2024-2028

Growth & Infrastructure POLICY

Appendices

2024-2028

Growth & Infrastructure POLICY

Appendix A

The Update and Engagement Process

The process to develop the 2024-2028 *Growth and Infrastructure Policy* first launched on July 11, 2023, through an internal meeting where Montgomery Planning team members discussed the project timeline and expectations. While the 2016 update focused on a comprehensive update of the transportation element and the 2020 update focused on a similar comprehensive update for the schools element, the 2024 update was envisioned to be smaller in scope, while still making impactful adjustments to ensure the policy is accessible and effective.

On October 17, 2024, Montgomery Planning held a virtual forum with approximately 30 participants, including staff, on Zoom. The forum started with an overview of the current GIP, followed by breakout rooms for schools and transportation where community members were asked schools and transportation-specific guiding questions.

A.1 ADVISORY TEAMS

Montgomery Planning also created two advisory teams to assist Montgomery Planning's work to update the GIP – the Transportation Advisory Group (TAG) to inform the transportation side of the efforts, and the Schools Technical Advisory Team (STAT) to inform the schools side.

The two technical working groups represent frequent users and monitors of the current policy system, including real estate and education professionals, county agency and government representatives, land use attorneys, and policy experts, among others. They shared lessons learned from utilizing the current policy, related the experience of working under similar programs in peer jurisdictions, and highlighted the most significant needs the update should address. Both groups met four times from November to February, as noted in Table 1. Members of the TAG and STAT are listed below.

A.2 TAG MEMBERS

- David Anspacher, Montgomery Planning
- Neil Blanc, Rodgers Consulting (MBIA)
- Darcy Buckley, Montgomery Planning
- Andrew Bossi, MCDOT
- Françoise Carrier, Bregman, Berbert, Schwartz & Gilday
- Nick Driban, Lenhart Traffic Consulting
- Alex Freedman, City of Takoma Park
- Eli Glazier, Montgomery Planning
- Robert "Bob" Graham, Rodgers Consulting
- Chris Kabatt, Wells + Associates
- Kate Kubit, Elm Street Development
- Patrick G. La Vay, MHG
- Katherine Mencarini, Montgomery Planning
- Joseph Moges, SHA
- Faramarz Mokhtari, City of Rockville
- Nancy Randall, Wells & Associates (NAIOP rep)
- Stacy Silber, Lerch, Early & Brewer
- Douglas Smith, City of Gaithersburg
- Rebecca Torma, MCDOT
- Francine Waters, MDOT

- Katie Wagner, Gorove Slade
- William Zeid, Gorove Slade

A.3 STAT MEMBERS

- David Anspacher, Montgomery Planning
- Hye-Soo Baek, Montgomery Planning
- Casey L. Cirner, Miles and Stockbridge (MBIA)
- Kirk Eby, City of Gaithersburg
- Lisa Govoni, Montgomery Planning
- Rosalind Grigsby, City of Takoma Park
- Joe Hurst, Montgomery County Economic Development Corporation
- Adrienne Karamihas, Montgomery County Public Schools
- Brian Levine, Montgomery County Chamber of Commerce
- Sally McCarthy, Montgomery County Council of PTAs
- Melissa McKenna, Montgomery County Branch of the National Association of Colored People
- Brayden Miller, Montgomery County Regional Student Government Association
- Robin O'Hara, Montgomery County Public Schools
- Randall Rentfro, Rodgers, (NAIOP)
- Ken Silverman, Housing Opportunities Commission
- Laura Stewart, Montgomery County Council of PTAs
- Manisha Tewari, City of Rockville

Table 1 STAT and TAG Meetings

Date	Task
Monday, November 6, 2023	TAG Meeting #1: Project Overview and Brainstorming
Tuesday, November 7, 2023	STAT Meeting #1: Overview of the GIP and the 2024 Update
Wednesday, December 6, 2023	STAT Meeting #2: Initial Data Review
Monday, December 11, 2023	TAG Meeting #2: Transportation Tests
Monday, January 22, 2024	STAT Meeting #3: Continued Data Review
Monday, January 22, 2024	TAG Meeting #3
Monday, February 26, 2024	TAG Meeting #4: Prelim Recommendations
Tuesday, February 27, 2024	STAT Meeting #4: Prelim Recommendations

A.4 COMMUNITY/STAKEHOLDER ENGAGEMENT EFFORTS

Montgomery Planning worked with the Communications Department to develop a strategic communications plan for the GIP update to ensure collaborative and proactive conversations with stakeholders – including community members, relevant organizations, developers, and government partner agencies. Numerous engagement tools were used, such as social media, e-newsletters, and the Montgomery Planning website.

Montgomery Planning organized or participated in events meant to reach the community and garner its input on the policy update effort. Table 2 identifies the various outreach events Montgomery Planning held to engage stakeholders and community members in the process of reviewing the current GIP and developing the update to the 2024 GIP.

Table 2 Outreach and Engagement Events

Date	Task
Tuesday, October 17, 2023	GIP Kick-off Public Engagement Forum
Thursday, November 16, 2023	Town of Chevy Chase Land Use Committee
Tuesday, December 12, 2023	NAIOP: Overview and Discussion
Monday, March 18, 2024	Meeting with the Department of Permitting Services
Tuesday, March 19, 2024	Community Roundtable
Friday, March 22, 2024	Meeting with Montgomery County Public Schools
Tuesday, April 2, 2024	Meeting with Montgomery County Department of Transportation
Tuesday, April 23, 2024	Montgomery County Council of PTAs
Wednesday, April 24, 2024	North Bethesda TMD
Friday, May 10, 2024	Growth and Infrastructure Policy Panel at Affordable Housing Conference of Montgomery County
Monday, May 20, 2024	Western Montgomery County Citizens Advisory Board (WMCCAB) Meeting
Tuesday, May 21, 2024	Lerch Early & Brewer Lunch
Wednesday, June 5, 2024	Montgomery County Chamber of Commerce

A.5 PLANNING BOARD BRIEFINGS AND WORK SESSIONS

Montgomery Planning briefed and received feedback from the Planning Board multiple times between September 2023 and summer 2024 on the existing policy and its mechanics, and the development of the 2024 GIP Update. Table 3 is a summary of each Planning Board briefing.

Table 3 Planning Board Briefings and Work Sessions

Date	Task
Thursday, September 28, 2023	Planning Board Briefing – Overview of the GIP and the 2024 Update
Thursday, February 22, 2024	Planning Board Briefing – Growth Status and Trends
Thursday, March 14, 2024	Planning Board Preliminary Recommendations Briefing
Thursday, May 9, 2024	Planning Board Working Draft Briefing
Thursday, May 23, 2024	Planning Board Public Hearing
Thursday, May 30, 2024	Planning Board Work Session #1 on Public Hearing Draft (Schools)
Thursday, June 6, 2024	Planning Board Work Session #2 on Public Hearing Draft (Transportation)
Thursday, June 13, 2024	Planning Board Work Session #3 on Public Hearing Draft (Transportation Continued, Impact Taxes)
Thursday, June 20, 2024	Planning Board Work Session (Impact Taxes Continued)
Thursday, June 27, 2024	Planning Board Work Session #5 on Public Hearing Draft (Track Changes)
Thursday, July 25, 2024	Planning Board approval of Planning Board Draft and Resolution

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Appendix B

2020-2024 GIP Outcomes Summary

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A. Transportation Outcomes

LATR MITIGATION CONDITIONS – MARCH 2021 – MARCH 2024

Project	LATR Mitigation Requirement	Mitigation Costs	Notes
5/17/2021 Admin. Subdivision - 620210120 **Second & Fenwick: HOC HQ** 82,356 SF office building with no parking on site Red Policy Area Silver Spring CDB Net New Person Trips 137/125 (AM/PM)	• Upgrade the intersection @ Georgia Avenue and Fenwick Lane to a HAWK or full signal. • Add 5-ft sidewalk and 5-ft buffer on both sides of Ramsey Avenue between Fiddler lane and Cameron Hill Court. • Widen the sidewalk on the west side Second Avenue along the frontages of 8401 and 8403 Second Avenue. • Address the ADA deficiencies identified in the Transportation Impact Study. • Upgrade the striped bicycle lanes on Cameron Street between Second Avenue and Georgia Avenue. • Upgrade two bus stops.	**Proportionality Guide Cost** N/A **Mitigation Payment** $415,000 **Constructed Value** $0	The listed mitigation cost was determined through an earlier MOU. However, the admin. sub. approval states "the applicant must participate (pay fee-in-lieu or construct)" towards the construction the listed mitigation projects.

Project	LATR Mitigation Requirement	Mitigation Costs	Notes
1/22/2022 Special Exception - S2345B **7108 Bradley Boulevard** Reduce enrollment for an approved Private Educational Institution to a maximum of 180 students, extend hours, expand the ages, and improve ADA accessibility. Orange Policy Area Bethesda/ Chevy Chase Net New Person Trips 230/187 (AM/PM)	• Install approximately 6-ft sidewalk with 5-ft buffer to connect the existing bus stop at Oak Forest Rd on the south side of Bradley Boulevard (180 linear feet). • Upgrade bus stop at Oak Forest Rd on the south side of Bradley Boulevard with a new shelter and ADA accessible pad. • Payment in lieu of installing real time transit display in bus shelter.	**Proportionality Guide Cost** N/A **Mitigation Payment** $9,000 **Constructed Value** $256,388	Estimated construction costs weren't provided, so the constructed value is estimated based on the average cost per linear foot of similar mitigation projects.
7/28/2022 Site Plan - 82001013H **Chevy Chase Center** Amendment to convert part of existing mixed-use development into a147 child daycare. Red Policy Area Friendship Heights Net New Person Trips 91/32 (AM/PM)	• None	**Proportionality Guide Cost** $7,217 **Mitigation Payment** $0 **Constructed Value** $0	The costs of identified improvements far exceeded the proportionality guide amount, so the applicant was not required to participate in off-site mitigation. This is one of the first projects approved after the introduction of the LATR Proportionality Guide.

Project	LATR Mitigation Requirement	Mitigation Costs	Notes
7/28/2022 Site Plan - 820210090 **Hammer Hill** Day care with 216 students Orange Policy Area Clarksburg Town Center Net New Person Trips 199/189 (AM/PM)	• Plant additional street trees	**Proportionality Guide** $5,063 **Mitigation Payment** $0 **Constructed Value** $5,063	The costs of identified improvements far exceeded the proportionality guide amount. The applicant agreed to plant additional street trees along the frontage. This is one of the first projects approved after the introduction of the LATR Proportionality Guide.
7/28/2022 Site Plan – 820220080 **Wisteria Business Park: LIDL Germantown** Create one lot for the construction of a 30,000 SF LIDL grocery store and one out lot for an existing surface parking lot. Orange Policy Area Germantown Town Center Net New Person Trips 136/147 (AM/PM)	• 8-ft sidepath on north side of Walter Johnson Road with an bikeable crossing of Bowman Mill Drive (275 linear feet). • 10-ft sidepath on west side of Wisteria Drive (100 linear feet). • 10-ft sidepath, connecting to the proposed sidepath along the frontage on the south side of Germantown Road (185 linear feet). • A minimum 10-ft bikeable crossing @ Walter Johnson Road & Wisteria Drive.	**Proportionality Guide** $123,375 **Mitigation Payment** $0 **Constructed Value** $123,375	

Project	LATR Mitigation Requirement	Mitigation Costs	Notes
12/1/2022 Preliminary Plan - 12002079B **Rochambeau - The French International School** Convert previously approved private educational institutional office campus to 203,891 square feet of private school for up to 700 students on an existing lot. Orange Policy Area Bethesda/ Chevy Chase Net New Person Trips 170/-20 (AM/PM)	• Improve existing curb ramp @ Rockville Pike & Pooks Hill Road to comply w/ ADA standards. • Improve existing curb ramps @ Rockville Pike & Pooks Hill Road in median to comply w/ ADA standards and relocate APS pole on east side of crossing. • Install marked crosswalk @ Rockville Pike & Broad Brook Drive. • Install curb ramp with detectable warning @ Rockville Pike & Broad Brook Drive. • Install 6-ft sidewalk @ Rockville Pike & Broad Brook Drive. • Improve existing curb ramps to comply w/ ADA standards @ Rockville Pike & Bellevue Drive/Alta Vista Road.	**Proportionality Guide** $125,393 **Mitigation Payment** $0 **Constructed Value** $125,393	
12/8/2022 Site Plan - 81985104A **Burtonsville Crossing Shopping Center** Replace existing 7,600 SF of retail uses with two new pad sites with drive-thrus. Orange Policy Area Burtonsville Town Center Net New Person Trips 22/102 (AM/PM)	• Construct an interim dual-way separated bike lanes south of the shopping center, replacing an existing accel-decel lane along Old Columbia Pike.	**Proportionality Guide** $32,900 **Mitigation Payment** $0 **Constructed Value** $32,900	

Project	LATR Mitigation Requirement	Mitigation Costs	Notes

12/15/2022
Preliminary Plan - 120220100
 	
4901 Battery Lane
Consolidate three existing lots into one lot for up to 372 multi-family dwelling units.
 	
Red Policy Area
Bethesda CBD
 	
Net New Person Trips
109/125 (AM/PM)
	• Replace the existing sidewalk on Battery Lane (north and south sides) with a 7-ft wide sidewalk and a 6-ft wide street buffer (90 linear feet).
	• Install two new ADA accessible bus shelters.
	• Provide a two-way separated bicycle lane on Woodmont Avenue (540 linear feet).
	• Provide a sidepath on Woodmont Avenue (350 linear feet).
	• Make payments to MCDOT towards:
	  ○ Replacement of the existing sidewalk along the frontage of 4857 Battery Lane.
	  ○ A two-way separated bicycle lane on Woodmont Avenue from Battery Lane to Rugby Avenue (540 linear feet).
	  ○ A two-way separated bicycle lane on Woodmont Avenue from Battery Lane to 350 feet north of Battery Lane (350 linear feet).
		Proportionality Guide
		$1,875,773
		
		Mitigation Payment
		$967,943
		
		Constructed Value
		$723,222	

Project	LATR Mitigation Requirement	Mitigation Costs	Notes
12/15/2022 Preliminary Plan -120220160 Site Plan - 820220220 **4910/4920 Strathmore** 113 dwelling units (9 single family detached houses and 104 townhouses), and a 145-bed residential care facility. Red Policy Area Grosvenor Net New Person Trips 105/126 (AM/PM)	• Replace the existing sidewalk and the narrow bridge on the south side of Strathmore Avenue with 10-ft wide sidepath with a 6-ft wide landscaped street buffer (30 linear feet). • Construct a 10-ft wide sidepath with a 6-ft wide landscaped street buffer along the south side of Strathmore Avenue to Flanders Avenue (1050 linear ft). • Install a new protected pedestrian crossing and high visibility crosswalk, associated with the new traffic signal. • Upgrade the existing curb ramp @ Strathmore Avenue & Center Site Driveway to meet ADA design standards. • Install five new streetlights on the south side of Strathmore Avenue.	**Proportionality Guide** $1,315,890 **Mitigation Payment** $0 **Constructed Value** $1,307,920	
5/26/2023 Preliminary Plan - 120220200 **Waters Village Shopping Center** Create one lot for the construction of 26,680 SF of retail and 3,200 SF of drive-thru restaurant. Orange Policy Area Germantown Center Net New Person Trips 278/382 (AM/PM)	• Mitigation payment to MCDOT for a portion of the Walter Johnson Shared Use Path project, specifically the construction of a sidepath along Walter Johnson Road, from Bowman Mill Drive to Middlebrook Road (1500 linear feet).	**Proportionality Guide** $122,882 **Mitigation Payment** $122,882 **Constructed Value** $0	

Project	LATR Mitigation Requirement	Mitigation Costs	Notes
6/30/2023 Preliminary Plan - 120220140 **Federal Plaza West** Redevelop a surface parking lot and vacant commercial development into a mixed-use development with up to 474,051 SF of residential development (up to 500 units) and 108,965 SF of commercial development. On 6.52 acres. Orange Policy Area North Bethesda Net New Person Trips 179/169 (AM/PM)	• East Jefferson Street Road Diet Sections A, B, D, and E, including two-way separated bike lanes from the Bender JCC of Greater Washington driveway north into Rockville (1410 linear feet). • East Jefferson Street intersection modifications. • Curb Ramp ADA modifications & improvements on East Jefferson Street.	**Proportionality Guide** $2,375,675 **Mitigation Payment** $0 **Constructed Value** $838,968	
7/28/2023 Preliminary Plan - 120230040 **Diener School** Create new lot to accommodate the adaptive reuse of an existing office building for conversion to a private school for up to 120 students and 57 staff members. Orange Policy Area Bethesda/Chevy Chase Net New Person Trips 150/-34 (AM/PM)	• Payment to MCDOT for elements of ADA compliance @ Charles St and Old Georgetown Rd.	**Proportionality Guide** $22,622 **Mitigation Payment** $0 **Constructed Value** $19,713	

Project	LATR Mitigation Requirement	Mitigation Costs	Notes
8/16/2023 Site Plan - 81983080C **Parcel M Washington Science Center** Increase capacity of existing Child Daycare Center occupying 15,500 SF of existing office building from 120 children to 190 children. Install an outdoor play area and a walkway connection and natural surface trail. Orange Policy Area North Bethesda Net New Person Trips 104/103 (AM/PM)	• Reconstruct the curb ramp on the north side of the crosswalk at the entrance of 2101 East Jefferson Street and install new Detectable Warning Surface.	**Proportionality Guide** $11,570 **Mitigation Payment** $0 **Constructed Value** $10,820	
8/17/2023 Site Plan - 820210130 **Kingsview Station** Develop 61 townhomes and 12,000 SF of retail. Yellow Policy Area Germantown West Net New Person Trips 61/215 (AM/PM)	• An 11 ft. wide sidepath with a 6-ft wide buffer along the east side of Germantown Road or comparable improvement (1,000 linear feet). • Improvements to the Darnestown-Germantown Road (MD 118) & Clopper Road (MD 117) intersection for increased bike and pedestrian safety.	**Proportionality Guide** $325,152 **Mitigation Payment** $325,152 **Constructed Value** $0	

Project	LATR Mitigation Requirement	Mitigation Costs	Notes
10/5/2023 Site Plan - 82009006A/ 12009009A **Montgomery Village Marketplace (The Learning Experience)** Develop a 170 student, 12,000 SF childcare center in the approved Montgomery Village Marketplace, replacing 8,800 SF of undeveloped retail. Yellow Policy Area Montgomery Village/ Airpark Net New Person Trips 159/123 (AM/PM)	• Add 2 detectable warning surface ramps. • Reconstruction of the east ADA ramp at the eastern entrance to the Marketplace. • Mitigation payment towards sidewalk improvements.	**Proportionality Guide** $5,387 **Mitigation Payment** $1,982 **Constructed Value** $3,405	
12/3/2023 Preliminary Plan - 120230120 **Tregoning Property** Reduce enrollment for an approved Private Educational Institution to 180 students, extend the current, expand the ages of students, and improve ADA accessibility. Green Policy Area Rural East Net New Person Trips 53/67 (AM/PM)	• Construct new sidewalk along Ridge Road (360 linear feet).	**Proportionality Guide** $190,434 **Mitigation Payment** $0 **Constructed Value** $108,000	

Project	LATR Mitigation Requirement	Mitigation Costs	Notes
3/7/2024 Site Plan - 820230130 **9801 Georgia Avenue** Redevelop an existing medical office into 390 multi-family units and 5,000 SF of retail Red Policy Area Forest Glen Net New Person Trips 160/155 (AM/PM)	• Payment to MCDOT for new sidewalk and street buffer along the north side of Forest Glen Road from Woodland Drive to Sligo Creek Trail (2,400 linear feet). • Construct new traffic signal Intersection of Georgia Avenue and Bonnywood Lane / Tilton Drive.	**Proportionality Guide** $2,079,332 **Mitigation Payment** $1,275,636 **Constructed Value** $579,483	
Subtotals **Mitigation Payments:** $ $3,137,308 **Constructed Value:** $ $4,114,483			
Total Value $7,251,791			

A. Transportation Outcomes

UPP CONDITIONS – MARCH 2021 – MARCH 2024

Project and Approved Units	Impact Area Type	UPP Level	School Level	School Name	Total $ if Paid in FY24-25
6/15/2021 Admin. Subdivision - 620210110 **Hardings Subdivision Lot 55** 1 SFD	Turnover	Tier 1	HS	Blake	$ 3,478
9/7/2021 Admin. Subdivision - 620210150 **Darnestown Knolls** 1 SFD	Turnover	Tier 1	HS	Northwest	$ 3,478
8/11/2021 Preliminary Plan -12020005A **Creekside at Cabin Branch** 58 SFD, 81 SFA	Turnover	Tier 2	HS	Clarksburg	$ 1,039,682
9/2/2021 Admin. Subdivision - 620210130 **14430 Jones Lane** 1 SFD	Turnover	Tier 2	HS	Quince Orchard	$ 6,956
1/27/2022 Preliminary Plan - 11995042D **Clarksburg Town Center** 12 SFA	Turnover	Tier 2	HS	Clarksburg	$ 94,259

Project and Approved Units	Impact Area Type	UPP Level	School Level	School Name	Total $ if Paid in FY24-25
2/22/2022 Preliminary Plan - 120210250 Site Plan - (820210200) **Seneca Property** 3 SFD	Turnover	Tier 1	HS	Northwest	$ 10,434
4/11/2022 Site Plan - 820220010 **12710 Twinbrook Parkway** 49 MFH	Infill	Tier 2	HS	Richard Montgomery	$ 48,856
8/10/2022 Preliminary Plan -120220010 **Miles Coppola** 144 SFA, 192 MFL	Turnover	Tier 2	HS	Clarksburg	$ 1,828,710
6/15/2023 Preliminary Plan -12003029B **Park Potomac** 307 MFH	Turnover	Tier 2	HS	Richard Montgomery	$ 497,176
5/1./2023 Admin. Subdivision - 620210080 **Jerome Freibaum Lot 4** 2 SFD	Turnover	Tier 1	ES	Bannockburn	$ 8,695

Project and Approved Units	Impact Area Type	UPP Level	School Level	School Name	Total $ if Paid in FY24-25
5/16/2023 Preliminary Plan -12012008G **Shady Grove Station** 5 SFA	Infill	Tier 1	HS	Gaithersburg	$ 14,443
12/22/2022 Admin. Subdivision - 620220100 **Lone Oak Addition** 1 SFD	Turnover	Tier 2	ES	Ashburton	$ 8,695
12/27/2023 Preliminary Plan -12008024A **Garnkirk Farms** 184 MFL	Turnover	Tier 2	HS	Clarksburg	$ 668,533
3/25/2024 Preliminary Plan -11995042E Site Plan - 82007022I) **Clarksburg Town Center** 100 MFL, 89 MFH	Turnover	Tier 2	HS	Clarksburg	$ 507,466
				Total: $	**4,740,861**

Appendix C

Growth Status and Trends

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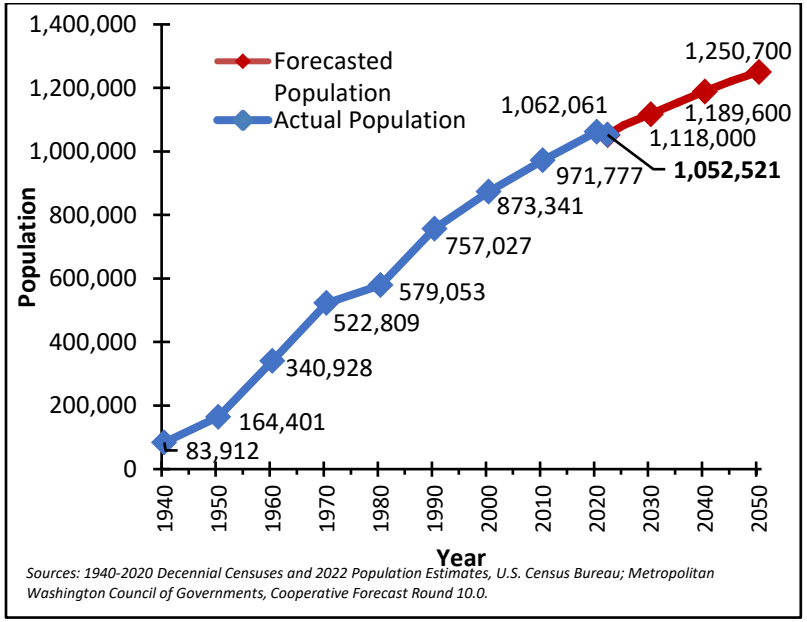
Contents

Chapter 1. Growth Trends and Infrastructure Conditions

How Montgomery County responds to change will define its future. The two fundamental features of change in the county are **diversifying demographics** and a **shifting development pattern**. Once dominated by greenfield development that created single-family housing primarily for households with children, the county's growth pattern has shifted to infill development, where multifamily housing and non-family households define many residential communities. The Growth and Infrastructure Policy ensures adequate public infrastructure supports our changing communities.

Our demographics and development patterns shape our infrastructure needs. Since the last Growth and Infrastructure Policy update in 2020, the worldwide COVID-19 pandemic caused a severe economic recession and changed how county residents lived, worked, and socialized with others. The pandemic's disruption to existing patterns, plus the continuation of long-term trends, such as an increasingly aging and more racially diverse population, create new infrastructure needs and social services demands. Travel, mostly still in single-occupancy vehicles, taxes our roadways and makes it difficult for others to enjoy active modes of transportation, such as bicycling and walking. Older developments, built before stormwater controls, degrade our natural environment. The limited availability of developable greenfield areas further challenges our approach to new housing.

Figure 1 Montgomery County Historical and Projected Population, 1940 to 2050



Sources: 1940-2020 Decennial Censuses and 2022 Population Estimates, U.S. Census Bureau; Metropolitan Washington Council of Governments, Cooperative Forecast Round 10.0.

A. MONTGOMERY COUNTY TRANSFORMING

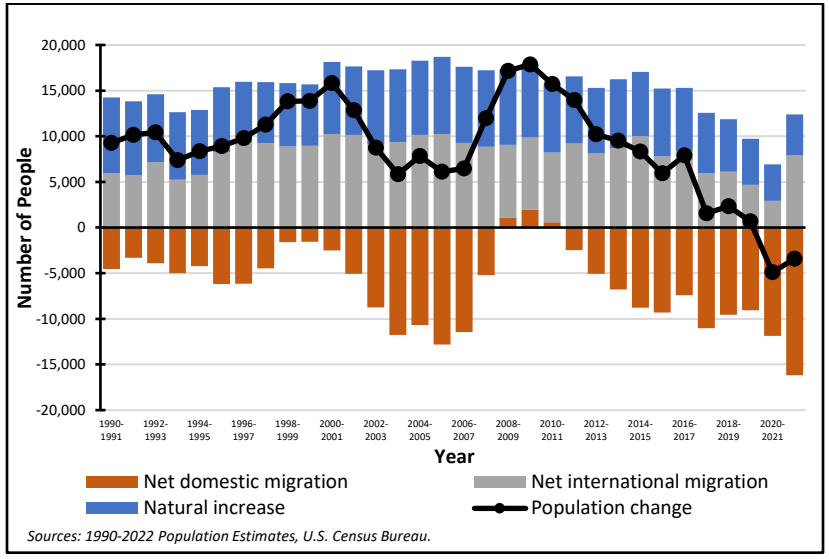
Montgomery County has evolved from a rapidly growing bedroom community providing housing and workers for the region to a county characterized by slower but sustained growth, major employment centers, active urban areas, stable single-family neighborhoods, and beautiful rural landscapes. With over one million residents, **Montgomery County has entered a mature phase of development with a slower pace of growth**, typical of a populous and developed county with limited developable land. Despite stalled growth during the COVID-19

pandemic and a lower future expected growth rate, the population is still forecasted to grow from 1.05 million in 2022 to 1.25 million by 2050, or nearly 200,000 more people who will need housing, services, and supporting public infrastructure (Figure 1).

The following sections provide an overview of historical demographic trends related to the county's changing population composition. More recent events, such as the Great Recession of 2008 and the COVID-19 pandemic have also shaped demographic trends.

Domestic Migration and Foreign Immigration

Figure 2 Montgomery County Population Growth by Component Change, 1990 to 2022



Sources: 1990-2022 Population Estimates, U.S. Census Bureau.

Residents moving from abroad contribute significantly to the county's population growth and cultural diversity, averaging 7,654 immigrants per year in the 2010s (Figure 2). Foreign migration during this decade offset the average net loss of 6,889 residents who relocated domestically. Typically, steady inflows of international migration counter the fluctuating domestic migration patterns, reflecting the national economy's strength and variation in housing prices. Net domestic out-migration usually occurs during strong national and regional economies when more job and housing upgrade opportunities exist outside the county. Conversely, net domestic in-migration occurred during national economic declines when the Washington, D.C. region offered better financial opportunities than other U.S. locations.

An improving economy after the Great Recession of 2008 and diminishing international migration due to changes in national immigration policy in 2017 contributed to the county's declining annual population growth during the 2010s. However, the COVID-19 pandemic drastically altered migration patterns, if temporarily.

More significant domestic out-migration from the county occurred as a large segment of the workforce transitioned rapidly to remote work, and more households were willing and able to seek larger homes and more affordable places to live. As a result, the county experienced a net domestic out-migration of over 16,000 people in 2021-2022, the largest annual outflow in the 32 years since 1990. Pandemic-related international travel restrictions severely curtailing foreign migration plus increased deaths led to a population loss of over 9,000 people from 2020 to 2022. With the return of international migration and the current abatement of the pandemic and its effects, conditions will become more favorable for population and economic growth,

and Montgomery County will likely again attract more migrants due to the draw of its existing large foreign-born resident base, ample economic opportunities, and welcoming social and political environment.[1]

Natural Increase in Population

Another major component of population growth and change is natural increase, or the number of births minus deaths. Before the COVID-19 pandemic, births were typically more than double the number of deaths in Montgomery County. The contribution of natural increase to the county's population growth had lessened since the Great Recession of 2008, as deaths steadily increased with an aging population while births declined as women had fewer children. After peaking in 2007, the annual number of births in the county had dropped 13 percent by 2019 and 17 percent by 2021 to the lowest point since 1987. The number of deaths increased by 14 percent from 2007 to 2019, despite a decreasing death rate in the same period due to an increasingly larger elderly age cohort. Natural increase, registering 5,828 people in 2019, reached its lowest pre-pandemic point since the mid-1980s and then dropped below 5,000 during the pandemic to a 40-year historic low.

Mirroring the nation, Montgomery County women in the Millennial generation delayed marriage and child-rearing, resulting in a decline in birth rates among women ages 25 to 34 starting in 2007 that led to a drop in the county's overall birth rates. By 2021, birth rates were below the lowest rates during the 1970s recession. Birth rates made a partial recovery in 2022 towards pre-pandemic levels. The number of births in the county is expected to increase gradually as fewer young women postpone motherhood and the forecasted number of women of childbearing age rises over the next ten years.

Racial Diversity

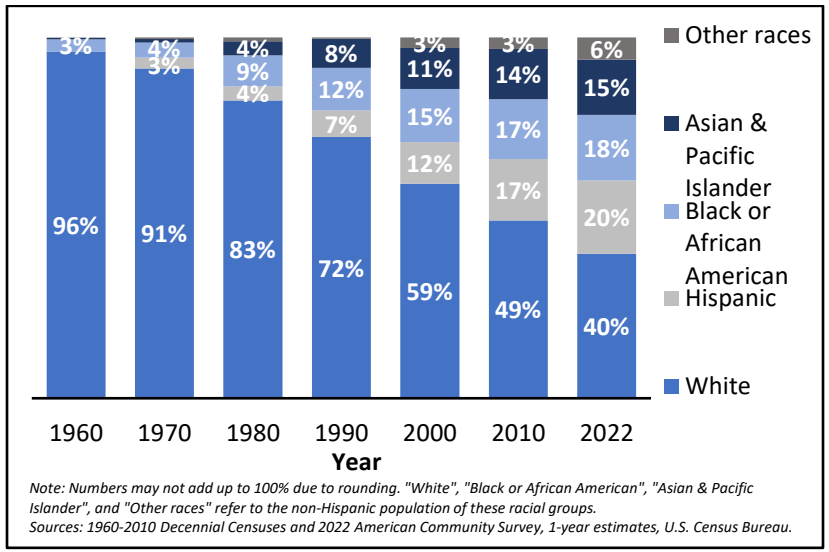
In addition to contributing to the population's growth, births change the racial and ethnic composition of Montgomery County. The combined percentages of Hispanic, African American, and Asian births in the county rose from 40 percent of all births in 1990 to 66 percent in 2022. During this period of increasingly diverse people migrating into the county from other places in the nation and abroad, the county's population of people of color (any group other than non-Hispanic white) increased from 28 percent in 1990 to 60 percent in 2022 (Figure 3).

Continued growth in the number of people of color living in the county is expected, assuming sustained migration patterns and birth rates. In 2010, people of color comprised the majority of Montgomery County's population for the first time. **By 2045, the Maryland Department of Planning projects that 73 percent of the county's population will be people of color.** In contrast,

[1] The U.S. Census Bureau released the 2023 population estimates for counties with component of change in March 2024. The new data provides the first indication that Montgomery County has started to regain population. Growth was primarily due to less domestic out-migration from the county and increased international migration into the county. Additional demographic data for Montgomery County in 2023 will be available starting in September 2024 from the Census Bureau's American Community Survey program.

projections by the U.S. Census Bureau indicate that people of color will comprise the majority of the U.S. population in 2045 – 35 years after Montgomery County crossed this demographic milestone.

Figure 3 Montgomery County Population by Race and Hispanic Origin, 1960 to 2022



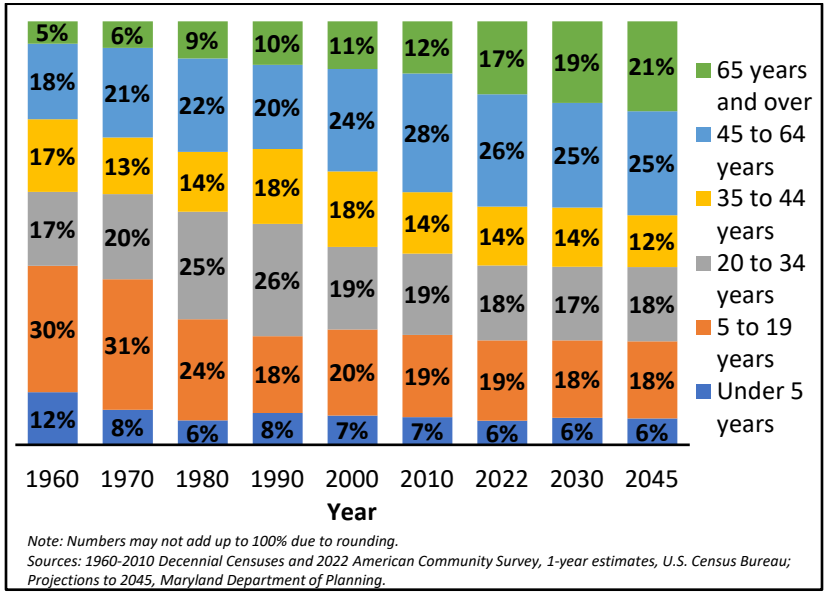
Note: Numbers may not add up to 100% due to rounding. "White", "Black or African American", "Asian & Pacific Islander", and "Other races" refer to the non-Hispanic population of these racial groups.
Sources: 1960-2010 Decennial Censuses and 2022 American Community Survey, 1-year estimates, U.S. Census Bureau.

Aging Population

The large, aging cohort of Baby Boomers (born between 1946 and 1964) has remained an enduring change agent locally and nationally. Making up about 20 percent of the county's population in 2022, the majority of this generation is already in their retirement years, and the remainder are on the verge of exiting their prime wage-earning years. Millennials (those born between 1981 and 1996), with 21 percent of the population, already outnumber Baby Boomers and are becoming the more influential generation in employment, housing, and society.

The leading edge of the Baby Boomer generation turned 65 in 2011, and by 2030, all members will be 65 and older. Projections by the Maryland Department of Planning anticipate the county's age 65-plus population to increase by 43 percent from 2022 to 2045. The share of the population ages 65 and older is projected to grow from 17 percent in 2022 to 21 percent by 2045, when the diminishing cohort of Baby Boomers will be more elderly at ages 81 to 99 years old (Figure 4).

Figure 4 Montgomery County Population by Age Group, 1960 to 2045



Note: Numbers may not add up to 100% due to rounding.
Sources: 1960-2010 Decennial Censuses and 2022 American Community Survey, 1-year estimates, U.S. Census Bureau; Projections to 2045, Maryland Department of Planning.

Housing decisions made by persons who are nearing or have recently entered their retirement years can potentially transform the county's housing market. Of the households in 2022 headed by a person between 55 to 74 years old, 79 percent were homeowners. This age group also represented 41 percent of all homeowners in the county. A significant number of houses may

enter the resale market if this demographic group chooses to downsize or relocate in retirement or when they pass away. Alternatively, suppose a significant number ages in place or delays moving out, either by choice or financial necessity. In that case, those actions may result in depressed housing turnover in the county, stalling traditional "housing ladder" opportunities for young families with school-aged children to move into the area.

Household Income

Montgomery County remains one of the wealthiest counties in the nation. Its median household income in 2022 of $118,323 ranked 28th nationally and was similar to the median income of the Washington, D.C. region, which ranked third among all metropolitan areas. In addition, the county's median income is 25 percent above Maryland's median and 58 percent above the national median (Figure 5). In terms of inflation-adjusted real dollars, the county has not fully recovered from the Great Recession of 2008. The county's real median income peaked in 2007 at $129,600 and declined through 2010 before rising again to $126,300 in 2019 (3 percent below the 2007 peak). The growth in income up to the start of the COVID-19 pandemic indicated a significant recovery from the recession. However, with an economic recession during the pandemic and inflation outpacing income growth, by 2022, the real median income declined to its lowest level since 2010.

Despite its reputation as a wealthy place, Montgomery County has thousands of households reporting low incomes. In 2022, one out of five households reported incomes less than $50,000. Median income also varies by race and Hispanic origin. In 2022, non-Hispanic white and Asian households had the highest median income at 24 percent and 14 percent above the countywide median, respectively. The median income of non-Hispanic white households was about 1.7 times higher than that of households headed by African Americans or Hispanics.

Growth Policy Implications

With a slowly growing population that is becoming older and more racially diverse, the county's infrastructure must continue to grow and evolve to accommodate a broader range of needs. Key demographic groups, such as African Americans, Hispanics, low-income households, renters, and seniors often face systemic obstacles that hinder their access to employment, affordable housing, and essential services. These barriers are frequently exacerbated by insufficient infrastructure in their communities. Poor-quality infrastructure puts more disadvantaged populations at higher risk for health problems, injury, and death, as well as an overall lower quality of life.

The county's commitment to enhancing the quality of life for all residents requires not only the expansion of transportation infrastructure but also the diversification of it to promote public transit use, biking, and walking. Such improvements aim to reduce vehicular traffic and improve the efficiency of travel and accessibility, particularly in underserved areas with disadvantaged populations.

Specific improvements may include building or upgrading infrastructure to comply with the Americans with Disabilities Act (ADA), expanding transit and other travel options for persons without a car or who cannot drive, and enhancing the appeal of non-automobile travel methods through better design and convenience.

Despite the declining birth rates, a shift back to pre-pandemic migration patterns, coupled with an expected rise in the number of women of childbearing age, suggests a modest future increase in the school-aged demographic. This trend indicates a gradual increase in future school enrollment and, therefore, the continued need to expand current educational facilities or construct new ones.

The racial and socioeconomic diversity of households with young children requires Montgomery County Public Schools (MCPS) to seek innovative ways to meet a varied student body's educational need. For examples, schools will need to provide additional space to support smaller class sizes and specialized settings for students with unique requirements, such as those with limited English proficiency or learning disabilities. Additional facilities will also be required as MCPS expands its early childhood programs towards universal prekindergarten and head start. These programs are vital for setting children, particularly those from low-income backgrounds, on the path to academic success.

B. PACE AND PATTERN OF GROWTH

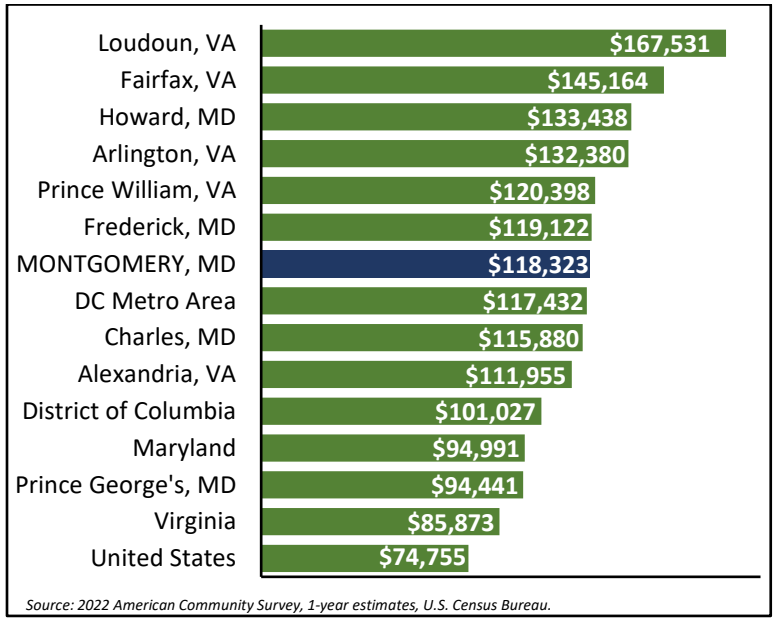
Montgomery County's growth expectations are informed by the Metropolitan Washington Council of Governments (MWCOG) Round 10.0 Cooperative Forecast, the most recent set of forecasts for population, household, and employment growth in the Washington, D.C. region[2] and the first to be completed since the COVID-19 pandemic. Throughout the forecast period from 2020 through 2050, efficient land use can provide the residential and commercial buildings needed for future residents and workers. While this is a planning goal, the forecast results may be ambitious in some areas of the county, even where infrastructure would support it. **Better land utilization, evident through larger numbers of households and jobs per acre, will be key to accommodating expected growth.**

During the 30-year forecast period, Montgomery County is forecasted to grow its population by 189,000 (17.8 percent), its number of households by 88,000 (22.7 percent), and its number of jobs by 143,000 (29 percent). This growth translates into average annual rates of 0.6 percent population growth, 0.8 percent household growth, and one percent job growth. It equates to a daily addition of roughly 17 new residents, eight new households, and 13 new jobs. Within Montgomery County, the cities of Gaithersburg and Rockville generally have higher forecasted growth rates than the county overall. The cities' forecast numbers are part of the Montgomery County forecast. Regionwide, the 30-year forecast anticipates 1.45 million more residents (a 25.3 percent growth rate) and 990,000 more jobs (a 31.2 percent growth rate), which translates into an average of 48,300 additional people per year and an average of 32,900 additional jobs per year. The four largest jurisdictions (District of Columbia, Fairfax County, Montgomery County, and Prince

[2] The Washington, D.C. forecast region includes the following MWCOG member jurisdictions: District of Columbia, Charles County, Frederick County (including City of Frederick), Montgomery County (including the Cities of Gaithersburg and Rockville), Prince George's County, Arlington County, City of Alexandria, Fairfax County, City of Fairfax, City of Falls Church, Loudoun County, Prince William County, City of Manassas, and City of Manassas Park.

George's County) had 68 percent of the population in 2020 and are expected to have 65 percent of the population by 2050, while the share of jobs located in these four jurisdictions is forecasted to change from 72 percent in 2020 to 71 percent by 2050.

Figure 5 Median Household Income by Place, 2022



Source: 2022 American Community Survey, 1-year estimates, U.S. Census Bureau.

Forecasted Geographic Growth Pattern

Increasingly, households and jobs in the D.C. region are expected to gravitate to "Activity Centers" identified by MWCOG with local planning officials. These Activity Centers are locations across the region with "existing urban centers, traditional towns, and transit hubs."[3] Areas of Montgomery County designated as part of MWCOG Activity Centers are shown in Figure 6.

The MWCOG Region Forward Coalition established a target for the region to capture 50 percent of new households and 75 percent of new commercial square footage in Activity Centers.[4] The MWCOG Round 10.0 Forecast results place 63 percent of regionwide household growth and 73 percent of regionwide job growth over the 30-year forecast period in Activity Centers across the MWCOG member jurisdictions.

Table 1 Montgomery County Forecasted Shares of Households and Jobs in MWCOG Activity Centers, 2020 and 2050

Location	2020 Household Share	2050 Household Share	Household Share Increase	2020 Jobs Share	2050 Jobs Share	Jobs Share Increase
Activity Center	33.6%	40.5%	+6.9%	58.2%	62.2%	+4.0%
Not Activity Center	66.4%	59.5%	-6.9%	41.8%	37.8%	-4.0%

Source: Metropolitan Washington Council of Governments, Cooperative Forecast Round 10.0.

Table 2 Montgomery County Forecasted Increases in Households and Jobs in MWCOG Activity Centers, 2020 and 2050

Location	2020 Households	2050 Households	Household Increase	2020 Jobs	2050 Jobs	Jobs Increase
Activity Center	129,789	192,127	+62,338	287,144	395,881	+108,737

[3] MWCOG
[4] MWCOG

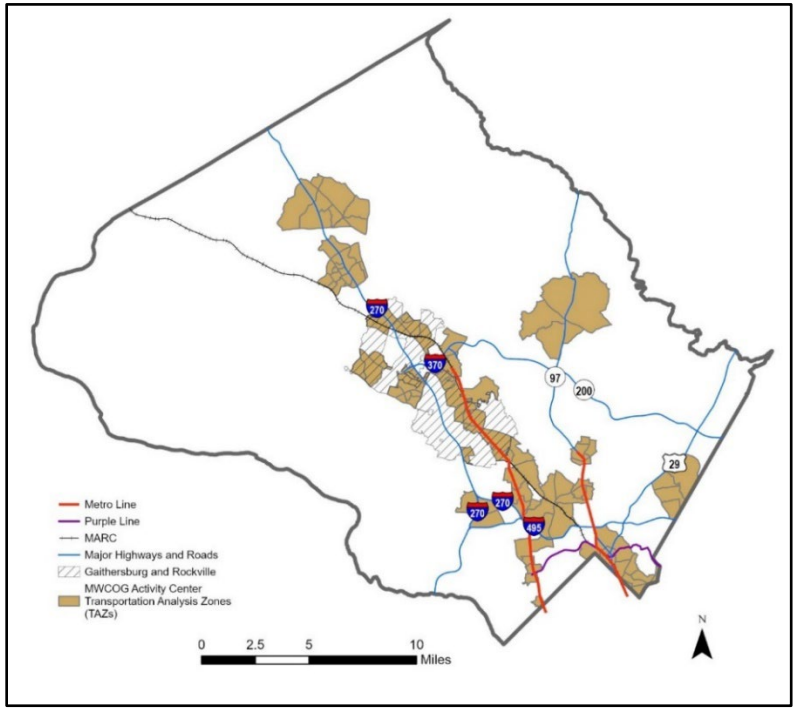
Not Activity Center	256,844	282,193	+25,349	206,407	240,590	+34,183

Source: Metropolitan Washington Council of Governments, Cooperative Forecast Round 10.0.

The areas forecasted to attract the majority of household and job growth in Montgomery County mostly coincide with the county's Activity Center locations. The MWCOG Round 10.0 Forecast results show 71 percent of the county's household growth and 76 percent of its job growth within MWCOG Activity Centers, leading to an overall increase in the shares of households and jobs in these areas. As of 2020, just 34 percent of county households were in Activity Centers, but by 2050, the share is expected to increase to over 40 percent. The share of county jobs in Activity Centers is forecasted to increase from 58 percent in 2020 to 62 percent by 2050 (Table 1 and Table 2).

The geographic pattern of forecasted growth in MWCOG Activity Centers follows the county's primary public transit facilities and major transportation and commercial corridors, specifically along Metrorail's Red Line, Interstate 270, U.S. Highway 29, and their urbanized or urbanizing central nodes. The pattern stems from not only the lack of vacant, developable greenfield land across the county but also from master planning that has strategically located capacity for development around current and planned transit. Places expected to have more intense future development, or population and job growth hotspots, are defined by their relatively high per-acre growth forecasted at the geographic level of Transportation Analysis Zones (TAZ).[5] Over 80 percent of TAZs that are population or job growth hotspots overlap with a designated Activity Center, and the remaining TAZs are located immediately adjacent to an Activity Center.

Figure 6 Map of TAZs in MWCOG Activity Centers in Montgomery County



Forecasted Population Growth

Population growth hotspots are defined as TAZs in the top 15th percentile for the 30-year forecasted change in the number of persons per acre; these TAZs are forecasted to add more than

[5] The forecast is produced for that level of geography for transportation modeling purposes.

2.89 persons per acre. The highest-growth TAZs (in the top 5th percentile) are expected to add more than 16.54 persons per acre. Most of the highest-growth hotspots are around existing high-capacity transit hubs with commercial centers, including those around the Metrorail stations of Bethesda, Silver Spring, North Bethesda, Rockville, Twinbrook, and Wheaton. Other hotspots are located around Metrorail stations in Friendship Heights, Shady Grove, Grosvenor, and Glenmont, along Interstate 270 in Gaithersburg, Germantown, Clarksburg, and White Oak along U.S. Route 29.

Forecasted Job Growth

Job growth hotspots are defined as TAZs in the top 15th percentile for the 30-year forecasted change in the number of jobs per acre; these TAZs are forecasted to add more than 2.41 jobs per acre (Figure 8). The highest-growth TAZs (in the top 5th percentile) are expected to add more than 9.37 jobs per acre. Similar to the pattern of population growth hotspots, many of the highest-growth hotspots for employment are around existing high-capacity transit stations with commercial centers, including those around the Metrorail stations of Bethesda, Silver Spring, North Bethesda, Rockville, and Twinbrook. In other parts of the county, two of the most critical employment growth areas are the U.S. Food and Drug Administration (FDA) campus at White Oak and the Life Sciences Center Activity Center between Rockville and Gaithersburg. Other job growth hotspots are located along Interstate 270 and U.S. Highway 29 in Rock Spring, Gaithersburg, and Germantown.

The forecasted population and job growth hotspots align with the county's and the region's long-term planning goal of concentrating new residential and commercial development within MWCOG Activity Centers served by transit. This transit-oriented planning policy responds to the county's lack of vacant, developable land and environmental and economic objectives. For example, master plans completed in recent years, such as those for the downtown Silver Spring and downtown Bethesda areas, promote more concentrated development in and around transit stations, allowing for more workers and residents per acre in places with existing infrastructure that can accommodate intense growth. Despite best efforts to plan for efficient development patterns, market forces play a large role in the timing and location of development. As such, the growth forecast does not assume all planned land use will come to fruition or that desired trends will prevail, but instead relies on parameters informed by rigorous data analysis.

Growth Policy Implications

The growth forecast suggests that significant numbers of households and jobs will still be located away from MWCOG Activity Centers and major transportation infrastructure, even while Activity Centers are forecasted to experience high growth rates. Although 71 percent of the county's household growth and 76 percent of its job growth are predicted to occur in Activity Centers, tens of thousands of additional households and jobs are expected to be located away from transit-oriented hubs and town centers. More people will still live and work in the less dense parts of the county in 30 years, and most households will still live outside of Activity Centers.

The forecasted growth trends highlight an ongoing need to focus on and expand investments in infrastructure in already developed places that can support more intense development effectively.

Building more infrastructure for non-motorized and multi-modal transportation in areas targeted for future growth allows for more opportunities to reduce reliance on single-occupancy vehicles, expand transportation options efficiently, and increase connectivity with major commercial and employment centers. Expansion of high-quality school facilities within or close to these areas could help make them more attractive places to live, especially for family households with children. Greater investments in designated future growth areas will also spur residential and commercial development. Further growth in these areas will support the creation of more housing unit types at different price points (and thereby expand housing options), provide crucial space for businesses (including the burgeoning bioscience industry) to concentrate and grow, place workers closer to jobs, and entice more residents to live in more compact, vibrant communities.

Over the next 30 years, efficient land use will remain essential in providing the homes and commercial spaces needed to accommodate county residents and workers. County master planning efforts are oriented toward this reality. Although progress towards more transit-oriented growth is evident from the MWCOG Round 10.0 Forecast, the results also highlight the need to intensify the focus on further development in designated future growth areas and plan for more efficient use of resources to support the county's population and economic growth.

Figure 7 Population Growth Hotspots in Montgomery County

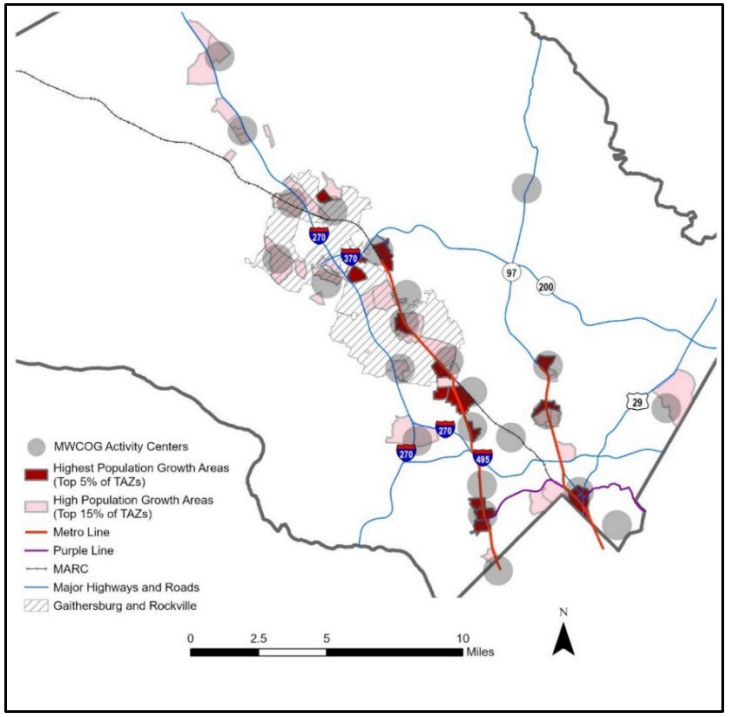
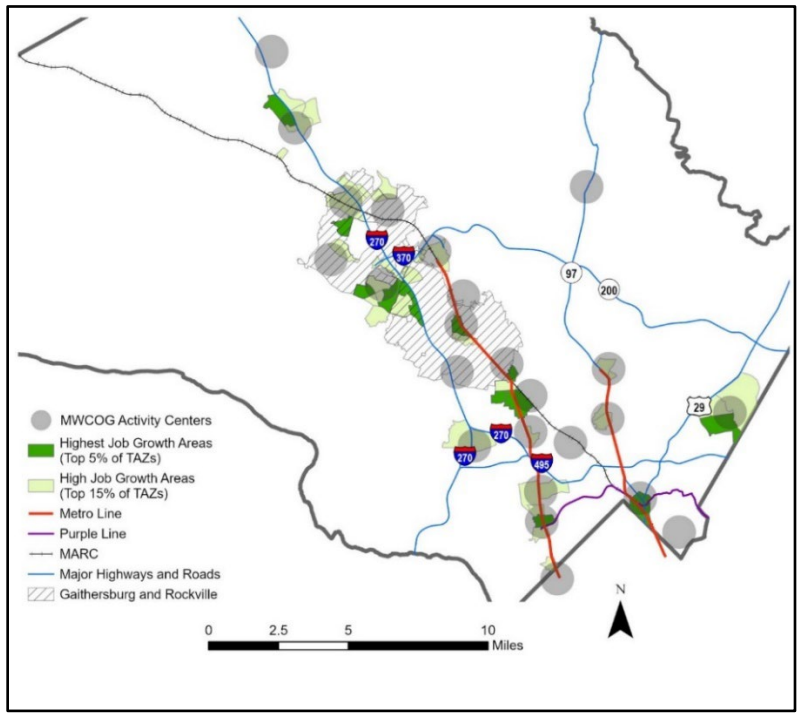


Figure 8 Job Growth Hotspots in Montgomery County



Source: Montgomery Planning, Research & Strategic Projects Division.

C. INFRASTRUCTURE CONDITIONS

Transportation Infrastructure

Montgomery Planning's biennial Travel Monitoring Report (TMR) provides residents, developers, and decision makers insights into Montgomery County's transportation system. The TMR leverages transportation datasets and analytical tools to provide a clear picture of how the county transportation system is performing.

The key insights from the 2023 TMR were:

- There was a nearly five-fold increase in telework between 2019 and 2022. Telework replaced 48% of commute "trips" in 2022 compared to just 10% in 2019, eliminating over 2.9 million daily commute trips.
- Travel time along I-270 between Frederick County and the Capital Beltway was significantly shorter in 2022 compared to 2019. Travelers commuting round trip on average saved one hour and 40 minutes each workweek. Travel times on the Capital Beltway were also shorter in 2022, although to a lesser degree.
- After a sharp decline at the onset of the pandemic, bus ridership steadily rebounded with a pause during the COVID Delta Variant during the winter of 2021-2022. Ridership in November 2022 was still, however, 31% and 18% below January 2020 levels for Ride-On and Metrobus, respectively.
- Although Metrobus ridership has rebounded, rail ridership remains well below pre-pandemic levels. Overall, the 2022 average weekday Red Line station entries in Montgomery County are approximately 55% below pre-pandemic levels.

The 2023 TMR provided an update to the Pedestrian Master Plan's Existing Conditions Report (March 2022) to reflect ongoing data collection regarding the quality of the pedestrian environment throughout the county. Key findings from the existing conditions report and the TMR update include:

- Approximately 52% of respondents are satisfied with the overall pedestrian experience in Montgomery County, with respondents in urban areas reporting the highest rates of satisfaction (60%) and those in exurban or rural areas reporting the lowest satisfaction (46%).
- The county has about 2,500 miles of existing sidewalk—including 816 miles on non-local streets — and 220 miles of sidewalk gaps on non-local streets.[6] 79% of the sidewalk gap mileage is in the exurban/rural part of the county.
- Higher classification roads such as controlled major highways and major highways, as well as business streets, disproportionately account for pedestrian crashes resulting in severe injuries or fatalities. While these roads make up only 8% of roadway mileage, they account for 57% of pedestrian crashes and 63% of pedestrian severe injuries and fatalities.
- Pedestrians were involved in only 4% of total crashes between 2015 and 2022, but they accounted for 26% of severe injuries and fatalities.

Montgomery Planning's biennial Bicycle Master Plan monitoring report evaluates progress made in advancing the goals and objectives of the plan and provides recommendations for implementing the plan's vision. During a two-year monitoring period ending on December 31, 2022:

- 5.3 miles of master-planned and 5.6 miles of non-master planned bikeway were built.
- 8.2 miles of new master-planned bikeways were under construction on December 31, 2022.
- 15.6 miles of master-planned and 5.9 miles of non-master planned bikeways were funded in the county's capital budget.
- 3.9 miles of master-planned and 3.7 miles of non-master planned bikeway were conditioned in development projects approved by the Montgomery County Planning Board, but not yet constructed.

Public School Facilities

MCPS currently operates 201 regular K-12 school facilities - 136 elementary schools, 40 middle schools, and 25 high schools. The county and MCPS have continuously invested in building classroom additions at existing facilities or constructing new schools to accommodate the steady enrollment growth the public school system has been experiencing over the past few decades and is expecting two more high schools to open by the 2027-2028 school year. Additional capacity is also scheduled to be

[6] Missing sidewalks on local streets are not classified as sidewalk gaps because traffic volumes and speed limits often allow for a comfortable experience for those pedestrians traveling in the roadway.

added at several existing schools through classroom additions and major capital projects.[7]

Enrollment growth in the county had been particularly strong since 2008 but was being forecasted to slow down starting from the younger grades up due to declining birth rates. The COVID-19 health pandemic however led to even lower enrollment in the past few years than previously projected, especially at the elementary school level. Enrollment patterns are still less predictable due to some lasting effects of the pandemic, but the latest projections show enrollment to be stabilizing gradually from the post-pandemic loss. Elementary school enrollment, which had already reached its peak in 2017, is projected to grow from its sudden post-pandemic dip but not expected to return to the pre-pandemic peak level.

At the middle school level, enrollment continued to decline in the 2023-2024 school year but is projected to rebound to its pre-pandemic level. Enrollment at the high school level was the least affected by the pandemic and continues to show modest growth.

At the countywide level, the total capacity available for elementary school students already exceeds the total enrollment by more than 7,000 seats and is expected to maintain that level of collective surplus capacity throughout the upcoming years. Within individual schools, however, there is still an imbalance of capacity utilization. During the 2023-2024 school year, 21 elementary schools were operating at a capacity utilization rate above 105%, seven of which were operating at above 120%. On the other hand, 59 elementary schools were operating at less than 90% utilization rates, of which 15 were enrolled at less than 75% of their capacities.

For middle schools, there were over 4,000 surplus seats available countywide in the 2023-2024 school year. Once enrollment rebounds to the pre-pandemic level, the surplus seats are projected to decrease to about 2,500 seats. Within individual schools, only two middle schools were operating at above 105% utilization rates, but 22 are at less than 90% of their capacities, four of which are even less than 75% utilized.

For high schools, the total capacity currently available countywide is more than 1,200 seats short of the enrollment. During the 2023-2024 school year, 12 of the county's 25 high schools were operating at more than 105% of their utilization rates, three of which were at more than 120%, whereas six high schools were at less than 90%. MCPS will be conducting boundary studies over the next few years in preparation of the two new high schools coming online, after which the utilization rates between individual high schools can be expected to be better balanced. Once all the scheduled high school capital projects are complete, there should be more than 3,800 surplus seats available countywide.

[7] Major capital projects address various building systems and programmatic needs especially at schools with aging infrastructure. MCPS has developed a new system to assess the infrastructure conditions of all facilities utilizing Key Facilities Indicators (KFI) to identify schools for possible major capital projects and expects more funds to be directed towards the effort to upgrade or help sustain existing facilities in good condition for longer periods.

Since the 2020 GIP update, Planning has been producing an annual School Utilization Report that documents enrollment, capacity, and utilization trends at the countywide level and for each K-12 school with the latest data and projections available from MCPS. The FY 2025 School Utilization Report will be released as an accompaniment to the Annual School Test before the start of the fiscal year.

Water and Sewer Infrastructure

The Washington Suburban Sanitary Commission (WSSC Water) provides public water and sewerage services within the Washington Suburban Sanitary District (WSSD), which covers most of Montgomery County. Within the WSSD, where new public water or sewerage systems are needed to support either existing or planned development, WSSC Water is the agency responsible for the approval, permitting, construction (in certain cases), operation, and maintenance of those systems.

Coordinated WSSC Water and Montgomery County plans and implementation programs guide water and sewerage systems policies, planning, financing, construction, maintenance, and replacement. These are detailed in the County's *Ten-Year Comprehensive Water Supply and Sewerage Systems Plan* (Water and Sewer Plan). The Water and Sewer Plan is a functional master plan prepared by the Montgomery County Department of Environmental Protection (DEP) and adopted by the County Council.

The Water and Sewer Plan is updated every three years and ensures that existing and future water supply and wastewater disposal satisfy the county's needs in a cost-effective manner that protects the health, safety, and welfare of residents, businesses, and institutions; and protects or improves the quality of the environmental resources of the county, the state, and the Chesapeake Bay region.

The plan, which was last updated in 2022, has a ten-year planning horizon for providing water and sewer services throughout Montgomery County. As such, it provides an important link between the county's land use and development planning and the actual construction of the water supply and sewerage systems needed to implement that planning effort.

The Water and Sewer Plan establishes policies that support the goals and objectives of the county's current General Plan and its related local area sector and master plans.

These policies emphasize the use of public water and sewerage systems in higher-density urban and suburban development areas, and predominantly on-site wells and septic systems in lower-density suburban, rural, and agricultural areas.

The plan's policies are implemented in part by assigning water and sewer service area categories for all properties within the county. The service area categories designate whether properties are to be developed using (and are eligible for) public or private water and sewer service. They also provide staging elements or a sequence for planning and providing public water and sewer service.

Where master plans make water or sewer service recommendations that are not in agreement with the policies of the Water and Sewer Plan, the master plan provides an explanation and justification for those recommendations. Subsequently, future updates of the Water and Sewer Plan will

identify these recommendations. Periodically, the County will update or amend a local area master or sector plan; a process that can cause changes in recommended land use, development densities, and water and sewer service for a part or parts of that master plan area. While these issues are under consideration by the Planning Board and the County Council, the Council typically defers decisions on related water and sewer service issues in this Plan pending completion of the new master plan.

The Water and Sewer Plan provides projections for the future water and sewerage system needs. The projections are based on land use planning studies, demographic projections, legal mandates, and policy requirements. To address these needs, the plan employs a variety of approaches, such as:

- New, expanded or replacement water and sewer facilities, such as transmission mains, pumping stations, storage tanks or treatment plants.
- Expansion of existing water or sewerage systems, or the use of alternative systems, to address communities experiencing public health problems from failing wells or septic systems.
- New or updated programs and service policies that address issues like changes in sanitary service technology, support for new development concepts, and protection from undesired sanitary system expansion or on-site system use.

WSSC Water delivers drinking water from the Potomac and Patuxent Rivers to consumers in Montgomery County. Filtration plants, a series of pumping facilities, transmission mains, and elevated storage facilities deliver potable water (safe to drink) by gravity. Once consumers use this water, the sewerage system collects and conveys it to treatment plants within the county, but primarily to the Blue Plains Treatment Facility in the District of Columbia. The system supports fire suppression, delivers potable water, and treats wastewater before releasing it into our rivers and the Chesapeake Bay.

The county's water distribution and sewerage collection systems are aging, and maintenance and replacement of this infrastructure is vital for continued adequate public water and sewer service for existing and future development. WSSC Water operates and maintains approximately 5,800 miles of water mains and 5,600 miles of sewer mains throughout the WSSD. Figure 9 and Figure 10 show the county's water pipe and sewer pipe infrastructure, respectively. The oldest portions of WSSC's system have exceeded their projected useful lives; **most of the system will exceed its projected useful life within 20 years.**

WSSC Water models each sewer-shed based on Metropolitan Washington Council of Governments' (MWCOG) forecasts to project where future infrastructure is needed and where capacity problems may develop.

Figure 9 Water Pipe Infrastructure

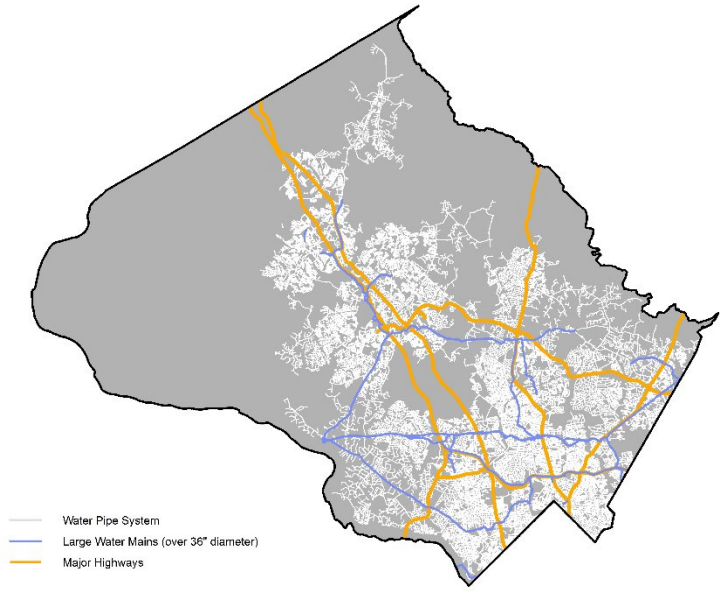
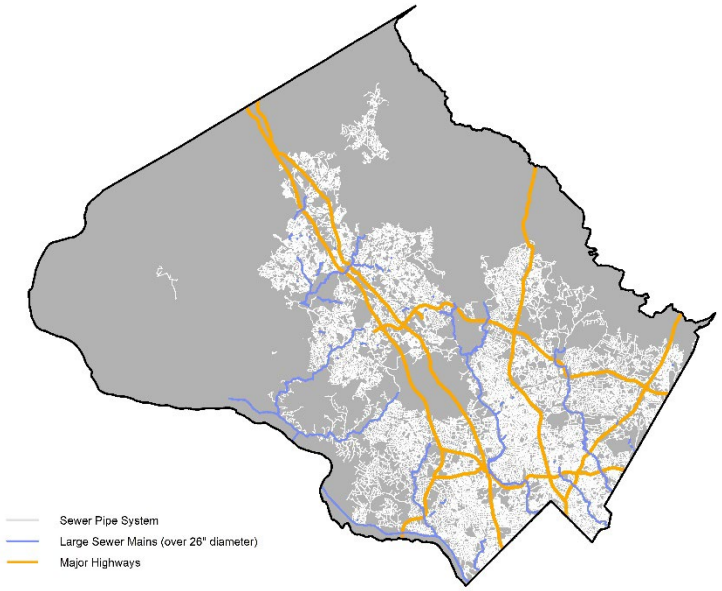


Figure 10 Sewer Pipe Infrastructure



Accommodating most of the county's future growth through redevelopment within existing urban areas, as recommended in *Thrive Montgomery 2050*, presents excellent opportunities for improving and funding water supply and wastewater treatment infrastructure without having to extend water and sewer service beyond the current service area. Redevelopment and infill development increase revenue through water and sewerage service charges. **Adding users to the existing infrastructure allows for more funds to be used for system repairs and replacement.** If the existing infrastructure cannot handle the projected increase in demand, major improvements may also be part of the redevelopment process.

The following are policy highlights from Chapter 1 of the 2022 Water and Sewer Plan.

WSSC Water Asset Management Plan (AMP)

WSSC Water's comprehensive Asset Management Program (AMP) minimizes infrastructure life cycle costs while maintaining required levels of service, at an acceptable risk, and planning for orderly rehabilitation or replacement of existing infrastructure.

The two goals of the asset management program are to identify future infrastructure needs and to establish and institutionalize an asset management process within WSSC Water. The purpose of these goals is to meet the required level of service

WSSC Water Projects

Prior to project implementation, WSSC Water obtains, through the Capital Improvements Program (CIP) process, funding approval from the Counties for any facility planning project requiring a significant expenditure or perceived as potentially controversial. Alternately, WSSC Water requires developers who will construct capital facilities as part of their projects to initiate and finance the facility plan process Since the institution of WSSC Water's System Extension Permit (SEP) procedures for developer-financed and built infrastructure, this process has become a more common way to handle the addition of new capital projects.

Developer-Built Projects

Developers design, finance, and construct all new main extensions serving residential subdivisions of two or more homes, any commercial use, and any institutional facilities. The law provides for exceptions to this requirement for individual homes or properties and to relieve health hazards. The applicant dedicates the completed mains to WSSC Water for operation and maintenance.

When increased capacity is needed to accommodate flows from private development projects, the applicant is responsible for its portion of infrastructure improvements. If a development needs more than 100,000 gallons of new capacity, then the applicant pays for the entire capital project expense, including expenses from other development projects contributing less than 100,000 gallons to additional capacity needs.

Water and Sewer Financing

The planning, design, land acquisition, and construction of water supply and sewerage system infrastructure is financed by two separate programs in the WSSD: the Major Systems and General Construction Programs and the Local Service Extension Programs.

Major Facilities Program

The WSSC Water major facilities program includes projects adopted in the WSSC Water CIP: water and sewage treatment plants, pumping stations, storage facilities, and program size mains. WSSC Water finances these projects through water supply and sewage disposal bonds, developer contributions, systems development charges (SDC), grant funds, Maryland Department of the Environment Water Quality State Revolving Loans, and other sources.

WSSC Water also assesses the Systems Development Charge (SDC) to new customers within the WSSD to pay for capital improvements of the water and sewerage system to accommodate growth. Existing houses where both the house and the main providing service were built before 1993 are exempt.

Local Service Extension Programs

WSSC Water allows for the construction of smaller, non-CIP-sized water and sewer mains, primarily along streets adjacent to or abutting users' properties. Developer financing of new water and sewer mains is required under the System Extension Permit (SEP) process. For water and sewer mains constructed by WSSC Water, the general construction bonds are financed by front foot benefit assessment charges and deficit payments.

Efforts to Address Underserved and Unserved Communities

The high costs of new water and sewer main construction often make service extensions unaffordable for most individual property owners. The excessive cost of main extensions has detrimental effects on the County's water and sewer planning efforts. The lack of affordable community causes homeowners to use individual, onsite systems in even in areas intended for community service and where community service would relieve public health problems.

Current Extension Cost Issues

Legislative changes to the Public Utilities Article adopted by the Maryland General Assembly in 1998 resulted in sharply escalating main extension costs. As a result, the responsibility for water and sewer main construction and financing shifted from WSSC to developers and property owners. Prior to 1998, water and sewer service extensions were primarily financed by WSSC Water ratepayers. Larger subdivision projects, where extensions were generally less expensive to construct per foot of new main, tended to subsidize the smaller, more expensive extensions for individual homes. With the implementation of the System Expansion Process (SEP) program, WSSC Water lost the major sources of front foot revenues. Without that subsidy, individual applicants using the WSSC Water-built extension program now bear all of the true cost of these service extensions.

WSSC Water is working with other agencies to develop an alternative affordable water and sewer extension process for individual property owners in unserved and underserved communities.

Aging Infrastructure Costs

WSSC Water instituted an infrastructure investment fee to address growing concerns about aging water and sewer mains. All WSSC Water customers currently pay a quarterly $12.00 fee to finance ongoing programs to repair and replace water and sewer mains that are reaching the end of their usefulness.

Interagency Coordination and Development Review

Needs for infrastructure improvement are identified through WSSC Water's Asset Management Planning and coordination with the County's development review process. When there are alternatives to infrastructure improvements and relief measures, they are evaluated considering multiple factors including environmental protection and cost-effectiveness.

In recent years WSSC Water has changed the CIP project development process, with all needs first being reviewed and validated through the Asset Management Program. While WSSC Water has and continues to plan to include interaction with Montgomery County DEP and M-NCPPC on existing and future relevant projects, the County continues to have

discussions with WSSC Water on the extent of County involvement.

M-NCPPC reviews WSSC Water projects through the Mandatory Referral process, as part of a public forum, as required by state law. Although the Planning Board's decisions for projects are non-binding, the Board often provides recommendations that improve the compatibility of these projects with both the natural and human environment. [8] These recommendations also provide the Board's formal position for the Council on these projects.

The M-NCPPC Intake & Regulatory Coordination Division (IRC) manages the County's Development Review Committee (DRC), an interagency group that meets regularly to review proposed development plans. DEP is the lead agency in the DRC regarding water and sewer service planning issues. DEP staff report to the DRC on the consistency of the water and sewer service components of development proposals regarding the County's Water and Sewer Plan. For a development proposal to proceed to the Planning Board for consideration, DEP staff needs to confirm the consistency of the development plan with the policies and service area designations in the Water and Sewer Plan. The Planning Board uses this information to determine water and sewer adequacy.

Parks Infrastructure

In the wake of the COVID-19 pandemic, the understanding of parks and public open spaces as critical infrastructure has been solidified. Parks are a vital ingredient in creating Complete Communities as envisioned in *Thrive Montgomery 2050*; they enhance our overall quality of life by fostering social connections, getting people outside and exercising, and protecting the environment.

Residents broadly recognize these benefits, with 84% of American adults reporting that they seek high-quality parks when choosing a place to live. Not surprisingly, parks help drive economic development as well. Studies regularly show that parks increase nearby property values and influence business locations. The high-quality park system in Montgomery County is a major contributing factor to the county's reputation as a great place to live, work, and visit.

Parks, like all critical infrastructure, must keep pace with growth in the county for it to remain a thriving and desirable destination. With increased densities in urbanizing areas and developable land becoming ever scarcer, community planning and park planning have become even more critical to creating and maintaining livable and healthy communities. *Thrive Montgomery 2050* and the 2022 *Parks Recreation and Open Space Plan* (PROS) create the framework and establish the goals to guide the county's growth and development of parks. Community master, sector, and functional plans, along with park plans, provide the specific recommendations for new parks and park improvements needed to support the expected population growth and demand for parks. To provide the new parks and facilities recommended in the various master plans and to update existing park facilities,

[8] Planning Board decisions on Forest Conservation Plan, when required, are binding.

Montgomery Parks strives to fund projects through the Parks Capital Improvements Program (CIP). Even when fully funded, the CIP often does not keep up with the county's growth rate. This condition creates the potential for inadequate public open space and park facilities in the county.

A growing and increasingly diverse population creates increased demand for various parks and open spaces while also increasing demand for other uses, such as housing. With this increased competition for land, a mix of uses and an integration of infrastructure within the same site can help create valuable efficiencies. In alignment with the *Thrive Montgomery 2050* vision for Complete Communities and Compact Growth, the design of the built environment needs to strengthen social and physical health for residents by promoting development and growth in focused activity centers. This supports greater conservation and expands protection of natural and cultural resources. Integrating parks and recreation areas with other services reduces infrastructure costs by providing local amenities within walking distance, reducing impervious surfaces, and recharging groundwater supply. Sustainability requires the integration of efforts and preventive measures to conserve resources. A level of coordination among different county agencies, including alignment of objectives, development schedules, and dedicated funds, will be required.

Rising property values in the denser areas of the county make providing the needed urban parks an increasingly larger financial burden. The recent trend in real estate development in these areas is to replace lower-density residential development or commercial development with higher-density residential and mixed-use buildings where economically feasible and allowed by zoning. The significant increase in density makes parks and open spaces the "outdoor living rooms" for many of these new denser communities. Without space for private backyards, public parks and trails play an increasingly important role in encouraging physical activity, promoting social interaction, and protecting the environment. Access to urban parks is a critical element in promoting community welfare and quality of life as called for in *Thrive Montgomery 2050*.

The heightened focus on parks in our most populated areas has resulted in many urban park recommendations in recent master plans. The plans stress the importance of having the right parks in the right places—public open spaces are not equal, and POPS and parks will enjoy the most success when they follow the locations recommended in the plans, as well as facing less competition from other land uses. To ensure compliance with plan recommendations and to prevent the creation of parks or public open spaces in unsuitable areas, the 2022 *Silver Spring Downtown and Adjacent Communities (SSDAC)* Plan introduced a public open space fee-in-lieu contribution policy.

Providing adequate park facilities for the expected growth throughout the county as predicted in master plans and guided by *Thrive Montgomery 2050* And PROS is already a challenge; some recent master plans, such as the 2017 *Bethesda Downtown Plan* and the SSDAC Plan, have created Overlay Zones that allow for additional density beyond what is called for in the plan. In order to help park infrastructure support this additional growth beyond what the plans recommend, and the CIP seeks to fund related payments is required to use the additional density. In Bethesda Park Impact Payments, which support park infrastructure solely, and in Silver Spring payments to the Silver

Spring Civic Improvement Fund, which can be used for other public infrastructure besides parks, are available to help fund the needed parks.

While the need for new parks and facilities may be more apparent in the denser areas of the county, growth is not restricted to these areas and additional parks and facilities will be needed throughout the county. In addition to providing more of the same parks and facilities, there is the challenge of adapting to and meeting diverse needs driven by changing demographics, climate, and trends. The rise in popularity of pickleball and the need to provide pickleball courts is a recent trend that has driven recent park development projects; a warming climate has and will continue to make shade more necessary in parks; and the demographic shift to an overall older population is shaping current park needs.

The need for parks in the county continues to grow with the population and increasing density. Meeting that need will continue to be a challenge amid competing funding priorities, aging infrastructure, and changing priorities. Funding sources beyond the CIP, such as privately owned public spaces (POPS) and developer-provided parks and facilities and additional park payment policies, will be increasingly important tools to ensure that adequate parks facilities are available in Montgomery County.

D. NATURAL RESOURCE CONDITIONS

Environmental Resources

Montgomery County is an integral part of the Washington, D.C. metropolitan area and its decisions affect the overall health and sustainability of the region. The county has long been at the forefront of land use planning and stormwater management. This has resulted in the creation of an exemplary park system, the Agricultural Reserve (see Figure 11), and high standards for environmental resource protection preservation, and conservation.

Nevertheless, while the county's policies and plans have done much to mitigate and limit environmental degradation as it has grown, water and air quality (key measures of environmental health) have continued to decline. Meeting and maintaining environmental standards remain ongoing challenges, especially in light of continued growth and accelerating climate change.

Climate change is a challenge that must be addressed to secure a healthy and sustainable future for the county. The negative impacts of increasing greenhouse gas emissions and resulting climate change are diverse and far-reaching. The economic impacts of climate change are increasing because of higher energy costs, infrastructure damage, and negative effects on sectors like labor, tourism, and food production. Disadvantaged communities bear a disproportionate impact, and indicators suggest this pattern will persist. Without intervention, climate change could hinder the achievement of all other goals.

Montgomery Planning's master plan updates and development review efforts pursue ways to optimize the environmental values that redevelopment and infill development can provide, such as reduced impervious cover and runoff, and increased shading and cooling. Thrive Montgomery 2050 will be an important resource to guide those processes in the future to ensure future development can contribute to environmental sustainability.

Water Quality

The steady decline of stream conditions and water quality in the county is due, in part, to decreased natural vegetated land cover, which provides natural water filtration and pollutant removal, as well as increased impervious surfaces and associated stormwater runoff. A general pattern of stream conditions, as measured by stream biological and habitat indicators, follows the county's pattern of development as seen in the distribution of impervious surfaces (see Figure 11 and Figure 12). Lower stream conditions are generally found in areas with higher levels of impervious cover. The most impacted streams are often found in areas developed before strict requirements were in place to reduce pollution and runoff.

Degraded water quality, as measured by levels of chemical and other pollutants, led to new state and federal regulations to improve degraded streams to meet water quality standards. These requirements are known as Total Maximum Daily Loads—the maximum amount of a pollutant that a water body can receive and still meet water quality standards. Figure 13 shows the number of pollutants that need to be reduced under approved Total Maximum Daily Loads within the major watersheds of the county.

Figure 11 Impervious Surfaces

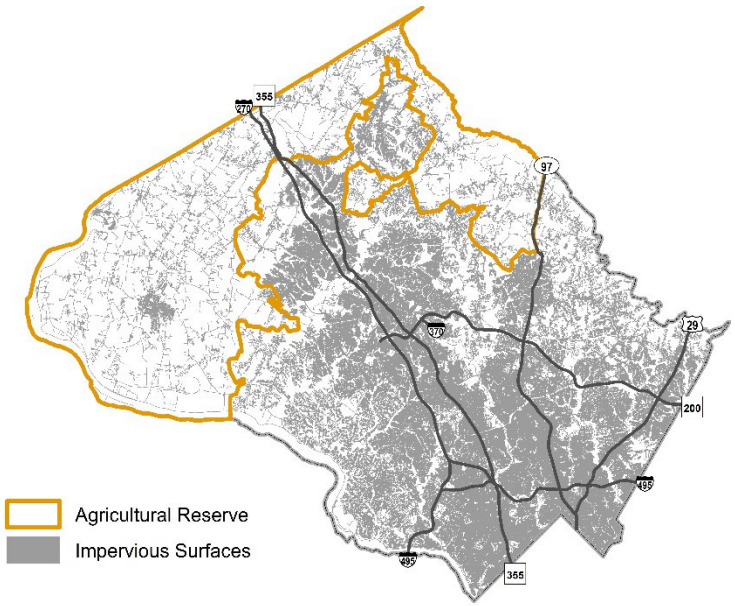


Figure 12 Stream Conditions

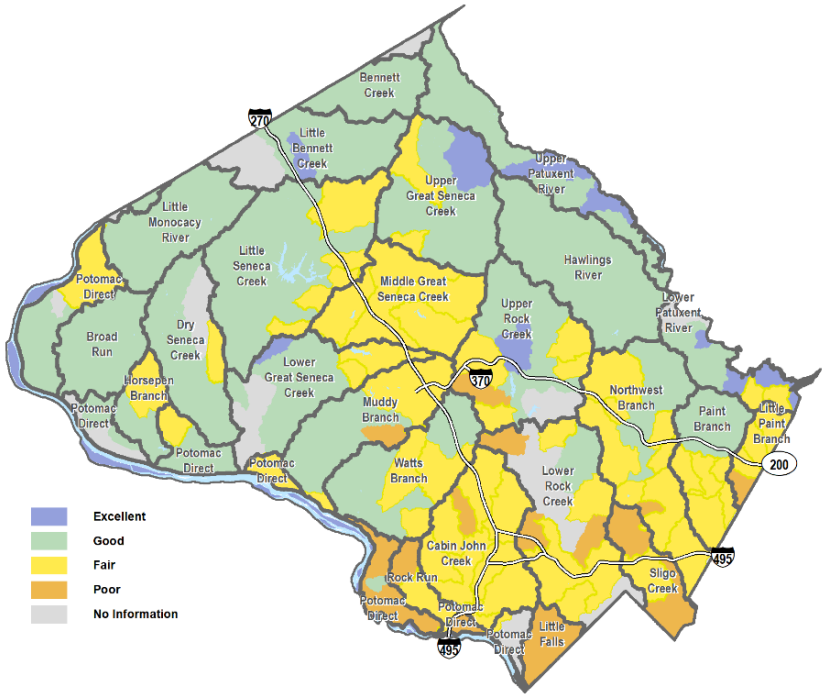
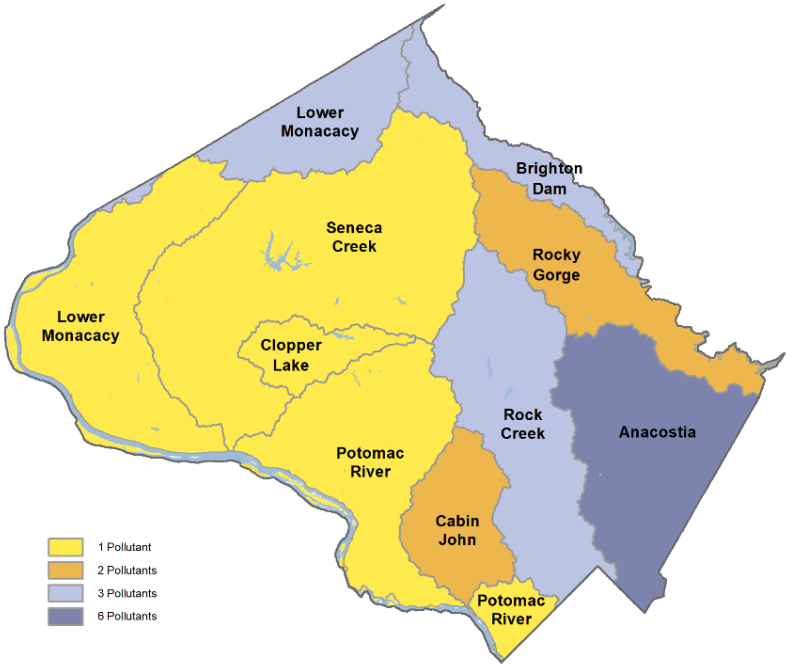


Figure 13 Restricted Pollutants by Watershed, 2024



Jurisdictions throughout the Chesapeake Bay watershed need to make significant commitments and investments to reduce pollutants to meet Total Maximum Daily Load requirements and continue to meet them while the population and employment bases continue to grow.

The federal government regulates storm drains and the pollutants they discharge to waterbodies in local jurisdictions through the Municipal Separate Storm Sewer System (MS4) permit process. The permit conditions apply to the county's urbanized areas draining through county-maintained stormwater conveyances and require the county to develop and maintain watershed and stormwater management programs and plans to meet the permit conditions. Implementing and updating master plans, stormwater management, development review, and natural area protection, enhancement, and restoration efforts are guided by the results of the Montgomery County Department of Environmental Protection (DEP) and Montgomery Parks' monitoring and analyses, and MS4 Permit, watershed, and Total Maximum Daily Loads implementation plans. Mitigating, reducing, and adapting to climate change is increasingly vital to the success of these plans and programs, and to improving water quality throughout the county.

To help reduce the costs of meeting Total Maximum Daily Loads and increase the range of implementation options available to local jurisdictions, the state is looking at how pollutant trading and growth offset programs might work to counterbalance increased pollution from new development, especially in greenfield areas. Pollution trading is an approach governmental regulatory agencies and private companies use to reduce pollution by providing economic incentives to reduce net pollutant discharges. After Total Maximum Daily Load limits or "caps" are set, groups that foresee exceeding these caps may purchase credits from groups that have not exceeded their discharge levels. Under growth offset programs, additional pollutants resulting from new development are "offset" by a commensurate reduction of the same pollutants elsewhere in the same watershed. Pollution offsets can exist for any kind of polluting materials if an equal and direct benefit can be established. The county, in turn, is considering how it might use these programs to achieve its pollutant control and growth goals.

Since the potential for future greenfield development in the county is limited, expected growth, as guided by *Thrive Montgomery 2050*, is planned to be accommodated mostly through redevelopment and infill (the development of vacant parcels and redevelopment of underused parcels within areas that are already largely developed). Redevelopment and infill will avoid the environmental degradation that would otherwise occur with greenfield development and sprawl, allowing most of the expected increases in population to occur within developed areas that already have transportation, water, and sewer infrastructure. Redevelopment affords the potential for socio-economic enhancements and environmental improvements over existing conditions. It offers opportunities to improve stormwater management, water quality, air quality, tree canopy, and other green spaces in older developed areas that are environmentally impaired.

Air Quality

As with water quality, continued growth and climate change negatively affects the county's air quality. Ongoing monitoring

tracks the count and the region's compliance with air quality standards. Both the county and the region have not yet attained ground-level ozone air quality standards.

In December 2017, Montgomery County declared a climate emergency and an accelerated goal to be carbon neutral by 2035. In doing so, the county recognized the increasing threat of climate change and, in responding to it, the opportunity to reimagine and enhance our quality of life. Efforts to reduce, mitigate and adapt to climate change will not only improve our air and water quality, but also strengthen our economy, enhance our well-being and develop greater resilience.

In July 2019, Montgomery County launched a planning process to develop prioritized actions and strategies to meet the county's greenhouse gas emissions reduction goals. The county completed the *Montgomery County Climate Action Plan* in 2021, providing a roadmap to achieve carbon neutrality and will also include recommendations for adapting to a changing climate.

As with water quality, *Thrive Montgomery 2050's* recommendation to accommodate most future growth through redevelopment and infill provides opportunities to increase local and regional air quality, through:

- Limiting sprawl and associated loss of open space and natural resources,
- Improving transit options,
- Decreasing vehicle use,
- Increasing walkability and bikeability,
- Creating more energy-efficient buildings, and
- Incorporating green spaces and green buildings as integral parts of communities.

Forest and Urban Tree Canopy

In both local design and large networks of green spaces, forest and tree canopy are essential elements of quality of place and livability. Trees increase energy efficiency, reduce heat island effect (built-up areas that are hotter than nearby rural areas), improve air quality, extend pavement life, enhance pedestrian-vehicular safety, boost real estate values, make retail areas more attractive, absorb water pollution and carbon emissions, and slow stormwater runoff and erosion. Large-forested areas provide the additional benefits of ensuring clean and healthy streams and rivers, offering an abundance of recreational opportunities, and maintaining a diversity of natural areas that connect our communities.

While forest and non-forest tree canopies provide critical shading and cooling benefits that help mitigate climate change effects, they are at the same time suffering from those effects and their ability to continue to provide critical benefits is decreasing. This makes it important to both increase forest and non-forest tree canopy, and manage these vital resources to safeguard their health, resilience, and adaptability in the face of climate change.

Recent analysis shows forest losses and forest planting have kept the overall forest cover area at approximately 30 percent of the county's land area. Much of that cover is in our parks, along stream valleys, and in rural areas. An additional 20 percent of the county is shaded by non-forest street trees, individual trees and small groves in local parks and on private property. Urban areas, however, continue to experience tree canopy losses and the shading and cooling benefits they provide.

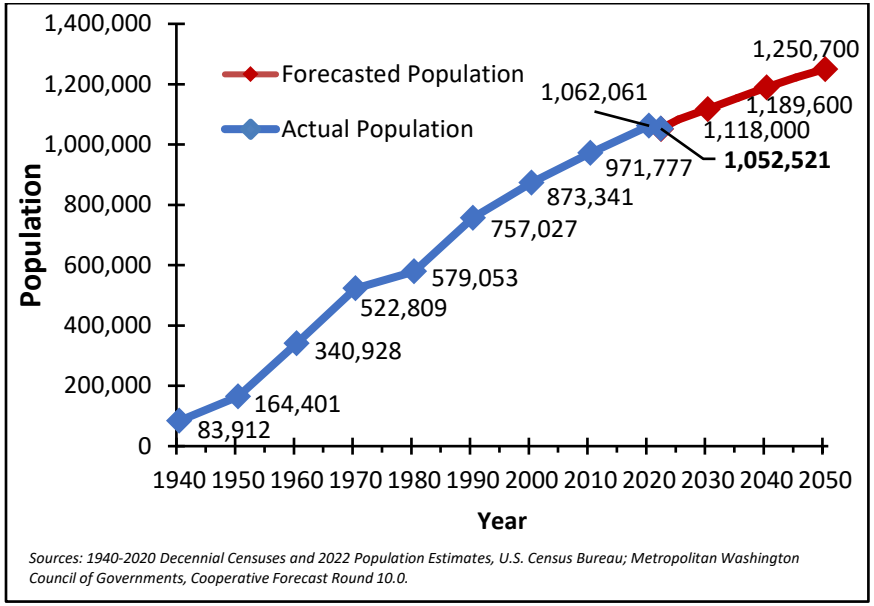
While our combined forest and tree canopy of almost 50 percent is commendable, our urban centers are often a sea of buildings, roads and parking lots with very little tree cover to shade hot pavement, filter air and water, and provide relief to those who live and work in these areas. Redevelopment and planting trees in traditional centers are an opportunity to improve urban tree canopy, air and water quality, and our quality of life.

Chapter 2. Other Relevant Growth Measures

Montgomery County has evolved from a rapidly growing bedroom community for the region to today's regional leader with major employment centers and over one million residents. Montgomery County has entered a mature phase of development with a slower pace of growth, typical of a populous and developed county with limited developable land. The county's population growth rate averaged below 1 percent per year during the 2010s and is expected to decline even further over the next 30 years. In addition, the county experienced a decline in population from 2020 to 2022, coinciding with the COVID-19 pandemic. However, the population is still forecasted to grow from 1.05 million in 2022 to 1.25 million by 2050, an increase of nearly 200,000 people (Figure 14). These additional 200,000 residents will require housing, services, and the support of public infrastructure.

Demographic trends among people moving in and out of the county, the natural increase in population, and the aging of county residents determine the composition of the county's population. Economic forces also shape demographic trends; the most notable of these forces in recent years stems from the effects of the Great Recession of 2008 and the COVID-19 pandemic. Such events alter not only the pace of demographic change but its population characteristics as well. The changing characteristics of Montgomery County's population is now more notable than its population growth. The important historical and near-future demographic trends transforming Montgomery County are described here.

Figure 14 Montgomery County Historical and Projected Population, 1940 to 2050



Sources: 1940-2020 Decennial Censuses and 2022 Population Estimates, U.S. Census Bureau; Metropolitan Washington Council of Governments, Cooperative Forecast Round 10.0.

A. SLOWER GROWTH OF MATURE, POPULOUS COUNTY STILL ADDS 200,000 PEOPLE

With an estimated population of 1,052,521 in 2022, Montgomery County remains the most populous county in Maryland and ranks 2nd in population in the Washington, D.C. region (behind Fairfax County) and 45th nationwide. Only 47 counties (out of more than 3,000) nationwide have a population exceeding one million, and the county crossed this demographic milestone in 2012. In the next 30 years, Prince George's County is the only jurisdiction in the D.C. area expected to break the one million mark and join

Fairfax and Montgomery Counties. Montgomery County will also not experience again the rapid post-World War II residential growth dominated by greenfield development.

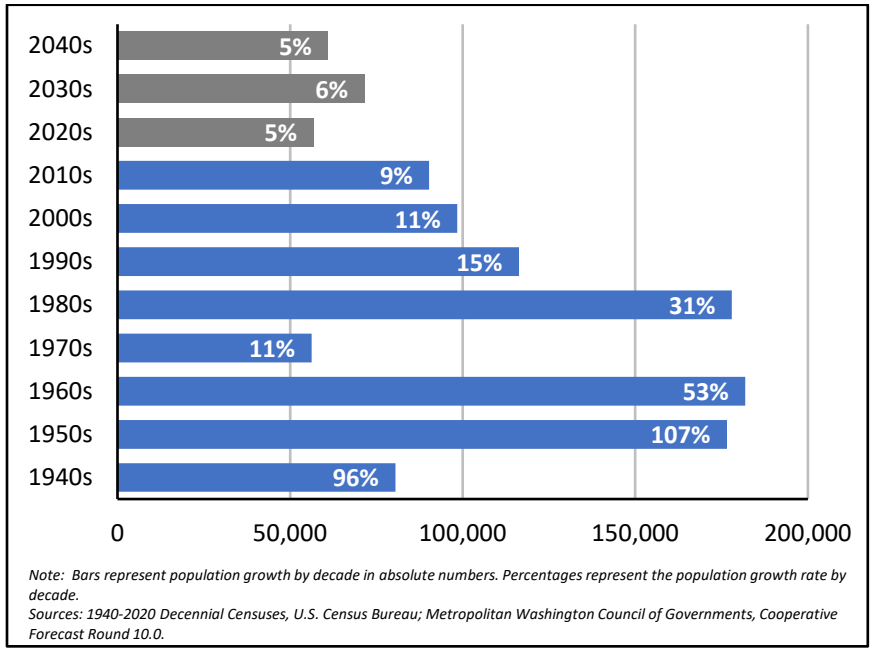
Montgomery County experienced its greatest population growth after World II, as did much of the nation. During the 1950s, the county's population doubled, gaining 176,500 residents, as people from outside the region came to work for the federal government along with returning veterans and city dwellers seeking a suburban environment (Figure 15). With new suburban high-rise apartments expanding housing options in the 1960s, the county gained the most people (182,000) in any one decade, growing at half the rate of the previous decade (53 percent). Nationally and locally, growth was abruptly curtailed in the 1970s by the quadrupling of oil prices and a costly Vietnam War, stagflation, double-digit unemployment, and ultimately a recession. The county bounced back in the 1980s, adding almost 180,000 residents, second only to the high increases of the 1960s.

Since the 1990s, the rate and the amount of population growth in the county steadily declined as new housing shifted from large subdivisions in open fields to transit-oriented and infill development. The county gained 116,000 people in the 1990s, but it was the beginning of more modest population growth rates. The 15 percent population increase during the 1990s was half the rate of the 1980s, followed by slower growth in 2000s of 11 percent or fewer than 100,000 residents. During the 2010s, the county gained 90,000 people, or nine percent, and entered a slower growth phase due to the lack of developable land and transportation capacity needed to sustain rapid growth.

The current decade began with a population loss of over 9,000 persons from 2020 to 2022, but the annual growth in population had been declining since 2010 when it peaked at nearly 18,000 and was the highest annual increase since 1990 (Figure 16). Growth had slowed down in most Washington, D.C. jurisdictions during the 2010s as the national economy improved and national immigration policies shifted. The pandemic-era decline in population was not unique to Montgomery County and occurred in other urban and inner suburban jurisdictions in the D.C. and Baltimore regions, including the District of Columbia, the City of Baltimore, Baltimore County, Fairfax County, and Prince George's County.

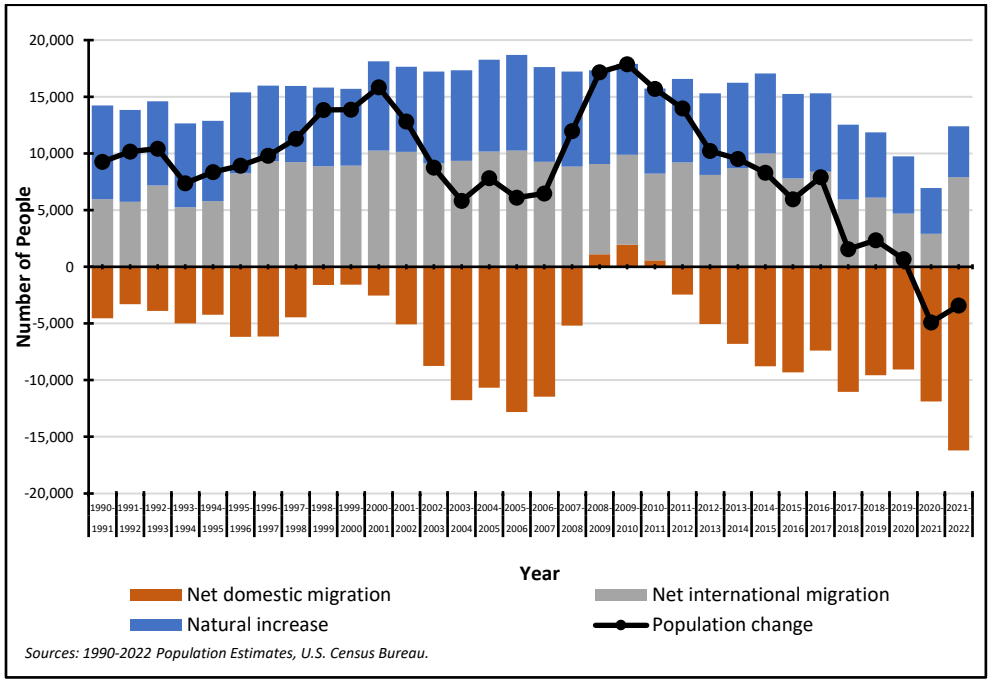
Montgomery Planning's latest forecast projects an increase in population by five percent or 56,000 residents between 2020 and 2030 (partly due to the population loss between 2020 to 2022). Population growth in the 2030s and 2040s is not projected to exceed 75,000 persons or six percent in each decade. While the additional population in the next 30 years is substantial, the anticipated amount of growth in each decade is less than half the peak growth that occurred in the 1960s and 1980s when the county gained 180,000 people in each decade.

Figure 15 Montgomery County Population Gains and Percent Rate of Growth, 1940 to 2050



Note: Bars represent population growth by decade in absolute numbers. Percentages represent the population growth rate by decade.
Sources: 1940-2020 Decennial Censuses, U.S. Census Bureau; Metropolitan Washington Council of Governments, Cooperative Forecast Round 10.0.

Figure 16 Montgomery County Population Growth by Component Change, 1990 to 2022



Sources: 1990-2022 Population Estimates, U.S. Census Bureau.

B. FOREIGN IMMIGRATION MOSTLY OFFSETS DOMESTIC OUT-MIGRATION

The movement of people in and out of Montgomery County is a significant element of population growth and instrumental in broadening cultural diversity. Averaging 7,654 people per year during the 2010s, residents from abroad moving into the county contribute greatly to the county's growth and diversity (Figure 16). The level of foreign migration during this period offset the average net loss of 6,889 residents per year who relocated domestically, either within the Washington, D.C. region or elsewhere in the United States. Typically, steady inflows of

international migration counter the fluctuating domestic migration patterns, which reflect the strength of the national economy and variation in housing prices. Net domestic out-migration (i.e., more people move out of the county than in from elsewhere in the nation) usually happens during a strong economy when more competitive job and housing upgrade opportunities exist outside of the county. For example, before the Great Recession of 2008, the county averaged an annual net domestic migration loss of 11,679 people during the 2003 to 2007 period.

Conversely, net domestic in-migration has occurred in Montgomery County during national economic declines. When the Great Recession of 2008 started nationwide, more people, including county residents, delayed moving due to the difficulty in selling a home after the housing bubble burst and limited job prospects elsewhere. The Washington, D.C. region's economy, buffered by the federal government presence, insulated local residents from the worst of the recession and offered better economic opportunities relative to other domestic locations. As a result, for the first time in 20 years, more people moved into the county from other parts of the United States than residents left between 2008 to 2010.

As the post-recession economy improved, greater domestic out-migration resumed. Combined with decreased foreign migration levels in the late 2010s, total migration each year became a net negative with an annual average loss of about 2,700 people between 2015 and 2020. However, total migration for the entire decade of the 2010s still netted 7,648 new residents. During the COVID-19 pandemic, increased domestic out-migration, coupled with a temporary decline in immigration and a spike in deaths, contributed to the population loss from 2020 to 2022. The net domestic out-migration of 16,188 people in 2021-2022 was the greatest annual outflow in the 32-year period since 1990. Highlighting the unusual nature of this period, the pandemic led to a national recession but accelerated out-migration, rather than leading to more in-migration as seen in previous periods of national economic decline. This pattern is related to the rapid transition to remote work for a large segment of the workforce and a greater willingness and ability among more households to seek larger homes and more affordable places to live.

The level of foreign migration into the county is contingent upon national and world politics and regional and global economic cycles. From 1995 to 2017, net international migration fluctuated usually in the range of 8,000 to 10,000 new immigrants. The period from 2017 to 2021 marked a precipitous decline in international migration into the county to less than 3,000 persons in 2020-2021, the lowest level since the early 1990s, first due to significant changes in national immigration policy and then with pandemic-related restrictions on international travel starting in 2020. With easing of travel restrictions, more changes in immigration policy, and increased numbers of international migrants escaping adverse conditions in their home countries, foreign migration increased back to pre-2017 levels in 2021-2022. However, the return of international migration was not enough to offset the much-increased level of domestic out-migration. While the current abatement of the pandemic and its effects may reverse the most recent domestic migration trends, without consistent, substantial levels of international migration, total migration could post a consistent loss due to higher domestic out-migration and reduce the county's annual population increases. As conditions become more favorable for population

and economic growth, Montgomery County is still well-positioned to attract international immigrants at previous levels, drawing on its existing large foreign-born resident base, ample economic opportunities, and welcoming social and political environment.

C. BIRTHS INFLUENCE POPULATION GROWTH AND DIVERSITY

Natural increase, or the number of births minus deaths, is a major component of population growth and change in Montgomery County. In the 2010s, natural increase accounted for 90 percent of the county's population growth, while domestic and international migration primarily changed the mix of people. Averaging 6,852 people per year, natural increase was nine times the average gain from total migration in the 2010s. The number of births in the county was about twice the number of deaths in this decade. From 2020 to 2022, natural increase reached a 40-year historic low partly due to a spike in the number of deaths from the COVID-19 pandemic. The number of births, which had been declining for more than a decade before the pandemic, was at its lowest point since 1987. Natural increase in 2020 dropped to 4,000 but increased to 4,777 in 2022 as the number of births ticked up and efforts to reduce pandemic-related fatalities led to fewer deaths (Figure 17).

Even before the pandemic, the contribution of natural increase to the county's population growth had lessened since the Great Recession of 2008 due to more deaths from an aging population structure and fewer births from lower fertility. Natural increase in 2019, the year before the pandemic, registered 5,828 people and at the time was at its lowest point since the mid-1980s. Assuming mortality and fertility trends return to pre-pandemic patterns, the impact of natural increase on growth is still expected to diminish further. Although age-adjusted mortality rates (the number of deaths per 100,000 persons) have declined nearly every year in the two decades before the pandemic, from 654 per 100,000 in 2000 to 469 per 100,000 in 2019, the rising share of older adults in the population will still significantly increase the total number of deaths even in the absence of COVID-19.

Declining births since 2007 is tied to the county's birth rates falling to record lows. In 2007, the number of newborns peaked at 13,843, but total births decreased by 17 percent by 2021, when the county had 11,505 births. Between 2007 and 2019, the crude birth rate, or number of births per 1,000 persons, dropped from 14.9 per 1,000 to 11.4 per 1,000. In 2021, this rate declined to 10.9 per 1,000, exceeding the record low of 11 per 1,000 during the recession of 1975. As a better measure of birth rates that take into account of a population's age and sex structure, the general fertility rate (the number of births per 1,000 women ages 15 to 44) also shows a decrease from 74.3 per 1,000 in 2007 to 59.1 per 1,000 in 2019 and 56.6 per 1,000 in 2021. Birth rates made a partial recovery in 2022 towards pre-pandemic levels. However, modest increases in fertility rates and reductions in mortality rates from those seen before the pandemic are unlikely to offset the impact of the large cohort of aging Baby Boomers on falling natural increase levels.

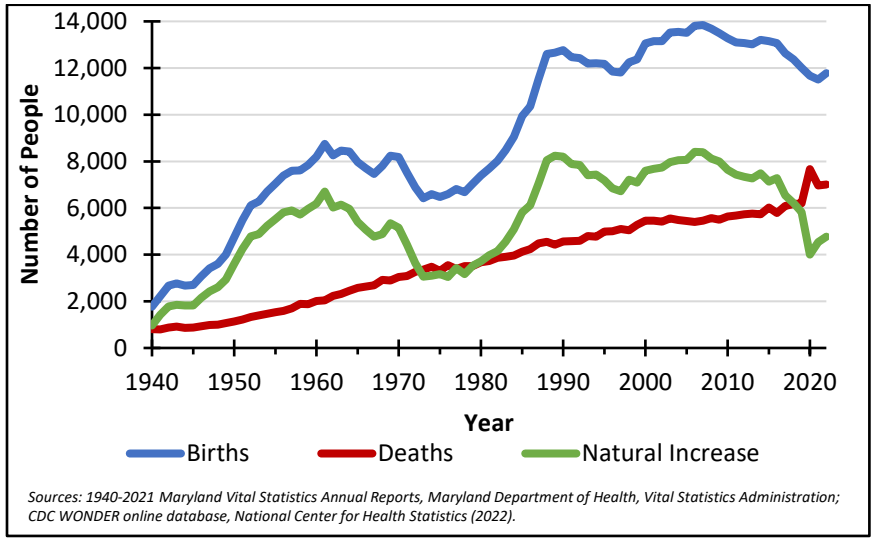
Reasons behind the lower fertility rates in recent pre-pandemic years are related to national trends. The generation of Millennial women now in their late twenties, thirties, and early forties have delayed childbirth in Montgomery County, as in the rest of the country. For many, economic uncertainty may be a prominent

reason for deciding not to have children or delaying the decision. Millennial women started entering the workforce at the end of the Great Recession of 2008, yet static wages followed by rising cost of living put many in this generation in poor financial situations to have children. Adding record-breaking student debt loads and lack of affordable housing, the composite circumstances are ripe for low fertility rates. The systemic string of obstacles to childrearing, including the frustration of finding affordable childcare, high insurance costs, and the lack of paid parental leave, universal childcare and other support systems, further encourages the decision to postpone having children. Finally, the pandemic added more uncertainty about the country's economic future.

Delayed childbearing among Millennials is reflected in local statistics. Birth rates for women ages 25 to 34—typically, those with the highest rates—continued dropping to new lows in the years after 2007, and the combined effects of long-term trends and the pandemic led to even lower rates in 2020 and 2021 (Figure 18). Meanwhile, birth rates for women ages 35 to 44 trended upward since 2007 and experienced less disruption during the pandemic. From 2007 to 2019, birth rates for women ages 25 to 29 dropped from 131 per 1,000 to 75 per 1,000, and this age group experienced a further decrease to 70 per 1,000 in 2020 and 2021. For women ages 30 to 34, they dropped from 149 per 1,000 in 2007 to 124 per 1,000 in 2019 and to 120 per 1,000 in 2020 and 2021. During this same period, the greatest rate increase, albeit associated with some of the lowest rate of births, occurred among older mothers. In 2007, the birth rate for women ages 40 to 44 stood at 19 per 1,000, rising to 21 per 1,000 in 2019 and 23 per 1,000 in 2021. Birth rates across all age groups except for those ages 25-29 increased in 2022. In the near future, the number of overall births is expected to increase gradually as fewer young women postpone motherhood. When this will start, or whether it has started already, is difficult to determine given some lingering uncertainty around the pandemic and its economic repercussions.

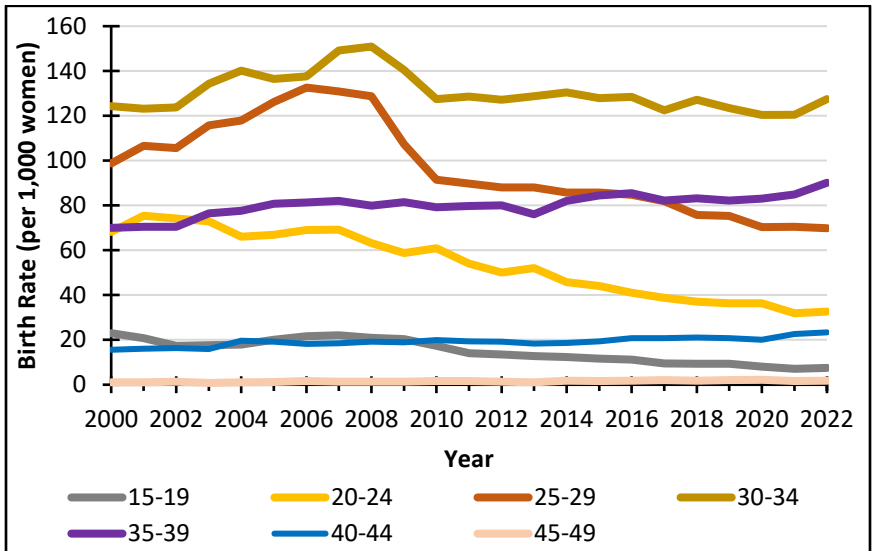
In addition to contributing to the population's growth, births change the racial and ethnic composition of Montgomery County. Birth rates of women in the county vary by maternal race and Hispanic origin, and these differences held during the pandemic years. In 2022, the general fertility rate was highest for Hispanic women (83.3 per 1,000), followed by non-Hispanic African-American women (57.2 per 1,000), non-Hispanic white women (51.7 per 1,000), and non-Hispanic Asian women (47.4 per 1,000). The combined percentages of Hispanic, African-American, and Asian births in the county increased from 40 percent of all births in 1990 to 66 percent in 2022. During this period of increasingly diverse in-migration as well as births, people of color in the county (anyone other than non-Hispanic white) increased from 28 percent of the population in 1990 to 60 percent in 2022. As the number of women of color of childbearing age continues to grow over the decades, projected to be up 21 percent from 2022 to 2030 and up 30 percent by 2040, the number of Hispanic, African-American, and Asian children is expected to increase as well, adding to the county's diversity.

Figure 17 Montgomery County Natural Increase: Births and Deaths, 1940 to 2022



Sources: 1940-2021 Maryland Vital Statistics Annual Reports, Maryland Department of Health, Vital Statistics Administration; CDC WONDER online database, National Center for Health Statistics (2022).

Figure 18 Montgomery County Birth Rates by Age Group, 2000 to 2022



Sources: 2000-2021 Maryland Vital Statistics Annual Reports, Maryland Department of Health, Vital Statistics Administration; CDC WONDER online database, National Center for Health Statistics (2022).

D. RACIAL AND ETHNIC DIVERSITY, HALLMARK OF CHANGE

The rate of racial and ethnic diversification outpaced the county's overall population growth rate since the 1990s. The number of people of color (any group other than non-Hispanic white) increased by 202 percent, adding nearly 422,000 residents, compared to the 39 percent growth in total population between 1990 and 2022. The share of the total population of people of color has steadily increased over the decades. By 2010, the county's hitherto largest racial group, non-Hispanic whites, dropped to 49 percent, creating a plurality among racial and ethnic groups where no single group was a numerical majority (Figure 19).

The Hispanic population has almost quadrupled in size since 1990, reaching 214,000 people or 20 percent of the county's population in 2022. Hispanics were the fastest growing group over the past 32 years and became the largest minority group in 2010, surpassing the number of African Americans in the county. Between 1990 and 2022, the African-American population increased from 12 percent to 18 percent of the total population to about 191,000 residents. The percentage of the Asian population almost doubled from eight percent to 15 percent, a gain of about 100,000 people, to reach over 160,000 people in 2022. The non-Hispanic white population dropped from 548,500 in 1990 to 422,000 in 2022, a 23 percent loss. People of color comprised 60 percent of the total population in 2022, making Montgomery County more diverse than the nation (43 percent), Maryland (53 percent), or the Washington, D.C. region (58 percent). While the percentage of the population that is non-Hispanic white is similar to the percentage for the Washington, D.C. region, the county has a more equal percentage distribution among the racial minority groups.

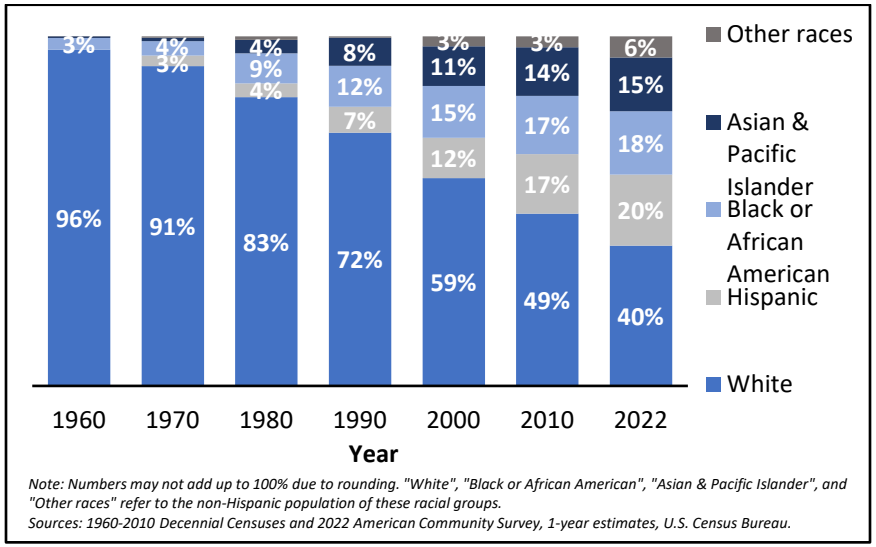
Population migration, both foreign and domestic, contributes to the county's increasing racial and ethnic diversity. In 2022, people of color were 66 percent of new residents moving into the county within the last year but only 53 percent of those moving out in the same period, indicating a more diverse population among those moving in than those leaving. Steady levels of foreign immigration to Montgomery County over the past 30 years grew the base of foreign-born residents from 141,166 people in 1990 to 358,504 in 2022, comprising over one-third of the county's population. Montgomery County had the highest concentration of foreign-born residents in the Washington, D.C. region, and its percentage ranked eighteenth among counties nationwide. The origins of the county's foreign-born residents are widely diverse, with 36 percent arriving from Latin America (most commonly from El Salvador) and 37 percent from Asia (typically from India or China).

Natural population increase and the composition of births and deaths also contribute to Montgomery County's changing racial and ethnic composition. Increasing diversity over the decades is partly attributed to the rising share of Hispanic, African-American, and Asian babies, which are now the majority of children born (66 percent in 2022). This trend reflects increases in the number of women of color of child-bearing age and the varying birth rates associated with maternal race and Hispanic origin, which are lowest for non-Hispanic White and Asian women. The number of minority babies is expected to continue increasing, commensurate with the forecasted growth in numbers of Hispanic, African-American, and Asian women. The share of racial minorities in the county will also shift upwards as elderly residents, the majority of whom are non-Hispanic white (58 percent of people ages 65 and over in 2022), move from the county or die.

Continued growth in the number of people of color living in the county is expected, assuming sustained migration patterns and birth rates of women of color. According to the Maryland Department of Planning forecasts, the population of persons of color will grow by 19 percent from its figure in 2022, rising to 67 percent of the county's total population in 2030. Almost three out of four residents are projected to be people of color by 2045 (Figure 20). In contrast, projections by the U.S. Census Bureau indicate that people of color will comprise the majority of the U.S.

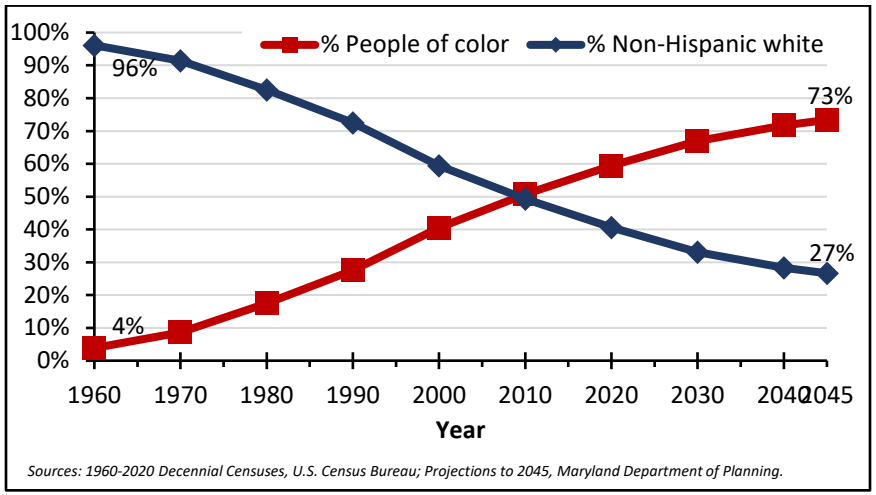
population in 2045 – 35 years after Montgomery County crossed this demographic milestone in 2010.

Figure 19 Montgomery County Population by Race and Hispanic Origin, 1960 to 2022



Note: Numbers may not add up to 100% due to rounding. "White", "Black or African American", "Asian & Pacific Islander", and "Other races" refer to the non-Hispanic population of these racial groups.
Sources: 1960-2010 Decennial Censuses and 2022 American Community Survey, 1-year estimates, U.S. Census Bureau.

Figure 20 Montgomery County Historical and Forecasted Racial Change in Population, 1960 to 2045



Sources: 1960-2020 Decennial Censuses, U.S. Census Bureau; Projections to 2045, Maryland Department of Planning.

E. LIFE-CYCLE EVENTS OF AN AGING POPULATION

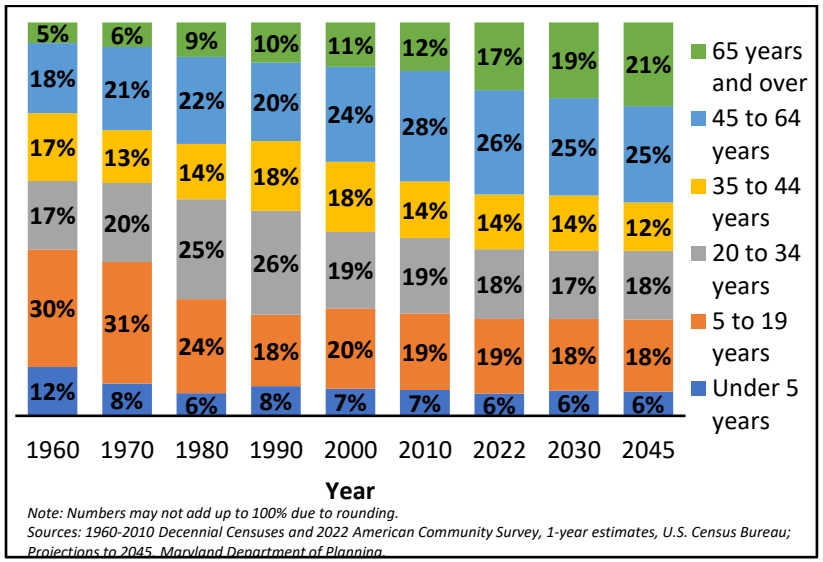
The large, aging cohort of Baby Boomers (those born between 1946 and 1964) has remained an enduring change agent locally and nationally. This generation formed a youthful bulge in the county's population structure in the 1960s and 1970s and then became a large working-age group in the 1980s and 1990s (Figure 21). By 2022, Baby Boomers were about 20 percent of the county's population, with a majority of its population already in their retirement years and the remainder on the verge of exiting their prime wage-earning years. Millennials (those born between 1981 and 1996), with 21 percent of the population, already outnumber Baby Boomers and are becoming the more influential generation in employment, housing, and society.

The leading edge of the Baby Boomer generation turned 65 in 2011, and by 2030, all members of this generation will be ages 65 and older. Projections by the Maryland Department of Planning expect aging Baby Boomers to drive growth in the county's ages 65-plus group from 17 percent of the population in 2022 to 19 percent in 2030. Not only will more than one out of five county residents be ages 65 or older by 2045, the diminished cohort of Baby Boomers will also be more elderly at ages 81 to 99 years old.

Housing decisions made by Baby Boomers in their retirement years have the potential to transform the county's housing market. Of the 135,653 households in 2022 headed by a person between 55 to 74 years old (the age group in which nearly all Baby Boomers belong), 79 percent were homeowners. This age group also consisted of 41 percent of all homeowners in the county in that year (Figure 22). A significant number of houses may enter the resale market if and when Baby Boomers choose to downsize or relocate in retirement, or when they pass away. This newly available housing in the next 10 years may coincide with the likely surge in housing demand by young and middle-aged adults of the Millennial generation, who have previously delayed homeownership and other decisions such as getting married and starting families. Many Millennials still fall into the age group most likely to move in general (20 to 34 years old) and the age group of the typical new resident moving into the county. Others of this generation may have already purchased their first homes and may want to upgrade to larger homes in more desirable areas. Montgomery County remains competitive for this young adult and family market, offering job opportunities, housing choices spanning from rural and suburban neighborhoods to walkable, transit-oriented communities, all with a highly regarded public school system and desirable quality of life.

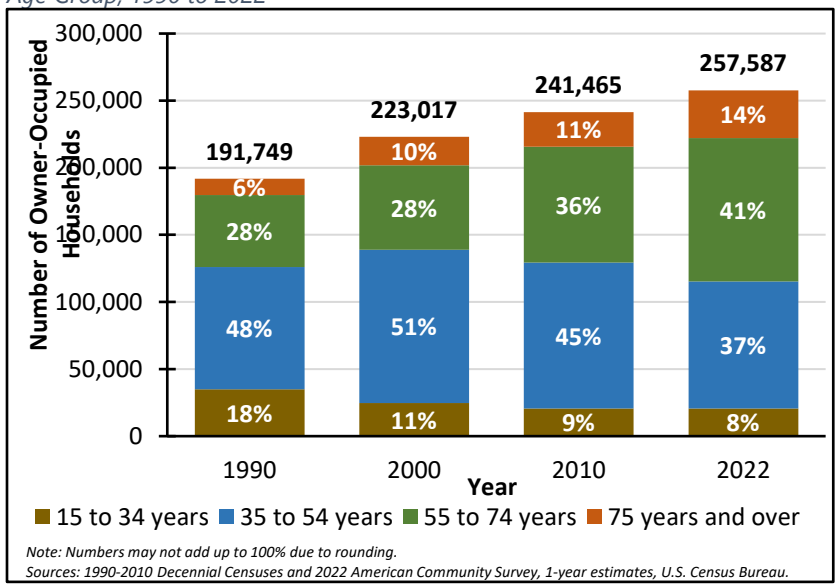
Alternatively, if a significant number of Baby Boomers age in place or delay moving out, either by choice or financial necessity, those actions may result in depressed housing turnover in the county, stalling traditional "housing ladder" opportunities for young families with school-aged children to move into the area. The limited supply of houses reaching the market may increase the difficulty for younger buyers to find or afford a home. The next 10 years will tell whether economic and housing market conditions will promote competing housing needs or offer ample housing market supply, as aging Baby Boomers and working-age Millennials debate their next life-cycle decision.

Figure 21 Montgomery County Population by Age Group, 1960 to 2045



Note: Numbers may not add up to 100% due to rounding.
Sources: 1960-2010 Decennial Censuses and 2022 American Community Survey, 1-year estimates, U.S. Census Bureau; Projections to 2045, Maryland Department of Planning.

Figure 22 Montgomery County Owner-Occupied Households by Householder Age Group, 1990 to 2022



Note: Numbers may not add up to 100% due to rounding.
Sources: 1990-2010 Decennial Censuses and 2022 American Community Survey, 1-year estimates, U.S. Census Bureau.

F. HOUSEHOLD INCOME YET TO RECOVER FROM RECESSIONS

Montgomery County remains one of the wealthiest counties in the nation. Its median household income in 2022 of $118,323 ranked 28th nationally (among counties with 65,000 people or more) and was similar to the median household income of $117,432 for the Washington, D.C. region, which ranked third among all metropolitan areas and continues its reign as an affluent area. Neighboring Fairfax, Howard, and Loudoun Counties were much wealthier, but Montgomery County still fared better than other jurisdictions in the D.C. area. In addition, the county's median income is 25 percent above Maryland's median of $94,991 and 58 percent above the national median of $74,755 (Figure 23).

Although Montgomery County's median income has been increasing in nominal dollars, in terms of inflation-adjusted real dollars, it has not fully recovered from the Great Recession of 2008. In constant 2022 dollars, the county's median income peaked in 2007 at $129,600, or three percent above its 1999 figure, and then reached a low of $119,600 in 2010. Just prior to the COVID-19 pandemic, the real median income of $126,300 in 2019 indicated a significant recovery from the recession (at 3 percent below the 2007 peak) and matched the inflation-adjusted 1999 median income. However, with an economic recession during the pandemic and inflation outpacing income growth, the real median income has declined and in 2022 was at its lowest level since 2010.

The pattern of real income gains during the 2010s to their pre-recession levels, followed by a loss during the pandemic years, was not unique to Montgomery County but occurred across the Washington, D.C. region. By 2019, most jurisdictions had real median incomes at or above their 2007 levels; those that did not fully recover, in addition to Montgomery County, include Fairfax County (-1 percent) and Howard County (-3 percent). From 2020 to 2022, only Frederick County made gains in real median income while most D.C. area jurisdictions were set back to below their 2007 figures (Figure 24).

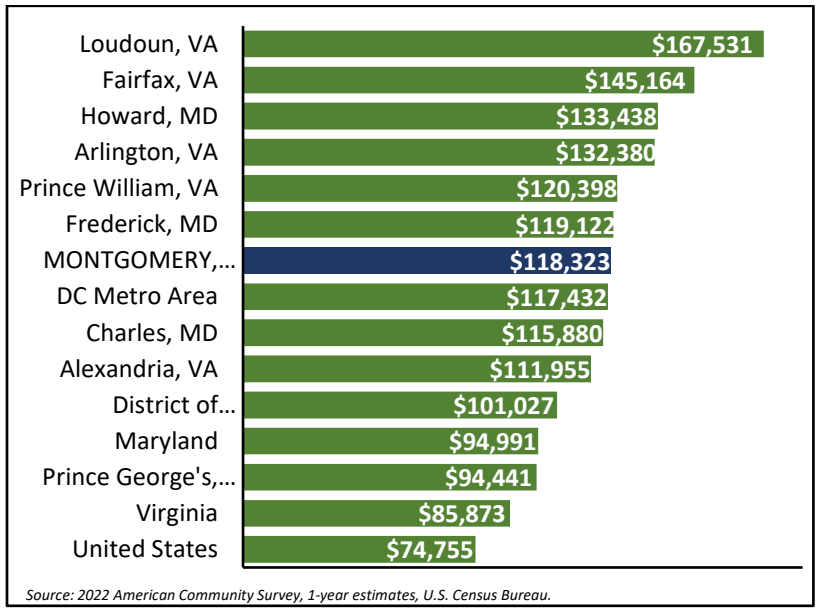
Despite its reputation as a wealthy place, Montgomery County has tens of thousands of households reporting low incomes. In 2022, one out of five households (75,258) reported incomes less than $50,000. Median income also varies by race and Hispanic origin. In 2022, non-Hispanic white households had the highest median income at $146,333, or 24 percent above the countywide median, followed by Asian households at $134,880 or 14 percent

above the countywide median. The median income of non-Hispanic white households was about 1.7 times higher than that of households headed by African Americans or Hispanics. The median incomes of African-American and Hispanic households, at $86,954 and $84,963 respectively, are not statistically different from each other.

While many competing economic factors make it unclear as to how long household income will remain curtailed in Montgomery County, the influences of population migration and the aging population also affect the length of recovery. On the positive side, Montgomery County attracts well-educated migrants with greater earning potential. New residents ages 25 and over in 2022 were highly educated; 69 percent of this group had at least a bachelor's degree, and 36 percent had advanced degrees. They join an established concentration of well-educated adults, 61 percent of whom had at least a bachelor's degree in 2022; a slight majority of this group held advanced degrees. Highly educated residents are more likely to hold higher-paying occupations currently or in the near future and progress towards higher salaries.

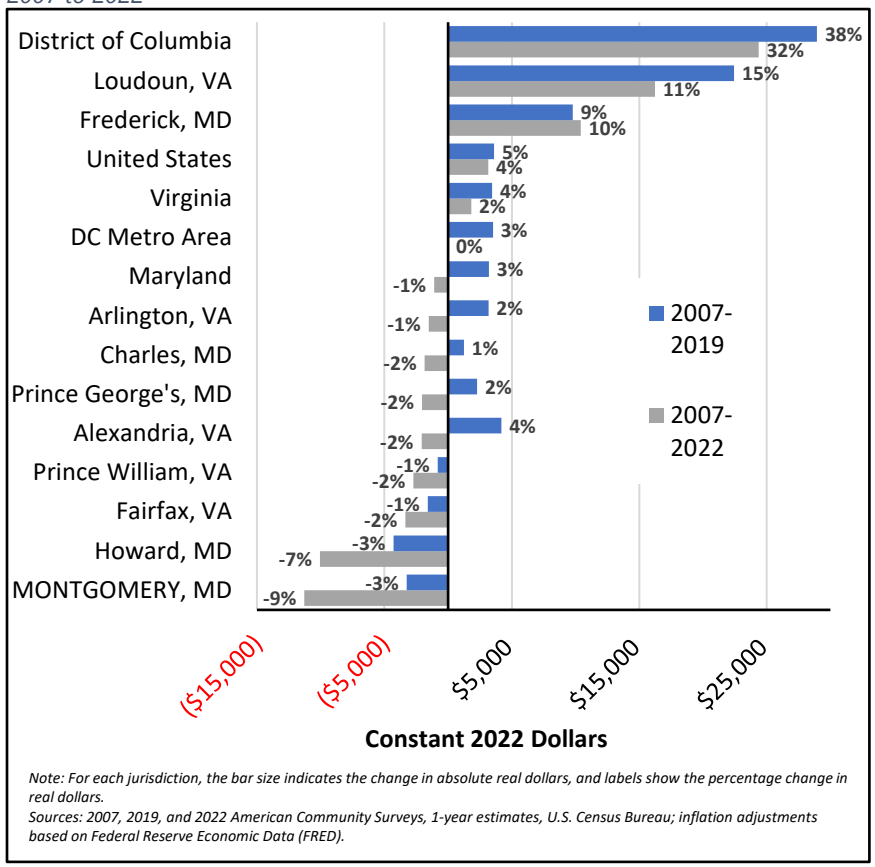
The county's current migration trends and aging population could put downward pressure on household incomes. In 2022, households with incomes of $150,000 or greater were 21 percent of all households moving into the county within the last year and 26 percent of those leaving the county in the same period. Conversely, 32 percent of newly resident households made less than $50,000, while 24 percent of out-going households were in this income group. Also, the entire Baby Boomer generation will be in their retirement years by 2030, and aging households will become a larger segment of the county. Older households are more likely to live with lower retirement incomes – in 2022, the median income of households headed by persons ages 65 and over was $101,515, or 86 percent of the countywide median. In contrast, households headed by persons ages 45 to 64 (in their prime wage-earning years) had a median income of $145,276, or 23 percent above the countywide median.

Figure 23 Median Household Income by Place, 2022



Source: 2022 American Community Survey, 1-year estimates, U.S. Census Bureau.

Figure 24 Change in Median Household Income by Place, 2007 to 2019 and 2007 to 2022



Note: For each jurisdiction, the bar size indicates the change in absolute real dollars, and labels show the percentage change in real dollars.
Sources: 2007, 2019, and 2022 American Community Surveys, 1-year estimates, U.S. Census Bureau; inflation adjustments based on Federal Reserve Economic Data (FRED).

G. EVOLVING HOUSEHOLD TYPES OUTPACE MARRIED COUPLES WITH YOUNG CHILDREN

Households are broadly divided into two types, family households and non-family households. Family households have two or more individuals, one or more of whom live with the head of household and is related to him/her by blood, marriage, or adoption, and include married couples or unmarried adults with or without children. Non-family households are usually those with only unrelated individuals living together or persons living alone.

Over many decades, the types of households in Montgomery County have shifted in response to societal changes, broader housing choices, and an aging population. The nuclear family of a husband, wife, and several children is no longer the household norm as family formation has become more varied. Family households were 92 percent of all households in 1960, but by 2022, that figure had dropped to 67 percent (Figure 25). In the same span of time, the share of all households that were families with children under 18 (headed by married couples or single parents) declined from 62 percent to 30 percent. Much of this decrease was driven by the slow growth in the numbers of married-couple households with children under 18, as its share dropped from 59 percent to 23 percent. The percentage of married-couple households with no children under 18 has been relatively steady, ranging between 26 and 30 percent of all households since 1960, and in 2022, this household type was the county's most numerous at 111,520. Between 2010 and 2022, the number of married-couple households with children under 18 decreased by 1 percent, a loss of more than 1,000, while married-couple households with no children under 18 grew by 13 percent, adding over 12,000.

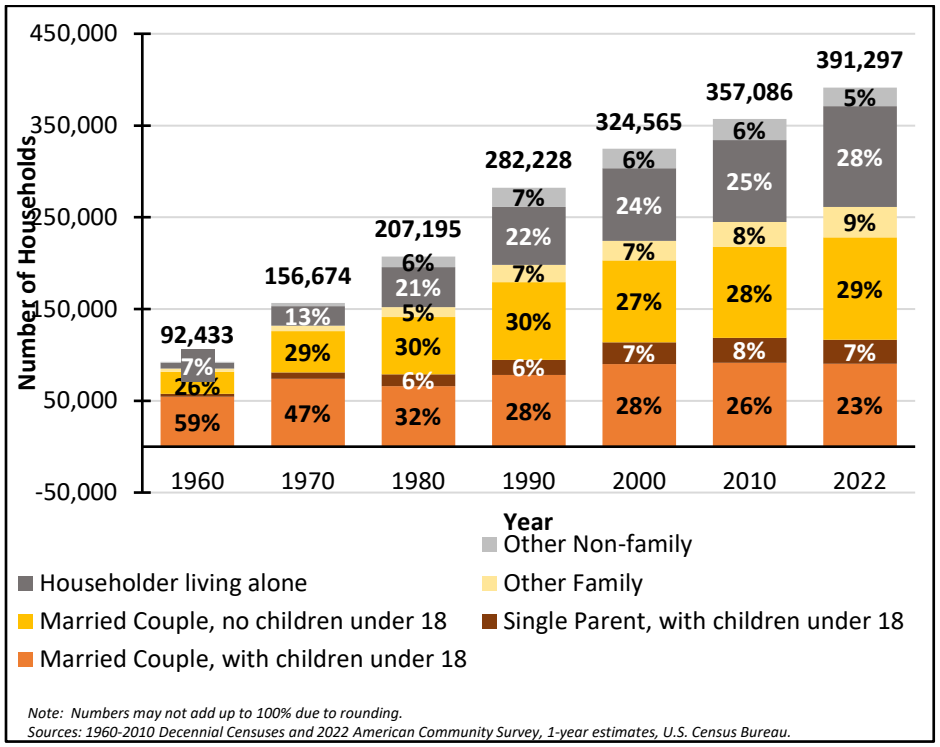
Aging within families explains some of this difference in growth trends for the married-couple household types. As children grow up, their parents become "empty nesters" after their children move out, or they continue to live with their adult children who never left or returned home. As a result, these households then become part of the growing numbers of married-couple households with no minor-age children. Also, young married

couples following the Millennial generation trend to postpone having children contribute to this group.

Coinciding with the trend of nuclear families becoming less common, single-parent and "other family" households have grown their share of all households between 1960 and 2022, when single-parent households with children under 18 increased from three percent to seven percent and "other family" households from four percent to nine percent. More recently, the number of single-parent households in the county decreased by three percent, from 27,001 in 2010 to 26,141 in 2022. The "other family" category includes female or male householders with no spouse present who live with relatives such as parents, adult children, or grandchildren. Of the 33,268 "other family" households in 2022, 68 percent was headed by women.

In the near term, the number of married-couple households with children under 18 may slightly increase as more Millennials have children, but the percentage share of this family type will probably continue to decline. While Montgomery County will continue to attract new families and residents will continue to have babies, the aging of the Baby Boomer generation, combined with growth in non-family households, may limit the share of married-couple households with young children relative to the overall growth in households. By 2030, 31 percent of the county's residents are projected to be ages 55 years and older, and many will be living in households with no children under 18. The nine percent growth in the age 55-plus cohort between 2022 and 2030 is projected to outpace the seven percent gain in children under 20 years old. Aging Baby Boomers are expected to boost the number and the percentage share of married-couple households without young children in the next ten years.

Figure 25 Montgomery County Household Types, 1960 to 2022



Note: Numbers may not add up to 100% due to rounding.
Sources: 1960-2010 Decennial Censuses and 2022 American Community Survey, 1-year estimates, U.S. Census Bureau.

H. INCREASE IN NON-FAMILY HOUSEHOLDS COINCIDES WITH ADDITION OF MULTIFAMILY UNITS

Non-family households have greatly increased in numbers in Montgomery County since 1960. Their percentage of all households increased rapidly from eight percent in 1960 to 30 percent in 1990, jumping from 7,204 to 83,996 during this period. By 2000, non-family households, numbering over 100,000 and 31 percent of all households, became more common than married-couple households either with children or without children. Even

with subsequent slower growth, non-family households still comprised of 45 percent of the almost 67,000 households gained between 2000 and 2022, expanding their share to 33 percent in 2022, with 130,047 households in 2022 (Figure 25). Single-person households formed the largest group of non-family households and grew by 23 percent since 2010, making it the fastest growing household type.

The rapid increase in non-family households coincided with the addition of almost 71,000 multifamily units to the county's housing stock, which broadened the choice of housing. During this period, the number of housing units in buildings with five or more units increased from 14,139 in 1960 to 84,983 in 1990, almost doubling the multifamily share of all housing stock from 15 percent to 29 percent. Multifamily units have been the predominate type of new housing built since 2000. About 38,600 additional units, or over half of the gains in new housing units from 2000 to 2022, were in multifamily buildings of five units or more. These units comprised of 33 percent of the housing stock in 2022. Given that most of the new housing in the residential development pipeline is multifamily and the current rental housing market trend is for smaller units (studio and one bedroom), the number of non-family households will likely increase over the next 10 years. The share of this household type relative to all households may increase as well.

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Chapter 3. Recent Trends in Real Estate

A. OFFICE

Even before the pandemic, the Montgomery County office market faced soft demand due to a variety of factors including slow job growth, reductions in federal spending on office leases, changed location preferences among tenants from suburban office parks to more urban neighborhoods with amenities and transit access, and reduced space requirements per employee. Between 2005 and 2014, newly constructed leasable space increased significantly in most years, including four years with an annual increase of 1 million or more square feet. From 2015 to 2019, fewer new buildings were constructed, and little net new space was delivered, averaging less than 200,000 square feet per year (Table 3). Increased construction that started before the pandemic added more new leasable space since 2019, but when combined with the reduction of existing occupied space, this led to a rise in the vacancy rate from 12 percent to 18 percent between 2019 and 2023. With the pandemic winding down and more workers returning to the office on at least a part-time basis, employers may decide to maintain or renew their leases on office space. Based on the existing pipeline, the development of new office space, with the exception of life science uses, is expected to continue to be slow. The county continues to have a significant amount of older, suburban, obsolete office buildings that may continue to have high vacancy unless they are repositioned as other uses.

B. RESIDENTIAL REAL ESTATE

For-Sale Residential

In 2023, the median sold price for homes in Montgomery County reached $580,000, well above the previous 2007 peak of $444,000, and an increase by over 70 percent since its 2009 low of $340,000 (Figure 26). During the 2010s, the average year-to-year increase in the median sold price was 3.3 percent, but since 2020, annual growth has approached or surpassed five percent per year. The sharp increase from 2020 to 2021 reflect multiple factors tied to the COVID-19 pandemic, including more demand for single-family homes and higher construction costs. Some reduction in growth in 2022 and 2023 reflects a slight cooling of the market driven by higher interest rates.

During the late 2010s, around 12,000 to 13,000 units per year were sold in the county. The highest pre-pandemic figure of 12,896 in 2016 was a 51 percent increase from the previous low of 8,519 in 2008 but still 27 percent below the pre-2008 recession high of 17,556 in 2004 (Figure 27). A spike in home sales in 2021, with 15,672 units sold, was followed by a large drop to 9,253 in 2023, the second lowest figure since 2008. More detached units than attached units are routinely sold in the county. Only in 2004 were more attached units than detached units sold, by 24 units. Between 2001 to 2007, the gap between the numbers of detached units and attached units sold was small at less than 500 units. This gap widened after 2008. From 2012 to 2020, at least 1,000 more detached units than attached units were sold every

year. From 2021 to 2023, the gap again narrowed to less than 500 units.

Average days on market (DOM) is a measurement of how long it takes to sell a home after it is listed. Generally, properties with a lower DOM also sell at a higher price point. A DOM indicator is also used to measure the for-sale housing supply; for example, a supply constrained market will have a low DOM. The DOM of 34 days in 2019 was the lowest pre-pandemic DOM since the last pre-2008 recession low of 24 days in 2004 (Figure 28). The DOM dipped to 18 days in 2021 and 2022 and only slightly rose to 19 days in 2023. An average DOM of less than 20 days suggests a very supply constrained for-sale housing market. In 2023, 60 percent of all homes for sale were sold in 10 days or less.

Rental Residential

The following analysis of CoStar data (as of February 1, 2024) highlights trends for multifamily residential buildings with rental units. Since 2000, Montgomery County's rental supply has increased by nearly 36,000 units, or 51 percent (Figure 29). The average number of units per building has also increased from 119 in 2000 to 145 in 2023.

The asking rent and effective rent per month has increased every year since 2004, except for 2020 when decreasing rents that year likely reflected lower demand for rental housing during the COVID-19 pandemic (Figure 30). Rents experienced a sharp increase in 2021 with the return of demand for rental units, and by 2023, rents exceeded $2,000 per month. The effective rent per square foot has increased by 60 percent from $1.38 in 2000 to $2.21 in 2023 (Figure 31). During the same period, the county's vacancy rate has remained low, ranging from three percent in 2000 to seven percent in 2015. Vacancy rates reached 6.5 percent in 2020, followed by a drop to nearly five percent in 2021 before increasing back to 6.5 percent in 2023. Although the vacancy rates are not at historic lows, the county's rental housing supply likely could support additional new units.

Figure 26 Montgomery County Average and Median Sold Price of For-Sale Homes, 2000 to 2023

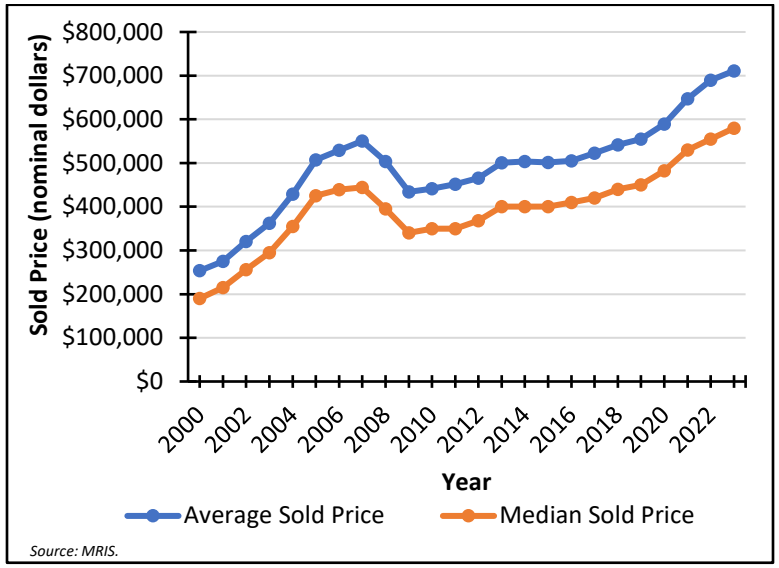


Figure 27 Montgomery County For-Sale Homes Units Sold, 2000 to 2023

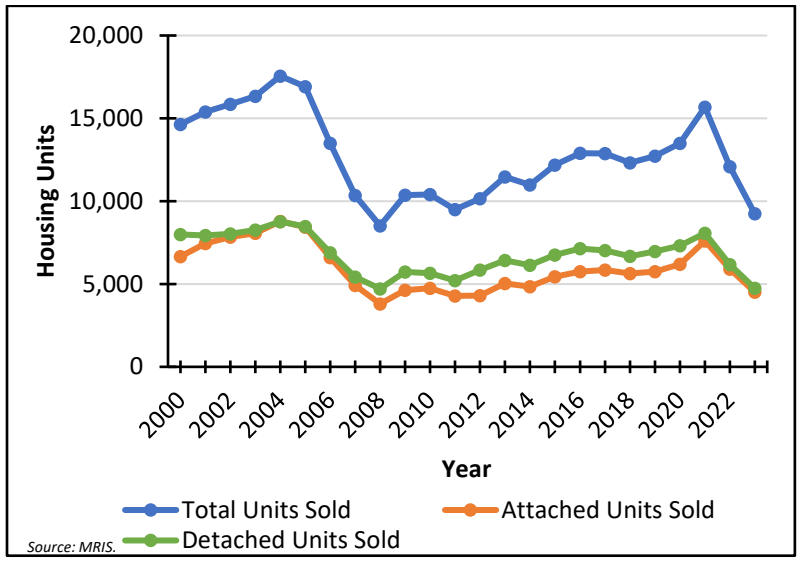


Figure 28 Montgomery County For-Sale Homes Average Days on Market, 2000 to 2023

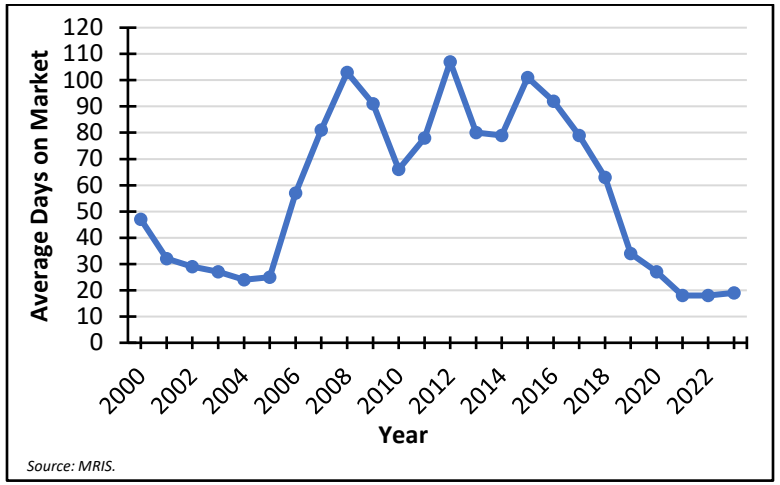
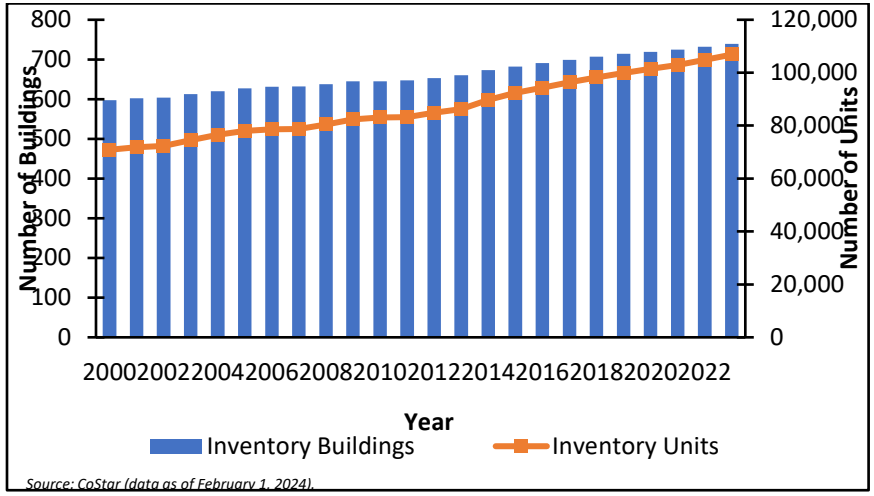


Figure 29 Montgomery County Rental Inventory, 2000 to 2023



Source: CoStar (data as of February 1, 2024).

Figure 30 Montgomery County Asking Rent and Effective Rent for Rental Inventory, 2000 to 2023

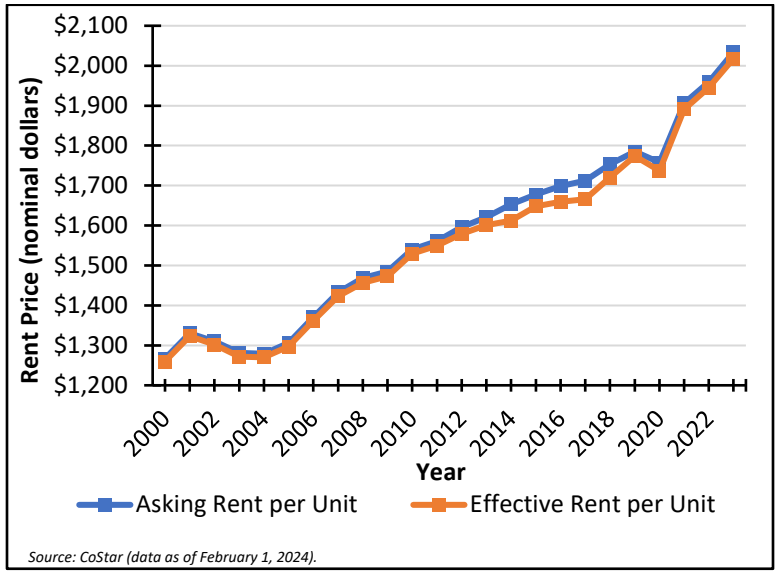
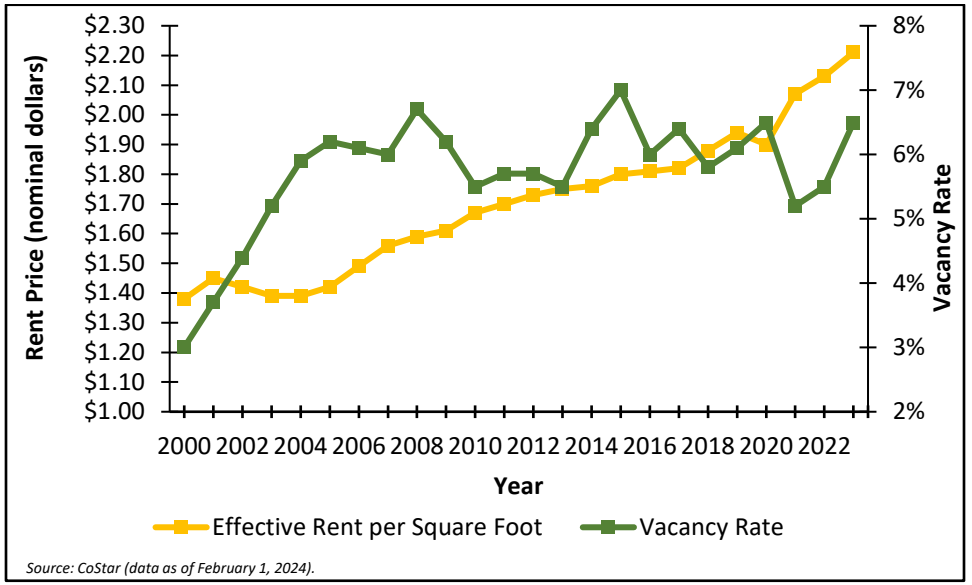


Figure 31 Montgomery County Effective Rent per Square Foot and Vacancy Rate for Rental Inventory, 2000 to 2023



C. COMMERCIAL REAL ESTATE

Summary

Montgomery County's commercial real estate market grew at a modest pace after the Great Recession of 2008 through the 2010s. This growth reflected the stability of the Washington, D.C. area but also pointed to challenges facing the office sector regionally, continued changes to the retail sector from e-commerce, and the small size of the county's industrial sector. Growth in commercial space remained slow from 2020 to 2023 as the COVID-19 pandemic led to economic disruptions and large-scale telework, which particularly affected the office market. The

analysis in this section is based on CoStar data (as of March 11, 2024).

- The total amount of occupied office, retail, and industrial/flex space increased between 2010 and 2018. However, even before the pandemic started, a reduction in occupied space occurred in 2019. Further decreases have continued in occupancy of retail space and office space, in particular. Growth in the supply of total leasable space from 2011 to 2023 has generally remained below the pace achieved from 2005 to 2010.
- Prior to the pandemic, office, retail, and industrial/flex rents had mostly recovered from the Great Recession of 2008. Office rents in 2020 surpassed their previous peak in 2007 and was rising through 2023, while industrial/flex and retail rents decreased during the early part of the pandemic but quickly surpassed previous highs from 2007 and 2008, respectively.
- During the 2010s, vacancy rates in the retail sector did not exceed five percent, vacancy rates in the industrial/flex sector declined substantially, and office vacancy remained above 10 percent. Since 2020, the industrial/flex sector has maintained lower vacancy rates, while the retail sector has experienced slightly increased vacancy. Office sector vacancy rates have continued to climb and approached 18 percent in 2023.

More detailed data for each market segment is listed in the next sections.

Retail

Demand for retail space in Montgomery County continued at a healthy pace up to 2018. The retail sector absorbed over 3.5 million square feet between 2010 and 2018, more than keeping pace with the 3.3 million square feet added to the county's inventory and driving down vacancy from 4.9 percent in 2010 to 3.5 percent in 2018 (Table 4). Rising rents reflect this healthy demand, increasing by 20 percent to $30.56 from 2010 to 2018 and becoming competitive with rents in the office sector. The pandemic initially had a large impact on the retail sector as many service, hospitality, and other retail businesses closed temporarily and, for some, permanently. Although the pandemic's worst economic impacts have passed and the retail industry has made a strong recovery, vacancy rates in 2023 were still near a historic high of six percent. However, rents have increased to $34.28 and may partly reflect the smaller supply of newly constructed leasable space in recent years. Although trends that lower demand for retail space such as the use of e-commerce increased during the pandemic, pre-pandemic patterns of demand for on-site retail businesses such as restaurants and personal services are returning.

Industrial/Flex

Montgomery County's smaller amount of industrial and flex space compared to the office and retail sectors reflects the county's suburban status where the primary economic driver is professions within office settings rather than in production. In addition, the pandemic appears to have had more limited impact on the county's industrial sector. Industrial/flex vacancy has steadily fallen from 11.8 percent in 2010 to 7.2 percent in 2019 and was at

6.8 percent in 2023, reflecting net absorption of 1.6 million square feet through 2019 and an additional 750,000 square feet through 2023 (Table 5). The life science industry has been the key driver of growth in industrial space in recent years. From 2010 to 2020, the overall inventory of leasable space gained 800,000 square feet in nine new buildings. No subsequent growth in inventory occurred until 2023, when four new buildings with a total of 506,000 square feet were added; life science uses accounted for all new space added from 2019 to 2023. The overall lack of growth in new industrial/flex space for a more diverse range of economic activities may reflect the limited availability of large undeveloped tracts of land in the county and greater pressure to convert production and warehouse space in transit-accessible areas to more lucrative multifamily and non-industrial commercial projects. Corresponding to the reduction in vacant space, rents for industrial/flex space have trended upward since 2010 with significant increases in more recent years.

Table 3 Montgomery County Office Market Trends, 2005 to 2023

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
EXISTING																			
Buildings	1,430	1,444	1,456	1,464	1,476	1,478	1,480	1,484	1,486	1,491	1,497	1,500	1,503	1,504	1,506	1,512	1,515	1,518	1,521
New	10	14	12	8	12	2	2	4	2	5	6	3	3	1	2	6	3	3	3
Leasable square feet	65,733,052	66,176,504	67,485,890	68,401,938	69,675,152	69,783,152	69,796,624	70,916,154	71,151,129	72,416,581	72,567,665	72,757,332	72,876,595	72,998,319	73,326,427	74,247,064	74,923,467	76,074,864	76,583,060
New	753,246	443,452	1,309,386	916,048	1,273,214	108,000	13,472	1,119,530	234,975	1,265,452	151,084	189,667	119,263	121,724	328,108	920,637	676,403	1,151,397	508,196
UNDER CONSTRUCTION																			
Buildings	15	12	12	12	2	3	5	6	7	9	5	5	5	9	11	7	6	5	3
Leasable square feet	911,299	1,415,716	1,619,441	1,319,173	108,000	371,912	1,323,256	1,350,427	1,315,491	439,238	306,626	409,987	926,832	2,379,807	2,609,317	1,924,996	1,756,093	812,862	309,666
EXISTING																			
Net change in leased square feet	1,911,677	693,371	483,647	42,780	-557,023	839,461	422,850	1,068,555	-156,209	407,586	-97,058	669,362	172,049	521,544	-326,773	-546,533	-433,316	573,238	-961,817

Vacant square feet	5,593,270	5,343,351	6,169,090	7,042,358	8,872,595	8,141,134	7,731,756	7,782,731	8,173,915	9,031,781	9,279,923	8,800,228	8,747,442	8,347,622	9,002,503	10,469,673	11,579,392	12,157,551	13,627,564
Vacancy rate	8.5%	8.1%	9.1%	10.3%	12.7%	11.7%	11.1%	11.0%	11.5%	12.5%	12.8%	12.1%	12.0%	11.4%	12.3%	14.1%	15.5%	16.0%	17.8%
Occupied square feet	60,139,782	60,833,153	61,316,800	61,359,580	60,802,557	61,642,018	62,064,868	63,133,423	62,977,214	63,384,800	63,287,742	63,957,104	64,129,153	64,650,697	64,323,924	63,777,391	63,344,075	63,917,313	62,955,496
Occupancy rate	91.5%	91.9%	90.9%	89.7%	87.3%	88.3%	88.9%	89.0%	88.5%	87.5%	87.2%	87.9%	88.0%	88.6%	87.7%	85.9%	84.5%	84.0%	82.2%
Average gross rent per square foot	$25.89	$27.56	$29.28	$29.80	$28.70	$28.40	$28.52	$28.13	$28.30	$27.87	$28.29	$28.12	$28.51	$28.69	$29.24	$29.91	$30.35	$30.70	$31.49

Source: CoStar (data as of March 11, 2024).

Table 4 Montgomery County Retail Market Trends, 2005 to 2023

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
EXISTING																			
Buildings	2,199	2,217	2,232	2,240	2,248	2,263	2,279	2,291	2,307	2,328	2,336	2,346	2,362	2,376	2,381	2,388	2,397	2,406	2,409
New	12	18	15	8	8	15	16	12	16	21	8	10	16	14	5	7	9	9	3
Leasable square feet	32,749,508	33,018,253	33,534,426	33,782,543	33,932,744	34,192,621	34,516,997	34,848,749	35,502,128	36,007,070	36,090,245	36,768,010	37,059,323	37,222,944	37,283,012	37,375,251	37,469,306	37,566,363	37,587,833
New	270,918	268,745	516,173	248,117	150,201	259,877	324,376	331,752	653,379	504,942	83,175	677,765	291,313	163,621	60,068	92,239	94,055	97,057	21,470
UNDER CONSTRUCTION																			
Buildings	17	15	7	7	13	12	9	11	19	7	8	11	11	5	5	8	8	6	7
Leasable square feet	553,905	681,687	278,660	140,784	239,564	241,540	370,782	707,060	531,779	127,834	619,079	206,789	166,359	60,068	91,989	72,767	88,002	203,899	212,524
EXISTING																			
Net change in leased square feet	57,711	195,944	519,632	-67,042	-215,261	179,558	341,459	476,217	598,245	672,303	108,952	821,847	210,757	171,422	-503,654	-125,909	-155,447	396,916	-199,069
Vacant square feet	844,010	916,811	913,352	1,228,511	1,593,973	1,674,292	1,657,209	1,512,744	1,567,878	1,400,517	1,374,740	1,230,658	1,311,214	1,303,413	1,867,135	2,085,283	2,334,785	2,034,926	2,255,465
Vacancy rate	2.6%	2.8%	2.7%	3.6%	4.7%	4.9%	4.8%	4.3%	4.4%	3.9%	3.8%	3.3%	3.5%	3.5%	5.0%	5.6%	6.2%	5.4%	6.0%
Occupied square feet	31,905,498	32,101,442	32,621,074	32,554,032	32,338,771	32,518,329	32,859,788	33,336,005	33,934,250	34,606,553	34,715,505	35,537,352	35,748,109	35,919,531	35,415,877	35,289,968	35,134,521	35,531,437	35,332,368
Occupancy rate	97.4%	97.2%	97.3%	96.4%	95.3%	95.1%	95.2%	95.7%	95.6%	96.1%	96.2%	96.7%	96.5%	96.5%	95.0%	94.4%	93.8%	94.6%	94.0%
Average rent per square foot (net of taxes, maintenance, and insurance)	$22.04	$27.20	$31.22	$27.94	$26.54	$25.54	$25.02	$24.00	$26.44	$26.14	$27.16	$28.81	$29.87	$30.56	$30.95	$29.13	$28.75	$31.64	$34.28

Source: CoStar (data as of March 11, 2024).

Table 5 Montgomery County Industrial/Flex Market Trends

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
EXISTING																			
Buildings	935	938	939	940	942	942	942	942	942	943	944	947	948	949	950	951	951	951	955
New	4	3	1	1	2	0	0	0	0	1	1	3	1	1	1	1	0	0	4
Leasable square feet	27,697,080	27,907,074	28,002,863	28,065,863	28,121,863	28,121,863	28,121,863	28,121,863	28,121,863	28,135,463	28,142,463	28,341,500	28,671,500	28,683,500	28,749,029	28,920,268	28,920,268	28,920,268	29,426,426
New	435,460	209,994	95,789	63,000	56,000	0	0	0	0	13,600	7,000	199,037	330,000	12,000	65,529	171,239	0	0	506,158
UNDER CONSTRUCTION																			
Buildings	3	1	0	1	0	0	0	0	1	0	3	1	0	2	1	0	2	4	0
Leasable square feet	209,994	95,789	0	12,000	0	0	0	0	13,600	0	199,037	330,000	0	236,768	171,239	0	396,000	506,158	0
EXISTING																			
Net change in leased square feet	575,055	107,230	-683,332	-171,344	-228,169	-246,983	28,541	280,621	118,593	172,435	190,246	514,176	467,809	166,975	-58,897	239,450	255,376	145,400	115,383
Vacant square feet	1,684,437	1,787,201	2,566,322	2,800,666	3,084,835	3,331,818	3,303,277	3,022,656	2,904,063	2,745,228	2,561,982	2,246,843	2,109,034	1,954,059	2,078,485	2,010,274	1,754,898	1,609,498	2,000,273
Vacancy rate	6.1%	6.4%	9.2%	10.0%	11.0%	11.8%	11.7%	10.7%	10.3%	9.8%	9.1%	7.9%	7.4%	6.8%	7.2%	7.0%	6.1%	5.6%	6.8%
Occupied square feet	26,012,643	26,119,873	25,436,541	25,265,197	25,037,028	24,790,045	24,818,586	25,099,207	25,217,800	25,390,235	25,580,481	26,094,657	26,562,466	26,729,441	26,670,544	26,909,994	27,165,370	27,310,770	27,426,153
Occupancy rate	93.9%	93.6%	90.8%	90.0%	89.0%	88.2%	88.3%	89.3%	89.7%	90.2%	90.9%	92.1%	92.6%	93.2%	92.8%	93.0%	93.9%	94.4%	93.2%
Average rent per square foot (net of taxes, maintenance, and insurance)	$14.71	$14.77	$15.16	$15.25	$13.79	$12.58	$12.78	$12.01	$12.77	$12.72	$12.67	$13.82	$13.98	$13.88	$14.05	$16.15	$15.78	$18.37	$18.95

Source: CoStar (data as of March 11, 2024).

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Chapter 4. Residential Capacity Analysis

In 2020, Montgomery Planning completed a countywide residential development capacity analysis to support the General Plan update, called Thrive Montgomery 2050. The analysis serves as a baseline estimate of the county's residential dwelling unit capacity.

The capacity analysis uses a detailed parcel-level approach, where each parcel's development capacity is measured against a set of constraints and assumptions. In addition to zoning rules and existing land use policies, the constraints and assumptions include:

• Environmental Constraints: Environmental constraints may exist due to government policies that protect land or factors that may limit the development potential of a site. These constraints include areas protected under existing laws, regulations and guidelines; preserved and conserved natural areas; parkland; agricultural easements; and already developed properties in agricultural areas. For environmentally constrained sites, density can still be calculated from the entire site even if development cannot occur on the entire site due to environmental constraints. Only sites that have a contiguous 0.25 acres and 33 percent unconstrained will be assessed for development capacity. For sites that are entirely constrained with no developable portion, zoning capacity will be removed.

• Man-made Constraints: Constraints that are man-made such as transportation and utility infrastructure may impede the ability for a site to reach its development potential.

• Market Assumptions: To the extent possible, market trend assumptions that may influence capacity are included. Assumptions based on structure age and use, certain ownership structures (government owned or multiple-owner condominium structures), and the size of office buildings are included due to their influence on the likelihood of redevelopment.

The capacity analysis' detailed parcel-level approach allows for a more granular look at residential capacity in smaller areas of Montgomery County and can help identify areas of the county with excess capacity. Modeling future scenarios can reveal the capacity implications of zoning changes in segmented areas of the county.

The capacity analysis was updated in May 2023. Its results show that the county has the zoning capacity to support an estimated 80,000 additional units beyond what currently exists and what is in the approved development pipeline. This is a change of net negative 6,000 units calculated in the initial capacity analysis from 2020.

As with the original analysis, the capacity is largely concentrated along Metro's Red Line and in the I-270 corridor.

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Chapter 5. Ten-Year Employment Forecast and Key Employment Factors

A. 2035 EMPLOYMENT FORECAST

The Round 10.0 Forecast indicates an average annual employment growth of about one percent per year between 2020 and 2035 (Table 6). The job projections include wage and salary jobs as well as self-employment and military employment, regardless of full-time or part-time status and where the job holder lives. Although the forecast was being developed when large-scale adoption of telework due to the COVID-19 pandemic had already occurred, the forecasted numbers reflect jobs where employees' on-site place of work is in Montgomery County, regardless of remote work status or location.

When the Round 10.0 Forecast was completed in 2023, the context included evidence of partial recovery from the economic recession and job losses related to the pandemic, as well as expectations for future job growth as the local and national economy continues to strengthen while coming out of the pandemic. The higher growth projected in the 2020-2025 period of the forecast reflects this economic recovery, including a surge in job growth in 2021 as employees in some sectors such as retail were able to return to their workplace. Federal financial stimulus and other governmental assistance to households and businesses during the pandemic also buffered the negative effects of heightened unemployment levels, income losses, and workplace closures and likely helped the economy transition more quickly towards recovery.

The employment forecasting process took several different approaches to assess likely future growth rates in the longer term. A review of Montgomery County's historical job growth rates indicated that they have decreased in the last 30 to 40 years. Employment data from the Bureau of Economic Analysis (BEA) show an average of three percent growth per year during the 1980s and 1990s, but from 2000 to 2019, job growth had decreased to an average of 0.3 percent per year. Bureau of Labor Statistics (BLS) data from its Quarterly Census of Employment and Wages (QCEW), which uses a different methodology to count jobs, also point to slower job growth at an average of 0.8 percent per year between 1990 and 2019.

Projections by outside sources were also reviewed and analyzed. Employment projections for Montgomery County by the national forecasting firm Woods & Poole Economics yield a one percent rate of growth per year from 2021 to 2050. The consulting firm ICF produced employment forecasts for the Washington, D.C. region that range from 0.7% to 1.4% annual growth. Information from these projections were paired with an analysis of the county's historic share of employment within the Washington, D.C. region to calculate projected employment numbers and annual growth rates out to 2050 under varying scenarios.

Finally, the forecasting process also considered current trends in commercial and office development, as well as transportation projects aimed to improve connectivity across Montgomery County and with the broader metropolitan region. Recent trends favor residential development over commercial and office development and partly reflect the decline in use of office space due to large-scale adoption of telework and increased demand for housing during the pandemic. Except for life science-related projects, most major developments that are either planned or approved and are expected for completion in the next 10 to 20 years are residential, including office-to-multifamily conversions. The transportation infrastructure assumed to materialize over the forecast period includes transformative projects like the Purple Line and bus rapid transit (BRT), plus implementation of the *Corridor Forward: I-270 Transit Plan*. The forecast timeline assumes that the Purple Line will be operational by 2026 and some BRT routes will be running by 2030. With less commercial development anticipated in the near future, this trend likely translates into lower job growth rates over the next five to 10 years. However, steady growth in commercial construction and the number of jobs is expected in the longer term as additional population creates more local demand for goods and services, more older and vacant properties have greater redevelopment potential as office or retail space, and more transit routes are completed to provide greater connectivity to major employment centers.

Although cyclical economic booms and busts, as well as unforeseen shocks, are inevitable, no long-range forecast can portend their timing or magnitude. Further, when this forecast was being developed, the effects of the pandemic and the extent of recovery from it were not fully known. Despite these challenges to the forecasting process, the strong economic recovery from the pandemic-induced recession is likely to continue. The employment forecast also reflects expectations for long-term growth that are near or exceed the range of pre-pandemic historical trends as long-term planning efforts increase opportunities for connectivity and redevelopment.

Table 6 Round 10.0 Employment Forecast for Montgomery County, 2020 to 2035

Year	Jobs	Five-Year Absolute Growth	Five-Year Percentage Growth	Average Annual Growth
2020	493,551	N/A	N/A	N/A
2025	522,906	29,355	5.9%	1.2%
2030	545,620	22,714	4.3%	0.9%
2035	568,333	22,713	4.2%	0.8%

Source: Metropolitan Washington Council of Governments, Cooperative Forecast Round 10.0.

B. EMPLOYMENT FACTORS

Employment growth forecasted for Round 10.0 is tied to assumed new construction or redevelopment of commercial space. The type of expected commercial construction determines the likely number of jobs it will yield. Factors for space utilization per job are used to convert projected commercial space into future jobs (Table 7). The factors are based on commercial square-footage and existing employment data and vary by type of commercial space. For each five-year forecast interval, these factors plus occupancy rates were applied to assumed future commercial space construction.

Overall, opportunities for development-induced growth will become more limited as the county has entered a more mature stage of development. The employment forecast reflects the

ongoing shift from greenfield development to more infill and compact development as well as master planning efforts that has strategically placed capacity for development around current and planned transit in order to make more efficient use of land and infrastructure.

Table 7 Commercial Occupancy Rates and Space Utilization Per Job Factors

Table 7. **Commercial Space Type**	**Occupancy Rate**	**Space Utilization Per Job Factor[1]**
Office	0.88	200
Office/R&D (Life Sciences Developments)	0.88	400
Retail	0.96	400
Industrial	0.93	450
Industrial (Life Science Developments)	0.93	900
Other	1.00	500

[1] Square feet per job.
Source: Montgomery Planning, Research & Strategic Projects Division.

Appendix D

Schools Element Analysis

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Contents

Chapter 1. School Impact Area Classification Index

The following tables show the housing growth and housing type factors that were considered in creating the School Impact Area classification index. Recent growth was given a 30% weight factor, unbuilt units remaining in the development pipeline were given a 20% weight factor, and future capacity was given the heaviest consideration with a 50% weight factor.

Table 1 shows the raw percentage of each policy area for each factor that was considered. Table 2 shows the results of summing weighted z-scores of the three housing growth factors and housing type factors. Additional factors that were considered for the classification of certian impact areas are also noted.

Table 1 Housing Growth and Housing Type Factors Considered in the School Impact Area Index

Policy Area Name	**A. Recent Growth** 2017-2022 Unit Change as % of 2022 Total Unit Count *(30% Weight)*	**B. Development Pipeline** Unbuilt Units as % of 2022 Total Unit Count *(20% Weight)*	**C. Future Capacity** Residential Development Capacity as % of 2022 Total Unit Count *(50% Weight)*	**D. Recent Growth** Change in Single Family Units as % of 2017-2022 Unit Change *(30% Weight)*	**E. Development Pipeline** % of Unbuilt Units Approved for Single Family Housing *(20% Weight)*	**F. Future Capacity** % of Residential Land Zoned for Single Family Housing *(50% Weight)*
Aspen Hill	2%	0%	3%	73%	100%	95%
Bethesda CBD	20%	34%	30%	1%	0%	20%
Bethesda/Chevy Chase	1%	2%	8%	167%	25%	98%
Burtonsville Town Center	0%	0%	-	-	-	22%
Chevy Chase Lake	23%	19%	48%	34%	0%	54%
Clarksburg East	26%	0%	2%	88%	-	83%
Clarksburg Town Center	17%	0%	38%	100%	-	48%
Clarksburg West	0%	132%	100%	-	100%	100%
Cloverly	0%	0%	5%	-	100%	100%
Damascus	4%	2%	31%	13%	100%	96%

Policy Area Name	A. Recent Growth 2017-2022 Unit Change as % of 2022 Total Unit Count *(30% Weight)*	B. Development Pipeline Unbuilt Units as % of 2022 Total Unit Count *(20% Weight)*	C. Future Capacity Residential Development Capacity as % of 2022 Total Unit Count *(50% Weight)*	D. Recent Growth Change in Single Family Units as % of 2017-2022 Unit Change *(30% Weight)*	E. Development Pipeline % of Unbuilt Units Approved for Single Family Housing *(20% Weight)*	F. Future Capacity % of Residential Land Zoned for Single Family Housing *(50% Weight)*
Derwood	2%	0%	6%	-5%	-	97%
Fairland/Briggs Chaney	1%	0%	2%	114%	100%	85%
Fairland/Colesville	3%	0%	3%	4%	-	99%
Forest Glen	0%	18%	83%	-	0%	48%
Friendship Heights	0%	8%	24%	-	0%	29%
Gaithersburg City	7%	7%	25%	23%	13%	92%
Germantown East	2%	11%	6%	87%	22%	89%
Germantown Town Center	22%	12%	122%	39%	11%	1%
Germantown West	3%	3%	4%	47%	41%	91%
Glenmont	35%	0%	50%	42%	-	70%
Great Seneca Life Science Center	44%	35%	5%	0%	42%	3%
Grosvenor	0%	64%	0%	-	0%	32%
Kensington/Wheaton	1%	1%	10%	3%	3%	97%
Lyttonsville	0%	0%	69%	-	-	75%
Medical Center	0%	0%	1%	-	-	100%
Montgomery Village/Airpark	0%	2%	3%	-	84%	92%
North Bethesda	3%	28%	19%	47%	6%	89%
North Potomac	0%	0%	3%	480%	-	100%
Olney	5%	0%	5%	82%	-	100%
Olney Town Center	0%	0%	1406%	-	-	0%
Potomac	0%	1%	6%	700%	80%	99%
Purple Line East	4%	2%	46%	9%	1%	72%

Policy Area Name	A. Recent Growth 2017-2022 Unit Change as % of 2022 Total Unit Count *(30% Weight)*	B. Development Pipeline Unbuilt Units as % of 2022 Total Unit Count *(20% Weight)*	C. Future Capacity Residential Development Capacity as % of 2022 Total Unit Count *(50% Weight)*	D. Recent Growth Change in Single Family Units as % of 2017-2022 Unit Change *(30% Weight)*	E. Development Pipeline % of Unbuilt Units Approved for Single Family Housing *(20% Weight)*	F. Future Capacity % of Residential Land Zoned for Single Family Housing *(50% Weight)*
R&D Village	0%	0%	0%	-	-	52%
Rock Spring	27%	364%	145%	114%	0%	16%
Rockville City	2%	2%	22%	77%	69%	99%
Rockville Town Center	15%	1%	40%	2%	59%	-
Rural East	2%	1%	18%	76%	94%	100%
Rural West	3%	4%	34%	100%	100%	100%
Shady Grove Metro Station	53%	76%	93%	28%	41%	25%
Silver Spring CBD	23%	36%	48%	-2%	0%	6%
Silver Spring/Takoma Park	3%	1%	10%	14%	2%	90%
Takoma	2%	0%	3%	-36%	-	96%
Twinbrook	27%	29%	207%	9%	0%	0%
Wheaton CBD	3%	3%	149%	-19%	0%	48%
White Flint	23%	83%	105%	4%	0%	2%
White Oak	0%	5%	29%	236%	1%	83%
White Oak Village & Center	0%	85%	1145%	-	-	3%
Woodside	0%	0%	16%	-	0.00	58%

Table 2 School Impact Area Index & Classification Results

Policy Area Name	Housing Growth Index (z-score of A) x 0.3 + (z-score of B) x 0.2 + (z-score of C) x 0.5		Housing Type Index (z-score of D) x 0.3 + (z-score of E) x 0.2 + (z-score of F) x 0.5		Additional Consideration Factor	School Impact Area Classification
Aspen Hill	-0.36	Low	0.71	High		Turnover
Bethesda CBD	0.24	High	-0.97	Low		Infill
Bethesda/Chevy Chase	-0.37	Low	0.58	High		Turnover
Burtonsville Town Center	-0.01	Low	-0.59	Low		Turnover
Chevy Chase Lake	0.30	High	-0.42	Low		Infill
Clarksburg East	0.22	High	0.09	High	Insufficient record count for SGR reliability	Turnover (Overwrite)
Clarksburg Town Center	0.06	High	-0.18	Low		Infill
Clarksburg West	0.25	High	0.80	High	Insufficient record count for SGR reliability	Turnover (Overwrite)
Cloverly	-0.40	Low	0.80	High		Turnover
Damascus	-0.24	Low	0.60	High		Turnover
Derwood	-0.35	Low	0.26	High		Turnover
Fairland/Briggs Chaney	-0.37	Low	0.67	High		Turnover
Fairland/Colesville	-0.34	Low	0.31	High		Turnover
Forest Glen	-0.18	Low	-0.41	Low	Red Transportation Policy Area	Infill (Overwrite)
Friendship Heights	-0.34	Low	-0.67	Low	Red Transportation Policy Area	Infill (Overwrite)
Gaithersburg	-0.18	Low	0.13	High	Municipality	Infill (Overwrite)
Germantown East	-0.32	Low	0.27	High		Turnover
Germantown Town Center	0.38	High	-1.09	Low		Infill
Germantown West	-0.33	Low	0.31	High		Turnover
Glenmont	0.51	High	-0.01	Low		Infill
Great Seneca Life Science Center	0.77	High	-0.98	Low		Infill
Grosvenor	-0.19	Low	-0.64	Low	Red Transportation Policy Area	Infill (Overwrite)

Policy Area Name	Housing Growth Index (z-score of A) x 0.3 + (z-score of B) x 0.2 + (z-score of C) x 0.5		Housing Type Index (z-score of D) x 0.3 + (z-score of E) x 0.2 + (z-score of F) x 0.5		Additional Consideration Factor	School Impact Area Classification
Kensington/Wheaton	-0.37	Low	0.11	High		Turnover
Lyttonsville	-0.27	Low	0.14	High	Red Transportation Policy Area	Infill (Overwrite)
Medical Center	-0.41	Low	0.48	High	Red Transportation Policy Area	Infill (Overwrite)
Montgomery Village/Airpark	-0.40	Low	0.60	High		Turnover
North Bethesda	-0.19	Low	0.12	High		Turnover
North Potomac	-0.40	Low	1.34	High		Turnover
Olney	-0.28	Low	0.49	High		Turnover
Olney Town Center	2.34	High	-0.89	Low		Infill
Potomac	-0.39	Low	2.02	High		Turnover
Purple Line East	-0.21	Low	-0.22	Low	Red Transportation Policy Area	Infill (Overwrite)
R&D Village	-0.41	Low	-0.18	Low		Turnover
Rock Spring	1.78	High	-0.78	Low		Infill
Rockville City	-0.31	Low	0.63	High		Turnover
Rockville Town Center	0.02	High	-0.95	Low		Infill
Rural East	-0.32	Low	0.76	High		Turnover
Rural West	-0.25	Low	0.84	High		Turnover
Shady Grove Metro Station	1.29	High	-0.63	Low		Infill
Silver Spring CBD	0.35	High	-1.17	Low		Infill
Silver Spring/Takoma Park	-0.33	Low	0.04	High		Turnover
Takoma	-0.37	Low	0.18	High	Red Transportation Policy Area	Infill (Overwrite)
Twinbrook	0.74	High	-1.22	Low		Infill
Wheaton CBD	-0.03	Low	-0.62	Low	Red Transportation Policy Area	Infill (Overwrite)
White Flint	0.62	High	-1.20	Low		Infill
White Oak	-0.32	Low	0.42	High		Turnover
White Oak Village & Center	-0.25	Low	-1.03	Low	Red Transportation Policy Area	Infill (Overwrite)
Woodside	-0.38	Low	-0.10	Low	Red Transportation Policy Area	Infill (Overwrite)

Chapter 2. Revision to the FY2024 Annual School Test Under 2024 GIP Recommendations

The following pages provide the revised FY2024 Annual School Test results that will follow implementation of the 2024 GIP if changes to the seat deficit thresholds are adopted as recommended in this report.

School Test Summary

UPP Tier	High Schools	Middle Schools	Elementary Schools
TIER 1 UPP	13⅓% of Impact Tax	10% of Impact Tax	16⅔% of Impact Tax
Utilization: ≥105% Seat Deficit: ≥ 74 for ES ≥ 120 for MS ≥ 160 for HS	James Hubert Blake HS Paint Branch HS	(none)	Arcola ES Lake Seneca ES Sargent Shriver ES
TIER 2 UPP	26⅔% of Impact Tax	20% of Impact Tax	33⅓% of Impact Tax
Utilization: ≥ 120% Seat Deficit: ≥ 92 for ES ≥ 150 for MS ≥ 200 for HS	Clarksburg HS	(none)	Ashburton ES Oakland Terrace ES
TIER 3 UPP	40% of Impact Tax	30% of Impact Tax	50% of Impact Tax
Utilization: ≥135% Seat Deficit: ≥ 110 for ES ≥ 180 for MS ≥ 240 for HS	(none)	(none)	Mill Creek Towne ES

Revision to the FY2024 School Test Under 2024 GIP Recommendations

Evaluates Adequacy for the 2027-2028 School Year, Reflecting the Approved FY 2024 Capital Budget and Amendments to the FY 2023-2028 Capital Improvements Program

High School Test

Tier 1 UPP: ≥ 105% utilization and ≥ 160 seat deficit
Tier 2 UPP: ≥ 120% utilization and ≥ 200 seat deficit
Tier 3 UPP: ≥ 135% utilization and ≥ 240 seat deficit

High School	Projected Capacity	Projected Enrollment	Projected Util. Rate	Projected Deficit/ Surplus	UPP Status	Tier 1 Adeq. Ceiling	Tier 2 Adeq. Ceiling	Tier 3 Adeq. Ceiling
Bethesda-Chevy Chase[1]	2,475	2,420	97.8%	55		215	550	922
Montgomery Blair[1]	2,867	2,804	97.8%	63		223	637	1,067
James Hubert Blake	1,743	1,935	111.0%	-192	Tier 1 UPP		157	419
Winston Churchill	1,991	2,129	106.9%	-138		22	261	559
Clarksburg	2,034	2,612	128.4%	-578	Tier 2 UPP			134
Crown[2]	2,219	2,120	95.5%	99		N/A	N/A	N/A
Damascus	2,250	1,533	68.1%	717		877	1,167	1,505
Albert Einstein[1]	1,602	1,567	97.8%	35		195	356	596
Gaithersburg[2]	2,474	2,364	95.6%	110		270	605	976
Walter Johnson[1]	2,291	2,240	97.8%	51		211	510	853
John F. Kennedy[1]	2,159	2,111	97.8%	48		208	480	804
Col. Zadok Magruder	1,885	1,830	97.1%	55		215	432	715
Richard Montgomery[2]	2,250	2,150	95.6%	100		260	550	888
Northwest[2]	2,291	2,189	95.5%	102		262	561	904
Northwood[1]	2,260	2,210	97.8%	50		210	502	841
Paint Branch	1,985	2,270	114.4%	-285	Tier 1 UPP		112	410
Poolesville	1,508	1,439	95.4%	69		229	371	597
Quince Orchard[2]	1,800	1,720	95.6%	80		240	440	710
Rockville	1,525	1,614	105.8%	-89		71	216	445

High School	Projected Capacity	Projected Enrollment	Projected Util. Rate	Projected Deficit/ Surplus	UPP Status	Tier 1 Adeq. Ceiling	Tier 2 Adeq. Ceiling	Tier 3 Adeq. Ceiling
Seneca Valley	2,520	2,551	101.2%	-31		129	473	851
Sherwood	2,152	1,941	90.2%	211		371	642	965
Springbrook	2,117	1,949	92.1%	168		328	592	909
Watkins Mill	1,742	1,768	101.5%	-26		134	323	584
Wheaton[1]	2,237	2,187	97.8%	50		210	498	833
Walt Whitman[1]	2,231	2,182	97.8%	49		209	496	830
Charles W. Woodward[1]	2,159	2,111	97.8%	48		N/A	N/A	N/A
Thomas S. Wootton[2]	2,120	2,026	95.6%	94		254	518	836

[1] Projected enrollment reflects the estimated impact of CIP P651908, which will reassign students between the Down County Consortium, Bethesda-Chevy Chase HS, Walter Johnson HS, Walt Whitman HS, and Charles Woodward HS in 2026.

[2] Projected enrollment reflects the estimated impact of CIP P651909, which will reassign students between Gaithersburg HS, Richard Montgomery HS, Northwest HS, Quince Orchard HS, Wootton HS and Crown HS in 2027.

Middle School Test

Tier 1 UPP: ≥ 105% utilization and ≥ 120 seat deficit
Tier 2 UPP: ≥ 120% utilization and ≥ 150 seat deficit
Tier 3 UPP: ≥ 135% utilization and ≥ 180 seat deficit

Middle School	Projected Capacity	Projected Enrollment	Projected Util. Rate	Projected Deficit/ Surplus	UPP Status	Tier 1 Adeq. Ceiling	Tier 2 Adeq. Ceiling	Tier 3 Adeq. Ceiling
Argyle	897	976	108.8%	-79		41	101	235
John T. Baker	762	832	109.2%	-70		50	83	197
Benjamin Banneker	799	909	113.8%	-110		10	50	170
Briggs Chaney	927	841	90.7%	86		206	272	411
Cabin John	1,125	1,067	94.8%	58		178	283	452
Roberto W. Clemente	1,218	844	69.3%	374		494	618	801
Eastern	1,012	920	90.9%	92		212	295	447
William H. Farquhar	816	693	84.9%	123		243	287	409
Forest Oak	955	910	95.3%	45		165	236	380
Robert Frost	1,051	965	91.8%	86		206	297	454
Gaithersburg	996	870	87.3%	126		246	326	475
Herbert Hoover	1,139	1,017	89.3%	122		242	350	521
Francis Scott Key	961	937	97.5%	24		144	217	361
Dr. Martin Luther King, Jr.	914	979	107.1%	-65		55	118	255
Kingsview	1,041	985	94.6%	56		176	265	421
Lakelands Park	1,147	1,083	94.4%	64		184	294	466
A. Mario Loiederman	986	1,083	109.8%	-97		23	101	249
Montgomery Village	844	844	100.0%	0		120	169	296
Neelsville	956	942	98.5%	14		134	206	349
Newport Mill	837	612	73.1%	225		345	393	518
North Bethesda	1,233	1,123	91.1%	110		230	357	542
Parkland	1,203	1,012	84.1%	191		311	432	613

Middle School	Projected Capacity	Projected Enrollment	Projected Util. Rate	Projected Deficit/ Surplus	UPP Status	Tier 1 Adeq. Ceiling	Tier 2 Adeq. Ceiling	Tier 3 Adeq. Ceiling
Rosa M. Parks	945	923	97.7%	22		142	211	353
John Poole	478	488	102.1%	-10		110	140	170
Thomas W. Pyle	1,523	1,301	85.4%	222		342	527	756
Redland	757	578	76.4%	179		299	331	444
Ridgeview	988	752	76.1%	236		356	434	582
Rocky Hill	1,012	1,035	102.3%	-23		97	180	332
Shady Grove	846	492	58.2%	354		474	524	651
Odessa Shannon	897	847	94.4%	50		170	230	364
Silver Creek	894	761	85.1%	133		253	312	446
Silver Spring International	1,170	1,136	97.1%	34		154	268	444
Sligo	958	686	71.6%	272		392	464	608
Takoma Park	1,330	1,028	77.3%	302		422	568	768
Tilden	1,244	1,139	91.6%	105		225	354	541
Hallie Wells	969	990	102.2%	-21		99	173	319
Julius West	1,432	1,354	94.6%	78		198	365	580
Westland	1,073	862	80.3%	211		331	426	587
White Oak	992	874	88.1%	118		238	317	466
Earle B. Wood	936	1,009	107.8%	-73		47	115	255

Elementary School Test

Tier 1 UPP: ≥ 105% utilization and ≥ 74 seat deficit
Tier 2 UPP: ≥ 120% utilization and ≥ 92 seat deficit
Tier 3 UPP: ≥ 135% utilization and ≥ 110 seat deficit

Elementary School	Projected Capacity	Projected Enrollment	Projected Util. Rate	Projected Deficit/ Surplus	UPP Status	Tier 1 Adeq. Ceiling	Tier 2 Adeq. Ceiling	Tier 3 Adeq. Ceiling
Arcola	656	742	113.1%	-86	Tier 1 UPP		46	144
Ashburton	789	955	121.0%	-166	Tier 2 UPP			111
Bannockburn	389	339	87.1%	50		124	142	187
Lucy V. Barnsley	685	704	102.8%	-19		55	118	221
Beall	663	404	60.9%	259		333	392	492
Bel Pre/Strathmore	1,096	911	83.1%	185		259	405	569
Bells Mill	626	672	107.3%	-46		28	80	174
Belmont	401	373	93.0%	28		102	120	169
Bethesda	561	539	96.1%	22		96	135	219
Beverly Farms	722	613	84.9%	109		183	254	362
Bradley Hills	687	441	64.2%	246		320	384	487
Brooke Grove	515	401	77.9%	114		188	217	295
Brookhaven	508	456	89.8%	52		126	154	230
Brown Station	754	736	97.6%	18		92	169	282
Burning Tree	388	453	116.8%	-65		9	27	71
Burnt Mills	646	596	92.3%	50		124	180	277
Burtonsville	752	690	91.8%	62		136	213	326
Candlewood	521	389	74.7%	132		206	237	315
Cannon Road	507	447	88.2%	60		134	162	238
Carderock Springs	430	369	85.8%	61		135	153	212
Rachel Carson	716	737	102.9%	-21		53	123	230

Elementary School	Projected Capacity	Projected Enrollment	Projected Util. Rate	Projected Deficit/ Surplus	UPP Status	Tier 1 Adeq. Ceiling	Tier 2 Adeq. Ceiling	Tier 3 Adeq. Ceiling
Cashell	341	361	105.9%	-20		54	72	100
Cedar Grove	425	365	85.9%	60		134	152	209
Clarksburg	352	320	90.9%	32		106	124	156
Clarksburg ES #9	721	628	87.1%	93		167	238	346
Clearspring	618	629	101.8%	-11		63	113	206
Clopper Mill	511	405	79.3%	106		180	209	285
Cloverly	484	459	94.8%	25		99	122	195
Cold Spring	481	387	80.5%	94		168	191	263
College Gardens	718	492	68.5%	226		300	370	478
Capt. James E. Daly	586	461	78.7%	125		199	243	331
Damascus	324	367	113.3%	-43		31	49	71
Darnestown	403	356	88.3%	47		121	139	189
Diamond	680	664	97.6%	16		90	152	254
Dr. Charles R. Drew	512	517	101.0%	-5		69	98	175
DuFief	437	288	65.9%	149		223	241	302
East Silver Spring	602	444	73.8%	158		232	279	369
Fairland	648	525	81.0%	123		197	253	350
Fallsmead	561	578	103.0%	-17		57	96	180
Farmland	737	771	104.6%	-34		40	114	224
Fields Road	457	477	104.4%	-20		54	72	140
Flower Hill	511	450	88.1%	61		135	164	240
Flower Valley	463	528	114.0%	-65		9	28	98
Forest Knolls	581	550	94.7%	31		105	148	235
Fox Chapel	665	588	88.4%	77		151	210	310
Gaithersburg	783	691	88.3%	92		166	249	367
Galway	759	762	100.4%	-3		71	149	263

Elementary School	Projected Capacity	Projected Enrollment	Projected Util. Rate	Projected Deficit/ Surplus	UPP Status	Tier 1 Adeq. Ceiling	Tier 2 Adeq. Ceiling	Tier 3 Adeq. Ceiling
Garrett Park	777	668	86.0%	109		183	265	381
Georgian Forest	675	546	80.9%	129		203	264	366
Germantown	292	263	90.1%	29		103	121	139
William B. Gibbs, Jr.	748	659	88.1%	89		163	239	351
Glen Haven	569	551	96.8%	18		92	132	218
Glenallan	762	650	85.3%	112		186	265	379
Goshen	594	448	75.4%	146		220	265	354
Great Seneca Creek	556	497	89.4%	59		133	171	254
Greencastle	769	689	89.6%	80		154	234	350
Greenwood	562	548	97.5%	14		88	127	211
Harmony Hills	775	757	97.7%	18		92	173	290
Highland	601	473	78.7%	128		202	249	339
Highland View	469	406	86.6%	63		137	157	228
Jackson Road	712	626	87.9%	86		160	229	336
Jones Lane	513	440	85.8%	73		147	176	253
Kemp Mill	470	407	86.6%	63		137	157	228
Kensington-Parkwood	786	546	69.5%	240		314	398	516
Lake Seneca	425	500	117.6%	-75	Tier 1 UPP		17	74
Lakewood	566	442	78.1%	124		198	238	323
Laytonsville	487	428	87.9%	59		133	157	230
JoAnn Leleck[1]	1,206	856	71.0%	350		424	592	773
Little Bennett	620	568	91.6%	52		126	176	269
Luxmanor	746	799	107.1%	-53		21	97	209
Thurgood Marshall	552	499	90.4%	53		127	164	247
Maryvale	655	620	94.7%	35		109	166	265
Spark M. Matsunaga	591	510	86.3%	81		155	200	288

Elementary School	Projected Capacity	Projected Enrollment	Projected Util. Rate	Projected Deficit/ Surplus	UPP Status	Tier 1 Adeq. Ceiling	Tier 2 Adeq. Ceiling	Tier 3 Adeq. Ceiling
S. Christa McAuliffe	732	460	62.8%	272		346	419	529
Dr. Ronald E. McNair	796	677	85.1%	119		193	279	398
Meadow Hall	356	323	90.7%	33		107	125	158
Mill Creek Towne	354	502	141.8%	-148	Tier 3 UPP			
Monocacy	218	218	100.0%	0		74	92	110
Montgomery Knolls/Pine Crest	1,370	963	70.3%	407		481	681	887
New Hampshire Estates/Oak View	846	801	94.7%	45		119	215	342
Roscoe R. Nix/Cresthaven	958	914	95.4%	44		118	236	380
Oakland Terrace	511	664	129.9%	-153	Tier 2 UPP			26
Olney	607	609	100.3%	-2		72	120	211
William T. Page	751	735	97.9%	16		90	167	279
Poolesville	562	602	107.1%	-40		34	73	157
Potomac	479	413	86.2%	66		140	162	234
Judith A. Resnik	526	590	112.2%	-64		10	42	121
Dr. Sally K. Ride	505	560	110.9%	-55		19	46	122
Ritchie Park	411	348	84.7%	63		137	155	207
Rock Creek Forest	676	649	96.0%	27		101	163	264
Rock Creek Valley	451	429	95.1%	22		96	114	180
Rock View	675	690	102.2%	-15		59	120	222
Lois P. Rockwell	548	528	96.4%	20		94	130	212
Rolling Terrace	729	777	106.6%	-48		26	98	208
Rosemary Hills/Chevy Chase	1,114	1,035	92.9%	79		153	302	469
Rosemary Hills/North Chevy Chase	1,022	810	79.3%	212		286	417	570
Rosemont	602	571	94.9%	31		105	152	242
Bayard Rustin	790	753	95.3%	37		111	195	314
Sequoyah	450	497	110.4%	-47		27	45	111

Elementary School	Projected Capacity	Projected Enrollment	Projected Util. Rate	Projected Deficit/ Surplus	UPP Status	Tier 1 Adeq. Ceiling	Tier 2 Adeq. Ceiling	Tier 3 Adeq. Ceiling
Seven Locks	447	380	85.0%	67		141	159	224
Sherwood	519	592	114.1%	-73		1	31	109
Sargent Shriver	663	744	112.2%	-81	Tier 1 UPP		52	152
Flora M. Singer	598	585	97.8%	13		87	133	223
Sligo Creek	687	659	95.9%	28		102	166	269
Snowden Farm	762	629	82.5%	133		207	286	400
Somerset	540	369	68.3%	171		245	279	360
South Lake	796	756	95.0%	40		114	200	319
Stedwick	713	497	69.7%	216		290	359	466
Stone Mill	713	490	68.7%	223		297	366	473
Stonegate	597	482	80.7%	115		189	235	324
Strawberry Knoll	501	440	87.8%	61		135	162	237
Summit Hall	497	447	89.9%	50		124	150	224
Takoma Park/Piney Branch	1,222	1,102	90.2%	120		194	365	548
Travilah	526	378	71.9%	148		222	254	333
Harriet R. Tubman	674	565	83.8%	109		183	244	345
Twinbrook	629	400	63.6%	229		303	355	450
Viers Mill	752	476	63.3%	276		350	427	540
Washington Grove	629	468	74.4%	161		235	287	382
Waters Landing	768	677	88.2%	91		165	245	360
Watkins Mill	732	724	98.9%	8		82	155	265
Wayside	631	426	67.5%	205		279	332	426
Weller Road	792	780	98.5%	12		86	171	290
Westbrook	638	522	81.8%	116		190	244	340
Westover	266	299	112.4%	-33		41	59	77
Wheaton Woods	724	560	77.3%	164		238	309	418

Elementary School	Projected Capacity	Projected Enrollment	Projected Util. Rate	Projected Deficit/ Surplus	UPP Status	Tier 1 Adeq. Ceiling	Tier 2 Adeq. Ceiling	Tier 3 Adeq. Ceiling
Whetstone	788	718	91.1%	70		144	228	346
Wilson Wims	739	613	82.9%	126		200	274	385
Wood Acres	752	595	79.1%	157		231	308	421
Woodfield	365	359	98.4%	6		80	98	134
Woodlin	653	611	93.6%	42		116	173	271
Wyngate	778	624	80.2%	154		228	310	427

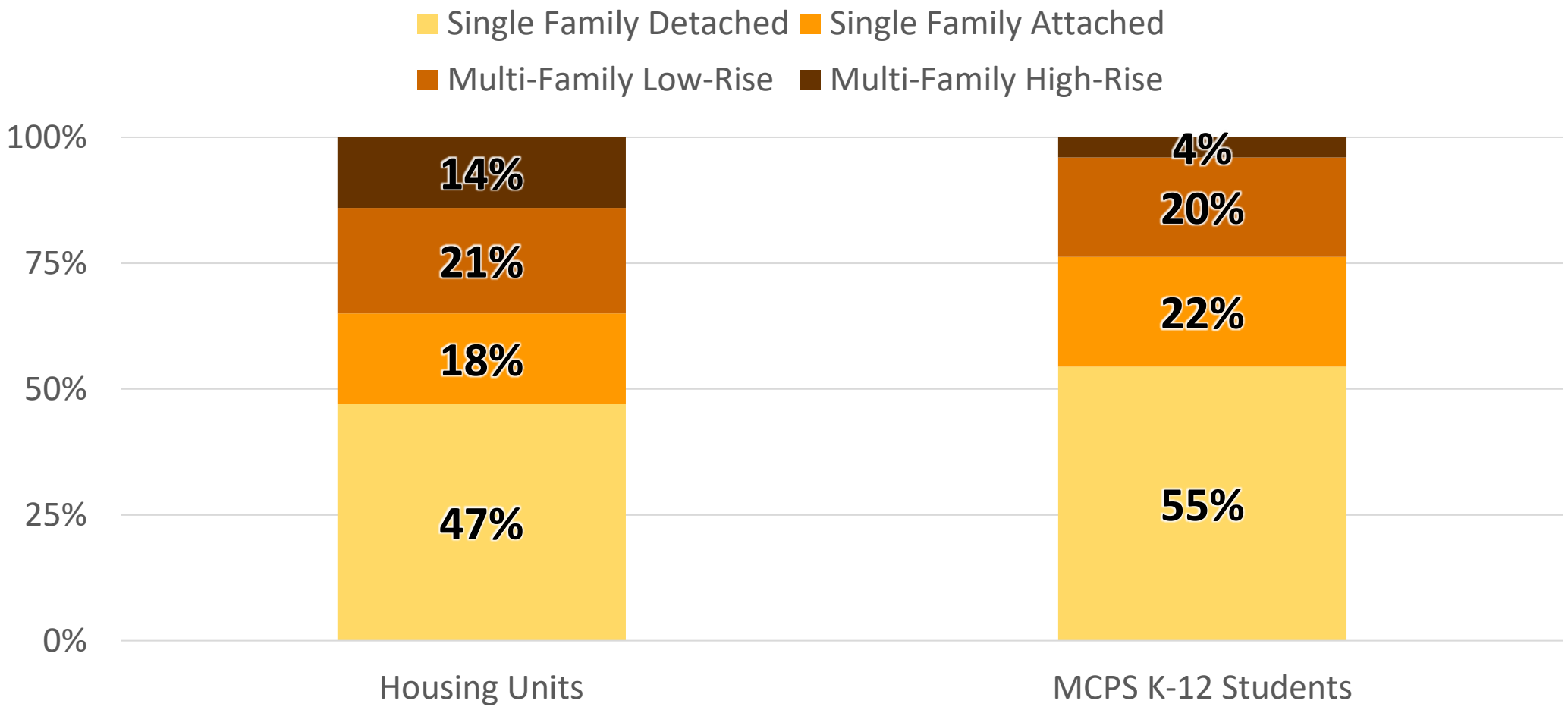
[1] Projected enrollment reflects the capital solution to construct a grades 3-5 facility for JoAnn Leleck ES with a completion date of August 2025.

Chapter 3. Student Generation Rate Analysis

The following analysis was originally completed in 2018 to support the recommendations of the 2020-2024 Growth and Infrastructure Policy. The analyses were updated to show the change between 2018 and 2022 in support of the 2024 update of the Growth and Infrastructure Policy.

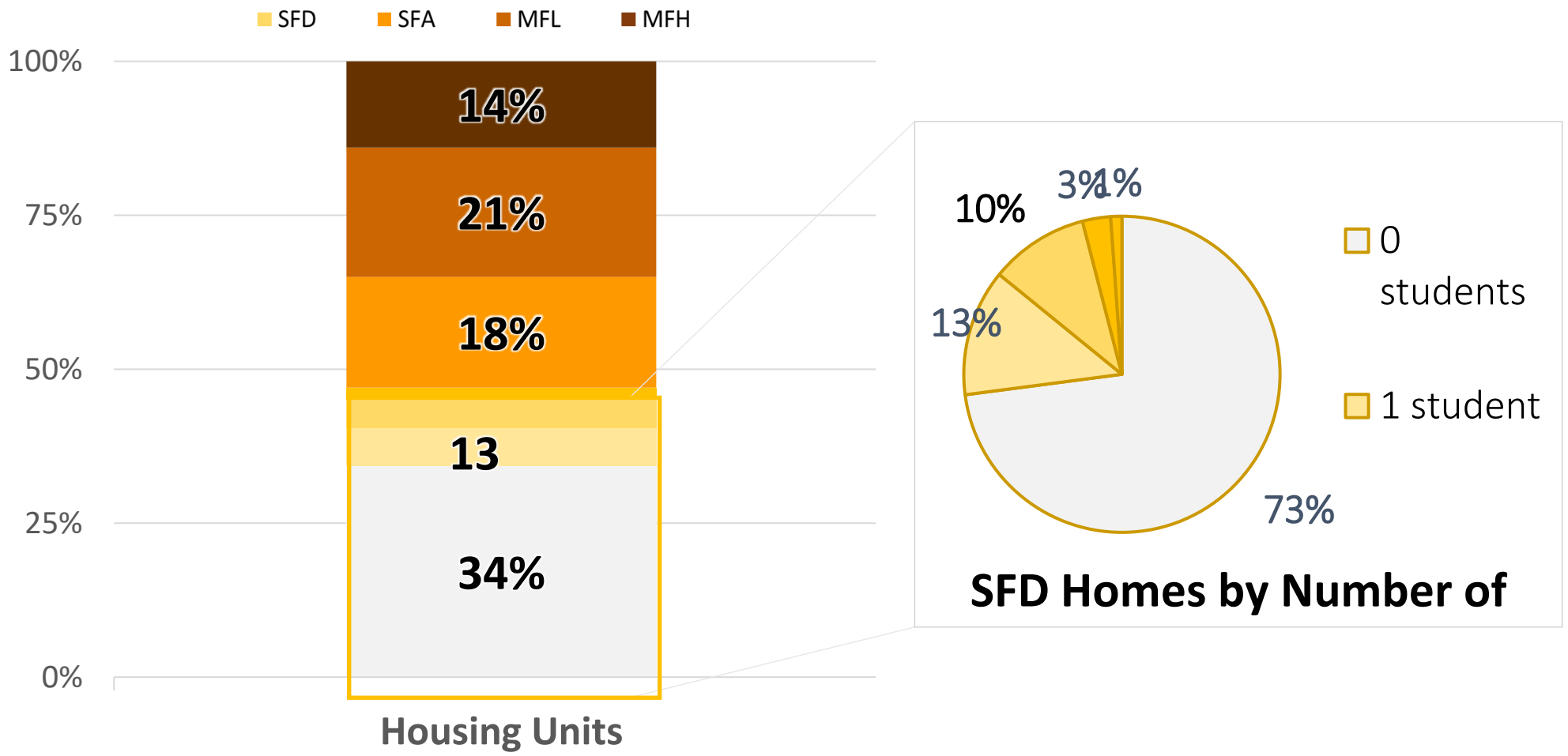
2020 GIP Update Findings

Share of Students vs. Units by Housing Type (2018)



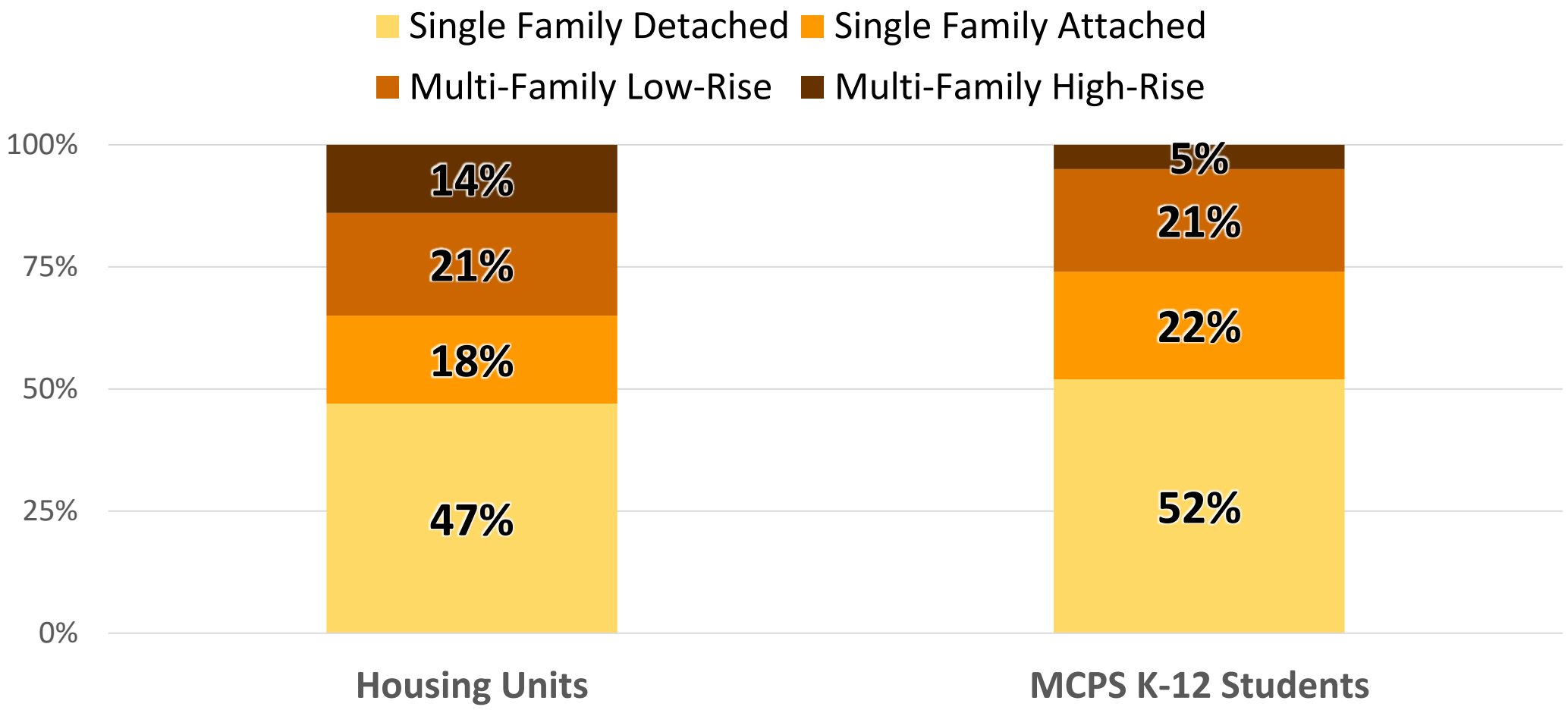
2020 GIP Update Findings

Share of Students vs. Units by Housing Type (2018)



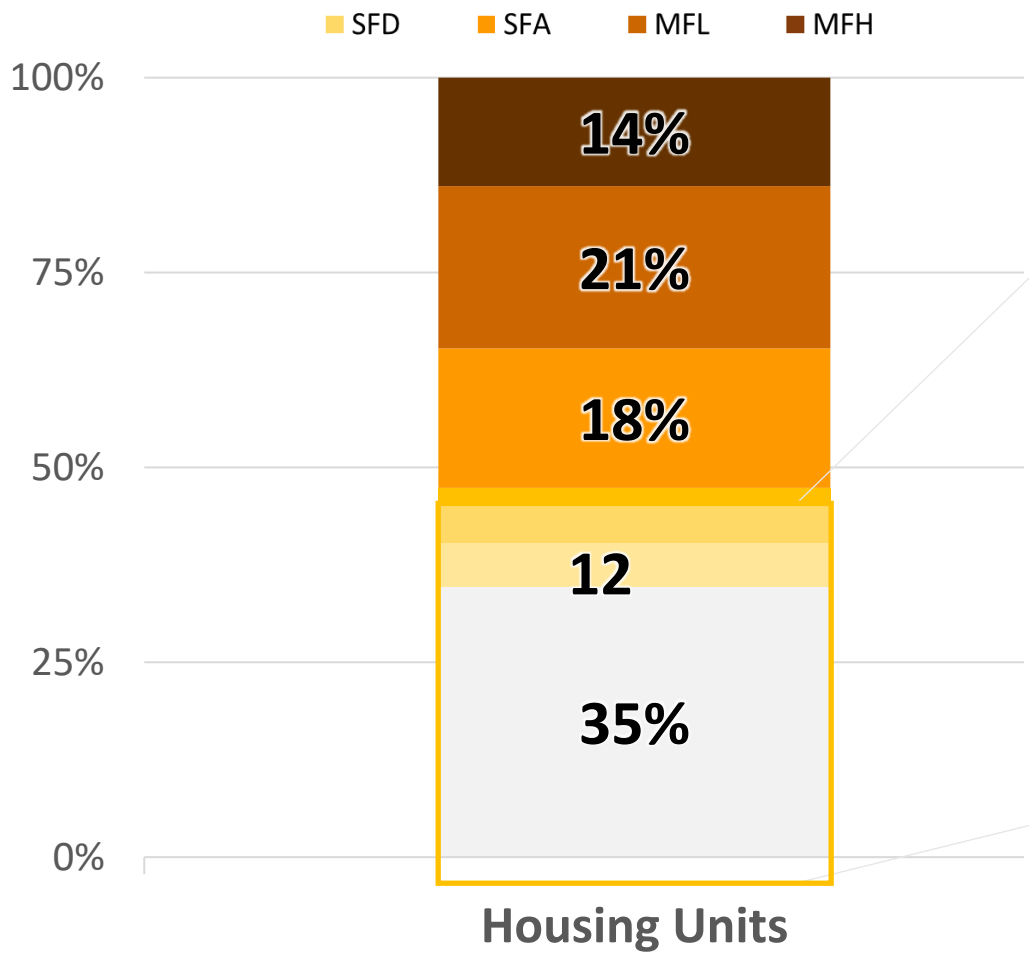
2022 Analysis

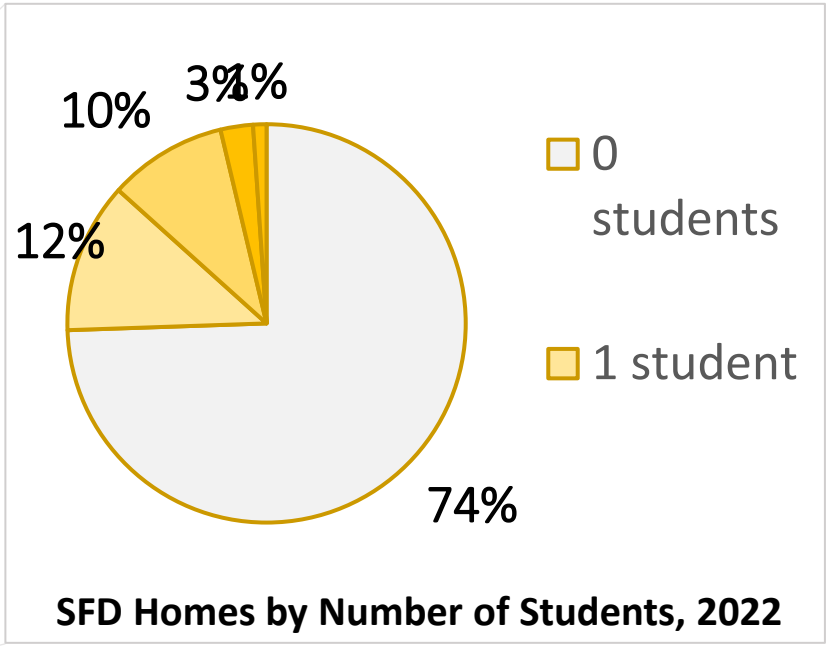
: slight decrease in share of students living in SFD units.



2022 Analysis

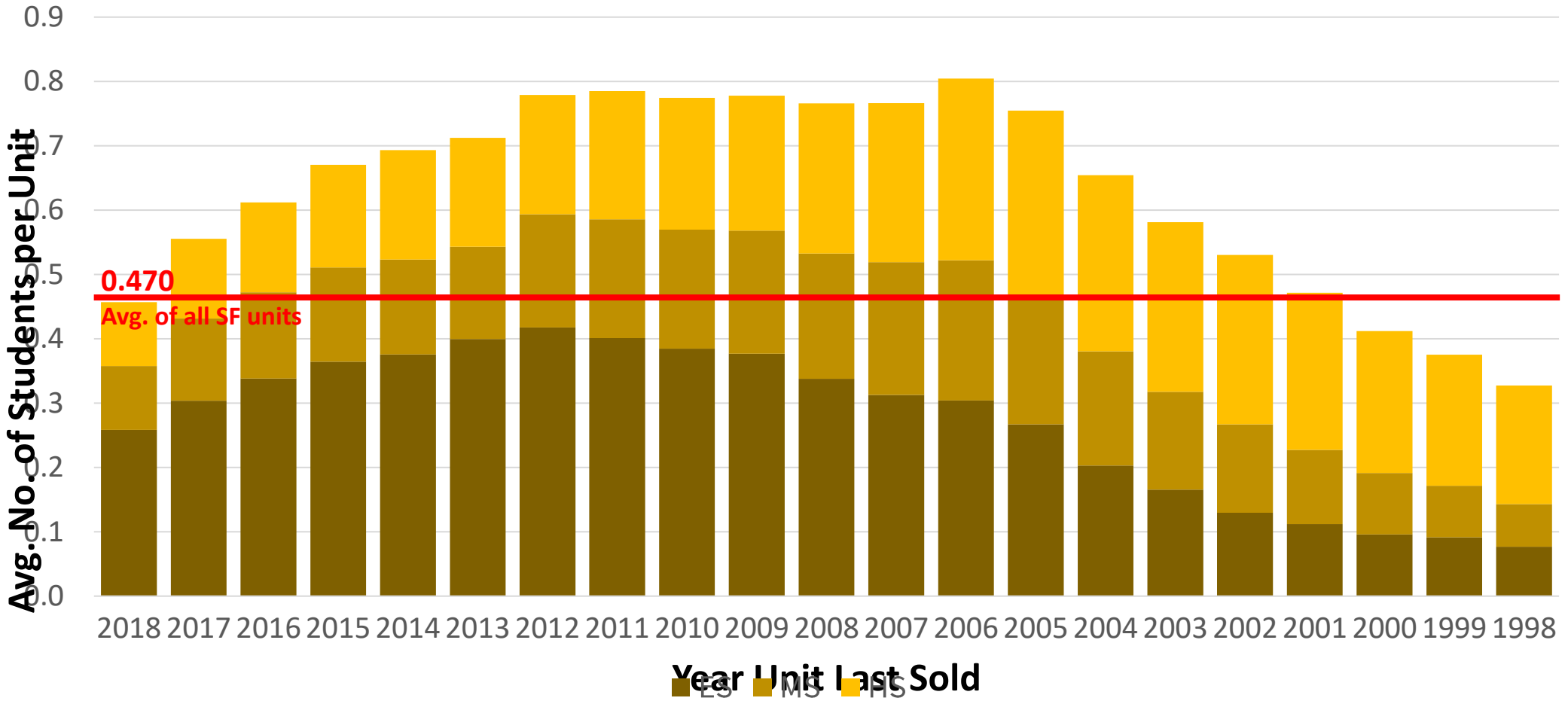
: slight increase in SFD units with no students residing.





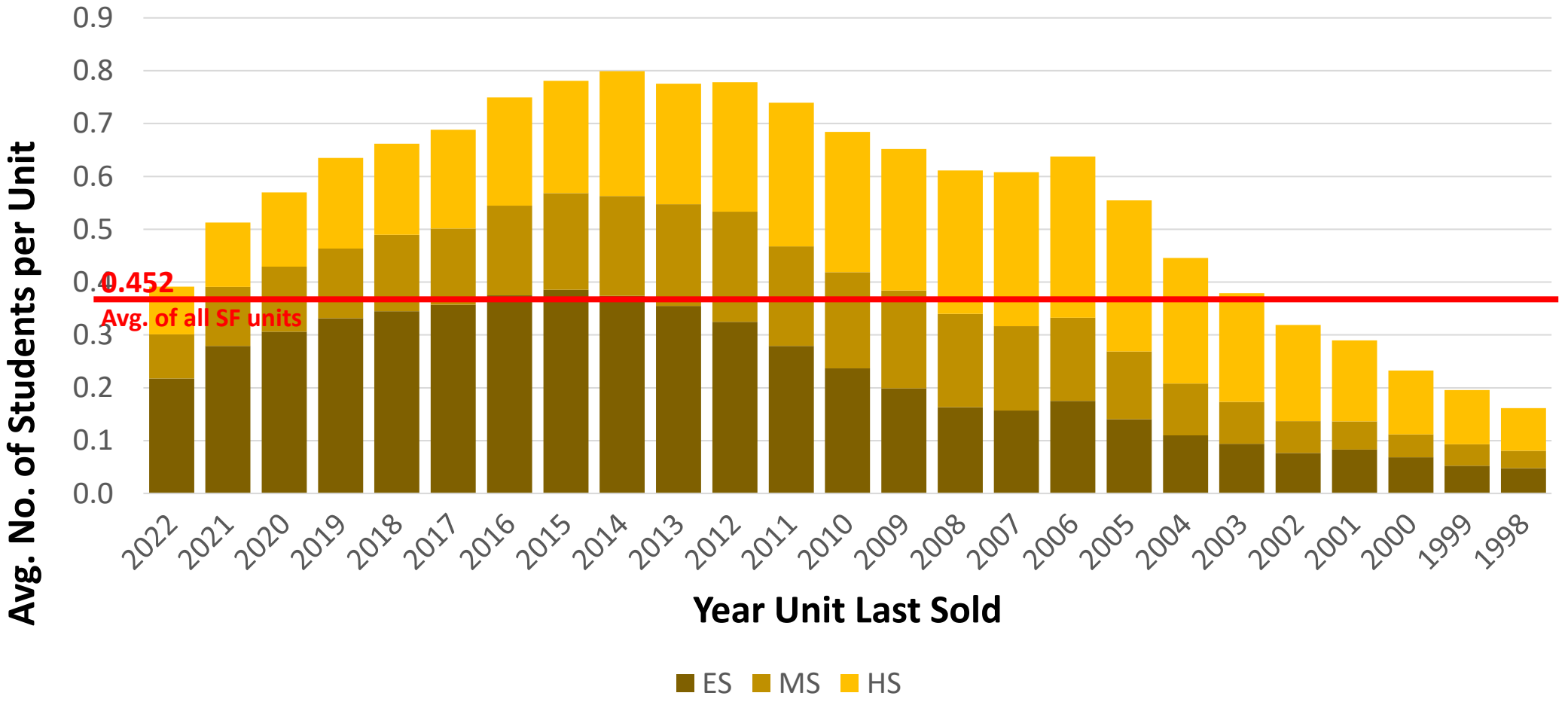
2020 GIP Update Findings

SGR of Single-Family Units by Year Last Sold (2018)



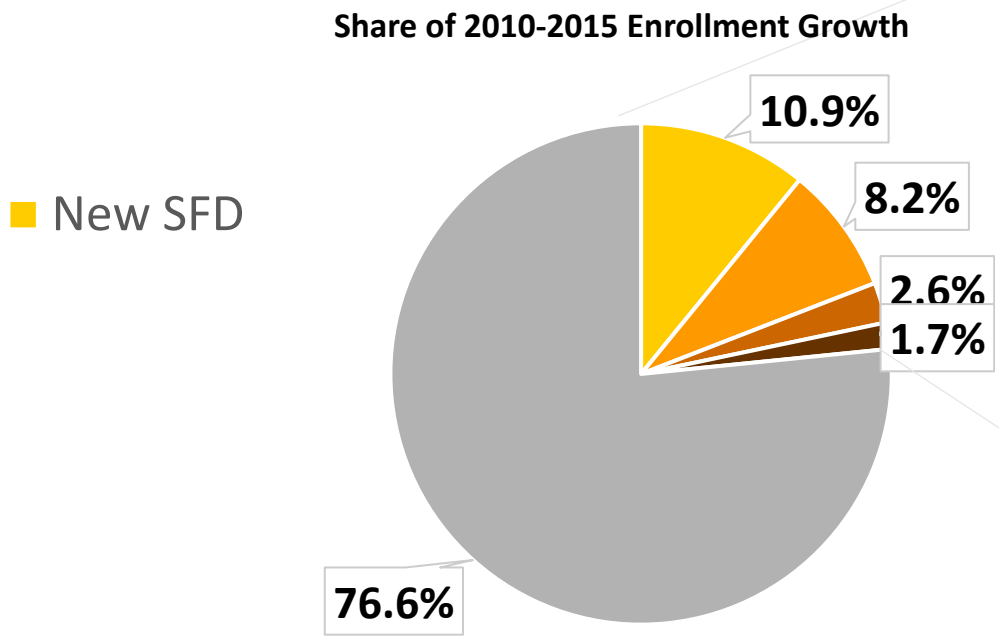
2022 Analysis

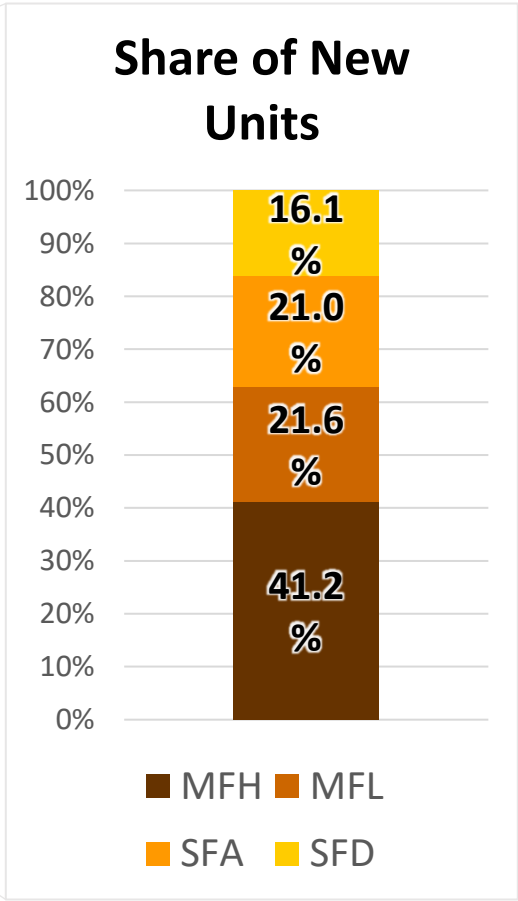
SGR of Single-Family Units by Year Last Sold



2020 GIP Update Findings
Share of Enrollment Growth from New Development

- Students coming from new development (units built between 2011-2015) contribute to less than a quarter of the enrollment growth.
  - Contribution from multi-family development is less than 5%.

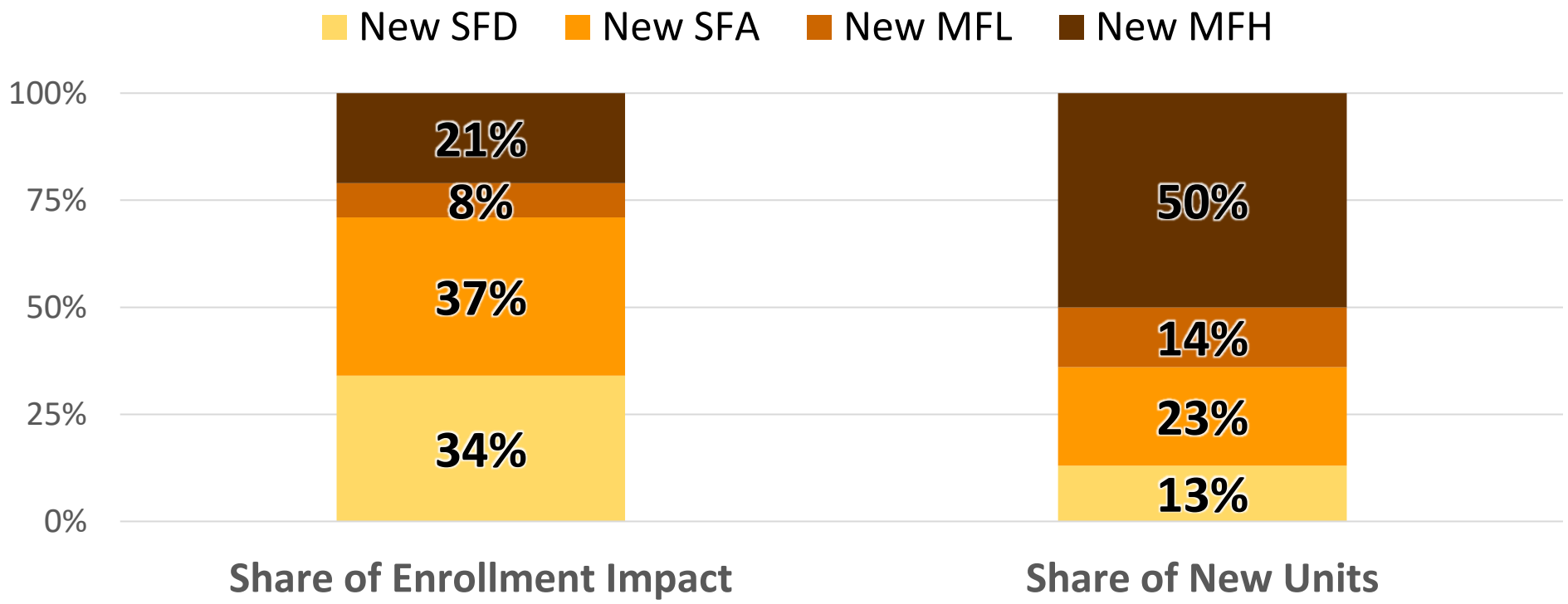




2022 Analysis

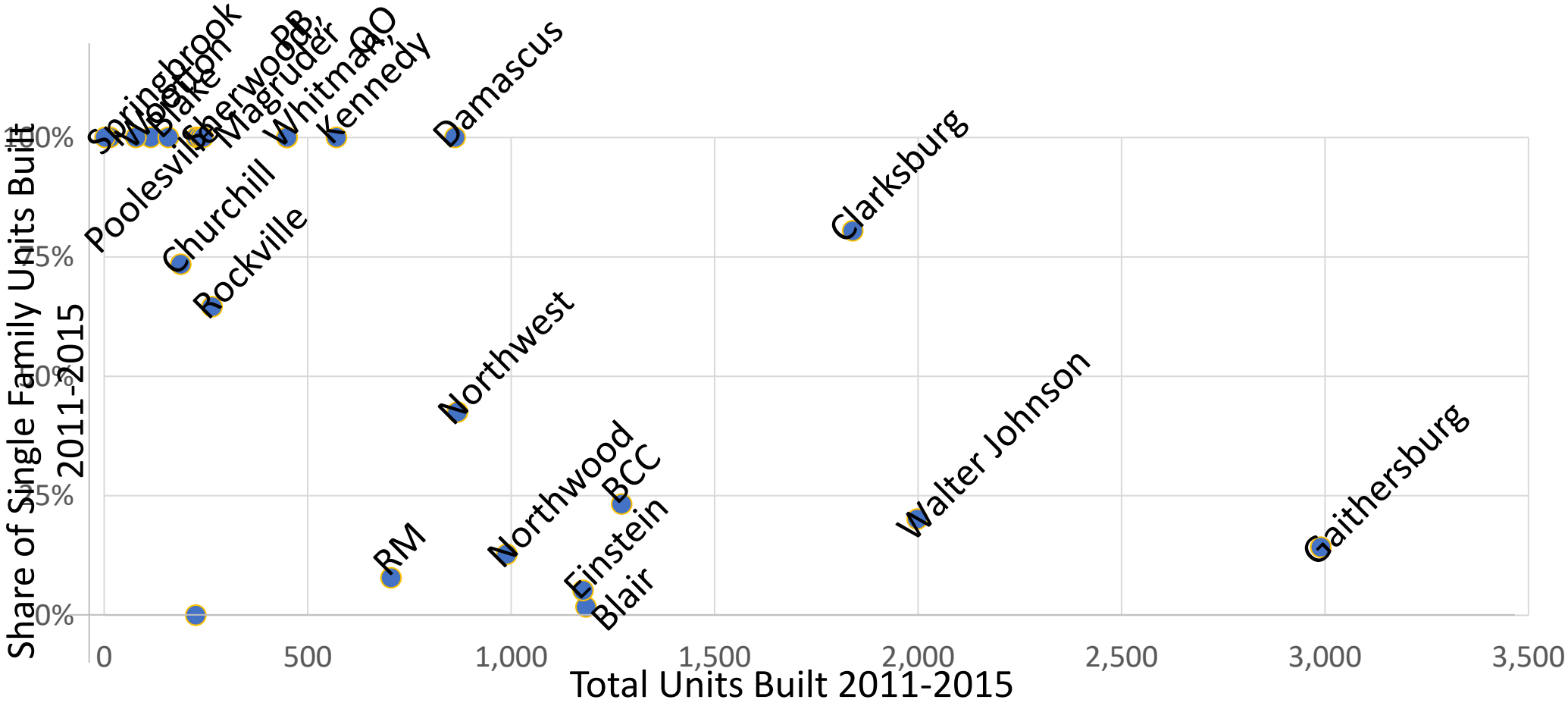
Share of Enrollment Impact by Type of Development

- MCPS' total enrollment decreased by 0.6% between 2017-2022.
  - Multi-family units' share of the enrollment impact from new development (built between 2018-2022) is still relatively low in comparison to its share of housing unit contribution.



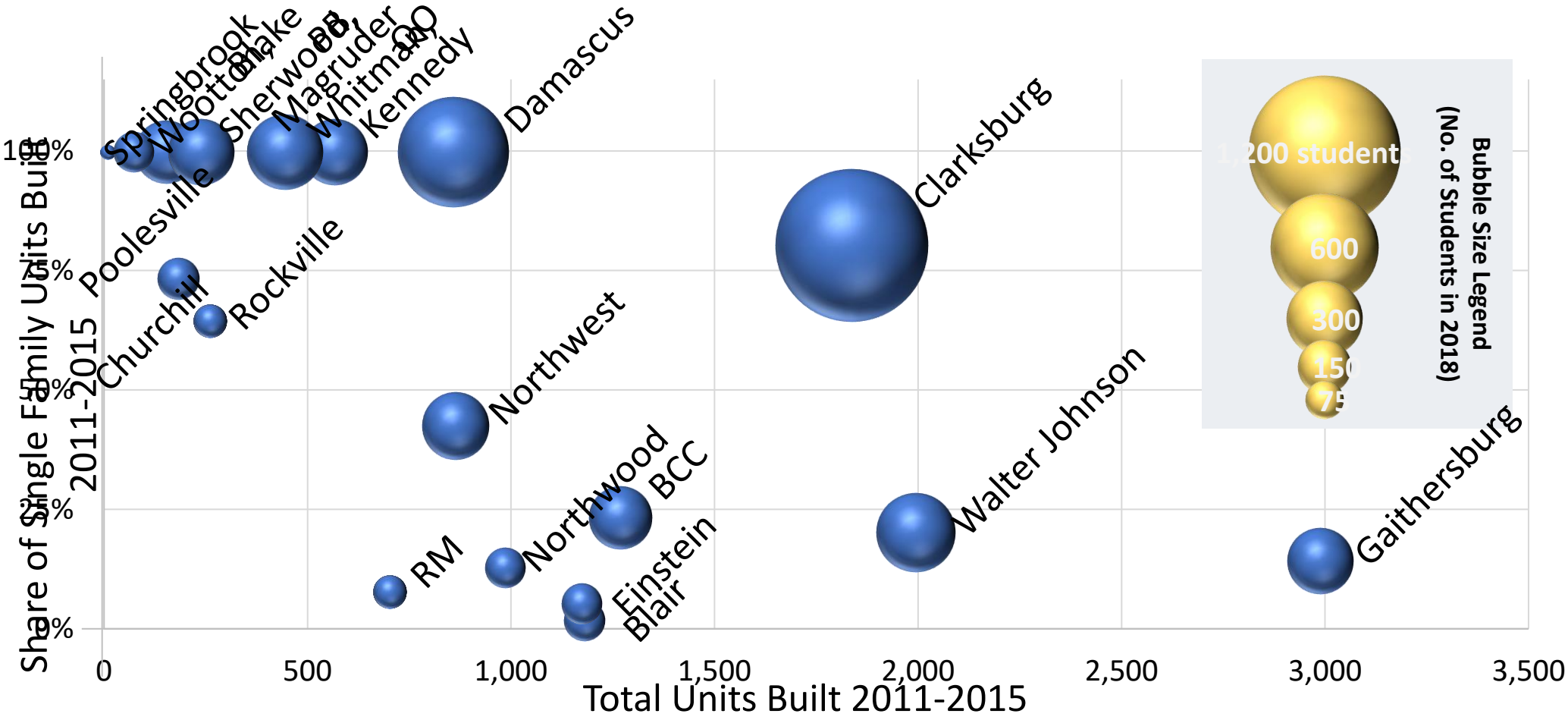
2020 GIP Update Findings

Patterns of New Development by Cluster (2018)



2020 GIP Update Findings

Patterns of New Development by Cluster (2018)

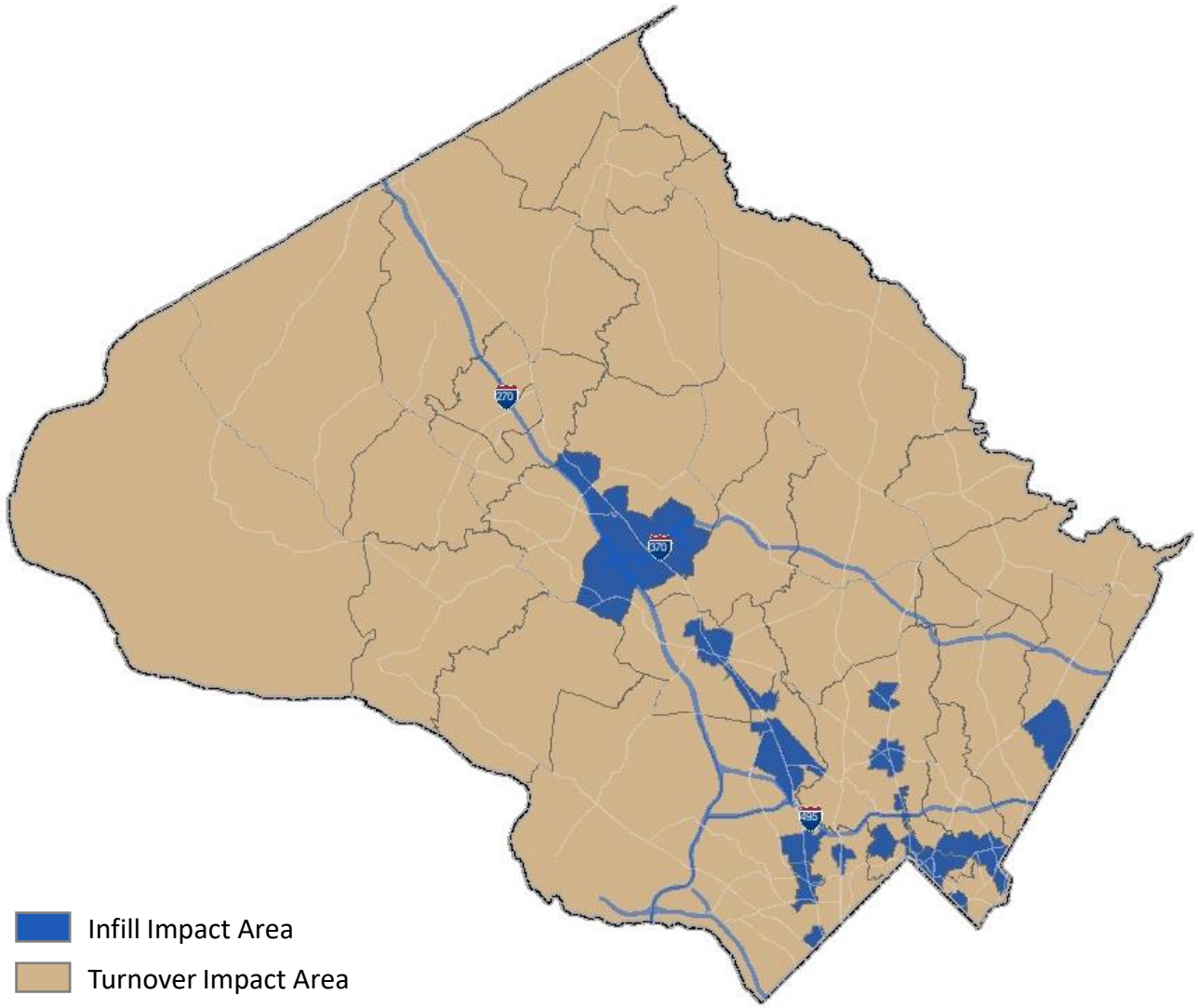


2020 GIP Major Changes
School Impact Area Clas

- **Infill Impact Area**
  - high growth in multi-family housing units
  - low impact per unit on enrollment growth
- **Turnover Impact Area**
  - low housing growth
  - enrollment growth largely due to turnover of existing single-family unit

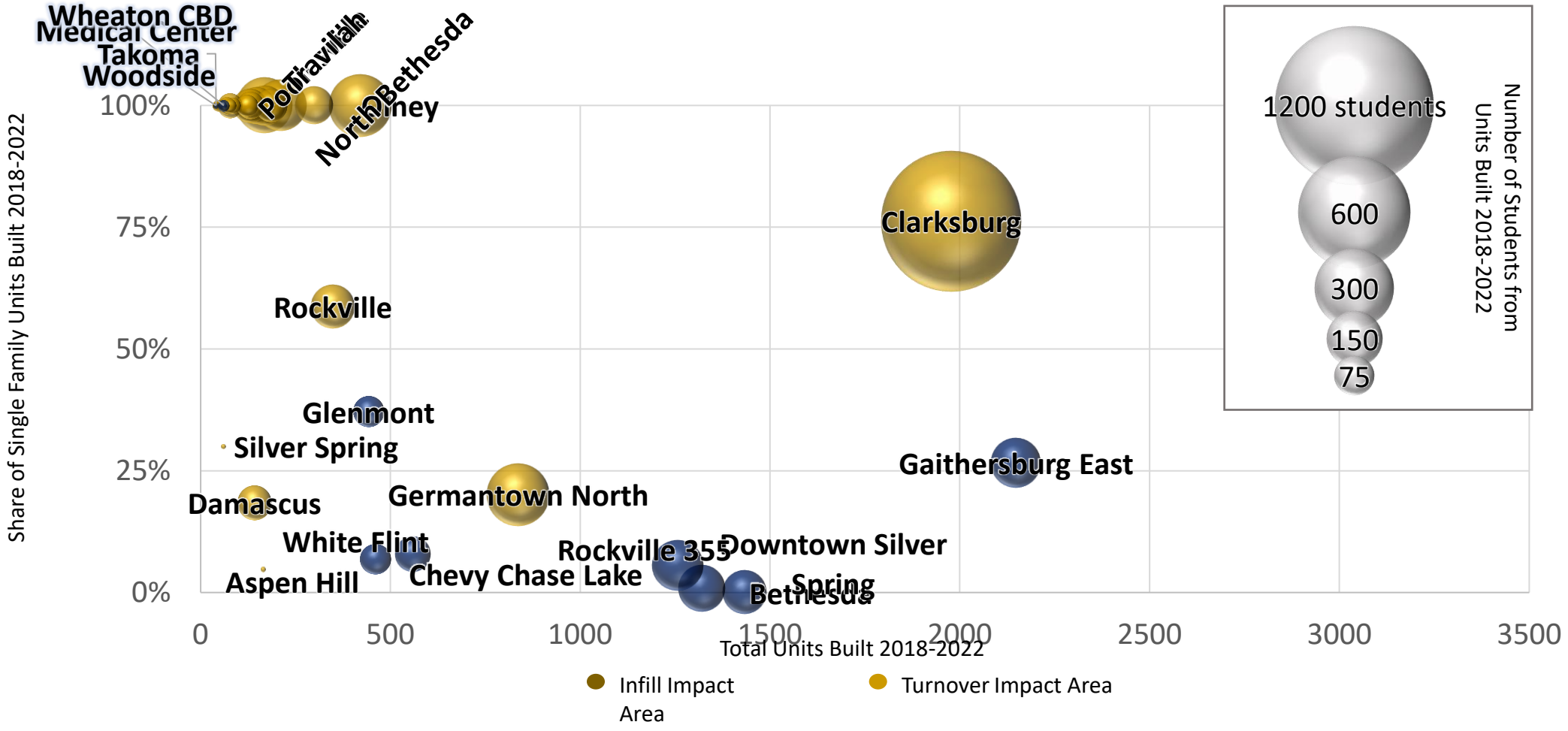
*** Greenfield Impact Area**

- high growth in single-family housing units
- high impact on enrollment growth
- *no area of the county was found to be in this category for the 2020-2024 GIP update*



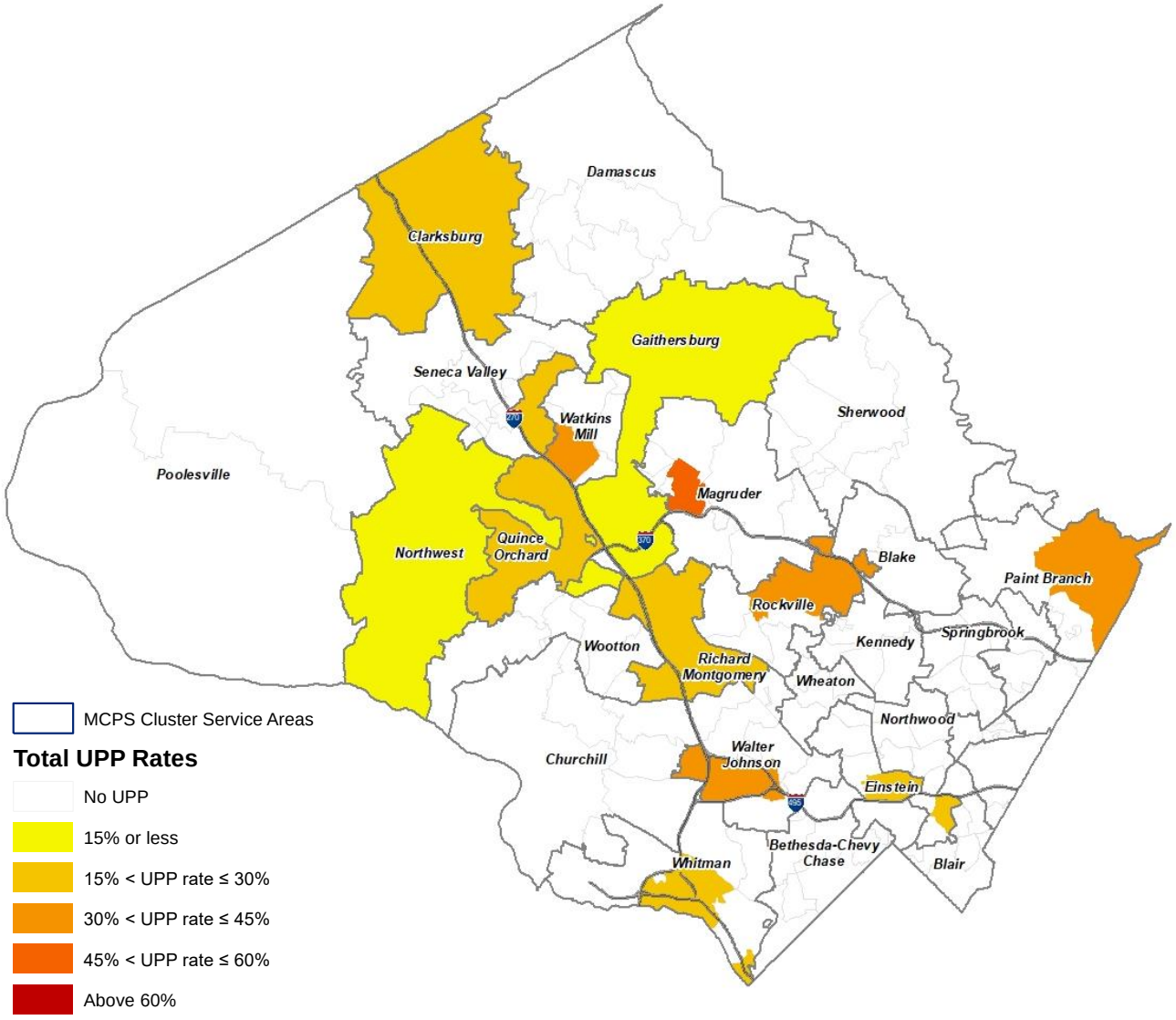
2022 Analysis

Patterns of New Development by Planning/Impact Area



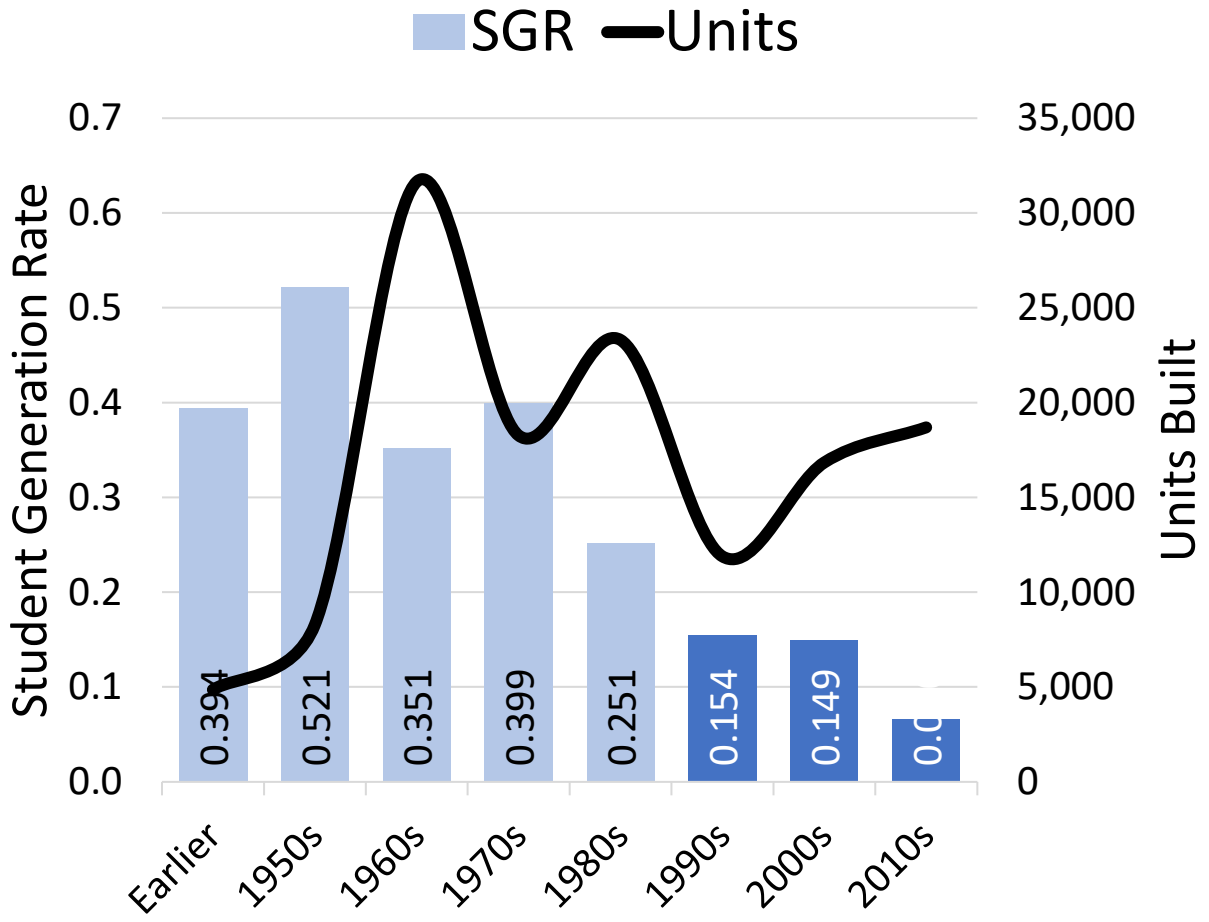
2020 GIP Major Changes
Utilization Premium Paym

- **Moratorium eliminated.**
  - Was found ineffective in curbing enrollment growth.
  - Prevented collection of impact tax revenue that could help fund capacity relief.
- **Utilization Premium Payments (UPP)** are imposed on new development applications in school service areas with overutilized capacity in addition to school impact taxes.



2020 GIP Major Changes
SGR for Multi-Family Structures Built 1990 and Later

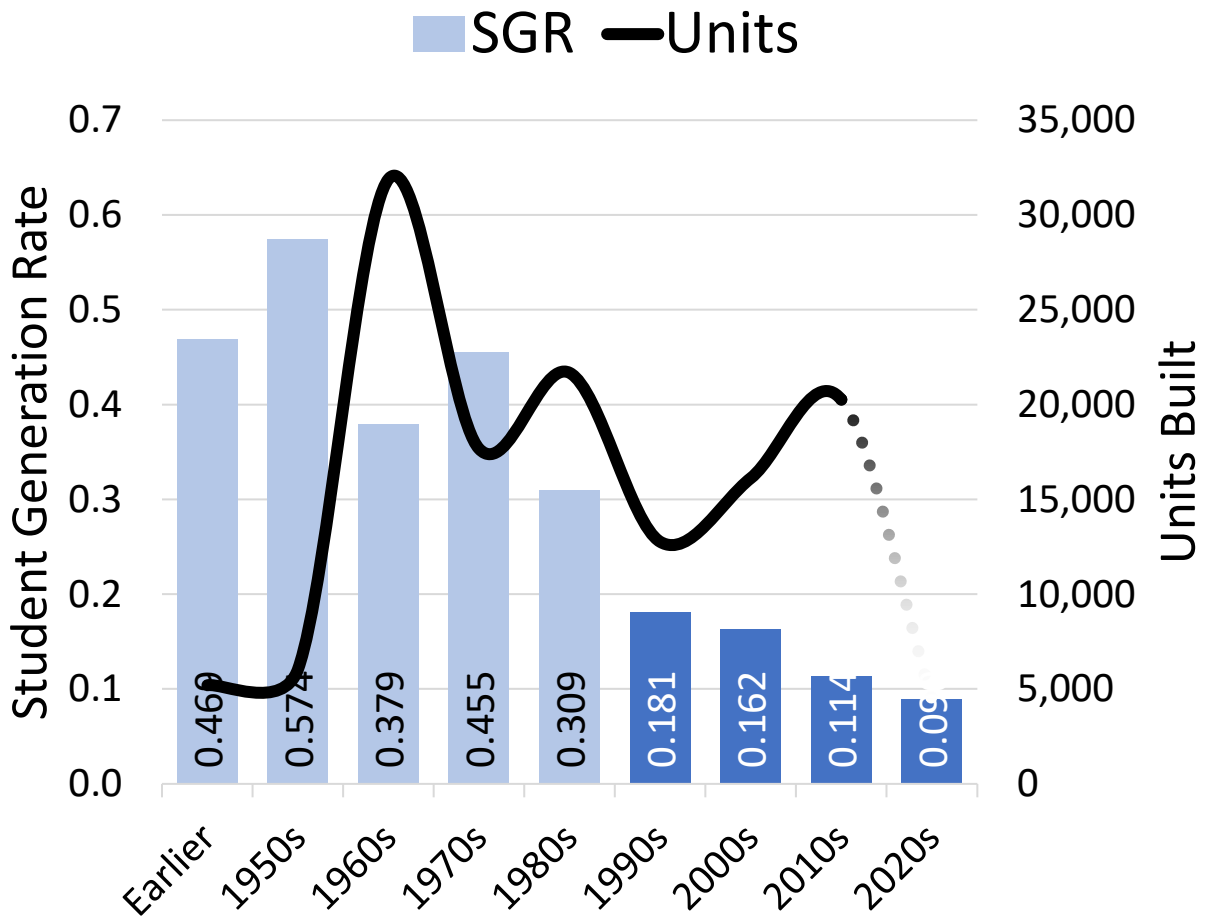
- Multi-family structures built in the 1990s and later show a significantly lower K-12 student generation rate from those built earlier.
- Official SGR of multi-family units only reflect structures built in 1990 or later.



2022 Analysis

SGR for Multi-Family Structures by Decade Built

- SGR of multi-family structures have increased overall.
- Multi-family structures built in the 1990s and later still show a significantly lower K-12 student generation rate from those built earlier.



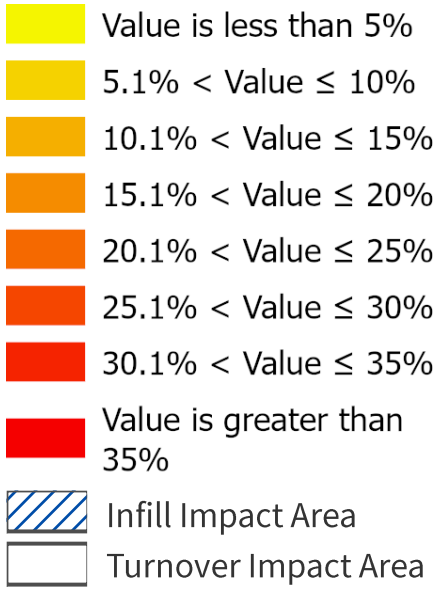
2022 Analysis

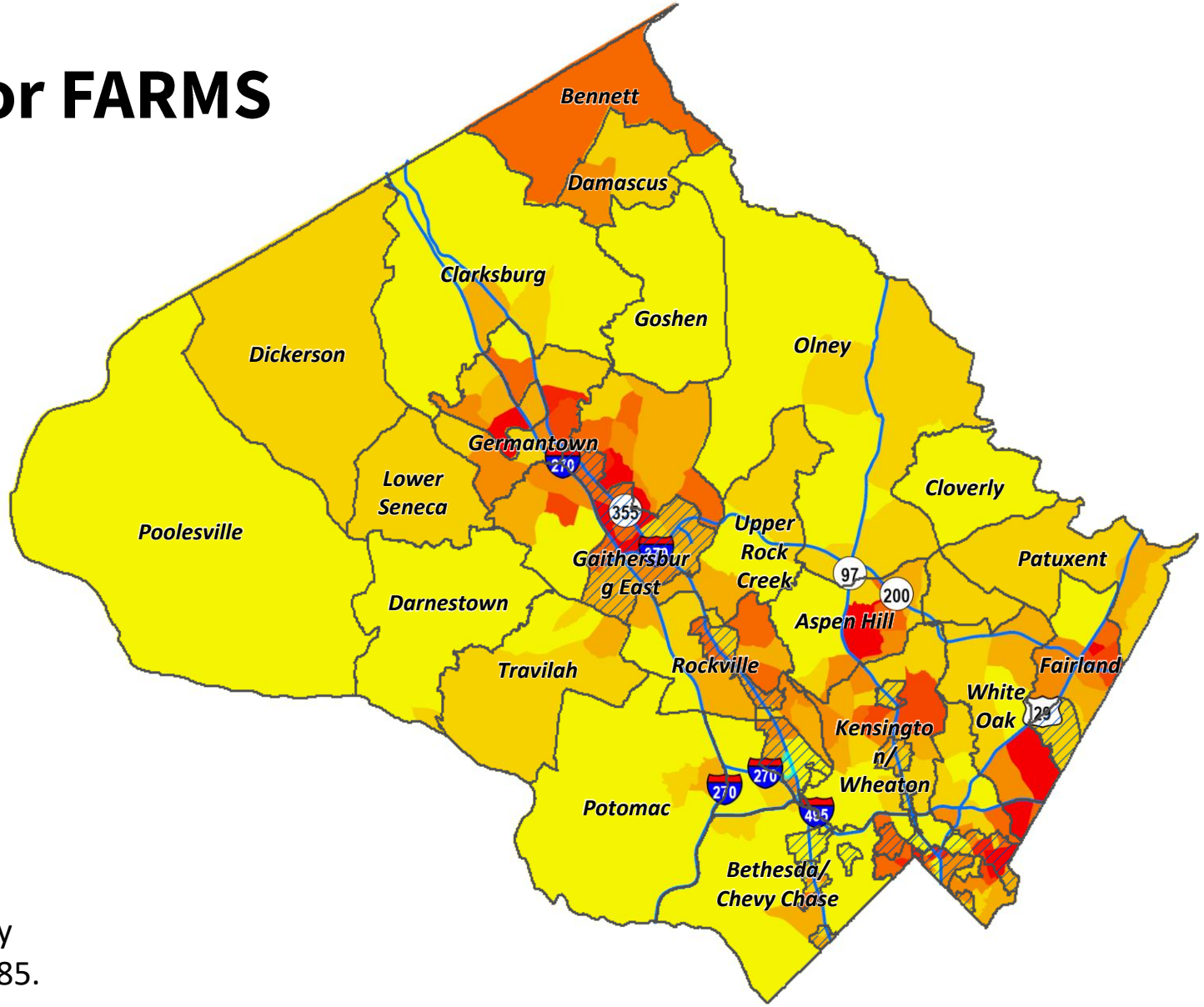
SGR for Multi-Family Structures by Decade Built

- Seeing increased numbers of students coming from multifamily units of all ages.
- The largest relative increase compared to 4 years ago was in the multifamily units built in the 2010s.
- The largest nominal increase in students per unit was seen in those built prior to 1950, then those built in the 1980s and 1970s

	2020	2024	Increase in SGR	% Increase
Earlier	0.394	0.469	0.075	19%
1950s	0.521	0.574	0.053	10%
1960s	0.351	0.379	0.028	8%
1970s	0.399	0.455	0.056	14%
1980s	0.251	0.309	0.058	23%
1990s	0.154	0.181	0.027	18%
2000s	0.149	0.162	0.013	9%
2010s	0.066	0.114	0.048	73%

Percent of Families with Income Qualifying for FARMS 2021 by Census Tract





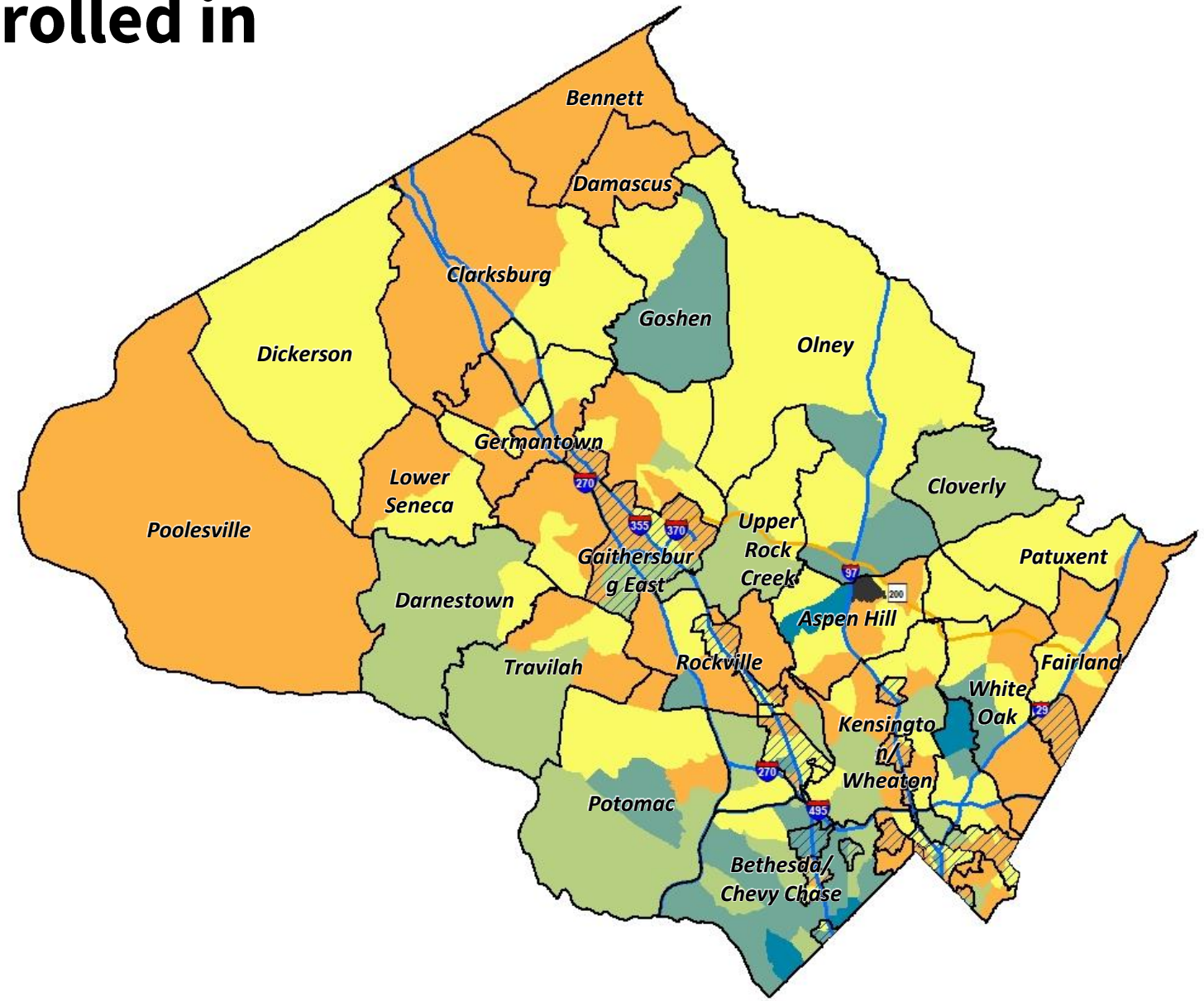
* The FARMS income eligibility criteria is determined by multiplying the Federal income poverty guideline by 1.85.

Source: 2021 American Community Survey, 5-year estimates, U.S. Census Bureau.

Percent K-12 Students Enrolled in Public Schools

- Maryland : 85%
- Montgomery County : 84%

Infill Impact Area
Turnover Impact Area
Very Low (49% or less)
Low (49% - 63%)
Moderately Low (63% - 78%)
Average (78% - 92%)
High (92% -100%)
N/A (no K-12 enrollment)

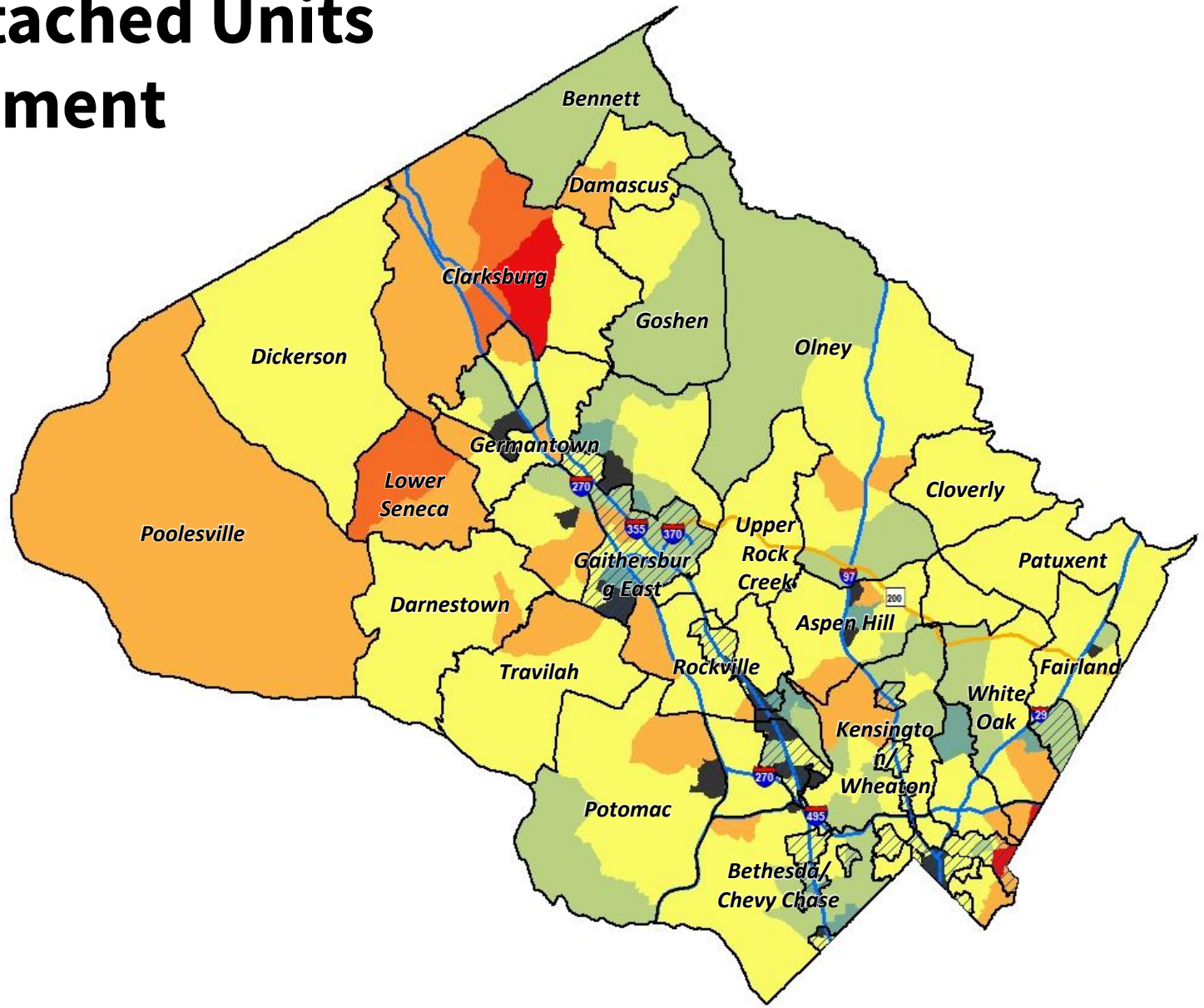


Source: 2021 American Community Survey, 5-year estimates, U.S. Census Bureau.

Percent Single Family Detached Units With No MCPS K-12 Enrollment

- Countywide : 74%

Infill Impact Area
Turnover Impact Area
High (more than 90%)
Moderately High (80% – 90%)
Average (70% – 80%)
Moderately Low (61% - 70%)
Low (51% - 61%)
Very Low (51% or less)
N/A (no SFD units or no K-12 enrollment)

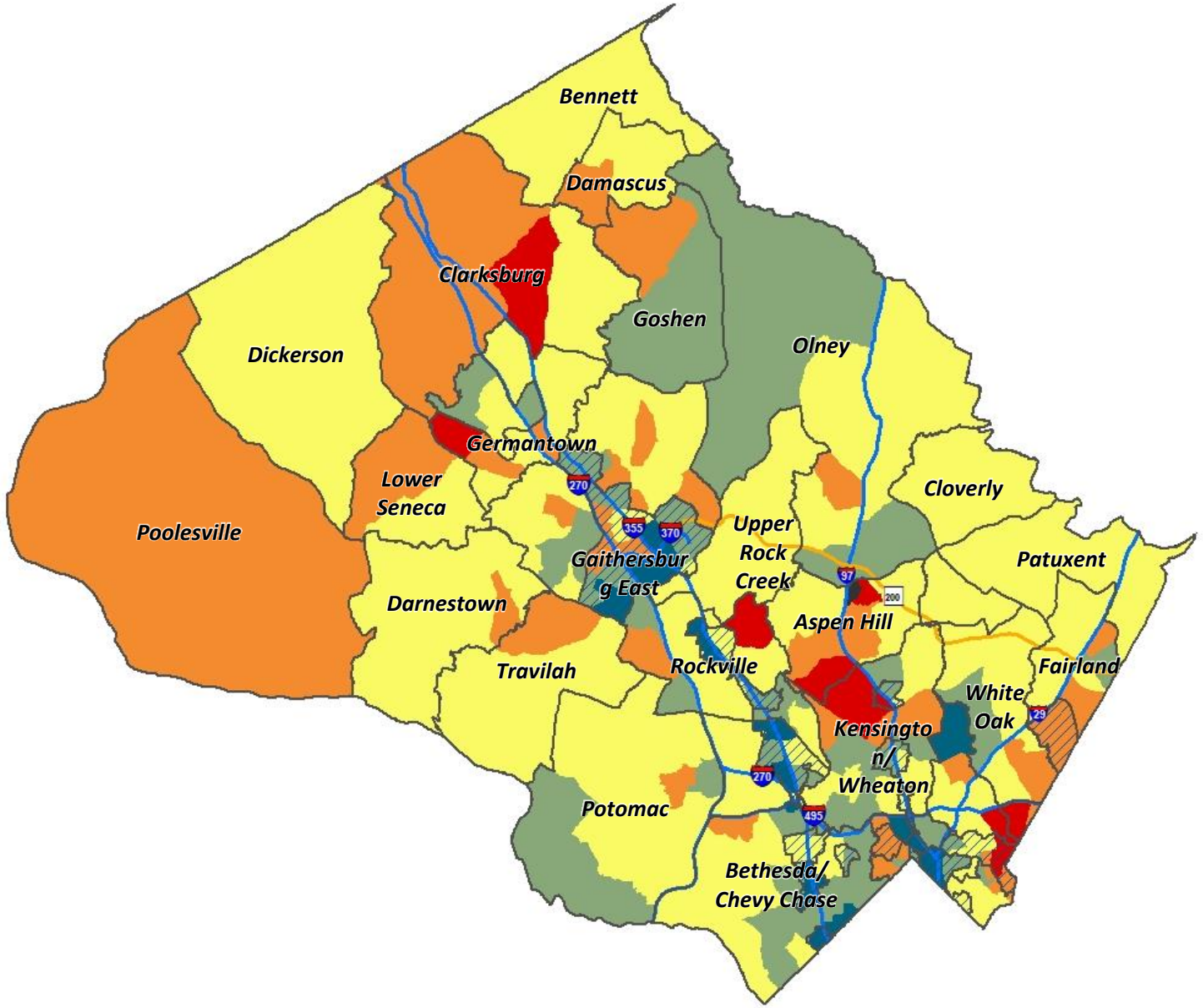


Source: MCPS 2022 official student enrollment & Montgomery Planning FY2024 Student Generation Rate housing data

Student Generation Rate of All Housing Units by Census Tract

- Countywide SGR : 0.398

Infill Impact Area
Turnover Impact Area
Low (0.045 - 0.162)
Moderately Low (0.162 - 0.329)
Average (0.329 - 0.497)
Moderately High (0.497 - 0.665)
High (0.665 - 1.083)
N/A

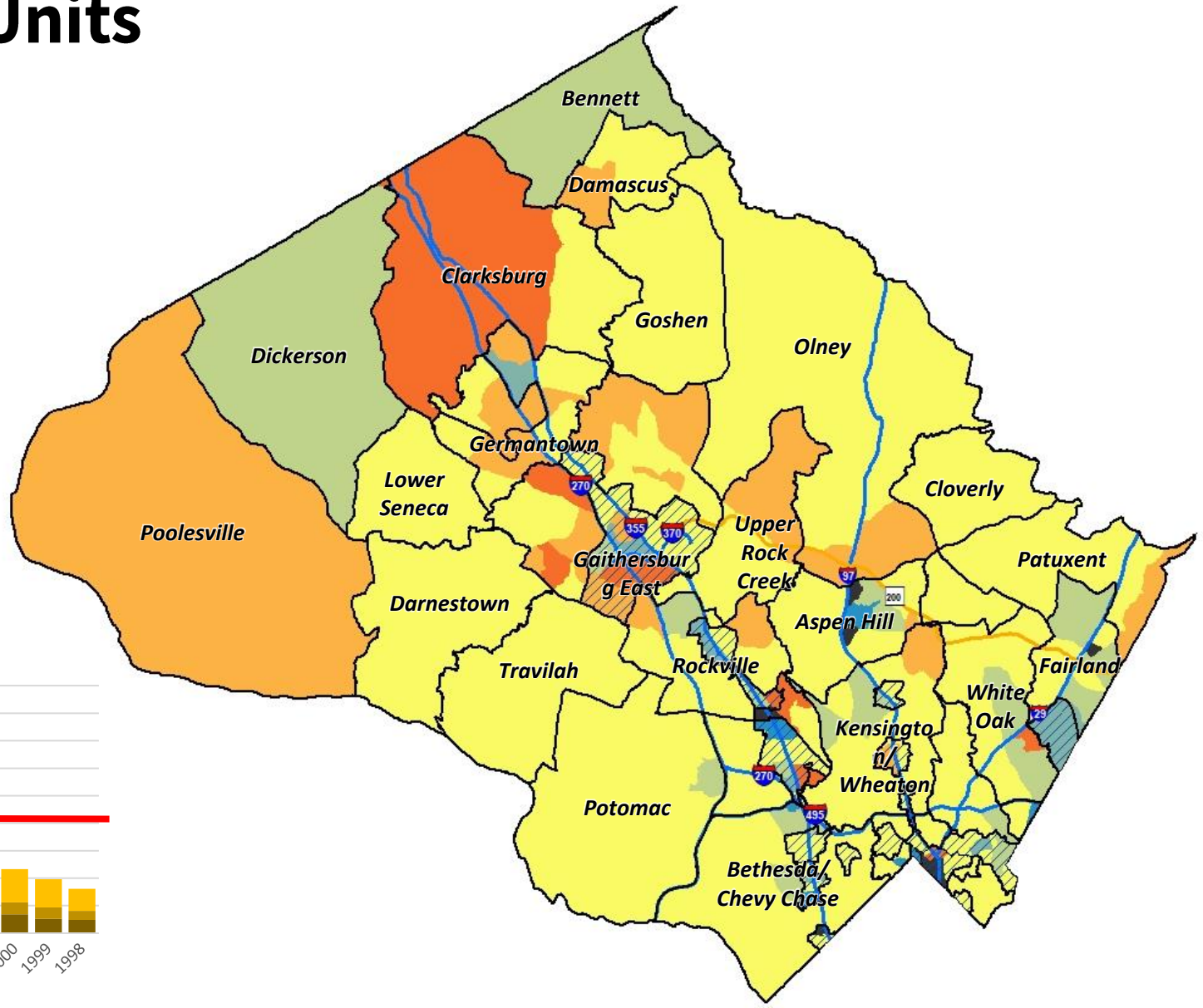


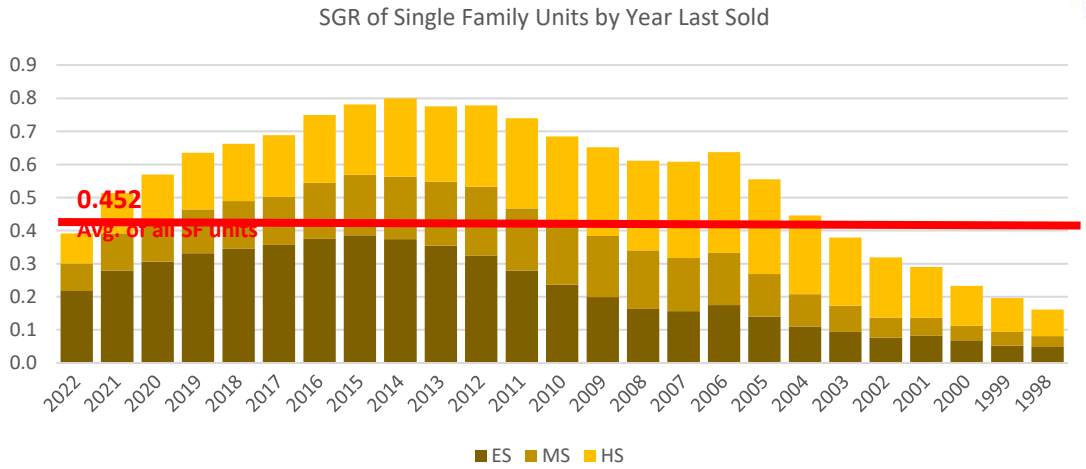
Source: MCPS 2022 official student enrollment & Montgomery Planning FY2024 Student Generation Rate housing data

Percent of Single Family Units Sold in Last 18 years

- Countywide : 43%

Infill Impact Area
Turnover Impact Area
Very Low (less than 14%)
Low (14% - 25%)
Moderately Low (25% - 37%)
Average (37% - 48%)
Moderately High (48% - 59%)
High (59% - 80%)
N/A (no single family units)





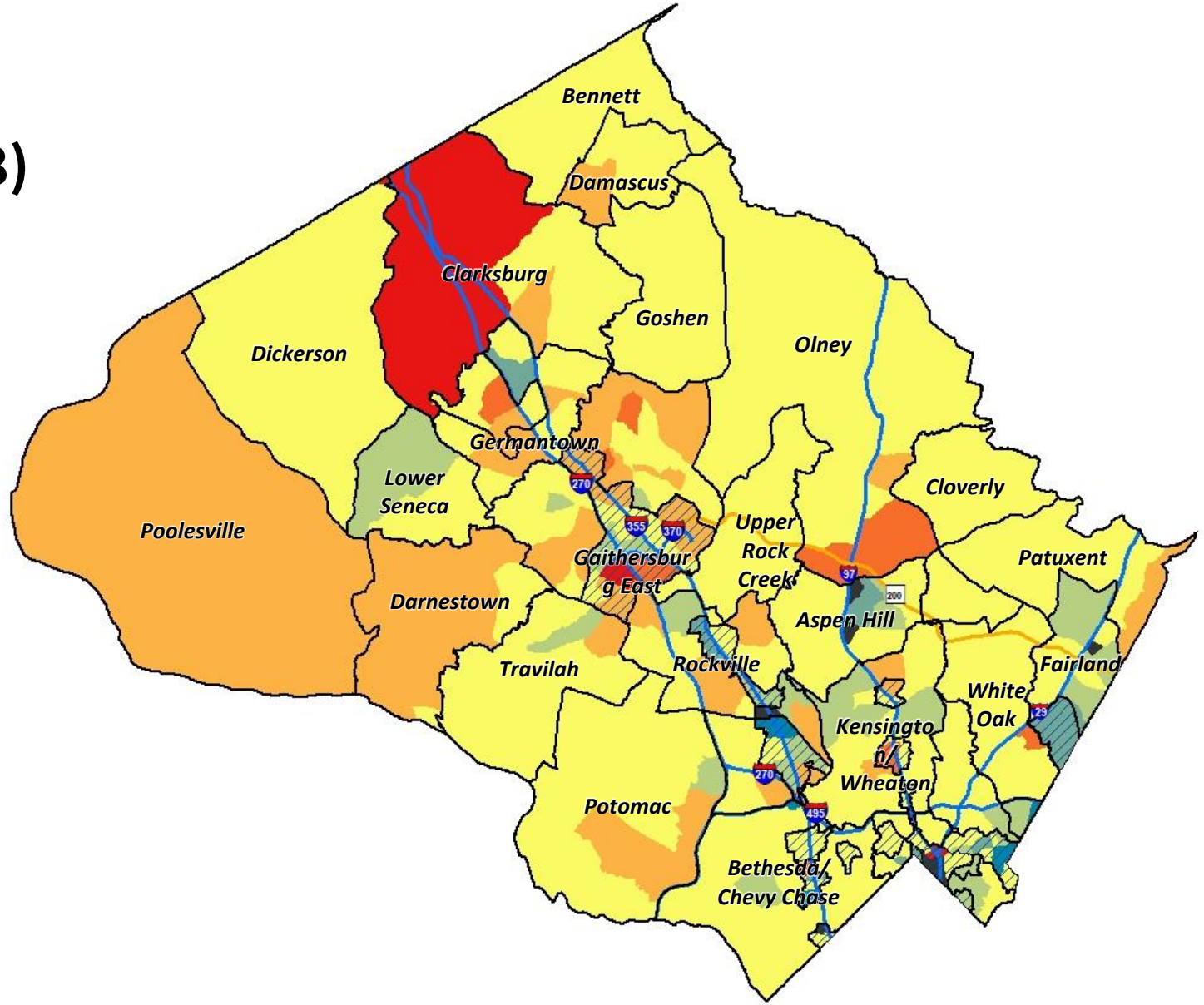
Source: SDAT

New Housing Sales

Percent of Single Family Units Sold in Last 5 years (since 2018)

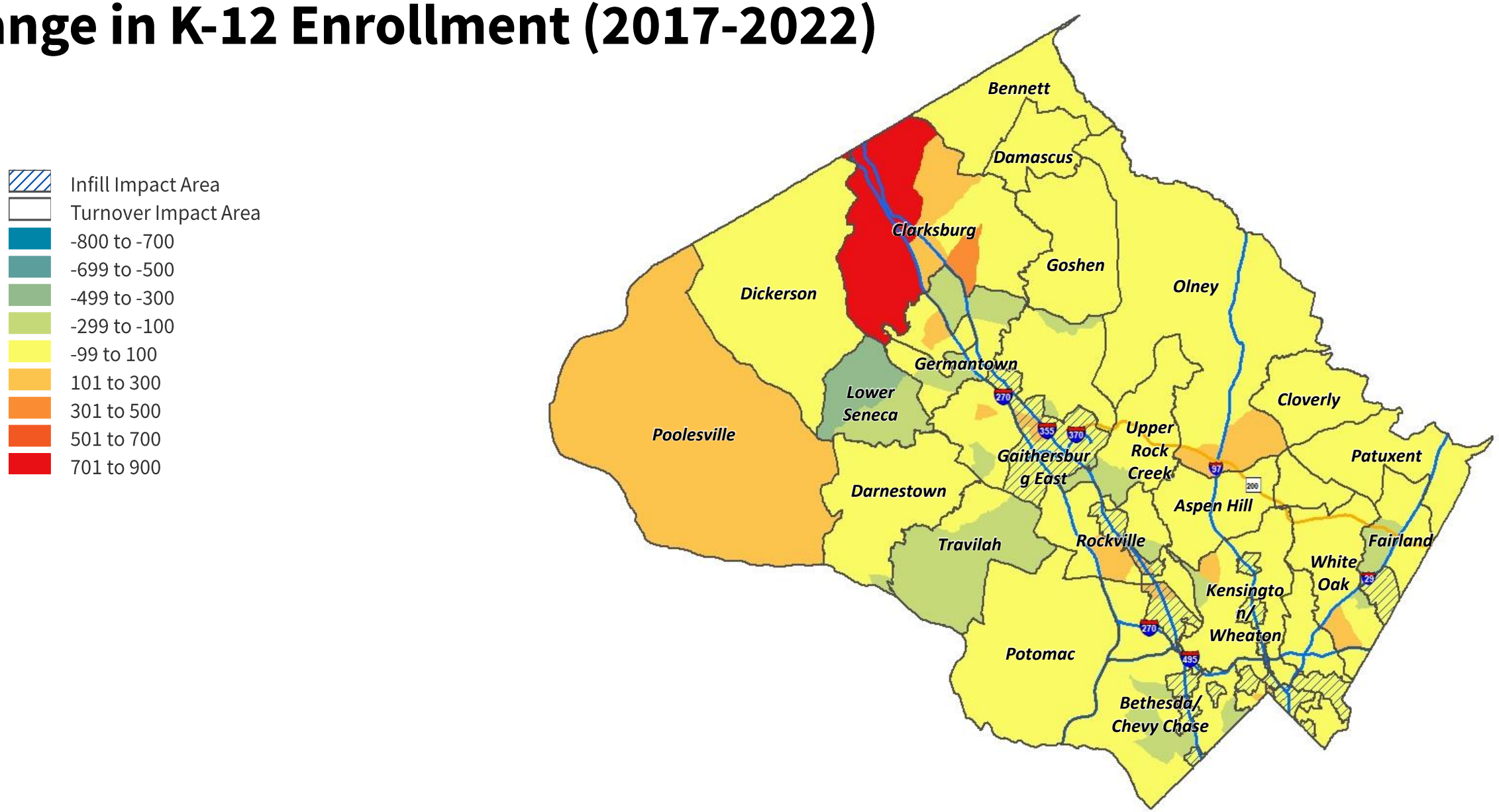
- Countywide : 19%

Infill Impact Area
Turnover Impact Area
Very Low (less than 3%)
Low (3% - 9%)
Moderately Low (9% - 15%)
Average (15% - 22%)
Moderately High (22% - 28%)
High (28% - 34%)
Very High (34% - 51%)
N/A (no single family units)



Source: SDAT

Change in K-12 Enrollment (2017-2022)



Source: MCPS 2017, 2022 official student enrollment

Appendix E

Transportation Policy Area Updates

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Transportation Policy Area Updates

	Policy Area 2024–2028 GIP	Previous Policy Area (if changed) 2020–2024 GIP	Classification 2020–2024 GIP	Classification 2024–2028 GIP
1	Aspen Hill		**Yellow**	**Orange**
2	Bethesda CBD		Red	Red
3	Bethesda/Chevy Chase		Orange	Orange
4	Burtonsville Town Center		Orange	Orange
5	Chevy Chase Lake		Red	Red
6	Clarksburg East	Clarksburg	**Yellow**	**Orange**
7	Clarksburg Town Center		Orange	Orange
8	Clarksburg West	Clarksburg	Yellow	Yellow
9	Cloverly		Yellow	Yellow
10	Colesville	Fairland/Colesville	Yellow	Yellow
11	Damascus		**Green**	**Yellow**
12	Derwood		Orange	Orange
13	Fairland/Briggs Chaney	Fairland/Colesville	**Yellow**	**Orange**
14	Forest Glen		Red	Red
15	Friendship Heights		Red	Red
16	Gaithersburg		Orange	Orange
17	Germantown East		**Yellow**	**Orange**
18	Germantown Town Center		Orange	Orange
19	Germantown West		**Yellow**	**Orange**

	Policy Area 2024–2028 GIP	Previous Policy Area (if changed) 2020–2024 GIP	Classification 2020–2024 GIP	 2024–2028 GIP
20	Glenmont		Red	Red
21	Great Seneca Communities	R&D Village (Renamed)	Orange	Orange
22	Great Seneca Life Science Center		**Orange**	**Red**
23	Grosvenor		Red	Red
24	Kensington/Wheaton		Orange	Orange
25	Lyttonsville		Red	Red
26	Medical Center		Red	Red
27	Montgomery Village / Airpark		Orange	Orange
28	North Bethesda		Orange	Orange
29	North Bethesda Metro Station	White Flint (Renamed)	Red	Red
30	North Potomac		Yellow	Yellow
31	Olney		Yellow	Yellow
32	Olney Town Center		**Yellow**	**Orange**
33	Potomac		Yellow	Yellow
34	Purple Line East		Red	Red
35	Rock Spring	North Bethesda	**Orange**	**Red**
36	Rockville City		Orange	Orange
37	Rockville Town Center		Red	Red
38	Rural East		Green	Green
39	Rural West		Green	Green
40	Shady Grove		Red	Red

	Policy Area 2024–2028 GIP	Previous Policy Area (if changed) 2020–2024 GIP	Classification 2020–2024 GIP	Classification 2024–2028 GIP
41	Silver Spring CBD		Red	Red
42	Silver Spring/Takoma Park		Orange	Orange
43	Takoma		Red	Red
44	Twinbrook		Red	Red
45	Wheaton		Red	Red
46	White Oak		Orange	Orange
47	White Oak Village & Center	White Oak	**Orange**	**Red**
48	Woodside		Red	Red

Appendix F

2024-2028 Growth and Infrastructure Policy

Working Draft

Appendix D

2024-2028 Growth and Infrastructure Policy

Effective dates

This resolution takes effect on January 1, 2025 and applies to any application for a preliminary plan, site plan, building permit, or other application that requires a finding of Adequate Public Facilities filed on or after that date.

Guidelines for the Administration of the Adequate Public Facilities Ordinance

County Code Chapter 33A Article III ("Growth Policies") directs the County Council to adopt a Growth and Infrastructure Policy every four years. The policy must include guidelines for the Planning Board, and other agencies as appropriate, for their administration of Section 50-4.3(J) and other laws and regulations which affect the adequacy and timing of public facilities needed to support growth and development. The following guidelines describe the methods and criteria that the Planning Board and its staff must use in determining the adequacy of public facilities. They supersede all previous guidelines adopted by the County Council.

The Council accepts the definitions of terms and the assignment of values to key measurement variables that were used by the Planning Board and its staff in developing the recommended Growth and Infrastructure Policy ("Policy"). The Council delegates to the Planning Board and its staff all other necessary administrative decisions not covered by the guidelines outlined below, including the development of guidelines to administer the policy. In its administration of the APFO, the Planning Board must consider the recommendations of the County Executive and other agencies in determining the adequacy of public facilities.

The Policy and its directives and their supporting planning and measurement process have been the subject of a public hearing and review during work sessions by the County Council. Approval of the findings and directives reflects a legislative judgment that, all things considered, these findings and procedures constitute a reasonable, appropriate, and desirable policy, which properly relates to the County's ability to program and construct facilities necessary to accommodate growth. The Policy will substantially advance County land use objectives by providing for coordinated and orderly development.

These guidelines are intended to be used as a means for government to fulfill its responsibility to provide adequate public facilities. Quadrennial review and oversight, combined with periodic monitoring by the Planning Board, allows the Council to identify problems and initiate solutions that will serve to avoid or limit the duration of any imbalance between the construction of new development and the implementation of improvements in a specific policy area.

The administration of the Adequate Public Facilities Ordinance must at all times be consistent with adopted master plans and sector plans. Where development guidelines in adopted master plans or sector plans are more restrictive than Policy guidelines, the guidelines in the adopted master plan or sector plan must be used to the extent that they are more restrictive. The Policy does not require the Planning Board to base its analysis and recommendations for any new or revised master plan or sector plan on the public facility adequacy standards in this resolution.

Policy Areas

P1 Policy Area Boundaries and Definitions

For the purposes of school and transportation analysis, the County has been divided into areas called policy areas, as shown on Map 49. In many cases, the policy areas have the same boundaries as planning areas, sector plan areas, or master plan analysis (or special study) areas. The boundaries of the policy areas are shown on Maps 1-48.

The boundaries of the Gaithersburg City and Rockville City policy areas reflect existing municipal boundaries, except where County-regulated land is surrounded by city-regulated land. The boundaries of these municipal policy areas do not automatically reflect any change in municipal boundaries; any change in a policy area boundary requires affirmative Council action.

Guidelines for Public School Facilities

S1 School Geographic Areas

S1.1 School Impact Areas

Each policy area has been classified into School Impact Areas based on their recent and anticipated growth contexts. The three categories of School Impact Areas and the growth contexts characteristic of each are:

- **Infill -** High housing growth predominantly in the form of multi-family units that generate relatively few students on a per-unit basis.
- **Turnover -** Low housing growth where enrollment trends are largely dependent on the turnover of existing single-family units.
- **Greenfield -** High housing growth predominantly in the form of single-family units, consequently experiencing high enrollment growth.

The School Impact Area classifications are identified in Table S1 and are shown in Map 50.

Table S1. School Impact Area Classifications

School Impact Area Type	Policy Area
Infill	• Bethesda Central Business District (CBD) • Chevy Chase Lake • Clarksburg Town Center • Forest Glen • Friendship Heights • Gaithersburg

	• Germantown Town Center • Glenmont • Great Seneca Life Science Center • Grosvenor • Lyttonsville • Medical Center • North Bethesda Metro Station • Olney Town Center • Purple Line East • Rock Spring • Rockville Town Center • Shady Grove • Silver Spring CBD • Takoma • Twinbrook • Wheaton CBD • White Oak Village & Center • Woodside
Turnover	• Aspen Hill • Bethesda/Chevy Chase • Burtonsville Town Center • Clarksburg East • Clarksburg West • Cloverly • Colesville • Damascus • Derwood • Fairland/Briggs Chaney • Germantown East • Germantown West • Great Seneca Communities • Kensington/Wheaton • Montgomery Village/Airpark • North Bethesda • North Potomac • Olney • Potomac • Rockville City • Rural East

	• Rural West • Silver Spring/Takoma Park • White Oak
Greenfield	• None

At each quadrennial update to the Growth and Infrastructure Policy, the latest growth contexts of the small geographic areas are to be reviewed and the School Impact Area classifications are to be revised accordingly.

S1.2 MCPS School Service Areas

For the purpose of analyzing the adequacy of public school facilities by various school service areas, the boundaries of Montgomery County Public Schools (MCPS) are adopted to define individual school service areas for each grade level of school (elementary, middle, and high school). For paired elementary schools – where students attend grades K to 2 at one school and grades 3 to 5 at another – the service areas of the schools paired together are treated as one homogenous area.

- Individual Elementary School Service Area
- Individual Middle School Service Area
- Individual High School Service Area

S2 Annual School Test

Each year, no later than July 1, the Planning Board is to review and certify the results of an Annual School Test to evaluate the adequacy of public school facilities. The test assesses each individual elementary, middle, and high school facility. The findings from the test are used to establish the adequacy status of each school service area and dictate applicable standards for prospective development applications accordingly.

Along with certifying the test results, the Planning Board is required to approve or reaffirm the Annual School Test procedures and guidelines that govern how the test is conducted and utilized. To the extent that they are consistent with this Policy, the Planning Board guidelines may continue to apply or may be amended as the Planning Board finds necessary.

The Annual School Test results remain in effect for the entirety of the fiscal year, unless there is a change to the Montgomery County Public Schools Capital Improvements Program (CIP). If at any time during a fiscal year the County Council notifies the Planning Board of a material change in the MCPS CIP, the Planning Board may revise the results of the Annual School Test to reflect that change. The Annual School Test results will include adequacy ceilings identifying the number of students each school's projected enrollment is from the next adequacy status level as indicated by subsequent utilization thresholds. Each development application will be evaluated against the applicable adequacy status identified in the Annual School Test results and its estimated enrollment impacts evaluated against the applicable adequacy ceilings, to determine mitigation as appropriate.

If a development application's enrollment impact exceeds an adequacy ceiling, the proportion of development associated with the number of students in excess of the ceiling will be required to meet the mitigation requirement of the subsequent adequacy status level. The results of the Annual School Test (i.e., the status of a school) will not change during the fiscal year as development applications are approved.

S2.1 Determination of Adequacy

For the purpose of conducting the Annual School Test, adequacy is defined as capacity utilization, measured as a derivative of enrollment and capacity. Capacity herein refers to the program capacity specified for each school by MCPS based on the allocation of space for different grades and types of programs. Capacity utilization can be measured in two dimensions – a utilization rate and the number of students under/over-capacity. A utilization rate is calculated by dividing enrollment by capacity. The number of students under/over capacity is calculated by subtracting enrollment from capacity, in which case a positive number is identified as a seat surplus and a negative number is identified as a seat deficit.

MCPS provides data for each facility's enrollment and capacity in its annual Educational Facilities Master Plan and Capital Improvements Program. For the purpose of accurately reflecting potential changes to enrollment or capacity figures not officially included in MCPS's data, limited adjustments may be made to the projected enrollment and planned capacity of certain schools on the following terms:

- Adjustments are made to the projected enrollment of schools slated for student reassignments when a capital project at one school is described in the Project Description Form as being intended to relieve overcrowding at another school. The adjustment is to be reflective of the estimated number of students to be reassigned. If an estimated number is explicitly identified in the Project Description Form, it is to be used. Otherwise, the estimate will be based on an assumed balance of projected utilization across all schools involved for the year tested.
- Adjustments are made to the planned capacity of a school when the Council implements a placeholder solution. The adjustment is to be reflective of the potential relief provided by the solution project.

S2.2 Adequacy Standards and School Service Area Status

Every MCPS elementary, middle, and high school with a predefined geographic boundary is assessed by the capacity utilization of their facility projected for four fiscal years in the future (e.g., the FY2021 Annual School Test will evaluate projected utilization in the 2024-25 school year).

If a school's four-year projected utilization does not exceed both 105% utilization and the applicable seat deficit threshold identified in Table S2, the facility is considered adequate and the service area's status is open. If a school's four-year projected utilization is found to exceed the standards indicated in Table S2, the service area's status will require mitigation in the form of Utilization Premium Payments (UPP).

Table S2 summarizes the adequacy parameters of the Annual School Test described above.

Table S2. School Adequacy Standards

Utilization Standard		Seat Deficit Standard	School Service Areas Status
< 105%	or	< 74 for ES < 120 for MS < 160 for HS	No UPP
≥ 105%	and	≥ 74 for ES ≥ 120 for MS ≥ 160 for HS	Tier 1 UPP
≥ 120%	and	≥ 92 for ES ≥ 150 for MS ≥ 200 for HS	Tier 2 UPP
≥ 135%	and	≥ 110 for ES ≥ 180 for MS ≥ 240 for HS	Tier 3 UPP

S3 Utilization Premium Payment Requirements

The Annual School Test and an application's estimated enrollment impacts determine whether, and the extent to which, Utilization Premium Payments are required as a condition of Planning Board approval on the basis of adequate school facilities.

These funds must be used for capital projects adding capacity at either the school for which they were collected or an adjacent school.

S3.1 Utilization Premium Payment Calculation

The Utilization Premium Payments are applied at the individual school level and will be calculated by applying the applicable payment factors identified in Table S3 to the applicable non-exempt and undiscounted school impact tax rates, by School Impact Area and dwelling unit type.

An application for development may be subject to payments at multiple UPP tiers for an individual school if the estimated number of students generated by the application exceeds the adequacy ceilings identified in the Annual School Test.

Table S3. Utilization Premium Payment

UPP Tier	Payment Factors			Total, if all three schools at the same status
	Elementary	Middle	High	
Tier 1 UPP	16⅔%	10%	13⅓%	40%
Tier 2 UPP	33⅓%	20%	26⅔%	80%
Tier 3 UPP	50%	30%	40%	120%

S3.2 Exemptions from Utilization Premium Payments

S3.2.1 Affordable Housing Units

Moderately Priced Dwelling Units and other affordable housing units, which are exempt from development impact taxes for schools under Section 52-54(d), paragraphs 1 through 4, are exempt from the Utilization Premium Payments. In addition, any dwelling unit in a development for which a preliminary plan application is filed prior to February 26, 2021 that includes 25% affordable units as defined in Sections 52-41(g)(1) through 52-41(g)(4) or 52-54(d)(1) through 52-54(d)(4) are exempt from the Utilization Premium Payment.

S4 Utilization Report

The Annual School Test is to be accompanied by a Utilization Report each year, which provides supplemental information pertaining to the county's public school infrastructure. The report will include a utilization analysis both from a countywide perspective and individual school perspective.

S4.1 Countywide Analysis

From a countywide perspective, the Utilization Report will provide an analysis of all schools collectively for each school grade level. The data should include, as available:

- Historic trends and projections of collective utilization rates of all schools countywide by school grade level
- Historic trends and projections of the share and number of schools at each school grade level within certain utilization bands (e.g., between 100% and 120% utilization)

S4.2 Individual School Analysis

The Utilization Report will also provide additional utilization data for each individual school. The information reported for each individual school should include, as available:

- Historic trend and projection of enrollment, capacity, and capacity utilization (both utilization rate and number of students over capacity),
- Current number of relocatable classrooms being used, and
- List of adjacent schools of the same grade level.

S5 Student Generation Rates

Student generation rates are the ratio of students enrolled in public schools to the total number of dwelling units and is a depiction of the average number of students per unit for a given geography and housing type. Student generation rates are to be calculated for each School Impact Area and updated biennially on July 1 of every odd-numbered year using the most recent MCPS enrollment data. The School Impact Area student generation rates are to be used to estimate the enrollment impacts of a development application.

Guidelines for Transportation Facilities

T1 Transportation Policy Areas

Each policy area is categorized as a Red, Orange, Yellow or Green Policy Area based on current and master-planned land use contexts and travel trends. The four categories of transportation Policy Areas and the growth contexts characteristic of each are:

- **Red** - Downtowns and Town centers with current or master planned high-density development and premium transit service (e.g., Metrorail, Purple Line, BRT).
- **Orange** - Town centers and corridor-focused growth areas with planned premium transit.
- **Yellow** - Lower-density residential neighborhoods with community-serving commercial areas.
- **Green** - The county's Agricultural Reserve and rural areas.

The Transportation Policy Area classifications are identified in Table T1 and are shown in Map 51.

Table T1. Transportation Policy Area Classifications

Transportation Policy Area Type	Policy Area
Red	• Bethesda Central Business District (CBD) • Chevy Chase Lake • Forest Glen • Friendship Heights • Glenmont

	• Great Seneca Life Science Center • Grosvenor • Lyttonsville • Medical Center • North Bethesda Metro Station • Purple Line East • Rock Spring • Rockville Town Center • Shady Station • Silver Spring CBD • Takoma • Twinbrook • Wheaton CBD • White Oak Village & Center • Woodside
Orange	• Aspen Hill • Bethesda/Chevy Chase • Burtonsville Town Center • Clarksburg East • Clarksburg Town Center • Derwood • Fairland/Briggs Chaney • Gaithersburg • Germantown East • Germantown Town Center • Germantown West • Great Seneca Communities • Kensington/Wheaton • Montgomery Village / Airpark • North Bethesda • Olney Town Center • Rockville City • Silver Spring/Takoma Park • White Oak
Yellow	• Clarksburg West • Cloverly • Colesville • Damascus • North Potomac

	• Olney • Potomac
Green	• Rural East • Rural West

T2 Transportation Study Threshold

Local Area Transportation Review (LATR) adequacy tests are required for any subdivision that generates 30 or more net new peak-hour weekday motor vehicle trips. LATR must at all times be consistent with the standards and staging mechanisms of adopted master and sector plans.

T3 Motor Vehicle System Adequacy

T3.1 Determination of Motor Vehicle Adequacy

The County permits greater levels of traffic congestion in areas with greater access to high-quality transit, walking and bicycling. For motor vehicle adequacy, Table T1 shows the intersection level of service standards by policy area. The motor vehicle adequacy test will not be applied in Red policy areas, and these areas will not be subject to LATR motor vehicle mitigation requirements.

The following adequacy standards apply:

- Intersections in Yellow or Green policy areas with a Critical Lane Volume (CLV) level of service of 1,350 or less are considered to be adequate.
- The Highway Capacity Manual (HCM) delay-based level of service standard in Table T1 applies to intersections in Yellow or Green policy areas with a CLV greater than 1,350.
- The HCM standard in Table T1 applies to all study intersections in Orange policy areas.

The scope of the motor vehicle adequacy test is based on the number of net new peak-hour weekday motor vehicle trips generated by the project. Each LATR motor vehicle study must examine, at a minimum, the number of signalized intersections identified in Table T2, unless the Planning Board affirmatively finds that special circumstances warrant a more limited study.

T3.2 Motor Vehicle Adequacy Mitigation

Motor vehicle mitigation in the Orange, Yellow, and Green policy areas is required for any intersection failing the HCM test (i.e., exhibiting delay exceeding the applicable policy area HCM delay standard). The applicant must mitigate its project's impact on motor vehicle delay or reduce motor vehicle delay to the applicable policy area standard, whichever is less. However, it is important to emphasize that safety for all roadway users is the top priority. In this context, operational changes and infrastructure improvements that increase safety for all roadway users are the first mitigation options to be pursued. Roadway capacity improvements can be considered next

but only if they do not negatively impact safety. For the Planning Board to accept an intersection improvement as a mitigation measure, the applicant must show that alternative non-motor vehicle mitigation measures are not feasible or desirable.

The applicant must correct inadequate infrastructure to an extent proportional with its impact. Specific constructed improvements should be consistent with master plans and functional plans and policies and identified in consultation with Montgomery Planning and MCDOT.

Alternatively, if the Planning Board and MCDOT agree that constructing all or part of this requirement may not be practicable or desirable due to unattainable right-of-way, an existing CIP project, or because it creates conditions that adversely impact safety, an applicant may meet this requirement with a mitigation payment to MCDOT that is reasonably related to MCDOT's estimated cost of constructing the required facilities. These funds must be used by MCDOT for transportation demand management actions, roadway operational changes, roadway capacity improvements or non-motor vehicle improvements either within the same policy area or an adjacent one, unless the applicant agrees otherwise.

Table T2. LATR Intersection Delay Standards

Policy Area	Policy Area Classification	HCM Average Vehicle Delay Standard* (seconds/ vehicle)
Rural East	Green	41
Rural West	Green	
Damascus	Yellow	48
Clarksburg East	Yellow	51
Clarksburg West	Orange	
Gaithersburg	Orange	
Montgomery Village/ Airpark	Orange	
Cloverly	Yellow	55
Germantown East	Orange	
Germantown West	Orange	
Great Seneca Communities	Orange	
North Potomac	Yellow	
Potomac	Yellow	
Olney	Yellow	
Aspen Hill	Orange	59
Colesville	Yellow	
Derwood	Orange	
Fairland/Briggs Chaney	Orange	
Gaithersburg	Orange	

Montgomery Village/ Airpark	Orange	
Clarksburg Town Center Germantown Town Center Rockville City Olney Town Center	Orange Orange Orange Orange	63
Burtonsville Town Center North Bethesda	Orange Orange	71
Bethesda/Chevy Chase Kensington/Wheaton Silver Spring/Takoma Park White Oak	Orange Orange Orange Orange	80

* The Veirs Mill Corridor Master Plan set the HCM Average Delay Standard at 100 seconds/vehicle at all Veirs Mill Road intersections between the boundaries of the Wheaton CBD Policy Area and the City of Rockville.

Table T3. Motor Vehicle LATR Scoping

Total Net New Peak-Hour Weekday Motor Vehicle Trips Generated	Minimum Signalized Intersections in Each Direction
< 250	1
250 – 749	2
750 – 1,249	3
1,250 – 1,749	4
1,750 – 2,249	5
2,250 – 2,749	6
>2,750	7

T4 Non-Motor Vehicle Adequacy

T4.1 Determination of Non-Motor Vehicle Adequacy

Non-Motor Vehicle Adequacy must be achieved along roadways classified as Neighborhood Connectors or higher, paths, and intersections (excluding Controlled Major Highways and Freeways, and their ramps) within a certain walkshed beyond the site frontage, specified in Table T4.

Non-Motor Vehicle Adequacy has five components with the following standards:

- Pedestrian Level of Comfort (PLOC): "Somewhat Comfortable" (PLOC-2) or "Very

Comfortable" (PLOC-1) score

- Illuminance: Montgomery County Department of Transportation (MCDOT) streetlight and illuminance standards
- ADA Compliance: The Americans with Disabilities Act (ADA) standards
- Bicycle System: Low Level of Traffic Stress (LTS-2)
- Bus Transit System: ADA accessible bus shelter and amenities per MCDOT guidelines

Each LATR study must examine existing and programmed conditions within a certain walkshed beyond the site frontage, specified in Table T3. The scope of the non-motor vehicle adequacy test is based on the number of net new peak-hour weekday vehicle trips generated by the project.

T4.2 Non-Motor Vehicle Adequacy Mitigation

The applicant must correct inadequate infrastructure to an extent proportional with its impact. Specific constructed improvements should be consistent with master plans and functional plans and policies and identified in consultation with Montgomery Planning and MCDOT.

Alternatively, if the Planning Board and MCDOT agree that constructing all or part of these requirements may not be practicable due to unattainable right-of-way, an existing CIP project, other operational conditions outside the applicant's control, or otherwise not considered practicable by the Planning Board and MCDOT, an applicant may meet this requirement with a mitigation payment to MCDOT that is reasonably related to MCDOT's estimated cost of constructing the required facilities. These funds must be used by MCDOT in the construction of other non-motor vehicle system improvements either within the same policy area or an adjacent one, unless the applicant agrees otherwise.

Table T4. Non-Motor Vehicle Adequacy Test Scoping Table

Net New Peak-Hour Weekday Motor Vehicle Trips	ADA Compliance	Pedestrian Level of Comfort (PLOC)	Illuminance	Bicycle	Transit
30 – 64	125'	250'	250'	400'	500'
65 – 124	200'	400'	400'	750'	1000'
125 – 224	250'	500'	500'	900'	1300'
225 or more	300'	600'	600'	1000'	1500'

T5 Exemptions from Local Area Transportation Review

T5.1 Temporary Suspension for Bioscience Facilities

LATR requirements must not apply to a development or a portion of a development where:

(a) the primary use is for bioscience facilities, as defined in Section 52-39 of the County Code; and

(b) an application for preliminary plan, site plan, or building permit that would otherwise require a finding of Adequate Public Facilities is approved after January 1, 2021 and before January 1, 2029; and

(c) an application for building permit is filed within 3 years after the approval of any required preliminary plan or site plan.

T5.2 Automobile related uses in the Cherry Hill Employment Area

For any property located in the Cherry Hill Employment Area with automobile repair, service, sales, parking, storage, or related office uses, Local Area Transportation Review is not required. This provision applies to any application for a preliminary plan of subdivision, site plan, or building permit approved before July 26, 2016.

T5.3 Public Facility Project

An applicant for a development which will be built solely as a public facility (such as a school, firehouse, police station, or library) need not take any action under Local Area Transportation Review when it undergoes a mandatory referral review by the Planning Board.

T5.4 Affordable Housing

The provision of affordable housing is a fundamental element of the County's General Plan and part of the County's economic development strategy. All trips generated by any moderately priced dwelling unit (MPDU) and any other low-and moderate-income housing which is exempt from paying a development impact tax must also be exempt from any Transportation Mitigation construction and payment.

T5.5 Three or More Bedroom Units in Multifamily Buildings

All trips generated by multifamily units with three or more bedrooms are exempt from any transportation mitigation construction and payment.

T5.6 Daycares

All trips generated by a proposed daycare are exempt from Local Area Transportation Review.

T6 Additional LATR Standards and Procedures

T6.1 LATR Guidelines

The Planning Board has adopted guidelines to administer LATR. To the extent that they are consistent with this Policy, the Planning Board guidelines may continue to apply or may be amended as the Planning Board finds necessary.

The Planning Board guidelines must include guidance to ensure the required mitigation is proportional to a project's impact.

T6.2 LATR Vision Zero Statement

All LATR studies must assess roadway speeds and suggest safety solutions. With the concurrence of the responsible agency, development projects must implement or contribute to the implementation of safety countermeasures as part of their off-site mitigation efforts.

T6.3 LATR Considerations

The nature of the LATR test is such that a study is necessary if inadequate travel conditions are likely to occur. The Planning Board and staff must examine the applicant's transportation study to determine whether adjustments are necessary to ensure that the LATR study is a reasonable and appropriate reflection of the transportation impact of the proposed subdivision after considering all approved development and programmed transportation projects.

For LATR purposes, the programmed transportation projects to be considered are those fully funded for construction in the first 6 years of the current approved Capital Improvements Program, the state's Consolidated Transportation Program, or any municipal capital improvements program. For these purposes, any road required under Section 302 of the County Charter to be authorized by law is not programmed until the time for petition to referendum has expired without a valid petition or the authorizing law has been approved by referendum.

In administering LATR, the Planning Board must carefully consider the recommendations of the County Executive concerning the applicant's LATR study and proposed improvements or any other aspect of the review.

In general, any mitigation measure or combination of mitigation measures must be scheduled for completion or otherwise operational either before or at the same time as the proposed development is scheduled to be completed. The nature, design, and scale of any additional facility or program must receive prior approval from any government agency that would construct or maintain the facility or program, and the applicant and the public agency must execute an appropriate public works agreement before the Planning Board approves a record plat.

Both the subdivision plan and the necessary mitigation measures must be consistent with an adopted master plan or other relevant land use policy statement.

T7 Unique Policy Area Issues

T7.1 **North Bethesda Metro Station** Policy Area LATR Standards

Any proposed development located in the North Bethesda Metro Station Policy Area is exempt from Local Area Transportation Review. However, the traffic impact of any development in that Policy Area must be considered in any Local Area Transportation Review calculation for any development elsewhere where it would otherwise be considered.

T7.2 Potomac LATR Standards

In the Potomac Policy Area, only the areas contributing traffic to the following intersections must be subject to LATR:

- Montrose Road at Seven Locks Road
- Democracy Boulevard at Seven Locks Road
- Tuckerman Lane at Seven Locks Road
- Westlake Drive at Tuckerman Lane
- Bradley Boulevard at Seven Locks Road
- River Road at Bradley Boulevard
- River Road at Piney Meetinghouse Road
- River Road at Falls Road
- Falls Road at Democracy Boulevard
- River Road at Seven Locks Road

T7.3 White Oak Policy Area

(a) The Board may approve a subdivision in the White Oak Policy Area conditioned on the applicant paying a fee to the County commensurate with the applicant's proportion of the cost of a White Oak Local Area Transportation Improvement Program, including the costs of design, land acquisition, construction, site improvements, and utility relocation. The proportion is based on a subdivision's share of net additional peak-hour vehicle trips generated by all master-planned development in the White Oak Policy Area approved after January 1, 2016.

(b) The components of the White Oak Local Area Transportation Improvement Program and the fee per peak-hour vehicle trip will be established by Council resolution, after a public hearing. The Council may amend the Program and the fee at any time, after a public hearing.

(c) The fee must be paid at a time and manner consistent with Transportation Mitigation

Payments as prescribed in Section 52-51 of the Montgomery County Code.

(d) The Department of Finance must retain funds collected under this Section in an account to be appropriated for transportation improvements that result in added transportation capacity serving the White Oak Policy Area.

T8 Non-Auto-Driver Mode Share Goals

Many master and sector plans include NADMS goals for their respective planning or policy areas, whereas other NADMS goals are established through the Policy. Table T7 identifies the

NADMS goals applicable to different master/sector plan areas, transportation management districts (TMDs) and policy areas.

Table T5. Non-Auto Mode Share (NADMS) Goals

Policy Area	NADMS Goal(s) at Buildout (Residents and employees blended, unless otherwise noted)
Aspen Hill	35%
Bethesda Central Business District (CBD)	55%
Bethesda/Chevy Chase • Chevy Chase Lake MP Area • Elsewhere	 49% for residents and 36% for employees 41%
Burtonsville Town Center	25%
Chevy Chase Lake	49% for residents and 36% for employees
Clarksburg East	26%
Clarksburg Town Center	25%
Clarksburg West	18%
Cloverly	23%
Colesville	27%
Damascus	19%
Derwood • Great Seneca Science Corridor MP Area • Elsewhere	 18% for employees (Stage 2) 23% for employees (Stage 3) 28% for employees (Stage 4) 39%
Fairland/Briggs Chaney • Fairland Briggs Chaney MP • Elsewhere	 30% 27%
Forest Glen	48% for residents and 25% for employees
Friendship Heights	39%
Gaithersburg • City of Gaithersburg	 N/A

Policy Area	NADMS Goal(s) at Buildout (Residents and employees blended, unless otherwise noted)
• Great Seneca Science Corridor MP Area	18% for employees (Stage 2) 23% for employees (Stage 3) 28% for employees (Stage 4)
Germantown East	28%
Germantown Town Center	28%
Germantown West	27%
Glenmont	35%
Great Seneca Life Science Center • Great Seneca Science Corridor MP Area	 18% for employees (Stage 2) 23% for employees (Stage 3) 28% for employees (Stage 4)
Great Seneca Communities	28%
Grosvenor	50%
Kensington/Wheaton	40%
Lyttonsville	50%
Medical Center	41%
Montgomery Village/Airpark	30%
North Bethesda • North Bethesda TMD • White Flint 2 MP (east of tracks) • White Flint 2 MP (west of tracks) • Elsewhere	 30% for residents and 39% for employees 42% for residents and 50% for employees 51% for residents and 50% for employees 42%
North Bethesda Metro Station	51%
North Potomac	27%
Olney	22%
Olney Town Center	23%
Potomac	29%
Purple Line East • Greater Lyttonsville Sector Plan Area • Silver Spring TMD • Elsewhere	 50% 65% 50%
Rock Spring	41% for residents and 23% for employees
Rockville City	N/A
Rockville Town Center	N/A
Rural East	26%
Rural West	27%
Shady Grove • Shady Grove TMD • Elsewhere	 50% for residents and 20% for employees 39%
Silver Spring CBD	65%
Silver Spring/Takoma Park	

Policy Area	NADMS Goal(s) at Buildout (Residents and employees blended, unless otherwise noted)
• Silver Spring TMD • Elsewhere	65% 48%
Takoma	48%
Twinbrook	45%
Wheaton CBD	30%
White Oak	25%
White Oak Village & Center	30%
Woodside	50%

T9 Unified Mobility Programs

The Board may approve a subdivision in any policy area conditioned on the applicant paying a fee to the County commensurate with the applicant's proportion of the cost of a Unified Mobility Program (UMP), including the costs of design, land acquisition, construction, site improvements, and utility relocation. One option is to base this proportion on a subdivision's share of net additional peak-hour vehicle trips generated by all master-planned development in the policy area.

The components of the UMP and the fee per peak-hour vehicle trip will be established by Council resolution, after a public hearing. The Council may amend the UMP and the fee at any time, after a public hearing.

The fee must be paid at a time and manner consistent with Transportation Mitigation Payments as prescribed in Section Sec. 52-51 of the Montgomery County Code.

The Department of Finance must retain funds collected under this Section in an account to be appropriated for transportation improvements that result in added transportation capacity serving the policy area.

T10 Alternative Review Procedures

T10.1 Expiration of Approvals under Previous Alternative Review Procedures

Annual Growth Policy resolutions in effect between 1995 and 2001 contained Alternative Review Procedures that required any development approved under those procedures to receive each building permit no later than 4 years after the Planning Board approved the preliminary plan of subdivision for that development. Any outstanding development project approved under an Alternative Review Procedure is subject to the expiration dates in effect when that development project was approved.

T11 Travel Monitoring Report

The Planning Board is to monitor transportation conditions through a biennial Travel Monitoring Report (TMR). The report will provide a clear picture of how the county transportation system is performing.

Guidelines for Water and Sewerage Facilities

In accordance with the Adequate Public Facilities Ordinance, applications must be considered adequately served by water and sewerage if the subdivision is located in an area in which water and sewer service is presently available, is under construction, is designated by the County Council for extension of service within the first two years of a current approved Comprehensive Water Supply and Sewerage Systems Plan (i.e., categories 1-3), or if the applicant either provides a community water and/or sewerage system or meets Department of Permitting Services requirements for septic and/or well systems, as outlined in the Adequate Public Facilities Ordinance. These requirements are determined either by reference to the Water and

Sewerage Plan, adopted by the Council, or by obtaining a satisfactory percolation test from the Department of Permitting Services.

Applications must only be accepted for further Planning staff and Board consideration if they present evidence of meeting the appropriate requirements as described above.

Guidelines for Police, Fire and Health Services

The Planning Board and staff must consider the programmed services to be adequate for facilities such as police stations, firehouses, and health clinics unless there is evidence that a local area problem will be generated. Such a problem is one which cannot be overcome within the context of the approved Capital Improvements Program and operating budgets of the relevant agencies. Where such evidence exists, either through agency response to the Subdivision Review committee clearinghouse, or through public commentary or Planning staff consideration, a Local Area Review must be undertaken. The Board must seek a written opinion from the relevant agency, and require, if necessary, additional data from the applicant, to facilitate the completion of the Planning staff recommendation within the statutory time frame for Planning Board action. In performing this Local Area Review, the facility capacity at the end of the sixth year of the approved CIP must be compared to the demand generated by the "most probable" forecast for the same year prepared by the Planning Department.

Guidelines for Resubdivisions

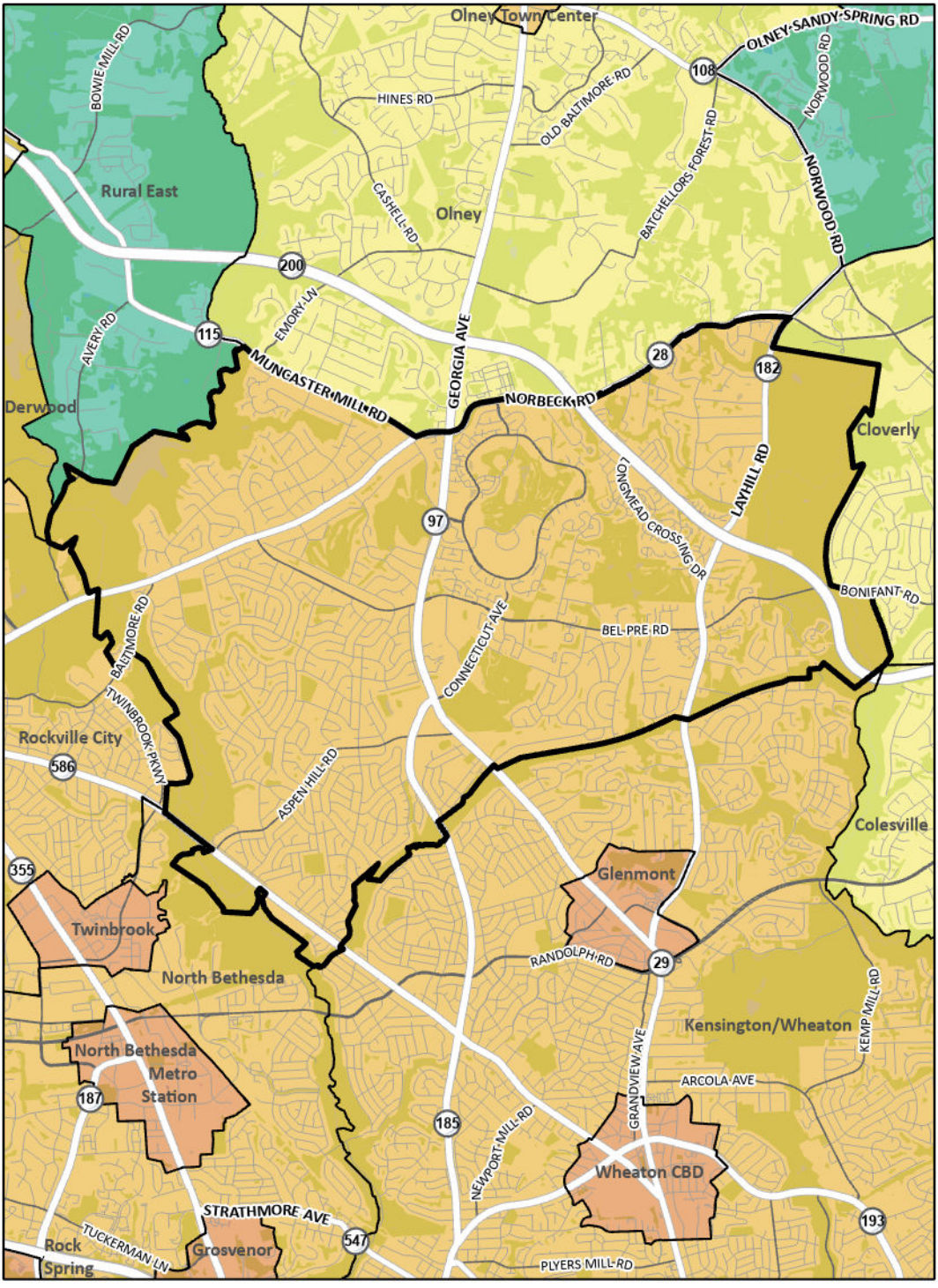
An application to amend a previously approved preliminary plan of subdivision does not require a new test for adequacy of public facilities if:

- Revisions to a preliminary plan have not been recorded, the preliminary plan has not

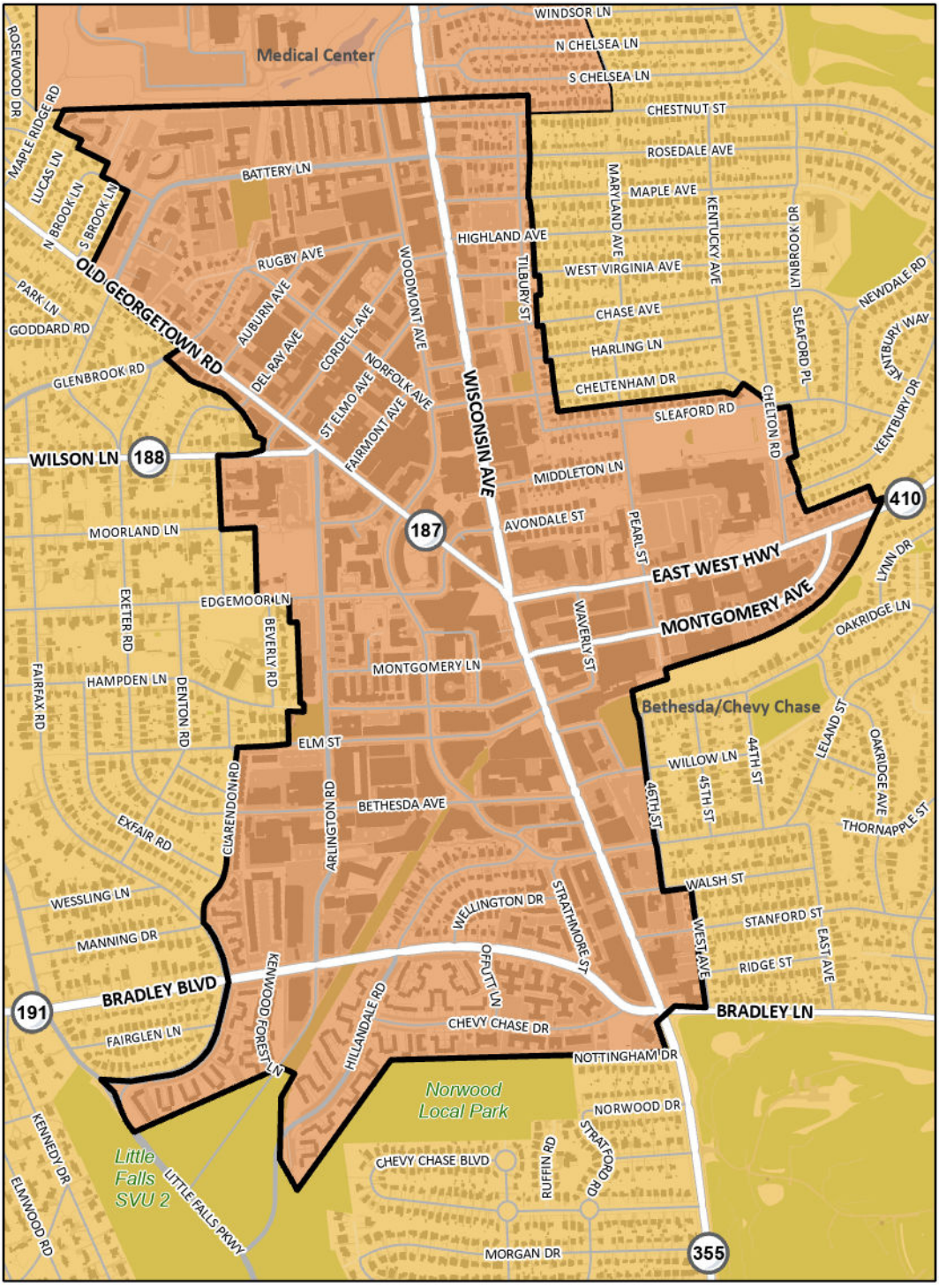
expired, and the number of trips which will be produced by the revised plan is not greater than the number of trips produced by the original plan.

- Resubdivision of a recorded lot involves the sale or exchange of parcels of land (not to exceed a total of 2,000 square feet or one percent of the combined area, whichever is greater) between owners of adjoining properties to make small adjustments in boundaries.
- Resubdivision of a recorded lot involves more than 2,000 square feet or one percent of the lot area and the number of trips which will be produced by the revised plan is not greater than the number of trips produced by the original plan.

1. Aspen Hill Policy Area



2. Bethesda CBD Policy Area



Policy Area

Red

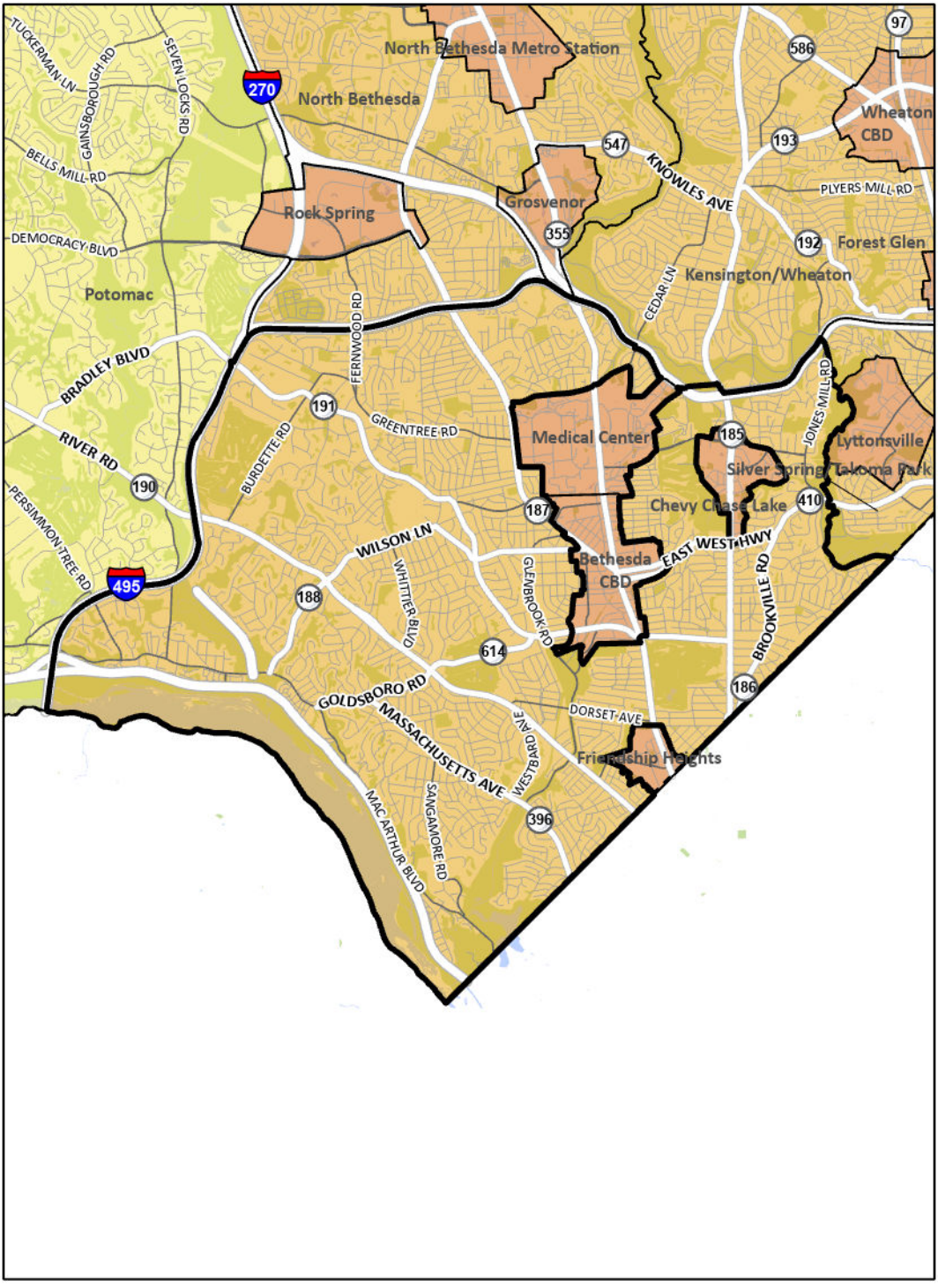
Orange

Yellow

Green

0 720 1,440 Feet

3. Bethesda/Chevy Chase Policy Area

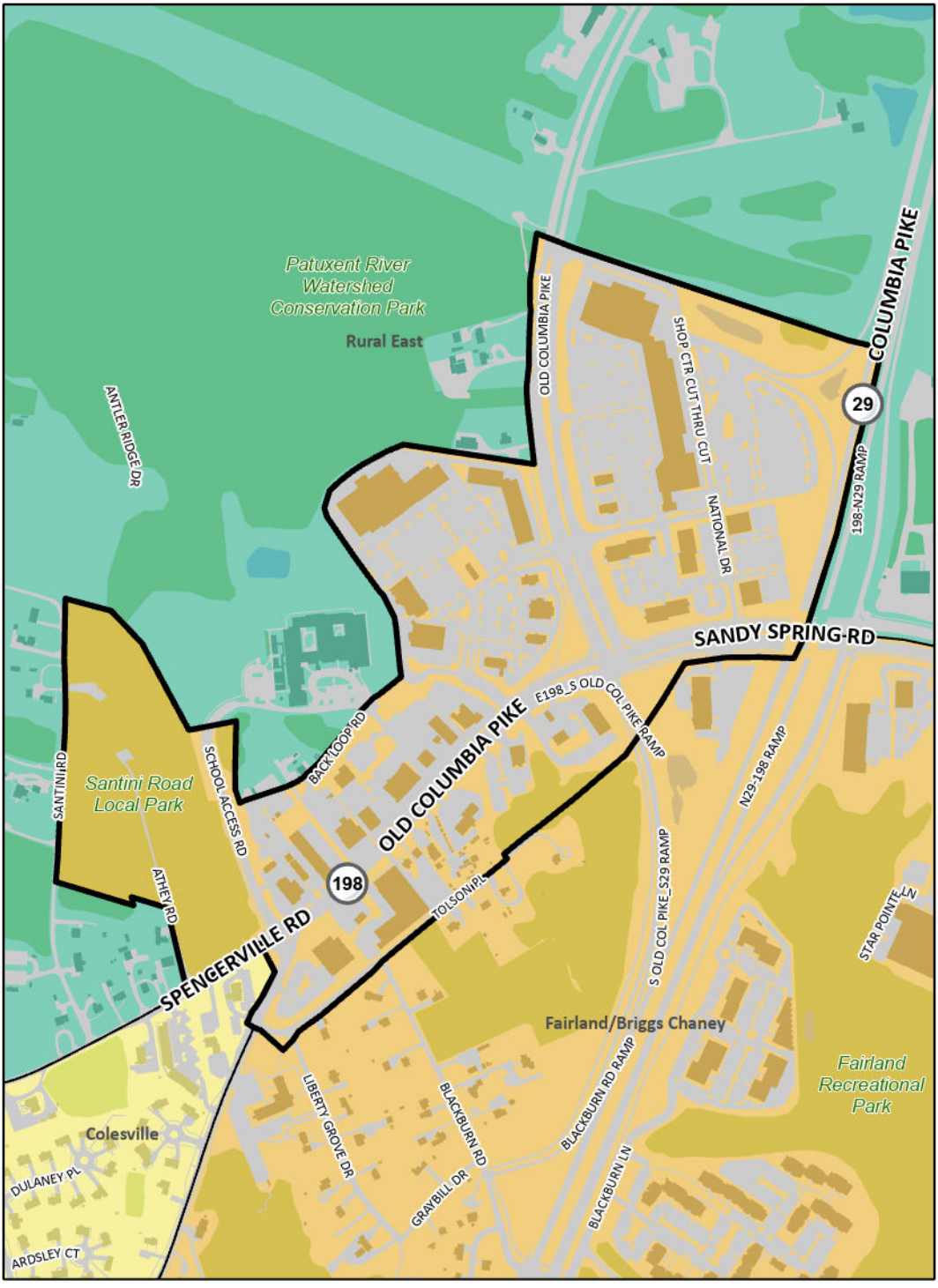


Policy Area

Red
Orange
Yellow
Green

0 4,000 8,000 Feet

4. Burtonsville Town Center Policy Area

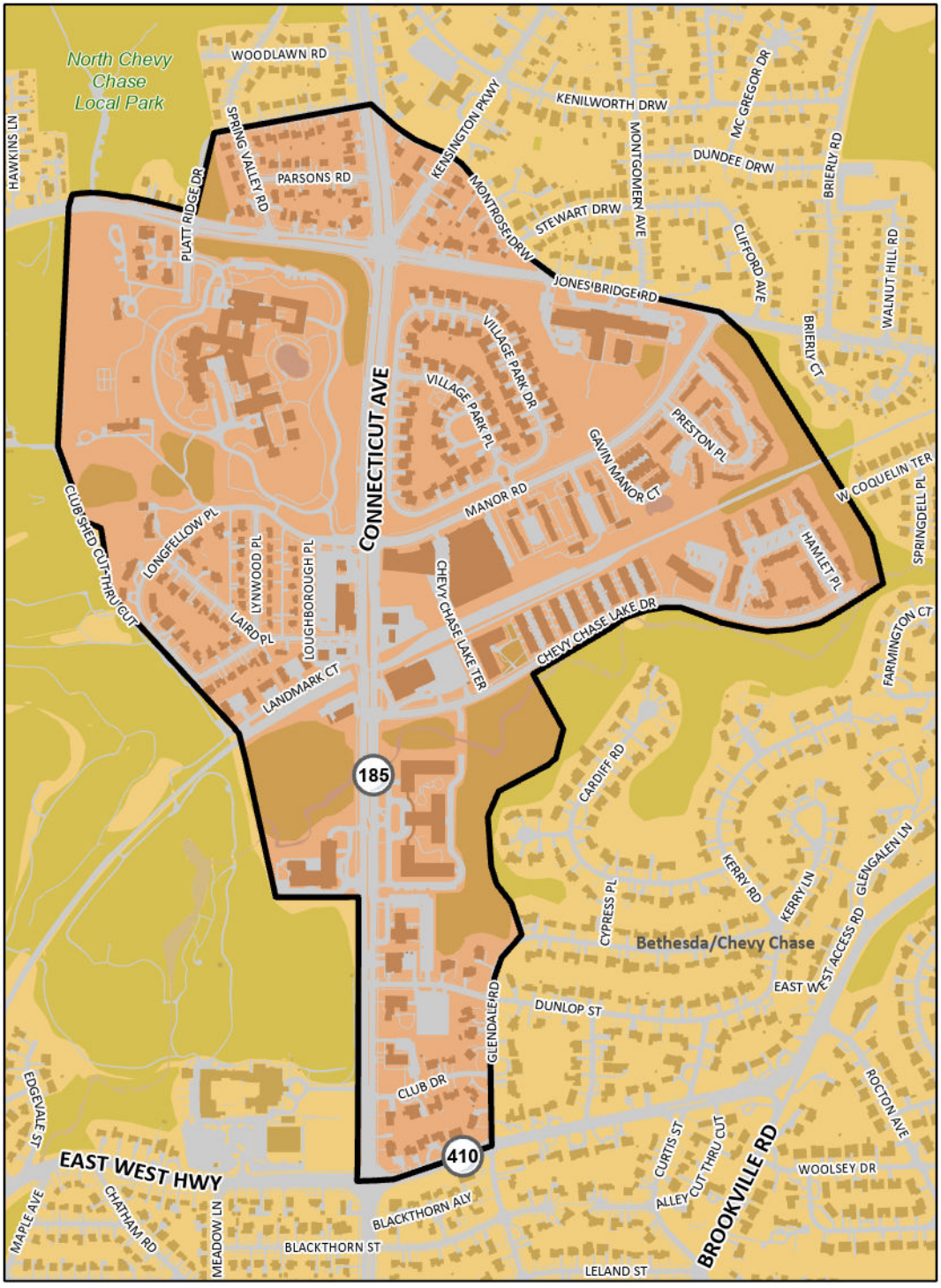


Policy Area

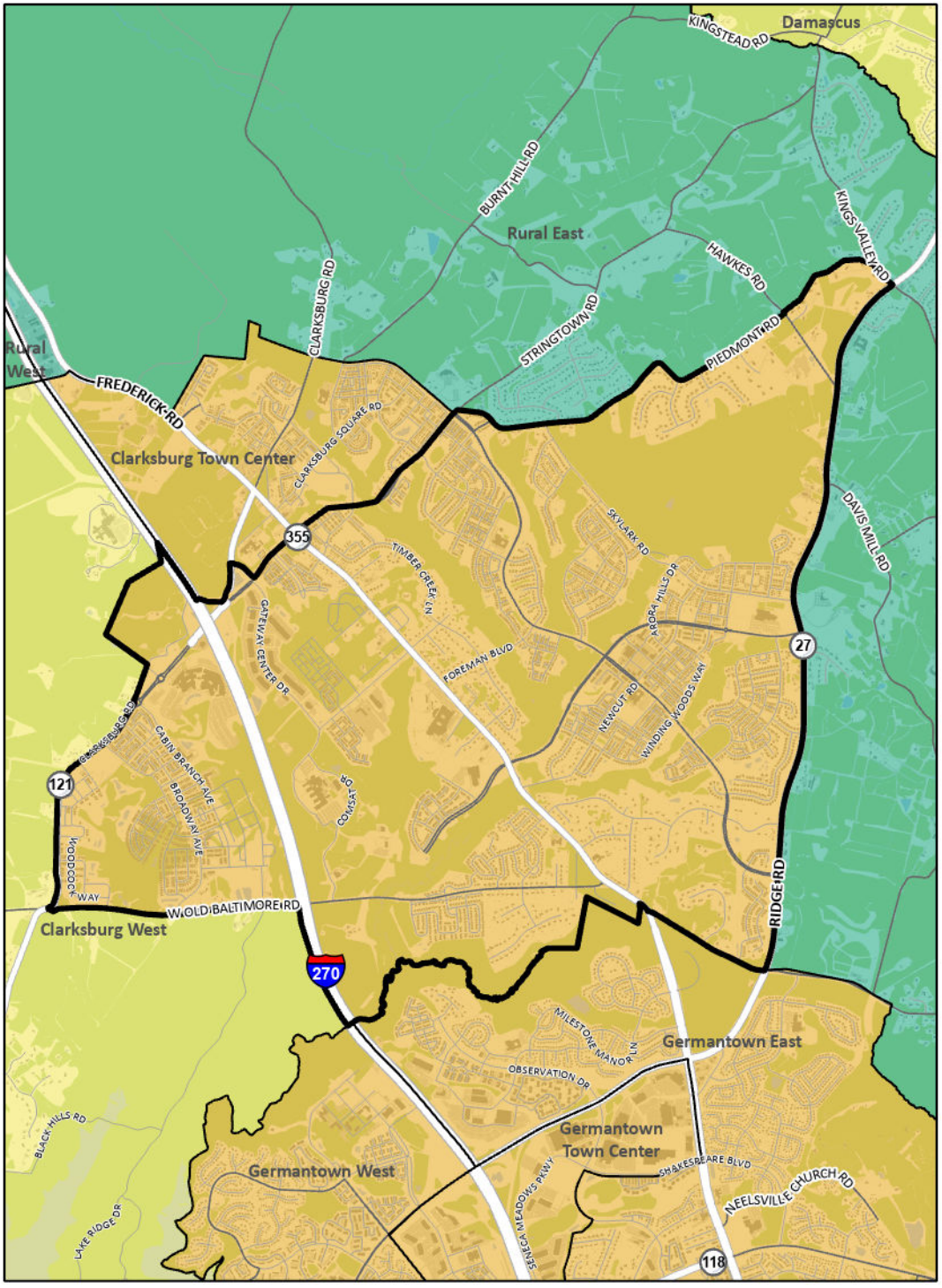
Red
Orange
Yellow
Green

0 450 900 Feet

5. Chevy Chase Lake Policy Area



6. Clarksburg East Policy Area

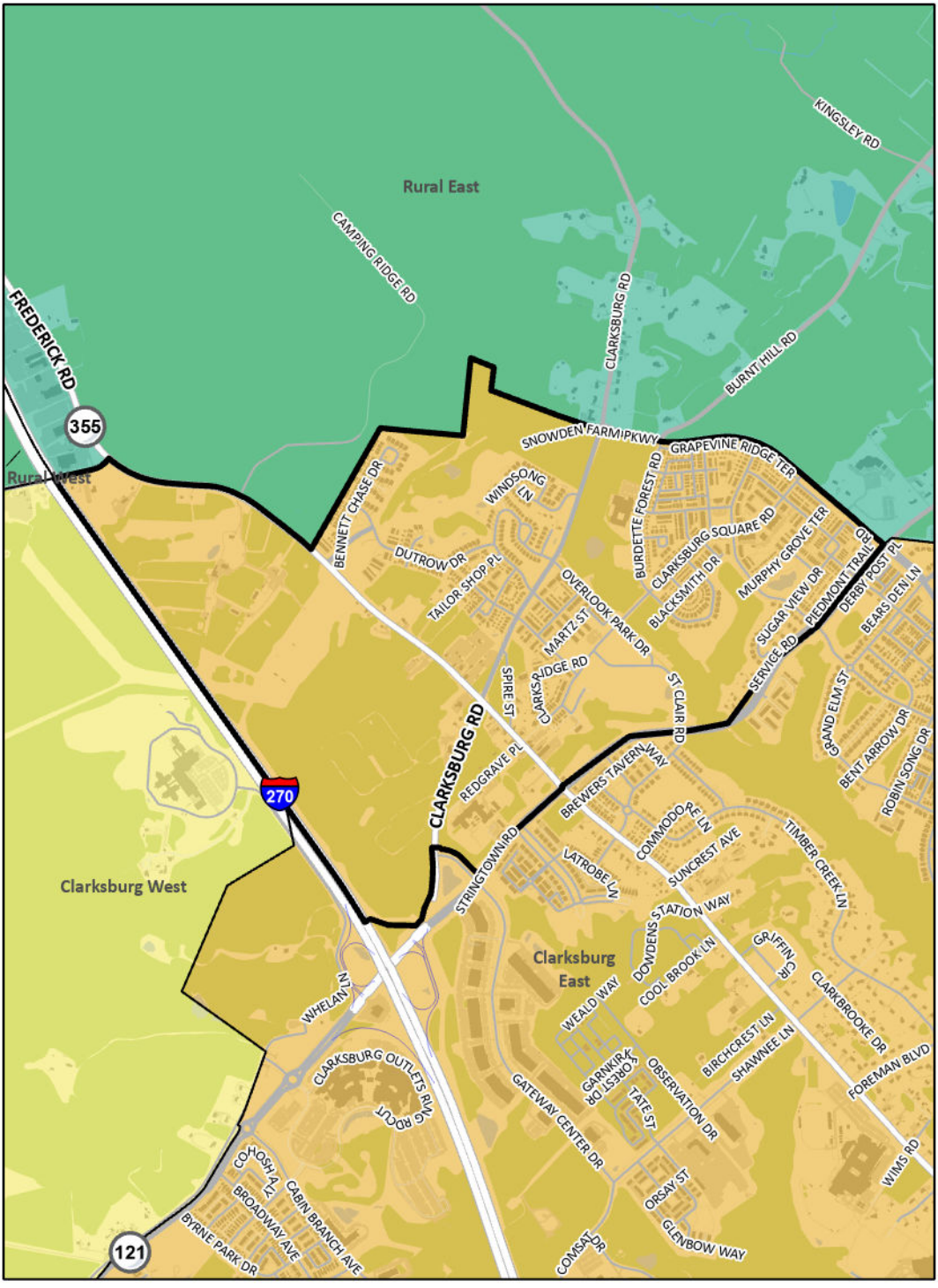


Policy Area

Red
Orange
Yellow
Green

0 2,000 4,000 Feet

7. Clarksburg Town Center Policy Area

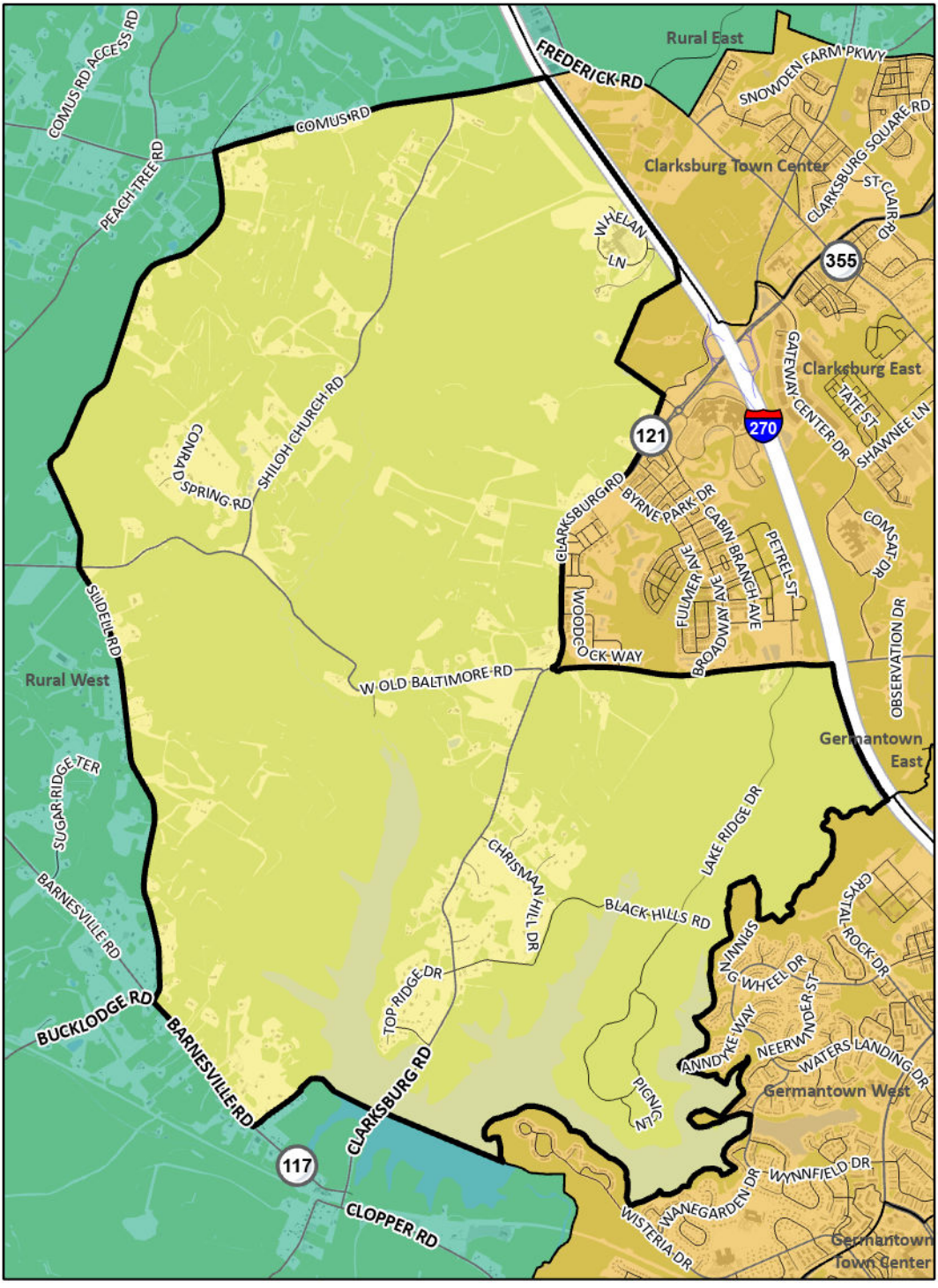


Policy Area

Red
Orange
Yellow
Green

0 1,000 2,000 Feet

8. Clarksburg West Policy Area

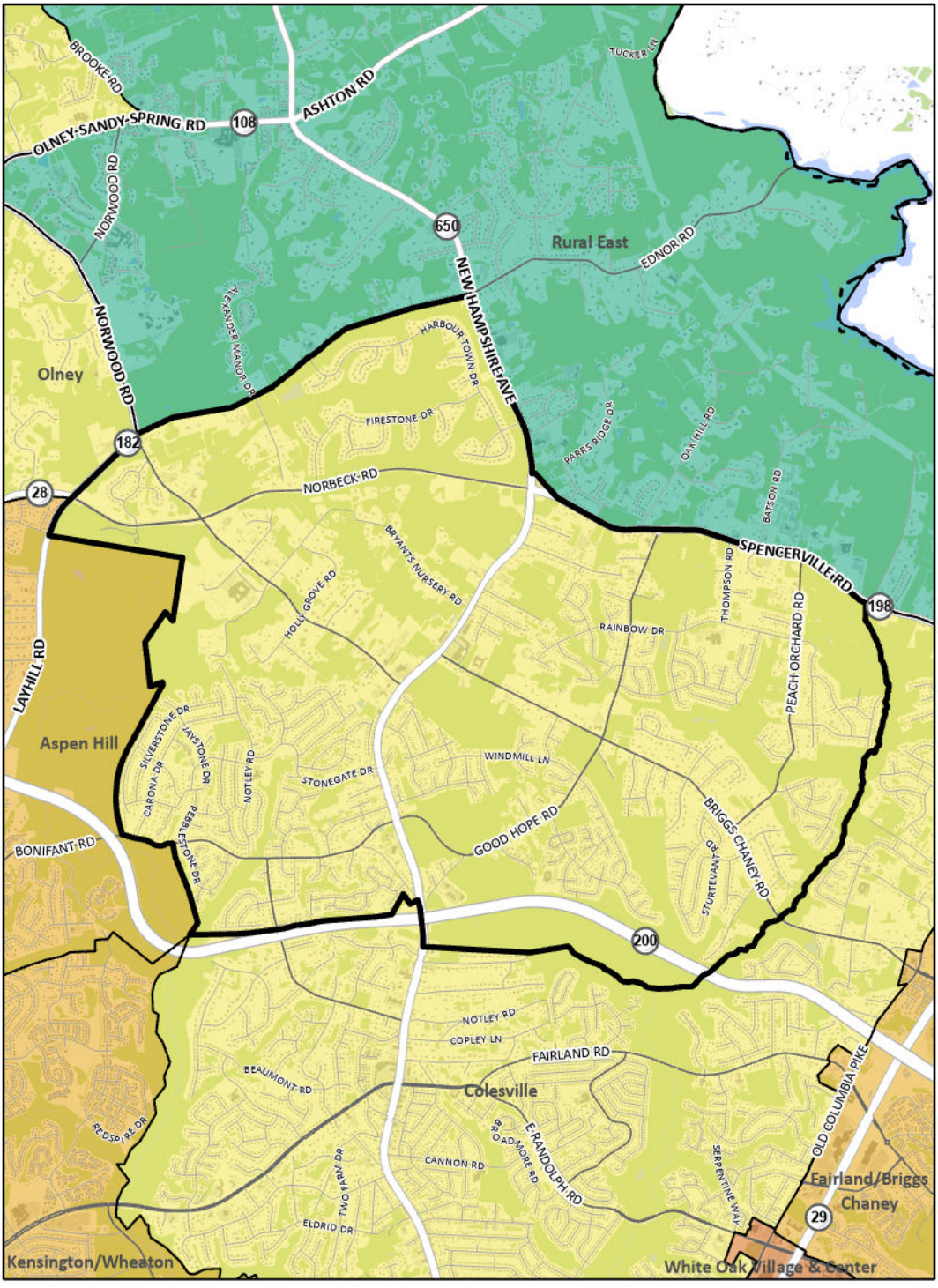


Policy Area

Red
Orange
Yellow
Green

0 2,000 4,000 Feet

9. Cloverly Policy Area

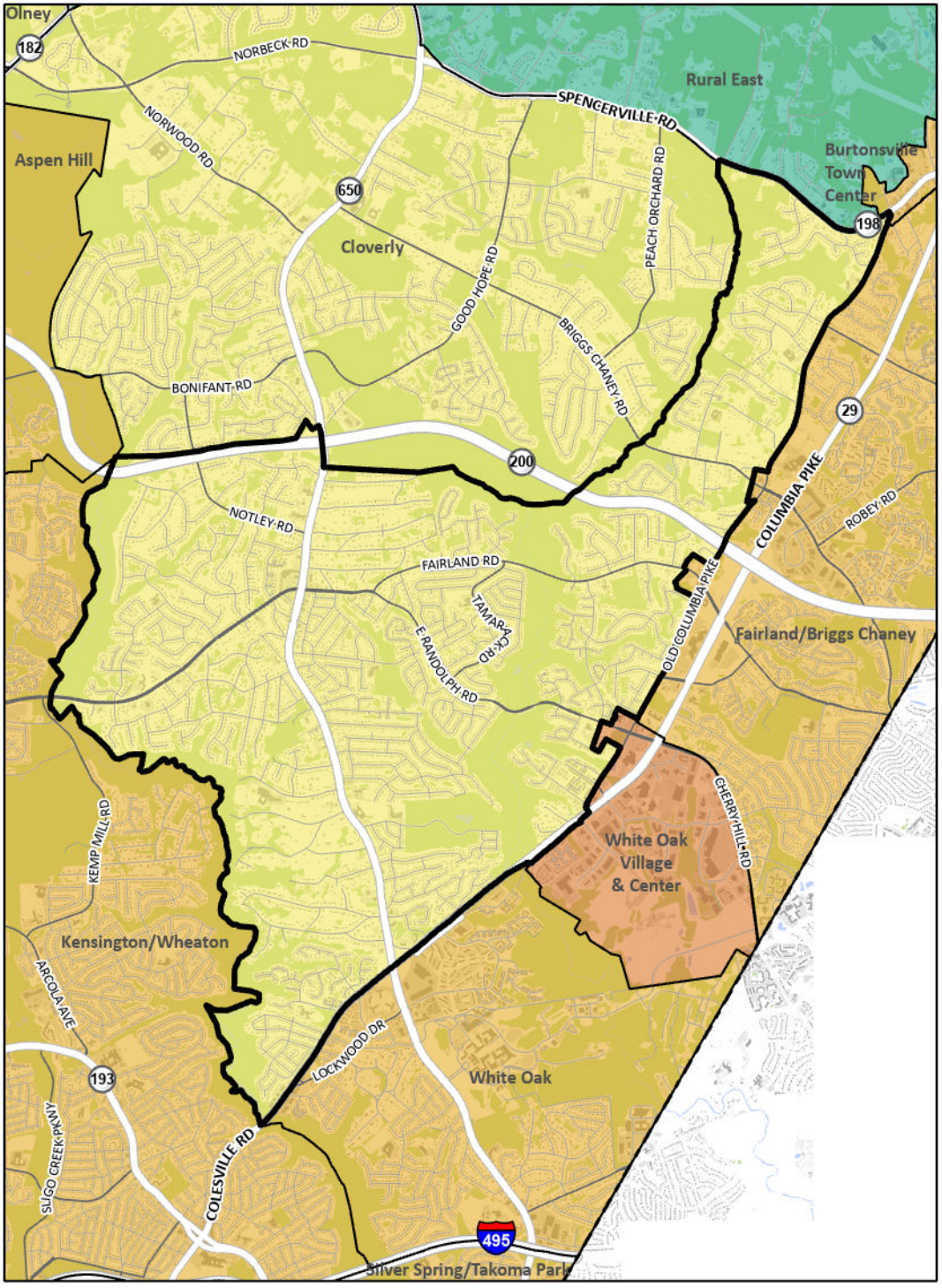


Policy Area

Red
Orange
Yellow
Green

0 3,000 6,000 Feet

10. Colesville Policy Area

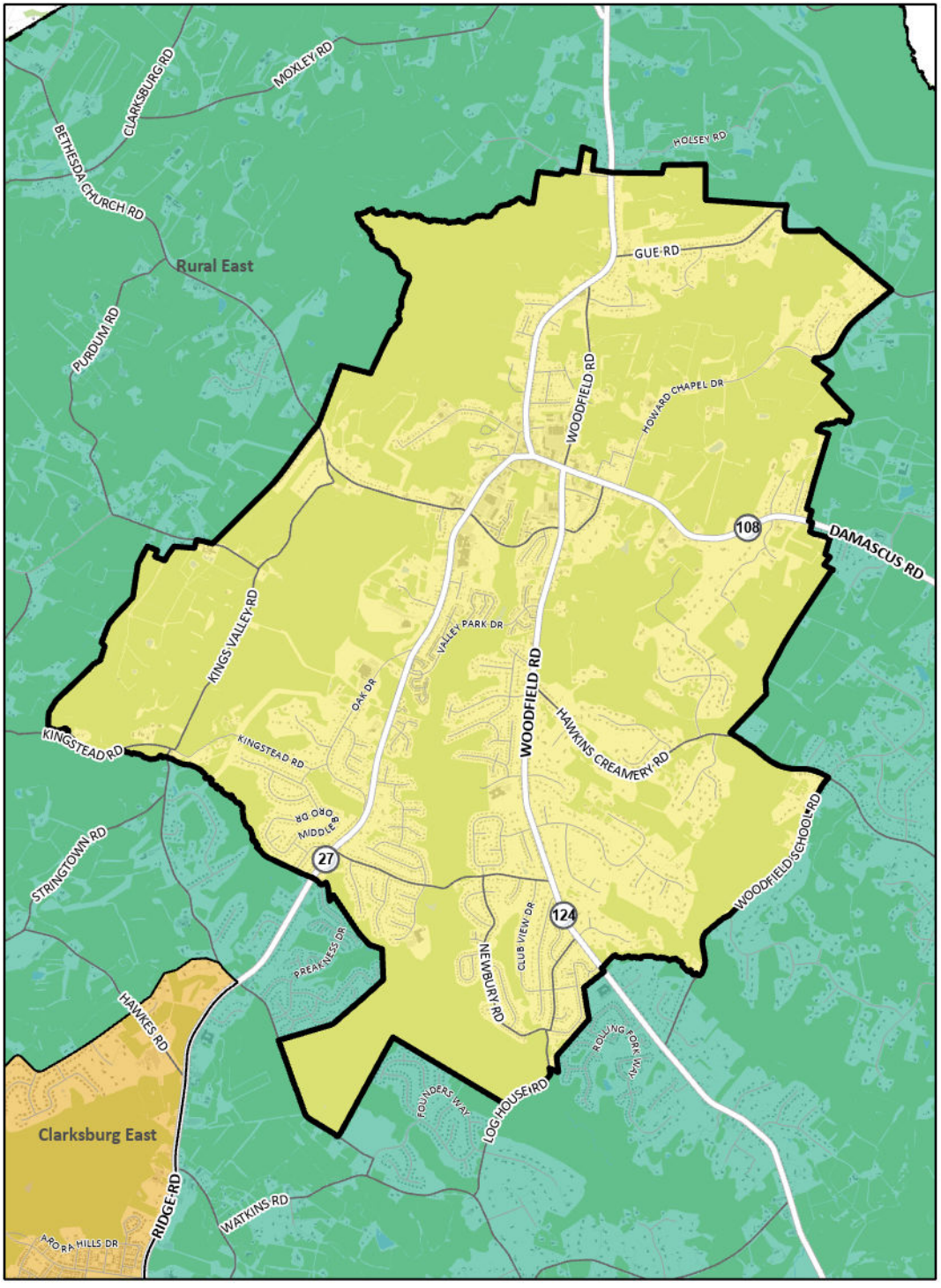


Policy Area

Red
Orange
Yellow
Green

0 3,000 6,000 Feet

11. Damascus Policy Area



Policy Area

Red

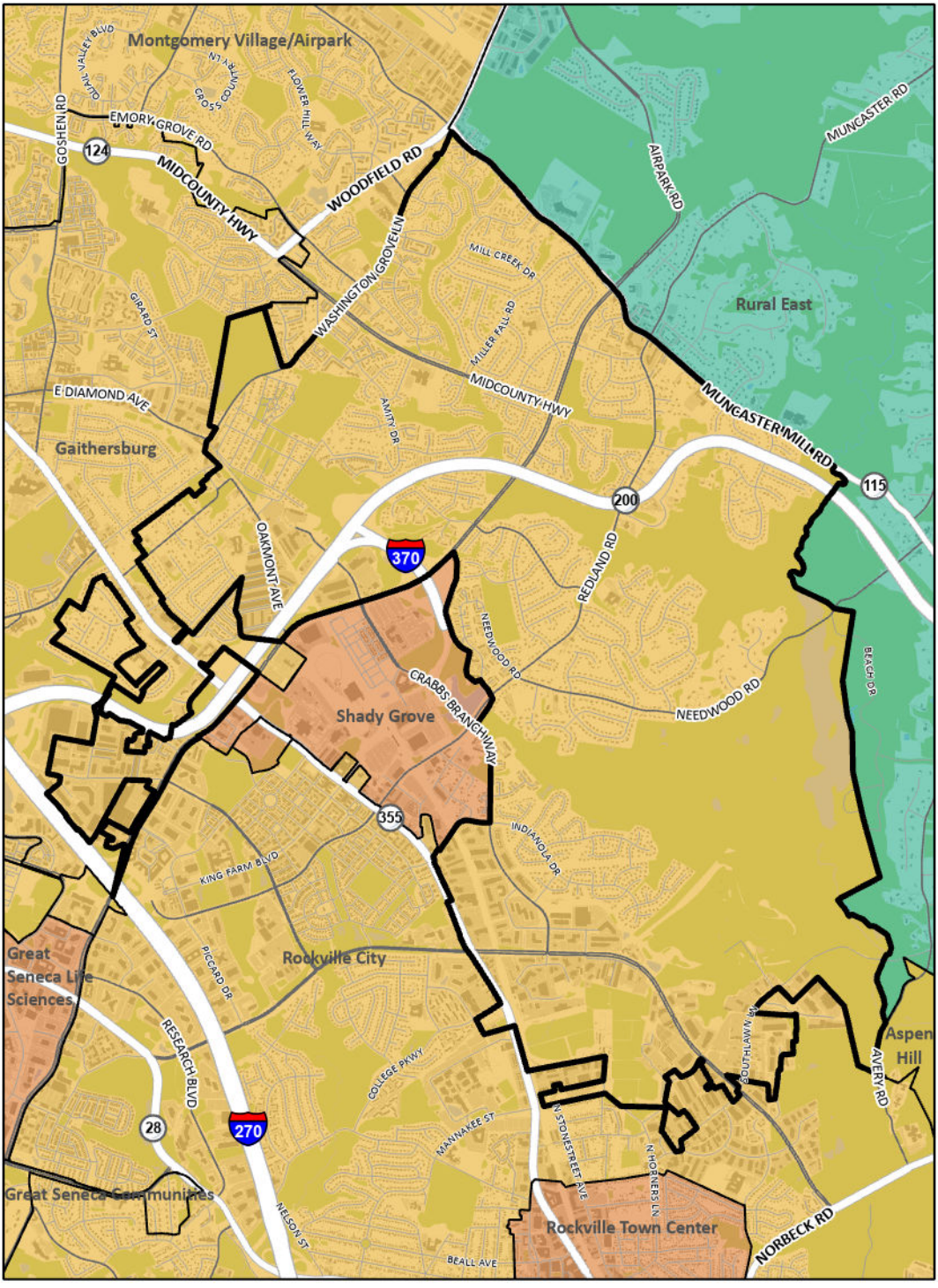
Orange

Yellow

Green

0 2,500 5,000 Feet

12. Derwood Policy Area



Policy Area

Red

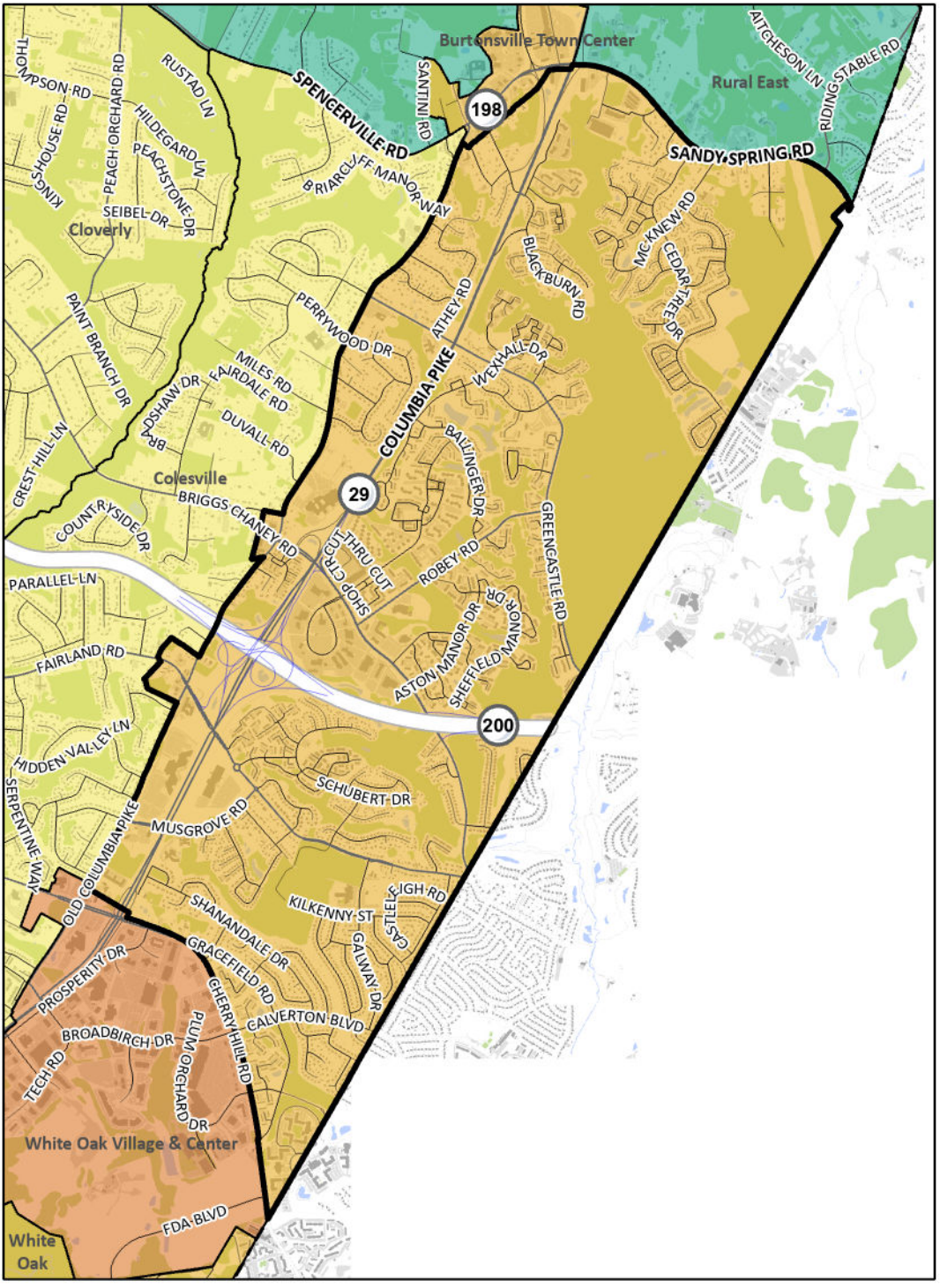
Orange

Yellow

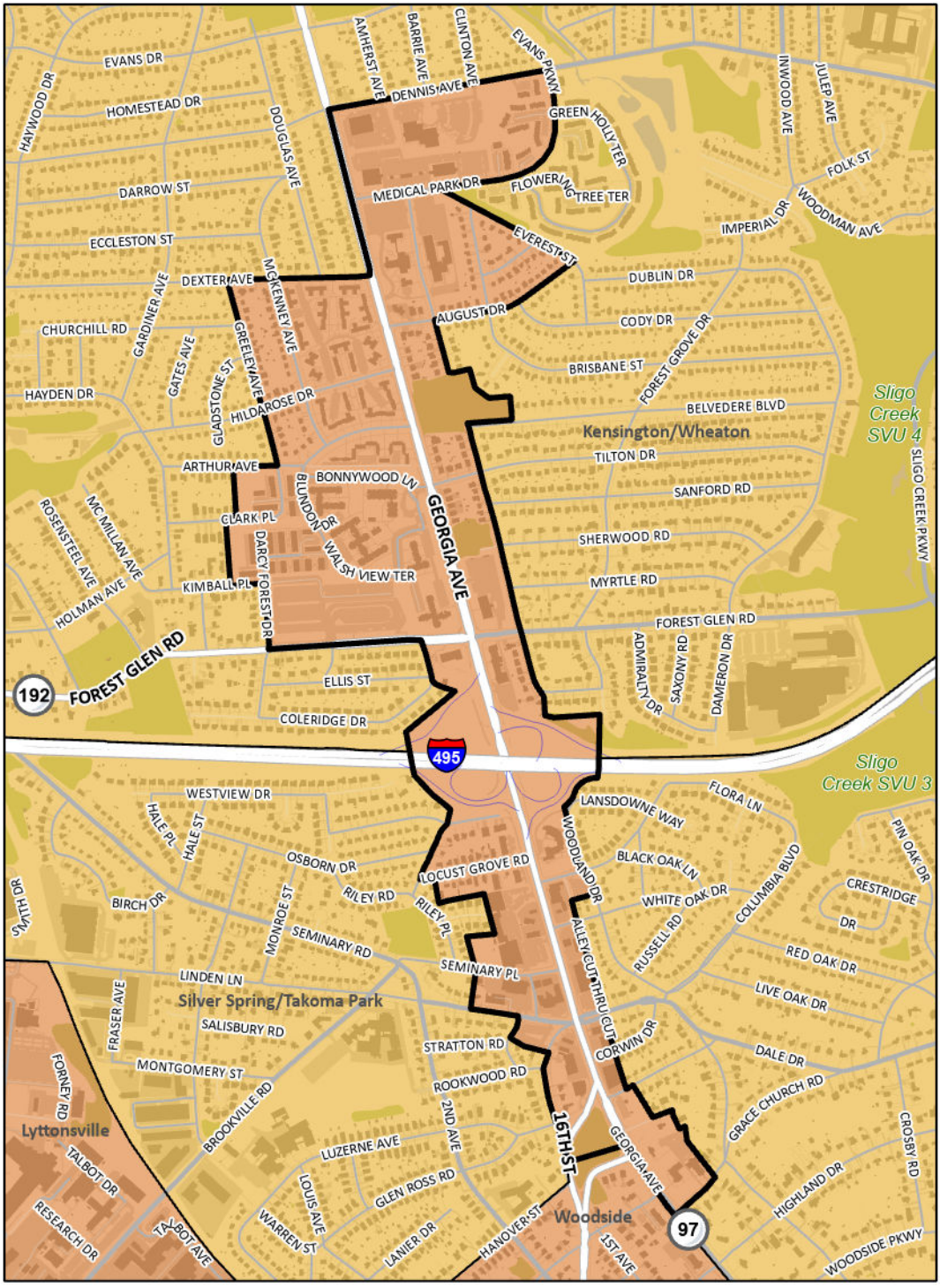
Green

0 2,000 4,000 Feet

13. Fairland/Briggs Chaney Policy Area



14. Forest Glen Policy Area



Policy Area

Red

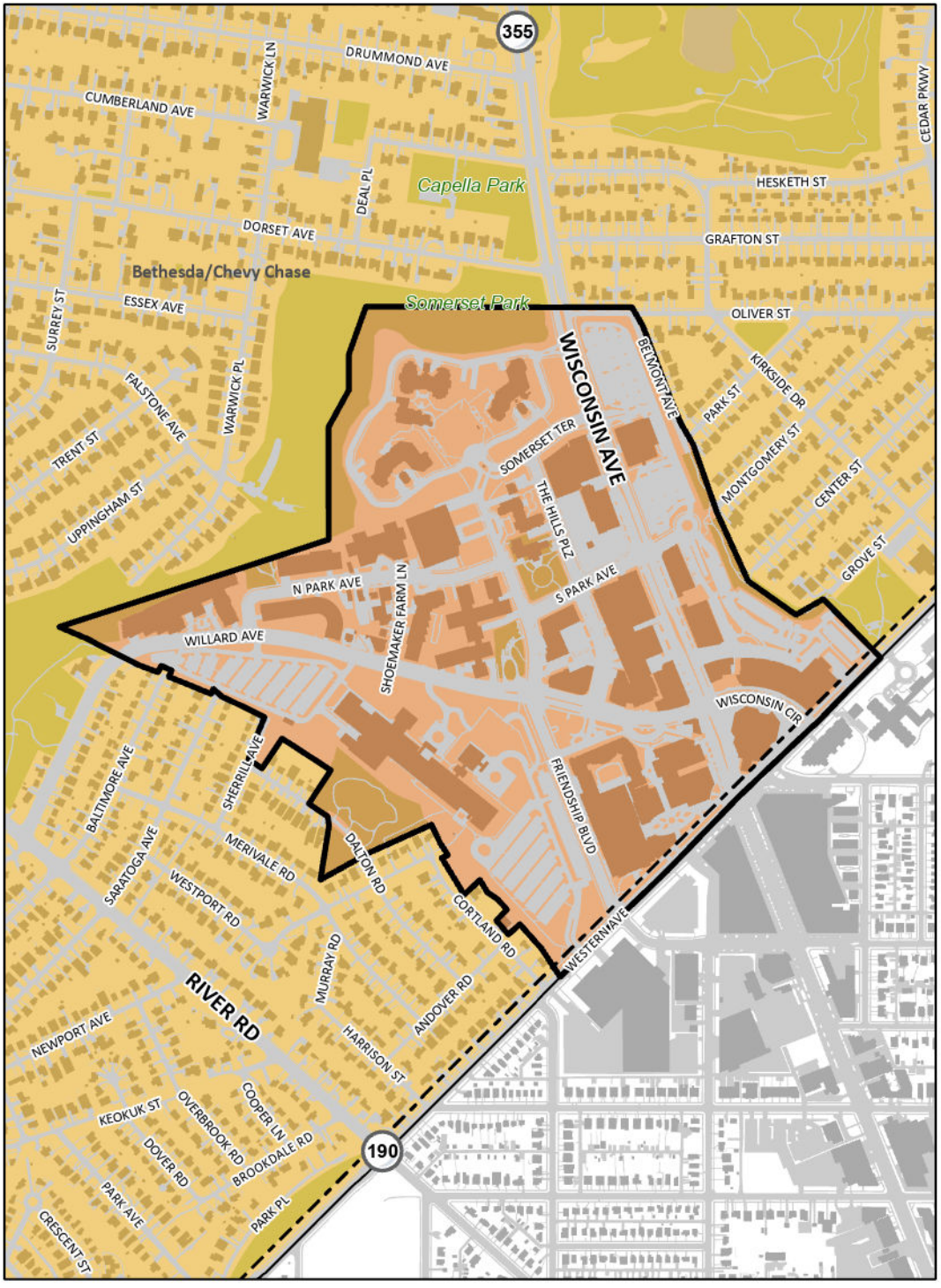
Orange

Yellow

Green

0 720 1,440 Feet

15. Friendship Heights Policy Area



Policy Area

Red

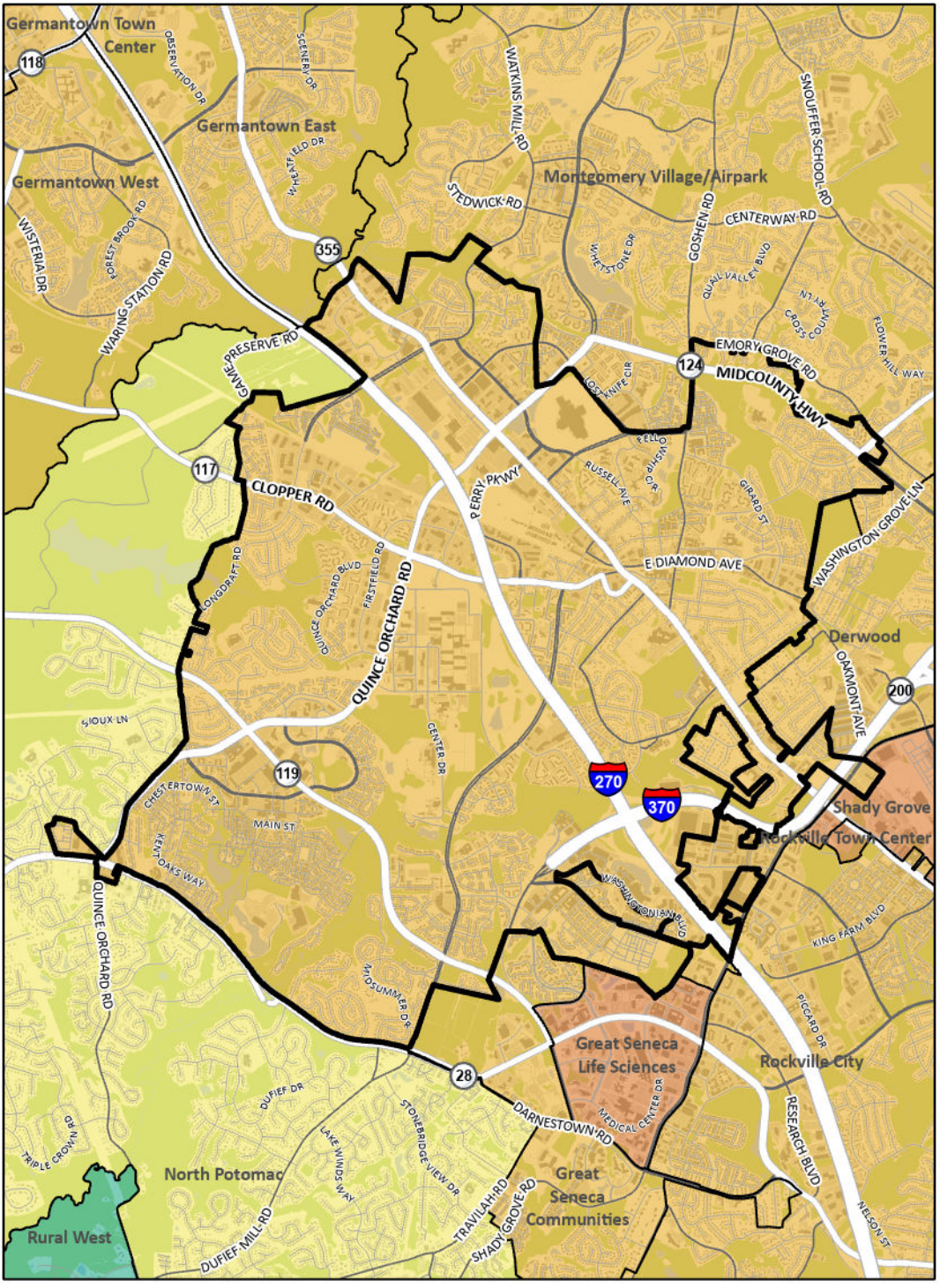
Orange

Yellow

Green

0 475 950 Feet

16. Gaithersburg Policy Area

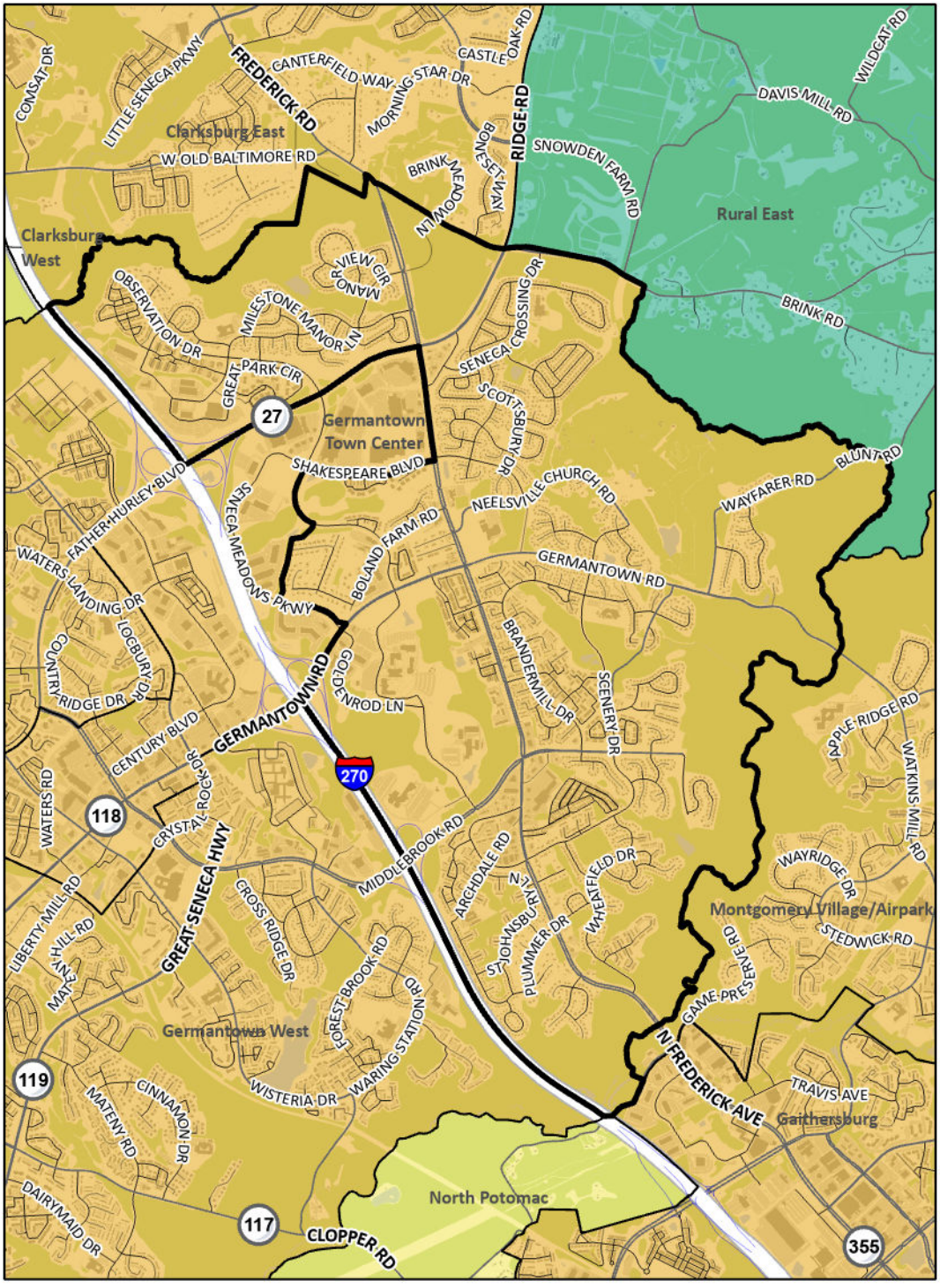


Policy Area

Red
Orange
Yellow
Green

0 3,000 6,000 Feet

17. Germantown East Policy Area

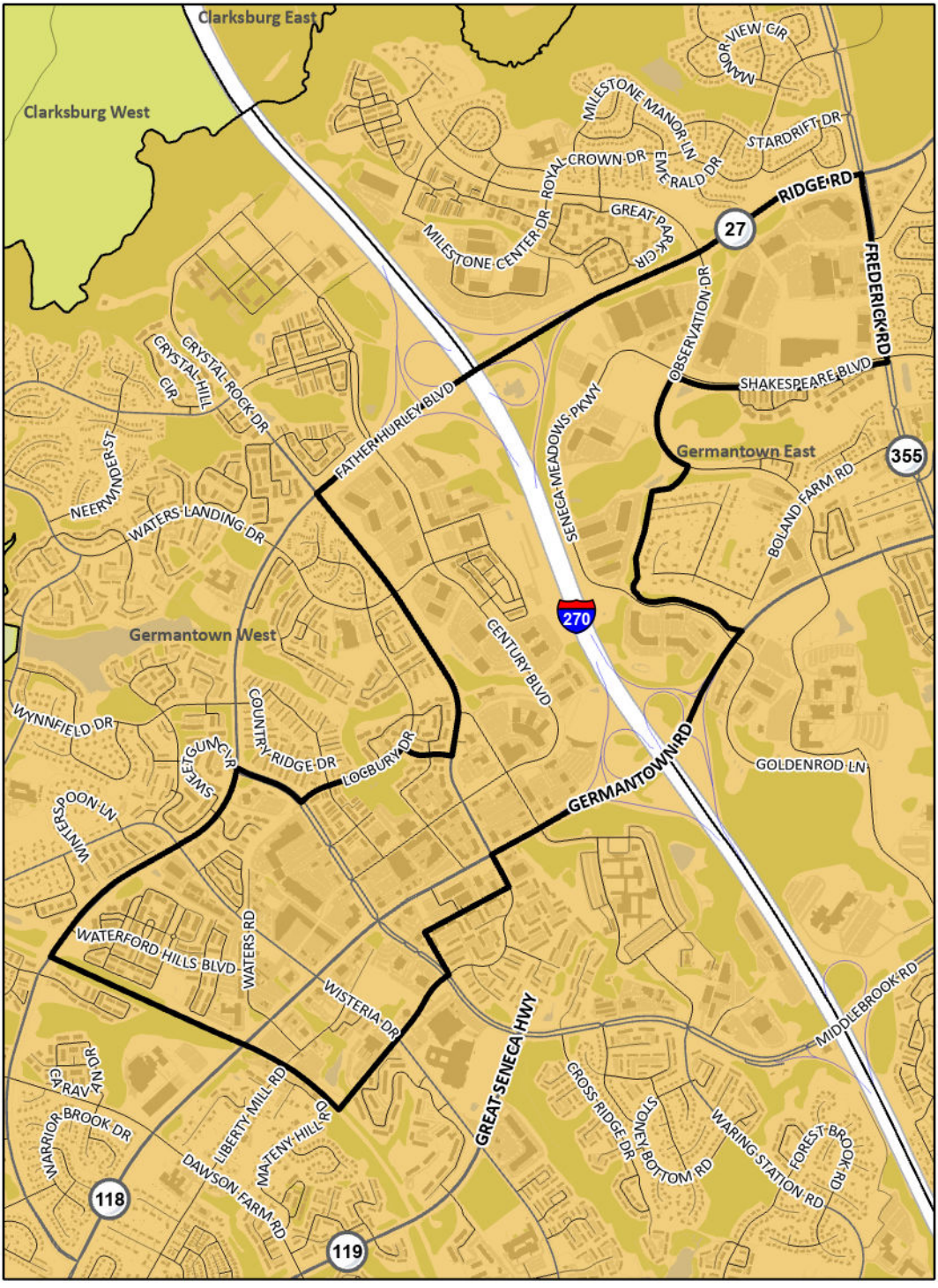


Policy Area

Red
Orange
Yellow
Green

0 2,000 4,000 Feet

18. Germantown Town Center Policy Area



Policy Area

Red

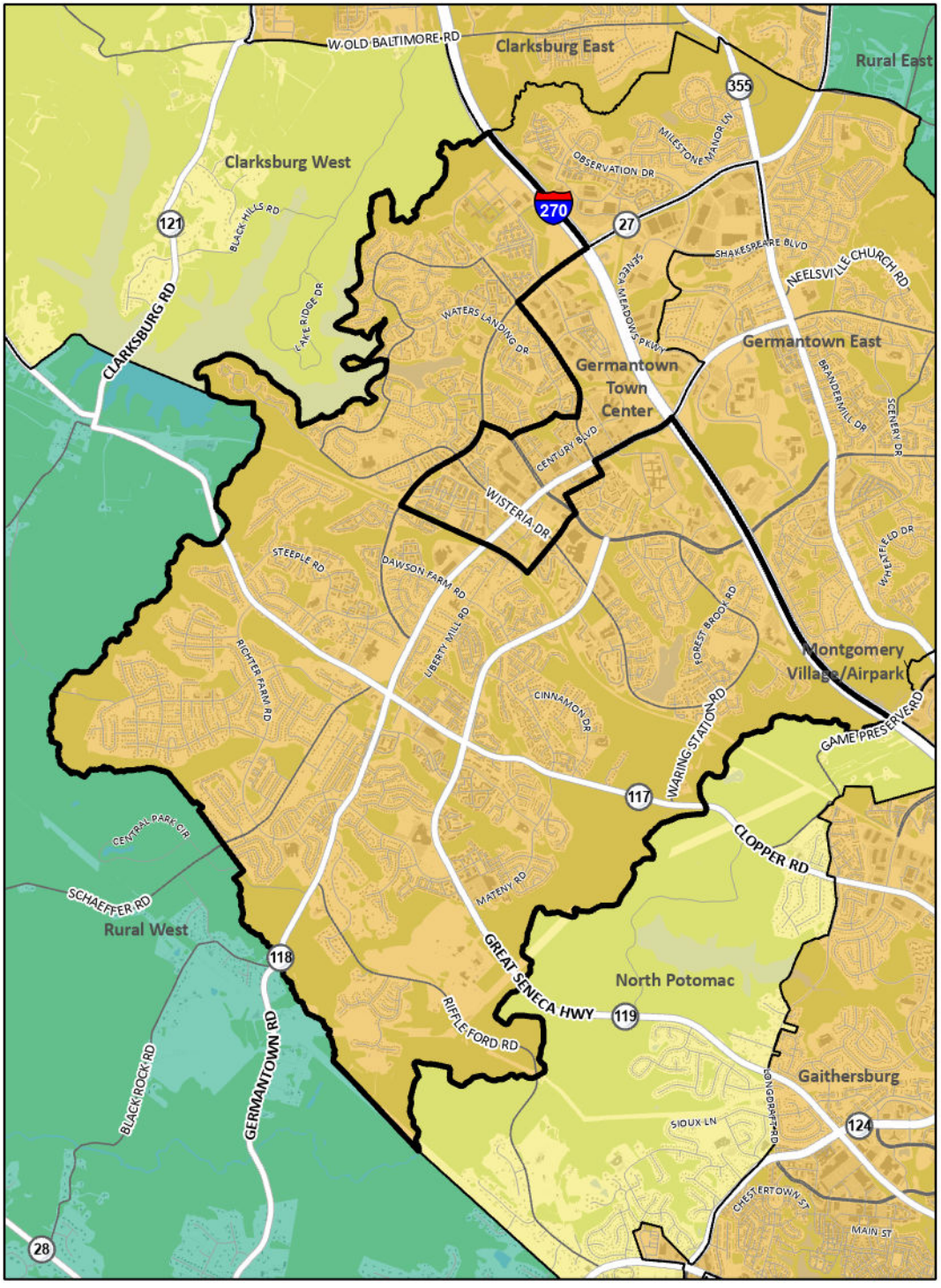
Orange

Yellow

Green

0 1,000 2,000 Feet

19. Germantown West Policy Area

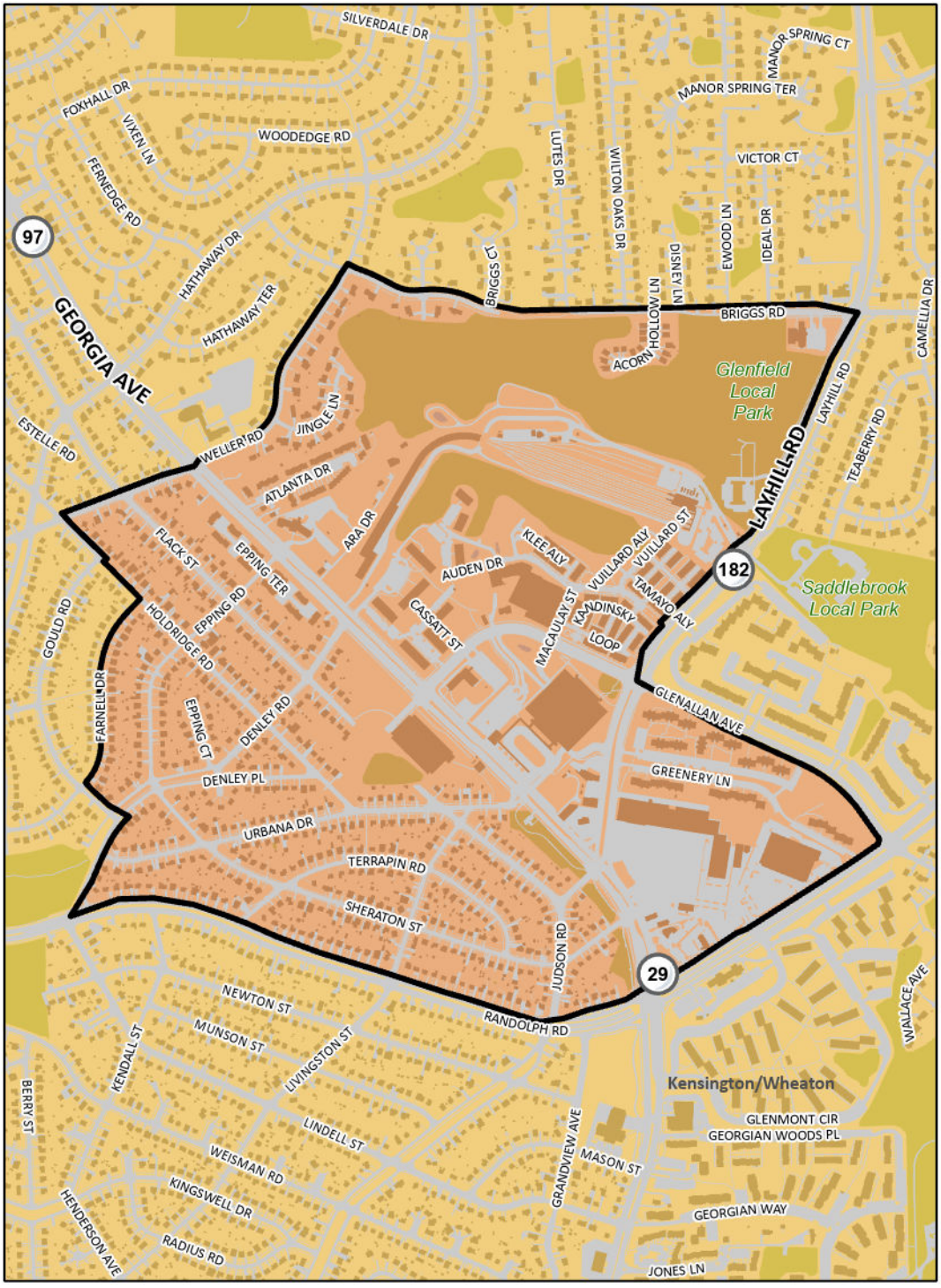


Policy Area

Red
Orange
Yellow
Green

0 3,000 6,000 Feet

20. Glenmont Policy Area



Policy Area

Red

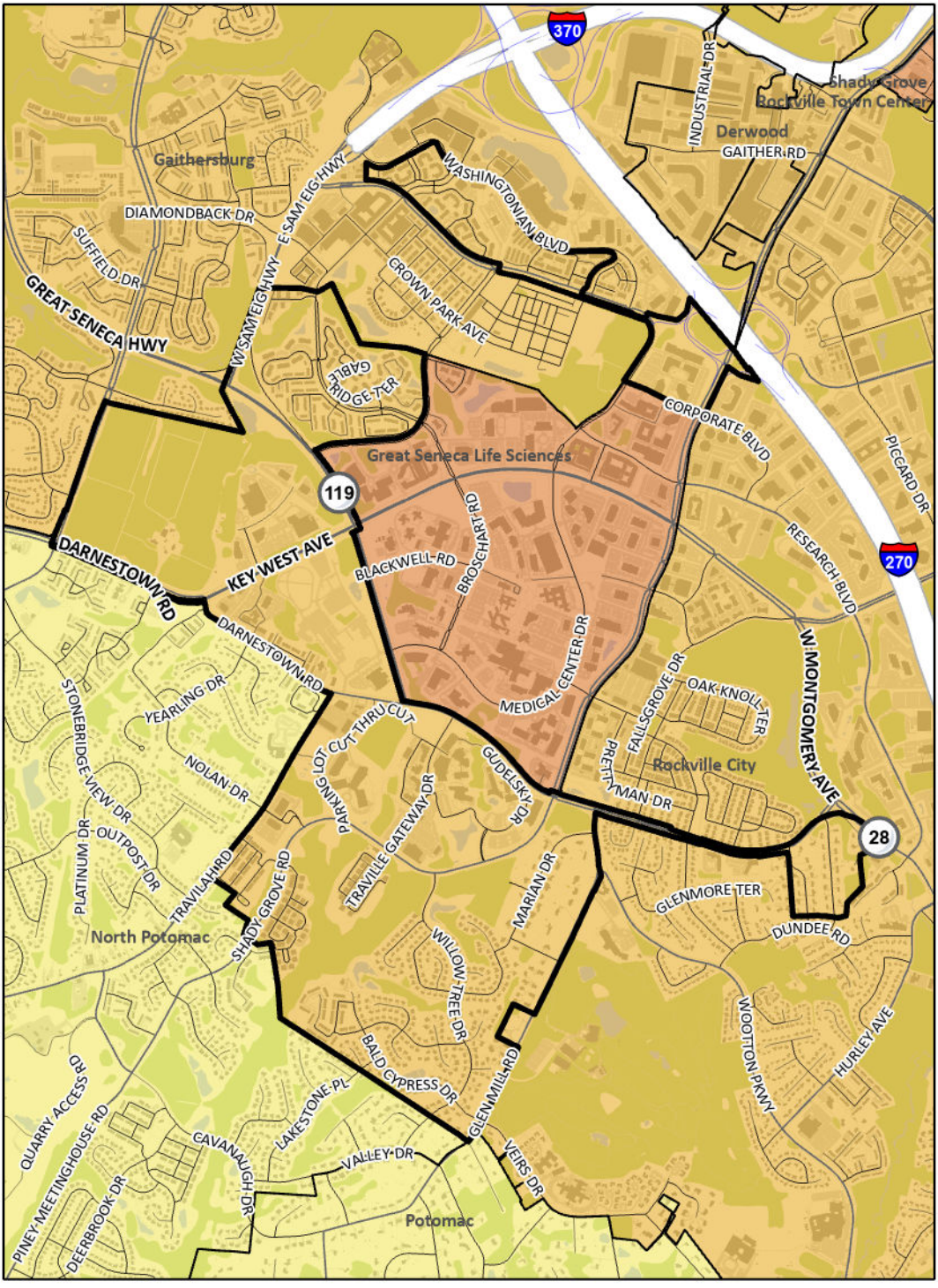
Orange

Yellow

Green

0 640 1,280 Feet

21. Great Seneca Communities Policy Area

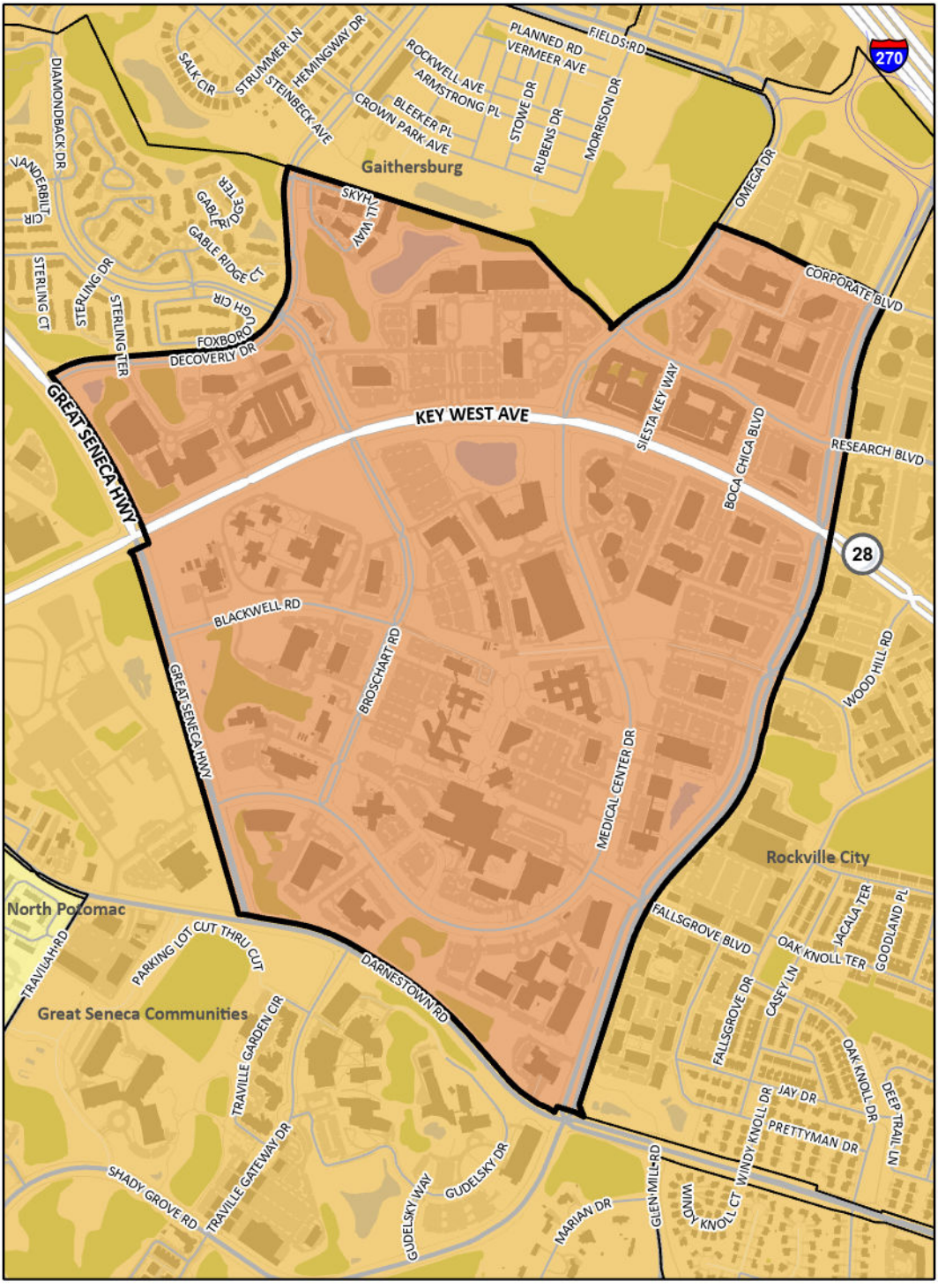


Policy Area

Red
Orange
Yellow
Green

0 1,000 2,000 Feet

22. Great Seneca Life Science Center Policy Area



Policy Area

Red

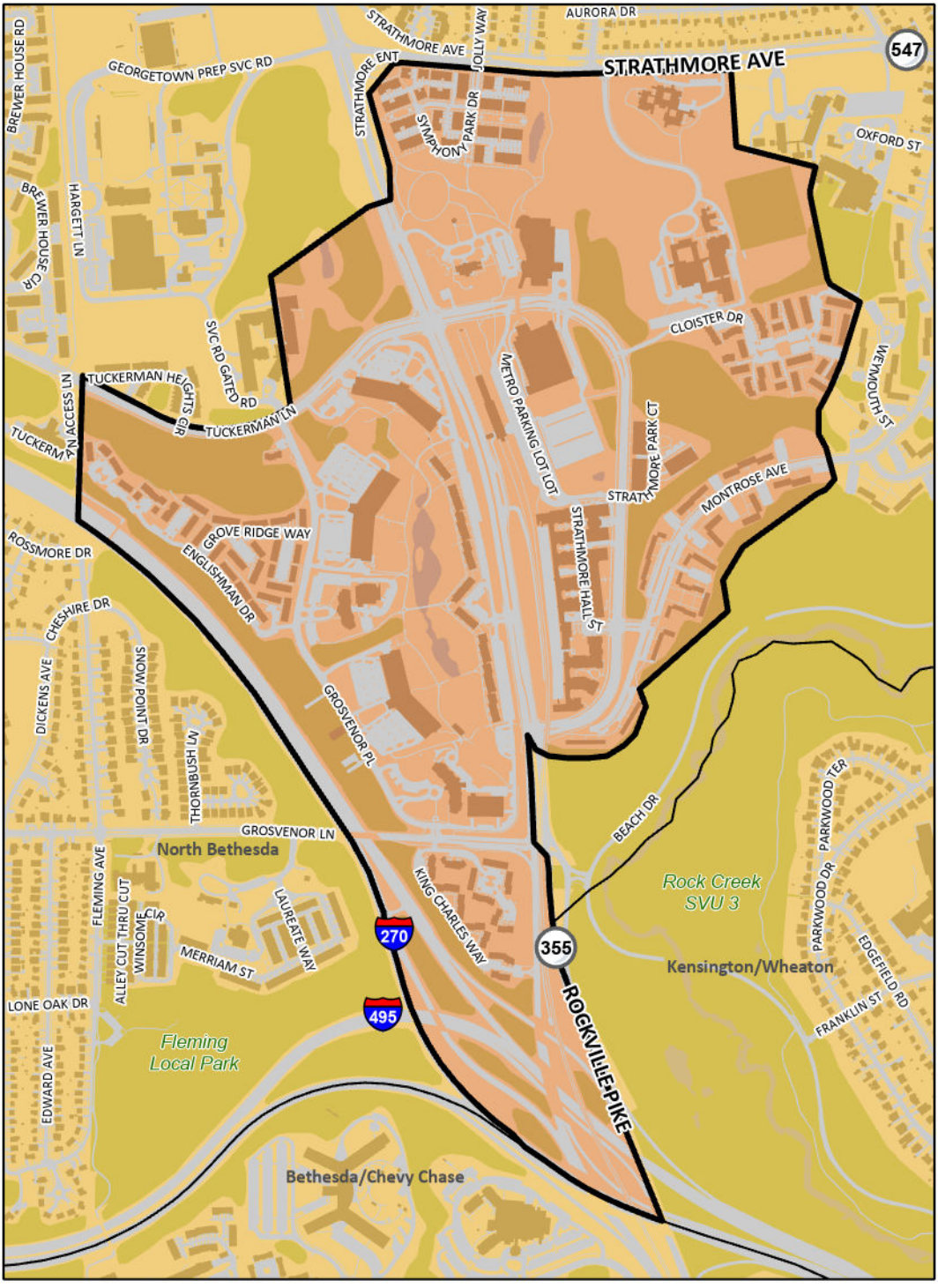
Orange

Yellow

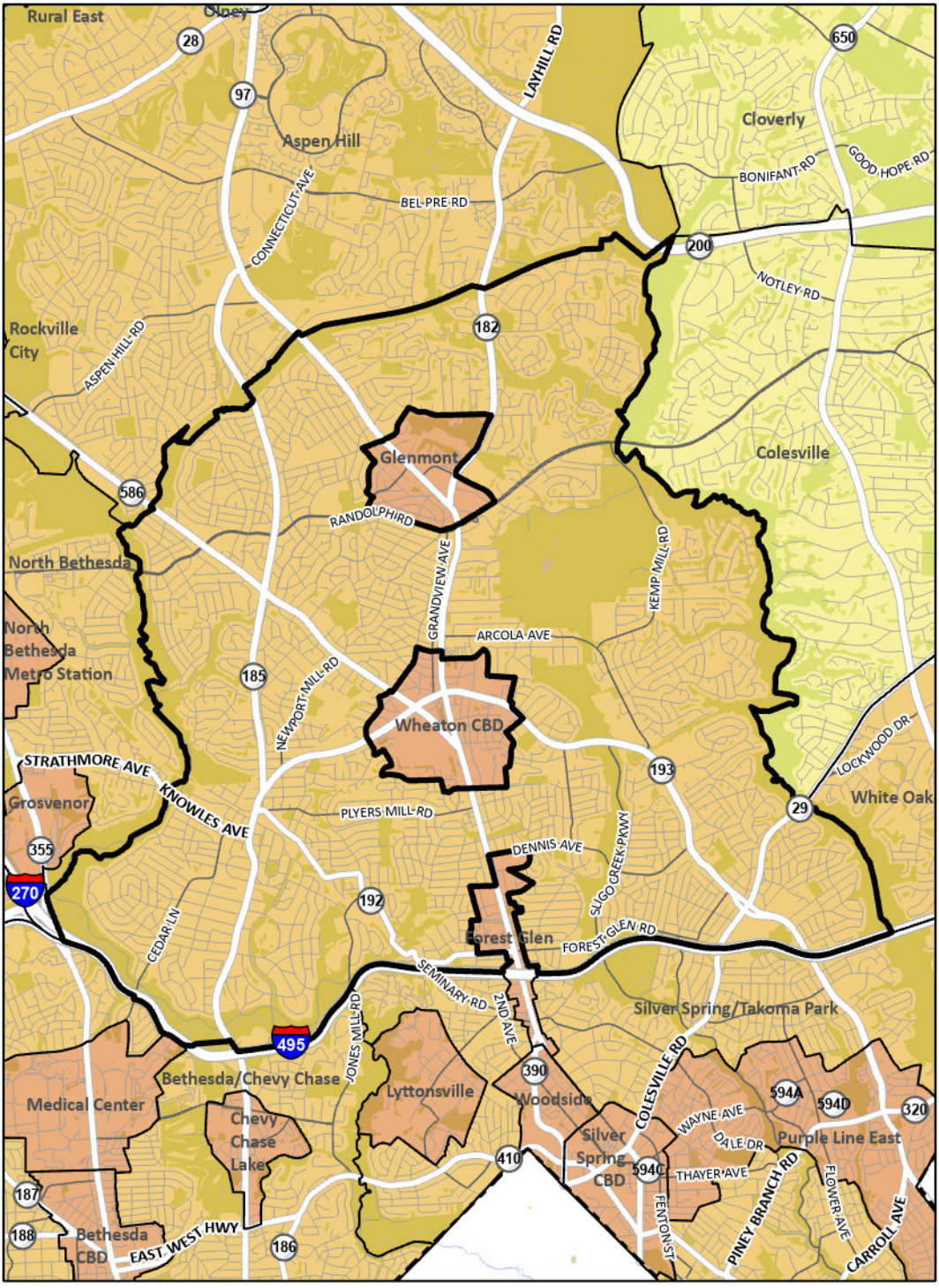
Green

0 690 1,380 Feet

23. Grosvenor Policy Area



24. Kensington/Wheaton Policy Area

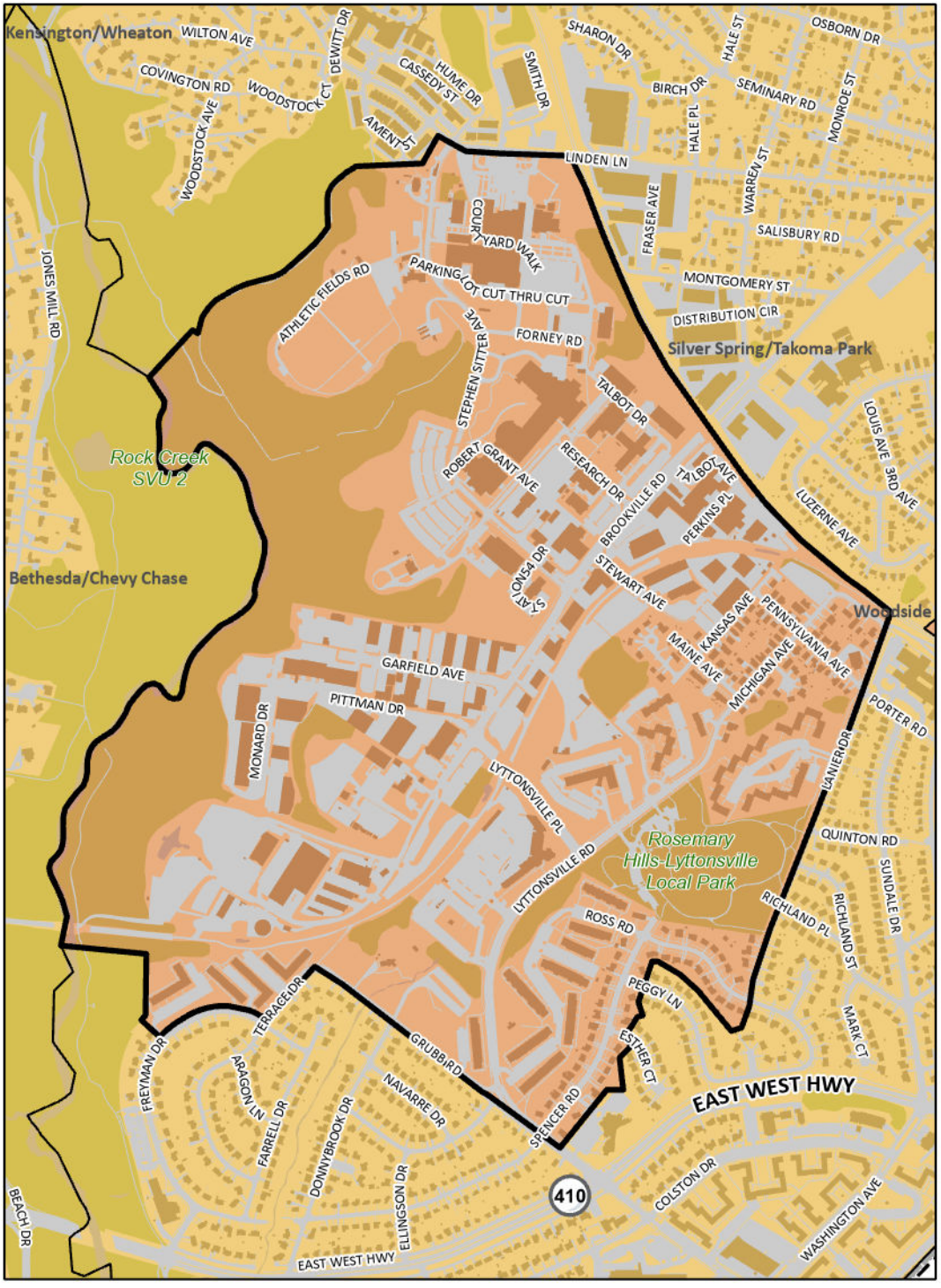


Policy Area

Red
Orange
Yellow
Green

0 3,000 6,000 Feet

25. Lyttonsville Policy Area

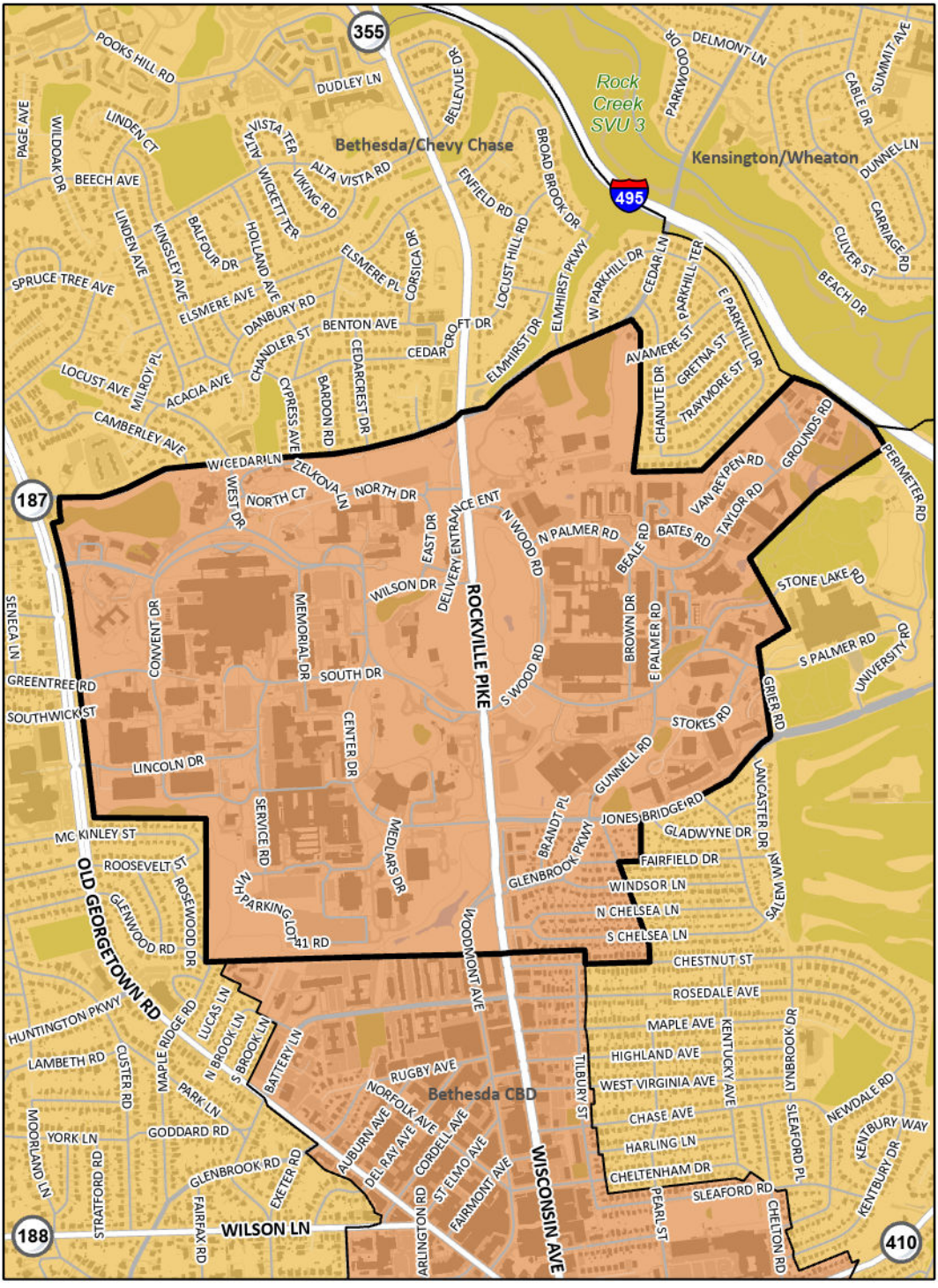


Policy Area

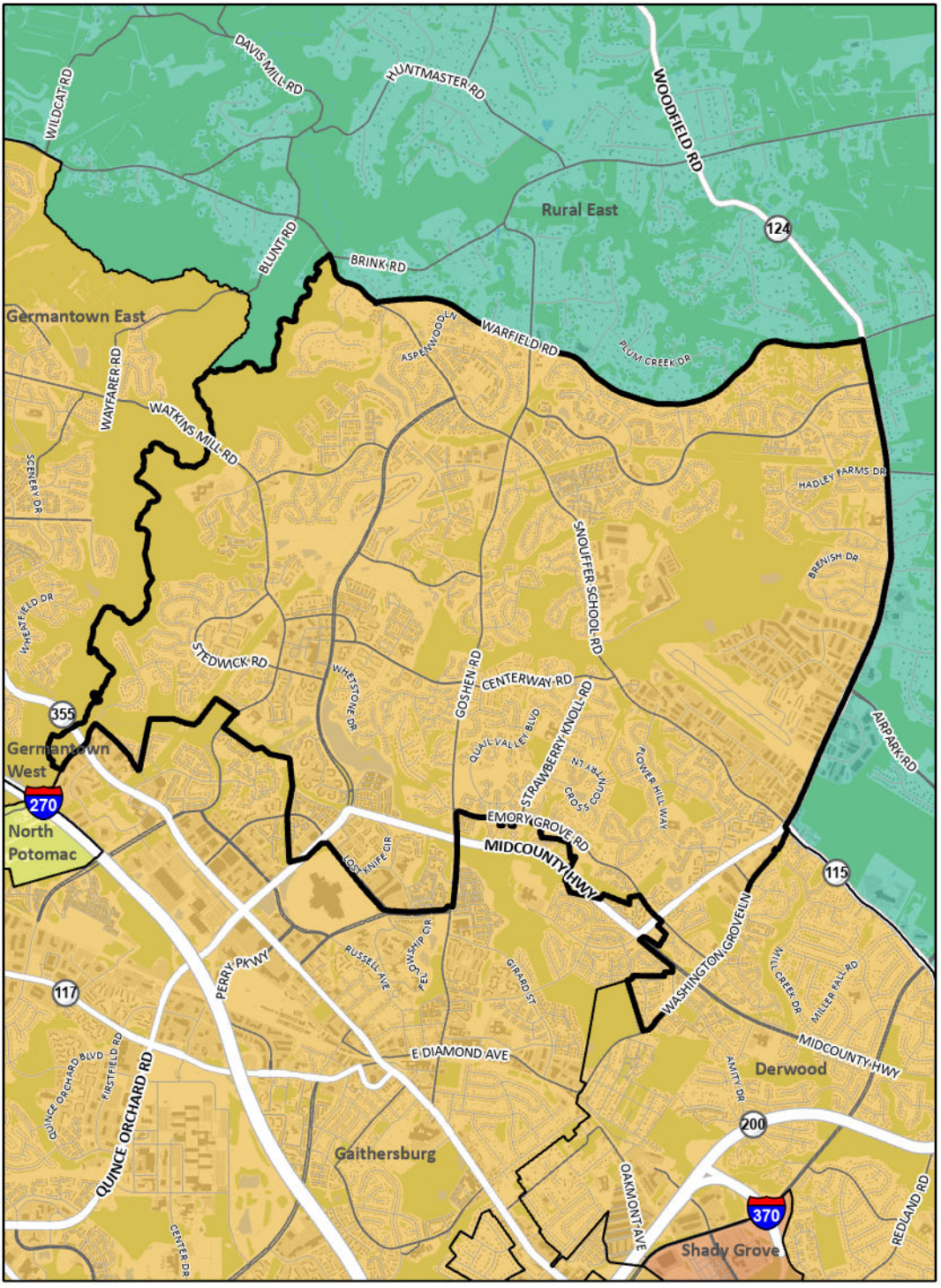
Red
Orange
Yellow
Green

0 610 1,220 Feet

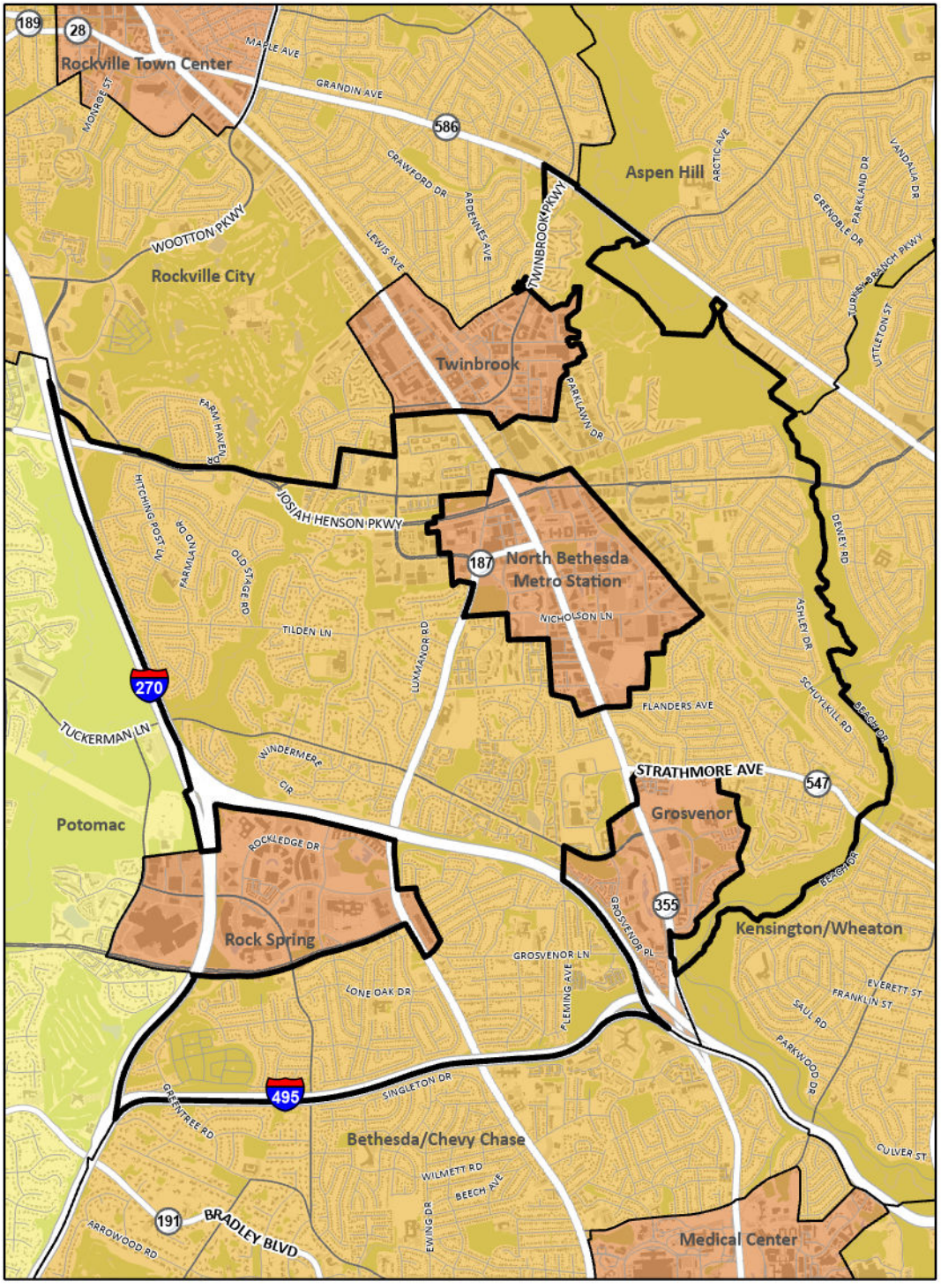
26. Medical Center Policy Area



27. Montgomery Village/Airpark Policy Area



28. North Bethesda Policy Area

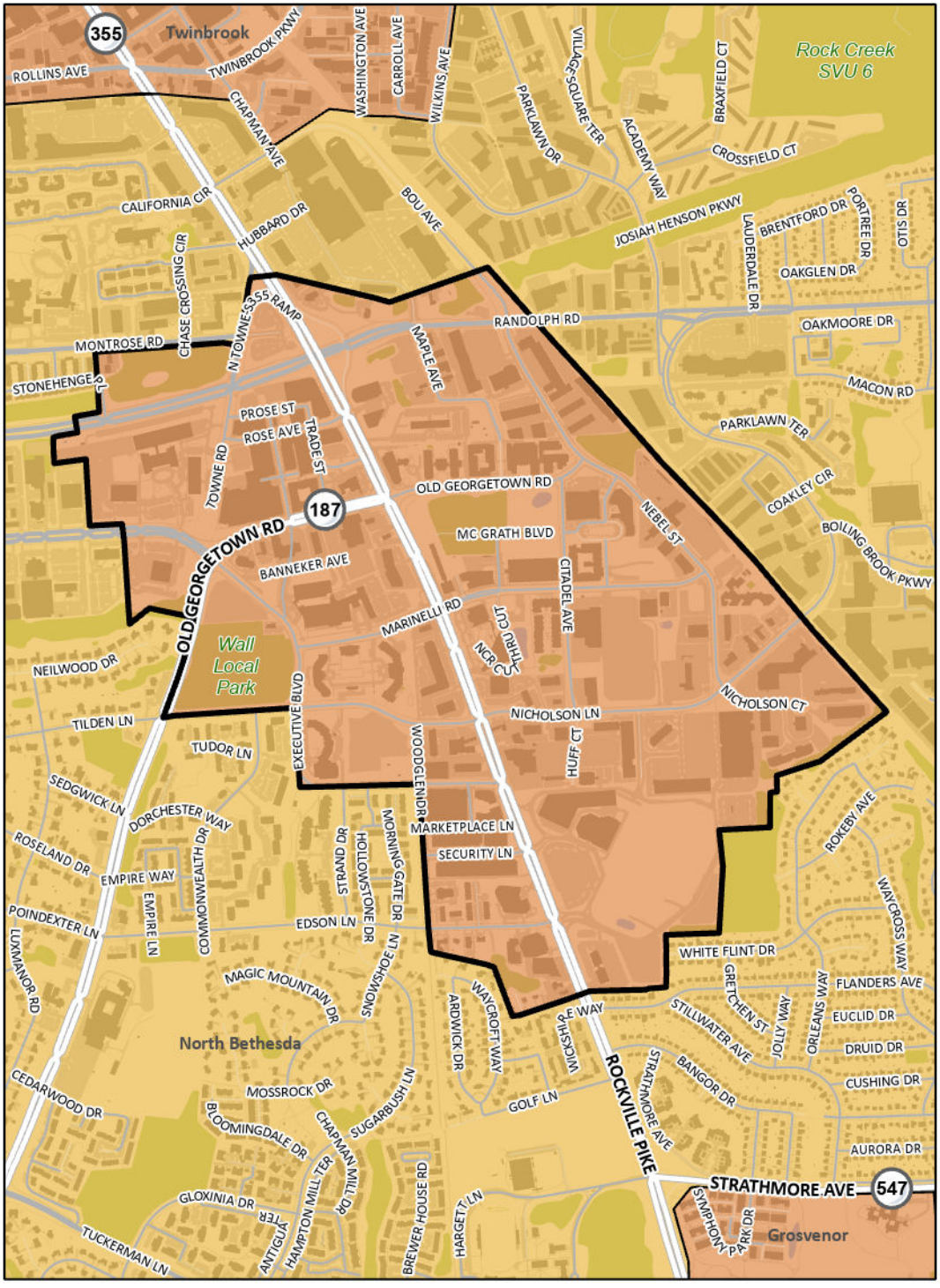


Policy Area

Red
Orange
Yellow
Green

0 2,500 5,000 Feet

29. North Bethesda Metro Station Policy Area



Policy Area

Red

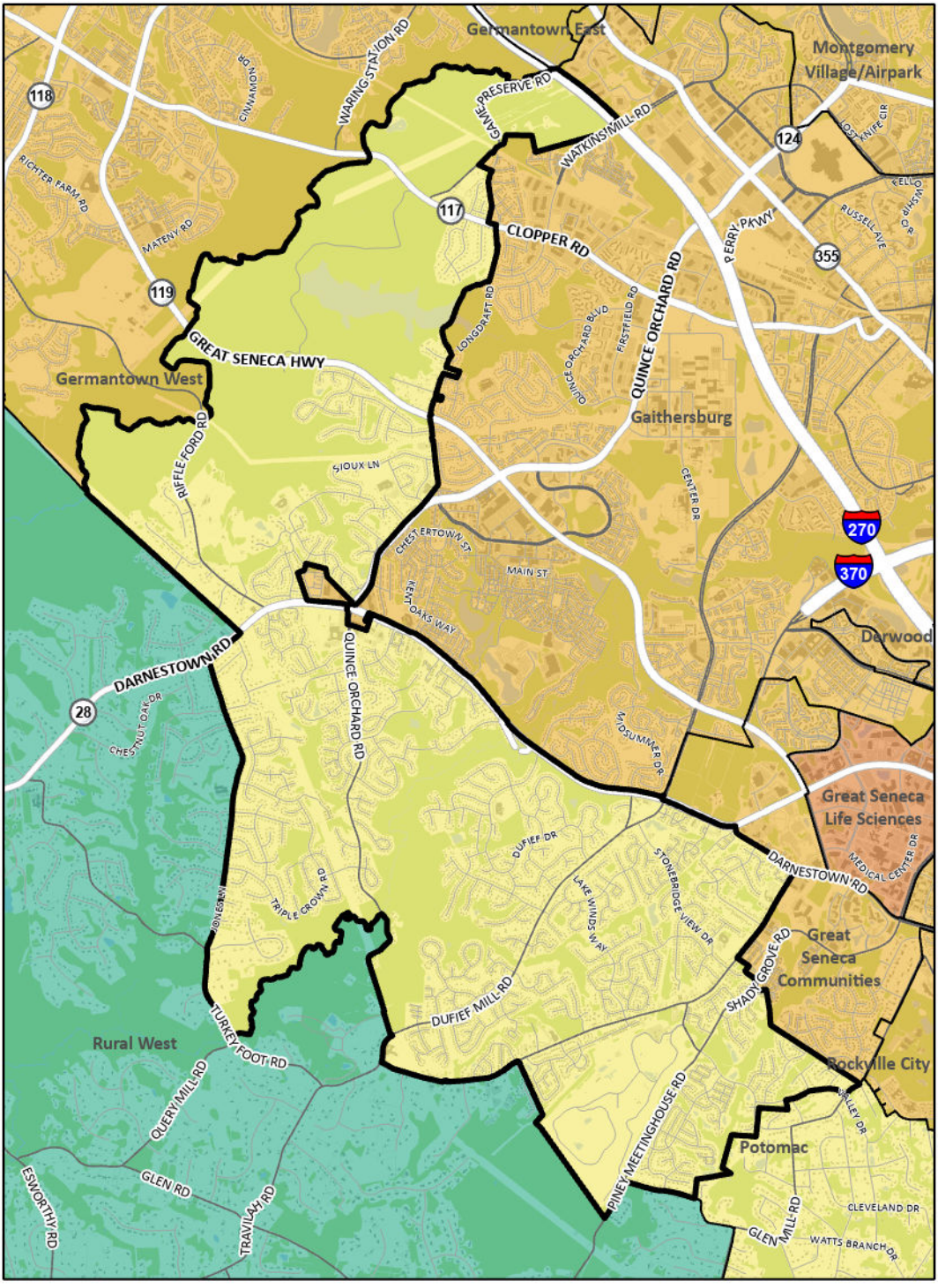
Orange

Yellow

Green

0 850 1,700 Feet

30. North Potomac Policy Area

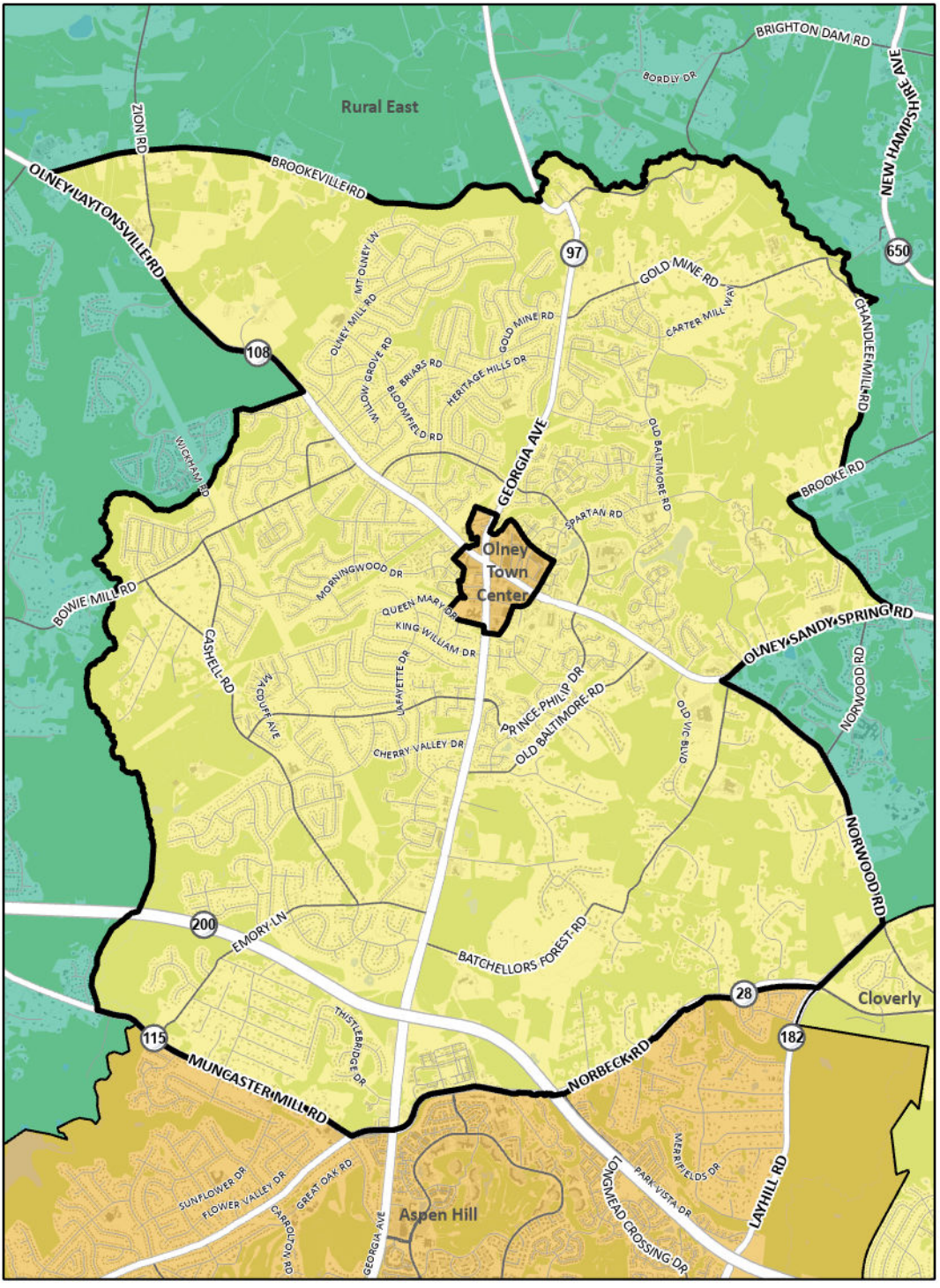


Policy Area

Red
Orange
Yellow
Green

0 3,000 6,000 Feet

31. Olney Policy Area



Policy Area

Red

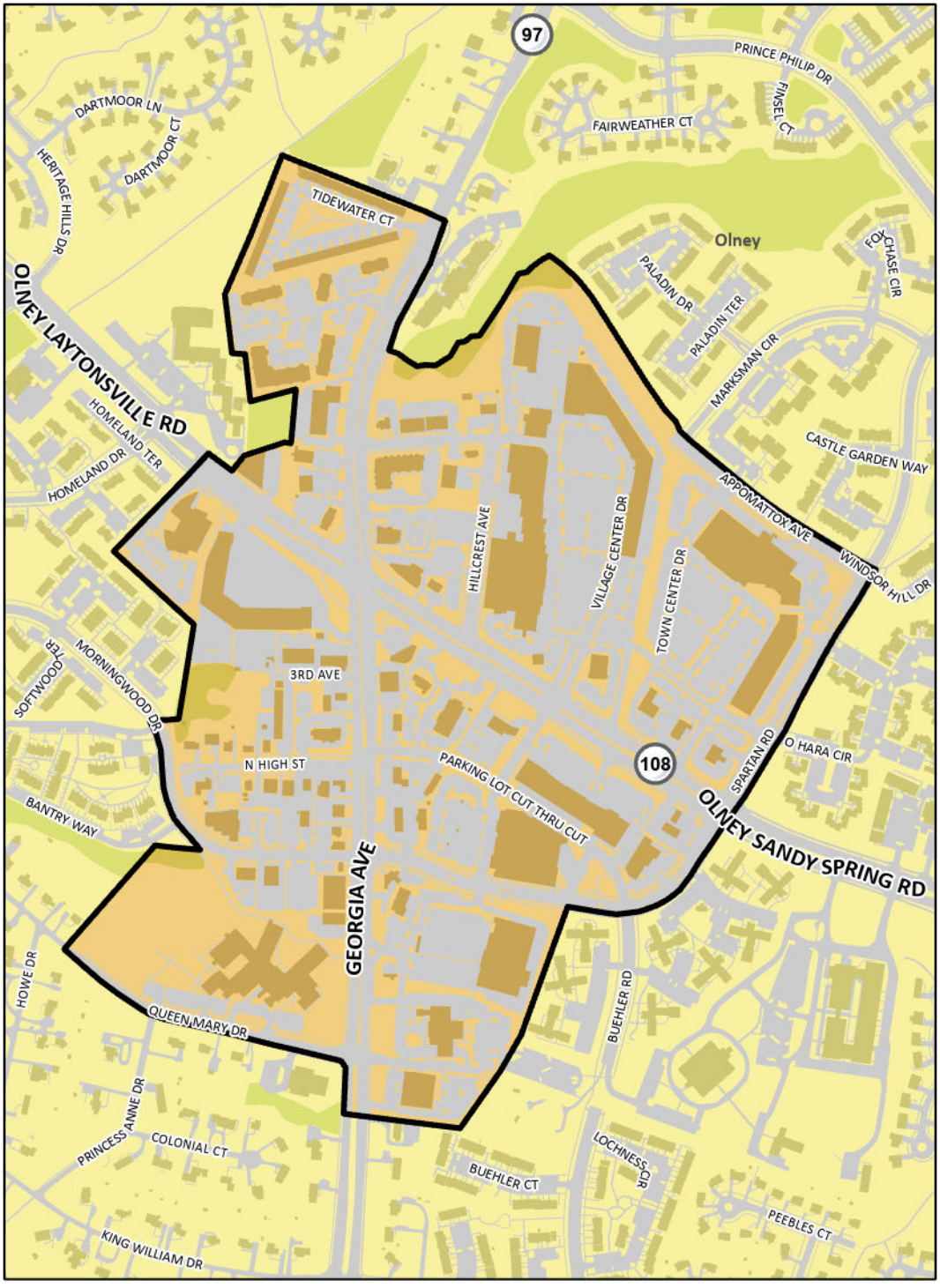
Orange

Yellow

Green

0 3,000 6,000 Feet

32. Olney Town Center Policy Area



Policy Area

Red

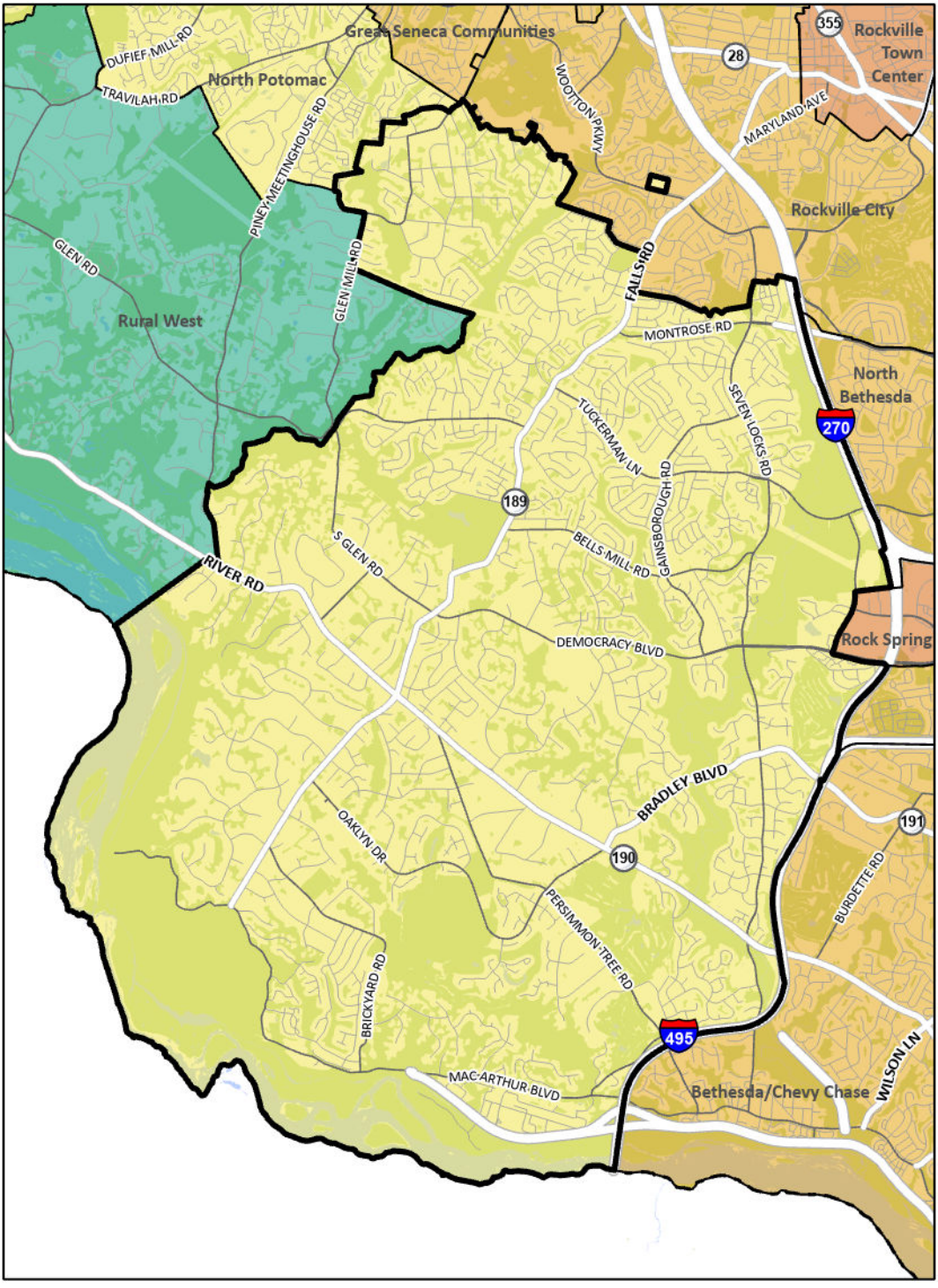
Orange

Yellow

Green

0 400 800 Feet

33. Potomac Policy Area

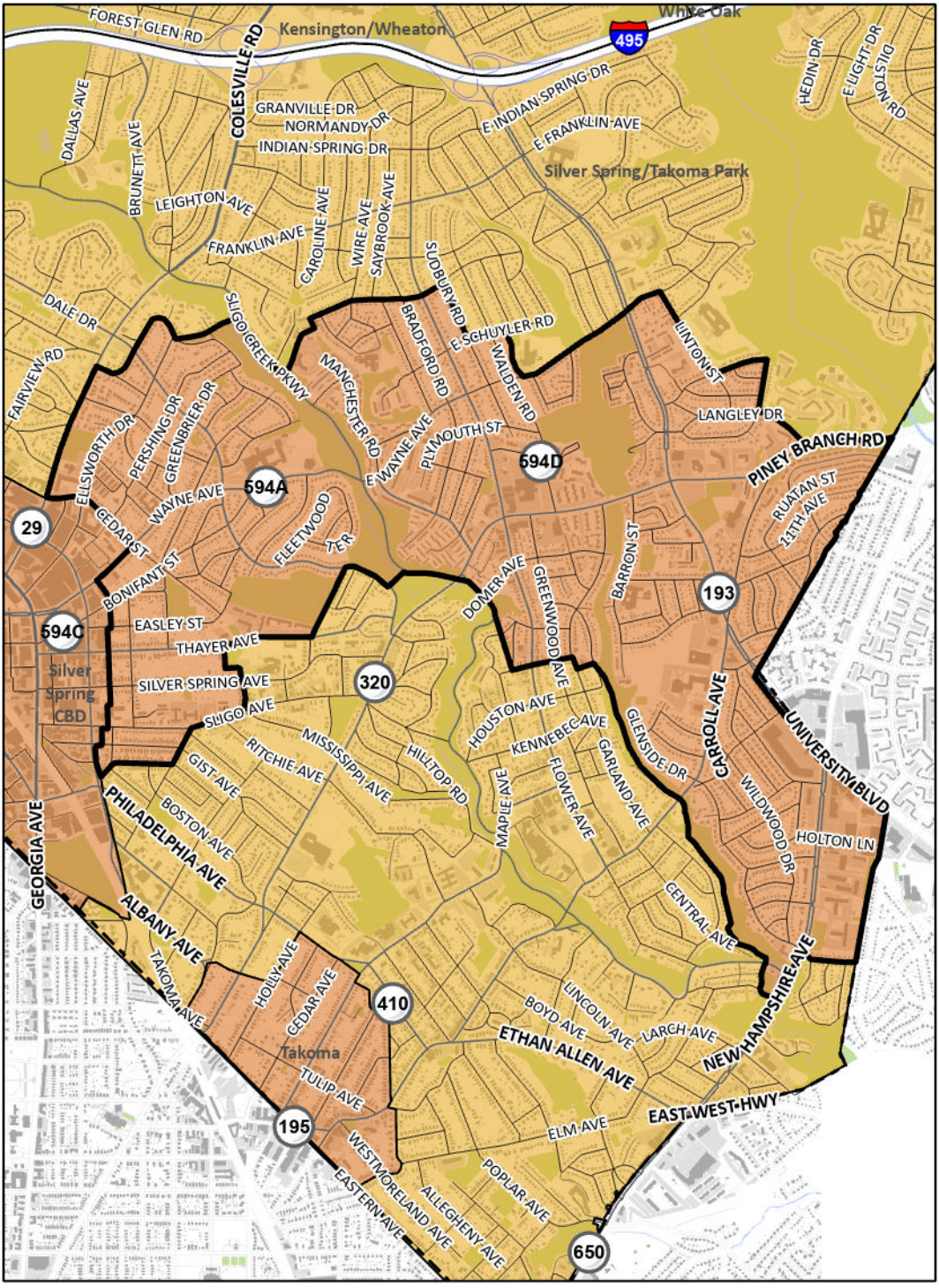


Policy Area

Red
Orange
Yellow
Green

0 4,000 8,000 Feet

34. Purple Line East Policy Area



Policy Area

Red

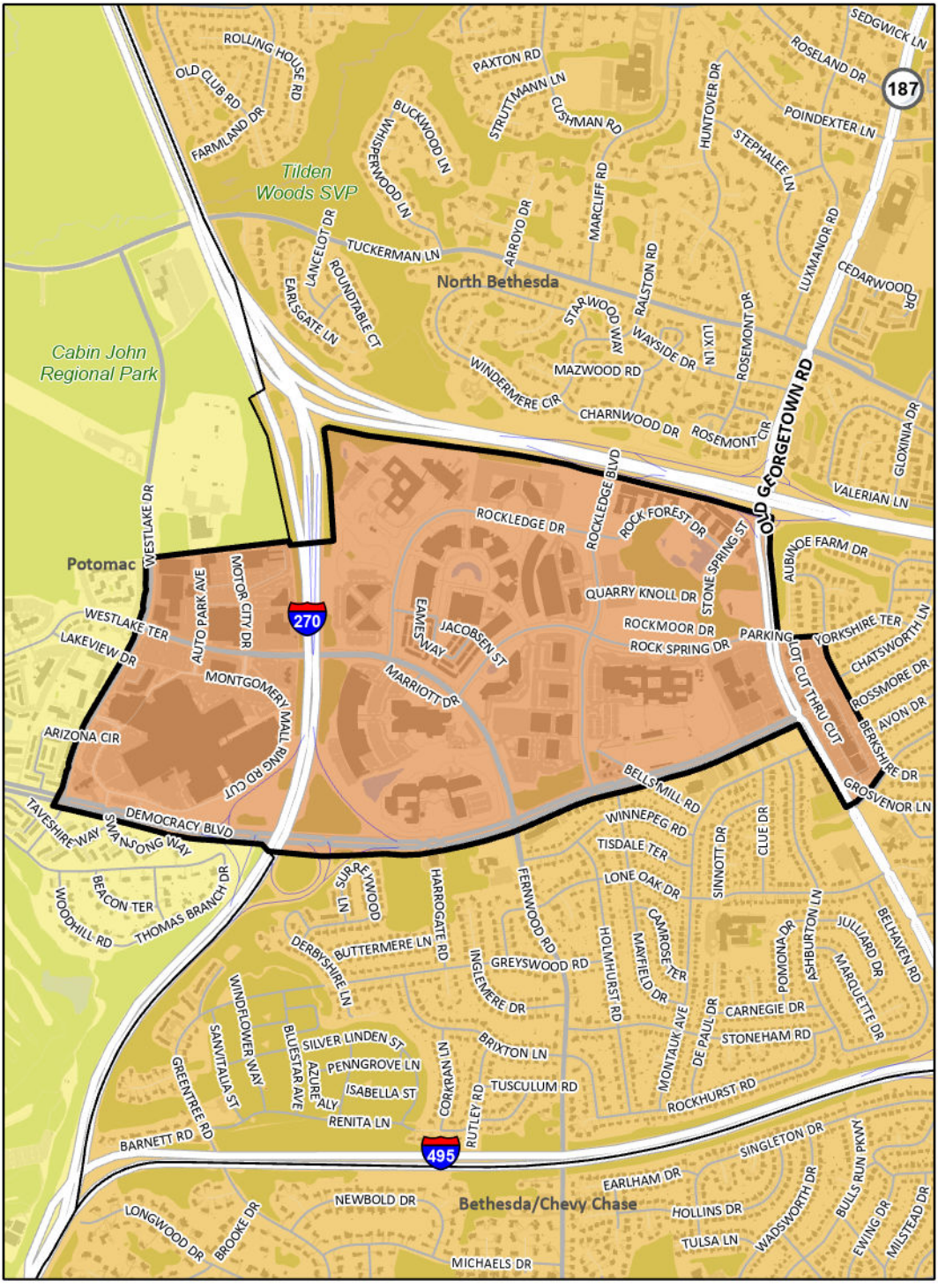
Orange

Yellow

Green

0 1,000 2,000 Feet

35. Rock Spring Policy Area



Policy Area

Red

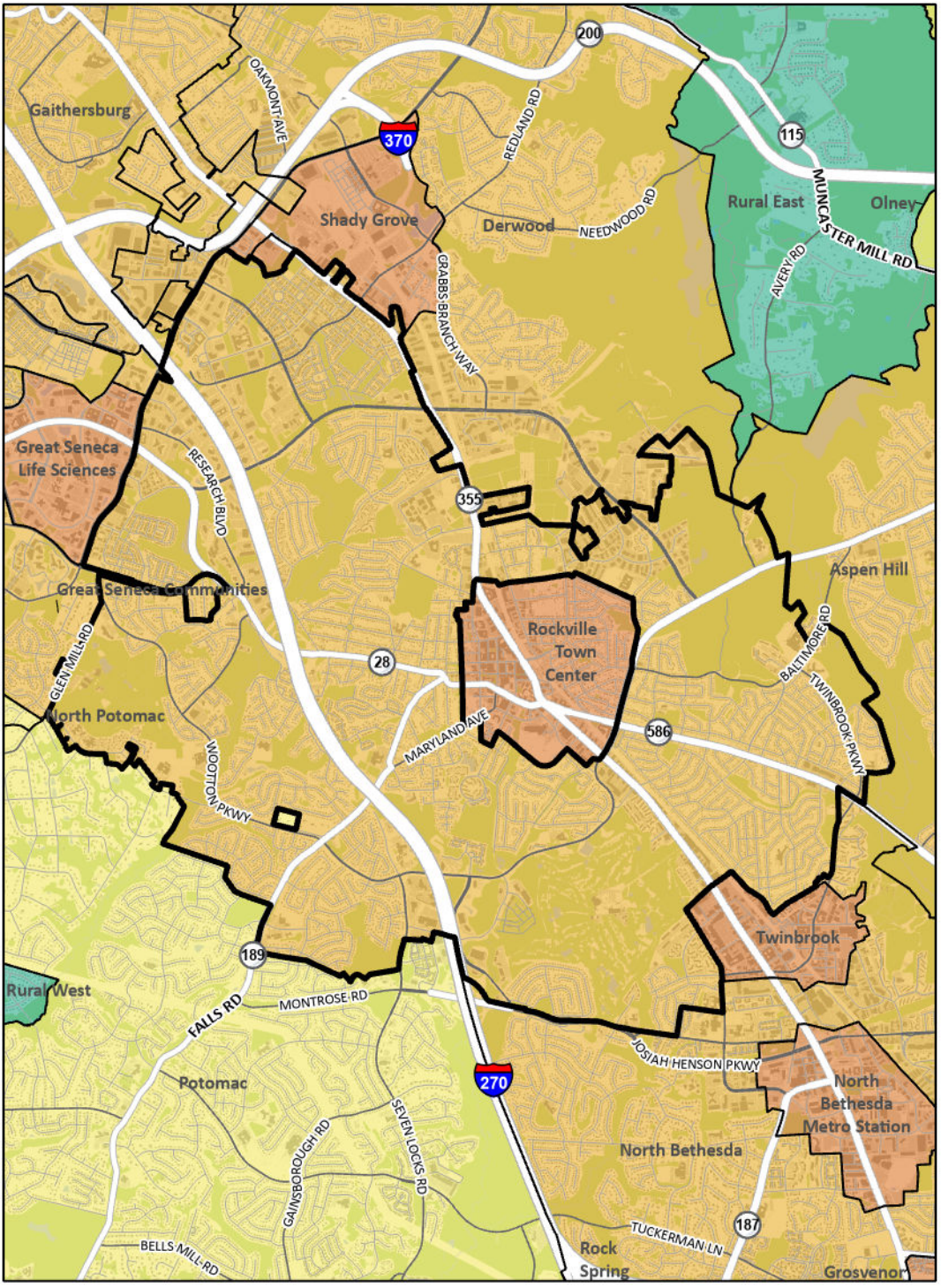
Orange

Yellow

Green

0 1,000 2,000 Feet

36. Rockville City Policy Area

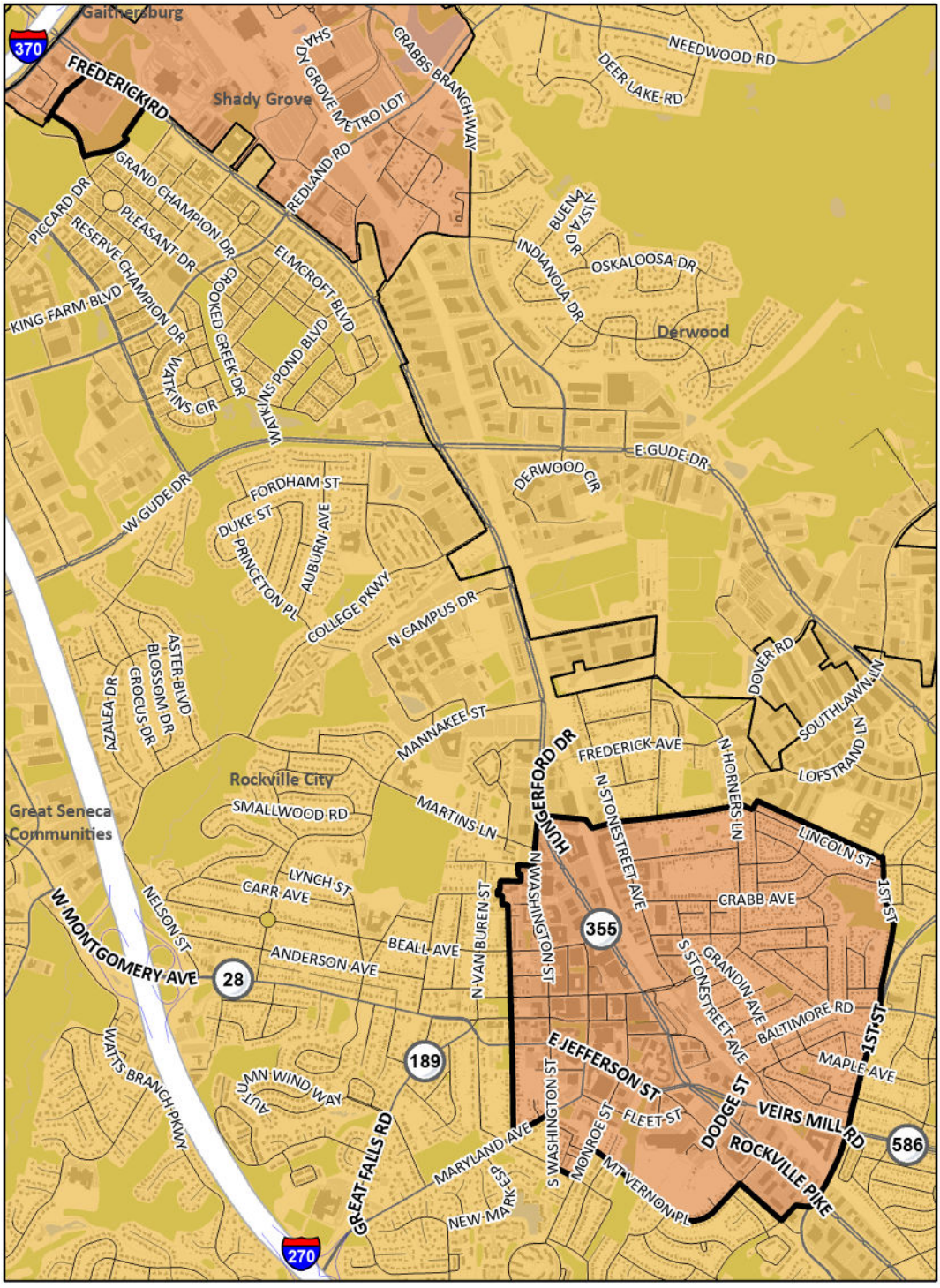


Policy Area

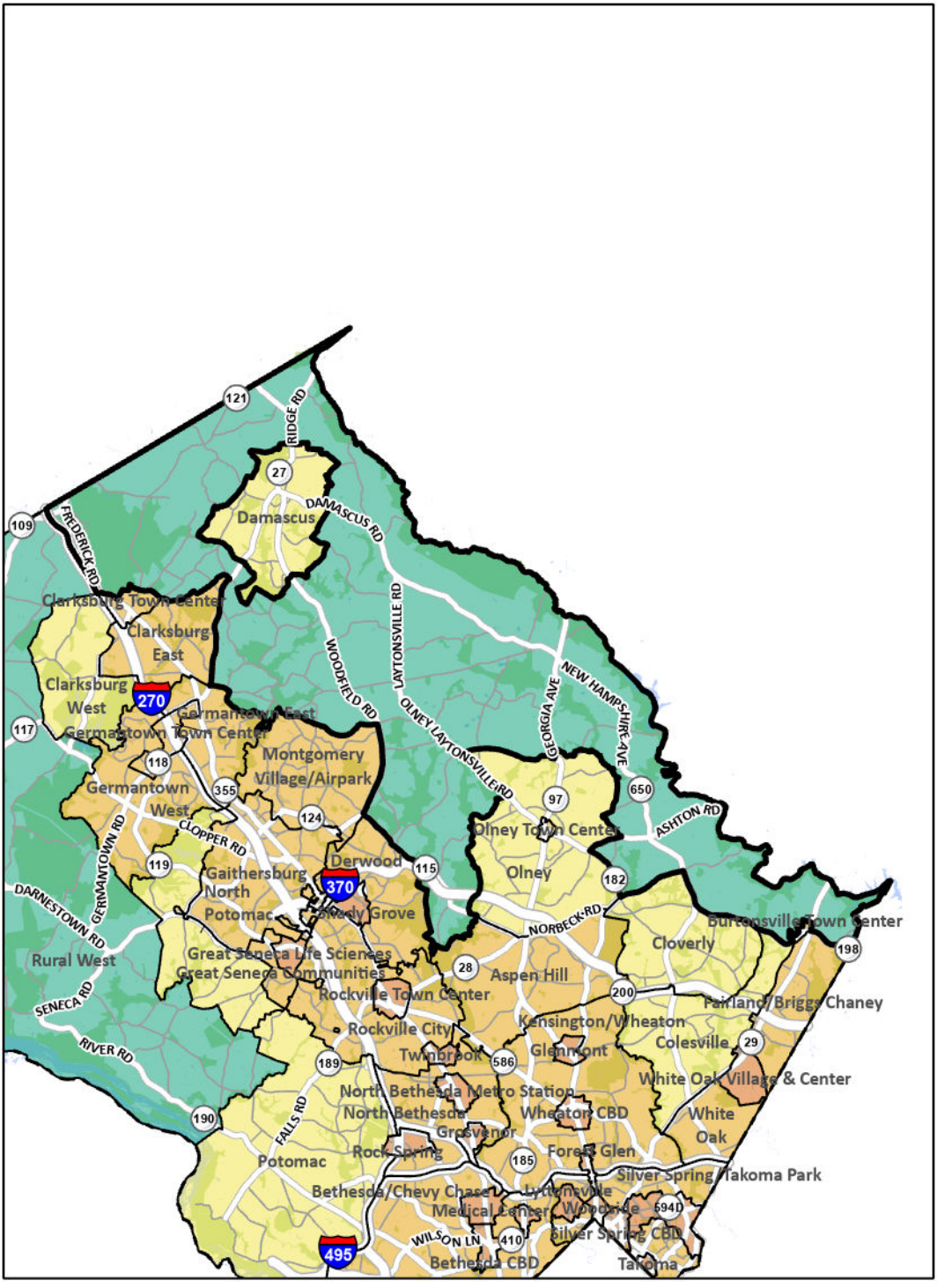
Red
Orange
Yellow
Green

0 3,000 6,000 Feet

37. Rockville Town Center Policy Area



38. Rural East Policy Area

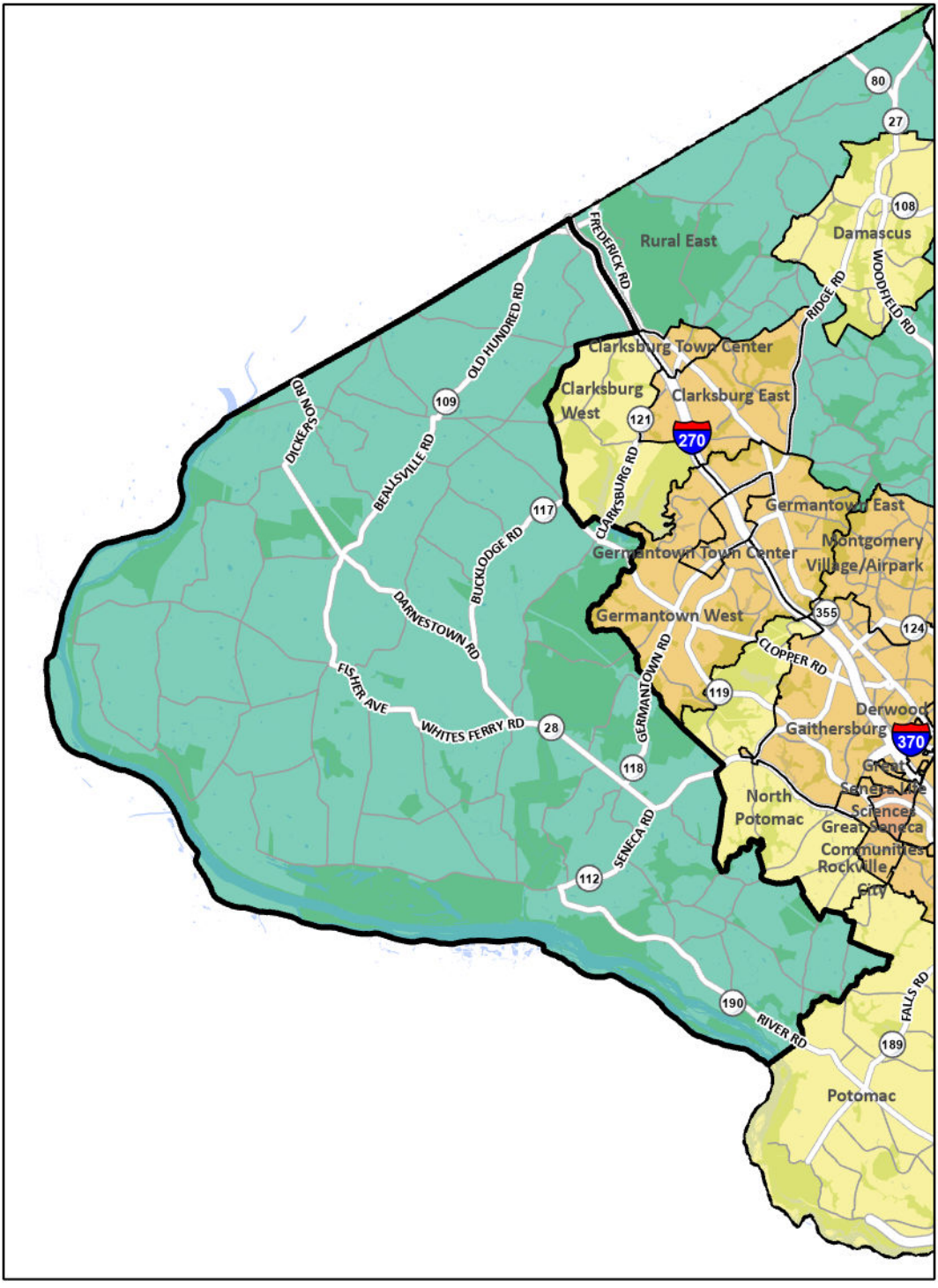


Policy Area

Red
Orange
Yellow
Green

0 10,000 20,000 Feet

39. Rural West Policy Area

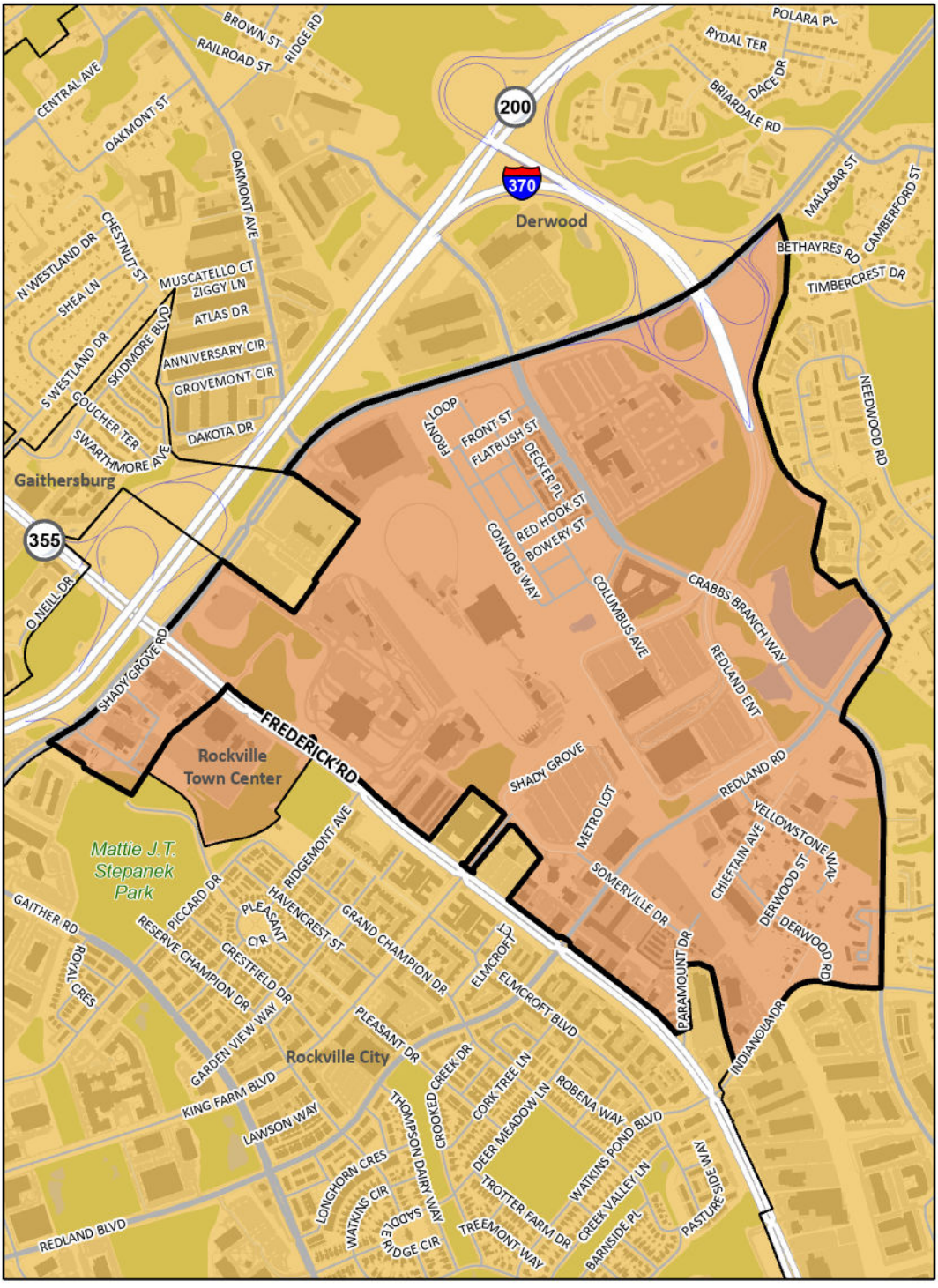


Policy Area

Red
Orange
Yellow
Green

0 10,000 20,000 Feet

40. Shady Grove Policy Area



Policy Area

Red

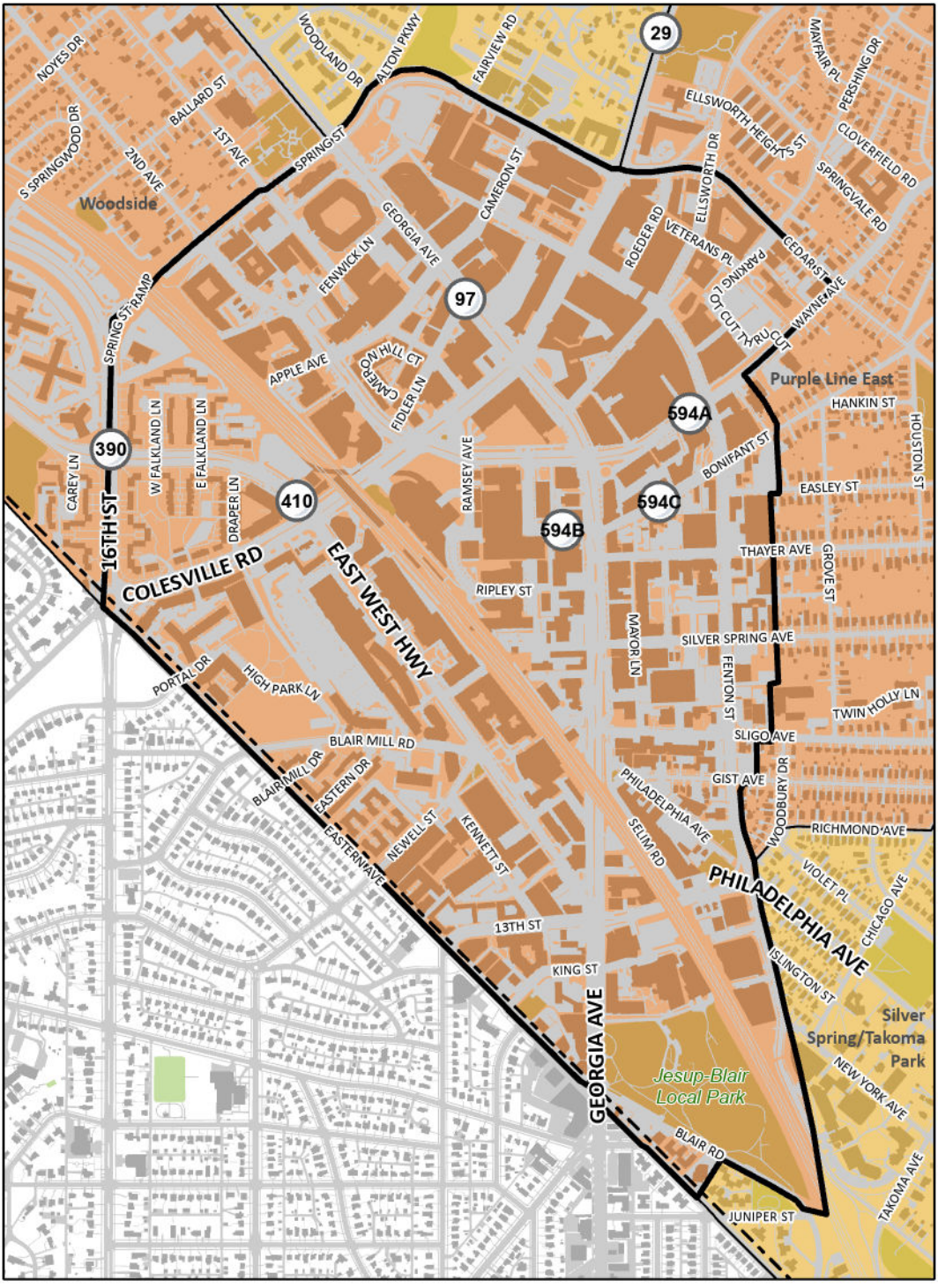
Orange

Yellow

Green

0 875 1,750 Feet

41. Silver Spring CBD Policy Area

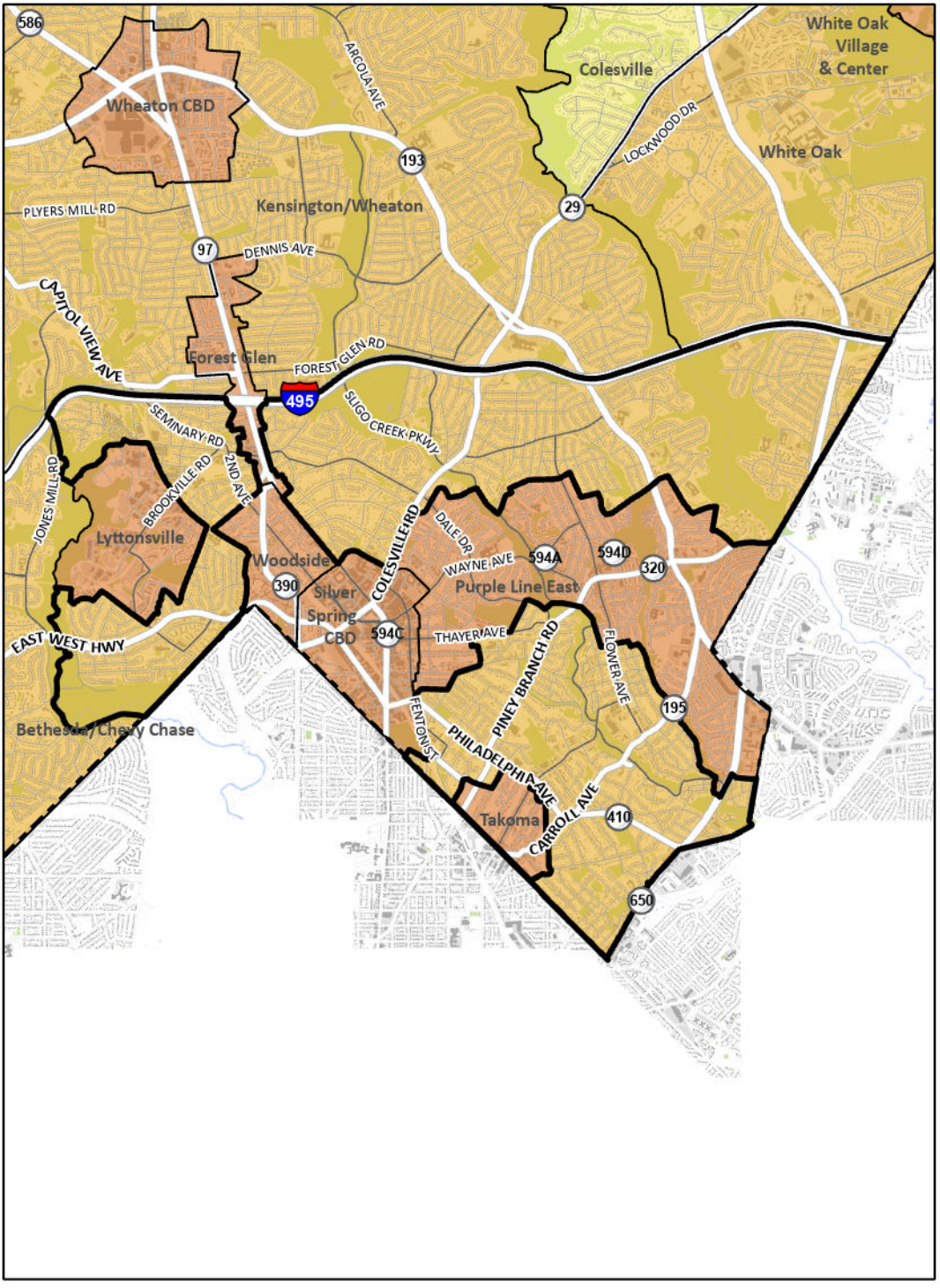


Policy Area

Red
Orange
Yellow
Green

0 610 1,220 Feet

42. Silver Spring/Takoma Park Policy Area

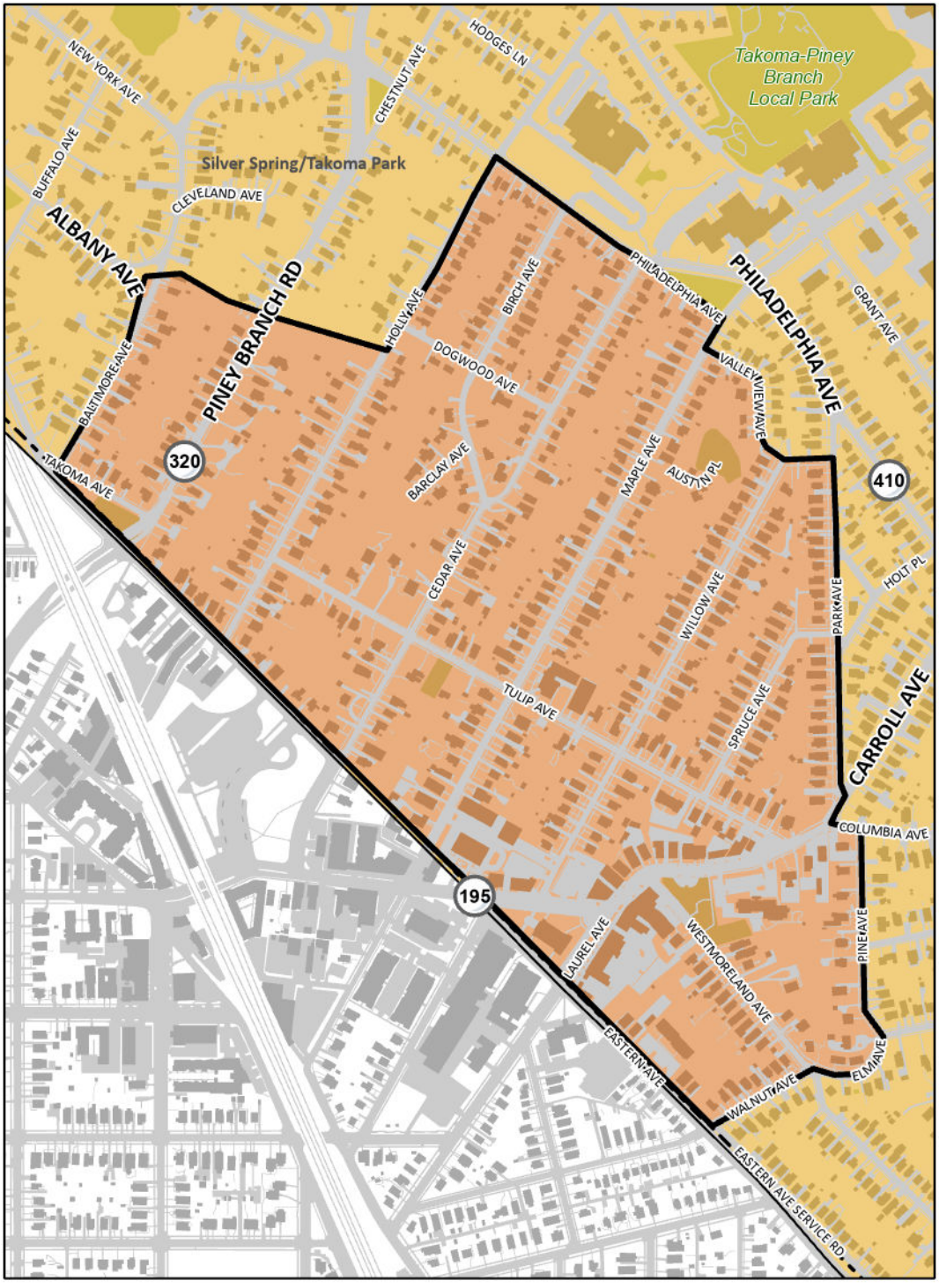


Policy Area

Red
Orange
Yellow
Green

0 3,000 6,000 Feet

43. Takoma Policy Area



Policy Area

Red

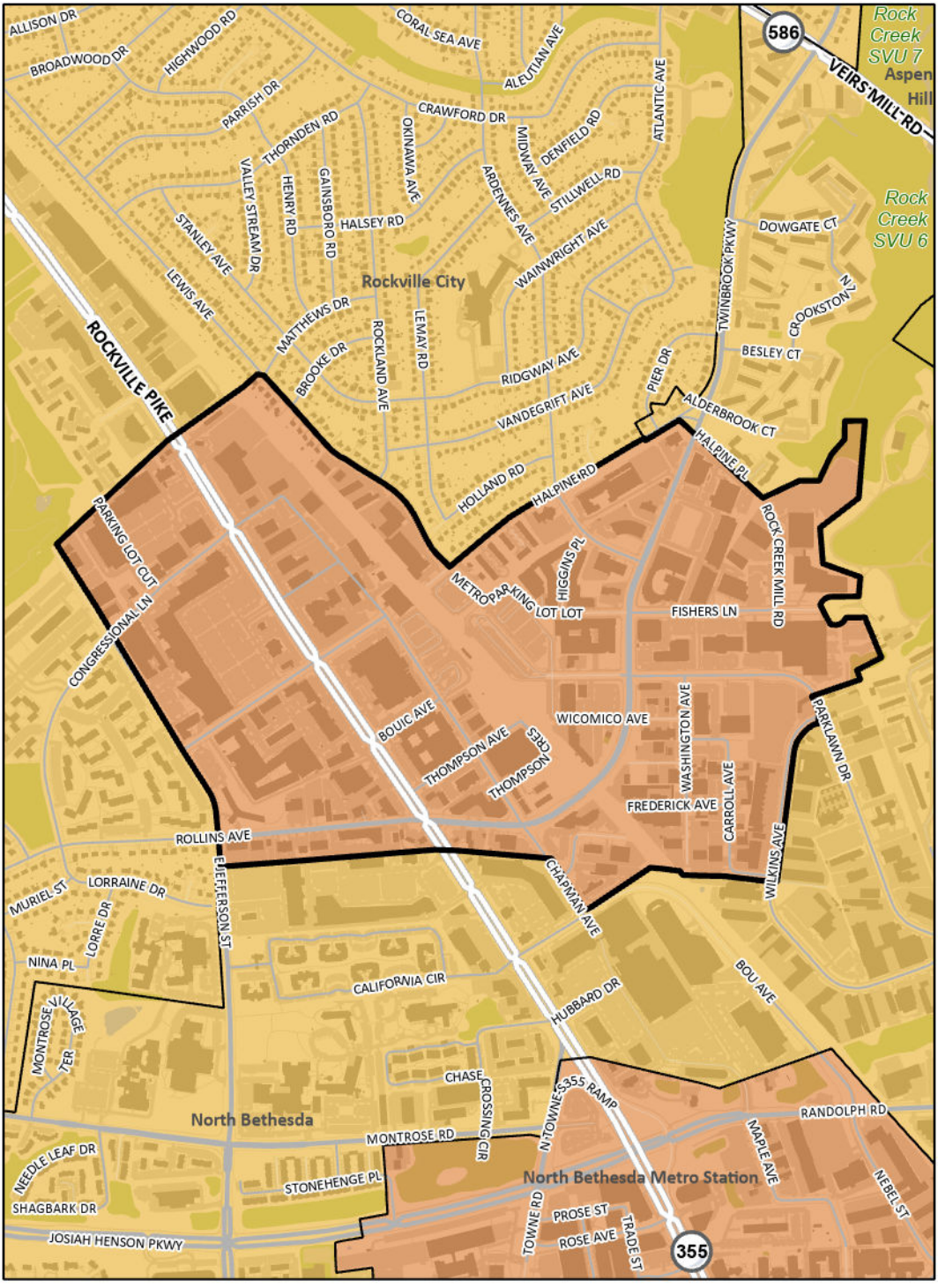
Orange

Yellow

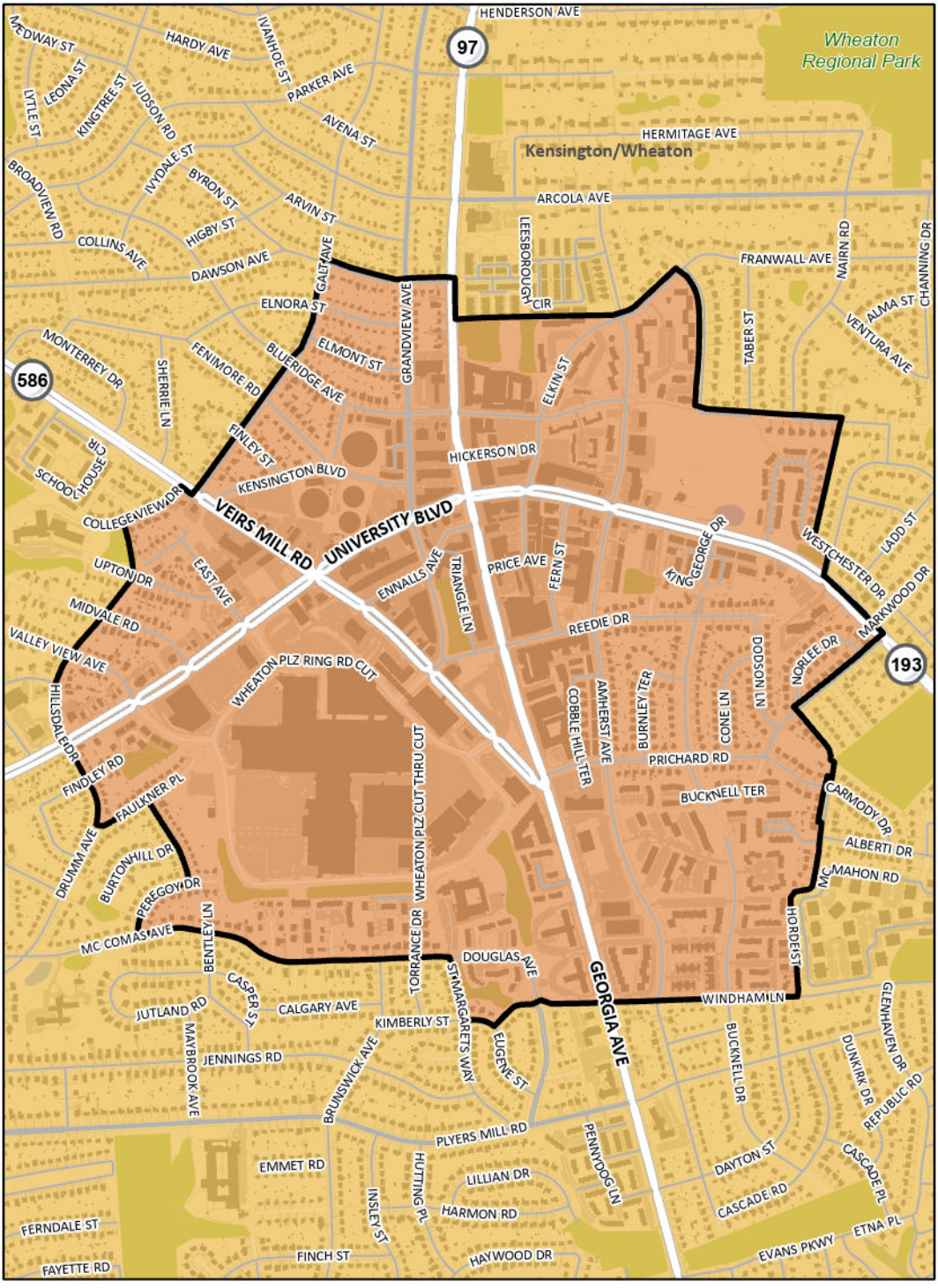
Green

0 400 800 Feet

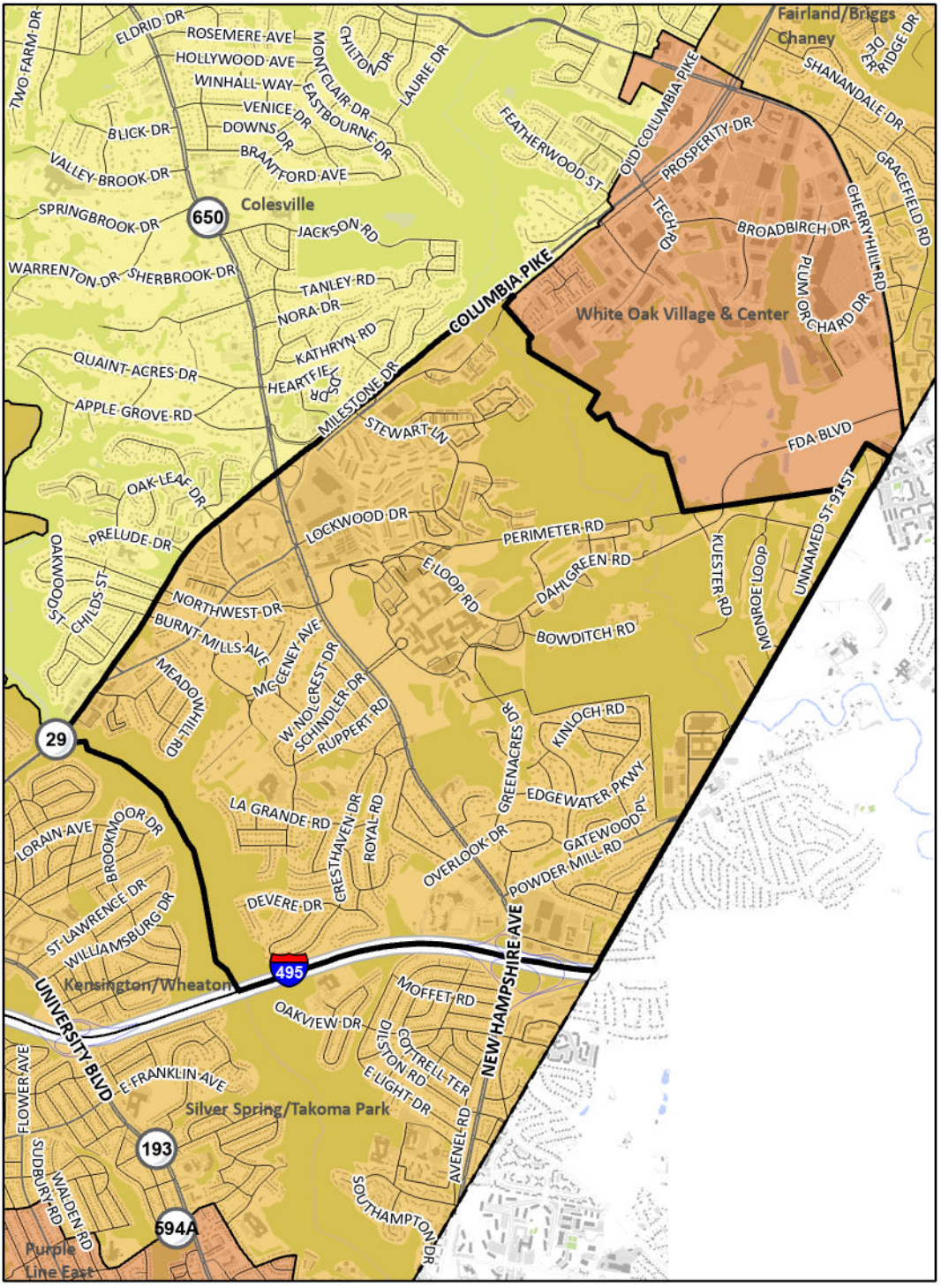
44. Twinbrook Policy Area



45. Wheaton CBD Policy Area



46. White Oak Policy Area

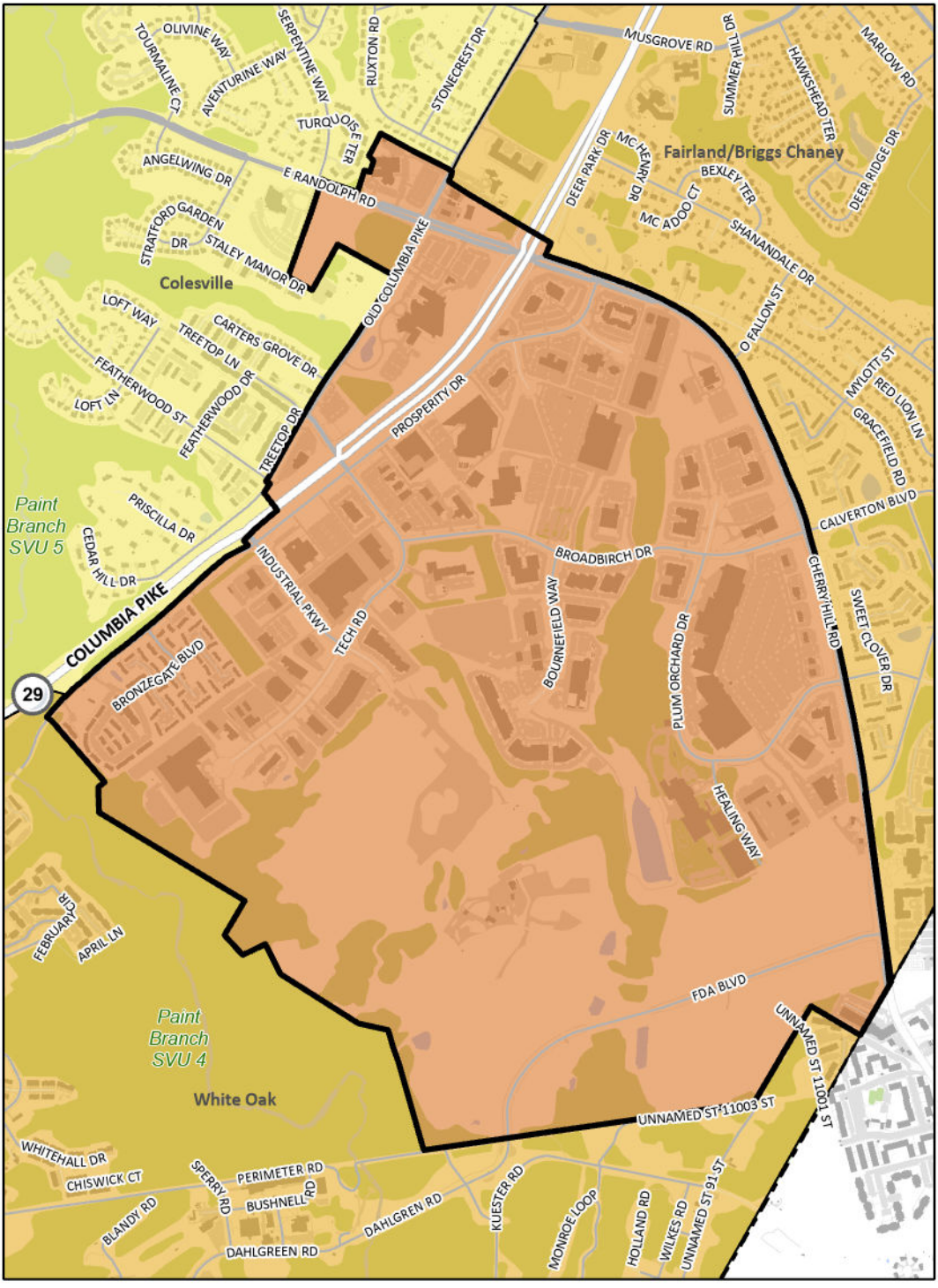


Policy Area

Red
Orange
Yellow
Green

0 1,000 2,000 Feet

47. White Oak Village & Center Policy Area



Policy Area

Red

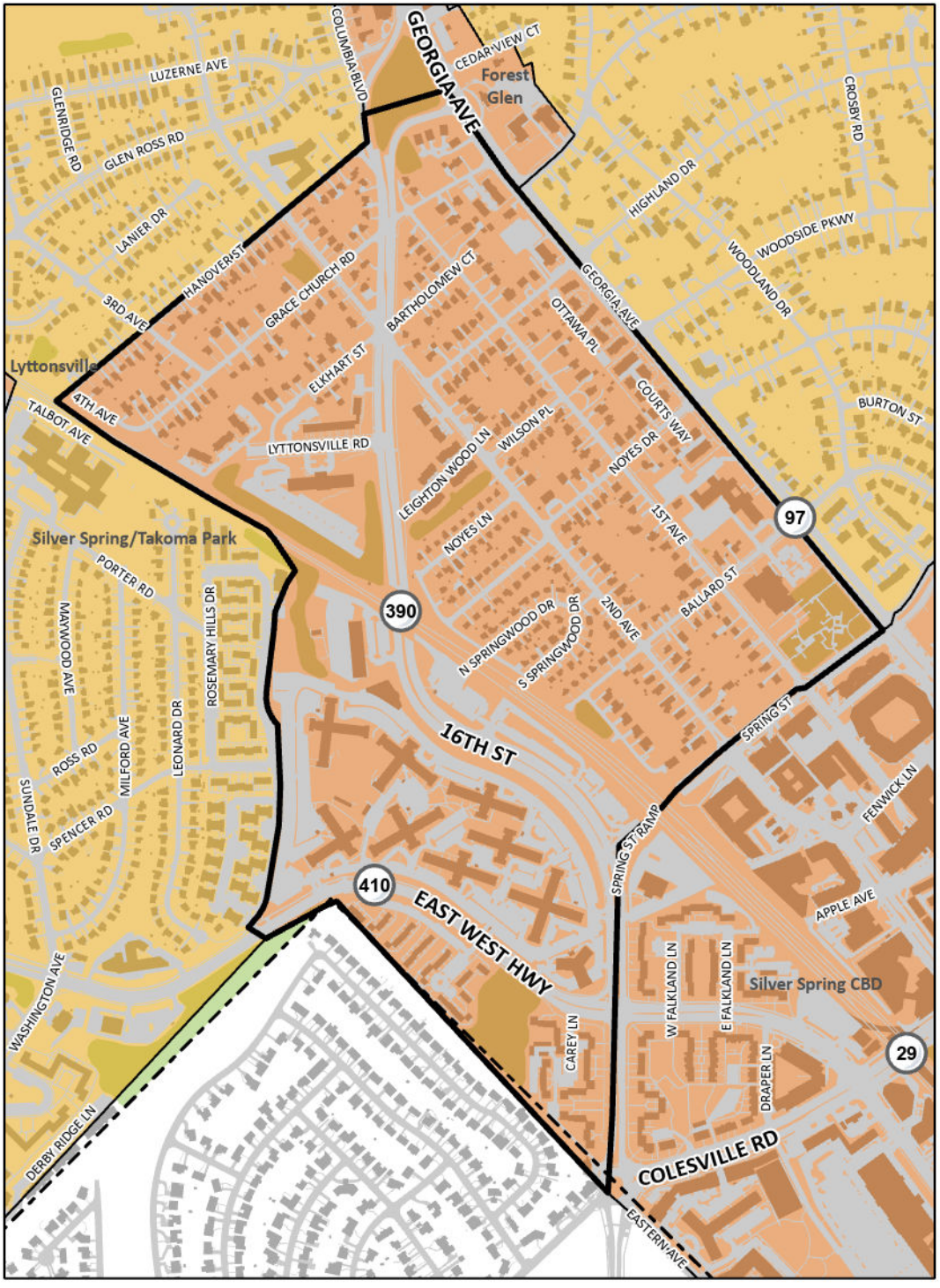
Orange

Yellow

Green

0 930 1,860 Feet

48. Woodside Policy Area



Policy Area

Red
Orange
Yellow
Green

0 500 1,000 Feet

Appendix G

Draft Resolution for Revisions to County Code

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Draft Resolution for Revisions to County Code

The draft resolution will be added at a later date.