



County of Fairfax, Virginia

To protect and enrich the quality of life for the people, neighborhoods and diverse communities of Fairfax County

March 10, 2026

RESIDENTIAL BUILDING HEIGHT POTENTIAL CHANGES FOR CONSIDERATION Staff Summary

TABLE OF CONTENTS

Background	1
Current Standards and Challenges	2
Jurisdictional Research	6
Case Studies – Approved Dwellings	8
Proposed Zoning Ordinance Revisions	10
Next Steps	14

BACKGROUND

In Fairfax County, older moderately sized single-family homes are increasingly being replaced through teardown and rebuild or infill development with larger homes featuring complex rooflines, maximized footprints, and building heights that often are at the maximum allowable 35-foot height. Demand for additional living space and multi-generational living continues to drive this trend, even as it reshapes established neighborhood character. Issues surrounding building height are longstanding and have become increasingly complex as builders find new ways to obtain additional height with the current method of height calculation. Additionally, staff has received feedback from industry professionals that the current method of calculating building height is unclear and difficult to administer. Staff recommends that consideration be given to revising the definition of building height to address home designs with multiple rooflines and unique architecture in response to growing residential building trends.



PLANNING & DEVELOPMENT

Department of Planning and Development
 Zoning Administration Division
 12055 Government Center Parkway, Suite 807
 Fairfax, Virginia 22035-5507
 Phone 703-324-1314
 Fax 703-803-6372

www.fairfaxcounty.gov/planning-development

Several Letters to Industry (LTIs) have been issued to address building height, either in whole or in part. These letters include LTI 06-13 (superseded), issued July 1, 2006; Technical Memorandum 09-12 (superseded), issued September 15, 2009; Technical Bulletin 18-03, issued February 2, 2018;¹ and, Technical Bulletin 19-01, issued January 29, 2019.² These LTIs provided expanded guidance on calculating and depicting building height and further discussion of these technical bulletins is included in the Current Standards section below.

On September 14, 2009, ZO-09-419 was adopted to revise the grade definition for the purpose of determining building height for single family detached dwellings to be the average ground level adjoining a building at all exterior walls, using the lower grade of either pre-existing or finished ground elevation. While staff is not considering changes to the definition of grade as part of this proposal, this previous amendment is key to understanding how staff address building height today.

On September 20, 2016, Zoning Ordinance Amendment ZO-16-455 was adopted to increase the maximum allowable building height for a single-family detached dwelling in the R-C and R-E Districts to 40 feet, provided there is a minimum required setback of 50 feet from all lot lines.

On January 14, 2025, a Board Matter was presented jointly by Supervisor Storck and Supervisor Bierman regarding infill development and included consideration of revisions to building height calculations to address concerns with neighborhood compatibility.³ This topic was included on the [Zoning Ordinance Work Program](#) for fiscal years [2026-2027](#) (priority 2, item 11).

On November 18, 2025, a Board Matter was presented jointly by Supervisor Herrity and Supervisor Smith to review height and setback standards to address concerns about looming in residential communities.⁴ This was in response to citizen concerns about a residential home addition that is currently under construction, in which the addition is significantly taller and of a different overall design than the original residence and those residences in the surrounding neighborhood. This topic is planned to be added to the Zoning Ordinance Work Program and

¹ Technical Bulletin 18-03:

<https://www.fairfaxcounty.gov/landdevelopment/sites/landdevelopment/files/Assets/Documents/18-03-shape-factor-height-lotlines.pdf>

² Technical Bulletin 19-01:

<https://www.fairfaxcounty.gov/landdevelopment/sites/landdevelopment/files/Assets/Documents/19-01-determining-and-certifying-residential-building-height.pdf>

³ Infill Development Improvements Board Matter:

<https://www.fairfaxcounty.gov/mountvernon/sites/mountvernon/files/Assets/Documents/PDF/Infill%20Development%20BM%20Final.pdf>

⁴ Review of Height-Looming Standards Board Matter:

<https://www.fairfaxcounty.gov/boardofsupervisors/sites/boardofsupervisors/files/Assets/meeting-materials/2025/November%2018%20BOS%20Summary.pdf>

addressed as a separate item on the work program, as it goes beyond the intended scope of this proposed topic.

GLOSSARY OF TERMS

The following are terms and working definitions used in this White Paper:

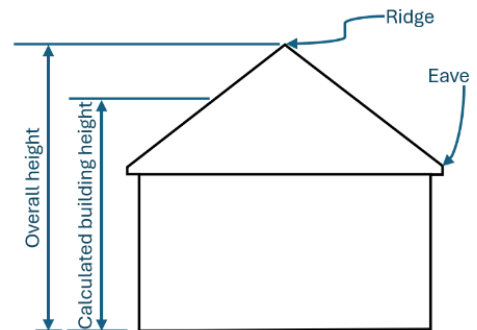
Ridge: The peak of the roof; the highest point on a sloped roof.

Eave: The lower edge of the roof that overhangs the home’s exterior walls.

Calculated Building Height: the vertical distance from average grade to roof height. For pitched roofs, roof height is the average between the highest ridge and its associated eave.

Effective/Overall/Peak Height: The absolute highest point of a building.

Average grade: The lower of pre-existing or finished grade around the perimeter of a building.



CURRENT COUNTY BUILDING HEIGHT STANDARDS

This amendment primarily focuses on SFD in conventional districts. P-districts do not have predetermined maximum building height, which is determined as part of the rezoning review.

District	Maximum Building Height
R-A, R-1, R-2, R-3, R-4, R-5, R-8, R-MHP	35 feet
R-C, R-E	35 feet or 40 feet (with 50-foot setback)
R-12, R-16, R-20	35 feet, 60 feet stacked
P-Districts	Max height determined with rezoning – typically between 35-40 feet

Most single-family detached dwellings constructed in the County are subject to a maximum 35-foot building height. The height limitations do not apply to roof structures such as chimneys, spires, cupolas, gables, mechanical penthouses, domes, television antennas, water towers, water tanks, smokestacks, or other similar roof structures and mechanical equipment.⁵

The current definition of building height and the 35-foot residential building height limit date back to the 1959 Zoning Ordinance. The current Zoning Ordinance has made no substantive changes from the 1959 Zoning Ordinance regarding, specifically, the definition of building

⁵ 5100.2.C Height Regulations: <https://online.encodeplus.com/regs/fairfaxcounty-va/doc-viewer.aspx?tocid=001.006.001.002.003#secid-2910>

height, despite the vast evolution of home trends and construction techniques. A clarified definition with a straightforward approach to measuring residential building height is long overdue and could address building height concerns without reducing the maximum allowable height below 35 feet.

Building height, as currently defined in the Zoning Ordinance, is the vertical distance from average grade to roof height.⁶ Roof height is measured differently depending on the type of roof featured, shown below in Figure 9102.1 included in the current Zoning Ordinance.⁷

- Flat Roof
 - Roof height is measured at the highest point of the roof.
- Mansard Roof
 - Roof height is measured at the deck line.
- Gable, Hip or Gambrel Roofs
 - Roof height is the average height (midpoint) between the ridge and the corresponding eaves of the highest roof line.

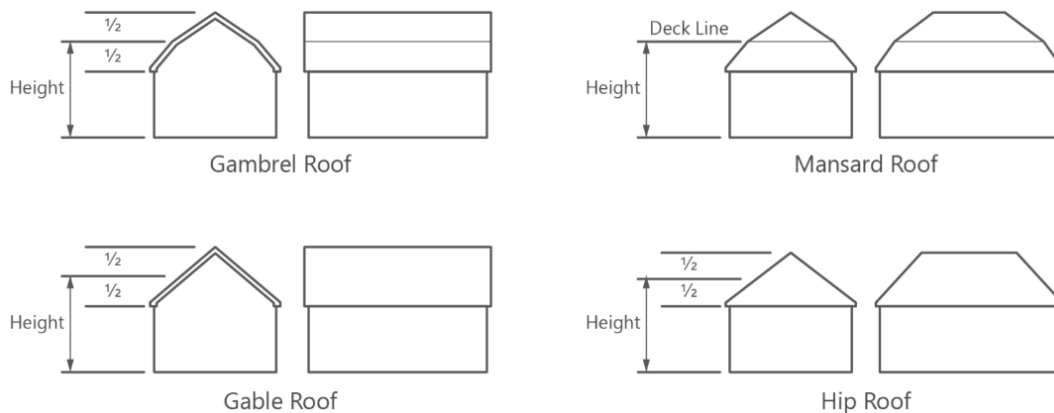


Figure 9102.1: Height Measurement by Roof Type for Principal Buildings

Additionally, Technical Bulletin 19-01 specifies that when multiple roofs are present, the highest ridge and associated eave is used for the height calculation. This practice is not currently codified in the Zoning Ordinance.

⁶ Height, Building Definition: <https://online.encodeplus.com/regs/fairfaxcounty-va/doc-viewer.aspx?tocid=001.010.003.043#secid-2333>

⁷ Technical Bulletin 19-01: <https://www.fairfaxcounty.gov/landdevelopment/sites/landdevelopment/files/Assets/Documents/19-01-determining-and-certifying-residential-building-height.pdf>

Height certifications are required for new single family detached dwellings and additions with proposed heights of 33 feet or greater. This requirement includes dwellings in the R-C and R-E districts that qualify to be up to 40 feet tall. They may also be required for an addition to a single-family detached dwelling or a new single family detached dwelling on an existing foundation that is 30 feet or greater in height.

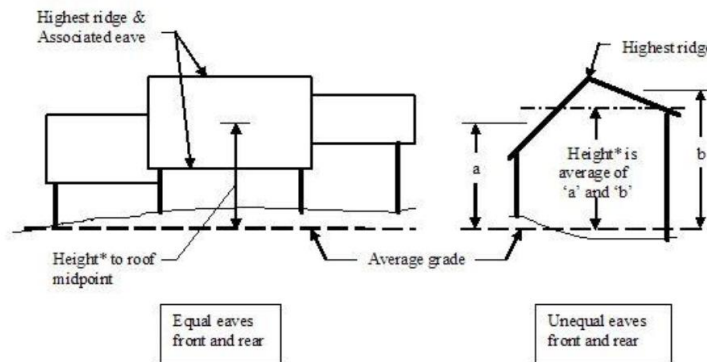
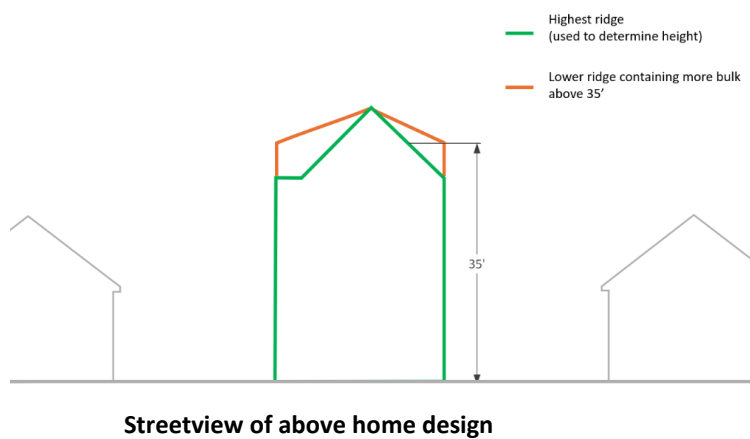


Figure: Technical Bulletin 19-01

CURRENT CHALLENGES

Many single-family residential permits for new construction or additions now feature multiple pitched roofs which can make discerning the highest ridge challenging. The current method of using the highest ridge to take the average height also allows for creative workarounds that result in homes that push the building height limitation and result in an overall height that significantly exceeds the maximum height of 35 feet. The example below shows the highest ridge (shown in green) that is 2 inches higher than the rear roofline (shown in orange). The steeper pitch results in a lower calculated building height, but allows for an additional half story of bulk above the 35-foot height limitation achieved through the lower rear roofline.



JURISDICTIONAL RESEARCH

Staff researched the zoning regulations related to residential building height in neighboring jurisdictions: Loudoun County, Prince William County, Montgomery County, Arlington County, and the City of Falls Church. Overall, the definition and method for measuring building height is the same as Fairfax County’s method, with variations in maximum building height for residential districts and standards for determining grade. Notable differences include City of Falls Church’s story limit and Montgomery County’s graduated maximum height based on lot size.

Table 1: Jurisdictional Comparisons of Residential Building Height Standards

Jurisdiction	Maximum Residential Height	Height, Definition and Other Standards
Fairfax County	35 ft – R-C, R-E R-A, R-1, R-2, R-3, R-4, R-5, R-8, R-MHP 40 ft – R-C, R-E with 50 ft setback	The vertical distance to the highest point of the roof for flat roofs; to the deck line of mansard roofs; and to the average height between eaves and the ridge for gable, hip, and gambrel roofs from the grade. For multiple rooflines, the highest ridge is used to calculate the average height.
Loudon County	35 ft – Agricultural Rural 40 ft – all Suburban Neighborhood and Residential Districts	1. Top of the Building. a. Building height is measured to: 1. The average height between eaves and the highest point of the roof; or 2. The highest point of a flat roof. 2. Ground Level. Building height is measured from the average finished grade: a. Where the ground surface meets the front wall of the building; or b. Of the curb line for buildings within 10 feet of the front lot line.
Prince William County	35 ft – all Agricultural and Residential Districts	The vertical distance from average grade to the highest point of the roof for flat roofs; to the deck line of mansard roofs; and to the average height between the eaves and the ridge for gable, hip, or gambrel roofs.

<p>Montgomery County</p>	<p>50 ft – Residential Estate-2 40 ft – Residential Estate-1 Residential-200 maximum height determined by lot size: 50 ft – Lot >40k sf 40 ft – Lot >25k >40k sf 35 ft – Lot >15k >25k sf 30 ft – Lot <15k sf</p>	<p>1. Building height is measured from the average grade either to the mean height level between the eaves and ridge of a gable, hip, mansard, or gambrel roof or to the highest point of roof surface, regardless of roof type. 2. Average grade is calculated using the weighted average of point grades for each wall length along pre-development or finished level of ground (whichever is more restrictive), along the front of the building parallel to the front setback line.</p>
<p>Arlington County</p>	<p>35 ft – all Residential Districts</p>	<p>1. Building height is the vertical distance from existing grade to the highest point of the roof surface, if a flat roof, to the deck line of mansard roof, and to the mean height level (midpoint) between eaves and highest ridge point for gable, hip or gambrel roof. 2. The average existing grade is calculated by averaging the existing grade at four points at the perimeter of the building, that include two points each on the front and rear of the building, at the points closest to the applicable side lot lines.</p>
<p>City of Falls Church</p>	<p>35 ft or 2.5 stories, whichever is less – Low and Medium Density Residential 35 ft, max 3 stories – R-Cluster</p>	<p>1. Height of a building (in feet) means the vertical distance measured from the average grade of the building footprint to the highest point of the coping of a flat roof, or the deck line of a mansard roof, or the mean height level between eaves and ridge for gable, hip, and gambrel roofs. 2. Average grade shall be determined using the finished grade level or the natural grade level, whichever is lower.</p>

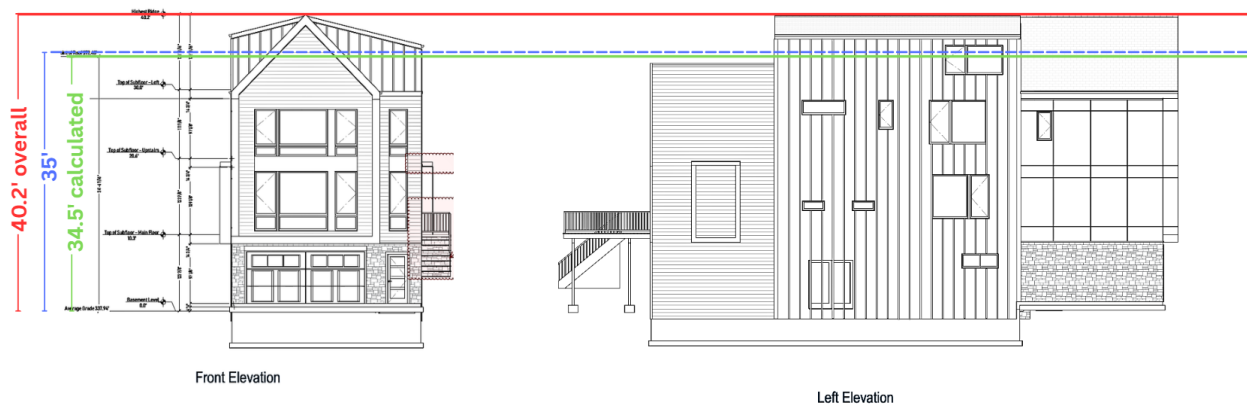
CASE STUDIES – APPROVED DWELLINGS

Staff have identified several residential projects that presented challenges regarding overall height, multiple rooflines, neighborhood character, and/or bulk. Each case presents an example that technically meets the current Ordinance requirements but uses creative design strategies to push the height limit and achieve additional height and/or bulk. These case studies are analyzed to examine how changes to the building height definition would theoretically affect the calculated height.

Zoning District: R-3

Building Square Footage / Lot Area: 4,518 s.f. / 6,500 s.f.

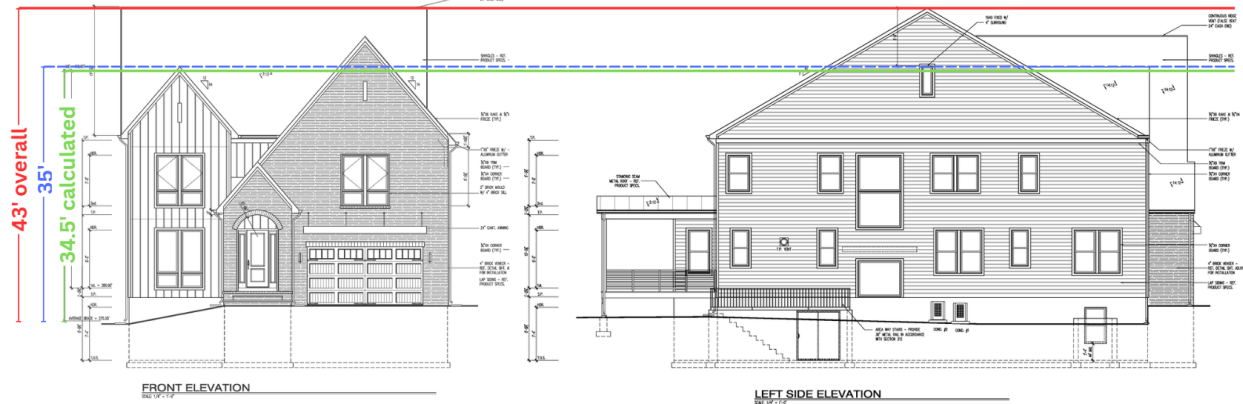
This dwelling features a design commonly used to obtain more bulk, designating a highest ridge that is a mere 2 inches higher than the next lowest ridge. The highest ridge is steeply pitched, bringing the calculated height down, and containing much of the bulk under a shallower pitched roof, resulting in larger massing and more usable space above the 35-foot height limit. The calculated building height (34.5 feet) is significantly lower than the actual overall height (40.2 feet).



Residential Building Height
Zoning Ordinance Amendment
March 10, 2026
Page 9

Zoning District: R-4
Building Square Footage/ Lot Area: 4,810 s.f. / 10,400 s.f.

This dwelling uses a steeply pitched roof (7/12 slope) to achieve additional height while meeting the calculated building height requirement. Most of the bulk of the dwelling is within the main steep roof. The surrounding neighborhood is comprised of homes built from 1960-70, primarily 1.5-2 story homes.



Zoning District: R-1
Building Square Footage / Lot Area: 12,343 s.f. / 81,457 s.f.

This dwelling is similar Project #1 in that the highest ridge used to calculate the building height is a steeply pitched roof that is only a few inches higher than the ridges which contain most of the bulk. Additionally, the cupolas were not included in the calculated height.



Zoning District: R-1

Building Square Footage / Lot Area: 6,795 s.f. / 15,000 s.f.

This dwelling uses a steeply pitched roof (7.7/12 slope) to achieve additional height while meeting the calculated building height requirement. It features multiple rooflines but the highest ridge is clearly defined.



POTENTIAL ZONING ORDINANCE REVISIONS

The changes proposed for consideration are intended to update the Zoning Ordinance definition of building height and the method of calculating building height. The impact of each option on calculated building height varies depending on the design of the home. ADD a reference to the illustrations below or put the illustrations with each option.

Building Height Definition

Option 1 – Maintain current method to calculate building height: average grade to the average of the highest ridge and its associated eave. Clarify the building height definition language and update illustrations. Codify Technical Bulletin 19-01 specifying the highest ridge as the roofline used for height calculation.

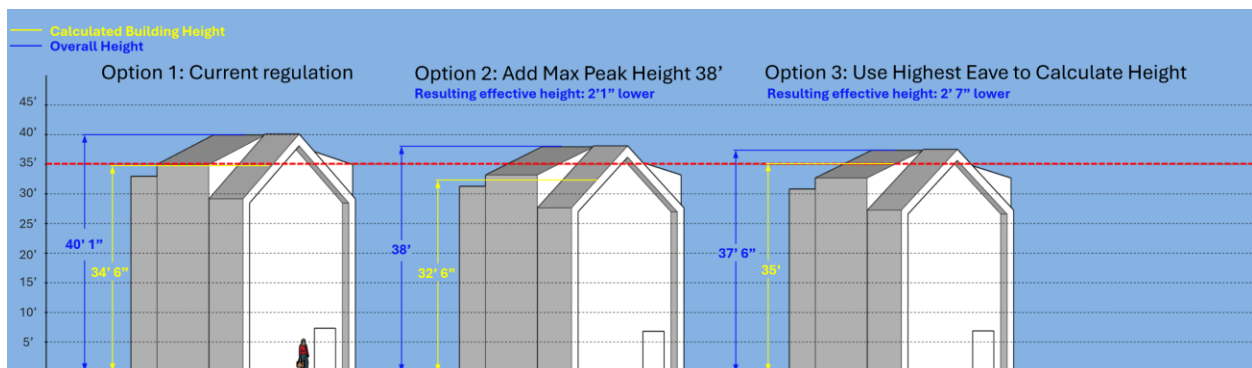
Option 2 – Maintain the current method to calculate building height but introduce a maximum peak height between a range of 37.5 feet to 40 feet. Staff recommend a maximum peak height of 38 feet, which puts a cap on effective height across all homes regardless of their unique roof designs.

Option 3 – Use the highest eave and its associated ridge to calculate building height. This captures more of the bulk mass of a home, but results vary depending on home design.

Additionally, single-sloped roofs with a pitch lower than 3:12 are proposed to be grouped with flat roofs when considering how to calculate building height.⁸ This clarifies current practice of determining what is considered a flat roof and what is considered a pitched roof.

Below are a comparison and analysis of the three proposed options on two of the case study homes. It is important to note that while these are the three options that staff have determined to be the most optimal based on current research, there are many other ways to measure building height. However, these three options have been deemed to be the most optimal based on ease of implementation for homeowners, design professionals and contractors, as well as for County staff to interpret and administer. As discussed below, there is variation in results depending on several factors and each option has its unique benefits.

Case Study 1



⁸ The 3:12 threshold for low-slope and flat roofs is industry standard, per the National Roofing Contractors Association (NRCA)

This design is very representative of current trends and introduces modern architectural components such as clean facade lines and expanses of unadorned metal and glass into more traditional style suburban home construction. Notably, the major deviation from the modern architectural style is the front living section with the pitched roof that is only 2 inches higher than the next lowest ridge. This design was intentional, in that it lowers the calculated height, with most of the structure's bulk under the shallower pitched, nearly flat, rear roof seen in the middle section tucked behind the front roof. This results in larger massing and more usable space above the 35-foot height limit that is not counted towards the calculated building height of 34.5 feet, which is significantly lower than the actual overall height of 40.2 feet.

Under Option 1, there would be no change to the calculated or overall building height.

Under Option 2, adding a maximum peak height of 37.5 feet results in an overall height reduction of approximately 2.5 feet, whereas a maximum peak height of 40 feet results in an overall height reduction of approximately 1 inch. The benefit of Option 2 and utilizing a capped peak height is that it can address multiple roof structures and architectural designs, and all their potential combinations, more effectively than the current Ordinance requirements. Depending on the maximum peak height that is applied, it can result in overall building heights that are more in line with the calculated building height.

Under Option 3, the calculated building height would be based on the midpoint of the roof with the highest eave. For the Project #1 residence, this would allow the calculation to be made utilizing the shallower pitched roof of the middle section of the dwelling that covers the bulk of the residence. In this scenario, the advantage gained by designing the front section of the residence with such a steeply pitched roof and 2-inch greater ridgeline is eliminated. When applied, Option 3 results in a reduction of overall effective building height of approximately 2.5 feet.

Case Study 2



While this structure does not contain modern architectural components, it is very typical of the mixed Traditional style that is found in the region. This style takes several characteristics from American Colonial architecture design, with steeply pitched rooflines, typically 2-3 stories of living space above grade, with common living spaces found on the first or ground floor and bedroom spaces largely found on the second or top floor. The dwelling uses a steeply pitched roof (7/12 slope) over the garage to achieve additional height while meeting the current calculated building height requirement of 35 feet, with an overall height of 43 feet 2 inches.

Under Option 1, there would be no change to the calculated or overall building heights.

Under Option 2, by adding a maximum peak height of even 40 feet, the overall height is reduced by over 3 feet, resulting in a 40-foot-tall residence. A maximum peak height of 37.5 feet would result in a further reduction of overall height of 5.5 feet, resulting in a 37.5-foot-tall residence, which is closer to the calculated maximum height of 35 feet.

Under Option 3, the design of the residence is such that there is no change in the calculated or overall building heights from how it was approved using Option 1. This is due to the uniform design of the eaves and top plate among all the different roof structures incorporated into the dwelling. This result is much different than the use of Option 3 on the Hunting Avenue residence as discussed above and demonstrates how different architectural designs can greatly impact the outcomes when the different options are applied.

NEXT STEPS

Following the meetings with the Board's Land Use Policy Committee on March 10, 2026, and the Planning Commission's Land Use Process Review Committee on March 12, 2026, additional targeted and general community outreach will be held.

Targeted outreach to industry organizations will include the Northern Virginia Building Industry Association and NAIOP committee (NVBIA-NAIOP) and the Engineers and Surveyors Institute (ESI) as well as home builders such as Mid-Atlantic Builders.

General community open houses, both virtual and in person, will engage with citizens after feedback is received from industry professionals. This will ensure the proposed changes reflect the diverse needs of the community as well as industry trends.

Information about this Zoning Ordinance amendment and outreach meetings will be available on this website: <https://www.fairfaxcounty.gov/planning-development/zoning-ordinance/residential-building-height>.

Staff intends to return to the Land Use Policy Committee in late summer early fall of 2026 with draft text for discussion. Questions and comments can be directed to Drew Hushour (andrew.hushour@fairfaxcounty.gov), Jenn Tran (jennifer.tran@fairfaxcounty.gov), or the Zoning Administration Division at 703-324-1314.