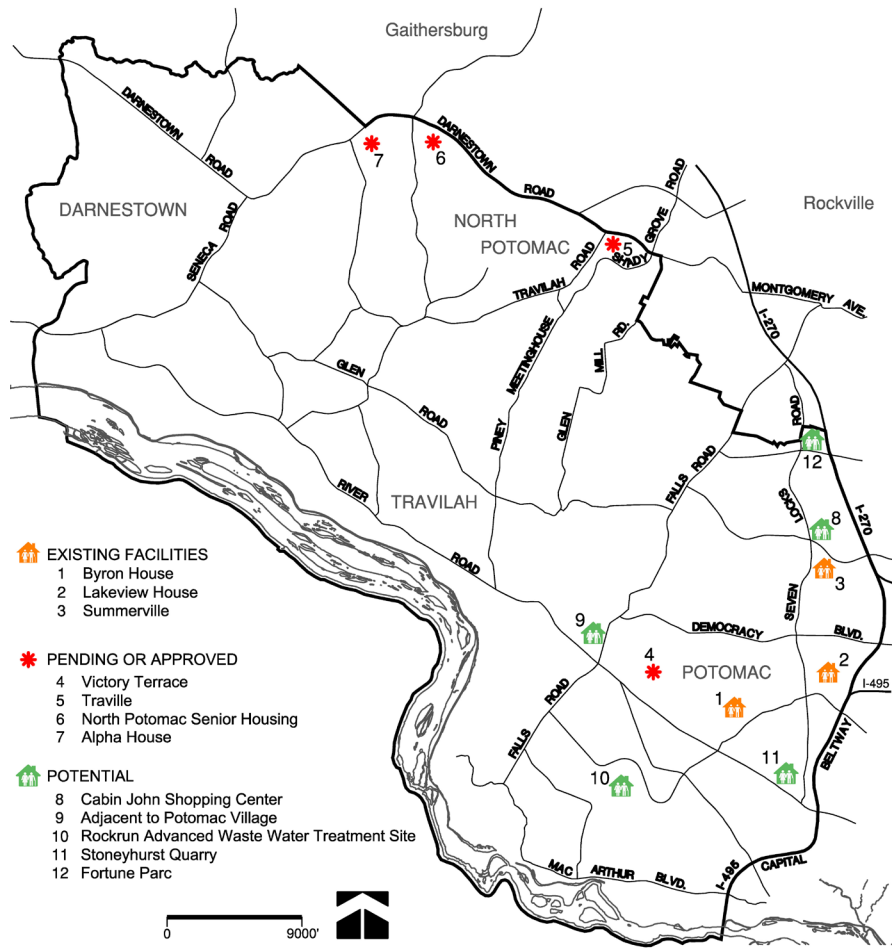
To accommodate the growth in the older population, build an additional 750 units of senior housing during the subsequent 20 years within the Subregion's boundaries. This number is in addition to those already existing or approved in 2002.

Recommendation met

Excluding those mentioned in the master plan, 567 units have been constructed since 2002. There are currently 261 units approved in two senior housing facilities: Spectrum Retirement Communities and Heritage Potomac. This brings the total number of additional units built or approved since 2002 to 828, meeting the master plan's goal of an additional 750 units.

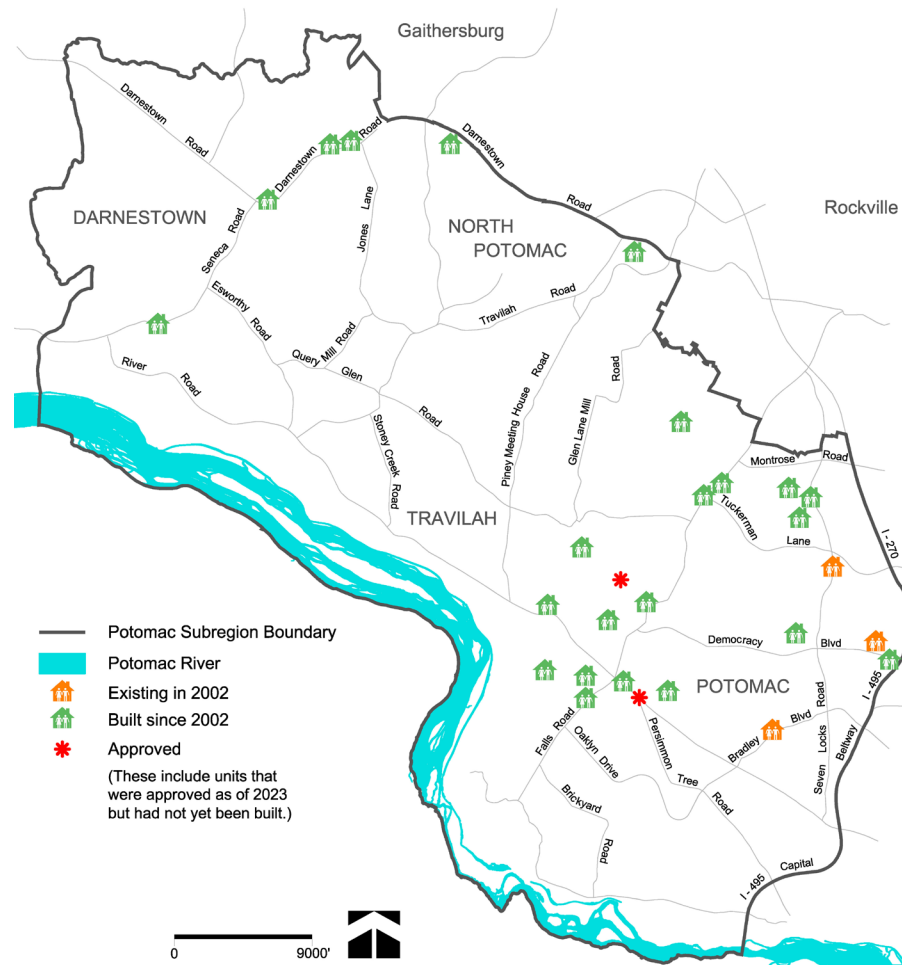
As seen in [Figure 11](#), five sites listed in the Master Plan were considered suitable for senior housing: Cabin John Shopping Center, Stoneyhurst Quarry, Fortune Parc, Potomac Village, and Rockrun Advanced Waste Water Treatment Site. As of today, however, there is no explicit senior housing in any of these locations. The language of the master plan can partially explain this deviation. Notably, the master plan does not define what constitutes as senior housing, and it lacks details on the minimum age of residents and required facilities of such developments. The master plan encourages senior housing throughout the Subregion wherever zoning permits, either by right or as a special exception use (presently known as conditional use). The language of the master plan also restricts the location of such facilities along certain roadways, making it difficult to build in the recommended sites. As a result, two pending senior housing developments (Spectrum and Heritage Potomac) have employed conditional use applications to build in alternate locations that were not specifically recommended by the master plan.

Figure 11: Locations of Housing for the Elderly (2002)



Source: Potomac Subregion Master Plan, 2002

Figure 12: Locations of Housing for the Elderly (2023)



Source: Montgomery Planning, 2023

Affordable Housing

The Subregion has several constraints that have resulted in less new affordable housing development than in other parts of the County. Characterized by large residential lots, the Plan Area's low-density zoning, land values, and infrastructure limit multi-family development. In 2002, moderately priced dwelling units (MPDUs) were not required in zones of one acre or more. However, due to several policy changes, including a 2018 update, 15% MPDUs are now required in Potomac, as it qualifies as a high-income planning area where 45% of tracts have a median income of 150% of the county's median income.

When the plan was written, the Subregion had 800 government-subsidized or MPDU affordable housing units, 5.1% of the county's total affordable units at the time. These units were in Chelsea Towers, Lakeview House, Magruder's Discovery, and Scotland. Of housing

units in the Potomac, Travilah, and Darnestown Planning Areas, 3.4%, 3.1%, and fewer than 1%, respectively, were affordable. According to the Plan, in 1999, the Housing Opportunities Commission and nonprofit organizations owned 21% of the MPDU supply in the area.

As of September 2022, the Subregion had 1,007 government mandated affordable housing units. This is 4.4% of the County's 22,720 affordable housing units and 3.2% of the Subregion's 31,963 existing dwelling units. These units are predominantly concentrated in the Potomac and North Potomac Planning Areas, along with some housing in Scotland and Tobytown, two historically underserved and marginalized neighborhoods. Of the total units, 309, or 31%, are owned by the HOC, which falls within the plan recommendation of 30 to 40%. In addition, in line with the third recommendation regarding government financial assistance, there are some examples of projects in the Subregion that have received funding from the Housing Initiative Fund (HIF) Program. Overall, the Plan's general goal of retaining and expanding the supply of affordable housing in the Potomac Subregion has been met. Although the number of units increased from 800 to 1,007 over 20 years, the share of the Subregion's affordable housing within the County decreased from 5.1% to 4.4%.

There are currently 29 MPDUs in the Subregion's pipeline: 15 units at Mount Prospect, six units at Spectrum, and eight units at Heritage Potomac. Notably, two of the recent major residential developments in the Potomac area opted for alternative agreements in lieu of providing the mandated 12.5% of moderately priced dwelling units. Quarry Springs, a mid-rise condominium development, settled on a \$1,700,000 alternate payment (\$133,333 per MPDU) for the 15 MPDUs not provided on-site, as condominium fees and sales prices for the MPDUs would exceed the affordability levels of certificate levels. The high-rise condos and rentals at the Park Potomac development also settled on a \$2,655,988 alternate payment (\$85,677 per MPDU) for the 31 MPDUs not provided on-site. The construction cost of the units and the high condominium fees made these units unaffordable to MPDU-eligible households.

Plan Recommendation:

Retain and expand the supply of affordable housing in the Potomac Subregion using the following strategies:

1. Encourage the Housing Opportunities Commission (HOC) and the Department of Housing and Community Affairs (DHCA) to acquire the maximum number of new and existing MPDUs in Potomac to retain as rental units or for resale as affordable housing.

 **Recommendation met**

2. Study the potential for a program to set aside land in larger subdivisions for affordable, senior, and special needs housing.

 **Recommendation not met**

3. Encourage government agencies to provide direct financial assistance to projects that could reduce the shortage of affordable housing in the Potomac Subregion.

 **Recommendation met**

NON-RESIDENTIAL DEVELOPMENT

Employment

According to the Master Plan, in 1999, there were 15,576 jobs in the Potomac Subregion.

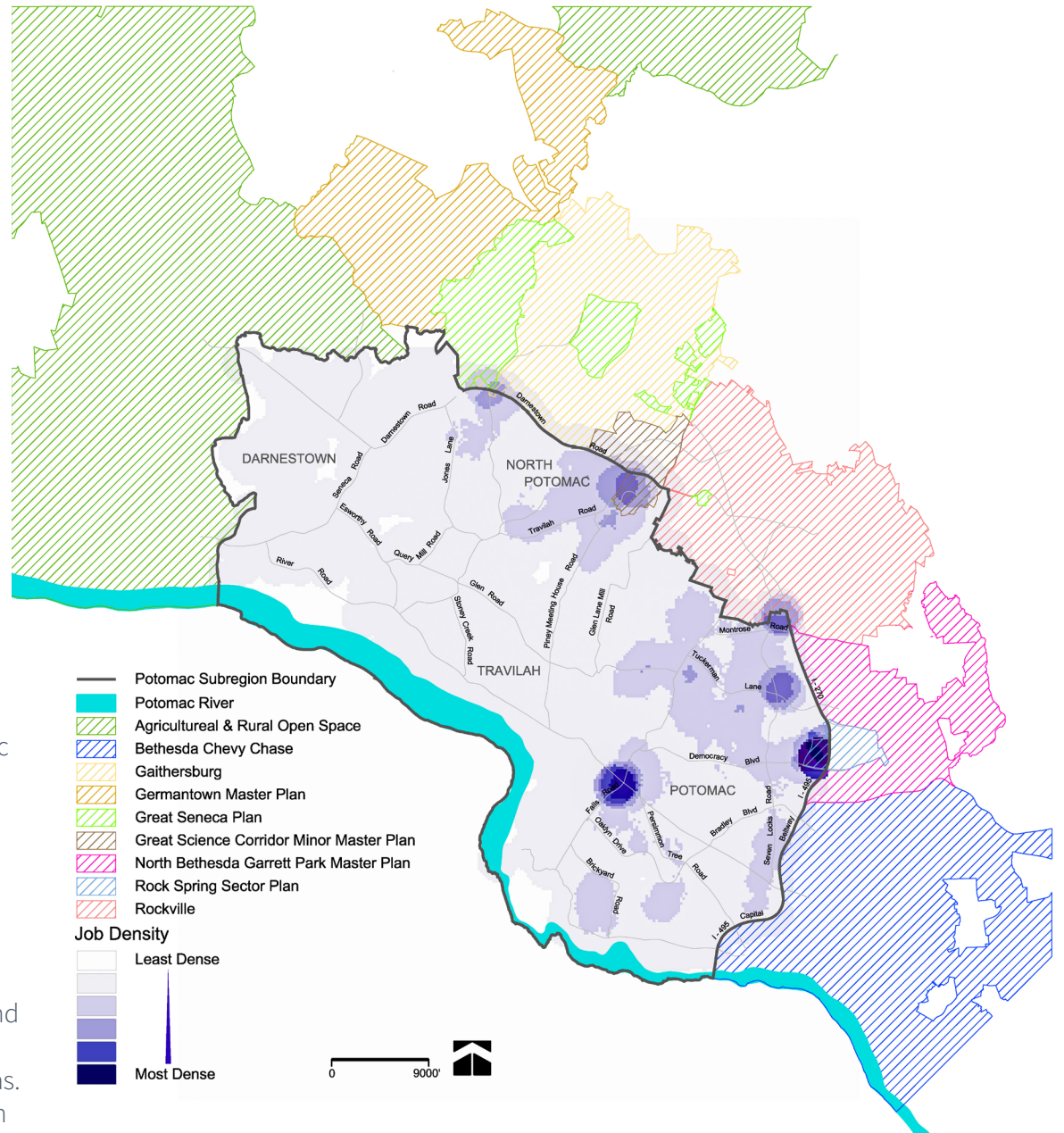
Plan Forecast:

The plan forecasts that during the following 20 years, there will be approximately 7,000 new jobs in the Subregion. It predicts that by 2020, there will be 23,000 total jobs in the Subregion, with most new jobs in Traville and Fortune Parc (Park Potomac).

Forecast met - 25,546 jobs in 2021

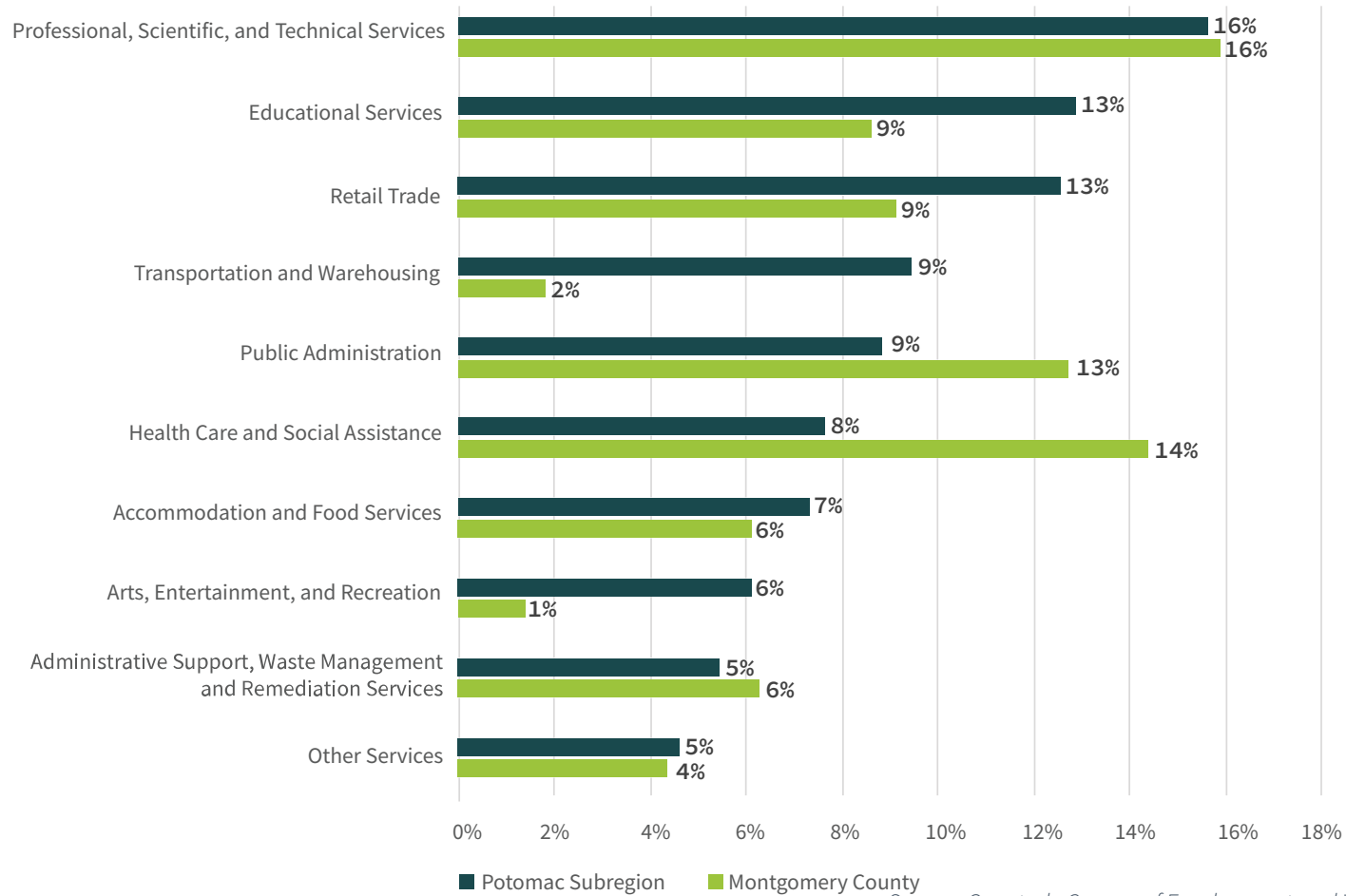
Based on data from the Quarterly Census of Employment and Wages (QCEW), in 2021, the number of jobs in the Potomac Subregion was at 25,546, meeting the forecasted number. [Figure 13](#) shows where jobs are most densely located in the Subregion. Unsurprisingly, there are hot spots around the Westfield Montgomery Mall and Potomac village center. There are lighter concentrations of jobs around Park Potomac, Cabin John Center, and the Traville Gateway Development. The overlay of other master plans in [Figure 13](#) exposes their potential impact on employment growth within the Subregion. In particular, the *Rock Spring Sector Plan* (2017) and *Great Seneca Science Corridor Minor Master Plan* (2021) overlap in the Traville Gateway and Montgomery Mall area, increasing planning activity and contributing to job growth in these hotspot areas. Relatedly, most of the development in the Subregion has occurred on the edges, with less in the interior.

Figure 13: Density of Jobs in Potomac Subregion (2021)



Source: Montgomery Planning, 2023

Figure 14: Top 10 Industries in Potomac Subregion and Montgomery County (2021)



Source: Quarterly Census of Employment and Wages (QCEW), 2021

Interestingly, while the number of jobs in the Subregion has increased over the past two decades, the county has experienced a decrease in jobs from 453,252 in 2002 to 446,524 in 2021. Employment growth in the county has slowed at a greater rate than that of the Subregion. As mentioned, the intersection of other master plans with that of the Subregion has played a role in the employment growth seen here.

As seen in [Figure 14](#), the greatest share of jobs (16%) in both geographies are within the Professional, Scientific, and Technical

Services sector. Retail Trade constitutes a larger percentage of jobs in the Subregion (12.5%) relative to the County (9.1%), which reflects the recent development of mixed-use projects, including Cabin John Village and Park Potomac. Arts, Entertainment, and Recreation, and Transportation and Warehousing are found in the top 10 industries of the Subregion but not the county, while Construction, and Finance and Insurance are in the top 10 industries of the county but not the Subregion.



Case Studies of Sites Recommended for Development

The master plan emphasizes that new development and redevelopment must respect and enhance the Subregion’s environmental quality while building communities and resources to serve the existing and future generations of residents. The proposed developments emphasize the creation of mixed-use spaces that integrate residential, retail, and office functions. Within these mixed-use developments, the master plan particularly encourages the strengthening of the Subregion’s residential communities. There remains strong support for residential development, as seen through the existing development landscape.

To evaluate the implementation of the plan’s land use and zoning section, this analysis will present six detailed case studies of developments that are recommended in the master plan. For each of the chosen developments, the following information is presented:

1. The location of the property and a description of what was existing in 2002.
2. The main vision for the development as set forth in the master plan.
3. Overall takeaways about the development’s alignment with the master plan vision.
4. Maps comparing the development concept from the 2002 master plan and today’s land use.

5. Three data tables:

- *Overview of the development site* – Details the zoning from 2002, the current zoning, and a history of relevant site plans and amendments.⁵
- *Development recommendations* – Compares plan projections and the reality of how many residential units and commercial square feet have been built.
- *Land use and design guidelines* – Uses the scoring criteria (see [Table 2](#)) to evaluate whether the qualitative components of the site have been implemented.

6. Pictures of the site from a Planning staff visit conducted in August 2023.

While the six projects are currently in varying stages of development, conducting a reality check of the plan’s recommendations provides some general takeaways about development in the Subregion. Firstly, there has been more construction of residential units than commercial square footage, with a notable example in Park Potomac of a proposed multi-family complex replacing an office building. Secondly, recommendations focused on the redevelopment of buildings that existed in 2002 were less likely to fully come to fruition than recommendations for undeveloped land/greenfield developments.

⁵ The zoning of 2023 is included, rather than the plan-recommended zoning, as there was a rewrite of the zoning ordinance in 2014.

Case Study 1: Cabin John Village⁶

Location:

This is a 25.3-acre site located in the northeast quadrant of Tuckerman Lane and Seven Locks Road. In 2002, there was an existing 213,824 square foot shopping center. This included a two-story mall with retail and office space and a single-story strip center with a grocery store and convenience shopping.

Main vision from 2002 Master Plan:

The master plan envisioned a pedestrian-friendly, mixed-use village center consisting primarily of retail uses and offices, housing, open space, and small-scale entertainment/recreational activities (see Figure 15). It imagined retail uses that were neighborhood-serving rather than regional and big box stores.

Phases of development:

According to the site plan staff report (2019), this project is expected to take place in three phases of development, beginning in 2019 when the site plan was approved.

- Phase 1 (60 months) – Building permits for 48 residential units and up to 45,000 square feet (net increase of ~29,000 square feet) of commercial uses.
- Phase 2 (48 months) – Building permits for 32,000 square feet of new commercial uses and structured parking facility.
- Phase 3 (12 months) – Building permits for 11 residential units and 3,000 square feet of new commercial uses (345 square feet of net new commercial uses).

Overall takeaways:

As Cabin John Village is currently in Phase 1 of development, some elements mentioned in the Master Plan are planned but have yet to be built. Notwithstanding, there are several variations between the Master Plan vision (Figure 15) and today’s reality (Figure 16). These include the number and location of the townhouses, the lack of designated senior housing, and the continued presence of the gas station.

The site plan staff report (2019) notes that the master plan envisioned completely razing the site plan area to achieve the vision. Instead, given the value of the asset and opportunity cost from completely closing a revenue-producing retail center, the developer is using a phased approach to redevelop the site.

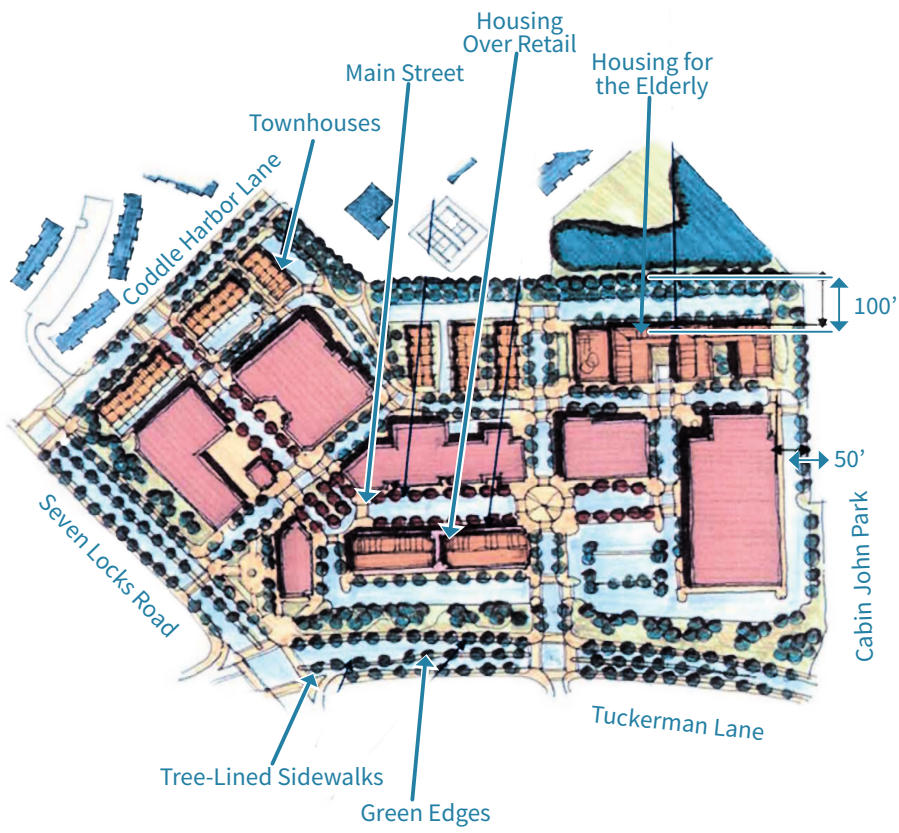
In addition, changes in zoning due to the 2014 Zoning Ordinance have affected the relevance of the recommendations as written in 2002. For instance, since the master plan’s mixed-use development goals could be achieved in standard method projects following the 2014 Zoning Ordinance, the requirements for optional method development when housing is proposed were not needed. As explained in the site plan staff report (2019), since the master plan’s main intent was to create a mixed-use village center with housing, the limit of 40 townhouses was not a hard and fast ceiling, resulting in the existing 48 townhouses. The site plan staff report (2019) addresses the alternate location of the townhouses by committing to residential uses in the originally proposed portion of the property in future phases of development.

Table 4: Overview of Cabin John Village Development

2002 ZONING	C-1	Convenience Commercial
	R-90	Single-Family Detached
2023 ZONING	CRT-0.75 C-0.5 R-0.25 H-35T	Commercial Residential Town with max FAR of 0.75
SITE PLAN HISTORY	Site plan in 2019	Approved 48 dwelling units and 45,000 commercial square feet
	Four amendments to site plan through 2022	Approved 48 dwelling units and 45,000 commercial square feet

6. Referred to as Cabin John Center in the Master Plan.

Figure 15: Cabin John Village Concept (2002)

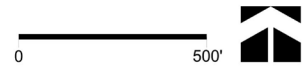


Source: Potomac Subregion Master Plan, 2002

Figure 16: Cabin John Village Land Use (2023)



- Open Space/Recreation
- Residential Single-Family Detached
- Retail
- Vacant



Source: Montgomery Planning, 2023

Table 5: Cabin John Village Development Recommendations




PLAN PROJECTION		REALITY			
Item	Amount	Total built (as of 2002)	Total built (as of 2023)	Approved but unbuilt	Total built + approved
Elderly housing units	75	0	0	0	0
Townhouses	40	0	48	0	48 (6 MPDUs incl.)
Housing over retail units	20	0	0	0	0
Commercial square feet	300,000	213,824 ⁷	234,349	45,000 ⁸	279,349

Table 6: Cabin John Village Land Use and Design Guidelines

PLAN PROJECTION		REALITY	
Theme	Plan Recommendation	2023 Status	Met?
Transportation	A bus shelter and shuttle service to Metro or acceptable traffic mitigation alternatives must be provided with any increase in density.	Traffic mitigation alternatives were provided and included a 15-docket Capital Bikeshare Station, the appointment of a Transportation Benefits Coordinator, and the implementation of static displays to provide transportation schedules and information.	<input checked="" type="checkbox"/>
Parking	Meet a significant portion of the parking requirements in structured parking. Place as large a proportion as possible below grade. Any parking structure above grade must be in the northeast corner of the site and be limited in height to 20 feet. Housing may be placed on top of the garage; however, the combined above-grade height shall not exceed 35 feet. A parking structure must be designed with compatibility features that minimize its bulk, such as landscaped building elevations, wall off sets, and architectural articulation. The structure shall be designed to shelter grocery store shoppers from inclement weather.	No below-grade structured parking yet, as this is part of Phase II of the site plan. The townhouses have above-grade parking structures in accordance with these recommendations.	<input type="checkbox"/>

7. Sourced from the 2002 Potomac Subregion Master Plan.

8. Net of 29,000 square feet, as approximately 16,000 square feet of existing commercial building was demolished to construct a new private street.

PLAN PROJECTION		REALITY	
Theme	Plan Recommendation	2023 Status	Met?
Setbacks	Provide 100-foot building setback along the northeastern property line, of which 50 feet is a continuous landscaped buffer between any development and adjacent residential neighborhoods. The buffer shall include evergreen and shade trees and be designed to deter trespassing into the adjacent Inverness Knolls community.	The applicable standard method setback for townhouses in the CRT Zone is 10 feet, considerably less than the 100-foot recommendation in the Master Plan or the 50-foot optional method alternative. The Master Plan’s intent for this part of the Property is to provide separation between any new mixed-use development and the existing Inverness Knolls community. Therefore, a 37-foot setback is proposed.	
Housing for elderly	Locate housing for the elderly in proximity to Cabin John Park and integrate it with other residential projects on the site. Ensure compatibility of housing for the elderly with the adjacent townhouses at Inverness Knolls in terms of setbacks, landscape, height, bulk, and architectural details.	There is no housing for the elderly. Instead, 48 townhouses are in proximity to Cabin John Park in the northeastern area of the property (see Figure 17).	
Pedestrian safety	Provide sidewalk improvements to facilitate pedestrian access to the center. Provide intersection improvements to facilitate pedestrian crossing. Link on-site pedestrian street and path system to intersection improvements.	<p>The Site Plan provides sidewalks in front of every structure and creates an interconnected system of pedestrian access. The pedestrian circulation patterns provide safe and redundant circulation to all buildings and open spaces across the Property. The Application also improves pedestrian circulation to adjacent properties. Particular attention has been focused on the intersection between Building A-4 and existing Building A and B, which had multiple complex vehicular and pedestrian movements.</p> <p>However, there are still improvements to be made. Based on the site visit, pedestrian and bicycle access and circulation did not feel safe. There were no sidewalks within the center, making it difficult to cross the large parking lots safely (see Figure 18). Planners have classified these paths as “unacceptable” and “uncomfortable” for pedestrians.⁹</p>	

9. Sourced from the Pedestrian Level of Comfort layer in the Montgomery County Planning Department GIS database

PLAN PROJECTION		REALITY	
Theme	Plan Recommendation	2023 Status	Met?
Parks and open space	Maintain the existing berms and wide margin of trees along the perimeter of the site, especially adjacent to Cabin John Stream Valley Park. Provide public facilities and amenities, such as a green park.	Berms and trees along Seven Locks Road have been preserved. There are natural surface trails in the forested area north of the townhouses that ultimately connect to the Cabin John Regional Park trail system (see Figure 21). There is a playground and gathering space within the townhouse area. There is a mid-block connection in townhouses linking the shopping center to the Cabin John Regional Park. There are multiple open spaces with outdoor dining, flexible seating, landscaping, bicycle parking, and a bicycle repair shop.	☑
Built environment	Enhance the residential character of Coddle Harbor Lane by removing the gas station, providing townhouses along Coddle Harbor Lane, and relocating access to the center away from the adjacent neighborhood.	The gas station still exists in the center, and there are no townhouses along Coddle Harbor Lane. Instead, they are in the northeast corner of the property where housing for the elderly was recommended.	☒

Figure 17: Townhouses in Cabin John Village



Figure 18: Roadways within Cabin John Village



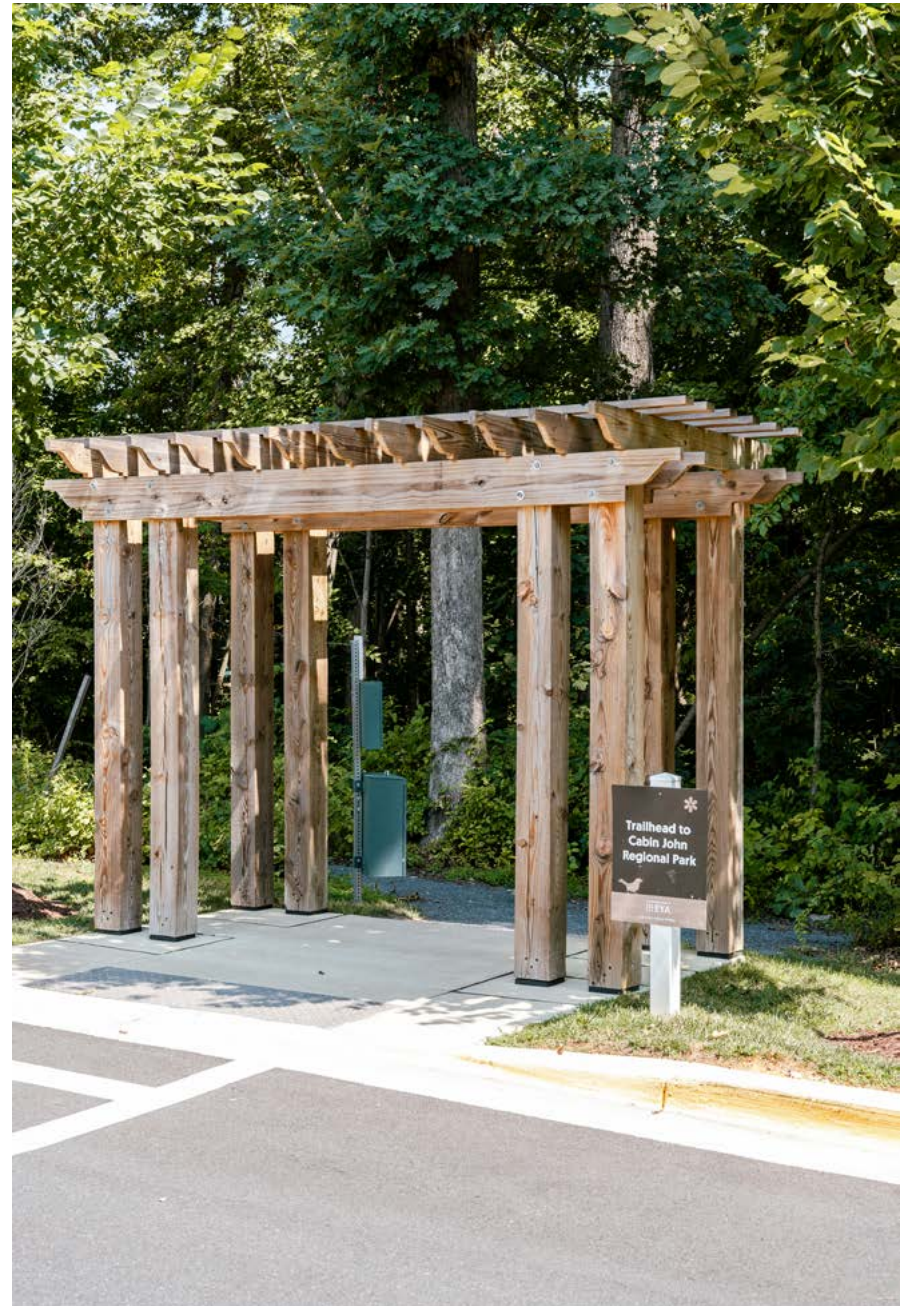
Figure 19: Expansive parking lots in Cabin John Village



Figure 20: Retail options at Cabin John Village



Figure 21: Connection to Cabin John Park from Cabin John Village



Source: Montgomery Planning, 2023

Case Study 2: Quarry Springs¹⁰

Location:

The Quarry covers 13.3 acres on the north side of River Road, west of the intersection of River and Seven Locks Road (see Figure 23). In 2002, the Stoneyhurst Quarry was operating as a stone quarry with most of the site excavated to elevations of 150–175 feet. However, at this time, the reserves were approaching exhaustion.

Main vision from 2002 Master Plan:

Due to its unique configuration and topography, the master plan deemed the site appropriate for multi-family residential development, including housing for the elderly. Development for transportation, communication and utilities, commercial, services, cultural, entertainment and recreational, and other non-residential uses was not recommended.

Overall takeaways:

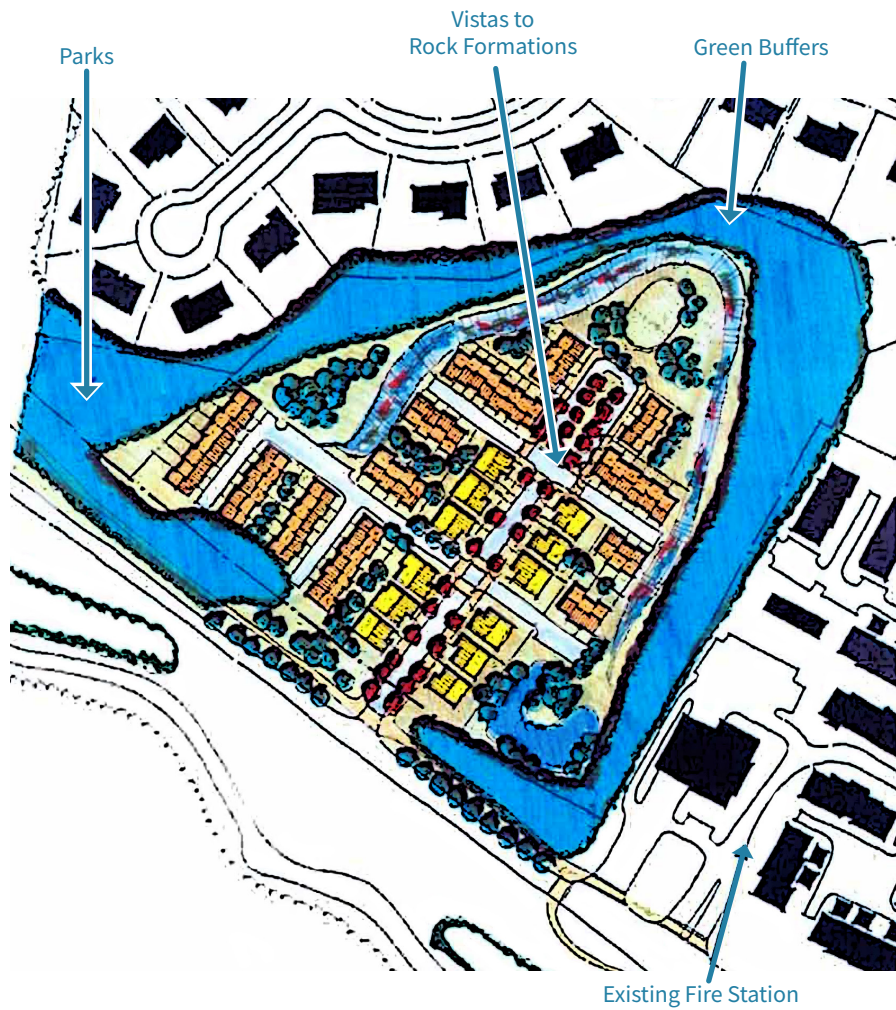
In comparing Figure 22 and Figure 23, it is evident that the Master Plan’s vision for Quarry Springs has mostly been fulfilled. Almost all the land use and design guidelines have also been met (see Table 9). However, there remain some variations from the original concept. Despite being marked as a location for senior housing, there is no explicit housing for the elderly in this development. In addition, there are no MPDUs on-site, as an alternative payment of \$1,700,000 was made to the Housing Initiative Fund in lieu of these 15 units. The first approval for the development in 2005 was for 97 multi-family dwelling units. In 2017, after two of the four buildings were built (50 units), an amendment was filed to change the remaining 47 multi-family units to 44 single-family units. The developer justification for shifting to single-family units was market demand and cost.

Table 7: Overview of Quarry Springs Development

2002 ZONING	R-200	Single-Family Detached
2023 ZONING	CRT-0.5, C-0.25, R-0.25, H-60 T	Commercial Residential Town with max FAR of 0.5
SITE PLAN HISTORY	Site plan in 2005	Approved 97 multi-family dwelling units
	Amendment of site plan in 2017	Shift to 94 total dwelling units – 50 multi-family units and 44 single-family attached units

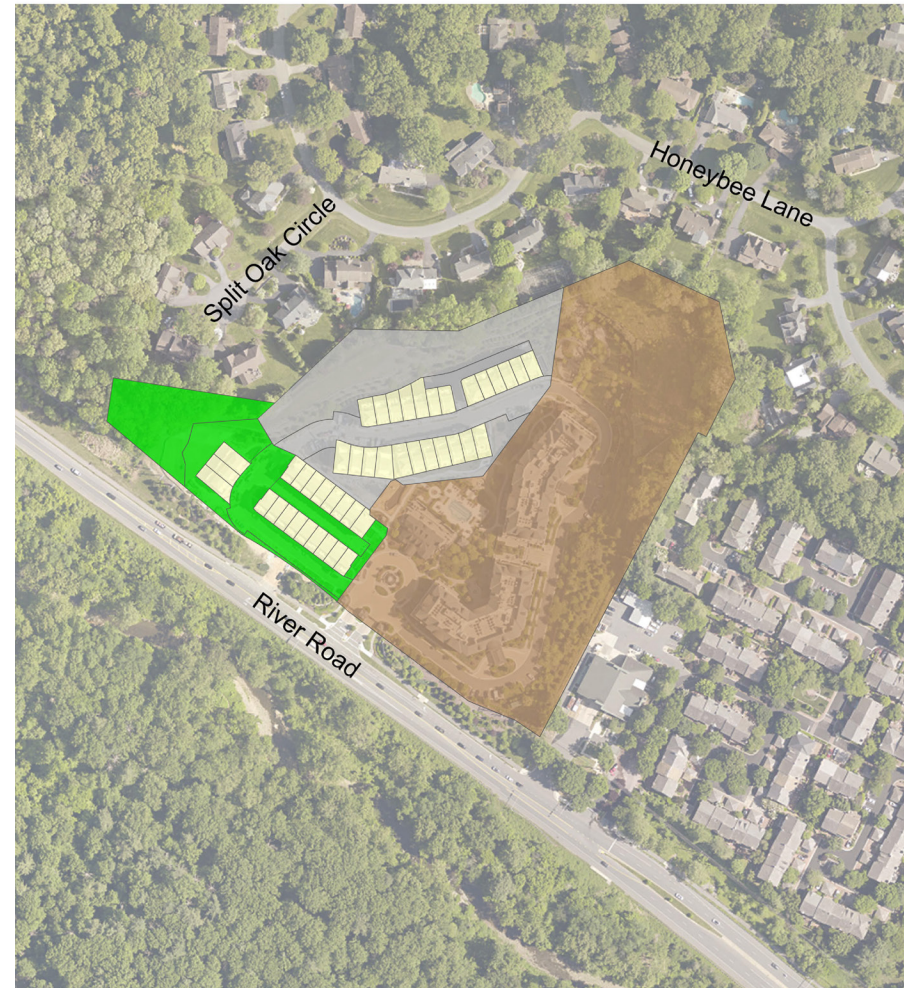
10. Referred to as Stoneyhurst Quarry in the Master Plan.

Figure 22: Quarry Springs Concept - Standard Method (2002)



Source: Potomac Subregion Master Plan, 2002

Figure 23: Quarry Springs Land Use (2023)



- Open Space/Recreation
- Residential Single-Family Attached
- Residential Multi-Family
- Vacant



Source: Montgomery Planning, 2023

Figure 24: Quarry Springs Concept - Optional Method (2002)








- 1 Park
- 2. Vista to Rock Formations
- 3 Green Buffers
- 4. Existing Fire Station

Source: Potomac Subregion Master Plan, 2002

Table 8: Quarry Springs Development Recommendations

PLAN PROJECTION		REALITY			
Item	Amount	Total built (as of 2002)	Total built (as of 2023)	Approved but unbuilt	Total built + approved
Single-family units	97	0	44 (0 MPDUs)	0	44
Multi-family units	0	0	50 (0 MPDUs) ¹¹	0	50

Table 9: Quarry Springs Land Use and Design Guidelines

PLAN PROJECTION		REALITY	
Theme	Plan Recommendation	2023 Status	Met?
Planned open space	A minimum of 60% of the site should be green areas, and as much as 75%.	66% of the site is green area.	
	Development should incorporate an attractively landscaped wet storm water management pond.	There is a temporary stormwater retention pond.	
	There should be ample planting of evergreens, other trees, shrubbery, and indigenous wildflowers and use of berms.	The property has heavily landscaped berms along the frontage of River Road to provide a green edge.	
	Dedicate a park along the western edge of the site that draws on the site's rock formations and incorporates attractive water features.	A 0.85-acre area identified as potential park dedication has been protected through a Category I conservation easement.	
	Provide direct pedestrian links to adjacent subdivisions and a connection to park trails in Cabin John Park.	The location and design of the pedestrian circulation on the Subject Property is safe, adequate, and efficient. Pedestrians and bicyclists access the Property through a direct sidewalk connection from the existing hiker/biker trail along the site's frontage on River Road. There is suitably sized and adequately signed hard surface trail along the north side of River Road, extending from the Seven Locks Road intersection and continuing west past the subject development to the parking area located on parkland at the east side of Cabin John Creek.	

11. Applicant settled on an alternative agreement and paid \$1,700,000 to the Housing Initiative Fund instead of providing MPDUs due to high condo fees.

PLAN PROJECTION		REALITY	
Theme	Plan Recommendation	2023 Status	Met?
Planned open space	Provide storm water management to incorporate alternative techniques that increase filtration and enhance natural hydrology, including bioretention areas, alternative paving materials, soil amendments, and other landscaping techniques. Minimize and manage stormwater runoff to Cabin John Creek to ensure the stability of the creek banks.	Stormwater management is accommodated by on-site channel protection measures via an underground pipe detention system. On-site water quality control will be met by the installation of a stormfilter. In addition, the proposed sidewalk on River Road has been constructed using previous material or sheet flow directed to grass swales.	<input checked="" type="checkbox"/>
Built environment	Enhance compatibility through building façade design and height, creation of vistas to rock formations, and preservation of wooded buffers.	The townhouse dwellings and multi-family condominium buildings are similar architecturally, ensuring compatibility across the two types of housing. All structures fall within the height limit set in the Master Plan of 225 feet above sea level. Vistas to rock formations have been created, as seen in Figure 27 .	<input checked="" type="checkbox"/>
	Restrict building coverage to no more than 18% of the land area, and to as little as 14% if feasible.	The building coverage for the entire Property is 18%.	<input checked="" type="checkbox"/>
	No telecommunications towers or other high utility structures on the roof other than a satellite dish serving the occupants of the building.	There are no telecommunication towers or utility structures on the site.	<input checked="" type="checkbox"/>
	Attractive lighting internal to site with no glare or impact on surrounding area.	The existing lighting creates enough visibility to provide safety but not so much as to cause glare on the adjacent roads or properties.	<input checked="" type="checkbox"/>
Parking	Provide underground parking for residents and eliminate surface parking visible from River Road.	The required parking for the proposed townhouse dwellings is in integrated garages, which are not underground, but are under the living spaces of the townhouses and hidden from sight. The surface visitor parking spaces are not visible from River Road because of the existing vegetated berm along the Subject Property frontage.	<input checked="" type="checkbox"/>
Transportation	Special consideration should be given to management of vehicular traffic related to development of this site, including possible use of a traffic management plan, service roads, and signalization.	The location and design of vehicle circulation on the site is safe, adequate, and efficient. In addition to completing the 22-foot-wide private street loop, there are two alleys that provide rear garage access to some of the dwelling units.	<input checked="" type="checkbox"/>
Sewer	Provide connection of the development to the existing sewer line in River Road to avoid direct connection to the main in the Cabin John Stream Valley Park. If adequate capacity is not available in the existing River Road sewer line, there must be a public review of sewer options.	The development was tapped into existing 8" sewer lines that were built in the 1980s to serve the fire station and another subdivision north of River Road. The intent of the master plan was to avoid another crossing of the stream that flows south of River Road, and this was accomplished by using an existing stream crossing.	<input checked="" type="checkbox"/>

Figure 25: Plantings at Quarry Springs



Figure 26: Storm water management pond at Quarry Springs



Figure 27: Rock wall formations at Quarry Springs



Source: Montgomery Planning, 2023

Case Study 3: Potomac Village

Location:

Potomac Village is the commercial heart of the Potomac community and contains approximately 26 acres at the intersection of Falls and River Roads (see Figure 29). In 2002, this site was nearly completely built out, with 337,710 square feet of commercial development across several properties.

Main vision from the 2002 Master Plan:

Though the village center was nearly completely built out, the master plan recognized that it could be strengthened to better serve the community. It envisioned the site as a pedestrian-friendly mixed-use village center consisting primarily of retail uses but also including offices, housing, and entertainment/recreational activities at a compact village scale.

Overall takeaways:

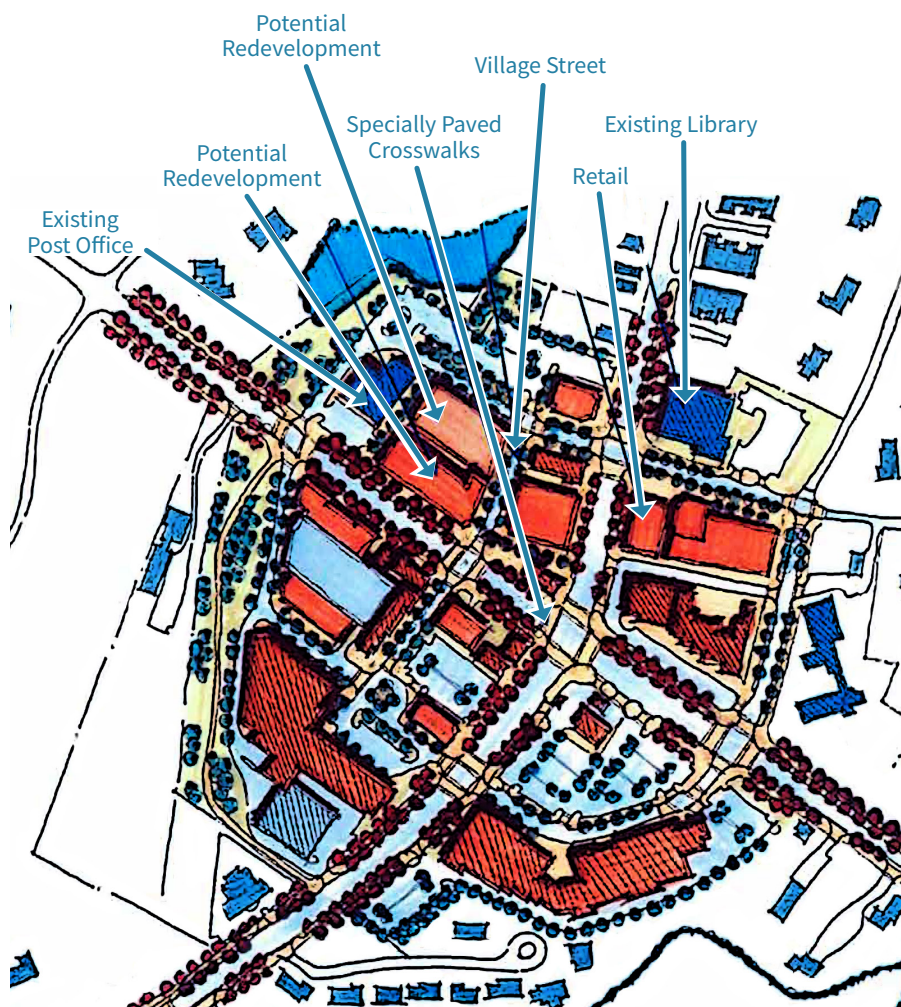
Potomac Village has not become the pedestrian-friendly mixed-use village center envisioned in the master plan. Very little has changed in this area since 2002, with no housing built near the existing office and retail establishments. The Village resembles a “suburban” intersection with inefficient circulation patterns. With no investment in the village center to date, it is unlikely that the vision of the master plan for this development will come to fruition.



Table 10: Overview of Potomac Village Development

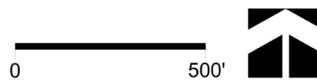
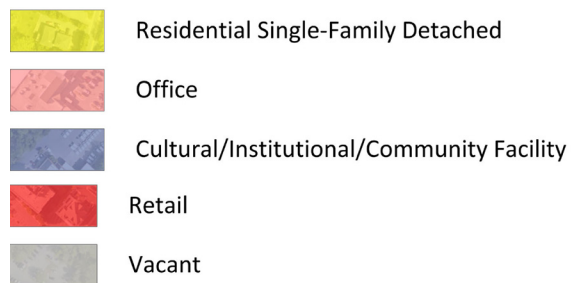
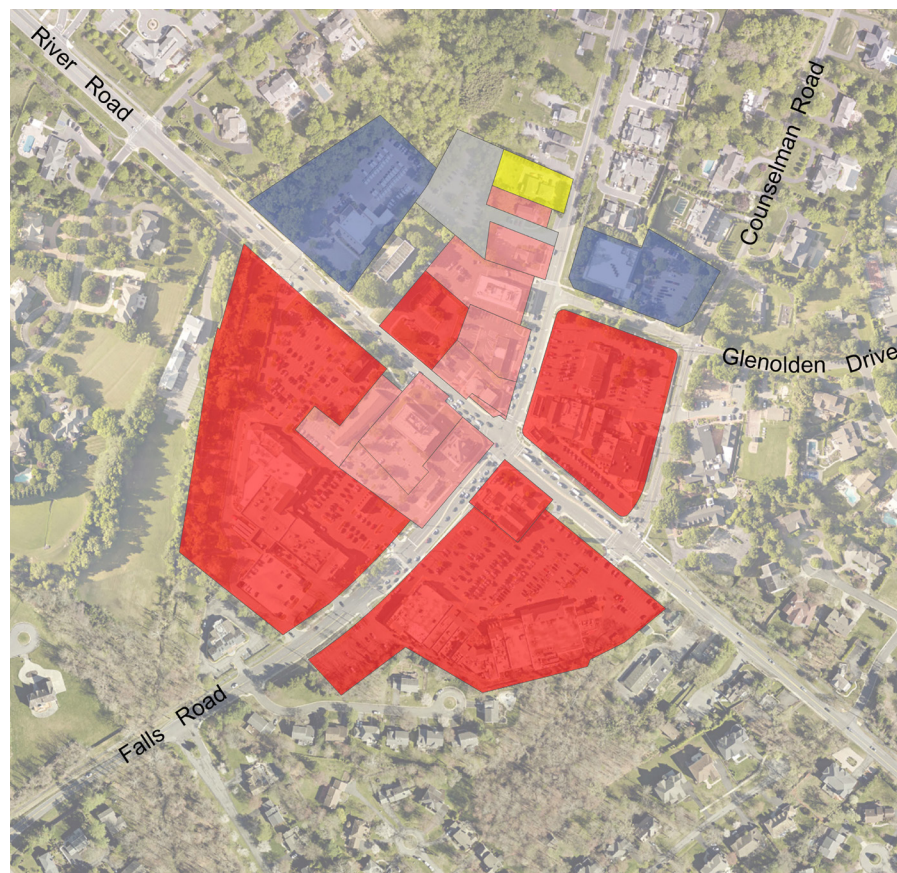
2002 ZONING	C-1	Convenience Commercial
	R-200	Single-Family Detached
2023 ZONING	NR-0.75, H-35	Neighborhood Retail with max FAR of 0.75
SITE PLAN HISTORY	Site plan in 2009	Application for a drive-thru ATM withdrawn
	Site plan in 2011	Changed the use of the previous bank to a restaurant

Figure 28: Potomac Village Concept (2002)



Source: Potomac Subregion Master Plan, 2002

Figure 29: Potomac Village Land Use (2023)



Source: Montgomery Planning, 2023

Figure 30: Potomac Main Street "Streetscape" (2002)



Street scape for a pedestrian-friendly street

Building along street provide street definition and animation



Source: Potomac Subregion Master Plan, 2002

Table 11: Potomac Village Development Recommendations

PLAN PROJECTION		REALITY			
Item	Amount	Total built (as of 2002)	Total built (as of 2023)	Approved but unbuilt	Total built + approved
Residential units	Not specified	3	3	0	3
Commercial Square Feet	Not specified	323,154	327,123 ¹²	0	0

Table 12: Potomac Village Land Use and Design Guidelines

PLAN PROJECTION		REALITY	
Theme	Plan Recommendation	2023 Status	Met?
Parks and open space	Preserve and restore remaining riparian areas along the headwaters of Rock Run.	There are no easements along the headwaters of Rock Run.	<input type="checkbox"/>
	Create green, park-like edges along the village’s perimeter by linking existing parks and open space.	There are no linkages between existing parks and open space along the village’s perimeter.	<input type="checkbox"/>
Built environment	Additional uses, such as housing over retail, are encouraged.	There is no housing over the retail.	<input type="checkbox"/>
	Provide an attractive “Main Street” environment along Falls and River Roads that is compatible with the community’s green character and promotes pedestrian and bicycle circulation, with wide sidewalks shaded by street trees, specially paved crosswalks, and a minimal number of curb-cuts (see Figure 28).	There has been no investment to change the character of the area for pedestrians or cyclists.	<input type="checkbox"/>
	Provide ground floor retail in compatible buildings not more than 35 feet high.	There has been no ground floor retail built since 2002.	<input type="checkbox"/>
Transportation	Provide a continuous loop of village streets, as redevelopment occurs, within all four quadrants of the center for local circulation and improved pedestrian connections. This loop should incorporate existing community facilities such as the post office, library, church, and day care into the village center.	There has been no investment to change the street network.	<input type="checkbox"/>

12. Sourced from CoStar and SDAT given variations in reported square footage of commercial buildings.

Case Study 4: Mount Prospect¹³

Location:

The Hanson Farms property encompasses 170 acres of land west of Quince Orchard and Dufief Mills Roads and north of Travilah Road. In 2002, this site was a working farm that included two farm ponds, farm structures, and one single-family lot improved with a dwelling unit.

Main vision from 2002 Master Plan:

The master plan envisioned the development of this site as an opportunity to preserve environmentally sensitive lands, expand the stream valley park system, provide a needed public facility, and create a walkable residential community. It imagined the existing Hanson residences to be retained and incorporated into the fabric of the new community of a maximum of 187 dwelling units (including MPDUs).

Overall takeaways:

This development closely resembles the vision presented in the Master Plan, both in terms of the number of dwelling units and the environmental protection measures recommended. As this project is currently in the construction phase, the following numbers represent what has been built to date.

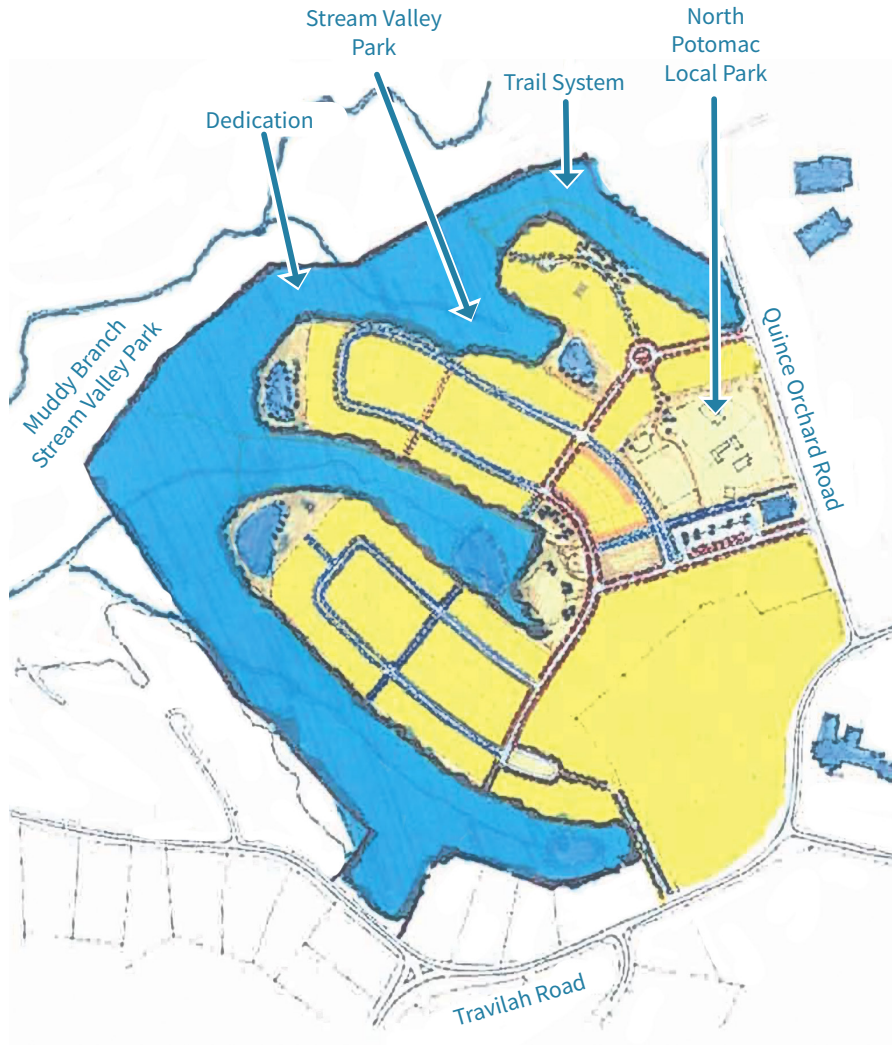


Table 13: Overview of Mount Prospect Development

2002 ZONING	RE-2	Single-Family Detached
2023 ZONING	PD-2 with TDR option	Planned Development with a maximum of two dwelling units per acre
SITE PLAN HISTORY	Site plan in 2017	Approved 187 dwelling units
	Amendments to site plan in 2018 and 2021	Made modifications to site grading, stormwater management, landscaping, forest conservation, utilities, and the limits of disturbance.

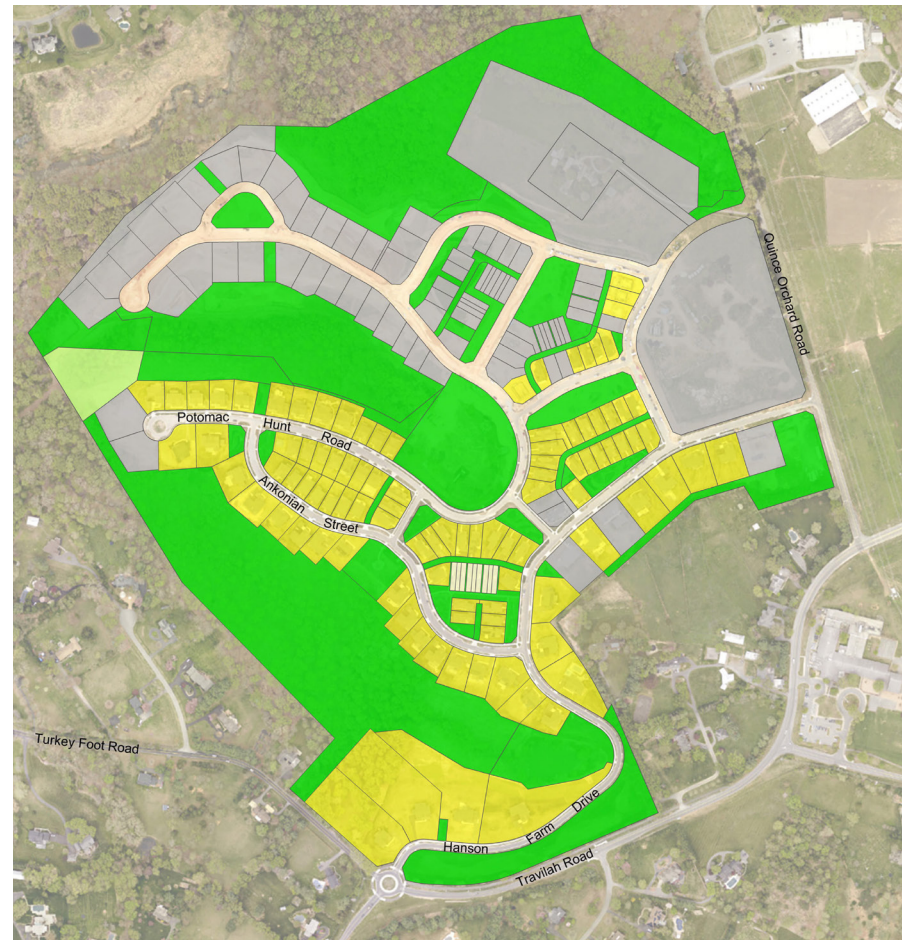
13. Referred to as Hanson Farms in the Master Plan.

Figure 31: Mount Prospect Concept (2002)

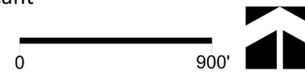


Source: Potomac Subregion Master Plan, 2002

Figure 32: Mount Prospect Land Use (2023)



- Parkland
- Open Space/Recreation
- Residential Single-Family Detached
- Vacant



Source: Montgomery Planning, 2023

Table 14: Mount Prospect Development Recommendations

PLAN PROJECTION		REALITY			
Item	Amount	Total built (as of 2002)	Total built (as of 2023)	Approved but unbuilt	Total built + approved
Dwelling units ¹⁴	187	0	110 (9 MPDUs incl.) ¹⁵	77	187

Table 15: Mount Prospect Land Use and Design Guidelines

PLAN PROJECTION		REALITY	
Theme	Plan Recommendation	2023 Status	Met?
Built environment	Include large lots at the perimeter to buffer existing residences, generally on the south and east.	At the perimeter of the development, there is a transition to all one-family detached dwellings located on increasingly larger lots.	<input checked="" type="checkbox"/>
	Retain both existing Hanson residences and incorporate them into the fabric of the new community.	One of the Hanson residences has been retained and placed in the middle of a 10-acre conservation parcel identified as the Hanson Reserve (see Figure 34). The other Hanson residence has been removed to be utilized for the 10-acre local park.	<input type="checkbox"/>
	Maintain adequate setbacks between playing fields and the adjacent homes.	There are no playing fields being developed. The local park is separated from existing homes by new homes.	Does not apply
	Cluster development away from environmentally sensitive resources.	The northern portions of the Property have been dedicated to M-NCPPC Parks for protection, and other stream valleys through Category 1 conservation easement.	<input checked="" type="checkbox"/>

14. The Master Plan does not specify the type of dwelling unit (single-family versus multi-family).

15. This currently includes 101 single-family detached units and 9 single-family attached units. The Site Plan calls for a total of 121 single-family detached units and 66 single-family attached units, including 24 MPDUs and 17 TDRs.

PLAN PROJECTION		REALITY	
Theme	Plan Recommendation	2023 Status	Met?
Parks and open space	Provide links from the local park to the Muddy Branch Stream Valley Park.	The 10-acre local park will have a trailhead into the Muddy Brunch Stream Valley Park.	<input checked="" type="checkbox"/>
	Dedicate a 12-to 13-acre site for a community recreation center along Quince Orchard Road to ultimately include the existing farm. The site should accommodate a 24,000 net square foot recreation center, playing fields, and adequate parking. <i>(If the County Council selects the preferred community recreation center site on Travilah Road, then the following guidelines apply for alternative recreational facilities at Hanson Farms.)</i>	The community recreation center was built at the Travilah Road location.	<input type="checkbox"/>
	Dedicate a 10-acre site as a local park, sufficient to accommodate two ball fields and adequate parking.	There is a 10-acre site in the northeast section of the property that is pending as the Mt. Prospect–Hanson Farm Local Park. The land has been dedicated to the Parks Department, but it has not yet been constructed. It will provide 52 on-street parking spaces along the two public roads adjacent to the local park, for the use of the park.	<input checked="" type="checkbox"/>
	Development on this site must not exceed 50% of the total site area, excluding the potential community recreation center.	The developed portion of the site area, excluding the land dedicated for the 10-acre local park, is at 49.2%, which is under the 50% maximum.	<input checked="" type="checkbox"/>
	Expand the regional stream valley park system by dedicating forest area along the northernmost tributary, including the existing farm road, which can be incorporated into the trail system, areas of sensitive features such as steep slopes and a 200-foot buffer along the Muddy Branch main stem, and forest areas adjacent to Travilah Road and adjacent stream valleys to connect with the existing stream valley park.	19.5 acres of new parkland has been dedicated to the Muddy Branch SVP, which maintains at least a 200-foot-wide minimum buffer between the main stem of Muddy Branch and any private lots, and dedicates the northernmost forested tributary, creating a new public trailhead connection within this forested area. Other forested areas within stream valley buffer have been maintained as Category 1 Conservation Easements, as they are connected to but too fragmented from the Muddy Branch main stem.	<input checked="" type="checkbox"/>

Figure 33: Single-family detached housing at Mount Prospect



Figure 35: Plan for continued development at Mount Prospect



Figure 34: Old Hanson residence retained at Mount Prospect



Figure 36: Protected open space at Mount Prospect



Source: Montgomery Planning, 2023

Case Study 5: Park Potomac¹⁶

Location:

This is a 50.91-acre site located at the northwest quadrant of I-270 and Montrose Road that includes the adjacent 1.85-acre Cohen site on Montrose Road and land south of Montrose Road. In 2002, this site was an undeveloped wooded area.

Main vision from 2002 Master Plan:

The master plan recognized the site’s commercial potential along the I-270 corridor, but envisioned an environment developed with mixed uses and a compact pedestrian-friendly development pattern, interspersed with open spaces. The plan emphasized a mix of uses rather than the sterile environment of a single-use office park.

Overall takeaways:

For the most part, Park Potomac resembles the concept envisioned in the 2002 Master Plan. It has become a successful mixed-use development with residential units, retail options, office buildings, and open space. This diversity of uses is even reflected within the residential sections, where each block of townhomes and multi-family apartments has a different façade (see [Figure 39](#), [Figure 41](#), and [Figure 43](#)).

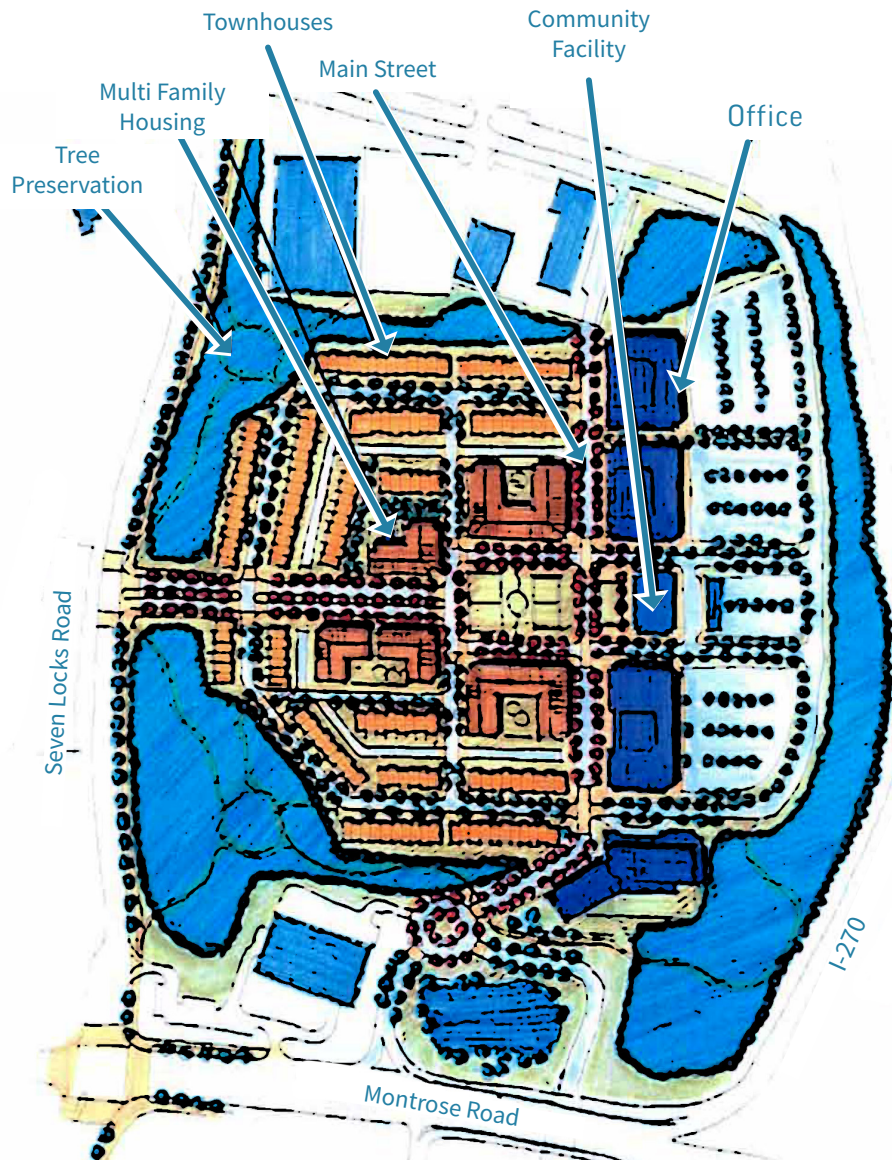
However, there are some deviations from the Master Plan. Firstly, no explicit senior housing has been built in this development, though this site was recommended as a potential location for such housing. Secondly, there has been an increase in residential density relative to the initial preliminary plan from 2003. The most recently approved site plan from 2023 proposes a modification to Parcel PP to allow for multi-family residential use instead of the office use approved by the existing Preliminary Plan. This is in line with recent trends seen throughout the County, where plans for office are being replaced with residential units, as developers are struggling to find office tenants. Thirdly, as recommended, the trees on the steep slopes along Seven Locks Road on the western side of the property have been protected, but the trees on the eastern side along I-270 have not been retained (see [Figure 37](#) versus [Figure 38](#)).

Table 16: Overview of Park Potomac Development

2002 ZONING	R-90	Single-Family Detached
	R-200	Single-Family Detached
2023 ZONING	CRT-1.25 C-0.5 R-0.75 H-100 T	Commercial Residential Town with max FAR of 1.25
SITE PLAN HISTORY	Site plan in 2004 with 13 amendments	Approved 450 dwelling units and 847,200 commercial square feet
	Latest site plan in 2023	Limited to approximately 5.7 acres; Approved 307 dwelling units

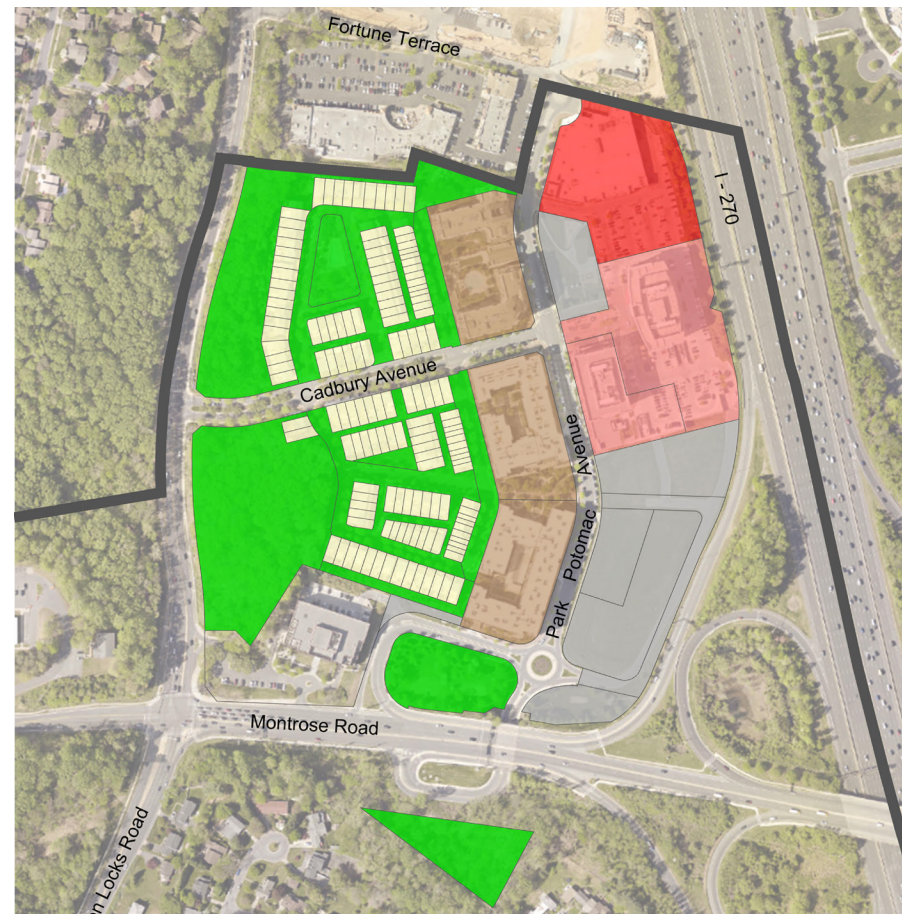
16. Referred to as Fortune Parc in the Master Plan.








Figure 37: Park Potomac Concept (2002)



Source: Potomac Subregion Master Plan, 2002

Figure 38: Park Potomac Land Use (2023)



-  Potomac Subregion Boundary
-  Open Space/Recreation
-  Residential Single-Family Attached
-  Residential Multi-Family
-  Office
-  Retail
-  Vacant



Source: Montgomery Planning, 2023



Table 17: Development Recommendations for Park Potomac

PLAN PROJECTION		REALITY			
Item	Amount	Total built (as of 2002)	Total built (as of 2023)	Approved but unbuilt	Total built + approved
Single-family units	150	0	150 (14 MPDUs incl.)	0	150
Multi-family units	300 ¹⁷	0	450 (30 MPDUs incl.) ¹⁸	307 (39 MPDUs incl.) ¹⁹	757
Commercial square feet	850,000	0	389,128	280,500	669,628 ²⁰

17. With an additional 150 as part of TDR.

18. A total of 75 MPDUs were required across the entire development (12.5% of 600). 61 MPDUs were approved in the multi-family units, while the remaining 14 were approved in the single-family units. However, 31 of the 61 multifamily MPDUs were provided off-site as part of an alternative agreement due to high condo fees.

19. Justification for residential units above the Master Plan recommendation stems from the new Zoning Ordinance that measures density as a function of FAR rather than dwelling units, a traffic study that showed equal or fewer trips, and the creation of a vibrant mixed-use development stated in the Master Plan.

20. Sourced from Park Potomac Site Plan Approval.

Table 18: Park Potomac Land Use and Design Guidelines

PLAN PROJECTION		REALITY	
Theme	Plan Recommendation	2023 Status	Met?
Parks and open space	Preserve the mature upland forest on the southwest portion of the site and, to the maximum extent possible, the steep slopes along Seven Locks Road.	There are Category 1 conservation easements on six acres on the southwest portion of the site and on the steep slopes along Seven Locks Road.	<input checked="" type="checkbox"/>
Built environment	Create a public “Main Street” through the site that connects to existing office development on Montrose Road and with commercial development at Fortune Terrace. This axial street should contain buildings with ground floor retail uses where appropriate, including restaurants and sidewalk cafes that animate the street.	There is a main street built with a mix of office and multi-family residential buildings with ground floor retail lining the main street (see Figure 39).	<input checked="" type="checkbox"/>
	Provide a public street to connect Main Street to Seven Locks Road.	There is a second public street that connects Seven Locks Road to Main Street, providing a second point of access to the site.	<input checked="" type="checkbox"/>
	Locate a residential neighborhood with a variety of housing types and adequate community and recreation facilities on the site’s west side.	A wide variety of residential uses have been built with adequate amenity spaces (see Figure 39, Figure 41, and Figure 43).	<input checked="" type="checkbox"/>
	Locate offices on the site’s east side, between the Main Street and I-270, with buildings defining the street and structured parking to the rear. Buildings should be limited to eight stories unless the Planning Board finds during development review that additional height would be compatible with surrounding development. Buildings should include ground floor retail where appropriate.	Two office buildings and their related parking structures are located east of the Main Street, benefiting from high visibility on I-270. The office structures protect the residential neighborhood from noise generated by I-270 (see Figure 42).	<input checked="" type="checkbox"/>
Transportation	A shuttle service or other transit connection should be provided to Metro when development supports the service, as determined at the time of development plan approvals. Additional trip mitigation measures such as the provision of a park-and-ride facility, or financial contribution to such a facility, should be considered at site plan.	There is shuttle service provided to the Metro system. The location is also served by the Ride-On bus.	<input checked="" type="checkbox"/>
Sewer	Include the property in the Washington Suburban Sanitary District (WSSD).	The property has been included in the Washington Suburban Sanitary District.	<input checked="" type="checkbox"/>

Figure 39: Multi-family apartment with ground floor retail on Main Street at Park Potomac



Figure 40: Retail buildings with open space on the east side of Park Potomac



Figure 41: Townhomes in residential neighborhood of Park Potomac



Figure 42: Office buildings with open space on east side of Park Potomac



Figure 43: Multi-family apartments in residential neighborhood of Park Potomac



Source: Montgomery Planning, 2023

Case Study 6: Darnestown Village Center

Location:

Darnestown’s commercial center covers about 10 acres and is located at the intersection of Darnestown and Seneca Roads. In 2002, the village center included a Food Lion grocery store, a gas station, and several one- and two-story retail and office structures.

Main vision from 2002 Master Plan:

The plan envisioned a new Overlay Zone to allow compatible uses in a rural village pattern. Its purpose was to retain and enhance the commercial crossroads character through compatible scale, massing, siting, and setbacks for new and expanded uses; encourage a variety of uses that serve the needs of the local community; provide opportunities for new and existing business expansion, while keeping the commercial area compact and low density; create a pedestrian-friendly commercial area; and draw on the open, green character of the surrounding area, emphasized through streetscape design.

Overall takeaways:

In general, the rural and village character of Darnestown Village Center has been retained. However, similar to Potomac Village, this area has not experienced significant change since the master plan. The only addition to the Village Center since 2002 has been the construction of one commercial building in the southwest quadrant of the area, at the intersection of Darnestown and Seneca Roads. While there was a site plan submitted to build senior housing in a location recommended by the 2002 master plan, this application was withdrawn due to funding issues with HUD.

Table 19: Overview of Darnestown Village Center

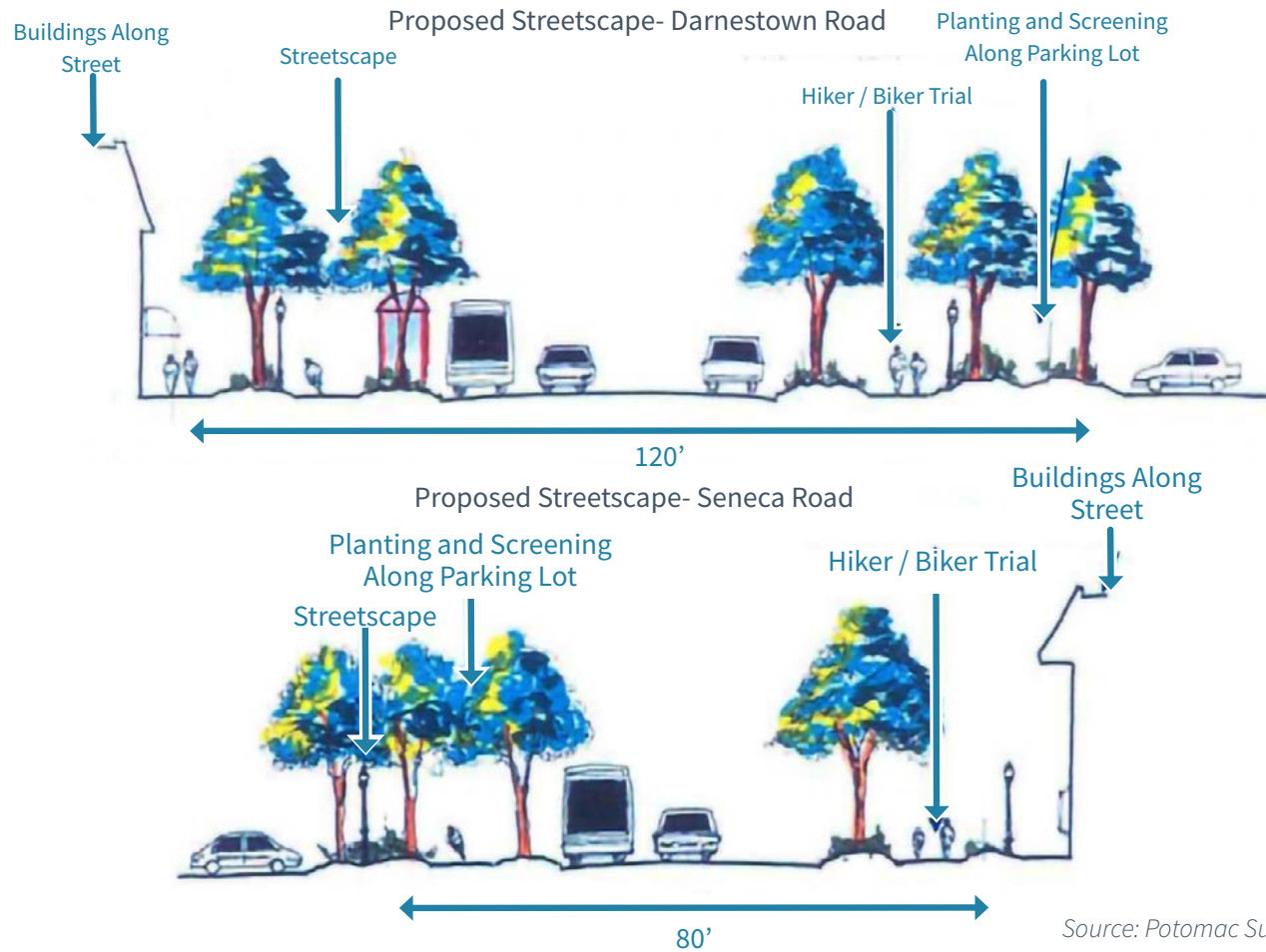
2002 Zoning	C-1	Convenience Commercial
	O-M	Office Building, Moderate Intensity
2023 Zoning	CRN-0.25 C-0.25 R-0.0 H-35	Commercial Residential Neighborhood with max FAR of 0.25
	RE-2	Residential Estate Zone with minimum lot area of 2 acres
	R-200	Residential Zone with minimum lot size of 20,000 square feet
Site Plan History	Site plan in 2005	Approved 9,458 square feet of additional grocery store use and other retail (Food Lion converted to Harris Teeter)
	Site plan in 2007	Approved 10,000 commercial square feet (Petruccelli’s corner)
	Site plan in 2021	Approved three single-family dwelling units

Source: Potomac Subregion Master Plan, 2002

Table 20: Development Recommendations for Darnestown Village Center

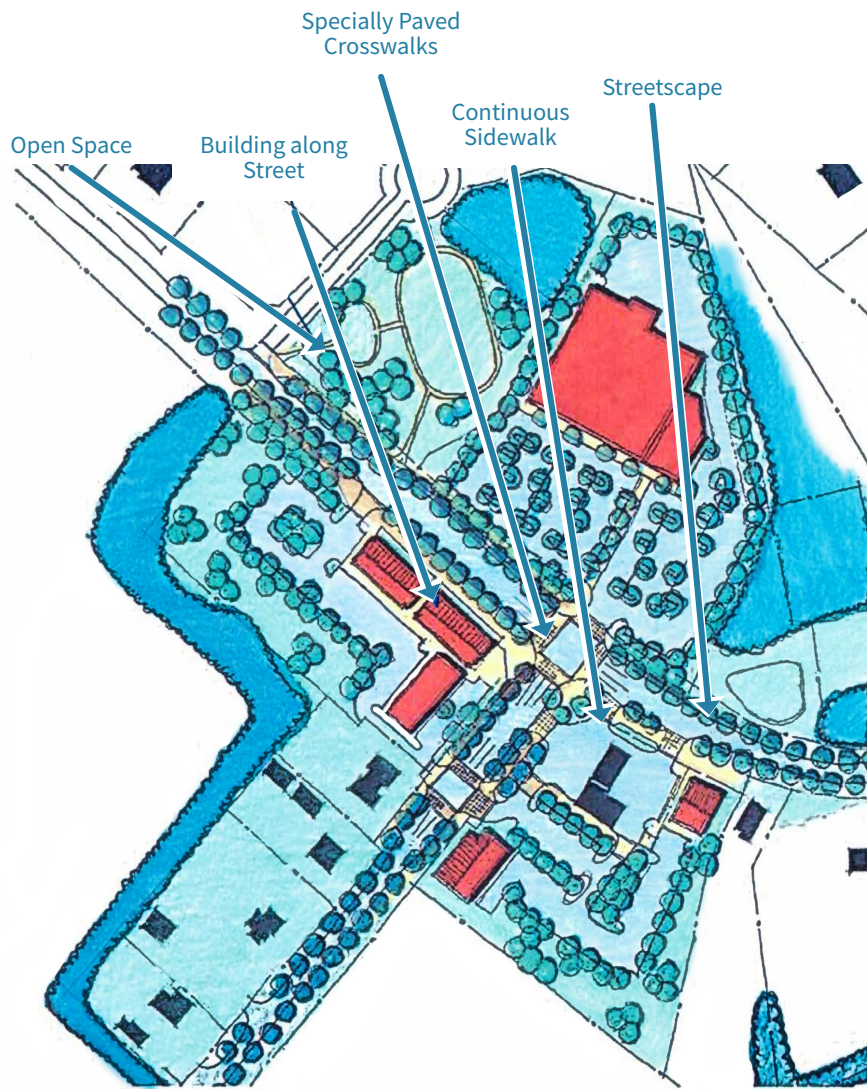
PLAN PROJECTION		REALITY			
Item	Amount	Total built (as of 2002)	Total built (as of 2023)	Approved but unbuilt	Total built + approved
Residential units	Not specified	6	8	3	17
Retail square feet	Not specified	50,025	60,025	0	60,025
Office square feet	Not specified	11,621	11,621	0	11,621

Figure 44: Proposed Streetscapes for Darnestown Village Center (2002)



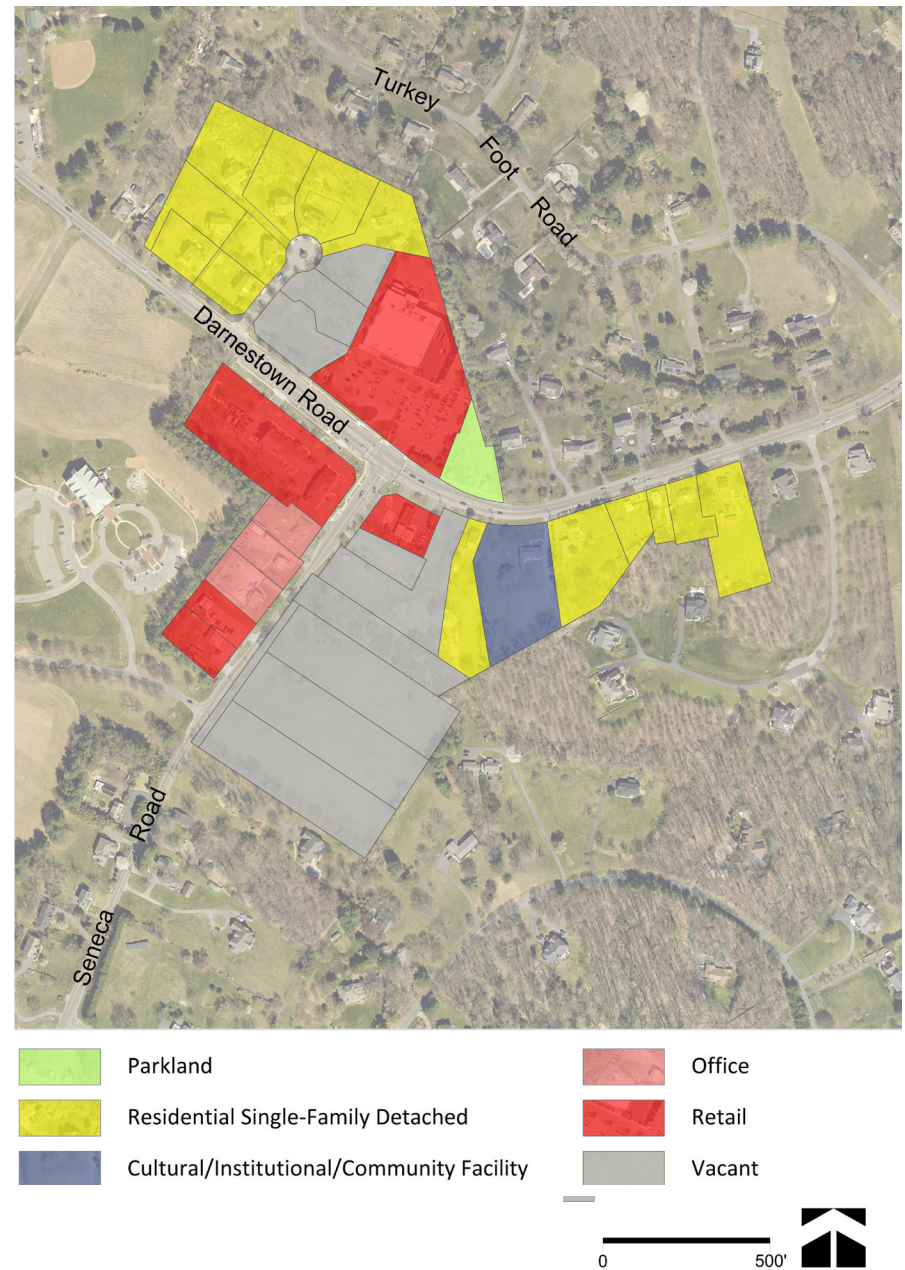
Source: Potomac Subregion Master Plan, 2002

Figure 45: Darnestown Village Concept (2002)



Source: Potomac Subregion Master Plan, 2002

Figure 46: Darnestown Village Center Land Use (2023)



Source: Montgomery Planning, 2023

Table 21: Darnestown Village Center Land Use and Design Guidelines

PLAN PROJECTION		REALITY	
Theme	Plan Recommendation	2023 Status	Met?
Built environment	Commercial buildings should not be higher than 35 feet, to achieve a compatible scale with surrounding neighborhoods.	The new two-story Petrucci's corner building complements the existing commercial building on the site and the scale and massing of the surrounding one and two-story buildings	<input checked="" type="checkbox"/>
	Provide an attractive, rural village center at Darnestown and Seneca Roads that is pedestrian oriented and compatible with the adjacent areas.	The center has a rural feel; however, it is not pedestrian friendly. There is one crosswalk across Darnestown Road to Harris Teeter that planners have classified as “uncomfortable” for pedestrians. ²¹ There is no sidewalk or path to cross on the other side of the road.	<input type="checkbox"/>
	Locate buildings along Darnestown and Seneca Roads to create a strong street definition; provide parking in the rear.	The new retail building is located along Darnestown and Seneca Roads with parking on the north, south, and west sides of the building.	<input checked="" type="checkbox"/>
	Provide continuous “Main Street” development along Darnestown and Seneca Roads within the village center.	The Main Street did not feel continuous, as it split the village shops and the Harris Teeter.	<input type="checkbox"/>
Parks and open space	Provide green frontage to development with extensive planting and streetscaping, and green buffers between commercial and residential development.	Landscaping consists of shade trees located around the periphery of the parking lot and shrubs fronting the parking spaces along a portion of Darnestown Road.	<input checked="" type="checkbox"/>
	Explore the feasibility of a landscaped circle at the intersection of Darnestown and Turkey Foot Roads to mark the entrance to Darnestown.	There is no landscaped circle at the intersection of Darnestown and Turkey Foot Roads.	<input type="checkbox"/>
	Provide open spaces throughout the Village. Development standards for sites within the commercial overlay should include a requirement for 35% open space, which includes “green” parking lots and setbacks. Lots 30 and 31 and outlet B will be designated for open space use with septic capacity to allow additional retail construction on parcel G, the Food Lion site.	The Harris Teeter site is 40% open or green space, while the Petrucci's corner site is 44% open space. Green space was also provided as part of lots 30 and 31 to be used for a future septic area.	<input checked="" type="checkbox"/>
Transportation	Design streets that include traffic-calming features, such as specially paved crosswalks that minimize curb cuts and that include sidewalks, providing continuous pedestrian and bicycle circulation.	Sidewalks have been provided along Darnestown Road and partially along Seneca Road. The two access points off Darnestown Road have been modified. The access point closest to Seneca Road is for right-out-only traffic only. However, crossing Darnestown Road to Harris Teeter remains difficult, with one “uncomfortable” crosswalk and one “unacceptable” sidewalk/path. ²²	<input type="checkbox"/>

21. Sourced from the Pedestrian Level of Comfort layer in the Montgomery County Planning Department GIS database

22. Sourced from the Pedestrian Level of Comfort layer in the Montgomery County Planning Department GIS database

Figure 47: Commercial building in Darnestown Village Center



Figure 48: Commercial building in Darnestown Village Center



Source: Montgomery Planning, 2024

Case Study of Site Not Anticipated for Development: Glenstone Museum

Though master plans can dictate the broad type of development that can take place on specific parcels of land through zoning, they cannot always predict how the land ultimately gets used. A particular example of a development in the Potomac Subregion that was not anticipated by the master plan is the Glenstone Museum. This museum is primarily a collection of post-World War II artworks that are presented in both indoor and outdoor spaces that are designed to facilitate meaningful encounters.

This institution is located on 230 acres of land near Glen Road in the Travilah area. This site was originally multiple parcels, but Mitchell and Emily Rales bought several properties, built a house and a museum to house their art collection, and made it available to the public. The institution also contains substantial green space with walking paths. As this land is in the RE-2 zone, museums are allowed by right. Therefore, all that was required for this development was a building permit after sewer service was granted.

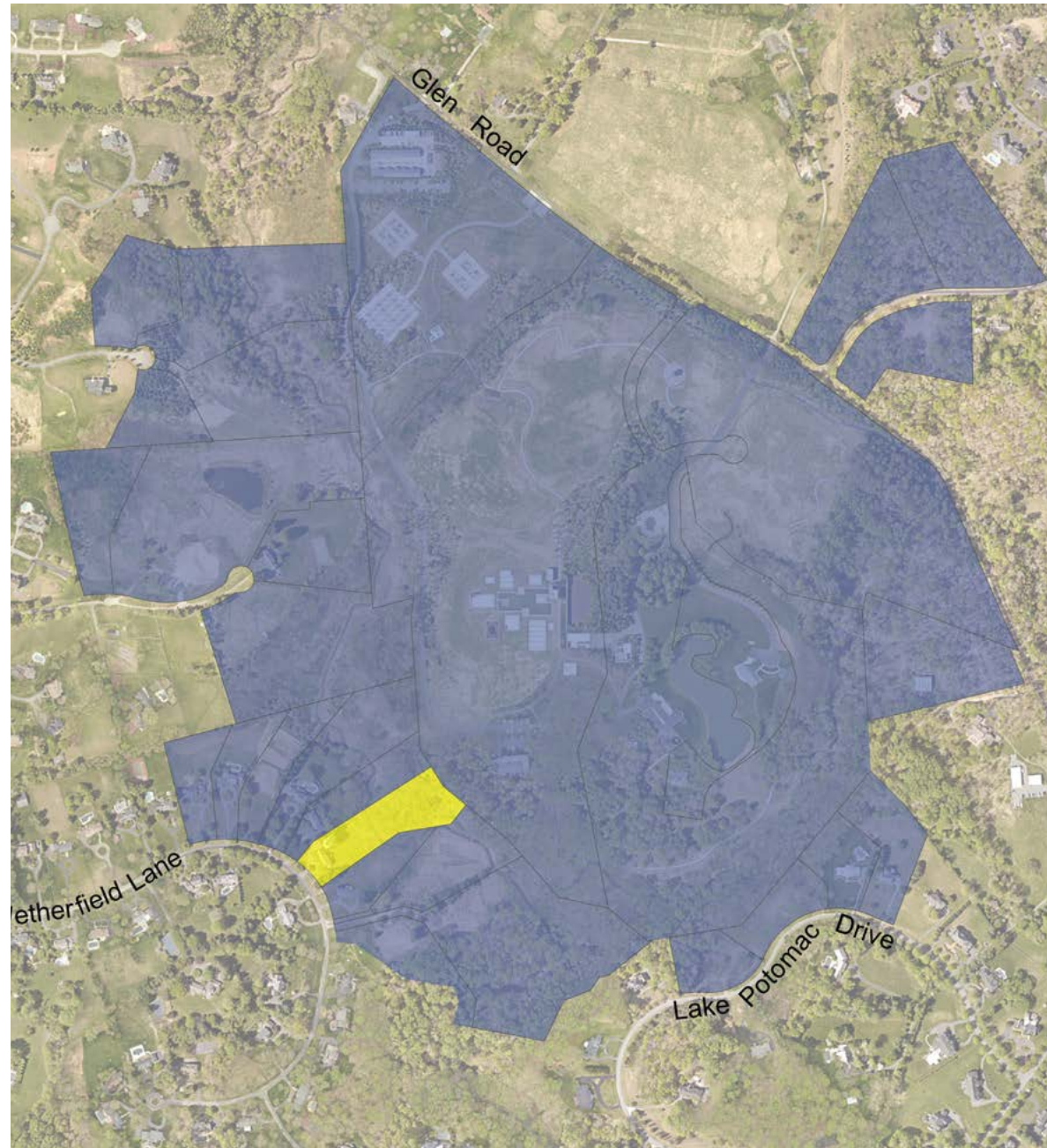
Glenstone had a significant sewer extension that was not anticipated in the 2002 master plan but remained in accordance with the Ten-Year Water Supply and Sewerage Systems Plan. Council Resolution 17-504 (2012) recognized that the Potomac master plan specifically excluded properties adjacent to and in the vicinity of the lower Greenbriar Branch from the sewer service envelope. However, though the Glenstone property confronts the Greenbriar properties, the application did not serve a residential subdivision, and therefore qualified for the extension. The Rales have continued to purchase several adjacent properties for the expansion of the Glenstone property, thereby reducing residential supply in this neighborhood while restoring the area to an environmental zone (see [Figure 49](#)).



Figure 49: Green spaces at Glenstone

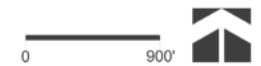


Source: <https://www.glenstone.org/about/mission>

Figure 50: Glenstone Property Land Use (2023)



-  Residential Single-Family Detached
-  Cultural



Source: Montgomery Planning, 2023

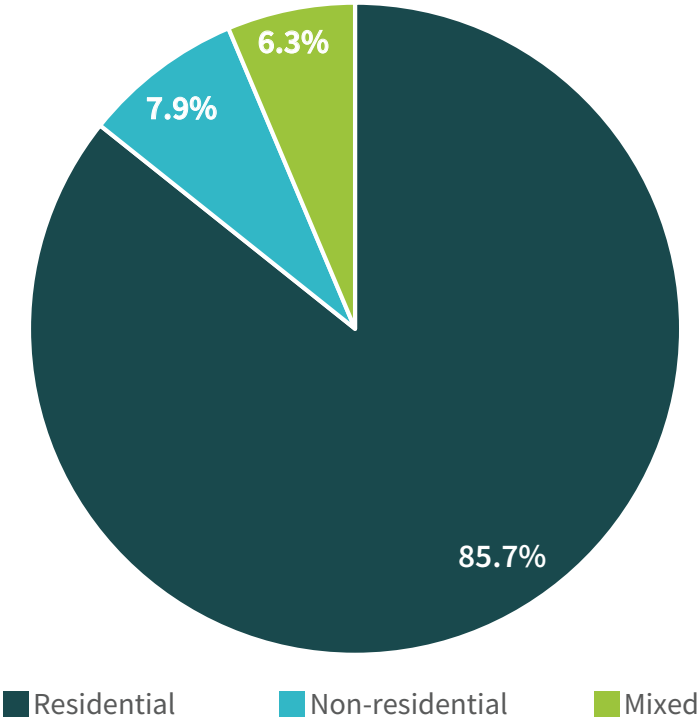
DEVELOPMENT PIPELINE

The “pipeline” is an inventory of development projects that have been approved by the Planning Board but have yet to be completely built out. It provides insight into what has been planned for the Subregion, and thus, it is important to include it as part of the reality check process.

As Figure 51 displays, 85.7% of projects in the Potomac Subregion’s pipeline are residential, highlighting the area’s desire to remain a low-density residential community. The remaining 14% of projects are non-residential (8%) and mixed-use (6%). A further breakdown of the unbuilt residential units and commercial gross floor area shows that most development is planned for mixed-use developments. 1,087 of the 1,286 unbuilt residential units (85%) and 1,494,163 of the 1,916,264 unbuilt commercial square feet (78%) are approved within mixed-use projects. Of the unbuilt residential units, 81% are multi-family housing, and the remaining 19% are single-family accommodations. The top contributors to the unbuilt residential units are Westfield Montgomery Mall, Park Potomac, Hanson Farms, and Heritage Potomac. The top contributors to the unbuilt commercial gross floor area are Traville Gateway, Park Potomac, Westfield Montgomery Mall, and Chaberton Solar Santa Rosa.

Examining the duration of projects in the pipeline reveals that the average age of projects is 13.3 years. More than 40% of projects have existed in the pipeline for greater than 15 years, demonstrating the relatively slow development process in the Subregion. Potomac’s pipeline exhibits a trend toward more multi-family housing (see Dwelling Units section) and mixed-use development (see section on Case Studies of Sites Recommended for Development) where residential and commercial spaces are co-located.

Figure 51: Pipeline Development Projects by Development Type (2023)



Source: Montgomery County Development Pipeline, 2023

Figure 52: Unbuilt Residential Units by Development Type (2023)

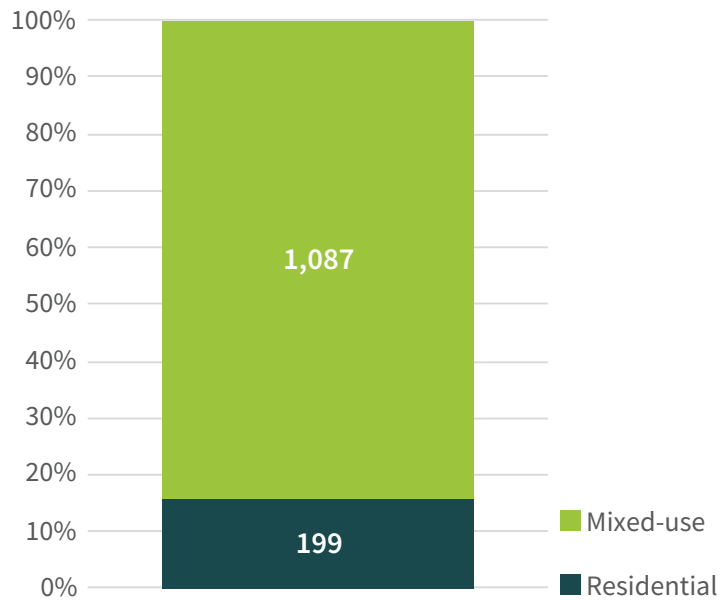


Figure 53: Unbuilt Commercial Gross Floor Area by Development Type (2023)

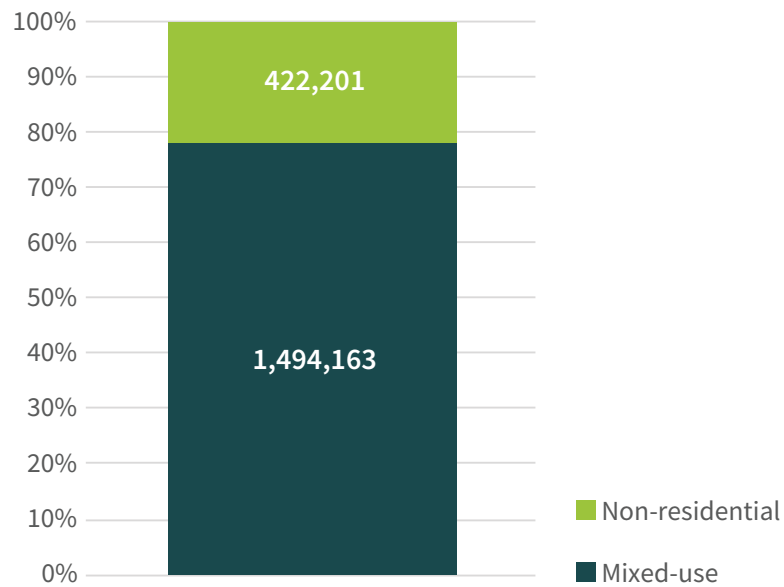
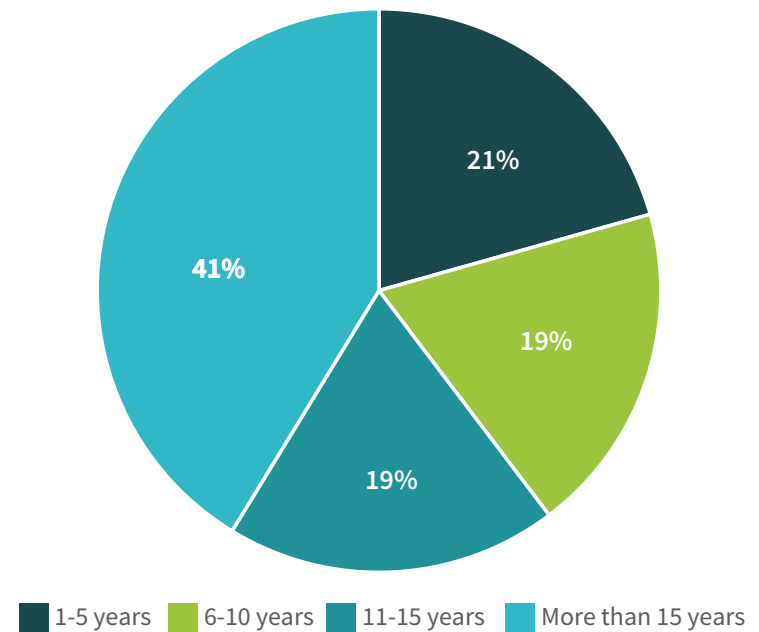


Figure 54: Pipeline Duration (2023)



Source: Montgomery County Development Pipeline, 2023

Transportation

While the Master Plan recognizes that the Potomac Subregion will become increasingly congested in the next 20 years, the primary goal of preserving the area's semi-rural character remains strong. As such, the Plan addresses streets and highways, transit, and bikeways to create a comprehensive system that, while not alleviating congestion, can serve residential communities and commercial centers, and preserve the Subregion's physical character.

STREETS AND HIGHWAYS

Two-lane policy

The two-lane policy in the Potomac Subregion was intended to preserve the community's visual aspect and character by discouraging the expansion of existing roadways from two to four lanes. As of 2002, apart from a few locations at the Subregion's northern and eastern periphery, there were no roads in the Subregion wider than two lanes.

Over the past 20 years, the two-lane policy has been maintained in the Subregion. This has continued to contribute to the area's semi-rural ambiance.

Plan Recommendations:

1. Maintain the 1980 Potomac Subregion Plan's system of two-lane roads with limited opportunity to expand road capacity.

Recommendation met

Rustic roads

Montgomery County's Rustic Roads Program preserves historic and scenic roads that reflect the County's agricultural character and rural origins. In 2002, the Potomac Subregion had five rustic roads that were designated as such in the 1996 *Rustic Roads Functional Master Plan*. These were Black Rock Road, Pennyfield Lock Road, Rileys Lock Road, Violettes Lock Road, and Swains Lock Road.

The first recommendation regarding the amendment to rustic roads legislation could not be evaluated because the Chapter 49 Article 8 legislation did not contain specific language on traffic volume and safety criteria. Therefore, there was no legislation to amend, and the recommendation does not apply.

Plan Recommendations:

1. Make a minor amendment to the rustic roads legislation, allowing traffic volume and safety criteria for rustic roads designation to be waived for roads in a planning area where a comprehensive two-lane road policy is in effect.

Recommendation could not be evaluated.

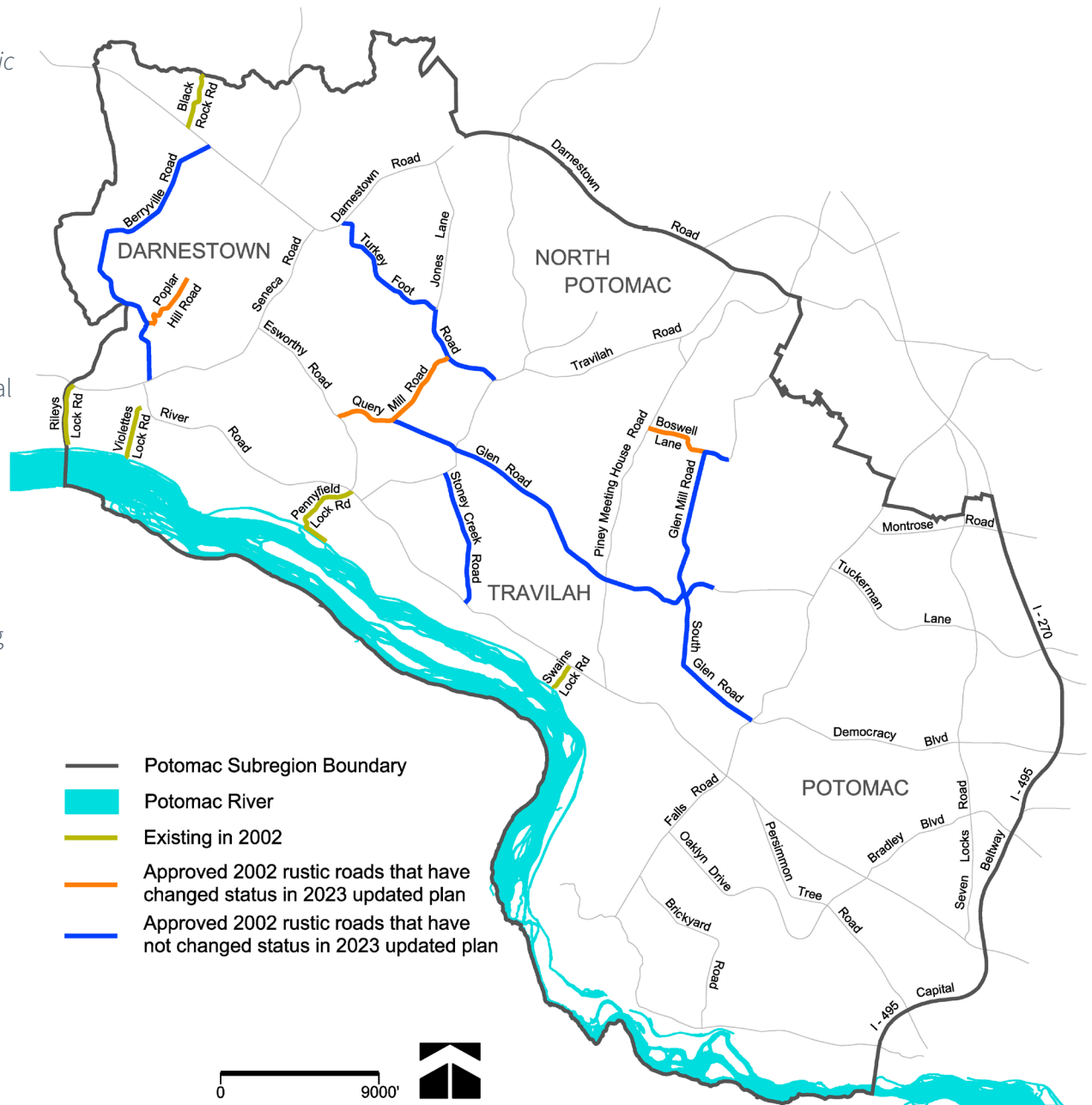
2. Designate nine additional rustic roads, designate one country road, and remove an interim exceptional rustic road.

Recommendation met

Upon the approval and adoption of the 2002 Master Plan, all roads designated as rustic or exceptional rustic in this plan were implemented. However, in July 2023, the *Rustic Roads Functional Master Plan Update* was approved, making some changes to the roads listed in the Rustic Roads Program. Of the nine rustic roads added in the 2002 *Potomac Subregion Master Plan*, six were approved as designated. Of the remaining three, Boswell Road was removed from the program, a segment of Poplar Hill Road was removed, and a segment of Query Mill Road had a classification change from rustic to exceptional rustic (see Figure 55).

In making these amendments, the *Rustic Roads Functional Master Plan Update* notes that the 2002 Master Plan lacked road profiles and details on why designations were recommended. It states repeatedly, “[The Master Plan] did not specify the features along the road that were to be preserved. Instead, the master plan contains a table showing the criteria for designation as rustic but does not provide any further guidance regarding the rustic designation.” This comment should serve as guidance for the rustic road section of future master plans.

Figure 55: Rustic Roads in the Potomac Subregion



Source: Montgomery Planning, 2023

Table 22: Status of Rustic Roads in the Potomac Subregion

PLAN RECOMMENDATION	STATUS IN 2023	MET?
Designate Berryville Road as exceptional rustic	Approved the new road profile and significant features	✓
Designate Boswell Lane as rustic	Removed the road from the Rustic Roads program	✓
Designate Glen Road (Query Mill Road to Piney Meetinghouse) as rustic	Approved the new road profile and significant features	✓
Designate Glen Road (Piney Meetinghouse Road to Beekman Place) as exceptional rustic	Approved the new road profile and significant features	✓
Designate Glen Mill Road (Red Barn Lane to Circle Drive) as rustic	Approved the new road profile and significant features	✓
Designate Glen Mill Road (Red Barn Lane to Glen Road) as exceptional rustic	Approved the new road profile and significant features	✓
Designate Poplar Hill Road as rustic	Removed the middle segment of the road from the Program; Approved the new road profile and significant features	✓
Designate Query Mill Road as rustic	Approved the new road profile and significant features; Changed classification of Query Mill Road to exceptional rustic from Glen Road to Esworthy Road	✓
Designate South Glen Road (segment) as exceptional rustic	Approved the new road profile and significant features	✓
Designate Stoney Creek Road as rustic	Approved the new road profile and significant features	✓
Designate Turkey Foot Road as rustic	Approved the new road profile and significant features	✓
Designate the portion of South Glen Road between Deepglen Drive and Falls Road as a Country Road	Designated as a Country Road	✓
Remove Quince Orchard Road’s interim exceptional rustic road designation	Removed from the Rustic Roads program	✓

Potomac River Crossing

Over the years, there has been a persistent debate between Maryland and Virginia regarding additional Potomac River crossings upstream of the District of Columbia. In 2002, while the *Montgomery County Master Plan of Highways* did not include a new Potomac River crossing, the *Northern Virginia 2020 Transportation Plan* did include a “Northern Potomac Crossing” highway aligned for construction beyond the year 2020.

Plan Recommendation:

1. Do not build a new river crossing within the Subregion.

Recommendation met

In 2004, the Montgomery County Council unanimously passed a resolution opposing any additional bridge, citing concerns about the destruction of existing neighborhoods, damage to parkland along the Potomac River, the need to protect the county’s 90,000-acre Agricultural Reserve, and the nonconformance with the Potomac Master Plan. To date, the Potomac River Crossing project is not funded nor is it under active study.

Roadway Reclassifications

Road classification changes are intended to make the Subregion’s roads consistent with road definitions in the County Code, intended road function, and ultimate road design and right-of-way.

As of 2023, the recommended realignments have been approved; however, none has been fully constructed. The three realignments on Falls Road remain as planned area connectors and the one on River Road is planned, but only partially constructed.

Plan Recommendations:

1. Realign Falls Road in three locations: 1) between Coldspring Road and Falls Farm Drive; 2) between Marseille Drive and Eldwick Way; 3) across the Bullis School Property.

Recommendation partially met

2. Realign River Road between Norton Road and Tara Road.

Recommendation partially met

3. Change the functional classification in the Master Plan of Highways for 15 roads (other than rustic roads).

Recommendation met

BIKEWAYS

According to the plan, the semi-rural character of the Subregion offers the opportunity to create an extensive network of off-road bikeways to accommodate the greatest number of users while protecting the environment.

Plan Recommendations:

1. Add 11 bike routes to the Master Plan of Bikeways.

Recommendation met

2. Where possible, build Class I bikeways. If Class I bikeways are not possible because of right-of-way constraints or other obstructions, Class II or Class III designs are recommended.

Recommendation not met

3. Locate bike racks at community facilities served by bikeways.

Recommendation not met

Of the 11 bikeway routes identified, all have been added to the *Bicycle Master Plan* that was approved on November 27, 2018. However, to date, none of these routes has been fully constructed. Seven of the bikeways have portions that are partially built, while the remaining four bikeways remain unbuilt (see [Figure 57](#)).

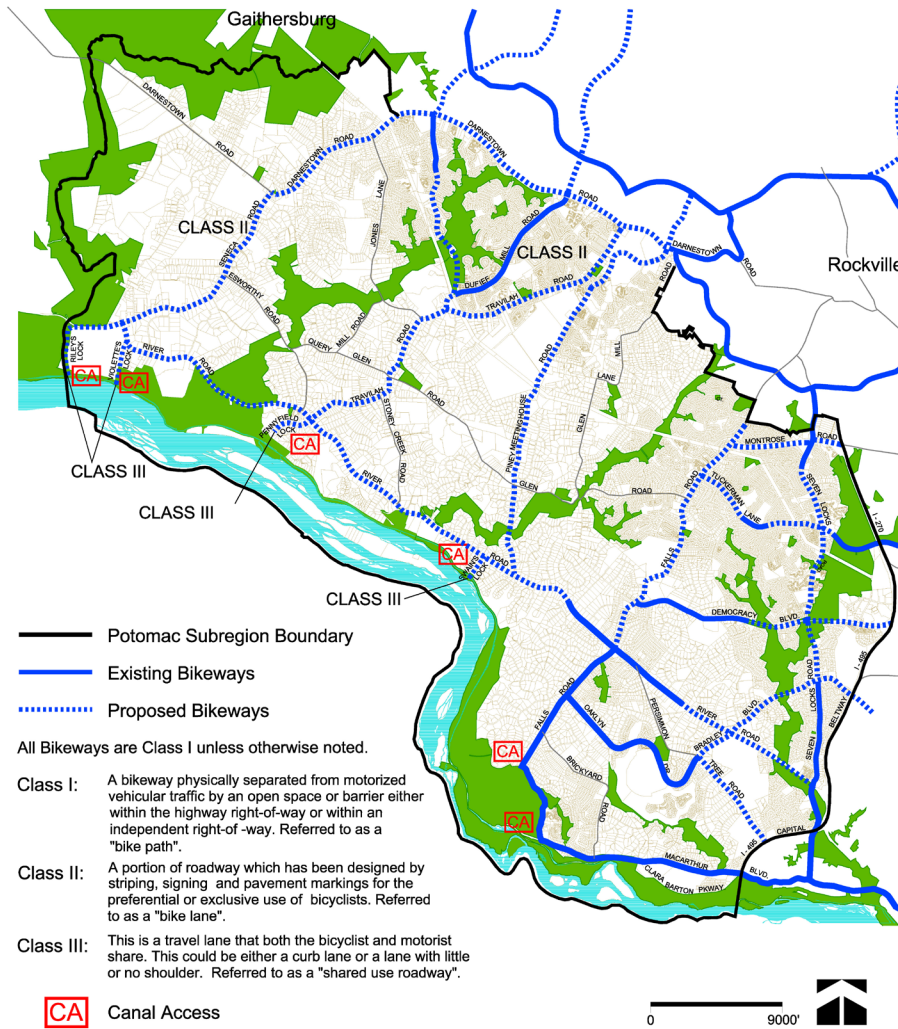
As of 2018, there were significantly more planned bikeways (382,952 feet) than existing bikeways (545,832 feet). Notably, many existing bikeways have been built by capital projects or by developers needing to meet frontage requirements, which contributes to the segmented nature of the routes seen in [Figure 57](#). According to the Capital Improvements Program (CIP), there are several bikeway projects for which money has been allocated in the 2024 approved budget, but they have yet to be built. These include \$26.76M for a bike path along Seven

Locks Road from Montrose Road to Bradley Boulevard, \$27.11M for a path along the east side of Falls Road from River Road to Dunster Road, and \$16.64M for safety improvements along Tuckerman Lane between Falls Road to Old Georgetown Road.

Almost all the facilities have a shortage of industry-standard bicycle parking, except for the Potomac Community Recreation Center, which meets the industry-established need (see *Bicycle Parking at Community Facilities in the Potomac Subregion* in the Appendix). The Subregion's deficiency in bicycle parking is aligned with that of the county, where only 8% of the total needed bicycle parking was met, according to the 2022 Bicycle Master Plan Biennial Monitoring Report.

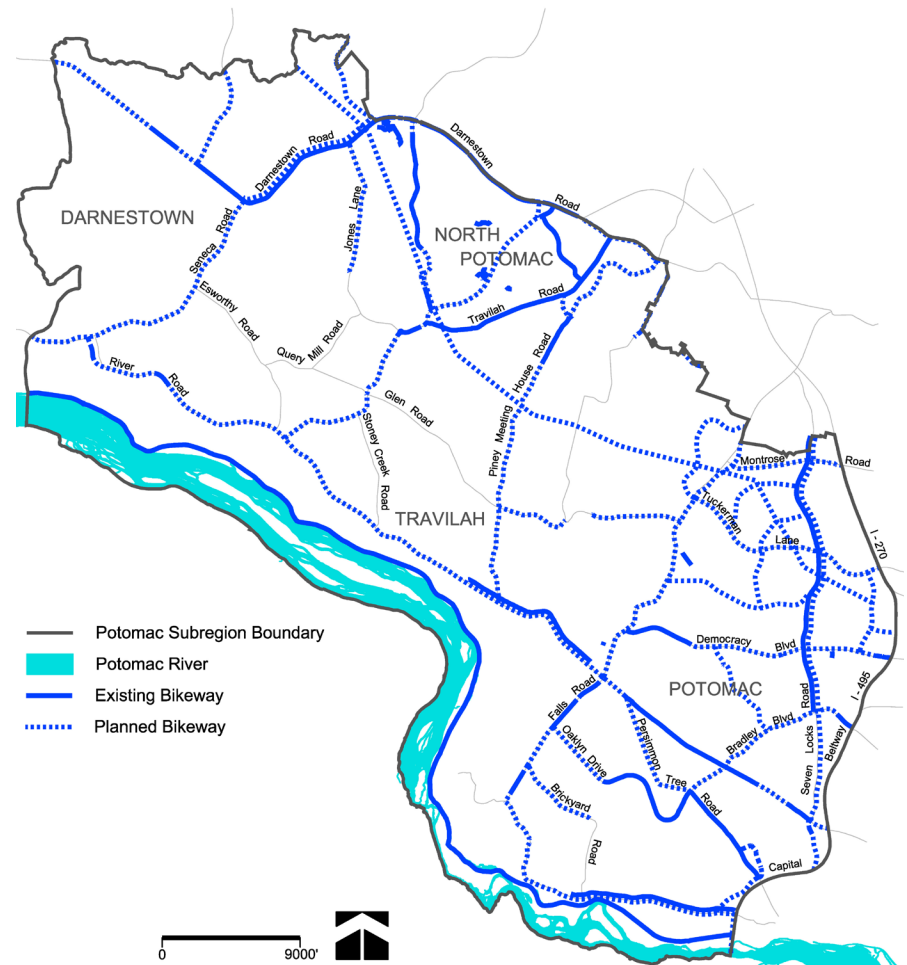


Figure 56: Existing and Proposed Bikeways (2002)



Source: Potomac Subregion Master Plan, 2002

Figure 57: Existing and Proposed Bikeways (2023)



Source: Montgomery Planning, 2023

TRANSIT SERVICEABILITY

Public Transit

The Plan mentions that a greater emphasis on transit and travel demand management can increase the efficient use of the Subregion's roads and help reduce congestion. It states that the fixed-route WMATA and Ride-On bus systems in Potomac were generally laid out to serve the largest commuter demands for travel to job centers or to Metrorail and MARC stations. The buses also provided access to community and institutional services. The Plan included recommendations supporting the North Bethesda Transitway, which still has not yet been built but is proposed to connect Montgomery Mall via Rock Spring Park to the Grosvenor-Strathmore Metrorail station.

As seen below, both transit centers have been built.

Figure 58: Montgomery Mall Transit Center



Figure 59: Trville Development Transit Center





Paratransit

The Master Plan also includes paratransit, which refers to taxicab and van shuttle services that run on unfixed routes and on demand-responsive schedules. The elderly, handicapped, and low-income residents of the Subregion are transit-dependent and were not efficiently served by fixed-route transit services. In particular, the Plan highlights that the Tobytown community would be much better served by paratransit service.

In October 2016, the Montgomery County Council approved a budget of \$407,000 for a new bus service to Tobytown. Since then, Route 301 has been operating 12 hours per day and seven days per week. Although the contracted bus is smaller than the regular, the route (shown in [Figure 61](#)) has been carrying around 50 riders per day.

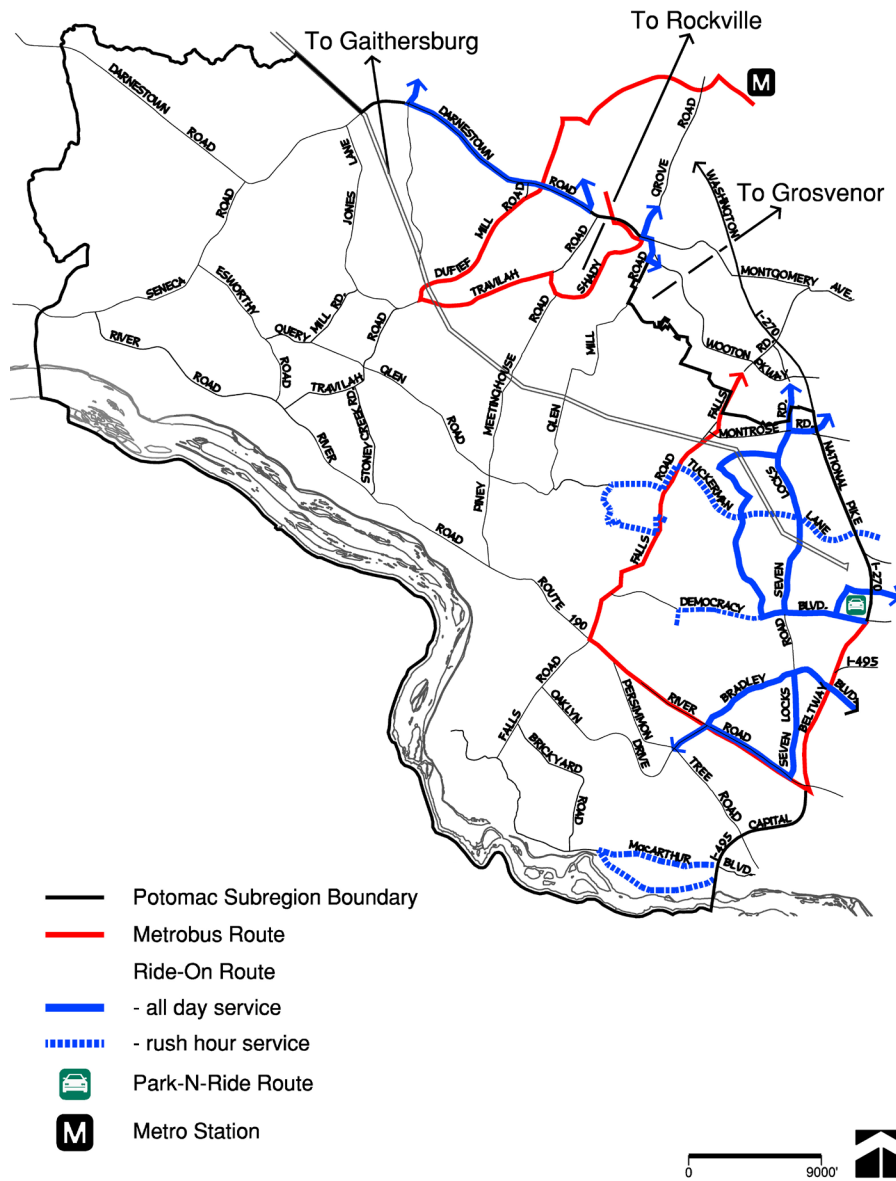
Plan Recommendation:

1. Maintain the 1980 Potomac Subregion Plan's system of two-lane roads with limited opportunity to expand road capacity.

Recommendation met

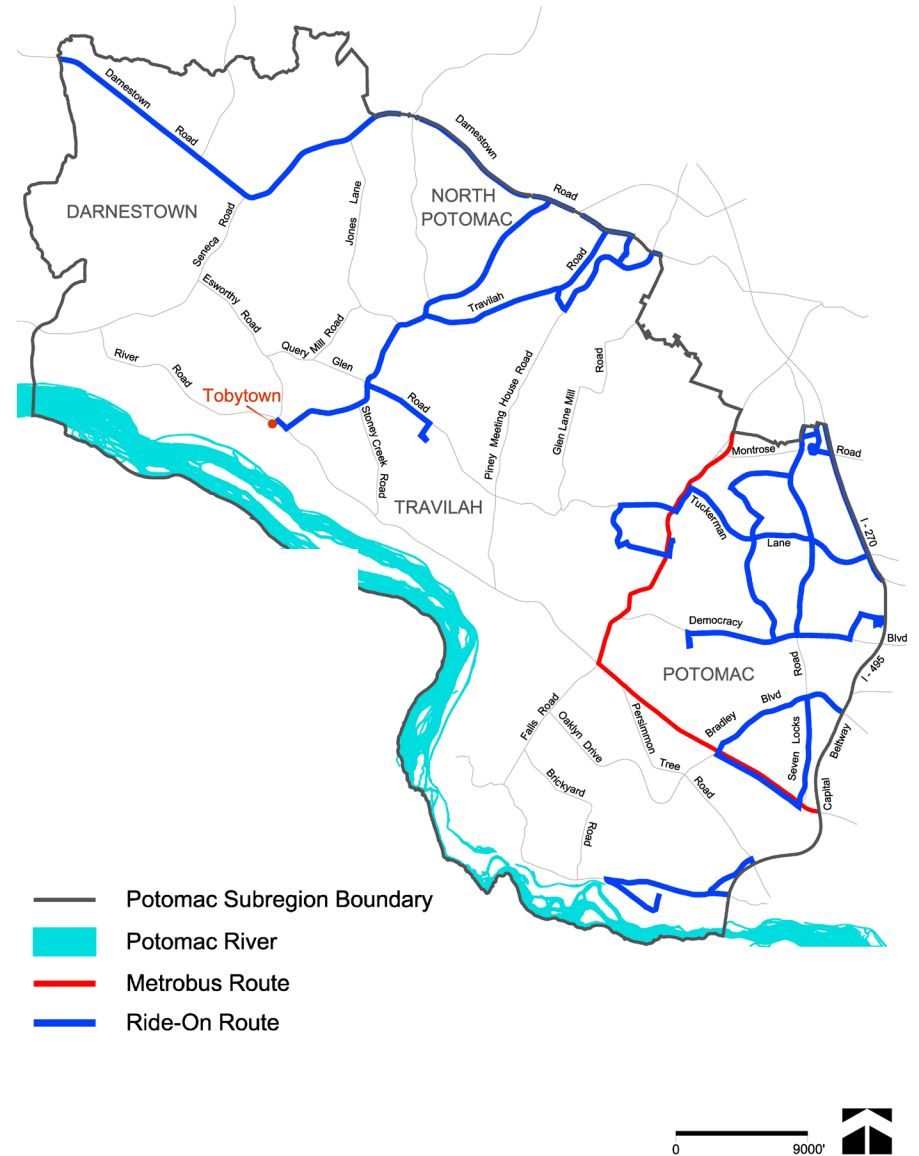
Source: Montgomery Planning, 2023

Figure 60: Transit in the Potomac Subregion (2002)



Source: Potomac Subregion Master Plan, 2002

Figure 61: Transit in the Potomac Subregion (2023)



Source: Potomac Subregion Master Plan, 2002

Community Facilities

The primary goal of the Community Facilities section of the Master Plan was to reinforce the Potomac Subregion's sense of community by providing a network of services to meet its physical, social, cultural, and protective needs. It aims to enhance social cohesion and develop a communal feeling of belonging.

PARKS AND PUBLIC OPEN SPACE

With its location along the Potomac River and the Chesapeake & Ohio (C&O) Canal, the Potomac Subregion contains generous public open space, a stream valley park system, and park land developed for active recreation. The Subregion has a significant amount of private open space due to its predominantly low-density residential development, and substantial private recreational clubs and facilities.

Plan Recommendation:

1. All school sites not otherwise recommended in the plan for environmental conservation should be considered for other public uses, including park land, if they are declared as surplus.

Recommendation could not be evaluated, as no surplus school sites were declared.

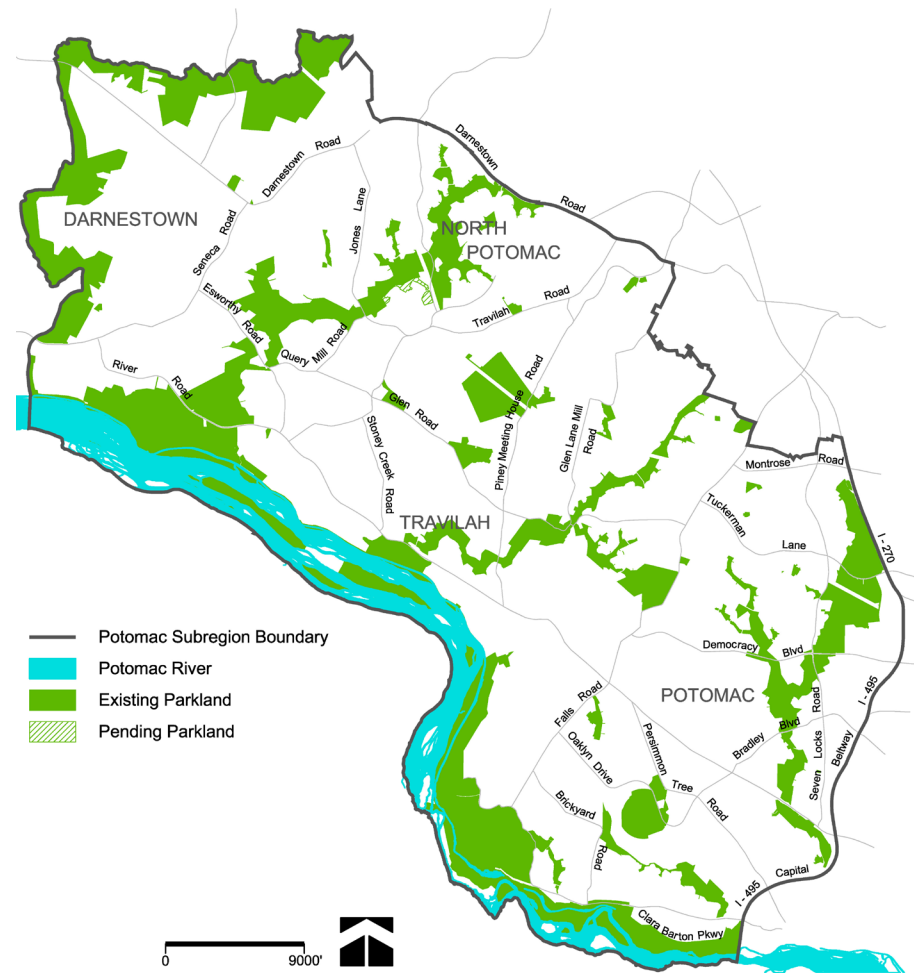
2. If any private schools have closed, it is recommended that they be examined for property acquisition to meet PROS needs for active recreation or other public uses.

Recommendation could not be evaluated, as no known private schools were closed.

3. Examine all opportunities in the Subregion to create new parks, including the Hanson Farms site.

**Recommendation met
Hanson Farm Local Park is pending.**

Figure 62: Parkland in the Potomac Subregion (2023)



Source: Montgomery Planning, 2023

Table 23: Active Recreation Needs in the Potomac Subregion²³

	NUMBER IN 2002	NUMBER IN 2019
Potomac Subregion		
Community-Use Parks ²⁴	31	30
Playgrounds ²⁵	24	23
Ballfields ²⁶	22	29
Courts ²⁷	32	72
Potomac Planning Area		
Community-Use Parks	20	16
Playgrounds	16	14
Ballfields	11	18
Courts	14	43
Travilah Planning Area		
Community-Use Parks	7	8
Playgrounds	5	6
Ballfields	6	7
Courts	9	15
Darnestown Planning Area		
Community-Use Parks	4	6
Playgrounds	3	3
Ballfields	5	4
Courts	9	14

According to the 2002 Master Plan, the Subregion had over 3,400 acres of park land and open space, including state and federal parks as well as a hierarchy of regional, community, and local parks.

As of 2023, the Subregion has 8,097 acres of existing (8,068 acres) and pending (29 acres) park land and open space. This includes local, neighborhood, special, urban, municipal, state, regional, and national parks, along with conservation land and stream valley parks.

Many of these park and open space locations house active recreation facilities, including playgrounds, fields, and courts. Table 23 compares the facilities in 2002 with those in 2019.

The number of M-NCPPC community-use parks and playgrounds in the Subregion have remained nearly constant over the past 20 years, while there has been a slight increase in the number of ballfields, and a dramatic uptick in the number of courts. Of the three planning areas, the Potomac Planning Area saw the largest increase (30) in number of courts.

23. Includes only M-NCPPC-owned facilities. 2002 numbers were sourced from the Potomac Master Plan. Numbers for 2019 were sourced from Montgomery Parks.

24. Includes neighborhood greens, pocket greens, urban recreational parklets, neighborhood parks, local parks, and neighborhood conservation areas.

25. Includes playgrounds (multi-age) and Tot Lot Play Areas (ages 2-5).

26. Includes softball, baseball, and soccer fields.

27. Includes basketball, multi-use, pickleball, tennis, volleyball, handball, and tai chi courts.

PARK TRAILS

As of 2002, the Potomac Subregion contained Seneca Creek State Park and three major stream valley parks (SVPs) with a variety of natural surface trails, including Cabin John, Watts Branch, and Muddy Branch. These stream valleys constitute irreplaceable natural resources, and all contain sensitive environmental features.

Plan Recommendation:

1. Remove Class 1 bike paths designations in Watts Branch SVP, Cabin John SVP, and Muddy Branch SVP.

Recommendation met

In 2002, Class 1 bike paths were defined as a bikeway physically separated from motorized vehicular traffic by an open space or barrier and located either within the highway right-of-way or within an independent right-of-way. Based on the 2023 bike path classification, these refer to trails and side paths/separated bikeways.

As of today, there are no Class 1 bike paths in Watts Branch SVP, Cabin John SVP, and Muddy Branch SVP. These were removed to protect the natural surface trails from damage caused by mountain bikers. Other types of trails in these SVPs remain for hikers and bikers to use.

GREENWAYS

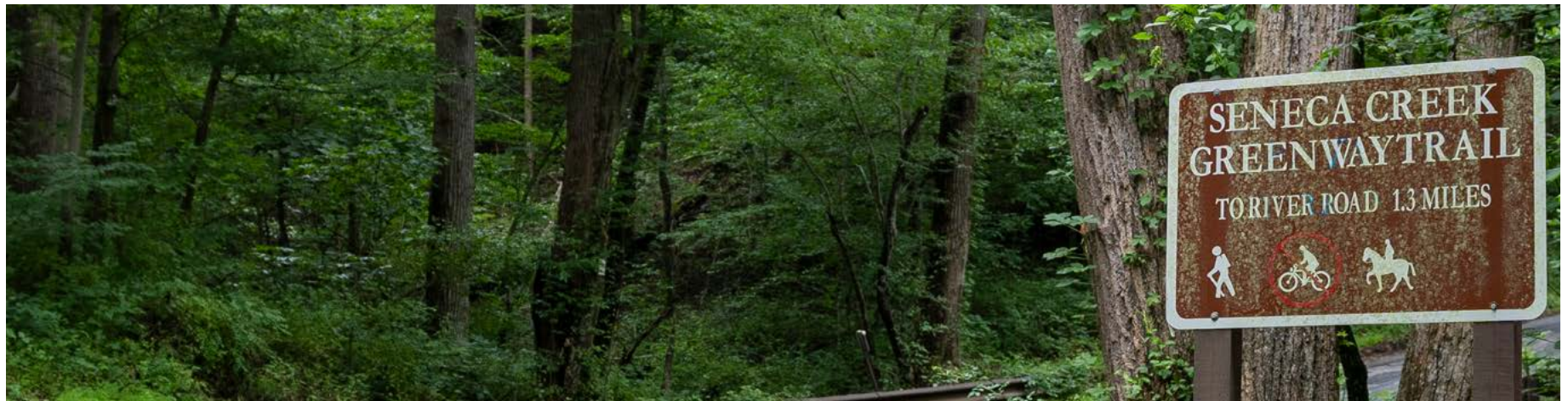
In 2002, a “greenway” was defined as a linear open space set aside for recreation and conservation uses.

Plan Recommendation:

1. Designate Cabin John, Watts Branch, Muddy Branch, and Seneca Creek Parks as greenways for purposes of State and federal funding for park acquisition or natural surface trail construction.

Recommendation partially met

Cabin John, Watts Branch, Muddy Branch, and Seneca Creek Parks were not designated as “greenways” as per the definition in the 2002 Master Plan. This designation, however, was not a requirement for park funding. Both Muddy Branch and Cabin John parks have received funding for several trail improvement projects since 2002, despite not having “greenway” designation. While there are no sanctioned trails in the Watts Branch Stream, this is due to issues of sustainability and maintenance. Montgomery Parks has made no investments in Seneca Creek, as it is on State Park land and maintained and operated by State Parks.



PUBLIC FACILITIES

The public facilities addressed in this Plan include community centers, libraries, safety services, and regional services. For the most part, recommendations for the improvement of these facilities have been met. The ones not met were included as lower priority suggestions.

Recreation Centers

According to the plan, there were two community recreation centers in the Subregion – the Potomac Community Center and the Scotland Community Center. The Potomac Community Center was an appropriate space for community meetings, social gatherings, and programmed activities for all members of the community. The Scotland Community Center, on the other hand, was cited in the plan as being undersized and inadequate to handle the diverse social and recreational needs of the residents. The plan detailed that the available space in the center was approximately half of a typical elementary school gymnasium.

Plan Recommendations:

1. Acquire property on the 13800 Block of Travilah Road for the North Potomac Community Recreation Center. The site must be adequate for a 24,000 net square foot facility and necessary parking.

Recommendation met

2. Expand the Scotland Community Center at its present location.

Recommendation met

As of 2023, there are three community recreation centers in the Subregion: the Potomac Community Center, the Scotland Community Center, and the Nancy H. Dacek Community Recreation Center. The Nancy H. Dacek Community Recreation Center was built at the recommended location in North Potomac in 2016. The renamed Bette Carol Thompson Scotland Neighborhood Recreation Center was

completely rebuilt in 2014, complete with sports courts, a computer center, and space for events and classes. In 2023, it was celebrated as a new “resiliency hub” designed to provide a haven for the historically Black community by keeping the center powered during electrical grid outages.

Libraries

As of 2002, there were three full-service libraries serving the Subregion, which, according to the plan, adequately serviced the area well into the future. These were Davis Library, Potomac Library, and Quince Orchard Library. In addition, there was a Special Needs library located just outside the Subregion that provided services to people with disabilities throughout the county.

Plan Recommendation:

1. Acquire the Lamari and Navelanko properties for potential expansion of community facilities adjacent to the Quince Orchard Library.

Recommendation not met

As of 2023, the three full-service libraries serving the Subregion continue to be in operation. The Lamari and Navelanko properties remain residential land and have not been acquired for community facilities.

Fire Stations

Plan Recommendation:

1. Build a new Class II fire-rescue station in the Travilah/North Potomac area, preferably in the vicinity of Darnestown Road and Shady Grove Road. The 52-acre Public Service Training Academy site was recommended to be explored for this facility.

Recommendation met

2. Cabin John Park Volunteer Fire Department Station 30, presently located at 9404 Falls Road, was recommended to be renovated on site. Any renovation/expansion should maintain the fire station's residential appearance and compatibility with the surrounding residential neighborhood.

Recommendation met

As of 2002, four fire and rescue stations were located within the Subregion: Cabin John Park 30, Cabin John Park Station 10, Rockville Station 31, and Rockville Station 33. At this time, stations 10, 31, and 33 met present and future functional needs and were in good physical condition. Station 30 required extensive renovation and expansion to meet present and future functional requirements. There was a stated need by the Fire and Rescue Service Station Location and Resource Allocation Work Group for a Class II fire-rescue station in the vicinity of Shady Grove and Piney Meeting House Roads to serve the Travilah-Shady Grove area.

As of 2023, there are five fire and rescue stations servicing the Subregion. As recommended by the Master Plan, in 2014, Station 32 was built at 9615 Darnestown Road in the Travilah Area. Station 30 was approved for renovations in 2003 and has since seen improvements to its women's facilities, a new roof between 2020–2022, repainting, carpet replacement, and window and door replacement. There is currently an ongoing informal planning process that is evaluating renovation ideas for the men's locker room.

Regional Service Centers

As of 2002, the Subregion was served by two regional service centers: the Upcounty regional services center and the Bethesda-Chevy Chase services center (see Figure 63). As noted in the plan, the Upcounty Center, located in Germantown, served one-half of the county, including many rural areas. The Bethesda-Chevy Chase center, in downtown Bethesda, served a smaller population and provided fewer services than the Upcounty center.

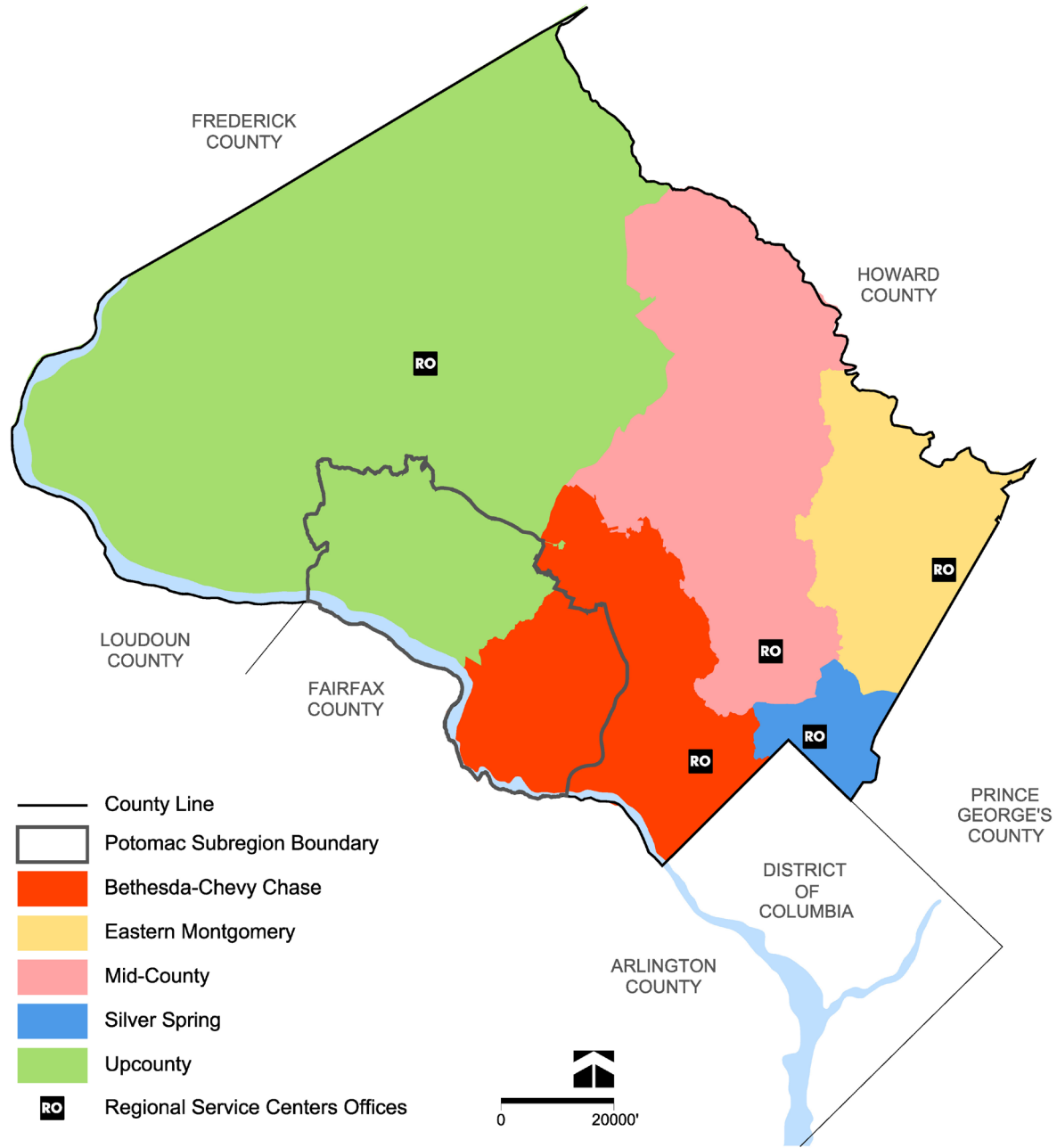
Plan Recommendation:

Support an expanded Quince Orchard Library site as the location for a regional services center satellite office.

Recommendation not met

As of 2023, there are no regional service centers located within the Potomac Subregion, and it continues to be served by the Upcounty and Bethesda centers. The Quince Orchard Library was not expanded as a satellite service center, but it was renovated and reopened as a library in 2017.

Figure 63: Regional Service Centers and Boundaries for Potomac Subregion



Source: Montgomery Planning, 2023

SCHOOLS

Public schools are an essential component of community life and an integral part of community structure. Montgomery County's public schools are divided into clusters of elementary, middle, and high schools, with cluster boundaries drawn to serve their surrounding residential communities, while maintaining a socio-economically balanced student population.

In 2002, students in the Potomac Subregion were primarily served by three clusters, namely Winston Churchill, Quince Orchard, and Thomas Wootton. Students living in the Subregion also attended schools in the Northwest and Walt Whitman clusters. At this time, both Potomac and North Potomac planning areas were at capacity or slightly over capacity, and a search was underway for a new middle school for the Quince Orchard cluster.

Plan Recommendation:

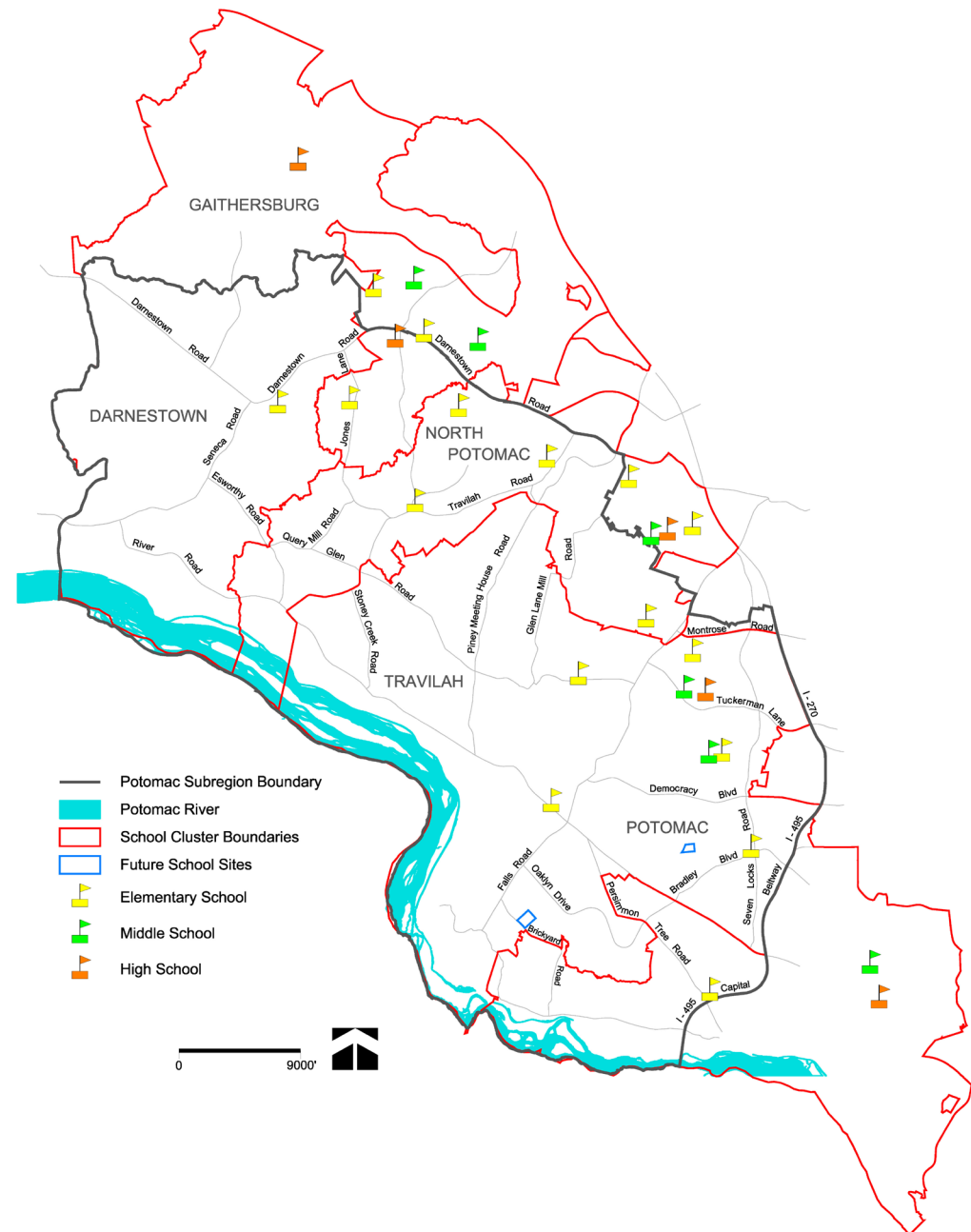
1. Do not support the Roberts property as the location of a new middle school for the Quince Orchard cluster, as it was outside the recommended sewer service envelope.

Recommendation met

2. Re-use surplus school sites as parks. In particular, Brickyard Junior High School, Kendall Elementary School, and Churchill Elementary School were recommended to be evaluated for public purposes if they are ever declared surplus.

Recommendation could not be evaluated, as no surplus school sites were declared.

Figure 64: Schools Servicing the Potomac Subregion (2023)



Source: Montgomery Planning, 2023

As of 2023, the Potomac Subregion had 16 elementary schools, six middle schools, and five high schools servicing its students, as seen in Figure 64. As recommended in 2002, the Roberts School did not become the new middle school for the Quince Orchard cluster since it was outside the recommended sewer service envelope. Instead, Lakelands Middle School opened in 2005, taking the place of the Roberts property. The Board of Education (BOE) currently holds vacant lots for “future” Brickyard Junior High School and “future” Kendall Elementary School should there be a need for additional school buildings (see Figure 64). These sites have not been declared as surplus or transferred from BOE ownership.

Elementary schools in the Subregion have seen a decline in utilization over the past 20 years, shifting from over-capacity to under-capacity (see Figure 65). Middle schools in the Subregion have generally been at capacity over the past two decades, but since 2019 they have seen a steady decrease in utilization and are trending toward under-capacity (see Figure 66). Unlike elementary and middle schools, high schools in the Subregion have been steadily at or slightly over-capacity since the master plan (see Figure 67). Notably, the Potomac Subregion has several private schools, including the Bullis School, the German International School of Washington D.C., and the Norwood School. The presence of these schools may be linked to higher private school enrollment in certain areas of the subregion than the county average.

Figure 65: Utilization of Potomac Subregion Elementary Schools

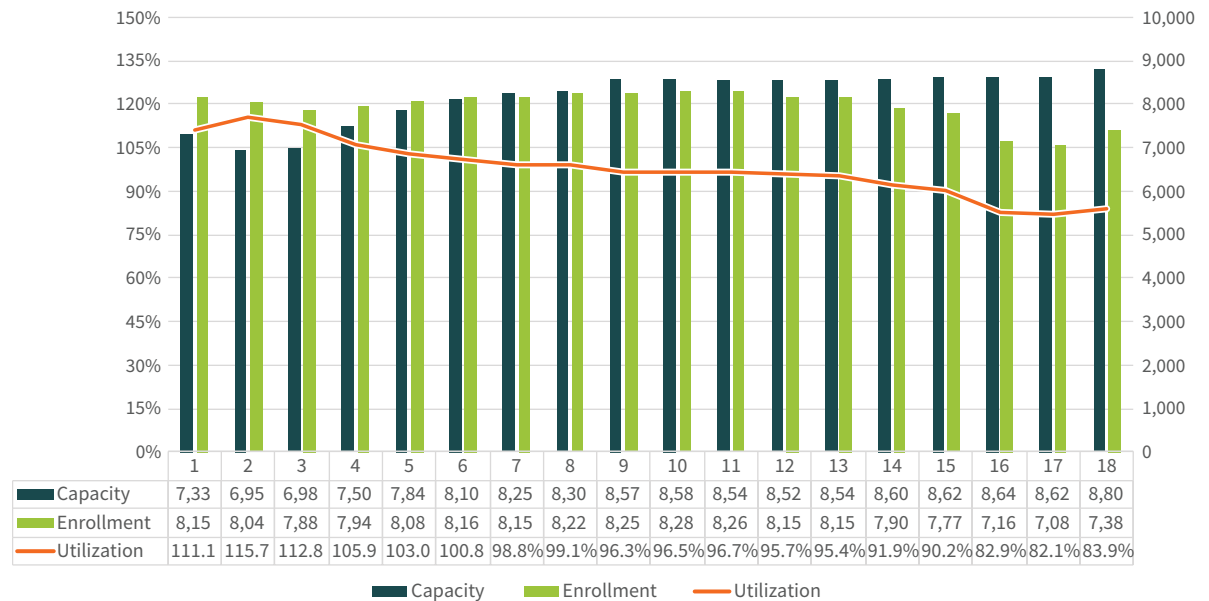
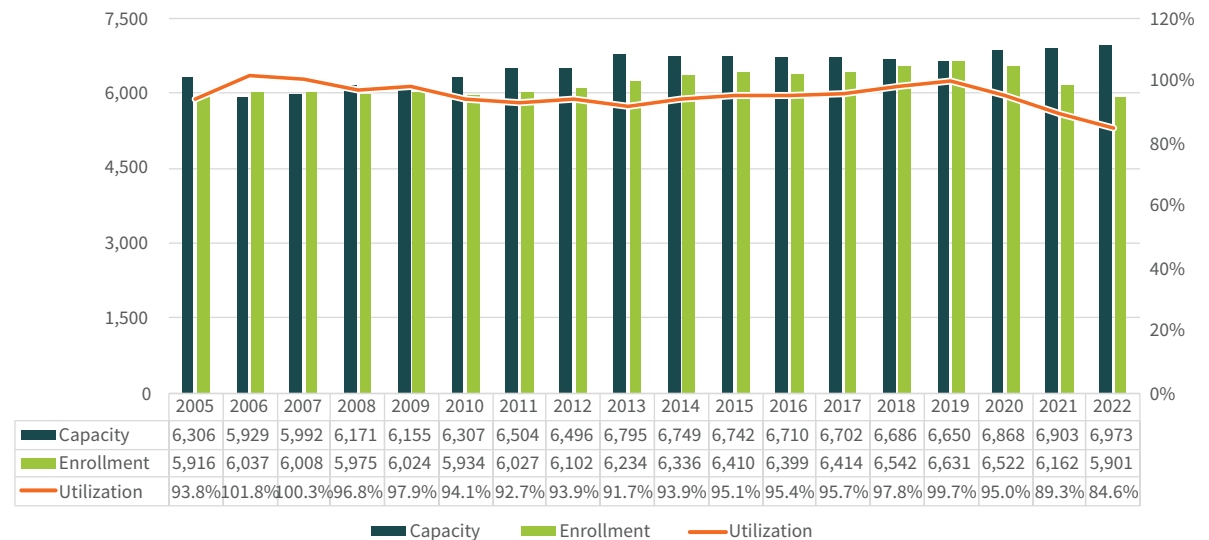


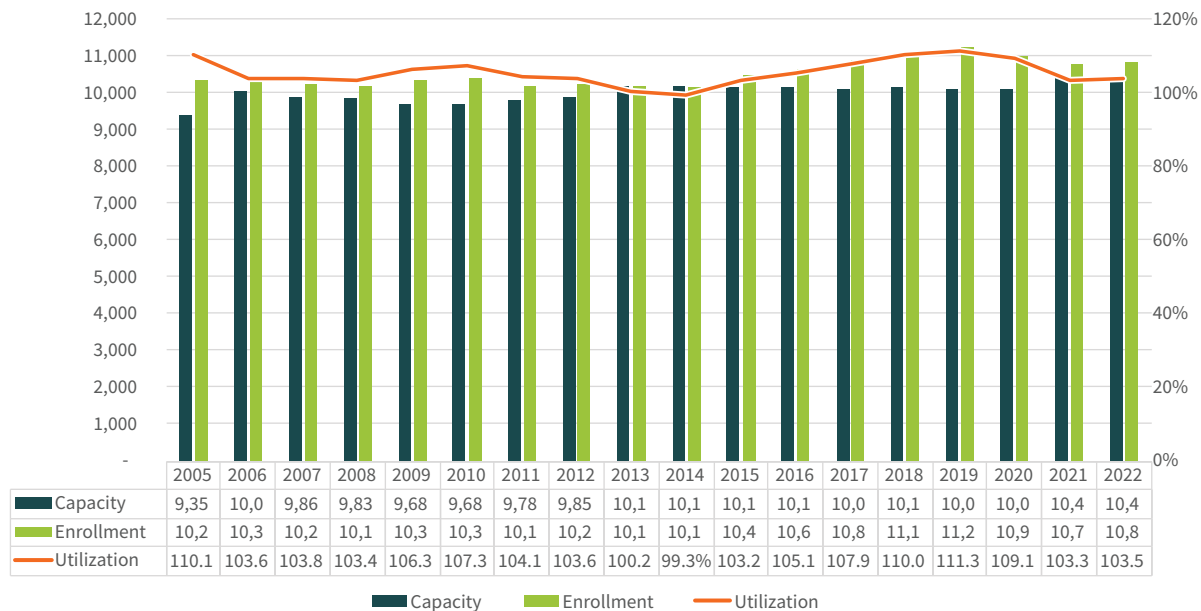
Figure 66: Utilization of Potomac Subregion Middle Schools



Source: Montgomery Planning, 2023

Overall, the master plan placed more emphasis on repurposing surplus school sites than on building new sites. This was in line with the influx of new school construction in the 1980s and 1990s, and the subsequent phase in the 2000s of determining what to do with excess buildings. In 2002, the policy around such surplus sites was to convert them into parks. Over the past 20 years, however, this trend in school construction has shifted back to accommodating overcrowding through opening additional schools. In recent times, conversation around surplus sites has paused and no sites have been declared as such nor converted to parks since 2002. As highlighted in the Watersheds and Stream Valleys section, two of the three recommended parcels not yet acquired by dedication are vacant school sites.

Figure 67: Utilization of Potomac Subregion High Schools



Source: Montgomery Planning, 2023





SECTION 4

TAKEAWAYS



The master plan reality check provides many insights into the Potomac Subregion and illuminates the ways in which the area has both changed and remained constant over the past two decades. The takeaways from this evaluation are organized into two subsections. The first offers findings specific to the Potomac plan, while the second section is applicable to master plans generally.

Conclusions at the micro-level from the Potomac Master Plan are as follows:

1 | *Successful implementation of plan recommendations:*

- a. The most notable environmental victory from the plan was the acquisition of nine of the 12 recommended parcels as parkland. Of considerable note were the acquisitions of the 258-acre Miller & Smith property and 65-acre Tipton tributary property, which are now the Serpentine Barrens Conservation Park.
- b. One significant land-use recommendation was to build an additional 750 units of housing for the elderly within the Subregion's boundaries. Since 2002, an additional 828 senior housing units have been built or approved, meeting the master plan's recommendation.
- c. Recommendations to preserve the subregion's semi-rural character have been met through the maintenance of the two-lane policy and the designation of nine additional rustic roads. Transit recommendations that were met included the construction of two multi-modal transit centers and the new Route 301 bus route to Tobytown.
- d. Many of the community facility recommendations were met, as seen by the newly constructed Nancy H. Dacek North Potomac Community Recreation Center and the significant renovation of the Bette Carol Thompson Scotland Neighborhood Recreation Center.

2 | *The order of topics in the Master Plan matters.*

From the outset of the Plan, it was evident that environment was an integral component of the Subregion. Placing the Environmental Resources Plan as the first section made clear the centrality of these recommendations within the plan. The other master plans evaluated (1989 *Germantown Master Plan*, 1998 *Friendship Heights Sector Plan*, and 1997 *Fairland Master Plan*) began with land use and zoning recommendations and then the environmental ones followed.

3 | Recommendations for development on greenfield sites were more frequently fully implemented than recommendations for infill development.

As outlined by the case studies in the Land Use and Zoning section of this report, the developments completed on undeveloped land were more aligned with the master plan vision than infill development. Both Potomac Village and Darnestown Village Center existed prior to 2002 and witnessed little to no change in the following decades. On the other hand, Park Potomac, Quarry Springs, and Mount Prospect were developed on vacant land and have been implemented to follow the master plan concept relatively closely.

Reasons for this discrepancy could include market conditions, construction constraints, community resistance, and zoning restrictions in existing centers. In addition, the master plan provided more specific recommendations for the greenfield development, setting limits for the number and type of dwelling units and commercial square footage. Recommendations for the existing centers focused on land use and design guidelines, as they were already mostly built-out.

4 | There is an emphasis on residential development over commercial development.

Given the desire to maintain the low-density residential character of the Plan Area, many of the development recommendations in the 2002 plan prioritized residential over commercial development. Of the six case studies presented, two were entirely residential developments (Quarry Springs and Mount Prospect), while the remaining four were mixed-use projects that incorporated significant housing recommendations. Since 2002, 704 dwelling units and 426,210 commercial square feet have been built-out across these six developments. The pipeline contains an additional 387 dwelling units and 280,550 square feet of commercial space.

Of note, the most recent site plan for Park Potomac approved 307 additional residential units, exceeding the limit of 450 dwelling units set by the master plan. These are proposed to be built on a parcel designated by the Preliminary Plan as office use. This replacement of commercial square footage with dwelling units is in line with trends seen throughout the county of a decline in demand for office space.





5 | **Changing definitions affect comparisons over time.**

In conducting this analysis, it became apparent that comparing conditions in 2002 with conditions today was not always feasible given changes in terminologies, definitions, classifications, and zoning codes. For example, the 2002 bikeway classification system was replaced by new terminology in the 2018 *Bicycle Master Plan*, the *Master Plan of Highways and Transitways* adopted a new road classification system, and the term “greenway” has a different meaning from what it signified in 2002. In addition, the new zoning ordinance from 2014 has affected the relevance of certain recommendations as written in 2002. For instance, when the plan was written, development density was calculated based on the number of dwelling units; however, with the update to the zoning code, density is now a function of floor area ratio (FAR).

6 | **There have been changes in the size and scope of master plans over time.**

Since this reality check project has included other master plans (Germantown, Fairland, and Friendship Heights²⁸), it is valuable to compare findings across geographies. The Potomac Subregion encompasses three large planning areas totaling 66 square miles. This size is similar to the plan area of the 1989 *Germantown Master Plan*. Montgomery Planning’s approach to master planning does not occur at this considerable scale; rather, boundaries are drawn to much smaller areas. Planning at a large scale affects both the types and depth of recommendations included in a master plan, as well as the feasibility of conducting a detailed reality check.

28. See https://montgomeryplanning.org/wp-content/uploads/2017/06/RealityCheck_ConsolidatedFinal_20170504_PB.pdf for key findings from the analysis of these three plans.

Aside from geography, there are also varying drivers and motivations for each master plan. Relative to the other plans evaluated, the Potomac Subregion master plan focused more on the strategic development of remaining vacant property and less on large-scale developments. As mentioned previously, the Potomac Master Plan centered the careful preservation of environmental resources, while the other master plans positioned land use and zoning, transportation, and community facilities at their core. These differences in drivers and motivations inform what data are necessary to perform an evaluation analysis.

Since the Planning department began these reality check evaluations, a set of consistent themes across the studies have emerged. The following takeaways offer a macro-level perspective of the master planning process:

1 | *Data documentation and organization.*

To compare 2002 conditions with today's reality, access to baseline data was imperative. Therefore, data used at the time of the master plan analysis must be preserved in an accessible format. Although staff had access to images of maps from the original master plan, they were not available in GIS, and therefore it was challenging to make conclusive comparisons.

2 | *Understanding economic conditions.*

A more detailed market analysis as part of a master plan would provide more quantitative data on baseline conditions and support for recommendations. The sources of the data and methodologies of the calculations should be clearly stated. The Potomac Master Plan included numbers on population, housing, and employment, but lacked details on their sources and how they were calculated. This information is integral to calculate a comparative value for today's conditions.

3 | *Flexibility.*

Plans reflect the time and place of their completion as well as the unique plan area characteristics. Acknowledging that economic circumstances and political priorities shift over time is an important part of the reality check process. For example, a recurrent recommendation in the Potomac Master Plan was to convert surplus school sites into parks, a recommendation that has not been met. Given today's situation of overcrowding in public schools, the conversation in the county has shifted toward finding spaces for additional schools rather than discussing what to do with surplus sites.

4 | *Monitoring.*

Performing master plan reality checks before the horizon date of a plan could help determine whether incentives or other interventions should be considered to stimulate development. This reality check was conducted 20 years after the adoption of the Potomac Master Plan, an appropriate time to evaluate the implementation efforts. Notably, many of the developments recommended in the Plan are still underway, including Cabin John Village, Mount Prospect, and Park Potomac.

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Appendix

BICYCLE PARKING AT COMMUNITY FACILITIES IN THE POTOMAC SUBREGION

As this table shows, almost all community facilities in the Potomac Subregion have a shortage of industry-standard bicycle parking, except for the Potomac Community Recreation Center, which meets the industry-established need.

Table A-1: Bicycle Parking at Community Facilities in the Potomac Subregion

Type of Facility	Name of Facility	Industry Need	Total Existing Spaces	Shortage	Met?
Elementary School	Jones Lane	26	16	26	☒
Elementary School	Travilah	26	0	26	☒
Elementary School	Seven Locks	22	10	22	☒
Elementary School	Carderock Springs	22	39	22	☒
Elementary School	Beverly Farms	36	26	10	☒
Elementary School	DuFief	22	0	22	☒
Elementary School	Bells Mill	32	16	32	☒
Elementary School	Darnestown	20	0	20	☒
Elementary School	Wayside	32	16	32	☒
Elementary School	Potomac	24	16	8	☒
Elementary School	Cold Spring	24	33	24	☒
Elementary School	Stone Mill	36	0	36	☒
Elementary School	Fallsmead	28	8	28	☒
Elementary School	Lakewood	28	20	28	☒
Elementary School	Rachel Carson	36	0	36	☒
Elementary School	Thurgood Marshall	28	20	28	☒
Middle School	Herbert Hoover	56	39	56	☒
Middle School	Cabin John	56	30	56	☒

Type of Facility	Name of Facility	Industry Need	Total Existing Spaces	Shortage	Met?
Middle School	Thomas W. Pyle	76	44	76	✘
Middle School	Robert Frost	52	16	36	✘
Middle School	Lakelands Park	58	14	44	✘
Middle School	Ridgeview	50	16	50	✘
High School	Winston Churchill	100	24	100	✘
High School	Quince Orchard	90	10	90	✘
High School	Walt Whitman	112	84	112	✘
High School	Thomas S. Wootton	106	27	106	✘
High School	Northwest	114	44	108	✘
Library	Davis	4	6	4	✘
Library	Quince Orchard	4	4	4	✘
Library	Potomac	4	8	4	✘
Recreation Center	Scotland Neighborhood	2	4	2	✘

Type of Facility	Name of Facility	Industry Need	Total Existing Spaces	Shortage	Met?
Recreation Center	Potomac Community	4	8	0	✔
Recreation Center	Nancy H. Dacek	8	40	8	✘

Source: Bicycle Master Plan Biennial Monitoring Report, 2021–2022

BIKEWAY CLASSIFICATION SYSTEM

The bikeway classification system used in the 2002 Master Plan has been replaced by new terminology adopted in the 2018 Bicycle Master Plan. This system evaluates cycling routes based on their level of separation from traffic.

Table A-2: Bikeway Classification System

2002 TERM	2002 DEFINITION	2018 TERM(S)	2018 DEFINITION
Class I	A bikeway physically separated from motorized traffic by an open space or barrier and located either within the highway right-of-way or within an independent right-of-way. It is generally 8-10 feet wide so it can be used by both bikers and pedestrians. Referred to as a bike path.	Trails & Separated Bikeways	Includes off-street trails, stream valley park trails, neighborhood connectors, sidepaths, and separated bike lanes.
Class II	A 5-foot-wide portion of roadway designated by striping, signing, and pavement markings for the preferential or exclusive use of bicyclists. Referred to as a bike lane.	Striped Bikeways	Includes bike lanes, buffered bike lanes, advisory bike lanes, and contra flow bike lanes.
Class III	A travel lane shared by the bicyclist and motorist, either a curb lane or a lane with little or no shoulder. Referred to as a shared use roadway.	Bikeable Shoulders & Shared Roads	Includes shared streets, neighborhood greenways, and priority shared lane markings.



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