Attainable Housing Production Study

City of Rockville, Maryland

May 15, 2026

Attainable Housing Production Study | Table of Contents

Attainable Housing Production Study | Executive Summary

Executive Summary | The City of Rockville is undertaking a comprehensive Zoning Ordinance Rewrite to expand housing options in single-family neighborhoods.

The proposed City of Rockville's Zoning Ordinance Rewrite (ZOR) and companion Comprehensive Map Amendment (CMA) rezones approximately 458 parcels to the RMD-Infill zone.

By-right multiplex development through the expansion of RMD-Infill. More than 450 parcels previously zoned R-60 are newly eligible for duplexes, triplexes, townhouses, and cottage courts by-right, without discretionary approval.

Conditional allowance* of apartments, multiplexes, townhouses, and cottage courts are permitted in the remaining single-family residential parcels, with additional qualifications and restrictions.

City of Rockville Zoning Map RMD-Infill Parcels

**Conditional allowance, described in section 25.6.3.1 of the ZOR, is permitted for qualified projects as defined in Subtitle 5, Title 7, Division 1 of the Maryland Land Use Article, or those located on land that is owned by a non-profit organization, Place of Worship or Religious Assembly, or a Publicly-Owned or –Operated Facility.*

Executive Summary | HR&A was engaged by GCAAR to analyze the City of Rockville's ZOR and estimate potential impacts to housing markets.

By-right multiplex development through the expansion of RMD-Infill. More than 450 parcels previously zoned R-60 are newly eligible for duplexes, triplexes, townhouses, and cottage courts by-right, without discretionary approval.

Conditional allowance* of apartments, multiplexes, townhouses, and cottage courts are permitted in the remaining single-family residential parcels, with additional qualifications and restrictions.

HR&A's analysis focuses on RMD-Infill multiplex development since this development would be permitted by-right.

**Conditional allowance, described in section 25.6.3.1 of the ZOR, is permitted for qualified projects as defined in Subtitle 5, Title 7, Division 1 of the Maryland Land Use Article, or those located on land that is owned by a non-profit organization, Place of Worship or Religious Assembly, or a Publicly-Owned or –Operated Facility.*

Executive Summary | The proposed RMD-Infill development standards retain much of the existing R-60 zone standards to ensure infill multiplex development is at "house-scale"

EXAMPLE CONVERSION PROPERTY

Location: Veirs Mill Rd, Rockville, MD
Tenure: Owner-Occupied
Type: Single-Family Detached
Size: 2,730 SF
Existing Home Value: $950,000

The adjacent table offers an example of conversion to a triplex on an RMD-Infill lot with lot coverage and unit sizing in accordance with the proposed development standards.

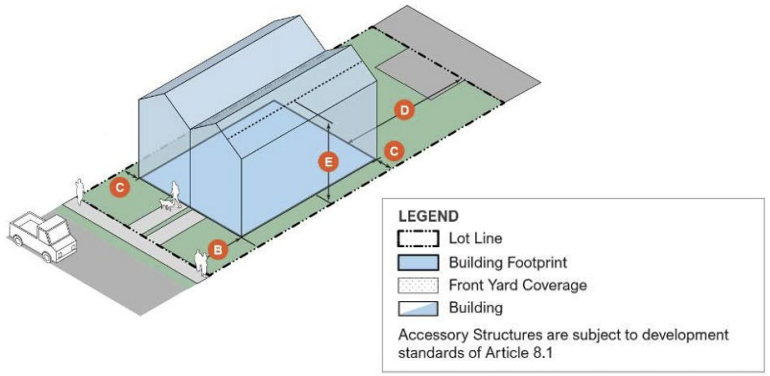


Image Source: City of Rockville, Revised Staff Draft Zoning Ordinance, April 20, 2026

Parcel-Level Residual Value Calculation – Example Parcel*

	Potential New Uses		
	Single-Family (New Construction)	**Condo** (3 units; Flat Below/ Side-by-Side Above)	**Apartment** (3 units; Flat Below/ Side-by-Side Above)
Building Footprint	2,100 SF	1,500 SF	1,500 SF
Lot Coverage	35%	25%	25%
Unit Size	**4,200 SF**	Unit 1: 1,375 SF Unit 2: 1,250 SF Unit 3: 1,250 SF **Total: 3,875 SF**	Unit 1: 1,375 SF Unit 2: 1,250 SF Unit 3: 1,250 SF **Total: 3,875 SF**
Acquisition Cost *(Sale Price of Existing House)*	$950k	$950k	$950k
Cost of Construction*	$1.0M	$1.1M	$1.1M
Required Price for Conversion Feasibility *(Acquisition Cost plus Cost of Construction)*	$1.95M	$2.05M	$2.05M
Achievable Sale Price (All Units)	$1.8M	$2.15M	$1.7M
Net Value as a Conversion *(Required Price minus Potential Sale Price)*	**-$150k**	**$100K**	**-$350K**
	Not Feasible	**Feasible**	**Not Feasible**

**Note: The above example is hypothetical and has been included to demonstrate the considerations for unit size relative to price and overall feasibility.*

Executive Summary | In the City of Rockville, up to 4.5% of single-family housing stock would convert to a multiplex over a 10-year period, based on the draft Zoning Ordinance Rewrite (ZOR) and Comprehensive Map Amendment (CMA).

County Impact

- Zoning reform would result in the **redevelopment of 55 single-family homes.**
- Reform would also create **21 net new housing units** (built units minus demolitions), a modest increase in housing supply.
- Conversion **activity will be slightly higher in the short-term**, the result of pent-up market demand.
- Conversions will **continue in the long term, but at a slower pace** as the supply of potential homes for conversion decreases.
- Given most impacts are to infill properties, **redevelopments are likely to be done on a small-scale basis as individual properties become available.**

Rockville Upzoning Impacts by Period

Term	Expected Infill Unit Demolitions	Expected Infill Unit Development	Share of Single-Family Housing Converted	Total Housing Increase
Short Term (Years 1-3)	24	36	5.1%	2.6%
Medium Term (Years 4-6)	20	26	4.3%	1.3%
Long Term (Years 7-10)	11	14	2.4%	0.6%
County Total	**55**	**76**	**11.8%**	**4.5%**

Executive Summary | Dynamics of for-sale and rental pricing suggest all conversions will be developed as owner-occupied homes.

Submarket	Projected Rents per Month	Projected Median Apartment Value	Projected Median Condo Price	Anticipated Prevailing Tenure Type
Rockville	~$2,400	$500,000	$570,000	Owner-Occupied

Impacts by Multiplex Type

- For-sale units are more profitable than apartments in Rockville based on current market conditions. As a result, **100% of multiplex units are expected to be for-sale units.**
- Townhouses and condos form all new units, with **townhouses supplying 79% of all new units**.

Executive Summary | Single-family zoning reform would increase the total number of housing units and broaden the buyer pool by creating more attainable and diverse options.

Increase in Housing Units

Does Not Impact Existing Home Values

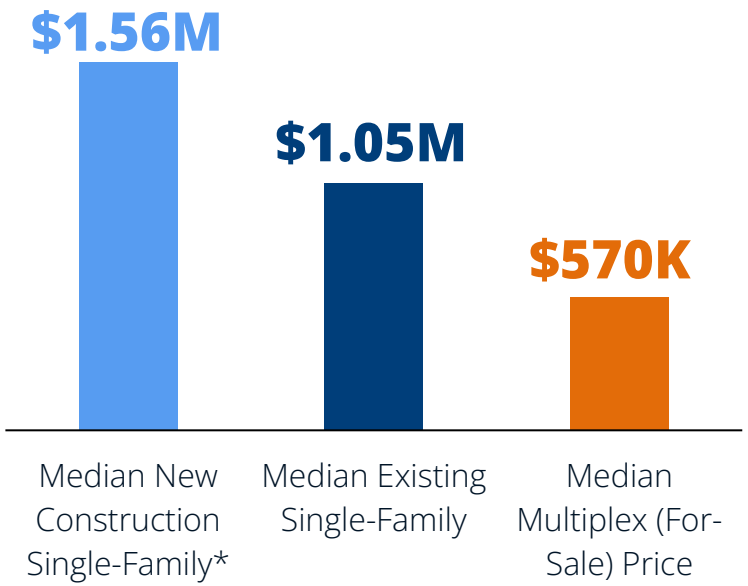
21 + **55** = **76**

Net New Housing Units | Redeveloped Single-Family Homes | Total Infill Units

expected over **10 years**

More Accessible Options

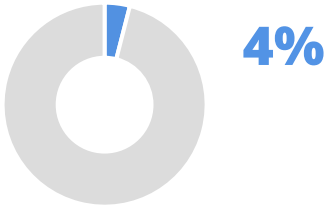
Builds Wealth through Increased Access to Homeownership



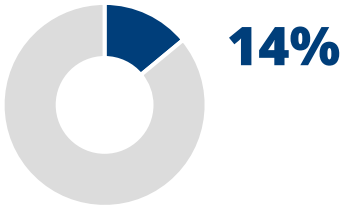
Expanded Buyer Pool

Increases Share of Households Able to Attain

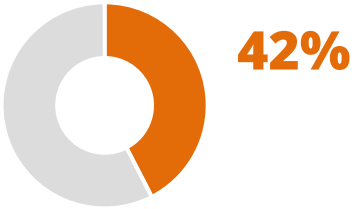
Newly Redeveloped Single-Family Home



Existing Single-Family Home



Multiplex (For-Sale)



*Estimated cost to acquire a newly built single-family home on the site of a redeveloped teardown.

Executive Summary | Zoning reform would have a modest, positive impact on the housing market in achieving Rockville's housing goals and increasing housing stock.

Key Takeaways

- Zoning reform would result in the **redevelopment of 55 single-family homes** and a **net increase of 21 units,** a modest, positive increase in housing supply across the City that would impact only 4.5% of existing single-family housing stock.
- Upzoning is **not expected to negatively impact existing home prices** or surrounding property values.
- Multiplex unit conversions **would predominantly be for-sale product**.
- New **multiplex condos and townhouses will be more financially attainable than single-family** homes, which will provide new homeownership access and **expand the buyer pool** to an additional 28% of Rockville households.

Attainable Housing Production Study | Introduction

Introduction| Rockville Zoning Ordinance Rewrite (ZOR)

INTRODUCTION

The City of Rockville is pursuing a comprehensive rewrite of its Zoning Ordinance – the first since 2009 – to align its land use regulations with the goals of the Rockville 2040 Comprehensive Plan, adopted in 2021. The ZOR process began in 2023, driven by the 2040 Comprehensive Plan's call for missing middle infill housing in single-family neighborhoods.

The City released a Staff Draft ZOR in December 2025, followed by a Revised Staff Draft on April 20, 2026, incorporating direction from a Mayor and Council during a work session held April 13, 2026. The ZOR is accompanied by a Comprehensive Map Amendment (CMA) that rezones select parcels, most notably expanding the Residential Medium Density Infill (RMD-Infill) zone, to reflect the City's housing goals.

The ZOR shares policy goals with Montgomery County's Attainable Housing Strategies (AHS) initiative. Both respond to the same regional housing pressures and utilize similar zoning policies to increase the potential for missing middle housing development, though, as its own zoning jurisdiction, the City of Rockville's ZOR is independently derived from it's 2040 Comprehensive Plan.

In September 2024, the Greater Capital Area Association of Realtors (GCAAR) engaged HR&A Advisors, Inc. to analyze housing production impacts of zoning reform in Montgomery County. That work informs the approach and methods utilized to develop the 2026 City of Rockville attainable housing study, though all model inputs and assumptions have been updated to reflect Rockville's specific draft ZOR policies.

HR&A's Rockville analysis includes the following components:

- **Developing an approach and methodology** using:
  - Land use analysis to evaluate and develop an inventory of properties impacted by the proposed land use changes
  - Real estate financial analysis, including the development of a model to project new housing development activity to aid in the evaluation of market impacts
- **Evaluating market impacts of the expansion of the RMD-Infill zone in the City of Rockville.** HR&A's analysis projects the number of single-family homes to be redeveloped, and total newly-created units over the short, medium, and long term.

Introduction | Rockville Zoning Ordinance Rewrite (ZOR)

BY-RIGHT SINGLE-FAMILY ZONING REFORM

The Rockville ZOR allows multiple pathways for the creation of missing middle housing, by-right multiplex development among parcels in the expanded RMD-Infill zone, and conditional multiplex development in all other single-family residential zones under the following provisions.

- RMD-Infill zone (focus of this study):
  - Apartments: Conditional (per Sec. 25.6.3.1)
  - Duplexes and triplexes: Permitted by-right
  - Fourplexes: Conditional (per Sec. 25.6.3.1)
  - Townhouses (of 5 to 6-units): Permitted by-right
  - Cottage Courts (of up to 12-units): Permitted by-right but restricted to corner lots
- R-40 through R-400 zones: Apartments, multiplexes, townhouses, and cottage courts are Conditional per Sec. 25.6.3.1

The adjacent table shows multiplex use permissions across Rockville's residential zones per the April 20, 2026, Revised Staff Draft ZOR.

By-Right Zoning Permitted by the City of Rockville ZOR

	Applicable Residential Zones*	
	R-40 – R400	**RMD-Infill**
Apartments	C	C
Dwelling, Single-Unit Detached	P – R-400 – R-90 C – R-75 – R-40	C
Duplexes	C	P
Triplexes	C	P
Fourplexes	C	C
Townhouses	C	P*
Cottage Courts	C	P

Note: P = Permitted by-right; C = Conditional; blank = prohibited.

Source: City of Rockville, Revised Staff Draft Zoning Ordinance, April 20, 2026
**5 to 6-unit Townhouses are permitted in RMD-Infill, with no more than six townhouses allowed in any attached row.*

Introduction | Study Scope

STUDY SCOPE

HR&A developed an analysis to project the housing production impacts of the City of Rockville's Zoning Ordinance Rewrite (ZOR) across 458 R-60 parcels being rezoned to RMD-Infill through the companion Comprehensive Map Amendment (CMA). This work builds on a 2024 engagement in which GCAAR retained HR&A to analyze Montgomery County's Attainable Housing Strategies (AHS) recommendations and their county-wide housing production impacts. This 2026 update focuses exclusively on Rockville and the specific policy change enabled by the ZOR which, for the first time, permits by-right market-rate duplex, triplex, townhouse, and cottage court development on those sites.

Residual land value (RLV) analysis was used to determine the highest and best use of each parcel under three scenarios: for-sale condominiums, townhouses and cottage courts; rental apartments and cottage courts; and new single-family construction.

The ZOR adoption process is ongoing; the April 20, 2026 Revised Staff Draft is the version is currently under review by the Mayor and City Council. Final adoption of the ZOR and CMA is anticipated June 2026.

HR&A's Attainable Housing Production Study **includes**:

Changes to **by-right zoning** of select R-60 parcels rezoned to RMD-Infill via the Rockville ZOR and CMA, which **allows by-right development of duplexes, triplexes, townhouses, and cottage courts.**

HR&A's Attainable Housing Production Study **excludes**:

Any development requiring conditional or discretionary approval, ADU development, large-scale multifamily in RHD or mixed-use zones, and any development in single-family residential zones other than parcels rezoned to RMD-Infill.

Attainable Housing Production Study | Approach and Methodology

Approach and Methodology | Study Approach

APPROACH

HR&A developed a methodology for measuring the impact of single-family zoning reform on conversions of single-family units to multiplexes in the City of Rockville. The methodology and model assumptions were informed by the City's Zoning Ordinance Rewrite (ZOR) and Comprehensive Map Amendment (CMA). The study quantified not only the number of conversions, but also the impact of conversions on unit pricing.

The analysis included four steps, which are detailed further in this section of the report.

Process for Determining Market and Realtor Impacts

Approach and Methodology | Collect Parcel-Level Data

COLLECT PARCEL-LEVEL DATA

After finalizing the study areas for analysis, HR&A collected parcel-level data for single-family parcels within the city, with each existing unit on a single-family parcel assigned the following attributes:

- **Existing Zoning:** All existing parcels zoned as RMD-Infill in the proposed Comprehensive Map Amendment (CMA)
- **Assessment Value:** The tax assessment for the property—both for the parcel's land and building value
- **Owner Type:** The current housing tenure, whether it is owner-occupied or renter-occupied
- **Site Vacancy:** The existing status of the home, whether vacant or occupied
- **Lot Square Feet:** The size of the parcel
- **Purchase Year:** The year the building was last purchased
- **Purchase Amount:** The amount the unit was last purchased for
- **Residential Square Footage:** The gross residential square footage of the building
- **Single-Family Price:** The potential price of the unit if it was sold in 2024. This value is based on recently sold single-family homes in the county, normalized to the total land assessment value for each parcel

Parcel-level data was sourced from Montgomery County's State Department of Assessments & Taxation (SDAT) most up-to-date database. Single-family and for-sale multiplex prices were determined using Zillow data. For-rent multiplex prices were determined using CoStar data.

Approach and Methodology | Apply Market-Factor Variables

APPLY MARKET-FACTOR VARIABLES

For all parcel-level data, HR&A applied a series of market-factor variables to each parcel to impute the total value of the parcel if it was upzoned to allow for two (2) to three (3) units by-right.

Total new unit potential: Total unit potential (either 1, 2, or 3 units) for any given parcel was estimated based on zoning designation and lot size.

- **Per the April 20, 2026, Revised Staff Draft, the Rockville ZOR establishes a minimum lot area of 2,000 sq ft per dwelling unit in the RMD-Infill zone and parcels in RMD-Infill are capped at 3 units by-right (duplexes and triplexes), 5 to 6-unit townhouses, or cottage courts* of up to 12-units** on a given parcel, holding zoning development standards consistent with existing standards for single-family detached homes.
- For the purposes of this study, the model is focused only on by-right development on the parcels rezoned to RMD-Infill in Rockville. **The study does not include projections for conditional development (apartments, fourplexes or 4-unit townhouses in RMD-Infill), development in other residential zones, or any scenarios requiring site plan review or discretionary approval.**

Residual Land Value (RLV): The residual value was calculated for three scenarios—whether the new housing to be built would be offered as 1) for-sale condominiums, townhouses, or cottage courts 2) rental apartments or cottage courts, or 3) a new single-family home— and compared to the existing value of the existing single-family property to determine the highest and best use, financially. This is explained further in the following section.

**While cottage courts of up to 12 units are permitted in the RMD-Infill zone, they are restricted to corner lots and were not determined to be the highest and best use among any of the RMD-parcels analyzed.*

Approach and Methodology | Find Residual Value and Determine Highest and Best Use

FIND RESIDUAL VALUE AND DETERMINE HIGHEST AND BEST USE

Using the existing property information and the applied market data, HR&A conducted a parcel-level financial analysis that assessed the financial feasibility of conversion by determining the highest and best use for the parcel. If the home was renter-occupied, the landlord was modeled to be significantly more price sensitive and therefore more willing to sell and convert if there was financial incentive to do so, since the home was not their primary residence, but rather a performing financial asset.

In the model, a homeowner (and potential new buyer) for any given parcel had the following choices each year:

1. **Remain in home:** No effect to the overall housing supply. The probability of this was calculated based on the average turnover* in units annually and a financial feasibility assessment.

2. **Sell as is and maintain existing home:** No effect to the overall housing supply. The probability of this was calculated based on the average turnover* in units annually and a financial feasibility assessment where the highest and best use for a property is to remain as the existing single-family home.

3. **Sell and redevelop:** The decision to sell and convert to a 2–3-unit property by-right for all multiplexes, or a 5–6-unit property by right for townhouses, was modeled by evaluating the total value of the property based on its highest and best residential use:
   - **For-sale multiplex condos and townhouses:** For each parcel, HR&A calculated the net proceeds for each potential new unit (total cost of condo/townhouse less development cost and sale costs). This yielded the condo/townhouse sale price.
   - **Rental multiplex apartments:** For each parcel, HR&A calculated the potential net operating income (NOI) for each new unit if a property was converted to a multiplex with rental apartments. To determine the building value, the NOI was divided by the capitalization rate expected from a developer, estimated at 5.5%. The total cost of development was then subtracted from the building value to determine the apartment sale price.
   - **New single-family home:** The decision to sell and replace with a newly built single-family home was modeled by evaluating the total value of the property based on its highest and best residential use.

**Turnover refers to the annual share of households that sell their property.*

Approach and Methodology | Find Residual Value and Determine Highest and Best Use

FIND RESIDUAL VALUE AND DETERMINE HIGHEST AND BEST USE – EXAMPLE PROPERTY

Location: Veirs Mill Rd, Rockville, MD
Tenure: Owner-Occupied
Type: Single-Family Detached
Size: 2,730 SF
Existing Home Value: $900,000

This example property would be likely to **remain single-family** if sold, as that remains the highest and best use of the land. This is the case in locations where existing property values are high and achievable price of new single family or multiplex development does not meet the price required for feasibility.

Parcel-Level Residual Value Calculation – Example Parcel

		Potential New Uses		
		Single-Family (New Construction)	**Condo (3 units)**	**Apartment (3 units)**
Acquisition Cost *(Sale Price of Existing House)*		$900k	$900k	$900k
Cost of Construction*	+	$1.0M	$1.1M	$1.0M
Required Price for Conversion Feasibility *(Acquisition Cost plus Cost of Construction)*	=	$1.9M	$2M	$1.9M
Achievable Sale Price	-	$1.7M	$1.9M	$1.4M
Net Value as a Conversion *(Required Price minus Potential Sale Price)*	=	**-$200k**	**-$100K**	**-$500K**

No potential conversion scenario creates a positive net value in this example.

*Cost of construction includes all costs associated with redevelopment of the property, including design, construction, financing, and required profit.

Approach and Methodology | Determine Development Yield

DETERMINE CONVERSIONS AND MARKET IMPACTS

STEP 1:
After calculating residual values and the highest and best use for each parcel, HR&A multiplied expected unit yields by the probability of parcel turnover (sale) to determine final unit counts. The applied turnover rate is important for ensuring that not all units will convert immediately, even if there is financial incentive to do so. The turnover rate used in this analysis is based on 5-year average annual turnover from the Census Public Use Microdata Set (PUMS) for 2015-2019.

STEP 2:
HR&A then calculated the yield over the next 10 years.

Development costs were inflated between 3-5% annually over different simulations, **while prices were inflated based on the average growth** in each market over 2021-2025. The **rate of growth was responsive to overall supply** and decreased proportionally as new units flowed into the market. However, this is likely a simplification of market behavior. More research or empirical evidence is required to model the change in substitution elasticity between condos and single-family homes as condos proliferate and single-family homes become scarcer. As condos become more readily available, apartments are also likely to see less price pressure as high-income renters are now able to access homeownership.

Highest and Best Use Unit Yield Calculation

Highest and Best Use Total

✖ Turnover Rate *(3.5%)*

Unit Yield

Rockville Infill by Year

Year	New Multiplex Units	Loss of Single-Family	Net New Units	Cumulative Net New Units
2026	15	9	6	6
2027	12	8	4	10
2028	9	7	2	12
2029	7	5	2	14
2030	7	5	2	16

Approach and Methodology | Model Inputs

MODEL INPUTS

General

Inputs were collected and calibrated using confidential recent market transactions sourced through proprietary market reports from CBRE, PWC, CoStar, and ATTOM data, as well as developer interviews and precedent HR&A work in Montgomery County.

Construction Costs

Construction costs vary by typology, with higher condo construction costs driven by International Building Code requirements and costly structure infrastructure components duplicated in multiplexes (kitchens, bathrooms, etc.).

Market Characteristics

The following inputs are determined by the market and reflect local real estate conditions:

- **Vacancy**: an allowance for standard residential vacancy
- **Operating Expenses (OpEx)**: ongoing maintenance and operations costs
- **Cap Rate**: the ratio of annual net operating income to property value, used to determine the market value of a profit-generating asset
- **Return on Cost**: a forward-looking cap rate accounting for costs required to bring property to stabilization
- **Turnover Rates**: the rate of tenant (apartment) or owner (single-family/condo) non-renewal/moveout

Model Inputs and Sources

Assumption	Value	Note	Source
Demo Cost per Land SF	($15.75/SF)		HR&A Analysis
Hard Cost: Single-Family	($357/SF)	Neighborhood Housing Services	HR&A Analysis
Hard Cost: Rental Multiplex	($336/SF)	Neighborhood Housing Services	HR&A Analysis
Soft Cost (as % of Hard Costs)	22%		HR&A Analysis
Vacancy	5%	Stabilized Vacancy	HR&A Analysis
OpEx (as % of NOI)	30.9%		HR&A Analysis
Capitalization Rate	5.5%		Arbor
Return on Cost	5.5%	100bps above cap rate	HR&A Analysis
Owner Turnover Rate (share of units sold annually)	3%	County Average	Census (PUMS)
Rental Turnover Rate (share of tenants moving annually)	5%	County Average	Census (PUMS)

Approach and Methodology | Assumptions

ASSUMPTIONS

Several basic assumptions underpin HR&A's analysis of single-family zoning reform:

Profit Maximizing Behaviors: Single-family owners are modeled as economically rational agents, making decisions that maximize financial return. In other words, model output only reflects redevelopments that provide the highest residual land value under the market conditions. Behaviors that do not maximize value are not considered. For example, a homeowner may choose to tear down an existing home and build a new single-family home out of personal preference, despite financial disincentive to do so. For that reason, single-family redevelopment to new single-family homes are likely underrepresented.

Market Demand for New Units: The model assumes that the market will support all newly created units from conversions.

Turnover: Turnover refers to the rate of tenant or owner non-renewal/moveout. The turnover rate applied in this study is based on historical data for the county broken down by tenure and was applied uniformly across submarkets. Turnover rates were not applied to newly developed units until three years after redevelopment to reflect the unlikeliness of a newly built unit to sell so quickly after its initial sale.

Exogenous / Endogenous Cost Structure: Increases in home prices are modeled based on historic submarket growth rates and are not affected by newly added stock.

Stable Construction Costs: Real construction costs are held constant (aside from inflation) and do not reflect potential changes in labor/materials costs or supply conditions.

Removal of Units with Conversion Potential: Projected conversions from single-family homes to multiplexes remove parcels with the highest feasibility from supply first. For example, if 100 existing single-family parcels are projected to convert in a given year, the 100 parcels with the highest residual land value (RLV) are removed from the pool of feasible parcels, since these are deemed to be the most economically viable.

Existing Single-Family Parcels: The model only evaluates parcels currently zoned for single-family use and does not consider undeveloped land (e.g., future single-family neighborhoods that could support increased parcel capacity), or parcels with other zoning uses. However, existing vacant single-family parcels are included.

New Unit Inclusion in Future Transaction Pool: Three years after converted units are added to the market, they become eligible for turnover by their owner at the applied county turnover rate, resulting in a multiplier effect for total transaction volume that amplifies the impact to Realtors.

Attainable Housing Production Study | Market Impacts

Market Impacts | Overview

OVERVIEW

Upzoning conversion will vary over time as the number of converted units increases and growth rates remain stable. Market impact metrics are summarized for the City of Rockville across several periods, each of which marks a shift in conversion trends.

IMPACT METRICS

- **Expected Infill Unit Demolitions:** The number of single-family parcels flagged for redevelopment
- **Expected Infill Unit Development:** The total number of newly created units
- **Share of Single-Family Housing Converted:** On a planning area basis, the share of single-family homes redeveloped
- **Total Housing Increase:** On a planning area basis, net new units* divided by the number of single-family units at the beginning of the period

ANALYSIS TIMEFRAMES

- **Short-Term (1-3 years)**: The short term encompasses the most immediate impacts of upzoning that will result in the first three years, shown in this report as 2026-2028.
- **Medium-Term (4-7 years):** The medium term reflects impacts for years 4 through 7 (2029-2032) following the zoning change.
- **Long-Term (8-10 years):** The long term reflects impacts for years 8 through 10 (2033-2035).

This analysis does not consider impacts beyond 10 years given the uncertainty in future market conditions.

**Net new units is determined by subtracting demolitions from newly developed units*

Market Impacts | Short-Term Projected Conversion Impacts

Geography	Expected Infill Unit Demolitions	Expected Infill Unit Development*	Share of Single-Family Housing Converted	Total Housing Increase
Rockville	24	36	5.1%	2.6%

Short-Term (1-3-Year) Projected Conversion Impacts

- **Most conversions will occur in the short and medium term, reflecting pent-up supply in the market.** Under current zoning, parcels where multiplex development is both financially feasible and the highest and best use cannot be converted — creating a backlog of latent supply that is released once rezoning takes effect.
- **In Rockville, 24 single-family homes are projected to be demolished and 36 new infill units developed in the first three years,** representing 5.1% of the rezoned single-family parcels and a net housing increase of 2.6%.
- **Conversions will primarily occur in areas with 1) underlying demand for housing, 2) high land values, and 3) higher-density single-family housing.** The vacant parcels that are zoned for single-family housing but do not have an existing structure are also anticipated to be redeveloped in the short term, the result of high multiplex values and low sell-as-is value.

Market Impacts | Medium-Term Projected Conversion Impacts

Geography	Expected Infill Unit Demolitions	Expected Infill Unit Development*	Share of Single-Family Housing Converted	Total Housing Increase
Rockville	20	26	4.3%	1.3%

Medium-Term (4-7-Year) Projected Conversion Impacts

- **In the medium term, conversion activity continues at a somewhat slower pace as the initial backlog of feasible parcels is absorbed.** Over years 4–7, 20 demolitions and 26 new infill units are projected in Rockville.
- **Conversions will continue on parcels where condo price growth keeps multiplex development competitive with single-family use.** In Rockville's market, for-sale condo values are expected to sustain feasibility across a portion of the rezoned parcel universe through the medium term.
- **Parcels with the highest projected rates of conversion share a common characteristic, which are achievable multiplex values per square foot that meaningfully exceed the value of the existing single-family structure.**

Market Impacts | Long-Term Projected Conversion Impacts

Geography	Expected Infill Unit Demolitions	Expected Infill Unit Development*	Share of Single-Family Housing Converted	Total Housing Increase
Rockville	11	14	2.4%	0.6%

Long-Term (8-10-Year) Projected Conversion Impacts

- **Conversions stabilize in the long term as the initial supply of feasible parcels is largely exhausted.** Over years 8–10, 11 demolitions and 14 new infill units are projected in Rockville, representing a slower but sustained pace of conversion.
- **No long-term conversions are anticipated to be rental apartments.** However, as rents in Rockville grow over time, apartment multiplex development could become feasible on parcels that were not viable for rental conversion in earlier years.
- **Additional parcels will become feasible for conversion in the long term only if condo or apartment values rise relative to single-family prices.** This could occur if single-family prices soften, multiplex demand grows, or rents increase, which are all plausible in Rockville's constrained housing market.

Market Impacts | Condo vs. Apartment Price Comparison

Geography	Projected Rents per Month	Projected Median Apartment Value	Projected Median Condo Value	Anticipated Prevailing Tenure Type
Rockville	~$2,400	$500,000	$570,000	Owner-Occupied

Condo vs. Apartment Price Comparison

- **In Rockville's high-cost market, for-sale condo development generates higher financial returns than rental apartment development on rezoned parcels.** As a result, for-sale condos are the anticipated prevailing tenure type. The projected median condo value of $570,000 exceeds the value supportable through rental income at projected rents of $2,400/month.

Market Impacts | Condo vs. Single-Family Price Comparison

Geography	Median Single-Family Home Value	Projected Median Condo Value
Rockville	$1.05M	$570,000

Condo vs. Single-Family Price Comparison

- **In Rockville, the median single-family home value of $1.05M is approximately 46% higher than the projected median condo value of $570,000 resulting from RMD-Infill development.** The expansion of RMD-Infill adds housing stock at more attainable price points, expanding the eligible buyer pool in a market where single-family homeownership is out of reach for many households.

- **The difference in pricing between existing single-family homes and projected multiplex development reflects the affordability benefit of missing middle housing in Rockville's market.** New condo units on rezoned parcels are projected to sell at roughly half the price of the median existing single-family home in the city.

Market Impacts | Single-Family Financial Attainment

Geography	Median Single-Family Home Value	Income Required	Share of Households That Can Afford	Median Condo Unit Value	Income Required	Share of Households That Can Afford
Rockville	$1.05M	$266K	14%	$570K	$153K	42%

Single-Family Financial Attainment

- **Multiplex condos provide a less expensive homeownership option that would triple the share of Rockville households that can afford a typical home, from 14% to 42%.** Rockville's median single-family home value of $1.05M requires a household income of approximately $266K to afford. The expansion of RMD-Infill and the multiplex condos it generates would lower the required income to approximately $153K, meaningfully broadening the buyer pool.

- **Multiplex condo expansion will diversify housing options for households at various life stages in Rockville.** Greater access to ownership at more attainable price points creates opportunities for households currently priced out of the city, including young professionals, downsizers, and families seeking access to Rockville's schools, employment, and amenities.

Attainable Housing Production Study | Appendix

Executive Summary | Annual Projected Multiplex Conversions and Net New Housing

City of Rockville

Year	Expected New Condos	Expected New Townhouses	Total Units	Expected Infill Unit Demolitions	Total Single-Family Units	Net New Units	Share of Single-Family Housing Converted*	Total Housing Increase*
2026	5	10	15	9	467	6	1.9%	1.3%
2027	3	9	12	8	458	4	1.7%	0.9%
2028	1	8	9	7	450	2	1.5%	0.4%
2029	1	6	7	5	443	2	1.1%	0.4%
2030	1	6	7	5	438	2	1.1%	0.4%
2031	1	5	6	5	433	1	1.1%	0.2%
2032	1	5	6	5	428	1	1.1%	0.2%
2033	1	4	5	4	423	1	0.9%	0.2%
2034	1	4	5	4	419	1	0.9%	0.2%
2035	1	3	4	3	415	1	0.6%	0.2%
City Total	**16**	**60**	**76**	**55**		**21**	**11.8%**	**4.5%**

**Numbers may not sum due to rounding.*

Appendix | Model Calculations

HR&A's parcel-level analysis model was developed and run through Python. Below is an except of the code used to perform analysis calculations. Full detail on calculations and the approach for analysis is provided in the *Approach and Methodology* section of this report.

Calculations Excerpt

```
def value(i,rate,psf,size,multiplier,units,opex,vacancy,cap_rate):
    val = (psf*(1+rate)**i) * size * multiplier * units
    return val

def noi(i,rate,units, size, psf, opex, vacancy):
    noi = units*size*(psf*(1+rate)**i)*(1-vacancy)*12*(1-opex)
    return noi

def apt_value(i,rate,psf,size,multiplier,units,opex,vacancy,cap_rate):
    val = (noi(i,rate,units, size, psf, opex, vacancy)/cap_rate) * multiplier
    return val

def RLV_Finder(typology,value_function,df,cCost,infl_rate,year,units,size,contingency=HCContingency,soft_cost=SoftCost):
    df['a'] = value_function
    df['b'] = zf.DevelopmentCost(cCost*((1+(infl_rate))**year),units,size,contingency,soft_cost)
    df['c'] = df['a']+ df['b']
    df = df.drop(['a','b'],axis=1)
    df = df.rename(columns={'c': str(typology)+"_RLV"})
    return df

def chosen_RLV(df,typology,units):
    df['a'] = np.where(df['hbu']==str(typology)+"_RLV",units,0)
    df = df.rename(columns={'a': str(typology)+"_final"})
    return df

def RLV_sorter(df,typology,units):
    df['a'] = df[str(typology)+'_final'] * df['turnover_2']
    df['b'] = df[str(typology)+'_RLV'] * df['turnover_2']
    df = df.rename(columns={'a': str(typology)+"_sum"})
    df = df.rename(columns={'b': str(typology)+"_sum_order"})
    x = int(df[str(typology)+"_sum"].sum())
    if type(units) is int:
        sf_removed = x
    else:
        sf_removed = int(x/units.mean())
    df = df.sort_values(by=str(typology)+'_sum_order', ascending=False)
    df = df.iloc[sf_removed:]
    #df_remove = df.nlargest(sf_removed,str(typology)+'_sum_order')
    #df = df[~df.isin(df_remove)].dropna()
    return df,x,sf_removed
```

```
##RLV for other typologies
for i in range(len(dict["Typology"])):
    dfx = RLV_Finder(
    dict['Typology'][i],
    dict['value_function'][i](j,dict['increase_cagr'][i],dfx[str(dict['psf'][i])],dfx[str(dict['size'][i])],dict['multiplier'][i],dict['units'][i],dict['opex'][i],
                              dict['vacancy'][i],dict['cap_rate'][i]),
    dfx,
    dict['cCost'][i],
    dict['inflation'][i],
    j,
    dict['units'][i],
    df[str(dict['size'][i])]
                )
    dfx[str(dict['Typology'][i])+"_price"] = dfx[str(dict['psf'][i])] * dfx[str(dict['size'][i])] * dict['multiplier'][i]

##Apartment Rent
dfx['apt_rent'] = dfx['Apts_PSF'] * dfx['Unit_Size']

##Identify HBU and chosen RLV for each parcel
dfx['hbu'] = dfx[['teardown_RLV','sf_RLV','condo_RLV','apt_RLV']].idxmax(axis=1)
types = ['sf','teardown','condo','apt']
for i in range(len(types)):
    dfx = chosen_RLV(dfx,types[i],1)

##Turnover
dfx['turnover_1'] = np.where(dfx['Owner Occ?'] == 1, owner_turnover, rental_turnover)
dfx['turnover_2'] = np.where((dfx['condo_RLV']*.75 > dfx['sf_RLV']) & (dfx['Owner Occ?'] == 0), .75, dfx['turnover_1'])

#Final Results and Remove units from dataset
results = []
results.append(j)
results.append(dfx['Units'].count())
for i in range(len(dict["Typology"])):
    results.append(RLV_sorter(dfx,dict['Typology'][i],dict['units'][i])[1])
    results.append(RLV_sorter(dfx,dict['Typology'][i],dict['units'][i])[2])
    results.append(dfx[str(dict['Typology'][i])+"_price"].median())
    dfx = RLV_sorter(dfx,dict['Typology'][i],dict['units'][i])[0]
results.append(dfx['sf_RLV'].median())
results.append(dfx['apt_rent'].median())
dfx = dfx.drop(['condo_RLV', 'sf_RLV', 'apt_RLV', 'teardown_RLV', 'hbu', 'sf_final',
       'teardown_final', 'condo_final', 'apt_final', 'turnover_1',
       'turnover_2', 'condo_sum', 'condo_sum_order', 'apt_sum',
       'apt_sum_order', 'teardown_sum', 'teardown_sum_order'],axis=1)
#Append to Summary
s_length = len(summary)
summary.loc[s_length] = results
```

Attainable Housing Production Study

City of Rockville, Maryland

May 15, 2026